



September 8, 2022

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Subject: Natural Resources Canada's Submission in Response to the Designation Request for the Summit Mine 14 Project

On August 18th, the Impact Assessment Agency of Canada (the Agency) requested that Natural Resources Canada (NRCan) provide information in response to the Designation Request for the Summit Mine 14 Project (the Project) located approximately four kilometres northeast of Grande Cache, Alberta.

NRCan is responding to this Designation Request pursuant to subsection 13(1) of the *Impact Assessment Act*. Details of NRCan's response can be found in the attached FAAR form.

If you have any questions, please contact me via e-mail at Rajpreet.Bhatti@nrcan-rncan.gc.ca or by phone at 343-292-6139.

Thank you,

Rajpreet Bhatti
Senior Environmental Assessment Officer
Office of the Chief Scientist

Attachment:
Federal Authority Advice Record: Designation Request under IAA

ATTACHMENT August 18, 2022

Federal Authority Advice Record: Designation Request under IAA

Response due by September 8, 2022

Summit Mine 14 Project

Department/Agency	Natural Resources Canada
Lead Contact	Rajpreet Bhatti
Full Address	588 Booth Street, Ottawa, ON, K1A 0E4
Email	Rajpreet.Bhatti@nrcan-rncan.gc.ca
Telephone	343-292-6139
Alternate Departmental Contact	peter.unger@nrcan-rncan.gc.ca

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1. Has your department or agency considered whether it has an interest in the Project; exercised a power or performed a duty or function under any Act of Parliament in relation to the Project; or taken any course of action (including provision of financial assistance) that would allow the Project to proceed in whole or in part?

NRCan does not have an interest in the Project, nor has it taken any course of action (e.g., regulatory decision, funding, etc.) to enable the Project to proceed in whole or in part.

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2. Is it probable that your department or agency may be required to exercise a power or perform a duty or function related to the Project to enable it to proceed?

If yes, specify that power, duty or function and its legislative source.

NRCan may be requested to exercise a power or perform a duty or function related to the Project pursuant to the Department's role in administering the *Explosives Act* for the storage and manufacture of explosives, however, not enough information is available at this time to make a determination. If a federal impact assessment is required, the Proponent would, pursuant to Part D Section 18 of the *Information and Management of Time Limits Regulations* ([SOR/2019-283](#)), be required to disclose this information to the Agency.

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3. If your department or agency will exercise a power or perform a duty or function under any Act of Parliament in relation to the Project, will it involve public and Indigenous consultation?

Specify as appropriate.

Due to the highly regulated nature of explosives-related activities, NRCan typically does not consult with the public or Indigenous groups with respect to such regulatory processes. However, if concerns were raised

during the impact assessment process, NRCan would consult with the public or Indigenous groups as needed, but there is limited ability to accommodate in the conditions of an *Explosives Act* license or permit.

4. Is your department or agency in possession of specialist or expert information or knowledge that may be relevant to any potential adverse effects within federal jurisdiction caused by the Project or adverse direct or incidental effects stemming from the Project?

Specify as appropriate.

- Ecotoxicity of selenium and metals
- Hydrogeology (i.e., groundwater quantity, dynamics, and flows)
- Geohazards
- Geochemistry, including:
 - Acid rock drainage and neutral metal leaching
 - Characterisation of ore, waste rock, tailings, overburden and pit walls
 - Mine waste management alternatives
- Forestry, including biodiversity related to forest vegetation, soils, impact of vegetation on hydrology, species at risk habitat (including Woodland Caribou), aquatic biodiversity, cumulative effects on the forested landscape and reclamation.
- Economic analysis related to mining

NRCan may further refine its expertise as more information becomes available related to the Project.

5. Has your department or agency had previous contact or involvement with the proponent or other parties in relation to the Project?

Provide an overview of the information or advice exchanged.

NRCan has not identified any previous contact or involvement with the proponent or other parties in relation to the Project.

6. From the perspective of the mandate and area(s) of expertise of your department or agency, does the Project have the potential to cause adverse effects within federal jurisdiction or adverse direct or incidental effects as described in section 2 of IAA? Could any of those effects be managed through legislative or regulatory mechanisms administered by your department or agency? If a licence, permit, authorization or approval may be issued, could it include conditions in relation to those effects?

Specify as appropriate.

From the perspective of the legislative mandate of the Department, NRCan is aware of potential Project-related adverse effects from exposure of aquatic ecosystems to selenium. NRCan is able to provide scientific expertise and advice to other Federal Authorities, as needed, to support their assessment of potential effects within federal jurisdiction (e.g., Department of Fisheries & Oceans and impacts to fish and fish habitat, and Environment & Climate Change Canada and impacts to Species at Risk).

7. Does your department or agency have a program or additional authority that may be relevant and could be considered as a potential solution to concerns expressed about the Project? In particular, the following issues have been raised by the requestor:

- adverse effects on fish and fish habitat;
- adverse effects on migratory birds and species at risk and their critical habitats. Concerns were raised about the yellow-bellied flycatcher, common yellowthroat, black-throated green warbler, harlequin duck, Cassin's vireo, barred owl, and western toad; the requester asserts that these species are known to be near the Project's vicinity;
- changes to the environment that occur on federal lands, including Jasper National Park;
- changes to the environment that occur in a province or territory other than the one where the Project is taking place, including British Columbia;

- adverse effects to multiple waterways due to selenium contamination;
- adverse cumulative effects due to historical and present coal development in the area;
- adverse effects to critical wildlife habitat, including Bighorn sheep, Woodland caribou, grizzly bear and wolverines;
- changes to the environment that could affect the Indigenous peoples of Canada and their ability to practice section 35 rights: and,
- changes occurring to the health, social, or economic conditions of the Indigenous peoples of Canada.

If yes, please specify the program or authority.

CanmetMINING at NRCAN has expertise in adverse effects of selenium to aquatic environment (food chain transfer, benthic invertebrate and impacts to fish) as well as potential mine material management and treatment technologies needed to mitigate selenium risks.

8. Does your department or agency have information about the interests of Indigenous groups in the vicinity of the Project; the exercise of their rights protected by section 35 of the *Constitution Act, 1982*; and/or any consultation and accommodation undertaken, underway, or anticipated to address adverse impacts to the section 35 rights of the Indigenous groups?

If yes, please specify.

N/A

9. If your department has guidance material that would be helpful to the proponent or the Agency, please include these as attachments or hyperlinks in your response.

- 1- 1.20.1 - **Prediction Manual** for Drainage Chemistry from Sulphidic Geologic Materials - December 01, 2009.
- 2- MEND report 10.1.1 - A Review of Environmental Management Criteria for **Selenium** and Molybdenum - February 01, 2008 mend-nedem.org
- 3- Jatar 2012. Assessing the effect of selenium on the life-cycle of two aquatic invertebrates Ceriodaphnia dubia and Chironomus dilutus. [Assessing the Effect of Selenium on the Life-cycle of Two Aquatic Invertebrates 'Ceriodaphnia dubia' and 'Chironomus dilutus' - University of Ottawa \(exlibrisgroup.com\)](http://exlibrisgroup.com)
- 4- DeForest et al. 2017. Lentic, lotic and sulfate-dependent waterborne selenium screening guidelines for freshwater systems. [Lentic, lotic, and sulfate-dependent waterborne selenium screening guidelines for freshwater systems - PubMed \(nih.gov\)](http://pubmed.nih.gov)
- 5- CanmetMINING 2022. Technical report on bench-scale removal of selenium from mining effluent using four treatment technologies.

Rajpreet Bhatti

Name of departmental / agency responder

Senior Impact Assessment Officer

Title of responder

September 8th, 2022

Date