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January 9, 2002

To: Rita Becker

Licensing Administrator Nunavut Water Board Gjoa Haven, NU

Re: Exploratory Drilling at Nadluardjuk Lake NIRB: 01ER101 NWB: NWB2NAD0101

Enclosed is the completed NIRB Screening Decision Report on a water use and waste disposal associated with exploratory drilling at Nadluarjuk Lake in the Baffin Region.

NIRB has screened this application for eco-systemic 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

Environmental Assessment Officer

Shoft Low

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SCREENING DECISION

Date: January 9, 2002

Mr. Thomas Kudloo Chairperson, Nunavut Water Board Gjoa Haven, NU

Dear Mr. Kudloo:

RE: Screening Decision of the Nunavut Impact Review Board (NIRB) on Application:

NIRB 01ER101 NWB2NAD0101

Mining Exploratory Drilling at Nadluardjuk Lake

# **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:

- storage and disposal of chemicals, fuel, garbage, sewage, and gray water, and impact of these on the ecosystem;
- the impact of noise from helicopter and exploration 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 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-one (31) 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.
- The Licensee 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.
- 4. 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.
- 5. 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).
- 6. 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.
- 7. The Licensee shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body.
- 8. 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.
- 9. 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.

# **Fuel Storage**

- 10. 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.
- 11. 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.
- 12. The Licensee 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.
- 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 Licensec shall examine all fuel and chemical storage containers daily for leaks. All leaks should be prepared immediately.
- 15. The Licensee shall seal all container outlets except the outlet currently in use. The Licensee shall mark all fuel containers with the Licensee's name.
- 16. The Licensee shall have an approved emergency response and spill contingency plans in place prior to the commencement of the operation.
- 17. 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.

# Water

18. 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.

# Waste Disposal

- 19. 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.
- 20. The Licensee shall not locate any sumps or areas designated for waste disposal within thirty-one (31) metres of the ordinary high water mark of any body of water, and be sufficiently bermed or otherwise contained a waterway unless otherwise authorized.
- 21. The Licensee shall backfill and recontour all sumps to match the natural environment prior to the expiry date of the license.
- 22. The Lessee shall not bury any metal wastes.
- 23. The Licensee shall incinerate all combustible and food wastes daily
- 24. The Licensee shall keep all garbage and debris in a covered metal container until disposed of.
- 25. The Licensee shall ensure that all wastes generated through the course of the operation are backhauled and disposed of in an approved dumpsite.

## Wildlife

- 26. The Licensee shall ensure that there is no damage to wildlife habitat in conducting this operation.
- 27. The Licensee shall not hunt or fish, unless the appropriate permits and licenses are acquired from a GN Renewable Resources Officer.
- 28. The Licensee shall not locate any operation so as to block or cause substantial diversion to migration of caribou.
- 29. The Licensee 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.
- 30. The Licensee shall ensure that aircraft pilots adhere to recommended flight altitudes of greater than 300 m above ground level as to not disturb wildlife.
- 31. The Licensec 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.
- 32. 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.

#### Environmental

- 33. The Licensee shall ensure that the land use area is kept clean and tidy at all times.
- 34. The Licensee shall prepare the site in such a manner as to prevent rutting of the ground surface.
- 35. 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.
- 36. The Licensee shall suspend overland travel of equipment or vehicles if rutting occurs.

# Camp

- 37. The Licensee shall not erect structures or store material on the surface ice of lakes or streams.
- 38. The Licensee shall locate all structures and storage facilities on gravel, sand or other durable land.

# Archaeological Sites

39. 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) in attached letter.

02-Jan-12 05:37pm From-NUNAVUT IMPACT REVIEW BOARD

JAN-09-02 WED 01:07 PM

CHIE. ORONER NUNAVUT

2002-Jan-08 02:34pm From-NUNAVUTIMPACT REVIEW BOARD

FAX:867 896 960,

T-985 P.07/26 F-950 PAGE 1

Reclamation

40. The Licensee shall remove all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material upon abandonment.

41. The Licensee shall complete all clean-up and restoration of the lands used prior to the expiry date of the permit.

# Other Recommendations

 NIRH would like to encourage the proponent to hire local people and services, to the extent possible.

2. NIRB advises proponents to consult with local residents regarding their activities in the

region

3. The proponent should establish a log for witdlife 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 Doug Stenton, Culture Language Elders and Youth (867-975-5500). As well as all information being passed on to the closest communities.

4. 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

at Arviat, NU

Elizabeth Copland, Chairperson



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# NUNAVUT IMPACT LEVIEW BOARD SCREENING FORM

1. General File Information on Screening
NIRB #: DIER 101 Authorizing Agency #(s): NUB 2NAD 0101  (yy-xxx) permit or licence #
Project Title: Exploratory Prolling at Nadlagrick Lake  Title of Project  Proponent: BHP Billiton Diamonds Inc.  Company/Applicant
Proponent's Address: 1400-1111 West George 34.  Vancouver BC  V6E 4m3  Full Address
Contractor: Terciny Howe  Company/persons doing the work if different from the proponent  Phone: (604) 632-1450 FAX: (604) 683-4125  address and contact numbers
Proposed Dates of Activity: Start Date 2002/07 End Date 2002/09  (yyyy-ram-dd) (yyyy-ram-dd)
EA Starting Date: 2001/12/04  Date application accepted (yyyy-mm-dd)
Date Application Referred for Comments: 200/12/04  (yyyy-mm-dd)
Deadline for Comments: 2002/01/02  (yyyy-min-dd)
NIRB's EA Indication: 12.4.4 (3)
Date of Indication:
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 Becker  (office where project file is located, contact person, number)
Land Status: Inuit Owned Crown Commissioner's Marine Areas
Type of Application: (e.g. water licence, land use permit, quarry permit, research permit, lease, reserve)
Type of Approval being sought:
Other required approvals, permits or licences:  (e.g. water licence, land use permit, quarry permit, lease, reserve)
Present Authorizations (active):
Previous Authorizations (inactive/expired): NwB2NADO101  (file number)
3. Project Location
3. Project Location  Kivalliq Kitikmeot Baffin
Kivalliq Kitikmeot Baffin Baffin Land Use Planning Region: West Central Baffin Island
Kitikmeot Baffin  Land Use Planning Region: West Central Baffin   Sland  (e.g. West Kitikmeot, North Baffin, South Baffin, Kivalliq)  Geographic Place Name: Nadluarjuk Lake
Kitikmeot Baffin Land Use Planning Region: West Central Baffin Island  (e.g. West Kitikmeot, North Baffin, South Baffin, Kivalliq)  Geographic Place Name: Nadluarjuk Lake  (nearest place name or geographic feature)
Kitikmeot Baffin Land Use Planning Region: West Central Baffin Sland  (e.g. West Kitikmeot, North Baffin, South Baffin, Kivalliq)  Geographic Place Name: Nadluar ut Late  (neurest place name or geographic feature)  Local/Traditional Name:
Kitikmeot Baffin Land Use Planning Region:  Land Use Planning Region:  West Central Baffin Island  (e.g. West Kitikmeot, North Baffin, South Baffin, Kivalliq)  Geographic Place Name:  Nadluaruk Lake  (nearest place name or geographic feature)  Local/Traditional Name:  National Topographic Sheet (NTS) Number: 37A Scale: 1 250,000
Kitikmeot Baffin Land Use Planning Region: West Central Baffin Island  Geographic Place Name: Nadluar Jul Lake  (neurest place name or geographic feature)  Local/Traditional Name:  National Topographic Sheet (NTS) Number: 37A Scale: 1250.000  Latitude/Longitude: Long 73.21286 W Lat! 68.61978 N  (degrees, minutes seconds)  Drainage Region and Watershed:
Kitikmeot Baffin Land Use Planning Region: West Central Baffin Island  (e.g. West Kitikmeot, North Baffin, South Baffin, Kivalliq)  Geographic Place Name: Nadluar jux Laxe (nearest place name or geographic feature)  Local/Traditional Name:  National Topographic Sheet (NTS) Number: 37A Scale: 1250,000  Latitude/Longitude: Long 73.21286 W Lat: 68.61978 N  (degrees, minutes seconds)  Drainage Region and Watershed:  (nearest creek, river or lake system)

(Yes/No -e.g. Heritage River, Wildlife Reseserve, Park)

Does the project have Nunavut transboundary implications? Yes \_\_\_\_\_ No \_\_\_\_

If yes, what additional procedures/contacts are needed?

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4. Project Description and Assessment	
Physical Work, Activity(ies): direction, camp, research, water works, installation.	455-45-45-45-45-45-45-45-45-45-45-45-45-
(aniting, construction, camp, research, water works, installation,	modification, maintenance)
Multiple Activities. Yes NoNo	
Project Category Code Point Multiple Points Linea	
Phase of Project. exploration bulk sampling, development, operations, decommissioning, ab	
(exploration, bulk sampling, development, operations, decommissioning, and	andonment 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 Inukitut)	
Attach Froject Overview (English and makitat)	
Alternatives Considered:	
that all alternatives to the project and/or components of the project to avoid unnecessary amendments, (e.g. a	ternatives to location of ice road or
camp logistics)	
-	
4	
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 defi-	cient.

6. Description of the Environment
Description of Biophysical Environmen
Description of Socio-Economic and Cultural Environment
Please see attached map. "Area of Interest".
Foley and Airforce Island provides wood bustine
Foley and thirtoice Island provides good hunting habitat and in the past were regularly hunted
by the Igloolik residents. Polar bear hunting usually
occurs ground Navya Bay.
This grea is being used every winter by Chycle Liver
hust for hunting wolves and caribou. Lake Gillian
is a particularly good wolf hunting area
This area was also formerly important to the Igloolit
hunters. The camps at lauksvik and Nadhanjuk
Lakes and Longstatt Bluff are situated at major
in many of the major takes.
The state of the s

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7. NIRB's Consultation Process				
	Date application referred for comments: 2001/12/04 (yryy-mm-dd)			
Deadline for comments:	2001/01/02			
	(yyyý-mm-dd)			
Distribution List:  NUNAVUT:  NTI  QIA  Kivalliq I.A.  Kitikmeot I.A.  NPC  NWB  NWMB  RWO  Inuit Heritage Trust  Hamlet  Hamlet  HTO	Contact Person:	Date comments received:		
FEDERAL: DIAND-NunavutDIAND-WaterDFODOENatural ResourcesCCG	Rick Mclaw	200 3 B3		
GOVERNMENT OF NU	NAVUT:			
DSD CG&T HSS CLEY Other?				
TRANSBOUNDARY PARTIES				
OTHER PARTIES				
		A CONTRACTOR OF THE CONTRACTOR		

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Identification of Project Activities and Environmental Effects
Identify all activities of the project under screening and their potential adverse environmental effects.

Project Activities	Project Effects
Weheck all the items appropriate to this project)	O check all the items appropriate to this project)
access road .	Directly-related Socio-Economic & Cultural
cuite:	Effects:
Instruction	
	impacts, hunting / trapping / tishing
modification e.g., widening	2 1_ impact inwomen
Murcmobile, arcraft or vessel movement	men
blusting	children
Durrung	elders
bur.ing	3impact to traditional use or traditional use area
ch.mneiling	4impact to outfitters
Construction	5impact on recreational use
building	6impact on family structure
hed, warehouse	7impact to community health
landing smp	8change in community economics
_ cur ind all	change in community economics     change in community housing or
removal of vegetation	infrastructure
dams and impoundments	10impact to industry
Construction	
abandonment/removal	11 _ change in regional transportation
durch construction	12impact to archaeological or cultural landmarks
drainage alteration	13impact on beauty of the landscape
	1+bther, explain
driling other than geoscientific ecological surveys	
= sxcmanou = sconodicu autoria	Biophysical Environment Effects
explosive storage	15deposit anto surface or ground water
Livel storage	16deposit to marine environment
gurbage	17 change in surface or ground water flow
disposal of hazardous waste	18. change in water remnember
disposal of sewage or grey water	18 change in water temperature 19 change in drainage pattern
disposal of solid waste	20 change in air quality
Leoscientic sampling	21change in air flow
renching	
Mumond dall	22 micro-climate change
borehole core sampling	23ice fog 24change in ambient noise level
bulk soil sampling	24. Victainge in impient noise level
bulk soil sampling  quare: hudesigned project	25 Leposit onto ground surface
nyong operation	26change in slope stability
aver stream/lake crossing/bidging	27. — change in soil structure 28. — alteration of permatrost regime 29. — destabilization/erosion
site tes totation	28. <u>ulteration of permatrost regime</u>
reralization	29destabilization/erosion
grubbing	30soil compaction
pl:mang/seeding	31change in access to renewable resources
canincanon	32depletion of non-renewable resource
_ spraying	33 removal of rare/endangered plant species
recontouring	34untroduction of species
soil testing	35 roxin 'heavy metal accumulation
topsoil, overburden or soil	35toxin.'heavy meral accumulation 36removal or rare/endangered wildlife species 37change in wildlife health
611	37 change in wildlife health
disposal	38. Limpact to large mammals
removal	39 Limpact to small mammals
storage tunnelling,/underground	
other, explain <u>Camp</u>	40impact to fish
outer, explain	+1 impact to birds
possibility for accidents or malfunctions. Describe.	+2 impact to other wildlife
possibility for headents of manufactions. Describe.	43impact in a calving, nesting, staging or
The state of the s	spawning area
	++ removal of wildlife buffer zone
effects of environment on project (e.g., flooding).	45change in wildlife habitat/ecosystem
Describe.	45change in wildlife habitat/ecosystem 46other, explain
(Outshar 1998 pareign) Yungaya Inamat Bassian Bassa Casacing Form	
(October 1998 version) Nunavut Impact Review Board Screening Form	

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

Environmental Effect	Describe
#24	exploration and religions deposit onto grand surface from
	existing ort, and helicipher
# 25	deposit onto ground surface from
	simp and dilling water
	3. 3
# 38	Impact to large manuals ton
	This e court out in the orea
# 39	Impact to small manners from
	mise and activity with cara.
<u> </u>	
	· · · · · · · · · · · · · · · · · · ·
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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 communitie) and their potential adverse environmental effects.

Other Resource Uses  Vicheck all the items appropriate to this project)  hacresting  marine mammals  fur bearers  birds	Directly-related Socio-Economic & Cultural  Effects:   impact to hunting / trapping / fishing  impact to women   children   elders
Nicheck all the items appropriate to this project)  harvesting  marine mammals  laid mammals  fur bearers	Directly-related Socio-Economic & Cultural Effects:  1impact to hunting / trapping / fishing 2impact on women     men     children     elders
harvestingmarine mammalsluid mammalsnur bearers	Directly-related Socio-Economic & Cultural Effects:  1 impact to heating / trapping / fishing 2 impact on women
Lund marnmals Tur bearers	Directly-related Socio-Economic & Cultural Effects:  1 impact to hearing / trapping / fishing 2 impact on women
murine mammals lund mammals rur bearers	Effects:  1impact to hearing / trapping / fishing 2impact onwomenmenchildrenelders
Luid mainmals fur bearers	Effects:  1impact to hearing / trapping / fishing 2impact onwomenmenchildrenelders
L'air bearers	1impact to hearing / trapping / fishing 2impact onwomen menchildrenelders
	2mp.ict onwomen men children elders
	men children elders
shelltish	children elders
pl:ints	elders
besses	
e i cha	3impact to traditional use or traditional use area
	4impact to outfitters
exploration	5 impact on recreational use
open pits	6impact on family structure
underground	7 impact to community health
off-shore	8 change in community economics
mineral processing	9 change in community housing or infrastructure
industry (type)	10impact to industry
_ quarries	11change in regional transportation
carving stone	12 impact to archaeological or cultural landmarks
	13impact on beauty of the landscape
transportation/communications	14other, explain
Lirport / landing strip	
roads/access routes	Biophysical Environment Effects
shipping	15deposit into surface or ground water
channels/canal *	16. deposit to margie environment
telephone lines, satellite dishes, cables	17 change in surface or ground water flow
beacons	<ol> <li>change in water temperature</li> </ol>
_ waste disposal (solid, liquid or gas?)	<ol> <li>change in drainage pattern</li> </ol>
energy project	20change in air quality
hvdro	21 change in air flow
pipeline	22. micro-climate change
transmission line	25ice rog
other water licenses, permits, leases	24. change in ambient noise level
✓ lands	25deposit onto ground surface
Inuit owned	26change in slope stability
-surface rights	27 change in soil structure
-sub-surface rights	28 alteration of permatrost regime
Crown	29 destabilization/erosion
Commissioner's	30soil compaction
Marine Areas	31 change in access to renewable resources
other private lands held under tenure	32depletion of non-renewable resource
Letinge sites or archaeological sites	33 removal of rare/endangered plant species
recreation (eg. cabins, tent frames)	34introduction of species
tourism	35toxin/heavy metal accumulation
municipal (construction)	36 removal of rare/endangered wildlife species
commercial	37change in wildlife health
built structures	38. Zimpacr to large mammals
infrastructure	39. Limpact to small mammals
agriculture	40impact to fish
forestry	41impact to birds 42impact to other wildlife
other, explain	43impact to other withine 43impact in a calving, nesting, staging or spawning
	area
	44removal of wildlife buffer zone
	45 change in wildlife habitat/ecosystem
	46
(October 1998 version) Nunavut Impact Review Board Screening	

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10. Cumulative Environ Based on a companison of eff	nmental Effects ffects identified in #8 and #9.
Matching Number's	Description of Cumulative Environmental Effects
	• •
<b>No</b> Will the project make to	arge demands on non-renewable energy sources?
	rage further developments within the current project or other projects, energy development, generation, petroleum development and dditional roads)?
10 Will the project encour	rage a "boom-bust" economy over an economy of permanence?
<u>No</u> Will the project encour	rage more wildlife harvesting on account of better access for hunters and
<b>no</b> Will the project have at	n effect on the water quality of the watershed?
No Will the project have a	significant effect on existing land uses?
-	
11. Mitigation Measure	
	ect identified in #8, #9 and #10, describe the required mitigation
Number(s) (as identified) in #8, #9 & #10)	Description of Mitigation Measures
	sa sceening ferition least

12.	Significance
Affer to	iking into account the mitigation measures identified in #11, are any of the residual, adverse imental effects significant?
SHOREST	internal effects agrificant.
	YesXo
	If yes, identify which one s, and proceed to #13; if no proceed to #14.
	Number(s)
1	
	·
NAME OF TAXABLE PARTY.	
13.	Likelihood of Occurrence
Of the	significant, residual, adverse environmental effects identified in #12, are any likely to occur?
Or are	Yes No
	Number(s)
14.	Information Sources
14.	What sources of information were used in the screening process?
14.	What sources of information were used in the screening process? local knowledge
14.	What sources of information were used in the screening process? local knowledgetraditional ecological knowledge
14.	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)
14.	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)authorizing agencies' data
14.	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)authorizing agencies' datadepartmental or agency opinions
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14-	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)authorizing agencies' datadepartmental or agency opinionsmapsphotosreports (scientific, economic, social, or anthropological, archival or historical information)Nunavut Environmental Database (NED)
14.	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)authorizing agencies' datadepartmental or agency opinionsmapsphotosreports (scientific, economic, social, or anthropological, archival or historical information)Nunavut Environmental Database (NED)
14.	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)authorizing agencies' datadepartmental or agency opinionsmapsphotosreports (scientific, economic, social, or anthropological, archival or historical information)Nunavut Environmental Database (NED)personal communicationsProject Registry (NPC) WB
14.	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 (APC)
14-	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)authorizing agencies' datadepartmental or agency opinionsmaps
14.	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)unthorizing agencies' data
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14-	What sources of information were used in the screening process? local knowledgetraditional ecological knowledgeland use plans (and draft land use plans)uthorizing agencies' datadepartmental or agency opinionsmaps

15. Staff Recommendations	
Smfr Recommendations: (include mnonale)	
Project stould how - little Import	
Prepared By: Glode's Torder Date: Jon 3102	
Screette: (y75y-inm-dd)	
	District Village
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 rechnological innovations for which the effects are unknown.	
The project does not have significant effects or concerns.	8
17. Indication to the Minister (12.4.4)	
N.B. Transfer this information to Box 1: "E.A 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:	.e
b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues concerns which should be considered in such a review;	or
c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or	
<ul> <li>d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.</li> </ul>	

02-Jan-12 05:43pm From-NUNAVUT IMPACT REVIEW BOARD

JAN-09-02 WED 01:07 PM

CHIEF JRONER NUNAVUT FAX:867 896 960', PAGE 2

HB679832594 T-112 P.004/004 F-608

+ T-985 P.19/26 F-950

2002-Jan-08 02:34pm From-NUNAVUTIMPACT REVIEW BOARD

13. Terms and Conditions	1
If the determination is 12.4.4 'a . NIRB's terms and conditions include those listed in the Screening Decision Report.	
Specific Ferms and Conditions to note include:	
	1
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	1
··	
19. Authorization "	
Approved By: Elisabeth Juliand Date: Jan 09/02	
(NIR3 Decision Naket) gyyy-mm-fish	
20. Follow-up / Monitoring	
Minister's Determination	
Minister agreed with NIRB's indication.	-
Acnon?	
Minister varied NIRB's indication.	
Action?	
Minister rejected NIRB's indication	
	-

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

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

Ir applicable,

Fisheries and Oceans Canada

Pêches Dcéans
Canada

Coast Guard

Garde côtière

Central & Arctic Region

Région du Centre et de l'Arctique

201 N. Front Street, Suite 703 Sarnia, Ontario

Your file Votre référence

Sarnia, Ontario N7T 8B1

Our file Notre référence

1675-9-9

December 6, 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 # 01ER101, Exploratory Drilling at Nadluarjuk Lake by BHP Billiton Diamonds Inc, Nunavut.

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

A/Superintendent

Navigable Waters Protection

BP/kab

cc: FHM

JAN 0 2 2002

Canada

Jan-08-2002 13:02

From-

T-753 P.Q02/010



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Department of Culture, Language, Elders & Youth

Pithohilikioni

Minister du governament Culture Langues, Aînés et Jeunesse January 9, 2002

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

Re: Land Use Application NIRB 01ER101 Exploratory Drilling at Nadluarjuk Lake (BHP Billiton Diamonds Inc.)

Due Date:

January 2, 2002

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.

Otak, Director

Culture and Heritage

Department of Culture, Language, Elders and Youth

Jan-09-2002 13:04

From-



# ARCHAEOLOGICAL AND PALAEONTOLOGICAL RESOURCES TERMS AND CONDITIONS FOR LAND USE PERMIT HOLDERS

#### BACKGROUND

# Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

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. [33.2.1]

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. [33.2.2]

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 Claims Agreement. [33.2.5]

# Palaeontology

Under the Nunavut Act<sup>1</sup>, the federal government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the Nunavut Archaeological and Palaeontological Sites Regulations<sup>2</sup>, it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

# Definitions

As defined in the Nunavut Archaeological and Palaeontological Sites Regulations, the following definitions apply:

"archaeological site" means a place where an archaeological artifact is found.

<sup>&#</sup>x27;s. 51(1)

<sup>&</sup>lt;sup>2</sup> P.C. 2001-1111 14 June, 2001

Jan-09-2002 |3:04

From-

T-753 P.009/010 F-327

"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

"palaeontological site" means a site where a fossil is found.

#### "fossil" includes:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

#### **Terms and Conditions**

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2033 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological 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.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 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 artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.

Jan-09-2002 13:04

From-

- 9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:
  - a) survey
  - b) inventory and documentation of the archaeological or palaeontological resources of the land use area
  - assessment of potential for damage to archaeological or palaeontological sites
  - d) mitigation
  - e) marking boundaries of archaeological or palaeontological sites
  - f) site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.

JAN-10-02 16:00 From:ENV CAN IGALUIT NUNAVUT

8969754645

T-021 P.02/03 Job-782



Environment Canada Environnement Canada

Environmental Protection Branch Qimugjuk Building, P.O. Box 1870 Iqaluit, NU XOA 0H0 Tel: (867) 975-4639 Fax: (867) 975-4645

January 10, 2002

Our file: 4705-037

Fax: (867) 983-2504

Rita Becker Licensing Administrator Nunavut Water Board P.O. Box 119 Gjoa Haven, NU. X0B 1J0

Gladys Joudrey
Environmental Assessment Officer
Nunavut Impact Review Board
P.O. Box 2379
Cambrigde Bay, NJ. X0E 0C0

Re: Comments on Application for Water License NWB2NAD0101 - NIRB01ER101 - BHP Diamonds Inc. - Exploratory Drilling and Campsite Nadlaurjuk, Baffin, NU.

On behalf of Environment Canada (EC), I have reviewed the above noted water license NWB2NAD0101- NIRB01ER101. The following recommendations have been made in regards to Environment Canada mandated responsibilities for the enforcement of the Canadian Environmental Protection Act (CEPA), section 36 of the Fisheries Act, the Canadian Wildlife Act, and the Migratory Birds Convention Act.

BHP Diamonds Inc. have proposed to construct a 25 person camp near Nadluardjuk Lake. The camp will serve as the base in order to carry out the drilling and air-borne geo-physical program. over a 3 month period beginning July, 2002 and completing September, 2002. All exploration activities will have helicopter support however all-terrain vehicles will also be used.

# Comments and Recommendations

The proponent neglected to:

- include the estimated volume of proposed sump for camp and drilling activities;
- include locations for all fuel caches in relation to water for aircraft, and camps uses.

The Canadian Environmental Protection Act is in the final stages of the assessment of CaCl as a toxic substance. It is recommended during on land based drilling, that sump closure measures include documentation of effects on vegetation for holes which used CaCl as an additive. The proponent must ensure that such sumps are a sufficient distance from water to avoid runoff into streams or lakes.

The following conditions should be applied throughout all phases of the project.

- The proponent shall ensure that any chemicals, fuel or wastes associated with the proposed project do not enter waters frequented by fish.
- EC encourages proponents, when storing barrelled fuel at a location, to use a secondary
  containment rather than relying on "natural depressions". Self supporting insta-berms are
  available from various suppliers within Canada.







JAN-10-02 16:01 From: ENV CAN MALUIT NUNAVUT

8969754646

T-021 P.03/03 Job-782

- No disturbance of the bed or banks of any definable watercourse is permitted. Special efforts must be made to avoid bed and bank disturbance during the spring.
- Ensure the treatment of hazardous and solid wastes at an appropriate disposal facility is. Igaluit or Rankin Inlet;
- Environment Canada recommends the use of an approved incinerator.

Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4639 or by small at lawrence ignace@sc.gc.ca.

Yours traiv.

Kawrence Ignaca

**Environmental Assessment Specialist** 

(Paula Pacholek, Northern Environmental Assessment Coordinator, Yellowknife) CC:



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	$\checkmark$	Gladys Joudrey		Jorgen Komak	
	•	Environmental Assess. Officer		<b>Environmental Technologist</b>	
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