

Iqaluit, the 19th of March 2002

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RE: NWB Permit No. NWB5RES9803 - Annual Report

On behalf of Qikiqtaaluk Corporation (QC), please find three copies of the annual report prepared to fulfil the General Conditions of the object mentioned above. Other documents that support the annual report are also provided. These are:

- "Summary of 2001 Activities - Resolution Island Project" prepared by QC/LDS.
- "Scientific Investigations - Resolution Island 2001" prepared by Queen's University's ASU.

All executive summaries are now being translated in Inuktitut. The translations will be provided at a later date.

Should you have any questions regarding the submitted documents, please contact me.

Sincerely,



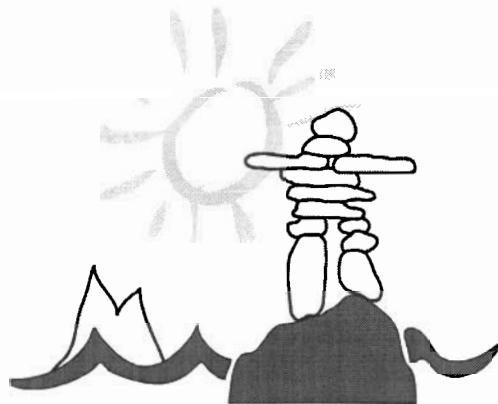
Philippe Simon, P.Eng., Ph.D.
Project engineer

cc. Harry Flaherty, Director, Environmental Services, QC
Scott Mitchell, Contaminated Sites Office, DIAND
Natalie Plato, DIAND, Iqaluit
John Poland, Analytical Services Unit, Queen's University

ANNUAL REPORT

**Water License
Permit No. NWB5RES9803**

RESOLUTION ISLAND PROJECT



Resolution Island, Nunavut

submitted to:

Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut, X0E 1J0

by:

Qikiqtaaluk Corporation
P.O. Box 1228
Iqaluit, Nunavut, X0A 0H0

March 2002

EXECUTIVE SUMMARY

Qikiqtaaluk Corporation holds a Water License (NWB5RES9803) from the Nunavut Water Board (NWB) on behalf of INAC for the Resolution Island Project. The following annual report presents various information concerning the following:

- Fresh Water Quantities
- Sewage Water Quantities
- Waste Discharge
- Summary of Construction Work
- Surveillance Network Program
- Environmental Monitoring Program
- Anticipated Work
- Studies Requested
- Unauthorized Discharges
- Communication Exercises
- Operation and Maintenance Plan
- Contingency Plan Revisions
- Trenches and Sumps
- Clean Up Procedures
- Public Consultation
- Concerns Addressed
- Other Details
- Inuktitut Executive Summary

In reference to this annual report, several documents are appended. In summary, all conditions of the Water License were complied with.

GENERAL CONDITIONS

As a licensee, Qikiqtaaluk Corporation has implemented various procedures to comply with conditions described in the Water License (issued July 31st 1998) related to the Resolution Island Project. The following document summarizes water use data and describes various activities conducted on-site as required by the General Conditions of the Permit.

a. Fresh Water Quantities

Towards the beginning of the season, the water supply lake was changed from Freshwater Lake to Lower Lake. The new supply lake is located in a relatively undisturbed area further away from camp and construction activities. During the work season fresh water was pumped from the new water supply lake into an 11 m³ water truck and delivered to 3 (5,265 litre) polyethylene tanks located in the core camp. Fresh water was mainly used for sanitary and kitchen uses and for fire drills. The following table presents the monthly and annual quantities of fresh water used for the project. Estimates are based on the average number of truck loads per week.

Period	June	July	August	September
Water volume used (m ³)	0	385	390	45
Total volume (m ³)	820			

The permit stipulates that no more than 400 m³ of fresh water per month be used. This requirement was met.

b. Sewage Water Quantities

Sewage water was discharged from the core camp through a single pipe into the sewage lagoon. Monthly and annual estimates are presented in the following table.

Period	June	July	August	September
Sewage volume generated (m ³)	0	366	371	43
Total volume (m ³)	780			

c. Waste Discharge

Solid waste produced during on-site activities was transferred to a covered metal vault outside the core camp on a daily basis and incinerated using a double chamber forced-air Westland incinerator. Solid waste mainly originated from the kitchen operations and from packaging of materials and supplies. The following table presents the monthly and annual quantities of solid waste managed during the 2001 field season at Resolution Island. Estimates are based on the assumption that every person in the camp generated, on average, approximately 2.5 kg of solid waste per day.

Period	June	July	August	September
Waste generated (M.T.)	0	1.90	2.90	0.30
Total (M.T.)	5.10			

d. Summary of Construction Work

Construction activities conducted at Resolution Island during the 2001 season are summarized in a report submitted to Indian and Northern Affairs Canada (INAC) in December 2001 by Qikiqtaaluk Corporation and Sinanni Inc. (see appended document: Summary of 2001 Activities - Resolution Island Project).

e. Surveillance Network Program

Factors that could generate environmental impacts have been evaluated and are presented in the document entitled "Environmental Screening Report" submitted with the permit application. Water from the new supply lake (RES-1) was sampled and analyzed. Runoff water from both active solid waste disposal sites (RES-4 and RES-5) could not be sampled and analyzed because no water was found to discharge from these sites. These SNP results are presented in Table I at the end of this document.

Results of the Surveillance Network Program (SNP) can be found in the document entitled "Resolution Island 2001 - Scientific Investigations" prepared by Queen's University, Analytical Services Unit (see appended document). Furthermore, the Quality Assurance and Quality Control (QA/QC) program used for the SNP is also included in this appended document.

f. Environmental Monitoring Program

Details of the Environmental Monitoring Program conducted during the 2001 season are described in the document entitled "Resolution Island 2001 - Scientific Investigations" prepared by Queen's University, Analytical Services Unit (see appended document). Furthermore, in response to the INAC Water Licence Inspection carried out during the 2000 season, the following measures were implemented during the 2001 season:

- Adjustment of drinking water pH, by addition of sodium carbonate to water storage tanks, to values in the range of 6.5 - 8.5.
- Warning signs were posted near the new water supply lake, the sewage lagoon and the two waste disposal sites.
- SNP signs were not posted near the waste disposal sites because no sampling has yet been carried out. The SNP sign has not yet been posted near the new water lake because the sampling was carried out near the end of the season. It will be posted at the beginning of next season.
- The 2 damaged and deteriorating fuel storage tanks located near the beaching area were emptied of their contents. The waste fuel was transferred into sound drums, while the contaminated water was treated on site by filtration in order to remove TPH and phenols.

g. Anticipated Work

The tasks planned for the 2002 field season are listed below:

1. Open Roads / Camp Set up
 - 1.1. remove snow, repair roads
 - 1.2. camp start up and maintenance
2. Dump Excavation / PCB Removal
 - 2.1. Soil excavation at S1/S4
 - continue and complete the removal of PCB CEPA soil from remaining grids accessible from the S1/S4 building area roads
 - initiate and complete PCB CEPA soil excavation at the S1/S4 valley using the new access road from behind the furniture dump (excavation objective: 800 m³)
 - operate the contaminated screening plant staged at the summit area
 - haul CEPA screened soil to the main PCB storage facility for containerization (former maintenance building)
 - complete bedrock clean up after HE excavation using the vacuum truck
 - 2.2. Tier II Soil/Debris Management - Engineered Landfill
 - prepare subgrade surface

- 2.3. PCL Dump
 - complete the excavation/management of CEPA soil
- 2.4. Beach Dumps
 - continue the excavation/management of buried debris from the first dump
 - continue the excavation/management of buried debris from the second dump
 - regrade/landscape the area
- 2.5. Barrier Installation
 - construct a silt fence structure at the end of the S1/S4 valley area to prevent migration of remaining contaminants to the beach area
- 2.6. Airstrip Dump (Lowest priority)
 - initiate the CEPA soil excavation and Tier II soil/debris management
- 3. POL / Drum Management and NH landfill
 - 3.1. Incinerate POL Products
 - repair the incinerators
 - complete the program to incinerate remaining POL products (platform set-up at the maintenance building area)
 - operate the transfer station (settling tank/dilution) and incinerators
 - address the drums of grease
 - 3.2. Scattered Drums
 - consolidate and manage drums scattered all over the site
 - 3.3. Complete the Consolidation of POL Products to be Shipped South
 - Manage POL products in drums that cannot be incinerated and prepare for eventual off-site shipment (2003)
 - install classification placards
 - 3.4. Shred cleaned/empty drums and metallic debris
 - haul empty drums and debris to beach non-hazardous landfill area
 - shred and landfill non-hazardous waste
 - 3.5. Non-hazardous waste landfill operation
 - Continue to operate the beach and summit non-hazardous landfills as material is being placed and compacted
- 4. Sealift
 - 4.1. On-Site Shipping
 - prepare barging area
 - stage/handle material and equipment
 - 4.2. Off-site Shipping
 - stage CEPA soil containers at the beach area
 - 4.3. Wet Sea-lift
 - prepare the tank farm for fuel resupply
- 5. CEPA Soil Containerization
 - 5.1. Operate a CEPA soil Containerization Platform
 - fill steel containers with CEPA soil
 - implement labelling/tracking system

6. Other Tasks

- 6.1. Comply with Nunavut Water Board License
 - continue to implement pH control of drinking water
- 6.2. Recycle Metal
 - collect material/debris containing copper/aluminium
 - prepare recycled material for off-site shipment
- 6.3. New Office
 - Build new office in old radome building
- 6.4 Electrical
 - Complete electrical wiring at the maintenance building

h. Studies Requested

No studies related to waste disposal, water use or reclamation were requested by the Board.

i. Unauthorized Discharges

No unauthorized discharges of liquid/solid waste was observed and/or recorded during the 2001 field season at Resolution Island.

j. Communication Exercises

All site workers (including sub-contractors) were instructed on camp rules and safety requirements. Drills were conducted for fire emergency and spill prevention events. Fire safety and spill contingency plans were implemented.

k. Operation and Maintenance Plan

Details of the O&M plan were initially presented in the project Specifications and Environmental Protection Plan submitted with the permit application. No revisions to the initial plan have been implemented.

l. Contingency Plan Revisions

Details of the contingency plan were initially presented in the project Specifications and

Environmental Protection Plan submitted with the permit application. A Spill Contingency plan was submitted to NWB in September 1998 and was revised at the end of the 1999 field season and resubmitted. Further revisions were added during the 2001 season and an improved version was submitted to the NWB in October 2001.

m. Trenches and Sumps

No new trenches or sumps were excavated during the 2001 season.

n. Clean Up Procedures

During the 2001 season, remedial activities included:

- Clean up of Beach dumps
- Clean up of Battery dump
- Removal of PCB CEPA soil from the S1/S4 building and drainage areas
- Containerization of PCB CEPA soil in steel containers
- Stockpiling of PCB CEPA soil inside the former maintenance building
- Installation of a silt fence at the runoff discharge point of the former Furniture dump
- Operation of a drum staging/sorting/pumping/washing station
- Management of an oil/water separation/treatment system
- Waste oil incineration
- Drainage of both beach POL tanks
- Treatment of phenol contaminated water

Details of these activities are summarized in a report submitted to Indian and Northern Affairs Canada (INAC) in December 2001 by Qikiqtaaluk Corporation and Sinanni Inc. (see appended document: Summary of 2001 Activities - Resolution Island Project).

o. Public Consultation

No public consultation or participation was held with local organizations or residents of nearby communities this past year.

p. Concerns Addressed

Concerns/deficiencies listed in the 2000 Water Licence Inspection Report were addressed as described in section f. Environmental Monitoring Program.

q. Other Details

No other details on water use or waste disposal were requested by the Board

r. Inuktitut Executive Summary

Executive summaries of Resolution Island Water Licence Annual Report 2002; Summary of 2001 Activities - Resolution Island Project, QC/Sinanni; and Resolution Island 2001 - Scientific Investigations, Queen's University, Analytical Services Unit are being translated in Inuktitut and will be forwarded to NWB within the next few weeks.

TABLE I: SNP Sampling Results

Parameter	Units	Station Numbers				
		RES-1	RES-2 ¹	RES-3 ¹	RES-4 ²	RES-5 ²
Copper	mg/L	0.012	-	-	-	-
Iron	mg/L	< 0.05	-	-	-	-
Lead	mg/L	< 0.005	-	-	-	-
Manganese	mg/L	0.06	-	-	-	-
Mercury	mg/L	< 0.0005	-	-	-	-
Cadmium	mg/L	< 0.001	-	-	-	-
Nickel	mg/L	0.062	-	-	-	-
Chromium	mg/L	< 0.005	-	-	-	-
Cobalt	mg/L	0.014	-	-	-	-
Zinc	mg/L	0.032	-	-	-	-
Phenols	µg/L	< 1.0	-	-	-	-
pH	-	4.3	-	-	-	-
TSS	mg/L	< 1	-	-	-	-
Nitrate	mg/L	0.06	-	-	-	-
Nitrite	mg/L	< 0.05	-	-	-	-
Oil and Grease	mg/L	2.4	-	-	-	-
BOD	mg/L	3.0	-	-	-	-
Faecal Coliforms	Cts/100 mL	0	-	-	-	-

Notes: Certificate of analysis presented on following page

¹ Sampling and analysis not required

² No sampling and analysis carried out because of absence of runoff water at these sampling locations