GETTY CANADIAN METALS, LIMITED

MACMILLAN JOINT VENTURE

ASSESSMENT REPORT

Title: Geophysical Survey - Grid 11 East

Author: C.W. Payne

Date: July, 1981

Commodities: Lead, Zinc, Silver

Location:
Name of Claim Group - SUE claims
Claim Sheet Numbers - 105L/~~10~~, 15
Co-ordinates - Latitude 62°49'N
Longitude 135°00'W

Date Work Was Done: March 20-23, 1981

090852

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be credited as representation work in the amount of

$ 2,749.90

~~Resident Geologist or Resident Mining Engineer~~

~~Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.~~

Ruth Debicki Oct 1/81

for Commissioner of Yukon Territory

DM Mining Recorder at DAWSON

Supervising Mining Recorder at Whitehorse, Y.T.

RE TION ARE:

☐ NEW APPL'N for PLACER LEASE to PROSPECT: Name:

☐ RENEWAL APPL'N PLACER LEASE to PROSPECT: Name: Lease No.

☐ AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name: Lease No.

☐ ASSIGNMENT of PLACER LEASE No.
From: To:

☐ GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.
Owner:

☐ DIAMOND DRILL LOGS:
Claims: Claim sheet no:

☑ QUARTZ ASSESSMENT REPORT:
Claims: SUE Claim sheet no. 105 L-15

Type of report. GEOPHYSICAL SURVEY Submitted by: GETTY CANADIAN METALS LIMITED

Cls. work performed on:
SUE 389 - 394

$ Req. for ren. application #2,749.90

Signature

18 Aug 1981
Date Rec.

Office of the Supervising Mining Recorder
AUG 19 1981
WHITEHORSE
Yukon Territory

EPLY ACTION.

090852

Signature

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APPENDICES

LIST OF FIGURES

LIST OF SUE CLAIMS ON WHICH GEOPHYSICAL SURVEY WAS CARRIED OUT - MARCH, 1981

Grant No.	Sue No.	
Y 81039	389	holder of claims - Getty Canadian Metals, Limited
Y 81040	390	
Y 81041	391	
Y 81042	392	
Y 81043	393	
Y 81044	394	

SUMMARY AND CONCLUSIONS

This report describes the results of an electromagnetic survey (Max Min II) carried out during March 1981, on a selected airborne EM anomaly, Grid 11 East.

The two conductors as defined by the ground Max Min II EM survey on Grid 11 East indicate that the conductivity is caused by graphite and/or massive sulphides. Both conductors have a strike length of 2,000' with the conductors remaining open to the east.

Conductivity, strike length (2,000') and width of the conductors suggest a potential for strataform massive sulphides.

RECOMMENDATIONS

Further exploration is warranted. Mapping-prospecting, soil geochemistry, proton magnetometer and gravity surveys would be useful techniques to further evaluate the anomalies. If success is met with the above techniques, diamond drilling is recommended to test the anomalies.

INTRODUCTION

The Sue claims are currently held by Getty Canadian Metals, Limited and Essex Minerals Canada for the MacMillan Joint Venture.

The claims are located to cover geological formations believed to be similar to those at Vangorda Creek, sixty miles to the southeast.

During March, 1981, a Max Min II EM survey was carried out on part of the Sue Claims Group as a follow-up to an airborne input EM survey done in late 1978.

A total of 6.5 miles of picket lines, including baselines and tie lines, were cut and chained to establish Grid 11 East. This grid was established to locate and define an airborne EM conductor on the ground.

The work described herein was conducted by and under the direct supervision of C.W. Payne. The writer laid out the programme and evaluated the results based on the data presented herein.

Location and Access

The MacMillan Joint Venture claim group, centered at

62°49'N latitude, 135°05'W longitude, is located east of the confluence of the MacMillan and Pelly Rivers, central Yukon (see figure 1). Access can be gained in three ways:-

i) via fixed-wing aircraft from Whitehorse or Pelly Crossing, distances of 160 and 40 miles respectively. A dirt airstrip, 150' wide and 3,000' long, situated immediately west of the Clear Lake deposit, can accommodate planes up to a DC-3.

ii) via helicopter from a base in Carmacks, a distance of 50 miles.

iii) via winter tote road from Pelly Crossing, road distance of approximately 40 miles.

Access during the 1981 winter geophysical programme was via fixed-wing aircraft and helicopter.

Physiography and Climate

The Venture area covers a series of gently rolling hills and ridges referred to as the Tummel Basin. Elevations range from 1,760' ASL at Pelly River to 2,400' ASL on the hill tops.

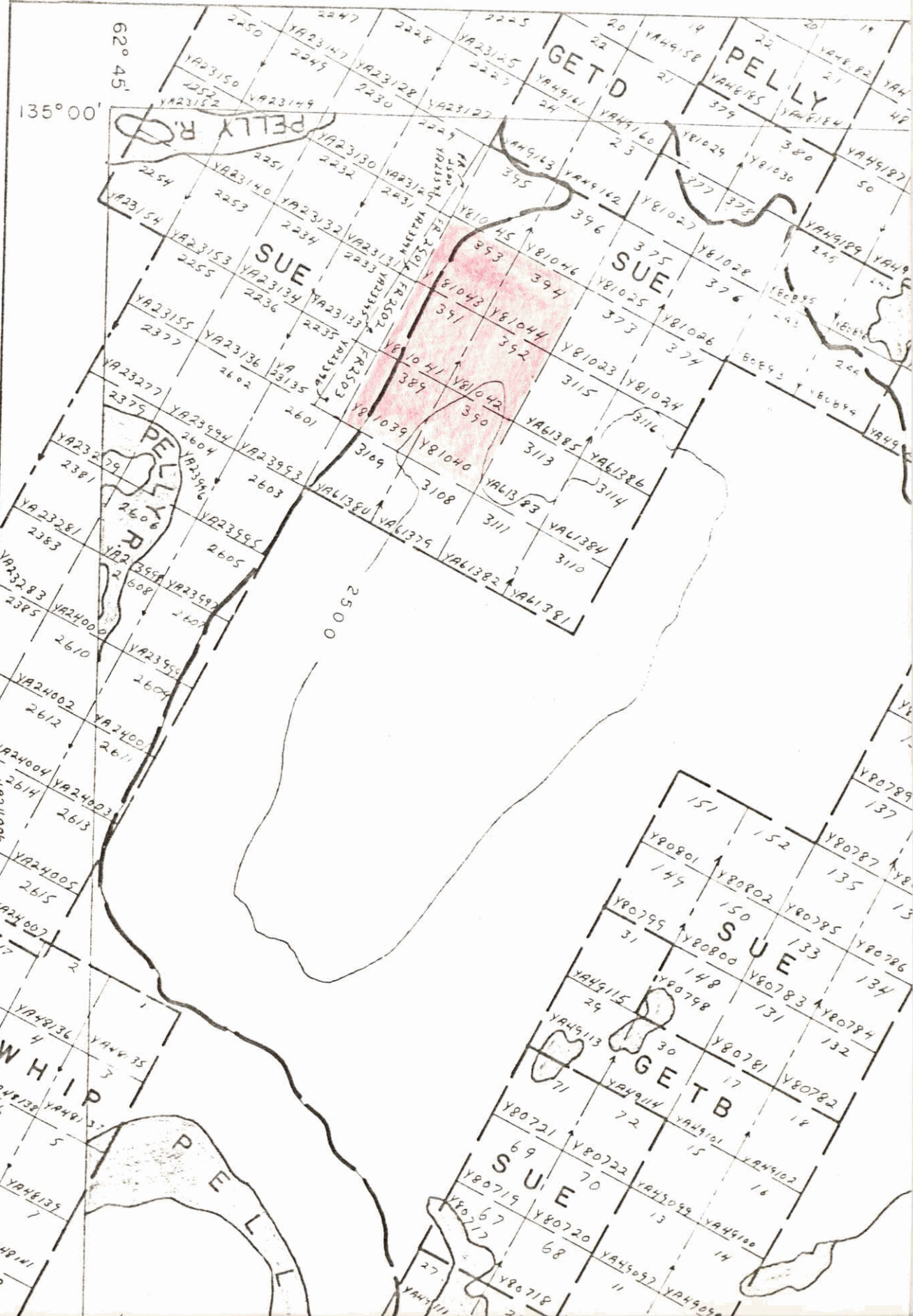
SCALE 1:6,336,000

100	50	0	100
0	0	100	200

MACMILLAN JOINT VENTURE LOCATION

DRAWN BY:	DATE:
CHECK'D BY:	DRAW'G No: 1
N.T.S.:	SCALE:

Getty Mines, Limited


62° 45'
135° 00'
PELLY R.
SUE
GETD
PELLY
GETB
WHIP
PELL
2500

The climate is sub-arctic with long cold winters and short cool summers. Temperatures range from -40°F to 80°F. Annual precipitation is 20-30 inches.

The Joint Venture claims area is underlain by numerous small lakes and swamps which make line-controlled ground geophysical surveys very difficult in summer, therefore, most geophysical surveys have been carried out during the winter months.

GENERAL GEOLOGY

The area of interest comprises a belt of Paleozoic metasedimentary and metavolcanic rocks which are similar to and along strike to the northwest of the Anvil mining district. The favourable horizon is a series of Cambrian-Ordovician aged phyllites which are locally, strongly graphitic. The latter rocks have been observed on the SUE claims both in outcrop and drilling.

Reconnaissance mapping of the SUE claims indicates very little outcrop is present and locally, overburden depths may exceed 100'.

Earlier mapping in the SUE claims area (105L) was done by R.B.Campbell (1967). Further mapping to the east and southeast was done by Roddick & Green (1961) and Templeton-Kluit (1972).

MAX MIN II ELECTROMAGNETIC SURVEY - GRID 11 EAST

Description of Method and Equipment

The survey was completed using an Apex Parametrics Max Min II horizontal loop EM system (instrument specifications Appendix I). Coil separation was maintained at 400'. Readings were obtained at 100' station intervals along picket lines. Readings were taken at two frequencies, 444 Hz and 1777 Hz.

Discussion of Results

Two conductors were outlined on Grid 11 East (see figs. 2 and 3).

Conductor 1 and conductor 2 were traced for 2,000' in length with their east end remaining open. Both conductors parallel each other and have a strike direction of 116°.

Conductor 1 is 450' wide on line 280W and appears to narrow to the east where on line 260W it is 350'wide. Conductivity is moderate and increases in strength to the east.

Conductor 1 is caused by graphitic phyllite or massive sulphides.

Conductor 2 is only picked up on the 1777 Hz frequency and may not be a legitimate conductor.

REFERENCES

1. Campbell, R.B. (1967), Geology of Glenlyon Map Area. Yukon Territory (105L); Geol. Survey of Canada, Memoir 352.

2. Roddick, J.A. and Green, L.H., (1961), Tay River, Yukon Territory; Geol. Survey of Canada, Map 13-1961.

3. Templeman-Kluit, D.J., (1972), Geology and Origin of the Faro, Vangorda and Swim Concordant Zinc-Lead Deposits, Central Yukon Territory; Geol. Survey of Canada, Bulletin 208.

APPENDIX I

APEX MAXMIN II EM SYSTEM SPECIFICATIONS

OPERATING FREQUENCIES:	222, 444, 888 and 1777Hz
COIL SEPARATIONS:	100, 200, 300, 400, 600 and 800 feet
MODES OF OPERATION:	(a) Tx coil plane and Rx coil plane horizontal (Horizontal loop mode). (b) Tx coil plane horizontal and Rx coil plane vertical (Minimum coupled mode).
PARAMETERS MEASURED:	In-Phase and Quadrature component of the secondary field.
READOUTS:	Automatic, direct readout on 3½" size meters.
SCALE RANGES:	In-Phase: ±20% normal, ±100% by switch. Quadrature: ±20% normal, ±100% by switch. Inclinometers: ±50% tilt.
READING REPEATABILITY:	±½% to ±1%
RX BANDWIDTH (-3dB):	0.2 Hz nominal
RX INTERNAL NOISE:	Negligible
TX DIPOLE MOMENTS:	150 Atm^2 @ 222 Hz, 150 Atm^2 @444 Hz, 75 Atm^2 @ 888 Hz, 50 Atm^2 @ 1777 Hz.
RX POWER SUPPLY:	Four 9V batteries (transistor radio type)
TX POWER SUPPLY:	Three 6 V alkaline lantern batteries in a separate battery pack. Optionally one 12V 8Ah rechargeable Gel Cell.
REFERENCE CABLE:	Light weight, low friction unshielded cable. Unit supplied with 200, 400 and 600 ft cables, other lengths optional.
WEIGHT OF RX UNIT:	13 lbs.
WEIGHT OF TX UNIT:	30 lbs.
OTHER MAIN FEATURES:	Built-in Intercom system for communication between receiver and transmitter unit. Signal and reference warning lights to indicate erraneous readings.

FOR MORE INFORMATION,
PHONE (416) 491-6388 OR WRITE TO:

APEX PARAMETRICS LTD.
255 YORKLAND BLVD. WILLOWDALE, ONTARIO, CANADA M2J 1S3

APPENDIX II

PERSONNEL

C.W. Payne	Getty Mines, Limited 509-700 West Pender Street Vancouver, B.C. V6C 1G8
Dave C. Bingham	Can-Lake Explorations Ltd. #1, 4001-19th Street N.E. Calgary, Alberta T2E 6X8
Henry Zurloff	"
Sean Willis	"
Stan Martin	"

APPENDIX III

Linecutting, Chaining and Geophysical Work

MacMillan Joint Venture

March, 1981

Grid	Baseline	Tieline	Picket Line	Max Min II	Dollar Value EM (max min II)
Grid 11 East	4,000'	8,000'	22,500'	22,500'	1,072.50

APPENDIX IV

Statement of Expenditures

MacMillan Joint Venture

SUE Claim Group

March, 1981, EM (Max Min II) Survey

Salaries		
Getty		$ 230.00
Can Lake		$ 1,072.50
Equipment Rental		
Max Min II Unit		$ 180.00
Radios		$ 24.00
Aircraft		
Helicopter		$ 585.00
Fixed-Wind (supply)		$ 358.00
Board Costs		$ 300.00
	TOTAL	$ 2,749.90

I certify the above to be a true and correct statement of costs and expenditures.

Craig W Payne

C.W. Payne
GETTY CANADIAN METALS, LIMITED

APPENDIX V

Certificate of Author

I, C.W. Payne, hereby certify that:-

1. I am a geologist residing at 401-2326 Eton Street, Vancouver, B.C.

2. I received a Master of Science degree in Geological Science from Brock University in 1979 and have been practising my profession since that time.

3. I am the author of this report and directed the overall conduct of the programme described herein.

4. I am employed as a geologist by Getty Mines, Limited.

Craig W Payne

C.W. Payne
Geologist

TL 55+00S

TL 65+00S

TL 80+00S

60S

70S

75S

POND

CONDUCTOR 1

CONDUCTOR 2

SUE 394
SUE 393

SUE 392
SUE 391

SUE 390
SUE 389

L 300+00W

L 295+00W

L 290+00W

L 285+00W

L 280+00W

L 275+00W

L 270+00W

L 265+00W

L 260+00W

LEGEND

616 — Claim post location and Sue Claim Number

130S — PICKET LINE

+20% −20%

IN PHASE

OUT OF PHASE

Conductor axis

32°43'

MAGNETIC NORTH

SCALE

200 0 200 400 600

FEET

TO ACCOMPANY ASSESSMENT REPORT
Geophysical Survey - Grid 11 East
Figure 2

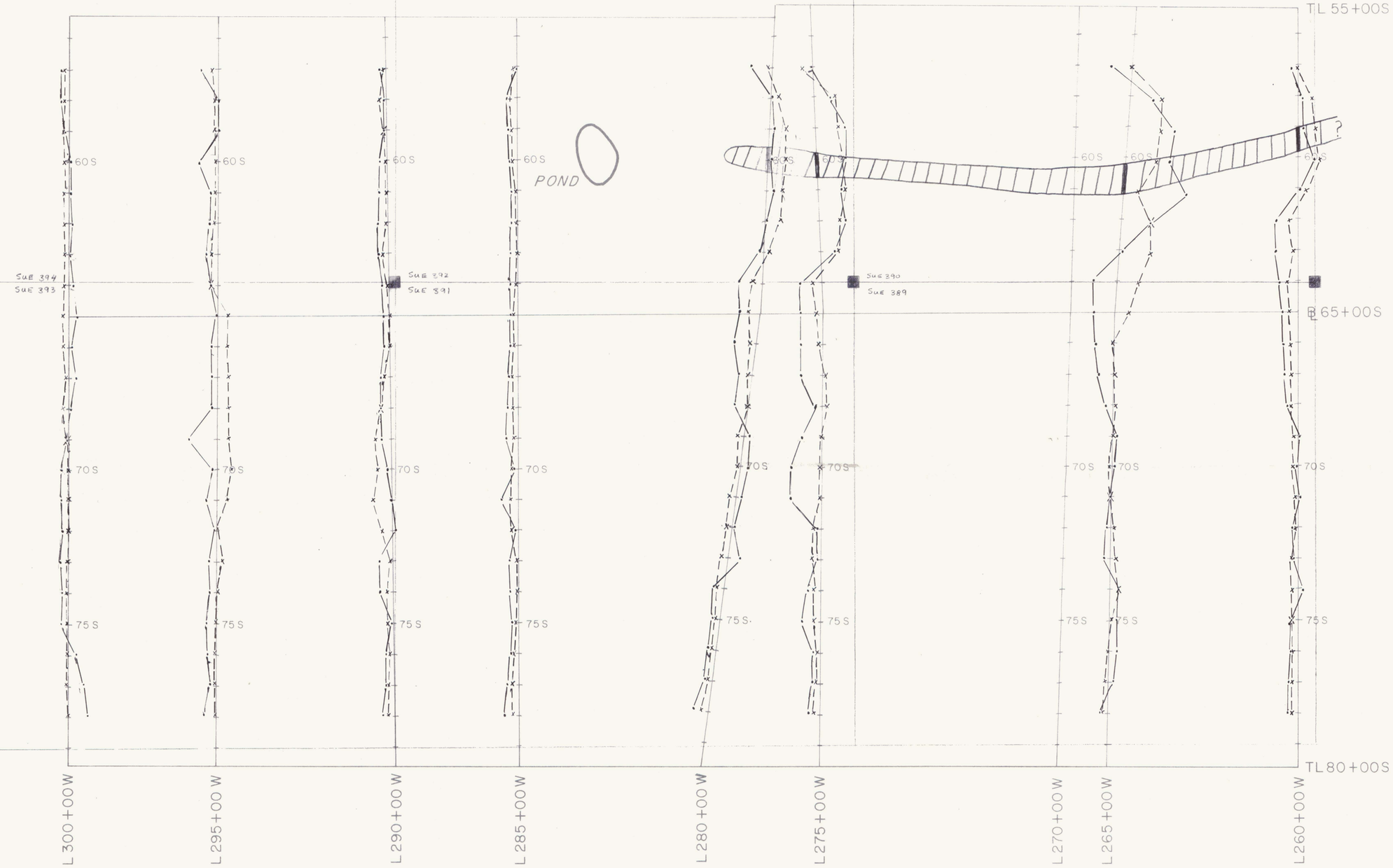
MACMILLAN JOINT VENTURE

GRID II EAST
MAXMIN II EM SURVEY
FREQUENCY = 1777 HZ
COIL SEPARATION = 400'

DRAWN BY:	DATE: MAY, 1981
CHECK'D BY:	DRAW'G No:
N.T.S.: 105 L/14	SCALE: 1" to 200'

Getty Canadian Metals, Ltd.

090852



LEGEND

616 — Claim post location and Sue Claim Number

+20% -20%

IN PHASE

OUT OF PHASE

Conductor axis

32°43'

MAGNETIC NORTH

SCALE

200 0 200 400 600

FEET

TO ACCOMPANY ASSESSMENT REPORT
Geophysical Survey - Grid 11 East

Figure 3

MACMILLAN JOINT VENTURE

GRID II EAST
MAXMIN II EM SURVEY
FREQUENCY = 444 HZ
COIL SEPARATION = 400'

DRAWN BY:	DATE: MAY, 1981
CHECK'D BY:	DRAW'G No:
N.T.S.: 105 L / 14	SCALE: 1" to 200'

Getty Canadian Metals, Ltd.

090852