

January 14, 2004 Project No.: PIN-3 (3.6)

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

Dear Ms. Beaulieu:

RE: Water Use Licence NWB5FRA0209

UMA Engineering Ltd. is submitting an Abandonment and Reclamation Plan, as required in the above-noted water use licence. The plan is being submitted on behalf of Defence Construction Canada and the Department of National Defence.

We trust the document, as provided, meets the requirements as stated in the water use licence. Please feel free to contact the undersigned if you have any questions or comments.

Sincerely,

UMA ENGINEERING LTD.

Eva Schulz, P.Ag. Environmental Scientist eshulz@umagroup.com

EMS:hjj

Encl. Abandonment and Reclamation Plan

Overall Site Plan

cc: Philip Warren, DCC

ABANDONMENT AND RECLAMATION PLAN FOR PIN-3, LADY FRANKLIN POINT (NWB5FRA0209)

As a project, the DEW Line Clean Up focuses on the reclamation of the portions of the former DEW Line sites no longer in use by DND, including the remediation of chemically contaminated soils, the stabilization of old landfill areas and the demolition/disposal of surplus infrastructure and the pick up and disposal of surface debris. Therefore, the entire project as described in the 2001 project description, can be considered an abandonment and reclamation plan. The ultimate abandonment of the operational portions of these sites will be addressed by DND when the facilities are no longer needed.

The following sections provide a summary of the closure activities that will occur at the completion of the PIN-3 site clean up, which is anticipated for October 2004.

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

Borrow areas, access roads and disturbed areas will be graded upon completion of the DLCU to promote drainage.

Sewage Lagoon: Upon discharge of the sewage lagoon effluent (after testing), a minimum of 300 mm of granular material will be backfilled over the settled solids in the lagoon.

Demolition: Upon the completion of the demolition work, the contractor is to remove any remaining debris and leave the work site clean. Building sites and all areas affected by demolition work are graded. 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 foundations are filled with gravel.

Contaminated Soil Excavation: In areas of contaminated soil excavation, the excavated material is replaced with granular fill, compacted and graded to match the existing ground surface.

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 will be decommissioned, including backfill with grout.

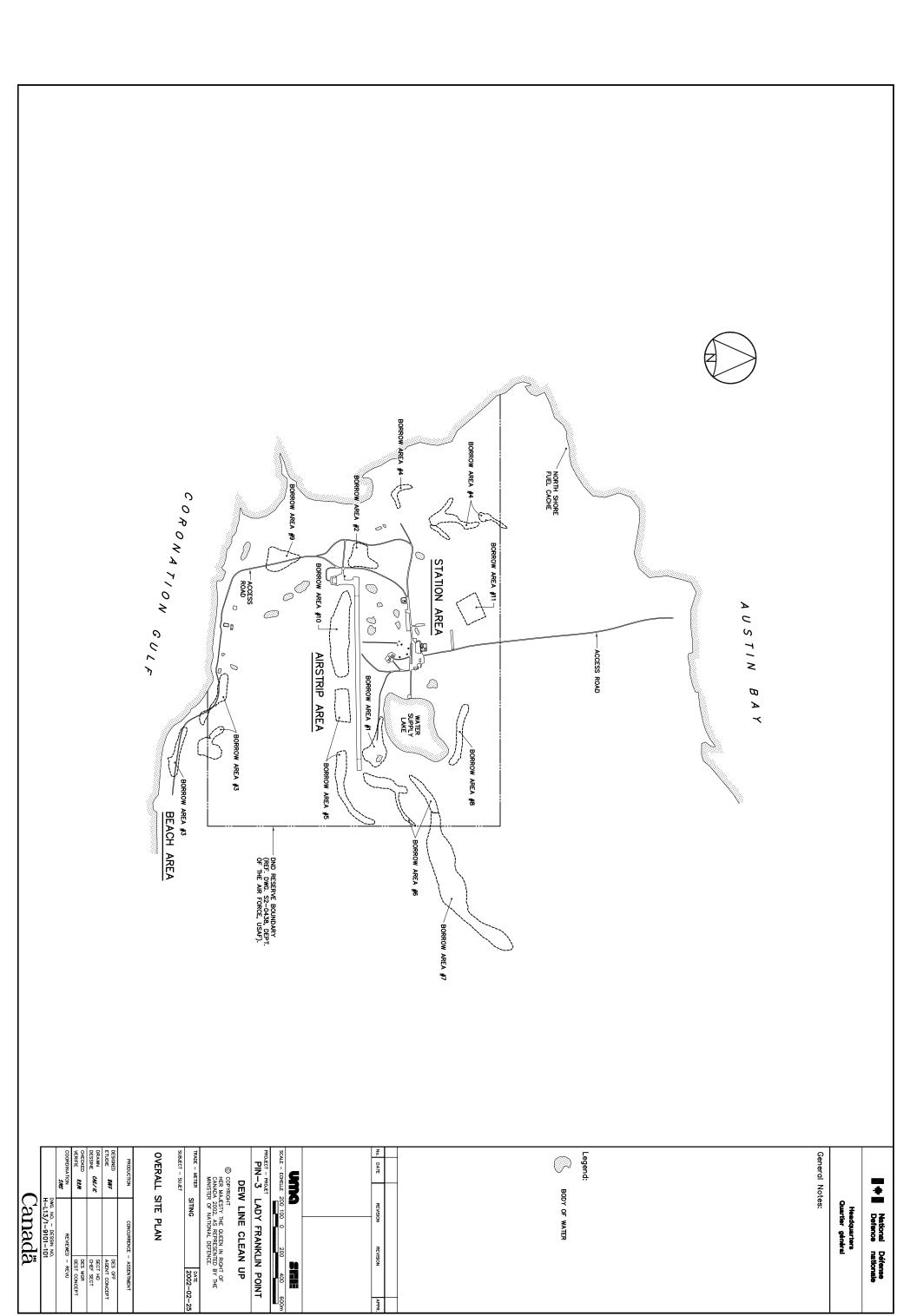
Non-Hazardous Waste Landfill: There is one Non-hazardous Waste (NHW) Landfill constructed at the PIN-3 for the disposal of demolition debris and non-hazardous site debris. Upon closure, a final lift of granular material is placed, compacted and the surface graded to avoid water ponding and minimize infiltration. Following completion of the landfill closure, groundwater-monitoring wells are installed to facilitate monitoring of the landfill performance.

Tier II Soil Disposal Facility: A Tier II Soil Disposal Facility was constructed at the PIN-3 site for the disposal of Tier II contaminated soils. 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 ground temperature monitoring instruments are installed to facilitate monitoring of the facility's performance.

North Landfill, Main NWS Landfill, South Landfill East and South Landfill West: The closure of these landfills included the removal of surface debris and compaction of the surface, placement and compaction of additional granular cover and grading to promote surface water run-off.

Main Landfill: The closure of this landfill included the removal of surface debris, installation of geomembranes and geotextiles (for the leachate containment system), placement and compaction of additional granular cover, and grading to promote surface water runoff. Groundwater-monitoring wells are installed to facilitate future monitoring of the landfill performance.

South Beach Landfill: This landfill was excavated and backfilled with granular material. It therefore requires no monitoring.



REVISION

APPR.

DES OFF
AGENT CONCEPT
SECT HD
OHER SECT
DES MOR
GEST CONCEPT
REVIEWED - REVU

DATE 2002-02-25