Environment and Climate Change Canada | Environnement et Changement climatique Canada

Environmental Protection Operations Directorate
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December 22, 2016

ECCC File: 6100 000 008/014
NIRB File: 16MN056

Sophia Granchinho
Manager, Impact Assessment
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Via email: info@nirb.ca

RE: 16MN056 – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Information Requests

Attention: Sophia Granchinho

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board regarding the Whale Tail Pit Project Environmental Impact Statement. ECCC's information requests are provided based on our mandate, in the context of the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act,* and the *Species at Risk Act*.

Should you require further information, please do not hesitate to contact me at (867) 669-4733 or Melissa.Pinto@canada.ca.

Sincerely,

Melissa Pinto

Melissa Pinto
Environmental Assessment Coordinator

Attachment(s): ECCC's Information Requests for submission to NIRB
ECCC's Information Requests and Responses regarding NWB submission

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)
ECCC Review Team
Karen Kharatyan, A/Manager of Licensing, Nunavut Water Board

Environment and Climate Change Canada
Environnement et Changement climatique Canada

Environment and Climate Change Canada's Information Requests to the Nunavut Impact Review Board

Respecting Agnico Eagle Mines Ltd.'s Whale Tail Pit Project Environmental Impact Statement

December 22, 2016

Canada

Agnico Eagle Mines Ltd.'s Whale Tail Pit Project
Information Requests from Environment and Climate Change Canada

(for submission to the Nunavut Impact Review Board)

IR Number	IR Directed To	Subject	Reference	Issue/Concern	Information Request
ECCC#1	Proponent	Greenhouse Gases (GHG)	Volume 4 Atmospheric Environment, Table 4.2-1, Section 4.2.3 Climate and Project Interactions	As noted, during the Nunavut Water Board (NWB) Water License Application completeness phase (ECCC-IR#6), ECCC requested a detailed analysis of the GHG emissions attributed to various components of the project, as well as a detailed discussion of the planned mitigations. Agnico Eagle Mines Ltd. (the Proponent) responded: Agnico Eagle refers ECCC to Section 4.2.3.1 of the Whale Tail Pit FEIS which summarizes the GHG emissions data in Tables 4.2-1 and 4.2-2. The emissions estimates were tabulated according to methods consistent with Environment and Climate Change Canada' (ECCC) annual Facility Greenhouse Gas Emissions Reporting Program (GHGRP). Emissions were tabulated separately for: Off-road emissions; On-road emissions; power plant; and, camp heater. GHG emissions were calculated in parallel to CAC emissions; the CAC emissions calculations methods are discussed in detail in Appendix 4B of the FEIS. Agnico Eagle will discuss the GHG mitigation with ECCC prior to and during the technical review phase of the project. ECCC acknowledges the tabulated summary data for GHGs by emission source provided in Table 4.2-1. However, additional details are required in order to provide a thorough review of the data.	a) ECCC requests that the Proponent provide the emission factors used to determine GHGs, broken down by equipment engine size and GHG compound. b) ECCC requests that the Proponent provide sample calculations which show how GHG emissions were determined. c) ECCC requests that the Proponent verify whether fugitive methane emissions were considered in the GHG emission estimate, and if not, to provide an estimate of these emissions.
ECCC#2	Proponent	Sulphur Dioxide Standard	Volume 4 Atmospheric Environment, Tables 4.3-1 and 4.3-4 (Air Quality Standards)	As noted, during the NWB Water License Application completeness phase (ECCC-IR#7), Health Canada and Environment and Climate Change Canada recently released new Canadian Ambient Air Quality Standards for Sulphur dioxide. These new standards provide better protection from environmental impacts such as acid rain. For more information on the new Sulphur dioxide standards, please visit: http://www.ccme.ca/en/resources/air/air/sulphur-dioxide.html	ECCC requests a response from the Proponent on whether they will consider using the Canadian Ambient Air Quality Standards for Sulphur dioxide as a guide to assessing potential effects to air quality.

ECCC#3	Proponent	Haul Road Modelling	Volume 4 Atmospheric Environment, Figures 4.3-4 and 4-C-5 Section 4-C-7.2 Emission Sources Modelled for the Whale Tail Open Pit	The haul road is a source of particulate matter among the project components, however it is not clear whether the full haul road or only a portion of the road was included in the modelling. Figure 4.3-4 shows that the majority of the haul road was excluded as a source of contaminants even though it is within the study area. Figure 4-C-5 also shows only a portion of the haul road included as a source in conjunction with the pit. Omitting most of the haul road as a source within the modelling scenario can result in particulate matter concentrations being underestimated, especially at locations close to the pit where the cessation of haul road modelling begins. Sources of particulate matter are cumulative, and all sources within the model domain should therefore be included. In addition, particulate matter concentrations may be underestimated at discrete receptors close to the haul road southeast of the pit.	ECCC requests that the Proponent clarify whether the entire haul road was included in the primary modelling scenario, as described in Section 4-C-7.2. If the primary modelling scenario does not include the entire haul road, ECCC requests that the Proponent re-assess the modeling scenarios with the inclusion of the entire road to ensure particulate matter concentrations are adequately captured and to ensure the concentrations have not been underestimated.
ECCC#4	Proponent	Air Quality Monitoring	Volume 4 Atmospheric Environment, Section 4.3.7 Monitoring and Follow-up	As noted, during the NWB Water License Application completeness phase (ECCC-IR#8), no details regarding proposed monitoring locations were provided in the Environmental Impact Statement (EIS). This topic was discussed at a meeting between ECCC and the Proponent on October 13th, 2016.	ECCC requests that the Proponent provide the information on the proposed monitoring locations.
ECCC#5	Proponent	Overburden	Volume 5 Terrestrial Environment, Section 5.2.1 Geology Baseline Environment	Section 5.2.1 of Volume 5 indicates that overburden in the Whale Tail Pit area is expected to be similar to that of the Meadowbank Mine. "*At the Meadowbank Mine, overburden consists of glacial till having an average thickness of 2.75 m, with local deposits over 10 m thick (Cumberland 2003). Where sampled at Whale Tail Pit (in July), the overburden was frozen below 1 m depth, therefore samples were collected in the surficial unfrozen zone."* There is a lack of analysis to support the assumption that overburden at the Whale Tail Pit area, located approximately 50 km from the Meadowbank Mine, would be the same as the Meadowbank Mine. It is necessary to have an accurate understanding of the properties located at the Whale Tail Pit area in order to properly assess potential project impacts and to develop appropriate mitigation measures.	ECCC requests that the Proponent analyse the overburden associated with the Whale Tail Pit area to understand the properties at this location in order to support the assumptions made (i.e. that overburden properties are the same at the Meadowbank Mine site).

ECCC#6	Proponent	Acid Rock Drainage (ARD)	Volume 5 Terrestrial Environment, Section 5.2.2 Waste Rock, Ore, Overburden, and Lake Sediments	Section 5.2.2 of Volume 5 indicates that "*upper tier ARD materials (high sulphur/low buffering capacity greywacke or chert waste rock) generated acidic drainage earlier but without the anticipated benefit of additional buffering capacity from mixing with other non PAG rock in the WRSF piles. The delay to onset of ARD from the bulk of PAG waste rock and ore is expected to be longer than the life of mine. Accordingly, ARD control mechanisms for PAG materials can be implemented at the end of mining operations."* It is not clear how the lag time, before onset of ARD, was determined. In addition, there is no information or analysis on how well mixing is in order to buffer/avoid channels or hot spots in the waste rock storage facility (WRSF). This information is needed to understand and assess the analysis that was conducted to determine that the onset of ARD would be delayed until after life of mine.	ECCC requests that the Proponent explain how the lag time before onset of ARD was determined in order to substantiate the statement that the onset of ARD is expected to occur after the life of the mine. ECCC also requests that the Proponent explain how well potentially-acid generating (PAG) and non-PAG rock will be mixed in order to ensure its performance in buffering.
ECCC#7	Proponent	Waste Rock	Appendix 5-E Geochemistry of Whale Tail Mine Wastes and Road Aggregate, Executive Summary – Waste Rock	The Waste Rock section of the Executive Summary states that "*the exceedances noted in static and kinetic leaching tests do not necessarily mean that water contacting this rock at site will necessarily exceed the comparative criteria because conditions at site differ substantially from the aggressive leaching conditions of the laboratory tests."* The static and kinetic test results are used as an indication of potential ARD and metal leaching respectively in real life, so the above statement regarding the test results exceedances is confusing. Although lab tests can be aggressive, there are usually ways to project the results to real life. The contaminant loads determined from lab tests are used in water quality modelling as source loads to determine final effluent quality; therefore it is important to accurately apply the results of the static and kinetic leaching tests.	ECCC requests that the Proponent clarify what is meant by the statement "*static and kinetic leaching tests do not necessarily mean that water contacting this rock at site will necessarily exceed the comparative criteria*".
ECCC#8	Proponent	Overburden and Lake Sediment	Volume 5 Terrestrial Environment, Table 5.3-4; Appendix 5-E Geochemistry of Whale Tail Mine Wastes and Road Aggregate, Executive Summary – Overburden and Lake Sediment	The Overburden and Lake Sediment section of the Executive Summary states that "*the shallow overburden is non PAG based on the low sulphide sulphur content. The arsenic content is low, and its leachable arsenic content is below CCME aquatic life in laboratory tests. This material has a suitable chemistry for use as construction materials; however, the fines portion of the samples could be amenable to erosion and transport as suspended solids in contact water."* Table 5.3-4 shows exceedances of arsenic, chromium, and nickel concentrations above Canadian Council of Ministers of the Environment (CCME) guidelines, but the above excerpt from the Executive Summary (Appendix 5-E) implies that these metals (except arsenic) are not of concern. Adequate analysis has not been provided to determine whether these metals may or may not leach when disturbed.	ECCC requests that the Proponent clarify/demonstrate whether erosion of the shallow overburden material would cause leaching of arsenic, chromium and/or nickel metals.

ECCC#9	Proponent	Road Construction Material	Appendix 5-E Geochemistry of Whale Tail Mine Wastes and Road Aggregate, Section 2.1.4 Road Construction Material Samples	"*Existing geochemistry data from the Vault Pit operational database were used for this assessment. The data included results on sulphur and carbon content for approximately 11,200 blast hole samples obtained by Agnico Eagle from Leco furnace analysis at the Meadowbank Mine. Database information is described in the report included in Appendix A. These results were complemented by test results from confirmatory duplicate samples submitted to an external laboratory (SGS) by Agnico Eagle as part of their quality control - quality assurance (QA/QC) program over the period of Q4-2014 to Q1-2015. In addition, 17 grab samples were collected from the non PAG and PAG Vault waste rock stockpiles adjacent to the Vault Pit, from which some of the construction rock may be sourced*." It is unclear whether the existing geochemical data from the Vault Pit operational database is being used to assume the characteristics of construction materials to be sourced from borrow material or if the borrow material will be analyzed for its geochemical suitability for construction. Information on the borrow materials is needed to determine suitability for use in construction in order to avoid using PAG rock. Characterization of the material will determine whether the material is adequate or not.	ECCC requests that the Proponent sample and analyse borrow materials for geochemical suitability for use in construction and to verify the assumption that the characteristics will be the same as those at Vault Pit.
ECCC#10	Proponent	Surface Water Quality	Volume 3 Assessment Methods, Table 3.2-1 Assessment Endpoints and Measurement Indicators Associated with Valued Components	Table 3.2-1 does not contain all relevant Valuable Components (VCs) and associated measurement indicators. As this table forms the basis for the assessment approach, outstanding gaps should be addressed. Surface water quality, a VC, may be impacted by the use, storage, transport, and/or management of project-related substances (for example, fuels/explosives/wastes). Assessment methodology should reflect potential impacts of project-related substances on this VC.	ECCC requests that Table 3.2-1 and the EIS are updated to include 'Project-Related Substances' as an additional measurement indicator for Surface Water Quality.
ECCC#11	Proponent	Sediment	Volume 6 Freshwater Environment	Sediment quality is an important aspect of aquatic ecosystems. Sediments can act as both reservoirs and sources of chemicals in the aquatic environment, thereby influencing the water quality of overlying waterbodies. Additionally, suspended sediments can directly impact aquatic ecosystem components. The EIS does not contain sufficient information regarding potential project effects on (1) sediment quality, and related water quality effects; and (2) suspended sediments, and related aquatic environment effects.	ECCC requests that the EIS be updated to contain analysis and discussion of potential project effects on (1) sediment quality, and related water quality effects; and (2) suspended sediments, and related aquatic environment effects.

ECCC#12	Proponent	Baseline Monitoring	Volume 6 Freshwater Environment, Table 6.4-1 Baseline Waste and Sediment Quality Sampling Summary	As noted, during the NWB Water License Application completeness phase (ECCC-IR#3),the existing baseline monitoring dataset for the freshwater environment (including water quality, sediment quality, and aquatic biota) should be evaluated to identify data gaps which would prevent characterization of baseline conditions, including the natural variation in spatial and temporal (including seasonal and inter-annual) baseline conditions. Any gaps should be identified and addressed. Proponent Response: Agnico Eagle has continued to collect inter-annual freshwater sampling in 2016 and will discuss the need for additional baseline data collection with ECCC during the technical review phase of the project. ECCC acknowledges the response provided by the Proponent, however, the identification of data gaps and how they will be addressed, is required in advance of the technical review phase of the project.	ECCC requests that data gaps in the existing baseline monitoring dataset be identified and addressed. The EIS should include a discussion of any data gaps that would compromise characterization of the baseline conditions in and around project area water bodies, describe how these gaps can be addressed in conjunction with planned (i.e., outstanding) baseline monitoring, and include a sampling schedule with locations, dates and parameters.
ECCC#13	Proponent	Shipping	Volume 3 Assessment Methods, Appendix 3-A Marine Environment Summary ECCC's input to the Nunavut Planning Commission regarding Key Habitat Sites for Migratory Birds in the Nunavut Settlement Area. Revised May 2016.	The effect of a major spill on marine birds is described as medium-term in duration and reversible through natural processes in Section 3.A-8.4.2. The duration and reversibility of effects of a major spill along the shipping route affecting Digges Sound or Akpatok Island Key Habitat Sites, each home to 20% or more of the Canadian population of Thick-billed Murres, are hard to determine and likely unknown. However, the effects of this worst-case scenario would likely extend beyond closure as it well exceeds the percentage of "sustainable loss" that the population could tolerate (6-7%; ECCC 2016).	ECCC requests that the Proponent provide the analysis used to support its determination that the effects of a major spill on marine birds is reversible through natural processes and will be of medium-term duration if affecting a key marine habitat site along the shipping route, such as Digges Sound or Akpatok Island.
ECCC#14	Proponent	Shipping	Volume 3 Assessment Methods, Appendix 3-A Marine Environment Summary	The residual effects assessment states that the probability of a fatality or injury to migratory birds from a collision with vessels due to onboard lighting is considered unlikely with proposed mitigation (e.g. shielding lights). However, Table 3-A-10 (#8), indicates that proposed mitigation measures to reduce this effect will be implemented "where feasible".	a) ECCC requests that the Proponent provide additional information about the feasibility of implementing mitigation measures to reduce injury or mortality of marine bird due to attraction to lights on vessels. b) ECCC also requests that the Proponent provide adaptive management mitigation measures that will be implemented should negative effects to marine birds be identified during monitoring.

ECCC#15	Proponent	Migratory Birds	Volume 5 Terrestrial Environment, Section 5.5.3.5 Primary Pathway Destruction of Nests; Volume 8 Monitoring, Mitigation, and Monitoring Plans, Appendix 8-E.7 Terrestrial Ecosystem Management Plan	Section 6 of the *Migratory Birds Regulations* prohibits the destruction of migratory bird nests and eggs. Proposed water diversions will impact an estimated 176 ha of terrestrial habitat. Some of the planned flooding will occur during the migratory bird nesting season and will likely result in the loss of habitat and destruction of nests. Habitat loss and the destruction of nests were designated as primary effect pathways for waterbirds and/or upland breeding birds. Bird densities during baseline surveys and the amount of terrestrial habitat lost to flooding were used to quantify impacts. The Proponent indicates that mitigation will be considered and discussed with ECCC to reduce the likelihood that migratory birds will nest in the area. No specific monitoring in the Terrestrial Ecosystem Management Plan (TEMP) is proposed to confirm impact predictions and assess the effectiveness of mitigation measures related to the planned flooding.	a) ECCC requests that the Proponent clarify whether alternative options related to flooding during the migratory bird nesting season were considered in project planning, and if so, to provide the analysis. b) ECCC requests that the Proponent provide information about effective mitigation measures being considered to reduce the effects of flooding on nesting migratory birds that have been used elsewhere by the Proponent or at other northern mines. c) ECCC requests that the TEMP be updated to include monitoring to measure the annual loss of terrestrial habitat loss due to flooding, verify impact predictions, and assess the effectiveness of mitigation measures.
ECCC#16	Proponent	Species at Risk	Volume 3 Assessment Methods, Appendix 3-A Marine Environment Summary	The Harlequin Duck (Eastern population) is listed as Special Concern under Schedule 1 of the *Species at Risk Act*. The breeding range of this species includes both coasts along Hudson Straight (i.e. southern Baffin Island and northern Quebec/Labrador). During spring and fall migration, it may be encountered during shipping within the marine local study area (LSA)/regional study area (RSA), but was not listed in Table 3-A-5 or discussed in Section 3.A-6.2. The adverse effects, mitigation, and monitoring described for marine birds are relevant to this species.	ECCC requests that the Proponent add Harlequin Duck (Eastern population) to species potentially interacting with shipping activities in the marine LSA/RSA.

ECCC#17	Proponent	Migratory Birds	Volume 3 Assessment Methods, Appendix 3-B Human Health and Ecological Risk Assessment (HHERA); Volume 8 Monitoring, Mitigation, and Monitoring Plans, Appendix 8-E.7 Terrestrial Ecosystem Management Plan, Appendix E -Wildlife Screening Level Risk Assessment Plan (WSLRAP)	Tailings will be generated from processing the Whale Tail ore and deposited in the existing Tailings Storage Facility (TSF) at the Meadowbank site. The Proponent states that neither the footprint of the facility nor the chemical nature of the tailings and process water are expected to change from current operations. Monitoring data from other northern operating mines suggests that waterfowl, other waterbirds, and shorebirds can make extensive use of mine-altered waterbodies and TSFs, especially during migration. ECCC is concerned about migratory bird exposure to contaminants while using the TSF and other mine-altered waterbodies. In the Human Health and Ecological Risk Assessment, sediment quality was not assessed and water quality effects on wildlife was only assessed for waterbodies expected to be affected by discharges from the Project (i.e. the assessment did not include the TSF). The Wildlife Screening Level Risk Assessment Plan (WSLRAP) presents an approach to monitoring potential risk to wildlife from chemical contaminants with a focus on contaminant loadings due to dust. Two bird species were selected as receptors of concern; Canada Goose and Lapland Longspur. A similar risk assessment for the Ekati-Jay Pit project in the Northwest Territories led to the Semipalmated Sandpiper having the only exceedance in hazard quotient of all the wildlife receptors and this related to the constituent of potential concern (COPC) - chromium. The WSLRAP indicates that under baseline conditions at the Meadowbank mine, all COPCs posed negligible risks to wildlife except for a potential risk with chromium in songbirds. The Semipalmated Sandpiper was the most abundant shorebird species detected during baseline surveys, has been used in other similar risk assessments, and is a suitable surrogate species to assess risks for Red-necked Phalarope (Committee on the Status of Endangered Wildlife in Canada assessed as Special Concern).	a) ECCC requests that the Proponent provide an analysis of the risks associated with ingestion of sediment or water at the TSF by waterfowl, other waterbirds, and shorebirds. b) ECCC requests that the Semipalmated Sandpiper be added as a wildlife receptor of concern to the WSLRAP. c) ECCC requests that the Proponent provide a specific risk assessment for ingestion of sediment and water at the TSF for all wildlife receptors of concern in the WSLRAP.

ECCC#18	Proponent	Migratory Birds	Volume 5 Terrestrial Environment, Section 5.5.2.6 Waterbirds; Volume 8 Monitoring, Mitigation, and Monitoring Plans, Appendix 8-E.7 Terrestrial Ecosystem Management Plan (TEMP); 2010 Wildlife Monitoring Summary Report	Section 5.5.2.6 describes a mortality incident in 2015 associated with the TSF after a Canada Goose was "stuck". A very similar situation was also reported in the 2010 Wildlife Monitoring Summary Report. The frequency of monitoring was increased to prevent further mortalities. Section 3.7.3.3 of the TEMP indicates that if the threshold mortality level for waterfowl of 1 individual is exceeded, adaptive management measures will be implemented.	a) ECCC requests that the Proponent provide a description of design features that make the TSF unsuitable for migrating, nesting or feeding to migratory birds, with emphasis on waterfowl, other waterbirds, and shorebirds. b) ECCC requests that the Proponent provide information about any TSF design modifications that have been or could be implemented as adaptive management measures to prevent further mortalities.
ECCC#19	Proponent	Migratory Birds	Volume 3 Assessment Methods, Appendix 3-C, Table 3-C-3 Potential Pathway for Terrestrial Wildlife and Birds, p. 3-C-12; Volume 5 Terrestrial Environment, Appendix 5-C Terrestrial Baseline Characterization Report; Volume 8 Monitoring, Mitigation, and Monitoring Plans, Appendix 8-E.7 Terrestrial Ecosystem Management Plan	ECCC is concerned about the frequency of waterbird entanglements during fish-out operations associated with northern mines. Waterbird mortality during the project fish-out was identified as a secondary effects pathway in Table 3-C-3. It is also stated that some waterbird mortalities are likely, despite success at previous fish-outs (i.e. no mortalities) and maintaining existing practices. It is not clear if the late June to early July shoreline surveys conducted during baseline studies temporally overlaps the proposed period of the fish-out. Mitigation measures to prevent waterbird mortalities during fish-outs are not presented in the TEMP.	a) ECCC requests that the Proponent provide information about local conditions and/or factors contributing to the probability of mortality during the planned fish-out. b) ECCC also requests that the Proponent provide available waterbird survey results for Whale Tail Lake for the period temporally overlapping the planned fish-out. c) ECCC requests that the Proponent update the TEMP to include mitigation measures which will be implemented during the fish-outs to prevent waterbird by-catch.

Agnico Eagle Mines Ltd.'s Whale Tail Pit Project
Information Requests from Environment and Climate Change Canada

(IRs previously submitted to the Nunavut Water Board with Proponent and ECCC Responses)

IR Number	IR Directed To	Subject	Reference	Issue/Concern	Information Request	Proponent Response	ECCC Response/ Additional IRs
ECCC#1	Proponent	Baseline Monitoring	Volume 6 Freshwater Environment, Table 6.4-1 Baseline Waste and Sediment Quality Sampling Summary	The baseline water quality monitoring data presented in Volume 6 Freshwater Environment and summarized in Table 6.4-1 is not yet sufficient to enable characterization of natural seasonal and inter-annual variation. Provision of a robust baseline dataset will provide a solid foundation for comparison against project monitoring data and enable detection of project-related change in the receiving environment.	ECCC requests that sufficient baseline data be obtained prior to the start of construction. The baseline dataset should reflect seasonal and inter-annual variation with respect to water quality at the project site and at appropriate reference and downstream locations. Baseline data should be collected seasonally (freshet, summer, fall, and under ice) for water quality parameters. A minimum of three years is recommended to collect sufficient baseline data.	Agnico Eagle has continued to collect inter-annual freshwater sampling in 2016 and will discuss the need for additional baseline data collection with ECCC during the technical review phase of the project.	ECCC acknowledges the response provided by the Proponent and looks forward to further discussions during the technical review.
ECCC#2	Proponent	Baseline Monitoring	Volume 6 Freshwater Environment, Table 6.4-1 Baseline Waste and Sediment Quality Sampling Summary	Monitoring sediment quality (particle size, total organic carbon, and metals) in relation to project components or activities that have potential for metal leaching/ acid rock drainage and/or erosion/sedimentation (including impounded water, in-water works, ore stockpiles, waste rock, tailings, quarry materials, and road construction) provides a mechanism for measuring resultant changes in the aquatic environment, when compared against baseline conditions.	ECCC requests that baseline sediment quality be characterized for reference sites and receiving environments, including waterbodies in the pit area and along the haul road.	Agnico Eagle has continued to collect inter-annual freshwater sampling in 2016 and will discuss the need for additional baseline data collection with ECCC during the technical review phase of the project.	ECCC acknowledges the response provided by the Proponent and looks forward to further discussions during the technical review.

ECCC#3	Proponent	Baseline Monitoring	Volume 6 Freshwater Environment, Table 6.4-1 Baseline Waste and Sediment Quality Sampling Summary	The existing baseline monitoring dataset for the freshwater environment (including water quality, sediment quality, and aquatic biota) should be evaluated to identify data gaps which would prevent characterization of baseline conditions, including the natural variation in spatial and temporal (including seasonal and inter-annual) baseline conditions. Any gaps should be identified and addressed.	ECCC requests that data gaps in the existing baseline monitoring dataset be identified and addressed. The Environmental Impact Statement (EIS) should include a discussion of any data gaps that would compromise characterization of the baseline conditions in project water bodies, describe how these gaps can be addressed in conjunction with planned (i.e., outstanding) baseline monitoring, and include a sampling schedule with locations, dates and parameters.	Agnico Eagle has continued to collect inter-annual freshwater sampling in 2016 and will discuss the need for additional baseline data collection with ECCC during the technical review phase of the project.	ECCC acknowledges the response provided by the Proponent. However, the Proponent has not provided the requested information in regards to identifying and addressing data gaps in the existing baseline monitoring dataset. This IR is still outstanding.
ECCC#4	Proponent	Groundwater Sampling	Volume 6 Freshwater Environment, Section 6.2.5 Monitoring and Follow-Up	As per Section 6.2.5 of Volume 6, at the time the EIS was being drafted, attempts to collect groundwater samples had been unsuccessful, and no baseline information has been available for groundwater at the Amaruq site. To collect groundwater baseline data, a Westbay multi-level well system was installed in April 2016 in the talik below the central portion of Whale Tail Lake, and includes six primary sampling intervals installed below the permafrost, in order to monitor groundwater quality over the life of project. ECCC has been advised by the Proponent that the 2016 samples have been collected and analysed.	ECCC requests that the results of the 2016 groundwater monitoring, analysis, and discussion of implications be provided as an addendum to the EIS.	Agnico Eagle refers ECCC to the attached Ground Water Quality Investigation, Amaruq Site, Nunavut (Golder, 2016). As requested, during the technical review phase, Agnico Eagle will provide to the NWB an addendum to the EIS that includes an analysis and discussion of these results as it relates to groundwater predictions for the Whale Tail Pit Project.	ECCC is satisfied with the Proponent's response.

ECCC#5	Proponent	Erosion and Sediment Control	Volume 8 Monitoring, Mitigation and Management Plans	Volume 8 Monitoring, Mitigation, and Management Plans does not contain an Erosion and Sediment Control Plan. Erosion and sediment control planning are essential to mitigate mining-related sedimentation effects on the aquatic environment.	ECCC requests that an Erosion and Sediment Control Plan be developed and implemented for this project. Volume 8 should be updated to include this additional plan.	Erosion and sediment control planning and mitigation measures are presented in the submitted Water Management Plan and the Water Quality Monitoring and Management Plan for Dike Construction and Dewatering. Nevertheless, a separate and operationally focused sub-section entitled: Erosion and Sediment Control Measures will be added to the updated Whale Tail Pit Water Management Plan and provided to NWB prior to the technical review phase of the project.	ECCC is satisfied with the Proponent's response.

ECCC#6	Proponent	Greenhouse Gases	Volume 4 Atmospheric Environment, Section 4.2.3 Climate and Project Interactions	Predicted total greenhouse gases (GHG) for the project were presented in Section 4.2.3, however no detailed analysis of GHG emissions was provided.	ECCC requests a detailed analysis of the GHG emissions attributed to various components of the project, as well as a detailed discussion of the planned mitigations.	Agnico Eagle refers ECCC to Section 4.2.3.1 of the Whale Tail Pit FEIS which summarizes the GHG emissions data in Tables 4.2-1 and 4.2-2. The emissions estimates were tabulated according to methods consistent with Environment and Climate Change Canada' (ECCC) annual Facility Greenhouse Gas Emissions Reporting Program (GHGRP). Emissions were tabulated separately for: Off-road emissions; On-road emissions; power plant; and, camp heater. GHG emissions were calculated in parallel to CAC emissions; the CAC emissions calculations methods are discussed in detail in Appendix 4B of the FEIS. Agnico Eagle will discuss the GHG mitigation with ECCC prior to and during the technical review phase of the project.	ECCC acknowledges the tabulated summary data for GHGs by emission source provided in Table 4.2-1. However, additional details are required in order to provide a thorough review of the data. a) ECCC requests that the Proponent provide the emission factors used to determine GHGs, broken down by equipment engine size and GHG compound. b) ECCC requests that the Proponent provide sample calculations which show how GHG emissions were determined. c) ECCC requests that the Proponent verify whether fugitive methane emissions were considered in the GHG emission estimate, and if not, to provide an estimate of these emissions.

ECCC#7	Proponent	Sulphur Dioxide Standard	Volume 4 Atmospheric Environment, Tables 4.3-1 and 4.3-4 (Air Quality Standards)	Health Canada and Environment and Climate Change Canada recently released new Canadian Ambient Air Quality Standards for Sulphur dioxide. These new standards provide better protection from environmental impacts such as acid rain. For more information on the new Sulphur dioxide standards, please visit: http://www.ccme.ca/en/resources/air/air/sulphur-dioxide.html	ECCC asks that the Proponent consider using these standards as a benchmark for assessing potential effects to air quality, which are lower than the Nunavut Ambient Air Quality Standards references in the EIS.	No response was provided by the Proponent.	As no response was provided by the Proponent, this IR is still outstanding.
ECCC#8	Proponent	Air Quality Monitoring	Volume 4 Atmospheric Environment, Section 4.3.7 Monitoring and Follow-up	No details regarding proposed monitoring locations were provided in the EIS.	As discussed at the meeting on October 13th between ECCC and the Proponent, ECCC requests that the Proponent provide the information on the proposed monitoring locations.	No response was provided by the Proponent.	As no response was provided by the Proponent, this IR is still outstanding.