



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Agnico Eagle Gold Mines Limited		David Frenette	
Licence No. / Expiry		Representative's Title	
2BE-MEA1318/ March 6 th , 2018		Environmental Coordinator	
Land Authorization No. / Purpose / Expiry		Other Authorization	
N2013F0030/ Winter trail/ April 15 th ,2016		Amendments No. 1 and No. 2	
Date of Inspection		Inspector	
October 20th, 2015		WRO Wilson	
Activities Inspected			
<input checked="" type="checkbox"/> Camp <input checked="" type="checkbox"/> Drilling <input type="checkbox"/> Mining <input checked="" type="checkbox"/> Construction <input type="checkbox"/> Reclamation <input type="checkbox"/> Fuel Storage			
<input checked="" type="checkbox"/> Roads/Hauling <input checked="" type="checkbox"/> Other: Water Discharge <input type="checkbox"/> Other:			

Conditions:	A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected			
Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management	Condition	Comment
Intake/Screen	A	1	Water Management Structures	C	8.c	Storage	NA	--
Flow Measure. Device	A	2	Culverts / Bridges	A	9	Spills	A	10
Source: Whale Lake	A	1	Drainage	C	8.b	Spill Plan	A	11
Recirculation (y /n)	N	3	Mitigation Measures	NI	4.a	Administrative		
Waste Disposal			Signage	A	13	Plans	C	6.a, 7
Solid Waste	NI		Monitoring			Other		
Waste Water	A	14.a	Sample Collection / Analysis	A	14	Notice	U	15
*The number in the comments field will correspond with specific comments provided below.								
Samples taken by Inspector:			Location(s): MEA -1 (Amendment No. 2) Effluent discharge from bionest Parameter(s): BOD ₅ , pH, faecal coliforms, and oil and grease. Results: Meeting the licenced criteria					
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								

SECTION 1	<input checked="" type="checkbox"/> Comments (s.1)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.___)	<input type="checkbox"/> Action Required (s.___)
<p>Agnico Eagle Mines Limited (AEM), Meadowbank Exploration Project’s water licence No. 2BE-MEA1318 was amended on July 31st, 2014 for use at the Amaruq Project (formally referred to as the IVR camp) located at N 65° 24’ 36”, W 96° 41’ 41” (photo 6). The Licence was amended a second time on February 27th, 2015 to include; an increase in water use for drilling, the installation of a waste water treatment plant (bionest) at the Amaruq camp, development and operation of a quarry and road construction.</p> <p>On October 20th, 2015 a compliance inspection was completed by Aboriginal Affairs and Northern Development Canada’s Water Resource Officer (WRO), Christine Wilson with the assistances of AEM’s Environmental Coordinator, David Frenette.</p> <p>This report was produced with the follow up information from the July 2015 inspection report and the findings from the October 20th- 21st inspection.</p> <p>Observations</p> <p>At the time of inspection the temperature was below freezing. The camp was entering into seasonal skeleton crew. Approximately 40 staff onsite which would reduce to 10 until the spring drilling campaign.</p> <p><i>Water Use</i></p> <div><div>1.</div><div>The camp utilizes one intake for direct water use from Whale Lake at N65° 24’ 09.1”, W96° 41’ 04.9”. The water is drawn as needed using a hose that is equip with a screen.</div></div> <div><div>2.</div><div>AEM meters direct water use at two locations; one meter in the core shack and one meter in the water treatment area.</div></div> <div><div>3.</div><div>The water intake line is heat traced which eliminates the need to recirculate during freezing conditions and reduces the overall water usage.</div></div> <p><i>Waste Water</i></p> <div><div>4.</div><div>The camp discharges approximately 7 m³/ day of effluent through the bionest. The discharge location has been moved to a rocky area to avoid erosion with in the camp interior (photo 1).<div><div>a.</div><div>The inspector request AEM to consider erosion mitigation measure for this new location. As effluent quantities increase erosion at this location should be anticipated.</div></div></div></div> <div><div>5.</div><div>In July AEM notified the inspector that the bionest effluent failed to meet licenced criteria for MEA-1. AEM shut down, cleaned and restarted the facility.<div><div>a.</div><div>Sewage waste from both the 40’ and 20’ bionest was directed to plastic oil totes.</div></div><div><div>b.</div><div>AEM indicated that the totes are to be temporarily stored onsite until an appropriate disposal method is determined (photo 2). AEM has committed to disposing of the raw sewage totes within a year from July 2015.</div></div></div></div> <p><i>Camps, Access Infrastructure, and Operations</i></p> <div><div>6.</div><div>AEM submitted the “Amaruq WWTP Management Plan” as required in part E item 6.<div><div>a.</div><div>A copy of this document was reviewed by the Inspector; it was noted incomplete and failing to meet the minimum requirements as detailed in part E item 6 - specifically the section addressing emergency procedures.</div></div></div></div> <div><div>7.</div><div>Materials extracted from quarry no. 7 have been used in the construction of the road and culverts.<div><div>a.</div><div>A copy of the “Quarry Management Plan” as discussed in Part E item 7, was not available on the Nunavut Water Board FTP site, for review by the inspector.</div></div></div></div> <div><div>8.</div><div>AEM has constructed a temporary catchment for drill cuttings from the core cutting shack (photo 3).<div><div>a.</div><div>The area around the catchment is covered with ice and cuttings.</div><div><div>b.</div><div>The inspector is concerned that cuttings/ cuttings water will be transported, during periods of flow, into the nearby water body.</div><div><div>c.</div><div>The inspector is concerned the structure is not sufficient for its purpose. Part E item 11 speaks to containment structures being</div></div></div></div></div></div>			

constructed and maintained in such a way to prevent escape of waste to the surface water system.

9. The road to quarry no. 7 has been completed for use. A total of four culverts were installed across the water way (photo 4).
- a. AEM informed the inspector that construction was not completed this fall as anticipated; the south side of the culverts system was not covered with rip-rap. A construction summary report as required in part E item 8 will be submitted within 90 days once completed.

b. The inspector was concerned that the lack of guard stone on the downstream side of the structure allows for a greater potential of erosion and sedimentation into the water way.

c. The inspector requests all information collected during the inspection and maintenance program as required in part J item 14 and 15 be recorded and made available for review upon request.

Spills

10. On August 6th, 2015 approximately 1500 L of diesel fuel was spilled to the ground near the fuel tank farm. The spill was caused by a poorly connected hose coupling during a fuel transfer.
- a. As a result of the spill, a large amount of contaminated soil is being stored temporarily onsite. AEM also indicated, as the remediation continues in 2016 they expect to uncover more contaminated soil.

b. The soil is being stored on a HDPE liner and tarped to protect it from the elements.

c. AEM had committed to determining resolution of this material before year end of 2016.
11. AEM has lined the maintenance garage and the drilling contractor’s garage to prevent spills generated through maintenance activities.

Drilling

12. The drilling program finished on Oct 14th.

Monitoring

13. AEM has installed signage at the sampling station MEA-1 (photo 5).
14. The inspector sampled at sampling station MEA-1 for the parameters found in the licence.
- a. The samples were found to meet the criteria as identified in part E item 13.

SECTION 2

☐ Comments (s.__)

☒ Non-Compliance with Act or Licence (s.2)

☐ Action Required (s.__)

Part D item 11- Failure to provide ten (10) day notification to the inspector prior to initiating release of effluent from the Waste Water Treatment system (bionest).

Part D item 11;

“The Licensee shall provide at least ten (10) days notification to an inspector, prior to initiating the release of effluent from any facility in this Part. The notice shall include water quality results, an estimate of volume and proposed receiving discharge location.”

This will be the second time AEM has failed to provide notification though reminded in the closing remarks of the July 2015 report and in person during the July 2015 inspection. The notification is required for all facilities found in part D of the current licence. This condition allows the inspector the opportunity to sample waste water prior to release to the environment and in turn verify the information provided by the Licensee.

If at any time clarification is needed on the terms and conditions of this licence or on a request that was made by the inspector, the Licensee must direct all compliance questions to the inspector.

SECTION 3

☐ Comments (s.__)

☐ Non-Compliance with Act or Licence, (s.__)

☒ Action Required (s.3)

- AEM shall submit with the 2015 annual report a complete and revised version of the Amaruq WWTP Management Plan.
- AEM shall submit a copy of the Quarry Management Plan to the inspector before March 31st, 2016
- AEM shall provide a response to the failure to comply, addressed above, to the inspector before November 30th, 2015
- The Inspector requests a brief summary of activities planned at the Amaruq Project until April 2016 before November 30th, 2015.
- The Inspector request baseline sampling from Whale Lake and the stream adjacent to the camp before November 30th, 2015. If this information is not available the inspector would request a response before November 30th, 2015.
- The Inspector requests a map of the Amaruq camp as it relates to water use and waste disposal.
- The Inspector request AEM to complete additional monitoring as provided in part E item 16. The Licensee shall submit to the inspector for review the first set of monthly samples taken pursuant to part E item 14.

Licensee or Representative	Inspector’s Name
	C. Wilson
Signature	Signature
	Sent by e-mail
Date	Date
	October 29 th , 2015

Office Use Only:

Follow-up report to be issued by Inspector

☐ Yes ☒ No

Attached: 2BE-MEA1318, Photo log October 20th-21st, 2015 Inspection
cc. Erik Allain, Manager Field Operations, AANDC
David Frenette, Environmental Coordinator, AEM

Note: All coordinate information is reported in NAD83 DD.MM.SS



PHOTO LOG

Date:	Authorization Number:	Camera/Model:	Inspector
October 20th-21st, 2015	2BE-MEA1318	Sony DSC-HX50V Cyber shot	WRO Wilson
Photo No.		Lat/Long (DD.MM.SS.SS, NAD83)	
Photo 1		N 65° 24' 12.046" W 96° 40' 50.09"	



Description:
Effluent discharge from bionest

Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 2	NA



Description:
Raw sewage totes



Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 3	N 65° 24' 12.43" W96° 40' 45.329"



Description: Red Circle- Core cutting catchment area Red Arrow- Extent of ice cover	
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Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 4	N65° 24' 17.74", W96° 40' 44.18"



Description: Culverts for road construction to quarry no. 7	
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Photo No.
Photo 5

Lat/Long (DD.MM.SS.SS, NAD83)
N65° 24' 10.2" W 96° 41' 0.81"



Description:
Photo taken on October 21st, 2015 – signage at sampling station MEA-1

Photo No.
Photo 6

Lat/Long (DD.MM.SS.SS, NAD83)
NA



Description:
Photo taken October 21st, 2015 - Overview reference



Aboriginal Affairs and
Northern Development Canada

Affaires autochtones et
Développement du Nord Canada