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ENVIRONMENTAL IMPACT SCREENING COMMITTEE
FACSIMILE TRANSMISSION COVER SHEET

DATE OF TRANSMISSION: October 17, 2006

MESSAGE TO:

Ben Seligman	Karen Heikkila
Gordon Wray	Peter Lennie-Misgeld
Richard Gordon	Mike Fournier
Tom Andrew	Shannon Pagotto
Bharat Dixit	Conrad Baetz
Greg Brady	Marjorie Fraser
Susan Fleck	Tara Schweitzer
Ed McLean	Judith Venaas
Todd Romaine	Mike Fournier
Ken Chamberlain	

COMPANY: Various

FAX NUMBER: Various

NUMBER OF PAGES: Twenty-Seven

OPERATOR: Bernice Joe

MESSAGE FROM: Larry Peckford
eisc@jointsec.nt.ca



ORIGINAL: NOT TO BE MAILED ☺

MESSAGE: Proposed Niglitgak Natural Gas Field Development-
2006/2007 Winter Field Program

PLEASE CONTACT THE JOINT SECRETARIAT IF THE TRANSMISSION IS NOT COMPLETE

The Joint Secretariat – Inuvialuit Renewable Resources Committees

P.O. Box 2120 Inuvik NWT X0E 0T0 Canada
 Teleconference: (867)-777-2828 Fax: (867)-777-2610
 General Email Address: admins@jointsec.nt.ca

**ENVIRONMENTAL IMPACT SCREENING COMMITTEE**

October 13, 2006

Submission Number: [09/06-03]

Ben Seligman
Project Integration Coordinator
Shell Canada Ltd.
400-4th Avenue S.W.
P.O. Box 100, Station M
Calgary, AB T2P 2H5

Dear Mr. Seligman:

RE: Proposed Niglintgak Natural Gas Field Development – 2006/2007 Winter Field Program

During a meeting held October 11 – 13, 2006 the Environmental Impact Screening Committee (EISC) screened the above-noted project description. Based on the information provided, the EISC decided that the development, if authorized subject to environmental terms and conditions recommended by the Screening Committee, will have no significant negative impact on the environment or Inuvialuit wildlife harvesting in the Inuvialuit Settlement Region [IFA Section 11.(17)(b)]. A copy of the decision has been attached.

Subject to a final decision by the licensing or permitting authority, the issuance of appropriate permits and approvals may proceed.

In rendering its decision, the EISC made the following recommendations:

- The proponent has committed to ensuring that test pit sediment will not exceed CCME criteria and that disposal will be subject to DFO approval. The EISC recommends that alternate disposal of excavated material be considered such as dispersal on land, possibly at the Niglintgak stockpile site, rather than on channel ice, to prevent the deposition of any potentially deleterious substances in fish-bearing waters.
- The proponent should develop plans for the removal of the trial foundation and associated monitoring equipment located in the test pit. Since the test pit area has been demonstrated to be fish habitat, this would preclude any potential degradation of such habitat

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- The proponent has committed to conducting bear den surveys in conjunction with ENR. The EISC supports this and recommends that the survey be broadened to include identification of possible polar bear maternal den site areas. The EISC sees this as a means of reducing the potential negative impact on bears in the region.
- A portion of the project is proposed to take place in Beluga Management Plan Zone 1(a). The EISC recommends that no activity take place in zone 1 (a) in accordance with Beluga Management Plan, prior to the Marine Protected Area regulations having been promulgated and the MPA management plan put in place, to ensure the protection of beluga habitat.
- The EISC recommends that any above-ground thermistor cables be covered. This would prevent a repeat of a recent incident where reindeer bulls became entangled in above-ground cables and died or had to be destroyed.
- The proponent indicates the presence of two rare plants in the Niglintgak production area. The EISC recommends that the proponent mark the locations of the rare plant areas and avoid those areas. This would ensure that such rare plants and their habitat are not further endangered.
- Consideration should be given to the removal of old pilings rather than cutting them off below grade as suggested, to prevent any future potential danger to boats and vessels operating in the area.

The EISC would appreciate receiving a copy of any follow-up reports that may be produced as a result of this development.

Sincerely,



Larry Peckford
Secretary

Encl. (1) EISC Decision
Encl. (2) Environment Canada Letter
Encl. (3) Environment and Natural Resources Letter
Encl. (4) Tuktoyaktuk Hunters and Trappers Letter
Enc. (5) Department of Fisheries and Oceans Letter



ENVIRONMENTAL IMPACT SCREENING COMMITTEE

NAME OF PROPONENT: SHELL CANADA LIMITED


PROJECT DESCRIPTION: NIGLINTGAR NATURAL GAS FIELD DEVELOPMENT 09/06-03

DECISION OF THE SCREENING PANEL (circled):

1. The development will have no such significant impact and may proceed without environmental impact assessment and review under the Inuvialuit Final Agreement. [IFA s. 11. (17) (a)]
2. The development if authorized subject to environmental terms and conditions recommended by the screening committee, will have no such significant negative impact and proceed without environmental assessment and review under the Inuvialuit Final Agreement. [IFA s. 11. (17) (b)]
3. The development could have significant negative environmental impact and is subject to assessment and review under the Inuvialuit Final Agreement. [IFA s. 11. (17) (c)]
4. The development proposal has deficiencies of a nature that warrant a termination of its consideration and the submission of another project description. [IFA s. (17) (d)]


Signed on the 13TH day of OCT 2006

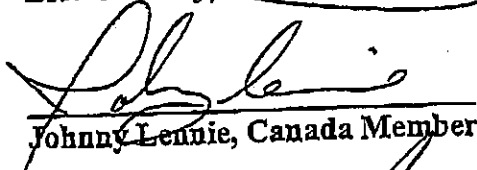

William Klassen, Chair

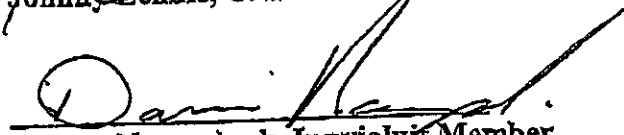

Albert Ruben, GNWT Member

Ron Gruben, Inuvialuit Member

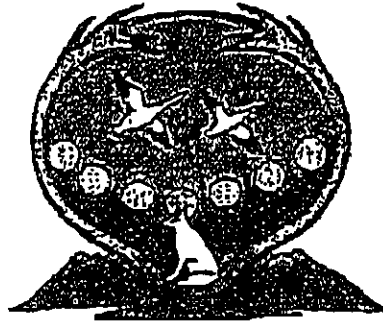
YTG Member


Eric Cockney, Inuvialuit Member


Johnny Lennie, Canada Member


Darren Nasogaluak, Inuvialuit Member

Tuktoyaktuk Hunters & Trappers Committee



P.O. Box 286, Tuktoyaktuk, N.W.T. X0E 1C0 • Phone (403) 977-2457

October 11, 2006

Environmental Impact Screening Committee
C/O Joint Secretariat
P.O. Box 2120
Inuvik, NT X0E 0T0

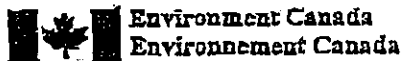
Re: Niglintyak Natural Gas Field Development 2006/2007 Winter Field Program

Earlier this year, the Tuktoyaktuk Hunters & Trappers Committee met with Shell to discuss the above referenced winter field program.

The Tuktoyaktuk Hunters & Trappers Committee expressed no significant concerns. However, the Tuktoyaktuk Hunters & Trappers Committee recommends that Shell have a wildlife monitor on site from the beginning to the end of the proposed winter field program.

Sincerely,

Lila Voudrach, Resource Person
Tuktoyaktuk Hunters & Trappers Committee



Environmental Protection Operations Directorate
Suite 301, 5204 - 50th Avenue
Yellowknife, NT X1A 1E2
tel: (867) 669-4700

October 10, 2006

Our File: 4709 001 012

Environmental Impact Screening Committee
The Joint Secretariat
Inuvialuit Renewable Resource Committees
P.O. Box 2120
Inuvik, NT
X0E 0T0

Attention: Larry Peckford

Re: 09-06-03 Proposed Niglingak Natural Gas Field Development 2006/2007 Winter Field Program

On behalf of Environment Canada, I have reviewed the information submitted with the above application, received September 18, 2006. The following advice is provided pursuant to Section 12(2) of the *Canadian Environmental Assessment Act*.

Environment Canada's (EC) contribution to your request for specialist advice is based primarily on the mandated responsibilities for the enforcement of Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act (CEPA)*, the *Migratory Birds Convention Act (MBCA)*, and the *Species at Risk Act (SARA)*.

It is the understanding of Environment Canada that Shell Canada Limited is proposing a winter development program for Niglingak Natural Gas Field that consists of the following components:

- Geotechnical survey at the Gas Conditioning Facility (GCF) Set-down, the Horizontal Directional Drilling (HDD) crossing and the Alternate Flowline Right of Way.
- Sediment Sampling at GCF Set-down Site and Approach
- Sediment Sampling at GCF Set-down Test Pit
- GCF installation simulation and permafrost degradation testing
- GCF Installation test pit material disposal
- Benchmark installation adjacent to the GCF set-down site
- Ground Penetrating radar bathymetry survey at Niglingak Island Stockpile approach
- Spring break-up peak water level monitoring at the GCF Set-down
- Sediment Coring and sampling at Kittigazuit S-Bends
- Camp Farewell site maintenance, and
- Ballast water freezing simulation at a private facility in Tuktoyaktuk.

In conducting the geotechnical survey proposed, up to 29 holes will be drilled, using an auger drill rig, an air rotary rig or a combination air/mud rotary rig. Neither the auger drill rig nor the air rotary drill rig requires the use of drilling fluids. The footprint of each borehole will be approximately 10 m by 10m. Thermistors will be installed in up to 10 holes to collect ground temperature data. The sediment sampling at the GCF set-down site and approach will consist of the collection and analysis of seven boreholes. Handling protocols for sampling will be specific to

the analytic parameters analyzed. Sediment sampling of the test pit site will consist of the collection of six surface and six deep (2 m) samples. Samples will be analyzed for particle size, moisture content, total organic content, major and trace metals, total petroleum hydrocarbons, total volatile hydrocarbons, extractable hydrocarbons, polycyclic aromatic hydrocarbons (PAH), alkylated PAHs, and acid-volatile sulphides/simultaneously extracted metals. Testing of the GCF installation simulation and permafrost degradations will be conducted by excavating a test pit (below the high water mark) and will be used to test the insulated foundation designed to protect permafrost. The test pit will be excavated using an IronWolf Crusher, which will be transported from Inuvik via ice road. The footprint will be approximately 16m by 10m and 2 m deep; approximately 512 m³ of material will be removed. The footprint is located within the overall construction footprint that has been calculated for Niglintgak Natural Gas Field Development. Once the pit is excavated, an insulated foundation measuring 6m by 10m with temperature-monitoring equipment will be installed. Temperatures beneath the foundation will be monitored in spring and summer 2007. Three to four sediment plates will also be installed prior to spring break-up and recovered after spring flooding. At completion of the monitoring, the test pit will be allowed to fill in naturally. Material from the test pit will be disposed of on the ice in Kumak Channel. The material will be placed on over the thalweg, north of Niglintgak Island stockpile site. Observations will be made on how the ice melts and where the material is deposited. Benchmark installation is proposed southeast of GCF. The benchmark will provide a vertical datum control point as well as a vertical control for measuring extraction induced field subsidence. Ground penetrating radar ice profiling will be used to collect bathymetric information at the Niglintgak Island stockpile approach. Flood depths in the area of the proposed GCF set-down site will be monitored to capture spring break-up peak water levels. Sediment sampling of the Kittigazuit S-Bend area will consist of collecting 10 to 15 samples, from at least two depth horizons. An additional 10 to 15 samples will be taken in the areas proposed for disposal of the dredged material. General location of sampling sites has yet to be determined. Cores and samples will be analyzed for metals and metalloids, polycyclic aromatic hydrocarbons, acid-volatile sulphides/simultaneously extracted metals, grain size and organic carbon content. Maintenance work at Camp Farewell includes the removal of six mooring piles, installation of three new mooring piles, and the repair of the winter access road from the dock/ice road to the camp area.

An ice road will be constructed from Tununuk Point to the Niglintgak Field Development Area. The Kittigazuit area will be accessible from the Inuvik-Tuktoyaktuk public ice road. Approximately 3 km of winter access roads may be required at Niglintgak to access drilling locations; 1.8 km overland and 1.3 km over water. All waste from Niglintgak will be transported to Camp Farewell, where solid wastes will either be incinerated or stored and transported to the Inuvik landfill. Sewage and grey water will be transported to Inuvik's sewage treatment center. All wastes generated during the Kittigazuit S-Bends sediment sampling will be transported to Tuktoyaktuk for disposal.

Concerns and Recommendations:

1. In a discussion with the Proponent on October 5, 2006, Environment Canada indicated that it is the Proponent's responsibility to ensure that dredge areas and disposal sites are adequately characterized. EC recommends that the Proponent's sediment sampling program for the Kittigazuit S-Bends dredge areas and disposal sites be expanded to a minimum of 30 samples: 15 at surface, 15 at depth. In order to designate a new disposal area the following information will be required:
 - a. Coordinates of disposal area

- b. Bathymetry
- c. Currents
- d. Sediment Chemistry
- e. Description of the benthic community
- f. Description - i.e. other users, ice action, activity of surrounding area, etc
- g. Quantity of material to be disposed of at site.

It should be noted that the analytical methodology and quality assurance protocol for polynuclear aromatic hydrocarbons (PAH), and Dioxins/ Furans must conform to that outlined in the "Interim Quality Assurance Guidelines for Determination of Polynuclear Aromatic Hydrocarbons in Marine Sediments for Ocean Disposal" and the "Internal Quality Assurance Requirements for Analysis of Dioxins in Environmental Samples", respectively. Both of these documents are available from Environment Canada. For more information please see http://www.pvr.ec.gc.ca/disposal_at_sea/table1_e.htm

2. The Proponent has indicated that solid wastes from Niglingak and Camp Farewell that are not incinerated are to be transported and disposed of in Inuvik's landfill. Further, all grey water and sewage are to be disposed of in Inuvik's sewage lagoon. Wastes generated during the Kitigazuit S-Bends sampling program are to be disposed of in Tuktoyaktuk. Environment Canada recommends that the Proponent look into alternate disposal options. Many small northern communities such as Inuvik and Tuktoyaktuk do not have the capacity to handle industrial waste streams. As projects such as the Mackenzie Gas Project progress, northern communities may not be able to treat the volumes of industrial waste anticipated. Proponents are encouraged to commence utilizing alternate disposal options.
3. Meeting the requirements of the *Fisheries Act* is mandatory, irrespective of any other regulatory or permitting system. Section 36(3) of the *Fisheries Act* specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. The legal definition of deleterious substance provided in subsection 34(1) of the *Fisheries Act*, in conjunction with court rulings, provides a very broad interpretation of deleterious and includes any substance with a potentially harmful chemical, physical or biological effect on fish or fish habitat.
4. A spill kit including shovels, barrels, sorbents, pumps, etc. shall be consistently maintained and readily available onsite, and at all refilling stations.
5. Fuel containers, including barrels, should be marked with the responsible party's name, product type, and year purchased or filled.
6. It is recommended that drip pans are utilized when refueling to capture any spilt fuel or lubricants.
7. Environment Canada recommends the use of secondary containment with an impervious liner, such as self-supporting insta-barns, for storage of all barreled fuel rather than relying on natural depressions to contain spills.
8. A copy of the spill contingency plan should be posted at each fuel cache and refuelling station.

9. The proponent shall ensure that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.
10. The exact locations of all fuel caches should be reported to regulatory authorities, including Environment Canada, as soon as they are determined.
11. The Proponent is encouraged to make use of recycling facilities for all recyclable materials.
12. Drilling additives or muds shall not be used in connection with holes drilled through ice unless they are re-circulated, contained such that they do not enter the water, or are demonstrated to be non-toxic.
13. The Migratory Bird Sanctuary Permit issued by Canadian Wildlife Service (EC) for project activities within the Kendall Island Bird Sanctuary may have more specific permit conditions than the mitigation measures provided here.
14. Environment Canada recommends that camp waste be made inaccessible to wildlife at all times. Camp waste can attract predators of migratory birds (e.g., foxes and ravens) to an area if not disposed of properly.
15. Section 35 of the Migratory Birds Regulations states that no person shall deposit or permit to be deposited, oil, oil wastes, or any other substance harmful to migratory birds in any water or any area frequented by migratory birds.
16. The following comments are pursuant to the Species at Risk Act (SARA), which came into full effect on June 1, 2004. Section 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, EC asks that species listed on other Schedules of SARA and under consideration for listing also be included in this type of assessment. This recommendation for best practice includes all species designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada).

In the Project Description, the Proponent has identified several bird species, several fish species, wolverines, and grizzly bear as being considered at risk by COSEWIC and as occurring in the project area (although EC notes that the bird species would not occur in the project area in winter). The Proponent incorrectly describes the information on polar bears as insufficient to make an accurate determination (Project Description, Section 11.5.1, page 52). Note that the polar bear was assessed as a species of Special Concern by COSEWIC in 2002. In light of new information on polar bear populations, the status of the species is currently being reassessed. Upon completion of this assessment and after consultations with the relevant communities and wildlife management boards, polar bear may be added to Schedule I of SARA.

Impacts on Species at Risk from the Project could include disturbance and attraction to operations.

EC recommends:

- The primary mitigation measure for Species at Risk should be avoidance. The proponent should avoid contact with or disturbance to each species.

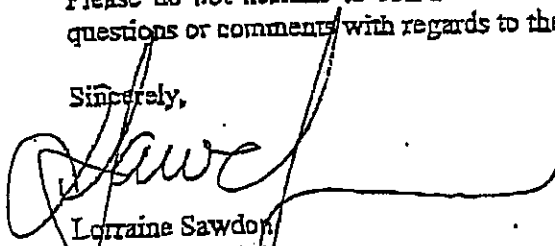
- The proponent has identified some mitigation measures to reduce adverse effects of the project on wildlife species (Project Description, Table 12-1, page 57-58) and states that it is working with the Environment and Natural Resources division of the Government of the Northwest Territories (GNWT) to collect information on grizzly bear sites. The proponent should continue to consult with GNWT and appropriate status reports, recovery strategies, action plans, and management plans to identify other appropriate mitigation measures to minimize effects to grizzly bears, polar bears, and wolverines from the project.
- The proponent has not identified whether any monitoring will occur for Species at Risk. The proponent should record the locations and frequency of any observations of Species at Risk and note any actions taken to avoid contact or disturbance to the species.

19. Please note that any spill of fuel or hazardous materials, adjacent to or into a water body, regardless of quantity, shall be reported immediately to the NWT 24-hour Spill Line, (867) 920-8130.

20. Environment Canada should be notified of changes in the proposed or permitted activities associated with this land use permit application.

Please do not hesitate to contact me at (867) 669-4782 or lorraine.sawdon@ec.gc.ca with any questions or comments with regards to the foregoing.

Sincerely,



Lorraine Sawdon
 Environmental Assessment
 Environmental Protection Operations Directorate

- cc: Stephen Harbicht (Head, Assessment & Monitoring, EPOD)
 Mike Fournier (Northern Environmental Assessment Coordinator, EPOD)
 Myra Robertson (Environmental Assessment Coordinator, CWS)
 Mark Dahl (Senior Contaminants Biologist, EPOD)



Northwest
Territories Environment and Natural Resources

October 11, 2006

Christine Inglangasuk
Secretary
Environmental Impact Screening Committee
PO BOX 2120
INUVIK, NT X0E 0T0

VIA FACSIMILE

Dear Ms. Inglangasuk

**SHELL CANADA LTD, 09/06-03.
Proposed Niglintak Natural Gas Field Development Winter Field Program**

The Department of Environment and Natural Resources (ENR) has reviewed the above program and would like to provide the following comments based on the mandated responsibilities under the Wildlife Act, the Forest Management Act (FMA) and The Environmental Protection Act (EPA).

On reviewing the application ENR believes that the proposed development has the potential to affect wildlife pursuant to the Wildlife Act. ENR is of the opinion that if the proponent follows the methods and mitigation identified in their application along with the recommendations provided herein, that this project is not likely to have significant impacts on the environment in respect to ENR mandates.

Project

We understand this program to include the following:

1. 8 components in the Niglintak area:
 - Geotechnical survey
 - Sediment sampling
 - Test pit
 - Test pit material disposal
 - Benchmark installation
 - GPR survey
 - Water level monitoring
2. S-Bend sediment sampling

3. Cape Farewell maintenance

From reading the project description this work will include:

- Drilling for installation of thermistors and boreholes using drilling rigs
- Use of D6cat to excavate pit which will refill naturally
- Dispose of excavated materials on ice
- Field work done by end of March except ongoing monitoring
- Based out of Camp Farewell or Tuktoyaktuk

Proposed Mitigations

Shell proposes the following mitigations to minimize impacts to wildlife and wildlife habitat (ENR comments related to these measures are given in italics):

- Use of a wildlife monitors to ensure that wildlife concerns are addressed. *ENR supports the use of local assistance or Wildlife Monitors as they can minimize encounters with wildlife and provide valuable local area knowledge;*
- Helicopters will operate above 1500 ft between sites. Implementation of the Inuvialuit Game Council Flight Guidelines will help to mitigate impacts to species at risk and other wildlife species. *ENR supports the adherence to these guidelines as aircraft overflights by helicopter and fixed-wing aircraft can disturb wildlife increasing stress to the animals and potentially extending to effects on overall health and condition.*
- Storing kitchen waste in animal proof containers. *ENR encourages proponents to store any waste which may attract wildlife, including kitchen waste, in animal proof containers.*
- Minimum 0.15 m snow cover. *ENR supports the minimum snow cover to protect underlying vegetation.*

ENR staff suggests all personnel receive bear-safety training. This is both a worker safety and wildlife issue. If all field workers have bear safety training and learn how to react to bears, this will decrease the cases of bear attacks and the number of bears destroyed as nuisance wildlife.

Species at Risk

The federal Species at Risk Act requires that adverse effects on listed species must be identified, and regardless of significance, mitigated and monitored (s. 79). It is ENR's view that those species listed on Schedule 1, as well as those being considered for status under the Act be treated in a similar fashion consistent with the recommendations in "The Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada".¹

¹ <http://www.cws-scf.ec.gc.ca/publications/AbstractTemplate.cfm?lang=e&id=1059>

The following species are on or pending addition to Schedule 1 of SARA and have the potential to occur in the project area during the timing of operations:

- Grizzly bear
- Polar bear

Specific Recommendations:

ENR makes the following species specific recommendations that are necessary to reduce potential impacts, on species at risk in particular and wildlife in general, in the project area:

- Implementation of the Inuvialuit Game Council Flight Guidelines will help to mitigate impacts to species at risk and other wildlife species.

With respect to grizzly and polar bears:

- ENR has been in communication with the proponent on collaborating to conduct a denning survey to look for grizzly bears dens within the program area and agrees to keep a minimum of 300 m clear of any known dens. Grizzly bears have been documented in or near the program area.
- ENR assumes the proponent will provide all Wildlife Monitors with a copy of ENR's Bear Response Guidelines (attached)
- All personnel are asked to report bear sightings to their local Wildlife officer at the earliest opportunity. This will allow ENR a better understanding of the location and frequency at which bears investigate camps and other developments. It will also allow greater ability to relocate bears that frequent development before they become habituated and must be destroyed as nuisance wildlife.
- It is also worthy to note that any defence of life and property kills must be reported, without delay, to ENR. All reasonable efforts must be made to ensure the hide and other valuable parts do not spoil and that these are turned over to a Renewable Resource Officer. The proponent should also be aware that any kill due to the defence of life or property would reduce the number of animals that can be harvested by the community.

General Comments:

ENR provides the following general comments with respect to sufficiently minimizing potential impacts to wildlife, including species at risk:

- Harassing wildlife can lead to greater expenditures of energy on the part of the animal and a loss of fitness. This is especially important for mammals in the winter. The Division also considers the chasing or stalking of wildlife for photography to be harassment. No wildlife should be

disturbed, chased, or harassed by human beings on foot, in a motorized vehicle, or by aircraft.

- Although the concept of feeding small mammals and birds seems trivial it is in fact a large problem. The increase in local food supply will cause immigration to the area of other wildlife and may bring larger predators and scavengers in to the area. This may lead to nuisance wildlife that may be destroyed. The grouping together of large concentrations of animals also increases the potential for the spread of diseases. No wildlife should be purposefully encouraged to habituate to human presence (i.e. wildlife should not be fed).

Requests of the Proponent

Lastly, ENR makes the following request of Shell:

- To aid in the Department's tracking of potential impacts to wildlife and to monitor the responses of species at risk to development activities we request that Shell provide ENRs Inuvik Regional Biologists with records of any wildlife sightings made during the program including information on location (GPS, if possible), number and reaction of the wildlife to over-flights or other project activity (if applicable). This information would provide distribution information and be used to help plan future mitigation.

Environmental Protection

Fuel Storage, Transfer and Refueling

The Proponent has stated that the use, transfer, and storage of fuel are required in various locations and in support of various components of the Project. In addition to the Mitigative Measures proposed by the Proponent the following additional recommendations are made:

Specific Recommendations

ENR makes the following specific recommendations that are necessary to reduce potential impacts on the environment from spills and contaminants:

Fuel Caches:

- Fuel caches should be designed and located to allow and for safe storage and facilitate local containment and efficiency of clean-up in the event of a leak or spill. This should include but not be limited to:
 - the placement of caches and at a distance greater than 100 metres from any local high water mark
 - the placement of caches not be located in a drainage channel, and
 - at a location that avoids steep grades from waterbodies.

- The use of secondary containment with an impervious liner, such as self-supporting insta-berms, for storage of all barreled fuel rather than relying on natural depressions to contain spills.

Fuel Transfer/Refueling:

- In addition to the restriction of refueling activities, to the extent reasonably possible, to established refueling locations, that drip trays be used during all refueling activities and placed under parked or not in use field vehicles.
- That a Spill Contingency Plan that details procedures to be used in the event of spills or leaks of fuel or any other hazardous materials that may occur as result of the project be readily available to operators/contractors in the field, that operators/contractors should be pre-versed in those contingency procedures, and to ensure that appropriate equipment in support of those contingencies, including spill kits, are readily available to operators/contractors in the field.
- That Spill Contingency Plan includes provisions for the diligent, safe, and appropriate storage and disposal of materials used in and as a result of the clean-up of spills.

Waste Management

The Project Description states that all solid wastes will be collected and transported to Inuvik for disposal.

Specific Recommendations:

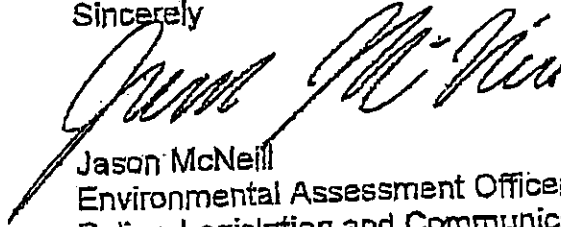
ENR makes the following specific recommendations that are necessary to reduce potential impacts on the environment:

In regards to the transport and disposal of wastes at Inuvik:

- a) It is requested that the proponent practice due diligence and include in its waste management plan the consideration and implementation of pollution prevention strategies such as purchasing policies and on-site diversion and segregation programs to reduce and control the volumes of wastes produced, transported, and disposed of.
- b) The Proponent is requested to supply:
 - Confirmation that the community referenced has authorization to accept proposed wastes types and quantities at community waste handling facilities,
 - Confirmation that the Proponent has received permission from the community referenced to transfer proposed waste types and quantities to community waste handling facilities, and
 - Alternate disposal options in the case that the referenced community's waste handling facility cannot accommodate the proposed and estimated waste types and quantities expected.

Should you have any questions regarding the above, please contact Jason McNeill, Environmental Assessment Officer at 920-8071.

Sincerely



Jason McNeill
Environmental Assessment Officer
Policy, Legislation and Communications
Environment and Natural Resources

C. Karin Clark
Environmental Assessment Specialist, Wildlife

Marsha Branigan
A/Manager, Wildlife Management
Inuvik Region
Todd Paget

Industrial Specialist (Oil and Gas),
Environmental Protection



Northwest
Territories Environment and Natural Resources

Food and Waste Management

Minimizing the Attraction of Carnivores to a Camp

1. ENR strongly encourages the use of a properly installed electric fence designed for deterring bears and other carnivores.
2. Burning garbage in pits or barrels and storing garbage for fly-out are the most common causes of wildlife conflicts, regardless of the size of the camp. ENR requires the use of an approved incinerator² for the incineration of combustible camp garbage and kitchen wastes and encourages daily incineration of wastes. The incinerator should be housed within the electric fence.
3. Burning of waste products releases numerous contaminants, many being persistent and toxic, that can result in serious impacts to human and wildlife health through direct inhalation and bioaccumulation through food chains. The proponent should ensure that the amount of waste burned is reduced as much as possible through implementation of pollution prevention strategies.³ The objective should be to ensure that only food waste and food-contaminated waste is burned (the use of paper, cardboard and clean wood as supplementary fuel is acceptable).
4. The residual ash from incineration may also contain toxic contaminants and should be assessed in accordance with the *NWT Environmental Guideline for Industrial Waste Discharges* to determine the appropriate disposal method.
5. Storing refuse in a manner likely to attract wildlife is a violation of the Wildlife Act. Garbage stored in plywood boxes or in sheds develops a strong odour, which lingers for days. This odour will attract wildlife to the site. If garbage is going to be stored on site, it must be in a sealed container, to prevent wildlife from being attracted to the odours. If the camp proposes to fly or drive their garbage out, an animal proof, sealed container must be used for storing garbage on site.

² For large, permanent camps and/or operational facilities (e.g. mines), 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 (both the Government of Canada and the Government of the Northwest Territories are signatories to these Standards). For small, temporary camps the use of a modified burn barrel (with grate, bottom draft, lid and chimney) may be acceptable. The proponent should review the incineration options available and provide justification for the selected device to the regulatory authority.

³ For example, purchasing policies that focus on reduced packaging. Other options include on-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).

6. Unless within an electrified bear fence, the kitchen should be at least 50 meters from all other structures and the doors to the other structures should face the kitchen. Wherever possible, the kitchen should be down-wind of the other structures, to prevent a bear from walking through the camp to approach the kitchen.
7. All food in the camp should be stored in the kitchen or in a building attached to the kitchen, to ensure that there is only one area where food odours occur
8. All grey water pits should be a minimum of 50 meters from the nearest water body and should have lime added to them every second day.
9. Food should not be left in camp kitchens when the camp will be vacant for more than two weeks. This includes canned-goods and dry-goods. Any food that is to be left in the camp should be stored in a sealed container resistant to wildlife, such as a sealable 45-gallon drum.
10. No wildlife should be purposefully encouraged to habituate to human presence (i.e. it should be a camp policy to not feed wildlife).
11. All field personnel should complete a bear-safety training course.
12. Any defence of life and property kills must be reported, without delay, to ENR. All reasonable efforts must be made to ensure the hide and other valuable parts do not spoil and that these are turned over to a Renewable Resource Officer.



Northwest Territories Environment and Natural Resources

Department of Environment and Natural Resources
Bag Service #1 Inuvik, NT X0E 0T0

Bear Encounter Response Guidelines Oil and Gas Programs

I. PRINCIPLES:

1. Protection of Life and Property
2. Conservation

II. OPERATIONAL GUIDELINES:

- A. Deterrence
- B. Re-locate, if feasible
- C. Destroy

III. OPERATIONAL PROCEDURES:

Contacts:

Initial contact:
 Tim Devine, Manager of Wildlife & Fisheries (867)-777-7230 (W),
 (867)-777-2077 (H)
 (867) 678-0101 (Cell)

Response Personnel:

The following personnel can be available for responding to problem bear situations:

Ryan Smith	Inuvik	777-7308	
		777-1185 (Cell)	777-7236 (Fax)
	Inuvik	777-7201	
Eli Nasogaluak	Inuvik	777-7247	
Paul Voudrach	Tuktoyaktuk	977-2350	977-2335 (Fax)
Ian McLeod	Aklavik	978-2248	978-2756 (Fax)

Initial Contact:

1. The complainant should complete the attached checklist prior to calling DENR. It is critical that as much information as possible be provided at this point in order to determine the appropriate response.

IV. RESPONSE

Wildlife Monitors will be the initial responders to problem bears. It is imperative that they have a sufficient supply of approved deterrents at their disposal. All bear sightings and encounters shall be reported to the ENR office closest to the area of operation.

The potential responses will be considered in the following order:

a) Camps

1) Wildlife Monitors will employ conventional means of deterring problem bears which threaten public safety or property. This may involve chasing a bear out of the camp with a vehicle or snowmobile, or using noise makers and rubber bullets. If these methods prove ineffective, and where a helicopter is available or can be obtained in the area, the bear may be chased from camp. Pilots must be careful not to over stress the bear during this flight and must back off when the bear is a sufficient distance from the camp and keeps running in the desired location. If circumstances allow, a Renewable Resource Officer (RRO) should be contacted prior to using aircraft to deter bears. Undue harassment is illegal and must be avoided. All incidents involving any means of deterrence should be reported to a Renewable Resource Officer as soon as possible.

2) Should for some reason, the Wildlife Monitor be unable to deter a bear, and where the bear does not pose an immediate threat to public safety or property, the Department of Environment and Natural Resources (DENR) may send a deterrent or capture team to the site.

b) Denning bears

If a bear is located in, at or near a den site, work in the area must halt. All employees should safely retreat from the area and report the occurrence to the Site Supervisor, Wildlife Monitor, and the Renewable Resource Officer in your area as soon as possible. Staff from DENR will be required to assess the site and may implement measures to ensure bears are not unduly disturbed. This may include the establishment of an exclusion zone of 300 meters around the den in which no work will be permitted. Work inside the exclusion zone will remain stalled until after den emergence.

c) Free ranging bears

Prior to active deterrence of free ranging bears, and where public safety or property is not in immediate danger, the Wildlife monitor will assess the situation. The monitor should determine if the bear has been disturbed from a den or if it is denning in close proximity. Bears in the vicinity of a den should not be deterred and work should cease until DENR has assessed the site. If the Wildlife Monitor has determined that the bear is in fact free ranging, and not lingering around a den site, then active deterrence may commence.

d) Destruction of the bear

Instructions to destroy the bear will be given when deterrent actions have failed, when additional deterrent actions are not possible, and when it is determined that capture and relocation cannot be conducted or is unlikely to be successful.

The bear can be destroyed if human life or property is in immanent danger.

If a bear is killed, you will be required to:

- 1) Report the kill to DENR, as soon as possible.
- 2) Skin the bear, leaving the claws and penis (if applicable) attached, and preserve the hide by freezing or salting it and storing it in a cool place. Be generous with the salt.
- 3) Turn in the hide, the skull, and any other biological samples requested to a DENR Renewable Resource Officer.

As per the NWT Wildlife Act, no person may retain any part of a bear killed in defence of life or property.

V. FOLLOW-UP

After response measures are completed, the situation will be reviewed with the camp operator and corrective actions identified. These may include a wide array of actions aimed at avoiding future bear problems and ensuring that the operator is made aware of legal obligations. The need for conservation and the vulnerability of bear populations to over harvest is to be stressed.



Fisheries Pêches
and Oceans et Océans

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

Your file *Votre référence*

Our file *Notre référence*
SC03034

October 17, 2006

Larry Peckford
Environmental Impact Review Board
Box 2120
Inuvik NT X0E 0T0

Dear Mr. Peckford:

Niglintgak Natural Gas Field Development 2006-2007 Winter Field Program

The Department of Fisheries and Oceans (DFO) has reviewed the Niglintgak Natural Gas Field Development, 2006/2007 Winter Field Program and provides the following comments to the Environmental Impact Screening Committee.

DFO's review has concluded that impacts to fish and fish habitat associated with test pit construction and disposal of sediment on ice over Kumak Channel would likely be minimal.

Our conclusion is based on the fact that 1) works will be carried out in the winter and avoid many in-water disturbances, and 2) the natural disturbance from spring freshet (water and ice scour) likely masks the small project contributions. However, our conclusion is contingent upon the lab analysis of the test pit sediment not exceeding CCME criteria.

DFO finds that the proposed works are likely to have low negative effects and that the local sensitivity of fish and fish habitat during the time of disposal is low. As a result, DFO considers this proposal to be a low risk to fish and fish habitat.

We have provided a list of comments/questions for the EISC's consideration in their review of the proposal:

Test Pit - Location

To minimize disruption to the shoreline of Kumak Channel, the location of the test pit should be located within the footprint of the proposed gas conditioning facility (GCF) set down.

Should the test pit remain in its proposed location, the proponent has indicated that upon completion of the monitoring the test pit will remain in place and allowed to fill in naturally as a result of flooding. Plans for the removal of the trial foundation and associated monitoring equipment located within the test pit should be included in the project description.

Disposal – Location

Alternative disposal locations should be considered in the project description.

Should the lab analysis of the test pit sediment exceed acceptable criteria of the CCME (1999), an alternative disposal method should be considered.

Sediment Sampling (all locations)

A detailed list of all analytical sampling parameters/tests should be provided.

Camp Farewell -Removal of existing mooring piles

The method(s) for the removal of the existing mooring piles that are located below the high water mark should be provided. Rationale as to why the piles are not entirely removed should be provided.

If you have any questions regarding the above please do not hesitate to contact Briar Young at (867) 669-4928 or myself at (867) 669-4912.

Yours truly,



Marc Lange
Manager Mackenzie Gas Project
Fisheries & Oceans Canada



Briar Young
Senior Environmental Assessment Officer
Fisheries & Oceans Canada

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