



WELCOME NORTH MINES LTD. (N.P.L.)
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GEOCHEMICAL REPORT
ON THE
LOU 1-115 MINERAL CLAIMS

WHITEHORSE MINING DISTRICT
N.T.S. 105K-3
YUKON TERRITORY

Latitude 62°10'N

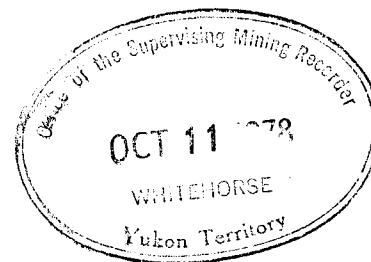
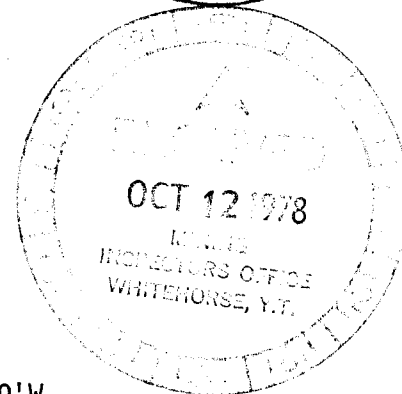
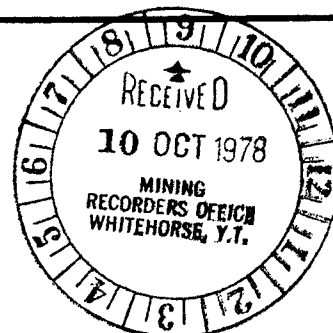
Longitude 133°20'W

Work Performed During the Period July 25 - Aug. 31, 1978

Vancouver, BC
September 25, 1978

H.F. Foster

090369



This report has been examined by the Geological Evaluation Unit and is recommended to the Council of the Territory as representative work in the amount of

\$11,500.00

D. B. Craig

~~Resident Engineer of
Humboldt Mining Division~~

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

[Signature]
B. B. BAXTER
Supervising Mining Recorder

[Signature]
Commissioner of Yukon Territory

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INTRODUCTION

Welcome North Mines Ltd., as Operator of the Woodside Joint Venture programme with Getty Mining Pacific Ltd., staked the LOU 1-115 mineral claims in October, 1977. The claims were staked to cover an area in which numerous geochemical anomalies had been delineated, which was suggested by reconnaissance geological mapping as being underlain by favourable stratigraphy for the occurrence of lead-zinc mineralization.

During the 1978 field season flagline grids were installed over the claim group and a soil sampling survey was undertaken to establish a greater geochemical sampling density over the largely overburden-covered portions of the property.

RECOMMENDATIONS

As two extensive geochemical anomalies were outlined by reconnaissance geochemical soil sampling surveys on the LOU claims, further follow-up work is recommended;

- 1) Closer spaced soil sampling lines, 150 meters apart, should be installed over the anomalous areas and samples should be collected at 25m stations on these lines.
- 2) Follow-up prospecting for any mineralized float in the area should be carried out in efforts to determine the presence of any near-surface mineralization masked by overburden.
- 3) Detailed geological mapping in the area of these anomalies should be conducted to determine if the rocks underlying these anomalies are stratigraphically equivalent to rocks on nearby claim groups which are known hosts to lead-zinc-silver mineralization.

MINERAL CLAIMS

The LOU mineral claim group comprises 115 claims as follows:

<u>CLAIMS</u>	<u>GRANT NUMBERS</u>	<u>RECORDING DATE</u>
LOU 1-115	YA19858-YA19972	October 3, 1977

The claims are located in the Whitehorse Mining District (N.T.S. 105K-3) and are shown in Figure 1.

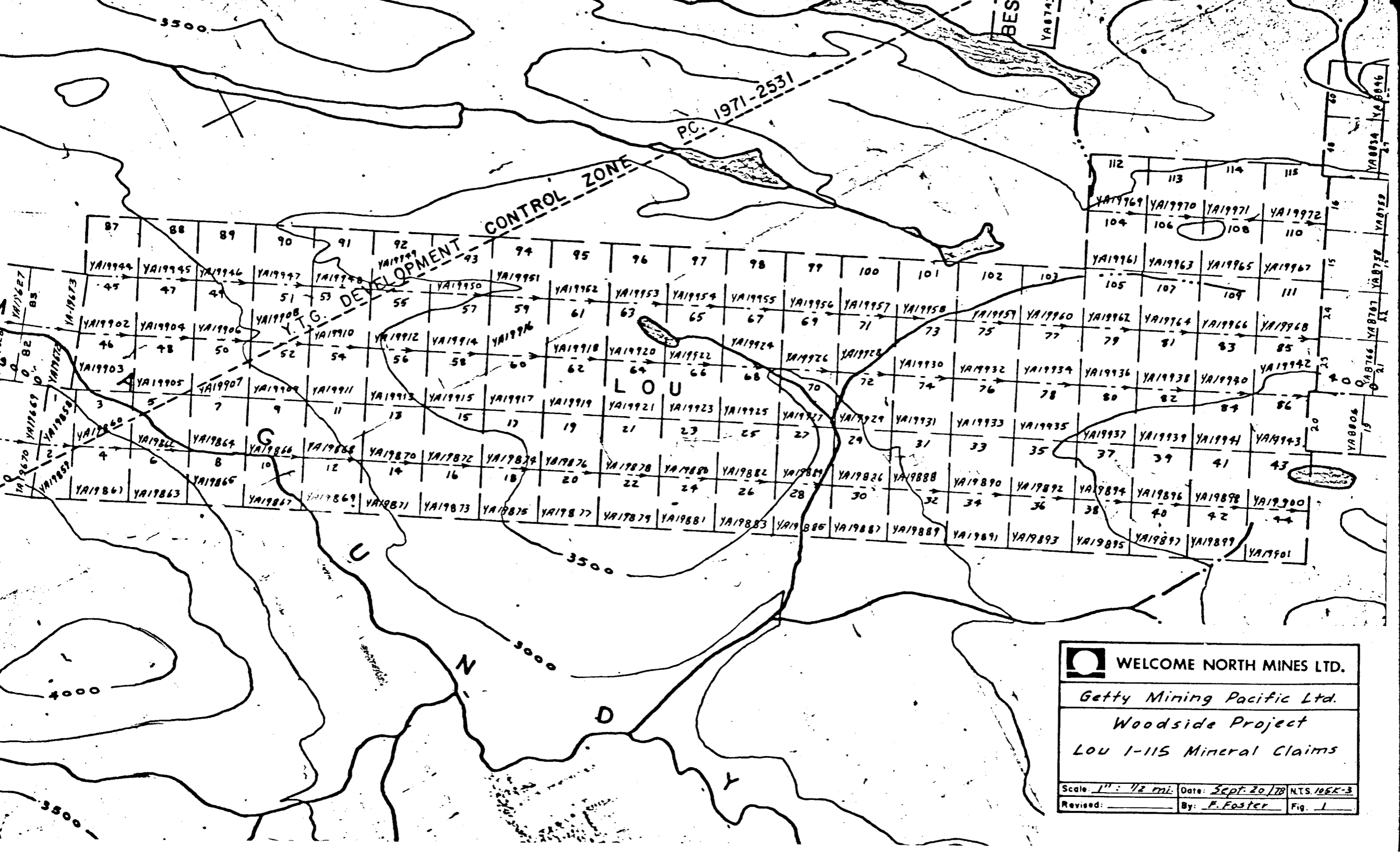
LOCATION AND ACCESS


The LOU mineral claims are located in an area of low rounded hills three miles south of the Robert Campbell Highway junction for Faro (Fig. 2). These hills separate the Magundy River valley on the south from the much more prominent Pelly River valley on the north and form the foothills to the St. Cyr Mountain Range.

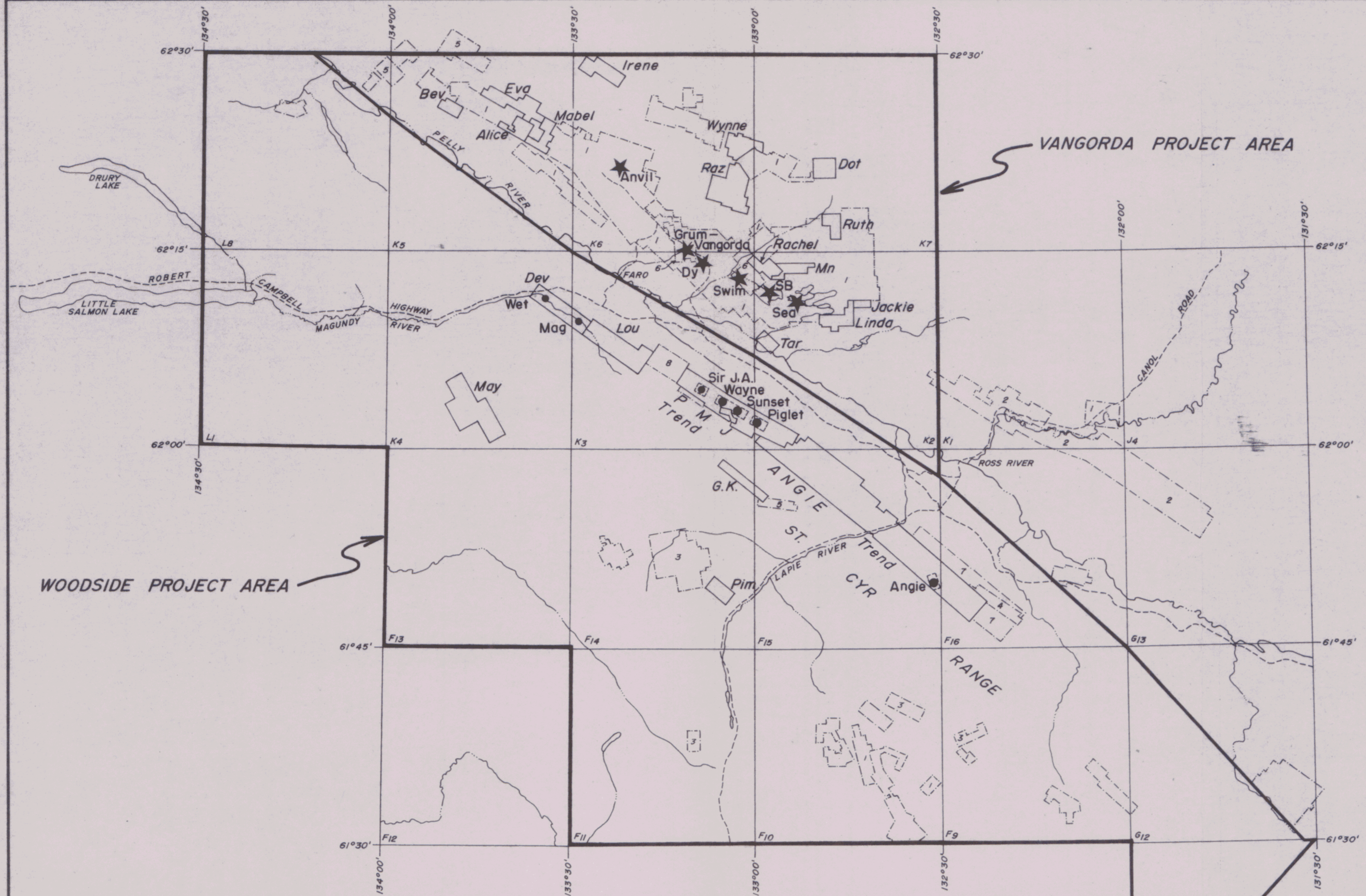
Access to the claim group is best gained by helicopter from Faro, although access roads on the PUG claims to the southeast do extend to within one mile of the southeast end of the claim group.

GEOLOGY

Preliminary mapping carried out in 1977 on the LOU claims was greatly inhibited by the extensive overburden cover. Individual map units were not well defined on the claim group due to a lack of outcrop. Figure 3 shows the distribution of rock units as defined by the sketchy data available. Rock units are described below (after Tempelman-Kluit).



 WELCOME NORTH MINES LTD.		
<i>Getty Mining Pacific Ltd.</i>		
<i>Woodside Project</i>		
<i>Lou 1-115 Mineral Claims</i>		
Scale: 1" = 1/2 mi.	Date: Sept. 20/78	N.T.S. 105K-3
Revised: _____	By: F. Foster	Fig. 1



LEGEND

Massive Sulphide Deposit ★

Mineral Occurrence ●

River, Creek ———

Highway - - - - -

Claims:

Getty Mining Pacific - Welcome North Mines	□
Cyprus Anvil Mining	1
Du Pont of Canada	2
Utah Mines	3
Cominco	4
Amax Potash	5
Kerr Addison Mines	6
St. Joseph Exploration	7
Brendex Resources	8
Misc. Other	□

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**PROJECT AREA &
PROPERTY LOCATIONS**

Scale: 1" = 8 miles Date: Feb. 1978 NTS 105
Revised: _____ By: _____ Fig. _____

- uTrsc: Dark grey and buff weathering, recessive, thin bedded bioclastic limestone with interbedded sandy or silty limestone; calcareous siltstone and shale.
- Csl: Recessive, dark grey weathering, thin bedded, interlaminated buff yellowish siltstone, and brown argillite with minor interbedded argillaceous limestone, strongly bioturbated.
- Mt: Rusty-orange weathering, resistant, apple green and dark grey, thin-bedded chert and cherty tuff.
- uDMs: Black siliceous slate with minor interbedded chert grain greywacke.
- Dvc: Crinoidal calcarenite; crinoidal limestone; calcareous brown weathering slate.
- OSslq: Black graphitic siliceous and pyritic shale.
- ~~EOcsl~~: Brown weathering, thinly interbedded shale, calcareous siltstone and argillaceous limestone.

GEOCHEMISTRY

Method of Survey

Soil sampling geochemical surveys were carried out on the LOU claims in an attempt to locate any lead-zinc-silver mineralization which might exist beneath the extensive overburden cover on the property. Surveys were carried out on a flag line grid installed by Welcome North personnel. Samples were collected with the aid of a prospectors grub hoe at 50-meter intervals along flaglines spaced from 400m to 800m apart. Reconnaissance soil sample lines installed in the previous year were tied into the grid such that results from these could be utilized in the 1978 geochemical survey.

All samples were collected in Kraft brown paper bags and dried prior to shipment for analysis. All samples were analyzed by Acme Analytical Labs in Ross River, Yukon. When samples were received, each was dried while in its Kraft bag, then screened to 80 mesh, weighed out to 0.5 gm and digested in hot aqua regia. Samples were then diluted, clarified for 20 hours and then tested for lead and zinc content on an atomic absorption spectrophotometer. Accuracy of the instrument is ideally 1 per cent of the amount of metal present. Individual cathode lamps were used for each element determination, a direct readout being given in parts per million of the element being tested.

All results of geochemical tests were returned to the field where they were plotted on field maps kept by the party chief for aid in carrying out preliminary follow up of anomalous areas while still in the field. Plates 1, 2 and 3 show results obtained over the LOU claims. Threshold values of 80 ppm for lead, 320 ppm for zinc and 0.4 ppm for silver were arbitrarily chosen utilizing statistical results from nearby geochemical surveys conducted on the PMJ claims.

Interpretation of Results

Results of geochemical surveys carried out over the LOU claims revealed, for the most part, restricted anomalies. However, 2 more extensive anomalous areas were defined by lead and silver geochemistry.

The anomalous area defined by lead geochemistry is situated on lines M2, M3 and 22+00W at Baseline 2 (Plate 1) where values of up to 150 ppm lead were obtained. Zinc geochemistry in this area revealed high background values and only one anomalous value of 370 ppm (Plate 2). Threshold values in silver were also obtained in this area but none were distinctly anomalous (Plate 3).

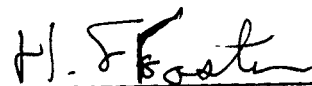
The anomalous area defined by silver geochemistry is situated on lines 44+00W, 48+00W, 58+50W, and 61+50W (Plate 3). One large silver anomaly in the south

with values as high as 1.4 ppm silver is partially coincident with two restricted zinc anomalies and one restricted lead anomaly. In the north on line 61+50W a more restricted silver anomaly is coincident with an isolated zinc anomaly.

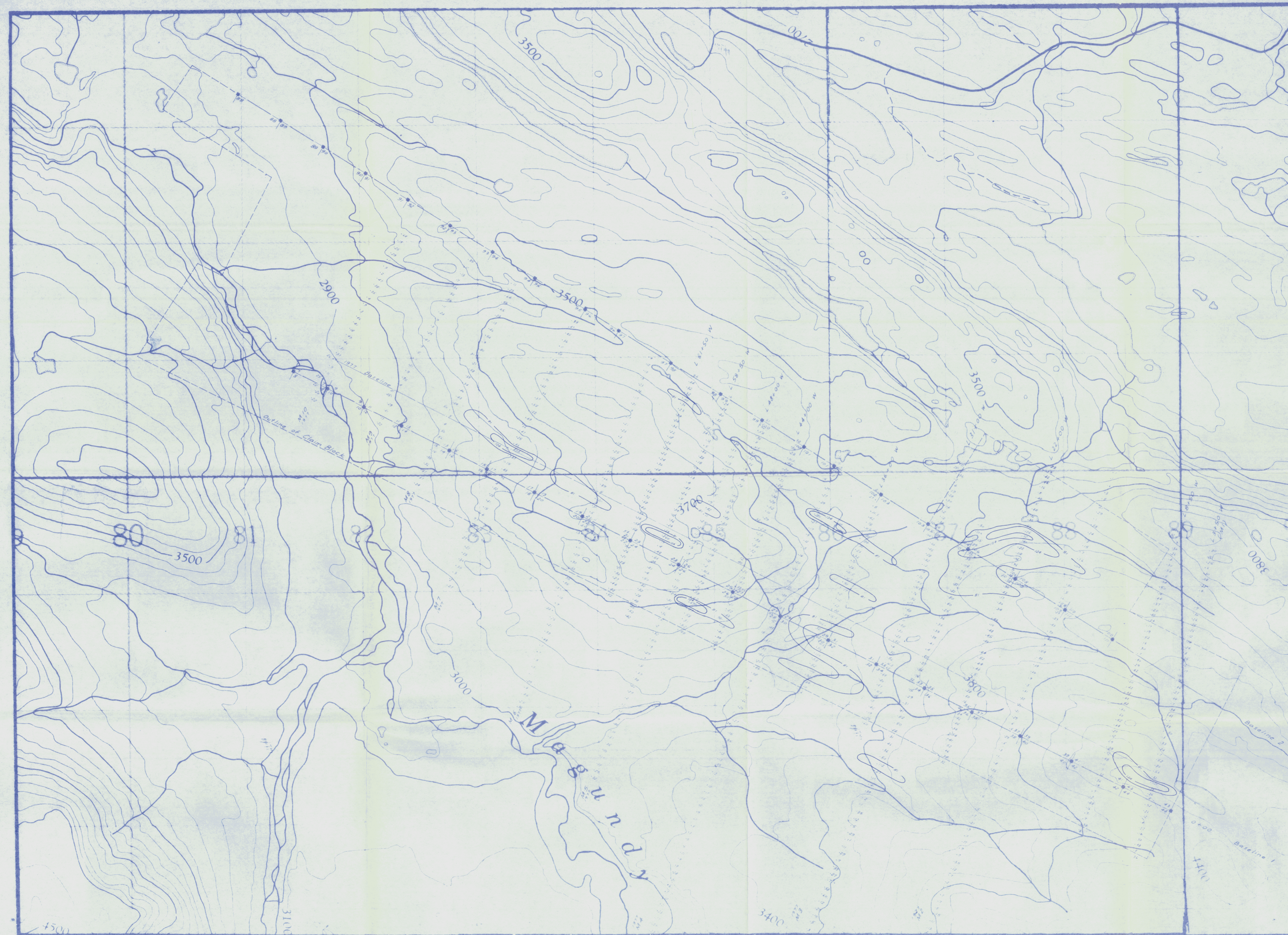
A restricted but coincident silver-lead anomaly occurs at the south end of lines 8+50W and 3+50W where values of 170 ppm lead and 1.4 ppm silver were obtained. Threshold values in silver were also obtained over areas to the north of this coincident anomaly.

Zinc geochemistry revealed only one station anomalies as shown in Plate 2. The anomalies are situated too far apart in order to suggest that they might represent narrow, overburden-covered mineralized horizons extending along strike. As some anomalies are single values up to 1600 ppm zinc with no high background values occurring in the surrounding areas, it is likely that these anomalies represent localized vein-type mineralization.


The shape of both the major lead and silver anomalies may be a reflection of the near-surface outcropping of narrow mineralized horizons which are isoclinally folded and plunging at a shallow angle.



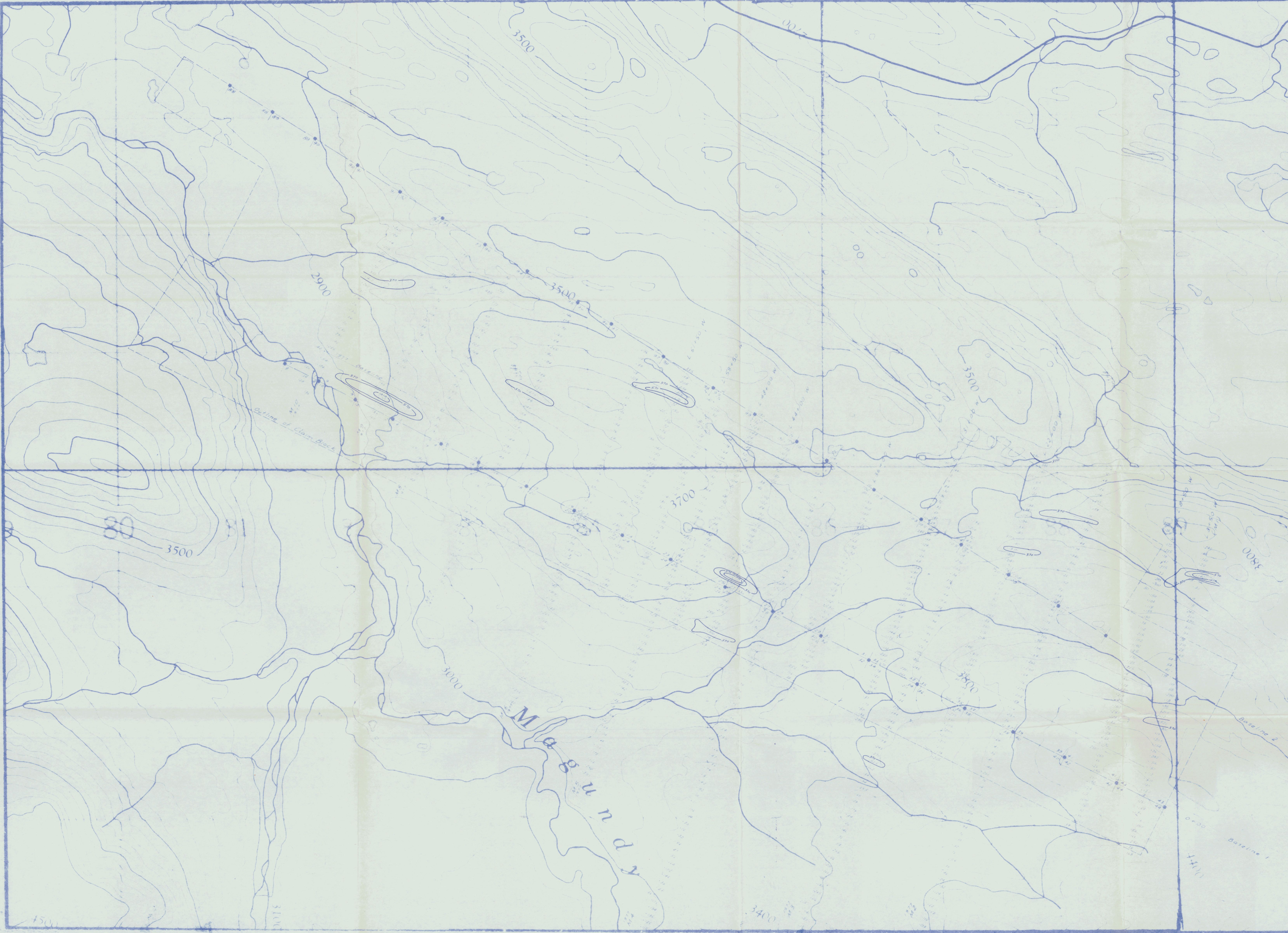
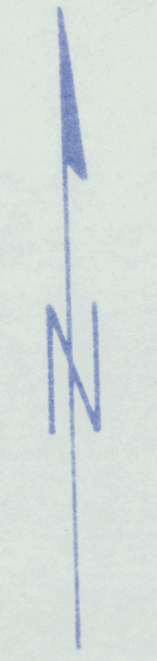
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- > 124 Anomalous Population
- 81-124 Threshold Population
- < 80 Background Population


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 LOU 1-115 CLAIMS
LEAD GEOCHEMISTRY

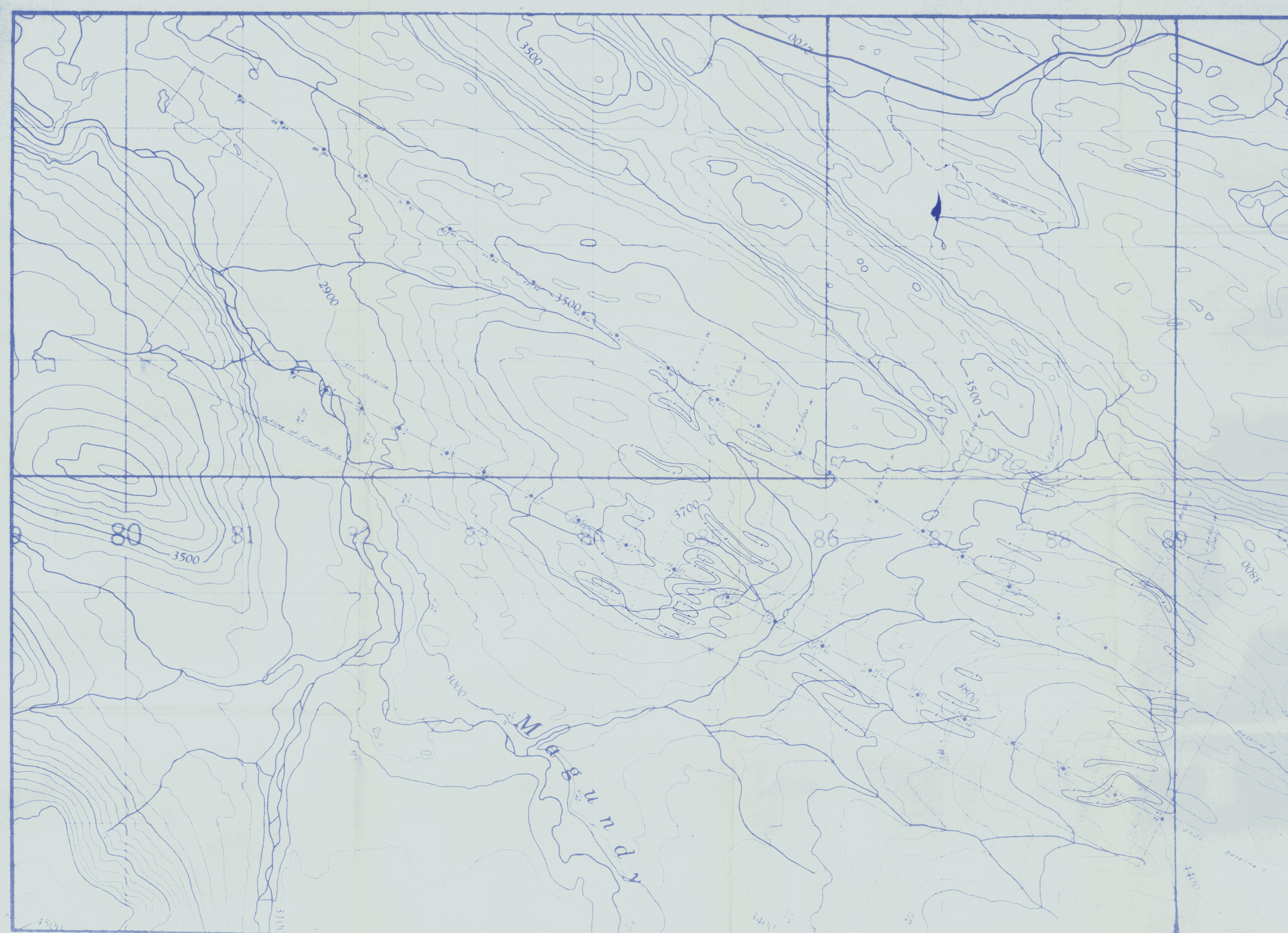
Scale 1:12500 Date Sept. 1979 NTS 105K-3
 Revised By Plate 1




- > 1010 Highly Anomalous Population
- 371-1010 Anomalous Population
- < 370 Background Population

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WOODSIDE PROJECT
LOU 1-115 CLAIMS
ZINC GEOCHEMISTRY

Scale 1:12500 Date Sept 1978 NTS 125K 3
Revised By F.F. Plate 2



- > 80 Anomalous Population
- 4 - 8 Threshold Population
- < 4 Background Population


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 WOODSIDE PROJECT
 LOU 1-115 CLAIMS
SILVER GEOCHEMISTRY

Scale 1:2500 Date Sept. 1978 NTS 103K-3
 By F.F. Plate 3