



Appendix 2: Meadowbank KVPL08D280 2020 Mine Plan
 Appendix 3: Whale Tail KVPL17D01 2020 Mine Plan
 Appendix 4: Whale Tail Haul Road KVRW15F01 2020 Work Plan
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Appendix 48 - Whale Tail 16HCAA00370 Whale Tail Project Offsets - Construction Timing Condition 5.1.1.3
 Appendix 49: Meadowbank 2019 Fish Habitat Offset monitoring Report
 Appendix 50 Meadowbank and Whale Tail Aquatic Effects Management Program Version 4
 Appendix 51: Meadowbank and Whale Tail 2019 Noise Monitoring Program
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 Appendix 54: Whale Tail Operation Staff Schedule
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 Appendix 56: Meadowbank and Whale Tail Executive Summary Translation
 Appendix 57: Meadowbank and Whale Tail Blast Monitoring Program Version 4
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 Appendix 59: Meadowbank and Whale Tail Quality Assurance/Quality Control (QA/QC) Plan, Version 5
 Appendix 60: Meadowbank Groundwater Management Plan Version 11
 Appendix 61: Whale Tail Groundwater Management Plan Version 3
 Appendix 62: Meadowbank and Whale Tail Air Quality and Dustfall Monitoring Plan Version 5
 Appendix 63: Whale Tail Landfill and Waste Management Plan Version 2
 Appendix 64: Whale Tail Migratory Bird Protection Plan Version 3
 Appendix 65: Whale Tail Blasting Activities – South Whale Tail Channel Construction Memo Version 1
 Appendix 66: Whale Tail Blasting Activities – Mammoth Dike Construction Memo Version 2
 Appendix 67: Exploration Spill Contingency Plan Version 12
 Appendix 68: Agnico Eagle Kivalliq Projects 2018 Socio-Economic Monitoring Report
 Appendix 69: Agnico Eagle Kivalliq Projects 2019 Socio-Economic Monitoring Report
 Appendix 70: Meadowbank and Whale Tail 2019 Regulators Inspection Reports
 Appendix 71: Whale Tail Marine Mammal and Seabirds Observer) Report–2019 Shipping Season
 Appendix 72: Agnico Eagle Shipping Tour Consultation Report
 Appendix 73: Meadowbank and Whale Tail 2019 Public Consultations
 Appendix 74: Baker Lake Community Liaison Committee Annual Report 2019

Our review comments and recommendations are provided in Section 2 of this technical memorandum.

1.1 Summary of Comments

Comments pertaining to the aquatic environment are summarized as follows:

- KIA is concerned with the potential impacts associated with seepage through the central dike.
- Agnico Eagle should update the Whale Tail adaptive management plan to address potential impacts to the Mammoth Dike resulting from elevated water levels in Mammoth Lake.
- KIA is concerned that water quality in the Portage and Goose pits may exceed CCME limits without treatment, and recommends Agnico Eagle begin both planning to treat water to ensure it is available as aquatic habitat at closure, and explore alternative physical habitat offsetting to those currently proposed for the end pit lakes.
- KIA is concerned that current monitoring of NP2, NP1 and the downstream lakes has not been sufficient to demonstrate cyanide seepages have been completely mitigated.
- Water quality in potentially fish bearing lakes should be compared both to baseline conditions as well as CCME water quality guidelines (WQGs) for the protection of aquatic life (PAL).
- Agnico Eagle should comply with all MDMER regulations for new qualifying discharge locations.

- Performance on site highlights the need for the incorporation of additional sensitivity analysis scenarios in the 2020 Whale Tail water and load balance model update, and the development of corresponding management and mitigation options to ensure the project can operate withing FEIS predictions.
- Future iterations of the water quality and water balance models should incorporate the assumptions and commitments as agreed upon during the licencing of the Whale Tail expansion project.
- Additional details are required for the freshet action plan procedure to ensure mine operators understand their responsibilities, and inspectors can effectively evaluate whether Agnico Eagle has adequately implemented the plan.
- Refinement of QA/QC protocols in the field require further refinement to minimize sample contamination.
- Agnico Eagle may need to reconsider using Nemo Lake as a reference site given the watershed received significant (i.e. qualifying as a discharge location under MDMER) discharges in 2019.
- Agnico Eagle should work with analytical laboratories to achieve detection limits sufficient to compare measured with predicted values for all parameters of concern.
- Concerns pertaining to persistent problems with hydraulic oil spills throughout the Meadowbank Complex.
- Observed increase in seepage from the Meadowbank Assay Lab Road.
- Continued use of nonstandard relative percent differences used to evaluate water quality data for the Dike Construction and Dewatering Monitoring Program.
- Exceedances of TSS limits at the Whale Tail site.
- Lower precision groundwater quality measurements and the associated implications to site water quality.
- Increasing cyanide concentrations in groundwater measured at the Meadowbank site.

Comments pertaining to the terrestrial environment are summarized as follows:

- Agnico Eagles should use descriptive statistics and trend analyses to report on natural variation and potential mine-related changes in wildlife.
- Agnico Eagle has not presented data on caribou observations or collar movements, nor the types of monitoring that triggered enhanced mitigation.
- Agnico Eagle has not clarified where and when the 2019 Wildlife Monitoring Mitigation Audit results will be presented, and the conditions under which a complete audit in 2020 will be conducted.
- Agnico Eagle should analyze how the 2019 seasonal migration distribution along the road differed from the longer-term distribution/exposure and how this relates to the location of berm engineered crossings proposed for the Whale Tail haul road widening.
- It is unclear whether traffic data presented (number of vehicle trips) are vehicle passages (one passing of a location road regardless of direction) or round trips (two passages of a location).
- Additional clarification is required to determine what mitigation was in place to facilitate caribou road crossings, and the behaviour of the herd associated with those crossings.
- Caribou analysis at the local scale has not been conducted sufficient to determine whether major deflections along the Meadowbank All Weather Access Road and Whale Tail Haul Road were avoided.
- Additional information linking caribou (terrestrial) monitoring with management actions is required.

- An analysis of caribou sightings relative to group size frequencies relative to thresholds is recommended.
- Agnico Eagle should develop a road dust best management practices document that lays out the rules and mitigation measures that can be used to reduce dust generation from the Whale Tail haul road.
- Agnico Eagle should clarify why caribou on or immediately adjacent to the road are considered “problems” for the mine.

Comments pertaining to the geophysical environment are summarized as follows:

- Clarify the ounces produced in Agnico Eagle’s Nunavut gold mining operations.
- Clarify the changes to how rapidly the TARP alert levels have been raised once an anomaly is detected or inferred at the Whale Tail WRSF.
- Clarify how additional explosives may impact water quality (ie. ammonia content) in the contact water ponds for the Whale Tail open pit and waste rock storage facility.

2. Technical Review

2.1 Aquatic Environment Technical Comments

Reviewer	#	Reference	Comment	Recommendation
HESL on behalf of KIA	1.	2019 Annual Report; Section 3.1.1 Meadowbank Site; 3.1.1.1 Performance Evaluation	Agnico Eagle provides the following description of iron precipitate observed in downstream of the central dike: <i>“In the summer of 2017 the water in the downstream pond became orange and this was associated with rapid temperature variation. This event was investigated by chemical analysis and was found to be caused by the precipitation of iron oxide from bacterial process. As predicted this event re-occurred in the summer of 2018 and 2019.”</i> However, no initiatives are described to manage or mitigate the iron rich water downstream of the central dike. While not an immediate concern, seepage through the central dike will eventually influence surface water in the Portage Pit which is intended as future aquatic habitat once in pit disposal of tailings has been completed.	Please describe what measures have been implemented to limit iron rich water from flowing from the downstream pond to the current and future receiving environment.
HESL on behalf of KIA	2.	2019 Annual Report; Section 3.1.2 Whale Tail Site; 3.1.2.1 Performance Evaluation	Agnico Eagle notes the following concern pertaining to potential inflows to Whale Tail Pit: <i>“In December 2019 the TARP level of Mammoth Dike was increased to yellow due to the water level in Mammoth Lake being over the normal dike operating level. The water level increase was due to pumping of water from Whale Tail Lake South to Mammoth Lake while Mammoth Lake outlet was frozen preventing water from flowing to the nearby lakes. The risk associated with this event is overtopping of the dike liner, possibly causing damage to the dike and allowing water to flow to the Whale Tail Pit area.”</i> Agnico Eagle has proposed responses to this concern, including:	Please adaptive management thresholds, triggers and responses pertaining to water levels in Mammoth Lake, and incorporate these into the Adaptive Management Plan for the Whale Tail site. Specific thresholds and action levels are intended to provide clarity as to what measures will be taken and when in response

Reviewer	#	Reference	Comment	Recommendation
			<i>"Preparation of an action plan linked to a decision tree if the water level are higher than those expected at freshet".</i> We note that an Adaptive Management Plan has been developed for the Whale Tail site, but does not include adaptive management thresholds and responses based on water levels in the receiving environment.	to elevated water levels in the receiving environment.
HESL on behalf of KIA	3.	2019 Annual Report; 4.4.2 Water Balance Water Quality Model Reporting Summary; 4.4.2.1 Meadowbank Site; 4.4.3 Predicted Vs Measured Water Quality 4.4.3.1 Meadowbank Site Meadowbank ICRP Update 2019; 5.2.4.2 Closure Objectives and Criteria	<i>"The Water Quality Forecast 2019 (SNC, 2020) provides water quality modelling with updated parameters (including dissolved) to determine the need for potential treatment at closure. The updated water quality forecast model applies to the North and South Cell TSF Reclaim Ponds, and the Portage, Goose, Vault and Phaser Pits. A review of the available water quality data measured in 2019 was undertaken. Treatment may be required for aluminium, arsenic, cadmium, chromium, copper, iron, lead, nickel, selenium, thallium, chloride, fluoride, sulphate, and total ammonia/total nitrogen equivalent, as the pit water quality may exceed CCME limits if the water is not treated, based on the completely mixed assumption."</i> We are concerned that treatment may be required in perpetuity to ensure water overlying tailings disposed of in mined out pits will be suitable for aquatic habitat as indicated through current closure planning. This concern is exacerbated by the apparent divergences between predicted water quality and the majority of measured water quality parameters currently measured in all pits at the Meadowbank site.	Agnico Eagle should include explicit descriptions and planning for treatment of water in the flooded pits sufficient to meet CCME water quality guidelines and establish aquatic habitat in the 2020 annual report should monitoring and updates to the water quality forecast required for that report continue to indicate treatment may be required for water in the flooded pits. We further recommend Agnico Eagle explore additional habitat offsetting opportunities should water quality modelling and measurements continue to indicate that the end pit lakes may not be viable habitat in the post closure environment without treatment.

Reviewer	#	Reference	Comment	Recommendation
HESL on behalf of KIA	4.	2019 Annual Report; 8.5.3.1.7 Portage Rock Storage Facility (ST-16)	<i>"The KIA requested that Agnico continue monitoring until there is a 5 year period of non-detect cyanide results. In 2018 (5 previous year), the monitoring indicated that yearly average for CN levels does not exceed the CCME guideline, the MDMER or Water License limit for effluent discharge into the environment for NP2, NP1 and downstream lakes, Dogleg and Second Portage. Thus, based on the analysis of the previous results, Agnico Eagle has suspended the current program in 2019. However, ECCC's comment regarding the 2018 Annual Report recommended that Agnico continue to monitor Lake NP-2 on a yearly basis for the same suite of parameters as have been measured since 2014. Water quality results for 2019 ST-16 and NP-2 South can be found in Table 8-19 and 8-20, respectively. Monitoring stations are illustrated on Figure 1."</i> Table 8-19 indicates that WAD cyanide decreased between 2014 and 2016, but increased again in 2017. WAD cyanide was again below detection in 2018 and 2019. The intent of the initial request for cyanide monitoring was to demonstrate that the source had been mitigated and cut off. We remain concerned with potential seepage from the tailings facility given that cyanide concentrations as measured at ST-16 are inconsistently low. We therefore concur with ECCC's recommendation to continue monitoring the full suite of parameters as outlined in Table 8-19 until WAD cyanide measured at ST-16 is below the detection limit for 5 <u>consecutive</u> years.	Agnico Eagle should continue monitoring water quality at ST-16 and in NP-2 for the full suite of parameters as outlined in Table 8-19 and Table 8-20 until WAD cyanide is measured below the detection limit for 5 <u>consecutive</u> years.
HESL on behalf of KIA	5.	2019 Annual Report; 8.5.3.2 Whale Tail Site	Agnico Notes that <i>"there are no applicable license limits"</i> for several lakes in the receiving environment, including Lake A47 (ST-WT-6), Lake A45 (ST-WT-13), Lake A16 outlet (ST-WT-14), Lake A15 (ST-WT-15). These lakes are in the receiving environment and are potentially or may be in the future, impacted by mine activities. Lakes A45, A16 and A15 in particular are part of the Whale Tail Lake and Mammoth Lake flow paths respectively, and will be impacted by both the impoundment of the Whale Tail south basin,	Agnico Eagle should compare results from these sites to a) historical monitoring data to identify if water quality is changing relative to the normal range, and b) CCME WQGs for PAL.

Reviewer	#	Reference	Comment	Recommendation
			and discharge activities into both Whale Tail South and Mammoth Lake. While licence discharge limits are not applied to these lakes, comparisons should still be made to CCME water quality guidelines and baseline conditions to understand whether the downstream environment is impacted by mine activities and implement mitigations if they are.	
HESL on behalf of KIA	6.	2019 Annual Report; 8.5.3.2.12 Effluent discharged from AP-5 and Trench-water Containment Pond (MEA-4)	Agnico Eagle notes <i>“On September 10th, Agnico contacted the CIRNAC Inspector to notify that following higher than anticipated precipitation during July and August, discharges from AP-5 were higher than originally estimated, and thus it was anticipated that it will continue to discharge an additional approximately 1,000,000 m³ of compliant water to the tundra over the next few weeks period.... total volume of 1,080,667 m³ of water was discharged to tundra towards the Nemo watershed from July 11th to September 26th, 2019. No non-compliance were observed during discharge”</i> Agnico Eagle acknowledge that this discharge was sufficient in volume to qualify under MDMER as a discharge location. We appreciate that water chemistry analysis collected at this location was compared to MDMER discharge criteria. However, results of acute and sublethal toxicity testing was not provided for this location in the Annual Report. While the effluent itself was not discharged directly to the freshwater environment (i.e. water from AP-5 were discharged to the tundra), those discharges have the potential to impact the freshwater environment within the Nemo watershed, thereby warranting those studies.	All discharges regulated under MDMER should include acute and sublethal toxicity testing. These tests should be completed for all future discharges deemed to fall under the purview of MDMER by ECCC, and not just those which were predetermined under the water licence and project certificate (i.e. the diffuser in Mammoth and Whale Tail South Basin lakes).
HESL on behalf of KIA	7.	2019 Annual Report; 8.5.8.2.4 Subsurface seepage and	Agnico Eagle notes <i>“In July 2019, seepage stream were observed on the downstream toe of Whale Tail Dike. The flow was measured using v-notch weirs at approximately 300 m³/h which is higher than what was anticipated in the water balance. A detailed investigation including additional instrumentation and geophysics was</i>	We recommend future iterations of the water quality and load balance models, intended for submission as part of the 2020 Annual Report,

Reviewer	#	Reference	Comment	Recommendation
		surface runoff from waste rock piles Appendix 12 Whale Tail Water Management Plan Version 4; APPENDIX C 2019 Water Balance Report	<i>conducted for a better understanding of the seepage phenomenon at the Whale Tail Dike."</i> We are concerned that water balance modelling prepared for the approved project and updated for the 2019 Annual Report (Appendix 12C 2019 Water Balance Report) did not appear to include a sensitivity analysis beyond use of 2019 precipitation data which can be considered a "wet year" scenario. Increased seepage volumes beyond the base case as an increased source of contact water was not considered. Concerns regarding the lack of sensitivity analysis and corresponding management options were expressed by KIA during the EA and water licence reviews for the expansion project. While we note that the base case was well modelled, we remain concerned that Agnico Eagle may have difficulties managing water should continued divergences from base case modelling persist. We also note that <i>"FEIS predictions for MAM were exceeded for TDS, lithium, and the ionic compounds calcium and magnesium. Despite early warning triggers and FEIS predictions being exceeded in 2019, the absolute concentrations of these parameters remain low and far lower than concentrations associated with adverse to aquatic life."</i> We are concerned that water quality parameters in the receiving environment have also already exceeded FEIS predictions in the first full year of operation.	include additional sensitivity analysis scenarios focused on the potential for additional contact water. The Water Management Plan should also be updated for the Whale Tail site as part of the 2020 Annual Report to include mitigation options to provide confidence Agnico Eagle can manage contact water volumes in excess of the base case scenario presented in the EA and Water Licence.
HESL on behalf of KIA	8.	Appendix 12 Whale Tail Water Management Plan Version 4;	Table 11: Water Quality and Chemical Loading Input Parameters, indicates that water quality inputs to the water quality model used average concentrations from 2015 and 2016 for: <i>"Initial lake concentrations and natural runoff downstream of Mammoth Lake</i>	Please provide rationale as to why average water quality conditions were considered appropriate inputs for the water quality model for Mammoth,

Reviewer	#	Reference	Comment	Recommendation
		Appendix C 2019 Water Balance Report; Appendix A Project Design Document; Table 11: Water Quality and Chemical Loading Input Parameters	- Initial Mammoth Lake concentrations and natural runoff - Initial Whale Tail Lake (North and South Basins) concentrations and natural runoff to Whale Tail Lake (South Basin) - Nemo Lake concentrations However, shallow groundwater input concentrations used the “75th percentile of Meadowbank groundwater quality” Rationale was not provided as to why average water quality conditions were appropriate for model inputs for Mammoth, Nemo and Whale Tail lakes as opposed to the more conservative 75th percentile. A more conservative model input provides more confidence Agnico Eagle can effectively manage a range of water quality conditions beyond an average “base case” scenario.	Nemo and Whale Tail Lakes as opposed to a more conservative percentile (e.g. 75th) of measurements. We further recommend that future updates to the water quality and load balance models for the Whale Tail site use the 75th percentile at minimum, and sensitivity analysis using the 95th percentile of measured values in those waterbodies.
HESL on behalf of KIA	9.	Appendix 12 Whale Tail Water Management Plan Version 4; Appendix C 2019 Water Balance Report; Appendix A Project Design Document; Table 11: Water Quality and Chemical Loading Input Parameters	It is unclear whether interannual loading to the receiving environment is accounted for in the water quality model. Does the model assume complete flushing of Mammoth Lake each year, or has the model been updated based on the commitments made during the Whale Tail expansion licencing process? Specifically, do the initial lake concentrations increase year over year to account for prolonged loading? Assumed complete flushing of the receiving environment may underpredict future water quality thereby potentially delaying the implementation of management and mitigation measures that may be warranted.	Please clarify whether the water quality model assume complete flushing of Mammoth Lake each year (i.e. return to baseline concentrations) or whether the model accounts for interannual loading to the receiving environment. Please ensure that all future water quality models account for interannual loading to the receiving environment.

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HESL on behalf of KIA	10.	Appendix 12 Whale Tail Water Management Plan Version 4; Appendix E 2020 Freshet Action and Incident Response Plan; Section 4 Snow Management	Pertaining to snow management, Agnico Eagle states <i>“Similarly to the Meadowbank site, a snow management procedure has been developed internally in 2019 and will be updated annually. Temporary snow storage dumps and snow accumulation areas of concern were identified on a map. Removal will be managed accordingly.”</i> We note that removal of snow from areas of concern as identified in Section 2 of the 2020 Freshet Action Plan to achieve a target cover depth (e.g. the waste rock storage facility) is not an identified activity in Appendix 1, “Freshet Action Plan Procedure”. Removal of snow to achieve a target cover thickness directly impacts the volume of contact water requiring management. We further note that specifying a target snow cover thickness on areas of concern must be provided so that: • mine operators understand what duties are expected of them with respect to snow management, • inspectors may evaluate whether Agnico Eagle has complied with Freshet Action Plan, and • reviewers may determine whether the volume of contact water runoff used as input into the water balance model is reasonable.	Agnico Eagle should include the removal of snow from areas of concern (as defined in Section 2 of the 2020 Freshet Action Plan) as a specified activity in the 2020 Freshet Action Plan. Agnico Eagle should further specify the target snow thickness on each area of concern required to meet the assumptions of the water balance model. The water quality and load balance models should be updated for the 2020 Annual Report using two scenarios related to freshet management: contact water runoff during freshet using the target snow thickness on areas of concern, and an increase of 50% snow volume and the associated increase in contact water as part of a sensitivity analysis to assess whether water management strategies and infrastructure on site are sufficient to mitigate environmental impacts.

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HESL on behalf of KIA	11.	Appendix 35 Meadowbank and Whale Tail 2019 CREMP Report; 3.0 QA QC 3.3 Water Chemistry Appendix A QA/QC; A2.2 Water Chemistry Equipment Blanks	Agnico Eagle highlights concern in the analytical precision of key nutrient analytics, stating <i>“Of the analytes detected in the equipment blanks, total ammonia, and TKN were routinely given a cautionary flag.”</i> Appendix A, QA/QC, provides further details: <i>“In July total ammonia (as N) was detected [in equipment blanks] at concentrations greater than 10X DL. Total Kjeldahl Nitrogen (TKN) was also detected at approximately twice the detection limit. No other analytes were detected in July suggesting that the total ammonia and TKN results may be somewhat anomalous; however, both analytes have been flagged for closer scrutiny in the interpretation of the July water quality results.”</i>... Total ammonia was also at 10X DL in September. We are concerned that both ammonia and TKN were routinely detected in equipment blanks. Contamination pertaining to these may make it difficult to determine whether the mine, particularly via blasting activities, may be having an impact in the aquatic environment.	Agnico Eagle should address sample contamination with a particular focus on ammonia and TKN in the field protocols implemented as part of the 2020 field programs across all sites.
HESL on behalf of KIA	12.	Appendix 35, Section 5 Whale Tail, 5.3.2 Temporal and Spatial Trends Appendix 12, Sub appendix D, Section 12.4.1.2.2.2 Receiving Environment	Agnico Eagle appears to have had difficulty operating the project in a manner consistent with the FEIS in its initial year of operation. Phosphorous <i>“exceeded in seven out of 10 samples for WTS and, unsurprisingly, in 2019 the yearly mean total phosphorous concentrations exceeded the trigger/threshold in WTS. The BACI analysis indicated that the observed change was statistically significant.”</i> Phosphorus is a significant contaminant of concern associated with Whale Tail project activities; the receiving environment is expected to change trophic states during operations. While exceedances of predicted phosphorus concentrations in the receiving environment	Please address the reported divergences from modelled water quality in the project receiving environment as part of the 2020 activities at the Whale Tail site. The 2020 annual report should include • A summary of mitigation and management measures implemented to address the exceedances including

Reviewer	#	Reference	Comment	Recommendation																														
		Water Quality Predictions	are of low concern in the short term, prolonged exceedances in the receiving environment may impact the viability of long-term closure objectives if an alternate steady state scenario becomes more likely. Other exceedances of predicted concentrations are summarized in Table 5-7 which compares FEIS Screening Predictions for Mammoth Lake to mean measured concentration: <table><tr><th>Parameter</th><th>Prediction (mg/L)</th><th>2019 Mean (mg/L)</th></tr><tr><td>Ammonia (as N)</td><td>0.015</td><td>0.046</td></tr><tr><td>Chloride</td><td>6.73</td><td>22.4</td></tr><tr><td>Calcium</td><td>6.32</td><td>12.7</td></tr><tr><td>Magnesium</td><td>1.93</td><td>2.48</td></tr><tr><td>TDS</td><td>54.3</td><td>87.1</td></tr><tr><td>Aluminum (Total)</td><td>0.0050</td><td>0.011</td></tr><tr><td>Barium (Total)</td><td>0.012</td><td>0.022</td></tr><tr><td>Lithium (Total)</td><td>0.0016</td><td>0.0037</td></tr><tr><td>Strontium (Total)</td><td>0.041</td><td>0.11</td></tr></table> Chloride, aluminum and strontium all exceed the predictions by an order of magnitude, exceeding the model uncertainty which is described by Golder as “model predictions are estimated to be accurate within one order of magnitude”. Despite these exceedances, no mention is made of the Adaptive Management Plan. We are concerned that the project is not operating as modelled, and Agnico Eagle does not appear to be taking steps to ensure these exceedances are corrected, potentially jeopardizing the feasibility of site closure objectives.	Parameter	Prediction (mg/L)	2019 Mean (mg/L)	Ammonia (as N)	0.015	0.046	Chloride	6.73	22.4	Calcium	6.32	12.7	Magnesium	1.93	2.48	TDS	54.3	87.1	Aluminum (Total)	0.0050	0.011	Barium (Total)	0.012	0.022	Lithium (Total)	0.0016	0.0037	Strontium (Total)	0.041	0.11	specific references to the Adaptive Management Plan developed for the Whale Tail site, and • A discussion as to whether closure objectives and timelines are impacted by the observed divergences from modelled water quality.
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			A consistent and conservative analysis of phosphorus is particularly important at the whale tail site given phosphorus is a contaminant of concern, and project effects are expected to include an increase in trophic status of Mammoth Lake. We also note that the modelling of environmental effects at the Whale Tail project area was completed using total phosphorus concentrations. Evaluate of total phosphorus further permits the direct comparison of results to predicted water quality as presented in the Final Environmental Impact Statement. Finally, we note that the Canadian Council of Ministers of the Environment provides guidelines based on total phosphorus measurements to determine shifts between trophic levels.	
HESL on behalf of KIA	15.	2019 Annual Report, 4.4.3 Predicted Vs measured Water Quality	Many of the measured annual mean concentrations for pit water at Meadowbank for the years 2012-2019 are greater than the predicted values for the probable and possible poor scenarios, and annual average and 25th percentile water quality forecast by greater than +/- 20%. One of the possible reasons given by Agnico Eagle is that <i>“some accredited laboratory water quality measurements have detection limits that are higher than the predicted values. This is particularly true for dissolved metal analysis, such as cadmium, iron, lead, nickel, molybdenum, selenium, thallium and zinc”</i>. We are concerned the analytical capacity to accurately measure monitored parameters has not been achieved, and have highlighted this persistent issue in previous reviews of Meadowbank Annual Reports (i.e., for 2014-2018). If laboratory detection limits are higher than predicted values it is not possible to accurately determine if predictions are being met or exceeded.	We request that Agnico Eagle investigate whether any accredited labs are able to overcome the detection limit issue for dissolved metals, so that concentrations below the predicted values can be reliably measured.

Reviewer	#	Reference	Comment	Recommendation
HESL on behalf of KIA	16.	2019 Annual Report, 7 Spill Management, 7.1.1 Meadowbank Site, Table 7-2; Appendix 31 Meadowbank 2019 GN Spill Reports; 7.1.2 Whale Tail Site, Table 7-4; Appendix 32 Whale Tail 2019 GN Spill Reports	Hydraulic oil leaks were a common source of spills at both mine sites in 2019, accounting for just under 50% of all reportable spills (45% at Meadowbank and 47% at Whale Tail). The main reasons given for these spills are machinery hitting boulders, failures of hose or hydraulic system, faulty fittings and damaged hose. The corrective measure often given by Agnico Eagle is <i>“routine visual inspection of all systems and hoses is performed during pre-operation checks as part of the preventative maintenance program”</i>. The frequency of hydraulic oil spills suggests that the pre-operation checks are not sufficient measures to prevent these accidents. We are concerned that hydraulic oil leaks are a recurring problem. Why are they so common? How does the high number of this type of spill in 2019 compare with previous years?	Please discuss why hydraulic oil spills are so common at both mine sites and demonstrate what proactive steps will be taken in 2020 (beyond just conducting pre-operation checks) to reduce the number of these spills in future. Please compare the 2019 spill rate in comparison with patterns observed in previous years.
HESL on behalf of KIA	17.	2019 Annual Report, 7 Spill Management, 7.1.1 Meadowbank Site, Table 7-2; Appendix 31 Meadowbank 2019 GN Spill Reports	On June 26, a sulfur prill bag fell and punctured, spilling 1000 kg of sulfur on the ground. Agnico Eagle reports that the spill was cleaned up and disposed of at the tailing pond, and that there were <i>“no off site impacts or discharge to any receiving watercourses. Distance to the closest lake is estimated at 150 m”</i>. On September 5, another spill of 40 kg sulphur prills occurred 220 m from the closest lake. Agnico Eagle does not discuss the possibility that the spilled sulfur prill generated dust which could become airborne and reach waterbodies. Agnico Eagle states that the corrective measure for both accidents is for operators to follow procedure. Agnico Eagle should indicate what steps will be taken to ensure that operators are properly trained in the safe handling of sulfur prill to avoid future spills.	Please discuss the risk of dust being generated from the sulfur prill spills and subsequent clean up, and the possibility that it could become airborne and reach waterbodies. Please explain what training operators receive in the proper handling of sulfur prill.

Reviewer	#	Reference	Comment	Recommendation
HESL on behalf of KIA	18.	2019 Annual Report; 7 Spill Management, 7.1.2 Whale Tail Site, Table 7-4; Appendix 32 Whale Tail 2019 GN Spill Reports	On March 4, a fecal coliform exceedance (12,000 CFU/100 ml) was reported at the Whale Tail STP. No written report is provided in Appendix 32 detailing the cause or corrective action taken.	Please provide details on the cause of and corrective action taken for the March 4 fecal coliform exceedance.
HESL on behalf of KIA	19.	2019 Annual Report, 8.5.8 Seepage, 8.5.8.1.6 Mill Seepage Meadowbank Site; Appendix 11 – Meadowbank 2019 Water Management Report and Plan Version 8; 3.1.11.1 Mill Seepage Collection	Seepage has been observed at the Meadowbank Assay Lab Road since 2013. In 2019, Agnico Eagle reported a significant increase in the volume of seepage pumped back to the mill and attributed this increase (in the Annual Report) to significantly higher rainfall recorded in 2019. However, in Appendix 11, the higher 2019 seepage volumes were “ <i>not expected to be reflective of reality</i> ” but instead were deemed the result of a flowmeter reading error.	Please provide monthly precipitation records for 2019. Please clarify the cause of the significant increase in pumped volume in 2019, with evidence (i.e., increased rainfall or instrument error). Please explain when the calibrated flowmeter will be installed and what the monitoring regime will be.

Reviewer	#	Reference	Comment	Recommendation																																																																																																								
			It would be helpful if 2019 monthly precipitation levels could be shown to enable an assessment of whether pumped volume increases correspond with increased rainfall. The increased monthly pumped volumes in 2019 were an order of magnitude larger than those recorded in 2018, a scale of increase only seen once before (in June 2015), but which occurred from June – September in 2019. Table 8-103 Meadowbank Assay Road Seepage pumped volume 2014-2019 <table><tr><th rowspan="2">Month</th><th colspan="6">Pumped Volume (m³)</th></tr><tr><th>2014</th><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr><tr><td>January</td><td>0</td><td>871</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>February</td><td>0</td><td>306</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>March</td><td>0</td><td>500</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>April</td><td>0</td><td>680</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>May</td><td>2,450</td><td>347</td><td>0</td><td>3,025</td><td>0</td><td>0</td></tr><tr><td>June</td><td>1,935</td><td>10,803</td><td>2,588</td><td>3,973</td><td>5,095</td><td>10,058</td></tr><tr><td>July</td><td>1,158</td><td>6,633</td><td>2,270</td><td>4,961</td><td>4,148</td><td>17,273</td></tr><tr><td>August</td><td>3,979</td><td>4,467</td><td>3,599</td><td>3,782</td><td>2,912</td><td>22,320</td></tr><tr><td>September</td><td>2,420</td><td>4,584</td><td>2,109</td><td>6,687</td><td>1,490</td><td>20,225</td></tr><tr><td>October</td><td>1,043</td><td>1,188</td><td>512</td><td>549</td><td>0</td><td>1,740</td></tr><tr><td>November</td><td>842</td><td>164</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>December</td><td>871</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Total</td><td>14,698</td><td>30,543</td><td>11,078</td><td>22,977</td><td>13,645</td><td>71,616</td></tr></table> Agnico Eagle states in Appendix 11 that it plans to install a calibrated flowmeter and will conduct monitoring so that “<i>any future deviation from previously established annual volume norm will be investigated</i>”. It is not clear if the 2019 deviation was investigated, since two different reasons are given for its occurrence.	Month	Pumped Volume (m³)						2014	2015	2016	2017	2018	2019	January	0	871	0	0	0	0	February	0	306	0	0	0	0	March	0	500	0	0	0	0	April	0	680	0	0	0	0	May	2,450	347	0	3,025	0	0	June	1,935	10,803	2,588	3,973	5,095	10,058	July	1,158	6,633	2,270	4,961	4,148	17,273	August	3,979	4,467	3,599	3,782	2,912	22,320	September	2,420	4,584	2,109	6,687	1,490	20,225	October	1,043	1,188	512	549	0	1,740	November	842	164	0	0	0	0	December	871	0	0	0	0	0	Total	14,698	30,543	11,078	22,977	13,645	71,616	
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HESL on behalf of KIA	20.	Appendix 1 – Meadowbank and Whale Tail Commitments	The formatting in the table makes it difficult to read some of the text. For example, the text in column 3 (Regulator’s comment) often runs into column 4, overlapping with that column’s text. Likewise, text in column 4 (Regulator’s recommendation) is sometimes cut off. It would also be helpful to number the comments for easy reference.	Please re-format the table to ensure that all text can be read and comments can be easily referenced.																																																																																																								

Reviewer	#	Reference	Comment	Recommendation
HESL on behalf of KIA	21.	Appendix 1 – Meadowbank and Whale Tail Commitments, Appendix 19 – Whale Tail 2019 Dike Construction and Dewatering Monitoring Report	We commented in the review of the 2018 Annual Report that 50% is not a standard value for RPD analysis and we recommended that a standard value (such as 20% recommended by the USEPA) be used for QA/QC purposes, or that Agnico Eagle provide a reference to support use of a 50% RPD for comparison. At that time, Agnico Eagle responded that CCME state that a RPD of 40% for surface water field duplicate samples is acceptable. Thus, the CCME guidance does not appear to support using a 50% RPD comparison. The 50% standard is again being used in the 2019 Report (Appendix 19), but no reference is provided.	Please clarify why 50% is an appropriate standard for RPD analysis of surface water samples, given that both USEPA and CCME recommend lower values.
HESL on behalf of KIA	22.	Appendix 11 – Meadowbank 2019 Water Management Report and Plan Version 8, Appendix C – 2019 Meadowbank Water Quality Forecasting Update, 2.3.1 Measured vs. Forecasted Concentrations	The forecasting model does not incorporate possible geochemical reactions that could promote metal precipitation of the water column for the North and South Cell TSF Reclaim Ponds. As a result, some forecasted values may be higher than measured values for some parameters (such as total iron and total nickel). Including metal precipitation in the model would strengthen forecasting calculations.	Agnico Eagle should incorporate metal precipitation into the forecasting model for the TSF Reclaim Ponds.
HESL on behalf of KIA	23.	Appendix 11 – Meadowbank 2019 Water Management Report and	Agnico Eagle states that mill effluent concentrations (not including the Whale Tail contribution) are similar in 2019 to 2015-2018 levels for all parameters except nickel and selenium. In 2019, average nickel concentrations were two orders of magnitude greater than in 2018 (2.661 vs. 0.026 mg/L), while selenium average concentrations	Please discuss possible reasons for the deviations from previous year average concentrations measured in mill effluent for nickel and selenium in 2019.

Reviewer	#	Reference	Comment	Recommendation																																																																																																																							
		Plan Version 8, Appendix C – 2019 Meadowbank Water Quality Forecasting Update, 2.4.1 Additional Mill Effluent Water Quality Results	were two orders of magnitude smaller than in 2018 (0.007 vs. 0.131 mg/L). Table 2-4: Mill Effluent Concentrations Sampled in 2019 <table><tr><th rowspan="2">PARAMETER</th><th colspan="6">MILL EFFLUENT CONCENTRATION (mg/L)</th><th>SOUTH CELL (mg/L)</th></tr><tr><th>Average 2015</th><th>Average 2016</th><th>Average 2017</th><th>Average 2018</th><th>Average 2019 w/o Whale tail</th><th>Average 2019 Whale tail</th><th>Average 2019</th></tr><tr><td>Total Cyanide (CNT)</td><td>18.2</td><td>9.3</td><td>20.4</td><td>6.263</td><td>11.730</td><td>11.780</td><td>0.95</td></tr><tr><td>Total Aluminum (Al)</td><td>0.629</td><td>0.326</td><td>1.541</td><td>2.249</td><td>0.394</td><td>109.533</td><td>0.10</td></tr><tr><td>Total Arsenic (As)</td><td>0.036</td><td>0.026</td><td>0.018</td><td>0.025</td><td>0.034</td><td>9.007</td><td>0.02</td></tr><tr><td>Total Cadmium (Cd)</td><td>0.0020</td><td>0.0003</td><td>0.0072</td><td>0.0004</td><td>0.0002</td><td>0.0035</td><td>0.0001</td></tr><tr><td>Total Chromium (Cr)</td><td>0.002</td><td>0.001</td><td>0.009</td><td>0.005</td><td>0.002</td><td>3.496</td><td>0.001</td></tr><tr><td>Total Copper (Cu)</td><td>11.0</td><td>3.6</td><td>5.3</td><td>0.161</td><td>3.925</td><td>9.149</td><td>1.61</td></tr><tr><td>Total Iron (Fe)</td><td>5.9</td><td>2.8</td><td>6.9</td><td>6.533</td><td>5.575</td><td>401.733</td><td>0.42</td></tr><tr><td>Total Nickel (Ni)</td><td>0.423</td><td>0.024</td><td>0.982</td><td>0.026</td><td>2.661</td><td>7.664</td><td>0.10</td></tr><tr><td>Total Selenium (Se)</td><td>0.131</td><td>0.166</td><td>0.076</td><td>0.131</td><td>0.007</td><td>0.143</td><td>0.005</td></tr><tr><td>Ammonia (NH₃-NH₄)</td><td>127</td><td>105</td><td>79</td><td>84</td><td>64</td><td>75</td><td>22.3</td></tr><tr><td>Nitrate (NO₃)</td><td>15.9</td><td>13.3</td><td>12.7</td><td>8.978</td><td>10.030</td><td>12.867</td><td>-</td></tr><tr><td>Chloride (Cl)</td><td>775</td><td>558</td><td>630</td><td>515</td><td>660</td><td>767</td><td>206.3</td></tr><tr><td>Fluoride (F)</td><td>0.545</td><td>0.645</td><td>0.335</td><td>0.680</td><td>0.565</td><td>0.297</td><td>0.422</td></tr></table> What were the possible reasons for these deviations in mill effluent concentrations for nickel and selenium in 2019?	PARAMETER	MILL EFFLUENT CONCENTRATION (mg/L)						SOUTH CELL (mg/L)	Average 2015	Average 2016	Average 2017	Average 2018	Average 2019 w/o Whale tail	Average 2019 Whale tail	Average 2019	Total Cyanide (CNT)	18.2	9.3	20.4	6.263	11.730	11.780	0.95	Total Aluminum (Al)	0.629	0.326	1.541	2.249	0.394	109.533	0.10	Total Arsenic (As)	0.036	0.026	0.018	0.025	0.034	9.007	0.02	Total Cadmium (Cd)	0.0020	0.0003	0.0072	0.0004	0.0002	0.0035	0.0001	Total Chromium (Cr)	0.002	0.001	0.009	0.005	0.002	3.496	0.001	Total Copper (Cu)	11.0	3.6	5.3	0.161	3.925	9.149	1.61	Total Iron (Fe)	5.9	2.8	6.9	6.533	5.575	401.733	0.42	Total Nickel (Ni)	0.423	0.024	0.982	0.026	2.661	7.664	0.10	Total Selenium (Se)	0.131	0.166	0.076	0.131	0.007	0.143	0.005	Ammonia (NH ₃ -NH ₄)	127	105	79	84	64	75	22.3	Nitrate (NO ₃)	15.9	13.3	12.7	8.978	10.030	12.867	-	Chloride (Cl)	775	558	630	515	660	767	206.3	Fluoride (F)	0.545	0.645	0.335	0.680	0.565	0.297	0.422	
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HESL on behalf of KIA	24.	Appendix 11 – Meadowbank 2019 Water Management Report and Plan Version 8, Appendix C – 2019 Meadowbank Water Quality Forecasting Update, 6.2	The SNC-Lavalin Water Quality Forecasting Update makes several recommendations, to improve the predictive ability of the model for the Reclaim Pond and Portage and Goose Pits, all of which Agnico Eagle commits to implementing. One of the recommendations is to <i>“Perform a bench scale water treatment test to evaluate containment removal efficiency using treatment approaches such as lime neutralization, coagulation/flocculation with aluminum sulphate or ferric sulphate, and coagulation/flocculation with proprietary coagulants designed for metal removal as well as alternate treatment options.”</i>	Please discuss when different treatment options will be tested for the Reclaim Pond and Portage and Goose Pits.																																																																																																																							

Reviewer	#	Reference	Comment	Recommendation
HESL on behalf of KIA	27.	Appendix 46 – Meadowbank 2019 Groundwater Monitoring Report, 2.3 QA/QC	Agnico Eagle conducted a charge balance calculation to check the accuracy of the groundwater quality analysis, and reported that a calculated error <5% indicates that <i>“the analysis is assumed to be good”</i> . The charge balance results generated 39% samples with <5% error, while 55% had an error between 5-13%, and one sample had an error >13% (44%). They concluded <i>“that the quality of the analytical data is quite good”</i> . However, since more than half of all samples had >5% error, we are concerned that the quality of much of the data is marginal, suggesting that confidence in the results may not be very high.	Please explain why the quality of the data is deemed to be good, even though more than 55% of samples did not meet this quality criterion. Please provide a discussion of the implications low precision groundwater quality data may have on the water quality predictions for the site.
HESL on behalf of KIA	28.	Appendix 46 – Meadowbank 2019 Groundwater Monitoring Report, 3.2 Water Quality Results and Criteria	Agnico Eagle concludes that groundwater samples from well MW-IPD-07 suggest that water quality <i>“does not seem to have been impacted by the in-pit tailings deposition which was started in July 2019 in Goose Pit only”</i> , since many parameters have similar or lower mean annual concentrations as those measured in 2018. However, Agnico Eagle acknowledges that <i>“the Total cyanide value is slightly higher in 2019 than 2018 but the difference is not significant enough for interpretation”</i> . Based on the results presented in Table 3-5 we are concerned that the increase in cyanide warrants more attention:	Please discuss why there was 113% increase in total cyanide mean annual concentrations in groundwater samples between 2018 and 2019 and whether this indicates an effect of in-pit tailings deposition on groundwater quality.

Reviewer	#	Reference	Comment	Recommendation																																
			Table 3-5: Comparison of mean annual concentrations at MW-IPD-07 for selected parameters <table><tr><th>Parameter</th><th>Units</th><th>2018</th><th>2019</th></tr><tr><td>Chloride</td><td>mg/L</td><td>4.85</td><td>3.45</td></tr><tr><td>Sulphate</td><td>mg SO₄/L</td><td>29.5</td><td>23.6</td></tr><tr><td>Total arsenic</td><td>mg/L</td><td>0.00985</td><td>0.00495</td></tr><tr><td>Total copper</td><td>mg/L</td><td>0.00025</td><td>0.000375</td></tr><tr><td>Total cyanide</td><td>mg/L</td><td>0.00075</td><td>0.00175</td></tr><tr><td>Total iron</td><td>mg/L</td><td>1.315</td><td>0.4625</td></tr><tr><td>Total phosphorus</td><td>mg/L</td><td>0.075</td><td>0.035</td></tr></table> The change in total cyanide concentration between 2018 and 2019 represents an 113% increase.	Parameter	Units	2018	2019	Chloride	mg/L	4.85	3.45	Sulphate	mg SO ₄ /L	29.5	23.6	Total arsenic	mg/L	0.00985	0.00495	Total copper	mg/L	0.00025	0.000375	Total cyanide	mg/L	0.00075	0.00175	Total iron	mg/L	1.315	0.4625	Total phosphorus	mg/L	0.075	0.035	
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2.2 Terrestrial Technical Comments

Reviewer	#	Reference	Comment	Recommendation
Appendix 52: Meadowbank Mine 2019 Wildlife Monitoring Summary Report				
AWR on behalf of KIA	29.	Purpose of Summary Report S 2 Overview	The report's purpose includes describing the " <i>natural variation and potential mine-related changes in wildlife populations</i> " (S 2.1, pg 2). However, the report relies on observed numbers or averages without descriptive statistics or fitting trends. The lack of even basic statistical analysis hinders comparing the 2019 data with the previous years and the extent to which, if any, it lies outside the range of natural variation and is more likely to be an effect of the mine.	Agnico Eagles should use descriptive statistics and trend analyses to report on natural variation and potential mine-related changes in wildlife.

Reviewer	#	Reference	Comment	Recommendation
AWR on behalf of KIA	30.	S 9 Caribou Management Decision Tree; S 11 Integrated Caribou Monitoring Results	The 2018 wildlife summary report made a recommendation that “A <i>dedicated log of decisions and outcomes [from the decision tree approach] should be kept in 2019 to facilitate future analyses of the effectiveness of this monitoring approach</i>” (2018 wildlife summary report, S 9.7, pg 74). This 2018 recommendation is repeated in the 2019 report (S 9.7, pg 78). Agnico Eagle also had a second recommendation that “<i>Decisions and outcomes resulting from the use of the decision tree approach in 2019 should be analyzed to determine whether adjustments to the approach need to be made and discussed in TAG meetings</i>” (S 9.7, pg 78). Although Tables 3.9–3.11 (S 3.6.6, pgs 28-33) in the 2019 Summary Report summarize road restrictions, the triggers from monitoring (e.g., collar locations, road survey observations, HOL survey data, and/or incidental sightings including group size) that led to mitigation measures (e.g., road closures) were still not presented. Tables 3.9–3.11, while useful in giving the frequency and duration of closures, should include the thresholds or sightings that triggered the closures. Alternatively, Section 9 (Caribou management decision tree) should have presented the sequences documenting the management actions. Section 11 (Integrated caribou monitoring results) has a simple overview of monitoring programs (Table 11.1) but no details on individual triggers. Appendix C refers to numbers of caribou and not thresholds or group sizes. These reports should clearly show when and how the decision trees were followed: the sequence of monitoring which led to triggers and mitigation actions, followed by follow-up monitoring to examine the efficacy of the mitigation at the local scale.	KIA supports both Agnico Eagle’s recommendations (S. 9.7, pg 78). Clear details and analysis for the triggers (e.g., collar locations, group sizes and caribou numbers from road surveys and/or incidental sightings) which led to road closure events are needed. Follow-up monitoring to examine the efficacy of the mitigation at the local scale (as opposed to conclusions at the seasonal range movement scale; Golder 2019b¹) is required.

¹ Golder. 2019b. Lorillard Collared Caribou Movements; Implications from Interacting with the Whale Tail Haul Project Road and All-Weather Access Road. Prepared for Agnico Eagle Mines Ltd. by Golder Associates Ltd.

Reviewer	#	Reference	Comment	Recommendation
			capacity hauling, and even at these 2019 levels Appendix J (Whale Tail Haul Road - Remote Camera 2018/2019 Summary; S 3.3, pg 6) indicates caribou delayed crossing the haul road in fall 2018 by 1–90 minutes after a convoy vehicle.	
AWR on behalf of KIA	35.	S 3.6.7 Road Surveys; Caribou Responses to Mitigation	While Table 3.12 (pgs 34-35) is useful to see annual patterns of crossing, these data are not an evaluation of caribou responses to mitigation. For example, it is unclear what mitigation was in place when these crossing events occurred. Also, it is unclear whether caribou movements across the road were delayed or deflected in any way prior to crossing (Appendix J suggests delays occur). Did a shift in range patterns cause the increase in caribou sightings in 2019, and what were the implications for mitigation?	Agnico Eagle should clarify what mitigation was in place to facilitate caribou road crossings, and the behaviour of caribou groups prior to crossing. This should include details of convoys relative to road closures.
AWR on behalf of KIA	36.	S 6 Caribou Satellite-Collaring Program	<i>"In 2019, most Caribou appeared to migrate through the RSA and across the AWAR and Whale Tail Haul Road without major deflections. This positive result may be due to the number of road closures, timing of initial road closures and/or a combination thereof that were initiated in 2019 in response to Caribou presence"</i> (S 6.6, pg 58). This statement has a number of qualifiers (<i>"most caribou"</i> ; <i>"appeared"</i> ; <i>"major deflections"</i> ; <i>"may be due to"</i>) which highlight the fact that there has been no analyses at the local scale to support the statement.	Agnico Eagle should conduct analyses at the local scale to quantify collared caribou movements through the mine sites and roads. Agnico Eagle should also clarify that if the road closures were so successful at enabling caribou to move through the roads (as indicated by the statement), why is the company restricting the extent of road closures in TEMP Version 8, and what successful mitigation measures would road closures be replaced with.
AWR on behalf of KIA	37.	S 7 Height of land monitoring	Height of land (HOL) surveys were designed to help trigger enhanced mitigation when caribou were within 4 km of the haul road, an early warning system for detecting caribou approaching the haul road. While significant numbers of caribou were observed in some seasons (Tables	Agnico Eagle should provide information linking monitoring with management actions.

Reviewer	#	Reference	Comment	Recommendation
			7.1, 7.2; pgs 68-74), no indication of whether these surveys were used to trigger mitigation was provided and at what distance from road these triggers occurred. Tables 11.1 and 11.2 (pgs 106-108) indicate broad management responses by monitoring program, but provide no specific comparisons about the efficacy of the various programs.	
AWR on behalf of KIA	38.	S 8 Remote cameras – App. J	The primary objective of the camera program is “ <i>to monitor Caribou behavioral interactions with project roads and equipment...</i> ” (pg 75). App. J (Whale Tail Haul Road - Remote Camera 2018/2019 Summary, technical memo, Golder, 25 Feb 2020) provides considerable details on methods for the Whale Tail haul road camera program which was initiated during October 2018 fall migration and continued during 2019. The results, however, were sketchy: they suggested that caribou crossed the haul road after variable delays and in-amongst convoy activity (App. J, S 3.3, pg 6). These results are limited, anecdotal and do not acknowledge that cameras only capture behaviour from caribou that are already adjacent to the road and that some caribou may have deflected further out from the road. All of these reports continue to state “ <i>Results of the remote camera monitoring program will be reported as part of the TEMP Annual Report</i> ” (App. J, S 3.3, pg 6) but a comprehensive analysis of the 2019 program remains lacking.	Agnico Eagle should comprehensively analyze the photos from 2018 and 2019 camera program for TEMP and Terrestrial Advisory Group (TAG) review. The analysis should clarify how the camera data contribute as monitoring for mitigation techniques. This analysis should be conducted before the initial 3-year test of the program is completed (S 8.6, pg 75).
AWR on behalf of KIA	39.	S 11 Integration	While Section 11 Integration is a useful summary of the eight monitoring methods for caribou (Table 11.1) there is no quantitative analysis to describe the effectiveness of the different methods and how adequately they sample caribou distribution at different timescales and spatial scales. Figs. 11.1–11.4 comparing road sightings, collar pathways and harvest are useful and suggest a limited role of collars but again, quantitative analyses are needed. Even simple analyses are missing such as comparing the AWR and the haul road relative to effects on caribou. The AWR has 25% higher traffic levels than the haul road but only 4% of the total traffic is haul trucks compared to 63% for the haul road (Table 3.7, pg 24). The AWR is also used for harvesting. A total of 1,542 individual caribou were observed crossing	Agnico Eagles should provide TAG with a study design for analyses to integrate monitoring results to determine their effectiveness in sampling caribou distribution relative to proposing thresholds.

Reviewer	#	Reference	Comment	Recommendation
			<i>last resort</i> ” (pg 10). Dust creation from road traffic is a concern because of road visibility, impacts to fish habitat and/or water quality, and caribou habitat. A best management practices document should be developed that more clearly lays out the rules and mitigation measures that can be used to reduce dust generation from the Whale Tail haul road.	reduce dust generation from the Whale Tail haul road.
Whale Tail Pit and Expansion Project Haul Road Management Plan. Version 3. April 2020				
AWR on behalf of KIA	42.	S 10 Wildlife Management	While the haul road management was is not part of the Annual or Summary report, it was disconcerting to see for wildlife management it states “ <i>In case of problems (e.g. small herds or aggregations of caribou), the environmental department will be in charge of managing the situation...</i> ” (pg 31) [emphasis added].	Agnico Eagle should clarify why caribou on or immediately adjacent to the road are considered “problems” for the mine.

2.3 Geophysical Technical Comments

Reviewer	#	Reference	Comment	Recommendation
GeoVector on behalf of KIA	43.	Annual Report; 2019 Activities; Section 2.1; page 30.	The full year payable gold production for 2019 is noted as 1,782,147 ounces. In addition, the Barnet gold deposit, which is located in Quebec, is mentioned.	The KIA would appreciate a better explanation of what portion of the 1,782,147 ounces is related to the Nunavut operations of Agnico Eagle. In addition, an explanation of why the Barnet gold deposit, which is based in Quebec, is included in this Annual report.
GeoVector on behalf of KIA	44.	Annual Report, Construction Earthworks;	One of the recommendations by SNC Lavalin regarding the TARP was to raise the alert level more rapidly once an anomaly is detected or inferred. This approach would have likely prevented the August 28 th , 2019 discharge of contact water from the WRSF pond to Mammoth	The KIA would like to know how much more rapidly the alert level has been raised once an anomaly is detected or inferred at the

Reviewer	#	Reference	Comment	Recommendation
		Section 3.0; pages 44-48; Appendix 10, pages 4, 11,21-22; and Appendix C, pages 21-22.	Lake. Especially given that ponding of water was noted downstream of the WRSF dam on June 28 th , 2019; and on July 7 th , 2019 the water level was at 155.86masl, which was 0.46masl higher than the operational water level of 155.4 masl.	WRSF, especially given the close proximity (ie. 50 metres) to Mammoth Lake.
GeoVector on behalf of KIA	45.	Annual Report; Monitoring; Section 8.6 Blast monitoring, pages 390-392; Appendix 53.	Three (3) of the eight (8) PPV exceedances at Whale Tail were related to higher explosives quantity being used on the same delay for the pre-shear blast. These three exceedances occurred between May 17 th and June 15 th , 2019.	The KIA would like to know how the additional explosives may have impacted water quality in the contact water ponds for the open pits and WRSF. In particular, the ammonia content.

3. Closing

KIA appreciates the opportunity to provide comments on the 2019 Annual Report for the Meadowbank and Whale Tail Gold Project. Please contact Luis Manzo, Director of Lands, should you require more information.

Regards,

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