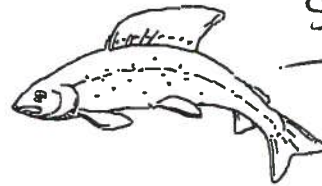


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and OceansPêches
et OcéansFile: S03A-008
S03L-016Fish Habitat Management
Suite 101, 5204 - 50th Avenue
Yellowknife, Northwest Territories
X1A 1E2

December 4, 2003

FAX**TO/A:**David Calvert
Apache Canada Ltd.
1000, 700 - 9 Ave SW
Calgary, AB
T2P 3V4

(403) 261-1208

Cc:Edna Tobac - SLWB
John Korec, Mieke Vander Valk - NEB
Mike Fournier - EC
Shannon Pagotto - INAC
Steve Deschenc - INAC
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DFO File # SC03086(867) 598-2325
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(867) 669-2716
(867) 587-2928
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page 1 of 4 (1 of 5 for SLWB)

MESSAGE**RE: Land Use Permit Application S03A-008, Water Licence Application S03L1-016, Apache Canada Ltd. Proposed Nogha\ Tunago Winter Drilling Program, Colville Lake area- DFO Letter of Advice****FROM/DE:**Bruce Hanna
Habitat Biologist
Western Arctic Area*telephone* (867) 669-4931
facsimile (867) 669-4940
hannab@dfo-mpo.gc.ca**Canada**

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Fish Habitat Management
Suite 101, 5204-50th Avenue
Yellowknife, Northwest
Territories
X1A 1E2Your file *Votre référence*Our file *Notre référence*
SC03086

December 4, 2003

Sahtu Land & Water Board
P.O Box 1
Fort Good Hope, NT
X0E 0H0Attention: Edna Tobac**RE: Land Use Permit Application S03A-008, Water Licence Application S03L1-016,
Apache Canada Ltd. Proposed Nogha\ Tunago Winter Drilling Program,
Colville Lake area- DFO Comments**

Dear Ms. Tobac:

The Department of Fisheries and Oceans, Fish Habitat Management – Western Arctic Area (DFO) has reviewed the above mentioned land use permit and water licence applications.

Under Sections 124 and 125 of the *Mackenzie Valley Resource Management Act* (MVRMA), DFO is participating in a preliminary screening by providing specialist information and/or advice. DFO's assessment takes into consideration primarily fish and fish habitat related concerns.

If you have any questions, please contact me at (867) 669-4931 or Pete Corr at (867) 777-7520.

Bruce Hanna
Habitat Biologist
Fish Habitat Management
Department of Fisheries and Oceans- Western Arctic Area

Canada

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December 4, 2003

Apache Canada Ltd.
1000, 700-9th Ave S.W
Calgary, Alberta
T2P 3V4Attention: David Calvert**RE: Land Use Permit Application S03A-008, Water Licence Application S03L1-016, Apache Canada Ltd. Proposed Nogha\ Tunago Winter Drilling Program, Colville Lake area- DFO Letter of Advice**

Dear Mr. Calvert:

The Department of Fisheries and Oceans, Fish Habitat Management – Western Arctic Area (DFO) has received the above mentioned land use permit and water licence applications. I have reviewed the proposal as part of the MVRMA preliminary screening of the project and am providing the following Letter of Advice on behalf of DFO.

It is my understanding from the information provided that:

- The proposed project includes the drilling of three wells (Nogha B-23, West Nogha K-14, and North Tunago E-44), the construction of three sumps, a campsite, and 131 kilometres of access using existing cutlines. The duration of the project is expected to be four months, December 2003-April 2004. The three wellsites are located between 54 km and 73 km south of Colville Lake.
- The blades of bulldozers used to clear the access will be equipped with shoes to reduce the potential for damage to the underlying vegetative mat.
- Fuel caches, and sites for the sleigh camp and the rig camp will be located at least 100 metres from the high water mark of any water body.
- No material will be stored on the ice of any waterbody or within 100 metres of the normal high water mark (including the airstrip).
- Drilling fluids to be used will be freshwater gel-chem and either mineral oil-based fluid or salt based drilling fluid. DFO recommends that the mineral oil-based fluid be used since the potential impacts to ground water are minimized in comparison to using a salt based drilling fluid (based on the information submitted by the proponent).
- Seven stream crossings were noted on the proposed access route, two of which may require temporary culvert installation to reduce the potential for overflow. Prior to culvert placement DFO will be consulted. Please note: contacting DFO is a requirement as the use of material other than ice or snow to construct a temporary crossing-over of any ice-covered stream is prohibited under Section 11 of the Northwest Territories Fishery Regulations, unless authorized by a Fishery Officer.

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- Please provide co-ordinates for all constructed crossings to DFO, not just those that require culvert installation (refer to the *DFO Protocol for Temporary Winter Access Water Crossings for Oil & Gas Activities in the Northwest Territories*)
- The total estimated water requirements for the program are as follows: 13,100 m³ for access construction, 1,500 m³ for drilling, and a potable water supply of 5 m³ per day for camp use. Lac Belot, Tweed Lake, Tunago Lake, and four unnamed lakes (Lakes 13 to 16) have been identified as the water sources for this program.
- Water volumes will be carefully tracked to ensure the 5% maximum withdrawal is not exceeded. At the conclusion of the winter drilling program, please submit a properly corroborated record of water withdrawal for each water source to DFO.
- Apache Canada Ltd. is subject to spill reporting requirements and therefore will notify the NWT/Nunavut 24-hour Spill Report Line at (867) 920-8130 in the event of a reportable spill.

Since the proposed work will occur on and/or near waterbodies, I have concluded that the proposed work may result in the harmful alteration, disruption or destruction of fish habitat. The following mitigation measures, if implemented, should prevent any potentially harmful impacts to fish and fish habitat. This list includes measures outlined in the proposal.

- Every effort should be made to retain riparian vegetation, as it is critical for the protection of littoral and riparian fish habitats as well as for providing cover and enhancing bank stability.
- Water intakes should be properly screened with fine mesh of 2.54 mm (1/10") to prevent the entrainment of fish. Please refer to the *DFO Protocol for Water Withdrawal for Oil & Gas Activities in the NWT* and the *Freshwater Intake End-of-Pipe Fish Screen Guideline* (DFO, 1995) which is available upon request.
- Cutting of crossing approaches is not permitted unless approved in writing by DFO. The preferred method for crossings to avoid the caving of banks is with the construction of snow ramps. Please refer to the *DFO Protocol for Temporary Winter Access Water Crossings for Oil & Gas Activities in the Northwest Territories*.
- The number of winter crossings should be reduced as much as possible. Crossing locations should be selected that would require the least amount of snowfill and water to construct.
- Winter crossings should not impede water flow and should be v-notched or otherwise removed prior to spring break-up. If winter crossings are not removed they have the potential to block fish passage often necessary to access spawning grounds.
- Reclamation activities should include bank stabilization and re-vegetation as required. This work should be completed prior to spring thaw.

Depositing deleterious substances into fish bearing waters is prohibited as stated under subsection 36(3) of the *Fisheries Act*. The following additional mitigation measures are intended to prevent the deposition of deleterious substances and possible habitat disturbance or loss:

- All activities including maintenance procedures and vehicular (including aircraft) refuelling should be controlled to prevent the entry of petroleum products, debris, slash, rubble, or other deleterious substances into the water.
- A 100 metre buffer should be maintained between wellsites and any waterbody if possible.
- All wastes, drill cuttings, sumps, sewage and wastewater containments, should be located a minimum of 100 metres from any water body including ephemeral drainages if possible, and

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be sufficiently bermed or otherwise contained to ensure that these substances do not enter any waterbody.

- Fuel storage should have secondary containment (such as doubled walled tanks, berms etc.) that is sufficient to ensure that fuel will not be able to enter any waterbody.
- A spill contingency plan should be made available to all persons required to work on site and followed in the event of a spill.

If the proposed work is carried out as described in the plans provided to DFO and mitigation measures are implemented as required, the proposed work will not be considered as contravening subsection 35(1) of the *Fisheries Act* which reads:

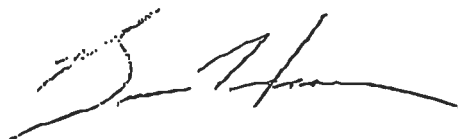
"No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."

Therefore, an Authorization under subsection 35(2) of the *Fisheries Act* will not be necessary. If the harmful alteration, disruption or destruction of fish habitat and/or the deposition of deleterious substances into fish bearing waters occurs as a result of an unapproved change in the plans for the proposed works or failure to implement the necessary mitigative measures, prosecution under subsection 35(1) and/or subsection 36(3) of the *Fisheries Act* may be initiated.

Please note that this Letter of Advice does not release the proponent of the responsibility for obtaining any other permits that may be required. This Letter of Advice will apply to this project for the period outlined in Land Use Permit S03A-008 and Water Licence S03L1-016 if issued.

This Letter of Advice should be kept on site during any work in or around water and be understood by staff working at the site.

If you have any questions, please contact me at (867) 669-4931 or Pete Cott at (867) 777-7520.



Bruce Hanna
Habitat Biologist
Fish Habitat Management
Department of Fisheries and Oceans- Western Arctic Area

Copy: Pete Cott, Area Habitat Biologist - DFO
Mark Simms, Fishery Officer - DFO
Edna Tobac - SLWB
Jody Snordland - SRRB
John Korec, Mieke Vander Valk - NEB
Steve Deschene - INAC
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Mike Fournier- EC

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