

**GEOCHEMICAL - GEOLOGICAL - GEOPHYSICAL**

**ASSESSMENT REPORT**

on the

**FLIP CLAIM GROUP**

**Whitehorse Mining District, Yukon**

**(YCS #105-K-7)**

**Latitude: 62° 17'N**

**Longitude: 132° 32'W**

by

**ACE R. PARKER & ASSOCIATES LIMITED  
MINERAL INDUSTRY CONSULTANTS & CONTRACTORS  
Whitehorse, Yukon**

**Work Performed  
between  
May 28, 1969 & July 8, 1969 inclusive**

**Dated  
at  
Whitehorse, Yukon  
this  
15<sup>th</sup> Day of March, 1970**

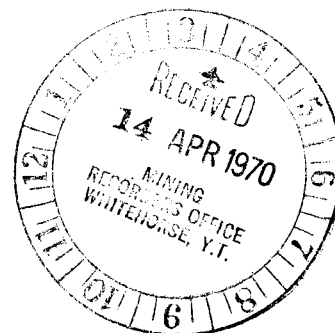


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This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$5135

*D.B. Craig*

Resident Geologist or  
Resident Mining Engineer

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

*[Signature]*

Commissioner of Yukon Territory

**INTRODUCTION**

**This Report describes geochemical, geological and geophysical surveys conducted to date on the "FLIP GLAIN GROUP" situated in the Ross River - Anvil Area of the Whitehorse Mining District, Yukon.**

**The field work discussed in this Report was conducted by the property owners and has been managed and compiled by the management and staff of ACE R. PARKER & ASSOCIATES LIMITED at the request of Michael Early, owner of the property.**

**Work completed to date is summarized in this Report and is presented as annual assessment work in compliance with the Yukon Quartz Mining Act.**

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SUMMARY

This Report outlines the methods, results, and costs of preliminary geochemical, geological, and geophysical exploration conducted during 1969 on the Flip Claim Group.

Picketed cut lines, some following claim lines, provided control for the work outlined herein. The results of the geochemical surveys for lead and zinc and the S.P. Geophysical Survey are shown on the attached maps and indicate areas worthy of additional exploration.

The local geological survey was largely ineffective due to the concealing effect of overburden. Nevertheless, regional geology has been studied and projected into the claim group with the aid of Government Aeromagnetic Survey Maps of the area.

Future work on the property should consist of integrated geochemical, and geophysical surveys, including I.P. Surveys and S.P. Surveys, followed by diamond drilling of the most favourable targets, especially in those areas where mineralized float has been found.

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PROPERTY & OWNERSHIP

The property currently consists of thirty two (32) contiguous and granted mineral claims which cover a block of 1600 acres of Crown land.

These are shown on the southeast corner of Yukon Claim Sheet #105-K-7 and are recorded in the office of the Mining Recorder in Whitehorse, Yukon as follows:

<u>CLAIM NAME</u>	<u>GRANT NO.</u>	<u>EXPIRY DATE</u>	<u>REGISTERED OWNER</u>
Flip #1- 8 incl.	Y30974 - Y30981 incl.	Mar.31, 1970	M. Early
Flip #9- 16 incl.	Y30982 - Y30989 incl.	Mar.31, 1970	J. Atkinson
Flip #17- 24 incl.	Y30990 - Y30997 incl.	Mar.31, 1970	Albert McLeod
Flip #25- 32 incl.	Y30998 - Y31005 incl.	Mar.31, 1970	Sid Atkinson

No mining or milling plant exists on the property and to the best of my knowledge and belief no liens are registered against the property.

LOCATION & ACCESS

The FLIP CLAIM GROUP (62°17'N, 132°32'W) is located in the Faro - Vangerda Area of the Ross River Division of the Whitehorse Mining District, Yukon and more specifically 3/4 mile northwest of the southwest end of Blind Lakes and 22 airmiles north of the Village of Ross River, Yukon.

The property is accessible by track vehicles, helicopter, or float equipped aircraft from Ross River, Yukon. Ross River is (250) miles by road from Whitehorse, Yukon via Carmacks, Yukon and is 111 miles from tide-water at Skagway, Alaska by the White Pass narrow-gauge Railway.

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DISCUSSION OF THE SURVEYSPurpose and Control of the Work

The purpose of the surveys included in this Report was to provide preliminary exploration of the Flip Claim Group in an attempt to locate the source of mineralized float reported in the area. Picketed out lines, some along claim lines, and as cross lines extending from a common base line three thousand feet long on an azimuth of 325° provided control for the various surveys. All survey lines are shown on the included maps and total four and four tenths (4.4) miles in length of which 2.5 miles make up the "geochemical" grid.

The geochemical grid consisted of nine (9) separate lines twelve hundred (1200) feet long spaced at four hundred (400) foot intervals along a common base line three thousand (3000) feet long. All lines were picketed at one hundred foot intervals.

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THE GEOCHEMICAL SURVEY

Soil samplers collected two hundred and sixty (260) samples along the lines of the geochemical grid as shown on the attached maps.

These samples consisted of a 200 to 300 gram mass of vegetation-free B<sup>o</sup> horizon soil dug from the bottom of small holes excavated with a mattock. All samples were placed in standard paper sample bags and sent to the Barringer Assay Office in Whitehorse, Yukon. One hundred and thirty five (135) of these samples were analyzed for lead and zinc by employing hot acid extraction and atomic absorption techniques.

The attached maps show the resulting metal values which have been contoured against a background of 30 parts per million (ppm) and 50 ppm for lead and zinc respectively. Peak values are 125 ppm and 203 ppm for lead and zinc respectively within the survey area.

The lead and zinc anomalies show reasonable build up coincidence but unfortunately these anomalies lie on the periphery of the survey grid and thus additional work must be conducted outside of the existing grid before any diamond drill holes can be properly plotted.

It must be pointed out that the anomalous values outlined by the survey although relatively low by some standards are considered significant in this area due to the depth of overburden and the similar intensity of readings obtained on known ore deposits in the area (Anvil Mines). Overburden possibly exceeds one hundred feet in depth on some areas of the property.

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REGIONAL & LOCAL GEOLOGY & AIRBORNE GEOPHYSICS

The Geological Survey of Canada has mapped the area within which the property is situated and has published the results on Map #13 - 1961 - Tay River - Yukon Territory (Scale 1" = 4 miles).

The Federal Government of Canada has also sponsored an aeromagnetic geophysical survey of the area which was conducted during 1968 by Aero Photo Inc. The results have been published as Geophysical Paper #4373 - Section "G" - Blind Creek - Scale 1"=1 mile.

The claims cover a low glacially-rounded hill situated  $1\frac{1}{2}$  miles northwest of Blind Lakes which lies along the southeast flank of an unnamed 6644 foot mountain located north-northwest of Blind Lakes.

Most of the claims lie above tree-line elevation of 4300 feet and are concealed by an unknown thickness of glacial overburden essentially glacial tills. Vegetation consists of typical "scrub" Yukon white spruce and "buck brush" all which conceal bedrock geology in the immediate area and render geologic mapping ineffective.

Nevertheless, photogeologic studies of the area in conjunction with Government Geology of the Tay River Map Sheet and aeromagnetic coverage indicate that the claims probably cover an embayment or pendent of Mississippian sedimentary and volcanic rocks, essentially banded quartz ore granulite, green and purplish banded skarn, quartz-sericite, and chlorite schist and crystalline limestone and possibly minor andesite and tuff. These rocks lie along the periphery of a medium-grained Cretaceous quartz monzonite stock which forms the core of the 6644 foot mountain referred to above.

**REGIONAL & LOCAL GEOLOGY & AIRBORNE GEOPHYSICS (cont'd)**

This stock is probably an outliner of the Anvil Batholith and forms a geologic environment very similar to the area in which the Fare, Swim and Vangerda sulfide deposits are situated.

The following table of formations outlines the rock types probably present in the immediate area of the claims:

**TABLE OF FORMATIONS****1 - Quaternary**

a) - Unconsolidated alluvial deposits (glacial till)

**2 - Tertiary**

a) - Granodioritic quartz and feldspar porphyry (adjacent and southeast of Blind Lakes)

**3 - Cretaceous**

a) - Medium to coarse-grained quartz monzonite and granodiorite, commonly porphyritic (northwest; and southeast of Claim Group - immediately adjacent to Blind Lakes)

**4 - Mississippian**

a) - Altered dark green andesite and basalt flows and tuffs - commonly schistose

b) - Banded quartzose granulite, green and purplish banded skarn, quartz and sericite schist and crystalline limestone

The NW-SE trending Tintina Fault passes 2 1/2 miles southwest of the property and drainage patterns and photogeologic studies indicate numerous other parallel and transverse faults in the area.

**REGIONAL & LOCAL GEOLOGY & AIRBORNE GEOPHYSICS (cont'd)****TABLE OF FORMATIONS (cont'd)**

Of particular interest is a N-S trending lineament that passes approximately three miles east of the property and touches the northeast tip of Blind Lakes. This "break", and several transverse fracture zones, are visible in the field and particularly on the Government Aeromagnetic Map of the area.

These structural features in conjunction with the granitic intrusives in the area may or may not be the controlling factors relating to mineral deposition in the area.

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THE GEOPHYSICAL SURVEY (S.P.)

A Self Potential (Spontaneous Potential - S.P.) Geophysical Survey was conducted on a small portion of the claims and roughly coinciding with the periphery of the area covered by the geochemical survey but along survey lines essentially corresponding with claim location lines.

These lines total one and nine tenths (1.9) miles in length and are shown on the attached maps. The attached maps also show the results of the S.P. Survey and indicate several significant anomalies which coincide with the anomalous zones indicated by the geochemical survey.

An S.P. Survey line near the common corner of Flip Claims 27, 28, 29, and 30 revealed a zone of major significance with Millivolt values of minus 700. S.P. anomalies along this line probably indicate the presence of extensive sulfide mineralization concealed by overburden. It is significant that this anomalous zone coincides with a magnetic anomaly outlined by the Government Aeromagnetic Survey of the area.

It must be pointed out that the S.P. geophysical method measures the naturally occurring potentials or voltages which occur in the earth due to chemical activity and subsequent differences in the rate of oxidation between the top and bottom of a sulfide body thus creating a "wet" electrochemical cell" which possesses a difference in electrical potential.

This method is relatively simple and provides a proven guide to mineralization but the method will not work if surface material is a bad conductor.

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THE GEOPHYSICAL SURVEY (S.P.) (cont'd)

A Model G-18 self potential unit manufactured by Geotronics Instruments Limited was employed to conduct the survey discussed herein. The instrument according to the manufacturers is capable of detecting as little as 5% disseminated sulfide mineralization through 50 feet of overburden and rock. The instrument consists of two porous-pot copper-red electrodes, a potentiometer (or voltmeter) and a 100 foot cable to connect the electrodes to the voltmeter. The instrument requires two men for operating and has the following specifications:

- Weight & Dimensions: - 2½ pounds, 7½" x 7½" x 5"
- Controls:
- On-Off and polarity switch
  - Range switch (3 positions)
  - Zero adjust
- Input Resistance: - 10 megohms per volt
- Range: - 3 ranges 0 - 1000 mv
- Sensitivity: - 2 mv per meter division on the 100 mv range

Negative values from the survey are of significance with the maximum negative values indicating anomalous conditions resulting from this survey.

**CONCLUSIONS & RECOMMENDATIONS**

Although a very small portion of the Flip Claim Group, equivalent to a sparse coverage of six mineral claims, has been partially explored to date, significant geochemical and geophysical results have been obtained.

The geochemical anomalies indicated to date are relatively weak but significant when considering their similarity to the geochemical expression of other mineral deposits in the area and the coincidence with the S.P. anomalies and Government Aeromagnetic anomalies.

When correlating the geochemical, geological and geophysical evidence applicable to the property, it becomes apparent that the property presents a promising exploration "bet" for base metals.

The property warrants further exploration to establish its economic potential. This work should consist of additional geochemical surveys (lead and zinc), and geophysical surveys (magnetometer, S.P. and I.P.), all followed by diamond drilling (B.Q. wireline) if justified.

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COSTS

The following table outlines the costs of the work discussed in this Report:

<u>ITEM</u>	<u>COSTS</u>
<u>SURVEY Lines:</u> 4.4 miles @ \$100/lm	\$ 440.00
<u>Soil Sampling:</u> Collected: 260 @ \$2.75	
Assayed: 135 @ \$1.25	\$ 884.00
<u>S.P. SURVEY:</u> 1.9 line miles @ \$140/lm	\$ 266.00
<u>Geological Survey</u> <u>&amp; Correlations:</u>	\$ 700.00
<u>CAMP &amp; SUPPLY:</u> 4 men equivalent for 30 days @ \$9/man day	\$1080.00
<u>Transportation:</u> Truck rentals & GNA Flights	\$ 630.00
<u>Miscellaneous:</u> Engineering, Drafting, Supervision, Legal & Sundry	\$ 735.00
<u>TOTAL</u>	<hr/> \$5135.00

AFFIDAVIT OF COSTS

I, Ace R. Parker, of the City of Whitehorse, Yukon Territory, do certify that:

1 - I am a Consulting Engineer practicing under the name and style of ACE R. PARKER & ASSOCIATES LIMITED and have personal knowledge of the matters described herein.

2 - To the best of my knowledge and belief, the costs outlined in this Report are a true statement of direct expenditures for work performed to date on the FLIP CLAIM GROUP and applicable to Assessment work under the Yukon Quartz Mining Act.



Ace R. Parker, P. Eng.

SWORN BEFORE ME )  
at Whitehorse in )  
the Yukon Terri- )  
tory this 14 )  
day of April, 1970 )



A Commissioner for  
taking Oaths in and  
for the Yukon Terri-  
tory

PERSONELL EMPLOYED ON THE PROJECT

<u>NAME</u>	<u>OCCUPATION</u>	<u>FIXED ADDRESS</u>
N. Early	Prospector	Whitehorse, Yukon
J. Atkinson	Instrument Operator	Ross River, Yukon
A. McLeod	Line Cutter	Ross River, Yukon
S. Atkinson	Line Cutter	Ross River, Yukon
J. Pick	Line Cutter	Ross River, Yukon
D. Atkinson	Line Cutter	Ross River, Yukon
W. Seidler	Draftsman	Whitehorse, Yukon
M. Bjerkes	Stenographer	Whitehorse, Yukon
A.R. Parker	Consulting Engineer	Whitehorse, Yukon
D. Atkinson	Soil Sampler	Ross River, Yukon
D. Eastman	Instrument Operator	Whitehorse, Yukon

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C E R T I F I C A T E

I, Ace R. Parker, of the City of Whitehorse, Yukon Territory, do certify that:

- 1 - I am a Consulting Engineer practicing under the name and style of ACE R. PARKER & ASSOCIATES LIMITED with office at 3rd Avenue and Elliott Street, Whitehorse, Yukon.
- 2 - I am a Bachelor of Science in Mining Engineering from the College of Earth Sciences and Mineral Industry, University of Alaska College, Alaska - 1962. I held a Diploma in Mineralogy from the Mineral Science Institute, Chicago - 1959.
- 3 - I am a member of the Association of Professional Engineers of Yukon and the Association of Professional Engineers of Alberta. I have been a member of the American Institute of Mining, Metallurgical, and Petroleum Engineers since 1954.
- 4 - I have formally practiced my profession for the past 8 years after working in the Mineral Industry since 1953.
- 5 - This Certificate is part of the attached Geochemical, Geological, Geophysical Assessment Report on the FLIP CLAIM GROUP dated March 15, 1970. The attached property map shows the location of the FLIP CLAIM GROUP on which the included work was performed.
- 6 - This Report is based on a comprehensive personal study of documents, maps and reports relating to the surveys described herein, including reports of the Geological Survey of Canada. The work outlined by this Report was conducted under my supervision.

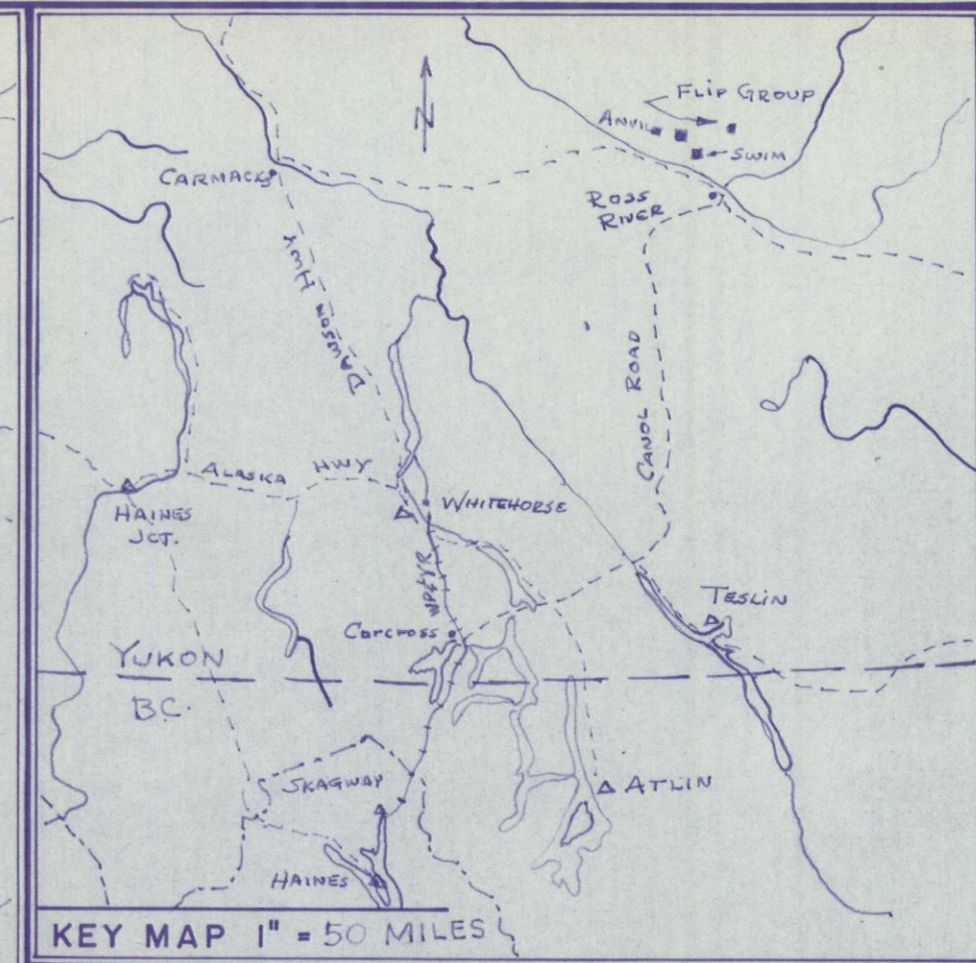
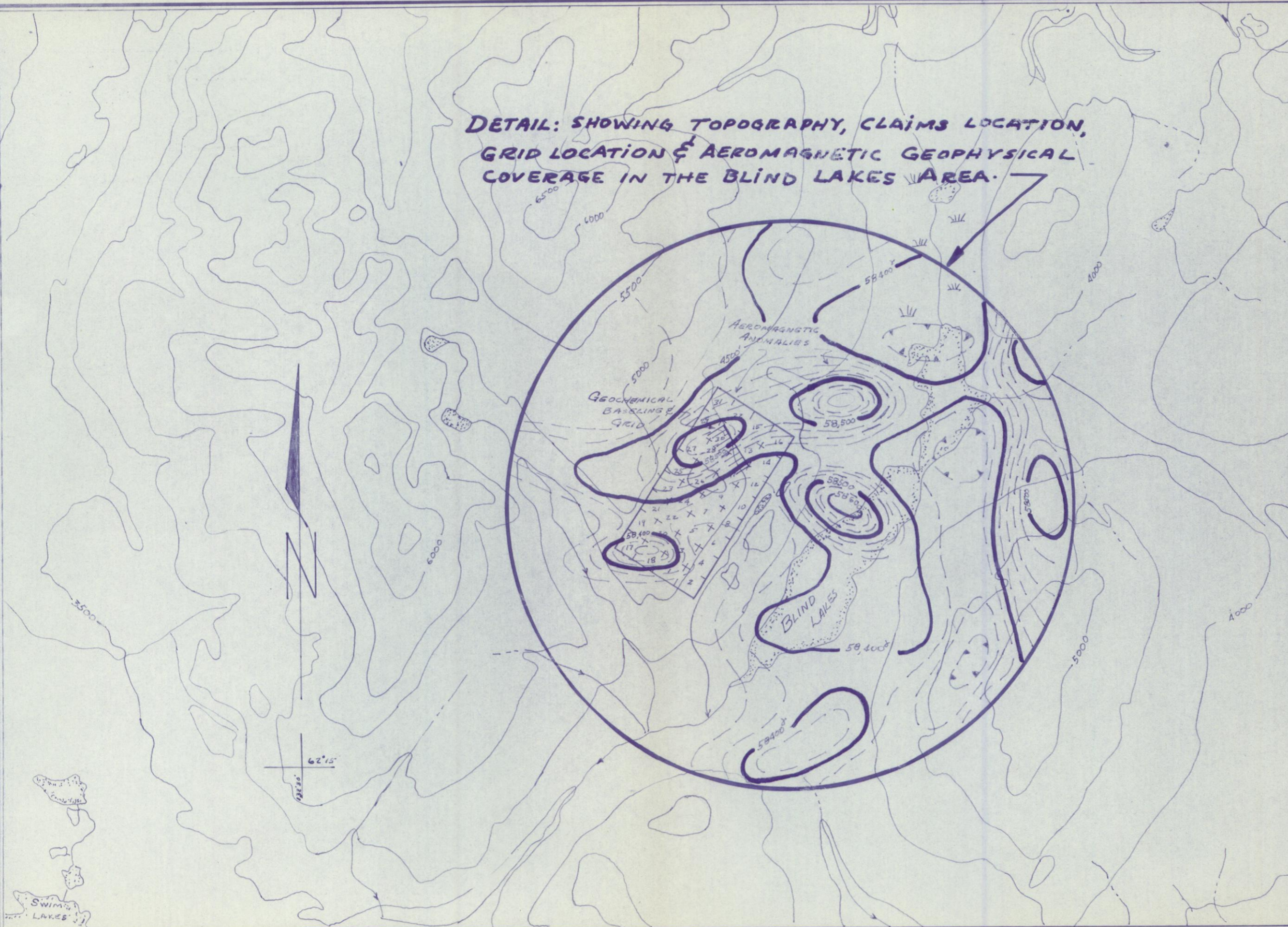


Ace R. Parker, P. Eng.

Whitehorse, Yukon

April , 1970

**DETAIL: SHOWING TOPOGRAPHY, CLAIMS LOCATION,  
GRID LOCATION & AEROMAGNETIC GEOPHYSICAL  
COVERAGE IN THE BLIND LAKES AREA.**

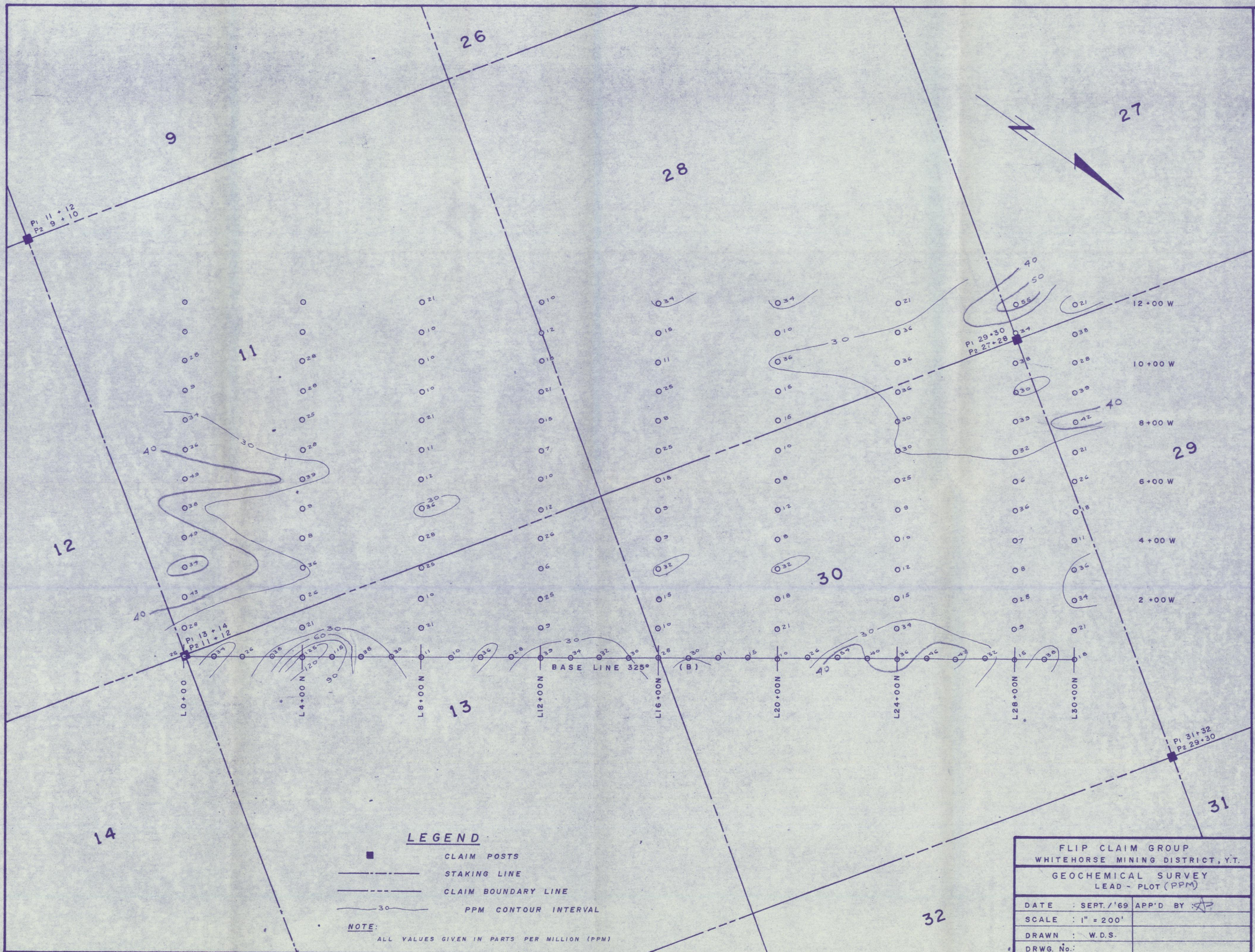


**PROPERTY LOCATION MAP**

**FLIP CLAIM GROUP  
(Y.C.S. #105-K-7)  
WHITEHORSE MINING DIST.  
YUKON, TERRITORY**

**ACE R. PARKER & ASSOCIATES LTD.**  
MINERAL INDUSTRY CONSULTANTS & CONTRACTORS

DATE	15 MAR '70	SEAL: 
SCALE	1" = 1 mile	
DRAWN BY	A	
DRWG. No.		

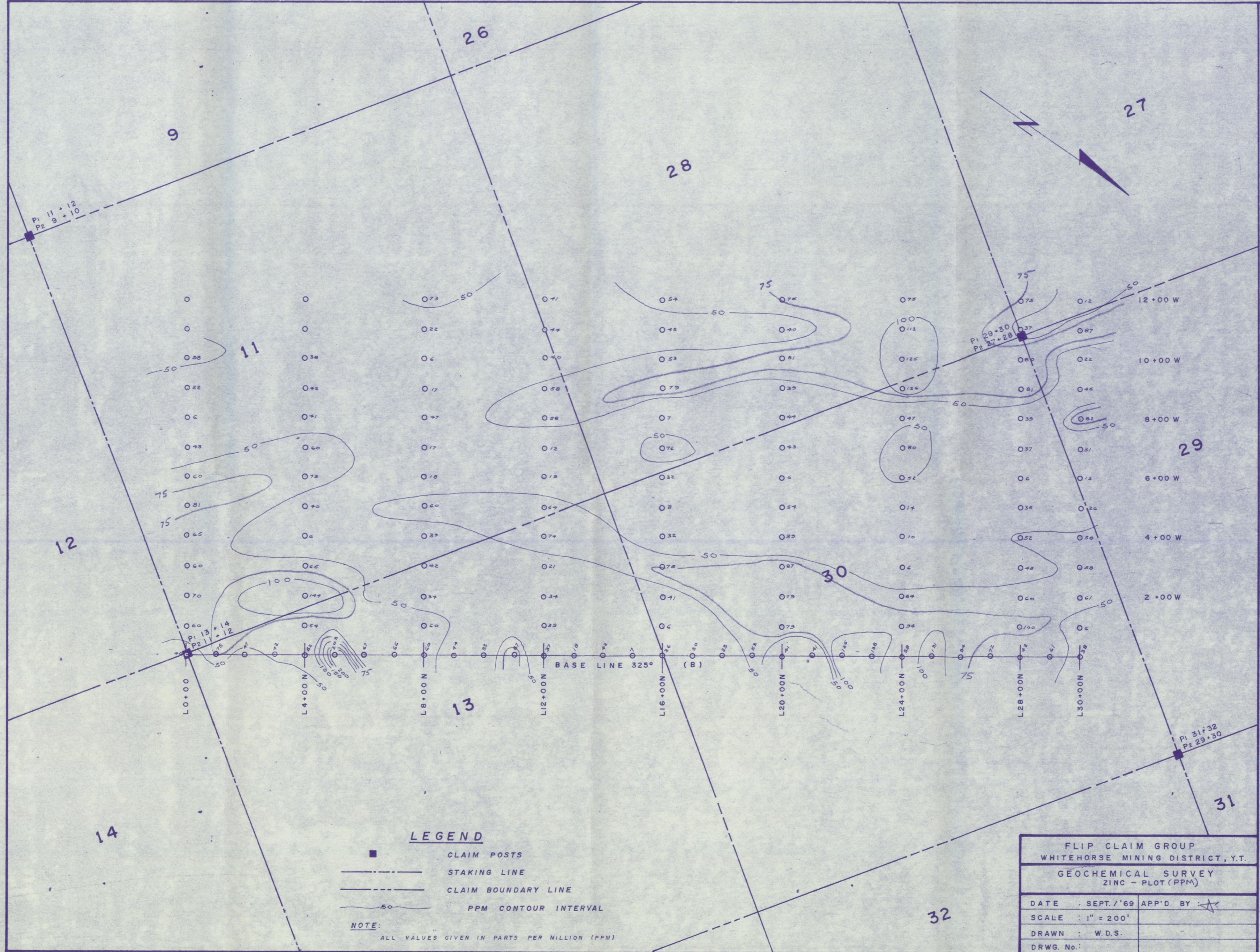


**LEGEND**

- CLAIM POSTS
- STAKING LINE
- - - CLAIM BOUNDARY LINE
- 30 — PPM CONTOUR INTERVAL

**NOTE:**  
ALL VALUES GIVEN IN PARTS PER MILLION (PPM)

FLIP CLAIM GROUP WHITEHORSE MINING DISTRICT, Y.T.	
GEOCHEMICAL SURVEY LEAD - PLOT (PPM)	
DATE : SEPT. / '69	APP'D BY : <i>[Signature]</i>
SCALE : 1" = 200'	
DRAWN : W.D.S.	
DRWG. No.:	

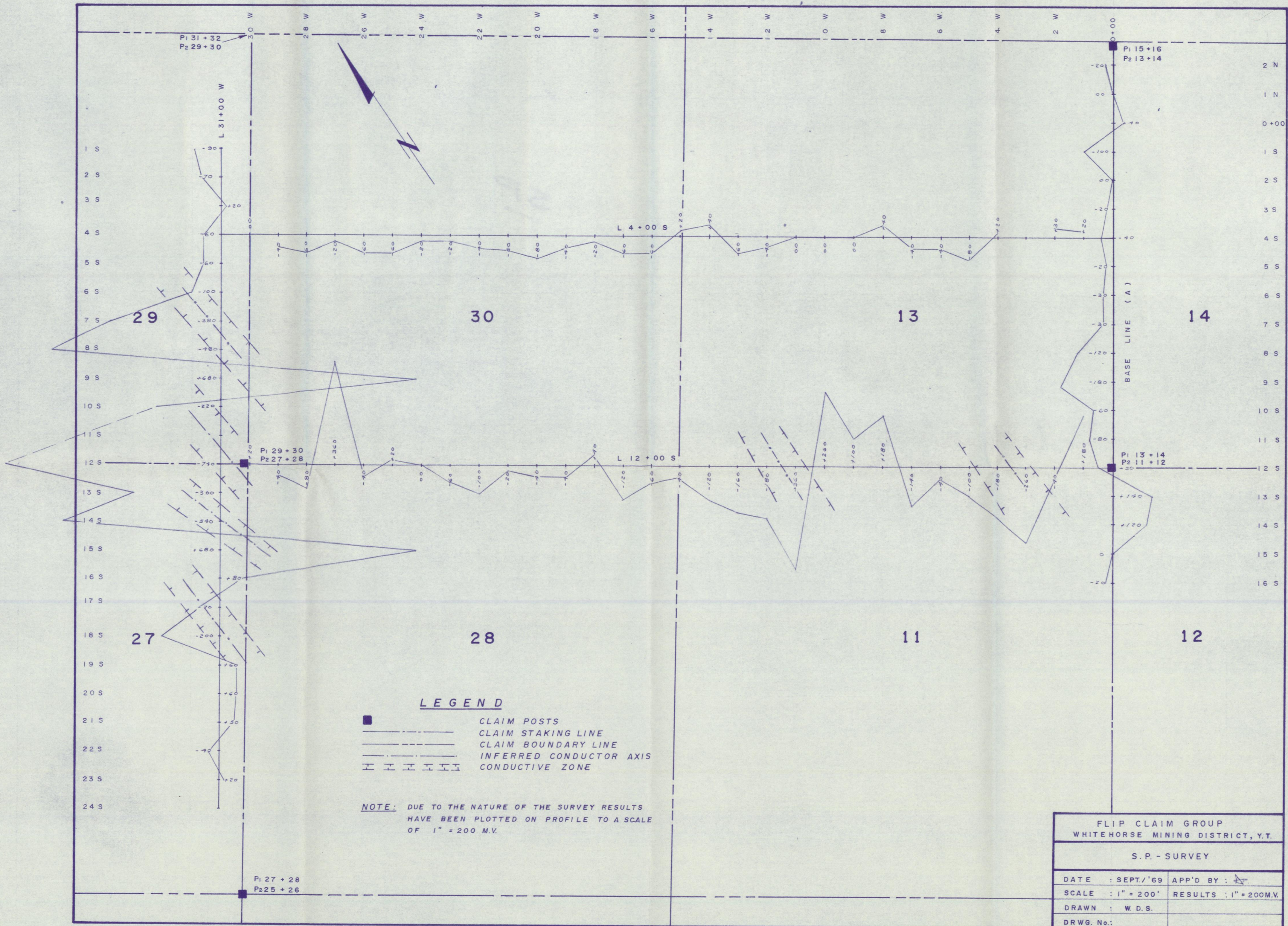


**LEGEND**

- CLAIM POSTS
- STAKING LINE
- CLAIM BOUNDARY LINE
- 50 PPM CONTOUR INTERVAL

**NOTE:**  
ALL VALUES GIVEN IN PARTS PER MILLION (PPM)

FLIP CLAIM GROUP WHITEHORSE MINING DISTRICT, Y.T.	
GEOCHEMICAL SURVEY ZINC - PLOT (PPM)	
DATE : SEPT./'69	APP'D BY :
SCALE : 1" = 200'	
DRAWN : W.D.S.	
DRWG. No.:	



P1 31+32  
P2 29+30

L 31+00 W

P1 15+16  
P2 13+14

L 4+00 S

P1 29+30  
P2 27+28

L 12+00 S

P1 13+14  
P2 11+12

P1 27+28  
P2 25+26

**LEGEND**

- CLAIM POSTS
- CLAIM STAKING LINE
- CLAIM BOUNDARY LINE
- INFERRED CONDUCTOR AXIS
- CONDUCTIVE ZONE

**NOTE:** DUE TO THE NATURE OF THE SURVEY RESULTS  
HAVE BEEN PLOTTED ON PROFILE TO A SCALE  
OF 1" = 200 M.V.

FLIP CLAIM GROUP WHITEHORSE MINING DISTRICT, Y.T.	
S.P. - SURVEY	
DATE : SEPT./'69	APP'D BY :
SCALE : 1" = 200'	RESULTS : 1" = 200M.V.
DRAWN : W.D.S.	
DRWG. No.:	