



Photograph 6.8: Monitoring wells

6.10. Renovation of the training centre

The site training center was partially renovated into a small camp to be used for future site monitoring activities. The B2 caterpillar generators were hauled from the beach area next to the training center and connected.

The center has been divided into 5 bedrooms, a small recreation room and a bathroom. The existing camp kitchen trailer will need to be hauled beside the center and attached to the facility at the beginning of the 2006 season to complete the installation.

The indoor work was completed during the 2005 season: painting, floor, electrical and plumbing work.



Photograph 6.9: Training centre renovation

6.11. ASU's assistance

Assistance was given to ASU for the construction of the barrier located at the S1/S4 Beach as well as for the tilling of the landfarm. Furthermore, a crew of QC workers containerized some Tier II soil from ASU's S1/S4 valley barrier in four (4) small containers. Unfortunately the contaminated soil was found too late to be placed within the Tier II landfill and, therefore, containers were instead shipped south for disposal in a registered facility.

6.12- Management Committee

The Contribution Agreement signed between QC and INAC includes provisions for the establishment of a management team. The Project Management Team (PMT) has the responsibility of monitoring the progression of the work, of holding project meetings, and of reporting to the Senior Management Team (SMT). The following individuals and/or organizations were part of the 2005 PMT:

- INAC - Lou Spagnuolo
- Scientific Adviser - Queen's University ASU (Allison Rutter)
- Site Superintendent - Harry Flaherty
- Assistant Site Superintendent - Jeremiah Groves
- Health & Safety Officer - Pierre Sansfaçon (Stabilis inc.)

- On-site Emergency Medical Technician - Andrew Bullion
- On-site Financial Comptroller - Caroline Rennie
- Heavy Equipment Supervisor - Joe Erkidjuk
- Technical Adviser - Jacques Dion (Stabilis Inc.)
- Project Engineer - Qikiqtaaluk Environmental Inc. (Philippe Simon, Greg Johnson, Cathy Baptista, Céline Mercier)

Minutes of PMT meetings held on-site during the season are presented in Appendix 4.

6.13- Project Permitting

Several permits were obtained prior to the 2005 field season. Some of these permits require yearly reporting to various agencies. The main field permits are the land use permit (INAC and Nunavut Impact Review Board - NIRB), the water license (Nunavut Water Board - NWB), and the quarrying permits (INAC).

Land Use Permit

A permit application was filed in the fall of 2003. The new permit (N2003X0038), granted in February 2004 is now set to expire in February 2006. Activities allowed under the new permit include the construction of a landfill for the disposal of soil and debris contaminated at Tier II levels by various contaminants such as PCB, metals, and heavy petroleum hydrocarbons. A copy of the permit is presented in Appendix 6.

Quarrying Permits

A permit application for quarrying sand and gravel from five (5) borrow pits on RI was submitted to INAC before the field season. The Quarrying Permits, issued in February 2005, are valid for a one year period. The location of each borrow pit is presented in the 2005 As-Built Drawings.

Copies of these permits are presented in Appendix 5. The authorized volume of gravel to be quarried from each borrow pit along with the actual volumes quarried during the season are presented in Table 6.1.

The volume of gravel quarried from each borrow pit is below the maximum allowed quantity except for the Airstrip Pit which exceeded the authorized volume by 30 % (i.e. 3,000 m³). Since the granular material quarried was mainly used for the construction of the Tier II landfill, the gravel production activities are presented in Section 5.1 of this report.

Table 6.1: Borrow Pit Volumes - Authorized and Quarried

Borrow Pit	Permit Number	Volume (m ³)	
		authorized	quarried
Radio Hill	2005QP0030	10 000	7 120
Airstrip	2004QP0027	10 000	13 044
S1/S4 Beach	2005QP0031	10 000	0
Lower Lake	2005QP0029	5 000	0
Lake borrow pit #2	2005QP0028	20 000	6 000

Water Licence

The original water licence issued in 1998 for the RI clean up project expired in 2003. A new licence (NWB5RES0308) was issued in August 2003 and is set to expire in 5 years (*i.e.*, August 2008). This licence provides various conditions related to the following operations:

- Water use (20 m³/day);
- Sewage disposal;
- Solid waste disposal;
- Undertaking;
- Emergency response planning;
- Modifications;
- Abandonment and restoration; and,
- Monitoring programs.

An annual report is to be presented to NWB after completion of the field season. Information such as the volume of freshwater used, and the quantities of sewage water and solid waste discharged during the season will be included in this report. AAU's analytical results of water sampled from the drinking water lake are also reported.

6.14- Road Maintenance

Approximately seven (7) consecutive days were required to clear the snow from all the roads at the beginning of the season. Snow removal was also required in roadside ditches to allow for proper drainage of runoff water.

Regular road maintenance was also required due to the normal wear of the roads caused by vehicle and heavy equipment traffic. Generally, the roads are simply graded as needed, and the larger holes are backfilled prior to the grading operations. During the 2005 season, approximately 320 m³ of gravel was used for all minor and major road repairs as well as for regular maintenance. At the end of the season, piles of sand, to be used for road maintenance, were staged along the old fresh water lake, in preparation for site startup in 2006.



Photograph 6.10 Road maintenance

7- CONCLUSIONS AND RECOMMENDATIONS

This final section summarizes the main information presented in the previous sections of the report.

7.1- Remediation Activities

The 2005 field season was exceptionally successful, a very large amount of tasks were completed based on the joined efforts of all crew members. Most tasks conducted during the 2005 season revolved around two (2) major activities: 1) the construction and filling of the Tier II landfill, and 2) the off-site shipment of PCB CEPA contaminated soil and other hazardous waste.

Tier II Landfill

Gravel production was conducted throughout most of the season as large quantities of granular materials were required for the construction of the landfill. A total of 26,725 m³ of gravel was quarried during the season, mainly from the Radio Hill and Airstrip borrow pits. From this amount, 17,730 m³ was used for the construction of the landfill.

All Tier II/I contaminated soils (PCB, Co, Cu, Pb) were landfilled. The final geomembrane/geotextile liners were installed and the clean material cover layers were placed on the top. All the construction and filling objectives of the Tier II Landfill were met. The landfill was finalized on September 3 with the reshaping of berms. A final survey still need to be done.

Four (4) thermistors were installed: two (2) in the landfill and two (2) on the south berm.

Off-site Shipment of CEPA Soil and hazardous waste

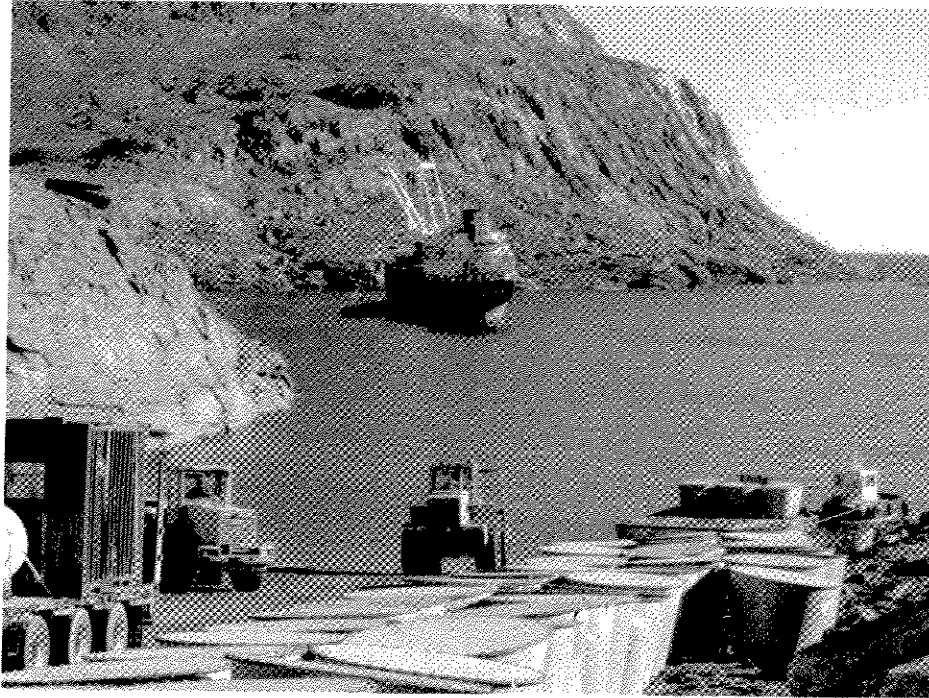
The CEPA soils were mainly excavated from the S1/S4 Beach but some pockets of CEPA soils were found at the S1/S4 Valley. In order to ship the CEPA soil containers off site for disposal, the following tasks were conducted:

- Setup of a screening platform behind the beach B2 building;
- Complete the access road to the S1/S4 Beach area;
- Excavate, haul, and screen CEPA soil from the S1/S4 Beach;
- Haul the containers to the beach barging area.

During the 2005 season, a total of 107 containers were filled with CEPA soil and, with the remaining units from the 2004 field season, a total of 339 containers were shipped south for disposal.

All the PCB and non- PCB hazardous waste were also shipped south:

- CEPA debris in 31 steel containers,
- PCB transformers, PCB capacitors, PCB concrete... in five (5) seacans,
- Heavy Hydrocarbons contaminated soils in 35 small steel containers,
- Oily water, waste oil, paint, chlorinated solvent... in 25 wooden crates.



Photograph 7.1: CEPA soil filled containers staged at the beach barging area

Other Activities

Various other planned activities were carried out during the season, including:

- Off-site shipment of most of QC's heavy equipment in preparation for the demobilization;
- Dismantling and landfilling of the 3 POL tanks;
- Renovation of the training centre into a small monitoring camp (ten (10) bed capacity); the kitchen trailer will be set up at the beginning of the 2006 season;
- Installation of monitoring wells at the Maintenance Dump;
- Collection and landfilling of non-hazardous waste;
- Drum shredding and landfilling;
- Demolition of the Quonset Hut and the POL Pump House;
- Cleaning of the project's fuel tanks and transfer of 250, 000 L of fuel from NWS;
- Recontouring of the Former Borrow pits;
- B2 Caterpillar generators moved to the training centre.

7.2- Objectives of the 2006 season

All clean up activities required as part of the new remediation plan developed by INAC in 2003 were completed during the 2005 field season. The 2006 field season will be essentially dedicated to complete the small camp set up to be used for future site monitoring activities, and to package and demobilize all assets. As such, the crew mobilization is scheduled for mid-July. The demobilization of the camp and the equipment initiated at the end of the 2005 season will be resumed and completed during the 2006 season. The training centre, whose renovation was done during the 2005 season, will become the new camp.

All the construction camp material and supplies will be packaged into seacans for marine shipment. The remaining camp buildings will be demolished and landfilled: granular material will be produced, mainly for cover material for the demolished camp trailers. The final survey of the Tier II landfill will be conducted; depending on results, some type 1 material may need to be added. All the used borrow pits (Radio Hill, Airstrip and lake 2) will be regraded and landscaped. Those activities will be conducted with a reduced crew, compared with previous field seasons.

The crew demobilization is scheduled after the sealift that will demobilize all assets from Resolution Island is completed. This activity will be scheduled around mid-August, depending on the marine shipment companies' schedule. It is estimated that more than 5,000 m³ of material (vehicles, seacans, heavy equipments, trailers, etc), 90% being INAC assets, will be shipped off-site to Iqaluit.

The Resolution Island 2006 field season will constitute the final effort to complete this challenging project. Throughout this project, Qikiqtaaluk Corporation has successfully fulfilled INAC's objectives regarding site compliance, health and safety and training. This project has also allowed Qikiqtaaluk Corporation to consistently increase the Inuit beneficiaries' participation and employment in all phases of this multi disciplinary project.