July 28th, 2021

Emily Koide
Technical Advisor I
Nunavut Impact Review Board
P.O. Box 1360 Cambridge Bay
Nunavut NU X0B 0C0

RE: Opportunity to Address Comments Received for Agnico Eagle Mines Limited's *Meliadine Gold Mine Project 2020 Annual Report*

Dear Mrs. Koide,

Agnico Eagle Mines Limited thanks the Nunavut Impact Review Board (NIRB) for the opportunity to address comments received for Agnico Eagle Mines Limited's Meliadine Gold Mine Project 2020 Annual Report.

The following information and comments are intended to address comments outlined in the below referenced letters.

210622-11MN034-ECCC Comments Re 2020 Annual Report-IA1E
210622-11MN034-CIRNAC Comments Re 2020 Annual Report-IA1E
210622-11MN034-GN Comments Re 2020 Annual Report-IA1E
210624-11MN034-KivIA Comments Re 2020 Annual Report-IA1E
210526-11MN034-TC Comments Re 2020 Annual Report-IA2E
210623-11MN034-DFO Comments Re 2020 Annual Report-IA1E

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

With my best regards,

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Environment and Climate Change Canada (ECCC)

ECCC-1 Monitored vs. Predicted Concentrations at CP1

Comment

Figures 3, 4, and 5 of the 2020 Annual Report depict the forecasted upper and lower modeled concentrations for a select group of parameters (total dissolved solids (TDS), total aluminum, and total ammonia) for life of mine and closure, as well as how monitoring data from 2019 and 2020 has aligned with these predictions. While the 2019 and 2020 values (predictions and monitoring) are within the y-axis of the figure, upper bound predictions beyond 2020 increase sharply each year and peak concentrations exceed the values presented on the graph. In addition, the report states that "concentrations of total aluminum and total ammonia are not expected to exceed monthly average or sample grab limits during the annual discharge season." However, measured concentrations of total ammonia in CP1 exceeded the maximum grab sample in 2020 (Figure 5) and the figures suggest that exceedances may be expected going forward. It is unclear whether these off the chart peak concentrations are in error and it is unclear what the predicted upper bound maximum concentrations may be going forward.

ECCC Recommendation(s)

ECCC recommends that:

> The Proponent clarify the predicted concentrations for TDS, total ammonia, and total aluminum presented in Figures 3, 4, and 5; and,
>
> All graphs are displayed on appropriate axis such that data is easily interpreted.

Agnico Eagle Answer

Within Figures 3, 4, and 5 of Section 3.2.2, the peaks observed on the graphs coincide with cryoconcentration occurring during winter months. As annual freeze-up occurs, dissolved constituents within CP1 water are mainly excluded from ice formation and thus concentrations in "under-ice" water increase as ice aggrades. The statement "concentrations of total aluminum and total ammonia are not expected to exceed monthly average or sample grab limits during the annual discharge season" made within the 2020 annual report refers to the concentrations within the discharge period and not winter months. As concentrations of ammonia, aluminum, and TDS are observed to remain below the monthly average and sample grab within the discharge window (generally June to October), the figures show that concentrations are expected to remain below allowable maximums. Moving forward, Agnico Eagle will more clearly identify on the figures when discharge is modelled to be occurring.

With respect to the peaks extending beyond the extent of the y-axis in Figures 3, 4, and 5 this is also due to cryoconcentration. As CP1 is planned to be dewatered each year, a relatively low depth and volume of water will be subject to cryoconcentration. Due to the low depth of water in

the pond in the winter months of the modelled years, the model forecasts high concentrations of constituents as the bottom of ice encroaches upon the bottom the pond. In other words, as the liquid portion of the pond becomes less and ice aggrades down to the bed of the pond, the concentration increases drastically in the liquid portion of the mostly frozen pond. It is worth noting that discharge would not be occurring at this time. The y-axis was not extended to capture these peaks because:

a) discharge would not be occurring,

b) the concentrations do not represent the bulk concentration (i.e., do not include ice volume in concentration calculation), and

c) the concentrations observed during discharge periods would be less easily read and interpreted if the y-axis were to be extended to capture the peaks.

ECCC-2 Exceedances of Guidelines

Comment

In discussing water quality in Meliadine Lake, the Proponent states that "if, as was observed in 2020, concentrations are well below aquatic life guidelines, there is a high degree of confidence that water in Meliadine Lake is safe for fish and other aquatic organisms living in the lake." However, the AEMP report indicates that there was one water quality guideline exceedance recorded at the near-field area for total copper in March.

ECCC Recommendations(s)

ECCC recommends that all action level exceedances and exceedances of guidelines are clearly described in the annual report with supporting rationale for potential causes of exceedances and whether additional actions are required.

Agnico Eagle Answer

The copper exceedance in question occurred during the under-ice sampling event in March. The total (unfiltered) concentration of copper measured was 2.21 µg/L. Copper concentrations in the other four samples collected on the same day measured between 1.04 and 1.24 µg/L. Looking specifically at the dissolved concentrations across all 5 samples and the ratio of dissolved Cu : total Cu, it's clear that the "exceedance" at MEL-01-06 is not representative of ambient copper concentrations in the MEL-01 sampling area during the winter period. A more detailed discussion of the freshwater aquatic life guideline for copper is provided as part of the response to ECCC-3.

Table 1. Copper concentrations in the March 2020 sample from MEL-01

Client Sample ID	MEL-01-01	MEL-01-06	MEL-01-07	MEL-01-08	MEL-01-09
Sample Date	3/21/2020	3/21/2020	3/21/2020	3/21/2020	3/21/2020
ALS Sample ID	L2432715-1	L2432715-2	L2432715-3	L2432715-4	L2432715-5
Total Cu	1.24	2.21	1.10	1.10	1.04
Dissolved Cu	1.22	1.07	1.13	1.06	1.05
Diss : Total	0.98	0.48	1.03	0.96	1.01

The single exceedance of the CCME long-term aquatic life guideline of 2 µg/L was flagged as a potential outlier, but not excluded from the dataset given the result was within the range of concentrations reported previously for Meliadine Lake and other lakes in the region. During the baseline period, twenty-nine (29) samples were collected from Meliadine Lake and the median concentration was 1.1 µg/L and the maximum concentration was 3.1 µg/L (Golder, 2014). A similar copper concentration (3.7 µg/L) was measured in Peter Lake during the winter sampling event in 1998, further demonstrating that copper can naturally exceed the hardness-dependent CCME water quality guideline in pristine areas where water is naturally soft. In short, there is no clear evidence to suggest the single exceedance at MEL-01 in March 2020 was related to activities at the mine.

ECCC-3 Low Action Level for Water Quality

Comment

The AEMP Report provides an analysis on whether the low action level for water quality has been achieved, and includes analysis of the following criteria:

- Has water quality in the near-field are changed relative to baseline/reference conditions;
- Is the concentration for a given parameters at near-field area MEL-01 greater than 75% of the AEMP benchmark; and,
- Is there evidence of a divergent trend over time in concentrations of a given parameters at the near-field compared to the reference area?

This analysis indicates that several parameters have changed relative to the normal range, and that several parameters have increased in the near-field area relative to baseline and reference conditions, but that no parameters exceeded the AEMP action level in 2020. However, as depicted in Appendix C2, several parameters did exceed the water quality action level (75% of the AEMP benchmark) in the 2020 monitoring period, including:

- Total phosphorus (Figure C2-23);
- Total copper (Figure C2-36); and,
- Dissolved Zinc (Figure C2-54).

Although the overall median concentration for these parameters did not exceed the AEMP Action levels in order to trigger a full action level exceedance, several of these exceedances have occurred in multiple monitoring years and additional discussion and interpretation of data may be warranted.

ECCC Recommendations(s)

ECCC recommends that the Proponent provide acknowledgement and preliminary discussion for all exceedances of AEMP action levels for water quality.

Agnico Eagle Answer

ECCC correctly pointed out that there were individual samples that exceeded the Low Action Level (75% of the AEMP Benchmark) in 2020. Agnico Eagle agrees with the recommendation to "acknowledge and discuss" these individual exceedances in the annual report to provide clarity around whether the "exceedances" are related to activities at the mine or indicative of naturally variability in the study area Lakes (i.e., Meliadine Lake and the Peninsula Lakes). Agnico Eagle has prepared a response for each of the three parameters that were highlighted by ECCC.

Total Phosphorus

A detailed discussion of changes in total phosphorus concentrations in Meliadine Lake was provided in Section 6.4.2 (Context for Assessing Nutrient Enrichment) as part of the phytoplankton community assessment. The assessment included a discussion of the spatial and temporal variability of phosphorus concentrations in Meliadine Lake in relation to discharge of treated gray water and sewage (pre-2018) and surface contact water (2018 onward). One of the key observations of the total phosphorus concentration data in 2020 was the high degree of within-station variability for a given year. Figure C2-23 as well as Figure 6-5 show that five-fold differences among stations within an area (e.g., MEL-01) are not out of the ordinary and have been observed nearly every year since formal monitoring under the AEMP started in 2015. Furthermore, total phosphorus concentrations have periodically exceeded the Action Level (7.5 µg/L) at the reference areas dating back to 1997 (Figure C2-23). There was a clear trend of increasing total phosphorus in the East Basin of Meliadine Lake during the pre-construction phase before the main camp sewage treatment plant was commissioned in 2017. Since 2017, total phosphorus concentrations in MEL-01 have been declining, which isn't surprising given the overall reduction in phosphorus loading in 2018-2020 compared to 2016 and 2017.

Total Copper

The Action Level "exceedances" for total copper are attributable, in part, to the outdated CCME freshwater aquatic life guideline. The current AEMP Action Level for total copper of 1.5 µg/L is equal to 75% of the 1987 CCME hardness-dependent aquatic life guideline of 2 µg/L that applies to water with hardness less than 60 mg/L (as $CaCO_3$). Since the guideline was published in 1987, a substantial amount of research has been conducted on the bioavailability and toxicity of copper to aquatic life. In April 2021, ECCC published a Federal Water Quality Guideline (FWQG) for copper based on the biotic ligand model (BLM). The BLM takes into consideration site-specific

water quality parameters, including temperature, pH, dissolved organic carbon, and hardness and their potential to modify the bioavailability and toxicity of copper to aquatic organisms. The FWQG for copper applies to the dissolved rather than total (unfiltered) fraction for 3 important reasons:

a) dissolved copper is the most bioavailable form,

b) concentrations of total copper in Canadian surface waters can be affected by non-bioavailable mineral forms; and

c) most of the toxicity data used for deriving the guideline are based on exposures to dissolved copper.

A detailed overview of the copper BLM is provided in ECCC (2021).

To help aid interpretation of copper concentrations in Meliadine Lake relative to the new vs old copper guideline, the BLM tool was used to calculate a FWQG for all the samples collected from MEL-01 (near-field area) in 2020. Table 2 on the next page shows the input parameter concentrations for each sample from MEL-01. Table 3 shows the output of the BLM for each sample. The output shows the FWQG as the 5th percentile of the Species Sensitivity Distribution (SSD), as well as lower and upper confidence intervals (LCL and UCL) for each sample. For clarity and ease of interpretation, the AEMP Action Level for each sample was calculated and those values were added to Table 3 along with measured dissolved copper concentrations for each sample.

Table 2. Input parameters for calculating the copper BLM at MEL-01 in 2020

Station	**Date**	Temp	pH	DOC	HA	Ca	Mg	Na	K	SO4	Cl	Alkalinity
		°C	pH units	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MEL-01-01	3/21/2020	1	7.35	4.81	10	11.2	1.97	8.06	1.38	6.63	17.5	32.8
MEL-01-06	3/21/2020	1	7.33	4.61	10	11.3	1.95	7.99	1.43	5.87	15.1	33.1
MEL-01-07	3/21/2020	1	7.29	4.43	10	10.9	1.95	7.99	1.38	6.34	16.3	33.2
MEL-01-08	3/21/2020	1	7.27	4.42	10	11.1	1.92	7.71	1.36	6.23	16.3	32.6
MEL-01-09	3/21/2020	1	7.28	4.4	10	11.6	1.97	8.07	1.38	6.44	16.7	32.1
MEL-01-01	7/22/2020	5	7.34	3.4	10	8.9	1.73	8.98	1.13	5.64	17.8	21.6
MEL-01-06	7/22/2020	5	7.36	3.4	10	9.26	1.81	9.55	1.18	5.97	19.7	21.4
MEL-01-07	7/22/2020	5	7.38	3.4	10	8.94	1.7	8.67	1.12	5.56	17.7	20.9
MEL-01-08	7/22/2020	5	7.37	3.5	10	9.39	1.81	9.43	1.17	5.94	19.8	20.9
MEL-01-09	7/22/2020	5	7.39	3.8	10	8.82	1.71	8.87	1.13	5.6	17.9	20.7
MEL-01-01	8/15/2020	15	7.46	3.78	10	8.23	1.7	7.86	1.14	5.84	17.9	25
MEL-01-06	8/15/2020	15	7.45	3.56	10	8.36	1.67	7.59	1.12	5.8	17.9	25.1
MEL-01-07	8/15/2020	15	7.46	3.42	10	8.61	1.65	7.49	1.11	5.85	18	25.1
MEL-01-08	8/15/2020	15	7.45	3.73	10	8.71	1.65	7.48	1.12	5.81	17.9	24.8
MEL-01-09	8/15/2020	15	7.45	3.39	10	8.2	1.69	7.54	1.13	5.76	17.7	24.8
MEL-01-01	9/11/2020	8.5	7.37	3.22	10	8.95	1.81	7.78	1.2	5.43	16.8	25.3
MEL-01-06	9/11/2020	8.5	7.43	3.38	10	8.92	1.81	7.96	1.21	5.48	17	25.7
MEL-01-07	9/11/2020	8.5	7.43	3.13	10	8.81	1.82	7.78	1.2	5.54	17.2	25.3
MEL-01-08	9/11/2020	8.5	7.44	3.37	10	9.02	1.8	7.71	1.2	5.48	16.9	25

MEL-01-09	9/11/2020	8.5	7.45	3.19	10	8.77	1.79	7.82	1.19	5.46	16.8	25.7

HA = humic acid (default value = 10%)
The range of temperatures for the model are 8.5 to 27 °C.

Table 3. Output from BLM user tool and the corresponding AEMP Action Levels for each sample (75% of the FWQG)

Station	**Sample Date**	Best Distribution Model	Measured Diss Cu	AEMP Action Level	FWQG = AEMP Benchmark	LCL	UCL
			ug/L	ug/L	ug/L	ug/L	ug/L
MEL-01-01	3/21/2020	Log-Normal	1.22	2.53	3.37	3.01	3.77
MEL-01-06	3/21/2020	Log-Normal	1.07	2.35	3.14	2.80	3.51
MEL-01-07	3/21/2020	Log-Normal	1.13	2.12	2.83	2.53	3.17
MEL-01-08	3/21/2020	Log-Normal	1.06	2.04	2.72	2.42	3.04
MEL-01-09	3/21/2020	Log-Normal	1.05	2.09	2.79	2.49	3.12
MEL-01-01	7/22/2020	Log-Normal	0.83	1.84	2.45	2.19	2.74
MEL-01-06	7/22/2020	Log-Normal	0.83	1.93	2.57	2.30	2.88
MEL-01-07	7/22/2020	Log-Normal	0.85	1.92	2.57	2.29	2.87
MEL-01-08	7/22/2020	Log-Normal	0.79	2.01	2.68	2.39	2.99
MEL-01-09	7/22/2020	Log-Normal	0.84	2.21	2.94	2.63	3.29
MEL-01-01	8/15/2020	Log-Normal	0.80	2.33	3.11	2.78	3.47
MEL-01-06	8/15/2020	Log-Normal	0.76	2.13	2.84	2.55	3.18
MEL-01-07	8/15/2020	Log-Normal	0.83	2.06	2.75	2.46	3.07
MEL-01-08	8/15/2020	Log-Normal	0.83	2.23	2.97	2.66	3.31
MEL-01-09	8/15/2020	Log-Normal	0.81	2.03	2.70	2.42	3.02
MEL-01-01	9/11/2020	Log-Normal	0.90	1.73	2.30	2.06	2.57
MEL-01-06	9/11/2020	Log-Normal	0.83	1.98	2.64	2.37	2.95
MEL-01-07	9/11/2020	Log-Normal	0.86	1.82	2.43	2.17	2.71

MEL-01-08	9/11/2020	Log-Normal	0.81	1.98	2.65	2.37	2.96
MEL-01-09	9/11/2020	Log-Normal	0.84	1.91	2.54	2.28	2.84

FWQG = site-specific dissolved copper guideline corresponding to the 5th percentile of the species sensitivity distribution. LCL = lower confidence limit; UCL = upper confidence limit

As shown in Table 3, none of the samples from MEL-01 in 2020 exceeded the BLM FWQG or the corresponding sample-specific Action Levels. The lowest FWQG in 2020 was 2.30 µg/L, which corresponded to an Action Level of 1.73 µg/L. By comparison, the highest measured dissolved copper concentration in 2020 was 1.22 µg/L in March.

For the 2021 AEMP, the new FWQG (ECCC, 2021) for dissolved copper will likely be adopted as the AEMP Benchmark, replacing the CCME guideline for total copper. A similar approach was taken in 2020 with the new FWAL guideline for dissolved lead adopted as the AEMP Benchmark in place of the 1987 hardness-dependent CCME guideline.

Dissolved Zinc

Dissolved zinc concentrations have shown considerable spatial and temporal variability since monitoring under the AEMP started in 2015, particularly at MEL-01 and MEL-02 (Figure C2-54). Looking specifically at MEL-01, it's not uncommon for concentrations to differ among the replicate samples for a given sampling event by 5-fold or more. The first sampling event where this pattern was clearly evident occurred in September 2015. The following year (2016), dissolved zinc concentrations were measured below detection in January and February, indicating the elevated concentrations in September 2015 were transient. Concentrations remained low in subsequent sampling events in March, July, and August 2016, but during the September sampling event, dissolved zinc concentrations showed similarly high within-area variability as the September 2015 sampling event. The same seasonal pattern was repeated again in 2017, but this time the variable concentrations in September were observed at the NF (MEL-01), MF (MEL-02) and Reference Area (MEL-03).

In the past two AEMP cycles in 2019 and 2020, dissolved zinc concentrations showed the highest variability and highest concentrations in the March sampling event when there is no discharge of surface contact water to Meliadine Lake. The two highest reported dissolved zinc concentrations in 2020 were 24.1 µg/L and 12.2 µg/L at MEL-01-07 and MEL-01-01, respectively. During the QA/QC assessment, the dissolved zinc result for MEL-01-07 was flagged as unreliable given the dissolved concentration of 24.1 µg/L was over 24-times higher than the unfiltered (total) zinc concentration in the same sample. The result from MEL-01-01 (12.2 µg/L) also exceeded the total concentration by approximately 6-fold, but this result was not excluded from the analysis and interpretation of zinc concentrations given the absolute concentration was within the range reported in previous years. However, Agnico Eagle acknowledges there is low confidence in this result given the dissolved concentration exceeded the total concentration by a substantial amount. Preliminary results from the March 2021 sampling event indicate fewer instances where the laboratory flagged dissolved concentrations exceeding the total concentration by more than 2-

fold. This aspect of the QA/QC assessment will continue to be tracked for the July, August, and September sampling events.

Despite the high within-area variability in dissolved zinc concentrations in Meliadine Lake, there is no evidence to suggest concentrations are increasing year-over-year. The seasonal pattern of higher zinc concentrations in the winter sampling events, coupled with similar concentrations reported among the exposure (MEL-01 and MEL-02) and reference areas strongly suggests that the underlying cause of the variable dissolved zinc concentrations is predominantly natural.

ECCC-4 Identification of Guideline and Action Level Exceedances

Comment

Tables 5-5 through 5-11 and 7-4 through 7-6 provide summary statistics for 2020 sampling and Appendix C3 provides the tabulated monitoring data from sampling conducted in in 2020. ECCC notes that comparison of results to action levels or guidelines is not clearly provided in all these tables.

ECCC Recommendations(s)

ECCC recommends that all future water quality data tables provide clear comparison to action levels and AEMP guidelines to increase clarity and aid in analysis of data.

Agnico Eagle Answer

Agnico Eagle agrees with the recommendation from ECCC that all tables should include comparisons to the AEMP Benchmarks and AEMP Action Levels (75% of the Benchmark). Both screening criteria were included in the summary statistics tables presented in the main document (Tables 5-4 to 5-11 [Meliadine Lake] & Tables 7-4 to 7-6 [Peninsula Lakes]), but they were not included in the appendices that presented the individual water chemistry results from 2020 for Meliadine Lake (Appendix C) and the Peninsula Lakes (Appendix D). In future AEMP reports, screening of individual sample results against AEMP Benchmarks and AEMP Action Levels will be presented, to increase clarity and highlight individual sample exceedances.

ECCC-5 Non-PAG Classification Criteria

Comment

In section 4.3, the Proponent states that “The potential for SP4 to produce [Acid Rock Drainage (ARD)] was based on NPR ratios, but also a sulphur limit of 0.1%, meaning that any samples with 0.1% or less, sulphur would be non-[potentially acid generating (PAG)] regardless of the NPR ratio. Based on the two criteria, there was no samples collected that were classified as PAG. However, there was one sample that would be classified as uncertain, which had an elevated sulphur content of 1.34%. This one samples does not appear to be consistent with all other

samples collected to data and is not a material risk for water quality given the excess of carbonate in all other rocks tested in 2020."

ECCC is of the view that Neutralization Potential Ratio (NPR) indicates the relative magnitude of the neutralization potential (NP) and acid potential (AP) expressed by the ratio of NP/AP (or NPR). The values of NP and AP are based on the acid base accounting (ABA) process, therefore, the rock unit that contains 0.1 wt. % of sulphur but not enough neutralization potential such that its NPR is equal to or less than 2, that unit or rock type should be classified as PAG. With this in mind, the statement by the proponent "that any samples with 0.1% or less, sulphur would be non-PAG regardless of the NPR ratio" does not appear to align with that classification principle.

ECCC Recommendations(s)

ECCC recommends that the proponent reconsider its non-PAG classification criteria for samples with NPR<2 as expressed above.

Agnico Eagle Answer

Agnico Eagle thanks ECCC for the above comment and recommendation. Agnico Eagle wishes to clarify that thehe 0.1% sulphur value is used at Meliadine as one approach to assess mine waste reactivity.

The value is used at many other mine sites and project development studies as well because it has been shown to be a conservative sulphur value below which other mineral components in the rock (i.e. silicates) can consume the minor amounts of acidity that would get produced. Globally this is a commonly used approach and has been demonstrated at other sites and in other guidance documents:

- Price W.A. (1997); MDNR (2004); Smith et al (2013).

Agnico Eagle believes acid-base accounting and relatively low sulphur are both useful ways to characterize mine waste on site. It should also be noted that these tests are only for comparison with project development studies and are not being used to drive management decisions.

Agnico Eagle remains available to further discuss issues related to mine waste characterization with ECCC at ECCC's convenience.

ECCC-6 Acid Rock Drainage

Comment

The proponent states that "Despite the uncertain classification of the majority of the tailings samples, Agnico Eagle does not consider the tailings to pose an ARD risk for the site for a number of reasons." One of the reasons stated is "if ARD could develop, permafrost will develop at least one hundred years before the onset of ARD due to the amount of carbonate in the tailings and arctic climate slowing reaction rates".

ECCC understands that Acid Base Accounting (ABA) was conducted on the tailings samples, and was classified as uncertain due to its NPR. ECCC agrees that the arctic climate will slow down the sulphide oxidation reaction rate; however, it is not clear which tailings that the proponent referred to as containing the amount of carbonates will buffer the reactions for at least 100 years when that same tailings were determined to be uncertain due to lack of buffering material.

ECCC Recommendations(s)

ECCC recommends that the proponent explain its rationale for the following statement when the majority of the tailings have been classified as uncertain in the PAG and non-PAG classification scheme: “if ARD could develop, permafrost will develop at least one hundred years before the onset of ARD due to the amount of carbonate in the tailings and arctic climate slowing reaction rates”.

Agnico Eagle Answer

The statement relating to the potential onset of acidic conditions is based on the slow oxidation rate of sulphides, and therefore slow rate of neutralization consumption of carbonates and if slow enough, silicate neutralization. Therefore the statement refers to all tailings as while they may be classified as uncertain, they still contain enough carbonate to neutralize the acidity produced until many decades after operations have ended. It is also worth noting that the analytical laboratory recently completed an investigation showing that past carbonate analyses were biased low, meaning that there is more carbonate than previously shown, which would only extend the delay to consumption of carbonate. The report from the analytical laboratory to this effect is available in appendix.

ECCC-7 Arsenic Leaching

Comment

The Proponent states that “Arsenic concentrations ranged from a minimum of 5700 mg/kg to a maximum of 15,000 mg/kg, with a median of 9900 mg/kg in 2020. These values are higher when compared to waste rock and SP4 containment pond and this is not unexpected as the ore is associated with sulphides, including arsenopyrite.”

ECCC notes that given the high concentration of arsenic in the filtered tailing, it is not clear how much of the arsenic is predicted to leach out from the filtered tailings facility.

ECCC Recommendations(s)

ECC recommends that the Proponent:

> Indicate how much arsenic is likely to leach out of the filtered tailings facility given the high values of arsenic content in the tailings; and,

Demonstrate that the amount of arsenic that leaches out will not cause adverse effect on the environment.

Agnico Eagle Answer

Agnico Eagle thanks ECCC for the above comment and recommendation and wishes to clarify that work is on-going as part of project development studies to more comprehensively understand this potential risk.

ECCC-8 Shoreline Surveys

Comment

ECCC notes inconsistent survey timing across years. In 2018 and 2019, surveys were conducted in early to mid-June but in 2020 they were conducted late June to late July. It is unclear how much of the survey effort took place late July in 2020. ECCC notes that the survey period is not only longer but also shifted in 2020 compared to previous years.

Section 4.10.2 of the TEMMP (Version 3) states the primary objective of the waterfowl and waterbird monitoring program is to determine the effects, if any, of sensory disturbance from mining activities, including access along the all-weather access road (AWAR) on breeding success or change in distribution of mated pairs. Considering this objective, surveys conducted in July would be too late to determine distribution of breeding pairs.

ECCC notes that not enough information is provided to determine the temporal distribution of the surveys (i.e. quantity in late June versus late July). Given the difference in survey methodology between 2020 and previous survey years, there is likely considerable added variation in the data from the methodology, which will impact the analysis.

ECCC Recommendations(s)

ECCC recommends the Proponent standardize survey timing and data collection across years. Surveys and data collection should be timed to optimize detectability, to align with monitoring objectives.

Agnico Eagle Answer

Agnico Eagle thanks ECCC for their comments and acknowledges that scheduling of the bird monitoring program in 2020 was not consistent with past monitoring programs.

Due to the COVID-19 pandemic a number of restrictions were implemented at Meliadine Mine after March including a 28 day shift schedule and limited number of flights to Rankin Inlet. These were implemented for the protection of Mine staff and the community of Rankin Inlet. These

restrictions also created other constraints to lodging and transportation availability at the Mine site, which affected when field programs could be implemented.

Furthermore, in addition to COVID-19 pandemic constraints, other factors may influence the timing of monitoring of all monitoring programs such as caribou migration (typically late June to mid-July) and/or other discipline monitoring programs,

In 2021, Agnico Eagle was able to complete a bird monitoring in mid-June, which is more consistent with mid-June programs completed in 2018 and 2019..

ECCC-9 Breeding Bird Surveys

Comment

ECCC notes inconsistent survey timing across years. In 2018 and 2019, surveys were conducted in early to mid-June but in 2020 they were conducted late June to late July. It is unclear how much of the survey effort took place in 2020 took place in late July. ECCC notes that the survey period is not only longer but also shifted in 2020 compared to previous years.

Section 4.11.2 of the TEMMP (Version 3) states the objective of the upland bird monitoring program is to determine any-mine related changes in upland bird abundance, species richness, diversity, and distribution, in particular along the AWAR. Section 4.11.3 of the TEMMP (Version 3) specifies data are to be collected using point count surveys. Songbird detectability (i.e. through male song) declines as the breeding season progresses and July is generally considered too late for these types of surveys.

ECCC also notes that not enough information is provided to determine the temporal distribution of the surveys (i.e. quantity in late June versus late July). Given the difference in survey methodology between 2020 and previous survey years, there is likely considerable added variation in the data from the methodology, which will impact analysis.

Lastly, it is unclear from Table 8-3 why the number of samples (N) per habitat type is different across years, considering the point counts are repeated annually.

ECCC Recommendations(s)

ECCC recommends that the Proponent:

> Standardize survey timing and data collection across years. Surveys and data collection should be timed to optimize detectability, to align with monitoring objectives; and,
>
> Clarify the sample size discrepancy in Table 8.3.

Agnico Eagle Answer

Agnico Eagle thanks ECCC for their comment and refers ECCC to the response to ECCC-8 regarding timing of surveys.

The variation in samples sizes presented in Table 8.3 are likely the result of small differences (e.g., 1 m to 2 m) differences in UTM coordinates of established plots over time. Coupled with GPS location error rates of 15 m, it is plausible that observers did not visit the precise same location, which may result in a different habitat call. The habitat call is also at the discretion of the observer and may be heterogeneous leading to different field calls by observers. It may be possible to revisit exact locations by staking or other more permanent means. However, Agnico Eagle would prefer to not leave unnatural marks in undeveloped areas

ECCC-10 Incidents and Mortalities

Comment

ECCC notes inconsistencies in reported mortalities between Appendix 26 and 30.

ECCC notes a notable amount of bird mortalities in 2020, which has raised concerns about notification procedures.

Geese, ducks, and songbirds are migratory birds protected under the Migratory Birds Convention Act. Procedures outlined in section 4.12.3 of the TEMMP (Version 3) include contacting ECCC for migratory bird mortalities.

ECCC Recommendations(s)

ECCC recommends that migratory bird mortalities be reported to ECCC and the Proponent should package and preserve (i.e. freeze) the mortality until further instruction from ECCC.

Migratory bird mortalities should be reported to the Wildlife Enforcement Division at ec.dalfnordwednorth.ec@canada.ca and the Canadian Wildlife Service at ec.cwsnorth-scfnord.ec@canada.ca.

Agnico Eagle Answer

Agnico Eagle thanks ECCC for their comment and commits to report migratory bird mortalities as per TEMMP procedure and ECCC recommendation in the future.

ECCC-11 Seabird Monitoring

Comment

ECCC supports the Proponent's approach to consolidating the Meadowbank and Meliadine marine mammal and seabird monitoring results into a single report given the amount of spatial overlap and the shared shipping vessels.

ECCC provided comments to the Proponent's consultants and had a follow-up discussion in March 2021 related to the seabird data collected in 2020. ECCC noted inconsistencies in how observers recorded the data during the surveys in relation to the standardized protocols and some issues with species identification.

ECCC Recommendations(s)

ECCC recommends the Proponent continue to provide and improve training for seabird observers to minimize errors implementing the protocols, data recording and misidentifications.

Agnico Eagle Answer

Agnico Eagle appreciates ECCC's support regarding the consolidated Meliadine and Meadowbank Marine Mammal and Seabird Observation Report and will maintain this approach for future annual reports.

Regarding observer training, with the assistance of a third-party Expert, Agnico Eagle continues to provide and to improve training to minimize errors implementing the protocols, data recording and misidentifications.

In 2021, prior to the start of the shipping season, a hybrid in-person and virtual training session was conducted with the shipping company. Elements brought forward by ECCC on the 2020 data inconsistencies were discussed during this training and adjustments to the training material and related observation sheets and tools were also made.

Throughout the 2021 shipping season, Agnico Eagle will also be collecting and reviewing the shipping company's observation at an increased frequency to allow for earlier identification of inconsistencies in data recording – if any – and timely training refreshers and reminders as needed.

Agnico Eagle is confident these measures will result in continued overall improvements of its Marine Mammal and Seabird Observation program.

Government of Nunavut (GN)

GN-01: Air Quality – Suspended Particulate Monitoring

Comment

NIRB Project Certificate No. 006, Term and Condition #1, requires an updated Air Quality Monitoring Plan, prior to the Project entering the construction phase, that considers the installation of two real-time air monitoring stations for monitoring suspended particulates: Total Suspended Particulate (TSP), Particulate Matter ≤ 10 microns (PM10) and Particular Matter ≤ 2.5 microns (PM2.5). The Proponent updated the Air Quality Monitoring Plan (AQMP) in June 2020. The AQMP sets out the methods for monitoring suspended particulates according to U.S. Environmental Protection Agency (EPS) standard methods using Partisol Sequential Air Samplers. Two Partisol Sequential Air Samplers are required at each station (i.e. four units in total are required to collect a complete data set) since PM2.5 and PM10 are monitored using Partisol Model 2025D and TSP is monitored using Partisol Model 2025i.

The Proponent commenced sampling at DF-5 on December 3, 2018 for TSP only using Partisol Model 2025i. The Proponent commenced sampling at DF-7 on December 21, 2018 PM2.5 and PM10 only using Partisol Model 2025D. Since only two Partisol units were operational at the two sites, an incomplete data set was collected from January to April 2019. PM2.5 and PM10 was not collected at DF-5 and TSP was not collected at DF-7 during this period.

According to the 2020 Annual Report (Appendix 24), the partial installation of Partisol units were taken offline in April 2019 and were not returned to full operation until November 2020. This creates a significant data gap in emissions data through this period.

Table 2 in the 2020 Annual Report (Appendix 24) indicates that TSP, PM10 and PM2.5 were sampled year-round at DF-5 and DF-7. This is both inaccurate and misleading since the Proponent did not achieve full operation of the units until November 2020 after being offline for almost two years. Section 3.1.1 of the Annual Report (Appendix 24) further indicates that additional instrument error and logistical difficulties were encountered during this limited monitoring period in November and December 2020.

Emissions of particulate matter have negative potential health consequences for both humans and wildlife. The FEIS (Golder, April 2014) predicted that the effects from TSP, PM2.5 and PM10 would be of high magnitude for the mine during the operational period. The lack of data collected to date provides an insufficient data set to understand the FEIS predictions and the potential consequences to human health and wildlife health. The limited data set presented in Section 3 of the Annual Report (Appendix 24) does not provide adequate information to determine if annual emissions of TSP, PM2.5 and PM10 are within FEIS predictions or if adaptive management is necessary to address unforeseen effects. The ability to determine the need for adaptive management is critical for ensuring the project operates within the parameters outlined in the FEIS. These are the parameters upon which the Terms and Conditions are based.

After two years of troubleshooting these units, a contingency that can be implemented when issues are encountered is necessary. Additional data gaps due to equipment malfunction are unacceptable considering the significance of impacts predicted in the FEIS for TSP, PM2.5 and PM10.

Recommendation(s)

The GN offers the following recommendations with respect to this issue:

1. The Proponent should submit quarterly or semi-annual reports on the operation of the Partisol units starting in 2021, including results for TSP, PM2.5 and PM10 to inform the need for adaptive management based on the lack of data presented to date. The first of these reports should be prepared upon receipt of these comments to update the status of Partisol monitoring for the first half of 2021.

2. The Proponent should produce a contingency plan for the loss of monitoring capability and include this plan in the AQMP. This plan should include details for backup systems or alternative methods for data collection to prevent lengthy data gaps, like those seen in the 2020 Annual Report.

Agnico Eagle Answer

Agnico Eagle understands and appreciates the concerns of the GN regarding suspended particulate monitoring.

As indicated in the GN comment, Table 2 should have properly specified that while year-round monitoring of suspended particulates is planned, a limited dataset was obtained in 2020. Agnico Eagle will modify the table content in subsequent reports.

As described in the Air Quality Monitoring Report, Agnico Eagle has incurred a series of setbacks in achieving successful installation and operation of the Partisol monitors. These instruments were initially chosen based on their successful utilization at the Meadowbank site for many years. They were installed by the contracted service technician in 2018, but by spring 2019 the four units were no longer operational. After unsuccessful efforts to acquire parts and fix the units remotely, they had to be sent for off-site repairs. Repairs were completed and the units were returned to site in early 2020, but the planned spring-time visit by the service technician to install the instruments and provide supplemental training was cancelled due to travel restrictions at the onset of the COVID-19 pandemic. The service technician visit was completed in October, 2020. The visit included training of technicians for set-up and routine maintenance to help reduce future downtime. A supplier-provided list of spare parts has also been obtained for storage onsite to enable more rapid repairs. With this investment in parts and training, and by following the recommended onsite maintenance schedule provided by the supplier, the units have been operational since re-installation in 2020. With these measures in place, and the low likelihood of further COVID-related travel delays for servicing, Agnico Eagle feels that an additional written contingency plan is not warranted at this time. However, Agnico Eagle assures the GN that they are committed to ensuring ongoing suspended particulate monitoring with limited data loss, and

will consider available options to be implemented in the case that sustained Partisol downtime occurs again.

Agnico Eagle will also provide a 2021 semi-annual (mid-year) report on suspended particulate monitoring at the Meliadine site. This report will include analysis of TSP, PM10 and PM2.5 concentrations for samples analyzed to date, along with a commentary on Partisol operation and any planned adaptive management actions. This report will be provided to the GN within 30 days (by August 27 2021).

GN-02: Wildlife Mortality - Ungulates

Comment

Section 9.4 of the 2020 Terrestrial Effects Monitoring and Mitigation Program (TEMMP) Annual Report (AEM 2021) presents the results of mortality monitoring and reporting in the vicinity of the minesite and All-Weather-Access-Road (AWAR). The stated objective of this monitoring study is:

> "Through systematically recording the presence of all wildlife within and around the Project footprint, Environmental staff will remain appraised of current and emerging issues and will be able to manage issues as they arise."

Mortalities of all wildlife are recorded to comply with Project Certificate terms and conditions57 and 58, which provide that:

> "Within its annual report to the NIRB, the Proponent shall incorporate a review section which includes:
>
> …b. A detailed analysis of wildlife responses to operations with emphasis on wildlife behaviour, mortalities and displacements (if any), and responses to operations of the all-weather access road and associated access roads/trails."(Term and condition 57(b))
> "The Proponent shall report annually to the NIRB regarding its terrestrial environment monitoring efforts, with inclusion of the following information:
>
> …c. A detailed presentation and analysis of the distribution relative to Project infrastructure and activities for caribou and other terrestrial mammals observed during surveys and incidental sightings;" (Term and condition 56(c))

The information provided in the 2020 TEMMP Annual Report (AEM 2020, Section 9.4), regarding wildlife mortalities and causes does not address whether the mortality of 2 caribou is considered Project-related.

In the 2020 TEMMP Annual Report, Table 2-1 provides a Summary of Predicted Effects, Accuracy of Impact Predictions for the Ungulates Monitoring Indicator, and Other Project-related Mortality. For this indicator, a Proposed Threshold of 'No More Than 1 ungulate/year' is presented, and Column 4 indicates this threshold was exceeded in 2020.

In Section 9.4 Incidents and Mortalities of the 2020 TEMMP Annual Report, Table 9-3 identifies 2 caribou mortalities were observed on 11 July 2020.

Further, Table 9-4, Accuracy of Impact Predictions –Wildlife Incidents 2020 indicates that the threshold for ungulate mortality was not exceeded.

Recommendation(s)

The GN offers the following recommendations with respect to this issue:

1. That the Proponent should revise Section 9.4 to include a description of how thresholds were assessed for compliance related to mortality of ungulates at the Project.

2. If the threshold for Project-related mortality of ungulates has not been exceeded based on the review completed as part of 1. above, update Table 2-1.

Agnico Eagle Answer

Agnico Eagle thanks the GN for their comment. Table 9-4 in Section 9.5 provides numerical thresholds for different species monitoring and whether the threshold was exceed (i.e., greater than the threshold value). Determination of threshold exceedance is based on results presented in Table 9-3, which includes comments about whether the cause of mortality was Mine-related. In the two caribou mortalities observed in 2020, Table 9-3 does not indicate that the cause was Mine-related. The designation of exceedance (i.e. "Yes") in Table 2-1 is in error as these were the only two caribou mortalities in 2020 and were not Mine-related. Agnico Eagle thanks the GN for bringing this error to its attention. .

GN-03: Birds and Bird Habitat – Monitoring

Comment

Condition 71 stipulates:

> “The Proponent shall develop detailed and robust mitigation and monitoring plans for migratory birds, reflecting input from relevant agencies, the Kivalliq Inuit Association and communities”.

The Concordance Table refers to Sections 4.9, 4.10 and 4.11 of the Terrestrial Environment Mitigation and Monitoring Plan for details on how the Condition is met. Those sections do not discuss obtaining input from the Kivalliq Inuit Association and communities, rather, the sections refer to consultation with Environment and Climate Change Canada (ECCC) and the Government of Nunavut Department of Environment (DOE) personnel regarding thresholds and mitigation.

Excluding these groups from discussions could result in missing key pieces of local knowledge relevant to the protection of migratory birds. To comply with this condition, the Kivalliq Inuit

Association and communities should be consulted with regarding mitigation measures related to migratory birds.

Recommendation(s)

The GN offers the following recommendations with respect to this issue:

1. Consult with the Kivalliq Inuit Association and communities regarding mitigation measures pertaining to migratory birds. If this consultation has occurred, ensure that it is included in the records of consultation in the annual report.

Agnico Eagle Answer

Agnico Eagle thanks the GN for their comment and wishes to reiterate its commitment to follow the approved Terrestrial Environment Management and Monitoring Plan (TEMMP), which includes robust mitigation and monitoring measures related to migratory birds and was developed in collaboration with several interested parties.

Agnico Eagle remains committed to further engaging with relevant agencies, the KivIA and communities as needed on issues related to migratory birds. Agnico Eagle suggests these discussions be held by the Terrestrial Advisory Group (TAG).

.

GN-04: Birds and Bird Habitat – Monitoring

Comment

Term and Condition 73 stipulates:

"The Proponent's monitoring program shall assess and report, on an annual basis, the extent of terrestrial habitat loss due to the Project to verify impact predictions and provide updated estimates of the total Project footprint".

Section 5 of the Terrestrial Environment Management and Monitoring Plan describes the frequency of habitat loss assessment as every three years. By assessing habitat loss only every three years rather than annually the Proponent is not complying with Term and Condition 73.

Habitat loss can affect species movement, behaviour, nesting success, etc. The intention of the Term and Condition is to ensure the Project footprint does not exceed thresholds identified in the Terrestrial Environment Management and Monitoring Plan and the frequency of the prescribed monitoring and reporting would allow for early intervention should an exceedance occur.

Recommendation(s)

The GN offers the following recommendations with respect to this issue:

1. Conduct an assessment of habitat loss annually as required by Term and Condition 73.

Agnico Eagle Answer

Agnico Eagle thanks the GN for their comment. The primary source of habitat loss was construction of the Mine to allow for operations, which was completed in 2017. Small areas of Mine development may continue during the operational phase until the Mine reaches its approved extent. There is little value in repeated footprint assessment of no, or very small, changes on an annual basis. Alternatively, a schedule of every three years is more appropriate for analysis and reporting to capture small direct changes to wildlife habitat. The 2017 and 2019-2020 NIRB annual compliance reports references the TEMMPs frequency of post-construction habitat loss assessment as every three years. The NIRB 2019-2020 reports designates condition 73 as active and in compliance. Should a significant amount of Mine development be required before the three year frequency, Agnico Eagle will update the habitat loss results.

GN-05: Spills – Spills Contingency Plan

Comment

Section 6 of the 2020 Annual Report describes risk assessments conducted in 2018, 2019 and 2020 to identify and rectify deficiencies related to spills. Appendix 15 of the 2020 Annual Report (pg. 15) identifies additional mitigation measures, for example, related to handling of totes and barrels with forked equipment. Specifically, the Report notes in the future, the warehouse will be implementing a new working policy where they will not conduct any oil-tote deliveries at night while it is dark and will not perform this task without a spotter.

Section 3.1.5 of the Terrestrial Environment Management and Monitoring Plan stipulates to "adhere to and regularly update the Spill Contingency Plan". According to the Nunavut Impact Review Board Website, the most recent version of the Spill Contingency Plan is dated March 2017. The Spill Contingency Plan should be updated with any new mitigation measures identified.

The Plans developed for the site are the reference documents for employees. They should contain the most up-to-date information. Any employee seeking direction on an operating procedure should be able to pull the appropriate Plan and find current information. If the Plans are not updated, new mitigation measures identified may not be implemented as intended.

Recommendation(s)

The GN offers the following recommendation with respect to this issue:

1. The Spill Contingency Plan should be updated when new mitigation measures are identified through risk analyses and reported on in the annual report.

Agnico Eagle Answer

Agnico Eagle wishes to clarify that the latest version of the approved Spill Contingency Plan is Version 10 (December 2019) and is the effective plan used on site. Agnico Eagle confirms it will be updated as needed when new mitigation measures and identified through risk analyses.

GN-06: Caribou Harvest Along the AWAR: Monitoring and Compliance

Comment

This comment will provide GN feedback relating to Terms and Conditions Nos. 46 and 48 as these Terms and Conditions were designed for and are both related to increased harvesting pressure as a result of the Project's all-weather-access-road (AWAR).

The potential for the Project's AWAR to facilitate increased harvest pressure on caribou or unsafe harvesting practices was an issue raised by the GN and other intervenors during review of the Project (e.g. GN 2014, Comment #9). Monitoring the distribution, levels and trends of caribou harvesting along the AWAR is an important component of the Project's effects monitoring scheme. Term and Condition 48 of the Project Certificate requires the development of a road management agreement and states that:

> "The Road Management Agreement shall include the following specific measures:
> • ….A no-shooting zone (1 km wide) on either side of the road should be established as a condition of public access to the AWAR and compliance with this Agnico Eagle policy should be monitored and reported by the Proponent.
> • All incidents of hunting involving shooting along or across the AWAR should be reported by the Proponent to the GN.
> • During periods when large aggregations of caribou are detected near the Project, harvest monitoring intensity should be increased to ensure that levels of caribou harvesting are properly documented."

The reporting requirements under this term and condition state that:

> "[m]onitoring results as well as any subsequent updates to the Plan, reported and discussed in the Proponent's annual report to the NIRB."

The GN notes that results from the monitoring of caribou harvesting along the AWAR are not reported in the Proponent's 2020 Terrestrial Effects Monitoring and Mitigation Program Annual Report (AEM 2021) or elsewhere in the Project's 2020 Annual Report (AEM 2021). The Proponent is required to (a) monitor and report compliance with the no-shooting zone policy for the AWAR, (b) have "dedicated road monitors" and (c) increase harvest monitoring along the AWAR during periods when large aggregations of caribou are present. None of this information or data is presented in the annual report. Therefore, compliance with term and condition 48 cannot be assessed by the GN.

Term and Condition 46 sets out that:

> "The Proponent shall update its Terrestrial Environment Management and Monitoring Plan (TEMMP) for the Project to include a detailed harvest study prepared in consultation with the Government of Nunavut (GN) and other affected parties."

As noted above, the Proponent has not yet reported its results from monitoring caribou harvesting along the AWAR. The Proponent's Terrestrial Environment Mitigation and Monitoring Plan (TEMMP) included the establishment of a hunter harvest survey with the inclusion of the GN after 3 years of data was collected. Waiting until 2023 for the inclusion of the GN creates a significant gap in participation regarding Term and Condition 46.

The NIRB directed the Proponent to conduct consultations with the GN prior to collecting 3 years of data (NIRB, 2019-20 Meliadine Monitoring Report). The Proponent has arranged initial discussions with the GN regarding the implementation of Terms 46 and 48, but more multi-party collaboration is required to ensure the hunter harvest survey is successful.

Although the required Road Management Agreement has been developed by the Proponent (AEM 2019, Section 10.2), implementation of this agreement and its effectiveness cannot be evaluated since the 2020 annual report and its appendices do not present or analyse any of the necessary monitoring data. The agreement itself, and Term and Condition 48 of the Project Certificate, require the reporting of these data. The annual report should contain the following:

1. Reporting of compliance with the 1 km no-shooting zone either side of the AWAR including presentation and analysis of the monitoring data used to assess compliance with this policy.

2. A summary of incidents involving shooting across or along the AWAR, and any trends in these incidents since the AWAR entered operation.

3. Information on the number of dedicated roads monitors tasked with monitoring harvesting along the AWAR and the level of monitoring effort applied (i.e. number of days, timing of monitoring).

4. An analysis of harvest distribution and intensity along the AWAR, including any trends in these metrics.

Evaluating whether the AWAR's Road Management Plan is being properly implemented and assessing whether the AWAR does or does not facilitate increased harvesting pressure or promote unsafe harvesting practices is an essential part of the Project's monitoring scheme. This deficiency in the annual report, and non-compliance with the reporting requirements of term and condition 48, should be addressed.

In its 2019-20 monitoring report, the NIRB provided direction to the Proponent stating:

> "The NIRB requests that the Proponent begin consultations with the GN before three (3) years of data collection to discuss possible adaptive management strategies and initial data analysis and findings on the Hunter Harvest Survey. The NIRB requests an update be included on the schedule and/or process of discussions within the 2020 Annual Report." (NIRB, 2020)

This direction was provided in response to community concerns raised to the NIRB during community information sessions:

> "the NIRB heard concerns from the community that increased hunting accessibility has occurred from use of the All Weather Access Road (AWAR) which is increasing pressure on the community organizations to consider options for restricting hunting." (NIRB, 2020)

Term and Conditions 46 and 48 are designed to address concerns around increased hunting pressures as a result of the AWAR. The Proponent has worked with the Rankin Inlet Hunters and Trappers Organization in the creation and renewal of a Memorandum of Understanding (MOU) for the creation and implementation of a hunters harvest survey.

Recommendation(s)

The GN offers the following recommendations with respect to this issue:

1. The Proponent should enter into collaborative discussions with the GN with the goal of achieving fulfillment of Term and Conditions 46 and 48 as directed by NIRB. These discussions should include co-management partners and may be best addressed in the new Meliadine Project Terrestrial Advisory Group.

2. The Proponent should include records and results of these discussions in subsequent annual reports.

Agnico Eagle Answer

Agnico Eagle wishes to assure the GN it remains committed to ensuring collaborative discussions with the GN through the Terrestrial Advisory Group (TAG) or other relevant channels and will ensure records are shared with concerned parties through appropriate channels.

Kivalliq Inuit Association (KivIA)

KivIA-1 AWAR Traffic

Comment

The traffic volumes along the All-Weather Access Road (AWAR) in 2020 continue to exceed levels predicted for the AWAR in the FEIS by 42% overall (S 10.3, Table 25, pg 108). Traffic volumes during July, which coincided with caribou movement through the site, exceeded levels predicted in the FEIS by 91% (S 10.3, Table 25, pg 108) despite the closure of AWAR over a 10-day period for a total of 165 hours between 7 and 19 July due to caribou migration and no apparent water tanker traffic that month (Appen. 34, 2020 AWAR Usage, Table 1).

Recommendation

Agnico Eagle should clarify whether and when traffic volumes predicted in the FEIS will be attained, and if they won't be attained, what implications this has for assessment of impacts of the project on wildlife.

Agnico Eagle Answer

Agnico Eagle prepared a response on traffic volume on the AWAR relative to predictions for the Government of Nunavut (GN) (GN-TRC-07) as part of the Waterline FEIS Addendum in November 2020. The response acknowledges that traffic monitoring results have been reported in a number of different ways making comparison to the FEIS (Agnico Eagle 2014) and 2018 FEIS Addendum (Agnico Eagle 2018) challenging. GN-TRC-07 shows that the results from 2019 traffic monitoring were 35 round trips per day during July where as 44 and 49 round trips per day in July were predicted in the FEIS and 2018 FEIS Addendum, respectively, Traffic during the operations phase on the AWAR during July has been less than predicted in either the FEIS or the 2018 FEIS Addendum.

KivIA-2 TEMMP Terminology

Comment

Terminology: The Meliadine Project Final Environmental Impact Statement (FEIS) included a Terrestrial Environment Management and Monitoring Plan (V2, November 2015; using 'TEMMP' as the acronym). This Plan and the subsequent update (V3; June 2020) stated that "An annual Terrestrial Environment Monitoring Summary Report for the project will be completed". Appendix 26 to the current annual report is titled "Appendix 26: 2020 Terrestrial Environment Management and Monitoring Plan Report", yet the Golder document after the title page is titled "2020 Terrestrial Effects Monitoring and Mitigation Program Annual Report" (5 April 2021) and uses TEMMP as

the acronym. These titles, intermixing of management, monitoring and mitigation, and reference to plan or a program, not to mention the use of similar acronyms, are confusing.

Recommendation

Agnico Eagle should clarify the various titles of the TEMMP plans, programs and reports.

Agnico Eagle Answer

Agnico Eagle thanks the KivIA for identifying overlap in the use of acronyms..

Agnico Eagle will refer to the Terrestrial Environment Management and Monitoring Plan as "TEMMP". The annual report discussing the implementation of TEMMP requirements and monitoring results will be referred to as the “TEMMP Report”. .

KivIA-3 Wildlife Track Surveys

Comment

Project certificate T&C 118 includes “…weekly winter track surveying and summer and fall surveys undertaken on foot twice per month” (Table 1-1, pg 4). Summaries of wildlife observations (incidental observations) are provided in S 9.0 and of wildlife track surveys in S 9.1, but it is unclear if and how the values reported relate, or whether they are integrated. No objectives, locations or methodology are provided for wildlife tracks survey section (S 9.1, pg 32), especially for the summer surveys, and no detailed results are provided other than a summary of overall annual numbers and percentages for different species. In response to KivIA comments on the 2019 TEMMP, Agnico Eagle stated that the track surveys are (“are not completed systematically”) and deflected further information to after 2021. The KivIA suggests that this response is unacceptable. The usefulness of these surveys to wildlife monitoring and mitigation is unclear and requires clarification, sooner rather than later.

Recommendation

Agnico Eagle should clarify the objectives of the wildlife track surveys and present the results in a manner to enable examination of objectives and of spatial and temporal trends over time.

Agnico Eagle Answer

Agnico Eagle thanks the KivIA for their comment. Injury and mortality risk of wildlife present at site is something that Agnico Eagle wants to minimize. The Wildlife track surveys are completed as a monitoring method as part of Site Surveillance Monitoring in Section 4.3 of TEMMP V3 (Agnico Eagle 2020). The objective of Site Surveillance Monitoring is to systematically record the presence of wildlife within and around the Project footprint so that Environmental staff may be aware of emerging wildlife issues.

The track surveys are helpful to Agnico Eagle because tracks in snow are often visible for several days and may capture the presence of animals at site that are not incidentally observed by Mine staff such as during periods of darkness. Site Surveillance Monitoring also includes systematic surveys of the Mine site at areas where there is potential for wildlife injury risk and human-wildlife conflict.

Agnico Eagle will include a table showing annual and spatial results in future reports.

KivIA-4 Caribou Collar Data

Comment

"A request for access to caribou collar data for this report was submitted to the GN DoE on October 27, 2020. Collar data were not provided to Agnico Eagle at the time this report was completed." (S 12.0, pg 35). Broad movement figures for the Meliadine area would inform timing of patterns of annual variation in interactions of the Qamanirjuaq herd with the mine. Fine scale mapping (e.g., 2019 Meadowbank Annual Report Fig. 6.2 – individual collar trajectories) would provide a visual showing individual collared caribou movement through the mine site and AWAR.

The KivIA is frustrated that Agnico Eagle is unable to obtain current collar data for use in annual report monitoring, despite an invitation to submit a request from GN on 21 August 2020 (A. Robinson, GN, email) and a formal request sent by Agnico Eagle on 27 October 2020 (TEMMP, pg. 35).

Recommendation

Agnico Eagle and the Government of Nunavut should develop a long-term data share agreement to enable Agnico Eagle to provide figures of collar movements at broad and fine (individual collar trajectories) scales in Meliadine Annual Reports to aid in interpretation of monitoring and efficacy of mitigation.

Agnico Eagle Answer

Agnico Eagle understands the KivIA's concerns and wishes to reassure the KivIA that discussion to this effect with the GN are ongoing.

KivIA-5 Caribou Deflection

Comment

One of the impact prediction thresholds is "<10% caribou deflections from AWAR" to be monitored using ground surveys (Table 2-1, pg 9). The text (pg 40) refers to the 8 January 2021 Golder report (Appendix E) on caribou-AWAR interactions, concluding that between 2014 and 2019 "93% of movements within the LSA crossed the AWAR, other roads and Mine infrastructure" (pg 40). This Golder report was roundly criticized by KivIA (memo from 25 January 2021) and the Sayisi

Dene First Nation (letter from 29 January 2021). Issues included the 1.5 km zone of influence used to “encounter” the road, definitions of deflection, and not accounting for exposure to insect harassment. Given these concerns, the KivIA suggests that the 93% crossing rate of collared individuals is premature and is based on a partial analysis which lacks insight into caribou behaviour. The 2020 collar data were unfortunately not examined for this annual report (see Comment 4, above). The 2020 TEMMP recommends that to “quantify the threshold impact prediction of <10% caribou deflections from AWAR, the number of times a caribou group was deflected from the AWAR should be explicitly quantified as part of the caribou behaviour surveys” (S 12.5, pg 44). The KivIA agrees that it would be informative to see these data, but is doubtful whether 30-minute behaviour surveys will adequately address the question of caribou deflection.

Recommendation

a) Agnico Eagle should clarify how 30-minute behaviour surveys will be able to quantify delays and deflections from AWAR.

b) Agnico Eagle should conduct a more comprehensive analysis of collared caribou-mine interactions at appropriate spatial and temporal scales and including relevant variables (e.g., insect harassment and daily traffic levels) to ensure that the conclusions are rigorous. This evaluation of caribou movements through the mine site and AWAR should examine displacement/deflection of caribou and responses to operations during migration.

Agnico Eagle Answer

Agnico Eagle thanks the KivIA for their comments.

a) Agnico Eagle agrees that the 30-minute behaviour surveys are unlikely to provide meaningful results that quantify delays and deflections from the AWAR. The comment in the 2020 report that behaviour program will measure deflections will not be included in future annual reports . To answer whether caribou are deflecting from the road, and at what distance, a collar analysis is more appropriate, as suggested by the KivIA in comment 5b) and that Agnico Eagle committed to and noted in part b).

b) Agnico Eagle thanks the KivIA for their recommendation to complete a collared caribou analysis for displacement and deflections. As part of the Waterlines FEIS Addendum hearing (Agnico Eagle 2021), Agnico Eagle committed (Commitment #38) to complete a new analysis using collared caribou in collaboration with the KivIA, SDFN and GN.

KivIA-6 Caribou Advisory

Comment

Rigorous reporting is required to enable effective adaptive management of caribou and other wildlife at the Meliadine project. Agnico Eagle provided greater details on caribou monitoring, observations and triggers in the 2020 TEMMP report, which the KivIA appreciates. Levels 1-3 action levels and the caribou advisories (Table 12-2, pg 41) show trigger distances of 10 and 5

km, distances which are far beyond the range of detection from the ground. Twice weekly review of collar maps do not have the temporal resolution to be effective monitoring triggers at these spatial scales (especially given delays in collar downloads and map generation). There is no mention in the TEMMP of aerial surveys to determine caribou abundance at distances beyond visual range (~3 km at the outside limit), however, the Meliadine caribou migration protocol presentation (Appen. 25, 2020 Toolbox Presentations, pdf pg 71) indicates “Helicopter flights will be completed mid to late June to assess herd general proximity to Meliadine”.

Recommendation

Agnico Eagle should clarify how trigger distances of 10 and 5 km are monitored on the lead-up and during migration. This clarification should include whether helicopter surveys are part of monitoring and how these surveys are conducted.

Agnico Eagle Answer

Agnico Eagle thanks the KivIA for complementing 2020 reporting. The monitoring that is used to inform distance-based triggers for caribou includes collared caribou maps, reports from helicopter pilots between June to mid-August (per TEMMP Appendix III) and ground surveys. Section 12.3.1 of the TEMMP highlights these different types of monitoring and provides further details on the methods. The Government of Nunavut does not permit regular systematic surveys for caribou by helicopter so these are not a monitoring method used by Meliadine Mine.

KIA-7 Caribou Behaviour

Comment

The 2020 behaviour report is well written with clearly presented methods, results and interpretation. Caribou closer to the road were more likely to cross, but this could be confounded by the 30-minute scan period, restricting the observers from determining the ultimate “fate” of groups initially located further out from the road. The KivIA agrees that inclusion of information on harvesting activities and traffic levels would strengthen inferences about caribou behaviour near the road. However, while the behaviour report (Appendix 29) makes fair and balanced conclusions from the results, the TEMMP report states that “The fact that there are individuals, and not large groups, near the road would suggest that the road is not seen as a threat as herding is a predator swamping behaviour” and “…caribou observed during the surveys may be further from the road because they are not planning on crossing the road at the survey location” (TEMMP, S 12.1.2, pg 37). These statements are totally unfounded and not supported by the data. A more plausible interpretation is that caribou are likely further from the road because, as noted in the behaviour report, it “may be indicative of a trend that caribou tend to avoid areas within 100-300 m of the road unless they intend to cross it” (Behaviour report, S 6.3.1, pg 11). Caribou movement through AWAR generally occurs east to west. Caribou behaviour and movements appear to differ whether they are on the ‘upstream’ or ‘downstream’ side of roads (see Boulanger et al. 2020). Analysis of the behaviour data may benefit by addition of a covariate whether the group being scanned was on the up- or downstream side of the migration.

Recommendation

a) Agnico Eagle should clearly clarify how the behaviour 30-minute scan surveys will be able to assess whether <10% of caribou are deflected from the AWAR, as noted in TEMMP Table 2-1 (pg 9).

b) Agnico Eagle should justify their conclusions regarding caribou perception of the AWAR as non-threatening (implying little perceived risk?) and caribou decisions on where to cross the road.

c) Agnico Eagle should consider added to their behaviour analysis the side of the road the caribou group being scanned is on.

Agnico Eagle Answer

Angico Eagle thanks the KivIA for their comments.

a) Agnico Eagle agrees that the 30-minute behaviour surveys are unlikely to provide meaningful results that quantify delays and deflections from the AWAR. The comment in the 2020 report that behaviour program will measure deflections is an error and will not be included in future annual reports. To answer whether caribou are deflecting from the road, and at what distance, a collar analysis is more appropriate, as suggested by the KivIA in comment 5b)

b) The KivIA's comment in 7b includes two non-consecutive sentences from a paragraph in the 2020 TEMMP report. The paragraph described alternative possible explanations of observed patterns from caribou behaviour monitoring results.

c) Side of the road (east vs. west) was recorded during 2020, but not included in the analysis. Based on comments from the KivIA on the similar 2020 Meadowbank behaviour program, the side of the road has been added as an analysis objective for both projects.

KIA-8 Air Quality

Comment

The 2020 Air Quality Monitoring Report includes details on dust suppressant application, and the KivIA appreciates Agnico Eagle's inclusion of these data. Figure 19 (pg 26; as well as Figures 20 and 21) indicates that maximum dustfall values were consistently higher on the upwind side of the road (if negative values in the figure represent the west/upwind side of the road, as indicated in the figure caption). This seems contrary to what would be expected for dust deposition adjacent to a road.

Recommendation

Agnico Eagle should clarify why dustfall values are consistently higher on the upwind side of the AWAR.

Agnico Eagle Answer

In Figures 19 – 21, negative values do represent the west/upwind side of the road. KivIA is correct in their interpretation that from these figures, dust appears higher on the upwind side. However, this apparent effect only occurs for the sample location closest to the road (25 m distance). Particles deposited at this short distance are larger (& heavier) and thus their direction of travel is not impacted by wind as much as those collected further from the road. The apparent higher dustfall levels on the upwind side at 25 m compared to the downwind side are likely an artifact of the relatively small sample size to date, and naturally high variability in dust results. The lack of consistency in this pattern temporally (see complete 2019 results) and spatially (an apparent trend is visible at DF-2 in 2020, but much less so at DF-3) supports this interpretation.

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AGNICO EAGLE
MELIADINE

Crown-Indigenous Relations and Norther Affairs Canada (CIRNAC)

CIRNAC-1.1 Geochemical Monitoring, Acid Rock Drainage/Metal Leaching (ARD/ML) Testing

Comment

CIRNAC recommended that moving forward AEM should track volumes of Waste Rock with Acid Rock Drainage (ARD) potential falling within the uncertain Neutralizing Potential Ratio (NPR) range (1-2).

With respect to underground waste rock, one sample collected in2017-2018 was classified as having uncertain ARD potential (1<NPR<2), in 2019 one sample was classified as having uncertain ARD potential, and in 2020 seven samples were classified as having uncertain ARD potential and 13 samples as being potentially ARD generating (PAG) (NPR<1). In addition, one sample collected in 2020 from the Tiriganiaq open pit #2 was classified as having uncertain ARD potential while one sample from the Saline Pond (SP4) was also classified as having uncertain ARD potential based on a total sulphur content of 1.34%.

AEM indicates in the 2020 Annual Report that these findings are consistent with predictions (Golder 2014) that the majority of operational waste rock would be non-PAG and that ARD potential is low. AEM considers the small number of uncertain ARD potential and PAG samples to represent a low ARD risk given the excess neutralization capacity determined in all other waste rock samples that have been tested. AEM also indicates that in 2020, a large quantity of waste rock from underground was used as backfill for stopes and other openings and these waste rocks may have remained underground, but there is no way to confirm this based on the information provided in Section 2.1.3 of the 2020 Annual Report.

As the number of waste rock samples classified as having uncertain ARD potential has increased in 2020, with a number of samples also classified as PAG, CIRNAC maintains the need to track volumes of waste rock classified as uncertain ARD potential/PAG. With respect to underground waste rock, approximately 25% of samples tested were classified as having uncertain ARD potential/PAG in 2020 (Appendix 11, Section 4.1).

CIRNAC notes that, in 2020, waste rock from the underground was used for construction in addition to placement in the Tailings Management Facility (TSF) while waste rock from the open pits was used for construction. It is unclear if all of the waste rock used for construction in 2020 was non-potentially acid generating (NPAG) or if not, what quantities of waste rock classified as uncertain ARD potential/PAG were also used for construction.

Recommendation

CIRNAC recommends that moving forward AEM:

a. Track volumes of waste rock classified as PAG (NPR<1) and uncertain ARD potential(1<NPR<2) from the underground mine and open pits.

b. Provide information on where waste rock was used for construction, the amount of waste rock used for construction and confirm that the waste rock used was not PAG.

Agnico Eagle Answer

Agnico Eagle is implementing changes regarding tracking volumes of waste rock classified as PAG and uncertain ARD potential and will report on these in the 2021 Annual Report.

CIRNAC-1.2 Water Quantity-Volumes Reporting to Underground Mine and Various Seepage Collection Ponds

Comment

CIRNAC recommended that in future annual reports AEM present a year-over-year comparison of actual volumes of water reporting to water retaining structures along with FEIS predictions.

In Section 3.2 of the 2019 Annual Report, AEM indicated that once the update of the Meliadine Water Balance and Water Quality model was completed for the 2020 Annual Report, year-over-year comparisons of actual volumes of water reporting to water retaining structures versus those predicted in the model would be provided.

In Section 3.2 of the 2020 Annual Report, AEM indicates that the Water Balance and Water Quality models were updated to support the August 2020 Water Licence Amendment and to satisfy the Schedule B, Item 5 requirement of the Water Licence. Results of both the Surface Contact and Saline Water Balance models are included in Section 3.2, and Table 7 presents the maximum annual water volumes requiring management in each facility under mean precipitation years during mine operation and closure. However, year-over-year comparisons of actual volumes of water reporting to water retaining structures versus those predicted in the model were not presented.

CIRNAC notes AEM indicated in one of its previous responses to the NIRB in August 2020 that no predictions were made in the FEIS for retention structures.

Recommendation

CIRNAC recommends that AEM present, in future annual reports, a year-over-year comparison of actual volumes of water reporting to water retaining structures.

Agnico Eagle Answer

Agnico Eagle agrees to provide, in future annual reports, a year-over-year comparison of actual volumes of water reporting to retaining structures.

CIRNAC-1.3 Spill Management

Comment

In previous annual report reviews, CIRNAC recommended that AEM provide a year-over-year comparison of total reportable and non-reportable spills. In its response, AEM provided year-overyear information on reportable and non-reportable spills for years 2017, 2018, and 2019.

In Section 6 of the 2020 Annual Report, a year-over-year comparison (including Figure 8) is only provided for reportable spills over the 3-year period 2018, 2019 and 2020. No year over year comparison is provided for non-reportable spills.

Recommendation

CIRNAC recommends that AEM provide, in each annual report, a running table summarizing a year-over-year comparison of total reportable and non-reportable spills to help identify increasing or decreasing trends in the number of spills.

Agnico Eagle Answer

Agnico Eagle agrees to provide a year over year comparison of total reportable and non-reportable spills in future annual reports.

24 reportable spills occurred in 2020, 25 reportable spills occurred in 2019, 22 reportable spills occurred in 2018 and 14 reportable spills occurred in 2017.

112 non-reportable spills occurred in 2020, 63 non-reportable spills occurred in 2019, 77 non-reportable spills occurred in 2018 and147 non-reportable spills occurred in 2017

CIRNAC-1.4 Mine Site Water Quality

Comment

In previous annual report reviews, CIRNAC recommended that AEM present water quality data summaries for all mine site monitoring stations.

Section 7.3.1 of the 2020 Annual Report Main Document presents summaries and discussions of limited data pertaining to Total Suspended Solids and Total Dissolved Solids (TSS/TDS) and only for stations that are regulated by Metal and Diamond Mining Effluent Regulations (MDMER) and Water Licence criteria.

CIRNAC appreciates that AEM presented the complete data set for each licenced sampling station and year-over-year comparisons in Appendix 19, but CIRNAC maintains that the information presented in Section 7.3.1 of 2020 Annual Report Main Document should be augmented to provide data and interpretation for all licenced sampling stations that continue to be monitored.

Recommendation

CIRNAC recommends that AEM present water quality data summaries with interpretation for all licenced sampling stations that continue to be monitored.

Agnico Eagle Answer

Agnico Eagle will provide water data summaries and interpretation as per Amended Water Licence 2AM-MEL1631 Schedule B Item 16 and will continue to provide the monitoring station data in tabular format for review in Appendix of the Annual Report.

CIRNAC-1.5 Annual Report Structure

Comment

CIRNAC recommended the following during previous annual report reviews:

> a. Restructure the report to remove information on non-waste rock related aspects of the site (e.g., dikes, basins, tailings, etc.) from Section 4 which describes Waste Rock Management Activities.
>
> b. Identify DCP-5 on Figures 1 & 2 presenting Meliadine site plans and add a figure showing facilities at Itivia and the location of MDMER monitoring station MEL-26.
>
> c. Develop a tracking table summarizing past and present regulators' comments on the Annual Report and where within the document the comments have been addressed to facilitate tracking the resolution status of comments.

In the 2020 Annual Report, Section 4 has been renamed to "Critical Infrastructure Management Activities" to better reflect the type of information presented in this section. While this is a positive improvement to the report, CIRNAC notes that the 2020 Annual Report does not include a section that discusses mill operations and mill-related activities. For instance, information on the total amount of ore milled, the amount of tailings deposited underground, the amount of reagents used, the amount of cyanide used, information on cyanide handling and storage practices is not reported. In addition, CIRNAC makes the following observations:

- D-CP5 could not be located on either Figure 1 in Section 2.3.1 or Figure 9 in Section 7 (previously Figure 2). In addition, there is no figure showing facilities at Itivia Harbour and station MEL- 26 where treated saline effluent is discharged to Melvin Bay.

- A table tracking the status of regulators' comments was not included with the 2020 Annual Report.

- Information presented in Table 11 is repetitive. The total tailings and waste rock volumes shown in the second line of the table are volumes for 2019.

- Appendix 7 & 8 – 2019 & 2020 Geotechnical Reports: the tables are difficult to read as they are broken up by area, while many of the headers are missing.

- Sections 7.3.1.10 – 7.3.1.11 of 2020 Annual Report, the formatting is distorted with Figure 12 repeats four times.

Recommendation

CIRNAC recommends that AEM:

a. Add a new section discussing mill operations and mill-related activities to subsequent annual reports main document.

b. Identify DCP-5 on Figures 1 & 2 presenting Meliadine site plans and add a figure showing facilities at Itivia Harbour and the location of MDMER monitoring station MEL-26.

c. Include a tracking table summarizing past and present regulators' comments on the Annual Report and where within the document the comments have been addressed to facilitate tracking the resolution status of comments.

d. Reformat Table 11 and Sections 7.3.1.10 – 7.3.1.11 of the 2020 Annual Report where information and figures are respectively repeated.

e. Reformat tables in Geotechnical Reports (include relevant year) to include a header for each area.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for its recommendations and plans to address them as follows:

a. Agnico Eagle wishes to clarify that mill operations do not fall under critical infrastructures. Licenced and regulatory mill related reporting requirements are addressed throughout the annual report and other sectoral reports submitted to regulators throughout the year.

b. DCP-5 label will be added to Figure 1 and 2 presenting Meliadine site plans and a figure will be added showing facilities at Itivia Harbour and the location of MDMER monitoring station MEL-26 in future annual reports as applicable.

c. A tracking table summarizing the previous year's regulator comments on the Annual Report and – when relevant - how the comments have been addressed within the document will be included in future annual report submissions.

d.Table 11 and sections 7.3.1.10 and 7.3.1.11 will be reformatted in future annual reports as relevant.

e. Appendix 7 and 8 of the Geotechnical Report will be updated in future annual reports to include a header for each area.

CIRNAC-1.6 Classification of Ore by Source

Comment

In previous annual report reviews, CIRNAC recommended that in future annual reports AEM identify excavated ore by source and track the associated quantities (tonnages).

CIRNAC acknowledges that in the 2020 Annual Report, AEM has provided ore tonnages by source. Specifically, Section 2.1.3 states that 109,392 tonnes of ore were mined from Tiriganiaq Open Pit #2 and 1,293,507 tonnes from the underground operation.

CIRNAC recognizes that mining activities at the Tiriganiaq Open Pit #2 began on May 20, 2020 and recommends that in order to better track the information, a table be included in subsequent annual reports that summarizes the total ore quantities (tonnage) and ore quantities by source for all years of mining (similar to tables 3.3 and 4.1 of the Mine Waste Management Plan, V7)...

Recommendation

CIRNAC recommends that AEM include a table in subsequent annual reports that summarizes the total ore quantities and ore quantities by source for all years of mining.

Agnico Eagle Answer

Agnico Eagle will continue to provide a table summarizing total ore quantities and ore quantities by source for all years of mining in future annual reports.

CIRNAC-1.7 Acid Rock Drainage Potential of Filtered Tailings

Comment

During the review of previous annual reports, CIRNAC recommended that AEM:

a. Review mine ore lithology and geochemistry to update predictions of ARD potential of ores and clarify how the ARD was underestimated.

b. Carry out geochemical modelling of the tailings facility to establish a new set of predictions for source term behaviour and potential impacts on water quality.

Forty filtered tailings samples tested for ARD in 2020 had a higher neutralization potential (NP-Ca) and lower acid potential (AP) compared to samples tested in 2019. In 2019, all but two samples were classified as uncertain ARD potential with the remaining two classified as PAG compared to approximately 1/3 of the tailings samples classified as non-PAG and approximately

2/3 as uncertain in 2020. These results have also yielded a higher median NPR value of 1.8 for 2020 compared to 1.4 in 2019.

In Section 4.2(g) AEM states that "There have been some indications from the commercial laboratory that the method for determining NP-Total Inorganic Carbon (TIC) has been biased low for Meliadine operational samples, and this is a focus of an ongoing investigation. The impact would be that the NP/AP ratio has also been biased low; assuming acid potential remains the same, so there is no additional risk to ARD assessment of the tailings having greater ARD potential. In fact, if the bias were found to be proven, this would mean the tailings have lower ARD potential than previously reported. Findings will be reported under a separate cover as soon as they have been resolved".

If the low bias in NPR values can be proven to be the case, it would suggest that the ARD classification of filtered tailings may be more aligned with FEIS predictions than currently shown. Resolution of this potential analytical bias would provide more confidence that there is low ARD risk associated with the filtered tailings.

CIRNAC considers this issue to be an ongoing concern until the inferred bias with NPR measurement is resolved and an increasing trend in the NPR value of filtered tailings is clearly demonstrated in subsequent years.

Recommendation

CIRNAC recommends that AEM provides, as part of the 2021 Annual Report, the report discussing the laboratory's findings regarding the determination of NPR.

Agnico Eagle Answer

The laboratory investigation confirmed that that SGS Lakefield was biasing results low for carbonate and Agnico Eagle now have supporting information from the analytical laboratory. This report is available in appendix.

CIRNAC-1.8 Site Water Management

Comment

During the review of previous annual reports, CIRNAC recommended that in order to better understand the site water management system at the Meliadine Gold Mine, AEM provide a detailed technical report that:

a. Identifies and quantifies the factors that contributed to the contact water ponds being operated outside of the design guidelines;

b. Describes potential environmental consequences and operational risks associated with the reduction in surplus pond storage capacity; and

c. Presents and evaluates options being considered by AEM to rectify the situation.

AEM carried out a number of studies and updated models to assess the issues related to the geotechnical aspects and the water management considerations and impacts of excess water storage in 2019 and the potential impacts of emergency discharge of waters into Meliadine Lake in 2020. These studies have been presented as part of the NIRB Reconsideration of Project Certificate No. 006, of AEM's "Saline Effluent Discharge to Marine Environment, Rankin Inlet, Meliadine Gold Mine process as well as the Nunavut Water Board (NWB) review of AEM's amendment of their existing Type "A" Water Licence 2AM-MEL1631 amendment application.

During the NWB Water Licence amendment process, AEM provided a TDS loading model illustrating TDS loads into Containment Pond (CP-1) from CP-3, CP-4, CP-5, CP-6 ponds plus TDS loading contributions from non-pond collected waters draining directly to CP-1, referred to as "rest of site". CIRNAC had requested additional information on the nature and make-up of "rest of site" areas/facilities that contributed so significantly to the TDS loadings to CP-1 (as per the SNC upper bound model report). CIRNAC of the view that this information would be useful for ongoing management and mitigation of potential impacts of these site areas to future water quality in CP-1 and ultimately offsite.

Recommendation

CIRNAC recommends that AEM provide information on the nature and make-up of "rest of site" areas/facilities that contributed significantly to the TDS loadings to CP-1.

Agnico Eagle Answer

The term "rest of site" is a grouping of the areas and facilities on site where runoff reports directly to CP1 and not the other containment ponds' catchment areas (CP3, CP4, CP5, and CP6). The following facilities are included in the "rest of site" and contribute discrete TDS loadings to the CP1 watershed: natural ground with vegetation, disturbed ground, a portion of Waste Rock Facility 1 (WRSF1), a portion of the Tailings Storage Facility (TSF), the Landfill area, and the Ore Stockpile (OP2). Additionally, treated effluent produced by the Sewage Treatment Plant (STP), Landfarm Oil-Water treatment, and Reverse Osmosis Plant (RO) are also included in this list.

CIRNAC-1.9 Saine Effluent Treatment

Comment

During review of previous annual reports, CIRNAC recommended that AEM provide its review of the Saline Effluent Treatment Plant (SETP) monitoring and reporting practices that AEM expected to have completed prior to the 2020 open water season.

Information regarding SETP monitoring and reporting practices that were expected to be completed prior to the 2020 open water season was not provided by AEM. Furthermore, as noted in Section 7.3.1.24 of the 2020 Annual Report, two exceedances of the MDMER's TSS discharge

limit of 30 mg/L for any given grab sample occurred at MEL-26 in 2020 (August 23 and September 16), although all acute lethality and sublethal toxicity testing was compliant.

Potential causes identified for the first exceedance included algal growth in SP3, the presence of sediments in the trucks transporting water from the Meliadine site to the Itivia Harbour site, and possible overestimation of TSS levels by the laboratory due to interference from high TDS levels in the saline water (under investigation). In response to the August 23 exceedance, AEM conducted a detailed audit of the saline effluent management infrastructure and developed an action plan to mitigate potential sources of TSS. A number of actions outlined in the 2020 Annual Report were implemented as part of the TSS Action Plan. Despite this, another TSS exceedance occurred on September 16 that was attributed to inadequate cleaning of the transport truck, and a procedure was subsequently implemented for truck inspection to confirm truck cleanliness prior to filling up with water for transport to Itivia Harbour and discharge in the marine environment at Melvin Bay.

AEM indicated that lessons learned from these incidents were incorporated into the water management practices to prevent reoccurrence and improve the TSS management process for the 2021 open water season. AEM also indicated that additional resources have been allocated to water management to achieve increased follow-up and improve the redundancy and robustness of the process. CIRNAC commends the efforts taken by AEM to help ensure that TSS discharge limits are met at MEL-26.

Recommendation

CIRNAC recommends that AEM submit the TSS Action Plan and improved water management procedures for review by interested intervenors.

Agnico Eagle Answer

The TSS Action Plan included the following:

- Samples were sent to H2Lab (in addition to our regulatory sampling), to shorten the delay for samples to be processed and to allow a quicker determination of TSS concentration.
- Sampling frequency was increased with daily samples taken in multiple locations of the process.
- The SP3 pond was emptied, rinsed and cleaned by September 8th, to mitigate any further algae issues.
- The SP3 pump was elevated to increase the distance between the pump intake and the bottom of the pond where sediment could be present.
- The SETP final treated water tank was cleaned.
- Pressure indicators before and after the bag filters at the truck loading station were installed. Pressure and flow were monitored to identify any potential issue related to filter malfunction or the need to change the filters.
- Frequent filter inspections and replacements were carried out at the truck loading station.

- Continued investigation of the possibility of an overestimation of the TSS levels related to an interference caused by the high TDS in the saline water.

In response to the September 16th, 2020 exceedance, the following additional mitigation measures were put in place:

- A rigorous truck verification plan was developed, including a systematic visual inspection of each truck tank prior to being filled.
- An "Environmental Sampling Checklist" was compiled, to ensure the daily sampling routine at each of the multiple locations was carried out properly by Agnico Eagle's Environment personnel.
- All trucks were cleaned thoroughly by September 20th, 2020.
- The discharge station at Itivia was inspected for potential TSS loading sources – other than hoses, no sources were identified. Clean hoses were used upon resuming discharge.
- Mitigation measures from the TSS Action Plan, such as the daily samples taken at multiple locations of the process, pressure monitoring of the filters and frequent filter replacement at the truck loading station were also maintained when discharge to sea was resumed.

To ensure the 2021 discharge season maintains compliance with TSS effluent limits, a TSS Mitigation and Monitoring Playbook was developed to compile items outlined in the action plan developed in 2020 in addition to other mitigation measures, monitoring programs, procedures defined for saline discharge.

The following items summarize the mitigation measures outlined in the playbook:

- Meetings with stakeholders and relevant personnel outlining roles and responsibilities in carrying out TSS mitigation actions, prior to discharge.
- Cleaning of SP3 prior to discharging to remove any accumulated solids in the pond.
- Maintaining SP3 operating levels to prevent re-suspension of TSS that may have accumulated at the pond bottom by wind-driven mixing.
- Elevating the pump installation in SP3 to further reduce entrainment of TSS that may have accumulated at the pond bottom.
- Truck cleaning requirement in adherence with a truck cleaning procedure prior to discharge.
- Logged inspections of truck tanks on a frequent basis and prior to discharge.
- Bag filter changes at the truck loading and discharge filtration stations based on pressure differentials observed before and after filtration and based on total water filtered by each bag.

Additionally, a TSS monitoring sampling calendar indicates the frequency and responsibility of samples that are to be collected at the SETP discharge, filtration station, and final discharge point. TSS samples will be analyzed both internally for immediate results in addition to accredited analysis conducted by ALS Burnaby. This lab was selected due to their analysis methodology for saline water resulting in unbiased (i.e. not skewed higher) TSS concentration results for high salinity samples. The analysis conducted internally replicates the methodology carried out by ALS

Burnaby to ensure accurate results. Monitoring checklists conducted at time of sampling ensures QA/QC practices are maintained.

The TSS Mitigation and Monitoring Playbook also outlines a decision-making strategy to ensure inspection items and monitoring results trigger appropriate actions in maintaining TSS compliance.

Lastly, roles and responsibilities for the execution of the previously mentioned items are defined in the playbook to ensure it is successfully executed.

With these measures in place and the lessons learned in previous discharge season and exceedance investigations, Agnico Eagle is confident that any potential for elevated TSS in the saline discharge system in the 2021 discharge season will be controlled.

CIRNAC-10 CIRNAC Inspections

Comment

During review of previous Annual Reports, CIRNAC recommended that AEM:

a. Modify the content of the Feedback/Outcome section to provide more specific/meaningful notes on the inspection summary.

b. For any inspections where Action Required or Non- Compliance items are noted, include a summary description of AEM's actions to address the issues.

In the 2020 Annual Report, AEM stated that "Due to the COVID-19 pandemic, in-person site inspections or site visits were limited in 2020. Agnico Eagle worked with regulators throughout the year to develop virtual site visits as well as in conducting non-contact site visits. During these non-contact site visits, Agnico Eagle's Detached Operation Protocol was strictly enforced, as well as all applicable public health guidelines. Table 24 summarizes inspections and site visits that took place in 2020.conduct noncontact site visits".

Reporting in Table 24 (previously Table 23) notes three CIRNAC non-contact inspections in 2020 (August 13, 27 and September 25). The September 2020 inspection notes that "The area of focus was around the diesel spill location reported the previous day" but does not provide a reference to the Appendix 15, 2020 Reportable Spills and the actual spill report..

Recommendation

While improvements have been made, based on the above comments, CIRNAC recommends that AEM:

a. Consider modifying the content of the Feedback/Outcome section of the Table 24 to add specific notes on the inspection summary.

b. Include a summary description of its actions to address the issues identified during any inspections where Action Required or Non-Compliance items are noted.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for acknowledging improvements made to reporting relative to inspections and will continue to account for CIRNAC's above recommendations in future annual reports.

CIRNAC-2 Reporting on Milling Operations

Comment

The Meliadine Gold Mine project includes an on-site milling operation to process ore at a rate of 8,500 tonnes per day. Milling operations at Meliadine were initiated in 2019. In reviewing the 2020 Annual Report it is noted that there is no discussion in the report regarding mill operations (e.g., days of milling, quantities of ore processed, tailings generated, water used, and related activities on cyanide management and utilization and tailings detoxification).

CIRNAC is of the opinion that a discussion of the milling operations during the year would provide a more fulsome perspective of the Meliadine Gold Mine operations and would be a useful addition to the annual report.

Recommendation

CIRNAC recommends that AEM:

a. Add a section to the annual report describing mill operations at the Meliadine site (e.g., days of milling, amount of ore processed, tailings generated, water used, and related activities on cyanide management and utilization and tailings detoxification).

b. Provide information regarding 2020 milling operations and activities at the Meliadine Gold Mine for review and include such information going forward.E Manage

Agnico Eagle Answer

Agnico Eagle refers CIRNAC to the answer to CIRNAC-1.5 a regarding the mill operations.

CIRNAC-3 Changes to Saline Water Management and Storage

Comment

The Saline Water Balance model was built around the inflows and outflows of Saline Pond 1 (SP1), Saline Pond 4 (SP4), and Tiriganiaq Pit #2 from 2021 to 2028. The model applies mean climate precipitation data to each saline pond catchment between the months of June and

October each year. The resulting forecast shows a steady increase in saline water accumulation on site over the life of mine. Based on these assumptions and assuming Tiriganiaq Pit #2 saline water storage starts in June 2021, the model shows that there would be adequate saline storage capacity for the life of mine. Saline water quality forecasts based on average input concentrations of 55,000 mg/L result in forecasted storage water TDS concentrations ranging from 43,500 mg/L to 47,500 mg/L based on lower starting concentrations from pre-existing runoff present in the ponds from past years and the effect of future precipitation runoff inflows to saline ponds.

The model assumes that the Tiriganiaq Pit #2 will be used for saline water storage in 2021 and was thus effectively removed from the surface contact water model (incorporated into saline water balance, Section 3.2.3).

During the 2020 NIRB Reconsideration of Project Certificate No. 006, of AEM's "Saline Effluent Discharge to Marine Environment, Rankin Inlet, Meliadine Gold Mine" and the Nunavut Water Board (NWB) review of AEM's amendment of their existing Type "A" Water Licence 2AM-MEL1631 processes, AEM stated its position that the use of the Tiriganiaq Open Pit #2 for water storage (saline or contact surface) was not a sustainable practice.

In correspondence of September 9, 2020, as part of the NWB water licence amendment for the expansion of the SETP capacity from 800 to 1,600 m3 per day, AEM provided clarifications noting that the underground and surface water are combined at times, and TDS "attenuation" (by mixing site waters) will be the primary process for TDS management. In other words, AEM intends, when necessary, to reduce TDS of saline ground water with surface contact water from CP-1.

In the context of the above statements, it is unclear as to how, and to what degree, saline and surface contact water will be mixed and what role the Tiriganiaq Pit #2 will play in regard to onsite storage.

Recommendation

CIRNAC recommends that AEM:

a. Clarify why the use of the Tiriganiaq Pit #2 for saline water is now considered to be not sustainable.

b. Clarify how in the absence of long term storage, AEM intends to use the Tiriganiaq Pit #2 in the short term for storage and discharge of water either under normal or under emergency water management conditions.

c. Provide specific information on saline and contact water mixing and discharge in 2020, including quantities of mixed water discharged, timelines for initial mixed water discharge, and subsequent discharges throughout the year.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for the comment. Agnico Eagle wishes to clarify that it is the discharge rate via trucking to Melvin Bay which is characterized as not sustainable. This is for two

main reasons. Firstly, year-over-year increase in storage and thus long-term storage of saline water in Tiriganiaq Pit 2 poses risk to permafrost integrity. As mining within Tiriganiaq Pit 2 is expected to resume later in mine life, geotechnical integrity of the pit walls must be considered. Similarly, as mining of the Tiriganiaq Underground mine will occur underneath Tiriganiaq Pit 2, it is important to also consider the geotechnical integrity of the crown pillar. Year-over-year increase in water storage in Tiriganiaq Pit 2 will result in additional permafrost warming and degradation in the pit walls and base. The permafrost adds to the strength and stability of the rock mass. Thus, in the interest of reducing risk to geotechnical integrity of the pit and crown pillar, and to prevent risks that could injure workers, storing increasing amounts of water over the mine life is not considered to be sustainable or best practice. For more information, please refer to the memo prepared by Tetra Tech (2020) submitted as an exhibit to the 2AM-MEL1631 Water License Amendment Public Hearing.

Secondly, with respect to the saline water strategy on site as described in the Groundwater Management Plan, the long-term strategy is annual dewatering of groundwater inflows via the waterline. Agnico Eagle does not consider long-term storage a sustainable saline water management strategy and considers annual dewatering of groundwater inflows (i.e., a net zero water balance) via the waterline as the long-term saline water management strategy.

With respect to Tiriganiaq Pit 2 utilization within the long-term strategy, Agnico Eagle plans to store winter groundwater inflows (i.e., groundwater the enters the mine outside of the discharge season) within Tiriganiaq Pit 2. These winter inflows will then be discharged via the waterline during the subsequent discharge season. For further information on the use of Tiriganiaq Pit 2 under normal operating conditions and emergency conditions, Agnico Eagle refers CIRNAC to the Adaptive Management Plan currently under review as part of the NIRB waterline application (NIRB Reconsideration of Project Certificate No. 006).

Lastly, Agnico Eagle would like to refer CIRNAC to the Saline Effluent Treatment Plant (SETP) Design Report (6526-680-132-REP-001) for information on the saline water discharge strategy which was applied throughout 2020.

CIRNAC-4 Mill Use of CP-1 (Containment Pond 1) Water

Comment

In Section 4.2.4 of the 2020 Annual Report, Filtered Tailings Supernatant, AEM states that “in 2020 as the Process Plant stabilized, the metals and other parameters were in general more consistent throughout the year but in general, higher than in 2019. The higher values for metals in 2020 may also be affected that a large portion of the mill feed water came from CP1 in 2020 while all feed water in 2019 came from Meliadine Lake which, in general, has lower metals than CP1”.

CIRNAC is pleased to note in the 2020 Annual Report that AEM used a large portion of mill feedwater from CP1. This is particularly noteworthy as during 2020 NIRB Reconsideration of Project Certificate No. 006 (amendment 001), of AEM’s “Saline Effluent Discharge to Marine Environment, Rankin Inlet, Meliadine Gold Mine” and the Nunavut Water Board (NWB) review of

AEM's amendment of their existing Type "A" Water Licence 2AMMEL1631 Technical Meetings processes CIRNAC, Kivalliq Inuit Association, and community members expressed opinions that AEM recycle mill water to minimize fresh water taken from Meliadine Lake and to reduce or eliminate effluent discharges to Meliadine Lake.

During these discussions AEM indicated that there were technical limitations and constraints to the use of CP1 water as mill feedwater and that further work would be necessary in order to assess the viability of CP1 water use for milling purposes as part of normal operations or as an emergency management option for drawing down high water levels as part of adaptive management to manage extreme wet year water volumes.

CIRNAC is hopeful that AEM can provide additional information on the use of CP1 water in the mill (time period(s), quantity, quality, etc,) in 2020. CIRNAC would also appreciate AEM commenting on the experience it has gained in 2020 when using a large portion of the mill feedwater from CP1 in order to assess how the use of this practice may provide positive contribution to AEM's water use and management practices going forward.

Recommendation

CIRNAC recommends that AEM:

a. Provide details related to when and how much CP-1 water was used in the mill in 2020.

b. Clarify AEM's current position on the mill's use of CP-1 water under normal operating conditions to maintain CP-1 water level at the low end of operating water levels.

c. Provide information on potential use of CP-1 water by the mill for adaptive management drawdown of the CP-1 water level.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for the comment. As reported via Facebook and the AEM Nunavut Website as part of the 2AM-MEL1631 Emergency Amendment No. 1 communications, 58,239 m3 of CP1 water was used at the Mill during the discharge season of 2020.

As stated within the amended 2AM-MEL1631 Water Licence, "Agnico Eagle will maximize to the greatest practical extent, the use of Reclaim Water from Contact Water management facilities for use in the mill". Agnico Eagle will apply this Licence condition to both normal operating conditions and adaptive management.

CIRNAC-5 Cyanide Management and Use Handling

Comment

For all practical purposes, the 2020 Annual Report lacks detailed information on the nature and extent of cyanide use, transportation, handling and storage. Brief mentions of cyanide are made within Sections 4.2 Geochemical Monitoring, 4.2.4 Filtered Tailings Supernatant, 11.2 Community Meetings in Rankin Inlet (teleconference re cyanide transport), Appendix 6: 2020 Annual Geotechnical Inspection Report (temporary cyanide storage pad & former cyanide storage pad currently used as a burn pad), Appendix 37 - 2020 Communication Engagement Table (communications re ICMC & Cyanide Transport); Appendix 39 2020 Socio Economic Monitoring Program Report (cultural). These discussions do not include technical and management aspects of cyanide use as part of the gold recovery process.

While the modern gold mining industry generally has a strong environmental and safety record in the use of cyanide, its use is still a concern. Establishment of proper management practices and adherence to internationally accepted best practices such as those articulated in the Cyanide Code go far to eliminate and mitigate potential issues and impacts during normal conditions and to ensure that prompt and appropriate actions are able to be undertaken in the event of upsets, accidents, and potential unforeseen incidents during offsite and onsite transport, handling, storage and process use.

Recommendation

CIRNAC recommends that AEM include a discussion of its cyanide management practices and use in future Annual Reports and complete with appropriate appendix details, as needed, with respect to cyanide source, transportation to site, on site handling and storage, and emergency procedures.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for their comment and understands cyanide management remains a concern within the modern gold mining industry – as such, Agnico Eagle is a signatory of the International Cyanide Management Code (ICMC) and Meliadine is currently working towards ICMC certification, with the first certification audit planned for 2022.

As is the practice with the ICMC, once certified, Meliadine cyanide practices, sourcing, transportation to site and all other details related to ICMC requirements will be publicly available in the certification audit report online.

Agnico Eagle wishes to clarify that cyanide management practices for the Meliadine Gold Mine are discussed in various operational management plans, rather than being part of the annual report process. For more details on its cyanide management practices, Agnico Eagle refers CIRNAC to its Hazardous Materials Management Plan, as well as to the Spill Contingency Plan and the Risk Management and Emergency Response Plan. Should these documents be updated as part of the ICMC certification process, they will be submitted to regulators as per usual procedure.

CIRNAC-6.1 Permafrost Degradation

Comment

In both 2019 and 2020, comprehensive geotechnical inspections were carried out by Tetra Tech for all of the project facilities. Observations and recommendations were provided to AEM for consideration. AEM provided responses. CIRNAC had no issues with the inspection findings and recommendations, and responses.

Based on the annual report and inspection records, it appears that the water levels in CP1 and CP5 were within the normal range of operating levels after the freshet and at or below operating pond levels before freeze-up.

The geotechnical condition of the dams are stable, but ongoing monitoring in accordance with AEM's Operation, Maintenance and Surveillance (OMS) Manual is required. It is understood that AEM has updated the OMS Manual for the monitoring of both the DCP1 and D-CP5 dikes and operations of the respective containment ponds.

While information was provided on freeze back of tailings, waste rock dams and dikes, no information was provided on permafrost degradation of other aspects of the operation.

Recommendation

CIRNAC recommends that AEM add a section to the Geotechnical Inspection Report that provides detailed information on the status of any permafrost degradation that may be occurring on site per T&C 17 and T&C 21 of the NIRB Project Certificate 006 (Amendment 001) for this mine development.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for their comment.

Agnico Eagle wishes to clarify both the Annual Geotechnical Inspection and related report are carried out according to Agnico Eagle's Water Licence and Project Certificate requirements.

Agnico Eagle monitors and maps permafrost conditions through its thermal monitoring program, results of which are in the Annual Geotechnical Inspection Report.

It is Agnico Eagle's view that the current structure of the Annual Geotechnical Inspection Report addresses the reporting requirements of Term and Condition 17 as acknowledged by NIRB in its 2019-2020 Monitoring Report.

For consistency purposes and to facilitate yearly comparisons between the reports, Agnico Eagle does not believe CIRNAC's proposed change to the structure of the Annual Geotechnical Report is necessary at this time.

CIRNAC-6.2 Diversion Channels and Berms

Comment

In the "Executive Summary" of Appendix 6, under the title "Diversion Channels and Berms", AEM stated that "The diversion channels and berms are performing well. It is recommended to continue to monitor the slumping and cracking adjacent to Channel 5 to determine if sediment from the area is blocking the channel. Cracking and subsidence in the native ground above Channels 3 and 4 should be monitored to determine if they are impacting the channels' performance. Berm 2 cover materials are susceptible to erosion and some minor erosion was observed during the inspection. Erosion of the slopes should be monitored".

CIRNAC could not find any geotechnical narratives describing corrective actions that have been undertaken to address the indicated defects. Cracking, subsidence and erosion will compromise the overall performance of the above-mentioned geotechnical features to effectively meet their original purpose and function.

Recommendation

CIRNAC recommends that AEM provide the list of corrective measures including investigation, monitoring and repairs that have been undertaken to address the performance issues as indicated above.

Agnico Eagle Answer

Agnico Eagle refers CIRNAC to the response tables provided in Appendix 7 and 8 of the 2020 Geotechnical Inspection.

CIRNAC-6.3 Landfills

Comment

In the "Executive Summary" of Appendix 6, under the title – "Landfill", AEM stated that "The landfill is nearing its current design capacity. It is understood a plan has been developed to raise the landfill berms to provide additional capacity." As this is an environmental concern, it is unclear why AEM has not provided a schedule to confirm how they plan to increase the landfill capacity.

Recommendation

CIRNAC recommends that AEM:

a. Provide additional information (technical memo, preliminary study) about the measures that have been put in place temporarily to address the landfill capacity issue.

b. Provide timeline and methodology for the construction of the new landfill.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for its recommendation and will provide a technical memo to this effect by September 30th, 2021.

CIRNAC-6.4 Scope and Limitations of Inspection

Comment

In the "Introduction" of Appendix 6, under the title –"Scope Limitations", AEM indicated that "The scope of the inspection is limited to the observation of geotechnical aspects of each of the facilities listed above and review of the associated instrumentation data. The inspection did not include other assessments such as structural, mechanical, or environmental." CIRNAC is of the view that structural and civil engineering disciplines could be included in this scope to avoid missing critical aspects from these disciplines.

Recommendation

CIRNAC recommends that AEM consider conducting a multidisciplinary inspection in order to cover structural, mechanical and environmental critical aspects omitted in the inspection.

Agnico Eagle Answer

Agnico Eagle wishes to clarify the geotechnical inspection report complies with applicable reporting requirements. The mentioned limitations are meant to inform the reader on the scope, purpose and boundaries of the geotechnical inspection and should not be considered as omissions or call for broadening the scope of the geotechnical inspection.

CIRNAC-7 Employee schedule

Comment

Pursuant to Project Certificate 006, Amendment 001, Term and Condition 92: "The Proponent shall submit a detailed staff schedule to the NIRB and to the Government of Nunavut in the first 6 months following the issuance of a Project Certificate. The schedule should, at a minimum, provide a description of:

a. Title of positions required by department and division;

b. Quantity of positions available by Project phase and year;

c. Transferable skills, both certified and uncertified which may be required for, or gained during, employment within each position; and,

d. The National Occupational Classification (NOC) code for each individual position.

The Proponent is encouraged to consult the Government of Nunavut during development of the schedule. A new schedule should be submitted following any significant deviation from original predictions."

The 2020 Annual Report does not provide any details on when the latest detailed staff schedule was submitted to the NIRB or anticipated upcoming submissions.

Recommendation

CIRNAC recommends that AEM:

a. Specify when the latest detailed staff schedule was submitted to the NIRB.

b. Confirm when an updated submission will be provided to the NIRB based on its measurement of reporting results against predictions and/or a defined reporting frequency

Agnico Eagle Answer

Agnico Eagle submitted the detailed staff schedule to the NIRB on November 5, 201 and since then, there have been no significant deviation from original predictions.

Agnico Eagle wishes to reassure CIRNAC that should there be significant deviations, Agnico Eagle will submit an updated schedule.

CIRNAC-8 Transferable skills and training (listing of formal certificates and licences)

Comment

Pursuant to Project Certificate 006, Amendment 001, Term and Condition 96: "Prior to construction, the Proponent shall develop an easily referenced listing of formal certificates and licences that may be acquired via on-site training or training during project employment. The listing shall indicate which of these certifications and licences would be transferable to a similar job site within Nunavut, and should be updated on an annual basis, and is to be provided to the NIRB upon completion and as may be revised."

While AEM provides a listing of training that it delivered in 2020 (Appendix 40) by course, it does not specify whether any formal certificates or licences may be acquired through on-site training or training during project employment. Also, there is no indication on whether any certifications and licences that may be acquired are transferable to other jobs within Nunavut.

Recommendation

CIRNAC recommends that AEM provide an easily referenced listing of formal certificates and licences that may be acquired through on-site training or training during project employment on an annual basis as required by Project Certificate 006, Amendment 001, Term and Condition 96.

This listing should indicate which of these certifications and licences would be transferable to a similar job site within Nunavut.

Agnico Eagle Answer

Agnico Eagle provides a list of all training activities provided to employees each year by Nunavut sites in its Socio-Economic Monitoring Report (SEMR) and identifies certificates in the Training activity title/list.

When a training activity has a course code containing NUN, this training is the same through all Agnico Eagle Nunavut sites.

Certifications acquired via Agnico Eagle's training departments in Nunavut are transferable to a similar job site within Agnico Eagle's Nunavut operations. Some certifications may require site specific assessment to ensure employees understand positions specific tasks/jobs and to ensure worker health and safety.

CIRNAC-9 Employee origin

Comment

The 2020 Annual Report and 2020 Socio-Economic Monitoring Program Report partially addresses the information requirements specified in Project Certificate 006, Amendment 001, Term and Condition 101 which concern documenting employee origins (i.e., principle residence locations). Section 12.2 of the 2020 Annual Report identifies the origins of Inuit employees by Kivalliq community, Kitikmeot and Qikiqtani region, and "outside of Kivalliq." Section 1.3 of the 2020 Socio-Economic Monitoring Program Report identifies the number of Inuit employees by Kivalliq community. No information is provided for the origins of non-Inuit employees, the number of employees hired from other provinces and territories, and the number of employees hired outside of Canada.

The outstanding information requirements from this Term and Condition are underlined below:

a. The number of Inuit and non-Inuit employees hired from each of the Kivalliq communities, specifying the number from each;

b. The number of Inuit and non-Inuit employees hired from each of the Kitikmeot and Qikiqtani regions, specifying the number from each;

c. The number of Inuit and non-Inuit employees hired from a southern location or other province/territory outside of Nunavut, specifying the locations and the number from each; and

d. The number of non-Canadian foreign employees hired, specifying the locations and number from each foreign point of hire.

Recommendation

CIRNAC recommends that AEM provide the employee origin information required under Project Certificate 006, Amendment 001, Term and Condition 101 in its response to comments on this 2020 Annual Report and future Annual Report submissions

Agnico Eagle Answer

Agnico Eagle refers CIRNAC to the Socio-Economic Monitoring Report, Appendix C. Detailed Employment Data for employee origin information.

CIRNAC-10 Consultation with outfitters and guides

Comment

Pursuant to Project Certificate 006, Amendment 001, Term and Condition 104: "The Proponent is encouraged to consult with outfitting and guiding businesses that operate in the LSA and RSA regarding use of the area, specifically as it relates to hunting, fishing and guiding within proximity of the AWAR. Results of this consultation should be incorporated into updated plans where applicable."

The 2020 Annual Report does not reference any consultation activities with outfitting and guiding companies that operate in the Local Study Area and Regional Study Area regarding use of the area, specifically in relation to hunting, fishing and guiding within proximity of the All Weather Access Road.

While separate from consulting with outfitting and guiding businesses, CIRNAC recognizes AEM's ongoing efforts to collaborate with the Kangiqliniq Hunters and Trappers Organization to monitor wildlife. This is evidenced through the establishment of a Hunter Harvest Study through a Memorandum of Understanding as communicated in section 13 of the 2020 Terrestrial Management and Monitoring Plan Report (Appendix 26).

Recommendation

CIRNAC recommends that AEM:

a. Provide an update on the outcomes of any consultation efforts undertaken with outfitting and guiding companies that operate in the Local Study Area and Regional Study Area regarding use of the area, specifically as it relates to hunting, fishing and guiding within proximity of the AWAR.

b. Report any updates to management plans based on consultation efforts.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for their recommendation and will account for it in the 2021 Annual Report.

Transport Canada (TC)

TC Comments

In summary, Transport Canada did not carry out any on-site physical inspections or enforcement activities associated with the Project in 2020. Based on the information available to date, except for one issue, the Project was in compliance with legislation administered by the Department and with the authorizations issued to it by Transport Canada's Navigation Protection Program. As is discussed in more detail below, non-compliances were noted on the shipping documents used to ship hazardous wastes via marine transportation.

As detailed below, Transport Canada has two recommendations regarding the Project's 2020 Annual Report on the topic of marine safety and security:

- Inclusion of an up-to-date OPEP/OPPP in future annual reports.
- Inclusion of reference to the Arctic Shipping Safety and Pollution Prevention Regulations in the Project's Shipping Management Plan.

TC Recommendations

- Inclusion of an up-to-date OPEP/OPPP in future annual reports – AEM is required to submit the OPEP/OPPP to Transport Canada as detailed above. Inclusion of the updated and Transport Canada reviewed OPEP/OPPP in annual reports is an indicator of the compliance status of the Proponent. Transport Canada recommends these be included in future annual reports for the Project and is aware that OPEP/OPPP's are part of annual reports for other NIRB projects.

- Inclusion of reference to the Arctic Shipping Safety and Pollution Prevention Regulations in the Project's Shipping Management Plan - Transport Canada recommends that the Project's Shipping Management Plan reference and discuss the ASSPPR, particularly with regard to the prevention of the discharge of waste and adherence to the Polar Code.

Agnico Eagle Answer

Agnico Eagle thanks Transport Canada for their review of the 2020 Annual report and will include an updated OPEP/OPPP in future annual reports, as well as update the Shipping Management Plan to reference the Arctic Shipping Safety and Pollution Prevention Regulations.

Agnico Eagle also wishes to thank Transport Canada for bringing to its attention that non-compliances were noted on the shipping documents used to ship hazardous waste via marine transportation and that a Transport Canada Transportation of Dangerous Goods report was issued to the third-party contractor.

As of July 28th 2021, and as communicated to Transport Canada via email, Agnico Eagle and the third-party contractor have not yet received the aforementioned report.

Once the report is received, Agnico Eagle will follow-up with the third-party contractor to ensure a compliance response is provided to Transport Canada withing 30 days of its reception and that appropriate corrective measures are implemented.

Fisheries and Ocean Canada (DFO)

DFO Comments

DFO provides the following comments for the NIRBs consideration

1. Effects Monitoring

DFO is generally agreeable with Agnico Eagle's reporting and has no comments or concerns to provide at this time related to effects monitoring.

2. Compliance Monitoring

No compliance monitoring or site visits were conducted by DFO in 2020.

Terms and Condition numbers 31, 33 and 34 were incorporated under DFO's review of the 2020 Annual Report. The 2020 Blasting Monitoring Memorandum was reviewed under Term and Condition 33, "The Proponent shall meet or exceed the guidelines set by Fisheries and Oceans Canada for blasting threshold and implement practical and effective measures to ensure that residue and by-products of blasting do not negatively affect fish and fish habitat." The proponent was under DFO's Limits for both Peak Particle Velocity and Peak Sound Pressure and as such abided to Term and Condition 33. DFO also acknowledges that the proponent has installed permanent monitoring stations that allow the seismograph to be directly anchored into the bedrock to improve vibration monitoring practices and data accuracy.

The proponent is in compliance with the terms and conditions that pertain to DFO's mandate. DFO will continue to work with the proponent to ensure compliance.

Agnico Eagle Answer

Agnico Eagle thanks DFO for their review of the 2020 Annual Report and will continue to work alongside DFO to maintain compliance with terms and conditions pertaining to DFO's mandate.

AGNICO EAGLE
MELIADINE

APPENDIX

April 27, 2021

SGS Canada Inc.
Environment, Health and Safety.
185 Concession St., Box 4300
Lakefield, Ontario
Canada, K0L 2H0

Regarding Agnico Eagle Mines, Meliadine Project, carbonate analysis

SGS Canada Lakefield performed carbonate (CO3) analysis on the tailings samples submitted by Agnico Eagle Mines, Meliadine Project. These samples were also analyzed by the SGS Canada Burnaby laboratory. It was observed that both sites demonstrated equivalent total carbon values, however the SGS Canada Burnaby laboratory reported carbonate values that were consistently higher than the carbonate values reported by the SGS Lakefield laboratory.

Two different approaches were used by the laboratories, SGS Burnaby used a coulometric titration (MEND-2009) whereas SGS Lakefield used a pyrolysis technique as referenced in ASTM E1915. To investigate the differences a set of tailings samples were retrieved and analyzed using the following methods at the SGS Lakefield laboratory; CO3 by pyrolysis (ASTM E1915), CO3 by hydrochloric acid leach (ASTM E1915, MEND 2009), and CO3 by perchloric acid leach (modified coulometric technique).

Comparison of the analytical results demonstrated the perchloric acid leach and hydrochloric acid leach matched well. The results from the pyrolysis method were biased low when compared with the acid leachable values. This indicates a possible interference with the pyrolysis method, suggesting the unexpected loss or decomposition of a carbonate mineral at the temperature specified in the reference method, which would result in a low bias of carbonate values analyzed by the pyrolysis method.

All the tailings samples from 2020 were retrieved and re-analyzed, comparing the acid leach method values to the pyrolysis values and the same bias was apparent. The analytical data was then compared to the data generated by SGS Burnaby, on the same samples. The SGS Burnaby and SGS Lakefield acid leach data correlated well, while the pyrolysis values were low, suggesting that ASTM pyrolysis method is not ideal for the tailings samples and that the acid leach or coulometric technique is a more robust choice.

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