

ECHO BAY MINES LTD.

A wholly-owned subsidiary of

KINROSS
Gold Corporation

LUPIN OPERATIONS SPILL CONTINGENCY PLAN

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Nunavut Water
Board
MAR 05 2004
Public Registry

Submitted under

WATER LICENCE NWB1LUP0008
NUNAVUT WATER BOARD

Revised: February 29, 2004

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1 GENERAL

1.1 PREAMBLE

This Contingency Plan has been compiled with respect to the requirements within Water License NWB1LUP0008, Part H, Item 1 renewed on July 1, 2000.

This Contingency Plan will supersede the previous plan, submitted in December 2000, upon approval by the Nunavut Water Board. An annual review of the Plan takes place and revisions are usually submitted as necessary with the annual report.

Mining and milling operations at Lupin were suspended in August of 2003 and the property was put on Care and Maintenance. Operations are to resume in March 2004.

The Lupin Mine Contingency Plan is distributed to all applicable departments at the Lupin Mine and is incorporated within the Operation's "Emergency Procedures Policy Manual" upon approval by the Board.

The "Guidelines For Contingency Planning, Northwest Territories Water Board, 1987", have been utilized as the guide to the requirements of the manual as per Item 1, Part H. The Plan has been expanded beyond these guidelines where appropriate.

1.2 CONTACT

Additional copies of this plan may be obtained by writing to:

Echo Bay Mines Ltd.
Lupin Operation
9818 International Airport
Edmonton, Alberta
T5J 2T2

Attn: Mr. Bruce Bried, Operations Manager,
Mr. Michael Tansey, Reclamation/Projects Manager,
Mr. Wayne Grudzinski, Superintendent Loss Control, or
Mr. Rick O'Neil, Maintenance Superintendent,

or by contacting the any of the above at (780) 890-7000.

1.3 DISTRIBUTION LIST

Affiliation	Position	Name	Copy #
Kinross Gold Corporation	Operations Manager	Bruce Bried	1
Kinross Gold Corporation	Superintendent, Loss Control	Wayne Grudzinski	2
Kinross Gold Corporation	Maintenance Superintendent	Rick O'Neill	3
Kinross Gold Corporation	Reclamation Manager	Mike Tansey	4
Kinross Gold Corporation	VP & GM Reclamation Operations	Bill Goodhard	5
Kinross Gold Corporation	Environmental Manager, Reclamation Operations	Mark Ioli	6
Kinross Gold Corporation	VP, Environmental Affairs	Jerry Danni	7
Nunavut Water Board	Executive Director	Philippe di Pizzo	8
DIAND	Water Resources Manager	David Milburn	9
Environment Canada	Environmental Protection	Dave Tilden	10
Inactive			11
Inactive			12
Inactive			13

1.4 PURPOSE

This Contingency Plan is designed to provide the necessary background information and plans of action in the event of a failure at the facility or an incident within the Lupin Mine Operations resulting in a spill of fuel, oil, reagents or tailings. It is intended to outline the means for responding to failures and material spills within these systems in a way that will minimize potential health hazards, environmental damage and clean up costs.

The objectives of the Plan are to:

- Define the reporting procedures and communication network to be used in the event of a system failure or material spill.
- Define procedures for the safe and effective containment and clean up/disposal of a system failure or material spill.
- Define specific individuals and their responsibilities.

The transportation joint venture which is responsible for the winter road, drafts a contingency plan for the road before hauling starts entitled "Tibbitt to Contwoyto Winter Road Joint Venture Spill Contingency Plan" for winter road personnel and the transportation of supplies via the winter road. A copy is available on site for reference in the event that the assistance of Lupin personnel is requested for a winter road emergency. **This Lupin Operations Contingency Plan is limited to the Lupin Mine Operations and is not intended to cover the response action plans for winter road transportation.**

1.5 KINROSS GOLD CORPORATION ENVIRONMENTAL POLICY

Kinross Gold Corporation recognizes that maintenance of environmental quality is vital to the Company's existence, progress, and continued development. The Company will maintain high environmental standards limited only by technical and economic feasibility. The Company will take positive action to protect the safety of its workers, conserve natural resources, and minimize the impact of its activities on the environment through diligent application of appropriate technology and responsible conduct at all stages of exploration, mine development, mining, mineral processing, decommissioning, and reclamation.

The purpose of Kinross Gold Corporation's Environmental Policy is to provide a measurable framework for the performance of the Company's activities in an environmentally responsible manner, ensuring compliance by the Company and its employees with all applicable environmental regulations and commitments.

Kinross Gold Corporation will:

- Evaluate, plan, construct, and operate all projects and facilities to reduce adverse environmental impacts and to meet or exceed applicable environmental laws, regulations, and standards. In the absence of applicable regulations, the Company will apply cost effective best management practices to protect the environment.
- Require managers of all projects and operations to adhere to the Company Environmental Policy and to identify, evaluate, and minimize risks to the environment.
- Continuously review environmental achievements and technology to seek and implement methods for further improvement.
- Require all operations to have site-specific emergency response plans which meet or exceed all applicable regulations.
- Conduct regular audits of environmental performance and emergency response plans to verify compliance with the Company's policy and applicable regulations. Identify

revisions or improvements to current practices in order to minimize environmental impacts. Report findings quarterly to the Board of Directors.

- Educate employees in environmental matters and responsibilities relating to performance of their assigned tasks. Entrust all employees to maintain necessary environmental performance for their activities.
- Foster communication with shareholders, the public, employees, and government to enhance understanding of environmental issues affecting the Company's activities.
- Work pro-actively with government and the public to define environmental priorities. Participate in the development of responsible laws for the protection of the environment.
- Allocate sufficient resources to meet the Company's environmental goals. Annually assess the projected costs of decommissioning and reclamation while funding "off balance sheet" an appropriate amount to ensure that there is sufficient cash reserves to pay for these costs upon closure.

2.0 REPORTING PROCEDURES

2.1 INITIAL REPORTING/ACTION

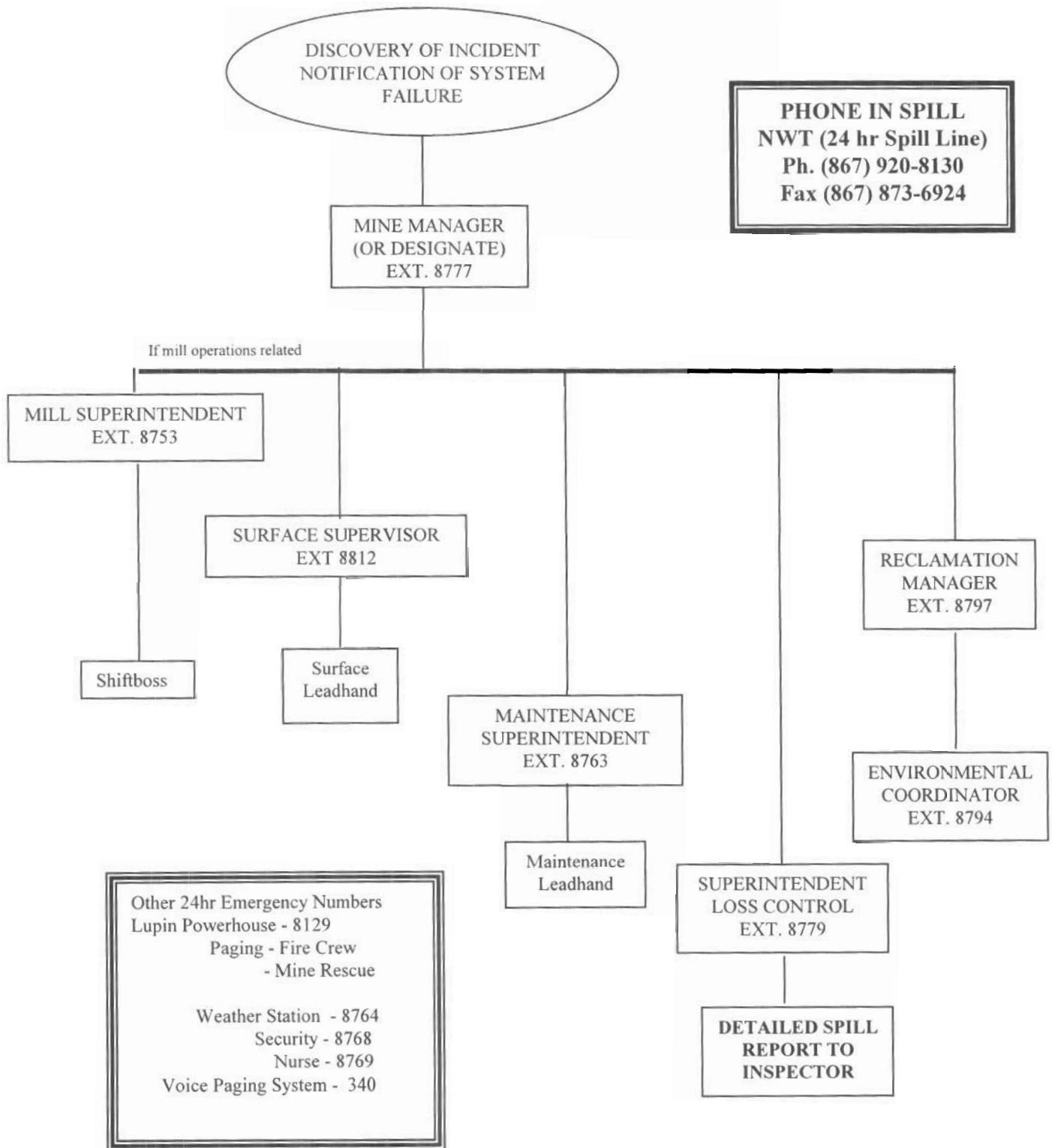
Upon encountering a failure within any of the disposal systems or a petroleum/ chemical spill, every Echo Bay Mines Ltd. employee/contractor is responsible for **immediately reporting** the situation to their supervisor, or if unavailable, report directly to the Operations Manager. A telephone listing of department management is included in the Appendix.

An assessment of the spill/potential spill should be made, regarding identification of the material, risk to personnel safety and the environment, cessation, control and containment. If you are **SURE it is SAFE** to do so, an attempt should be made to control the spill. Otherwise, after reporting the incident to a supervisor, you should **REMAIN CLEAR** and prevent others from accidentally entering the area.

2.2 INTERNAL REPORTING

Once the incident has been reported to the supervisor and an assessment has been made, the spill reporting will be handled as an incident through the Loss Control Department and its accident/incident investigations. Upon proper notification of the personnel in the "Response Team Flow sheet" (Fig.1), remedial action can commence in accordance with the corresponding response plan. The immediate reporting of the spill to the **N.W.T. Spill Line (867) 920-8130** will be carried out by the Environmental Coordinator, the Superintendent, Loss Control, the Reclamation Manager, or if none are available, the appropriate department head or designate.

FIG. 1 RESPONSE TEAM FLOWSHEET



2.3 EXTERNAL REPORTING

The Operations Manager (or designate), upon receiving a report, will follow through with the "Response Team Flow sheet" (Fig. 1) and its first line of authority.

The Response Team shall then:

- Proceed to the failure/spill location and assess the situation;
- **DO NOT TAKE ANY UNNECESSARY RISKS**
- make arrangements for first-aid and removal of injured personnel;
- co-ordinate equipment support and mobilize to location;
- liaison with Emergency Response personnel regarding containment, clean up and disposal procedures.
- when an unauthorized discharge of waste occurs or *where there is a reasonable likelihood* of a spill, **REGARDLESS OF QUANTITY**, fill out as complete as possible, a formal Spill Report Form (Fig. 2 and Appendix) and contact the **24- HOUR SPILL REPORT LINE immediately at (867) 920-8130**, giving notification of the spill, retain the original and deliver one copy to each of:
 - Operations Manager (Lupin) – Bruce Bried
 - Superintendent, Loss Control (Lupin) – Wayne Grudzinski
 - Maintenance Superintendent (Lupin) – Rick O'Neill
 - Reclamation/Projects Manager (Lupin) – Mike Tansey

The Superintendent Loss Control, or designate, shall complete a **Detailed Spill Report** and submit to an Inspector no later than 30 days after the initial report of the spill.

Submit to:


Water Resources Officer
DIAND, Nunavut District, NT
Baffin Region
P.O. Box 100
Iqaluit, NT
X0A 0H0

Several Government departments are available with expert advice to assist in decision making where there are environmental concerns. A telephone listing of these departments is also included in the Appendix.

Where there is a concern for the general health and safety of the public, every effort should be made to contact local communities and hunters and trappers associations. See the Appendix for current contacts and phone numbers.

SPILL REPORT FORM

Figure 2

		NWT SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)		24-Hour Report Line Phone: (867) 920-8130 Fax: (867) 873-6924	
A Report Date and time		B Date and time of Spill (if known)		C <input type="checkbox"/> Original Report <input type="checkbox"/> Update No.	
D Location and map coordinates (if known) and direction (if moving)					
E Party Responsible for Spill					
F Product(s) spilled and estimated quantities (Provide metric volumes/weights if possible)					
G Cause of Spill					
H Is spill terminated? <input type="checkbox"/> yes <input type="checkbox"/> no		I If spill is continuing, give estimated rate		J Is further spillage possible? <input type="checkbox"/> yes <input type="checkbox"/> no	
K Extent of contaminated area (in sq. m if possible)				L Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.)	
M Containment (natural depression, dyke, etc.)					
N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials					
O Do you require assistance? <input type="checkbox"/> no <input type="checkbox"/> yes, describe*		P Possible hazards to persons, property or environment e.g. fire, drinking water, fish or wildlife*			
Q Comments and/or recommendations*:					
<div style="float: right; border: 1px solid black; padding: 5px; width: 200px;"> FOR SPILL LINE USE ONLY Lead Agency Spill significance Lead Agency contact and time Is this file now closed? <input type="checkbox"/> yes <input type="checkbox"/> no </div>					
Reported by:		Position, Employer, Location		Telephone No:	
Reported to:		Position, Employer, Location		Telephone No:	

*Put additional comments on next page (Please type in the Box letter you are referring to in your comments)

2.4 RESPONSE TEAM ORGANIZATION

The response team organization has been summarized in the Response Team Flow Sheet (Figure 1). Within this team there are key personnel who will respond to all spills and assist in the implementation and coordination of the respective response plans. The titles and roles of these individuals include, but are not limited to those outlined below. Due to the rotational schedule of many individuals, there is the possibility of one or more being off site at any one time. The alternate person(s) responsible for the specific role will be the designate identified below.

Operations Manager

Through the Company's Policies and the Emergency Procedures Manual, ensure that the Plan is properly distributed to those personnel most likely to encounter a spill or unauthorized release during normal operations.

Ensure that all personnel are adequately trained in the safe working procedures and have access to the proper personal protection for handling hazardous material spills **PRIOR TO** an incident occurring.

Ensure that all equipment is properly designed and maintained, and is available for an emergency situation to minimize the risk during response.

All Media Relations should be carried out by the Operations Manager or his designate.

ALTERNATE: Superintendent of Loss Control, Maintenance Superintendent, or Reclamation Manager or other as designated from time to time.

Mill Superintendent

Responsible for ensuring that adequate precautions are taken during normal operations in association with the mill, tailings line and Tailings Containment Area.

In the event of an emergency with the tailings line or the containment area, the Mill Superintendent will be responsible for immediate shutdown of operations in a manner that will minimize further risk to health and the environment.

Provide technical support to personnel involved with the incident response. Assign personnel to be available for collection and preservation of samples in the event environmental staff are off site.

ALTERNATE: In the absence of the Mill Superintendent, the Mill Foreman, or designate, shall assume responsibility.

Maintenance Superintendent

Provide all necessary personnel and equipment to contain, mitigate and clean-up the spill as required.

If additional supplies are required, initiate the relocation of the "Emergency Spill Response Trailer" to the spill location for immediate access.

Provide the availability of maintenance personnel (mechanics, millwrights), if so required, for the termination of a spill/release and repair of faulty equipment.

ALTERNATE: The Surface Foreman may be designated during periods when the Maintenance Superintendent is off site.

Superintendent, Loss Control

Provide technical support and advice on personnel safety during control and clean-up operations. Ensure all safety practices are in place and that the activity is performed according to standard safety procedures.

Ensure through regular training programs that all personnel involved in the response are capable of dealing with the identified spills as provided in the contingency manual. As well, ensure that they are fully aware of their responsibilities in preserving the health, safety and the environment with regard to equipment/component failures and spills.

In the event of a petroleum spill, mobilize the Fire Crew to stand-by as there may also be a need for controlled burning.

Through evaluating the initial report and assessing the magnitude/potential impacts of the incident, provide direction and technical advice on the containment, clean-up and disposal procedures activated through the Plan.

Submit the spill report via the 24-hour Emergency Spill Line and follow-up with the formal written "Detailed Spill Report".

ALTERNATE: In the absence of the Loss Control Superintendent, the Loss Control Officer (or designate) shall assume the responsibilities.

2.5 RESPONSE TEAM ROLE

Following consultation between the Operations Manager and the Acting Mine Manager or their designates; the role of the Team(s) upon arrival at a component failure, petroleum or chemical spill are as follows:

- a) Assemble the necessary personnel and equipment required to contain the spill;
- b) Proceed to the scene with the Response Team and co-ordinate the overall containment/clean up and/or repairs;
- c) Assess the possibilities of any danger to life, property or equipment;
- d) Determine if any product is escaping;
- e) Take necessary action required to stop/reduce/contain any further product from escaping;
- f) Attempt to determine the extent of the damage and if it extends beyond an original containment area;
- g) If contained within a berm (fuel/oil), pump out that which is recoverable, then remove and replace the soil within the berm (contaminated soil to be removed to the disposal site and burned);
- h) If outside the berm (fuel/oil) attempt to determine whether the cause is from overflow or a damaged berm/liner. Should the cause be a damaged liner, repair or replace it;
- i) Determine whether it would be safe to burn off the spilled fuel or would the surrounding soil have to be removed to a disposal area and burned. Any burning requires prior approval from regulatory authorities.
- j) If chemical, determine extent of spill, whether any material is still escaping and the containment necessary.
- k) All contaminated materials are to be removed and disposed of according to individual response plans, or as directed by appropriate regulatory personnel.

3.0 SITE INFORMATION

3.1 GENERAL

The Lupin Mine is located in Nunavut on the western shore of Contwoyto Lake, approximately 285 km S.E. of the community of Kugluktuk and approximately 400 km northeast of Yellowknife. The coordinates are 65° 46' Latitude and 111° 14' Longitude (see Figure 3).

Mining operations were temporarily suspended on August 13, 2003 and mill tailings discharge was stopped on August 27, 2003, after all tanks were emptied. The property was then placed on care & maintenance status. Mining operations will resume during the 1st quarter of 2004 at a reduced production rate.

The Lupin site is completely self-contained with the exception of the transportation requirements for materials/supplies and workforce mobilization. There are two main areas; the residential complex consisting of accommodations, kitchen, and recreation centre, and the industrial complex comprised of milling and maintenance areas, headframe, hoistroom, powerhouse, warehouse and office facilities.

During the winter months, the Lupin Operation is serviced by an ice road from Yellowknife (the Tibbitt to Contwoyto Winter Road). With an operating window of approximately 12 weeks, the winter road facilitates the re-supply of Lupin with reagents, grinding media and fuel for the following year of operation. The attached map (Appendix) shows the general site plan and Figures 5 and 10 show a more detailed location of sewage and tailings disposal areas.

3.2 SITE COMPONENTS (OPERATIONS)

The site components consisting of facilities for handling tailings transport, storage, paste backfill, sewage handling, mine water disposal and freshwater supply are described below.

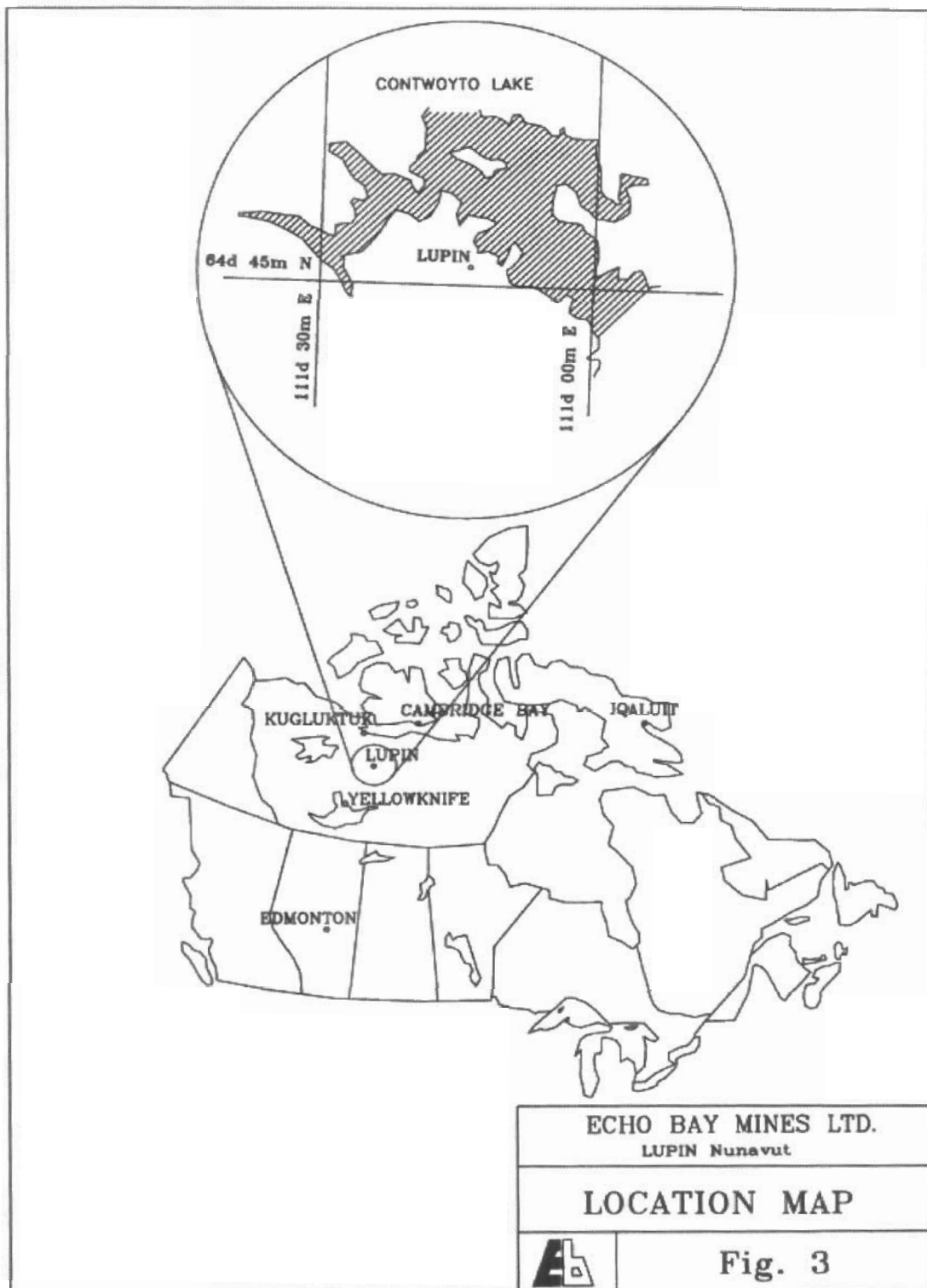
3.2.1 MILL TAILINGS HANDLING

Mill production commenced in 1982, with operations suspensions from January 1998 to April 2000, and from August 2003 to March 2004 (expected resumption of operations at a process rate of 1200 tons per day). A Paste Backfill system was put into full operation in 1995, and supplied underground operations with a backfill material consisting of dewatered tailings, cement, (potential for adding aggregate) and water. This was initiated to improve ground conditions and reduce stope dilution, with the added benefit of lowering storage requirements in the surface Tails Containment Area (TCA). Between 1995 and 2003, approximately 1,750,000 tons of mill tailings, constituting 28.5% of total tailings produced, have been deposited in the underground stopes. The remainder of the tailings was disposed of in the TCA.

During surface disposal, the tailings slurry is transported approximately six (6) kilometres to the TCA, via an eight (8) inch insulated pipeline. The total impoundment area of approximately 750 hectares consists of five solids retention cells (two of which have reached capacity and have been covered by a layer of esker gravel) and two liquid holding ponds. The location of the actual tailings deposition point is changed on a regular basis to minimize solids/liquid build up due to freezing and to provide natural treatment of the process water.

The liquid holding ponds (No. 1 and 2) are operated in series and are separated by a constructed dam (J-Dam). Lined perimeter dams contain the liquid in the second pond, which is discharged via siphons, usually semi-annually, in July/August. (Figure 4 shows a typical dam construction).

FIGURE 3 - LOCATION MAP



3.2.2 SEWAGE

All camp sewage is discharged to the two (2) cell Sewage Lakes system for storage, via a six (6) inch insulated pipeline of approximately 500m in length. Annual decant of the system provides adequate storage capacity and treatment for all current camp needs.

A constructed dam divides the system in two, with the annual discharge to the environment utilizing a siphon system from the second lake. The two (2) lakes are operated in series. Discharge to the environment from the second lake takes place annually between June and October. See Figure 5 for details.

3.2.3 PASTE BACKFILL

The Paste Backfill system was introduced to the Lupin Operation in the fourth quarter of 1994. After completion of a number of test stopes underground and assessment, the system was fully operational in 1995. Between 1995 and 2003, approximately 1,750,000 tons of mill tailings, constituting 28.5% of total tailings produced, have been deposited in the underground stopes.

In general, the paste is a high-density mixture of water and fine solid particles (tailings) with a low moisture content, typically between 18% and 22%. Cement is added in various quantities (1-5%) for strengthening properties. The material is then pumped through a high pressure pipeline to the active stopes or to inactive mine voids.

Piping to the underground system is located through the main building complex where practical. A short distance of pipeline is also located outside the building to permit the backfilling of the surface crown pillar stopes. Under normal operations, tailings solids can be pumped underground at a 50% operational availability.

3.2.4 MINE WATER

The Lupin mine is located geographically in an area of continuous permafrost resulting in frozen ground to a depth of approximately 490 metres. Due to this feature, there is very little ground water that requires handling from the underground workings.

The day-to-day underground operations do however require a water supply from surface. Recycling of water occurred throughout the mine, however some water is pumped to surface for disposal in the TCA (Figure 5) via a six inch insulated pipeline.

3.2.5 WATER SOURCE/SUPPLY

All process and camp water is obtained from Contwoyto Lake, supplied to the site via an eight (8) inch insulated pipeline (Figure 6). A maximum quantity of 1,700,000 m³/year can be withdrawn for all uses, as stipulated by water licence NWB1LUP0008.

3.3 STORAGE FACILITIES (CONSUMABLE)

All consumables, where practical, are transported to the site via winter road and stored for use during the next operational year. The items of concern here are the petroleum products and chemicals/reagents that are stored in large quantity in above ground facilities. These may contribute some risk with regard to the protection of water quality within the mine site area.

3.3.1 PETROLEUM PRODUCTS

All bulk storage for petroleum products at the mine have been provided with secondary containment in the form of properly constructed facilities incorporating an impermeable liner and berm. The impoundment volume of each facility is sufficient to accommodate 110% volume of the largest single tank volume that is contained.

The products that are located at the site include, in order of quantity; P40 fuel, P50 fuel, Jet A, W30 lube oil, Ralube and Gasoline.

Please refer to Figure 7 for general location of all storage facilities and Table No.1 in the Appendix for a summary of the products on site, their amounts, storage units and location of the storage facility. Table 1 lists quantities of product for current on-site status, as well as the quantity present on-site after the winter road re-supply, which reflects the maximum amount in storage during the operational year. A minimum amount of supplies will be brought to site on the 2004 winter road.

3.3.2 CHEMICAL PRODUCTS

The major chemical products used at the mine and mill (in order of amount) consist of ANFO, cyanide, lime, lead nitrate, flocculent, ferric sulphate, and zinc dust. Where possible, the reagents are ordered in bulk containers to decrease handling, reduce costs and minimize risk associated with spillage. There are numerous other chemicals/reagents that are used on a regular basis at Lupin. Due to the small quantities involved, they are not considered within this document under the detailed response plans. They are however, tracked through the Loss Control Department with regard to incidents, and information is available through the WHMIS system and MSDS stations on all aspects of health, safety and environmental risk associated with the products.

A product listing is provided in Appendix II for general information. These products may not currently be on site as order quantity was minimal and use short term. The MSD sheets are available for all products, however due to the quantity, only those discussed within this plan are included within the Appendix II.

FIGURE 4 - TYPICAL TAILINGS DAM

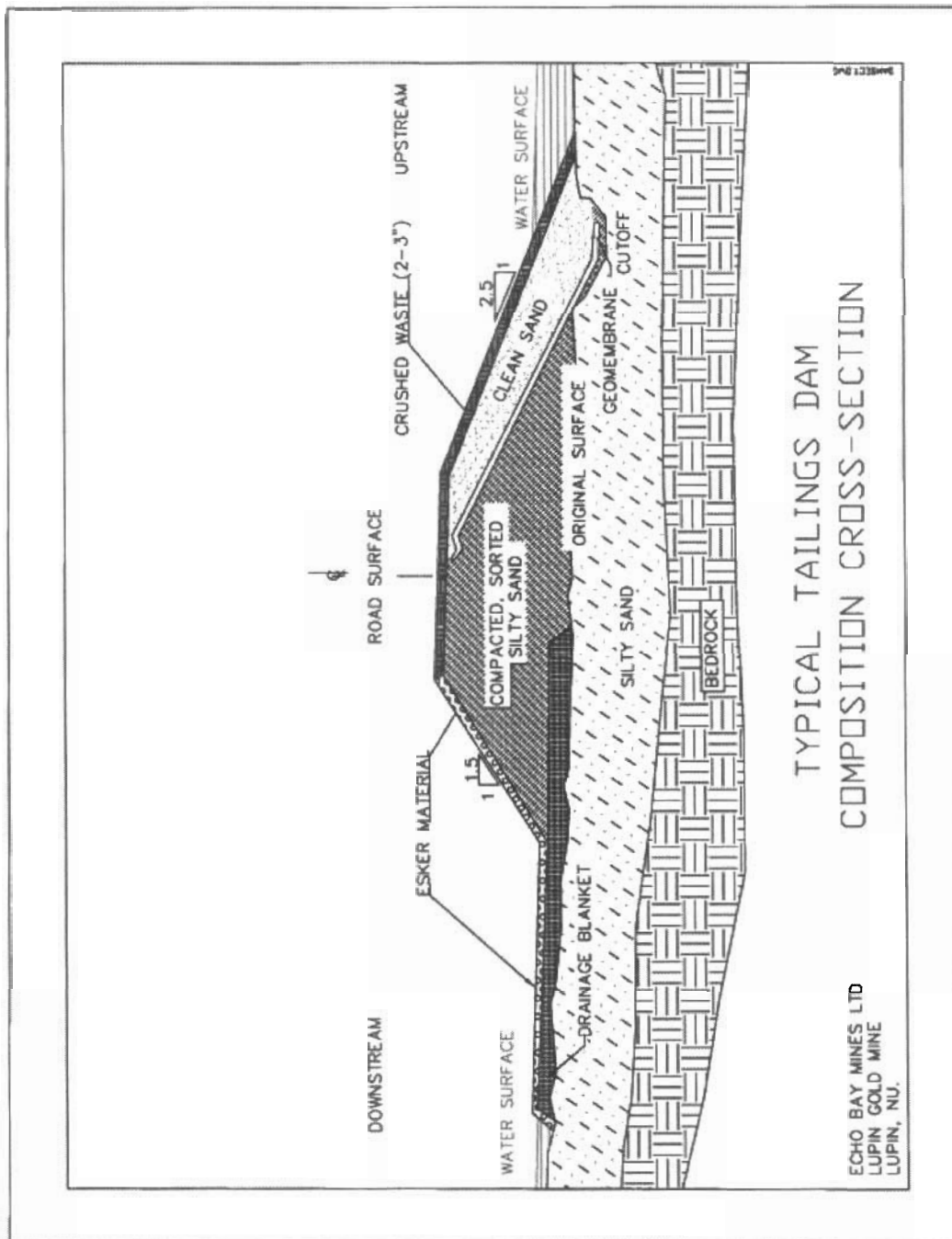


FIGURE 5 – SEWAGE

