



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Lupin Mine Presentation to the Nunavut Water Board by Environment and Climate Change Canada

Lupin-mi Uyaraktaqvik Uqauhiq Nunavumi Immaliqiyit Katimayiinut ukunanga Avatiliqiyit Hilaplu Aalaguqniganik Kanatami

2AM-LUP1520 - Public Hearing/Inuknik Naalaktitivik

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Kugluktuk, NU/ Quqлуqtumi, Nunavumi

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Canada 

Overview Qanuriniga

- Mandate
 - Relevant acts and regulations
 - Status of Environment and Climate Change Canada's comments
 - Outstanding comments and recommendations
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- Havaakhijutauyuq
 - Atuqniqaqtut maligaqyuat maliruakhalu
 - Qanuriniga Avatauyuq Hilalu Aalaguqniga Kanataup uqauhiit
 - Iniqhimagitut uqauhiuyut atuliquyauyulu



Environment and Climate Change Canada's Mandate Avatauyuq Hilalu Aalaguqniganik Kanataup Havaakhitauniga

- Preservation and enhancement of the quality of the natural environment, including water, air and soil quality;
- Coordination of the relevant policies and programs of the Government of Canada;
- Ilipqamanigit ihuaqhivaaliqlugilu halumaniga nunami avatauyuq, immauyutlu, hilap nunaplu halumaniga.
- Ihuaqhaqnigit atuqniqaqtut pitquhiit havaagilu Kavamat Kanatami.



Environment and Climate Change Canada's Mandate Avatauyuq Hilalu Aalaguqniganik Kanataup Havaakhitauniga

- Renewable resources, including migratory birds and other non-domestic flora and fauna
- Meteorology; and
- Enforcement of regulations
- Nutaaguqtiqhimaagtut ihuaqutit, tikitpaktulu tikmijat ahiilu ahini takuukhaugitut nautiaq nauninuilu.
- Uyaraliqinikt.
- Ihuaqhaqniginik maliruat



Relevant acts and regulations Atuqniqaqtut maligaqyuat malirualu

- *Department of the Environment Act*
- *Canadian Environmental Protection Act*
- *Fisheries Act – Pollution Prevention Provisions*
- *Migratory Birds Convention Act*
- *Species at Risk Act*

- *Havakviuyuq Avatiliqiyinit Maligaqyuaq*
- *Kanatami Avatauyumnik Munarinigagut Maligaqyuaq*
- *Iqaluliqinikut Maligaqyuaq – Halumaiqtuqagitaagani Pivikhaqaqnigit*
- *Tikitpaktut Tikmijanik Agiqatiriigut Maligaqyuaq*
- *Umayut Ihumaluknaqtut Maligaqyuaq*



Current status of ECCC Technical Comments / Taja qanuriniga ECCC-kut Nutauniqhanik uqauhiit

Technical Comment no./ Nutauniqhanik Uqauhiit nahautaa	Technical Comment Subject Nutauniqhanik Uqauhiq Hunauniga	Status /Qanurinigalu
ECCC 1	Climate change modeling / Hilap aalaguqpalianiganik atuqtakhamik	Resolved with commitment / Ihuaqhiyuq uqariiqhimayumit
ECCC-2	Tailings closure approach and monitoring / Ataguuqvik umiktignigagut pigiarut amirinigalu	Resolved / Ihuaqhiyuq
ECCC-3	Perimeter dams / Avatait himiktuutit	Partly resolved / Illainaa ihuaqhiyuq
ECCC-4	Duration of permanent monitoring / Hivituniga atuinaqtuukhap amirijutip	Partly resolved / Illainaa ihuaqhiyuq
ECCC-5	One metre esker cover / 1-miitamik qimiaqyukmit hauhijutikhaq	Resolved / Ihuaqhiyuq
ECCC-6	Waste rock tailings acid rock and metal leaching / Iqaguut uyaqat, ataguut, halumailruqaqtut uyaqat, havivalukniklu kuhignigit	Resolved with commitment / Ihuaqhiyuq uqariiqhimayumit
ECCC-7	Asbestos disposal / Ikulaariipkutit iqaqtauniginik	Resolved / Ihuaqhiyuq



ECCC TC1 – Climate Change Modeling / ECCC TC1 – Hilap Aalaguqniganik Atuqtukhaq

Resolved with commitment / Ihuaqhiyuq uqariiqhimayumit

ECCC recommends that:

- The proponent develops contingency plans for post closure of the Lupin Mine site that considers both the high and low emission scenarios.

ECCC atuliquiyut ukuniga:

- Tamaknik LES-guyuq HES-lu ilagilgu AES-guyuq ihumagiyauyukhaugalu it Lupin-mi Uyaraktaqviki nunami. Tamaita pijutauyuq umiktigniganik ihumagiyauyukhaugalu it, ihuaqhautilu upalugaiyautit kiguani umiktinigata Lupin-mi uyaraktaqviki nunami ihumagiyaqaqtumik tamaknik atulaaqtuuk qanurinihait.



ECCC TC 2 and TC5 – Tailings Closure Approach and Monitoring / ECCC TC 2 unalu TC5 – Ataguunik miktignigani Pigiarut Amirijutilu

Resolved/ Ihuaqhiyuq

ECCC recommends that:

- The details of the tailings containment area monitoring should be included in the post-closure monitoring plan that is to be submitted within one year of licence approval by the Minister.

ECCC atuliquiyut uumiga:

- Hunaunigit TCA-mik amirijutit ilauyuukhaugaluit kiguani umiktignigani amirijutit upalugaiyaut tuniyauluni ukiuq naatinagu laisiuyuq agiqtauniganit Ministauyumit.



ECCC TC3 – Perimeter Dams

ECCC TC3 – Avatigiyait Himiktuutit

Partly Resolved / Ilainaa Ihuaqhiyuq

ECCC recommends that:

- The time frame for ongoing monitoring of the dams extend beyond the 5 year passive closure period, and reflect the full duration of monitoring for the site; and
- Dam stability monitoring be included in the post closure monitoring plan.

ECCC atuliquiyut uukukniga:

- Pivikhaqaqniga amiriinaqniginik himiktuutit avatqumayut talimanik ukiuni kaumiitumik umiktiqnigani, takuupkaiyuqlu tamat hivituniga amiriniganik iqluuqpaqaqvik; unalu
- Himiktuut naamainaqniganik amirijutit ilaujavut kiguani umiktiqnigani amirijutitut upalugaiyaut.



ECCC TC4 – Duration of Permanent Monitoring and Timing

ECCC TC4 – Hivituniga Amiriinaqniaqnigata Pivikhaqaqnigalu

Partly Resolved / Ilainaa Ihuaqhiyuq

ECCC recommends that:

- The proponent includes thresholds for water quality and tailings cover performance that would trigger moving to reduced monitoring frequency or intensity in the proposed post-closure monitoring plan.
- Monitoring of the tailings containment area (TCA) cover and water quality be done over a duration that is sufficient to demonstrate physical and chemical stability and acceptable quality for the long term.

ECCC atuliquiyut uukukniga:

- Havaaqarumayuq ilaupkaijavuq nalunaiqtunik immarikniga ataguniklu huhijut qanuriliuqniganik pijutaulaaqtumik ikiklivaaliriagani amirijutit atuqataqniginik akhurutaunigaluniit atulirumayauyuq kiguani umiktiqniganit amirijutitik upalugaiyaut.
- Amiriniga TCA-mi hauhijut immariknigalu havaariyauyaagani hivitunigani namagiyaanik takuupkaiyaagani qanuriniga halumailruvaluilu igutaaginiginik naamainaqniganiklu halumaniganik hivunikhami.



ECCC TC6 – Waste Rock Tailings and Acid Rock Drainage/Metal Leaching / ECCC TC6 – Iqaguut Uyaqat, Ataguut, Halumaitut Uyaqanit Kuuknigit, Havivaluilu / Kutiknigit

Resolved with commitment / Ihuaqhiyuq uqariiqhimayumit

ECCC recommends that:

- The proponent samples the adjacent lakes – East, Boot and Lower Sewage –prior to waste rock dome construction and continue periodic monitoring for a full suite of metals and pH to confirm the predicted seepage quality and behavior.

ECCC atulituiyut uukuniga:

- Havaaqarumayuq ilituqhainiaquq hanianiitunik tatinik – Kivaliqhianit, Bootmit, Atpanilu Anaguuvikmit – hivuani iqaguut uyaqaat kigikhigiaqtinagit qaguguriakpalu amirilugu hunauniginik havivaluit pH-lu naunairiagani nalautaqtayuq kutiknigani halumaniganik qanuriliuqniganiklu.



ECCC TC6 – Waste Rock Tailings and Acid Rock Drainage/Metal Leaching / ECCC TC6 – Iqaguut Uyaqat, Ataguut, Halumaitut Uyaqanit Kuuknigit, Havivaluilu / Kutiknigit

Resolved with commitment / Ihuaqhiyuq uqariiqhimayumit

ECCC recommends that:

- The Proponent monitors water quality of visible seeps or flows in the existing the waste rock pile.
- The proponent identifies thresholds that would require remedial measures for seepage quality in monitored flow or seeps

ECCC atulituiyut uukuniga:

- Havaaqarumayuq amirijavaa immarikniga takuukhauyut immavaluqaqnigit kuuknigiluniit taja iqagunit uyaqanit katitiqtauhimayunit.
- Havaaqarumayuq tikuaqhiniquuq upigiaqvikhat ihuaqhariaqaliqnigani pijutauyunik kuukniginik halumaniganik amiriyauyuni kuuknigini kutikniginilu.



ECCC TC7 – Asbestos Disposal

ECCC TC7 – Ikulaariipkutit Iqaqtauniginik

Resolved / Ihuaqhiyuq

The proponent has indicated that they will be following appropriate guidelines for the disposal of asbestos containing materials.

Havaaqarumayuq ilituripkaiyuq maliruaqniaqniraqhutik maliruakhanik iqaqtauniginik ikulaariipkutit piquqtut hanayakhat.



ECCC 8 – Draft Water Licence

ECCC 8 – Ititiraqaqhimayuq Immaqmik Aturiagani laisiuyuq

New comment / Nutaat uqariiqhimayuq

ECCC recommends that:

- The proponent notes the proposed effluent quality criteria under Schedule 4 that come into force June 1, 2021 in the event that there will be discharges after June 1, 2021.
- The proponent updates the definition of “Recognized Closed Mine”.

ECCC atuliquiyut uukuniga:

- Havaaqarumayuq itqaiyuq atulirumayauyumik ataguvaluit halumaniga aturiaqaqtuq ilagani Naunaipkut 4-mi atuliqniaqtuq June 1-mi 2021-mi piyuqaqat kuuktitijutininik kiguani June 1, 2021-mi.
- Havaaqarumayuq nuutaaguqtiriyuq tukitaarutaanik “Ilitariyauyuq Umikniganik Uyaraktaqvik”.



Thank You / Quanaqutin



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