

PRELIMINARY SCREENING REPORT FORM

PRELIMINARY SCREENER: GLWB REFERENCE / FILE NUMBER: G03S003 TITLE: Imperial Oil Resource Ventures Geotechnical Field Program ORGANIZATION: Gwich'in Land and Water Board Date: February 11, 2003	EIRB REFERENCE NUMBER:
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- Type of Development:**
(CHECK ALL THAT APPLY)
- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | New Development |
| <input type="checkbox"/> | Amend, EIRB Ref. # |
| <input type="checkbox"/> | Renew, EIRB Ref.# |
| <input checked="" type="checkbox"/> | Requires permit, license or authorization |
| <input type="checkbox"/> | Does not require permit, license or authorization |

Principal Activities (related to scoping)
(CHECK ALL THAT APPLY)

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Construction
<input checked="" type="checkbox"/> Installation
<input checked="" type="checkbox"/> Maintenance
<input type="checkbox"/> Expansion
<input checked="" type="checkbox"/> Operation
<input type="checkbox"/> Repair
<input type="checkbox"/> Research
<input checked="" type="checkbox"/> Water Intake
<input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Exploration
<input checked="" type="checkbox"/> Industrial
<input type="checkbox"/> Recreation
<input type="checkbox"/> Municipal
<input checked="" type="checkbox"/> Quarry
<input checked="" type="checkbox"/> Linear / Corridor

<input checked="" type="checkbox"/> Sewage | <input checked="" type="checkbox"/> Decommissioning
<input type="checkbox"/> Abandonment
<input type="checkbox"/> Aerial
<input type="checkbox"/> Harvesting
<input checked="" type="checkbox"/> Camp
<input type="checkbox"/> Scientific/

<input checked="" type="checkbox"/> Solid Waste |
|---|---|--|

Principal Development Components (related to scoping)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Access Road
<input checked="" type="checkbox"/> construction
<input type="checkbox"/> abandonment/removal
<input checked="" type="checkbox"/> modification e.g., widening, straightening
<input checked="" type="checkbox"/> Automobile, Aircraft or Vessel Movement
<input type="checkbox"/> Blasting
<input type="checkbox"/> Building

<input checked="" type="checkbox"/> Burying
<input type="checkbox"/> Channeling
<input type="checkbox"/> Cut and Fill
<input checked="" type="checkbox"/> Cutting of Trees or Removal of Vegetation
<input type="checkbox"/> Dams and Impoundments <ul style="list-style-type: none"> <input type="checkbox"/> construction <input type="checkbox"/> abandonment/removal <input type="checkbox"/> modification <input type="checkbox"/> Ditch Construction
<input type="checkbox"/> Drainage Alteration
<input checked="" type="checkbox"/> Drilling other than Geoscientific
<input type="checkbox"/> Ecological Surveys
<input checked="" type="checkbox"/> Excavation
<input type="checkbox"/> Explosive Storage
<input checked="" type="checkbox"/> Fuel Storage
<input checked="" type="checkbox"/> Topsoil, Overburden or Soil <ul style="list-style-type: none"> <input type="checkbox"/> fill <input checked="" type="checkbox"/> removal <input checked="" type="checkbox"/> disposal <input checked="" type="checkbox"/> storage | <input checked="" type="checkbox"/> Waste Management
<input type="checkbox"/> disposal of hazardous waste
<input checked="" type="checkbox"/> waste generation
<input checked="" type="checkbox"/> Sewage
<input checked="" type="checkbox"/> disposal of sewage
<input type="checkbox"/> Geoscientific Sampling <ul style="list-style-type: none"> <input type="checkbox"/> trenching <input checked="" type="checkbox"/> Burning <ul style="list-style-type: none"> <input type="checkbox"/> diamond drill <input type="checkbox"/> borehole core sampling <input type="checkbox"/> bulk soil sampling <input checked="" type="checkbox"/> Gravel
<input type="checkbox"/> Hydrological Testing
<input checked="" type="checkbox"/> Site Restoration <ul style="list-style-type: none"> <input type="checkbox"/> fertilization <input type="checkbox"/> grubbing <input checked="" type="checkbox"/> planting/seeding <input type="checkbox"/> reforestation <input type="checkbox"/> scarify <input type="checkbox"/> spraying <input checked="" type="checkbox"/> recontouring <input checked="" type="checkbox"/> Slashing and removal of vegetation
<input type="checkbox"/> Soil Testing
<input checked="" type="checkbox"/> Stream Crossing/Bridging
<input type="checkbox"/> Tunneling/Underground
<input type="checkbox"/> Other (describe): water intake |
|--|---|

NTS Topographic Map Sheet Numbers
(LIST ALL THAT APPLY)

107 B/7 * 107 B/1 * 106 N/16* 106 O/13*106 O/14* 106 O/12* 106 O/11* 106 O/10* 106 O/8 * 106 O/7

Latitude / Longitude and UTM System:

Drilling Footprint: Minimum Latitude: 68° 25' 0" N,
Minimum Longitude: 133° 15' 0" W

Maximum Latitude: 67° 20' 0" N,
Maximum Longitude: 130° 15' 0" W

Nearest Community and Water Body:

Tsiigehtchic, Inuvik, NT.
Mackenzie River, Trivialant Lake, Campbell Creek, Sandy, Wood Bridge, Fish Trap, Hill Lakes

Land Status (consultation information)

Free Hold / Private Commissioners Land Federal Crown Land Municipal Land

Transboundary Implications

British Columbia Alberta Saskatchewan Manitoba Yukon
 Nunavut Wood Buffalo National Park Inuvialuit Settlement Region

Type of Transboundary Implication: Impact / Effect Development Observer

Public Concern _____

- Nihtat Renewable Resource Council
- Gwich'in Tribal Council

PHYSICAL - CHEMICAL EFFECTS
IMPACT

MITIGATION

1. Ground Water

- water table alteration
 water quality changes

- Organic top soil layer will be stripped and stored for later use.
- All stationary fuel containers or group of fuel containers exceeding 4000 L will be required to have a lined dyke constructed. Dip trays and Sufficient spill clean up equipment is required
- A fuel contingency plan is in place.
- Camp sumps and or pits would be designed and constructed to the satisfaction of the RMO.

- infiltration changes
 other
 N/A

IMPACT

2. Surface Water

flow or level changes

Water quality changes

Water quantity changes

Drainage pattern changes

temperature

wetland changes / loss

other:

N/A

IMPACT

MITIGATION

- Water withdrawals will not result in any effects on fish habitat as proponent will follow DFO protocol.
- Where flowing water from boreholes is encountered, the borehole shall be permanently plugged.
- All snow fills in stream crossings will be removed by V-notching.

- Sumps to located in will follow the General Sanitation Regulations of the NWT
- Sumps will be well clear of rivers and lakes (100 m minimum).
- Snow or ice bridges to be constructed to cross drainages and water bodies and would use only clean snow or ice.
- Access roads paralleling lakes or streams will be more than 30 m from the water bodies to prevent deleterious materials from entering the water and minimize effects to the riparian zones.
- Surface drainage ditches to be reclaimed to original condition by v-notching snow bridges upon completion.
- No materials or fuel will be stored on the ice surface of any water body or within 30 m of any water body.
- All fuel or chemical spills must be reported to the NWT Emergency Spill Response Line
- A fuel contingency plan is in place to contain and clean up any spills.
- All waste petroleum products, plastics and camp garbage will be removed.
- Grey water and sewage not sumped will be hauled to an approved holding facility

- Snow bridges/ice roads crossing creeks will be reclaimed to original condition by V-notching crossings upon completion.
- Existing access will be used where possible
- All debris will be removed from the drainage channels crossed.
- All obstructions made to natural drainages by this land use operation will be removed
- Drainage or erosion problems may include earth breaks or cross ditches.

MITIGATION

3. Noise

noise in/near water

- Temporary in nature

other: noise increase

- Temporary, and low intensity; some absorbed by surrounding forested area.

N/A
IMPACT

MITIGATION

4. Land

geologic structure changes

soil contamination

- Extensive spill response manual and emergency response plan (Contingency Plan); Spill kits, absorbent pads, etc available on site.
- All waste petroleum and plastics products and camp garbage will be removed.
- Chemical and petroleum spills will be reported the 24 Hour Spill Report Line
- All large fuel storage containers will be bermed.
- Special attention will be paid to erosion control and preservation of vegetation near and on riparian zones adjacent to waterbodies or drainages.

buffer zone loss

soil compaction & settling

- Bull dozers will be equipped with mushroom type shoes to elevate the blade 20 cm above the ground to prevent disturbance to the permafrost and organic mat.
- Low pressure vehicles (tracks) will be used for this project.
- Frozen ground and snow cover will lessen the impact of soil compaction.
- All accesses to be clearly marked to reduce possible inadvertent soil disturbance.

Destabilization / erosion

- The whole project will completed under frozen ground conditions.
- Vehicles or equipment are not to be moved until the ground surface is completely frozen, all operations will be stopped should rutting occur.
- Tracked units would minimize surface disturbance.
- All accesses to be clearly marked to reduce possible inadvertent soil disturbance.
- Operations to be suspended if rutting of gouging occurs.
- Wildlife habitat to be identified and avoided
- Approaches to be hand-cleared.
- Snow fills and ice bridges to be removed by v-notching the fill to reduce risk of damming and erosion of banks.

permafrost regime alteration

- The proponent will be required to stop all activities should rutting occur.
- The proponent must not conduct any overland movement of vehicles until the ground is frozen enough to support the weight of the vehicles.
- Project undertaken during frozen ground conditions.
- Dozer blades to be equipped with mushroom shoes to elevate the blade.
- 20 cm snow cover to be left on all access trails.

other:

N/A

IMPACT

MITIGATION

5. Non Renewable Natural Resources

resource depletion

- Granular material will not be used on this project, should the proponent require granular material, they must obtain a quarry permit from DIAND.

other:

N/A

IMPACT

MITIGATION

6. Air/Climate/ Atmosphere

Ice fog and emissions from generator

- Construction to be completed expeditiously

Burning of residua/slash along seismic cutlines

- Merchantable timber to be salvaged, not burned
- Cut debris and brush to be spread over cleared areas

BIOLOGICAL ENVIRONMENT

IMPACT

1. Vegetation

species composition

species introduction

toxin / heavy accumulation

other:

N/A

MITIGATION

- Existing cut lines will be used for access.
- Vegetation on the existing cut lines will be sheared off protecting the root system.
- Operations will occur during the winter months reducing impact to plants
- The operator is required to re-vegetate as per inspector instruction

IMPACT

1. Wildlife & Fish

effects on rare, threatened or endangered species

fish population changes

waterfowl population changes

breeding disturbance

population reduction

species diversity change

health changes
(waste may be harmful to wildlife)

MITIGATION

- A local environmental monitor will be employed by the proponent to advise on wildlife concerns in areas of operations.
- Bear encounters to be reported to RWED.
- Permitted activity must not obstruct the free movement of fish populations.
- Screens to be in place on water intake hoses to prevent intake of fish.
- The operator will follow DFO guidelines.
- Regular inspections of fuel facilities to assure no fuel is being spilled.
- Caribou will be avoided if present in their winter habitat.
- Aircraft will fly at sufficient altitudes not to harass wildlife

behavioural changes
(avoidance behaviour and
blockage of migration or
movement corridors)

habitat changes / effects

game species effects

toxins / heavy metals

forestry changes

agricultural changes

other:

N/A

**INTERACTING ENVIRONMENT
IMPACT**

1. Habitat and Communities

predator-prey

wildlife habitat / ecosystem

Composition changes

reduction / removal of
keystone or endangered
species

removal of wildlife corridor or
buffer zone

other:

N/A

- Wildlife may exhibit avoidance behaviour.
- No dogs to be allowed on the program or firearms.
- Use of snowmobile and ATV is prohibited by the operator.
- Operations to be completed expeditiously to minimize impacts to resident wildlife.

- The entire project will be conducted under winter conditions.
- Sump site will be reclaimed upon completion of operation.

- No hunting, trapping or dogs will be allowed on the program.

- Fuel spill contingency plan is in place to contain and clean up any spills.
- All spills to be reported to NWT 24-hour spill line and NEB.

- Minimized clearing; using existing lines as access routes.
- Proponent will hand cult vegetation to protect forested areas where feasible.
- Timber will be cut and piled where instructed by the inspector.

MITIGATION

- Temporary loss of habitat; will be allowed to regenerate after completion of operation



IMPACT

2. Social and Economic

planning / zoning changes or conflicts

increase in urban facilities or services use

rental house

airport operations / capacity changes

human health hazard

impair the recreational use of water or aesthetic quality

affect water use for other purposes

affect other land use operations

quality of life changes

public concern

other:

N/A

IMPACT

3. Cultural and Heritage

affects to historic property

increased economic pressure on historic properties

change to or loss of historic resources

change to or loss of archaeological resources

MITIGATION

- The operator must take reasonable safe guards against damage to private property from the operation.

- Access and benefit plans developed for affected communities.

- Access will increase for local hunters and trappers through the access road.

- Access and benefits plans are in place.

- Local companies and individuals would be hired to participate in various aspects of the project.

- Existing cabin locations will be avoided.

- Consultations have been held Gwich'in communities. A number of organizations were consulted for advice. Some of those organizations initially had no concerns regarding the project only to change their position near the end of the consultation period. Most concerns, where possible were written into the draft permit

MITIGATION

- There is some potential for the proposed land use to have an effect on potential ecological sites. The regulations are very clear regarding cultural history. These regulations will be improved upon in the conditions of the permit.

- A number of suspected and known archaeological and historical sites have been identified in the vicinity of the operations. All known sites are well clear of the project (2 kilometers). Conditions respecting archaeological sites will be included in a permit to protect any new sites.

- Prince of Wales Northern Heritage Centre, the Gwich'in Social Cultural Institute will be notified and consulted on any newly discovered sites.



- increased pressure on archaeological sites
- change to or loss of aesthetically important site
- affects to aboriginal lifestyle
- other:
- N/A

NOTES:

PRELIMINARY SCREENER / REFERRING BODY INFORMATION
(CHECK ALL THAT APPLY)

	RA or DRA	ADVICE	PERMIT REQUIRED
<u>Federal</u>			
ATOMIC ENERGY CONTROL BOARD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CANADIAN HERITAGE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CANADIAN TRANSPORTATION AGENCY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ENVIRONMENT CANADA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FISHERIES & OCEANS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
INDIAN AFFAIRS & NORTHERN DEVELOPMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
INDUSTRY CANADA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NATIONAL DEFENSE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NATIONAL ENERGY BOARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NATURAL RESOURCES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PUBLIC WORKS & GOVERNMENT SERVICES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRANSPORT CANADA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NOGD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MACKENZIE VALLEY LAND AND WATER BOARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MACKENZIE VALLEY ENVIRONMENTAL IMPACT REVIEW BOARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Territorial</u>			
RESOURCES, WILDLIFE AND ECONOMIC DEVELOPMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MUNICIPAL AND COMMUNITY AFFIARS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INUUVIK REGIONAL HEALTH BOARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CANADIAN WILDLIFE SERVICE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Aboriginal / First Nation</u>			

- Proximity of camps to communities. The group wants to ensure that the benefits of a camp population will be felt by the communities (economically) but that the negative aspects of camps will not impact the communities.
- Drugs and alcohol in camps will lead to disrespect of the communities, disrespect of the environment, also becomes a safety concern.

2.2.6 Economic Effects

Yellow Group

- Need to consider short-term versus long-term training: there aren't enough electricians and plumbers in the communities – need to take advantage of apprenticeships.

Orange Group

- Lack of understanding of what jobs would be available.
- Building sustainable (long-term) jobs and employment:
 - educating
 - training
 - transition between construction and operations
- People got burnt in the recent boom by buying trucks and equipment that couldn't be used later: equipment purchase – short-term opportunities does not provide enough income for long-term business (e.g., heavy equipment)
- Who should be contacted for contracting and subcontracting opportunities?
- Need to be specific about what is available, when, for how long and what the exact requirements are related to business and employment.
- There is uncertainty around development information. Things change, so need to balance this with realistic information on growth potential around business and employment.

Green Group

- When it comes to contract work, there is a concern that the larger organizations will be favoured over Inuvialuit businesses.
 - People from Tuktoyaktuk go south to train but do not finish the courses because they are away from home.
 - Recognition that the jobs may be short, but the skills learned can be carried forward – starting new businesses?
 - The need for employment/training to start soon – it is great to have trained people and need to look to the future to build a skilled workforce in the area.

GWICH'IN TRIBAL COUNCIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AKLAVIK DGO/RRC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FORT MCPHERSON DGO/RRC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
INUVIK DGO/RRC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TSIIGEHTCHIC DGO/RRC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Local Government

TSIIGEHTCHIC CHARTER COMMUNITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HAMLET OF F.T MACPHERSON	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TOWN OF INUVIK	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TOWN OF AKLAVIK	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

REASONS FOR DECISION
(LIST ALL REASONS AND SUPPORTING RATIONALES FOR PRELIMINARY SCREENING DECISION)

- All known and potential impacts regarding the Land Use operation and water use can be mitigated through permit and license terms/conditions and compliance inspections.
- Although there was some public concern by First Nation organizations, the concerns cited can be sufficiently mitigated with standard permitting conditions
- Archeological concerns can be mitigated by restricting land use operations with in close proximity of suspected sites. Conditions were made more stringent to increase the level of protection of these sites.

<input type="checkbox"/>	PRELIMINARY SCREENING DECISION
<input checked="" type="checkbox"/>	Outside Local Government Boundaries
<input type="checkbox"/>	The development proposal might have a significant adverse impact on the environment, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	Wholly within Local Government Boundaries
<input type="checkbox"/>	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>

Preliminary Screening Organization

Signatures

Gwich'in Land and Water Board
