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March 20, 2001

To: Rita Becker  
Licensing Administrator  
Nunavut Water Board  
Gjoa Haven, NU

Nunavut Water Board  
Gjoa Haven, NU

**Re: Renewal of Water Licence**

## Drilling & Geophysical Surveying at Ferguson Lake (Starfield Resources Inc.)

**NIRB: 01WR010**

NWB: NWB2FER9901

Enclosed is the completed NIRB Screening Decision Report on a water licence renewal for Starfield Resources to conduct mineral exploration activities near Ferguson Lake in the Kivalliq.

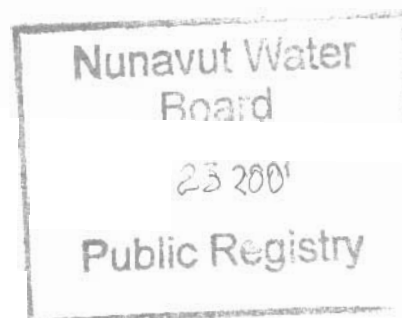
NIRB has screened this application for ecosystemic and socio-economic impacts of the proposal.

NIRB's indication to the Minister is: 12.4.4 (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;

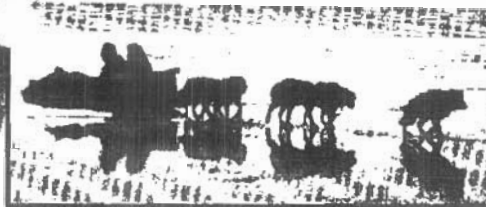
Please contact me at (867) 983-2593 if you have any questions about the Screening Decision Report.

Yours truly,

*Gladys Joudrey*  
Gladys Joudrey  
Environmental Assessment Officer



## Public Registry



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### **SCREENING DECISION**

**Date: March 20, 2001**

Mr. 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 01WR010 NWB NWB2FER9901  
Drilling and Geophysical Surveying at Ferguson Lake (Starfield Resources Inc.).**

#### **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 Claims 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.

The decision of the Board in this case is 12.4.4 (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.

**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
- clean up/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 Licensee shall not conduct any land based drilling within thirty (30) metres of the normal high water mark of a water body.
2. The Licensee 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.
3. The Licensee shall ensure that any drill cuttings and waste water that cannot be re-circulated be disposed of in a properly constructed sump or an appropriate natural depression that does not drain into a waterbody. The Licensee 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.
4. The Licensee shall ensure that the release of total suspended solids in the receiving environment shall be in compliance with *Guidelines for Total Suspended Solids* contained in the *Canadian Council of Ministers for the Environment's (CCME) Canadian Water Quality Guidelines, Chapter 3 - Freshwater Aquatic Life* (i.e. 10mg/L for lakes with background level under 100mg/L, or 10% for those above 100mg/L).
5. The Licensee 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.
6. The Licensee shall not locate any sump within thirty (30) metres of the normal high water mark of any water body.

7. The Licensee 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.
8. The Licensee 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.
9. The Licensee when using explosives, shall follow the *Guidelines for the Use of Explosives In or Near Water* (DFO, 1998). If for any reason these guidelines cannot be followed, please contact DFO, as and authorization may be required.

### **Water**

10. The Licensee 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. Refer to the *Freshwater Intake End-of Pipe Fish Screen Guideline* (DFO 1995).

### **Fuel and Chemical Storage**

11. The Licensee 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.
12. The Licensee 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.
13. The Licensee shall take all reasonable precautions to prevent the possibility of migration of spilled petroleum fuel or chemicals over the ground surface.
14. The Licensee shall have one extra fuel storage container on site equal to, or greater than, the size of the largest fuel container.
15. The Licensee shall examine all fuel and chemical storage containers daily for leaks. All leaks should be prepared immediately.
16. The Licensee shall seal all container outlets except the outlet currently in use.
17. The Licensee shall mark all fuel containers with the Licensee's name.
18. The Licensee shall dispose of all combustible waste petroleum products by incineration and removal from the site.
19. The Licensee shall control all activities, including maintenance procedures and vehicular refueling, to prevent the entry of petroleum products, debris, slash, rubble or other deleterious substances into the water.
20. The Licensee shall have emergency response and spill contingency plans in place prior to the commencement of the operation.
21. The Licensee 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

22. The Licensee 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.
23. The Licensee 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, unless otherwise authorized.
24. The Licensee shall construct a sump to contain all greywater discharged and shall ensure drainage is away from any waterbody.
25. The Licensee shall backfill and recontour all sumps to match the natural environment prior to the expiry date of the permit.
26. The Licensee shall incinerate all combustible and food wastes daily.
27. The Licensee shall keep all garbage and debris in a covered metal container until disposed of.
28. The Licensee shall ensure that all wastes generated through the course of the operation are backhauled and disposed of in an approved dumpsite.
29. The Licensee shall not bury any wastes.
30. The Licensee shall deposit all scrap metal, discarded machinery and parts, barrels and kegs, at an approved disposal site. Approval will be required from the Municipalities.

## Wildlife

31. The Licensee shall ensure that there is no damage to wildlife habitat in conducting this operation.
32. The Licensee shall not feed wildlife.
33. The Licensee shall make every effort to prevent the unintentional harassment of caribou, muskox and nesting or molting waterfowl at all times. It is an offense under the Wildlife Act to harass wildlife.
34. The Licensee shall not conduct any activity associated with the land use operation during critical periods of wildlife cycles (e.g. caribou migration, calving or raptor nesting).
35. The Licensee shall abide by the Caribou Protection Measures for the Kaminuriak and Beverly Herds.
36. The Licensee shall immediately report problem wildlife to the Department of Sustainable Development (DSD) wildlife officers.
37. The Licensee 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.
38. 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.
39. The Licensee shall not obstruct the movement of fish while conducting the land use operation.

40. The Licensee shall ensure that the drill sites avoid known environmentally sensitive areas (calving, denning, nesting etc.) by a minimum of 250 metres.
41. The Licensee shall not allow any employee to hunt or fish, unless the appropriate permits and licenses are acquired from a Renewable Resources Officer.

### **Environmental**

42. The Licensee shall ensure that the land use area is kept clean and tidy at all times.
43. The Licensee shall prepare the site in such a manner as to prevent rutting of the ground surface.
44. The Licensee shall be required to undertake any corrective measures in the event of any damage to the land or water as a result of the Licensee's operation.
45. The Licensee shall not use any equipment except of the type, size and number that is listed in the accepted application.
46. The Licensee 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.
47. The Licensee shall suspend overland travel of equipment or vehicles if rutting occurs.

### **Camp**

48. The Licensee shall not erect camps or store material on the surface ice of lakes or streams.
49. The Licensee shall locate all camps and storage facilities on gravel, sand or other durable land.

### **Archaeological**

50. The Licensee shall follow all terms and conditions for the protection and restoration of archaeological resources as outlined by the Department of Culture, Language, Elders and Youths (CLEY).

### **Reclamation**

51. The Licensee shall remove all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material upon abandonment.
52. The Licensee shall complete all clean-up and restoration of the lands used prior to the expiry date of the permit.
53. The Licensee shall plug or cap all bore holes and cut off any drill casings that remain above ground to ground level upon abandonment of the operation.

### **Attachments**

54. The Licensee shall refer to the attached comments and recommendations and the Fisheries and Oceans letter of advice addressed to the Licensee.

Mar-23-01 12:32P

2001-Mar-23 10:53am From-NUNAVUT IMPACT REVIEW BOARD

+8679832594

T-430 P.002/004 F-012

**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 consult with the local residents of Rankin Inlet and Whale Cove regarding their activities in the region and that the information be presented to the community in the community's preferred language.
3. The proponent should establish a log for wildlife and archaeological sightings and instruct personnel in its use. All information regarding wildlife should be reported to Brent Patterson 8670982-7244. All information regarding archaeological sites should be sent to Brian Aglukark, Nunavut Planning Commission (867-979-1444) and Doug Stenton, Culture Language Elders and Youth (867-975-5500). As well as all information being passed on to the closest communities.
4. The proponent is advised that there are DSD fuel caches in this area. The proponent may only use these fuel caches in the case of an emergency. If fuel is used from a DSD fuel cache it must be immediately be replaced and usage reported to DSD.
5. Any amendment requests deemed by NIRB to be outside the original scope of the project will be considered a new project.
6. The Environmental Protection Branch (DOE), Department of Fisheries and Oceans (DFO), Nunavut Impact Review Board (NIRB), and the Nunavut Water Board (NWB) should be advised of any material changes to plans or operating conditions associated with the 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 March 23/01 at Whale Cove, NU

Elizabeth Copland  
Elizabeth Copland, A/Chairperson



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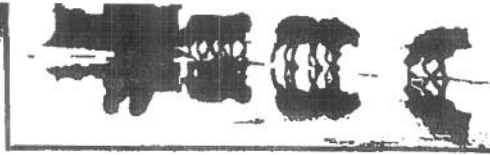
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Dated \_\_\_\_\_ at Whale Cove, NU

\_\_\_\_\_  
Elizabeth Copland, A/Chairperson





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## NUNAVUT IMPACT REVIEW BOARD SCREENING FORM

## 1. General File Information on Screening

NIRB #: 0112210  
(VV-XXX)

Authorizing Agency #(s): NW2FER9910  
 permit or licence =

ADP

Project Title: Drilling and Geographical Surveying

Proponent: Starfield Resource, Inc.  
Company/Applicant

Proponent's Address: Suite 402, 1655 Howe Street  
Vancouver, B.C.

Full Address

Contractor: Midwest Diamond Drilling: Thompson Manitoba  
Company: persons doing the work if different from the proponent  
Nunasi Helicopters & Yellowknife, NWT  
address and contact numbers

Proposed Dates of Activity: Start Date March 15, 2011 End Date                       
(yyyy-mm-dd) (yyyy-mm-dd)

EA Starting Date: February 12, 2001  
Date application accepted (yyyy-mm-dd)

Date Application Referred for Comments: February 13, 2001  
(yyyymmdd)

Deadline for Comments: March 6, 2001  
(www-mm-dd)

NIRB's EA Indication: 12.4.4 (A)

Date of Indication: March 22, 2001  
(yy-mm-dd)

Project Cancelled: Yes, Give Reason \_\_\_\_\_

Comments: \_\_\_\_\_

**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: Rita Reches  
(office where project file is located, contact person, number)

Land Status Inuit Owned ☒ Crown ☒ Commissioner's \_\_\_\_\_ Marine Areas \_\_\_\_\_

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

Type of Approval being sought: Renewal  
(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): DIAND Land Use Permit  
KN.IA Land Use Permit  
(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: Ferguson Lake  
(nearest place name or geographic feature)

Local/Traditional Name: \_\_\_\_\_

National Topographic Sheet (NTS) Number: 5115W Scale: \_\_\_\_\_

Latitude/Longitude: 62° 51' 90" 45', 63° 00' 97" 00'  
(degrees, minutes seconds)

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

Nearest Settlement: Parkin Inlet & White Cove

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, Camp  
(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**

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.

## 6. Description of the Environment

### Description of Biophysical Environment

The surrounding area Kamirak Lake and the Ferguson Lake - chain is well known for its hunting, trapping and fishing potential. A major caribou area is located north of Kamirak Lake and caribou sometimes winter just southeast of the Lake, hunting can therefore be a year round but usually occurs in winter. Arctic fox are trapped in November-December and March-April. Fish are an important food source for hunters and trappers during the winter, activity is concentrated in early spring and late fall. Many of the camps in the area occupied at this time. Whale carcasses residents concentrate their activities to the northeast of Quartzite Lake.

### Description of Socio-Economic and Cultural Environment

Ferguson Lake is a well known fishing lake

## 7. NIRB's Consultation Process

Date application referred for comments:

February 13, 2001

Deadline for comments:

March 6, 2001

Comments extended until March 14, 2001

Distribution List:

Contact Person:

Date comments received

## NUNAVUT:

☒ LNTI  
☐ QIA  
☒ Kivalliq I.A.  
☐ Kitikmeot I.A.  
☒ NPC  
☒ NWB  
☐ NWMB  
☒ RWO  
☒ Inuit Heritage Trust  
 Community(s)  
 Hamlet Rankin/Whale Cove Rankin  
 HTO Rankin/Whale Cove  
 Other?

March 6, 2001

## FEDERAL:

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

Greg Cook  
 Jordan deGroot

Feb 27, 2001  
 March 14, 2001

Rick McLean

February 21, 2001

## GOVERNMENT OF NUNAVUT:

☒ Sustainable Dev.  
☒ EGHT  
☒ HSS  
☒ CLEY  
 Other?

Chris Nichols

March 08, 2001

Leah Otak

February 21, 2001

TRANSBOUNDARY  
PARTIES

## OTHER PARTIES

## 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 geophysical survey
- ☒ possibility for accidents or malfunctions. Describe. oil fuel spills

☐ 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 \_\_\_\_\_

Describe biophysical and socio-economic and cultural effects identified from check-list.

Environmental Effect	Describe
#1	Potential for exploration to effect hunters / fishermen who use the area.
#12	Potential to disturb unknown archaeological sites in the area from drilling activities, equipment movement etc.
#13 / #29 / #30	Potential impact from drilling activities, moving of equipment to impact soil causing compaction, destabilization / erosion from removal of vegetation cover in area
#24 / #38 / #41 / #43	Potential for noise from exploration activities to disturb wildlife (particularly caribou with calves herd may locate else where to avoid activity) which also affects hunting
#40	Accidental spills, drill muds could potentially effect fish habitat



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
  - ✓ Unlaid 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

other mineral exploration in the area  
and past exploration activities in the area  
may have effect on wildlife, and  
beauty of the landscape

NO Will the project make large demands on non-renewable energy sources?

NO / Potentially 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)?

NO Will the project encourage a "boom-bust" economy over an economy of permanence?

NO Will the project encourage more wildlife harvesting on account of better access for hunters and fishers?

NO Will the project have an effect on the water quality of the watershed?

NO 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

See Screening Decision Report

**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 (NPC)
- ☒ 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 environmental effects  
if the Terms & Conditions are  
adhered to.

Prepared By: Jarda Edwards Date: March 15, 2001  
Screeners (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 12.2.3;
- ☐ 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.

Mar-23-01 09:47A

2001-Mar-22 02:00pm From-NUNAVUT IMPACT REVIEW BOARD

+8679832594

T-42B P.007/007 F-807

P.02

**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:

*Elysebeth Campbell*  
(NIRB Decision Maker)

Date:

*March 23/01*  
(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?  
\_\_\_\_\_

(October 1, 2005 version) Nunavut Impact Review Board Screening Form

Fax Log Report

HP Officejet  
Personal Printer/Fax/Copier

MAR-14-2001 WED 04:53 PM 01

FAX NO. 867 9 8038

P. 05

Fisheries  
and OceansPêches  
et OcéansFish Habitat Management  
P.O. Box 358  
Iqaluit, Nunavut  
X0A 0H0

Your file: Votre référence

01WR010

Our file: Notre référence

March 14<sup>th</sup>, 2001Robert Krause  
Starfield Resources Inc.  
Vancouver B.C.  
Phone: 604-608-0400  
Fax: 604-608-0344**RE: NIRB File # 01WR010, Water Licence Application, Mineral Exploration, Starfield Resources, Ferguson Lake.**

Dear Mr. Krause:

This letter is to advise that The Department of Fisheries and Oceans, Fish Habitat Management (DFO-FHIM) received your Water Use Application for mineral exploration, in the Ferguson Lake area, submitted on your behalf by Nunavut Impact Review 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:

- 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

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- Winter lake/stream crossings should be located to minimize approach grades. Cutting or filling of crossing approaches adjacent to the normal high water mark will require prior review and approval by DFO-PHM.
- 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 Subsection 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 work to prevent entry of sand or sediment into the water.
- All activities, including maintenance procedures and vehicular refuelling, should be controlled to prevent the entry of petroleum products, debris, flash, rubble, 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-PHM 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.



MAR-14-2001 WED 04:54 PM 0

Please note that this letter of advice does not release the proponent of the responsibility for obtaining any other permits that may be required and will apply for the proposed activities for the period of the Water Licence.

If you have any questions concerning the mitigation measures or should there be any changes to the proposed work, please contact me at (867) 979-8007 or by fax at (867) 979-8039.

Jordan DeGroot  
Habitat Biologist  
Fish Habitat Management  
Department of Fisheries and Oceans- Eastern Arctic Area

c.c. Winston Fillatre -C&P Supervisor/Fishery Officer



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Coast Guard

Garde côtière

Central & Arctic Region

Région du Centre et de l'Arctique

201 N. Front Street, Suite 703  
Sarnia, Ontario  
N7T 8B1

Your file Votre référence

01WR010

Our file Notre référence

1675-9-9

February 14, 2001

Gladys Joudrey  
Nunavut Impact Review Board  
PO Box 2379  
Cambridge Bay, NT X0E 0C0

Dear Madam:

Thank you for your submission with regard to NIRB # 01WR010

The information will be reviewed by this office and our response will be forwarded to DFO Fish Habitat in Iqaluit. They in turn will prepare a Departmental response encompassing both the Navigable Waters Protection Act and the Fisheries Act.

Yours truly,

Rick McLean  
Inspections Supervisor  
Navigable Waters Protection

RAM/kab

cc: FHM





February 15, 2001

Gladys Joudrey  
Environmental Assessment Screener  
Nunavut Impact Review Board  
Box 2379  
Cambridge Bay, NU X0E 0C0

**Re: NIRB 01WR101; Water License Renewal Permit, Exploratory Drilling and Geophysical Surveying at Ferguson Lake (Starfield Resources Inc.)**

Due Date: March 6, 2001

Dear Ms. Joudrey:

At your request, the Department of Culture and Heritage, Government of Nunavut, 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.

Sincerely,

  
Lean Otak, Director  
Culture and Heritage  
Department of Culture, Language, Elders and Youth

Encl.





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Department of  
Culture, Language, Elders & Youth

Pithohilikioni

Ministère du gouvernement  
Culture Langues, Aînés et Jeunesse

## 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 the 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 explorer's cairns.

"Archaeological specimen" means an object or specimen found in an archaeological site of archaeological ethnographical or historical importance, interest or significance, or a place where an archaeological specimen is found, and includes explorer's 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 (867-975-5500) and DIAND officials 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, Government of Nunavut, Iqaluit.
  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.
  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.
8. The permittee shall avoid the known archaeological sites as listed in Attachment #1.
9. The permittee shall have an archaeologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth: survey, inventory and documentation of the archaeological and historical resources of the land use area; assessment of potential for damage to archaeological sites; mitigation; marking boundaries of archaeological sites for avoidance; restoration. The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit all procedures subsumed under the above operations.

FEB-27-01 11:16 From:DIAND WATER RESOURCES

1-867-669-2716

T-775 P. 29/39 F-270  
T-765 P. 02/04 Job-067



Indian and Northern Affairs Canada  
Affaires indiennes et du Nord Canada

Water Resources Division  
Regulatory Approvals Section  
P.O. Box 1500  
Yellowknife, NT  
X1A 2R3

Telephone: (867) 669-2656  
Facsimile: (867) 669-2716

Your file Votre référence

Our File: NWB-0045

February 27, 2001

Nunavut Impact Review Board  
P.O. Box 2379  
Cambridge Bay, NU X0E 1L0  
Fax: (867) 983-2594

**ATTENTION: Gladys Joudrey, Environmental Assessment Officer**

**RE: Water Licence/permit Renewal Application: NIRB # 01WR010  
Starfield Resources - mineral exploration-drilling & geophysical surveying at  
Ferguson Lake, Nunavut**

The Water Resources Division, Yellowknife, has reviewed the above noted water permit renewal application and supporting documentation, and has provided some additional comments on your attached screening comment form, as well as in this letter. As this package in part was also received from the Nunavut Water Board, comments were solicited for both screening and technical considerations. We have no specific concerns relating to re-screening of this project.

Our opinion remains that this type and scale of project activity would not normally meet the threshold for licensing under the NWT Waters Act and Regulations, and conditions may not be enforceable. If a "water permit" is to be issued under the authority of the Nunavut land claim legislation, the following comments pertain to the licence if one is required. Otherwise, water-related concerns could probably be addressed through the relevant land use permit (N1999C0018) for this project.

It is recommended that clauses pertaining to on ice drilling be removed, as the company does not plan to conduct this activity under this renewal. Similarly, it was noted in the original permit that there is a reference in Part 5.2. i, to employing the Contingency Plan. There does not appear to be any other reference to such a plan, ie should there not be a clause requiring the submission or approval of a Contingency Plan or do they have one elsewhere, eg in a land use permit? In their questionnaire, item 18, they mention collecting drill cuttings in filters. What do they do with these dirty filters, ie should a clause be included regarding their disposal? Is this filtered water subject to periodic sampling for analysis of contaminants, given that there is no Surveillance Network Program? The licence requires only the collection of baseline water quality, under Part 2.8, which data is presumably that which must be reported under Part 7.3 (annual report).

Canada

FEB-27-01 11:16 From:DIAND WATER RESOURCES

1-867-669-2718

T-765 P.03/04 Job-087

-2-

If there are any questions or comments regarding the above, please contact me at (867) 669-2656.

Sincerely,



Greg Cook  
Environmental Assessment Coordinator  
Water Resources Division

cc. Nunavut District  
Brian Collins



1-867-669-2718

01-Feb-13 06:44pm From-NUNAVUT IMPACT REVIEW BOARD

# COMMENT FORM FOR NRB SCREENINGS

Project Title: Exploratory Drilling and Geophysical Surveying at Ferguson Lake  
Proponent: Starfield Resources Inc. - COPPER/NICKEL/PLATINUM &  
Location: Ferguson Lake, Kivalliq, NIRE#: 01WR010 / NWB2FER9901  
Comments Due By: Tuesday March 6, 2001

- ☐ traditional uses of land
- ☐ Inuit harvesting activities
- ☐ community involvement and consultation
- ☐ local development in the area
- ☐ tourism in the area
- ☐ human health issues
- ☐ Other:

- adequately covered in previous licence, & presumably in the LUP as well. This project does not meet the thresholds for licensing (for DWA) under the NWT Waters Act/Regs.

- a few comments are attached, which may/may not be 'useful', regarding the licence renewal itself, re terms, activities etc.

recommend screening proceed with a positive recommendation to renew the license; no hearing would be needed from our perspective.

Name of person commenting: GREG COOK of Water Resources  
Position: Environmental Ag. Coord Organisation: DIAND YK  
Signature: GREG COOK Date: Feb 26 2001

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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: Exploratory Drilling and Geophysical Surveying at Ferguson Lake  
Proponent: Starfield Resources Inc.  
Location: Ferguson Lake, Kivalliq, NIRB#: 01WR010  
Comments Due By: Tuesday March 6, 2001

**Indicate your concerns about the project proposal below:**

- ☐ no concerns  
☐ water quality  
☐ terrain  
☐ air quality  
☐ wildlife and their habitat  
☐ marine mammals and their habitat  
☐ birds and their habitat  
☐ fish and their habitat  
☐ heritage resources in area  
☐ traditional uses of land  
☐ Inuit harvesting activities  
☐ community involvement and consultation  
☐ local development in the area  
☐ tourism in the area  
☐ human health issues  
☐ Other: \_\_\_\_\_

**Please describe the concerns indicated above:**

**Do you have any suggestions or recommendations for this application?**

Better mapping, I identify the project and neighboring communities.

Do you support the project proposal? YES ☒ NO ☐

**Any additional comments?**

Other Project is outside of any Municipal Boundary

Name of person commenting: Robert Charles of London United  
Position: Company Manager Organisation: G2t  
Signature: Robert Charles Date: March 5/01

## 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:** Exploratory Drilling and Geophysical Survey at Ferguson Lake  
**Proponent:** Starfield Resources Inc.  
**Location:** Kivalliq Region, NIRB#: 01WR010  
**Comments Due By:** March 6, 2001

### 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:

It should be communicated to the proponent and all ground personnel that it is more than possible that caribou and muskoxen in the area at this time of year could be with calves. Disturbance of the animals at this time of year could cause calves to be abandoned and subsequent mortality. The proponent should follow all Caribou protection measures, DOT regulations for level flying and avoid harassing wildlife (it is an offense under the wildlife act to harass wildlife.)

The proponent should establish a log for wildlife and archaeological sightings and instruct personnel in its use. All information regarding wildlife sightings should be reported to Mitch Campbell. All information regarding archaeological sites should be sent to Brian Aglukark, Nunavut Planning Commission (867-979-1444) and Doug Stenton, Culture Language Elders and Youth (867-975-5500).

If the company allows exploration personnel to fish/hunt in the area they will require the appropriate licenses in compliance with the NWT Wildlife Act. Also, if the camp turns into a long-term operation this policy should be reevaluated. Prolonged hunting or fishing activities in any localized area can have negative impacts upon fish and wildlife populations and this type of activity should be discouraged.

The spill contingency plan provided by the proponent is not adequate. The proponent is referred to DSD's Guidelines for Spill Contingency Planning and Reporting. The proponent should be requested to submit an up to date spill contingency plan that is satisfactory.

The Proponent has not supplied a completion date for its activities and has requested an open ended license. DSD does not support an open ended license. The proponent should provide a possible closure date. It is recommended that if the NWB does grant a water license that this license not be open ended.

The Proponent has indicated that it intends on disposing of oil, other refuse and barrels in Rankin Inlet or Baker Lake. The proponent should be made aware that before it can do so it will need the approval of these municipalities.

Upon completion of all seasonal activities all food, waste and plastic fuel containers must be removed from the site.

Problem Wildlife must be immediately reported to DSD Wildlife officers.

The proponent should be advised that DSD have fuel caches in this area. The proponent in the case of an emergency should only use these fuel caches. If the proponent does find itself in a situation where it has to use fuel from a DSD fuel cache it must be immediately replaced and the usage reported to DSD.

**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:** March 7, 2001

#### Other

- Bear deterrents (cracker shells, thunder flashes and rubber bullets) should be on site.
- The proponent should consider the use of electric fencing within the camp design, especially around sleeping quarters.

## **DEPARTMENT OF SUSTAINABLE DEVELOPMENT**

### **ENVIRONMENTAL PROTECTION SERVICE**

#### **STANDARD RECOMMENDATIONS FOR LAND USE APPLICATIONS (AS APPLICABLE)**

#### **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.

\*b0M

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. EPS 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**

\*b0M

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.