

November 2001

PROJECT DESCRIPTION FOR A SLEIGH CAMP IN THE MACKENZIE RIVER DRAINAGE AREA

4 DEVELOPMENT SUMMARY

4.1 Project Scope

Shell proposes to utilize a sleigh camp to support their winter 2001/2002 operations in the Mackenzie Delta. Shell is applying to withdraw water from the Mackenzie River to support camp operations and access preparation for seismic operations. Water will be acquired at the camp for cooking, cleaning, and other purposes. Sewage and wastewater will be stored in heated tanks at the site. Waste will be hauled to Inuvik for disposal in the Inuvik sewage lagoon. Pending regulatory approval, seismic operations will begin in December 2001 and are anticipated to be complete by late April 2002. Shell will also be occupying the Arctic Star barge camp to support seismic operations. The Arctic Star will be located on Napoak Channel. Shell holds a Water Licence for the Arctic Star that is valid for this operating season. Shell will apply for an amendment to that water licence due to the location change. The water licence for the sleigh camp is a separate application.

4.2 Camp Details

Arctic Oil and Gas Services Inc. has been contracted to provide the sleigh camp to Shell for their seismic program. The camp will consist of 14 trailers and will be transported to locations throughout the program area by a front-end loader or a Delta 3. Transport will occur on frozen channels of the Mackenzie River. The camp location is expected to be adjacent to the location of the Arctic Star barge camp but will potentially move to two other locations in the proposed program area as a contingency (Figure 2). The following coordinates denote the potential locations for the camp within the proposed program area.

The camp will be located on frozen channels of the Mackenzie River. The camp will not be located on land unless ice thickness is insufficient to support the camp on channels. Should this situation arise, INAC will be informed of proposed locations prior to camp move. Arctic Oil and Gas Services Inc. has been contracted to provide the sleigh camp to Shell for their seismic program. The camp will consist of 14 trailers and will be transported to locations throughout the program area by a front-end loader or a Delta 3.

CAMP LOCATIONS

Sleigh Camp Locations	Longitude	Latitude
Location 1 (Arctic Star)	68° 39' 00" N	134° 55' 40" W
Location 2	68° 28' 38" N	135° 33' 27" W
Location 3	68° 33' 31" N	135° 18' 47" W

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TABLE 2

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Maximum occupancy of the camp is 60 people. The camp will accommodate approximately 50 people from January 1, 2002 to April 30, 2002.

4.3 Water Withdrawal

Water will be pumped directly from the main channel of the Mackenzie River. Water will be supplied to the camp from the river at a rate of 190 litres per person per day. At the maximum capacity (the maximum number of people in the camp), the requirement for water supply would be 11,400 litres per day.

Shell anticipates the withdrawal of 11,400 litres of water per day for all activities. Water flow is estimated to be 100 m³ per day at peak usage in the program area. Total water usage will not exceed 100 m³ per day for all activities on the seismic program.

Intakes used for withdrawing water will be fitted with screens to prevent the entrainment or impingement of fish. Shell will comply with DEO's *Freshwater Intake End-of-Pipe Fish Screen Guideline (1995)* when selecting a screen size appropriate to the size of the pump.

4.4 Wastewater Treatment and Disposal

The proposed storage tank to be installed at the sleigh camp is designed to accommodate the total daily volume of raw camp wastewater (black and grey water) from an industrial camp having a resident capacity of no more than 60 individuals along with the associated bathroom and kitchen facilities. The storage tank is a heated 6,000 gallon sleigh-mounted sewage storage tank. The storage tank will hold three days worth of sewage and wastewater produced by the camp.

No wastewater will be discharged from the camp. All wastewater and sewage will be trucked to Inuvik for disposal in the Inuvik sewage lagoon.

4.5 Fuel Storage

Two fuel sloops will be located at the sleigh camp. Each sloop consists of 2 x 83,280 litre (22,000 gal) tanks for a total capacity of 333,120 litres (88,000 gal). The tanks will be double walled and the sloops will be bermed to provide containment of 110% of the tank capacity.

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4.6 Waste Management

Solid waste will be incinerated on a daily basis. Waste that cannot be used or transported to Inuvik for disposal will be buried locally.

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