

GETTY CANADIAN METALS, LIMITED

MACMILLAN JOINT VENTURE
ASSESSMENT REPORT

Title: Geology, Soil Geochemistry
GET C Claims

Author: C.W. Payne

Date: August, 1981

Commodities: Lead, Zinc, Silver



Location: Name of Claim Group - GET claims
Claim Sheet Numbers - 105L ~~AS~~ 10
Co-ordinates - Latitude 62° 41'N
Longitude 134° 41'W

Date Work was Done: May-June, 1981



090859

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

\$ 2,100.00

Resident Geologist or
Resident Mining Engineer

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

SEP 10 1981

Ruth DeBick *for*

Commissioner of Yukon Territory

008000

Mining Recorder of Whitehorse

Supervising Mining Recorder of Whitehorse, Y.T.



ACTION ARE:

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

RENEWAL APPL'N PLACER LEASE to PROSPECT: Name:

AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name:

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: Get C

Claim sheet no. 105-L-10

Type of report: Geology, Soil Chemistry

Submitted by: Getty Canadian Metals

2,100.00

Cls. work performed on:

\$ Req. for ren application

M. Douthick 9/9/81
Signature

REPLY ACTION.

Date Ret.

090859

Signature

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

<u>GRANT NO.</u>	<u>GET C NO.</u>	
YA49116	1	
YA49117	2	
YA49118	3	
YA49119	4	
YA49120	5	
YA49121	6	
YA49122	7	Holder of Claims:-
YA49123	8	Getty Canadian Metals, Ltd.
YA49124	9	
YA49125	10	
YA49126	11	
YA49127	12	
YA49128	13	
YA49129	14	

SUMMARY AND CONCLUSIONS

This report describes the results of mapping-prospecting and soil geochemistry surveys carried out during May-June, 1981, on an area containing an anomalous Pb lake sediment sample taken during a lake sediment survey in 1979.

The GET C claims are underlain by Paleozoic age chlorite phyllite, intermediate volcanic and tuffaceous rock, muscovite phyllite and gabbro which have been folded and overturned. During the mapping-prospecting, no visible mineralization was reported to explain the anomalous Pb lake sediment sample.

A total of 105 soil samples were obtained from the Get C claims and were analysed for Pb, Zn, and Ag. Soil geochemical analyses show anomalous areas in lead, zinc, and silver.

Anomalous Pb and Ag samples taken from the west end of the GET C claim block were taken from thin residual soil covering outcrops on the ridge tops suggesting that the underlying rock contains concentrations of both Pb and Ag. Anomalous Zn and Ag samples from the east end of the GET C claims are composed of sand and gravel, suggesting that these samples are not legitimate anomalies, but have been transported to this location by fluvial processes of

the Pelly River.

The anomalous Pb lake sediment sample taken during a 1979 survey is explained by rocks anomalous in Pb and Ag subcropping on the lake bottom.

RECOMMENDATIONS

Further exploration is warranted on the GET C claims. It is recommended that mapping-prospecting be continued to the west of the claims area.

INTRODUCTION

The GET C 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 May-June, 1981, geology and soil geochemistry surveys were carried out on GET C claims as a follow-up to an anomalous Pb lake sediment sample taken during a 1979 survey.

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°41'N latitude, 134°41'W longitude, is located east of the confluence of the MacMillan and Pelly Rivers in the Detour Lakes area, central Yukon Territory (see fig. 1).

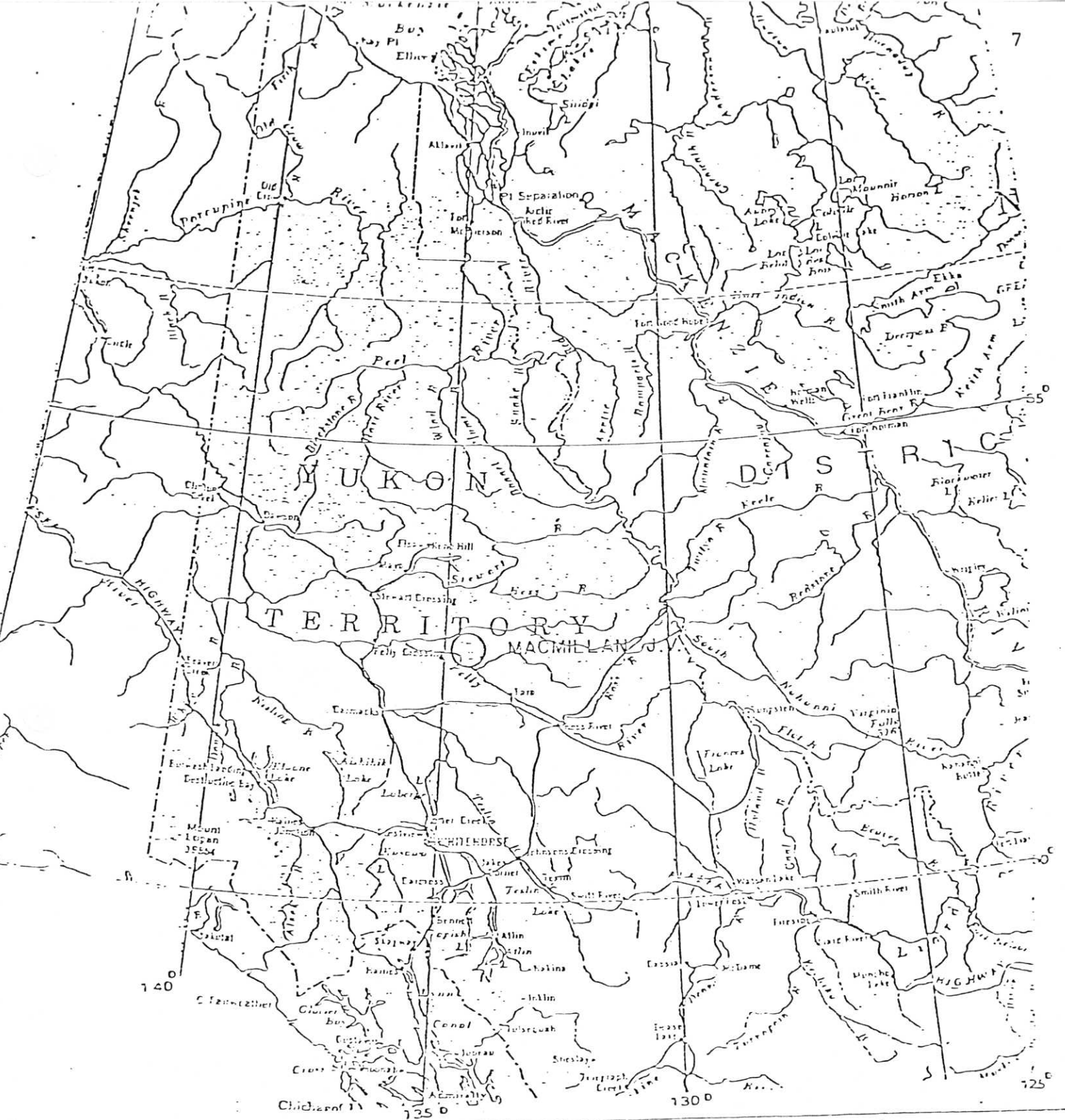
Access can be gained by three ways:-

- 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.

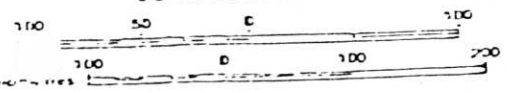
Physiography and Climate

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.



MACMILLAN JOINT VENTURE
LOCATION

SCALE 1:1,336,000



DRAWN BY:	DATE:
CHECK'D BY:	DRAWG No: 1
NTS:	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 GET claims in outcrop.

Reconnaissance mapping of the GET C claims indicates outcrop is present and locally, overburden depths may exceed 100'.

Earlier mapping in the GET C 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 GET C CLAIMS

Mapping and prospecting of the GET C claims was undertaken to investigate the cause of an anomalous Pb lake sediment value of 128 ppm from a 1979 lake sediment survey.

Results of this mapping and prospecting are shown in Figure 2.

The GET C claims are underlain by chlorite phyllite, intermediate volcanic and tuffaceous rock, muscovite phyllite and gabbro.

Unit 3b is chlorite phyllite. The rock is grey-green in colour, calcareous, contains up to 15% fine-grained quartz, graphite and biotite are present locally. Siderite veins are common and vary in width from 20-40 cm and they are concordant with the S₁ foliation.

Unit 3c is intermediate volcanic and tuffaceous rock. The intermediate volcanic rocks occur throughout the section but are prevalent in the chlorite phyllite. The intermediate volcanic rocks are olive green in colour, fine-to-medium grained and variably calcareous. Intercalated with the intermediate volcanic rocks are tuff bands which are up to 20" in thickness. Fragments in the tuff horizons range from 3mm to 2 cm in size and have been stretched in the plan of S₁ foliation. The tuff horizons contain up to 1% finely disseminated

pyrite and are calcareous. Such rocks also occur as lenses in the phyllitic rocks.

Unit 3d is muscovite phyllite. The rock is grey in colour, fine-grained and contains up to 20% quartz. Minor 1" to 6" thick beds of chert are intercalated with muscovite phyllite.

Unit 3h is gabbro. The rock is green in colour, medium to coarse-grained and is commonly stained with iron oxide. The spatial proximity of the gabbro to the intermediate volcanic rocks suggests the gabbro is a feeder zone.

Structure

An anticline-syncline structure is defined by the S₂ foliation attitudes (see fig. 2). Parasitic folding on the limbs of the major folds suggests the structures are plunging to the east. The S₁ foliation in the area is striking east-west and dipping to the south on the limbs of the folds suggesting that the anticline and syncline is overturned to the south.

Mineralization

No mineralization was found in the area mapped and prospected to explain the anomalous Pb lake sediment sample.

GEOCHEMICAL SOIL SURVEY - GET C CLAIMS

A reconnaissance soil geochemical survey was carried out on GET C claims. Samples were taken every 300' along lines spaced 1,500' apart, perpendicular to the claim location lines.

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 and to locate the source of the anomalous Pb lake sediment sample taken during a previous survey.

A total of 105 soil samples were collected from the B soil 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 8 to 30 ppm (see fig. 3). Statistical treatment of the data (second standard deviation added to the mean) gives the following population:

- i) Background population is 8 to 21 ppm
- ii) Two anomalous samples are present 24 and 30 ppm.

The two anomalous samples are located on lines O, stn. IAC 108 and line 1E, stn. IAC 114. Lead values range from

24 to 30 ppm. The two samples represent residual material and are located on ridges close to bedrock as seen on figure 2. It is believed that the anomalies reflect lead concentrations in bedrock.

Zinc

Zinc values in the area sampled range from 20 to 250 ppm (see fig. 4). Statistical treatment of the data suggests:

- i) Background population is 29 to 165 ppm.
- ii) Anomalous population is 166 to 250 ppm.

The anomalous zinc values are located on lines 5E, stn. IAA 155, BL, stn. IAA 165; line 6E, stn IAA 168 and line 7E, stn. IAA 134. The anomalous zinc values range from 175 to 250 ppm. The anomalous zinc values are caused by concentrations of zinc in Pelly River fluvial material of which the source is unknown.

Silver

Silver values range from 0.1 to 0.9 ppm (see fig. 5). Statistical treatment of the data suggests:

- i) Background population is 0.1 to 0.3 ppm
- ii) Anomalous population is 0.4 to 0.9 ppm.

Two anomalous areas are present.

Anomaly 1 is located on line 0, stn. IAC 108 and line 1E, stn. IAC 123. Silver values range from 0.4 to 0.9 ppm. The two samples represent residual material and are located on ridges which have shallow overburden cover. It is believed that the anomalies reflect silver concentrations in bedrock.

Anomaly 2 is located on the east side of the grid on lines 5E, stn. IAA 156 and line 7E, stns. IAA 136, IAA 139, IAA 140, IAA 141. Anomaly 2 is a mixture of sands and gravels representing Pelly River fluvial material which suggests the anomalies have an unknown source.

REFERENCES

1. Campbell, R.B. (1967), Geology of Glenlyon Map Area. Yukon Territory (105L); Geol. Survey of Canada, Memoir 352.
2. Roddick, J.A. & 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, An, 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 samples 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.

APPENDIX IIPERSONNEL

C.W. Payne	Getty Mines, Limited 509-700 West Pender Street Vancouver, B.C. V6C 1G8
Stan Clemmer	"
Nicole Gillard	"
Peter Green	"
Toni Borochnock	"
Ray Wilson	"
Karna Dziuba	"
Ed McCrossan	"

APPENDIX III

STATEMENT OF EXPENDITURES

MACMILLAN JOINT VENTURE
GET C CLAIMSMay-June, 1981SALARIES

Getty (mapping-prospecting, soil geochem.)	\$ 1,433.00
Geochemical Analyses (105 samples)	\$ 327.00
Board (8 people, 7 days @ \$20/day/person)	\$ 1,120.00

AIRCRAFT CHARTER

Helicopter 15 hours @ \$375/hr	\$ 5,625.00
360 gal. fuel	\$ 647.50
Fixed-wing Support (supply flights)	\$ <u>1,851.22</u>
TOTAL	\$ <u><u>11,003.72</u></u>

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


 C.W. Payne
 GETTY CANADIAN METALS, LIMITED

APPENDIX IV

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.

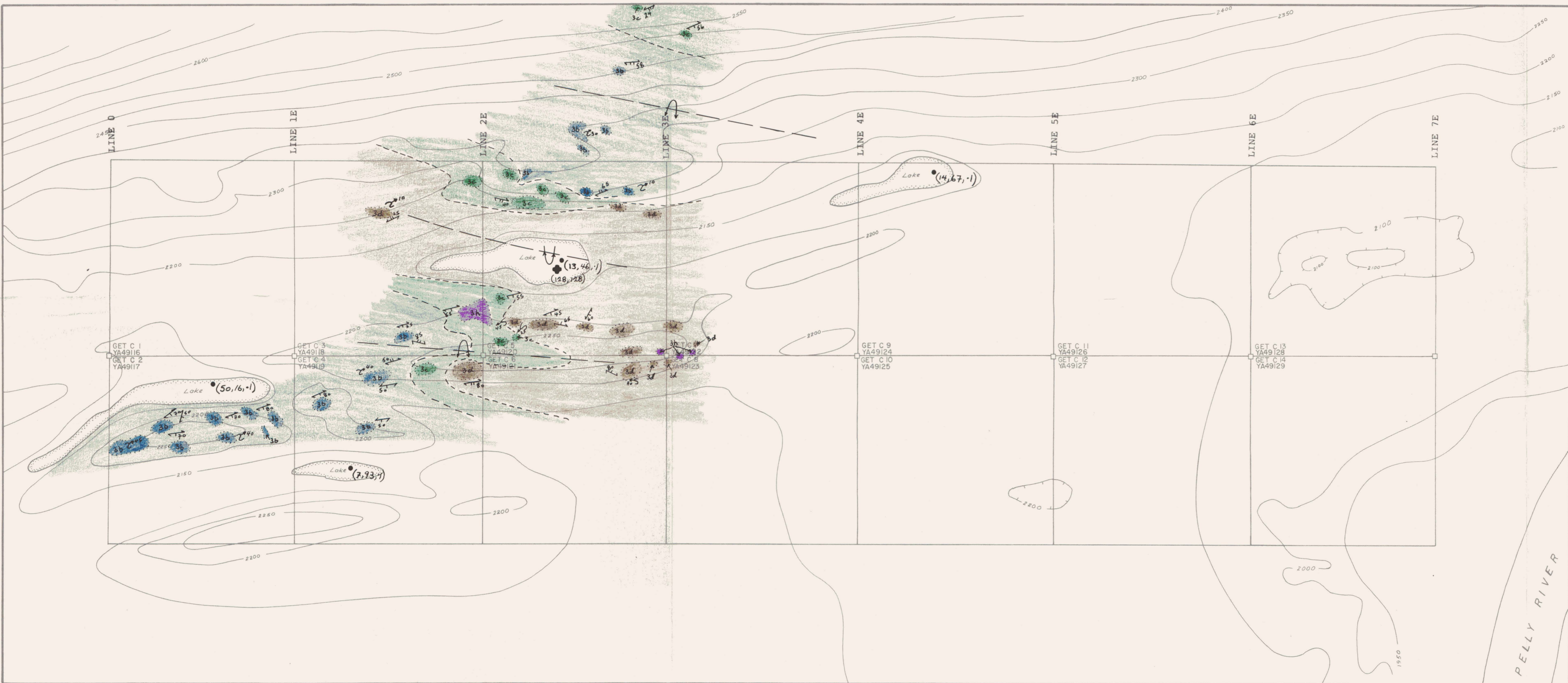


C.W. Payne
Geologist



LEGEND

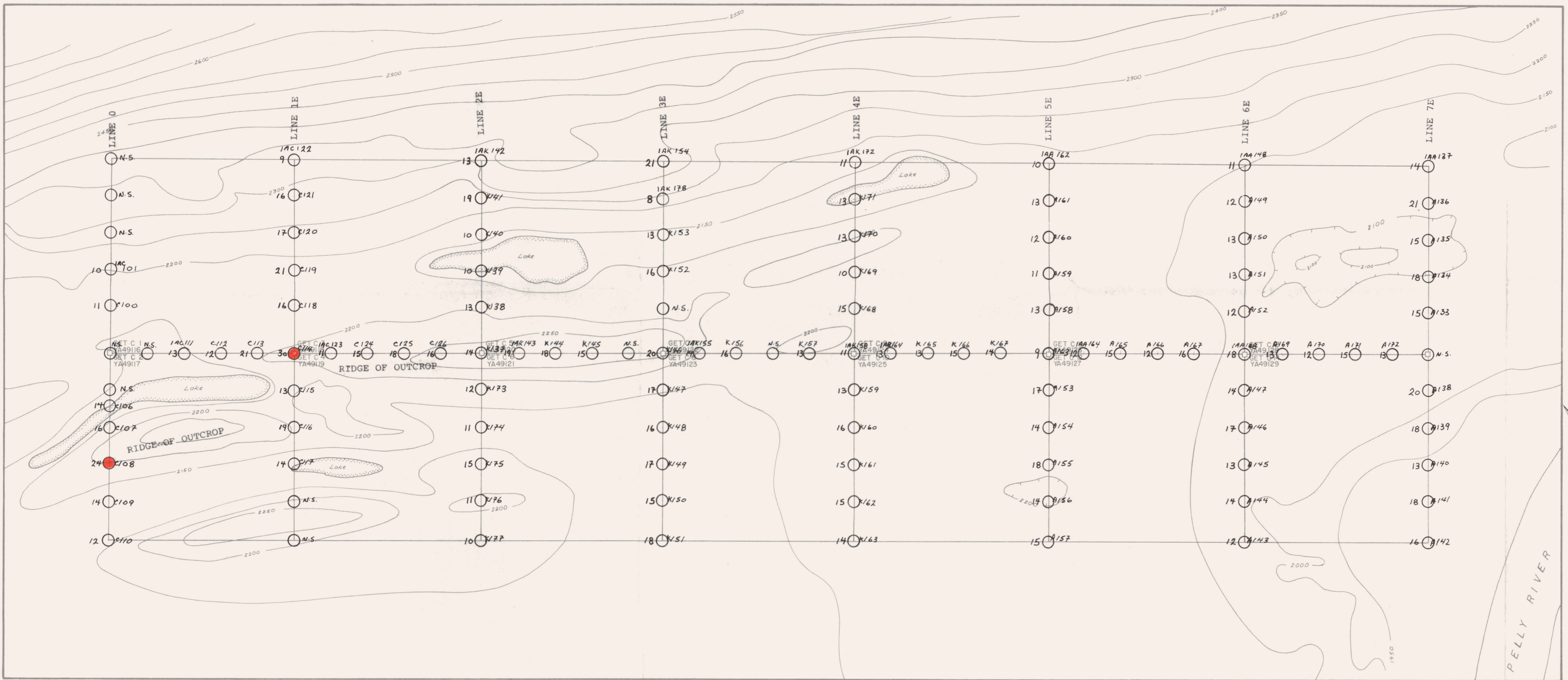
- Gabbro
 - Muscovite Phyllite
 - Intermediate Volcanic and Tuffaceous Rock
 - Chlorite Phyllite
- SYMBOLS**
- S₁ Foliation
 - S₂ Foliation
 - Drag Fold (Arrow Indicates Plunge)
 - Outcrop
 - Geological Boundary (Approximate)
 - Syncline Axis (Overturned)
 - Anticline Axis (Overturned)
 - 1981 Lake Sediment Sample Location, Values in p.p.m. (Pb, Zn, Ag)
 - 1979 Lake Sediment Sample Location, Values in p.p.m. (Pb, Zn)
 - Contour, Elevation in feet
Contour Interval 50 feet
 - Claim Post Location and Claim Number



TO ACCOMPANY ASSESSMENT REPORT
 Geology and Soil Geochemistry
 Get C Claims
 Figure 2

MACMILLAN JOINT VENTURE	
GET C CLAIMS	
GEOLOGY MAP	
DRAWN BY:	DATE:
CHECK'D BY:	DRAW'G No. 2
NTS: 105 L/10	SCALE 1" = 500'
Getty Mines, Limited	

090859



LEGEND

1AA162 } Soil Sample Location, Number
 IAK154 }
 IAC122 }

22 ● Anomalous Lead in Soils
 Values in PPM

GET C 11 GET C 13 } Claim Post Location and
 GET C 12 GET C 14 } Claim Number

N.S. NO SAMPLE

1200 Contour, Elevation in feet
 Contour Interval 50 feet

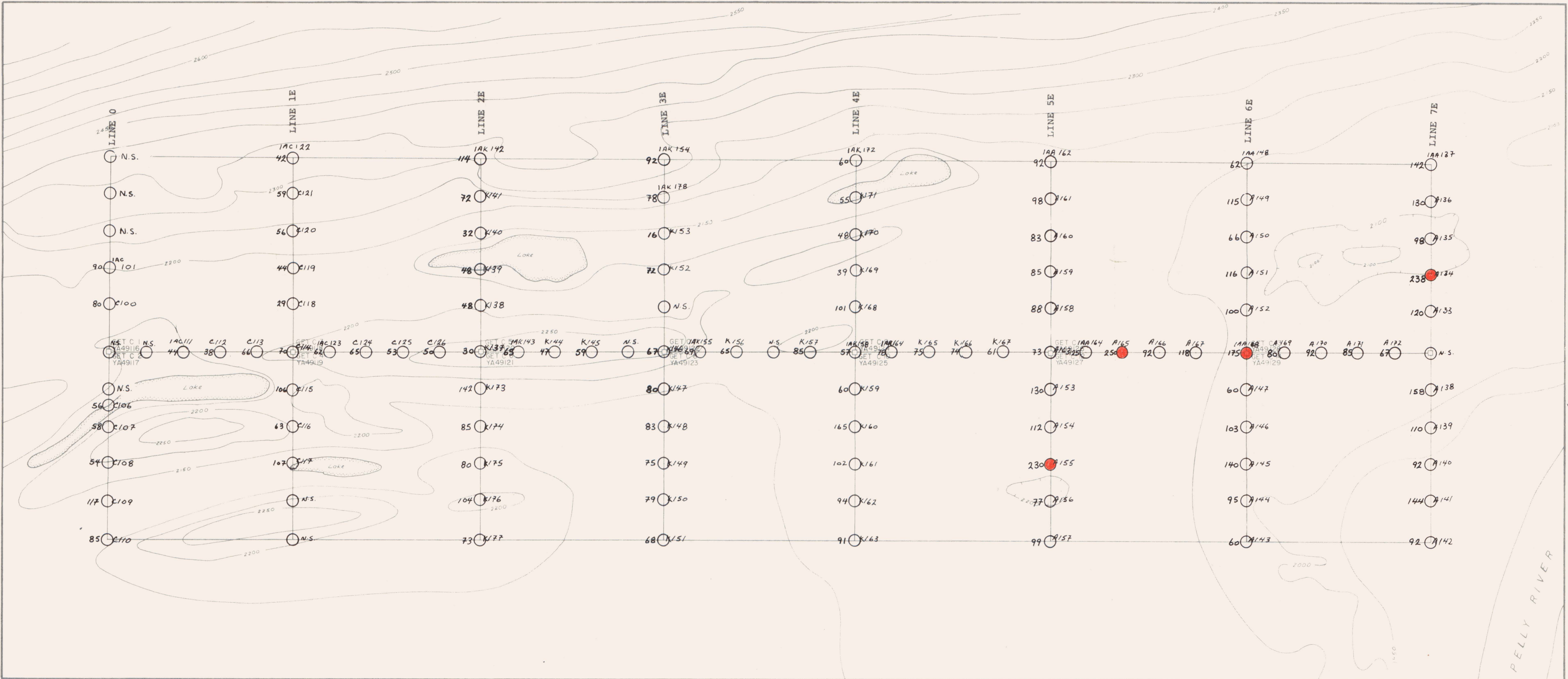
TO ACCOMPANY ASSESSMENT REPORT
 Geology, Soil Geochemistry -
 Get C Claims

Figure 3

MACMILLAN JOINT VENTURE	
GET C CLAIMS	
LEAD IN SOILS	

DRAWN BY:	DATE:
CHECK'D BY:	DRAW G No: 3
N.T.S: 105 4/10	SCALE: 1" To 500'

090859



LEGEND

- IAA162 } Soil Sample Location, Number
- IAK154 }
- IAC122 }
- 166 Anomalous Zinc in Soils Values in PPM
- ⊕ GET C 11 GET C 13 Claim Post Location and Claim Number
- ⊕ GET C 12 GET C 14
- N.S. NO SAMPLE
- 2200 — Contour, Elevation in feet Contour Interval 50 feet

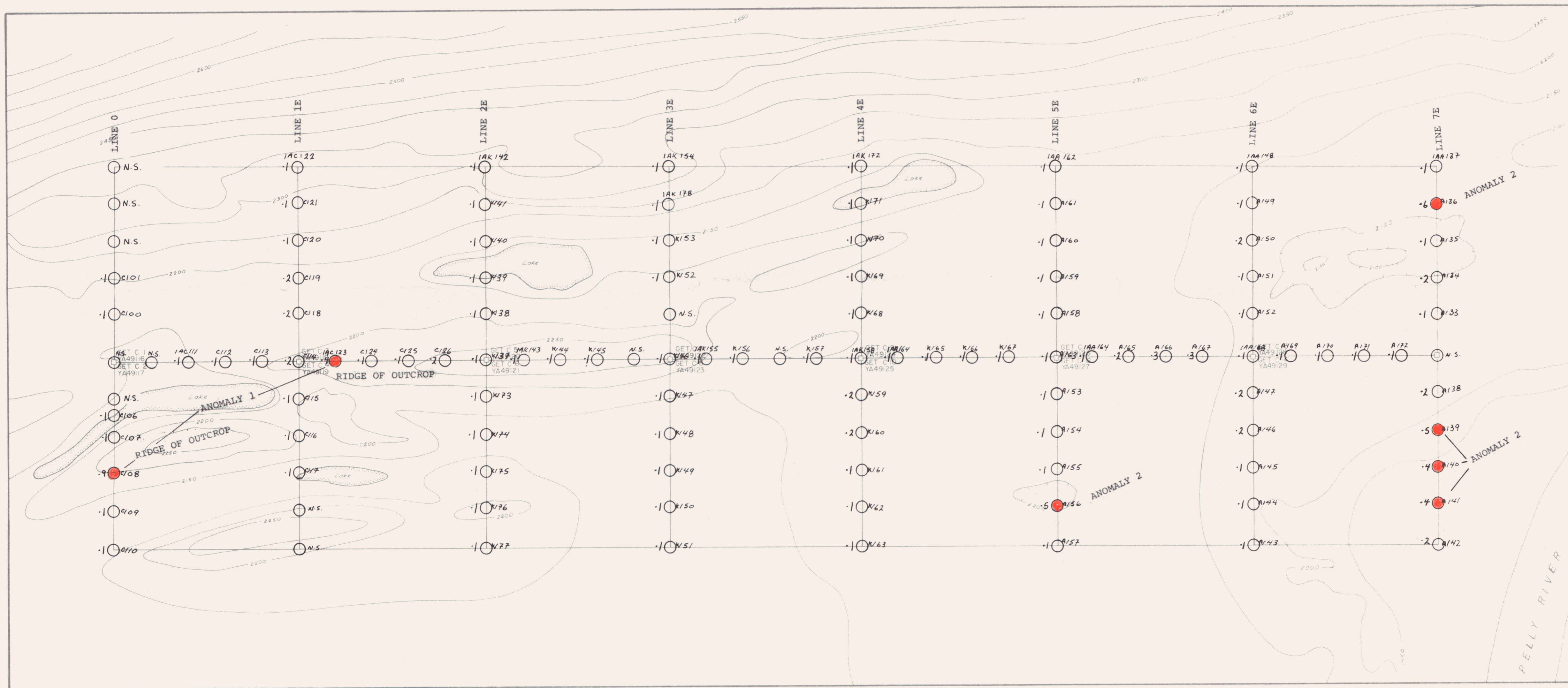
TO ACCOMPANY ASSESSMENT REPORT
 Geology, Soil Geochemistry -
 Get C Claims

Figure 4

MACMILLAN JOINT VENTURE
GET C CLAIMS
ZINC IN SOILS

DRAWN BY	DATE
CHECKED BY	DRAWING No. 4
NTS 105 L/10	SCALE 1" To 500'
Getty Mines, Limited	

43055 090859



- LEGEND**
- 1AA162 } Soil Sample Location, Number
 - 1AK154 }
 - 1AC122 }
 - 0.4 Anomalous Silver in Soils Values in PPM
 - ⊕ GET C 11 | GET C 13 } Claim Post Location and Claim Number
 - ⊕ GET C 12 | GET C 14 }
 - N.S. NO SAMPLE
 - 2200 — Contour, Elevation in feet Contour Interval 50 feet

TO ACCOMPANY ASSESSMENT REPORT
 Geology, Soil Geochemistry -
 Get C Claims

Figure 5

MACMILLAN JOINT VENTURE	
GET C CLAIMS	
SILVER IN SOILS	

DRAWN BY	DATE
CHECKED BY	DRAWG No. 5
NTS 105 L/10	SCALE 1" To 500'

Getty Mines, Limited

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