

DELBROOK MINES LTD.
GEOCHEMICAL & GEOPHYSICAL REPORT

Dev Claim Group, Goosly Lake Area
Latitude 54° 08' North, Longitude 126° 10' West

AUTHORS: G. L. Anselmo, President
G. E. White, Chief Geophysicist

P. ENGINEER: W. G. Stevenson

DATE OF WORK: September 3 - 10, 1970

29067

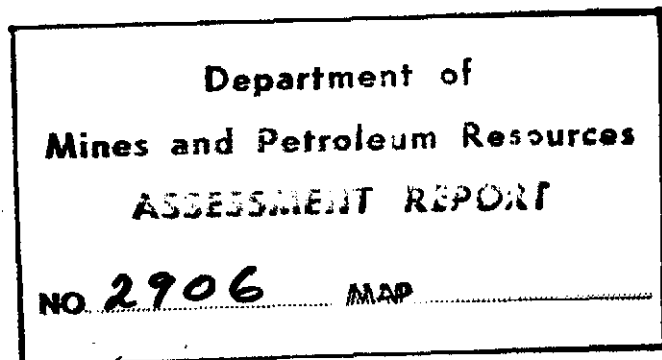
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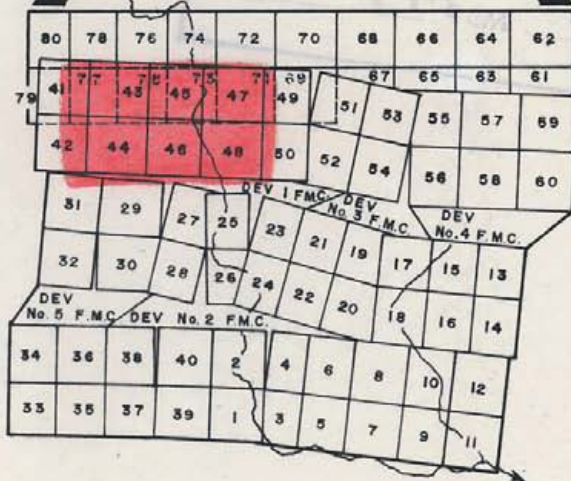
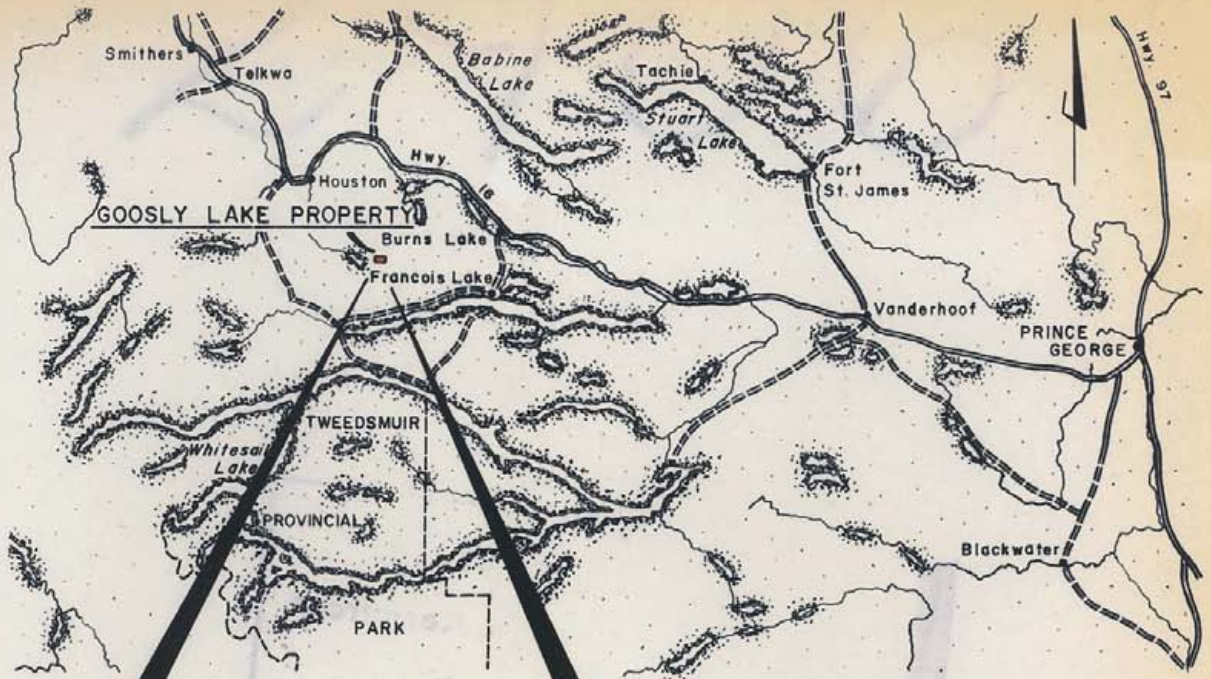
CONTENTS

	<u>PAGE</u>
Introduction	1
Location and Access	1
Property	1
Survey Specifications	
Survey Grid	1-2
The Geochemical Survey	2-3
The Magnetometer Survey	3
Data Presentation	3
Discussion of Results	
Geochemistry	3-4
Geophysics	4
Data Correlation	4
Conclusions	4-5
Recommendations	5
Certificates	
G. L. Anselmo	6
G. E. White	7
Instrument Specifications	
Magnetometer	8
Certificate W. G. Stevenson P. Eng.	9

I L L U S T R A T I O N S

#1 Figure 1	Location and claims map
#2 Figure 2	Geochemical - Copper map
#3 Figure 3	Geochemical - Silver map
#4 Figure 4	Geophysical - Vertical Magnetic Intensity





L E G E N D

- Outline of Claims
- Paved Roads
- Improved Roads
- Shore Line
- Creeks & Rivers
- Area Surveyed

DELBROOK MINES LIMITED

DEV CLAIMS

LOCATION AND CLAIMS MAP

SCALE: LOCATION MAP: 1" = 39 MILES APPROX. - CLAIMS MAP: 1" = 5000 FEET APPROX.



Fig. 1

A.N. Schampier Dec. 1970

INTRODUCTION

Tri-Con Exploration Surveys Ltd., on behalf of Delbrook Mines Ltd., from September 3 - 10, 1970, conducted a program of magnetometer surveying and geochemical soil sampling on the Dev claim group in the Goosly Lake Area, Omineca Mining Division, Province of British Columbia.

The object of this exploration program was to implement recommendations made by Pacific Geochemical Services Ltd., in a report for Summit Oils Ltd. dated January 20, 1970. A survey grid was established over the major copper, silver and zinc reconnaissance geochemical anomalies. The magnetometer survey was undertaken to try and define any structural features or change in lithology which would aid in determining the significance of any anomalous detailed geochemical data.

LOCATION AND ACCESS

The Dev mineral claims are located some 26 miles southeast of Houston, B.C. and approximately seven miles from the east end of Goosly Lake, latitude $54^{\circ} 08'$ north, longitude $126^{\circ} 10'$ west. N.T.S. 93L/1

An all weather road from Houston, B.C. terminates at the east end of Goosly Lake. From this point facile access to the claim group is by helicopter.

PROPERTY

The Dev claim group consists of a block of 85 mineral claims listed as follows:

Dev 1 - 80 inclusive

Dev No. 1 F.M.C. - No. 5 F.M.C. inclusive

The survey was conducted in the area of mineral claims Dev 29, 31, 42-48 inclusive and Dev No. 1 F.M.C.

The Dev mineral claims are held by Delbrook Mines Ltd., registered office 14th floor 1030 West Georgia Street, Vancouver, B.C.

SURVEY SPECIFICATIONS

Survey Grid

The survey grid was established coincident with the geochemical and geophysical surveys and consisted of 8.8 line miles of surveying on nine east-west traverse lines turned off every 400 feet from a north-south

baseline and flagged at 100 foot intervals. A north-south tie line was established at approximately 30W for survey control.

The Geochemical Survey

Preliminary Discussion

From sample profiling and pH data gathered on the property in the summer of 1969, as presented in a report by Pacific Geochemical Services Ltd., dated January 20, 1970, the following conclusions were drawn:

(a) A sampling depth of 6" ("B" horizon) was found to be the most likely sampling medium to give reliable geochemical readings.

(b) Acidic soils indicated by pH testing show that copper and silver ions will travel with relative ease in the surface soils of the property.

(c) Areas of intensity in copper and silver are anomalous and there is a possibility of encountering significant copper and silver mineralization within these anomalies due to the following factors:

Glacial debris encountered on the property indicates substantial overburden cover and a definite mask of Tertiary volcanics, depth as yet unknown, were noted to cover the entire property. Both these factors will tend to impede vertical ion migration thereby increasing the significance of anomalous surface geochemical soil readings.

Based on these and other findings significant to the 1969 Reconnaissance program, a detailed geochemical survey was carried out over part of the property in 1970.

During the 1970 exploration season, there were 223 soil samples taken from the "B" horizon at a depth of (6") on the grid previously outlined in this report under Survey Specifications-Survey Grid. The samples were taken at 200 foot intervals and their locations were flagged and coded.

The sampling medium ("B" horizon) was in the majority of cases encountered from 3-12 inches and is generally described as follows:

A medium brown, fine clay containing round rock in all cases. The area is relatively flat and forested.

The sample holes were dug with a mattock. The samples were taken by hand and placed in a water resistant bag where they remained until analysis. They were delivered to Chemex Laboratories Ltd., of North Vancouver, B.C., where drying, -80 mesh sieving, digestion by perchloric acid, and analysis by atomic absorption was carried out under the supervision of professional chemists.

All samples were analysed for copper and silver. Intensities ranged from 7 ppm to 126 ppm copper and less than 0.5 ppm to 3 ppm silver.

The Magnetometer Survey

The magnetometer survey was conducted using a Sharpe MF - 1 Flux-gate magnetometer. This instrument measures the vertical component of the earth's magnetic field to an accuracy of 10 gammas. Corrections for diurnal variation were made by tying into previously established base stations at intervals not exceeding one and one half hours.

DATA PRESENTATION

The survey data accompany this report as contour maps drawn at a horizontal scale of 1" = 400 feet as follows:

- Figure 2 Geochemical map - copper contoured at 30, 40 and 50 ppm levels.
- Figure 3 Geochemical map - silver contoured at 0.8, 1.6, and 2.4 ppm levels.
- Figure 4 Geophysical map - vertical magnetic intensity contoured at an interval of 200 gammas to a level of 1600 gammas.

DISCUSSION OF RESULTS

Geochemistry

Detailed soil sampling of specific areas as outlined by the 1969 reconnaissance program located definite copper and silver anomalies and trends on the property. The copper and silver anomalies contain in general, relatively high values; approximately 3 times background. As stated under the "Preliminary Discussion on Geochemistry" the lack of exceptional in-

tensity in the copper and silver anomalies is suspected to be attributed to clay overburden and volcanic cover.

The high copper and silver values are coincident. The major copper trends running N-S as seen in Figure 2 are considered to be the main areas of interest and correlation of these trends with silver trends, as well as the correlation with magnetic trends suggests that there is an excellent chance of encountering significant mineralization and also suggests that any mineralization encountered would be associated with bedrock rather than glacial detritus.

Geophysics

The magnetometer survey showed definite variations in magnetic intensity from a minimum of -350 gammas to a maximum of 2000 gammas. The vertical variations in magnetic intensity illustrated on Figure 4 show (1) an area of high magnetic intensity in the northeast of the survey area and (2) a northwest trending magnetic ridge which forms a general boundary with more plateau-like values of magnetic intensity in the southwest section of the survey area. Both the magnetic ridge and area of high magnetic intensity are dissected by north-northeast to south-southwest trending magnetic linears. The strongest magnetic linear cuts across the stream, in general between 4W and 8W, at a shallow angle.

Data Correlation

Correlation of the geochemical data, Figures 2 and 3 with the magnetometer data Figure 4, shows that the anomalous copper and silver values are, for the most part, coincident and that they occur along the flanks of the magnetic ridge. The geochemical data also appears to be biased in a northwest-southeast direction, possibly reflecting another set of structural features. Thus the magnetic ridge may possibly be caused by intersecting NNE-SSW and NW-SE fault structures.

CONCLUSIONS

A combined ground magnetometer and geochemical soil sampling program was carried out on a portion of the Dev claim group property of Delbrook Mines Ltd., in the Goosly Lake area, Omineca Mining Division, B.C.

The soil samples were analysed for silver and copper. Soil samples with high values of copper in general also showed high values of silver. Correlation of the geochemical data with the variations in magnetic intensity indicated that the geochemical anomalies are situated on the flanks of a magnetic ridge which may be associated with intersecting fault structures. Thus the favourably situated coincident copper and silver anomalies suggest the possibility of encountering sulphide mineralization of economic interest.

RECOMMENDATIONS

- (1) Extend the geochemical and magnetometer surveys into areas of interest as suggested by the open-ended geochemical anomalies and trends.
- (2) Conduct induced polarization and V.L.F. electromagnetometer surveys over the entire grid as outlined in the 1970 exploration program. Extend these surveys to cover the area as mentioned in recommendation No. 1.

Respectfully submitted,
TRI-CON EXPLORATION SURVEYS LTD.



G. L. Anselmo, President



Glen E. White, Chief Geophysicist

CERTIFICATE

I, Garry L. Anselmo, DO HEREBY CERTIFY:

- That I am President of Tri-Con Exploration Surveys Ltd. with offices at Suite 200 - 1405 Hunter Street, North Vancouver, British Columbia, and a Consultant in Geochemical Exploration.
- That I studied Geology and Geochemistry at the University of British Columbia for three years and am a graduate of Simon Fraser University with the Degree of Bachelor of Arts.
- That I have been engaged in Mining Exploration for six years.
- That I have no direct, indirect or contingent interest in the Dev Claim Group or in the securities of Delbrook Mines Ltd., nor do I intend to receive any such interest.
- That this report dated January 26, 1971 is based on information derived from a geochemical soil sampling program and a ground magnetometer survey carried out by Tri-Con Exploration Surveys Ltd.

Dated at Vancouver, British Columbia,
this 26th Day of January, 1971.

TRI-CON EXPLORATION SURVEYS LTD.

A handwritten signature in cursive script, reading "Garry L. Anselmo". The signature is written in dark ink and is positioned above the typed name and title.

G. L. Anselmo, B.A.
President

TO WHOM IT MAY CONCERN:

I, GLEN ELMO WHITE, of the City of Richmond in the Province of British Columbia, hereby certify:

1. That I am a Geophysicist and reside at 117 - 641 Gilbert Road, Richmond, B.C.
2. That I studied Geophysics and Geology and graduated from the University of British Columbia with the degree of Bachelor of Science.
3. That I have been engaged in Mining Exploration for eight years.
4. That I do not have, nor do I expect to receive, either directly or indirectly, any interest in the property, or in the securities of Delbrook Mines Ltd.
5. That this report is based on information derived from a geochemical soil sampling program and a ground magnetometer survey carried out by Tri-Con Exploration Surveys Ltd. during the 1970 exploration season.

Dated this 26th Day of January 1971.



G.E. White, B.Sc.

Chief Geophysicist

A P P E N D I X

Instrument Specification

MAGNETOMETER

A Instrument

- (a) Type - Fluxgate
- (b) Make - Sharpe MF-1

B Specifications

- (a) Measurement - Vertical Magnetic Field
- (b) Range - ± 100 K gammas in 5 ranges
- (c) Sensitivity - Maximum 20 gammas per scale division
- (d) Accuracy - ± 10 gammas

C Survey Procedures

- (a) Method - one and one half hour loops
- (b) Corrections - (i) Base
(ii) Diurnal
- (c) Station relationship - each station read for intensity of vertical magnetic field.

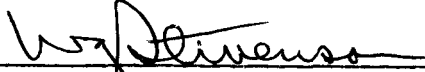
CERTIFICATE

I William G. Stevenson, DO HEREBY CERTIFY:

- That I am a Consulting Geological Engineer with offices at Suite 209 Stock Exchange Building, 475 Howe Street, Vancouver 1, B.C.
- That I am a graduate of the University of Utah, 1946, with a B.Sc. Degree.
- That I am a registered Professional Engineer in the Association in British Columbia.
- That I have practised my profession for 22 years.
- That I have no direct, indirect or contingent interest in the Dev Mineral Claims or in the securities of Delbrook Mines Ltd., nor do I intend to receive any such interest.
- That I have reviewed a report dated January 26, 1971, based on work conducted by Tri-Con Exploration Surveys Ltd. under the supervision of G. L. Anselmo, President; and Glen E. White, Chief Geophysicist.

DATED at Vancouver, British Columbia, this 31st day of January, 1971.

W. G. STEVENSON & ASSOCIATES LIMITED
Consulting Geologists



W. G. Stevenson, P. Eng.

DOMINION OF CANADA:
 PROVINCE OF BRITISH COLUMBIA:
 To Wit:

In the Matter of

GEOCHEMICAL AND GEOPHYSICAL SURVEYS

I, Garry L. Anselmo, president of Tri-Con Exploration Surveys Ltd.

of #200-1405 Hunter Street, North Vancouver

in the Province of British Columbia, do solemnly declare that the following is a true statement of cost of combined surveys for report enclosed:

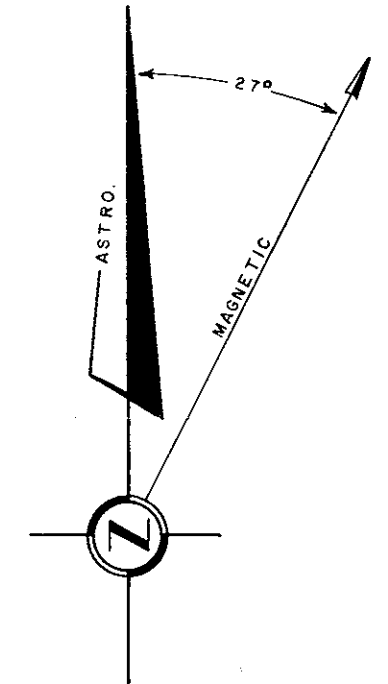
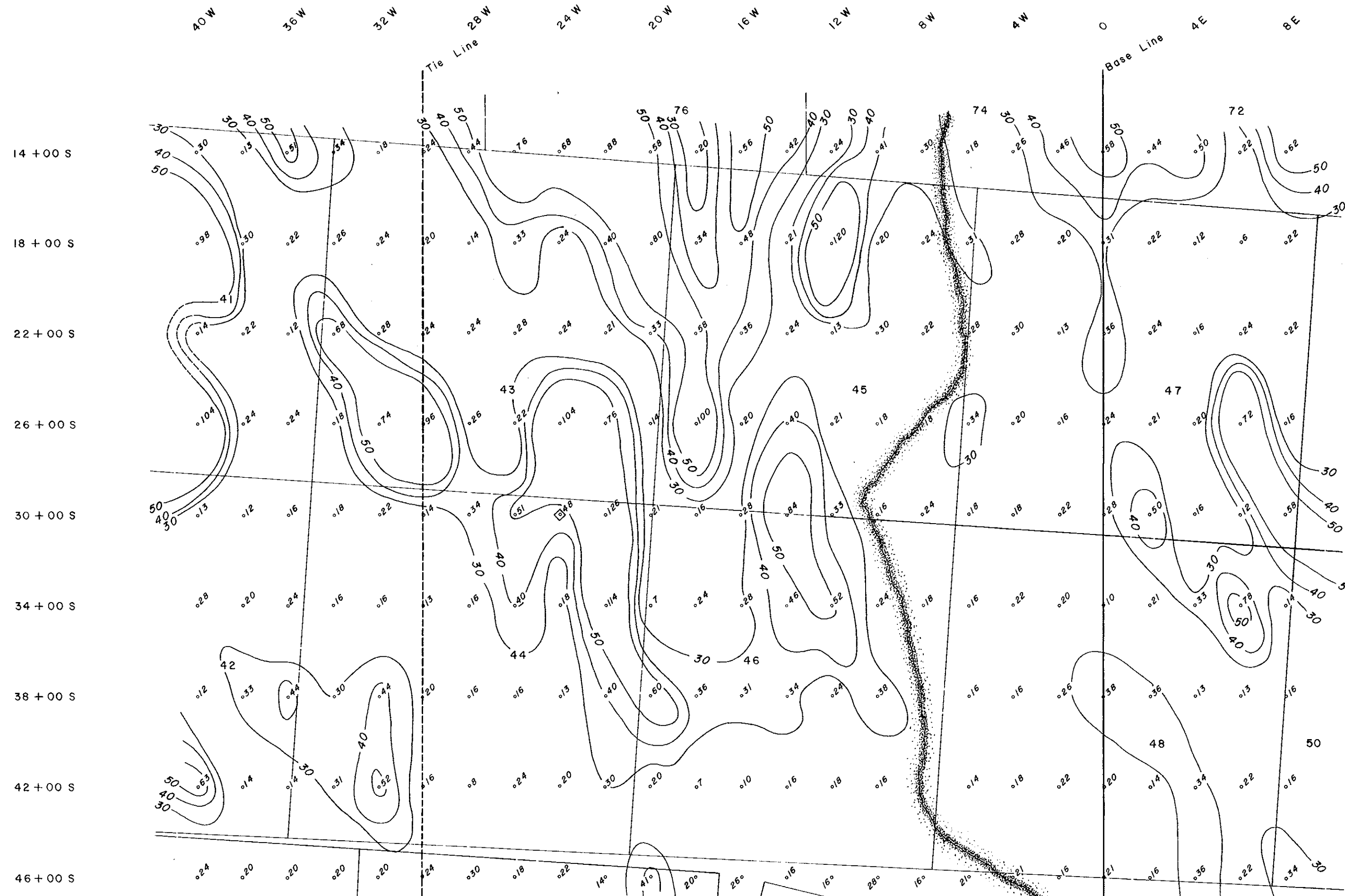
<u>PERSONNEL</u>	<u>PERIOD</u>	<u>MAN DAYS</u>	<u>WAGES/DAY</u>	<u>TOTAL</u>
L. Vaness	Sept. 3-10, 1970	8	\$75	\$ 600.00
J. Sheppe	" " "	8	\$65	\$ 520.00
S. York	" " "	8	\$60	\$ 480.00
T. Swann	" " "	8	\$60	\$ 480.00
N. Bonner	" " "	8	\$60	\$ 480.00
J. Bolechowsky	" " "	8	\$40	\$ 320.00
G. McArthur	" " "	8	\$40	\$ 320.00
G. Gray	" " "	8	\$40	\$ 320.00
W. Morris	" " "	8	\$40	\$ 320.00
E. Longland	" " "	8	\$40	\$ 320.00
C. Lahmer	" " "	8	\$40	\$ 320.00
Food & Materials				\$ 700.00
Camp Equipment @\$5/day/man				\$ 400.00
Magnetometer Rental \$25/day x 2 magnetometers				\$ 400.00
Sample Analysis				\$ 350.00
Helicopter Access				\$ 675.00
Maps & Reports				\$1200.00
Secretarial				\$ 120.00
			TOTAL	\$8645.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."



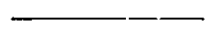


Declared before me at the City
 of Vancouver, in the
 Province of British Columbia, this 18th
 day of February 1971, A.D.

Garry L. Anselmo

[Signature]
 A Commissioner for taking Affidavits within British Columbia or
 A Notary Public in and for the Province of British Columbia.

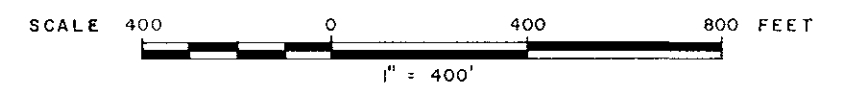
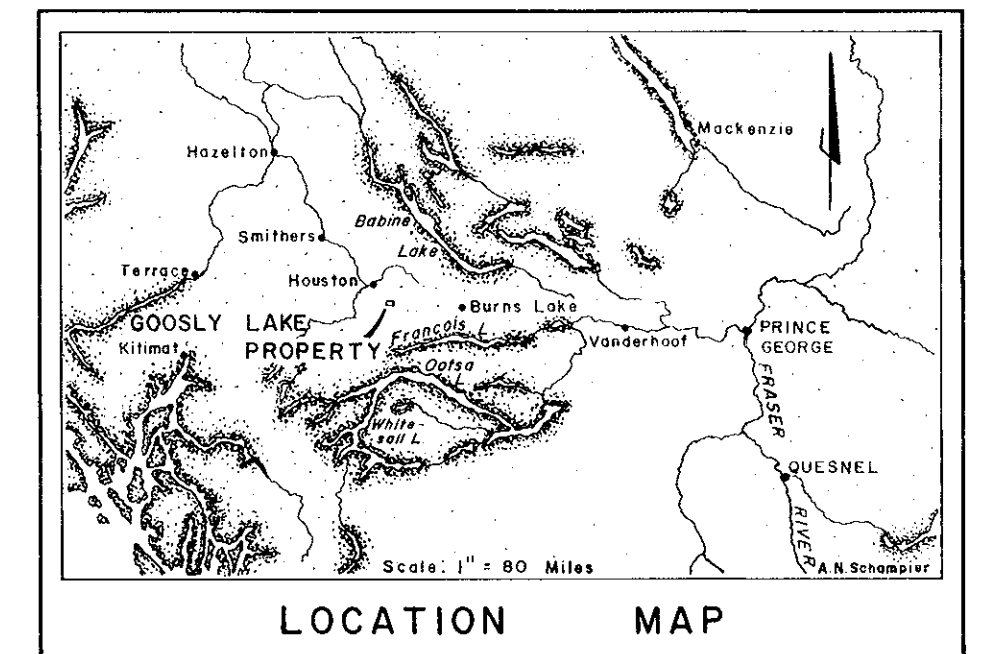
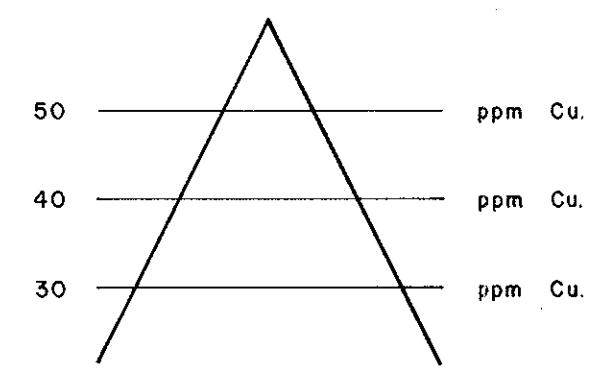


L E G E N D

-  Contour Line, Contour Interval 10 ppm
-  Stations Surveyed & Values
-  Outline of DEV CLAIMS
-  Stream, Showing Direction of Flow
-  Soil Profile

NOTE:
All Claims Herein Designated Are From The DEV CLAIMS.

GEOCHEMICAL KEY




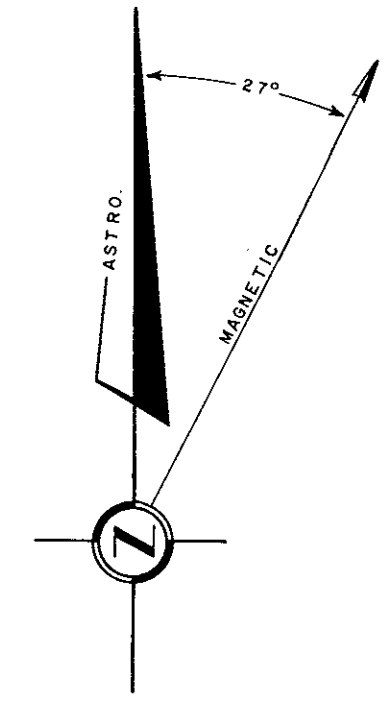
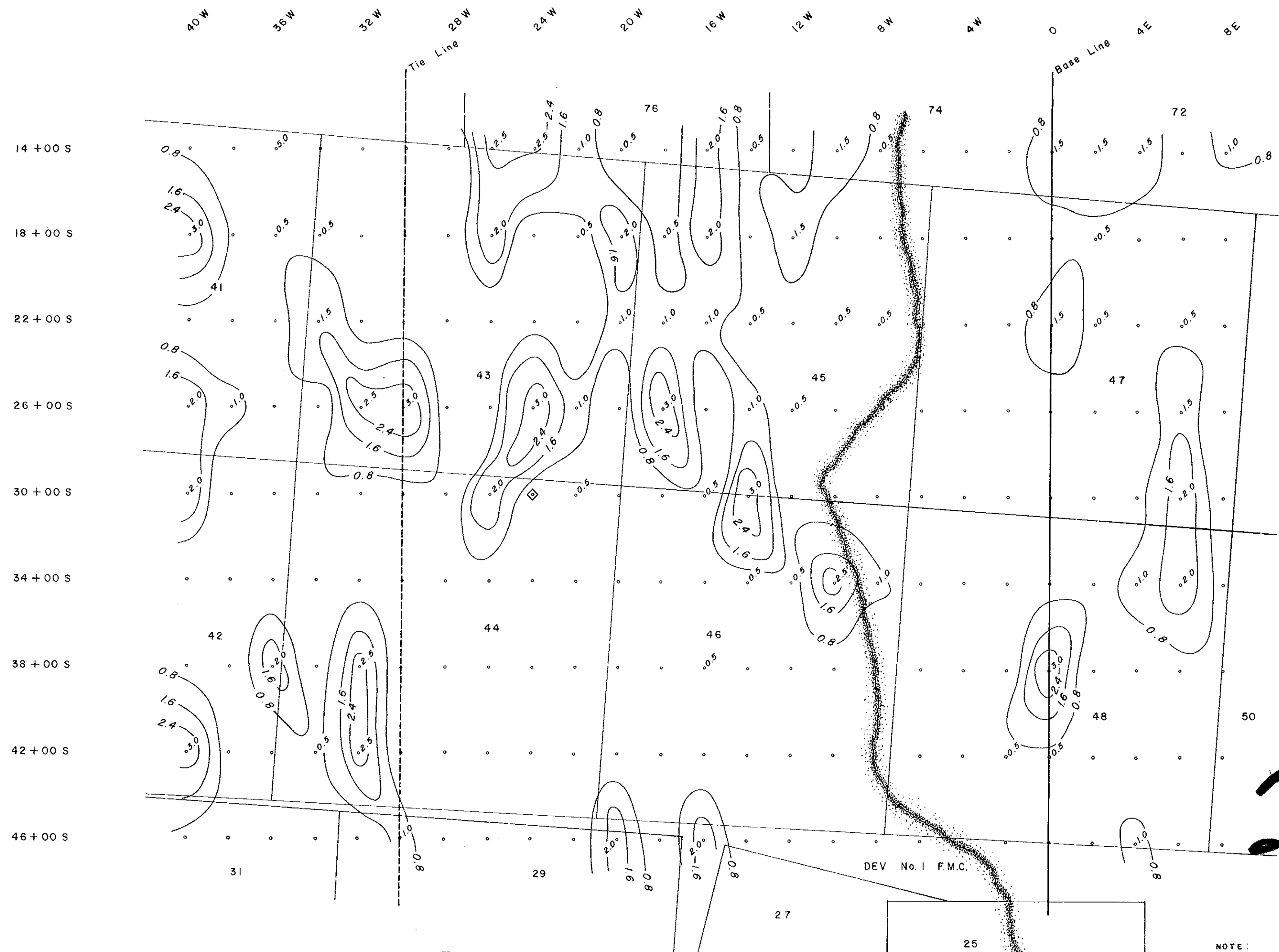
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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2906 MAP 42

M-2

NOTE:
To Accompany Geophysical and Geochemical Report
Dated January 26, 1970 on DEV CLAIMS,
Omineca Mining Division - British Columbia, Canada.
By: G.L. Anselmo - President.
G.E. White - Chief Geophysicist.

DELBROOK MINES LIMITED			
GOOSLY LAKE PROPERTY DEV CLAIMS			
OMINECA MINING DIVISION - BRITISH COLUMBIA, CANADA			
GEOCHEMICAL MAP			
COPPER			
 EXPLORATION SURVEYS LTD.		INTERPRETED by: G.L. Anselmo	
		DRAFTED by: A.N. Schampier	
		Fig. 2	
Dec. 1970	REVISED	PROJECT No. 120	FILE B18

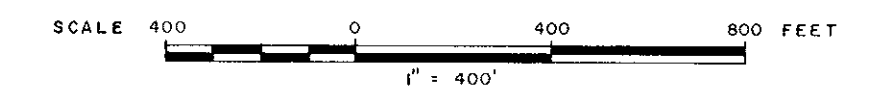
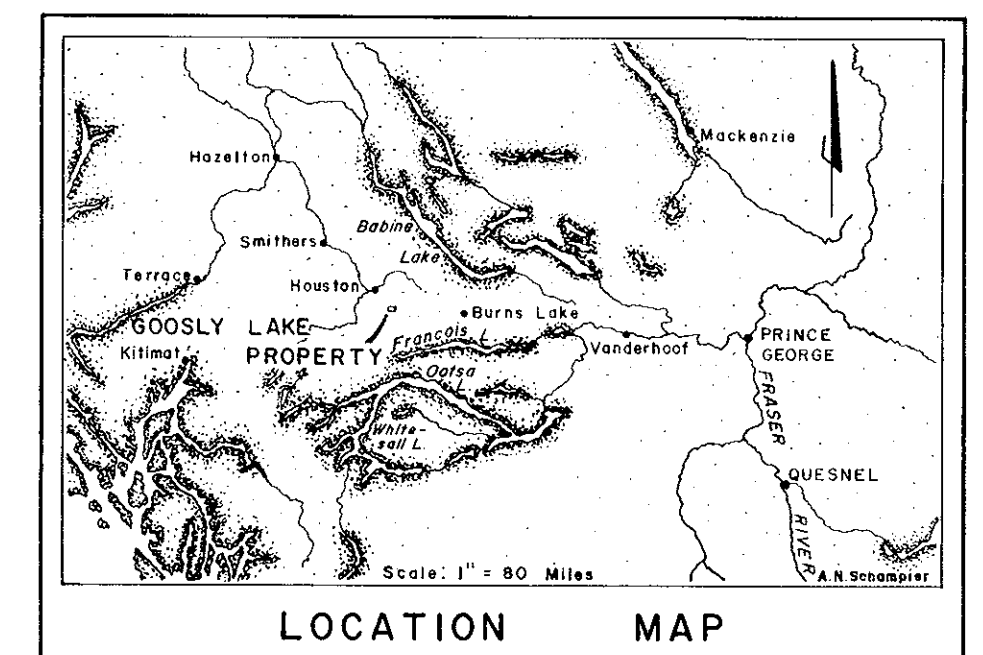
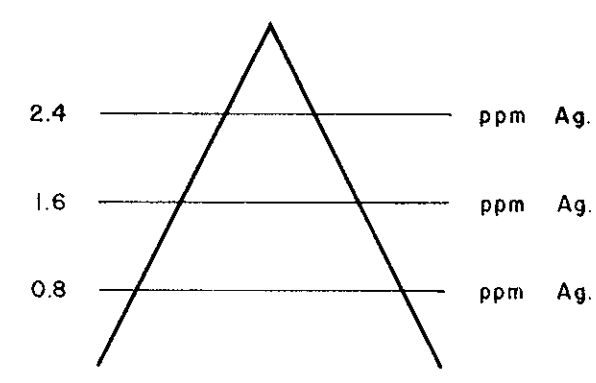


L E G E N D

- Contour Line, Contour Interval 0.8 ppm
- Stations Surveyed & Values
- Outline of DEV CLAIMS
- Stream, Showing Direction of Flow
- Soil Profile

NOTE:
All Claims Herein Designated Are From The DEV CLAIMS.

GEOCHEMICAL KEY



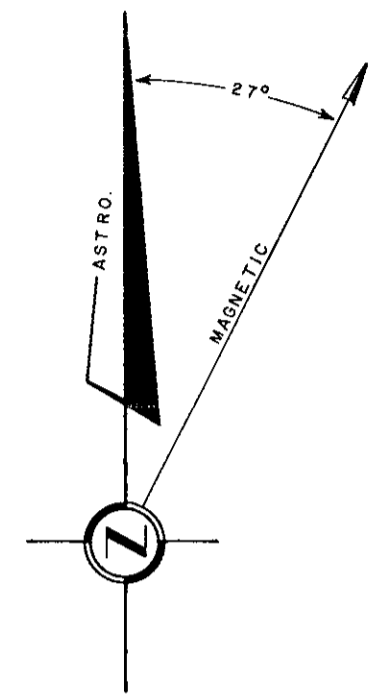
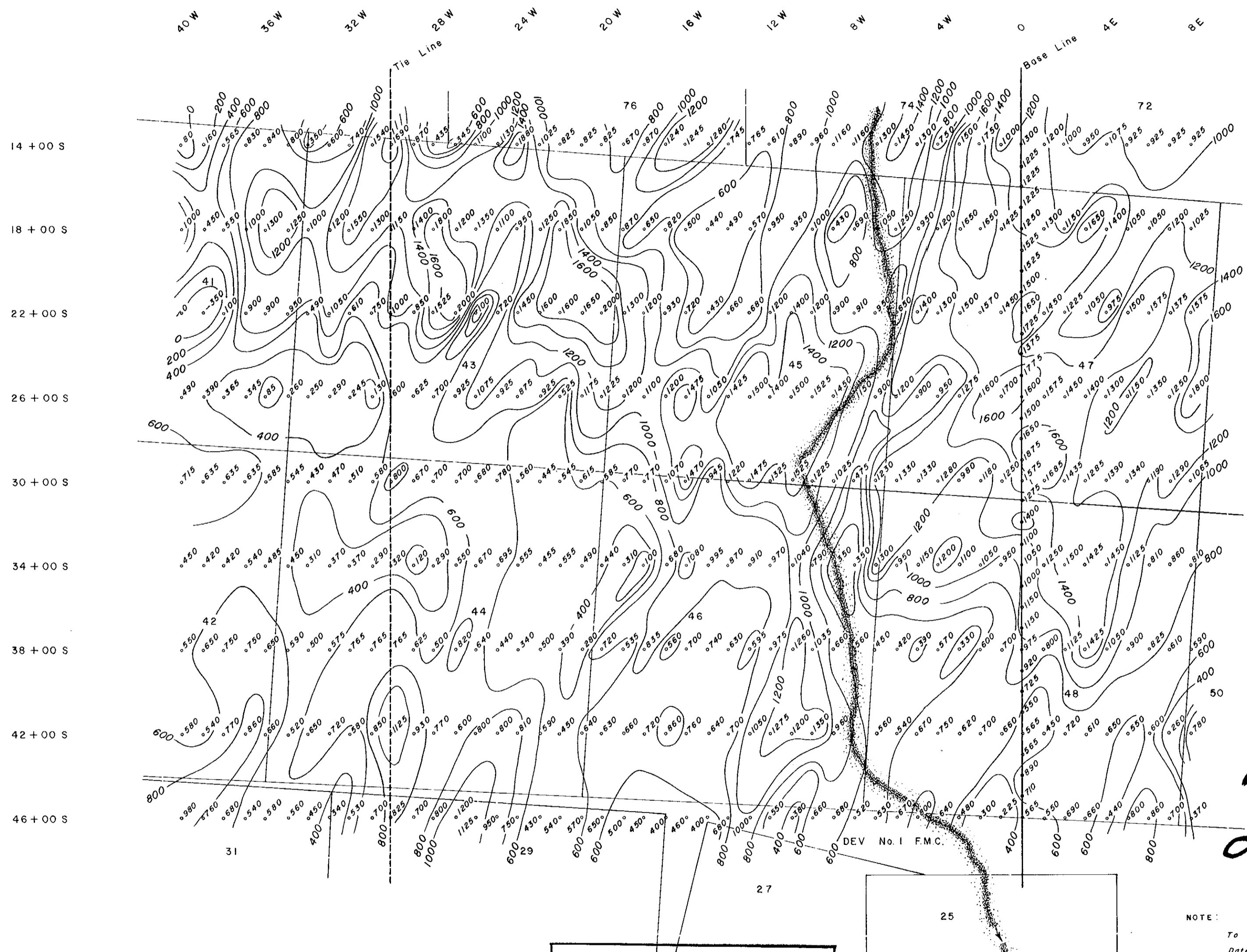
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2906 MAP #3

M-3

NOTE:
To Accompany Geophysical and Geochemical Report
Dated February 26, 1971 on DEV CLAIMS,
Omineca Mining Division - British Columbia, Canada.
By: G.L. Anselmo - President.
G.E. White - Chief Geophysicist.

G.E. White

DELBROOK MINES LIMITED			
GOOSLY LAKE PROPERTY DEV CLAIMS			
OMINECA MINING DIVISION - BRITISH COLUMBIA, CANADA			
GEOCHEMICAL MAP			
SILVER			
TRI-CON EXPLORATION SURVEYS LTD.		INTERPRETED by: G.L. Anselmo	
		DRAFTED by: A.N. Schampier	Fig. 3
Dec. 1970	REVISED	PROJECT No. 120	FILE B18



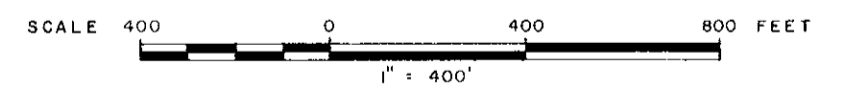
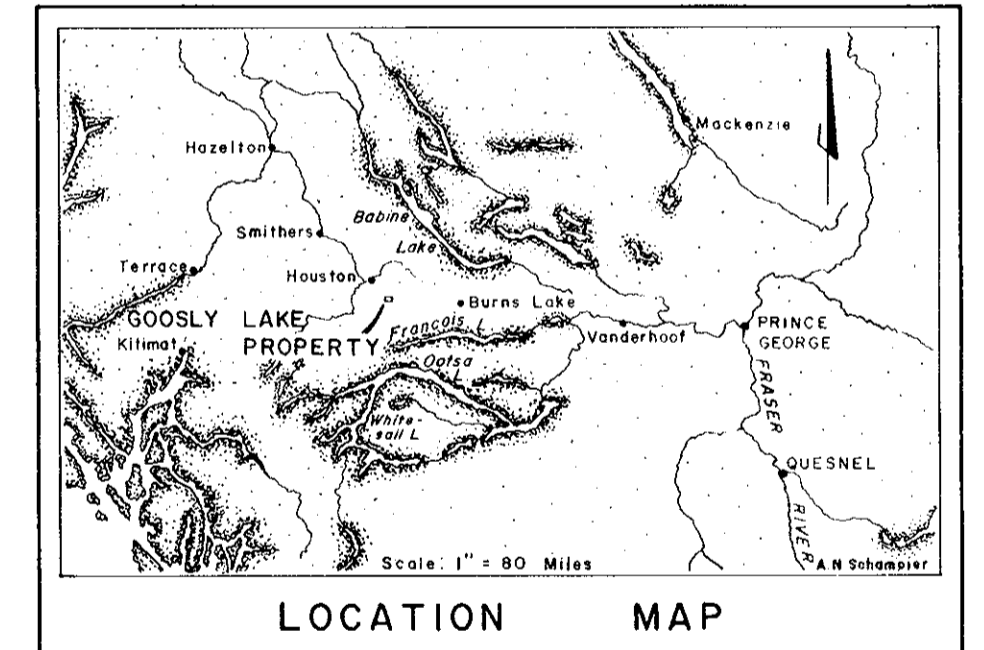
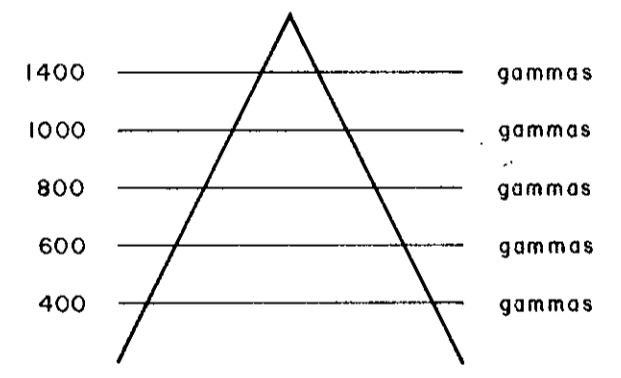
L E G E N D

- Contour Line, Contoured at 200 gamma intervals to the 1600 gamma level
- Stations Surveyed & Values
- Outline of DEV CLAIMS
- Stream, Showing Direction of Flow

INSTRUMENT SHARPE MF-1 (Fluxgate)

NOTE:
All Claims Herein Designated Are From The DEV CLAIMS.

MAGNETIC INTENSITY KEY



2906

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2906 MAP #4

M-4

NOTE:
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Dated January 26, 1971 on DEV CLAIMS,
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G.E. White - Chief Geophysicist.

DELBROOK MINES LIMITED		
GOOSLY LAKE PROPERTY DEV CLAIMS		
OMINECA MINING DIVISION - BRITISH COLUMBIA, CANADA		
GEOPHYSICAL MAP		
VERTICAL MAGNETIC INTENSITY (gammas)		
EXPLORATION SURVEYS LTD.	INTERPRETED by: G.E. White	
	DRAFTED by: A.N. Schampier	Fig. 4
Dec. 1970	REVISED	PROJECT No. 120 FILE B18