



NIRB File No.: 06EN066_Renewal
INAC File No.: 086H10001 (Ham Lake)
INAC File No.: 086H10002 (Izok Lake)
INAC File No.: 086I02001 (Amooga Booga Lake)

June 16, 2008

Aaron MacDonell
Zinifex Canada Inc.
401-1113 Jade Court
Thunder Bay, ON
P7B 6M7

Via email: aaron.macdonell@zinifex.com

Re: Application Acknowledgement for Zinifex Canada Inc's Surface Lease Renewal Requests with Indian and Northern Affairs Canada

Dear Aaron MacDonell:

On June 6, 2008, the Nunavut Impact Review Board (NIRB or Board) received applications from Indian and Northern Affairs Canada (INAC) requesting screening of Zinifex Canada Inc's Surface Lease Renewals. Zinifex is proposing to renew their Surface Leases for a further term of 10 years, until 2018. In addition, Zinifex have indicated that the airstrip located at the Ham Lake Camp is not within the current surface lease boundary and would like to apply for an increase in the surface lease of an additional 13.1 hectares.

The surface lease renewals are available for viewing from NIRB's ftp site at the following link:
http://ftp.nirb.ca/SCREENINGS/ACTIVE%20SCREENINGS/2008_AMENDMENTS_RENEWALS/06EN066-Zinifex%20Canada%20Inc%20-%20Izok%20and%20Hood%20Project/2008_Renewal/1-SCREENING/01-APPLICATION/.

The original application for the above project was received by the NIRB on June 26, 2006 from Kitikmeot Inuit Association (KIA). The project proposal was screened in accordance with Part 4, Article 12 of the Nunavut Land Claims Agreement (NLCA). On September 19, 2006 the NIRB issued a 12.4.4(a) screening decision to KIA allowing the proposed project to proceed subject to project-specific recommended terms and conditions. Project components/activities included the following:

- On-land and on-ice drilling - up to 30,000 metres between the Izok property and Hood property
- Use of existing Ham Lake camp, which has an existing 2,500 metres gravel airstrip.
- Establishment of a non-permanent weatherhaven camp (20-40 persons).
- Fuel and chemical storage at camp consisting of:
 - o 385,000 litres of diesel fuel stored in 7 fuel tanks
 - o 2,050 litres of gasoline stored in 205 litre drums
 - o 5000 lbs of propane stored in one hundred lbs containers
 - o 20,500 litres of aviation fuel (Jet B) stored at airstrip
 - o Petroleum lubricants
 - o Drill additives

- Temporary fuel and storage at drill-site locations
- Research in the areas of wildlife/fish/birds/marine; and archaeology
- Use of water for camp and drilling purposes

The KIA and INAC applications, and the original NIRB screening file, 06EN066 are available from NIRB's ftp site at the following link:

[http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/ARCHIVE/2006_SCREENINGS/06EN066-Izok_and_Hood_Project_\(Wolfden\)/1-SCREENING/](http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/ARCHIVE/2006_SCREENINGS/06EN066-Izok_and_Hood_Project_(Wolfden)/1-SCREENING/).

The NIRB is of the opinion that the request for the renewal including the amendment does not *significantly* change the general scope of the original project activities. Therefore, the NIRB is *proposing* to re-issue the same terms and conditions as those in the attached September 19, 2006 Screening Decision, along with any new terms and conditions the NIRB feels are appropriate. The NIRB is copying interested Parties and municipalities most affected by this project and we invite interested persons to comment directly to the NIRB by **June 23, 2008**.

The NIRB would like Parties to provide comments regarding:

- whether the proposed component or activity was a part of the original proposal;
- whether its inclusion would significantly modify the project;
- any additional mitigation measures that are appropriate; and
- any other matter of importance to the Party related to the project proposal.

Please send your comments to the attention of the NIRB's Manager of Environmental Administration Leslie Payette at lpayette@nirb.ca or via fax to **(867) 983-2594**.

If you have any questions or concerns, please do not hesitate to contact the NIRB's Technical Advisor Sophia Granchinho at sgranchinho@nirb.ca or by phone at 867-983-4607.

Sincerely,



Sophia Granchinho
Nunavut Impact Review Board

cc: Distribution List
Stanley Anablak, KIA
Jeffrey Holwell, INAC

Attachment: NIRB Screening Decision Report, File No.: 06EN066 (September 19, 2006)

NIRB File No.: 06EN066

Donald Haviyok
President
Kitikmeot Inuit Association
Cambridge Bay, NU X0B 0C0

Dear President:

Section 12.4.4 of the Nunavut Land Claim Agreement states:

- 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.

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. The considerations in making this decision included:

- the impact of exploration activities on the ecosystem;
- 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 exploration activities and their disturbance to wildlife and traditional users of area;
- the impact of exploration activities and infrastructure on archaeological sites; and
- clean up/restoration of the project locations upon abandonment

The Scope of the Project Activities

- On-land and on-ice drilling – up to 30,000m between the Izok property and Hood property in 2006: Unknown for 2007 and 2008;
- Use of existing Ham Lake camp and existing 2,500m gravel airstrip. Deployment of a temporary weatherhaven within existing Ham Lake camp until such times as existing structures are suitable for occupancy. Occupancy of the camp anticipated to be at a maximum of 40 persons at any given time, with an average of 20 persons; Fuel, chemical and hazardous materials storage:
 - o Fuel
 - 385,000 litres of diesel fuel stored in 7 fuel tanks
 - 2,050 litres of gasoline stored in 205 litre drums
 - 5000 lbs of propane stored in one hundred lbs containers
 - 20,500 litres of aviation fuel (Jet B) stored at airstrip
 - o Chemicals and Hazardous materials
 - Motor oil
 - Bariod Grease
 - Drill Rod Heavy Grease
 - Drill Mud/Additives
 - Antifreeze
 - Calcium Chloride
 - Lead acid batteries
 - Cleaners
- Temporary fuel and storage at drill-site locations
- Research in the areas of wildlife/fish/birds/marine; species collection; and archaeology;
- Use of water for camp and drilling purposes.

Recommendation to the Kitikmeot Inuit Association pursuant to Section 12.4.4(a) of the NLCA

As a result of comments received and a review of the information by the Board, NIRB strongly recommends the Kitikmeot Inuit Association conduct regular inspections of all project activities occurring on the Inuit-Owned Lands.

Terms and Conditions:

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

General

1. Wolfden Resources Inc. (proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The proponent shall forward copies of all permits to the NIRB obtained and required for this project prior to the commencement of the project.
3. The NIRB shall be notified of any changes in operating plans or conditions associated with this project prior to any such change. Prior to the 2007 and 2008 drilling seasons, work plans must be submitted no later than January 31 of that year detailing the amount of drilling estimated to take place during season, along with any maps detailing these drilling locations.
4. The proponent shall adhere to conditions stated in attached Appendix #1 “Archaeological and Palaeontological Resources – Terms and Conditions for Land Use Permit Holders”, to ensure preservation and protection of archaeological sites encountered as a result of this project. Known archaeological sites are attached as Appendix #2.
5. The Proponent shall operate the project in a manner consistent with all commitments and mitigation measures outlined in all correspondence and documents provided to the NIRB from the period commencing June 26, 2006 thru to August 31, 2006.
6. The Proponent shall immediately contact Transport Canada – Navigable Waters Protection regarding the project activities. Additionally, the Proponent is advised the airstrip must be in compliance with *Canadian Aviation Regulations (CARS) regarding Part III Aerodromes and Airports*.
7. The Proponent shall submit a copy of its Wildlife Management Plan for these project activities (referenced on pg 40 of the *Project Specific Information – Izok/Hood Exploration*) by October 15, 2006. Furthermore, this Wildlife Management Plan must include the following:
 - a. A **100m** buffer around all active raptor nests from May 1 to September 15 of each year;
 - b. The requirement to maintain an elevation of 610m for all air travel. Flights below 610m are restricted to landings and takeoffs, and movement of drill rigs, equipment and personnel;
 - c. The requirement to maintain a vertical distance of 1000m and 1500m horizontal distance from any observed concentrations of birds;
 - d. The management plans regarding on-site Grizzly bears;
 - e. The management plans regarding any Species at Risk as defined under the Species at Risk Act;
 - f. The management plans regarding caribou encounters; and
 - g. The proposed monitoring plans for all wildlife.
8. The Proponent shall submit an annual report with copies provided to the NIRB, Indian and Northern Affairs Canada (INAC), and the Kitikmeot Inuit Association (KIA) by January 31 each year that the project is in operation commencing January 31, 2007. The report must contain, but not be limited to, the following information,

- a. A summary of activities undertaken for the year, including the amount of drilling;
- b. A work plan for the following year;
- c. The results of environmental studies undertaken and plans for future studies;
- d. Wildlife encounters and actions/mitigation taken;
- e. A summary of local hires and initiatives;
- f. A summary of community consultations undertaken and the results;
- g. A summary of site-visits by inspectors with results and follow-up actions (copies to be submitted to the NIRB)
- h. The number of take-offs & landings from an airstrip with approved flight path with date and location;
- i. The number of helicopter touch-downs on the land with date and location (provide unless confidential);
- j. Site photos;
- k. Revisions to the Abandonment and Restoration Plan;
- l. Progressive reclamation work undertaken;
- m. A summary of how the proponent has complied with all project terms and conditions and how the terms and conditions are achieving their purpose; and
- n. Amount of waste removed from the site and location of disposal site.

Drill Sites

- 9. The Proponent shall follow all conditions outlined in the Nunavut Water Board water license regarding drilling operations.
- 10. The Proponent shall ensure that if “on-ice drilling”, the return water released must be non-toxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
- 11. The Proponent 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 re-vegetation upon abandonment.
- 12. The Proponent shall inspect each drill sites for contamination before moving to the next drill site and immediately clean up any contamination.

Water

- 13. The Proponent shall follow all conditions set out under the Nunavut Water Board water license, pertaining to the use of water associated with the project activities.

Fuel and Chemical Storage

- 14. All fuel shall be stored in double-walled tanks and/ or in accordance with Regulations made under the Canadian Environmental Protection Act.
- 15. The Proponent shall examine all fuel and chemical storage containers immediately upon delivery and daily for leaks. All leaks should be repaired immediately.

16. The Proponent shall ensure that all on site personnel are properly trained in fuel and hazardous waste handling procedures as well as spill response procedures.
17. The Proponent shall maintain a supply of spill kits, shovels, barrels, sorbents, and pumps on-site at the camp, the main fuel cache, the drill sites, and at the camp.
18. Chemicals containing salts, which may attract wildlife to the site, must be stored so that they are inaccessible to wildlife.
19. The Proponent shall ensure the *Spill Contingency Plan – Exploration Operations: Izok, Hood and Gondor Projects* is approved by the Nunavut Water Board within thirty days of the issuance of the NWB License. The Proponent shall include in its Spill Contingency Plan updated information regarding the requirement to register hazardous waste into a waste manifest.
20. The Proponent shall otherwise follow all fuel storage and spill protection measures and commitments as outlined in its *Spill Contingency Plan – Exploration Operations: Izok, Hood and Gondor Projects*.

Wildlife

21. The Proponent shall ensure that all field personnel are made aware of the measures outlined in Wolfden's Wildlife Management Plan, and are provided with training and/or advice on how to implement these measures.
22. The Proponent shall ensure that there is minimal disturbance to any nesting birds and wildlife in the area. Harassment of wildlife is prohibited. This includes persistently worrying or chasing animals, or disturbing large groups of animals.
23. Should caribou or their calves be present within the vicinity of the Ham camp or any of the drilling sites, the Proponent shall cease all drilling activities, movement of equipment, movement of vehicles, and any other activities which may disturb the animals.
24. The Proponent shall not feed wildlife.
25. The Proponent shall not conduct any activity associated with the land use operation if critical periods of wildlife cycles are observed (e.g. caribou migration, calving, fish spawning or raptor nesting).
26. That the Proponent shall ensure that there is no hunting by employees of the company or any contractors hired unless proper Nunavut authorizations have been obtained.
27. The Proponent shall contact in advance, the Regional Biologist to identify areas which should be avoided.

Birds

28. Pursuant to the Migratory Bird Convention Act Regulations the Proponent shall not disturb or destroy the nests or eggs of migratory birds. The period from May 15 to July 31 is the general migratory bird breeding season, it is recommended that activities be conducted outside of these dates, particularly in the vicinity of known migratory bird colonies.

29. The Proponent shall confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity before activities commence. If active nests of migratory birds are encountered, the Proponent shall avoid these areas until nesting is complete and the young have left the nest.
30. The period from mid June to mid August is the general molting period when geese are temporarily flightless while they lose their flight feathers and grow new ones. During this time they are particularly sensitive to disturbance. All molting flocks shall be avoided.
31. The Proponent shall ensure compliance with Section 35 the *Migratory Birds Convention Act* and *Migratory Birds Regulations* which states that no person shall deposit or permit to be deposited, oil, oil wastes, or any other substance harmful to migratory birds in any waters or any areas frequented by migratory birds. The Proponent shall ensure compliance the *Migratory Birds Convention Act* and *Migratory Birds Regulations* during all phases and in all undertakings related to the project.

Bears

32. The Proponent shall follow procedures outlined in the "Safety in Bear Country Manual", and should contact the Regional Biologist or the Wildlife manager for information and advice on measures which should be taken to minimize the possibility of conflicts/interactions with bears.

Caribou

33. The Proponent shall not locate any operation so as to block or cause substantial diversion to migration of caribou.
34. From **May 15 to July 15**, the Proponent shall cease activities that interfere with caribou migration or calving, such as the movement of equipment, drilling activities and ATV or snowmobile use until the caribou and their calves have vacated the area.
35. From **May 15 to July 15**, the Proponent shall not conduct flights below 610m a if caribou are present in the area.

Fish

36. The Proponent 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.
37. The Proponent shall ensure that there is no fishing by employees of the company or any contractors hired unless proper permits are obtained.

Waste Disposal

38. The Proponent shall follow all requirements set out under the Nunavut Water Board water license, pertaining to the deposition of waste associated with the project activities, as well as with any waste regulations applicable within the Nunavut Territory.
39. The Proponent shall not incinerate PVC-type plastic. PVC-type plastic must be removed off-site and disposed of in an approved landfill.

40. The Proponent shall keep all ash in a covered metal container until it is disposed of at an approved facility off site.

Physical Environmental

41. The Proponent shall ensure that the land use area is kept clean at all times.
42. The Proponent 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. The Proponent shall suspend overland travel of equipment or vehicles if rutting occurs.

Archaeological and Palaeontological

43. The Proponent will avoid all known archaeological sites attached in Appendix One, unless the appropriate permits are obtained. Furthermore, the Proponent shall abide by all terms and conditions regarding the protection of archaeological and palaeontological sites in Nunavut in Appendix Two.

Reclamation

44. The Proponent shall ensure that any soil contaminated with hydrocarbons over 2500 parts per million must be taken off-site and appropriately remediated, prior to disposal within a landfill.

Other

45. Installation of an incineration device capable of meeting the emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions is required. The proponent must install an incinerator which meets the above-Standards.
46. The Permittee must consider the establishment of electric fencing around the non-permanent weatherhaven structures (particularly sleeping quarters).
47. The Proponent is encouraged to consult the 2003 CCME Guidance document PN 1326 “Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products” and ensure that the tank farm is designed and operated in accordance with it.
48. NIRB would like to encourage the proponent to hire local people and services, to the greatest extent possible.
49. Any activity outside the original scope of the project application as described will be considered a new project and will need to be submitted to NIRB for screening.

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 September 18, 2006 at Cambridge Bay, NU

A handwritten signature in black ink, appearing to read 'E. Copland', is positioned above a horizontal line.

Elizabeth Copland, A/Chairperson

APPENDIX ONE (Confidential)

APPENDIX TWO



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 Act¹, 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*², 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.

¹

s. 51(1)

²

P.C. 2001-1111 14 June, 2001

“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) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 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.

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
- c) 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.