**UMA Engineering Ltd.**
2540 Kensington Road NW
Calgary, Alberta T2N 3S3
T 403.270.9200 F 403.270.0399 www.uma.aecom.com

January 23, 2006 File Name: CAM-4 (3.6)

Phyllis Beaulieu
Manager, Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Ms. Beaulieu:

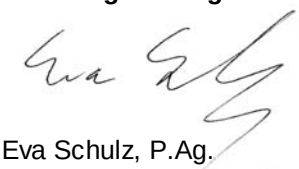
**Re: Abandonment and Restoration Plan: Water Use License NWB5PEL0510**

UMA Engineering Ltd. is submitting the attached *Abandonment and Restoration Plan* as per the requirements of Part I in water use license NWB5PEL0510. The plan is being submitted on behalf of Defence Construction Canada and the Department of National Defence.

We trust the information provided is sufficient for meeting the requirements of the license. Please feel free to contact the undersigned if you require any further information.

Sincerely,

**UMA Engineering Ltd.**



Eva Schulz, P.Ag.
Environmental Scientist
eva.schulz@uma.aecom.com

EMS:mm

Encl. Abandonment and Restoration Plan - CAM-4, Pelly Bay (NWB5PEL0510)

cc: Philip Warren, DCC

## ABANDONMENT AND RESTORATION PLAN – CAM-4, PELLY BAY (NWB5PEL0510)

The main objective of the DEW Line Clean Up Project is to restore the sites to an environmentally safe and aesthetically natural condition. In order to meet this objective, clean up plans are prepared and a contractor is hired to remediate the site as per the engineering design and specifications. The contractor is required to complete the clean up and remediate all of the areas in which their activities took place and restore the site to as natural a state as practical. The following sections provide a summary of the closure activities that will occur at the completion of the CAM-4 site clean up.

**Demolition:** Upon the completion of the demolition work, the contractor removes any remaining debris and leaves the work site clean. Building sites and all areas affected by demolition work are graded to match the existing terrain. The areas surrounding remaining concrete and timber foundations are reshaped so that the top of the gravel is flush with the top of the foundation. Any voids or holes in the surface of the foundation are filled with gravel. At the CAM-4 site, all buildings and structures have been demolished.

**Contaminated Soil Excavation:** In areas of contaminated soil excavation, the excavations are filled with granular material, compacted and graded to match the existing ground surface. The restoration in these areas is completed in an on-going process as each contaminated soil area excavation is finished.

**Landfarm Closure:** At the conclusion of landfarm operations, additional granular material is placed to provide a compacted cover. The surface area is graded to a minimum slope of 2-4% to promote surface water run-off. Groundwater wells installed around the perimeter of the landfarm are cut-off and backfilled with grout.

**Non-Hazardous Waste Landfill:** There are two Non-Hazardous Waste Landfills constructed at the CAM-4 site – one is located at the Upper Site and the second is located at the Lower Site area. For each landfill, a final lift of granular material is placed, compacted and the surface graded to avoid water ponding and minimize infiltration at the completion of landfill operations. Following completion of the landfill closure, groundwater monitoring wells are installed to facilitate monitoring of the landfill performance. The landfill monitoring plan for this site was submitted to the NWB in November 2005.

**Tier II Soil Disposal Facility:** Similar to the NHW Landfills, two Tier II Soil Disposal Facilities were constructed at the CAM-4 site. Placement and compaction of the final cover of the landfill also includes grading to promote drainage away from the landfill. Following closure of the Tier II Soil Disposal Facility, groundwater monitoring wells and thermistor strings are installed to facilitate monitoring of the facility's performance. Details of the monitoring plan are provided in the November 2005 submission.

**Contractor Demobilization:** Contractor demobilization includes the dismantling and removal from the site of all vehicles and equipment, remaining fuel, supplies and construction camp, clean up of the site, and transportation of labour from the site. Upon removal of the construction camp, the contractor grades the area to match the surrounding terrain and to ensure positive drainage. Contractor demobilization typically coincides with the annual sea-lift.