

PROJECT OVERVIEW

June 15, 1998

To: Distribution List via fax.

Re: NIRB file no. 98W05N091

Project: Mineral Exploration on Cornwallis and Devon Islands

Proponent: Noranda Mining and Exploration

Region: Baffin

Location: See attached sheet

Project Overview:

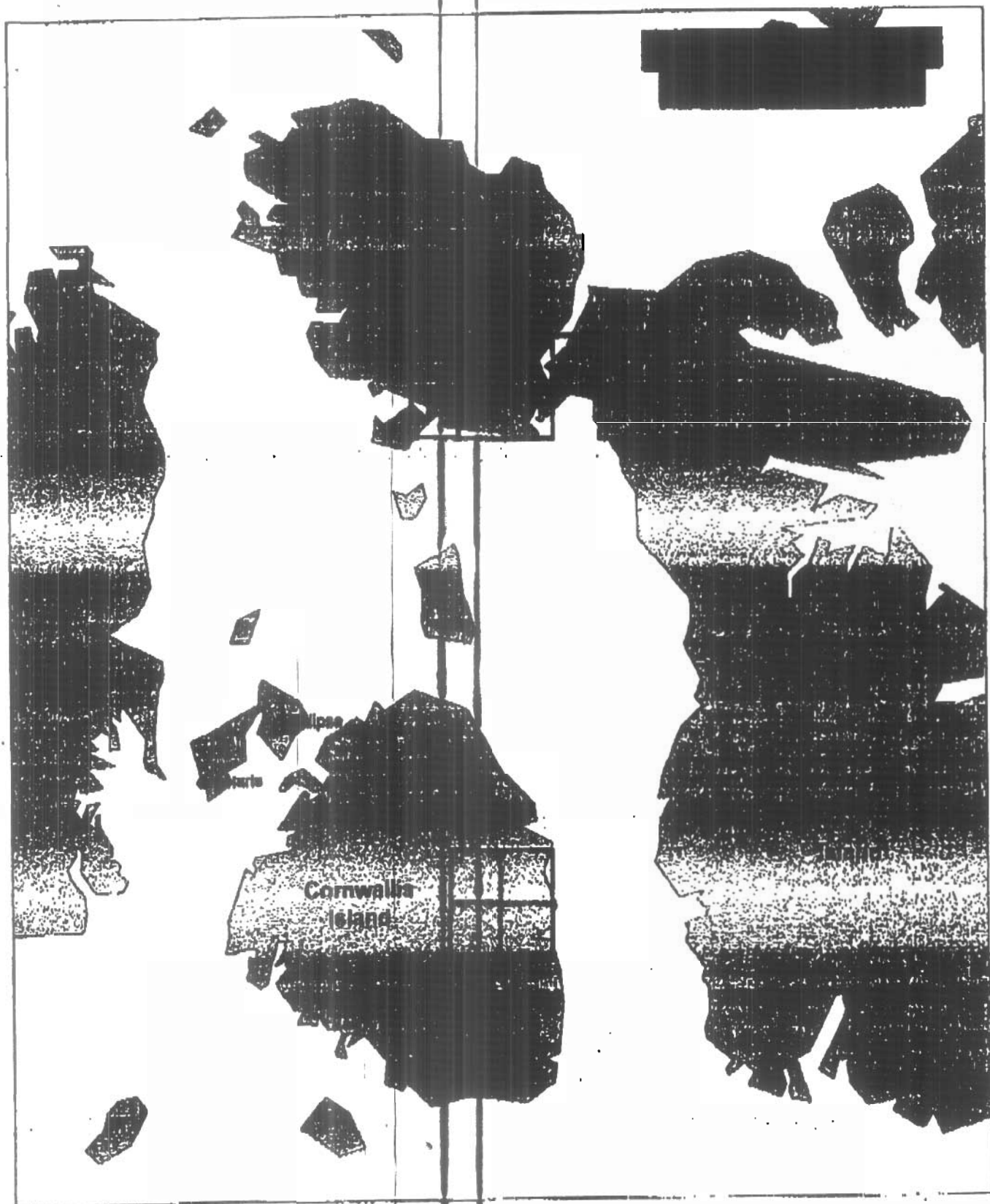
Noranda Mining and Exploration has applied for a water license as part of their mineral exploration program proposed to begin in late July. This program is a continuation of the exploration program initially started by BHP Minerals in 1994.

Drilling will involve the use of a small, helicopter-portable diamond drill. All water will be recirculated to minimise water usage and all salt will be filtered out before the water is returned to the surface environment. All other drill additives are natural, biodegradable products. Noranda estimates that they will require 2000 to 3000 L of water per day for this mineral exploration process.

Two camps, initially established by BHP, will be set up on Cornwallis Island and Devon Island and the drilling activities on each island will take place at the same time. There will be 20 to 25 persons distributed between the two camps. Fuel caches will include approximately 100 to 150 drums of combined turbine and diesel fuel at each camp. These caches will be lined with impermeable sheeting in natural depressions, and all possible fuel leakage areas will be protected by special drip mats. Fuel spill kits will be on site in the event of an emergency. A copy of the spill response protocol is attached. Camp sewage will be buried in hand-dug sumps (alternative methods are being investigated) and camp grey water will be dispersed in hand-dug sumps. All garbage will be incinerated, and any metal or non-flammable material will be back hauled to Resolute Bay, including empty fuel drums etc..

Public consultation has not yet taken place, however, Noranda is planning to send letters of introduction and then set up informal meetings with the communities.

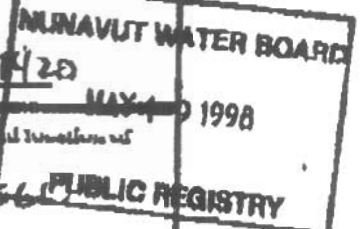
Proposed 1998 Drill Hole Locations, Noranda Mining and Exploration Inc., Wellington Project		
Showing	Latitude (north)	Longitude (west)
Cornwallis Island		
CD	75.18756241	83.92017448
NB01	75.03328141	84.15882234
NB02	75.10804125	84.24680807
Devon Island		
JG-Trigger	76.85289606	84.18890058
Hornby Zn (Cornwall, 1972)	76.28707588	84.46236282
Simba	76.48519911	84.10853281
BK	76.55882728	84.18249247
Soda	76.51994828	84.46303462



NUNAVUT WATER BOARD LICENCE APPLICATION FORM

Application for licence, amendment to licence, or renewal of licence

1. NAME AND MAILING ADDRESS OF APPLICANT NORANDA MINING and Exploration Inc. 960 ALLOY DRIVE Thunder Bay, Ont P7B 6A4 Phone: 623-4339 Fax: 623-0452	2. ADDRESS OF HEAD OFFICE IN CANADA IF INCORPORATED 1 Adelaide St. E. Toronto, Ont. Phone: 982-7419 Fax: 982-7420
3. LOCATION OF UNDERTAKING (describe and attach maps, including watercourse and location of any proposed waste deposits) East-Central Cornwall Island and Grinnell Peninsula, Devon Island Latitude: _____ Longitude: _____ SEE MAPS	
4. DESCRIPTION OF UNDERTAKING (describe and attach plans) EXPLORATION DIAMOND DRILLING	
5. TYPE OF UNDERTAKING ☐ Industrial ☐ Power ☐ Agricultural ☒ Mining and Milling ☐ Conservation ☐ Recreation ☐ Municipal ☐ Other (describe): _____	
6. WATER USE ☒ To obtain water ☐ Flood control ☐ To cross a watercourse ☐ To divert water ☐ To supply the land to which it is applied ☐ To alter the flow of, or return, water ☐ Other (describe): _____	
7. QUANTITY OF WATER INVOLVED (litres per second, litres per day or cubic metres per year, including both quantity to be used and quantity to be returned to source.) ~2000 to 3000 L/day (P)	



8.	WASTE DEPOSIT (quantity, quality, treatment and disposal)	
Water for drilling is recirculated, and. Altered before release in natural sump. Camp water (gray water) is released into hand dug sump.		
9.	OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give names, address and location; attach if necessary)	
NONE (ALL WATER USE OPERATIONS ARE ON CROWN LAND)		
10.	PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION	
NO KNOWN IMPACTS		
11.	CONTRACTORS AND SUB-CONTRACTORS (name, address and telephone)	
MIDWEST DRILLING		
12.	STUDIES UNDERTAKEN TO DATE (list and attach copies)	
NONE		
13.	INSURE THE FOLLOWING INFORMATION IS ALSO INCLUDED	
Land Use Permit	☐ Yes ☒ No	Date Expected <u>June 1st</u> DIAND? QIA
Supplementary Questionnaire	☒ Yes ☐ No	Date Expected _____
Insights Summary of Project	☐ Yes ☒ No	Date Expected <u>? na</u>
MAP @ 1 : 250,000 (with camps, drill sites, etc.)	☒ Yes ☐ No	Date Expected _____
14.	PROPOSED TIME SCHEDULE	
Start Date: <u>JUNE 15, 1998</u> Completion Date: <u>AUGUST 30, 1998</u>		

MATT REES
Name (Print)

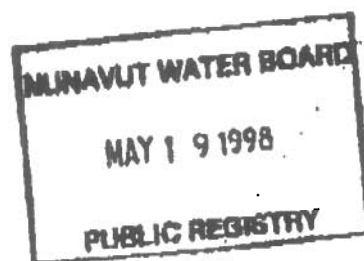
Project Geologist
Title (Print)

[Signature]
Signature

May 12/98
Date



**Water Licence Application
Supplementary Questionnaire
for Exploratory Drilling**



SECTION 1:**GENERAL**

1. Applicant

NORANDA MINING AND EXPLORATION INC.

(Company, corporation, owner)

960 ALCOY DRIVE, THUNDER BAY, ONT. P7B 6A4

(Postal address)

807-623-4339

(Telephone number)

-0452

(Fax)

mines@micromerge-tb.com

(E-Mail)

refsm@mormin.com

Corporate Address (If different from above)

1 Adelaide Street East, TORONTO, ONT.

(Corporate Office Address)

416-982-7420

(Telephone number)

-7419

(Fax)

na

(E-Mail)

Project Name Wellington - 440Location Cornwallis and Devon IslandsClosest Community Resolute Bay, GRISE FJORDLatitude/Longitude Cenroid: 94°W, 76°N

Show the location of the project on a general location map.

2. Environmental Manager

MATT REES

(Name)

807-623-4339

(Telephone No.)

or Project Manager

PROSPECT GEOLOGIST

(Title)

3. Indicate the status of the exploration activity on the date of application. (Check the appropriate space.)

Design
Under construction
In operation
Suspended
Care and Maintenance
Abandoned

✓ (PLANNING)

4. If a change in the status of the exploration activity is expected, indicate the nature and anticipated date of such change.

OPERATION PLANNED TO COMMENCE ON ~ JUNE 15TH
(to June 30th) and TERMINATE ~ AUG. 30TH

5. Indicate the present (or purposed) schedule for the exploration activity.

Hours per week ~60-100
Days per week 7
Weeks per year 10
Number of employees ~10
Number of Inuit employees ~2

6. Estimate the ~~term~~ (life) of the exploration activity

2 to 2.5 (Months) Year

7. How will the project affect the traditional uses on Inuit Owned Lands?

NOT LOCATED ON IOL

8. Have the Elders been consulted on effects to the traditional use on Inuit Owned Land? If so, list them. If not, why not?

See #7, But Elders are consulted thru Land Use
Permit Application process.

9. Has the proponent consulted Inuit Organizations in the area? If so, list them.

QIA and Resolute Bay, thru Land Use Permit application process (indirect)

10. Has the proponent consulted surrounding communities on traditional water use areas? If so, list them. If not, why not?

See #9, But Not Really APPLICABLE TO SCALE OF PROGRAM.

11. Attach a detailed map drawn to scale showing the relative locations (or proposed locations) of the exploration activity, Sewage and solid waste facilities, and containment areas. The plan should include the water intake and pump house, fuel and chemical storage facilities. Ore and waste rock storage piles, piping distribution systems, and transportation access routes around the site. The map also should include elevation contours, water bodies and an indication of drainage patterns for the area.

N/A

12. If applicable, provide a brief history of property development which took place before the present company gained control of the site. Include shafts, audits, mills (give rated capacity, etc.) waste dumps, chemical storage areas, tailings disposal areas and effluent discharge locations. Make references to the detailed map.

N/A

13. Give a short description of the proposed or current freshwater intake facility, the type and operating capacity of the pumps used, and the intake current size.

Small 1-10 hp. pumps used at camp and drill. Water taken from nearby lake or stream

14. At the rate of intended water usage for the exploration activity, explain water balance inputs and outputs in terms of estimated maximum draw down and recharge capability of the water source from fresh water will be drawn.

Most water is eventually returned, after filtration, from the drill. Camp water usage is minimal

15. Will any work be done that penetrates regions of permafrost?

Yes, but only in the form of drill holes

16. If "YES" above, is the permafrost continuous or discontinuous?

Continuous

17. Were (or will) any old workings or water bodies (bc) dewatered in order to conduct the exploration activity?

No

18. If "YES" above, indicate the name of the water body, the total volume of water to be discharged and the chemical characteristics of the water.

Water body (If unnamed give Latitude/Longitude) Various

Total volume N/A cubic meters

Receiving Watercourse N/A

Dewatering flow rate into above 0.5 cubic meters/sec (?)

Chemical characteristics of discharge: N/A

T/Pb	_____	mg/L	Total Ammonia	_____	mg/L
T/Cu	_____	mg/L	Suspended solids	_____	mg/L
T/Al	_____	mg/L	Specific conductivity	_____	uhmo/cm
T/HCN	_____	mg/L	pH	_____	
T/Hg	_____	mg/L			
T/Zn	_____	mg/L			
T/Cd	_____	mg/L			
T/As	_____	mg/L			
T/Ni	_____	mg/L			
T/Mn	_____	mg/L			

19. Was (or will) the above discharge (be) treated chemically?

Yes with No. 10

20. If "YES" above, describe the applied treatment.

Filtered to remove silt. All other additives are
bio degradable.

21. Briefly describe what will be done with the camp sewage.

Hand dig pits

SECTION 2:**GEOLOGY AND MINERALOGY** N/A

22. Briefly describe the physical nature of the mineralization, including known dimensions and approximate shape.

Similar to the Polaris Mine (but hopefully bigger!)

23. Briefly describe the host rock in the general vicinity of the mineralization (from the surface to the mineralized zone.)

Limestones and Dolomites

24. Provide a geological description of the mineralized zone. (If possible, include the percentage of metals.)

Similar to Polaris Mine

25. Describe the geochemical tests which have been (or will be) performed on the ore, host rock, and waste rock to determine their relative acid generation and contaminant leaching potential. Outline methods used (or to be used) and provide test results in an attached report (in static tests, kinetic tests.)

N/A

26. Estimate the percentage of sulphide in the mineralization:

pyrite
pyrrhotite
pyrite / pyrrhotite mixture
arsenopyrite

5%

0

0

0

SECTION 3:-**EXPLORATION OPERATION**

27. Check off the type (or proposed type) of exploration operation that will be used on the property and briefly describe the method in more detail.

- a) Reverse circulation to obtain bulk sample
- b) Trenching
- c) Conventional open pit
- d) Decline
- e) Conventional underground
- f) Strip mining activity
- ☒ g) Other Exploration activity (please explain)

DIAMOND DRILLING FOR CORE RECOVERY

28. Indicate the size and number of samples that will be obtained.

_____ tonnes
_____ number of samples

N/A

Please note if smaller samples are to be taken from different areas (note location) to form one large bulk sample.

29. Indicate the present or proposed average rate of exploratory production from all mineralized sources on the property:

N/A tonnes ore / day

30. Outline the water usage (or proposed water usage) in the exploration activity, indicate the source and volume of water for each use.

Source	Use	Volume (m ³ / day)
1. <u>Drill</u>	<u>Lubrication</u>	<u>100-200 (3)</u>
2. <u>Camp</u>	<u>Washing</u>	<u>2-6</u>

31. If applicable, indicate or estimate the volume of natural ground water presently gaining access to the mine workings.

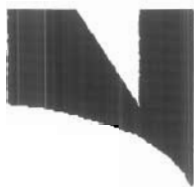
N/A m³ / day

32. If applicable, outline methods used underground or on surface to decrease mine water flow. (For example: recycling)

Water is recirculated

33. List the brand names and constituents of the drill additives to be used.

Calcium Chloride
PolyDrill or MATEX (Biodegradable)

**noranda**

Mining and Exploration Inc.
Western Canada Region
960 Alloy Drive, Thunder Bay
Ontario, P7B 6A4

Ph: (807) 623-4339 general; 625-7549 direct
Fax: (807) 623-0452
reesm@normin.com (Noranda)
mrees@microage-tb.com (Internet)
reesm (AT&T mailbox)

DATE: June 12, 1998

TO: Stephanie Briscoe, NIRB

FROM: Matt Rees

RE: Wellington Project Review - 98W05N091

CC:

The Wellington Project is a mineral exploration program to be undertaken by Noranda Mining and Exploration Inc., starting in late June of 1998 (we hope!) and finishing in mid-August, 1998 (further exploration may be dependant on results of this summers program). This program is essentially a continuation of the exploration program initially started by BHP Minerals in 1994. The target we are looking for is a zinc and lead deposit similar in size (or larger!) to Continuum's presently operating Polaris Mine.

BHP had advanced the property to a stage at which exploratory drill holes are required on several prospects, although there still remains a considerable amount of geologic mapping, sampling and geophysical surveying to be done.

Drilling will involve the use of a small, helicopter-portable diamond drill. All water is recirculated to minimise water usage, and all salt is filtered out before the water is returned to the surface environment. All other drill additives are natural, bio-degradable products. Drill sites are usually un-noticable after the drill has been removed, but every effort will be made to return them to their natural state.

Fuel caches will be lined with impermeable sheeting in natural depressions, and all possible fuel leakage areas protected by special drip mats. In addition, fuel spill kits will be on site in the unlikely event of an emergency (I have included a copy of our spill response protocol as well). There will be approximately 100 to 150 drums of combined turbine and diesel fuel cached at each camp.

The camp sites initially established by BHP on both Devon and Cornwallis Islands will be re-used by Noranda, minimising additional ground disturbance (total crew size is approximately 20 to 25 people, distributed between the two camps). Camp sewage will be buried in hand-dug sumps (although we are investigating alternative methods), and camp grey water will be dispersed in hand-dug sumps. All garbage will be incinerated, and any metal or non-flammable material back hauled to Resolute Bay, included empty fuel drums, etc.

Although the bulk of the project work is located on Crown lands, several areas of IOL are within the prospecting permits (RB-12, RB-24, GF-08). Very little work is planned on the IOL areas other than geologic mapping and stream sediment sampling.

Unfortunately, due to the lengthy delays in coming to an joint venture agreement between Noranda and BHP (the deal was actually finalised today!), we are behind in the entire planning process for the summer. For this reason, we have not yet had an opportunity to personally consult with the local communities. We are planning to set up some type of informal meetings once we mobilise to the area in late June, preceded by letters of introduction.

Regards,



Matt Rees

Project Geologist

EMERGENCY RESPONSE PROCEDURES FOR SPILL REPORTING**JOB SITE SPECIFIC OR DURING TRANSPORTATION****WESTERN CANADA REGION - NWT**

1. Assess and stop the spill/leak, if possible.
2. Take immediate steps to contain and minimize the effects of the spill. (i.e. Containment/spill kits)
3. Report the spill/leak to your supervisor (Foreman, Senior Geologist, Project Geologist) as soon as possible. If your supervisor is unavailable, contact any of the following. Work through the list.

Robin Adair
Rick Kruse
Rod Swire
Al Hnard
(If nobody available, go to step #4)

Graham Ascough
Clint Barr
Dave King
Jonathan Macisaac

Wayne Darch
Matt Rees
Dave MacDonald

CAMP GPS CO-ORDINATES:**LOCAL OFF DETACHMENT:****LOCAL EXPEDITOR:****LOCAL FLIGHT BASE:**

4. Upon notification of spill, supervisors are to contact:

- a) **ENVIRONMENTAL SPILL REPORTING (24 hours):** 867-920-8130
- LOCAL DISTRICT ENVIRONMENTAL DETACHMENT:**

24 Hour Spill Line (all of NWT) 867-920-8130
(Fax) 867-873-6924
Hazardous Substance Specialist 867-873-7654
(Yellowknife only-Harvey Gankel)
Indian Northern Affairs/Canada 867-669-2656
(Waters-Greg Cooke-will be contacted by spill line)

If unavailable or after hours, contact Canadian Coast Guard (Federal Waters). 800-265-0237
West Arctic (Without Nunavut) 867-874-5559
(Hay River-Terry Cooke)
East Arctic (Contact Ottawa) 613-990-5600
Search & Rescue (24 hrs) 800-267-7270

5. Field procedures as follows: **KEEP GOOD RECORDS**

- a) When did it happen? (time/date)
- b) What product was spilled and approx. how much?
- c) Whom did you contact/notify and when?
- d) What actions were taken to contain the spill/leak?
- e) What corrective actions were advised to be taken by authorities notified?
- f) List of witnesses.
- g) Description/diagram of spill site. i.e.) amount involved, area involved, vegetation, slope of land, runoff direction, distance to water source. (do not speculate)

6. What to report: GIVE THE FACTS ONLY. DON'T SPECULATE

- a) Time of spill, time spill was discovered and by whom.
- b) Type of product spilled and an approximate amount.
- c) Has the spill been stopped and contained?
- d) Known events/factors that may have influenced the spill.
- e) Location and description/diagram of spill site. i.e.) amount involved, area involved, vegetation, slope of land, runoff direction, distance to water source. (do not speculate)
- f) Actions taken to stop/contain the spill.
- g) Actions advised by authorities notified.
- h) Damage assessment/potential.
- i) List of witnesses (names) and their job titles. (record witness information ASAP and verify)
- j) List of supervisors/authorities advised of spill/leak. (get names whenever possible)
- k) Your name, job title and telephone number (business and residential)

7. Complete and submit an environmental incident investigation form. Have witnesses review your report for discrepancies. Sign off your report and if possible have witnesses initialed.

NE: As a precautionary step, ensure that all fuels/propanes when transported are done in an upright manner and securely fastened to the mode of transport. Consult with regulation/government authorities as to amounts allowed. Also ensure proper containment facilities and/or kits are in place at your work site.

TELEPHONE LIST

Adair, Robin 807-767-7605
(Cell 474-8158)
Ascough, Graham 807-767-4941
Barr, Clint 807-625-9346
Darch, Wayne 807-473-3837
Huard, Allan 807-345-7872
Krause, Rick 807-344-3401
King, Dave 807-768-0127
MacIsaac, Jonathan 807-767-8598
MacDonald, Dave 807-475-7570
Rees, Matt 807-768-2249
Smith, Al 807-767-5696
Ewise, Rod 807-767-8438
807-768-1760

Noranda office (Thunder Bay) 807-623-4339
WCB (Health & Safety-Mining) 800-661-0792
Min. of Labor/WCB (reception) 867-920-3841
(Emergency-weekends only) 867-873-0123
(Chief Inspector-work-Mr. Wong) 867-669-4408
(Chief Inspector-home) 867-873-3367
(Inspector Peter Bengts-home) 867-920-4257
(Inspector Michael Horne-home) 867-873-4591
Poison Control (YK Reg. Hosp.) 867-669-4111
(Emergency Ward)
NWT Fire Management 800-661-0800
(Duty Officer-Fire Season/24 hr) 867-920-6115
(Administration-Lench Schmidt) 867-920-6114

RCMP: (24 hrs onorg.) 967-660-1111
RCMP: (Yellowknife) 867-669-5200
RCMP: (Local Office)

Air Ambulance / Medi-Vac
SW Arctic (Yellowknife)-24 hrs 867-669-4115
(Stanton Regional Hospital)
N. Mackenzie District (Inuvik) 867-777-2955
Nunavut District (Kittikmeut) 867-669-4115
(Kittikmeut) 867-646-2171
(Baffin) 867-979-7300
(Emerg. Medical Advice-24 hrs) 867-669-4100

Canadian Coast Guard:

Search & Rescue (24 hrs) 800-267-7270

West Arctic (Without Nunavut) 867-874-5559

(Hay River-Terry Cook) 867-874-5559

East Arctic (Contact Ottawa) 867-874-5559

Environmental Spill Reporting:

24 Hour Spill Line (all of NWT) 867-920-8130

(Fax) 867-873-6924

Hazardous Substance Specialist 867-873-7654

(Yellowknife only-Harvey Gunkel)

Indian Northern Affairs/Canada 867-669-2656

(Waters-Greg Cooke-will be contacted by spill line)

Distribution List for NIRB File #: 98W05N091

**Project Name: Mineral Exploration – Cornwallis and Devon Islands
Noranda Mining and Exploration Inc.**

Baffin List# of Pages 23

Contact Name:	Phone #:	Fax #:
Nunavut:		
NTI Environmental Manager	983-2517	983-2723
QIA Lands and Resources Manager	867-979-5391	867-979-3238
NPC Executive Director	613-238-1155	613-238-5724
NWB Executive Director	867-360-6338	867-360-6369
NWMB Executive Director	867-979-6962	867-979-7785
QWB Chairperson	867-979-1560	867-979-1491
Federal:		
DIAND - Nunavut District Manager	867-979-4405	867-979-6445
DIAND - Baffin Regional Inspector	867-979-4405	867-979-6445
DFO - Eastern Arctic Regional Biologist	867-979-6274	867-979-4539
DOE Mgr. Environmental Protection Branch	867-920-6050	867-873-8185
CCG Ken Brant	519 383-1862	519-383-1989
Territorial Government:		
RWED - HQ Kelly Robertson	867-920-8069	867-873-0114
RWED - Baffin Ken Toner	867-979-5011	867-979-6791
MACA Metusalah Kunuk	867-979-5020	867-979-4779
Transportation Metusalah Kunuk	867-979-5106	867-979-0298
PWNHC Charles Arnold	867-920-8084	867-873-0205
Communities:		
Grise Fiord:		
Hamlet	SAO	867-980-9959 867-980-9052
Land & Resources Cmte.	Chairperson	867-980-9959 867-980-9052
Alikatuktuk HTO	Chairperson	867-980-9063 867-980-4311
Resolute Bay:		
Hamlet	SAO	867-252-3616 867-252-3749
Land & Resources Cmte.	Chairperson	867-252-3616 867-252-3749
HTO	Chairperson	867-252-3800 867-252-3800