

SCREENING DECISION

Thomas Kudloo
Chairperson
Nunavut Water Board
Gjoa Haven, NT

Dear Mr. Kudloo:

**RE: Screening Decision of the Nunavut Impact Review Board (NIRB) on Application:
NIRB 00EN061 DIAND N1999C0114
Mineral Exploration Nowyak Lake Area**

Authority:

Section 12.4.4 of the Nunavut Land Claim Agreement states:

Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

- a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;
- b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
- c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
- d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

Primary Objectives:

The primary objectives of the Nunavut Land Claim Agreement are set out in section 12.2.5 of the Land Claims Agreement. This section reads:

In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

Reasons for Decision:

NIRB's decision is based on specific considerations that reflect the primary objectives of the Land Claims Agreement. Our considerations in making this decision included:

- the impact of drilling activities on the ecosystem;
- disposal of drill cuttings and waste water;
- impact to water quality, aquatic habitat and wildlife and fish populations from chemicals, drill waste, drill fluids and potential fuel spills;
- storage and disposal of chemicals, fuel, garbage, sewage, and gray water, and impact of these on the ecosystem;
- the impact of noise from drilling activities and their disturbance to wildlife and traditional users of area;
- the impact of campsite and equipment on terrain;
- the impact of exploration activities on archaeological sites or cultural landmarks in the area; and
- cleanup/restoration of the camp site and drilling locations upon abandonment.

Terms and Conditions:

That the terms and conditions attached to this screening report will apply.

Drill Sites

1. The Permittee shall not conduct any land based drilling within thirty (30) metres of the normal high water mark of a water body.
2. The Permittee shall conduct any lake-based water drilling, in accordance with the Interim Guidelines for On-Ice drilling.
3. The Permittee shall ensure that all drill cuttings are removed from ice surfaces.
4. The Permittee shall not use drilling muds or additives in connection with drill holes unless they are recirculated or contained such that they do not enter the water, or are certified to be non-toxic.
5. The Permittee shall ensure that any drill cuttings and waste water that cannot be recirculated be disposed of in a properly constructed sump or an appropriate natural depression that does not drain into a waterbody.
6. The Permittee shall ensure that drilling wastes do not enter any water body. The use of biodegradable, salt free drill additives is encouraged over non-biodegradable types.
7. The Permittee shall ensure that the sump/depression capacity is sufficient to accommodate the volume of waste water and any fines that are produced so that there will be no additional impacts.
8. The Permittee shall not locate any sump within thirty (30) metres of the normal high water mark of any water body.

9. The Permittee shall ensure that disturbance of vegetation from deposit of drill fluids/cuttings is restricted to the area of the sump and the ground prepared for revegetation upon abandonment.
10. The Permittee shall not use mechanized clearing within 30 meters of the normal high water mark of a watercourse in order to maintain a vegetative mat for bank stabilization.
11. The Permittee shall, where flowing water from bore holes is encountered, plug the bore hole in such a manner as to permanently prevent any further outflow of water. The occurrence shall be reported to the Nunavut Water Board and Land Use Inspector within 48 hours.

Water

12. The Permittee shall ensure that all water intake hoses are equipped with a screen with an appropriate mesh size to ensure that there is no entrapment of fish.

Fuel and Chemical Storage

13. The Permittee shall ensure that fuel storage containers are not located within thirty-one (31) metres of the ordinary high water mark of any body of water.
14. The Permittee shall ensure that any chemicals, fuels or wastes associated with the project do not spread to the surrounding lands or enter into any water body.
15. The Permittee shall construct an impermeable dyke around each stationary fuel container or group of stationary fuel containers where one container has the capacity exceeding 4,000 litres.
16. The Permittee shall take all reasonable precautions to prevent the possibility of migration of spilled petroleum fuel or chemicals over the ground surface.
17. The Permittee shall have one extra fuel storage container on site equal to, or greater than, the size of the largest fuel container.
18. The Permittee shall examine all fuel and chemical storage containers daily for leaks. All leaks should be prepared immediately.
19. The Permittee shall seal all container outlets except the outlet currently in use.
20. The Permittee shall mark all fuel containers with the Permittee's name.
21. The Permittee shall dispose of all combustible waste petroleum products by incineration and removal from the site.
22. The Permittee shall have an approved emergency response and spill contingency plan in place prior to the commencement of the operation.
23. The Permittee shall immediately report all spills of petroleum and hazardous chemicals to the twenty four (24) hour spill report line at (867) 920-8130.

Waste Disposal

24. The Permittee shall not discharge or deposit any refuse substances or other waste materials in any body of water, or on the banks thereof, which will impair the quality of the waters of the natural environment.

25. The Permittee shall not locate any sumps or areas designated for waste disposal within thirty (30) metres of the ordinary high water mark of any body of water, and be sufficiently bermed or otherwise contained to ensure that these substances do not enter a waterway unless otherwise authorized.
26. The Permittee shall treat greywater and sewage according to the terms and conditions outlined in the NWB approval.
27. The Permittee shall backfill and recontour all sumps to match the natural environment prior to the expiry date of the license.
28. The Permittee shall incinerate all combustible and food wastes daily. The Permittee shall use as a minimum incineration method a 45 gallon drum modified to form a more efficient incinerator.
29. The Permittee shall keep all garbage and debris in a covered metal container until disposed of.
30. The Permittee shall ensure that all wastes generated through the course of the operation are backhauled and disposed of in an approved dumpsite.
31. The Permittee shall deposit all scrap metal, discarded machinery and parts, barrels and kegs, at an approved disposal site.

Wildlife

32. The Permittee shall ensure that there is no damage to wildlife habitat in conducting this operation.
33. The Permittee shall not feed wildlife.
34. The Permittee use the latest bear detection and deterrent techniques to minimize man-bear interactions and shall report any Man-Bear Interactions to the nearest Renewable Resource Officer or contact (867) 873-7181.
35. The Permittee shall ensure that the drill sites avoid known environmentally sensitive areas (denning, nesting etc.) by a minimum of 250 metres.
36. The Permittee shall not locate any operation so as to block or cause substantial diversion to migration of caribou.
37. The Permittee shall cease activities that may interfere with migration or calving, such as airborne geophysics surveys or movement of equipment, drilling activities until the caribou and their calves have vacated the area.
38. The Permittee shall not conduct any activity associated with the land use operation during critical periods of wildlife cycles (eg. caribou migration, calving, fish spawning or raptor nesting).
39. That the Permittee shall ensure that there is no hunting by employees of the company or any contractors hired.
40. That the Permittee remove any carcasses along the roadway to prevent attraction by scavengers, preventing further road kills.
41. The Permittee shall ensure that aircraft pilots adhere to recommended flight altitudes of greater than 300 m above ground level as to not disturb wildlife. Raptor nesting sites and concentrations of nesting or molting waterfowl should be avoided by aircraft at all times.
42. The Permittee shall ensure compliance with Section 36 of the Fisheries Act which requires that no person shall deposit or permit the deposit of a deleterious substance on any type in

water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.

43. The harmful alteration, disruption or destruction of fish habitat is prohibited under Section 35 of the Fisheries Act. No construction or disturbance of any stream/lake bed or banks of any definable watercourse is permitted unless authorized by DFO.
44. The Permittee shall not detonate explosives within fifteen (15) metres of any body of water which is not completely frozen to the bottom.

Environmental

45. The Permittee shall ensure that the land use area is kept clean and tidy at all times.
46. The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.
47. The Permittee shall not do anything that will cause erosion of the banks of any body of water on or adjacent to the land and shall provide necessary controls to prevent such erosion.
48. The Permittee shall be required to undertake any corrective measures in the event of any damage to the land or water as a result of the Permittee's operation.
49. The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of the permit.
50. The Permittee shall not remove any material from below the ordinary high water mark of any waterbody.
51. The Permittee shall adopt such measures as required to control erosion by surface disturbance.
52. The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.
53. The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs.

Structure & Storage Facilities

54. The Permittee shall not erect structures or store material on the surface ice of lakes or streams.
55. The Permittee shall locate all structures and storage facilities on gravel, sand or other durable land.
56. The Permittee shall use existing housing facilities.

Archaeological Sites

57. The Permittee shall follow all terms and conditions for the protection and restoration of archaeological resources as outlined by the Prince of Wales Northern Heritage Centre (PWNHC) in attached letter.

Attachments

58. The Permittee shall refer to the attached Department of Sustainable Development comments and recommendations and the Fisheries and Oceans letter of advice addressed to the Permittee.

Other Recommendations

1. NIRB would like to encourage the proponent to hire local people and services, to the extent possible.
2. NIRB strongly advises the proponent to have public consultation in Arviat.
3. Any amendment requests deemed by NIRB to be outside the original scope of the project will be considered a new project.

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated Jan 27/2000 at Cambridge Bay, NT


Larry Pokok, Aknavigak, Chairperson

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NUNAVUT IMPACT REVIEW BOARD SCREENING FORM

I. General File Information on Screening

NIRB #: 00END61
(yy-xxx)

Authorizing Agency #(s): DIAND
permit or licence #

N199800114

Project Title: Mineral Exploration Nainiyah Lake Area
Title of Project

Proponent: Phelps Dodge Corp. of Canada Ltd.
Company/Applicant

Proponent's Address: Suite 912, 180 Adelaide St. West
Toronto, ON M5H 1T1

Full Address

Contractor:

Company / persons doing the work if different from the proponent

address and contact numbers

Proposed Starting Date of Activity: 00/02/15
(yy-mm-dd)

EA Starting Date: Dec 22, 1999
Date application accepted (yyyy-mm-dd)

Date Application Referred for Comments: Jan 4, 2000
(yyyy-mm-dd)

Deadline for Comments: Jan 16, 2000
(yy-mm-dd)

NIRB's EA Indication: 12.4.4 (C)

Date of Indication: January 27, 2000
(yy-mm-dd)

Project Cancelled: Yes, Give Reason

Comments:

(October 1998 version) Nunavut Impact Review Board Screening Form

2. Authorizing Agencies

Authorizing Agency(ies): Kivalliq I.A., Kitikmeot I.A., QIA, NWB, NWMB, DIAND, DFO, DOE, NRI, RWED, Other: _____

Authorizing Agency Contact Person: Sandra Broadbury
(office where project file is located, contact person, number)

Land Status: Inuit Owned _____ Crown ☒ Commissioner's _____ Marine Areas _____

Type of Application: land use permit
(e.g. water licence, land use permit, quarry permit, research permit, lease, reserve)

Type of Approval being sought: new
(e.g. new, renewal, amendment, cancellation)

Other required approvals, permits or licences: _____
(e.g. water licence, land use permit, quarry permit, lease, reserve)

Present Authorizations (active): _____
(file number)

Previous Authorizations (inactive/expired): _____
(file number)

3. Project Location

Kivalliq ☒ Kitikmeot _____ Baffin _____

Land Use Planning Region: Kivalliq
(e.g. West Kitikmeot, North Baffin, South Baffin, Kivalliq)

Geographic Place Name: Nauyasak lake
(nearest place name or geographic feature)

Local/Traditional Name: _____

National Topographic Sheet (NTS) Number: 65G-15 Scale: 1:250,000

Latitude/Longitude: 61° 48', 98° 36' to 61° 47', 98° 34'
(degrees, minutes seconds)

Drainage Region and Watershed: Nauyasak lake
(nearest creek, river or lake system)

Nearest Settlement: Arviat

Adjacent Settlement/Out-post camps: _____

Special Designation: _____
(Yes/No, e.g. Heritage River, Wildlife Reserve, Park)

Does the project have Nunavut transboundary implications? Yes _____ No ☒

If yes, what additional procedures/contacts are needed? _____

4. Project Description and Assessment

Physical Work, Activity(ies): drilling
(drilling, construction, camp, research, water works, installation, modification, maintenance)

Multiple Activities: Yes _____ No ☒

Project Category Code: Point _____ Multiple Points _____ Linear _____ Area

Phase of Project: exploration
(exploration, bulk sampling, development, operations, decommissioning, abandonment/restoration)

Project Description Summary (non-technical):

(duration of project, size of project, number of personnel on site, related physical activities, machinery used, fuels and chemical use and storage, associated infrastructure, methods of transportation, amount and source of resources needed eg. Gravel)

Attach Project Overview (English and Inuktitut)

Alternatives Considered:

(list all alternatives to the project and/or components of the project to avoid unnecessary amendments, (e.g. alternatives to location of ice road or camp logistics)

5. The Proponent's Public Consultation Process**Description of Proponent's Public Consultation Process**

consultation not done prior to submission
of applications.

Did proponent make use of traditional knowledge? Yes _____ No ☒

Was information available in the community's preferred language? Yes _____ No ☒

In NIRB's opinion, was the proponent's public consultation adequate? Yes _____ No ☒

If no, explain why the proponent's consultation program was found deficient.

proponent should be encouraged to do
consultation.

Phelps Dodge Exploration

Proposed Drill Program - Nowyak Lake, Nunavut January 10, 2000

This Summary is intended for attachment to an application for a Water Use Permit.

Phelps Dodge Corporation of Canada is proposing to conduct an initial drilling program on the NOK 1-11 claims in NTS area 65G-15. This area is located approximately 12 kms southwest of Navigator Exploration's camp at the north end of Nowyak Lake. Nowyak Lake is approximately 350 kms southwest of Rankin Inlet and 250 kms northwest of Arviat. Exploration on this property is at a very early stage where we want to conduct an initial drill test of a gold showing that we discovered in 1998 and mapped in 1999.

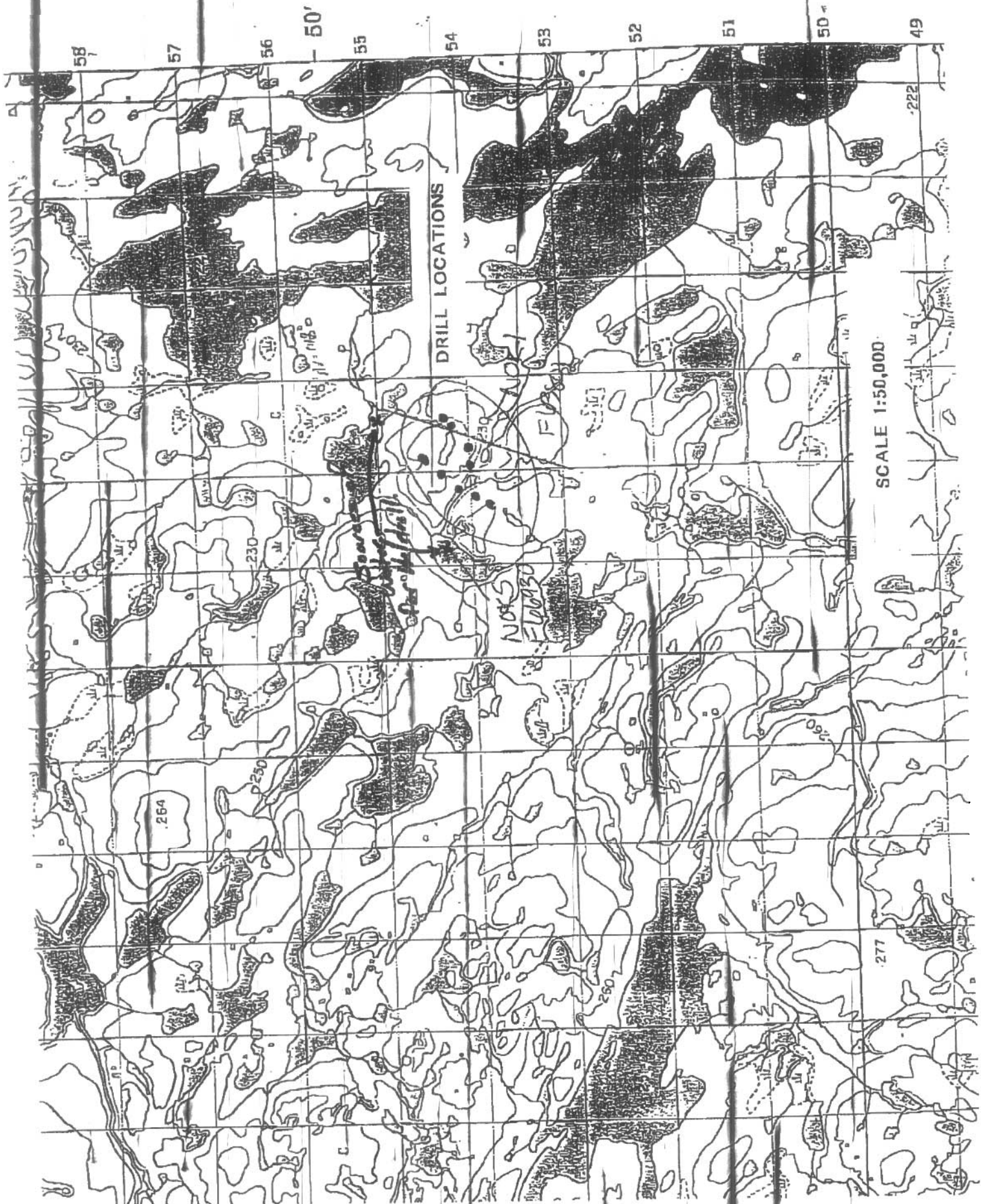
The proposed drilling program will involve the drilling of 9 holes for a total of 1000 m. The program will begin with the fuel haul from Arviat to Navigator Exploration's camp at the north end of Nowyak Lake. Navigator have allowed Phelps Dodge the use of their camp. Phelps Dodge will not build a camp on site for this operation. Eskimo Point Lumber & Supply will haul 50 drums of diesel, 35 drums of Jet B, and 1 drum of gasoline along with 3 cylinders of propane and 30 (20 kg) bags of calcium chloride from Arviat overland using Terra-Flex machines. The fuel haul is expected to begin some time after Feb. 15. The Fuel will be stored at Navigators camp. When drilling begins fuel will be transported to the drilling area but only in quantities needed for daily operations.

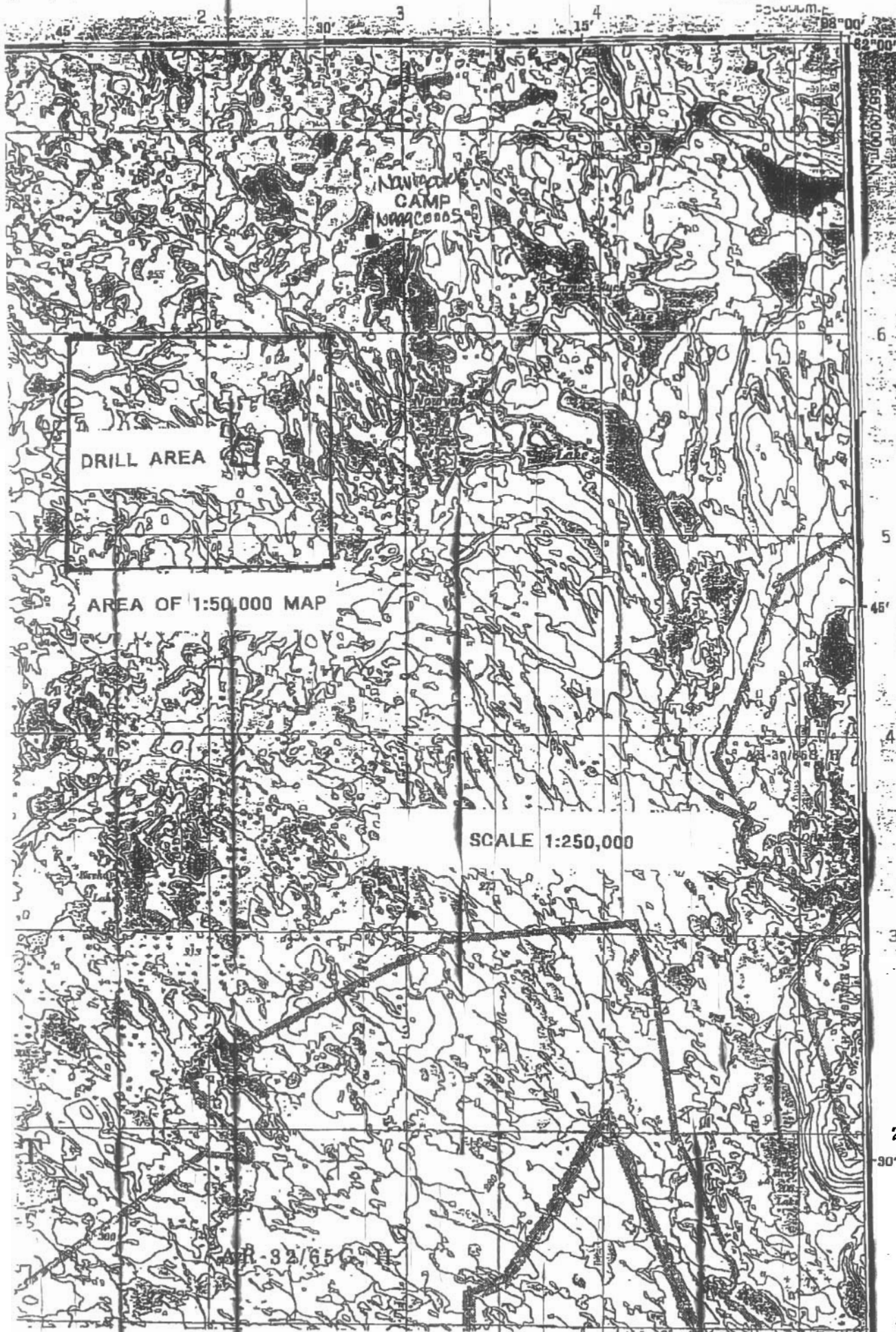
The actual drilling program will begin on or about March 15, 2000 with the mobilization of the drill crew by air from Points North Landing in Saskatchewan. The crew will consist of 9 people. Phelps Dodge will have a project geologist (Marius Mare, Winnipeg) and one assistant on site. Midwest Drilling will provide a drill crew of 6 including a cook and foreman. There will also be a Bell 206 B helicopter (Custom Helicopters or Arctic Sunwest) pilot. The drill rig, belonging to Major Midwest Drilling, is currently stored at Navigator's camp. The drill area is 12 kms SW of the camp. All drill moves including the initial one from the camp to the drill area will be done using the helicopter.

We plan to drill 9 holes for a total of 900 meters of drilling. Thus each hole will be approximately 100 meters long. The drill area is contained within an area 1000 m x 1000 m which is shown on the attached 1:50,000 scale map. Water for the drill will be drawn from two lakes located 400 to 500 meters from the nearest drill holes. These lakes are also indicated on the map. The main drilling fluid will be heated water (fuel oil fired coil stoves will be used). Drilling additives will be added to the drill water as needed. These additives will include Calcium Chloride, Poly Drill Clay Treat II, Poly Drill 133X/1330, Poly Drill O.B.X. All of the holes will be drilled on land. There is therefore no plan to recycle the water or remove the drill cuttings. The fuel for the drill and the coil stoves will be stored at Navigator's camp. Fuel will be moved to the drill site on an as needed basis by helicopter. The core will be logged, sampled, and stored at the Navigator camp site. All casing will be removed from the drill holes. The drilling program including demobilization of the drill and fuel drums is expected to be complete by May 15, 2000.

The drill fuel and helicopter fuel will be stored at the Navigator camp site in 45 gallon drums until needed. The helicopter will sling drums as needed to the drilling area on a daily basis. Matasorb matting will be used at the drill sites, fuel storage areas, and fuel transfer points to absorb any spillage that may occur. The drill crews are trained in the use of this matting. The used matting will be bagged and flown out to Points North Landing or Arviat for disposal. Waste oils and greases will be placed in containers and they will also be flown out for disposal. Transfer of fuel from the drums to the fuel tanks will be done using a hand operated pump.

At the end of the drill program plans have been made to have the drill and all the drilling equipment flown out to Points North Landing or other location, such as Arviat or Rankin Inlet, as directed by the drill company. The empty drums will be flown back to Arviat. Navigator Exploration will remain responsible for the camp and camp facilities.





For further
reference to the
Reference d
your usage

THE LIMITS
LAND CLAIM
APPROXIMATE
LIMITS OF
APRIL 1, 1985

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6. Description of the Environment**Description of Biophysical Environment**

The caribou have migrated through this area in Spring and Fall, as they move between the calving area near Kaministiquia Lake and the wintering ranges in northern Sask. and Manitoba. Parts of the herd occasionally have used the area east of Henik lakes as a tundra wintering range. The area around south Henik lake is an important rutting area.

Description of Socio-Economic and Cultural Environment

The Carbecksluck and Nauyah lakes are well-known fish lakes and are sometimes visited.

7. NIRB's Consultation Process

Date application referred for comments:

Jan 4, 2000

(yyyy-mm-dd)

Deadline for comments:

Jan 16, 2000

(yyyy-mm-dd)

Distribution List:

Contact Person

Date comments received:

NUNAVUT:

- ☒ NTI
☐ QIA
☒ Kivalliq I.A.
☐ Kitikmeot I.A.
☒ NPC
☐ NWB
☐ NWMB
☒ RWO
☒ Inuit Heritage Trust
☒ Community(s)
☐ Hamlet
☐ HTO
☐ Other?

Annie Mathiak

Jan 7, 2000

Arviat

FEDERAL:

- ☒ DIAND
☒ DFO
☒ DOE
☒ Heritage Can.
☒ Natural Resources
☒ Other? (eg. Health
 DOT, DND)

Roxanne Beaulieu

Jan 10, 2000

L. Kivi

Jan 17, 2000

Wade Romanuk

Jan 16, 2000

Rick Melson

Jan 6, 2000

GNWT:

- ☒ DRWED SD
☒ Transport
☒ MACA
☒ PWNHC
☒ Other? (eg. Health,
 Soc.Serv., ECE)

Chris Nichols

January

Charles Arnold

Jan 14, 2000

**TRANSBOUNDARY
PARTIES****OTHER PARTIES**

BSCMB

Identification of Project Activities and Environmental Effects

Identify all activities of the project under screening and their potential adverse environmental effects.

Project Activities

(✓ check all the items appropriate to this project)

- ☐ access road
 - ☐ winter
 - ☐ construction
 - ☐ abandonment/removal
 - ☐ modification e.g., widening
- ☒ automobile, aircraft or vessel movement
- ☒ blasting
- ☒ burning
- ☒ burying
- ☐ channelling
- ☐ construction
 - ☐ building
 - ☐ shed/warehouse
 - ☐ landing strip
- ☐ cut and fill
- ☐ removal of vegetation
- ☐ dams and impoundments
 - ☐ construction
 - ☐ abandonment/removal
 - ☐ modification
- ☐ ditch construction
- ☐ drainage alteration
- ☐ drilling other than geoscientific
- ☐ ecological surveys
- ☐ excavation
- ☐ explosive storage
- ☒ fuel storage
- ☒ garbage
 - ☐ disposal of hazardous waste
 - ☒ disposal of sewage or grey water
 - ☒ disposal of solid waste
- ☒ geoscientific sampling
 - ☐ trenching
 - ☐ diamond drill
 - ☐ borehole core sampling
 - ☐ bulk soil sampling
- ☐ quarry
- ☐ hydrological testing
- ☐ river/stream/lake crossing/bridging
- ☒ site restoration
 - ☐ fertilization
 - ☐ grubbing
 - ☐ planting/seeding
 - ☐ scarification
 - ☐ spraying
 - ☐ recontouring
- ☐ soil testing
- ☐ topsoil, overburden or soil
 - ☐ fill
 - ☐ disposal
 - ☐ removal
 - ☐ storage
- ☐ tunnelling/underground
- ☒ other, explain camp

☐ possibility for accidents or malfunctions. Describe.

potential fuel spill

☐ effects of environment on project (e.g., flooding). Describe.

Project Effects

(✓ check all the items appropriate to this project)

Directly related Socio-Economic & Cultural Effects:

1. ☐ impact to hunting / trapping / fishing
2. ☐ impact on:
 - ☐ women
 - ☐ men
 - ☐ children
 - ☐ elders
3. ☐ impact to traditional use or traditional use area
4. ☐ impact to outfitters
5. ☐ impact on recreational use
6. ☐ impact on family structure
7. ☐ impact to community health
8. ☐ change in community economics
9. ☐ change in community housing or infrastructure
10. ☐ impact to industry
11. ☐ change in regional transportation
12. ☒ impact to archaeological or cultural landmarks
13. ☐ impact on beauty of the landscape
14. ☐ other, explain _____

Biophysical Environment Effects

15. ☒ deposit into surface or ground water
16. ☐ deposit to marine environment
17. ☐ change in surface or ground water flow
18. ☐ change in water temperature
19. ☐ change in drainage pattern
20. ☐ change in air quality
21. ☐ change in air flow
22. ☐ micro-climate change
23. ☐ ice fog
24. ☒ change in ambient noise level
25. ☒ deposit onto ground surface
26. ☐ change in slope stability
27. ☐ change in soil structure
28. ☐ alteration of permafrost regime
29. ☐ destabilization/erosion
30. ☒ soil compaction
31. ☐ change in access to renewable resources
32. ☐ depletion of non-renewable resource
33. ☐ removal of rare/endangered plant species
34. ☐ introduction of species
35. ☐ toxin/heavy metal accumulation
36. ☐ removal of rare/endangered wildlife species
37. ☐ change in wildlife health
38. ☒ impact to large mammals
39. ☐ impact to small mammals
40. ☐ impact to fish
41. ☐ impact to birds
42. ☐ impact to other wildlife
43. ☐ impact in a calving, nesting, staging or spawning area
44. ☐ removal of wildlife buffer zone
45. ☐ change in wildlife habitat/ecosystem
46. ☐ other, explain _____

9. **Cumulative Effects: Identification of Other Resources Used in the Area.** Identify past, current and future (pending applications) physical works and activities in the area (for the proponent, other proponents and nearby communities) and their potential adverse environmental effects.

Other Resource Uses

(✓ check all the items appropriate to this project)

- ✓ harvesting
 - marine mammals
 - land mammals
 - fur bearers
 - birds
 - shellfish
 - plants
 - berries
 - ✓ fish
- ✓ mining
 - ✓ exploration
 - open pits
 - underground
 - off-shore
 - mineral processing
 - industry _____ (type)
 - quarries
 - carving stone
 - aggregate
 - transportation/communications
 - airport / landing strip
 - roads/access routes
 - shipping
 - channels/canal
 - telephone lines, satellite dishes, cables
 - beacons
 - waste disposal (solid, liquid or gas?)
 - energy project
 - hydro
 - pipeline
 - transmission line
 - ✓ other water licenses, permits, leases
 - ✓ lands
 - ✓ Inuit owned
 - surface rights
 - sub-surface rights
 - ✓ Crown
 - Commissioner's
 - Marine Areas
 - other private lands held under tenure
 - heritage sites or archaeological sites
 - recreation (eg. cabins, tent frames)
 - tourism
 - municipal (construction)
 - commercial
 - built structures
 - infrastructure
 - agriculture
 - forestry
 - other, explain _____

Effects from Other Resource Uses

(✓ check all the items appropriate to the scope of this project)

Directly-related Socio-Economic & Cultural Effects:

1. — impact to hunting / trapping / fishing
2. — impact on: — women
 - men
 - children
 - elders
3. — impact to traditional use or traditional use area
4. — impact to outfitters
5. — impact on recreational use
6. — impact on family structure
7. — impact to community health
8. — change in community economics
9. — change in community housing or infrastructure
10. — impact to industry
11. — change in regional transportation
12. — impact to archaeological or cultural landmarks
13. — impact on beauty of the landscape
14. — other, explain _____

Biophysical Environment Effects

15. — deposit into surface or ground water
16. — deposit to marine environment
17. — change in surface or ground water flow
18. — change in water temperature
19. — change in drainage pattern
20. — change in air quality
21. — change in air flow
22. — micro-climate change
23. — ice fog
24. — change in ambient noise level
25. — deposit onto ground surface
26. — change in slope stability
27. — change in soil structure
28. — alteration of permafrost regime
29. — destabilization/erosion
30. — soil compaction
31. — change in access to renewable resources
32. — depletion of non-renewable resource
33. — removal of rare/endangered plant species
34. — introduction of species
35. — toxin/heavy metal accumulation
36. — removal of rare/endangered wildlife species
37. — change in wildlife health
38. — impact to large mammals
39. — impact to small mammals
40. — impact to fish
41. — impact to birds
42. — impact to other wildlife
43. — impact in a calving, nesting, staging or spawning area
44. — removal of wildlife buffer zone
45. — change in wildlife habitat/ecosystem
46. — other _____

10. Cumulative Environmental Effects

Based on a comparison of effects identified in #8 and #9.

Matching Number(s)

Description of Cumulative Environmental Effects

☒ Will the project make large demands on non-renewable energy sources?☐ Will the project encourage further developments within the current project or other developments (other similar projects, energy development, generation, petroleum development and extraction, the building of additional roads)? *possibly*☒ Will the project encourage a "boom-bust" economy over an economy of permanence?☒ Will the project encourage more wildlife harvesting on account of better access for hunters and fishers?☒ Will the project have an effect on the water quality of the watershed?☒ Will the project have a significant effect on existing land uses?**11. Mitigation Measures**

For each environmental effect identified in #8, #9 and #10, describe the required mitigation measures.

Number(s)
(as identified
in #8, #9 & #10)

Description of Mitigation Measures

	<i>See Screening Decision Report Terms and Conditions.</i>

12. Significance

After taking into account the mitigation measures identified in #11, are any of the residual, adverse environmental effects significant?

☐ Yes ☒ No

If yes, identify which one(s) and proceed to #13; if no, proceed to # 14.

Number(s) _____

13. Likelihood of Occurrence

Of the significant, residual, adverse environmental effects identified in #12, are any likely to occur?

☐ Yes ☒ No

Number(s) _____

14. Information Sources

What sources of information were used in the screening process?

- ☐ local knowledge
- ☐ traditional ecological knowledge
- ☐ land use plans (and draft land use plans)
- ☒ authorizing agencies' data
- ☒ departmental or agency opinions
- ☒ maps
- ☐ photos
- ☐ reports (scientific, economic, social, or anthropological, archival or historical information)
- ☐ Nunavut Environmental Database (NED)
- ☐ personal communications
- ☒ Project Registry (NPE) **NIRB**
- ☒ previous similar projects
- ☐ service organizations
- ☐ media monitoring
- ☐ experts
- ☐ other _____

For information sources identified above, provide contact person and/or information location (for future follow-up): _____

15. Staff Recommendations

Staff Recommendations: (include rationale)

The project should have little or no significant impacts if the terms and conditions in the screening decision report are adhered to.

Prepared By:

Gladys Toudrey
Screening

Date:

January 20, 2000
(yyyy-mm-dd)**16. NIRB'S Principles**

- ☐ The project has significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities.
- ☐ The project may have significant adverse socio-economic effects on northerners.
- ☐ The project will cause significant public concern.
- ☐ The project involves technological innovations for which the effects are unknown.
- ☒ The project **does not** have significant effects or concerns.

17. Indication to the Minister (12.4.4)

N.B. Transfer this information to Box 1: "EA Indication" and "Date of Indication".

- ☒ a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;
- ☐ b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
- ☐ c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
- ☐ d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

01/27/00 21:36 BEST WESTERN CEDAR PARK INN EDM → 8679832574

NO.974 P003/005

00-Jan-27 08:52pm From-NUNAVUT IMPACT REVIEW BOARD

T-796 P.07/07 F-56

18. Terms and Conditions

If the determination is 12.4.4 (a), NIRB's terms and conditions include those listed in the **Screening Decision Report**.

Specific Terms and Conditions to note include:

19. Authorization

Approved By: _____

(NIRB Decision Maker)

Date: _____

2000/01/27

(yyyy-mm-dd)

20. Follow-up / Monitoring

Minister's Determination

_____ Minister agreed with NIRB's indication.
Action? _____

_____ Minister varied NIRB's indication.
Action? _____

_____ Minister rejected NIRB's indication
Action? _____

If applicable,

_____ Is a follow-up/monitoring program required? If yes, give details.

_____ Has screening report information been added to NIRB's GIS/Calyx system?

COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. In order to assess the environmental and socio-economic impacts of project proposals, NIRB would like to hear your concerns, comments and suggestions about the following project application:

Project Title: Mineral Exploration Nowyak Lake Area
Proponent: Phelps Dodge Corp. of Canada Ltd.
Location: Kivalliq Region, NIRB#: 00EN061
Comments Due By: January 17, 2000

Indicate your concerns about the project proposal below:

- | | |
|--|---|
| <input type="checkbox"/> no concerns | <input type="checkbox"/> traditional uses of land |
| <input type="checkbox"/> water quality | <input type="checkbox"/> Inuit harvesting activities |
| <input type="checkbox"/> terrain | <input type="checkbox"/> community involvement and consultation |
| <input type="checkbox"/> air quality | <input type="checkbox"/> local development in the area |
| <input checked="" type="checkbox"/> wildlife and their habitat | <input type="checkbox"/> tourism in the area |
| <input type="checkbox"/> marine mammals and their habitat | <input type="checkbox"/> human health issues |
| <input type="checkbox"/> birds and their habitat | <input type="checkbox"/> |
| Other: <input checked="" type="checkbox"/> | |
| <input type="checkbox"/> fish and their habitat | |
| <input type="checkbox"/> heritage resources in area | |

Please describe the concerns indicated above:

1. Please see attached.
2. The application is for Feb. 15th to July 15th. The Department realizes this is likely a standard requirement, however we would like to recommend that the proponents stop using any form of ground based mobile equipment after May 1st.
3. Although the amount of vegetative damage is minimal, would flushing the drill site with fresh water prior to leaving the site, to dilute the calcium chloride, reduce impacts even further? It seems likely that it could.

Do you have any suggestions or recommendations for this application?

Do you support the project proposal? YES ☒ NO ☐

Any additional comments?

Name of person commenting: Sustainable Development incorporates a team approach when commenting on NIRB screenings and Reviews. No one person comments for the Department.

Position: _____ Organisation: Sustainable Development
Signature: Chris Nichols Date: January 5, 2000

DEPARTMENT OF SUSTAINABLE DEVELOPMENT**ENVIRONMENTAL PROTECTION SERVICE****STANDARD RECOMMENDATIONS FOR LAND USE APPLICATIONS****Spill Contingency Plan**

The applicant should have a contingency plan for responding to chemical and petroleum spills which might occur during the proposed activity. The plan should include a list of available spill response equipment and the names of trained personnel who will be on-site and available in the case of a spill.

The proponent is referred to DSD's *Spill Contingency Planning and Reporting Regulations* and *A Guide to the Spill Contingency Planning and Reporting Regulations*.

Fuel Storage

To prevent spreading in the event of a spill, fuel stored in drums should be located, whenever practical, in a natural depression a minimum distance of 90 feet from all streams, preferably in an area of low permeability. All fuel storage containers should be situated in a manner that allows easy access and removal of containers in the event of leaks or spills. Large fuel caches in excess of 20 drums, should be inspected daily.

Chemical Storage

All chemicals should be stored in a safe and chemically-compatible manner a minimum of 90 feet from all bodies of water. The applicant should be required to remove unused chemicals for reuse or disposal to an approved site using methods approved by the Land Use Inspector. Material safety data sheets (MSDS) should be provided for each chemical and be posted in a central location; accessible by all camp personnel. Camp personnel should be conversant in the handling of these chemicals as well as able to deal with any accidents or spills.

Location of Hazardous Materials

Hazardous materials stored on-site should be marked so they will be visible under all conditions, in all seasons. This recommendation is intended to help prevent possible injuries to camp personnel and/or damage to the containers. Unless otherwise specified by the land use inspector or licence-issuing agency, all hazardous materials should be removed from the site upon completion of the activity. The proponent is referred to DSD's *Environmental Guideline for the General Management of Hazardous Waste*.

Waste Oil/Waste Fuel Disposal

Waste oil and waste fuel should be removed and returned for recycling when the land use activity is completed. Alternative methods of disposal that provide an equivalent level of environmental protection will be considered on a case by case basis.

Used Drums

Used fuel and oil drums should be removed from the site, returned for deposit, or reused.

Contaminated Soils

Soil contaminated by fuel (e.g., soils under an old storage tank) should be treated on site or removed to an approved disposal site and replaced with new soil. The proponent is referred to DSD's *Environmental Guideline for Site Remediation*.

Winter Roads

Existing winter road routes and trails should be used whenever possible, to avoid unnecessary land clearing.

Drill Sumps

The sumps should only be used for inert drilling fluids, not any other materials or substances. The sumps should be properly closed out.

Garbage Disposal

Garbage should be removed from the camp periodically; alternatively, all combustible wastes can be incinerated on site and non-combustibles collected and removed upon termination of the activity or periodically.

Incineration

For camps of less than 10 people, it is recommended that a draught barrel be employed to burn wastes. A draught barrel is essentially a 45 gallon drum or equivalent, with a hole in the bottom to facilitate air intake, and is closed at the top with a lid and a chimney for the exhaust. EIS does not consider burning wastes in a draught barrel to be true incineration, however, for small camps, this is an acceptable means to deal with camp wastes. The draught barrel should be operated so that a high temperature burn is maintained at all times. This will promote complete combustion and eliminate pollutant and odor concerns.

For camps of more than 10 people, it is recommended that a forced air incinerator be used to manage wastes. Once again maintaining a high temperature burn to reduce wastes is imperative.

Kitchen wastes, cardboard, paper products, packaging and untreated wood wastes are suitable for burning in a draught barrel and a forced air incinerator. Industrial wastes and non combustible wastes should be removed from the camp and disposed of at a designated landfill or other approved facility. Under no circumstance should hazardous wastes be managed through burning or incineration.

For camps of greater than 50 people, it is recommended that a municipal waste incinerator, which produces emissions that meet CCME air quality guidelines, be used to dispose of camp wastes. The manufacturer will specify operating conditions and types of wastes that can be disposed of in the incinerator in order to meet the specified CCME standards. It is recommended that municipal waste incinerators be operated to meet manufacturer specifications.

The aforementioned comments are a brief thumbnail sketch of what DSD suggests that a proponent should be implementing to mitigate any damage or alterations to the environment during the course of their proposed activities. The proponent is referred to the Government of Nunavut's acts, regulations and environmental guidelines for a details.

Acts, Regulations and Environmental Guidelines

The Environmental Protection Service, Department of Sustainable Development derives its regulatory authority and operational mandate from the Government of Nunavut's *Environmental Protection Act* (EPA). A number of regulations and guidelines have been developed and adopted under the EPA; some, or all of which might prove to be of assistance to a proponent in planning their activities. The guidelines are listed here for the information of the proponent and are available to the public at any DSD office in Nunavut or from DSD's Headquarters office located at:

Department of Sustainable Development
Environmental Protection Service
Government of Nunavut
Box 1340
Iqaluit, NU
X0A 0H0
(867) 979-5119
e-mail: reno@gov.nu.ca or ebaddaloo@gov.nu.ca

Acts and Regulations

{PRIVATE } *Environmental Protection Act* {tc \ 5 "Environmental Protection Act"}

Environmental Protection Act: Simplified Summary

Environmental Rights Act

{PRIVATE } *Spill Planning and Reporting Regulations* {tc \ 5 "Spill Contingency Planning and Reporting Regulations"}

{PRIVATE } *A Guide to Spill Contingency Planning & Reporting* {tc \ 5 "A Guide to Spill Contingency Planning & Reporting"}

{PRIVATE } *Asphalt Paving Industry Emission Regulations* {tc \ 5 "Asphalt Paving Industry Emission Regulations"}

{PRIVATE }Pesticide Act{tc \ 5 "Pesticide Act"

{PRIVATE }Pesticide Regulations{tc \ 5 "Pesticide Regulations"}

Used Oil and Waste Fuel Management Regulations (undergoing completion; proposed for June 2000)

{PRIVATE }Environmental Guidelines{tc \ 5 "Environmental Guidelines"}

{PRIVATE }Dust Suppression{tc \ 5 "Dust Suppression"}

{PRIVATE }General Management of Hazardous Waste{tc \ 5 "General Management of Hazardous Waste"}

{PRIVATE }Industrial Projects on Commissioner's Lands{tc \ 5 "Industrial Projects on Commissioner's Lands"}

{PRIVATE }{tc \ 5 ""}

{PRIVATE }Industrial Waste Discharges{tc \ 5 "Industrial Waste Discharges"}

{PRIVATE }Ozone Depleting Substances{tc \ 5 "Ozone Depleting Substances"}

{PRIVATE }Site Remediation{tc \ 5 "Site Remediation"}

{PRIVATE }Sulphur Dioxide & Suspended Particulates{tc \ 5 "Sulphur Dioxide & Suspended Particulates"}

{PRIVATE }Waste Antifreeze{tc \ 5 "Waste Antifreeze"}

{PRIVATE }Waste Asbestos{tc \ 5 "Waste Asbestos"}

{PRIVATE }Waste Batteries{tc \ 5 "Waste Batteries"}

{PRIVATE }Waste Paint{tc \ 5 "Waste Paint"}

Waste Solvents

Wildlife

1. Bear-People Conflicts

The operation is in an area where bears may be encountered. Proper food handling and garbage disposal procedures should be followed to reduce the likelihood that bears will be attracted to the operation. Careful planning and attention to details of camp design and maintenance will decrease the attraction of bears to camp.

The applicant should follow procedures outlined in the "Safety in Bear Country Manual", and should contact the Regional/Area Biologist or the Renewable Resource Officer

indicated below for information and advice on measures which should be taken to minimize the possibility of bear-people conflicts.

DSD Contacts

Manager, Wildlife, Fisheries

- Ian Ellsworth, (867) 857-2828

Renewable Resource Officer,

- nearest community to the land use activity

Biologist, Kivalliq Region, Arviat

- Mitch Campbell, (867) 857-2828

2. Caribou Protection Measures

See attached. [Recommendation of these conditions is not restricted to the Kaminuriak and Beverly herds (i.e., they may be applied to other herds as well).]

3. Peary Caribou (for Banks Island and High Arctic islands; not for Victoria Island)

Peary Caribou are a critically endangered subspecies which must not be harassed in any way. The applicant should be instructed not to harass these caribou, and to contact the Regional Biologist or Caribou Biologist in Pond Inlet (819) 979-8819 to obtain information on procedures required to prevent unintentional harassment.

4. Raptor Nesting Areas

The project area includes known raptor nesting sites and other areas where it is likely that raptors nest. To minimize negative impacts of this operation on raptors, the applicant should be advised to:

(a) take care not to disturb nesting raptors from 15 April to 1 September by staying at least 1.5 km away from them when in transit by aircraft, and to avoid approaching them closely while on foot, and

(b) contact the Regional Biologist in Arviat (857-2828) to identify areas which should be avoided.

The following clause could be included in the covering letter: "If raptors are disturbed during the nesting period, they often abandon the eggs or young. Loud, repeated noises and close approach by humans on foot are particularly harmful."

5. Low Level Flights

Aircraft activity with no specific requirements for low level flying should be restricted to a minimum altitude of 300m above ground level.

6. Storage of Chemicals Containing Salts

Chemicals containing salts, which may attract wildlife to the site, should be stored so that they are inaccessible to wildlife.

FAXED
000106
Dmy

JAN 25 2000

COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. In order to assess the environmental and socio-economic impacts of project proposals, NIRB would like to hear your concerns, comments and suggestions about the following project application:

Project Title: Mineral Exploration Nowyak Lake Area
Proponent: Phelps Dodge Corp. of Canada Ltd.
Location: Nowyak Lake Area **NIRB#:** 00EN061
Comments Due By: Monday January 17, 2000

Indicate your concerns about the project proposal below:

- | | |
|---|---|
| <input checked="" type="checkbox"/> no concerns | <input type="checkbox"/> traditional uses of land |
| <input type="checkbox"/> water quality | <input type="checkbox"/> Inuit harvesting activities |
| <input type="checkbox"/> terrain | <input type="checkbox"/> community involvement and consultation |
| <input type="checkbox"/> air quality | <input type="checkbox"/> local development in the area |
| <input type="checkbox"/> wildlife and their habitat | <input type="checkbox"/> tourism in the area |
| <input type="checkbox"/> marine mammals and their habitat | <input type="checkbox"/> human health issues |
| <input type="checkbox"/> birds and their habitat | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> fish and their habitat | |
| <input type="checkbox"/> heritage resources in area | |

Please describe the concerns indicated above:

Do you have any suggestions or recommendations for this application?

Do you support the project proposal? YES ☐ NO ☐
Any additional comments?

Name of person commenting: Peter McLean **of** NW
Position: SUPERVISOR **Organisation:** CANADIAN COAST GUARD
Signature: [Signature] **Date:** JAN 06/00

JAN-18-00 TUE 05:04 PM ENV CANADA

FAX NO. 8678738185

P. 02

COMMENT FORM FOR NIRB SCREENINGS

On behalf of the Environmental Protection Branch (EPB), Environment Canada, I have reviewed the information submitted with the above application. EPB's contribution for specialist advice is based primarily on the mandated responsibilities for the enforcement of Section 36 of the *Fisheries Act* and the *Canadian Environmental Protection Act* (CEPA).

Project Title: Mineral Exploration - Nowyak Lake**Proponent:** Phelps Dodge Corporation**Location:** Arviat Kivalliq**NIRB#:** 00EN061**Comments Due By:** Monday January 17, 2000**Indicate your concerns about the project proposal below:**

- * water quality
- * fish and their habitat

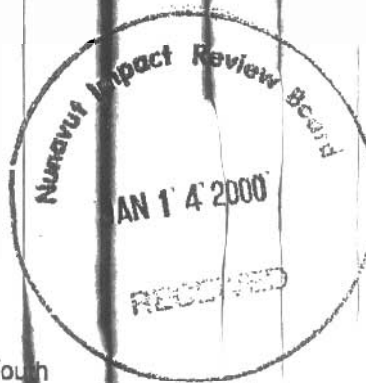
Please describe the concerns indicated above:

Based on the information provided, EPB believes that the above noted project has the potential to affect fish pursuant to the *Fisheries Act*. It is a requirement of Section 36 of the *Fisheries Act* that all effluent discharge into water frequented by fish be non-deleterious.

Do you have any suggestions or recommendations for this application?

1. The proponent shall ensure that any chemicals, fuel or wastes associated with the proposed project do not enter waters frequented by fish. All sumps and fuel caches should be located a minimum of thirty (30) metres from the normal high water mark of and in such a manner that they do not enter any such waterbody. Portable secondary fuel containment structures should be used in the fuel storage for added spill protection.
2. Drilling wastes from land-based drilling shall be disposed of in a sump such that they do not enter any waterbody. Sump construction for this application is vague lacking sufficient detail such as sump capacity/volume and liner materials.
3. The deposition of slash, debris or sediment into any waterbody is prohibited. These materials shall be disposed of above the high water mark in such a fashion that they do not enter the water.
4. If artesian flow is encountered, drill holes shall be plugged and permanently sealed upon project termination.
5. All solid wastes and waste oils must be disposed of in an approved and environmentally safe manner, burning in an incinerator is the preferred method.
6. EPB shall be advised of any material changes to plans or operations associated with this project.

Name of person commenting: Wade Romanuk of Environmental Protection Branch
NWT Division**Position:** Aquatic Environmental Officer**Organisation:** Environmental CanadaSuite 301, 5204-50th Ave., Yellowknife NWT**Signature:** *W. Romanuk***Date:** Jan 17/2000



201 23

January 10, 2000

Carmen Levi, A/Deputy Minister
Department of Culture, Language, Elders and Youth
Government of Nunavut
Bag 800
Iqaluit NT X0A 0H0

Re: Land use application NIRB 00EN061; Mineral exploration in the Nowyak Lake area (Phelps Dodge Corporation of Canada Ltd.)
Due Date: January 17, 2000

Dear Ms. Levi:

At your request, the Prince of Wales Northern Heritage Centre has reviewed the above-noted application. Our recommendations follow.

We recommend approval of the above-cited application as the proponent's proposed activities do not constitute a threat to known archaeological resources.

The attached conditions specify plans and methods of site protection and restoration to be followed by the permittee if an archaeological site is encountered or disturbed in the course of the land use activity.

Regards,

Original signed by
Charles D. Arnold

Charles D. Arnold, Director
Culture and Heritage Division

Prince of Wales Northern Heritage Centre

c. Nunavut Impact Review Board

ARCHAEOLOGICAL RESOURCES: TERMS AND CONDITIONS BACKGROUND

- I. The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical, and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence which shall be expressed in terms of special rights and responsibilities.

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary.

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of Nunavut Land Claim Agreement.

- II. "Archaeological site" means a site or work within Nunavut of archaeological, ethnographical or historical importance, interest or significance or a place where an archaeological specimen is found, and includes explorers' cairns. "Archaeological specimen" means an object or specimen found in an archaeological site of archaeological, ethnological or historical importance, interest or significance and includes explorers' documents.

- III. Any new Terms and Conditions raising issues found in ss. 10 and 16 of the Territorial Land Use Regulations should duplicate statutory sections or be stricter, but not more lenient in terms of protection of archaeological resources.

- IV.
1. The permittee shall not operate any vehicle over a known or suspected archaeological site.
 2. The permittee shall not remove, disturb or displace any archaeological specimen or site.
 3. The permittee shall contact the Department of Culture, Language, Elders and Youth, Iqaluit (867-979-4720) and DIAND official should an archaeological site or specimen be encountered or disturbed by any land use activity.
 4. The permittee shall immediately cease any activity which disturbs an archaeological or historical site, encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth.
 5. The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological sites to an acceptable condition, and according to the respective jurisdictions and authorities.
 6. The permittee shall provide information to the Department of Culture, Language, Elders and Youth about each archaeological site or specimen encountered by any land use activity, by completing the attached form.
 7. The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and specimens.

ARCHAEOLOGICAL SITE RECORD

FIELD NUMBER:

SITE NAME:

PROJECT:

DESCRIBE LOCATION OF SITE:

TERRITORY: Nunavut

DISTRICT:

MAP REFERENCE:

JURISDICTION:

UTM:

LATITUDE:

LONGITUDE

ELEVATION:

SIZE

CONDITION:

SITE TYPE CLASS:

- ☐ Prehistoric
- ☐ Indigenous historic
- ☐ Historic
- ☐ Natural
- ☐ Undetermined

SITE FEATURES:

CULTURE:

REPORTER'S NAME AND ADDRESS:

YEAR OBSERVED:

REMARKS/SKETCH/PHOTOGRAPHS:

[Please attach a copy of the NTS map (1:250,000) with the site location clearly marked.]

Return to: Department of Culture, Language, Elders and Youth, Government of Nunavut, Bag 800, Iqaluit
NT X0A 0H0 (867-979-4720)

Kcewatin Wildlife Federation
PO Box 229
Arviat, Nunavut
XOC OEO

January 7, 2000

Gladys Jourdey
Environmental Assessment Officer
Nunavut Impact Review Board

Re: KWF Comments on land use application. NIRB# 00EN061
Project: Mineral Exploration Nowyak Lake Area
Proponent: Phelps Dodge Corp. of Canada Ltd.

As per the application from Phelps Dodge Corp. for Mineral Exploration in Nowyak Lake Area, Kcewatin Wildlife Federation supports the proponent with the project.

Kcewatin Wildlife Federation is aware of the potential effects on the ecosystem and socio-economic environments.

For further clarification, contact the KWF office.

Sincerely,



Angie Okatsiak, KWF Finance/Office Manager

Cc: David Alagalak, KWF President

00-Jan-28 10:13am From: NUNAVUT IMPACT REVIEW BOARD
JAN-10-00 15:25 From: DIAND WATER RESOURCES
JAN-04-00 15:27
00-Jan-04 04:23pm From: NUNAVUT IMPACT REVIEW BOARD

+ T-800 P.38/57 F-263
8876692718 T-208 P.02/07 Job-265
P 03 R 628 Job 183
+ T-382 P.03/11 F-056

COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. In order to assess the environmental and socio-economic impacts of project proposals, NIRB would like to hear your concerns, comments and suggestions about the following project application:

Project Title: Mineral Exploration Nowyak Lake Area
Proponent: Phelps Dodge Corp. of Canada Ltd.
Location: Nowyak Lake Area NIRB#: 00EN061
Comments Due By: Monday January 17, 2000

Indicate your concerns about the project proposal below:

- | | |
|---|---|
| <input type="checkbox"/> no concerns | <input type="checkbox"/> traditional uses of land |
| <input checked="" type="checkbox"/> water quality | <input type="checkbox"/> Inuit harvesting activities |
| <input type="checkbox"/> terrain | <input type="checkbox"/> community involvement and consultation |
| <input type="checkbox"/> air quality | <input type="checkbox"/> local development in the area |
| <input type="checkbox"/> wildlife and their habitat | <input type="checkbox"/> tourism in the area |
| <input type="checkbox"/> marine mammals and their habitat | <input type="checkbox"/> human health issues |
| <input type="checkbox"/> birds and their habitat | Other: _____ |
| <input type="checkbox"/> fish and their habitat | |
| <input type="checkbox"/> heritage resources in area | |

Please describe the concerns indicated above:

If daily water use exceeds 100 cubic meters per day, then a water licence may be required. If projections indicate this is the case, then the proponent should contact the Nunavut Water Board.

Do you have any suggestions or recommendations for this application?

Spill contingency plan should include requirement to contact 24-Hour Spill Report Line at (867) 920-8130 in the event of a spill.

Do you support the project proposal? YES ☒ NO ☐

Any additional comments?

Name of person commenting: Roxanne Beavers of Water Resources
Position: Project Specialist Organisation: DIAND
Signature: R Beavers Date: Jan 10, 2000

COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. In order to assess the environmental and socio-economic impacts of project proposals, NIRB would like to hear your concerns, comments and suggestions about the following project application:

Project Title: Mineral Exploration Nowyak Lake Area
Proponent: Phelps Dodge Corp. of Canada Ltd.
Location: Nowyak Lake Area, NIRB#: 00EN061
Comments Due By: Monday January 17, 2000

Indicate your concerns about the project proposal below:

- | | |
|--|---|
| <input type="checkbox"/> no concerns | <input type="checkbox"/> traditional uses of land |
| <input checked="" type="checkbox"/> water quality | <input type="checkbox"/> Inuit harvesting activities |
| <input type="checkbox"/> terrain | <input type="checkbox"/> community involvement and consultation |
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| <input type="checkbox"/> marine mammals and their habitat | <input type="checkbox"/> human health issues |
| <input type="checkbox"/> birds and their habitat | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> fish and their habitat | |
| <input type="checkbox"/> heritage resources in area | |

Please describe the concerns indicated above:

SEE LETTER OF ADVICE ATTACHED.

Do you have any suggestions or recommendations for this application?

Do you support the project proposal? YES ☒ NO ☐
Any additional comments?

Name of person commenting: L. KIVI
Position: BIOLOGIST Organisation: DEO
Signature: [Signature] Date: 17 JAN 2000



Fisheries
and Oceans

Pêches
et Océans

Fish Habitat Management
Suite 101, 5204-50th Avenue
Yellowknife, Northwest
Territories
X1A 1E2

Your file Votre référence

Our file Notre référence
00-HCAA-CA6 000-
000003

January 17, 2000

Gladys Joudrey
Environmental Assessment Office
Nunavut Impact Review Board
P. O. Box 2379
Cambridge Bay, NT
X0A 0C0

**RE: NIRB File # 00EN061 Mineral Exploration Nowyak Lake Area,
Nunavut**

Dear Ms. Joudrey:

The Department of Fisheries and Oceans, Fish Habitat Management - NWT Area (DFO-FHM) received the Land Use Permit Application, Nunavut Impact Review Board (NIRB) File # 00EN061, Mineral Exploration, Nowyak Lake, Phelps Dodge Corp. of Canada Ltd.

Under the *Nunavut Land Claims Agreement*, DFO-FHM is participating in a NIRB screening by providing specialist information and/or advice. DFO-FHM's assessment takes into consideration fish and fish habitat related concerns only.

Any concerns, comments or mitigation measures that DFO-FHM feels are pertinent to the above mentioned project are outlined in the following letter of advice, addressed to the proponent and should also be considered specialist information and/or advice for the purposes of a NIRB screening.

If you have any questions, feel free to contact me at (867) 669-4744 or Pete Cott 669-4913 or by fax at (867) 669-4941.


Lyndon Kivi
Habitat Biologist
Fish Habitat Management
Department of Fisheries and Oceans - NWT Area

Canada



Fisheries
and Oceans

Pêches
et Océans

Fish Habitat Management
Suite 101, 5204-50th Avenue
Yellowknife, Northwest
Territories
X1A 1E2

Your file *Votre référence*

Our file *Notre référence*
00-HCAA-CA6-000-
000003

17 January, 2000

Ryan Cooke
223-530 Century St.
Winnipeg, MB
R3H 0Y4

**RE: Land Use Application NIRB# 00EN061, Water Permit Application NWB2PHE00,
Mineral Exploration, Nowyak Lake Area.**

Dear Mr. Cooke:

This letter is to advise that The Department of Fisheries and Oceans, Fish Habitat Management - NWT Area (DFO-FHM) received your Land Use Application for mineral exploration in the Nowyak Lake area submitted on your behalf by the Nunavut Impact Review Board and the Nunavut Water Board. I have reviewed the plans for the proposed work.

Field operations in or near water may result in the harmful alteration, disruption or destruction of fish habitat, which is prohibited under Section 35 of the *Fisheries Act*. In addition to the measures set out in the project proposal, the following mitigation measures, if incorporated into the project, are intended to prevent any potentially harmful impacts to fish and fish habitat:

- All disturbed areas should be stabilized and re-vegetated as required, upon completion of work, and restored to a pre-disturbed state, or better.
- If artesian flow is encountered, drill holes should be plugged and permanently sealed upon completion of the project.
- When using explosives, please follow the *Guidelines for the Use of Explosives In or Near Water* (DFO, 1998) available on request. If, for any reason these guidelines cannot be followed, please contact DFO, as an Authorization may be required.
- If the drilling requires water in sufficient volume that the source waterbody may be drawn down please submit details (volume required, size of waterbody, etc.) to DFO-FHM for review. DFO-FHM does not recommend the use of streams as a water source.
- All water intakes should be properly screened to prevent the entrainment of fish. Refer to the *Freshwater Intake End-of-Pipe Fish Screen Guideline* (DFO 1995), available on request.

Canada

- Winter lake/stream crossings should be located to minimize approach grades. Cutting or filling of crossing approaches below the normal high water mark will not be permitted unless approved by DFO-FHM.
- The use of material other than ice or snow to construct a temporary crossing over any ice-covered watercourse is prohibited by regulations under *Fisheries Act* unless authorized by a Fishery Officer.
- All winter crossings should be removed prior to spring breakup.
- No material should be left on the ice when there is the potential for that material to enter the water (i.e. spring break-up).

Depositing deleterious substances into fish bearing waters is prohibited as stated under Section 36(3) of the *Fisheries Act*. The following are additional measures to mitigate habitat disturbance or loss as well as the deposition of deleterious substances.

- Sediment and erosion control measures should be implemented prior to, and maintained during the construction phase, to prevent entry of sediment into the water.
- All activities, including maintenance procedures and vehicular refuelling, should be controlled to prevent the entry of petroleum products, debris, slash, rubble, concrete or other deleterious substances into the water.
- All wastes, drill cuttings, sewage containments and fuel caches should be located a minimum of thirty (30) metres from the normal high water mark of any water body, and be sufficiently bermed or otherwise contained to ensure that these substances do not enter any water body.
- Drill cuttings should be disposed of in a sump such that they do not enter any water body. The use of biodegradable, salt free drill additives is encouraged over non-biodegradable types.
- All spills of oil, fuel, or other deleterious material should be reported immediately to the 24-Hour Spill Line at (867) 920-8130.

If the proposed work is carried out as described in the plans provided to DFO-FHM and if the additional mitigation measures specified above are implemented, the proposed work will not be considered as contravening Subsection 35(1) of the *Fisheries Act* which reads:


"No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."

Therefore, an authorization under Subsection 35(2) of the *Fisheries Act* will not be necessary. If a harmful alteration, disruption or destruction of fish habitat and/or the deposition of deleterious substances into fish bearing waters occurs as a result of a change in the plans for the proposed works or failure to implement the additional mitigation measures specified above, prosecution under Subsection 35(1) and/or Subsection 36(3) of the *Fisheries Act* may be initiated.

Please note that this letter of advice does not release the proponent of the responsibility for obtaining any other permits that may be required.

This Letter of Advice will apply for the proposed activities for the period of the Land Use Permit and water licence, if issued.

If you have any questions concerning the mitigation measures or should there be any changes to the proposed work, please contact me at (867) 669-4744 or Pete Cott at 669-4913 or by fax at (867) 669-4941.


Lyndon Kivi
Habitat Biologist
Fish Habitat Management
Department of Fisheries and Oceans- NWT Area

c.c. Gladys Joudrey, Nunavut Impact Review Board
Rita Becker, Nunavut Water Board
Julie Dahl - Arctic Habitat Co-ordinator, DFO-FHM
Pete Cott - Area Habitat Biologist, DFO-FHM

Fax

Name: Shelly Hauck
Organization: Land Administration
Fax: 669-2713
Phone: 669-2678
From: Henry Kablalik
Date: January 24, 2000
Subject: LUP 1999C0114 - Phelps Dodge Corp.
Pages: 11

Comments:

The following is a list of suggested Land Use Conditions for Land Use Permit N1999C0114.

Should you have any questions, please do not hesitate to call me at 867-645 2031, or failing that you may contact Peter Kusugak, District Manager in Inuit at 867 979-1105.

Henry Kablalik
RMO III
Kivalliq Region

cc: Gladys Joudrey, Environmental Assessment Officer
Peter Kusugak, District Manager

LAND USE CONDITIONS - Lrd002

A CONDITIONS ANNEXED TO AND FORMING PART
OF LAND USE PERMIT NO. M19999C0114-Phelps Dodge Corp.

B

1.

31 (1) (a) - Location and Area

1.1 The Permittee shall not conduct this land
use operation on any lands not designated in
the accepted application, unless otherwise
authorized in writing by the Engineer.

PLANS

1.7 The Permittee shall remove from Territorial
Lands, all scrap metal, discarded machinery
and parts, barrels and kegs, buildings and
building material.

REMOVE
WASTE
MATERIAL

1.8 The Permittee shall not construct an adit
or drillsite within _____ metres of the
normal high water mark of a stream unless
approval in writing is obtained from the
Engineer.

LOCATION
OF
ADITS &
DRILLSITES

1.9 The Permittee shall locate all camps on
gravel, sand or other durable land.

CAMP
LOCATION

C
2.
31 (1) (b) - Time

- | | | |
|------|--|------------------------------|
| 2.1 | The Permittee's Field Supervisor shall contact or meet with a Land Use Inspector at the _____ office of the Department of Indian Affairs and Northern Development, Phone Number (_____), at least 48 hours prior to the commencement of this land use use operation. | CONTACT
INSPECTOR |
| 2.2 | The Permittee shall advise a Land Use Inspector at least 10 days prior to the completion of the land use operation of (a) his plan for removal or storage of equipment and materials, and (b) when final clean-up and restoration of the lands used will be completed. | REPORTS
BEFORE
REMOVAL |
| 2.16 | The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit. | CLEAN-UP |
| 2.17 | The Engineer reserves the right to impose closure of any area to the Permittee in periods when dangers to natural resources are severe. | CLOSURE |

D

3.

31 (1) (c) - Equipment

- | | | |
|-----|--|-------------------------------|
| 3.1 | The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector. | ONLY
APPROVED
EQUIPMENT |
| 3.4 | The Permittee shall burn all combustible garbage and debris in a container acceptable to a Land Use Inspector. | INCINERATION |
| 3.5 | The Permittee shall keep all garbage and debris in a covered metal container until disposed of. | GARBAGE
CONTAINERS |

F

5.

31 (1) (a) - Type, Location, Capacity and Operation of Facilities

5.3 The Permittee shall backfill and restore all sumps prior to the expiry date of this permit. BACKFILL
SUMPS

5.4 The Permittee shall backfill all sumps in such a manner that drill waste is maintained below the 1.2 metre freeboard. BACKFILL
SUMPS
HOW

5.7 The Permittee shall ensure that the land use area is kept clean and tidy at all times. CLEAN
WORK
AREA

31 (1) (f) - Control or Prevention of Flooding, Erosion
and Subsidence of Land

6.1 (a) The Permittee shall, where flowing water from bore holes is encountered, plug, the bore hole in such a manner as to permanently prevent any further outflow of water.

PLUG
ARTESIAN
WELLS

(b) The artesian occurrence shall be reported to the Engineer within forty-eight (48) hours.

6.16 The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.

PREVENTION
OF
RUTTING

H

7.

31 (1) (g) - Use, Storage, Handling and Disposal of Chemical
or Toxic Material

- | | | |
|------|---|--|
| 7.1 | The Permittee shall not use chemicals in connection with the land use operation without the prior approval of the Engineer. | APPROVAL
OF
CHEMICALS |
| 7.3 | The Permittee shall deposit all sewage into a sump. | SEWAGE
DISPOSAL |
| 7.6 | The Permittee shall deposit all drill waste into a sump. | DRILL
WASTE |
| 7.7 | The Permittee shall not allow any drilling waste to spread to the surrounding lands. | DRILL
WASTE
CONTAINMENT |
| 7.8 | The Permittee shall burn all garbage and debris at least daily. | GARBAGE
DISPOSAL |
| 7.10 | The Permittee shall remove all non-combustible garbage and debris from the land use area to a disposal site approved in writing by a Land Use Inspector. | REMOVE
GARBAGE |
| 7.12 | The Permittee shall dispose of all combustible waste petroleum products by incineration or removal. | WASTE
PETROLEUM
DISPOSAL |
| 7.15 | The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form N.W.T. 1752(05/93). Twenty four (24) hour spill report line (867)920-8130. | REPORT
CHEMICAL
AND
PETROLEUM
SPILLS |

I
8.

31 (1) (h) - Wildlife and Fisheries Habitat

8.1 The Permittee shall not unnecessarily
damage wildlife habitat in conducting this
land use operation.

HABITAT
DAMAGE

J

9,

31 (1) (i) - Objects and Places of Recreational,
Scenic and Ecological Value

9.4 The Permittee shall not feed wildlife.

NO
FEEDING
WILDLIFE

11.

31 (1) (k) - Petroleum Fuel Storage

- | | | |
|-------|--|----------------------------|
| 11.1 | The Permittee shall report in writing to a Land Use Inspector the location and quantity of all petroleum fuel caches within ten (10) days after the establishment. | REPORT
FUEL
LOCATION |
| 11.2 | The Permittee shall not place any petroleum fuel storage containers within thirty (30) metres of the normal high water mark of any stream. | FUEL
BY
STREAM |
| 11.4 | The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies. | FUEL
CONTAINMENT |
| 11.15 | The Permittee shall mark all fuel containers with the Permittee's name. | MARK
CONTAINERS |

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13.

31 (1) (m) - Matters Not Inconsistent with the Regulations

- | | | |
|------|--|-------------------|
| 13.5 | The Permittee shall display a copy of this permit in a conspicuous place in each campsite established to carry out this land use operation. | DISPLAY
PERMIT |
| 13.6 | The Permittee shall keep on hand, at all times during this Land Use Operation, a copy of the Land Use Permit. | COPY OF
PERMIT |
| 13.7 | <p>The Permittee shall provide in writing to the Engineer, at least forty-eight (48) hours prior to commencement of this land use operation, the following information:</p> <p>(a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;</p> <p>(b) alternates;</p> <p>(c) all the indirect methods for contacting the above person(s).</p> | IDENTIFY
AGENT |

CARIBOU PROTECTION MEASURES
(QAMANIRJUAQ AND BEVERLY HERDS) 1988

CARIBOU
PROTECTION
AREAS

1. (a) The Permittee shall not, without approval, conduct any activity between May 15 and July 15 within the Caribou Protection Areas depicted on the map certified by the Engineer as the "Caribou Protection Map" annexed to this Land Use Permit.
- (b) A Permittee may, upon approval by the Land Use Inspector, operate within the said Caribou Protection Areas beyond the May 15 deadline set out in 1(a), provided that when monitoring information indicates that caribou cows are approaching the area of operation, the Permittee will implement 1(c).
- (c) On cessation of activities pursuant to 1(a) or 1(b), the Permittee will remove all personnel from the zone who are not required for the maintenance and protection of the camp facilities and equipment unless otherwise directed by the Land Use Inspector.
- (d) The Permittee may commence or resume activities prior to July 15 within those parts of the Caribou Protection Areas released by the Land Use Inspector for the reason that caribou cows are not expected to use those parts for calving or post-calving (note 1).

- 2 -

2. (a) In the event that caribou cows calve outside of the Caribou Protection Areas, the Permittee shall suspend operations within the area(s) occupied by cows and/or calves between May 15 and July 15.
- (b) In the event that caribou cows and calves are present the Permittee shall suspend:
- (i) blasting,
 - (ii) overflights by aircraft at any altitude of less than 300 metres above ground level, and
 - (iii) the use of snowmobiles and ATV's (all-terrain vehicles) outside the immediate vicinity of the camp.
3. (a) During migration of Caribou, the Permittee shall not locate any operation so as to block or cause substantial diversion to migration.
- (b) The Permittee shall cease activities that may interfere with migration, such as airborne geophysics surveys or movement of equipment, until the migrating caribou have passed.
4. (a) The Permittee shall not, between May 15 and September 1, construct any camp, cache any fuel or conduct any blasting within 10 km of any "Designated Crossing" as outlined on the map certified by the Engineer as the "Caribou Protection Map" and annexed to this Land Use Permit.

CARIBOU
PROTECTION
GENERALCARIBOU
PROTECTION
MIGRATIONCARIBOU
CROSSING

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- 3 -

- (b) The Permittee shall not, between May 15 and September 1, conduct any diamond drilling operation within 5 km of any "Designated Crossing" as outlined on the map certified by the Engineer as the "Caribou Protection Map" and annexed to this Land Use Permit.

NOTE

1. The Land Use Inspector's decision will be based on the existing caribou information.
2. Concentrations of caribou should be avoided by low level aircraft at all times.