

GETTY CANADIAN METALS, LIMITED

MACMILLAN JOINT VENTURE

ASSESSMENT REPORT



Title: Geology, Soil Geochemistry & Geophysics
- Grid 91 East

Author: C.W. Payne

Date: August, 1981

Commodities: Lead, Zinc, Silver

Location: Name of Claim Group - ~~SUB~~ and GET claims
Claim Sheet Numbers - 105L/ 15
Co-ordinates - Latitude 62°49'N
Longitude ~~135°05'W~~
134°45'W

Date Work Was Done: March-June, 1981

090851

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

\$ 4,556.75

~~As Least Geologist or
Registered Mining Engineer~~

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

Ruth Dubicki *Oct 1/81*
Commissioner of Yukon Territory

for



168000

FROM Mining Recorder at WHITEHORSE

TO Supervising Mining Recorder at Whitehorse, Y.T.

FOR ACTION 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: ~~SOE~~ & GET CLAIMS

Claim sheet no. 105-L-15

Type of report: GEOLOGY, SOIL GEO-CHEMISTRY, GEOPHYSICS

Submitted by: GETTY CANADIAN METALS, LIMITED

Cls. work performed on:

GETB 5, 7, 9 etc

\$ Req. for ren. application \$ 1,556.75

Signature [Handwritten Signature]
Date Ret. 18 Aug 1981

REPLY ACTION.

090851

Signature

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LIST OF SUE CLAIMS ON WHICH SURVEYS
WERE CARRIED OUT - MARCH-JUNE, 1981

<u>Grant Number</u>	<u>GET B Number</u>	
YA 49089	5	} Holder of claims - Getty Canadian Metals, Limited
YA 49091	7	
YA 49093	9	
YA 49107	23	
YA 49108	24	
YA 49109	25	
YA 49110	26	
YA 49111	27	
YA 49112	28	

SUMMARY AND CONCLUSIONS

This report describes the results of mapping-prospecting soil geochemistry and Max Min II electromagnetic surveys carried out during March-June, 1981, on a selected airborne EM anomaly, Grid 91 East.

Grid 91 East is underlain by phyllitic limestone containing minor intercalations of graphitic phyllite which have been folded into a syncline.

No mineralization was reported during mapping and prospecting.

A total of 88 soil samples were obtained from Grid 91 East. Soil geochemical analyses show anomalous areas in lead, zinc and Ag. It is believed the anomalies are caused by metal values in the underlying bedrock.

The Max Min II electromagnetic survey outlined a conductor with a strike length of 3,000 feet and it varies in width from 370' to 900'. The conductor is open in both east and west directions.

The conductivity is believed to be caused by graphitic phyllite.

RECOMMENDATIONS

Further exploration is warranted on Grid 91 East. It is recommended that mapping-prospecting be continued to the east of the grid area to find an explanation of the Zn and Ag soil geochemical 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-June, 1981, geology, soil geochemistry and Max Min II electromagnetic surveys were carried out on part of the SUE & GET claims as a follow-up to an airborne input EM survey.

A total of 4.5 miles of picket lines, including baselines and tielines, were cut and chained to establish Grid 91 East.

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 $62^{\circ}49'$ N latitude, $135^{\circ}05'$ W longitude, is located east of the confluence of the MacMillan and Pelly Rivers, central Yukon (see fig. 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-summer exploration programme was via fixed-wing aircraft and helicopter.

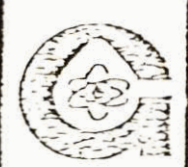
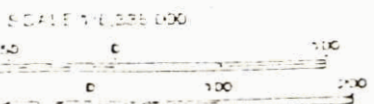
Physiography and Climate

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 hilltops.



YUKON DISTRICT
 TERRITORY
 MACMILLAN J.

MACMILLAN JOINT VENTURE
 LOCATION



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

Getty Mines, Limited



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 meta-sedimentary 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 and Green (1961) and Templeton-Kluit (1972).

MAPPING AND PROSPECTING OF GRID 91 EAST

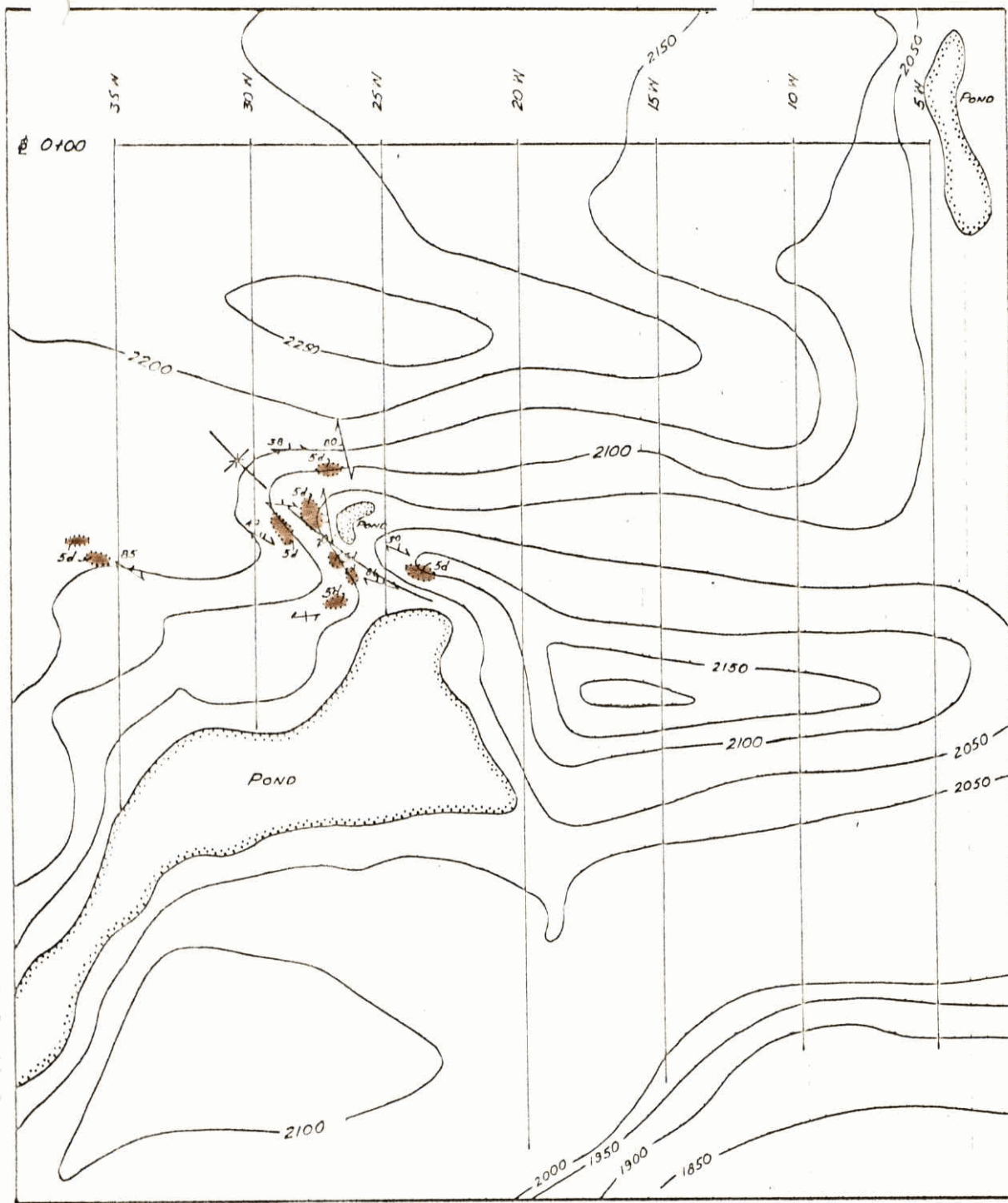
Mapping and prospecting of Grid 91 East was undertaken to investigate the cause of EM conductors located on the grid. Results of this mapping and prospecting are shown in Figure 2.

Grid 91 East is underlain by phyllitic limestone with minor intercalations of graphitic phyllite.

The limestone (Unit 5d) is light grey in colour and medium-to-course grained. Locally, the limestone exhibits a clastic texture and contains small blebs of siderite. Calcite and chlorite has formed along the S_1 foliation. Intercalated with the limestone is 1' thick beds of graphitic phyllite. The graphitic phyllite contains localized patches of chlorite along the S_1 foliation.

Structure

A syncline is defined by the S_2 foliation while the S_1 foliation follows bedding.



LEGEND



PHYLLITIC LIMESTONE and
GRAPHITIC PHYLLITE

SYMBOLS



S₁ FOLIATION (inclined, vertical)



S₂ FOLIATION



OUTCROP



SYNCLINE AXIS



— 2100 — CONTOUR, ELEVATION in FEET
CONTOUR INTERVAL 50 FEET

TO ACCOMPANY ASSESSMENT REPORT
Geology, Soil Geochemistry &
Geophysics - Grid 91 East

Figure 2

MACMILLAN JOINT VENTURE

GRID 91 EAST

GEOLOGY



DRAWN BY:	DATE: AUG. 1981
CHECKED BY:	DRAW'G No
NTS: 105 L / 15	SCALE 1" = 600'

Getty Canadian Metals, Ltd.

MINERALIZATION

No mineralization was reported during mapping and prospecting of the area.

GEOCHEMICAL SOIL SURVEY - GRID 91 EAST

A reconnaissance soil geochemical survey was carried out on Grid 91 East. Samples were taken every 200' along crosslines spaced 500' apart.

The objective of the survey was to determine the presence and extent of anomalous metal content that could be inferred as being derived from massive sulphides.

A total of 88 soil samples were collected from the B horizon and analysed for Pb, Zn, and Ag by Acme Laboratory, Vancouver. Analytical procedures are given in Appendix I.

RESULTS

Lead

Lead values range from 1 to 38 ppm (see Fig. 3). Statistical treatment (second standard deviation) of the data suggests:

- i) Background population is 1-10 ppm
- ii) Three anomalous samples, 29, 30 and 38 ppm, are present.

Two anomalies are present.

Anomaly 1 is located on lines 35W, stn. 18S and 30W, stn. 20S. Lead values range from 29 to 38 ppm. The anomaly is open to the west. Anomaly 1 is located close to bedrock and reflects lead concentrations in the limestone.

Anomaly 2 is located on line 25W, stn. 14S with a lead value of 30 ppm. This is a one sample anomaly which occurs close to a small pond which would allow lead to accumulate.

Zinc

Zinc values in the area sampled range from 9 to 255 ppm (see Fig. 4). Statistical treatment of the data suggests:

- i) Background population is 1-72 ppm.
- ii) Three samples were anomalous, 154, 225 and 255.

Anomaly 1 is located on lines 5W, stn. 18S and 10W, stn. 18S. Zinc values range from 154 to 255 ppm. The anomaly is open to the east. The anomaly reflects the mobility of zinc through shallow overburden.

Anomaly 2 is located on line 10W, stn. 8S. This is a one sample anomaly of 225 ppm zinc.

Silver

Silver values range from 0.1 to 0.7 ppm (see Fig. 5).
Statistical treatment of the data suggests:

- i) Background population is 0.1-0.2 ppm.
- ii) Five anomalous samples range from 0.5 to 0.7 ppm.

One anomalous area is present.

Anomaly 1 is located on lines 10W, stn. 18-20S, 5W, stn. 18-22S. Silver values range from 0.5-0.7 ppm. The anomaly is open to the east. The overburden in this area is shallow and the anomalous values reflects silver concentrations in bedrock.

MAX MIN II ELECTROMAGNETIC SURVEY - GRID 91 EAST

Description of Method and Equipment

The survey was completed using an Apex Parametrics Max Min II horizontal loop EM system (instrument specifications Appendix II). 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 1,777 Hz.

Discussion of Results

One conductor was outlined on Grid 91 East (see Figs. 6 & 7).

Conductor 1 was traced for 3,000' in length with both the east and west end of the conductor remaining open. Conductor 1 has a strike direction of 115°AZ . Conductor 1 is 500' wide on line 35W and narrows in conductivity width to line 10W where it is 370' wide. On line 5W the conductor widens again to 900'.

Conductivity of conductor 1 is strong on line 35W and then appears to fluxuate between moderate and weak to line 5W. Conductor 1 is caused by graphitic phyllite within the limestone unit.

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. Templeton-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 IACME ANALYTICAL LABORATORY

Cu, Pb, Zn, Ag*

Sample Preparation

Soil samples are dried at 75°C and sieved to -80 mesh.

Rock samples are ground to -100 mesh.

Digestion

A .50 gram sample is digested with dilute aqua regia in a boiling water bath and diluted to 10 mls with demineralized water.

Determination

All the above elements are determined by Atomic Absorption from this solution.

* With background correction.

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: ¼% to 1%

RX BANDWIDTH (-3dB): 0.2 Hz nominal

RX INTERNAL NOISE: Negligible

TX DIPOLE MOMENTS: 150 Atm² @ 222 Hz, 150 Atm² @ 444 Hz,
75 Atm² @ 888 Hz, 50 Atm² @ 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 erroneous readings.

FOR MORE INFORMATION,
PHONE (416) 491-6338 OR WRITE TO:

ORDER DEPARTMENT
APEX PARAMETRICS LIMITED
100 SHELDON AVENUE EAST
SCARBOROUGH, ONTARIO, CANADA

APEX PARAMETRICS LTD.

255 YORKLAND BLVD, WILLOWDALE, ONTARIO, CANADA M2J 1S3

APPENDIX IIIPERSONNEL

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

APPENDIX IV

Linecutting, Chaining and Geophysical Work

MacMillan Joint Venture

March-June, 1981

Grid	Baseline	Picket Line	Max Min II Survey	Max Min II Survey (Dollar Value)
Grid 91 East	3,000'	20,500'	20,500'	\$ 1,264.84

APPENDIX V

Statement of Expenditures

MacMillan Joint Venture

SUE CLAIM GROUP

March-June, 1981

<u>Salaries</u>	<u>Costs</u>
Getty (Mapping-Prospecting, Soil Geochem).	\$ 484.58
Can-Lake (Max Min II Survey)	\$ 1,264.85
 <u>Equipment Rental</u>	
Max Min II Unit (2 days)	\$ 120.00
Radio (2 days)	\$ 16.00
 <u>Aircraft Charter</u>	
Helicopter & 1.83/hr @ \$350/hr.	\$ 1,391.13
Fuel 2.00/hr @ \$375/hr	
Fixed Wing (supply)	\$ 573.18
 <u>Board</u>	
Five (5) people @ \$20/day for 2 days	\$ 200.00
Five (5) people @ \$20/day for 3 days	\$ 300.00
 <u>Fuel</u>	
Five (5) people (Heating)	\$ 207.01
	TOTAL \$ <u>4,556.75</u>

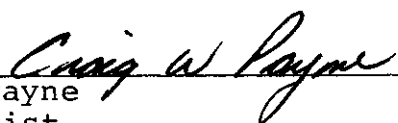
I certify the above to be a true and correct statement of costs and expenditures.


 C.W. Payne
 GETTY CANADIAN METALS, LIMITED

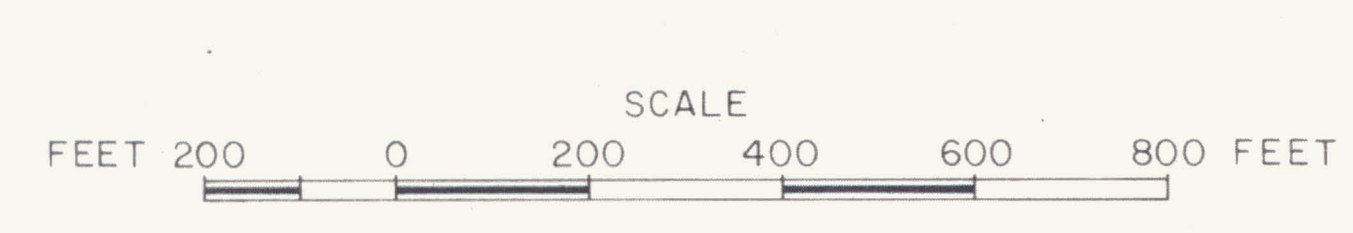
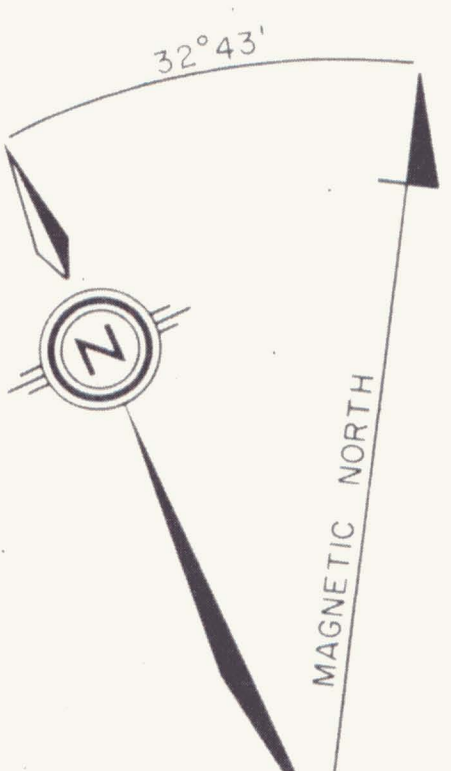
APPENDIX VICertificate of Author

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 Sciences 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.



C.W. Payne
Geologist



LEGEND

Soil sample location, number, ppm Zn

Anomalous Zn in soils

Claim post location and Claim Number

TO ACCOMPANY ASSESSMENT REPORT
 Geology, Soil Geochemistry &
 Geophysics - Grid 91 East
 Figure 4

MACMILLAN JOINT VENTURE	
GRID 91 EAST	
ZINC IN SOILS	
DRAWN BY CHECKED BY NTS 105 L/15	DATE MAY, 1981 DRAWING No SCALE 1" = 200'
Getty Canadian Metals, Ltd.	

090851



LAKE

LAKE

POND

LAKE

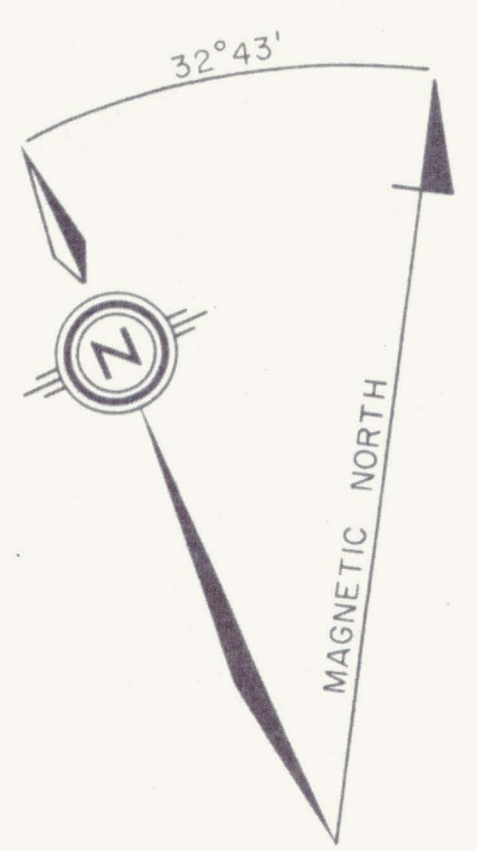
PELLEY RIVER

LEGEND

1A00176
330 1A00096 Soil sample location, number, ppm Ag

5 Anomalous Ag in soils
Silver values in ppm

2642 2640 Claim post location and Claim Number
2641, 2639



TO ACCOMPANY ASSESSMENT REPORT
Geology, Soil Geochemistry &
Geophysics - Grid 91 East

Figure 5

MACMILLAN JOINT VENTURE

GRID 91 EAST

SILVER IN SOILS

DRAWN BY	DATE MAY, 1981
CHECKED BY	DRAWN G. No.
NTS: 105 L/15	SCALE: 1" to 200'

Getty Canadian Metals, Ltd.

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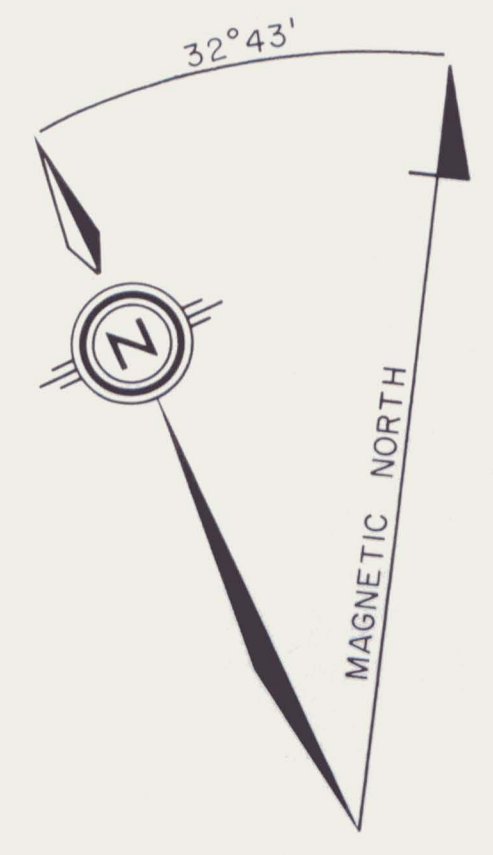
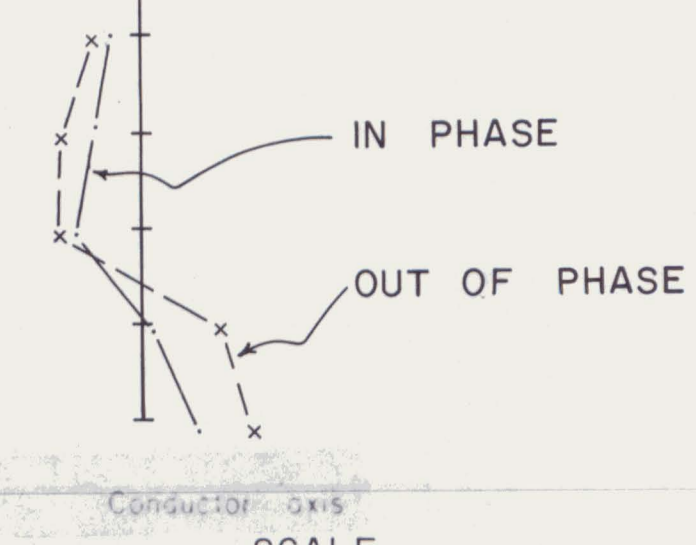


LEGEND

2642 | 2640 Claim post location and Claim Number
 2641 | 2639

130S PICKET LINE

+20% -20%



SCALE
 FEET 200 0 200 400 600 800 FEET

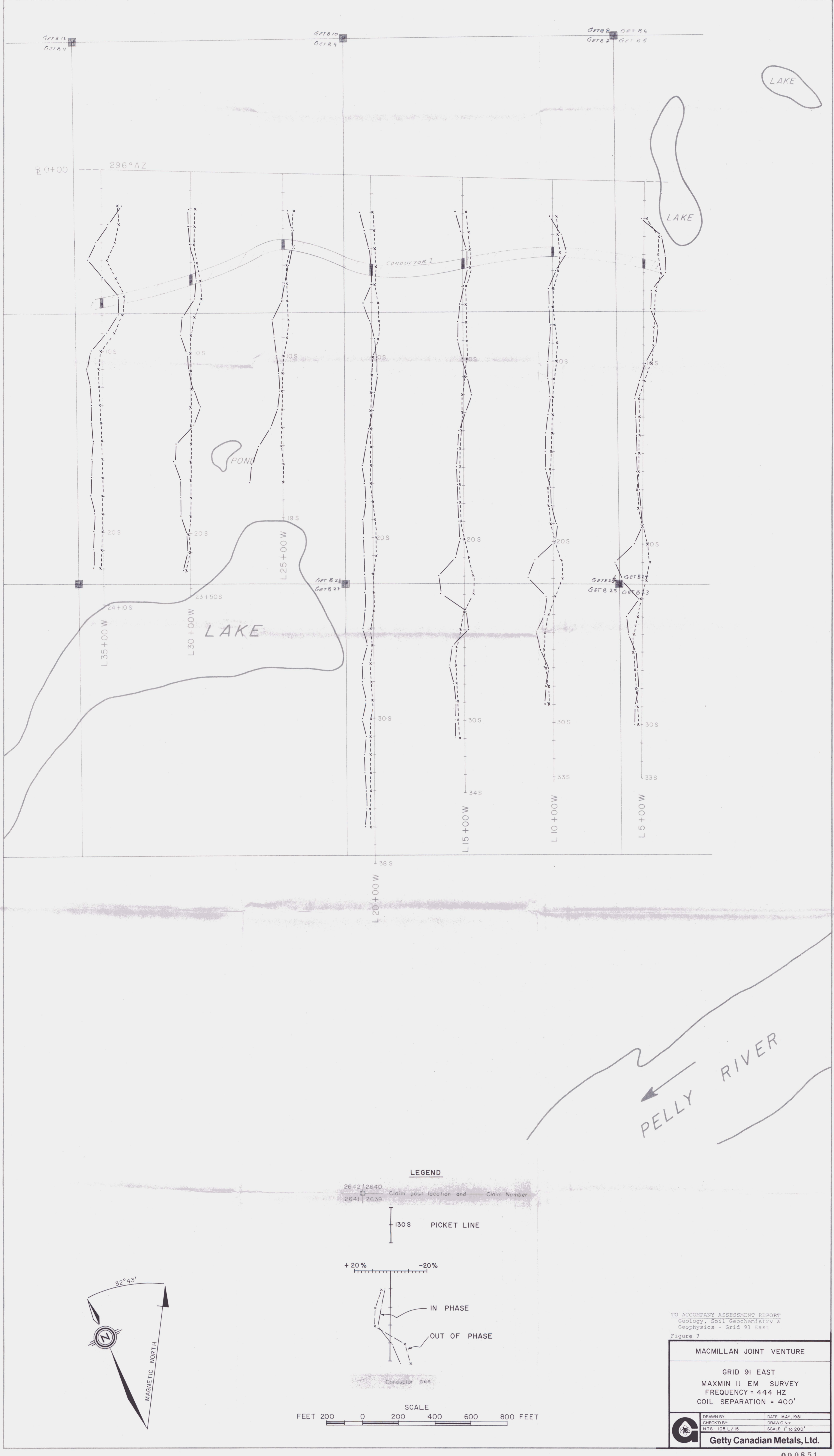
TO ACCOMPANY ASSESSMENT REPORT
 Geology, Soil Geochemistry &
 Geophysics - Grid 91 East
 Figure 6

MACMILLAN JOINT VENTURE

GRID 91 EAST
 MAXMIN II EM SURVEY
 FREQUENCY = 1777 HZ
 COIL SEPARATION = 400'

DRAWN BY: DATE: MAY, 1981
 CHECKED BY: DRAWING No:
 N.T.S.: 105 L/15 SCALE: 1" to 200'

Getty Canadian Metals, Ltd.



GET 812
GET 811

GET 810
GET 809

GET 808
GET 807

GET 806
GET 805

LAKE

0+00 296°AZ

LAKE

CONDUCTOR I

POND

L 25+00 W

GET 826
GET 827

GET 826
GET 825

GET 824
GET 823

LAKE

L 35+00 W

L 30+00 W

L 15+00 W

L 10+00 W

L 5+00 W

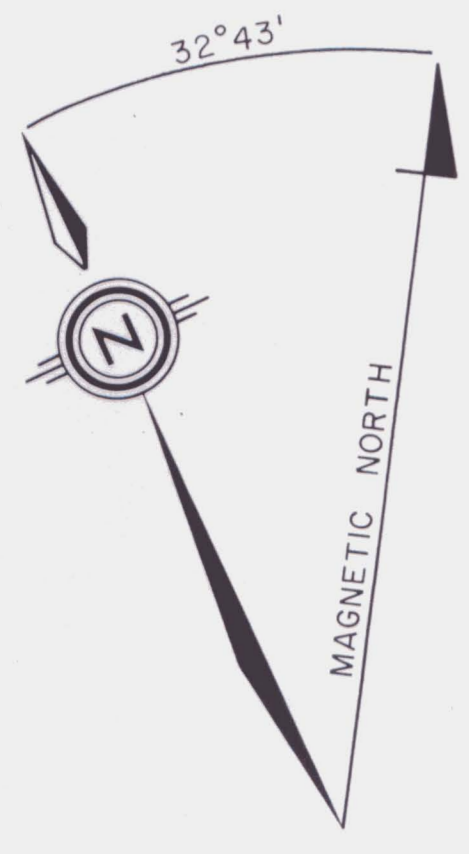
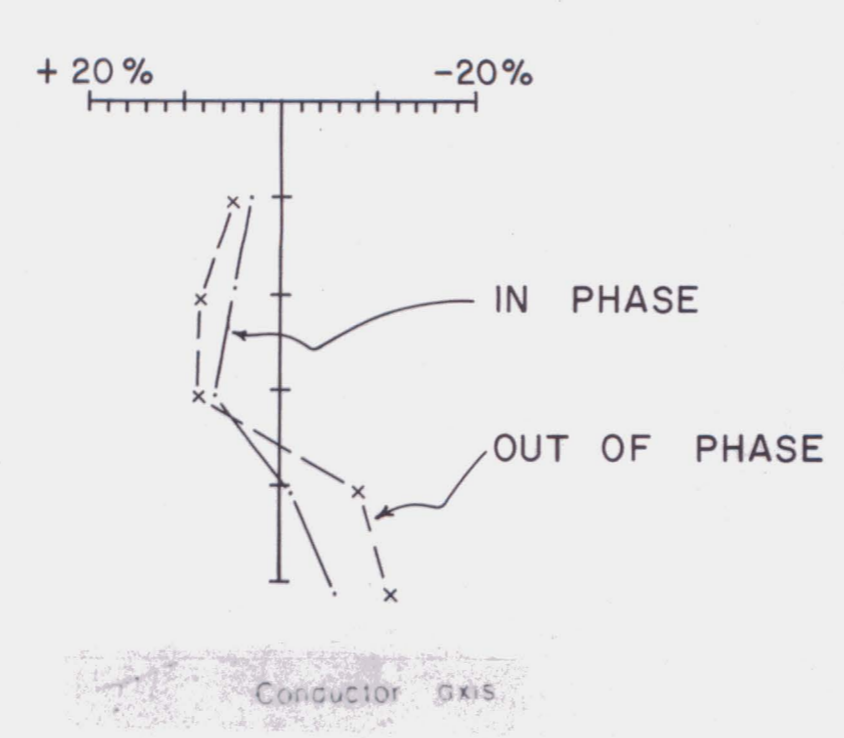
L 20+00 W

PELLY RIVER

LEGEND

2642 | 2640 Claim post location and Claim Number
2641 | 2639

130S PICKET LINE



SCALE
FEET 200 0 200 400 600 800 FEET

TO ACCOMPANY ASSESSMENT REPORT
Geology, Soil Geochemistry &
Geophysics - Grid 91 East
Figure 7

MACMILLAN JOINT VENTURE	
GRID 91 EAST	
MAXMIN II EM SURVEY	
FREQUENCY = 444 HZ	
COIL SEPARATION = 400'	
DRAWN BY:	DATE: MAY, 1981
CHECKED BY:	DRAW'G No:
IN TS: 105 L/15	SCALE: 1" to 200'
Getty Canadian Metals, Ltd.	