GEOCHEMICAL AND GEOPHYSICAL REPORT

ON THE

GOOSLY 2 CLAIM GROUP

Ken, Gold, Morning and Tet 1-4 Mineral Claims

OMINECA MINING DIVISION
British Columbia

GEOLOGICAL BRANCH ASSESSMENT REPORT

14,346

NTS: 93L/1W 10.5

Latitude 54°24'N, Longitude 126°224 W

Owners: Lorne Warren and Kengold Mines Ltd.

Operator: Normine Resources Ltd.

Author: N.C. Carter Date: December 3, 1985

FILMED

TABLE OF CONTENTS

		Page	
INTRODUCTION		1	
LOCATION AND ACCESS		1	
PHYSICAL FEATURES		1	
PROPERTY STATUS		2	
PREVIOUS WORK		2	
PRESENT STATUS		2 3 4	
GEOLOGICAL SETTING		4	
GEOCHEMICAL SURVEYS		5	
GEOPHYSICAL SURVEYS		6	
Induced Polarization Survey		7	
VLF-EM Survey		7	
Magnetometer Survey		8	
Discussion of Results		8	
CONCLUSIONS AND RECOMMENDATIONS		9	
COST STATEMENT		10	
REFERENCES		12	
AUTHOR'S QUALIFICATIONS		13	
APPENDIX I - Analytical Procedures, Statistical Da	ıta	14	
APPENDIX II- Geophysical Report		27	
List of Illustrations		·	
Followi	na	Page	
Figure 1 - Location		ontispie	ce
Figure 2 - Location-Goosly 2 Claim Group		1	
Figure 3 - Claim Location Map		2	
Figure 4 - Goosly Lake Property		5	
Figure 5 - Lead Geochemistry	Ιn	Pocket	
Figure 6 - Zinc Geochemistry		71	
Figure 7 - Silver Geochemistry		11	
Figure 8 - Arsenic Geochemistry		11	
Figure 9 - Mercury Geochemistry		17	
Figure 10- Chargeability-N=1		11	
Figure 11- Chargeability-N=2		71	
Figure 12- Resistivity-N=1		**	
Figure 13- Resistivity-N=2		. 11	
Figure 14- VLF-2 Seattle Plan Map		17	
Figure 15- Magnetometer Survey		'n	

INTRODUCTION

Normine Resources Ltd. carried out geochemical and geophysical surveys on the Ken, Gold, Morning and Tet 1-4 mineral claims near Equity Silver mine in west-central British Columbia in June and July of 1985. Cost of the program was \$26,389.41, and various parts of the work were contracted to Bema Industries Ltd., Peter Walcott and Associates Ltd. and Min-En Laboratories Ltd.

LOCATION AND ACCESS

The mineral claims are situated at Goosly Lake, 30 km southeast of the municipality of Houston in west-central British Columbia (Figure 1). The geographic centre of the claims is at latitude 54°12' North and longitude 126°22' West.

Houston is on Provincial highway 16 and the northern CN rail line. The town of Smithers, 64 km northwest of Houston, has daily scheduled airline service from Vancouver.

Access to the claims is by 38 km of good surface gravel road linking Houston with Equity mine (Figure 2). Old logging roads, some of which require 4 wheel drive vehicles, provide access to the northern and central part of the claims (Figure 3). Alternate access to the area is afforded by the Buck Creek road to highway 16.

PHYSICAL FEATURES

The mineral claims are situated in an upland plateau of

N.C. CARTER, Ph.D., P.Eng. CONSULTING GEOLOGIST

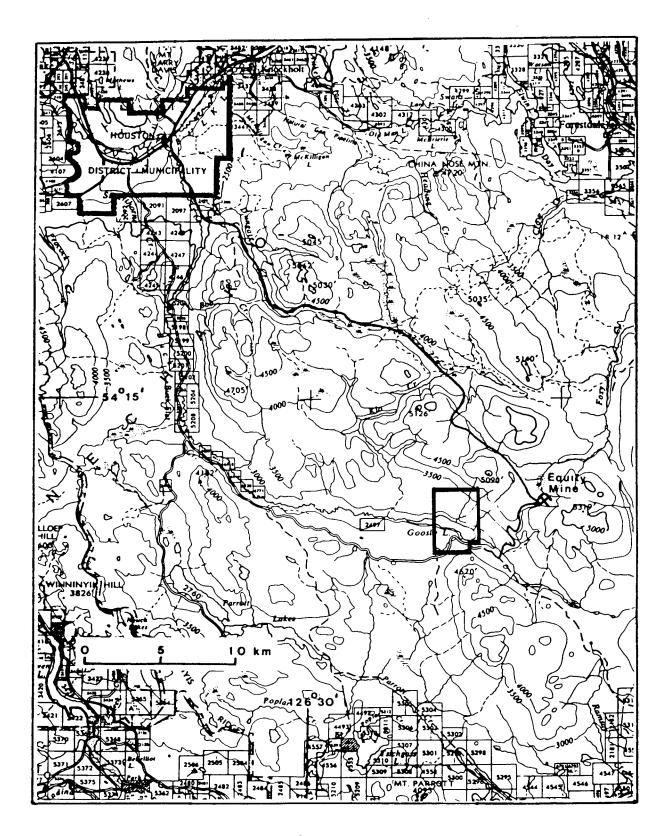


FIGURE 2- LOCATION - GOOSLY 2 CLAIM GROUP

relatively moderate relief. Rocky ridges along the north boundary of the claims display poorly developed columnar jointing. The former logging road into the northeast part of the claim block (Figure 3) is along the break in slope below which the topographic gradient decreases and overburden is extensive.

Much of the original forest cover of jackpine and spruce has been removed by forest fire and recent logging. Small second growth jackpine is extensive in old burn areas.

PROPERTY STATUS

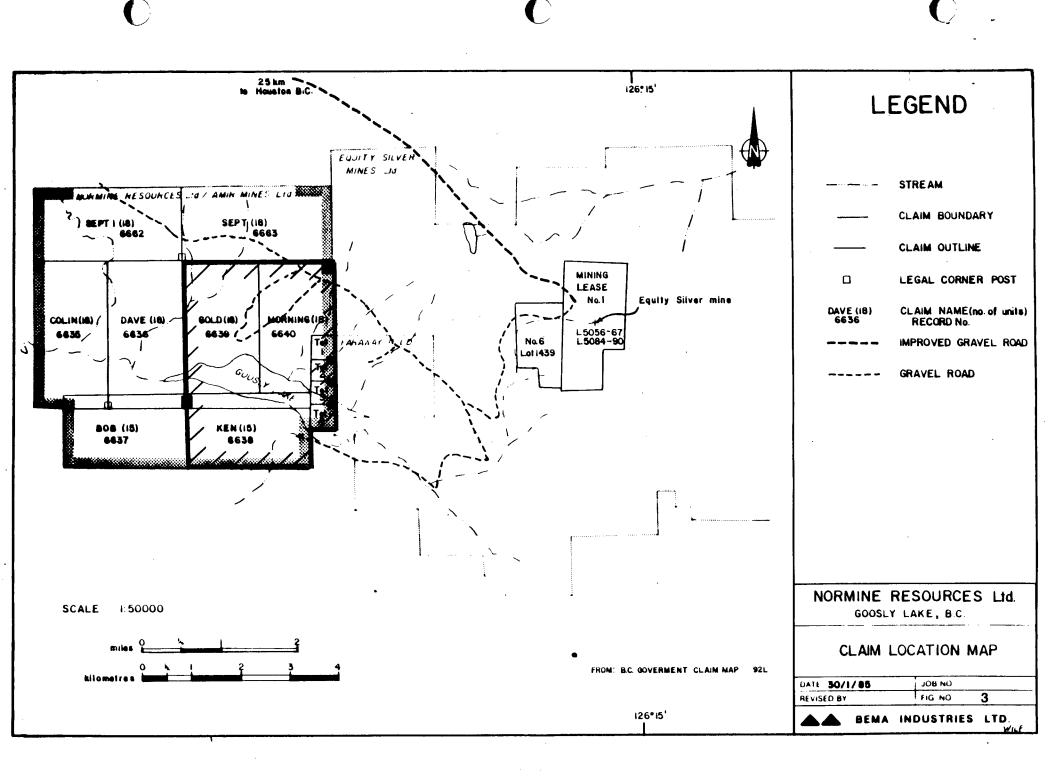
The present claims, known as the Goosly 2 claim group, are owned by Lorne Warren (Ken claim) and Kengold Mines Ltd. (Gold, Morning and Tet 1-4 claims) and are subject to an option agreement with a joint venture consisting of Normine Resources Ltd. and Amir Mines Ltd. The claim group includes the following Modified Grid and 2 post mineral claims (Figure 3):

Name of Claim	Units	Record Number	Date of Record
Ken	15	6633	September 19,1984
Gold	18	6639	ıı 11
Morning	18	6640	11
Tet l	1	6073	March 6,1984
Tet 2	1	6074	17 11
Tet 3	1	6075	" "
Tet 4	1	6076	" "

PREVIOUS WORK

Discovery of the Sam Goosly silver-copper deposit (now Equity Silver mine) in 1968 resulted in the location of

N.C. CARTER, Ph.D., P.Eng. CONSULTING GEOLOGIST



numerous mineral claims throughout the general area.

The area of the present claims was held in 1969 by several companies and a variety of exploratory work was carried out.

Both Mark V Mines and Dorita Silver Mines undertook geochemical surveys over parts of the present claims.

Recent work near the west boundary of the Goosly 2 group includes percussion drilling on the Sam claim by Faraway Gold Mines Ltd.

PRESENT STATUS

The current mineral claims comprising the Goosly 2 claim group were located in March and September of 1984 by Lorne Warren of Smithers, B.C., who subsequently optioned them to Normine Resources Ltd. and Amir Mines Ltd.

In June of 1985, Bema Industries Ltd. undertook 10.5 km of line cutting on the Morning and Tet 1-3 claims (Figure 4). A geochemical survey, consisting of the collection of soil samples, was carried out over the grid. Geophysical surveys included Induced Polarization and magnetometer surveys carried out by Peter Walcott and Associates Ltd. and VLF-EM survey by Bema Industries Ltd.

Min-En Laboratories Ltd. performed the analyses of the soil samples and J.J. Barakso interpreted the results. All geophysical work was under the supervision of Alan J. Wynne, consulting geophysicist.

GEOLOGICAL SETTING

The Goosly Lake area is within the Intermontane tectonic belt, comprised principally of Mesozoic volcanic and sedimentary rocks cut by intrusive rocks ranging in age from early Jurassic to mid-Tertiary. The Mesozoic layered rocks are overlain by extensive areas of Tertiary volcanic rocks, but are exposed in erosional windows or in areas adjacent to the Tertiary cover rocks. Mesozoic felsic pyroclastic and lesser sedimentary rocks host the Equity silver-copper deposit 7 km east of the Goosly 2 claim group (Figures 3 and 4). The deposit is a grossly tabular zone which is crudely conformable with the host rocks. Ironcopper-silver-antimony sulfides and lesser galena and sphalerite occur as disseminations, fracture and breccia fillings and veins over a strike length of 1500 metres. Cuurent reserves are 21.6 million tonnes of 109 g/t silver, 0.85 g/t gold, 0.35% copper and 0.08% antimony. A distinctive clay alteration zone surrounds the deposit and includes quartz, sericite, andalusite, tourmaline scorzalite, corundum and some dumortierite (Wojdak and Sinclair, 1984).

Bracketing the Equity deposits on the west and east are an Eocene quartz monzonite stock with weak copper-molybdenum mineralization and a slightly younger gabbro-monzonite intrusive complex. A series of dykes occurs between the intrusives and many of these cut the mineralized zones.

Similar rocks to those hosting the Equity deposits were found in a recent percussion drilling program on Faraway Gold's

Sam claim, which adjoins the Goosly 2 group on the east (Figure 4). Drill cuttings exhibit variable quartz-sericite alteration and up to 30% iron sulfides over significant hole lengths. Strongly anomalous silver and zinc values are associated with zones of higher sulfide content; best values to date include a 3 metre section grading 1.5% zinc and 54.9 g/t silver. The zone as defined to date appears to trend into the Goosly 2 claim group (Figure 4).

Much of the Goosly 2 claims are drift covered. Tertiary volcanic rocks are exposed in road cuts near the northeast boundary of the claim block. Late Cretaceous andesitic lavas and breccias (Church, 1971) are exposed on the Ken claim south of Goosly Lake and near the mutual boundary with the Sam claim.

Minor pyrite mineralization in late Cretaceous rocks has been noted in the latter outcrop location. The purpose of the 1985 program was to explore for a southeast extension of the zone defined by Faraway Gold's percussion drilling program on the Sam claim.

GEOCHEMICAL SURVEY

Prior to the collection of soil samples, 10.5 km of grid was cut in the eastern part of the Goosly 2 claim group (Figure 4). Southeast lines at 200 metre spacings were run off a northeast baseline and survey stations along the lines were at 25 metre intervals.

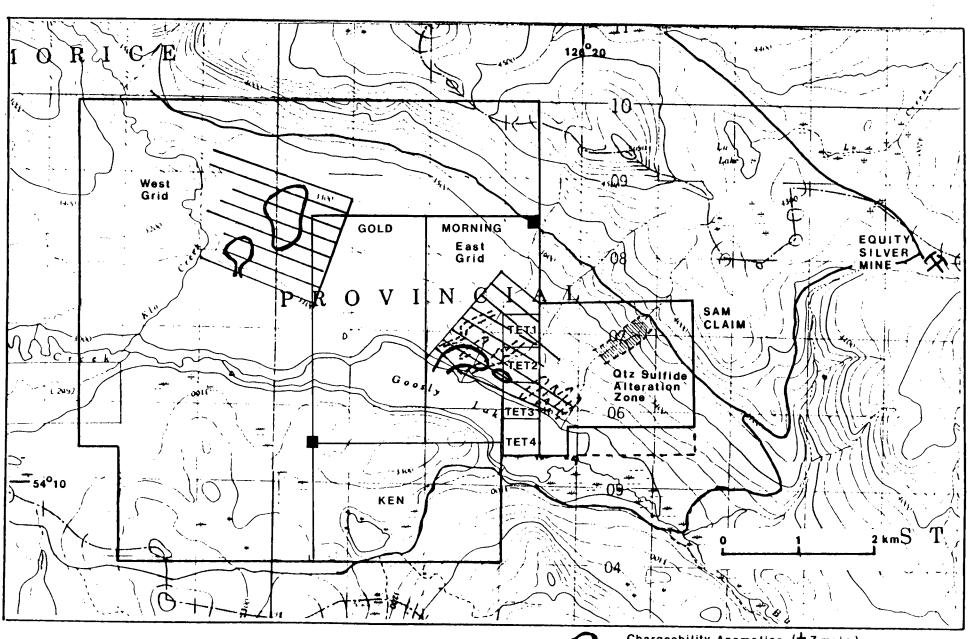


FIGURE 4 - GOOSLY LAKE PROPERTY



Chargeability Anomalies (+7 msec)

Mercury Anomalies (+150 ppm)

Soil samples were collected from four lines on the grid (referred to as "East Grid" on Figure 4). Some 120 samples from 'B' horizon soils were analyzed for lead, zinc, silver and arsenic (Figures 5-8) and roughly twice that number, at 25 metre intervals and from the 'A' horizon, were analyzed for mercury. Min-En laboratories Ltd. of North Vancouver performed the analyses and carried out a statistical study of the results. Analytical procedures and histograms and cumulative probability plots for each element are included in Appendix I.

Values for silver, lead and zinc (Figures 5-7) are generally low, probably reflecting significant overburden depths (averaging 12 metres in percussion drill holes on the adjacent Sam claim) coupled with the presence of clay horizons. Two arsenic anomalies (10-24 ppm - Figure 8) in the southwest part of the grid have a pronounced northeast trend. The westernmost of these is crudely coincident with several, linear northeast-trending mercury anomalies (150-250 ppb - Figure 9).

Several parallel mercury anomalies are situated along the boundary of the Sam claim (Figures 4 and 9) and may be reflecting the southwest extension of the quartz-sericite-sulfide alteration zone identified on this claim by percussion drilling.

GEOPHYSICAL SURVEYS

Induced Polarization, magnetometer and VLF-EM surveys were conducted over the entire 10.5 km of grid. A summary discussion

of survey procedures and results follows; more detailed information (pertaining to the East Grid) is contained in a report by Alan Wynne, consulting geophysicist, which is included as Appendix II.

Induced Polarization Survey

A Huntec 2.5 kw time domain transmitter and Huntec Mark 4 receiver were used with a pole-dipole electrode array and electrode or "A" spacings at 50 metres and dipole separations or N=1 and 2 at 50 and 100 metres. Chargeabilities were recorded as milliseconds and resistivities as ohm-metres.

Data recorded is presented as contoured N=1 and N=2 plan maps for both chargeability and resistivity (Figures 10-13).

A chargeability anomaly, 200 by 400 metres, with twice background values, is situated in the southwest part of the grid (Figures 10,11). This lies within an area of lower resistivity which covers the west half of the grid. Higher values in the N=2 data indicates a depth of 30 metres, and Wynne believes the source to be disseminated sulfides. A smaller chargeability anomaly is situated southeast of the main zone (Figures 10,11).

VLF-EM Survey

The VLF survey was conducted using a Phoenix VLF-2 unit which measures dip angle and field strength of horizontal VLF frequencies. Attempts were made to use both Seattle, Washington and Cutler, Maine transmitting stations, but because of grid orientation only Seattle data were plotted as in phase dip angle

readings (Figure 14).

No conductive zones are evident on the basis of the VLF-EM survey.

Magnetometer Survey

Scintrex and GSM proton precession magnetometers were used to measure total magnetic intensities. Field data was corrected for diurnal variation by comparison with base station readings recorded by an EDA Omni magnetometer.

Total magnetic intensity readings are plotted in gammas on Figure 15. Contouring of data shows a northwest-trending zone of higher magnetic response in the southwest part of the grid and a smaller, more discrete magnetic high in the extreme northwest part of the grid.

Discussion of Results

The chargeability high defined by the IP survey is bounded on the north by a zone of higher magnetic intensities which may be reflecting a change in lithology, possibly an intrusive. No conductive zones were identified by VLF or resistivity data, suggesting the cause of the chargeability anomaly is due to disseminated sulfides.

CONCLUSIONS AND RECOMMENDATIONS

The strong chargeability anomaly in the southwest part of the grid is contained within a broad zone of low resistivity and bordered on the north by a magnetic high which may be indicative of a pronounced change in lithology.

The chargeability high is coincident with a zone of northeast trending mercury soil geochemical anomalies. Similar anomalous values are found at the southeast margin of the sampled area and suggest a southwest continuation of a quartz-sericite-sulfide alteration zone encountered in a percussion drilling program on an adjacent claim. This alteration zone is known to contain encouraging silver and zinc values.

The geological environment of the Goosly 2 claim group is similar to that which hosts the nearby Equity Silver deposit. The magnetic high bordering the chargeability anomaly may be reflecting an intrusive body, adjacent to which are disseminated sulfides.'

Lack of bedrock exposure predicates a program of percussion and diamond drilling to further test the anomalous geophysical and geochemical responses on the Goosly 2 claim group.

COST STATEMENT

Line Cutting

Rentals - vehicle - bulldozer	\$1589.00 \$1000.00
Consumables	\$635.00
Personnel: F. O'Graday-7 days @ \$200	\$1400.00
(June 14,16-21) E. Ackerly - 7 days @ \$100 (June 14-17,24-26)	\$700.00
H. Chaudet-10 days @ \$100 (June 7-16)	\$1000.00
I. Campbell-1 day @ \$87 P. Stuart-5 days @ \$100 (June 7-11)	\$87.00 \$500.00
Total	\$6911.00
Geochemistry	
Sample collection-L. Warren-5 days @ \$175 (June 14-16,21,22)	\$875.00
Sample Analyses	\$2615.54
Total	\$3490.54
Camp and Suport Costs	
Labour - L. Warren-2.9 days @ \$175	\$504.70
Freight	\$99.75
Lumber, hardware	\$293.63
Consumables	\$16.36
Camp Rental	\$679.75
Groceries, miscellaneous supplies	\$1006.68
Expediting	\$454.35
Total	\$3055.22

N.C. CARTER, Ph.D., P.Eng. CONSULTING GEOLOGIST

Geophysics

Induced polarization and magnetometer surveys -contracted by Peter Walcott and Associates Ltd. @ \$815.98/km - 10.5 km	\$8567.79
VLF-EM survey - Bema Industries Ltd.: G. Nordin-0.5 day @ \$100 W. Struck-1.5 days @ \$100 (July 24-26)	\$50.00 \$150.00
H. Chaudet-4 days @ \$100	\$400.00
(July 1,8-10) E. Ackerly-3 days @ \$100	\$300.00
Rental - VLF-EM - 15 days @ \$25	\$375.00
Map preparation	\$448.90
Courier	\$31.00
A. Wynne, consulting geophysicist, report	\$1609.96
Total	\$11932.65
Report Preparation	\$1000.00
GRAND TOTAL	\$26389.41

REFERENCES

- Church, B.N. (1971): Geology of the Owen Lake, Parrott Lakes and Goosly Lake Areas; in Geology Exploration and Mining in British Columbia, 1970, pp.119-128
- (1973): Geology of the Buck Creek Area; in Geology Exploration and Mining in British Columbia, 1972,pp.353-363
- in the Buck Creek Area; in Geological Fieldwork 1984, pp.175-188
- Cochrane, D.R. (1970): Geochemical Report on Orequest's Goosly Lake Project, B.C. Department of Mines and Petroleum Resources Assessment Report 2335
- Cyr, J.B., Pease, R.B., and Schroeter, T.G. (1984): Geology and Mineralization at the Equity Silver mine, Houston, British Columbia, Canada; Economic Geology, Vol. 69, pp. 947-968
- Kowalchuk,J.M.,Church,B.N.,Bradshaw,F.M.D.,Barakso,J.J.(1984):
 Lithogeochemistry at the Equity Silver Mine; Western Miner,
 April,1984,pp.50-54
- MacDonald, A.L.J. (1974): Geological Report on the DG Claim Group, Omineca M.D., B.C. Ministry of Energy Mines and Petroleum Resources, Assessment Report 5195
- Ney, C.S., Anderson, J.M., Panteleyev, A. (1972): Discovery, Geological Setting and Style of Mineralization, Sam Goosly Deposit, B.C., CIM Bulletin Vol.65, pp.53-64
- Nordin, G.D. (1985): Geological Report on the Goosly Lake Property, Omineca M.D., private report for Amir Mines Ltd.
- Wojdak, Paul J., Sinclair, A.J., (1984): Equity Silver Silver-Copper-Gold Deposit: Alteration and Fluid Inclusion Studies; Economic Geology, Vol. 79, pp. 969-990

AUTHOR'S QUALIFICATIONS

- I, NICHOLAS C. CARTER, OF Victoria, British Columbia, do hereby certify that:
- 1. I am a Consulting Geologist, registered with the Association of Professional Engineers of British Columbia sonce 1966.
- 2. I am a graduate of the University of New Brunswick with B.Sc. (1960), Michigan Technological University with M.S. (1962) and the University of British Columbia with Ph.D. (1974).
- 3. I have practised my profession in eastern and western Canada and in parts of the United States over the past 24 years.
- 4. This report on the Goosly Lake area claims is based on information provided by Normine Resources Ltd. and on previous work by the writer on behalf of Normine Resources Ltd. and Amir Mines Ltd.

N. C. CARTER N. C. Carter, Ph.D. P. Eng.

APPENDIX I - Geochemical Analytical Techniques and Statistical Treatment

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK.

PROCEDURES FOR, Cu, Mo, Cd, Pb, Mn, Ni, Ag, Zn.

Samples are processed by Min-En Laboratories Ltd. at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

0.0 gram of the samples are digested for 6 hours with HNO 3 and HC10 $_{4}$ mixture.

After cooling samples are diluted to standard volume. The solutions are analysed by Atomic Absorption Spectrophotometers.

Copper, lead, zinc, silver, cadmium, cobalt, nickel and manganese are analysed using the ${\rm CH_2H_2}$ -Air flame combination but the molybdenum determination is carried out by ${\rm C_2H_2}$ -N₂O gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

Background corrections for Pb, Ag, Cd upon request are completed.

MERCURY ANALYTICAL PROCEDURE FOR ASSESSMENT FILING

1.000 gram sample digested with Nitric and Sulphuric Acid. Than further oxidized with $30\% \ H_20_2$ while heating and repeating the oxidizing steps.

After cooling and diluting to suitable volume the solution to refine the oxidation procedure 5% KMNO₄ is added in the titrating manner until pink color is obtained.

Mercury is realized by reducing solution into the Flameless Atomic Absorption Chamber and measured in comparing samples with known standards.

SPEC LISTS IN MINERAL ENVIRONM TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STATISTICAL SUMMARY ON PB

MPANY: NORMINE

ATTM:

PROJECT: BEMA 85-07

F1LE#:5-299

DATE: JULY 26/85

SAMPLE TYPE: SOIL

ANALYSIS TYPE: ICP

NUMBER OF SAMPLES: 117

MAXIMUM VALUE: 29.00 PFM

MINIMUM VALUE:

1.00 PPM

MEAN:

12.07 PPM

STD. DEVIATION:

6.72 PPM

COEFF. OF VARIATION: .56

5 HIGHEST PB VALUES:

L14NBL40+00B

29 PPM

L14N46+75EB

27 PPM

12N46+50EB

25 PPM

12N50+75EB

25 PPM

L14N45+75EB

25 PPM

HIS	TOGRAM	FOR PB	CLASS IN	TERVAL = .95		
MID	CLASS	CLASS	چون پهرون پهرون کې د د د د د د د د د د د د د د د د د د		**************************************	***************************************
	PPM	"/.				
<	6.00	17.09				
	6.47	4.27				
	7.42	6.84				
	8.37	2.56			•	
\"\	9.32	10.26				
	10.27	4.27				
	11.22	5.98				
	12.17	5.98				
	13.12	5.13			,	
	14.07	4.27	in dependent of the second			
	15.02	5.98				
	15.97	2.56	Construction 2002			
	16.92	1.71				
	t7.87	3.42				
	18.82	1.71				
	19.77	5.13		and the state of t		
	20.72	4.27				
}	21.67	1.71			×	
	22.62	0.00				•
ļ	23.57	2.56				
}	24.52	. 0.00				
>	25.00	4.27				
			L			1
			0.00%	8.55% FREQUENCY (%)	17.09%	

SPEC ALISTS IN HINERAL ENVIRONME TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

CUMMULATIVE PROBABILITY PLOT ON PB

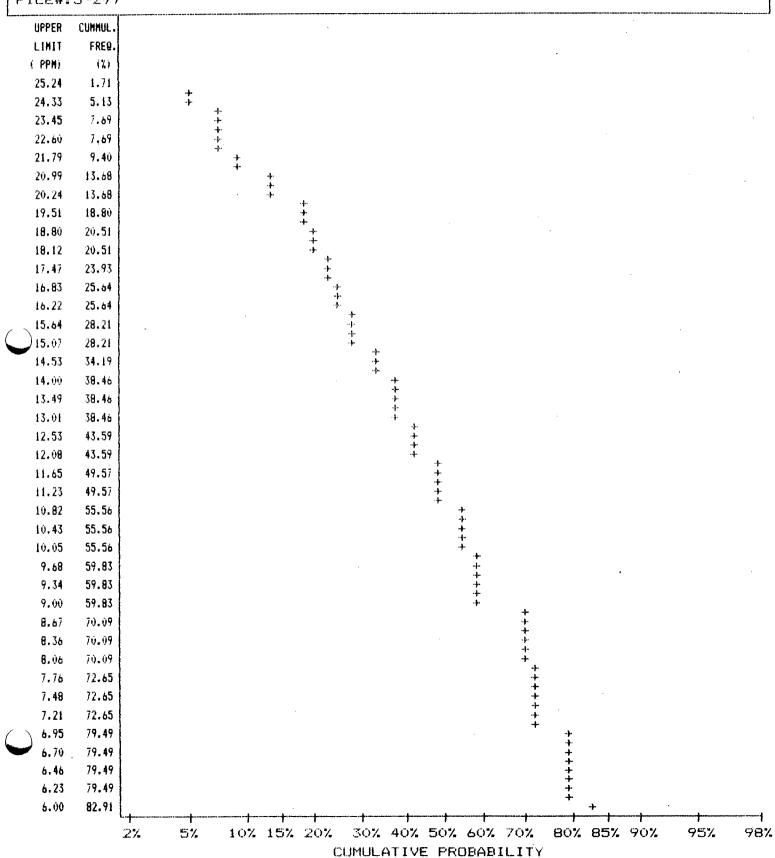
OMPANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

FILE#:5-299

DATE: JULY 26/85 SAMPLE TYPE: SOIL ANALYSIS TYPE: ICP



SPEC LISTS IN HINERAL ENVIRONM TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STATISTICAL SUMMARY ON ZN

MPANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

FILE#:5-299

DATE: JULY 26/85

SAMPLE TYPE: SOIL

ANALYSIS TYPE: ICP

NUMBER OF SAMPLES: 117

MAXIMUM VALUE: 307.00 PPM

MINIMUM VALUE:

35.00 PPM

MEAN:

99,93 PPM

STD. DEVIATION:

46.52 PPM

COEFF. OF VARIATION: .47

5 HIGHEST ZN VALUES:

12N48+50EB

307 PPM

12N49EB

222 PPM

12N50EB 12N51+25EB 216 PPM 212 FPM

L18N42+50EB

209 PPM

HISTOGRAM FO	DR ZN	CLASS IN	ITERVAL = 8.05		
MID CLASS	CLASS				# 55454FF \$ 1646 \$ 657 445 445 447 147 149 14
단단	%				
< 55.00	8.55				
59,03	9.40	James State Company		•	
67.08	11.11	Roy College Block and College			
.75.13	13.68				
83.18	10.26				
91.23	8.55				
99.28	5.98				
107.33	3,42				
115.38	4.27			•	
123.43	2.56			•	
131.48	4.27				
139.53	3.42				
147.58	1.71				
155.63	.85				
163.68	2.56				
171.73	3.42				
179.78	.85				
187.83	0.00	•			
195.88	. 85				*
203.93	. 85				
211.98	1.71		·	,	
> 216.00	1.71				
		<u></u>			
		0.00%	6.84% FREQUENCY (%)	13.68%	

SPEC ILISTS IN HINERAL ENVIRONM TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

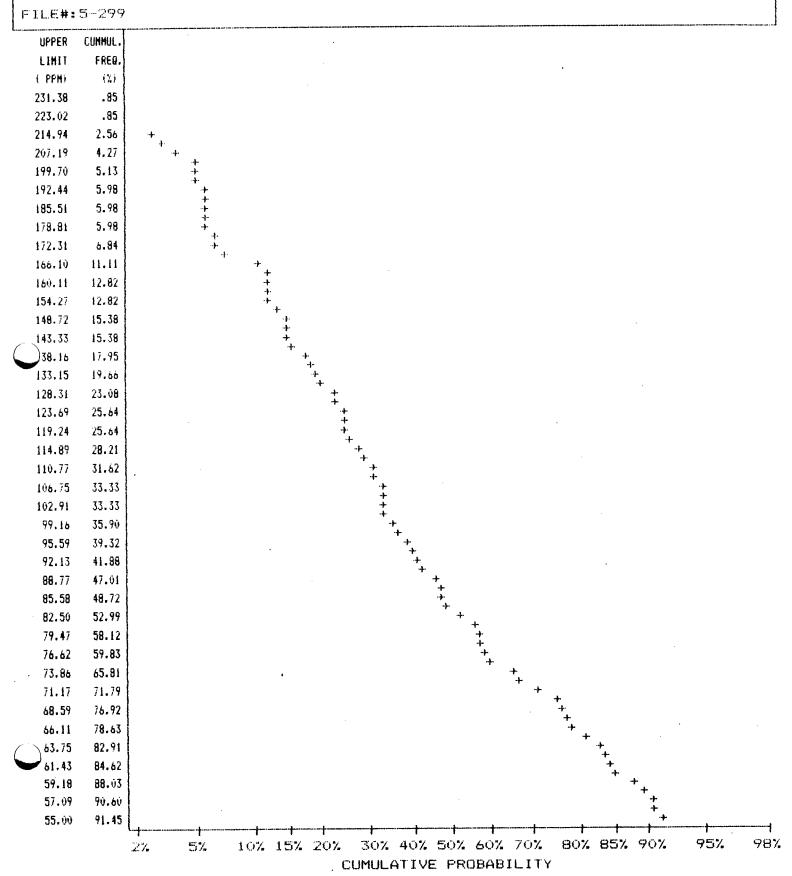
CUMMULATIVE PROBABILITY PLOT ON ZN

MEANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

DATE: JULY 26/85 SAMPLE TYPE: SOIL ANALYSIS TYPE: ICP



SPEC MISTS IN HINERAL ENVIRONM TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V/m 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STATISTICAL SUMMARY ON AG

MEANY: NORMINE

ATTM:

PROJECT: BEMA 85-07

FILE#:5-299

DATE: JULY 26/85

SAMPLE TYPE: SOIL

ANALYSIS TYPE: ICP

NUMBER OF SAMPLES: 117

MAXIMUM VALUE:

2.10 PPM

MINIMUM VALUE:

.80 PPM

MEAN:

1.34 PPM

STD. DEVIATION:

.26 PPM

COEFF. OF VARIATION: .19

5 HIGHEST AG VALUES:

L14N42+75EB

2.1 PPM

L16N48+50EB

2 PPM

12N43EB

1.9 PPM

12N44EB

1.8 FFM

L14N44+25EB 1.8 PPM

HIS	TOGRAM F	OR AG	CLASS IN	TERVAL = .04	
MID	CLASS	CLASS			
	PPM	0 / / #			variable di uni esta per di
<	1.10	12.82			
	1.12	13.68	Salar Ville designation		
	1.16	0.00			
	1.20	14.53		Puta nija jarodi. 1951aa jil seletidi 1956 - 1964 ili. Mini tani siji ada ta kasa sa mada seletidi.	
\	1.24	0.00			
)	1.28	17.09			
	1.32	0.00		•	
	1.36	0.00			
	1.40	8.55			
	1.44	0.00	·		
	1.48	0.00			
	1.52	11.11		r dators de la cristada da de Albora d	
	1.56	0.00			
	1.60	11.97		et talade de legis de Salada a Canada de Calada.	
	1.64	0.00			
	1.68	5.98			
	1.72	0.00			·
	1.76	0.00			•
	1.80	2.56			* •
	1.84	0.00			
	1.88	0.00	.		
>	1.90	1.71			
			0.00%	8.55%	17.09%
		-	NZ a NONZZA	FREQUENCY (%)	4.7 0 W 7/8

SPEC ILISTS IN HINERAL ENVIRONM TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

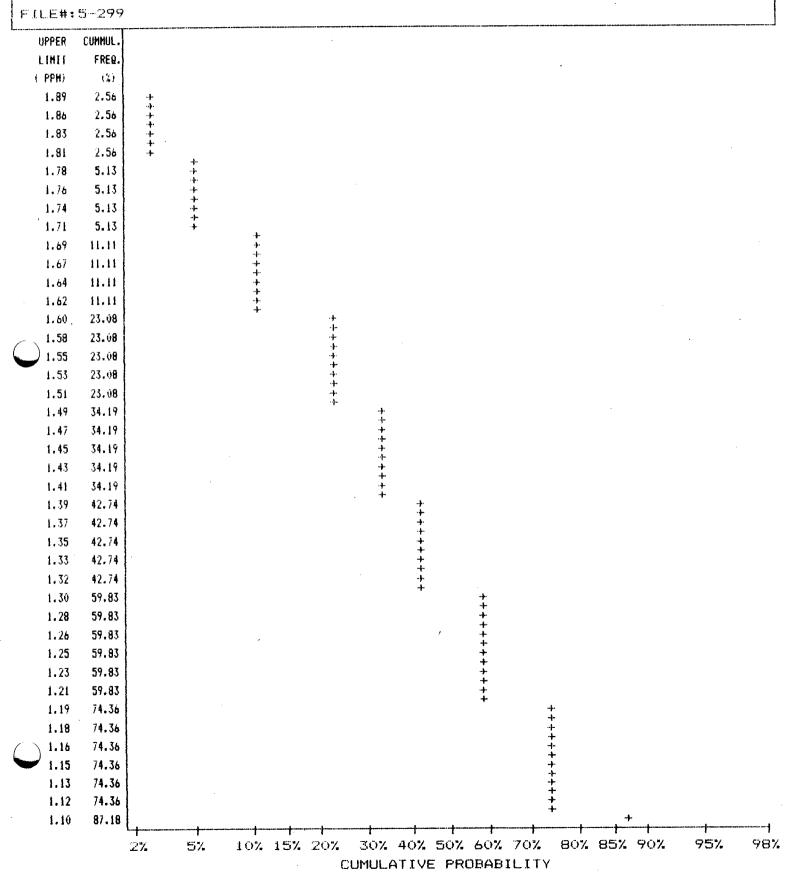
CUMMULATIVE PROBABILITY PLOT ON AG

MPANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

DATE: JULY 26/85 SAMPLE TYPE: SOIL ANALYSIS TYPE: ICP



SPEC MISTS IN MINERAL ENVIRONM TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 172

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STATISTICAL SUMMARY ON AS

MPANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

FILE#:5-299

DATE:JULY 26/85 SAMPLE TYPE:SOIL ANALYSIS TYPE:ICP

NUMBER OF SAMPLES: 117

MAXIMUM VALUE:

31.00 PPM

MINIMUM VALUE:

1.00 PPM

MEAN:

4.74 PPM

STD. DEVIATION:

7.26 PPM

COEFF. OF VARIATION: 1.53

5 HIGHEST AS VALUES:

L14N45+75EB

31 PPM

L14N51+75EB(DUP)

30 PPM

L14NBL40+00B

25 PPM

L14N54+75EB

25 PPM

12N46+50EB

24 PPM

HIS	TOGRAM FO	R AS	CLASS IN	TERVAL = 1.1		
HID	CLASS	CLASS		renedi sini kalan mjelja njel kritinispirat i vilo Pirillik ji miralitija, naj prekijan i Alimah kalan (1824 (1821) (1920) (1920)		
	PPH	7/4				
<	1.00	.85	į 1			
	t.55	72.65				
	2.65	0.00				
	3.75	1.71	•			
`)	4.85	, 85	ı			
	5.95	1.71	#			
,	7.05	1.71	49			
	8.15	1.71				
	9.25	1.21	5			
	10.35	0.00				
	11.45	. 85	8			
	12.55	3.42				
	13.65	0.00				
	14.75	. 85	8			
	15.85	2.56	#			
	16.95	.85	1	·		
	18.05	0.00				
	19.15	3.42			•	
	20.25	0.00				
	21.35	0.00				
	22.45	.85				
>	23.00	4.27				
			0.00%	36.32%	72.65%	
				FREQUENCY (%)		

SPEC LISTS IN MINERAL ENVIRONME TS

705 Mear 15th Street North Vancouver, B.C. Canada 976 172

(ELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

CUMMULATIVE PROBABILITY PLOT ON AS

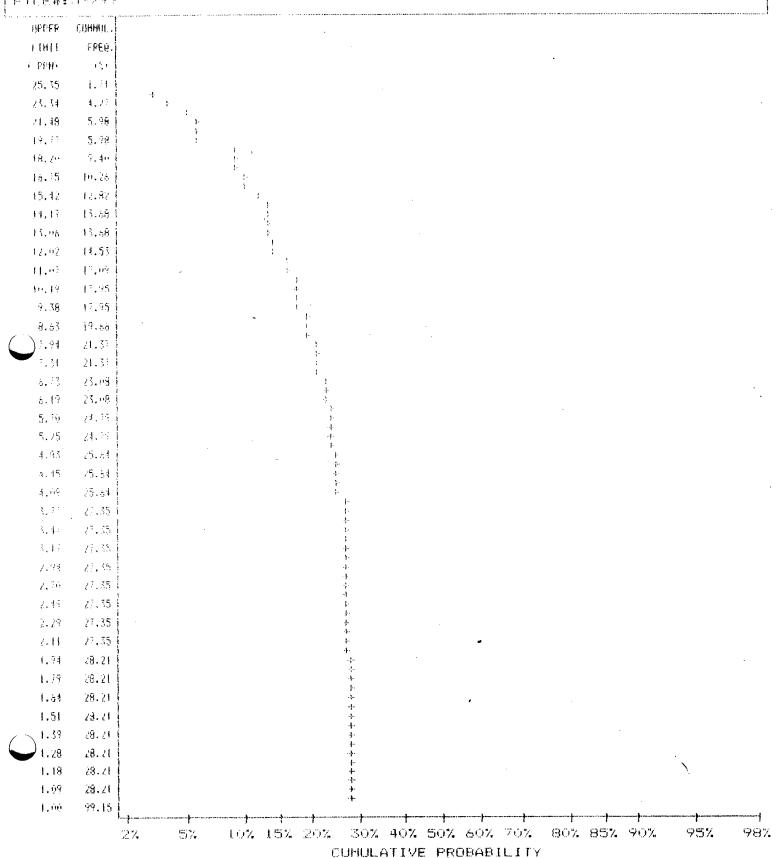
APANY : HUPHINE

(4) 111:

FR0JECT:8EMA 85-07

控制, 医棘部后之中原

DATE: JULY 26/85
SAMPLE TYPE: SOIL
ANALYSIS TYPE: TCP



MIN-F | LABORATORIE' LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STATISTICAL SUMMARY ON HG

COMPANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

FILE#:5-299

DATE: JULY 26/85

SAMPLE TYPE: SOILS

ANALYSIS TYPE: GEOCHEM

NUMBER OF SAMPLES: 123

MAXIMUM VALUE: 250.00 PPB

MINIMUM VALUE:

25.00 PPB

MEAN:

109.02 PPB

STD. DEVIATION:

41.59 PPB

COEFF. OF VARIATION: .38

5 HIGHEST HG VALUES:

L14N42EA

250.00 PPB

L14N58+50EA

220.00 PPB

12N56EA

185.00 PPB

L14N57EA

180,00 FPB

L.14N56EA

175.00 PPB

HIST	OGRAM FO	OR HG	CLASS INTERVAL = 5.75	
MID	CLASS	CLASS		
	PPM	7.		
<	70.00	15.45		
	72.88	8.94		
	78.63	7.32		
\	84.38	2.44	CST A CONTROL OF THE	
	90.13	1.63	normal state of the state of th	
,	95.88	.81		
1	01.63	6.50		
j	07.38	8.94		
.!	13.13	5.69		
.1	18.88	4.88	and the second of the second o	
ţ	.24.63	9.76		
j	30.38	2.44		
	36.13	3.25		
.1	41.88	2.44		
	47.63	5.69		
1	.53.38	1.63		
1	59.13	3,25		
. 1	64.88	3.25		
1	70.63	.81		
1	.76.38	2.44		
1	82.13	.81		
> 1	.85.00	1.63		
			0.00% 7.72% 15.45% FREQUENCY (%)	

MIN-I & LABORATORIE LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

CUMMULATIVE PROBABILITY PLOT ON HG

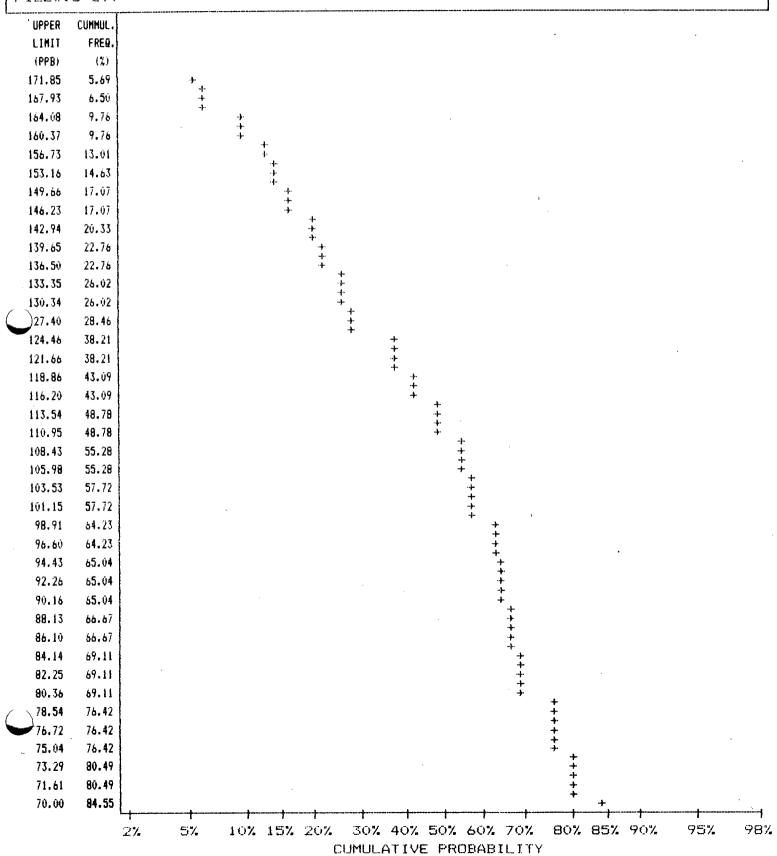
COMPANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

FILE#:5-299

DATE:JULY 26/85
SAMPLE TYPE:SOILS
ANALYSIS TYPE:GEOCHEM



SPEC LISTS IN HINERAL ENVIRONM! TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STATISTICAL SUMMARY ON SB

MEANY: NORMINE

ATTN:

PROJECT: BEHA 85-07

FILE#:5-299

DATE: JULY 26/85 SAMPLE TYPE: SOIL ANALYSIS TYPE: ICP

NUMBER OF SAMPLES: 117 5 HIGHEST SB VALUES: MAXIMUM VALUE: 10.00 FFM L18N42+50EB 10 PPM L18N49+75EB 40M MINIMUM VALUE: 1.00 PPM 9 PPM MEAN: 3.62 PPM L18N47+50EB 40M 9 PPM 1.99 FFM 8 FFM STD. DEVIATION: L18N41+50EB 40M COEFF. OF VARIATION: .55 L18N43+50EB 8 PPM

HIS	TOGRAM I	FOR SB	CLASS INTERVAL = .35
GIM	CLASS	CLASS	
	PPM	ng Za	
<	2.00	11.97	
	2.17	21.37	
	2.52	0,00	
	2.87	21.37	
	3.22	0,00	
	3.57	0.00	
	3.92	. 22.22	
	4.27	0.00	
	4.62	0.00	
	4.97	9.40	
	5.32	0.00	
	5.67	0.00	
	6.02	4.27	
	6.37	0.00	
	6.72	0.00	
	7.07	3,42	
	7.42	0.00	
	7.77	0.00	
	8.12	4.27	
	8.47	0.00	
	8.82	0.00	
>	9.00	1.71	
			<u> </u>
			0.00% 11.11% 22.22% FREQUENCY (%)

SPEC LISTS IN MINERAL ENVIRONME TO

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828

PHONE: (604) 980-5814 OR (604) 988-4524

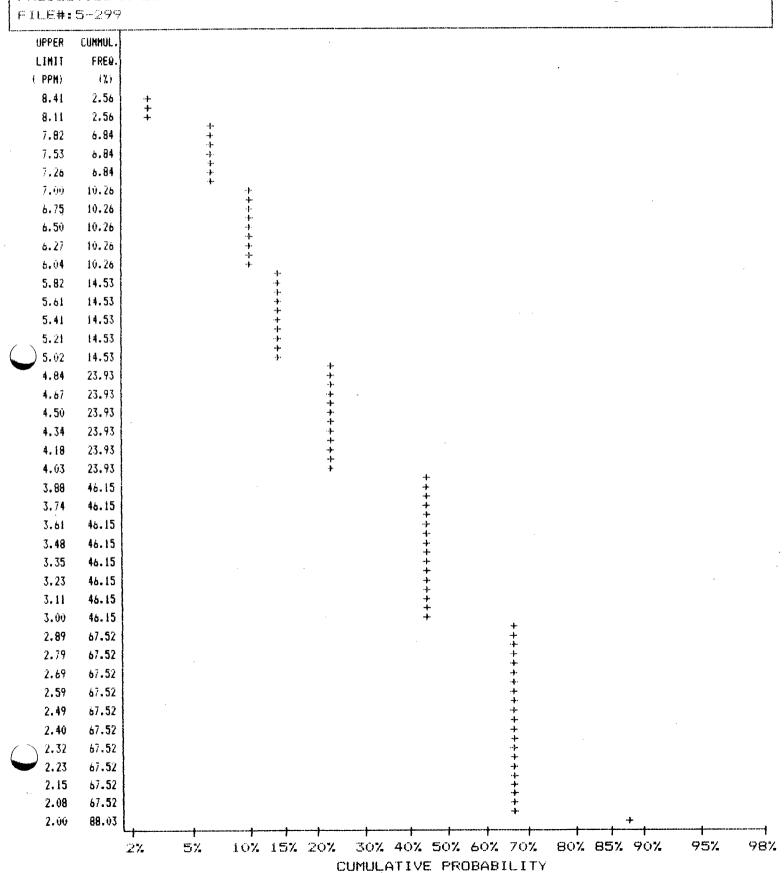
CUMMULATIVE PROBABILITY PLOT ON SB

MEANY: NORMINE

ACTN:

PROJECT: BEMA 85-07

DATE:JULY 26/85 SAMPLE TYPE:SOIL ANALYSIS TYPE:ICP



SPEC LISTS IN MINERAL ENVIRONME TS

705 Hear 15th Street HORTH VANCOUVER, B.C. CAHADA 976 (12)

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

STATISTICAL SUMMARY ON CU

AFRICANT CONTRACT HE

331 1 N ::

PROBLET L: BEHA 85 07

作自 植物 5 2005

DATE: JULY 26/85 SAMPLE TYPE: SOIL

ANALYSIS TYPE: JCP

MUHBER OF SAMPLES	on LLT	5 HIGHEST OU VALUES:	
HASTMIN VALUES	77.00 PM	12N51+75EB	77 PPM
HINGHAN VALUE:	10.00 PPM	FFRN49 F75E8 40M	74 PPH
HE (ald s	25.86 PPM	1 (4M51+75EB(OUP)	실수 등등년
SID. OFFIGITOR:	13.84 PP4	12M50475EB	of PFH
COMPEG. OF MARKALI	CR1: .54	1.14H42+75E6	经 基金的

HISTOR				ERVAL = 2.75	
HIO CLE	, _V egg		Agentific and the second section of the section of the second section of the section of	THE SECTION OF THE SE	The state of the s
1:	4.44	31		paragraf par agrammana a sammana a sama a sama ang ang ang ang ang ang ang ang ang an	
14.) 'II (5.15			
1 %	49-3	10.00%			無限機能
18.	1.3	2002 4			
Tyta Kij	(2/2	F 1 34 9		· · · · · · · · · · · · · · · · · · ·	
23.	34, N	133, 190			
	Ma.	Sh. 1 4			
.4 1.	1.3	N. 4 W			
3.1	5353	4.700	A THE RESTRICT OF THE PARTY OF		
14.	, u. 4	at a those	STATISTICAL STATES		
ţ. "	5.3	4 5 5 . 61 . 4		•	
4.4.	1.5	1 * 1			
.1	5484	S. 1. 1. 2			
·1 ··	in 4	et a forts			
. 48.	3.8	. 13.62	3411		
· i i	f.3				
	유발	Cr. (31)		·	+
Sec.		11,111			
71.00 g	.38	× 1 2 1			
And a		1.71			
64.		. 85			
67.		171161		•	
:		1.71			
				h	
			0.00%	10.26% FREQUENCY (%)	20.51%

SPEC LISTS IN MINERAL ENVIRONMY TS

705 Mear 15th STREET HORTH VANCOUVER, B.C. CANADA V7n 172

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

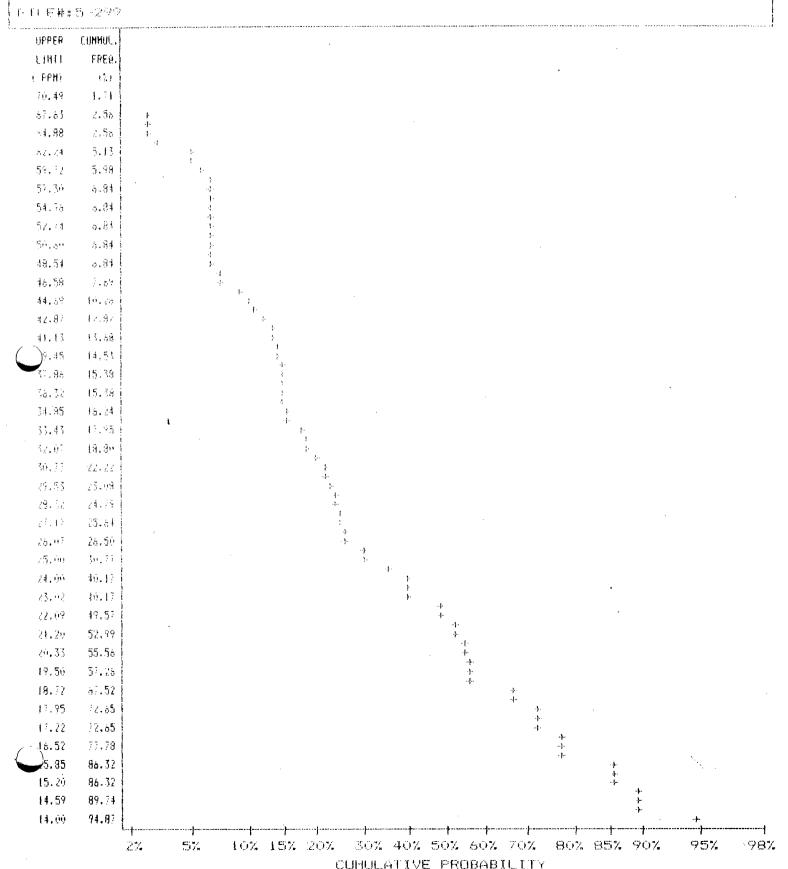
CUMMULATIVE PROBABILITY PLOT ON

OAPANY: HOPMINE

75 E 1 E 1 :

PROJECT: 85HA 85 07

DATE:JULY 26:85 SAMPLE TYPE:SOIL AMALYSIS TYPE:ICP



MIN-EN LABORATORIES LTD.

SPEC LISTS IN HINERAL ENVIRONM TS

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828 PHONE: (604) 980-5814 OR (604) 988-4524

CORRELATION COEFFICIENTS

MPANY: NORMINE

ATTN:

PROJECT: BEMA 85-07

FILE#:5-299

DATE:JULY 26/85
SAMPLE TYPE:SOIL
ANALYSIS TYPE:ICP

THE TABLE BELOW REPRESENTS THE PEARSON CORRELATION MATRIX, SHOWING THE INTER-ELEMENT CORRELATION COEFFICIENTS. THOSE VALUES THAT EXCEED THEIR CRITICAL VALUE FOR .01 LEVEL OF SIGNIFICANCE ARE SHOWN IN DARKER PRINT AND UNDERLINED.

***********	AG	AS	CU	PB	SB	ZN
A6	1.000	.123	.427	- 104	108	044
AS		1.000	. 389	. 735	. 147	. 157
CU		,	1.000	. 399	.347	088
PB				1.000	. 449	. 469
SB					1.000	
ZN						1.000

APPENDIX II - Geophysical Report by Alan Wynne, Consulting Geophysicist GEOPHYSICAL REPORT

ON THE

GOOSLY LAKE PROPERTY

Omineca Mining Division British Columbia

for

NORMINE RESOURCES LTD.

by

ALAN WYNNE, B.Sc.

Consulting Geophysicist

TABLE OF CONTENTS

SUMMARY	1						
INTRODUCTION							
LOCATION AND ACCESS							
MINERAL PROPERTY 3							
GEOLOGY	6						
GEOPHYSICS - I.P. MAGNETICS VLF	6						
RESULTS - West Grid East Grid	8 9						
CONCLUSIONS							
RECOMMENDATIONS							
CERTIFICATE	11						
LIST OF FIGURES							
FIGURE 1 - Location and Access							
FIGURE 2 - Claim Location Map	5						
APPENDICES							
1. n=l Chargeability Contours, West Grid							
2. n=2 Chargeability Contours, West Grid							
3. n=1 Resistivity Contours, West Grid							
4. n=2 Resistivity Contours, West Grid							
5. VLF Profiles, West Grid							
6. Magnetic Profiles, West Grid							
7. n=l Chargeability Contours, East Grid							
8. n=2 Chargeability Contours, East Grid							
9. n=l Resistivity Contours, East Grid							
10. n=2 Resistivity Contours, East Grid							
11. VLF Profiles, East Grid							
Magnetic Profiles, East Grid							
13. Compilation Map, West Grid	<u>-</u>						
14. Compilation Map, East Grid							

SUMMARY

An integrated geophysical program has been completed on the Goosly Lake project of Normine Resources Ltd.

The purpose of the surveys was to map shallow subsurface geology and locate any areas of sulphide mineralization which may host silver values.

Induced polarization was run to locate areas of disseminated sulphides.

VLF was run to give structural information and to locate any massive sulphides within disseminated zones.

Magnetics were used to map subsurface geology. Three discreet chargeability anomalies were located and probably relate to pyritized alteration zones within the volcanics. No major structural control was outlined. A magnetic high on the east grid cuts off an I.P. anomaly and indicates an intrusive spatially related to the sulphide zone.

INTRODUCTION

During June and early July of 1985, a Geophysical program was run on the Goosly Lake property of Normine Resources Ltd.

The purpose of these surveys was to map shallow subsurface geology and to locate any areas of sulphide mineralization under the overburden cover.

The survey area comprised two grids, denoted East Grid and West Grid (figure 2) consisting of 10.55 and 14.15 km respectively. The grids consisted of line spacings of 200 metres and station intervals of 25 metres. Cross lines were oriented at 130 degrees to intersect expected structures at right angles.

Time domain I.P. and resistivity, VLF and magnetics were run on the grid areas. The I.P. and magnetics surveys were carried out by Peter Walcott and Associates of Port Coquitlam. The VLF was carried out by Normine Resources personnel. Supervision and interpretation were carried out by the author.

LOCATION AND ACCESS

The Goosly Lake property is situated 30 km south-east of the municipality of Houston in west central British Columbia, (figure 1). The geographic centre of the claims is at latitude 54.12' north and longitude 126.23' west.

Houston is on Provincial Highway 16 and the northern C.N. rail line. The town of Smithers, 64 km north-west of Houston has daily scheduled airline service from Vancouver.

LOCATION AND ACCESS - (Cont'd.)

Access to the property is by 38 km of gravel road linking Houston with the Equity mine. Old logging roads, some of which require 4-wheel drive vehicles, provide access to the north and east parts of the property (figure 2).

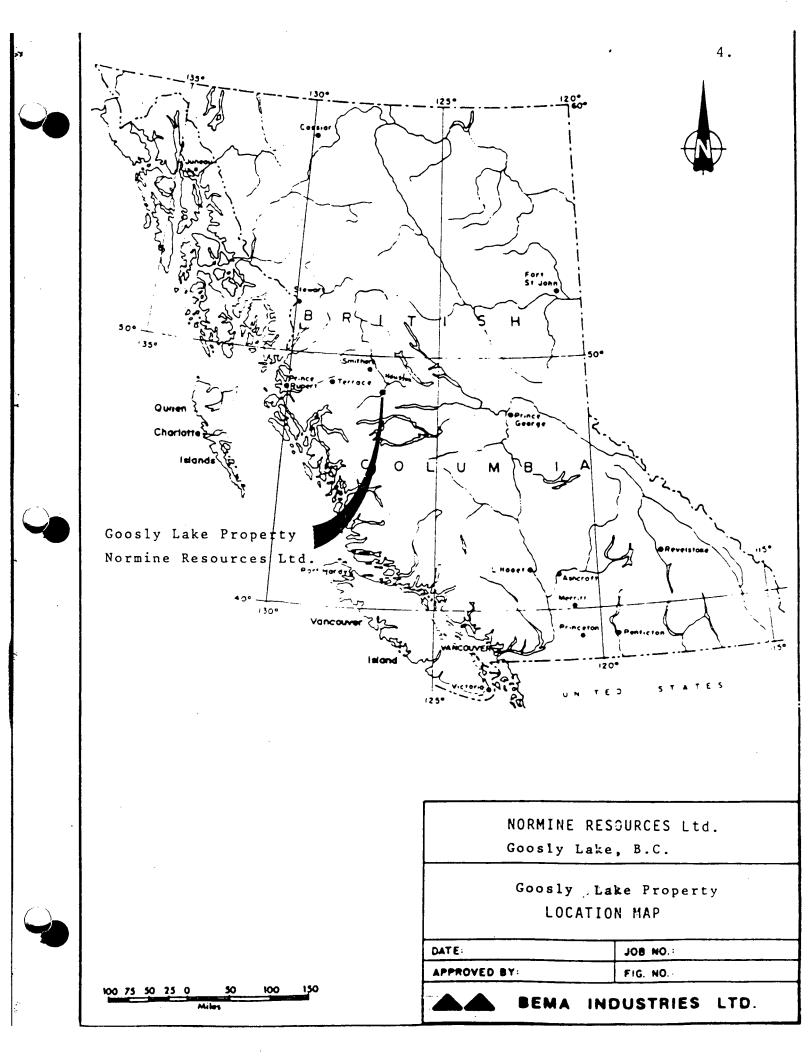
MINERAL PROPERTY

The Goosly Lake property consists of 8 modified grid and 4 2-post mineral claims comprising the equivalent of 142 units (figure 2) in the Omineca Mining Division.

These claims are believed to have been located in accordance with procedures specified in the Mineral Act Regulations for the Province of British Columbia. The writer did not examine claim posts or lines during the visit to the property.

Details of mineral claims are as follows:

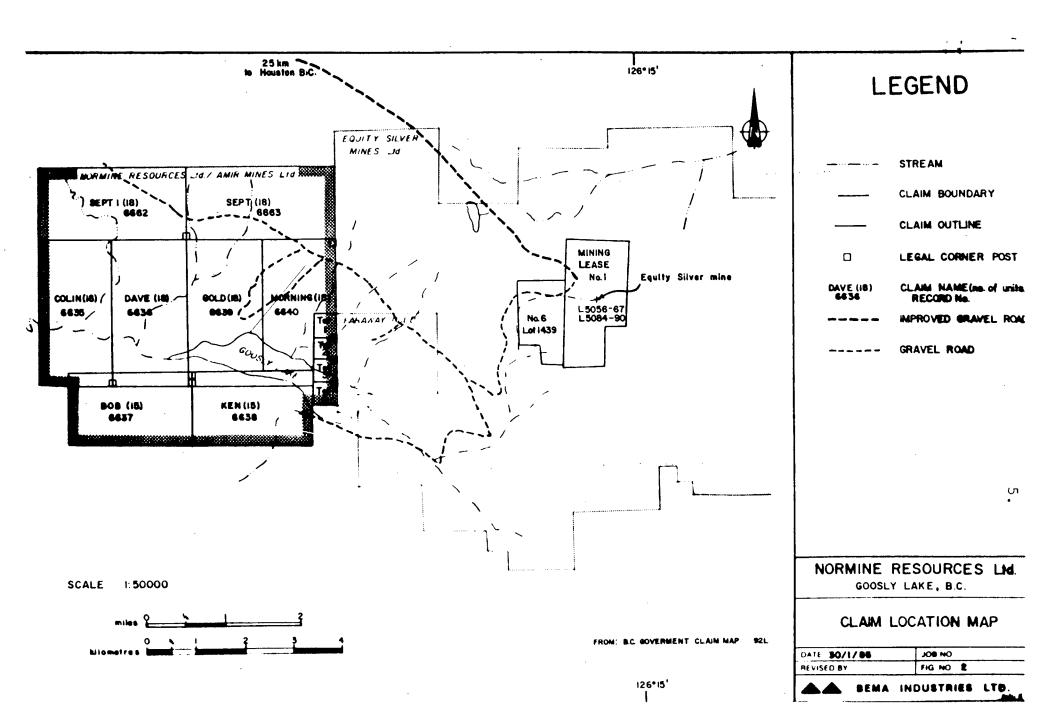
Name of Claim	Units	Record Number	Expiry Date
Tet l	1	6073	March 6, 1985
Tet 2	1	6074	tt 11 11
Tet 3	1	6075	11 11 11
Tet 4	1	6076	11 11 11
Colin	18	6635	September 19,1985
Dave	18	6636	n 11 H
Bob	15	6637	11 11 11
Ken	15	6638	11 tt 11
Gold	18	6639	11 11 11
Morning	18	6640	11 11
Sept 1	18	6662	11 11
Sept	18	6663	11 11











GEOLOGY

The Goosly Lake claims are situated on an upland plateau of moderate relief. Elevations range from about 900 metres at Goosly Lake to 1400 metres in the north east. The grid areas are below the break in slope and gently slope to the lake.

Geology for the grid area is covered by overburden. However, two percussion drilling programs in the region adjacent to the property intersected barren Goosly Lake volcanics overlying altered dacites with pyrite content of 5-10%. For further information on the local and regional geology, the reader is referred to reports by Carter, 1985 and Nordin, 1985.

GEOPHYSICS

Three geophysical surveys were run over the grid areas.

The logistics and instrumentation of these surveys are described.

I.P. and Resistivity

A Huntec 2.5 kw transmitter and Huntec Mark 4 receiver was used. The transmitter operates in the time domain and has a 2 second on, 2 second off cycle. The receiver samples the decay curve of the transmitted current, with a delay time of 200 milliseconds and an interval time of 1000 milliseconds. Chargeability is recorded according to the Newmont standard.

A pole-dipole electrode array was utilized, with an "A" spacing of 50 metres and "N"=1 and 2.

اؤر

GEOPHYSICS - (Cont'd.)

The purpose of the survey was firstly to delineate any zones of increased chargeability near surface, and secondly to locate any massive conductive zones.

Data is presented as contoured n=1 and n=2 plan maps for chargeability and resistivity data.

Magnetics

An EDA Omni mag was used as a base recorder and a Scintrex proton precession and GSM proton precession mag were used as field units. The field data was reduced for diurnal drift and magnetic activity by comparing the field data to the base data and removing any base fluctuations. Data is presented as profiles, as line spacings of 200 metres are too wide to contour reasonably.

VLF

A phoenix VLF-2 unit was used. The VLF -2 measures the dip angle and field strength of the horizontal VLF frequencies. Dip angle and field strength were recorded for Seattle and Cutle at 25 metre intervals. However, due to sampling problems created by line spacing and direction, only Seattle data was plotted.

VLF - (Cont'd.)

Data is presented as Fraser Filtered dip angle contours using the Crone convention (s and e are -). Because of a total lack of information contained, the field strength data was not plotted.

RESULTS

West Grid

The most elucidating information on this grid is provided by the n=2 chargeability data. This outlines a twice background anomaly crossing the grid from line 10+00N/19+00E to line 20+00N/23+00E. This anomaly is generally 300-350 metres wide and trends roughly 050. It is divided into two lobes with centres at 10+00N/19+00E and 18+00N/22+00E respectively.

N=l chargeability data shows similar spatial relationships. On line 10+00N, c=l values are greater than c=2 values, thus indicating a very shallow source. On line 18+00N, this is reversed indicating a source at greater depth (30-50 metres). An offset in the n=l and n=2 data towards the current electrode for deeper data may indicate an east dip to the polarized body.

Both the resistivity data and the VLF conductivity data indicate very low relief and no major conductive structures. The VLF appears to mimic the edges of the chargeability zones and probably relates to small changes in the conductivity across these contacts. The fact that none of the I.P. resistivity lows

RESULTS - West Grid (Cont'd.)

correspond to VLF conductors or I.P. highs indicates that the source of the polarization response is not forming a circuit, it is disseminated. A weaker response at line 16+00N/29+00E may also be of interest. The magnetics does not appear to provide any useful information except on line 22+00N where a mag low correlates roughly with a resistivity low.

East Grid

The East grid also shows an intriguing chargeability anomaly. The zone is centred at 12+00N/44+50E and trends 050 to 060. The chargeability values are twice background and lie within an area of lower resistivity which covers the entire western portion of the grid. A magnetic high trends 130 and lies along the northern fringe of the I.P. high. This may be caused by a Gabbro or Monzonite intrusive. No conductive zones are evident from the VLF and resistivity data. The n=2 chargeability data is higher than the n=1 data, indicating a depth to the polarized body of perhaps 30 metres. The source here is again a disseminated material. The small anomaly at 12=00N/49+00E also lies on the edge of the magnetic signature which is likely an intrusive.

CONCLUSIONS

Three strong discreet chargeability anomalies have been located. By the absence of VLF conductive traces and I.P. resistivity lows, there appears to be no electromagnetic targets associated with these zones. The anomalies on the west grid do appear to be delineated as a lower resistivity area by the VLF.

The anomaly on the east grid is associated with the flank of a magnetic high which is probably related to an intrusive body.

The zones of interest are most likely areas of increased sulphide content as disseminations, presumably in the Mesozoic rocks.

The anomalies of interest are centred at:

West Grid - 10+00N/19+00E 19+00N/22+00E

East Grid - 12+00N/44+50E

All three bodies are less than 20 metres below surface.

RECOMMENDATIONS

It is recommended that these zones of increased polarization be tested by a program of percussion drilling on a systematic basis to attempt to trace any zones of silver mineralization within the sulphide rich areas.

ALAN WYNNE GEOPHYSICIST

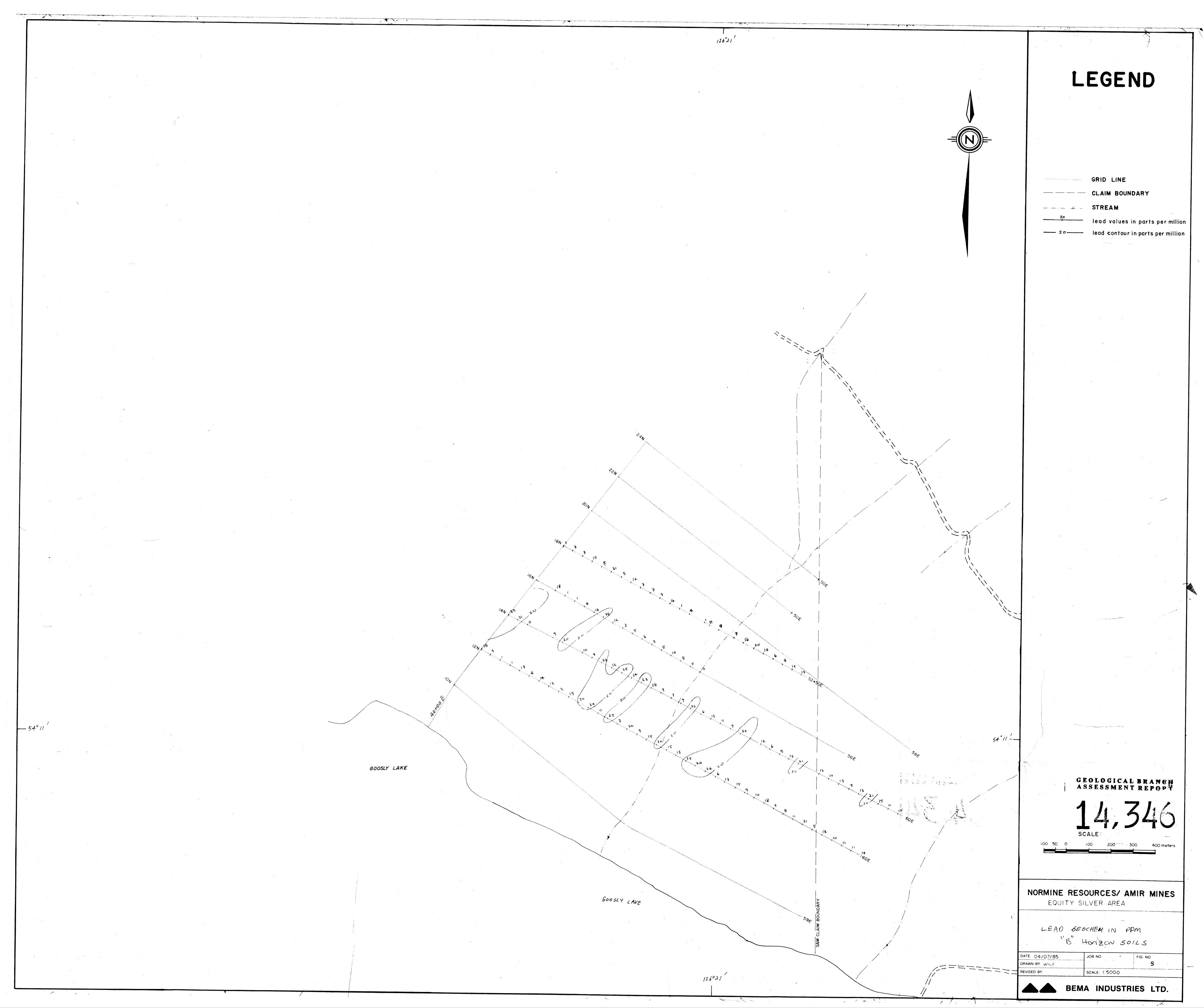
CERTIFICATE

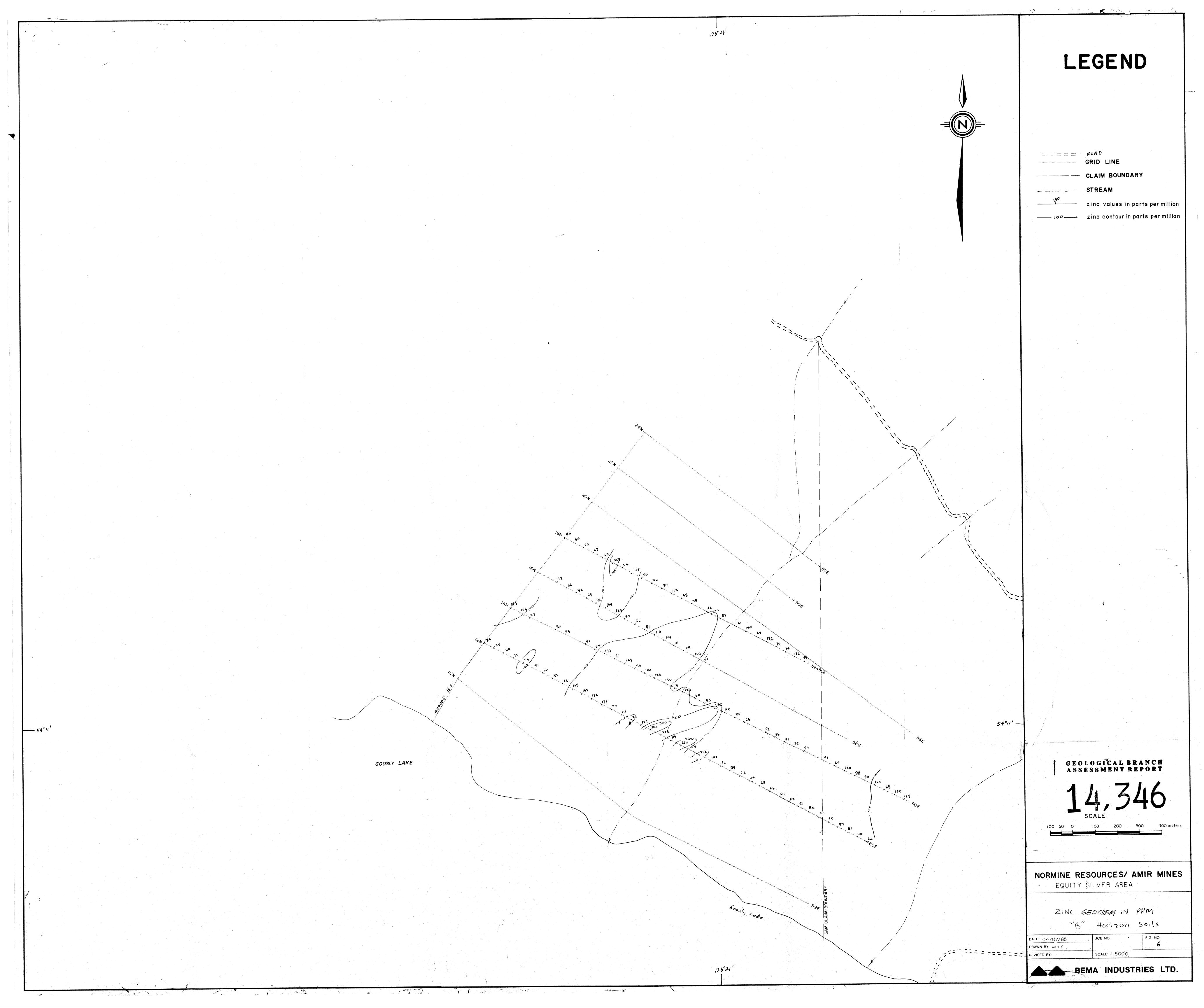
- I, Alan J. Wynne, do hereby certify that:
 - I am a Consulting Geophysicist resident at 8573 Ebor Terrace, Sidney, B.C.
 - 2. I am a graduate of the University of British Columbia with B.Sc. (1976).
 - I have practised my profession in North America for the past 9 years.
 - 4. I have no direct or indirect interest in the Goosly Lake mineral claims described in this report, or in either Amir Mines Ltd. or Normine Resources Ltd.

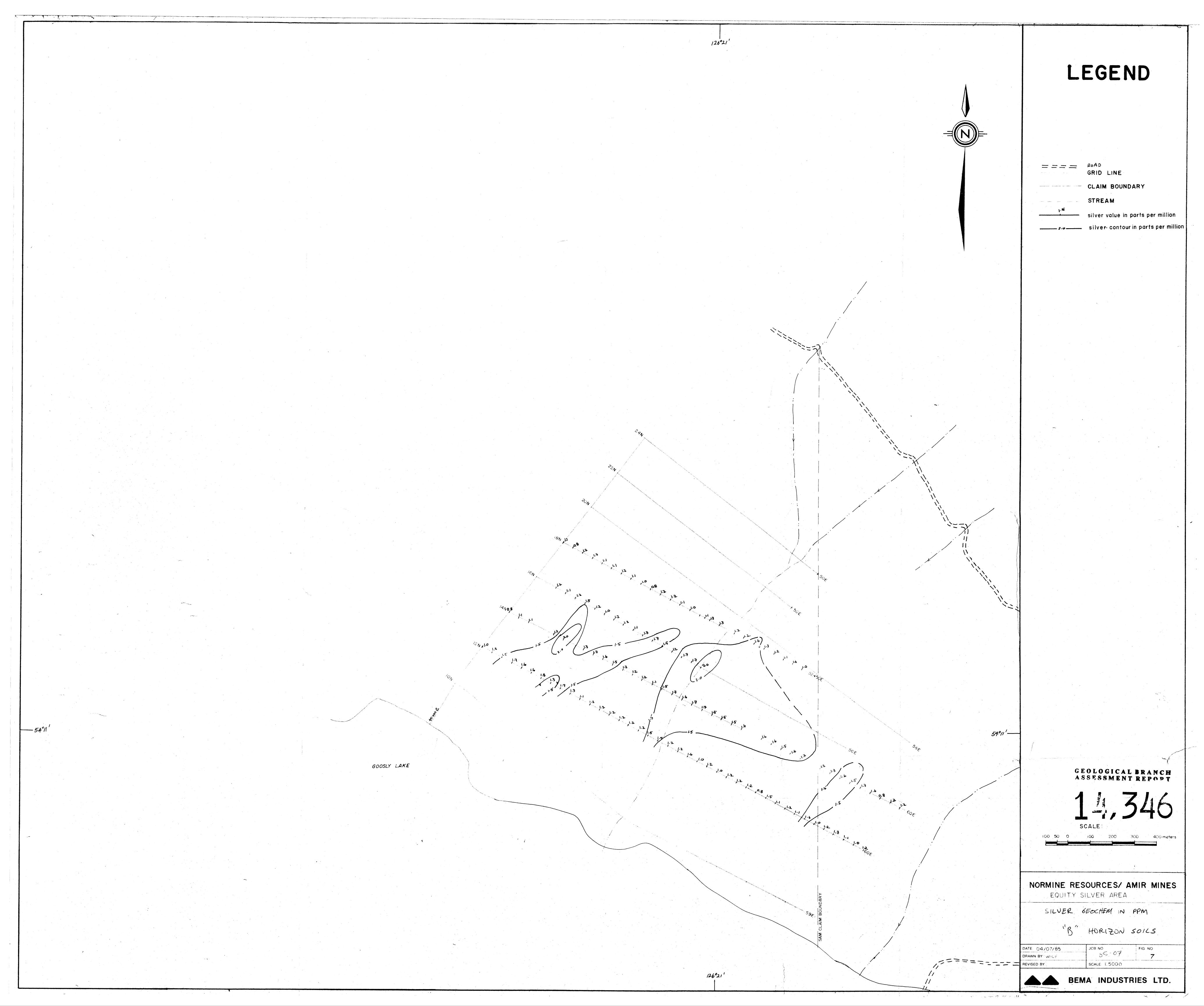
Alla My

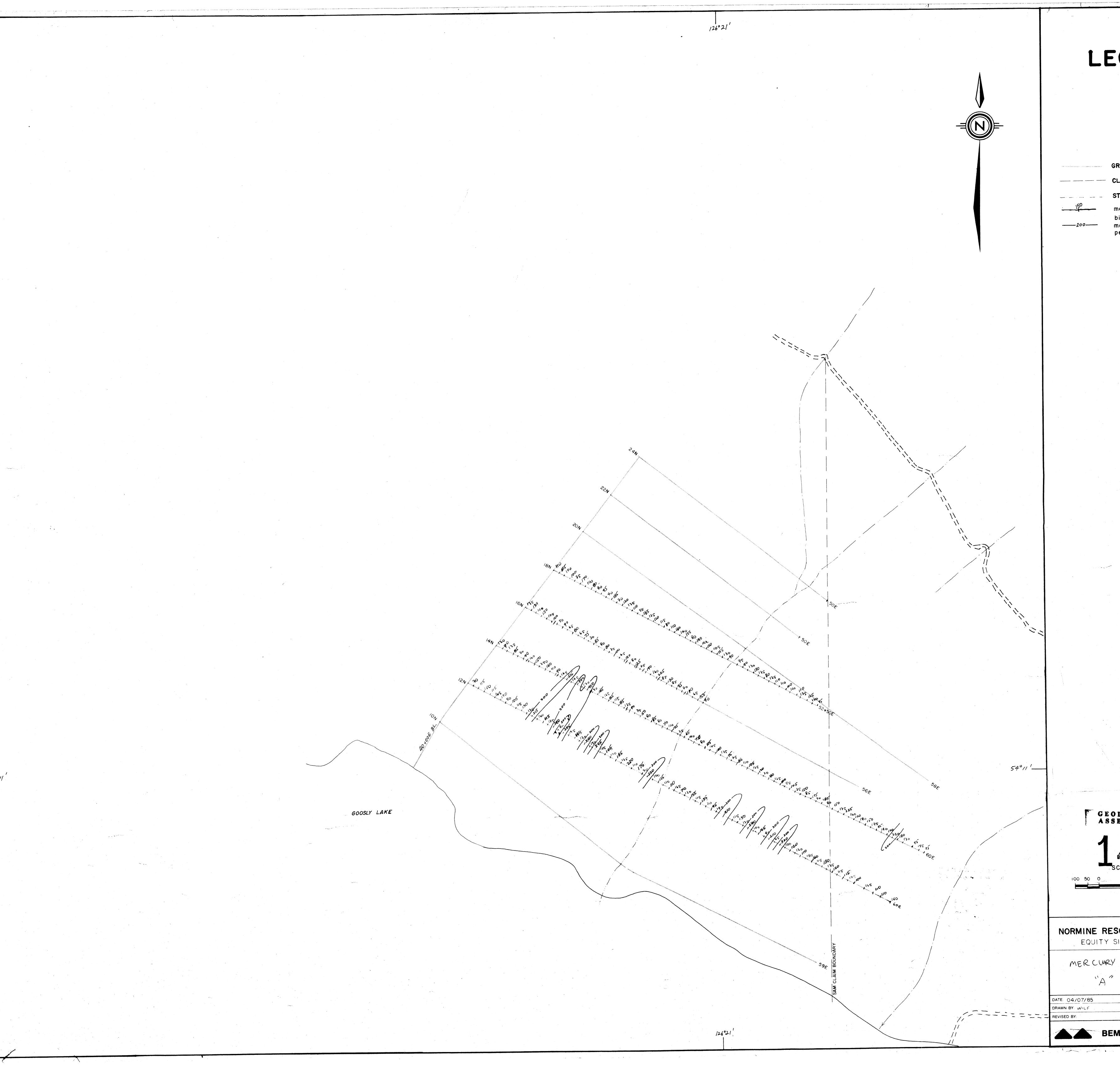
Sidney, B.C.

July 29, 1985.









LEGEND

CLAIM BOUNDARY

STREAM

billion mercury contour in parts per billion

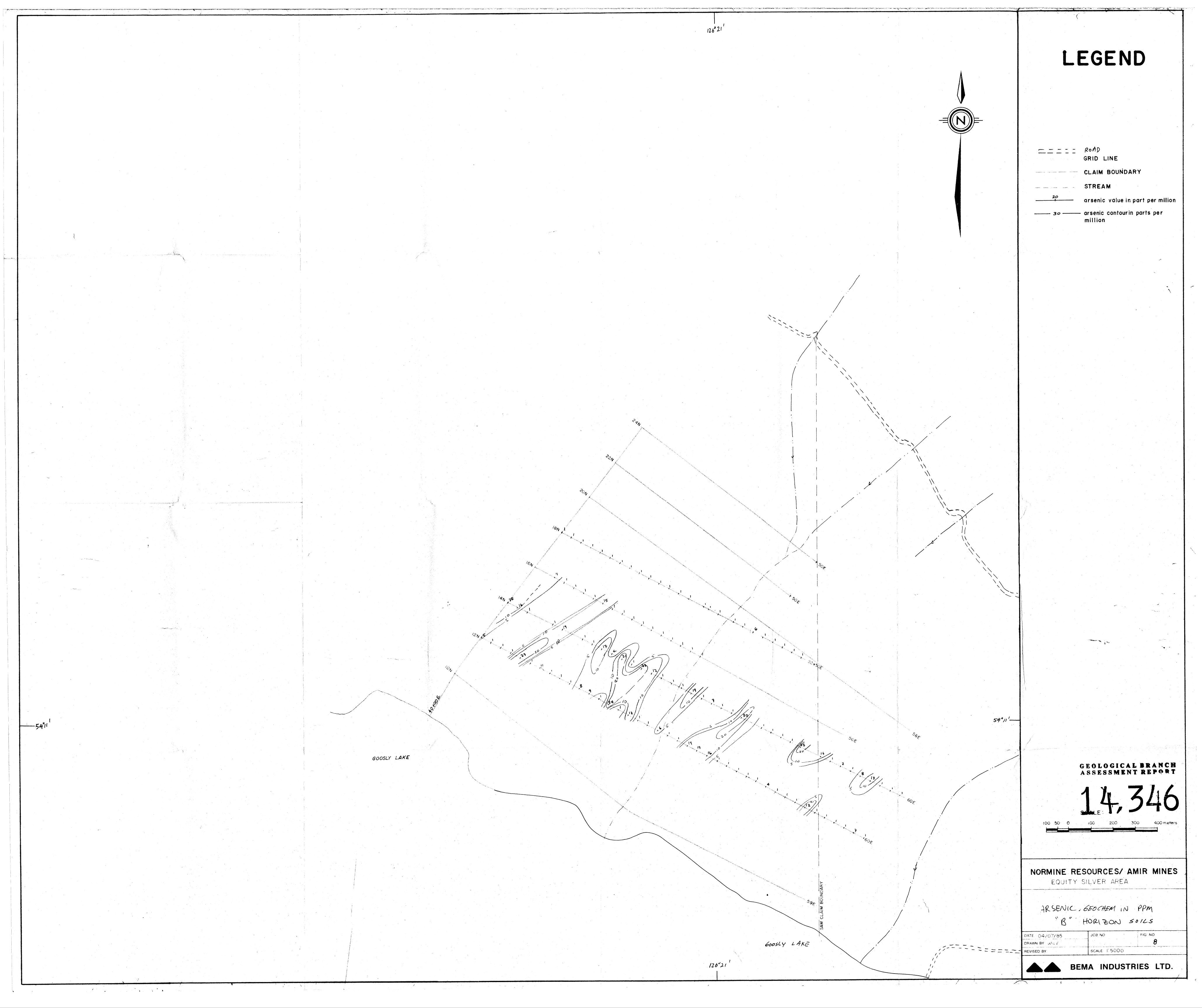
GEOLOGICAL BRANCH ASSESSMENT REPORT

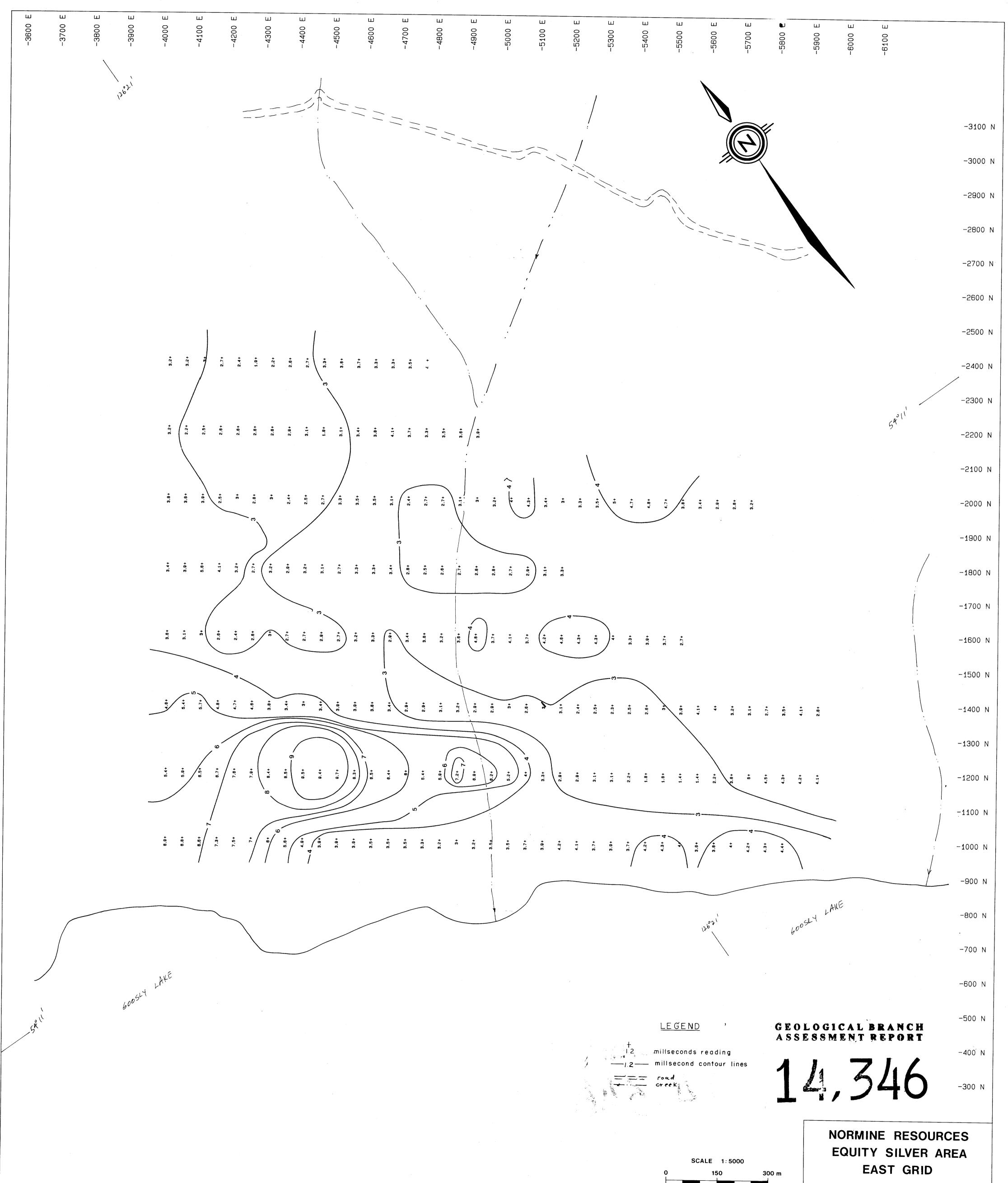
NORMINE RESOURCES/ AMIR MINES

EQUITY SILVER AREA

SCALE: 1:5000

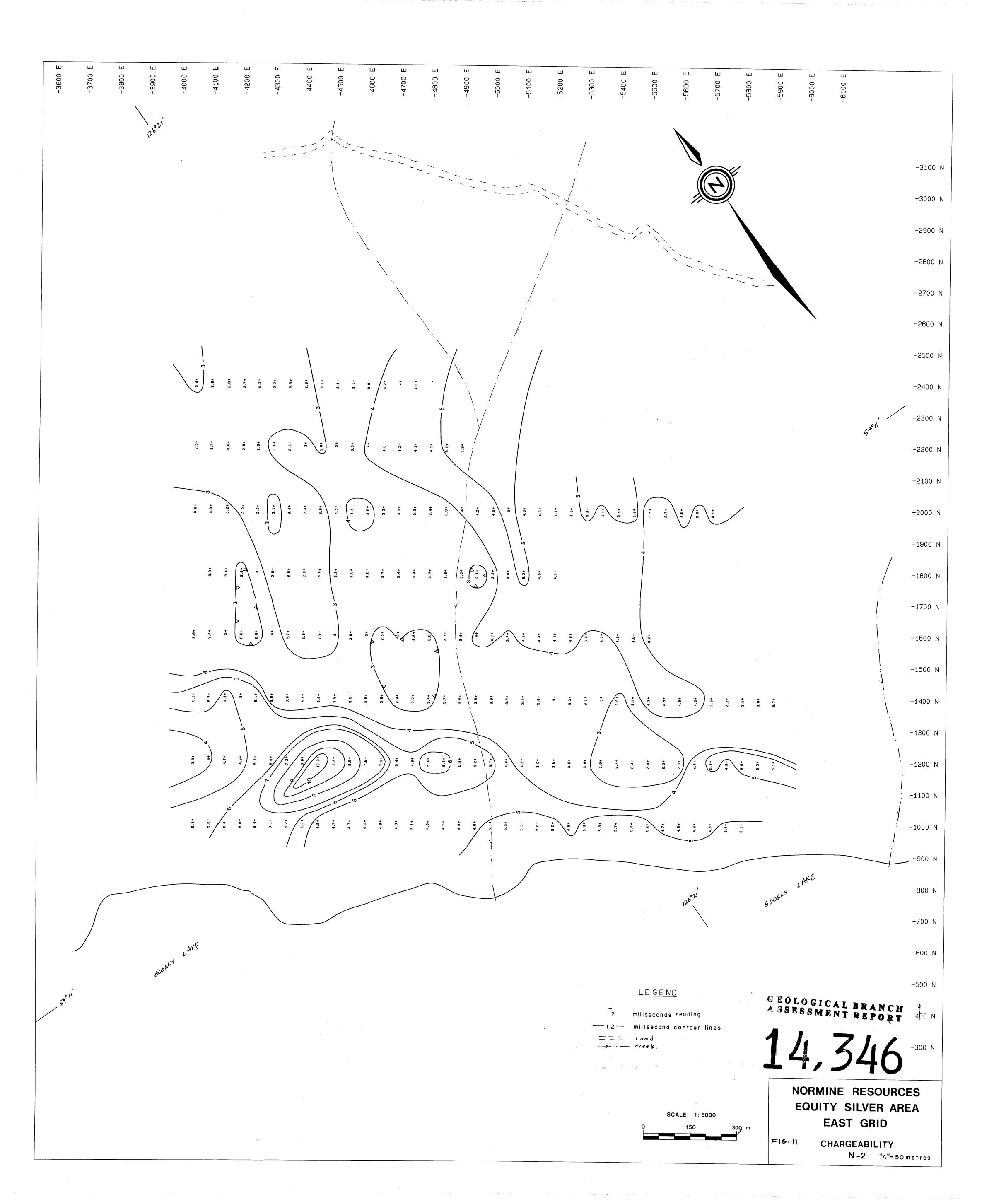
BEMA INDUSTRIES LTD.

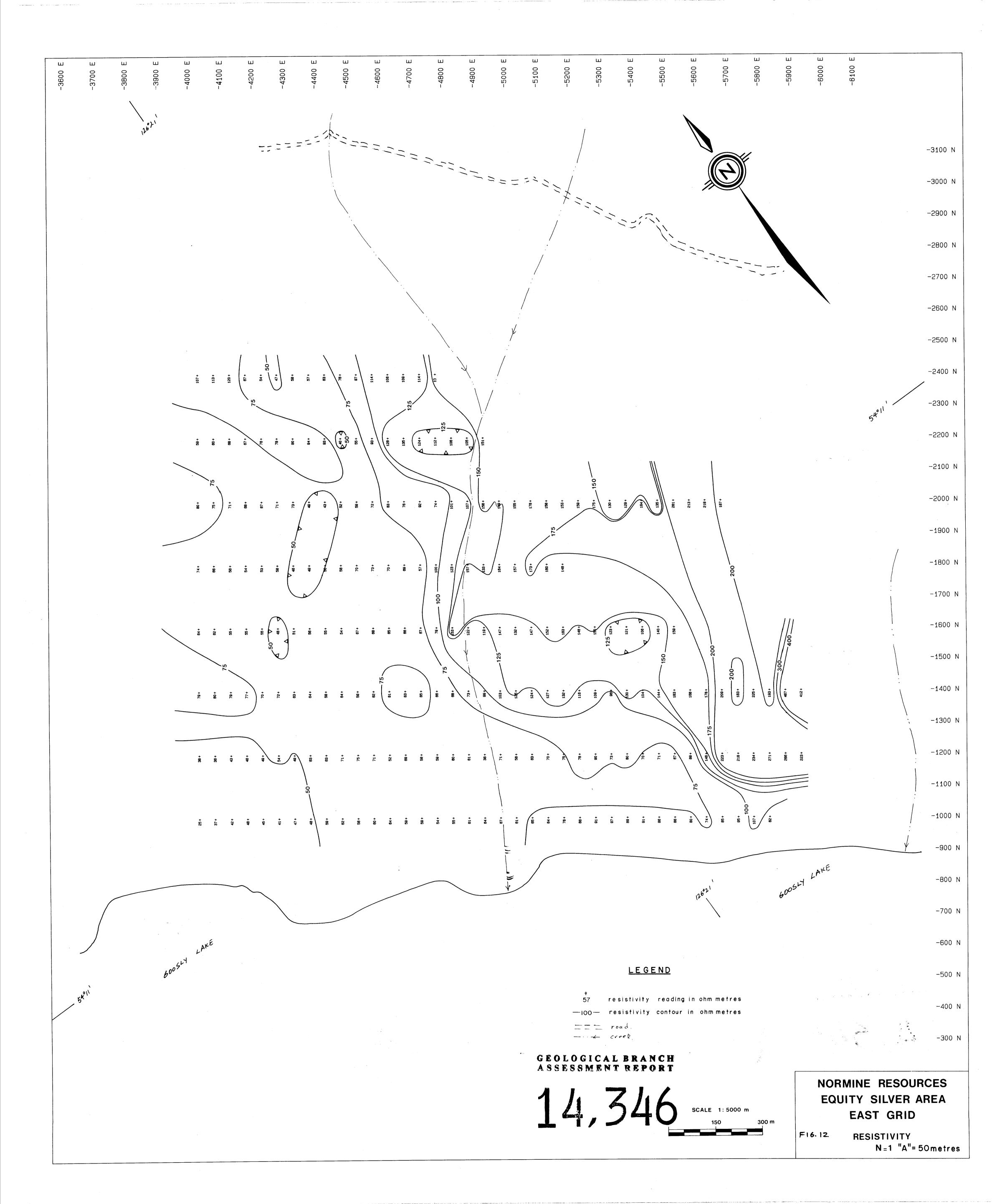


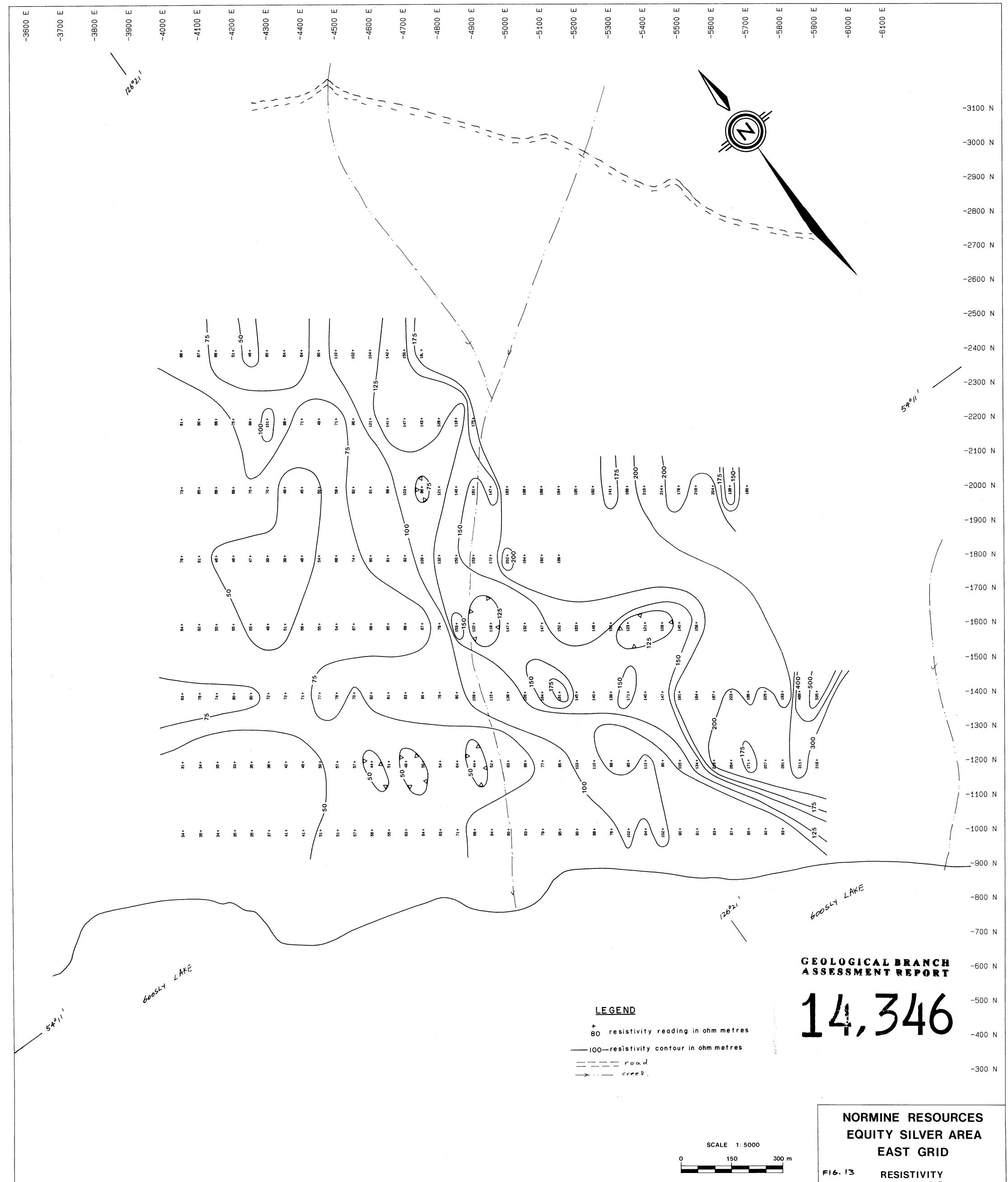


F16,10 CHARGE

CHARGEABILITY
N = 1 "A" = 50 metres







N = 2 "A" = 50 metres

