FACSIMLE MESSAGE

S03A-008

Environment Canada
Environmental Protection Branch
Suite 301, 5204 - 50th Avenue
Yellowknife, NT X1A 1E2

DATE:	NOV 20/03	**FROM:**	**Wade Romanko**
TO:	SAHTU LAND & WATER BOARD		**Env. Emergencies & Assessment Officer**
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Number of pages including cover: 5

Subject: **Review Comments and Recommendations**

MESSAGE: REVISED LETTERS WITH ADDITIONAL COMMENTS

Please contact (867) 669-4736 if this facsimile is not complete.

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November 20, 2003

Our file: 4706 002 007

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Re: Land Use Permit S03A-008 & Water Licence Application S03L1-016 – Apache Canada Ltd. – Nogha/Tunago Lake Drilling Project, Wellsites Nogha B-23, West Nogha K-14 & Tunago E-44 - South the Colville Lake, NT.

On behalf of Environment Canada, I have reviewed the information submitted with the proposed drilling project applications. Environment Canada's contribution to your request for specialist advice is based primarily on the mandated responsibilities of Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act*, *Species at Risk Act (SARA)*, and the *Migratory Birds Convention Act*.

Comments and Recommendations

- Meeting the requirements of the Federal *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.

- Waste tracking, or "manifesting," should be implemented to ensure proper use, storage, and management of these materials. Manifests provide detailed information to first responders in the event of an accident and serve as a tool for confirming that shipments of dangerous oilfield wastes (hazardous waste) are properly handled, transported, and disposed of.

- Winter stream crossings should be constructed with snow and/or ice at right angles (90°) to the streams. Surface drainage channels should be reclaimed to original condition and all snow fills must properly opened up or v-notched to avoid ice damming during Spring Breakup.

- Sump Construction - sump(s) site selection must be appropriate for minimizing the physical and chemical risks to the environment. Ultimately, the goal is to ensure complete

containment and isolation of the disposed waste from the environment. Data collection should include background information on soil type, permafrost zones, permafrost temperatures, and depth of active layer specific to the final in-ground sump location. Such data is critical in determining the short and long term performance of the sump on the surrounding environment (e.g. permafrost impact and contaminant/migration).

- A list of drilling fluid products to be used in the drilling program should be submitted to and approved by the regulatory agency. The list should include the intended use of the product, the approximate concentration to be formulated in the mud system, and expected concentrations to be found in the sump supernatant. The use of non-toxic mud additives does not guarantee the final drilling effluent will be non-toxic (cumulative toxic effects). Therefore, it is the proponent's responsibility to demonstrate that the drilling waste is non-deleterious and in compliance with Section 36(3) of the *Fisheries Act.*

- For the "Freshwater Gel-Chem Fluid" will salt be added to the upper section mud to reduce the thermal degradation of the permafrost zone? Salinity can affect the freezing point of water, so that the unfrozen water content and permeability of a frozen soil may remain high at temperatures below 0°C. Back-filling should occur only when the sump contents have been completely frozen and demonstrated to be non-deleterious.

- To ensure proper spill preparedness, a spill contingency plan should identify key personnel contact numbers and their responsibilities for responding to spills.

- The 24 hour Spill Line is presently used for the reporting of all spills in the NWT/NU, all accidental and imminent accidental releases as required by the TDGA regulations August 15, 2002 and all occurrences of a deposit out of the normal course of events of a deleterious substance pursuant to the Metal Mining Effluent Regulations December 6, 2002.

- Assessment of potential impacts from well test flare emissions is not possible with information provided by the proponent. Concerns regarding solution gas flaring include adverse effects on human and wildlife health and lost of habitat. To properly assess potential impacts the proponent needs to provide the following information: composition of the solution gas to be flared, flare stack parameters and an estimate of flare efficiency, total amount of solution gas to be flared, estimate of flare emissions and appropriate modeling to predict ambient concentrations of released pollutants. At the minimum, the proponent should follow standard flare assessment guidelines such as the Alberta Energy and Utility Board "Upstream Petroleum Industry Flaring Guide" (Guide 60).

Changes in the proposed or permitted activities associated with this land use and water licence applications would require further review. I can be contacted at (867) 669-4736 (by e-mail at wade.romanko@ec.gc.ca) for any questions or comments with regard to the foregoing.

Yours truly,

Wade Romanko
Environmental Emergencies and Assessment Officer

cc: Steve Deschene – Resource Management Officer, INAC, Norman Wells