



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>05-22-2023</b>	REPORT TIME <b>13:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>05-22-2023</b>	OCCURRENCE TIME <b>00:30</b>	<input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>		WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>		LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>		
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>		CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
	PRODUCT SPILLED <b>Sewage</b>		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>200 L</b>	U.N. NUMBER <b>N/A</b>	
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
	SPILL SOURCE <b>MSB Lift Station</b>		SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1 m2</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Infrastructure</b>		DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	
	<b>K</b> ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>An overflow of the lift station for the Multi-Service Building resulted in a spill of 200 L of sewage to the industrial pad. The spill was contained to the local area. Clean up activities were immediately undertaken. The coordinates of the spill are 63° 2'21.73" N, 92°13'40.84" W. No water bodies were impacted by this spill. The nearest natural water body (G2) is 310 m north.</b>  <b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b>  <b>Reported by Brett Fairbairn, Environment Coordinator 819-759-3555 ext. 4603996 Brett.fairbairn@agnicoeagle.com , Sara.Savoie@agnicoeagle.com ext. 4603212</b>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Brett Fairbairn</b>	POSITION <b>Env. Coordinator</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Sara Savoie</b>	POSITION <b>General supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-856-9349</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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					

June 16, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-211 – Release of 200 L of Sewage at the Meliadine Gold Mine**

On May 22<sup>nd</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 200 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 2' 21.73" N, 92° 13' 40.84"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On May 22<sup>nd</sup>, 2023, at approximately 12:30 am, an estimated 200 L of sewage was spilled to the industrial pad due to faulty levels indicator at the MSB lift station causing it to overflow. A worker discovered the spill occurring and notified his supervisor.

No water bodies were impacted by this spill. The closest water body (G2) is approximately 325 meters northwest, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Spill Response and Remediation

The Energy and Infrastructure Maintenance Supervisor was notified that the spill was occurring and immediately sent a plumber to stop the spill and troubleshoot the issue. The impacted area was cleaned up using a vacuum truck. Approximately 100 L of liquid was recovered and returned to the Sewage Treatment Plant. The contaminated solid material was excavated and was placed in the Landfarm A sorting area to be screened before being placed in Landfarm A.

## Root Causes and Corrective Measures

An investigation was conducted soon after the incident occurred to determine the root cause and contributing factors. The investigation concluded with the following:

- The float detection system failed, resulting in the overflow.

The following corrective and preventative actions have been implemented to address the root causes and to reduce the likelihood of reoccurrence:

- Installation of a new float mechanism.
- An improved ultrasonic level sensor has been ordered and will be installed in this list station.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Brett Fairbairn** | Environment Coordinator  
brett.fairbairn@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



**AGNICO EAGLE**  
MELIADINE

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## **Appendix – Photos**

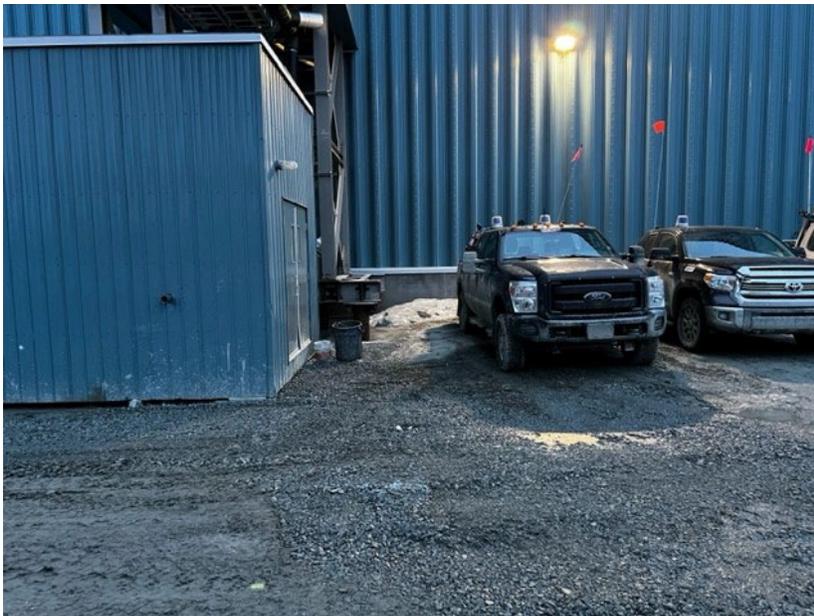


# AGNICO EAGLE

MELIADINE



**Photos 1:** Sewage spill location.



**Photos 2:** Spill location post remediation.



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EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>05-23-2023</b>	REPORT TIME <b>07:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR <b>05-22-2023</b>	OCCURRENCE TIME <b>7:30</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>		LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>	
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>15 Liters</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Vacuum truck connection</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>0.5</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>none</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	

<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <p><b>A suction hose connection failed on the vacuum truck while doing routine sewage collection at the the temporary power plant wash car resulting in a 15 L spill of sewage to the industrial pad.</b></p> <p><b>The coordinates of the spill are 63° 2' 15"N, 92° 13' 29"W. No water bodies were impacted by this spill. The nearest natural water body (G2) is 565 m west.</b></p> <p><b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b></p> <p><b>Reported by Brett Fairbairn, Environment Coordinator 819-759-3555 ext. 4603996, Brett.Fairbairn@agnicoeagle.com.</b></p>			
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<b>L</b>	REPORTED TO SPILL LINE BY <b>Brett Fairbairn</b>	POSITION <b>Env. Coordinator</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>General Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-860-1033</b>

REPORT LINE USE ONLY

<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
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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
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AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

June 15, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-213 – Release of 15 L of Sewage at the Meliadine Gold Mine**

On May 23<sup>rd</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 15 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 2' 15" N, 92° 13' 29" W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On May 22<sup>nd</sup>, 2023, at approximately 07:30, an estimated 15 L of sewage was spilled onto the industrial pad by the temporary power plant wash car due to a connection failure. No water bodies were impacted by this spill. The closest water body (G2) is approximately 565 meters west, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

The operator notified his supervisor of the incident. The supervisor then contacted the environment department to assess the spill. The sewage-impacted gravel and ice was excavated and brought to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:



## AGNICO EAGLE MELIADINE

- Missing gasket on the camlock which connects the vacuum truck to the wash car.
- The vacuum truck hose was not properly inspected prior to use.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- A new gasket was installed within the camlock to prevent future leaks.
- The supervisor met with employees to review the importance of performing complete checks on their equipment/tools before proceeding with their jobs.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Brett Fairbairn** | Environment Coordinator  
brett.fairbairn@agnicoeagle.com | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



**AGNICO EAGLE**  
MELIADINE

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## Appendix – Photos

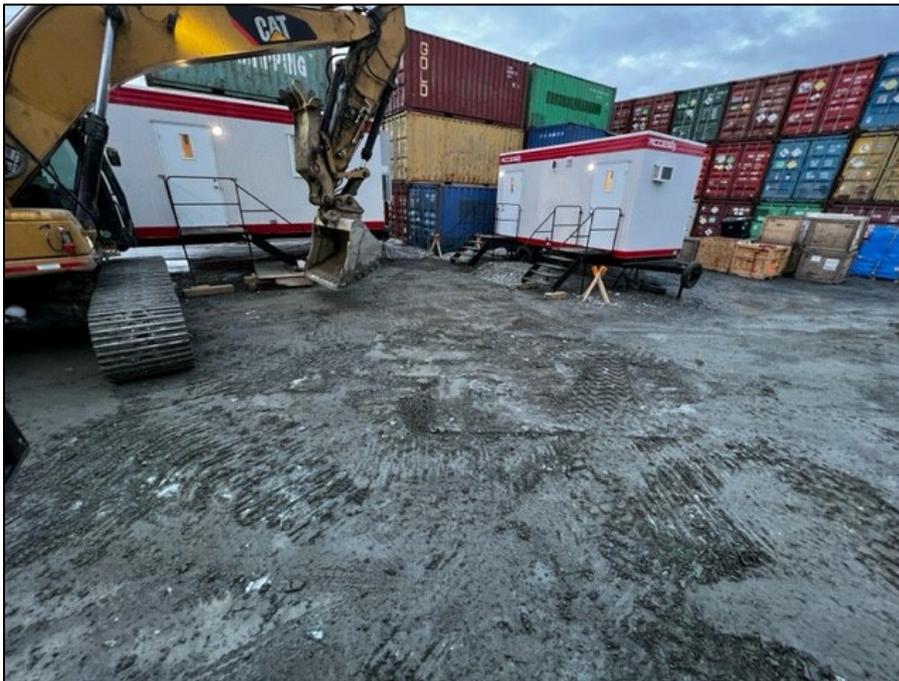


# AGNICO EAGLE

MELIADINE



**Photos 1:** Sewage spill location.



**Photos 2:** Spill location post remediation.



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<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>2023-05-23</b>	REPORT TIME <b>13:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>2023-05-23</b>	OCCURRENCE TIME <b>10:30</b>	<input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>			
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Mine</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2'</b> SECONDS <b>42</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>57</b>			
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0X 0G0</b>			
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>			
	PRODUCT SPILLED <b>Grey water</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>1 m3</b>	U.N. NUMBER <b>N/A</b>		
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
			<b>N/A</b>		
<b>I</b>	SPILL SOURCE <b>Distribution pipe</b>	SPILL CAUSE <b>Broken pipe</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>26</b>		
	FACTORS AFFECTING SPILL OR RECOVERY <b>Spill beneath infrastructure</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>None</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>None</b>		
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS				
	<b>During a routine inspection of the kitchen area, an employee identified that a grey water distribution pipe had failed releasing and estimated 1 m3 on to the industrial pad. The employee stopped the spill and reported the incident to their supervisor.</b>				
	<b>The coordinates of the spill are 63° 2'25.42"N, 92°13'37.57"W. No water bodies were impacted by this spill. The closest water body (G2) is 277 meter north west.</b>				
	<b>Pursuant to part H, Section 4c of the Water License 2AM-MEL 1631, a follow up report will be issued after the investigation completed.</b>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Kyle Conway</b>	POSITION <b>Env. Supervisor</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-860-1033</b>
	ANY ALTERNATE CONTACT <b>Randy Schwandt</b>	POSITION <b>Env. Coordinator</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>
REPORT LINE USE ONLY					
<b>N</b>	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					

June 21<sup>st</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-215 – Release of 1 m<sup>3</sup> of kitchen grey water at the Meliadine Gold Mine**

On May 23<sup>rd</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 1m<sup>3</sup> of grey water at the Meliadine Gold Mine site (spill location coordinates: 63°2'25.42"N, 92°13'37.57"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On May 23<sup>rd</sup>, 2023, at approximately 10:30 am, an estimated 1m<sup>3</sup> of kitchen grey water was spilled to the industrial pad due to a cracked drainpipe. A worker identified the spill during an inspection around the kitchen area and notified their supervisor.

No water bodies were impacted by this spill. The closest water body (G2) is approximately 277 meters northwest, as seen in Figure 1.



**Figure 1:** Location of the grey water spill and proximity to water bodies.

## Spill Response and Remediation

The Energy and Infrastructure Maintenance Supervisor was notified of the spill and immediately shut off the water supply to the kitchen to prevent further leakage. Health and safety concerns limited equipment and personnel access to the spill location and prevented the Maintenance Team from recovering the spilled material. Due to the topography of the area and the freezing conditions at the time of the spill, the spill did not migrate from the footprint of the building, and will be reclaimed when the infrastructure is dismantled.

## Root Causes and Corrective Measures

An assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- The weight of ice/snow melt on the drainpipe and a missing support caused the failure of the drainpipe.

The following corrective and preventative actions have been implemented to address the root causes and to reduce the likelihood of reoccurrence:

- Additional support has been added to the drainpipe.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Brett Fairbairn** | Environment Coordinator  
brett.fairbairn@agnicoeagle.com | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



**AGNICO EAGLE**  
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## Appendix – Photos



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**Photo 1:** Grey water spill location and source.



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REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>06-06-2023</b>	REPORT TIME <b>12:10</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR <b>06-06-2023</b>	OCCURRENCE TIME <b>7:30</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>		LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>	
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>10 Liters</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Assay Lab Lift Station</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>N/A</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	

<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <p><b>An overflow of the assay lab lift station resulted in a 10 L spill of sewage to the industrial pad. The spill was contained to the local area. Absorbent pads were deployed upon discovery of the spill.</b></p> <p><b>The coordinates of the spill are 63° 2' 17.5"N, 92°13'37.2"W. No water bodies were impacted by this spill. The nearest natural water body (Lake G2) is 450 m north.</b></p> <p><b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b></p> <p><b>Reported by Spencer Knowles Environment Technician 819-759-3555 ext. 4603903 spencer.knowles@agnicoeagle.com.</b></p>			
----------	--	--	--	--

<b>L</b>	REPORTED TO SPILL LINE BY <b>Spencer Knowles</b>	POSITION <b>Env. Technician</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>General supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-860-1033</b>

REPORT LINE USE ONLY					
<b>N</b>	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					



July 4<sup>th</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
XOC 0G0

*Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)*

## **Re: Follow-up Report Spill #2023-243 – Release of 10 L of Sewage at the Meliadine Gold Project**

On June 6<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 10 L of sewage at the Meliadine Gold Project site (spill location coordinates: 63° 2' 17.5" N, 92° 13' 37.2" W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On June 6<sup>th</sup>, 2023, at approximately 7:30 am, an estimated 10 L of sewage was spilled onto the industrial pad at the Assay Lab lift station. During a routine lift station inspection an employee noticed that the lift station overflowing and manually initiated the pump to lower the level. The spilled sewage was contained to the local area. No water bodies were impacted by this spill. The closest water body (G2) is approximately 450 meters north, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Spill Response and Remediation

The employee switched the pump from the automatic to the manual setting to lower the level of the tank and prevent further spillage. Absorbent pads were used to collect most of the free liquid on the ground. However, a residual amount of material accumulated underneath the lift station enclosure and is inaccessible. This area will be remediated upon decommissioning of the lift station enclosure.



## Root Cause and Corrective Measures

An assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- The float system was damaged due to accumulation of oil, grease and debris.
- The float was stuck in the up position triggering the pump to run to failure.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- The float system was replaced.
- Plumbers have been instructed to inspect the float system during their regular preventive maintenance checks. This proactive approach aims to identify and address any instances where a float may be stuck in the raised activated position.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Randy Schwandt** | Environment Coordinator

[randy.schwandt@agnicoeagle.com](mailto:randy.schwandt@agnicoeagle.com) | Direct 819.759.3555 x4603996 |

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

[agnicoeagle.com](http://agnicoeagle.com)     

Sent from Meliadine



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## Appendix – Photos



**Photo 1:** Sewage spill location.



**Photo 2:** Sewage spill post remediation.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>06-08-2023</b>	REPORT TIME <b>06:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>06-07-2023</b>	OCCURRENCE TIME <b>08:00</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>		
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
	PRODUCT SPILLED <b>Suspended Solids</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>To be determined</b>	U.N. NUMBER <b>N/A</b>	
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
	SPILL SOURCE <b>Runoff containing sediment</b>	SPILL CAUSE <b>Culvert failure during rainfall</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>Unknown</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>None</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>None</b>	

<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS			
	<p><b>The culvert located at Itivia failed during a significant rainfall event resulting in water to flow over the road upstream of sample location MEL-SR1. Turbidity field readings at MEL-SR1 show results indicative that TSS concentrations could exceed TSS criteria under Part D Item 18 of the NWB Water Licence 2AM-MEL1631. Mitigation measures were implemented to reduce the transport of sediment and flow through the culvert has resumed. This report is submitted as due diligence, as the water sample results from the laboratory have not yet been received. Location of spill: 62 47'59.85"N, 92 5'35.63"W. The closest water body (Melvin Bay) is approximately 75 m south.</b></p> <p><b>Pursuant to Part H, Section 8c of the Water License, a follow-up report will be issued after a closer investigation is completed.</b></p>			

<b>L</b>	REPORTED TO SPILL LINE BY <b>Brett Fairbairn</b>	POSITION <b>Env. Coordinator</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Matt Gillman</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>

REPORT LINE USE ONLY

<b>N</b>	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			



July 5<sup>th</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-246 – MEL-SR-1 Runoff at the Meliadine Gold Project**

On June 7<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email (spills@gov.nt.ca) of a potential Total Suspended Solids (TSS) exceedance at the Meliadine Gold Mine, Itivia site (spill location coordinates: 62 47'59.85"N, 92 5'35.63"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

- Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c;
- subsection 38(7) of the Fisheries Act.

### **Description of Incident**

On June 7<sup>th</sup>, 2023, at approximately 4:00 am, the two culverts situated at Itivia sustained damage during a 1 in 50-year rainfall event. Due to substantial water accumulation within the catchment basin, the buoyancy force of air within the submerged culverts exceeded the weight of the culverts and cover resulting in uplift of the upstream portions of the culverts. Water could no longer be conveyed through the culverts and an unknown volume of water flowed over the roadway upstream of sample location MEL-SR-1. The MEL-SR-1 monitoring station is located at the southern end of Itivia and flows out to Melvin Bay approximately 75 meters to the south.

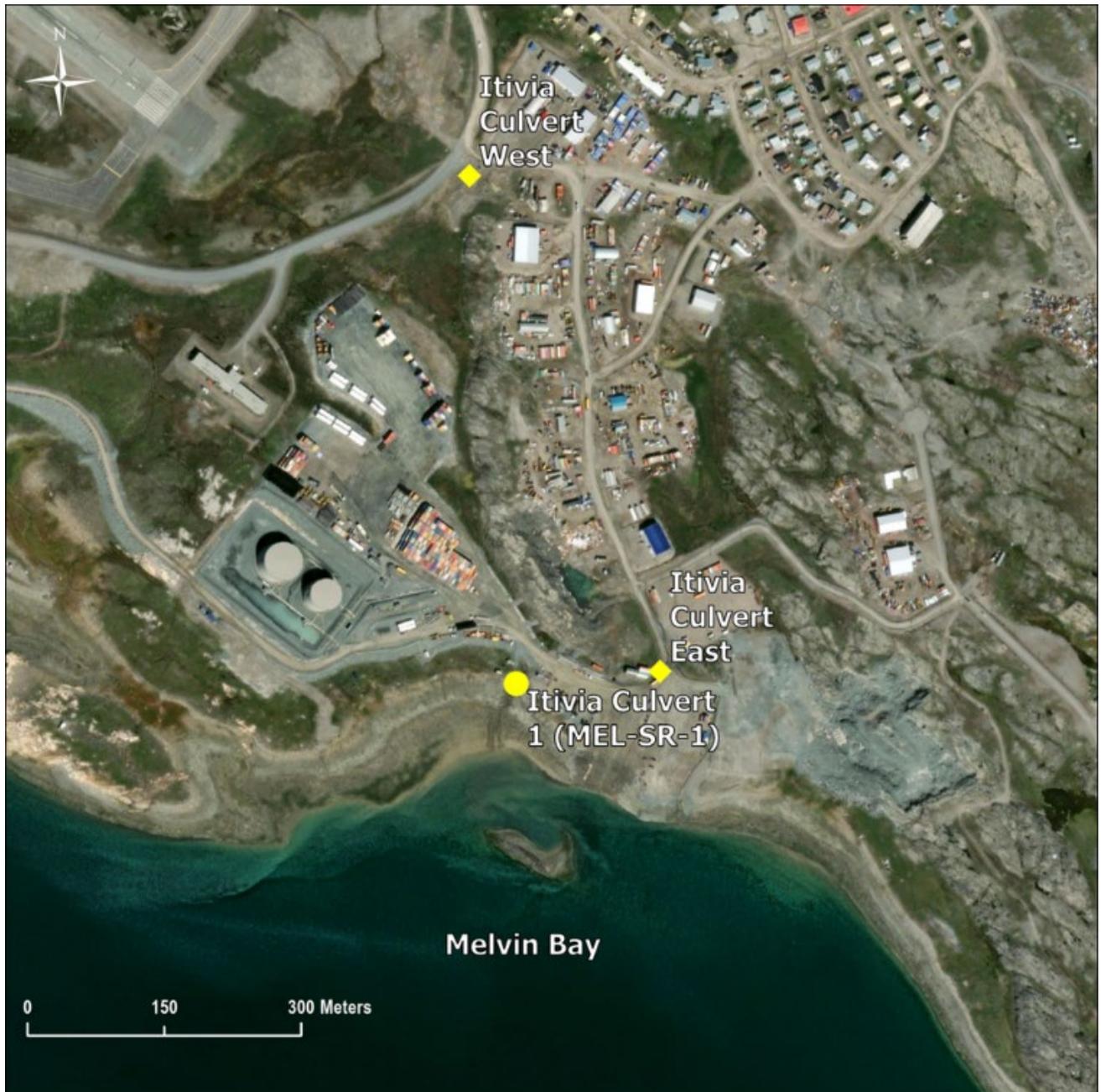
Field measurements of turbidity indicated a potential exceedance of the Total Suspended Solids (TSS) effluent quality limits specified under Part D Item 18 of the 2AM-MEL1631 Water Licence.



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Samples were collected at MEL-SR-1 and subsequently sent to an external laboratory for analysis. The closest water body (Melvin Bay) is.



**Figure 1:** Location of the MEL-SR-1 and upstream monitoring locations.

## Response and Remediation

Following the Sediment and Erosion Management Plan, the Energy and Infrastructure Department undertook measures to mitigate sediment mobilization and transport caused by overflowing water on the road. These measures included;

1. Pumping water from the upstream to the downstream side of the culvert to prevent water from overflowing onto the roadway;
2. Facilitate unimpeded water passage by pressing the culvert inlets down to their original position using heavy equipment;
3. Installation of supplementary sediment control straw logs and wood logs.

As a result of these interventions, the water flow across the road was stopped within the first hour of implementation. Field monitoring also indicated that actions taken and flow recession resulted in a significant decrease in water turbidity, as shown by the event reading at 283 NTU in the morning and the subsequent reading in evening at 19 NTU. As required, regulatory and due diligence samples were collected during the event and later in afternoon. Analytical results for the monitoring duration are presented in Table 1. The Certificate of Analysis for the regulatory sample and due diligence sample (June 7<sup>th</sup>, 2023) can be found in Appendix B.

Analytical results for MEL-SR-1 reported a concentration of 2,300 mg/L TSS in the morning, exceeding the allowable TSS effluent quality limits listed under Part D Item 18 of the 2AM-MEL1631 Water Licence. Subsequent sampling later in the day reported a concentration of 13 mg/L, below the allowable TSS effluent quality limits listed under Part D Item 18 of the 2AM-MEL1631 Water Licence.

The results show that the response and remediation measures effectively addressed the issue of sediment transport and helped restore the desired flow conditions.

**Table 1.** Analytical Results

Date	Total Suspended Solids (mg/L)			2AM-MEL1631, Part D. Item 18	
	Itivia Culvert West	Itivia Culvert East	Itivia Culvert 1/MEL-SR-1	Maximum Monthly Mean Concentration	Maximum Concentration in a Grab Sample
07-Jun-23 (AM)	58	140	<b>2,300</b>	50	100
07-Jun-23 (PM)	43	35	13 <sup>1</sup>		

<sup>1</sup>Laboratory duplicate sample result 15 mg/L.

## Root Cause and Corrective Measures

An assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- The culvert was not designed to manage the runoff amplitude of the June 7<sup>th</sup> rainfall event. The design of the culverts was based on a 1 in 25-year return period, while the environment received an actual rainfall of 50.7 mm per day, equivalent to a 1 in 50-year return period. It is also worth noting that the 50.7 mm of rainfall was received within only a few hours, contributing to an amplified instantaneous runoff rate. As the culvert was not designed for this rate of runoff, the upstream basin was flooded above the inlet of the culvert;
- The uncovered sections of the culverts were too long, and the buoyancy force of the air within the submerged culvert temporarily exceeded the weight of the culvert and cover material causing uplift of the upstream portions; and
- The inlets of the culverts may have been partially blocked by erosion and sediment control installations.

The following corrective and preventative actions have been or will be implemented to address the root cause and to reduce the likelihood of reoccurrence:

- Cut off damaged inlets to allow water flow through culverts until permanent repairs or replacements can be made (completed);
- Until the culverts are repaired or replaced, ensure that a pump with sufficient pumping capacity will be left at the culvert and be ready to operate as soon as an extreme event is forecasted;
- Repair or replace culverts during dry season (fall/winter);
- Consider designing the repaired or replaced culverts to manage rainfall events of greater magnitude, relative to original design;
- Ensure that design and associated construction provide sufficient cover of upstream culvert portions to prevent damage if flooding within the upstream basin occurs again;
- Ensure there is no potential for culvert inlets to become obstructed by sediment and erosion controls during large runoff events;



## AGNICO EAGLE MELIADINE

- Carry out an assessment of all culverts on the Meliadine site, All Weather Access Road (AWAR), and Bypass Road to ensure a similar risk does not exist elsewhere; and
- Share learnings of this event with other Agnico Eagle operations to ensure similar occurrences do not happen at other Agnico Eagle operations.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Kyle Conway** | Environment General Supervisor

[kyle.conway@agnicoeagle.com](mailto:kyle.conway@agnicoeagle.com) | Direct 819.759.3555 x4603212 | Mobile 819.860.1033

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

[agnicoeagle.com](http://agnicoeagle.com)     

Sent from Meliadine



**AGNICO EAGLE**  
MELIADINE

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## **Appendix A – Photos**

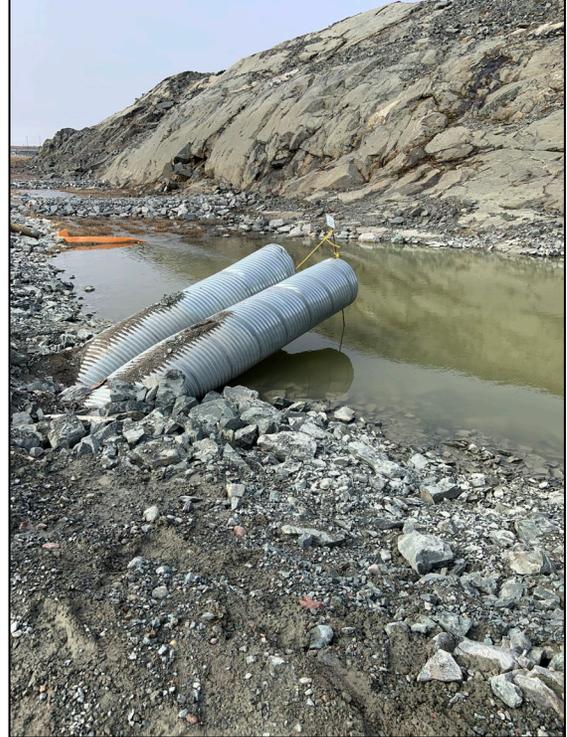


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**Photo 1** – Situation upon arrival.



**Photo 2** – 1h after response.



**Photo 3** – Temporary repair to the culvert inlets.



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MELIADINE

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## **Appendix B – Certificate of Analysis**



Your P.O. #: 1253250  
 Site Location: MELIADINE  
 Your C.O.C. #: n/a

**Attention: Reporting**

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

**Report Date: 2023/07/05**  
 Report #: R7701768  
 Version: 6 - Revision

**CERTIFICATE OF ANALYSIS – REVISED REPORT**

**BUREAU VERITAS JOB #: C3H2457**

**Received: 2023/06/13, 09:21**

Sample Matrix: Water  
 # Samples Received: 6

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Alkalinity	6	N/A	2023/06/17	CAM SOP-00448	SM 23 2320 B m
Chloride by Automated Colourimetry	6	N/A	2023/06/19	CAM SOP-00463	SM 23 4500-Cl E m
Fluoride	6	2023/06/16	2023/06/19	CAM SOP-00449	SM 23 4500-F C m
Mercury (low level)	6	2023/06/17	2023/06/19	CAM SOP-00453	EPA 7470 m
Low Level Chloride and Sulphate by AC (1)	6	N/A	2023/06/21	AB SOP-00020 / AB SOP-00018	SM24 4500-CL/SO4-E m
Cyanide, Strong Acid Dissociable (SAD) (1)	6	2023/06/20	2023/06/20	CAL SOP-00270	SM 23 4500-CN m
Hardness Total (calculated as CaCO3) (2, 3)	6	N/A	2023/06/20	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (2)	6	N/A	2023/06/20	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (2)	6	N/A	2023/06/20	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved) (2)	6	N/A	2023/06/19	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (2)	6	2023/06/14	2023/06/20	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total) (2)	6	2023/06/19	2023/06/20	BBY7SOP-00003/ BBY7SOEPA 6020B R2 m -00002	
Silica (Reactive) (1)	6	N/A	2023/06/22	AB SOP-00011	EPA370.1 R1978 m
Total Ammonia-N	6	N/A	2023/06/20	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (4)	2	N/A	2023/06/16	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (4)	4	N/A	2023/06/20	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Total Oil and Grease	6	2023/06/19	2023/06/19	CAM SOP-00326	EPA1664B m,SM5520B m
pH	6	2023/06/16	2023/06/17	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	6	N/A	2023/06/19	CAM SOP-00461	SM 23 4500-P E m
Calculated Total Dissolved Solids	6	N/A	2023/06/26		Auto Calc
Total Dissolved Solids	6	2023/06/17	2023/06/19	CAM SOP-00428	SM 23 2540C m
Total Phosphorus (Colourimetric)	6	2023/06/19	2023/06/19	CAM SOP-00407	SM 23 4500-P I
Low Level Total Suspended Solids	1	2023/06/16	2023/06/19	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	5	2023/06/19	2023/06/19	CAM SOP-00428	SM 23 2540D m
Turbidity	3	N/A	2023/06/16	CAM SOP-00417	SM 23 2130 B m
Turbidity	3	N/A	2023/06/17	CAM SOP-00417	SM 23 2130 B m

**Remarks:**



Your P.O. #: 1253250  
Site Location: MELIADINE  
Your C.O.C. #: n/a

**Attention: Reporting**

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

**Report Date: 2023/07/05**  
Report #: R7701768  
Version: 6 - Revision

**CERTIFICATE OF ANALYSIS – REVISED REPORT**

**BUREAU VERITAS JOB #: C3H2457**

**Received: 2023/06/13, 09:21**

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

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

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

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

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested. This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

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

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

- (1) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
- (2) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5
- (3) "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).
- (4) 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:

Katherine Szozda, Project Manager  
Email: Katherine.Szozda@bureauveritas.com  
Phone# (613)274-0573 Ext:7063633

=====

Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

Report Date: 2023/07/05

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF242			WCF242		
Sampling Date		2023/06/07 17:40			2023/06/07 17:40		
COC Number		n/a			n/a		
	UNITS	MEL-SR1	RDL	QC Batch	MEL-SR1 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Calculated TDS	mg/L	310	1.0	8726407			
Dissolved Hardness (CaCO3)	mg/L	201	0.50	8742770			
<b>Inorganics</b>							
Total Ammonia-N	mg/L	<0.050	0.050	8736022			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8744245			
Total Dissolved Solids	mg/L	375	10	8730858			
Fluoride (F-)	mg/L	0.11	0.10	8732820			
Orthophosphate (P)	mg/L	<0.010	0.010	8735096			
pH	pH	7.92		8732822			
Total Phosphorus	mg/L	0.031	0.020	8736026			
Reactive Silica (SiO2)	mg/L	2.1	0.050	8748928			
Total Suspended Solids	mg/L	13	1	8730856	15	1	8730856
Turbidity	NTU	2.8	0.1	8732167	2.9	0.1	8732167
Alkalinity (Total as CaCO3)	mg/L	120	1.0	8732819			
Dissolved Chloride (Cl-)	mg/L	56	1.0	8735091			
Nitrite (N)	mg/L	<0.010	0.010	8732687			
Nitrate (N)	mg/L	<0.10	0.10	8732687			
Dissolved Sulphate (SO4)	mg/L	73	0.50	8744244			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8732687			
<b>Metals</b>							
Dissolved Aluminum (Al)	mg/L	0.0066	0.0030	8742772			
Total Aluminum (Al)	mg/L	0.301	0.0030	8742769			
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	8742772			
Total Antimony (Sb)	mg/L	<0.00050	0.00050	8742769			
Dissolved Arsenic (As)	mg/L	0.00193	0.00010	8742772			
Total Arsenic (As)	mg/L	0.00268	0.00010	8742769			
Dissolved Barium (Ba)	mg/L	0.0326	0.0010	8742772			
Total Barium (Ba)	mg/L	0.0326	0.0010	8742769			
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	8742772			
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

Report Date: 2023/07/05

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF242			WCF242		
Sampling Date		2023/06/07 17:40			2023/06/07 17:40		
COC Number		n/a			n/a		
	UNITS	MEL-SR1	RDL	QC Batch	MEL-SR1 Lab-Dup	RDL	QC Batch
Total Beryllium (Be)	mg/L	<0.00010	0.00010	8742769			
Dissolved Bismuth (Bi)	mg/L	<0.0010	0.0010	8742772			
Total Bismuth (Bi)	mg/L	<0.0010	0.0010	8742769			
Dissolved Boron (B)	mg/L	<0.050	0.050	8742772			
Total Boron (B)	mg/L	<0.050	0.050	8742769			
Dissolved Cadmium (Cd)	mg/L	0.000012	0.000010	8742772			
Total Cadmium (Cd)	mg/L	0.000013	0.000010	8742769			
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	8742772			
Total Chromium (Cr)	mg/L	0.0020	0.0010	8742769			
Dissolved Cobalt (Co)	mg/L	0.00022	0.00020	8742772			
Total Cobalt (Co)	mg/L	0.00054	0.00020	8742769			
Dissolved Copper (Cu)	mg/L	0.00294	0.00020	8742772			
Total Copper (Cu)	mg/L	0.00395	0.00050	8742769			
Dissolved Iron (Fe)	mg/L	0.0871	0.0050	8742772			
Total Iron (Fe)	mg/L	0.663	0.010	8742769			
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	8742772			
Total Lead (Pb)	mg/L	0.00031	0.00020	8742769			
Dissolved Lithium (Li)	mg/L	0.0063	0.0020	8742772			
Total Lithium (Li)	mg/L	0.0063	0.0020	8742769			
Dissolved Manganese (Mn)	mg/L	0.0142	0.0010	8742772			
Total Manganese (Mn)	mg/L	0.0205	0.0010	8742769			
Dissolved Molybdenum (Mo)	mg/L	0.0015	0.0010	8742772			
Total Molybdenum (Mo)	mg/L	0.0020	0.0010	8742769			
Dissolved Nickel (Ni)	mg/L	0.0035	0.0010	8742772			
Total Nickel (Ni)	mg/L	0.0057	0.0010	8742769			
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	8742772			
Total Selenium (Se)	mg/L	<0.00010	0.00010	8742769			
Dissolved Silicon (Si)	mg/L	0.88	0.10	8742772			
Total Silicon (Si)	mg/L	1.26	0.10	8742769			
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	8742772			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF242			WCF242		
Sampling Date		2023/06/07 17:40			2023/06/07 17:40		
COC Number		n/a			n/a		
	UNITS	MEL-SR1	RDL	QC Batch	MEL-SR1 Lab-Dup	RDL	QC Batch
Total Silver (Ag)	mg/L	<0.000020	0.000020	8742769			
Dissolved Strontium (Sr)	mg/L	0.349	0.0010	8742772			
Total Strontium (Sr)	mg/L	0.331	0.0010	8742769			
Dissolved Thallium (Tl)	mg/L	<0.000010	0.000010	8742772			
Total Thallium (Tl)	mg/L	<0.000010	0.000010	8742769			
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	8742772			
Total Tin (Sn)	mg/L	<0.0050	0.0050	8742769			
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	8742772			
Total Titanium (Ti)	mg/L	0.0111	0.0050	8742769			
Dissolved Uranium (U)	mg/L	0.00129	0.00010	8742772			
Total Uranium (U)	mg/L	0.00126	0.00010	8742769			
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	8742772			
Total Vanadium (V)	mg/L	<0.0050	0.0050	8742769			
Dissolved Zinc (Zn)	mg/L	0.0065	0.0050	8742772			
Total Zinc (Zn)	mg/L	0.0089	0.0050	8742769			
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8742772			
Total Zirconium (Zr)	mg/L	0.00020	0.00010	8742769			
Dissolved Calcium (Ca)	mg/L	64.2	0.050	8742771			
Total Calcium (Ca)	mg/L	58.1	0.050	8742768			
Dissolved Magnesium (Mg)	mg/L	9.94	0.050	8742771			
Total Magnesium (Mg)	mg/L	9.31	0.050	8742768			
Dissolved Potassium (K)	mg/L	6.46	0.050	8742771			
Total Potassium (K)	mg/L	6.09	0.050	8742768			
Dissolved Sodium (Na)	mg/L	30.0	0.050	8742771			
Total Sodium (Na)	mg/L	27.9	0.050	8742768			
Dissolved Sulphur (S)	mg/L	23.8	3.0	8742771			
Total Sulphur (S)	mg/L	22.1	3.0	8742768			
<b>Petroleum Hydrocarbons</b>							
Total Oil & Grease	mg/L	1.1	0.50	8736912			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF243		WCF244		
Sampling Date		2023/06/07 17:25		2023/06/07 17:10		
COC Number		n/a		n/a		
	UNITS	ITIVIA CULVERT1 EAST	QC Batch	ITIVIA CULVERT1 WEST	RDL	QC Batch
<b>Calculated Parameters</b>						
Calculated TDS	mg/L	340	8726407	220	1.0	8726407
Dissolved Hardness (CaCO3)	mg/L	162	8742770	153	0.50	8742770
<b>Inorganics</b>						
Total Ammonia-N	mg/L	<0.050	8736022	<0.050	0.050	8736022
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8744245	<0.00050	0.00050	8744245
Total Dissolved Solids	mg/L	385	8733678	255	10	8733678
Fluoride (F-)	mg/L	0.10	8732820	0.11	0.10	8732820
Orthophosphate (P)	mg/L	<0.010	8732795	<0.010	0.010	8732795
pH	pH	7.76	8732822	7.74		8732822
Total Phosphorus	mg/L	0.063	8736026	0.059	0.020	8736026
Reactive Silica (SiO2)	mg/L	1.1	8748928	2.9	0.050	8748928
Total Suspended Solids	mg/L	35	8730856	43	1	8730856
Turbidity	NTU	4.6	8732167	3.6	0.1	8731277
Alkalinity (Total as CaCO3)	mg/L	67	8732819	110	1.0	8732819
Dissolved Chloride (Cl-)	mg/L	67	8732803	34	1.0	8732803
Nitrite (N)	mg/L	<0.010	8732687	<0.010	0.010	8732104
Nitrate (N)	mg/L	0.48	8732687	<0.10	0.10	8732104
Dissolved Sulphate (SO4)	mg/L	110	8744244	41	0.50	8744244
Nitrate + Nitrite (N)	mg/L	0.48	8732687	<0.10	0.10	8732104
<b>Metals</b>						
Dissolved Aluminum (Al)	mg/L	0.0180	8742772	0.0128	0.0030	8742772
Total Aluminum (Al)	mg/L	0.507	8742769	3.32	0.0030	8742769
Dissolved Antimony (Sb)	mg/L	0.00107	8742772	<0.00050	0.00050	8742772
Total Antimony (Sb)	mg/L	0.00097	8742769	<0.00050	0.00050	8742769
Dissolved Arsenic (As)	mg/L	0.00160	8742772	0.00086	0.00010	8742772
Total Arsenic (As)	mg/L	0.00231	8742769	0.00320	0.00010	8742769
Dissolved Barium (Ba)	mg/L	0.0196	8742772	0.0399	0.0010	8742772
Total Barium (Ba)	mg/L	0.0221	8742769	0.0811	0.0010	8742769
Dissolved Beryllium (Be)	mg/L	<0.00010	8742772	<0.00010	0.00010	8742772
Total Beryllium (Be)	mg/L	<0.00010	8742769	<0.00010	0.00010	8742769
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF243		WCF244		
Sampling Date		2023/06/07 17:25		2023/06/07 17:10		
COC Number		n/a		n/a		
	UNITS	ITIVIA CULVERT1 EAST	QC Batch	ITIVIA CULVERT1 WEST	RDL	QC Batch
Dissolved Bismuth (Bi)	mg/L	<0.0010	8742772	<0.0010	0.0010	8742772
Total Bismuth (Bi)	mg/L	<0.0010	8742769	<0.0010	0.0010	8742769
Dissolved Boron (B)	mg/L	0.065	8742772	<0.050	0.050	8742772
Total Boron (B)	mg/L	0.061	8742769	<0.050	0.050	8742769
Dissolved Cadmium (Cd)	mg/L	0.000011	8742772	<0.000010	0.000010	8742772
Total Cadmium (Cd)	mg/L	0.000018	8742769	0.000031	0.000010	8742769
Dissolved Chromium (Cr)	mg/L	<0.0010	8742772	<0.0010	0.0010	8742772
Total Chromium (Cr)	mg/L	0.0032	8742769	0.0159	0.0010	8742769
Dissolved Cobalt (Co)	mg/L	0.00033	8742772	0.00052	0.00020	8742772
Total Cobalt (Co)	mg/L	0.00119	8742769	0.00369	0.00020	8742769
Dissolved Copper (Cu)	mg/L	0.00448	8742772	0.00400	0.00020	8742772
Total Copper (Cu)	mg/L	0.00727	8742769	0.0141	0.00050	8742769
Dissolved Iron (Fe)	mg/L	0.0115	8742772	0.126	0.0050	8742772
Total Iron (Fe)	mg/L	0.839	8742769	5.42	0.010	8742769
Dissolved Lead (Pb)	mg/L	<0.00020	8742772	<0.00020	0.00020	8742772
Total Lead (Pb)	mg/L	0.00033	8742769	0.00189	0.00020	8742769
Dissolved Lithium (Li)	mg/L	0.0030	8742772	0.0071	0.0020	8742772
Total Lithium (Li)	mg/L	0.0034	8742769	0.0119	0.0020	8742769
Dissolved Manganese (Mn)	mg/L	0.0149	8742772	0.0641	0.0010	8742772
Total Manganese (Mn)	mg/L	0.0258	8742769	0.133	0.0010	8742769
Dissolved Molybdenum (Mo)	mg/L	0.0015	8742772	0.0015	0.0010	8742772
Total Molybdenum (Mo)	mg/L	0.0015	8742769	0.0014	0.0010	8742769
Dissolved Nickel (Ni)	mg/L	0.0034	8742772	0.0038	0.0010	8742772
Total Nickel (Ni)	mg/L	0.0058	8742769	0.0124	0.0010	8742769
Dissolved Selenium (Se)	mg/L	0.00016	8742772	<0.00010	0.00010	8742772
Total Selenium (Se)	mg/L	0.00016	8742769	<0.00010	0.00010	8742769
Dissolved Silicon (Si)	mg/L	0.50	8742772	1.42	0.10	8742772
Total Silicon (Si)	mg/L	1.08	8742769	6.50	0.10	8742769
Dissolved Silver (Ag)	mg/L	<0.000020	8742772	<0.000020	0.000020	8742772
Total Silver (Ag)	mg/L	<0.000020	8742769	<0.000020	0.000020	8742769
Dissolved Strontium (Sr)	mg/L	0.172	8742772	0.311	0.0010	8742772
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF243		WCF244		
Sampling Date		2023/06/07 17:25		2023/06/07 17:10		
COC Number		n/a		n/a		
	UNITS	ITIVIA CULVERT1 EAST	QC Batch	ITIVIA CULVERT1 WEST	RDL	QC Batch
Total Strontium (Sr)	mg/L	0.152	8742769	0.310	0.0010	8742769
Dissolved Thallium (Tl)	mg/L	0.000015	8742772	<0.000010	0.000010	8742772
Total Thallium (Tl)	mg/L	0.000018	8742769	0.000059	0.000010	8742769
Dissolved Tin (Sn)	mg/L	<0.0050	8742772	<0.0050	0.0050	8742772
Total Tin (Sn)	mg/L	<0.0050	8742769	<0.0050	0.0050	8742769
Dissolved Titanium (Ti)	mg/L	<0.0050	8742772	<0.0050	0.0050	8742772
Total Titanium (Ti)	mg/L	0.0234	8742769	0.199	0.0050	8742769
Dissolved Uranium (U)	mg/L	0.00118	8742772	0.00081	0.00010	8742772
Total Uranium (U)	mg/L	0.00112	8742769	0.00096	0.00010	8742769
Dissolved Vanadium (V)	mg/L	<0.0050	8742772	<0.0050	0.0050	8742772
Total Vanadium (V)	mg/L	<0.0050	8742769	0.0097	0.0050	8742769
Dissolved Zinc (Zn)	mg/L	<0.0050	8742772	<0.0050	0.0050	8742772
Total Zinc (Zn)	mg/L	<0.0050	8742769	0.0207	0.0050	8742769
Dissolved Zirconium (Zr)	mg/L	<0.00010	8742772	0.00012	0.00010	8742772
Total Zirconium (Zr)	mg/L	0.00023	8742769	0.00085	0.00010	8742769
Dissolved Calcium (Ca)	mg/L	47.1	8742771	53.1	0.050	8742771
Total Calcium (Ca)	mg/L	43.9	8742768	52.4	0.050	8742768
Dissolved Magnesium (Mg)	mg/L	10.9	8742771	5.06	0.050	8742771
Total Magnesium (Mg)	mg/L	10.4	8742768	6.95	0.050	8742768
Dissolved Potassium (K)	mg/L	6.71	8742771	6.90	0.050	8742771
Total Potassium (K)	mg/L	6.26	8742768	7.60	0.050	8742768
Dissolved Sodium (Na)	mg/L	51.4	8742771	15.6	0.050	8742771
Total Sodium (Na)	mg/L	47.0	8742768	14.9	0.050	8742768
Dissolved Sulphur (S)	mg/L	36.1	8742771	12.7	3.0	8742771
Total Sulphur (S)	mg/L	32.6	8742768	11.5	3.0	8742768
<b>Petroleum Hydrocarbons</b>						
Total Oil & Grease	mg/L	1.5	8736912	1.0	0.50	8736912
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

Report Date: 2023/07/05

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF245			WCF246		
Sampling Date		2023/06/07 10:20			2023/06/07 10:55		
COC Number		n/a			n/a		
	UNITS	MEL-SR1	RDL	QC Batch	ITIVIA CULVERT1 EAST	RDL	QC Batch
<b>Calculated Parameters</b>							
Calculated TDS	mg/L	310	1.0	8726407	320	1.0	8726407
Dissolved Hardness (CaCO3)	mg/L	190	0.50	8742770	151	0.50	8742770
<b>Inorganics</b>							
Total Ammonia-N	mg/L	0.055	0.050	8736022	0.058	0.050	8736022
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8744245	<0.00050	0.00050	8744245
Total Dissolved Solids	mg/L	390	10	8730858	375	10	8733678
Fluoride (F-)	mg/L	<0.10	0.10	8732820	<0.10	0.10	8732820
Orthophosphate (P)	mg/L	<0.010	0.010	8732795	<0.010	0.010	8732795
pH	pH	7.83		8732822	7.78		8732822
Total Phosphorus	mg/L	0.50	0.020	8736026	0.14	0.020	8736026
Reactive Silica (SiO2)	mg/L	1.7	0.050	8748928	1.3	0.050	8748923
Total Suspended Solids	mg/L	2300	5	8730856	140	2	8730856
Turbidity	NTU	8.8	0.1	8732167	8.8	0.1	8731277
Alkalinity (Total as CaCO3)	mg/L	74	1.0	8732819	57	1.0	8732819
Dissolved Chloride (Cl-)	mg/L	58	1.0	8732803	70	1.0	8732803
Nitrite (N)	mg/L	<0.010	0.010	8732687	<0.010	0.010	8732687
Nitrate (N)	mg/L	0.18	0.10	8732687	0.43	0.10	8732687
Dissolved Sulphate (SO4)	mg/L	100	0.50	8744244	100	0.50	8744244
Nitrate + Nitrite (N)	mg/L	0.18	0.10	8732687	0.43	0.10	8732687
<b>Metals</b>							
Dissolved Aluminum (Al)	mg/L	0.0086	0.0030	8742772	0.0175	0.0030	8742772
Total Aluminum (Al)	mg/L	12.4	0.0060	8742769	4.54	0.0030	8742769
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	8742772	0.00082	0.00050	8742772
Total Antimony (Sb)	mg/L	<0.0010	0.0010	8742769	0.00078	0.00050	8742769
Dissolved Arsenic (As)	mg/L	0.00157	0.00010	8742772	0.00124	0.00010	8742772
Total Arsenic (As)	mg/L	0.0159	0.00020	8742769	0.00520	0.00010	8742769
Dissolved Barium (Ba)	mg/L	0.0340	0.0010	8742772	0.0183	0.0010	8742772
Total Barium (Ba)	mg/L	0.141	0.0020	8742769	0.0573	0.0010	8742769
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	8742772	<0.00010	0.00010	8742772
Total Beryllium (Be)	mg/L	<0.00020	0.00020	8742769	<0.00010	0.00010	8742769
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

Report Date: 2023/07/05

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF245			WCF246		
Sampling Date		2023/06/07 10:20			2023/06/07 10:55		
COC Number		n/a			n/a		
	UNITS	MEL-SR1	RDL	QC Batch	ITIVIA CULVERT1 EAST	RDL	QC Batch
Dissolved Bismuth (Bi)	mg/L	<0.0010	0.0010	8742772	<0.0010	0.0010	8742772
Total Bismuth (Bi)	mg/L	<0.0020	0.0020	8742769	<0.0010	0.0010	8742769
Dissolved Boron (B)	mg/L	<0.050	0.050	8742772	0.065	0.050	8742772
Total Boron (B)	mg/L	<0.10	0.10	8742769	0.060	0.050	8742769
Dissolved Cadmium (Cd)	mg/L	<0.000010	0.000010	8742772	0.000014	0.000010	8742772
Total Cadmium (Cd)	mg/L	0.000084	0.000020	8742769	0.000052	0.000010	8742769
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	8742772	<0.0010	0.0010	8742772
Total Chromium (Cr)	mg/L	0.0637	0.0020	8742769	0.0244	0.0010	8742769
Dissolved Cobalt (Co)	mg/L	0.00022	0.00020	8742772	0.00032	0.00020	8742772
Total Cobalt (Co)	mg/L	0.0137	0.00040	8742769	0.00550	0.00020	8742769
Dissolved Copper (Cu)	mg/L	0.00314	0.00020	8742772	0.00752	0.00020	8742772
Total Copper (Cu)	mg/L	0.0451	0.0010	8742769	0.0261	0.00050	8742769
Dissolved Iron (Fe)	mg/L	0.0128	0.0050	8742772	0.0122	0.0050	8742772
Total Iron (Fe)	mg/L	19.9	0.020	8742769	6.99	0.010	8742769
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	8742772	<0.00020	0.00020	8742772
Total Lead (Pb)	mg/L	0.00772	0.00040	8742769	0.00220	0.00020	8742769
Dissolved Lithium (Li)	mg/L	0.0112	0.0020	8742772	0.0026	0.0020	8742772
Total Lithium (Li)	mg/L	0.0291	0.0040	8742769	0.0081	0.0020	8742769
Dissolved Manganese (Mn)	mg/L	0.0113	0.0010	8742772	0.0184	0.0010	8742772
Total Manganese (Mn)	mg/L	0.285	0.0020	8742769	0.111	0.0010	8742769
Dissolved Molybdenum (Mo)	mg/L	0.0012	0.0010	8742772	0.0014	0.0010	8742772
Total Molybdenum (Mo)	mg/L	<0.0020	0.0020	8742769	0.0013	0.0010	8742769
Dissolved Nickel (Ni)	mg/L	0.0030	0.0010	8742772	0.0039	0.0010	8742772
Total Nickel (Ni)	mg/L	0.0421	0.0020	8742769	0.0188	0.0010	8742769
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	8742772	0.00015	0.00010	8742772
Total Selenium (Se)	mg/L	<0.00020	0.00020	8742769	0.00018	0.00010	8742769
Dissolved Silicon (Si)	mg/L	0.66	0.10	8742772	0.44	0.10	8742772
Total Silicon (Si)	mg/L	18.2	0.20	8742769	7.01	0.10	8742769
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	8742772	<0.000020	0.000020	8742772
Total Silver (Ag)	mg/L	0.000053	0.000040	8742769	0.000025	0.000020	8742769
Dissolved Strontium (Sr)	mg/L	0.467	0.0010	8742772	0.165	0.0010	8742772
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF245			WCF246		
Sampling Date		2023/06/07 10:20			2023/06/07 10:55		
COC Number		n/a			n/a		
	UNITS	MEL-SR1	RDL	QC Batch	ITIVIA CULVERT1 EAST	RDL	QC Batch
Total Strontium (Sr)	mg/L	0.486	0.0020	8742769	0.150	0.0010	8742769
Dissolved Thallium (Tl)	mg/L	<0.000010	0.000010	8742772	<0.000010	0.000010	8742772
Total Thallium (Tl)	mg/L	0.000177	0.000020	8742769	0.000067	0.000010	8742769
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	8742772	<0.0050	0.0050	8742772
Total Tin (Sn)	mg/L	<0.010	0.010	8742769	<0.0050	0.0050	8742769
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	8742772	<0.0050	0.0050	8742772
Total Titanium (Ti)	mg/L	0.661	0.010	8742769	0.231	0.0050	8742769
Dissolved Uranium (U)	mg/L	0.00129	0.00010	8742772	0.00096	0.00010	8742772
Total Uranium (U)	mg/L	0.00179	0.00020	8742769	0.00114	0.00010	8742769
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	8742772	<0.0050	0.0050	8742772
Total Vanadium (V)	mg/L	0.033	0.010	8742769	0.0122	0.0050	8742769
Dissolved Zinc (Zn)	mg/L	0.0104	0.0050	8742772	<0.0050	0.0050	8742772
Total Zinc (Zn)	mg/L	0.121	0.010	8742769	0.0233	0.0050	8742769
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8742772	<0.00010	0.00010	8742772
Total Zirconium (Zr)	mg/L	0.00189	0.00020	8742769	0.00085	0.00010	8742769
Dissolved Calcium (Ca)	mg/L	60.8	0.050	8742771	43.1	0.050	8742771
Total Calcium (Ca)	mg/L	63.5	0.10	8742768	42.3	0.050	8742768
Dissolved Magnesium (Mg)	mg/L	9.25	0.050	8742771	10.4	0.050	8742771
Total Magnesium (Mg)	mg/L	16.8	0.10	8742768	12.4	0.050	8742768
Dissolved Potassium (K)	mg/L	5.66	0.050	8742771	6.48	0.050	8742771
Total Potassium (K)	mg/L	8.68	0.10	8742768	7.09	0.050	8742768
Dissolved Sodium (Na)	mg/L	32.4	0.050	8742771	50.6	0.050	8742771
Total Sodium (Na)	mg/L	30.2	0.10	8742768	45.7	0.050	8742768
Dissolved Sulphur (S)	mg/L	33.2	3.0	8742771	33.5	3.0	8742771
Total Sulphur (S)	mg/L	29.6	6.0	8742768	29.6	3.0	8742768
<b>Petroleum Hydrocarbons</b>							
Total Oil & Grease	mg/L	2.3	0.50	8736912	1.9	0.50	8736912
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

Report Date: 2023/07/05

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF247		
Sampling Date		2023/06/07 11:05		
COC Number		n/a		
	UNITS	ITIVIA CULVERT1 WEST	RDL	QC Batch
<b>Calculated Parameters</b>				
Calculated TDS	mg/L	160	1.0	8726407
Dissolved Hardness (CaCO3)	mg/L	113	0.50	8742770
<b>Inorganics</b>				
Total Ammonia-N	mg/L	0.050	0.050	8736022
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8744245
Total Dissolved Solids	mg/L	345	10	8730858
Fluoride (F-)	mg/L	<0.10	0.10	8732820
Orthophosphate (P)	mg/L	0.014	0.010	8732795
pH	pH	7.76		8732822
Total Phosphorus	mg/L	0.082	0.020	8736026
Reactive Silica (SiO2)	mg/L	2.1	0.050	8748928
Total Suspended Solids	mg/L	58	1	8730853
Turbidity	NTU	10	0.1	8731277
Alkalinity (Total as CaCO3)	mg/L	74	1.0	8732819
Dissolved Chloride (Cl-)	mg/L	28	1.0	8732803
Nitrite (N)	mg/L	0.015	0.010	8732104
Nitrate (N)	mg/L	0.15	0.10	8732104
Dissolved Sulphate (SO4)	mg/L	31	0.50	8744244
Nitrate + Nitrite (N)	mg/L	0.16	0.10	8732104
<b>Metals</b>				
Dissolved Aluminum (Al)	mg/L	0.0117	0.0030	8742772
Total Aluminum (Al)	mg/L	1.82	0.0030	8742769
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	8742772
Total Antimony (Sb)	mg/L	<0.00050	0.00050	8742769
Dissolved Arsenic (As)	mg/L	0.00102	0.00010	8742772
Total Arsenic (As)	mg/L	0.00240	0.00010	8742769
Dissolved Barium (Ba)	mg/L	0.0290	0.0010	8742772
Total Barium (Ba)	mg/L	0.0490	0.0010	8742769
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	8742772
Total Beryllium (Be)	mg/L	<0.00010	0.00010	8742769
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF247		
Sampling Date		2023/06/07 11:05		
COC Number		n/a		
	UNITS	ITIVIA CULVERT1 WEST	RDL	QC Batch
Dissolved Bismuth (Bi)	mg/L	<0.0010	0.0010	8742772
Total Bismuth (Bi)	mg/L	<0.0010	0.0010	8742769
Dissolved Boron (B)	mg/L	<0.050	0.050	8742772
Total Boron (B)	mg/L	<0.050	0.050	8742769
Dissolved Cadmium (Cd)	mg/L	<0.000010	0.000010	8742772
Total Cadmium (Cd)	mg/L	0.000020	0.000010	8742769
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	8742772
Total Chromium (Cr)	mg/L	0.0092	0.0010	8742769
Dissolved Cobalt (Co)	mg/L	0.00038	0.00020	8742772
Total Cobalt (Co)	mg/L	0.00230	0.00020	8742769
Dissolved Copper (Cu)	mg/L	0.00372	0.00020	8742772
Total Copper (Cu)	mg/L	0.0103	0.00050	8742769
Dissolved Iron (Fe)	mg/L	0.0910	0.0050	8742772
Total Iron (Fe)	mg/L	2.97	0.010	8742769
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	8742772
Total Lead (Pb)	mg/L	0.00156	0.00020	8742769
Dissolved Lithium (Li)	mg/L	0.0060	0.0020	8742772
Total Lithium (Li)	mg/L	0.0079	0.0020	8742769
Dissolved Manganese (Mn)	mg/L	0.0417	0.0010	8742772
Total Manganese (Mn)	mg/L	0.0765	0.0010	8742769
Dissolved Molybdenum (Mo)	mg/L	0.0011	0.0010	8742772
Total Molybdenum (Mo)	mg/L	0.0011	0.0010	8742769
Dissolved Nickel (Ni)	mg/L	0.0024	0.0010	8742772
Total Nickel (Ni)	mg/L	0.0075	0.0010	8742769
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	8742772
Total Selenium (Se)	mg/L	<0.00010	0.00010	8742769
Dissolved Silicon (Si)	mg/L	0.83	0.10	8742772
Total Silicon (Si)	mg/L	3.68	0.10	8742769
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	8742772
Total Silver (Ag)	mg/L	<0.000020	0.000020	8742769
Dissolved Strontium (Sr)	mg/L	0.227	0.0010	8742772
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



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VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WCF247		
Sampling Date		2023/06/07 11:05		
COC Number		n/a		
	UNITS	ITIVIA CULVERT1 WEST	RDL	QC Batch
Total Strontium (Sr)	mg/L	0.215	0.0010	8742769
Dissolved Thallium (Tl)	mg/L	<0.000010	0.000010	8742772
Total Thallium (Tl)	mg/L	0.000030	0.000010	8742769
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	8742772
Total Tin (Sn)	mg/L	<0.0050	0.0050	8742769
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	8742772
Total Titanium (Ti)	mg/L	0.0965	0.0050	8742769
Dissolved Uranium (U)	mg/L	0.00063	0.00010	8742772
Total Uranium (U)	mg/L	0.00068	0.00010	8742769
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	8742772
Total Vanadium (V)	mg/L	0.0052	0.0050	8742769
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	8742772
Total Zinc (Zn)	mg/L	0.0151	0.0050	8742769
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	8742772
Total Zirconium (Zr)	mg/L	0.00053	0.00010	8742769
Dissolved Calcium (Ca)	mg/L	38.8	0.050	8742771
Total Calcium (Ca)	mg/L	36.0	0.050	8742768
Dissolved Magnesium (Mg)	mg/L	3.86	0.050	8742771
Total Magnesium (Mg)	mg/L	4.68	0.050	8742768
Dissolved Potassium (K)	mg/L	5.24	0.050	8742771
Total Potassium (K)	mg/L	5.36	0.050	8742768
Dissolved Sodium (Na)	mg/L	12.1	0.050	8742771
Total Sodium (Na)	mg/L	11.1	0.050	8742768
Dissolved Sulphur (S)	mg/L	10.1	3.0	8742771
Total Sulphur (S)	mg/L	8.6	3.0	8742768
<b>Petroleum Hydrocarbons</b>				
Total Oil & Grease	mg/L	1.4	0.50	8736912
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		WCF242		WCF243	WCF244		
Sampling Date		2023/06/07 17:40		2023/06/07 17:25	2023/06/07 17:10		
COC Number		n/a		n/a	n/a		
	UNITS	MEL-SR1	QC Batch	ITIVIA CULVERT1 EAST	ITIVIA CULVERT1 WEST	RDL	QC Batch
<b>Calculated Parameters</b>							
Total Hardness (CaCO <sub>3</sub> )	mg/L	183	8742767	152	159	0.50	8742767
<b>Metals</b>							
Mercury (Hg)	mg/L	<0.00001	8734229	<0.00001	<0.00001	0.00001	8734320
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Bureau Veritas ID		WCF245	WCF246	WCF247		
Sampling Date		2023/06/07 10:20	2023/06/07 10:55	2023/06/07 11:05		
COC Number		n/a	n/a	n/a		
	UNITS	MEL-SR1	ITIVIA CULVERT1 EAST	ITIVIA CULVERT1 WEST	RDL	QC Batch
<b>Calculated Parameters</b>						
Total Hardness (CaCO <sub>3</sub> )	mg/L	228	157	109	0.50	8742767
<b>Metals</b>						
Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	0.00001	8734229
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### TEST SUMMARY

**Bureau Veritas ID:** WCF242  
**Sample ID:** MEL-SR1  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8732819	N/A	2023/06/17	Yogesh Patel
Chloride by Automated Colourimetry	KONE	8735091	N/A	2023/06/19	Massarat Jan
Fluoride	ISE	8732820	2023/06/16	2023/06/19	Kien Tran
Mercury (low level)	CV/AA	8734229	2023/06/17	2023/06/19	Jaswinder Kaur
Low Level Chloride and Sulphate by AC	KONE	8744244	N/A	2023/06/21	Shanna McKort
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8744245	2023/06/20	2023/06/20	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	8742767	N/A	2023/06/20	Automated Statchk
Hardness (calculated as CaCO3)	CALC	8742770	N/A	2023/06/20	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	8742771	N/A	2023/06/20	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	8742772	N/A	2023/06/19	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	8742768	2023/06/20	2023/06/20	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	8742769	2023/06/19	2023/06/20	Andrew An
Silica (Reactive)	KONE	8748928	N/A	2023/06/22	Marjolen Busslinger
Total Ammonia-N	LACH/NH4	8736022	N/A	2023/06/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8732687	N/A	2023/06/20	Chandra Nandlal
Total Oil and Grease	BAL	8736912	2023/06/19	2023/06/19	Kishan Patel
pH	AT	8732822	2023/06/16	2023/06/17	Yogesh Patel
Orthophosphate	KONE	8735096	N/A	2023/06/19	Massarat Jan
Calculated Total Dissolved Solids	CALC	8726407	N/A	2023/06/26	Automated Statchk
Total Dissolved Solids	BAL	8730858	2023/06/17	2023/06/19	Razieh Tabesh
Total Phosphorus (Colourimetric)	SKAL/P	8736026	2023/06/19	2023/06/19	Sachi Patel
Low Level Total Suspended Solids	BAL	8730856	2023/06/19	2023/06/19	Darshan Patel
Turbidity	AT	8732167	N/A	2023/06/17	Gurpartee KAUAR

**Bureau Veritas ID:** WCF242 Dup  
**Sample ID:** MEL-SR1  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	8730856	2023/06/19	2023/06/19	Darshan Patel
Turbidity	AT	8732167	N/A	2023/06/17	Gurpartee KAUAR

**Bureau Veritas ID:** WCF243  
**Sample ID:** ITIVIA CULVERT1 EAST  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8732819	N/A	2023/06/17	Yogesh Patel
Chloride by Automated Colourimetry	KONE	8732803	N/A	2023/06/19	Alina Dobreanu
Fluoride	ISE	8732820	2023/06/16	2023/06/19	Kien Tran
Mercury (low level)	CV/AA	8734320	2023/06/17	2023/06/19	Jaswinder Kaur
Low Level Chloride and Sulphate by AC	KONE	8744244	N/A	2023/06/21	Shanna McKort
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8744245	2023/06/20	2023/06/20	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	8742767	N/A	2023/06/20	Automated Statchk



BUREAU  
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Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### TEST SUMMARY

**Bureau Veritas ID:** WCF243  
**Sample ID:** ITIVIA CULVERT1 EAST  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hardness (calculated as CaCO3)	CALC	8742770	N/A	2023/06/20	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	8742771	N/A	2023/06/20	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	8742772	N/A	2023/06/19	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	8742768	2023/06/20	2023/06/20	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	8742769	2023/06/19	2023/06/20	Andrew An
Silica (Reactive)	KONE	8748928	N/A	2023/06/22	Marjolen Busslinger
Total Ammonia-N	LACH/NH4	8736022	N/A	2023/06/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8732687	N/A	2023/06/20	Chandra Nandlal
Total Oil and Grease	BAL	8736912	2023/06/19	2023/06/19	Kishan Patel
pH	AT	8732822	2023/06/16	2023/06/17	Yogesh Patel
Orthophosphate	KONE	8732795	N/A	2023/06/19	Alina Dobreanu
Calculated Total Dissolved Solids	CALC	8726407	N/A	2023/06/26	Automated Statchk
Total Dissolved Solids	BAL	8733678	2023/06/17	2023/06/19	Shaneil Hall
Total Phosphorus (Colourimetric)	SKAL/P	8736026	2023/06/19	2023/06/19	Sachi Patel
Low Level Total Suspended Solids	BAL	8730856	2023/06/19	2023/06/19	Darshan Patel
Turbidity	AT	8732167	N/A	2023/06/17	Gurpartee Kaur

**Bureau Veritas ID:** WCF244  
**Sample ID:** ITIVIA CULVERT1 WEST  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8732819	N/A	2023/06/17	Yogesh Patel
Chloride by Automated Colourimetry	KONE	8732803	N/A	2023/06/19	Alina Dobreanu
Fluoride	ISE	8732820	2023/06/16	2023/06/19	Kien Tran
Mercury (low level)	CV/AA	8734320	2023/06/17	2023/06/19	Jaswinder Kaur
Low Level Chloride and Sulphate by AC	KONE	8744244	N/A	2023/06/21	Shanna McKort
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8744245	2023/06/20	2023/06/20	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	8742767	N/A	2023/06/20	Automated Statchk
Hardness (calculated as CaCO3)	CALC	8742770	N/A	2023/06/20	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	8742771	N/A	2023/06/20	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	8742772	N/A	2023/06/19	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	8742768	2023/06/20	2023/06/20	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	8742769	2023/06/19	2023/06/20	Andrew An
Silica (Reactive)	KONE	8748928	N/A	2023/06/22	Marjolen Busslinger
Total Ammonia-N	LACH/NH4	8736022	N/A	2023/06/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8732104	N/A	2023/06/16	Chandra Nandlal
Total Oil and Grease	BAL	8736912	2023/06/19	2023/06/19	Kishan Patel
pH	AT	8732822	2023/06/16	2023/06/17	Yogesh Patel
Orthophosphate	KONE	8732795	N/A	2023/06/19	Alina Dobreanu
Calculated Total Dissolved Solids	CALC	8726407	N/A	2023/06/26	Automated Statchk
Total Dissolved Solids	BAL	8733678	2023/06/17	2023/06/19	Shaneil Hall
Total Phosphorus (Colourimetric)	SKAL/P	8736026	2023/06/19	2023/06/19	Sachi Patel
Low Level Total Suspended Solids	BAL	8730856	2023/06/19	2023/06/19	Darshan Patel



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### TEST SUMMARY

**Bureau Veritas ID:** WCF244  
**Sample ID:** ITIVIA CULVERT1 WEST  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	8731277	N/A	2023/06/16	Gurpartee KAU

**Bureau Veritas ID:** WCF245  
**Sample ID:** MEL-SR1  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8732819	N/A	2023/06/17	Yogesh Patel
Chloride by Automated Colourimetry	KONE	8732803	N/A	2023/06/19	Alina Dobreanu
Fluoride	ISE	8732820	2023/06/16	2023/06/19	Kien Tran
Mercury (low level)	CV/AA	8734229	2023/06/17	2023/06/19	Jaswinder Kaur
Low Level Chloride and Sulphate by AC	KONE	8744244	N/A	2023/06/21	Shanna McKort
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8744245	2023/06/20	2023/06/20	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	8742767	N/A	2023/06/20	Automated Statchk
Hardness (calculated as CaCO3)	CALC	8742770	N/A	2023/06/20	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	8742771	N/A	2023/06/20	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	8742772	N/A	2023/06/19	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	8742768	2023/06/20	2023/06/20	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	8742769	2023/06/19	2023/06/20	Andrew An
Silica (Reactive)	KONE	8748928	N/A	2023/06/22	Marjolen Busslinger
Total Ammonia-N	LACH/NH4	8736022	N/A	2023/06/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8732687	N/A	2023/06/20	Chandra Nandlal
Total Oil and Grease	BAL	8736912	2023/06/19	2023/06/19	Kishan Patel
pH	AT	8732822	2023/06/16	2023/06/17	Yogesh Patel
Orthophosphate	KONE	8732795	N/A	2023/06/19	Alina Dobreanu
Calculated Total Dissolved Solids	CALC	8726407	N/A	2023/06/26	Automated Statchk
Total Dissolved Solids	BAL	8730858	2023/06/17	2023/06/19	Razieh Tabesh
Total Phosphorus (Colourimetric)	SKAL/P	8736026	2023/06/19	2023/06/19	Sachi Patel
Low Level Total Suspended Solids	BAL	8730856	2023/06/19	2023/06/19	Darshan Patel
Turbidity	AT	8732167	N/A	2023/06/17	Gurpartee KAU

**Bureau Veritas ID:** WCF246  
**Sample ID:** ITIVIA CULVERT1 EAST  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8732819	N/A	2023/06/17	Yogesh Patel
Chloride by Automated Colourimetry	KONE	8732803	N/A	2023/06/19	Alina Dobreanu
Fluoride	ISE	8732820	2023/06/16	2023/06/19	Kien Tran
Mercury (low level)	CV/AA	8734229	2023/06/17	2023/06/19	Jaswinder Kaur
Low Level Chloride and Sulphate by AC	KONE	8744244	N/A	2023/06/21	Shanna McKort
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8744245	2023/06/20	2023/06/20	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	8742767	N/A	2023/06/20	Automated Statchk
Hardness (calculated as CaCO3)	CALC	8742770	N/A	2023/06/20	Automated Statchk



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Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

### TEST SUMMARY

**Bureau Veritas ID:** WCF246  
**Sample ID:** ITIVIA CULVERT1 EAST  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	8742771	N/A	2023/06/20	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	8742772	N/A	2023/06/19	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	8742768	2023/06/20	2023/06/20	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	8742769	2023/06/19	2023/06/20	Andrew An
Silica (Reactive)	KONE	8748923	N/A	2023/06/22	Marjolen Busslinger
Total Ammonia-N	LACH/NH4	8736022	N/A	2023/06/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8732687	N/A	2023/06/20	Chandra Nandlal
Total Oil and Grease	BAL	8736912	2023/06/19	2023/06/19	Kishan Patel
pH	AT	8732822	2023/06/16	2023/06/17	Yogesh Patel
Orthophosphate	KONE	8732795	N/A	2023/06/19	Alina Dobreanu
Calculated Total Dissolved Solids	CALC	8726407	N/A	2023/06/26	Automated Statchk
Total Dissolved Solids	BAL	8733678	2023/06/17	2023/06/19	Shaneil Hall
Total Phosphorus (Colourimetric)	SKAL/P	8736026	2023/06/19	2023/06/19	Sachi Patel
Low Level Total Suspended Solids	BAL	8730856	2023/06/19	2023/06/19	Darshan Patel
Turbidity	AT	8731277	N/A	2023/06/16	Gurpartee Kaur

**Bureau Veritas ID:** WCF247  
**Sample ID:** ITIVIA CULVERT1 WEST  
**Matrix:** Water

**Collected:** 2023/06/07  
**Shipped:**  
**Received:** 2023/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8732819	N/A	2023/06/17	Yogesh Patel
Chloride by Automated Colourimetry	KONE	8732803	N/A	2023/06/19	Alina Dobreanu
Fluoride	ISE	8732820	2023/06/16	2023/06/19	Kien Tran
Mercury (low level)	CV/AA	8734229	2023/06/17	2023/06/19	Jaswinder Kaur
Low Level Chloride and Sulphate by AC	KONE	8744244	N/A	2023/06/21	Shanna McKort
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8744245	2023/06/20	2023/06/20	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	8742767	N/A	2023/06/20	Automated Statchk
Hardness (calculated as CaCO3)	CALC	8742770	N/A	2023/06/20	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	8742771	N/A	2023/06/20	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	8742772	N/A	2023/06/19	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	8742768	2023/06/20	2023/06/20	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	8742769	2023/06/19	2023/06/20	Andrew An
Silica (Reactive)	KONE	8748928	N/A	2023/06/22	Marjolen Busslinger
Total Ammonia-N	LACH/NH4	8736022	N/A	2023/06/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8732104	N/A	2023/06/16	Chandra Nandlal
Total Oil and Grease	BAL	8736912	2023/06/19	2023/06/19	Kishan Patel
pH	AT	8732822	2023/06/16	2023/06/17	Yogesh Patel
Orthophosphate	KONE	8732795	N/A	2023/06/19	Alina Dobreanu
Calculated Total Dissolved Solids	CALC	8726407	N/A	2023/06/26	Automated Statchk
Total Dissolved Solids	BAL	8730858	2023/06/17	2023/06/19	Razieh Tabesh
Total Phosphorus (Colourimetric)	SKAL/P	8736026	2023/06/19	2023/06/19	Sachi Patel
Low Level Total Suspended Solids	BAL	8730853	2023/06/16	2023/06/19	Razieh Tabesh
Turbidity	AT	8731277	N/A	2023/06/16	Gurpartee Kaur



### GENERAL COMMENTS

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

Package 1	19.7°C
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Revised Report [2023/07/05]: Sample IDs amended per client request  
Revised Report [2023/06/30]: Report resent to client, no modifications  
Revised Report [2023/06/27]: Amended sample ID MEL-SR1B

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



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

Report Date: 2023/07/05

### QUALITY ASSURANCE REPORT

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

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
8730853	Total Suspended Solids	2023/06/19			95	85 - 115	<1	mg/L	6.5	20		
8730856	Total Suspended Solids	2023/06/19			97	85 - 115	<1	mg/L	17	20		
8730858	Total Dissolved Solids	2023/06/19			102	90 - 110	<10	mg/L	0.63	20		
8731277	Turbidity	2023/06/16			99	80 - 120	<0.1	NTU	1.1	20		
8732104	Nitrate (N)	2023/06/16	92	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
8732104	Nitrite (N)	2023/06/16	95	80 - 120	102	80 - 120	<0.010	mg/L	NC	20		
8732167	Turbidity	2023/06/17			98	80 - 120	<0.1	NTU	2.1	20		
8732687	Nitrate (N)	2023/06/20	104	80 - 120	106	80 - 120	<0.10	mg/L	0.37	20		
8732687	Nitrite (N)	2023/06/20	103	80 - 120	97	80 - 120	<0.010	mg/L	NC	20		
8732795	Orthophosphate (P)	2023/06/19	91	75 - 125	91	80 - 120	<0.010	mg/L	NC	20		
8732803	Dissolved Chloride (Cl-)	2023/06/19	NC	80 - 120	92	80 - 120	<1.0	mg/L	1.8	20		
8732819	Alkalinity (Total as CaCO3)	2023/06/17			96	85 - 115	<1.0	mg/L	0.21	20		
8732820	Fluoride (F-)	2023/06/19	101	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
8732822	pH	2023/06/17			102	98 - 103			0.22	N/A		
8733678	Total Dissolved Solids	2023/06/19			98	90 - 110	<10	mg/L	2.0	20		
8734229	Mercury (Hg)	2023/06/19	100	75 - 125	98	80 - 120	<0.00001	mg/L	NC	20		
8734320	Mercury (Hg)	2023/06/19	91	75 - 125	99	80 - 120	<0.00001	mg/L	NC	20		
8735091	Dissolved Chloride (Cl-)	2023/06/19	98	80 - 120	95	80 - 120	<1.0	mg/L	11	20		
8735096	Orthophosphate (P)	2023/06/19	94	75 - 125	95	80 - 120	<0.010	mg/L	9.9	20		
8736022	Total Ammonia-N	2023/06/20	103	75 - 125	103	80 - 120	<0.050	mg/L	NC	20		
8736026	Total Phosphorus	2023/06/19	95	80 - 120	100	80 - 120	<0.020	mg/L	2.3	20	98	80 - 120
8736912	Total Oil & Grease	2023/06/19			99	85 - 115	<0.50	mg/L	0.51	25		
8742769	Total Aluminum (Al)	2023/06/20	101	80 - 120	101	80 - 120	<0.0030	mg/L				
8742769	Total Antimony (Sb)	2023/06/20	104	80 - 120	102	80 - 120	<0.00050	mg/L				
8742769	Total Arsenic (As)	2023/06/20	108	80 - 120	101	80 - 120	<0.00010	mg/L				
8742769	Total Barium (Ba)	2023/06/20	NC	80 - 120	101	80 - 120	<0.0010	mg/L				
8742769	Total Beryllium (Be)	2023/06/20	96	80 - 120	97	80 - 120	<0.00010	mg/L				
8742769	Total Bismuth (Bi)	2023/06/20	95	80 - 120	100	80 - 120	<0.0010	mg/L				
8742769	Total Boron (B)	2023/06/20	101	80 - 120	102	80 - 120	<0.050	mg/L				
8742769	Total Cadmium (Cd)	2023/06/20	99	80 - 120	100	80 - 120	<0.000010	mg/L				
8742769	Total Chromium (Cr)	2023/06/20	NC	80 - 120	96	80 - 120	<0.0010	mg/L				



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

Report Date: 2023/07/05

### QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

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
8742769	Total Cobalt (Co)	2023/06/20	91	80 - 120	96	80 - 120	<0.00020	mg/L				
8742769	Total Copper (Cu)	2023/06/20	85	80 - 120	94	80 - 120	<0.00050	mg/L				
8742769	Total Iron (Fe)	2023/06/20	102	80 - 120	101	80 - 120	<0.010	mg/L				
8742769	Total Lead (Pb)	2023/06/20	97	80 - 120	99	80 - 120	<0.00020	mg/L				
8742769	Total Lithium (Li)	2023/06/20	97	80 - 120	100	80 - 120	<0.0020	mg/L				
8742769	Total Manganese (Mn)	2023/06/20	95	80 - 120	100	80 - 120	<0.0010	mg/L				
8742769	Total Molybdenum (Mo)	2023/06/20	NC	80 - 120	105	80 - 120	<0.0010	mg/L				
8742769	Total Nickel (Ni)	2023/06/20	90	80 - 120	98	80 - 120	<0.0010	mg/L				
8742769	Total Selenium (Se)	2023/06/20	101	80 - 120	100	80 - 120	<0.00010	mg/L				
8742769	Total Silicon (Si)	2023/06/20	NC	80 - 120	102	80 - 120	<0.10	mg/L				
8742769	Total Silver (Ag)	2023/06/20	99	80 - 120	101	80 - 120	<0.000020	mg/L				
8742769	Total Strontium (Sr)	2023/06/20	NC	80 - 120	102	80 - 120	<0.0010	mg/L				
8742769	Total Thallium (Tl)	2023/06/20	100	80 - 120	100	80 - 120	<0.000010	mg/L				
8742769	Total Tin (Sn)	2023/06/20	102	80 - 120	101	80 - 120	<0.0050	mg/L				
8742769	Total Titanium (Ti)	2023/06/20	101	80 - 120	100	80 - 120	<0.0050	mg/L				
8742769	Total Uranium (U)	2023/06/20	107	80 - 120	103	80 - 120	<0.00010	mg/L				
8742769	Total Vanadium (V)	2023/06/20	100	80 - 120	99	80 - 120	<0.0050	mg/L				
8742769	Total Zinc (Zn)	2023/06/20	89	80 - 120	100	80 - 120	<0.0050	mg/L				
8742769	Total Zirconium (Zr)	2023/06/20	112	80 - 120	103	80 - 120	<0.00010	mg/L				
8742772	Dissolved Aluminum (Al)	2023/06/19	101	80 - 120	103	80 - 120	<0.0030	mg/L				
8742772	Dissolved Antimony (Sb)	2023/06/19	105	80 - 120	104	80 - 120	<0.00050	mg/L				
8742772	Dissolved Arsenic (As)	2023/06/19	105	80 - 120	104	80 - 120	<0.00010	mg/L				
8742772	Dissolved Barium (Ba)	2023/06/19	99	80 - 120	103	80 - 120	<0.0010	mg/L				
8742772	Dissolved Beryllium (Be)	2023/06/19	99	80 - 120	101	80 - 120	<0.00010	mg/L				
8742772	Dissolved Bismuth (Bi)	2023/06/19	97	80 - 120	99	80 - 120	<0.0010	mg/L				
8742772	Dissolved Boron (B)	2023/06/19	99	80 - 120	103	80 - 120	<0.050	mg/L				
8742772	Dissolved Cadmium (Cd)	2023/06/19	101	80 - 120	102	80 - 120	<0.000010	mg/L				
8742772	Dissolved Chromium (Cr)	2023/06/19	95	80 - 120	97	80 - 120	<0.0010	mg/L				
8742772	Dissolved Cobalt (Co)	2023/06/19	93	80 - 120	98	80 - 120	<0.00020	mg/L				
8742772	Dissolved Copper (Cu)	2023/06/19	89	80 - 120	96	80 - 120	<0.00020	mg/L				
8742772	Dissolved Iron (Fe)	2023/06/19	103	80 - 120	103	80 - 120	<0.0050	mg/L				



BUREAU  
VERITAS

Bureau Veritas Job #: C3H2457

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### QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: 1253250

Sampler Initials: SG

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
8742772	Dissolved Lead (Pb)	2023/06/19	96	80 - 120	99	80 - 120	<0.00020	mg/L				
8742772	Dissolved Lithium (Li)	2023/06/19	95	80 - 120	100	80 - 120	<0.0020	mg/L				
8742772	Dissolved Manganese (Mn)	2023/06/19	97	80 - 120	101	80 - 120	<0.0010	mg/L				
8742772	Dissolved Molybdenum (Mo)	2023/06/19	NC	80 - 120	106	80 - 120	<0.0010	mg/L				
8742772	Dissolved Nickel (Ni)	2023/06/19	94	80 - 120	100	80 - 120	<0.0010	mg/L				
8742772	Dissolved Selenium (Se)	2023/06/19	101	80 - 120	103	80 - 120	<0.00010	mg/L				
8742772	Dissolved Silicon (Si)	2023/06/19	NC	80 - 120	110	80 - 120	<0.10	mg/L				
8742772	Dissolved Silver (Ag)	2023/06/19	102	80 - 120	103	80 - 120	<0.000020	mg/L				
8742772	Dissolved Strontium (Sr)	2023/06/19	NC	80 - 120	104	80 - 120	<0.0010	mg/L				
8742772	Dissolved Thallium (Tl)	2023/06/19	99	80 - 120	102	80 - 120	<0.000010	mg/L				
8742772	Dissolved Tin (Sn)	2023/06/19	106	80 - 120	104	80 - 120	<0.0050	mg/L				
8742772	Dissolved Titanium (Ti)	2023/06/19	102	80 - 120	102	80 - 120	<0.0050	mg/L				
8742772	Dissolved Uranium (U)	2023/06/19	104	80 - 120	104	80 - 120	<0.00010	mg/L				
8742772	Dissolved Vanadium (V)	2023/06/19	101	80 - 120	101	80 - 120	<0.0050	mg/L				
8742772	Dissolved Zinc (Zn)	2023/06/19	98	80 - 120	101	80 - 120	<0.0050	mg/L				
8742772	Dissolved Zirconium (Zr)	2023/06/19	109	80 - 120	105	80 - 120	<0.00010	mg/L				
8744244	Dissolved Sulphate (SO4)	2023/06/21	NC	80 - 120	99	80 - 120	<0.50	mg/L				
8744245	Strong Acid Dissoc. Cyanide (CN)	2023/06/20	96	80 - 120	97	80 - 120	<0.00050	mg/L				
8748923	Reactive Silica (SiO2)	2023/06/22	NC	80 - 120	96	80 - 120	<0.050	mg/L				
8748928	Reactive Silica (SiO2)	2023/06/22	NC	80 - 120	105	80 - 120	<0.050	mg/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 <= 2x RDL).



### VALIDATION SIGNATURE PAGE

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

\_\_\_\_\_  
Anastassia Hamanov, Scientific Specialist

\_\_\_\_\_  
David Huang, BBY Scientific Specialist

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

\_\_\_\_\_  
Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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**BUREAU  
VERITAS**

Bureau Veritas Job #: C3H2457  
Report Date: 2023/07/05

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: SG

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

Sample ID	Bureau Veritas 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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>2023-08-05</b>	REPORT TIME <b>10:30</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____	
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>2023-08-04</b>	OCCURRENCE TIME <b>18:00</b>			
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>			
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>			
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>			
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>			
	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>125 Litres</b>	U.N. NUMBER <b>N/A</b>		
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
	SPILL SOURCE <b>Wing 8 Lift Station</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1 m2</b>		
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Infrastructure</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>		
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>An overflow of the Wing 8 Lift Station resulted in a spill of 125 L of sewage to the industrial pad. The spill was contained to the local area. Clean up activities were immediately undertaken. The coordinates of the spill are 63° 2'23.38" N, 92°13'48.34" W . No water bodies were impacted by this spill. The nearest natural water body (G2) is located 208 m northwest.</b>				
<b>K</b>	Pursuant to Part H, Item 8c of the 2AM-MEL1631 Water Licence, a follow-up report will be issued after the investigation is completed.				
	Reported by Matt Gillman, Environment Superintendent 819-759-3555 ext. 4603175 matt.gillman@agnicoeagle.com, alternate contact: sara.savoie@agnicoeagle.com ext. 4603212				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Matt Gillman</b>	POSITION <b>Env. Superintendent</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Sara Savoie</b>	POSITION <b>General Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>
REPORT LINE USE ONLY					
<b>N</b>	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					

August 22<sup>nd</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill # 2023-331 – Release of 125 L of Sewage at the Meliadine Gold Project**

On August 5<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 125 L of sewage at the Meliadine Gold Project site (spill location coordinates: 63° 2'23.38" N, 92°13'48.34" W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On August 4<sup>th</sup>, 2023, at approximately 6:00 pm, an estimated 125 L of sewage was spilled onto the industrial pad at the wing 8 lift station. The Energy and Infrastructure department was notified of an overflow occurring at wing 8 lift station. A plumber was dispatched to address the situation and restore the system to its intended operational state. The spilled sewage was contained to the immediate local area, and no water bodies were impacted by the spill. The closest water body (Lake G2) is approximately 208 meters northwest, as seen in Figure 1.



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**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

Upon arrival to wing 8 lift station, the plumber switched the pump from the automatic to the manual setting to lower the level of the tank and prevent further spillage. A vacuum truck was used to clean the free liquid on the ground. The ground surface was hand excavated and the recovered material was brought to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- The float system experienced a malfunction due to the accumulation of oil, grease and debris resulting in the adherence of the floats to the basin's interior. This adherence has consequently restricted the float's ability to ascend with the elevation of the fluid level.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- Routine inspection of all compact lift stations that are sealed will be completed as part of the preventive maintenance schedule. This process requires unfastening all bolts holding the lid and seal, followed by visual inspection and cleaning of the float system.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Randy Schwandt** | Environment Coordinator

[randy.schwandt@agnicoeagle.com](mailto:randy.schwandt@agnicoeagle.com) | Direct 819.759.3555 x4603996 |

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

[agnicoeagle.com](http://agnicoeagle.com)     

Sent from Meliadine



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## **Appendix A – Photos**



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**Photo 1:** Sewage spill location.



**Photo 2:** Sewage spill location post-remediation.



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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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>2023-08-12</b>	REPORT TIME <b>17:45</b>	<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____	
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>2023-08-12</b>	OCCURRENCE TIME <b>02:30</b>			
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL 1631</b>			
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>1</b> SECONDS <b>38</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>6</b>			
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>			
<b>H</b>	PRODUCT SPILLED <b>Tailings and Fresh Water</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>1500 L</b>	U.N. NUMBER <b>N/A</b>		
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
<b>I</b>	SPILL SOURCE <b>Paste Plant</b>	SPILL CAUSE <b>Human Error</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>15</b>		
	FACTORS AFFECTING SPILL OR RECOVERY <b>N/A</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>		
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS				
	<p><b>A solid tailings hopper inside the Paste Plant overflowed onto the floor due to a faulty sensor. The plant operator hosed the floor down, causing approximately 1500 L of freshwater mixed with tailings to flow through an exterior door and onto the ground. The material was removed and placed at the Tailings Storage Facility (TSF). The coordinates of the spill are 63° 1'38.29"N 92°13'5.81"W. No water bodies were impacted by this spill. The closest water body (B7) is approximately 630 meters west.</b></p> <p><b>Pursuant to Part H, Item 8c of Water Licence 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b></p> <p><b>Reported by John Baechler, Environment Water Management Coordinator 819-759-3555 ext. 4603961 john.baechler@agnicoeagle.com, alternate contact: sara.savoie@agnicoeagle.com ext. 4603212.</b></p>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>John Baechler</b>	POSITION <b>Env. W.M. Coordinator</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Sara Savoie</b>	POSITION <b>Env. Gen. Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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 8<sup>th</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

**Re: Follow-up Report Spill #2023-340 – Release of 1.5 m<sup>3</sup> of fresh water and tailings at the Meliadine Gold Project**

On August 12<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email (spills@gov.nt.ca) of a spill of approximately 1.5 m<sup>3</sup> mixture of fresh water and tailings at the Meliadine Gold Project site (spill location coordinates: (63° 1'38.29"N 92°13'5.81"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

**Description of Incident**

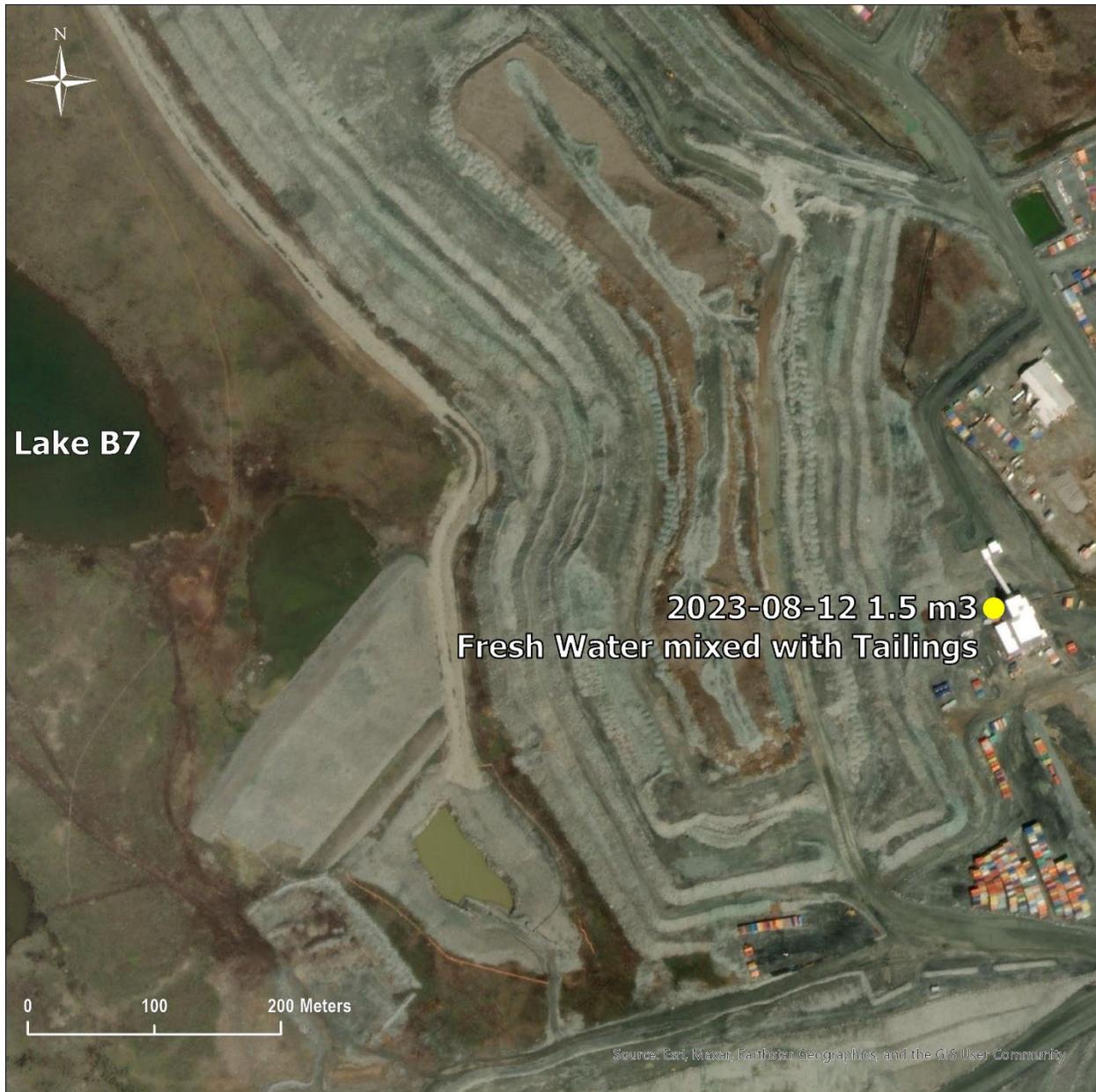
On August 12<sup>th</sup>, 2023, at approximately 2:30 a.m., there was an inadvertent release of approximately 1.5m<sup>3</sup> of tailings and fresh water outside the paste plant facility. The incident resulted from an overflow within the solid tailings hopper due to a malfunctioning sensor. In response, the plant operator undertook remedial actions, which involved hosing down the affected area. This action inadvertently led the mixture of tailings and fresh water to migrate from a maintenance door outside the facility.

No water bodies were impacted by the spill. The closest water body (B7) is approximately 630 meters west, as seen in Figure 1.



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**Figure 1:** Location of the spill and proximity to water bodies.

## Response and Remediation

During the floor-cleaning process, the operator realized the mixture of tailings and fresh water was leaving the structure and promptly reported it to the supervisor, who initiated the spill

cleanup. The tailings-impacted material that migrated outside of the paste plant facility was collected and relocated to the Tailings Storage Facility for disposal.

### **Root Cause and Corrective Measures**

An assessment was conducted soon after the incident to determine the root cause and contributing factors. The assessment concluded with the following:

- On August 11<sup>th</sup>, 2023, an electrical storm affected signal transmission of the tailings hopper sensor, which allowed the tailings hopper to overflow and solids tailings to fall to the paste plant floor.
- During the tailing's cleanup, the operator used fresh water to hose down the tailings to a collection sump. During this process, some of the tailings and fresh water flowed outside the maintenance door, resulting in the spill.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- The level sensor was cleaned, and the transmitter was reconfigured. This sensor is linked to a process interlock, which stops the transfer of tailings into the hopper in the event of a high-level reading.
- As a redundancy, a secondary tilt switch is planned to be installed in the coming weeks when parts arrive. This switch is also linked to a process interlock, which stops the transfer of tailings into the hopper in the event of a high-level reading.
- Water will not be used on the 2<sup>nd</sup> floor at paste plant to clean tailings; only a shovel will be used for tailings cleanup.
- Toolbox meetings were conducted to highlight the importance of being diligent when cleaning material.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



# AGNICO EAGLE

MELIADINE



**Kyle Conway** | Environment General Supervisor

kyle.conway@agnicoeagle.com | Direct 819.759.3555 x4603212 | Mobile  
819.860.1033

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

[agnicoeagle.com](http://agnicoeagle.com)     

Sent from Meliadine



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## Appendix A – Photos



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**Photo 1:** Spill location.



**Photo 2:** Post spill clean-up.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>08-25-2023</b>	REPORT TIME <b>15:50</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR <b>08-25-2023</b>	OCCURRENCE TIME <b>10:00</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>1</b> SECONDS <b>38</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>6</b>		
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Contact water</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>20m3</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Equipment malfunction</b>	SPILL CAUSE <b>Broken pipe</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>120</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>None</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>None</b>	

<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <p><b>On August 25th, 2022, at 10:00am, staff noticed a broken pipe by the Water Treatment Complex which released 20m3 of contact water on the ground. The spill was contained to the local area. Further investigation is currently being conducted and findings will be provided on the follow-up report.</b></p> <p><b>Location of spill: 63 2' 42" N 92 13' 52" W</b></p> <p><b>No water bodies were impacted, the closest water body (Meliadine Lake) is approximately 585m away (NNE).</b></p> <p><b>Pursuant to Part H, Section 8c of the Water License, a follow-up report will be issued after a closer investigation is completed.</b></p> <p><b>Reported by Randy Schwandt Environment Coordinator (819-759-3555, x4603996).</b></p>			
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<b>L</b>	REPORTED TO SPILL LINE BY <b>Randy Schwandt</b>	POSITION <b>Env. Coordinator</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Sara Savoie</b>	POSITION <b>Environment GS</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>

REPORT LINE USE ONLY					
<b>N</b>	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 21, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-362 – Release of 20 m<sup>3</sup> of contact water at the Meliadine Gold Mine**

On August 25<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 20 m<sup>3</sup> of contact water at the Meliadine Mine site (spill location coordinates: (63° 2'42"N 92°13'52"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On August 25<sup>th</sup>, 2023, at approximately 10:00 am, there was an inadvertent release of approximately 20 m<sup>3</sup> of contact water outside the Water Treatment Complex (WTC) during the Saline Effluent Treatment Plant (SETP) commissioning activities. A High-Density Polyethylene (HDPE) influent line that transitions to a Polyvinyl Chloride (PVC) coupler as it enters the WTC was conveying saline contact water from Tiriganiaq Open Pit 2 (Tiri 02) to the SETP. The contraction of the HDPE line caused the vertical portion of the coupling to shift, then break due to additional stress, resulting in a spill of contact water. Due to the location of the spill, contact water flowed into Collection Pond 1 (CP1), a part of the site's surface contact runoff management system.

No water bodies were impacted by the spill. The closest water body (Meliadine Lake) is approximately 585 meters northeast, as seen in Figure 1.



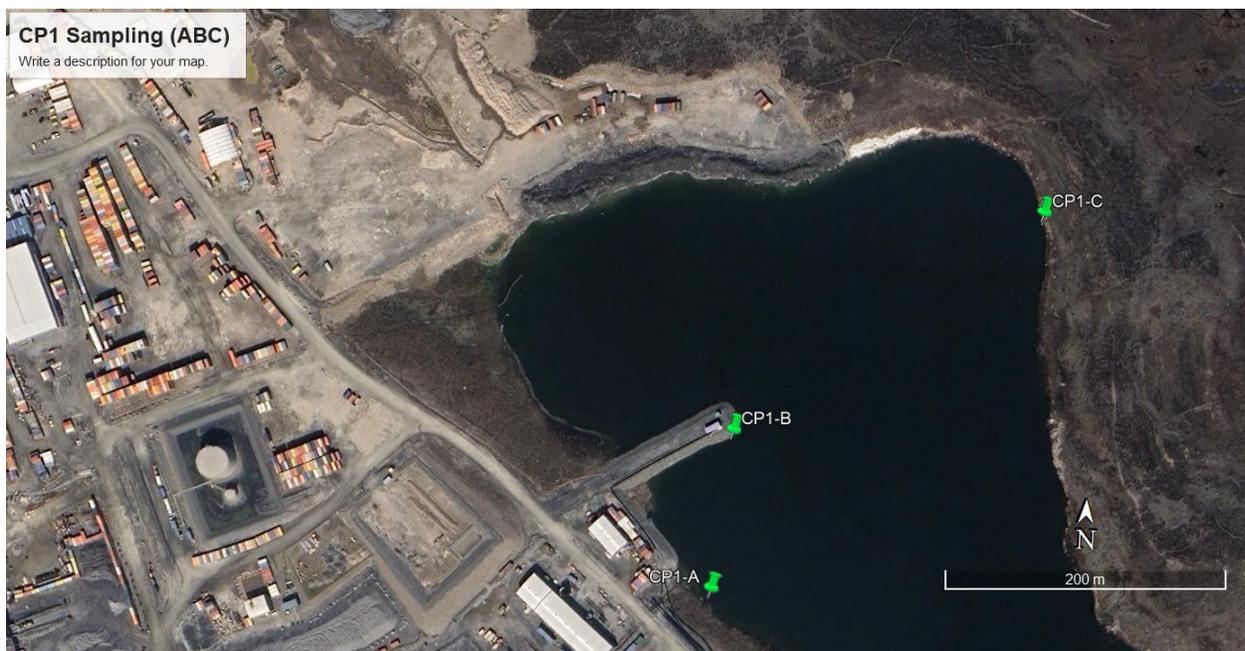
**Figure 1:** Location of the contact water spill and proximity to water bodies.

## Response and Remediation

In response to the spill incident, contact water being conveyed to the SETP was immediately suspended to prevent further spillage. As per the Spill Contingency Plan, the Environmental Department was notified to assess the situation.

Given the volume of the release, the event was calculated to have a negligible impact on CP1 water quality. As the spilled contact water originated from saline water storage in Tiri 02, total dissolved solids (TDS) is the parameter of interest in this event. Through a mass balance calculation, it was determined that the spill could result in a maximum 0.002% increase on CP1 TDS levels. Electrical conductivity readings were collected within CP1 as seen in Figure 2. Samples were also taken and submitted to a third-party laboratory as due diligence. Field readings and laboratory results are provided in Table 1 below. Results were not indicative of significant changes in water quality nor of the presence of an isolated plume of spilled water at the sampled locations. Concurrent with the sampling and mass balance calculation efforts, the Effluent Water Treatment Plant (EWTP) was placed into recirculation mode on August 25<sup>th</sup>, suspending discharge to Meliadine Lake (MEL-14). The EWTP remained in recirculation until August 29<sup>th</sup>. This measure was precautionary, to ensure impact to the TDS level of CP1 was negligible before resuming discharge to the environment. Once it was confirmed that the impact was negligible, discharge was resumed.

It is important to note that the EWTP is continuously monitored for electrical conductivity and trigger limits for stopping discharge are in place for TDS exceedance mitigation during periods of discharge. When a trigger limit is reached, the EWTP-WTC stops discharge immediately and begins recirculating treated water to CP1.



**Figure 2:** Location of sampling efforts.

**Table 1:** Field measurements and laboratory results related to sampling efforts.

	08/27/2023	08/27/2023	08/27/2023
Parameter	CP1-A	CP1-B	CP1-C
Field conductivity ( $\mu\text{S}/\text{cm}$ )	2,794	2,783	2,754
Lab Conductivity ( $\mu\text{S}/\text{cm}$ )	2,700	2,700	2,600
Total Dissolved Solids (mg/L)	1,470	1,470	1,450

### Root Cause and Corrective Measures

An assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- Inadequate support and anchoring of the HDPE line where it enters the WTC.
- HPDE/PVC coupler design did not allow for expansion and contraction of the line.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- Enhance the HDPE pipe support and anchoring to reduce movement of the line where it enters the WTC.
- Replace the PVC outside of the building with HDPE.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Alexandre Langlais-Bourassa** | Environment Coordinator

[alexandre.langlais-bourassa@agnicoeagle.com](mailto:alexandre.langlais-bourassa@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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## **Appendix A – Photos**



# AGNICO EAGLE

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**Photo 1:** Broken segment of PVC pipe, facing southwest.



**Photo 2:** Broken segment of PVC pipe, facing southeast.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>08-30-2023</b>	REPORT TIME <b>18:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____	
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>08-30-2023</b>	OCCURRENCE TIME <b>05:00</b>			
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>			
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>			
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>			
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>			
	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>25 Liters</b>	U.N. NUMBER <b>N/A</b>		
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
	SPILL SOURCE <b>Lift station</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>0.5</b>		
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>none</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>		
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>A transformer failure resulting in a power outage at the Wing 4 lift station caused 25 L of sewage to spill out of containment onto the industrial pad. The spill was constrained to the local area. Clean up activities were immediately undertaken.</b>  <b>The coordinates of the spill are 63° 2' 23"N, 92° 13' 44"W. No water bodies were impacted by this spill. The nearest natural water body (G2) is 225 m north.</b> <b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b>  <b>Reported by Kevin Smith, Hydrogeology Specialist 819-759-3555 ext. 4603961, kevin.smith2@agnicoeagle.com.</b>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Kevin Smith</b>	POSITION <b>Hydro Specialist</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>General Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-860-1033</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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 30<sup>th</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
XOC 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-368 – Release of 25 L of Sewage at the Meliadine Gold Mine**

On August 30<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 25 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 2' 23"N, 92° 13' 44"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On August 30<sup>th</sup>, 2023, at approximately 05:00, an estimated 25 L of sewage was spilled onto the industrial pad by wing 4 lift station. A power failure at wing 4 de-energized the lift station and caused the spill. No water bodies were impacted by this spill. The closest water body (Lake G2) is approximately 225 meters northwest, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

E&I Maintenance received the call reporting a transformer failure resulting in a power outage at wing 4. This prompted the dispatch of personnel to investigate the situation at wing 4 lift station. Upon arrival, personnel noticed the spill and closed the water source to prevent any further spillage. A vacuum truck was brought up to pump the water in the basin and the secondary containment. Spill pads were laid out to soak up any remaining wastewater on the ground. These pads were then disposed of in the incinerator.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- In wing 4, a transformer failure occurred, resulting in the de-energizing of the pumps within their respective lift station.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- The electrical department completed an evaluation of and continues to implement updates to the lift station systems. The initial focus was on the main camp lift stations as they have the potential for larger volume spills. The secondary focus has been on the accommodation wing lifts stations. Completed and planned efforts are summarized below:

### Main Camp Lift Stations

- Replaced pump control (previous floats) with Ultrasonic level sensor & high-level switch – increased reliability.
- Added pump drives to the network.
- Added a low temperature switch in the main lift station.
- Added equipment visibility on HMI (STP – Lift station page).
- Set alarms to notify designated phones and radios.
- Have plan to move drives into the electrical room away from the harsh lift station environment.
- Have plan to install drives on separate circuits to ensure pump redundancy.

### Accommodation Wing Lift Stations (Planned)

- Each wing lift station will have low temperature, pump fault and loss of power alarms that will allow control of the wings water supply valve.
- Engineering of these changes is complete – 95% of parts have been received.



- Awaiting enclosures to arrive to build the remote PLC (programmable logic controller) panels.
- CAT5 cable to be pulled to each wing mech room/e-room – cable will be received on the 2023 sealift.
- Network switches to be added to IT panels (connect remote PLC panels with the rest of the network).
- Alarms to be added to HMI (Human Machine Interface) and alert designated phones/radios.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Alexandre Langlais-Bourassa** | Environment Coordinator  
[alexandre.langlais-bourassa@agnicoeagle.com](mailto:alexandre.langlais-bourassa@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,  
Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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## **Appendix – Photos**



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**Photo 1:** Sewage spill location.



**Photo 2:** Sewage spill remediation.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>09-21-2023</b>	REPORT TIME <b>15:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR <b>09-20-2023</b>	OCCURRENCE TIME <b>18:00</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>		LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>	
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>40 Liters</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Lift station</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	

<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <p><b>An equipment failure at Wing 13 lift station caused 40 L of sewage to spill out of containment onto the industrial pad. The spill was constrained to the local area. Clean up and remediation activities were immediately undertaken.</b></p> <p><b>The coordinates of the spill are 63° 2' 23''N, 92° 13' 53''W. No water bodies were impacted by this spill. The nearest natural water body (G2) is 200 m north.</b></p> <p><b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b></p> <p><b>Reported by Alexandre Langlais-Bourassa, Environment Coordinator, 819-759-3555 ext. 4603996, alexandre.langlais-bourassa@agnicoeagle.com.</b></p>			
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<b>L</b>	REPORTED TO SPILL LINE BY <b>Alexandre Langlais</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>General Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-860-1033</b>

REPORT LINE USE ONLY

<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
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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 19, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-402 – Release of 40 L of Sewage at the Meliadine Gold Mine**

On September 21<sup>st</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 40 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 2' 22"N, 92° 13' 41"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On September 20<sup>th</sup>, 2023, at approximately 18:00, an estimated 40 L of sewage was spilled onto the industrial pad by wing 13 lift station. The pump was unplugged during routine lift station maintenance at wing 13 and was not plugged back in during the restart, causing the spill. No water bodies were impacted by this spill. The closest water body (Lake G2) is approximately 200 meters northwest, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

E&I Maintenance observed that the high-water level strobe light was on around 18:00 at wing 13. This prompted the dispatch of personnel to investigate the situation at wing 13 lift station. Upon arrival, personnel noticed the spill and closed the water source to prevent any further spillage. A vacuum truck was brought up to pump the water in the basin and the secondary containment. Spill pads were laid out to soak up any remaining wastewater on the ground. These pads were then disposed of in the incinerator. The ground surface was also hand excavated, and the recovered material was brought to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- Investigation determined that the pumps were left unplugged after routine maintenance was completed.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- During the daily inspection of the lift stations, staff will verify that float pumps are plugged into the PDC-230 after any maintenance event; this has been added to the daily maintenance check list.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Randy Schwandt** | Environment Coordinator  
[randy.schwandt@agnicoeagle.com](mailto:randy.schwandt@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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## Appendix – Photos



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Photos 1 and 2: Sewage spill location.





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**Photos 3 and 4:** Spill location post remediation.





Canada

# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

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FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>10-16-2023</b>	REPORT TIME <b>19:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____	
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>10-16-2023</b>	OCCURRENCE TIME <b>17:00</b>			
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>			
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>			
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>			
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>			
	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>10 Liters</b>	U.N. NUMBER <b>N/A</b>		
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
	SPILL SOURCE <b>Lift station</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1</b>		
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>		
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>An equipment failure at Wing 14 lift station caused 10 L of sewage to spill out of containment onto the industrial pad. The spill was constrained to the local area. Clean up and remediation activities were immediately undertaken.</b>  <b>The coordinates of the spill are 63° 2' 22''N, 92° 13' 53''W. No water bodies were impacted by this spill. The nearest natural water body (G2) is 195 m north. Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b>  <b>Reported by Randy Schwandt, Environment Coordinator, 819-759-3555 ext. 4603996, Randy.Schwandt@agnicoeagle.com.</b>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Randy Schwandt</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>General Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-860-1033</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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 30th, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-436 – Release of 10 L of Sewage at the Meliadine Gold Mine**

On October 16<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 10 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 2' 22"N, 92° 13' 53"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On October 16<sup>th</sup>, 2023, at approximately 17:00, an estimated 10 L of sewage was spilled onto the industrial pad by wing 14 lift station. A transfer pump failed due to blockage at the intake of the pumps, resulting in the sewage spill. No water bodies were impacted by this spill. The closest water body (Lake G2) is approximately 195 m northwest, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

During a routine inspection of the site sewage system, an employee from the Energy and Infrastructure (E&I) maintenance department noticed that the high-water level strobe had been activated at wing 14 at 16:50. Upon inspection, the employee observed the presence of sewage effluent outside the lift station enclosure. In response, a vacuum truck was promptly dispatched to pump out the water accumulated in the lift station basin. The ground surface was hand excavated, and the recovered material was brought to Landfarm A as per the Spill Contingency Plan. The employee inspected the transfer pump and discovered a personal hygienic product obstructing the intake and had caused the pump to burn out. The personal hygienic product was then removed from the pump system, the pump was replaced, and the system was back on full functionality the same day.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- Investigation determined that personal hygienic products obstructed the intake of the float pump, causing the pump to fail.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- All employees in wing 14 were met individually by their supervisor, and they were briefed on the importance of not flushing personal hygienic products in the bathroom.
- Site-wide notification was also sent in the Meliadine minute for supervisors to talk with their team about the importance of putting personal hygienic products in the garbage.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Alexandre Langlais-Bourassa, M.Sc. Biol.** | Environment Coordinator  
[alexandre.langlais-bourassa@agnicoeagle.com](mailto:alexandre.langlais-bourassa@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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## Appendix – Photos



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**Photos 1:** Sewage spill location.



**Photos 2:** Spill location post remediation.



Canada

# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

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FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>11-05-2023</b>	REPORT TIME <b>13:30</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>11-04-2023</b>	OCCURRENCE TIME <b>15:30</b>	<input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		
<b>B</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>		WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>		LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>		
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>		CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
	PRODUCT SPILLED <b>Suspended Solids</b>		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>Unknown</b>	U.N. NUMBER <b>N/A</b>	
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
	SPILL SOURCE <b>Streambed sediments</b>		SPILL CAUSE <b>Pump suction of sediments</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>Unknown</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>Ice</b>		DESCRIBE ANY ASSISTANCE REQUIRED <b>None</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>None</b>	
	<b>K</b> ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>Construction work was being conducted to replace the culvert at Itivia upstream of MEL-SR-1. Water pumped from below ice upstream of the culvert was directed downstream, into the partially installed culvert, to create a dry working environment. A sample of runoff water collected further downstream of the culvert installation yielded a turbidity measurement of 69.7 NTU, presumed to be above the maximum TSS concentration of 100 mg/L outlined in Part D, Item 18 of the NWB Water Licence 2AM-MEL1631 (the Licence). Construction work ceased until the following day, where additional monitoring and sedimentation mitigations could be implemented.</b>  <b>Location of spill: 62 47'59.94"N, 92 5'35.74"W. The closest water body (Melvin Bay) is approximately 75 m south. Pursuant to Part H, Item 8c of the Licence, a follow-up report will be issued after an investigation is completed.</b>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>John Baechler</b>	POSITION <b>Env. Coordinator</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>Env. General Supervis</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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					

December 4<sup>th</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [kyle.amsel@rcaanc-cirnac.gc.ca](mailto:kyle.amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-462 – MEL-SR-1 Surface Water Runoff at the Meliadine Gold Mine, Itivia Site**

On November 5<sup>th</sup>, 2023, as due diligence, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a potential Total Suspended Solids (TSS) exceedance at the Meliadine Gold Mine, Itivia site (spill location coordinates: 62 47'59.94" N, 92 5'35.74" W).

This follow-up report provides supplemental information based on the results of the event assessment and is being provided in accordance with:

- Nunavut Water Board Licence Water Licence 2AM-MEL1631, part H, item 8c; and
- The Fisheries Act, subsection 38(7).

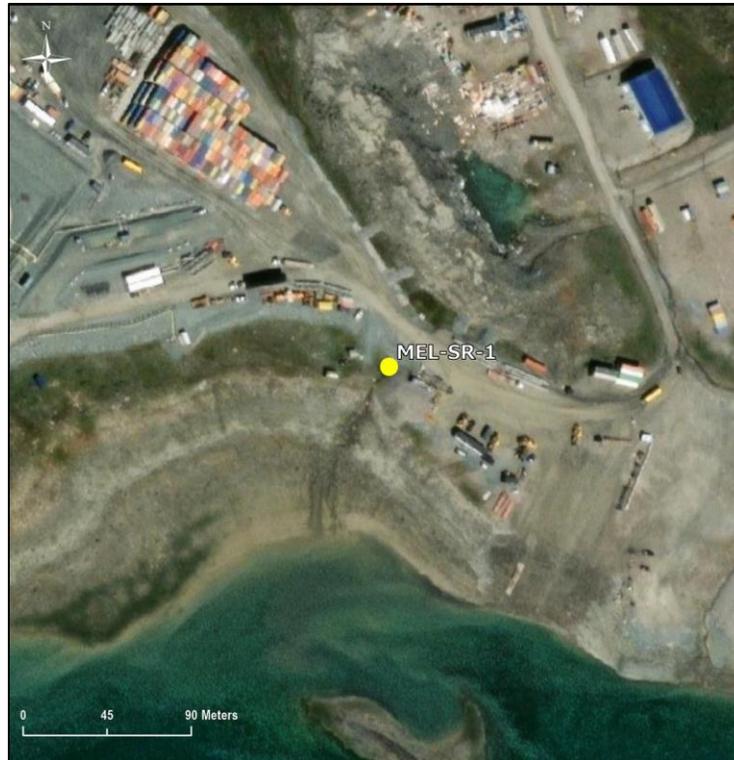
Analytical results of samples collected on November 4<sup>th</sup> and November 5<sup>th</sup> show TSS concentrations below the allowable TSS criteria listed under Part D, Item 18 of the 2AM-MEL1631 Water Licence.

Thus, the event was reported as due diligence and is not an exceedance under Part D Item 18 of the 2AM-MEL1631 Water Licence.

### **Description of Event**

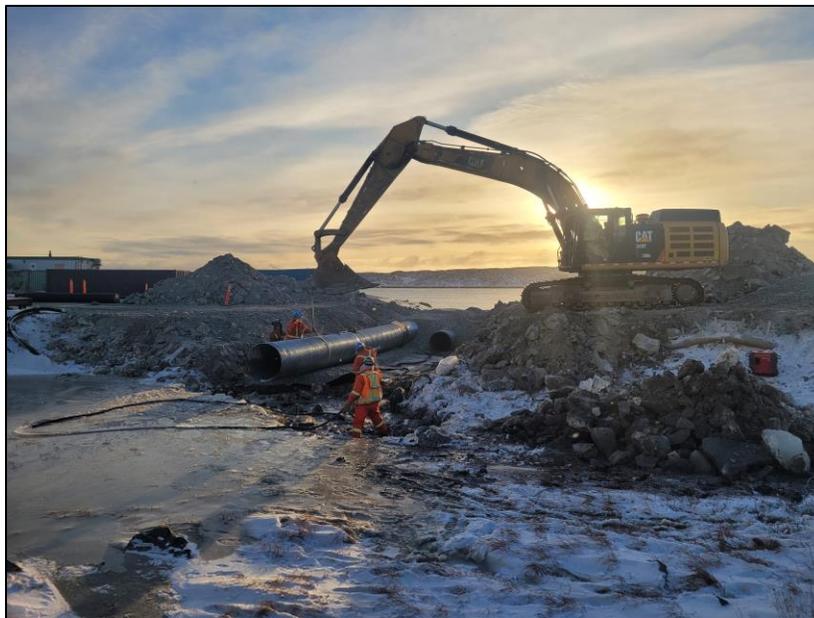
On November 4<sup>th</sup>, 2023, construction work was underway to replace two culverts at the Itivia laydown area which sustained damage following a significant rainfall event on June 7<sup>th</sup>, 2023. To

facilitate the placement of riprap on the upstream side of the partially installed culverts, an area of ice and soil was excavated, resulting in the upwelling of unfrozen water present beneath the ice.



**Figure 1:** MEL-SR-1 monitoring location.

A submersible pump was installed in the excavation upstream of the culverts to dewater the area, and the discharge stream was directed into one of the partially installed culverts (Figure 2). Approximately 6 m<sup>3</sup> of water was pumped from the excavation.



**Figure 2:** Dewatering of excavated area upstream of new Itivia culverts.

## Sampling Results

A water sample was collected from runoff at station MEL-SR-1, downstream of the culverts (Figure 3), November 4<sup>th</sup>. The sample was brought back to the mine site and measured for turbidity, yielding a reading of 69.7 NTU. The sample was internally analyzed for TSS at the mine site Assay Laboratory and results reported a TSS concentration of 43.5 mg/L, well below the 100 mg/L-TSS effluent quality limit identified in Part D, Item 18 of the Licence.

An assessment of a TSS to turbidity ratio was conducted specific to the composition of water present at the MEL-SR-1 station. Using pairs of field turbidity readings and laboratory assessed TSS concentrations for historic sample events at MEL-SR-1 and MEL-SR-7 (these stations represent a similar flow path), a linear rating curve was established to estimate TSS concentration from an input turbidity measurement. Using the rating curve, the November 4<sup>th</sup> MEL-SR-1 measurement of 69.7 NTU resulted in an approximate TSS concentration of 42.5 mg/L.

As shown in Table 1, the results of both assessment methods have a low percent difference, providing confidence that the runoff at MEL-SR-1 did not exceed the TSS effluent quality limit identified in Part D, Item 18 of the Licence.



# AGNICO EAGLE

## MELIADINE

**Table 1:** Results from internal analysis of November 4<sup>th</sup> sample.

Assessment Method	Total Suspended Solids (mg/L)
Assay Lab	43.5
TSS:Turbidity Relationship*	42.5
% Difference	2.3 %

\* TSS calculation of 69.7 NTU from TSS:Turbidity rating curve, derived from historic MEL-SR-1 + MEL-SR-7 data.

On November 5<sup>th</sup>, a sample was collected for analysis of group 1 parameters at monitoring station MEL-SR-1, per table 2 of the Licence.

Laboratory analytical results for the MEL-SR-1 sample reported a concentration of 14 mg/L TSS, which is below the TSS effluent quality limit listed under Part D Item 18 of the 2AM-MEL1631 Water Licence.



**Figure 3:** Discharge of pump dewatering downstream of Itivia culverts.

## Sedimentation Controls

As per the Sediment and Erosion Management Plan, mitigation measures were installed to control potential sedimentation issues prior to further dewatering of the sump upstream of the culverts.

On November 5<sup>th</sup>, 2023, a sediment dewatering bag was installed on the end of the pump discharge hose, and straw and woodchip wattles were installed downstream of the culvert prior to resuming dewatering (Figure 4).



**Figure 4:** Sediment dewatering bag and straw/wood chip wattles installed downstream.

Following the resumption of pumping, a series of turbidity measurements were collected at MEL-SR-1, downstream of the culverts, and their results are indicative of efficient sedimentation control measures.

**Table 2:** Turbidity readings of November 5<sup>th</sup> monitoring.

Time (November 5 <sup>th</sup> )	Turbidity (NTU)
09:44	29.6
09:58	22.7
10:13	9.38



# AGNICO EAGLE

MELIADINE

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Alexandre Langlais-Bourassa, M.Sc. Biol.** | Environment Coordinator  
[alexandre.langlais-bourassa@agnicoeagle.com](mailto:alexandre.langlais-bourassa@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,  
Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



**AGNICO EAGLE**  
MELIADINE

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## **Appendix A – Certificate of Analysis**



Bureau Veritas - Partial/Rush Results

Your P.O. #: 1253250  
Site Location: MELIADINE  
Your C.O.C. #: n/a

**Attention: Reporting**

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

**Report Date: 2023/11/14**  
Report #: R7910701  
Version: 1 - Partial

**CERTIFICATE OF ANALYSIS – PARTIAL RESULTS**

**BUREAU VERITAS JOB #: C3Z1334**

**Received: 2023/11/08, 10:00**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2023/11/10	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2023/11/11	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2023/11/10	CAM SOP-00463	SM 23 4500-Cl E m
Fluoride	1	2023/11/09	2023/11/10	CAM SOP-00449	SM 24 4500-F C m
Mercury (low level)	1	2023/11/13	2023/11/13	CAM SOP-00453	EPA 7470 m
Total Ammonia-N	1	N/A	2023/11/10	CAM SOP-00441	USGS I-2522-90 m
Total Oil and Grease	1	2023/11/12	2023/11/12	CAM SOP-00326	EPA1664B m,SM5520B m
pH	1	2023/11/09	2023/11/10	CAM SOP-00413	SM 24th - 4500H+ B
Orthophosphate	1	N/A	2023/11/10	CAM SOP-00461	SM 23 4500-P E m
Total Dissolved Solids	1	2023/11/09	2023/11/10	CAM SOP-00428	SM 23 2540C m
Total Phosphorus (Colourimetric)	1	2023/11/09	2023/11/10	CAM SOP-00407	SM 23 4500-P I
Low Level Total Suspended Solids	1	2023/11/10	2023/11/13	CAM SOP-00428	SM 23 2540D m
Turbidity	1	N/A	2023/11/09	CAM SOP-00417	SM 23 2130 B m

**Remarks:**

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

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

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

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



Bureau Veritas - Partial/Rush Results

Your P.O. #: 1253250  
Site Location: MELIADINE  
Your C.O.C. #: n/a

**Attention: Reporting**

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

**Report Date: 2023/11/14**  
Report #: R7910701  
Version: 1 - Partial

**CERTIFICATE OF ANALYSIS – PARTIAL RESULTS**

**BUREAU VERITAS JOB #: C3Z1334**

**Received: 2023/11/08, 10:00**

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

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

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

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

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to:

Katherine Szozda, Project Manager  
Email: Katherine.Szozda@bureauveritas.com  
Phone# (613)274-0573 Ext:7063633

=====

Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



BUREAU  
VERITAS

Bureau Veritas Job #: C3Z1334  
Report Date: 2023/11/14

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: MM

### RESULTS OF ANALYSES OF WATER

<b>Bureau Veritas ID</b>		XNY545		
<b>Sampling Date</b>		2023/11/05 09:45		
<b>COC Number</b>		n/a		
	<b>UNITS</b>	<b>MEL-SR1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	290	1.0	9038716
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	1.1	1.0	9038716
<b>Inorganics</b>				
Total Ammonia-N	mg/L	3.8	0.050	9040409
Total Dissolved Solids	mg/L	3530	10	9040888
Fluoride (F <sup>-</sup> )	mg/L	0.17	0.10	9041103
Orthophosphate (P)	mg/L	<0.010	0.010	9040999
pH	pH	7.62		9041107
Total Phosphorus	mg/L	0.059	0.020	9041080
Total Suspended Solids	mg/L	14	2	9042133
Turbidity	NTU	5.1	0.1	9039791
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	290	1.0	9041099
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	1500	20	9040995
<b>Petroleum Hydrocarbons</b>				
Total Oil & Grease	mg/L	0.80	0.50	9044998
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Bureau Veritas - Partial/Rush Results



BUREAU  
VERITAS

Bureau Veritas Job #: C3Z1334  
Report Date: 2023/11/14

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: MM

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

<b>Bureau Veritas ID</b>		XNY545		
<b>Sampling Date</b>		2023/11/05 09:45		
<b>COC Number</b>		n/a		
	<b>UNITS</b>	<b>MEL-SR1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Mercury (Hg)	mg/L	<0.00001	0.00001	9046051
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Bureau Veritas - Partial/Rush Results



BUREAU  
VERITAS

Bureau Veritas Job #: C3Z1334  
Report Date: 2023/11/14

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: MM

### GENERAL COMMENTS

Sample XNY545 [MEL-SR1] : TSS analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

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

Bureau Veritas - Partial/Rush Results



BUREAU  
VERITAS

Bureau Veritas Job #: C3Z1334  
Report Date: 2023/11/14

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: MM

### QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	9039791	LKI	Spiked Blank	Turbidity	2023/11/09		101	%	80 - 120
	9039791	LKI	Method Blank	Turbidity	2023/11/09	<0.1		NTU	
	9039791	LKI	RPD	Turbidity	2023/11/09	6.5		%	20
	9040409	KPJ	Matrix Spike	Total Ammonia-N	2023/11/10		104	%	75 - 125
	9040409	KPJ	Spiked Blank	Total Ammonia-N	2023/11/10		104	%	80 - 120
	9040409	KPJ	Method Blank	Total Ammonia-N	2023/11/10	<0.050		mg/L	
	9040409	KPJ	RPD	Total Ammonia-N	2023/11/10	NC		%	20
	9040888	RTB	Spiked Blank	Total Dissolved Solids	2023/11/10		95	%	90 - 110
	9040888	RTB	Method Blank	Total Dissolved Solids	2023/11/10	<10		mg/L	
	9040888	RTB	RPD	Total Dissolved Solids	2023/11/10	13		%	20
	9040995	MJ1	Matrix Spike	Dissolved Chloride (Cl-)	2023/11/10		99	%	80 - 120
	9040995	MJ1	Spiked Blank	Dissolved Chloride (Cl-)	2023/11/10		103	%	80 - 120
	9040995	MJ1	Method Blank	Dissolved Chloride (Cl-)	2023/11/10	<1.0		mg/L	
	9040995	MJ1	RPD	Dissolved Chloride (Cl-)	2023/11/10	NC		%	20
	9040999	MJ1	Matrix Spike	Orthophosphate (P)	2023/11/10		92	%	75 - 125
	9040999	MJ1	Spiked Blank	Orthophosphate (P)	2023/11/10		95	%	80 - 120
	9040999	MJ1	Method Blank	Orthophosphate (P)	2023/11/10	<0.010		mg/L	
	9040999	MJ1	RPD	Orthophosphate (P)	2023/11/10	NC		%	20
	9041080	MUM	Matrix Spike [XNY545-06]	Total Phosphorus	2023/11/10		109	%	80 - 120
	9041080	MUM	QC Standard	Total Phosphorus	2023/11/10		107	%	80 - 120
	9041080	MUM	Spiked Blank	Total Phosphorus	2023/11/10		104	%	80 - 120
	9041080	MUM	Method Blank	Total Phosphorus	2023/11/10	<0.020		mg/L	
	9041080	MUM	RPD [XNY545-06]	Total Phosphorus	2023/11/10	3.4		%	20
	9041099	NGI	Spiked Blank	Alkalinity (Total as CaCO3)	2023/11/10		99	%	85 - 115
	9041099	NGI	Method Blank	Alkalinity (Total as CaCO3)	2023/11/10	<1.0		mg/L	
	9041099	NGI	RPD	Alkalinity (Total as CaCO3)	2023/11/10	1.5		%	20
	9041103	NGI	Matrix Spike	Fluoride (F-)	2023/11/10		99	%	80 - 120
	9041103	NGI	Spiked Blank	Fluoride (F-)	2023/11/10		102	%	80 - 120
	9041103	NGI	Method Blank	Fluoride (F-)	2023/11/10	<0.10		mg/L	
	9041103	NGI	RPD	Fluoride (F-)	2023/11/10	1.4		%	20
	9041107	NGI	Spiked Blank	pH	2023/11/10		102	%	98 - 103
	9041107	NGI	RPD	pH	2023/11/10	0.22		%	N/A
	9042133	RTB	Spiked Blank	Total Suspended Solids	2023/11/13		100	%	85 - 115
	9042133	RTB	Method Blank	Total Suspended Solids	2023/11/13	<1		mg/L	
	9042133	RTB	RPD	Total Suspended Solids	2023/11/13	8.0		%	20
	9044998	NSG	Spiked Blank	Total Oil & Grease	2023/11/12		98	%	85 - 115
	9044998	NSG	RPD	Total Oil & Grease	2023/11/12	0.25		%	25
	9044998	NSG	Method Blank	Total Oil & Grease	2023/11/12	<0.50		mg/L	
	9046051	MPJ	Matrix Spike	Mercury (Hg)	2023/11/13		106	%	75 - 125
	9046051	MPJ	Spiked Blank	Mercury (Hg)	2023/11/13		107	%	80 - 120
	9046051	MPJ	Method Blank	Mercury (Hg)	2023/11/13	<0.00001		mg/L	

Bureau Veritas - Partial/Rush Results



BUREAU  
VERITAS

Bureau Veritas Job #: C3Z1334  
Report Date: 2023/11/14

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: MM

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC									
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits	
9046051	MPJ	RPD	Mercury (Hg)	2023/11/13	2.8		%	20	
<p>N/A = Not Applicable</p> <p>Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.</p> <p>Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.</p> <p>QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.</p> <p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p> <p>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 &lt;= 2x RDL).</p>									

Bureau Veritas - Partial/Rush Results



BUREAU  
VERITAS

Bureau Veritas Job #: C3Z1334  
Report Date: 2023/11/14

Agnico-Eagle  
Site Location: MELIADINE  
Your P.O. #: 1253250  
Sampler Initials: MM

### VALIDATION SIGNATURE PAGE

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

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Cristina Carriere, Senior Scientific Specialist

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Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas - 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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>11-06-2023</b>	REPORT TIME <b>19:15</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>11-06-2023</b>	OCCURRENCE TIME <b>06:30</b>	<input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>		WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>		LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>		
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>		CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
	PRODUCT SPILLED <b>Sewage</b>		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>50 Liters</b>	U.N. NUMBER <b>N/A</b>	
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
	SPILL SOURCE <b>Lift station</b>		SPILL CAUSE <b>Human error</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>10</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>		DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>
	<b>K</b> ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>Sewage spilled onto the ground from a lift station port valve that was not fully closed. Sewage that was not frozen was removed with a vacuum truck. Frozen sewage material is to be removed with equipment and placed into the operational Landfarm.</b>  <b>The coordinates of the spill are 63 1'36.68"N, 92 12'44.33"W. No water bodies were impacted by this spill. The nearest natural water body (H5A) is 650 m northeast.</b>  <b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>John Baechler</b>	POSITION <b>Env Coordinator</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>Env General Superviso</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-860-1033</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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					

December 5th, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-464 – Release of 50 L of Sewage at the Meliadine Gold Mine**

On November 7<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email (spills@gov.nt.ca) of a spill of approximately 50 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63°1'36.68"N, 92°12'44.33"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

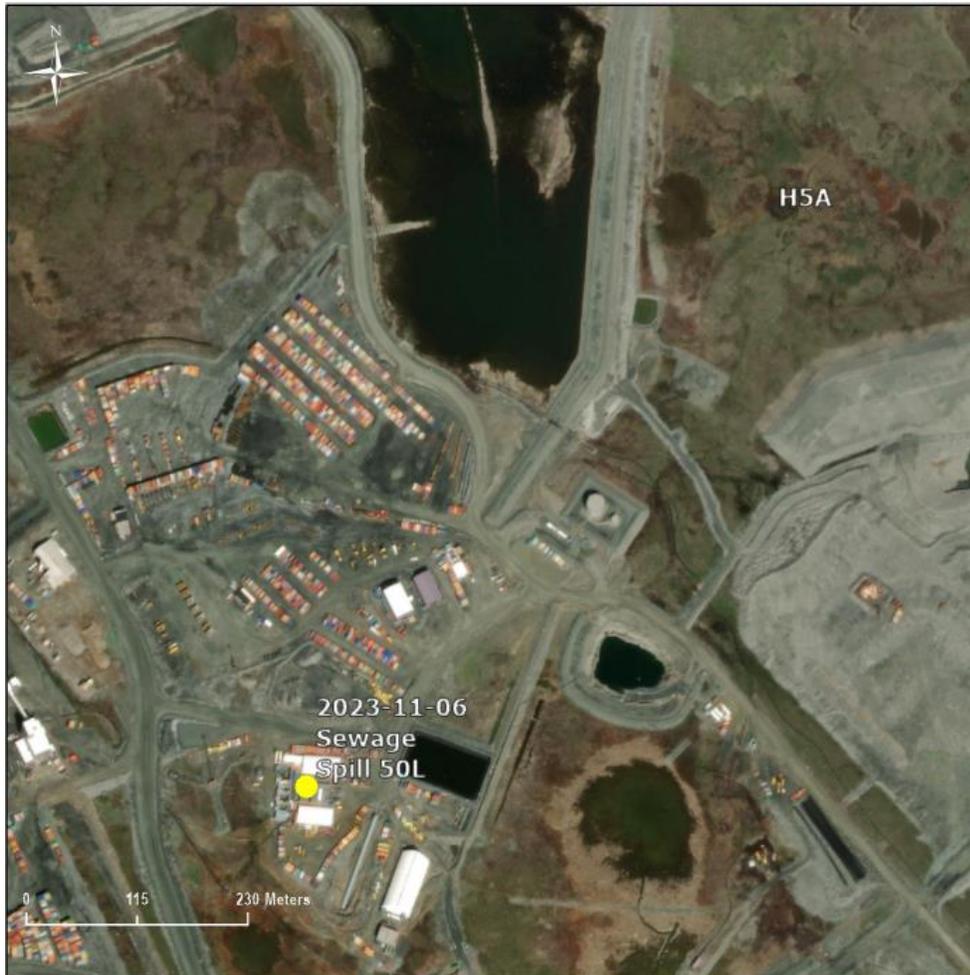
### **Description of Incident**

On November 6<sup>th</sup>, 2023, at approximately 06:30, an estimated 50 L of sewage was spilled onto the ground at the Orbit Garant holding tank. The facility was serviced but its valve was inadvertently left partially open, allowing for sewage to leak from the valve into the enclosure. No water bodies were impacted by this spill. The closest water body (Lake H5A) is approximately 650 m northeast, as seen in Figure 1.



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MELIADINE



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

Upon detection of the spill, a member of the Energy & Infrastructure (E&I) department closed the valve stopping the leak. Following this, E&I personnel used a vacuum truck to remove free liquid within the secondary containment and the ground surface. E&I personnel then hand-excavated the area to recover the contaminated material. Snowfall occurred later in the morning; a loader was utilized to perform a final scraping in the affected area. The material collected was transported to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- The spill occurrence was attributed to human oversight, specifically, the operators who last serviced the holding tank and removed sewage failed to secure the valve in the closed position.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- Staff were met by supervisors and reiterated the importance of having both operators working on the vacuum truck verify each other's work, reducing the likelihood of a future spill occurrence of this nature.
- The supervisors conveyed to the operators the importance of careful attention in their tasks, emphasizing the critical necessity of not rushing to complete tasks.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Alexandre Langlais-Bourassa, M.Sc. Biol.** | Environment Coordinator  
[alexandre.langlais-bourassa@agnicoeagle.com](mailto:alexandre.langlais-bourassa@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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## Appendix – Photos



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**Photos 1 & 2:** Sewage spill location.



**Photos 3:** Spill location post remediation.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>11-11-2023</b>	REPORT TIME <b>14:15</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>11-11-2023</b>	OCCURRENCE TIME <b>06:00</b>	<input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>			
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE	LONGITUDE			
	DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>	DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>			
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>			
	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>			
<b>H</b>	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>50 Liters</b>	U.N. NUMBER <b>N/A</b>		
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
<b>I</b>	SPILL SOURCE <b>Lift station</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES		
	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>		
<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS				
	<p><b>Sewage was released on the ground at the Orbit Lift Station, investigation currently on-going to determine the cause. Sewage that was not frozen was collected with a vacuum truck. Frozen material collected will be brought to Landfarm A, as per the Spill Contingency Plan.</b></p> <p><b>The coordinates of the spill are 63° 1'36.68"N, 92 12'44.33"W. No water bodies were impacted by this spill. The nearest natural water body (H5A) is 650 m northeast. Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b></p> <p><b>Reported by Randy Schwandt, Environment Coordinator, 819-759-3555 ext. 4603996, Randy.Schwandt@agnicoeagle.com.</b></p>				
<b>L</b>	REPORTED TO SPILL LINE BY <b>Randy Schwandt</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Kyle Conway</b>	POSITION <b>General Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-860-1033</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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					

December 6<sup>th</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-469 – Release of 50 L of Sewage at the Meliadine Gold Mine**

On November 11<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email (spills@gov.nt.ca) of a spill of approximately 50 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63°1'36.68"N, 92°12'44.33"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

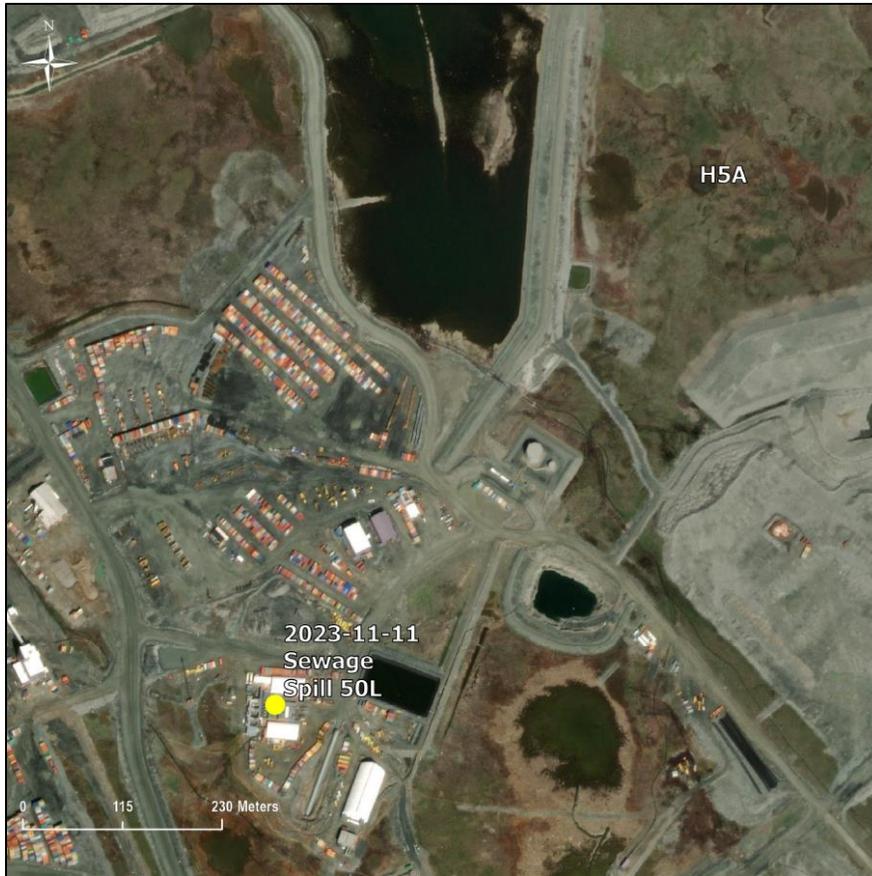
### **Description of Incident**

On November 11<sup>th</sup>, 2023, at approximately 06:00, an estimated 50 L of sewage was spilled onto the ground by Orbit Garant holding tank. The Energy and Infrastructure (E&I) department discovered a leak resulting from a malfunctioning valve. The closest water body (Lake H5A) is approximately 650 m northeast, as seen in Figure 1.



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**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

The leak was discovered by E&I personnel during a routine daily facility inspection. In response, a plumber was called to replace the malfunctioning valve and install a camlock cap as an additional precaution. Subsequently, E&I personnel hand-excavated the area to recover the contaminated material and transported the material to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- A broken valve caused the spill to occur.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- Secondary containment inside the Orbit holding tank to be replaced by the end of 2023 to increase holding capacity.
- Installation of camlock caps to all lift station and holding tank connections by the end of 2023 to prevent sewage from exiting the line in the event of a valve malfunction.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Alexandre Langlais-Bourassa, M.Sc. Biol.** | Environment Coordinator  
[alexandre.langlais-bourassa@agnicoeagle.com](mailto:alexandre.langlais-bourassa@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,  
Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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## **Appendix – Photos**



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**Photos 1:** Sewage spill location.



**Photos 2:** Spill location post remediation.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>11-30-2023</b>	REPORT TIME <b>13:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>11-29-2023</b>	OCCURRENCE TIME <b>14:30</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Mine</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>23</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>50</b>		
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>Unknown</b>	U.N. NUMBER <b>N/A</b>	
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
	SPILL SOURCE <b>Lift station</b>	SPILL CAUSE <b>Equipment Failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>Unknown</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>An unknown quantity of sewage spilled from wing 10 lift station, clean-up is being conducted. Ongoing investigation will confirm quantity of the sewage spilled and root cause.</b>  <b>The coordinates of the spill are 63°2'23.01"N, 92°13'50.20"W. No water bodies were impacted by this spill. The nearest natural water body (H5A) is 250 m northwest. Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow-up report will be issued after the investigation is completed.</b>  <b>Reported by Alexandre Langlais-Bourassa, Environment Coordinator, 819-759-3555 ext. 4603996, Alexandre.Langlais-Bourassa@agnicoeagle.com.</b>			
<b>L</b>	REPORTED TO SPILL LINE BY <b>A. L.-Bourassa</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>
	TELEPHONE <b>819-759-3555</b>			
<b>M</b>	ANY ALTERNATE CONTACT <b>Sara Savoie</b>	POSITION <b>General Supervisor</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT <b>Meliadine</b>
	ALTERNATE TELEPHONE <b>819-856-9349</b>	ALTERNATE CONTACT LOCATION		
REPORT LINE USE ONLY				
<b>N</b>	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				

December 28<sup>th</sup>, 2023

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-509 – Release of 4m<sup>3</sup> of Sewage at the Meliadine Gold Mine**

On November 29<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email (spills@gov.nt.ca) of a spill of an unknown quantity of sewage at the Meliadine Gold Mine site (spill location coordinates: 63°2'23.01"N, 92°13'50.20"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On November 29<sup>th</sup>, 2023, at 13:00, approximately 4m<sup>3</sup> of sewage was inadvertently released to the camp pad due to a damaged sewage distribution line between the accommodations and the Wing 10 lift station. Snow accumulation caused a crack due to direct stress on the line. The nearest water body of water, Lake G2, is located about 250 m northwest as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

The leak was discovered by Energy & Infrastructure (E&I) personnel during snow removal activities after a recent blizzard event. An equipment operator immediately notified their supervisor of the leak and personnel were sent to assess and conduct the necessary repairs. Once the snow was removed and area was made accessible, the damaged section of the line was replaced, and an additional support bracket was installed in this location. Subsequently, E&I personnel excavated the area with a backhoe to recover sewage impacted snow and transported the material to Landfarm A as per the Spill Contingency Plan.

Temporary insulation was installed around the repaired section of the distribution line. A work order was created to complete the final insulation of the line and will be completed in the coming days.

### Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- Insufficient support beneath the sewage line.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- Installation of additional sewage line support brackets.
- Audit to be conducted on all the accommodation wing sewage distribution lines to determine if this risk is present elsewhere.
- Install a protective canopy over the lift station sewage intake and discharge lines to prevent snow accumulation on the infrastructure.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Alexandre Langlais-Bourassa, M.Sc. Biol.** | Environment Coordinator  
[alexandre.langlais-bourassa@agnicoeagle.com](mailto:alexandre.langlais-bourassa@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,  
Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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MELIADINE

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## **Appendix – Photos**



# AGNICO EAGLE

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**Photo 1:** Sewage spill location.



**Photo 2:** Spill location post snow removal.



**Photo 3:** Spill location post remediation.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>12-11-2023</b>	REPORT TIME <b>16:35</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR <b>12-11-2023</b>	OCCURRENCE TIME <b>12:30</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>		
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>10 Liters</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Sewage vacuum truck</b>	SPILL CAUSE <b>Human Error</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	

<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>During routine sewage collection, approximately 10L of residual sewage spilled onto the industrial pad while disconnecting the hose from a holding tank. The spill was contained to the local area. Clean-up activities were immediately undertaken.</b>  <b>The coordinates of the spill are 63° 1'21"N, 92°13'56"W. No water bodies were impacted by this spill. The nearest natural water body (B5) is 260 m west. Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b>  <b>Reported by Randy Schwandt, Environment Coordinator, 819-759-3555 ext. 4603996, Randy.Schwandt@agnicoeagle.com.</b>			
----------	--	--	--	--

<b>L</b>	REPORTED TO SPILL LINE BY <b>Randy Schwandt</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Alex Bourassa</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>

REPORT LINE USE ONLY					
<b>N</b>	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					

January 9th, 2024

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
XOC 0G0

*Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)*

**Re: Follow-up Report Spill #2023-518 – Release of 10 L of Sewage at the Meliadine Gold Mine**

On December 11<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 10 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 1'21''N, 92°13'56''W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

**Description of Incident**

On December 11<sup>th</sup>, 2023, at approximately 12:30, an estimated 10 L of sewage was spilled onto the industrial pad by the west exhaust raise. Residual sewage in vacuum truck transfer hose was released when disconnecting the hose from a wash car holding tank, resulting in the sewage spill. No water bodies were impacted by this spill. The closest water body (Lake B5) is approximately 260 m southwest, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

The operator of the vacuum truck contacted their supervisor and the Environment department soon after the spill event occurred. The Environment department promptly responded to the spill and upon arrival, the ground surface was hand excavated, and the recovered material was brought to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- The vacuum truck operator failed to fully empty the transfer hose prior to disconnecting the hose from the holding tank.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- The procedure was reviewed with sewage truck operator.
- Secondary containment (drip tray) will be used when disconnecting hose from holding tank.
- Assess the equipment for optimization opportunities to reduce the chances for human error.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Randy Schwandt** | Environment Coordinator  
[randy.schwandt@agnicoeagle.com](mailto:randy.schwandt@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,  
Canada X0C 0G0  
[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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## Appendix – Photos



# AGNICO EAGLE

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**Photo 1:** Sewage spill location.



**Photo 2:** Spill location post remediation.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>12-11-2023</b>	REPORT TIME <b>16:35</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR <b>12-11-2023</b>	OCCURRENCE TIME <b>11:30</b>	<input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>		WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>		LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>		
	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>H</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>		CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>10 Liters</b>	U.N. NUMBER <b>N/A</b>		
<b>H</b>	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>		
	SPILL SOURCE <b>Wing 4 lift station</b>	SPILL CAUSE <b>Power failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1</b>		
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>		DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS				
<b>K</b>	<b>Approximately 10 L of sewage spilled onto the industrial pad at the Wing 4 lift station due to a local power failure. The spill was contained to the local area. Clean-up activities were immediately undertaken.</b>				
	<b>The coordinates of the spill are 63° 2'24"N, 92°13'45"W. No water bodies were impacted by this spill. The nearest natural water body (G2) is 220 m north.</b>				
	<b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b>				
<b>Reported by Randy Schwandt, Environment Coordinator, 819-759-3555 ext. 4603996, Randy.Schwandt@agnicoeagle.com.</b>					
<b>L</b>	REPORTED TO SPILL LINE BY <b>Randy Schwandt</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
	ANY ALTERNATE CONTACT <b>Alex Bourassa</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>
<b>REPORT LINE USE ONLY</b>					
<b>N</b>	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					

January 8th, 2024

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-517 – Release of 10 L of Sewage at the Meliadine Gold Mine**

On December 11<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email (spills@gov.nt.ca) of a spill of approximately 10 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 2' 24"N, 92° 13' 45"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On December 11<sup>th</sup>, 2023, at approximately 11:30, an estimated 10 L of sewage was spilled onto the industrial pad at the wing 4 lift station. Due to a site power outage, the transfer pump did not engage allowing the lift station holding tank to overflow. No water bodies were impacted by the spill. The closest water body (Lake G2) is approximately 220 m northwest, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

Once power was restored, the environment department conducted an inspection of the site sewage system. During this inspection, an employee observed the presence of sewage outside the wing 4 lift station enclosure. Upon further inspection, the secondary containment was observed to be full and had overflowed. In response, a vacuum truck was dispatched to pump out the sewage that accumulated in the lift station secondary containment. The ground surface was hand excavated, and the recovered material was brought to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- A site wide power outage resulted in the wing 4 lift station losing power and overflowing. Washrooms and laundry machines in wing 4 were in use at the time of the power outage. The water and sewage generated exceeded the capacity of the lift station holding tank.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- In the event of a power outage the water supply at the camp accommodation wings will be immediately shut off to prevent lift station overflows from occurring. This will also provide the Energy and Infrastructure department adequate time to systematically inspect and bring sewage system back online.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Randy Schwandt** | Environment Coordinator  
[randy.schwandt@agnicoeagle.com](mailto:randy.schwandt@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,  
Canada X0C 0G0

[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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MELIADINE

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## Appendix – Photos



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**Photo 1:** Sewage spill location.



**Photo 2:** Spill location post remediation.



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

<b>A</b>	REPORT DATE: MONTH – DAY – YEAR <b>12-13-2023</b>	REPORT TIME <b>14:00</b>	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
<b>B</b>	OCCURRENCE DATE: MONTH – DAY – YEAR <b>12-13-2023</b>	OCCURRENCE TIME <b>12:15</b>		
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE) <b>KVPL11D01</b>	WATER LICENCE NUMBER (IF APPLICABLE) <b>2AM-MEL1631</b>		
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION <b>Meliadine Gold Project</b>	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
<b>E</b>	LATITUDE DEGREES <b>63</b> MINUTES <b>2</b> SECONDS <b>21</b>	LONGITUDE DEGREES <b>92</b> MINUTES <b>13</b> SECONDS <b>41</b>		
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME <b>Agnico Eagle Mines Ltd.</b>	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION <b>Meliadine, Rankin Inlet, Nunavut, X0C 0G0</b>		
<b>G</b>	ANY CONTRACTOR INVOLVED <b>N/A</b>	CONTRACTOR ADDRESS OR OFFICE LOCATION <b>N/A</b>		
<b>H</b>	PRODUCT SPILLED <b>Sewage</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>5 Liters</b>	U.N. NUMBER <b>N/A</b>	
	SECOND PRODUCT SPILLED (IF APPLICABLE) <b>N/A</b>	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES <b>N/A</b>	U.N. NUMBER <b>N/A</b>	
<b>I</b>	SPILL SOURCE <b>Mill lift station</b>	SPILL CAUSE <b>Pump failure</b>	AREA OF CONTAMINATION IN SQUARE METRES <b>1</b>	
<b>J</b>	FACTORS AFFECTING SPILL OR RECOVERY <b>None</b>	DESCRIBE ANY ASSISTANCE REQUIRED <b>N/A</b>	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT <b>N/A</b>	

<b>K</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <b>Approximately 5 L of sewage spilled onto the industrial pad at the Mill lift station due to a pump failure. The spill was contained to the local area. Clean-up activities were immediately undertaken.</b>  <b>The coordinates of the spill are 63° 2'16"N, 92°13'35"W. No water bodies were impacted by this spill. The nearest natural water body (G2) is 500 m northwest.</b> <b>Pursuant to Part H, Item 8c of water license 2AM-MEL1631, a follow up report will be issued after the investigation is completed.</b>  <b>Reported by Randy Schwandt, Environment Coordinator, 819-759-3555 ext. 4603996, Randy.Schwandt@agnicoeagle.com.</b>			
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<b>L</b>	REPORTED TO SPILL LINE BY <b>Randy Schwandt</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	LOCATION CALLING FROM <b>Meliadine</b>	TELEPHONE <b>819-759-3555</b>
<b>M</b>	ANY ALTERNATE CONTACT <b>Alex Bourassa</b>	POSITION <b>Environment Coord.</b>	EMPLOYER <b>AEM</b>	ALTERNATE CONTACT LOCATION <b>Meliadine</b>	ALTERNATE TELEPHONE <b>819-759-3555</b>

REPORT LINE USE ONLY

<b>N</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
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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
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AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

January 9th, 2024

Kyle Amsel  
Water Resource Officer  
Kivalliq Region, Field Operations Unit  
Crown-Indigenous Relations and Northern Affairs Canada  
Rankin Inlet, NU  
X0C 0G0

Sent via email: [Kyle.Amsel@rcaanc-cirnac.gc.ca](mailto:Kyle.Amsel@rcaanc-cirnac.gc.ca)

## **Re: Follow-up Report Spill #2023-520 – Release of 5 L of Sewage at the Meliadine Gold Mine**

On December 13<sup>th</sup>, 2023, the Nunavut Spill Line was notified by Agnico Eagle personnel via email ([spills@gov.nt.ca](mailto:spills@gov.nt.ca)) of a spill of approximately 5 L of sewage at the Meliadine Gold Mine site (spill location coordinates: 63° 2' 16"N, 92° 13' 35"W). This follow-up report provides supplemental information based on the results of the incident assessment and is being provided in accordance with:

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

### **Description of Incident**

On December 13<sup>th</sup>, 2023, at approximately 12:15, an estimated 5 L of sewage was spilled onto the industrial pad at the mill lift station. The transfer pump failed to empty the lift station holding tank, resulting in sewage overflowing and causing the spill. No water bodies were impacted by this spill. The closest water body (Lake G2) is approximately 500 m northwest, as seen in Figure 1.



**Figure 1:** Location of the sewage spill and proximity to water bodies.

## Response and Remediation

An electrician working in the area observed the lift station alarm. The employee is familiar with the lift station infrastructure and in response, they manually initiated the backup pump to draw down the sewage level and prevent further spillage. The employee observed the presence of sewage effluent outside the lift station enclosure and immediately contacted the environment department. The ground surface was hand excavated, and the recovered material was brought to Landfarm A as per the Spill Contingency Plan.

## Root Cause and Corrective Measures

An incident assessment was conducted soon after the incident occurred to determine the root cause and contributing factors. The assessment concluded with the following:

- A blockage in pump 1 caused the pump to fail. Although the pump intake was blocked, the pump was still running which did not signal pump 2 to engage.

The following corrective and preventative actions have been implemented to address the root cause and to reduce the likelihood of reoccurrence:

- The electrical department installed a “high-high” level sensor at the mill lift station. If this sensor is triggered both pumps will engage to draw down the sewage level within the holding tank.
- The installation of a stronger audible/visual alarm is planned to be installed on the exterior of the lift station in the coming weeks.

Should you have any questions or require further information, please do not hesitate to contact the undersigned.



**Randy Schwandt** | Environment Coordinator  
[randy.schwandt@agnicoeagle.com](mailto:randy.schwandt@agnicoeagle.com) | Direct 819.759.3555 x4603996 |  
Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,  
Canada X0C 0G0

[agnicoeagle.com](http://agnicoeagle.com)       
Sent from Meliadine



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## Appendix – Photos



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**Photo 1:** Sewage spill location.



**Photo 2:** Spill location post remediation.