

**NUNAVUT WATER BOARD
LICENCE APPLICATION FORM**

NUNAVUT WATER BOARD

JUL 12 1999

PUBLIC REGISTRY

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

APPLICATION/LICENCE NO:
(Amendment or renewal only)

RENEWAL - N7L2-0925

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENCEE

Echo Bay Mines Ltd.
Lupin Operations
Bag No.1, Nisku, AB T0C 2G0

TELEPHONE: (780) 890-7000 FAX: (780) 890-8714

2. ADDRESS OF HEAD OFFICE IN CANADA IF INCORPORATED

Echo Bay Mines Ltd
1210 Manulife Place
10180 - 101 Street
Edmonton, AB T5J 3S4

TELEPHONE: (780) 496-9002 FAX: (780) 424-7378

3. LOCATION OF UNDERTAKING (describe and attach a map, indicating watercourses and location of any proposed waste deposits)

The Lupin Mine is located on the west shore of Contwoyto Lake, Nunavut, approximately 285 km S.E. of the community of Kugluktuk, 80 km south of the Arctic Circle and 400 km N.E. of the City of Yellowknife, Northwest Territories.

LATITUDE 65° 46' 05" LONGITUDE 111° 14' 45"

4. DESCRIPTION OF UNDERTAKING (describe and attach plans)

Mining, milling and associated camp and logistical operations.

5. TYPE OF UNDERTAKING

- | | | |
|--|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Power | <input type="checkbox"/> Agricultural |
| <input checked="" type="checkbox"/> Mining and Milling | <input type="checkbox"/> Conservation | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Municipal | | |
| <input type="checkbox"/> Other (describe) _____ | | |

6. WATER USE

- | | |
|---|---|
| <input checked="" type="checkbox"/> To obtain water | <input type="checkbox"/> Flood control |
| <input type="checkbox"/> To cross a watercourse | <input type="checkbox"/> To divert water |
| <input type="checkbox"/> To modify the bed or bank of a watercourse | <input type="checkbox"/> To alter the flow of, or store water |
| <input type="checkbox"/> 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 quality to be returned to source).

The use of approximately 1,700,000 cubic metres of water to be returned to source following suitable treatment and storage methods required to reduce contaminant levels associated with the mine and milling process.

cont.

8. **WASTE DEPOSIT** (type, quantity, quality, treatment and disposal)

In addition to the grey water from camp and mine water from underground, approximately 604,500 tonnes/year of mill tailings solids plus 50% solution (process water) by weight will require disposal. Solids are removed through settling at the Tailings Containment Area, liquid portion is treated through natural degradation processes and chemicals to remove arsenic when necessary. Lime addition for pH control.

9. **OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING** (give name, mailing address and location; attach list if necessary)

None known at this time.

10. **PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES**

It is believed that there will be no adverse environmental impacts from the operation that cannot be mitigated with known technology.

11. **CONTRACTOR AND SUB-CONTRACTORS** (names, addresses and functions)

Contractors normally at Lupin during operations are those in the specialized underground mining sector and are involved with mine development. Other third party interests have been those associated with the bulk sample diamond process facility at Lupin. This facility has been used for sample processing in 1997 and again in 1999.

12. **STUDIES UNDERTAKEN TO DATE** (list and attach copies of studies, reports, research, etc.)

During the current Licence period studies have been limited to fisheries work, "Movements of Lake Trout in Sun Bay and the West Arm of Contwoyto Lake, NT", RL&L July, 1996; and reclamation costing through Golder Associates Ltd., "Closure Cost Estimate and Scoping of Mine Closure Issues, Lupin Mine NT.", December, 1997.

13. **THE FOLLOWING DOCUMENTS SHALL BE INCLUDED WITH THE APPLICATION**

Land Use Permit

DIAND

☒ Yes ☐ No Date Expected Lease No.3594

Regional Inuit Association

☐ Yes ☒ No Date Expected _____

Supplementary Questionnaire

☐ Yes ☒ No Date Expected Only if requested

Inuktitut Summary of Project

☒ Yes ☐ No Date Expected July 30, 1999

MAP @ 1:250,000

(with camp, drill sites, etc.)

☐ Yes ☒ No Date Expected Associated drawings enclosed

14. **PROPOSED TIME SCHEDULE**

Start date Operational - Care & Maintenance Completion date May 31, 2008

David Hohnstein
NAME (Print)

Environmental Coord., Lupin
TITLE (Print)

David Hohnstein
SIGNATURE

July 05, 1999
DATE

For Nunavut Water Board use only

APPLICATION FEE

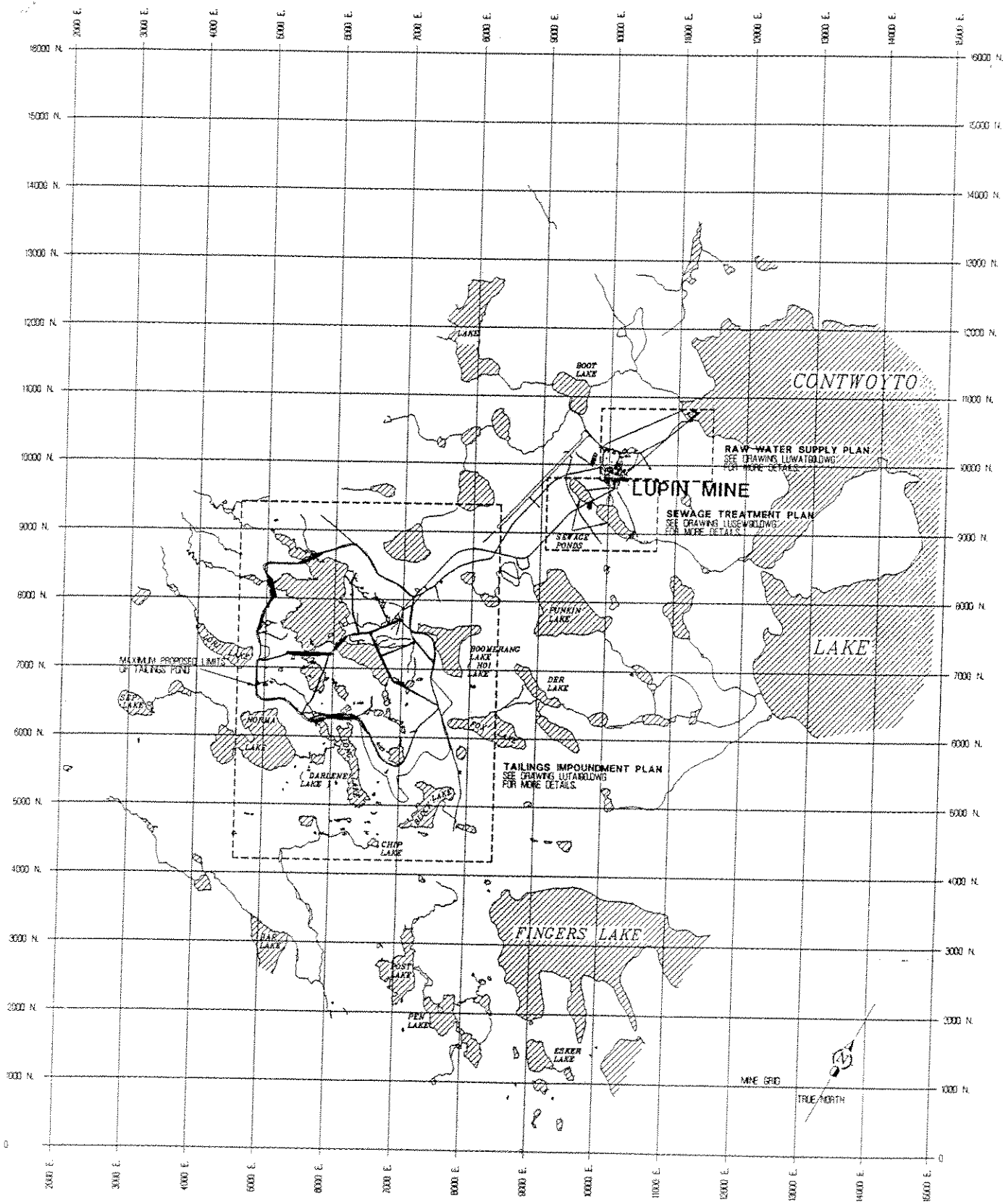
Amount: \$ 30.00

Receipt No.: C101108

WATER USE DEPOSIT

Amount: \$ 63.16

Receipt No.: C101109



NOTE:
THIS DRAWING IS BASED ON DATA DERIVED FROM THE SURVEY OF STEWART WILSON DATA INC.
BY ALLISON, 2004. 1:50,000 N.T.S. MAP.
VERTICAL SCALE OF THIS DRAWING IS 1:25,000. PLOTTING RATIO IS 1:25,000 (METRIC).

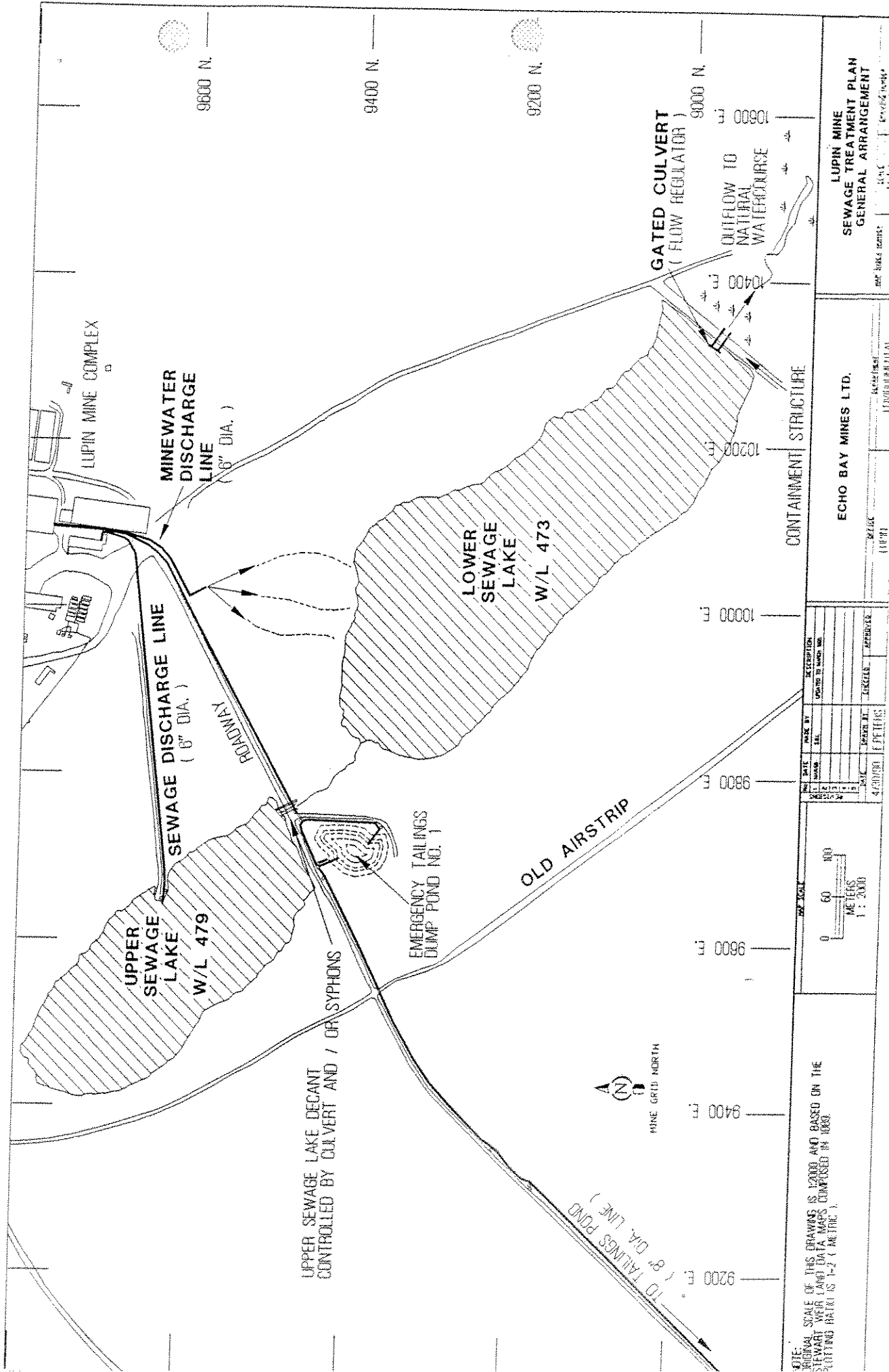
0 500 1000 1500
METERS

NO.	DATE	BY	DESCRIPTION
1	1990	ALL	1:50,000 N.T.S. MAP
2			
3			
4			
5			
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7			
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ECHO BAY MINES LTD.

LUPIN MINE
LUPIN SITE PLAN
GENERAL ARRANGEMENT

DATE: 2000
DRAWN BY: [blank]
CHECKED BY: [blank]
APPROVED BY: [blank]



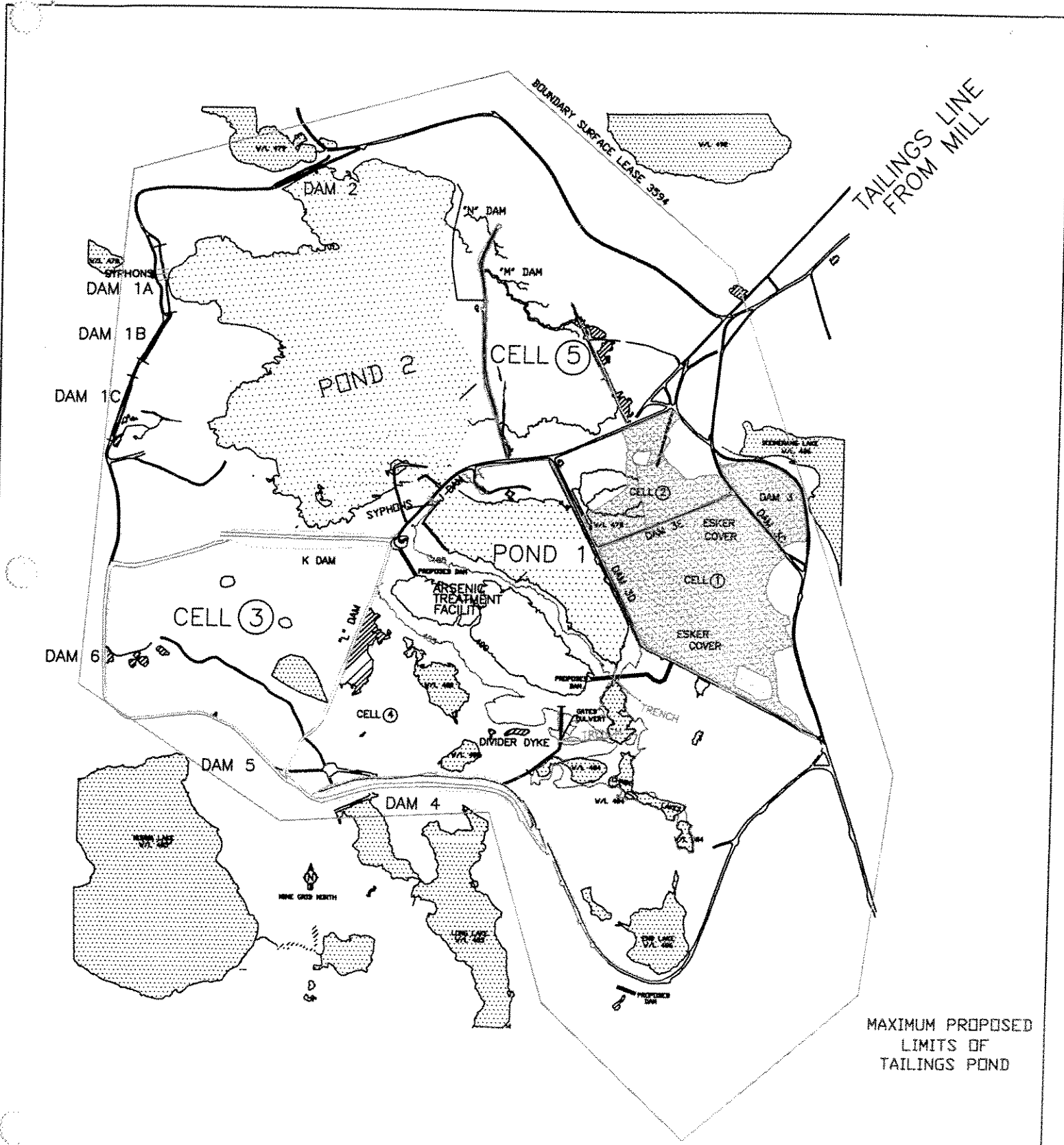
NOTE: ORIGINAL SCALE OF THIS DRAWING IS 1:2000 AND BASED ON THE STEWART 1968 LAND DATA MAPS COMPILED IN 1968. PLOTTING RATIO IS 1:2 (METRIC).



NO.	DATE	BY	DESCRIPTION
1	1968	W.L.	ORIGINAL TO LUPIN MINE
2	1968	W.L.	REVISION
3	1968	W.L.	REVISION
4	1968	W.L.	REVISION
5	1968	W.L.	REVISION
6	1968	W.L.	REVISION
7	1968	W.L.	REVISION
8	1968	W.L.	REVISION
9	1968	W.L.	REVISION
10	1968	W.L.	REVISION

ECHO BAY MINES LTD.

LUPIN MINE
SEWAGE TREATMENT PLAN
GENERAL ARRANGEMENT



TAILINGS IMPOUNDMENT AREA — 1999