



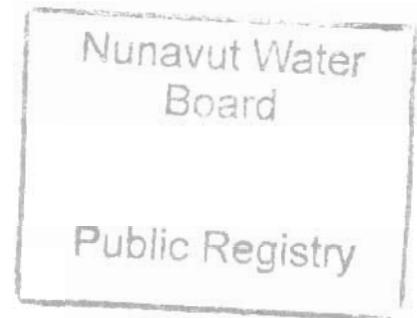
March 31, 2004

Ms. Phyllis Beaulieu
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0A 1J0

Dear Ms. Beaulieu:

INTERNAL	
PC	MP
MA	
FO	
LA	
BS	
ST	
TAM	
TAP	
RC	
ED	
CH	
BRE	
EXT	

Project No.: CAM-2 (3.6)



RE: 2003 Annual Report for Water Use License #NWB5GLA0308

UMA Engineering Ltd. is submitting the following annual report as per the requirements of Part B.1 of the above noted water use license. The report is being submitted on behalf of Defence Construction Canada and the Department of National Defence.

The following is a summary of the work completed at the CAM-2 site in 2003:

- The construction camp was set up.
- Berm construction at the Non-Hazardous Waste Landfill was started.
- The key trench at the Tier II Soil Disposal Facility was excavated.
- The regrading and reshaping at the USAF Landfill was completed.

The work plan for 2004 will be to continue with the clean up activities as described in the project description.

A sewage lagoon was constructed late in August 2003 to support the construction cam, as per the specifications included in the water use licence application. Due to the coarse-grained nature of the material available at the CAM-2 site and the relatively short period of time on site, the sewage lagoon did not retain the discharged effluent. All effluent discharged into the lagoon infiltrated the ground. No samples of the sewage effluent were collected because insufficient effluent quantities were available to obtain a sample for analysis.

The following table provides a summary of the water usage from the Water Supply Lake and the effluent discharge to the sewage lagoon.

J:\General\Earth & Water\Eva Schulz\DEWLINI\2004\CAM-2\C2 WUL annual report.doc

Month	Quantity of Water Obtained (cubic metres)	Quantity of Sewage Effluent Discharged (cubic metres)
August	72	58
September	196	157
TOTAL	268	215

There was one spill occurrence at the CAM-2 site in 2003. The spill was reported via telephone to the Spill Report Line and a report was also sent. Approximately 100-125 litres of diesel fuel were spilled because of an overflow during transfer. Geomembrane liner material and earthen dikes were used to contain the spill. The impacted soil will be excavated and placed in the hydrocarbon-contaminated soil treatment facility upon its construction in 2004. A copy of the spill report is included as an attachment.

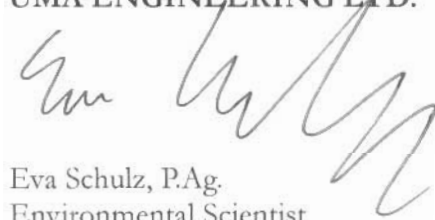
A community meeting was held in Gjoa Haven to discuss the clean up program at CAM-2 on July 3, 2003. A copy of the presentation and meeting minutes is attached to this report.

An overall site plan and project layout are included to show the locations of the various work areas described in this report.

We trust the information provided is consistent with the requirements of Water Use Licence #NWB5GLA0308. Please feel free to contact the undersigned if you have any questions or comments.

Sincerely,

UMA ENGINEERING LTD.



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

Encl. Overall Site Plan, Project Layout
Community Meeting Notes
Spill Report

cc: Jim Wall/Philippe di Pizzo, NWB
Phil Warren, DCC

General Notes:

Legend:
APPROXIMATE EXTENT OF
BORROW AREA
BODY OF WATER

No.	DATE	REVISION	REVISION	APPROVED

uma

5000

SCALE - ÉCHELLE: 200 100 0 200 400 600m

PROJECT - PROJET
CAM-2 GLADMAN POINT

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HER MAJESTY THE QUEEN IN RIGHT OF
CANADA 2003. AS REPRESENTED BY
THE MINISTER OF NATIONAL DEFENCE.

THICK - ÉPAISSE	STINKING	DATE
		2003-03-03

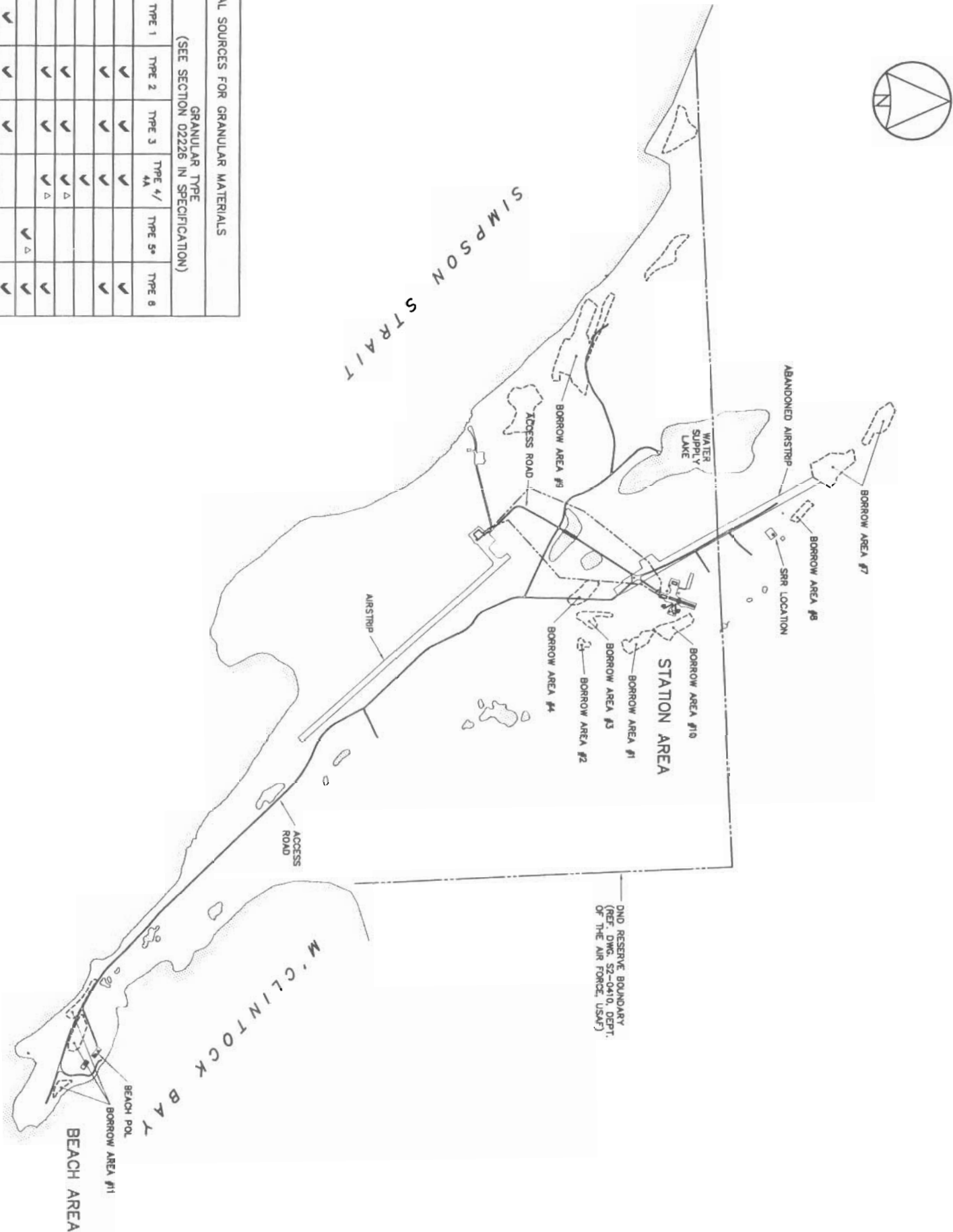
OVERALL SITE PLAN

PRODUCTION	CONFORMANCE - ASSURANCE
DESIGNED: <i>MBP/MBP</i>	DESIGN OFFICER
ETUDED: <i>MBP/MBP</i>	DESIGNER
DRAWN: <i>MBP/MBP</i>	SECT HD
DESIGNED: <i>MBP/MBP</i>	CHEF SECT
CHECKED: <i>MBP/MBP</i>	DESIGN
VERIFIED: <i>MBP/MBP</i>	DESIGN
COORDINATION: <i>MBP/MBP</i>	REVIEWED - REVU

DWG. NO. - DESIGN NO.
H-Q36/1-9101-101

POTENTIAL SOURCES FOR GRANULAR MATERIALS						
BORROW AREA	GRANULAR TYPE (SEE SECTION 02226 IN SPECIFICATION)					
	TYPE 1	TYPE 2	TYPE 3	TYPE 4/ 4A	TYPE 5*	TYPE 6
1	✓	✓	✓	✓	✓	✓
2 Δ	✓	✓	✓	✓	✓	✓
3 Δ	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓ Δ	✓	✓
7	✓	✓	✓	✓ Δ	✓	✓
8	✓	✓	✓	✓	✓ Δ	✓
9	✓	✓	✓	✓	✓	✓
10	✓	✓	✓	✓	✓	✓
11	✓	✓	✓	✓	✓ Δ	✓

* POCKETS WITHIN BORROW AREA
Δ LESS THAN 2500m³ EXPECTED



**DEW Line Clean Up Project
Community Meetings 2003**

March 11th- 12th 2003

Hall Beach (FOX-M)

Gjoa Haven (CAM-2)

July 3rd, 2003

Qikiqtarjuaq (FOX-5)

Community Meetings 2003

Community Meetings

March 11th – 12th, 2003

Hall Beach (FOX-M)

Gjoa Haven (CAM-2)

July 3rd, 2003

Qikiqtarjuaq (FOX-5)

Representatives:

Suzanne Belanger-Fontaine, Department of National Defence

Allison Lobsinger- Department of National Defence

Scott Hamilton, Defence Construction Canada

Nick Monteiro, Defence Construction Canada

Wayne Ingham, Environmental Sciences Group

Daniela Loock, Environmental Sciences Group

Roland Merkosky, UMA Group

Barry Fedorak, UMA Group

Randy Wheeler, SGE-Acres Group

Tania Guty, Public Works and Government Services Canada

Community Meetings for the New Starts in 2003

During the week of March 10th, 2003, public meetings were held at Hall Beach and Gjoa Haven, followed by a public meeting in Qikiqtarjuaq on July 3, 2003. The purpose of these meetings was to update the communities on our site work plan for the summer of 2003. This document contains a copy of each presentation delivered, the minutes of the meetings, as well as pictures of the events and the communities themselves.

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Appendix C – Thumbnails of other photos taken on the tour

Trip Itinerary

Hall Beach –March 11th, 2003

Meeting at 7 pm - Hamlet Council Chambers, Hall Beach

Presenters: Scott Hamilton, Nick Monteiro, Wayne Ingham, Randy Wheeler

Support: Daniela Loock,

Gjoa Haven – March 12th, 2003

Meeting at 7 pm – Community Hall, Gjoa Haven

Presenters: Scott Hamilton, Daniela Loock, Roland Merkosky

Support: Nick Monteiro, Wayne Ingham, Randy Wheeler

Qikiqtarjuaq – July 3rd, 2003

Meeting at 7:00- Avviuujaq Gymnasium

Presenters: Suzanne Belanger-Fontaine, Scott Hamilton, Wayne Ingham, Barry Fedorak, Tania Guty.

Support: Daniela Loock, Allison Lobsinger

Gjoa Haven Community Meeting (CAM-2)

Gjoa Haven Community Hall

7:00pm – 9:30pm

Attendance

There were approximately 30-35 members of the community in attendance, as people entered the hall they signed an attendance sheet, the following is a list of those people.

Peter Akkikungnaq (Mayor), Raymond Kamookak (Hamlet SAO), Charlie Cahiel, Judas S.R. Karoo, Joseph Akoak, Alan Johnson, James Olnqnanuq, Mark Ullikataq, Adam Alqriq, David Siksik, Donald Kogvik, Mar Kuinunak, Matthew Tiriganiaq, Samuel Takkinuq, Alex Ruben, Mary Porter, Ben Pittuguo, Jim Wall (Nunavut Water Board), Dionne Filiatrault (Nunavut Water Board), Alan Johnson.

In addition approximately 15 residents and elders of Hall Beach who did not sign in

Translator: Tommy Nalungniaq

Brief Agenda

1. Introduction and prayer by Mayor Peter Akkikungnaq
2. Presentations:
 - General Introduction to the DLCU Project - Scott Hamilton (DCC)
 - Overview of environmental investigations conducted at CAM-2 - Dr. Daniela Looock (ESG)
 - Overview of engineering component of the cleanup at CAM-2 – Roland Merkosky (UMA)



Door Prize: A pair of binoculars was awarded at the end of the meeting.


3. Group Discussion Highlights
Detailed meeting notes can be found in Appendix A-3
4. Pictures taken at the meeting and of the community, as well as aerial views of Gjoa Haven can be found in Appendix B-4

2. Presentations

DEW LINE CLEAN UP (DLCU)


GJOA HAVEN PUBLIC MEETING FOR CAM-2 (GLADMAN POINT)
MARCH 12, 2003


 Défense Construction Canada
 Construction de Défense Canada
 National Defence
 Défense nationale


Purpose of the meeting

- To inform the residents of Gjoa Haven about the status of the DEW Line Clean-Up project
- To provide information on the work to be done at Gladman Point over the next few years

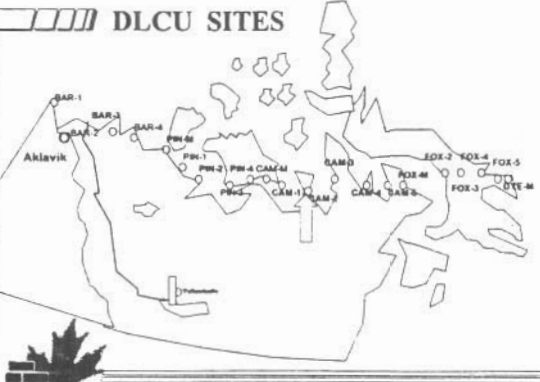



Presentation Outline


- DEW Line Clean up:
 - The Project Team and Typical Clean up Activities
 - Site Investigation Findings- Dr. Daniela Look
 - Clean Up Plans - Roland Merkosky, P.Eng
 - Expected timelines for clean up-Scott Hamilton
- Questions




DLCU SITES

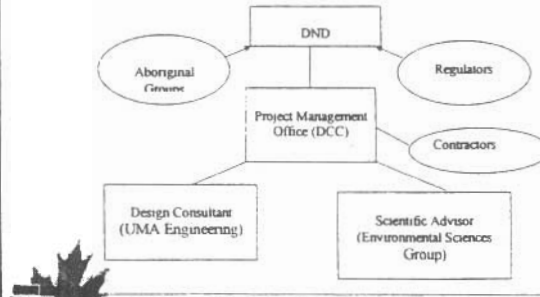
Who we are




DEPARTMENT OF NATIONAL DEFENCE
 DIRECTOR GENERAL ENVIRONNEMENT
 Colonel S. Bouchard, Director General
 Colonel S. Bouchard, Project Director
 DEFENCE CONSTRUCTION CANADA
 DEW Line Clean-Up Project
 Lt Colonel Daniel Piquet, Project Manager
 DEFENCE CONSTRUCTION CANADA
 Project Management Office (PMO)
 Scott Hamilton, Environmental Officer
 Environmental Sciences Group (ESG)
 Royal Military College Kingston
 Dr. Daniela Look, Project Manager
 UMA Engineering Group
 Roland Merkosky, P. Eng



DEW Line Clean Up Team




DND
 Aboriginal Groups
 Regulators
 Project Management Office (DCC)
 Contractors
 Design Consultant (UMA Engineering)
 Scientific Advisor (Environmental Sciences Group)




Project Management Office (PMO)

- Responsible to DND for overall implementation of the project
- PMO consists of a project manager, 3 associate project managers, project engineers, a contract manager and an environmental/ quality assurance officer
- Generates and oversees implementation of project (from start to finish)



Project Team


- Environmental Sciences Group
 - RMC (DND organization)
 - lead in protocol development
 - act as scientific advisor
 - conduct on site delineation work
 - confirmatory testing
- UMA Engineering Limited
 - engineering consultant/ advisor
 - on site surveys of landfills and infrastructure
 - prepare site specific designs and cost estimates
 - support during implementation



PROJECT AIM


At 21 DEW sites;

- Return sites to an environmentally safe condition
- Stop migration of contamination from the sites into the food chain
- Dispose of surplus infrastructure
- Remediate existing landfills

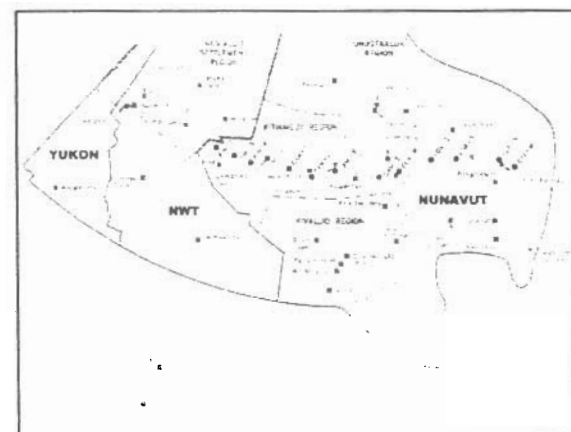


The Distant Early Warning (DEW) radar line

- Replaced by the North Warning System
- 42 sites constructed in the late 50's
- 21 sites were decommissioned in the early 1960's and are the responsibility of the Department of Indian Affairs and Northern Development (DIAND)
- 21 other sites were decommissioned between 1989 and 1993 and are the responsibility of the Department of National Defense (DND)




All the sites are located within Aboriginal land claim areas. The project is a cooperative project with the Aboriginal People.


1998: Environmental agreement signed by DND and NTI in Cambridge Bay - Addresses environmental issues and how the clean-up will be carried out in northern Nunavut.

- Landfill containment
- Hazardous materials
- Asbestos
- Contaminated soils
- Testing to ensure the clean-up has been done properly
- Restoration (grading, erosion protection, limiting disturbance when obtaining gravel, soils, seedlings when required...)
- Monitoring landfills
- Schedule for the clean-up



Economic Agreement – signed in August 2001 in Iqaluit

- Economic benefits by ensuring Inuit economic participation
- Jobs, training and business opportunities addressed
- Training allocation (\$750,000. For Nunavut sites) in support of NTI training plan
- Competitive contracts specify Inuit content and participation




Economic Agreement – signed in August 2001 in Iqaluit

- Increase access by Inuit to career training, on the job training, apprenticeship
- Increase opportunities for Inuit to receive training and experience to create, operate and manage Inuit owned businesses in Nunavut
- Establish a mechanism whereby contractors fulfill their agreements on levels of Inuit participation.



HIGHLIGHTS

- DND retains long term environmental responsibility
- Monitoring program
- Cooperation Agreements with IRC and NTI
- 10 year implementation plan
- 25 year monitoring program




Members of the Steering Committee

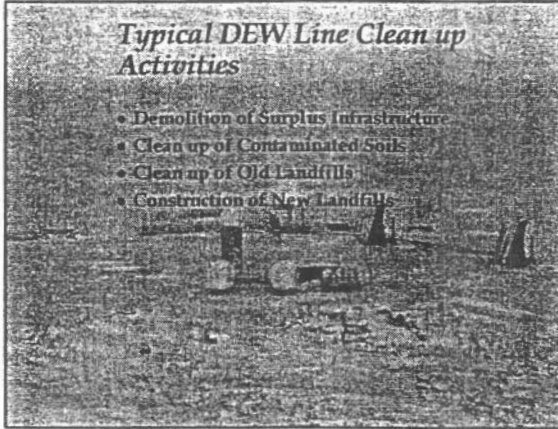
- James Ettoolook – NTI
- Charlie Evalik – KIA
- Thomas Alkatuktuk – QIA
- Ginger Stones – DND
- Holmer Berthiaume – DND
- Project Managers – DCC



Impact of the clean up on communities

- Overall positive impact on wildlife, fish and marine mammals as contamination sources will be removed
- Remove safety hazards
- Clean up of the land around the site
- Economic, employment and training opportunities for area residents

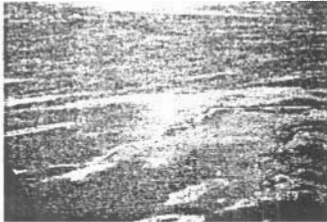




**Environmental Cleanup at the Gladman Point
(CAM-2) DEW Line Site**

Dr. Daniela Loock
&
Dr. Wayne Ingham

Environmental
Sciences Group
Kingston, Ontario
Canada




Role of ESG

- To carry out an environmental investigation of the site
- To provide scientific advice for the cleanup
- To ensure appropriate removal of contaminated soils and materials during the cleanup

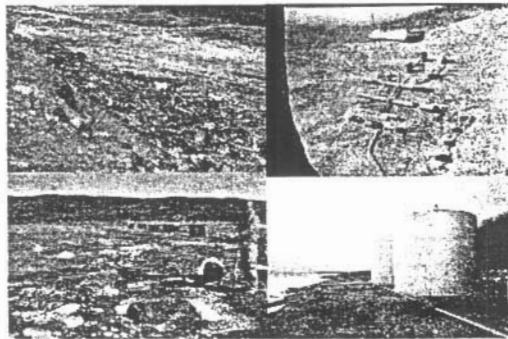
Activity Phases of the DLCU

Sampling Phases

Assessment Investigation Construction Monitoring



Assessment



Initial Assessment

1989:
Initial assessments sponsored by DND/DIAND/USAF

The DEW Line Clean Up Protocol

- To restore sites to an environmentally safe condition
- To prevent migration of contaminants into the ecosystem
- Includes the DEW Line Cleanup Criteria (DCC)
- Cleanup plans for individual sites