

92H/8E

GEOCHEMICAL, GEOPHYSICAL REPORT
AUSTRO-CAN EXPLORATIONS LTD. (N.P.L.)

Flint claim group 3 miles SW of Hedley B.C.,
Osoyoos Mining Division
Lat. 49°19'N Long. 120°07'W N.T.S. 92H/8

AUTHOR: Glen E. White Geophysicist
P. ENG: D. Parent
DATE OF WORK: September 1 - 9, 1972
DATE OF REPORT: September 29, 1972

3904

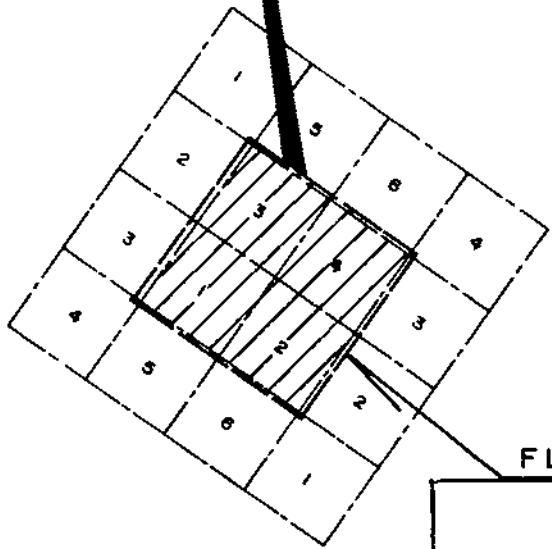
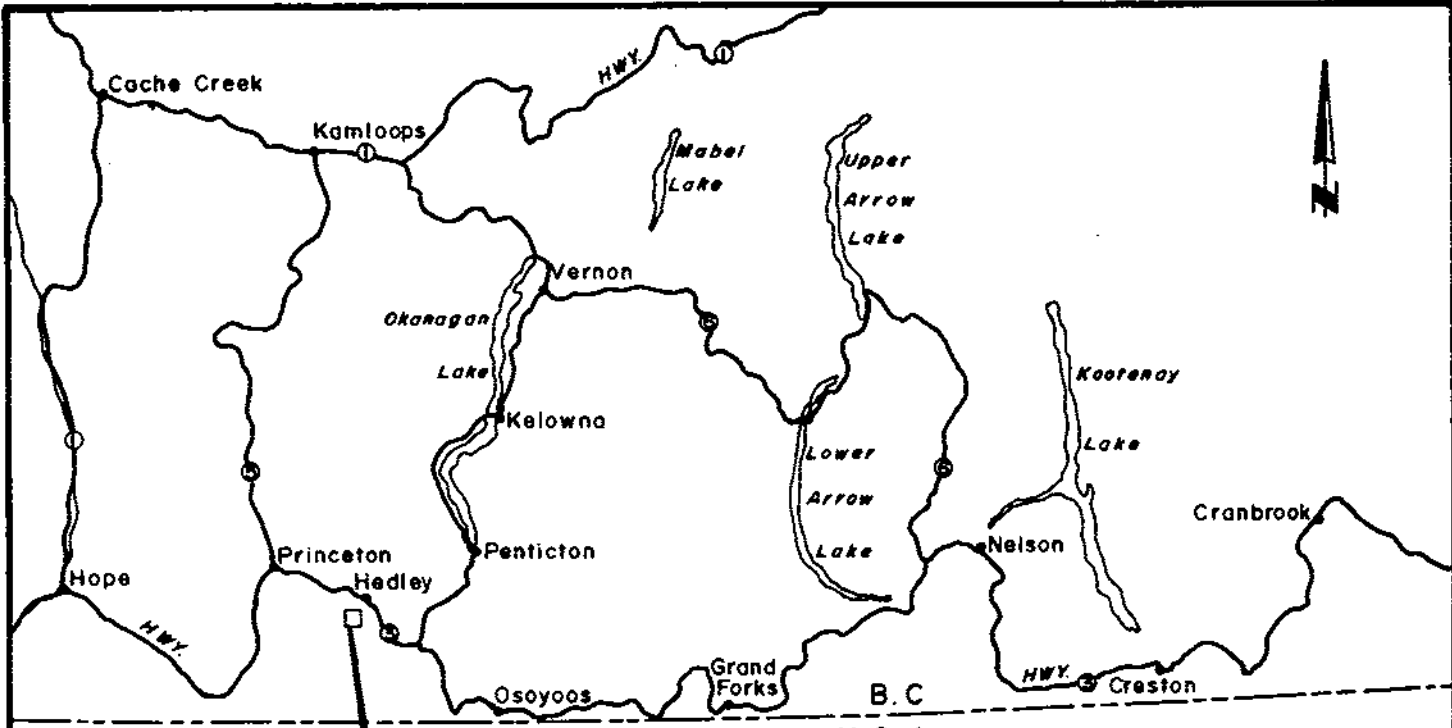
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3904 MAP

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- LEGEND**
- Outline of Claims
 - Paved Roads
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 - ▨▨▨▨ Area of Survey

FLINT CLAIMS

Department of
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AUSTRO-CAN EXPLORATIONS LTD.
FLINT CLAIMS
LOCATION AND CLAIMS MAP

SCALE : LOCATION MAP : 1" = 39 MILES APPROX.

CLAIMS MAP : 1/2" = 1500' APPROX.

Glen E. White
 geographical consulting
 services ltd.

INTRODUCTION

During the period September 1 - 9, 1972 Glen E. White Geophysical Consulting and Services Ltd. conducted a program of soil sampling and electromagnetometer surveying over the Flint mineral claims, Hedley area, on behalf of Austro-Can Explorations Ltd.

The purpose of the surveys was to try and locate any mineralized zones which might carry silver mineralization.

PROPERTY

The program discussed in this report was conducted over mineral claims Flint 1 - 4 as illustrated in Figure 1. These claims are part of the Mission claim group which consists of 28 contiguous mineral claims listed as follows:

Flint	I, II, III, IV....	9242 - 9245
Flint	5 - 6.....	10270 - 10271
Rock	1 - 4.....	10266 - 10269
Stone	1 - 6.....	10272 - 10277
Newt	1 - 5.....	21877 - 21881
Newt	6 - 8.....	21882 - 21884
Hank	1 - 4.....	17797 - 17800

LOCATION AND ACCESS

The Mission claim group is located some 3 miles southwest of Hedley on the south side of the Similkameen River. Latitude 49°19'N Longitude 120°07'W N.T.S. 92H/8.

Access to the property is by motor vehicle along a major logging road which leads south on the south side of the Similkameen River just before the large bridge which spans the Similkameen River some 6 miles west of Hedley, B.C.

GENERAL GEOLOGY

The property is situated around some 4300 feet A.S.L. on the west side of Jameson Creek. The showings lie in and around a westerly projecting tongue of medium grained brownish-grey biotite granodiorite which has intruded a series of predominately argillaceous sedimentary rocks. Mineralization has been found mostly in the granodiorite along shear zones. The principal mineralized shear zone trends NNE - SSW and is intersected by weaker NE - SW trending shear zones. The granodiorite along these zones has been altered to a whitish granular material containing in places bands and masses of mineralization, a little mica, chlorite, epidote and calcite.

SURVEY SPECIFICATIONS

Survey Grid

The survey grid consisted of east-west traverse lines turned off at right angles every 200 feet from a N22°E baseline directed along magnetic north-south. The lines were chained and flagged at 100 foot intervals. In between lines were surveyed in the center of the grid area to establish a 1000 foot detail grid over a zone of known mineralization. Some 7 miles of survey grid were cut and surveyed.

The Geochemical Survey

Geochemical soil samples of the B horizon were obtained with a mattock at 100 and 200 foot intervals along the traverse lines and placed in soil envelopes provided by Chemex Labs. Ltd. of North Vancouver. The soil samples were then delivered to Chemex Labs Ltd. where -50 mesh sieving, digestion by perchloric acid and analysis by atomic absorption was carried out under the supervision of professional geochemists.

Some 238 samples were obtained and analysed for arsenic and silver.

The Electromagnetometer Survey

This survey was conducted using a Ronka EM - 16 V.L.F. electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields

generated by VLF marine communication stations. These stations operate at a frequency between 15 - 25 KHZ, and have a vertical antenna-current resulting in a horizontal primary field. Thus, this V.L.F. - E.M. measures the dip-angle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction as the geological strike should be selected, since the direction of the horizontal electromagnetic field is perpendicular to the direction of the transmitting station.

Readings were taken at 50 foot intervals and the data filtered in the field by the operator as described by D. C. Fraser, Geophysics Vol. 34, No. 6 (December 1969). The advantage of this method is that it removes the D.C. and attenuates long spactical wave lengths to increase resolution of local anomalies, and phase shifts the dip-angle data by 90 degrees so that crossovers and inflections will be transformed into peaks to yield contourable quantities.

DATA PRESENTATION

The survey data accompanying this report as contour maps is at a scale of 1" = 200' as follows:

- Figure 2 - Electromagnetometer Filtered Dip-Angle contoured in units of 10^0 .
- Figure 3 - Geochemical Map - Silver contoured at 0.4, 4.0 and 8.0 p.p.m. levels.
- Figure 4 - Geochemical Map - Arsenic contoured at 20, 40 and 80 p.p.m. levels.

DISCUSSION OF RESULTS

The electromagnetometer data, Figure 2, shows a pronounced north-northeast - south-southwest trend crossing the survey area. This feature may possibly relate to the NNE - SSW shearing which is reported to be associated with interesting zones of mineralization. This zone divides into two weaker conductors in the southwestern section of the survey area. A well defined conductor which trends SW into the area of trenching was located around 4E on Lines 9N and 11K. A small conductor in the area of Lines 2S to 4S around 1E is directly associated with high geochemical values.

The arsenic geochemical data, Figure 4, shows an area of high response around the center of the survey area with several values yielding greater than 500 p.p.m. values. A similar response was obtained at 7W on line 3S. It is thought that the arsenic values reflect the amount of arsenopyrite present and since arsenic is relatively more mobile than silver it would penetrate deeper overburden. Strong silver values, one of which went greater than 100 p.p.m. silver, were located around 1E on lines 2S and 3S. A strong response was also located at 7W on line 3S. Weaker but interesting values were located on line 8S - 4E, 4S - 6E and at 0 on the baseline.

Correlation of the geophysical and geochemical data shows strong silver values associated with a good EM conductor at 7W on line 3S. Excellent geochemical values are associated with weak conductor values around 1E on lines 2 - 4S. Arsenic values are associated with the conductor at 4E on lines 9N and 11N and with the strong EM response at 2W on line 13N. In general the maximum conductive effect would appear to be coming from a conductor some 30 to 50 feet beneath the surface. Those high coincident EM and geochemical responses likely reflect overburden-covered mineralization.

CONCLUSIONS AND RECOMMENDATIONS

In the early part of September, 1972, a program of soil sampling and electromagnetometer surveying was conducted over several of the Flint mineral claims on behalf of Austro-Can Explorations Ltd.

The survey located several interesting EM conductors and silver geochemical values, one of which showed greater than 100 p.p.m. silver (over 3 oz./ton) of silver in the soil.

In conclusion, then, a limited amount of trenching, geological mapping and possibly diamond drilling would be a logical approach to testing the electromagnetic conductors and anomalous geochemical values.

Respectfully submitted,
GLEN E. WHITE GEOPHYSICAL
CONSULTING AND SERVICES LTD.

A handwritten signature in black ink, appearing to read 'Glen E. White', written in a cursive style.

Glen E. White B.Sc.
Geophysicist

STATEMENT OF QUALIFICATIONS

Name: WHITE, Glen E.

Profession: Geophysicist

Education: B.Sc. Geophysics - Geology
University of British Columbia

Professional Associations: Associate member of Society of Exploration Geophysicists.
Active member B.C. Society of Mining Geophysicists.

Experience: Pre-Graduate experience in Geology - Geochemistry - Geophysics with Anaconda American Brass.

Two years Mining Geophysicist with Sulmac Explorations Ltd. and Airborne Geophysics with Spartan Air Services Ltd.

One year Mining Geophysicist and Technical Sales Manager in the Pacific northwest for W. P. McGill and Associates.

Two years Mining Geophysicist and Supervisor Airborne and Ground Geophysical Divisions, with Geo-X Surveys Ltd.

Two years Chief Geophysicist Tri-Con Exploration Surveys Ltd.

One year Consulting Geophysicist.

Active experience in all Geologic provinces of Canada.

A P P E N D I X

Instrument Specifications

ELECTROMAGNETOMETER

A. Instrument

- (a) Type - Geonics VLF - EM
- (b) Make - Ronka EM 16

B. Specifications

- Measurement
- (i) Utilizes primary fields generated by VLF marine communication stations, measures the vertical field components in terms of horizontal field present.
 - (ii) Frequency range 15 - 25 KHZ
 - (iii) Range of measurement - in phase $\bar{=}$ 90° or $\bar{=}$ 150°
quadrature = 40%
 - (iv) Method of reading - null detection by earphone, real and quadrature from mechanical dials.
 - (v) Accuracy - $\bar{=}$ 1% resolution

C. Survey Procedures

- Method
- (a) Select closest VLF station perpendicular to traverse lines.
 - (b) In-phase dial measures degree of tilt from vertical position.
 - (c) Quadrature dial calibrated in percent - null.
 - (d) Station plot - plot values read at station surveyed
 - (e) Manually filter dip - angle data.

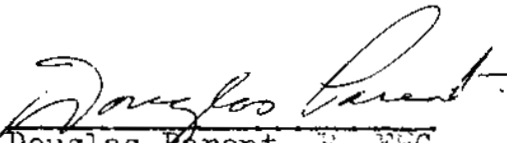
C E R T I F I C A T E

I, Douglas Parent, DO HEREBY CERTIFY AS FOLLOWS:

- (1) That I am a Consulting Mining Engineer with a business office at 4495 Wallace St., Vancouver 8, B.C.
- (2) That I am a Graduate of New Mexico Institute of Mining and Technology having received the degree of B.Sc. in Mining Engineering in 1934.
- (3) That I am a registered P. ENG in the Association of Professional Engineers in the provinces of British Columbia and Quebec.
- (4) That I have practised my profession as a Mining Engineer for the past 36 years.
- (5) That I have reviewed a report dated September 29, 1972 based on work conducted by Glen E. White Geophysical Consulting and Services Ltd. under the supervision of Glen E. White B.Sc. Geophysicist, and concur with the findings therein.
- (6) That this report consists of 8 typewritten pages and three maps.
- (7) That I have no interest directly or indirectly in the Flint mineral claims or the securities of Austro-Can Explorations Ltd. (N.P.L.) nor do I expect to acquire or receive any.

DATED at Vancouver, British Columbia, this 29th day of September, 1972.

DOUGLAS PARENT, P. ENG


Douglas Parent, P. ENG

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

In the Matter of Line cutting, soil
 sampling and electromagnetometer surveying
 on behalf of Austro-Can Explorations Ltd.

I, Glen E. White

of Glen E. White Geophysical Consulting and Services Ltd.

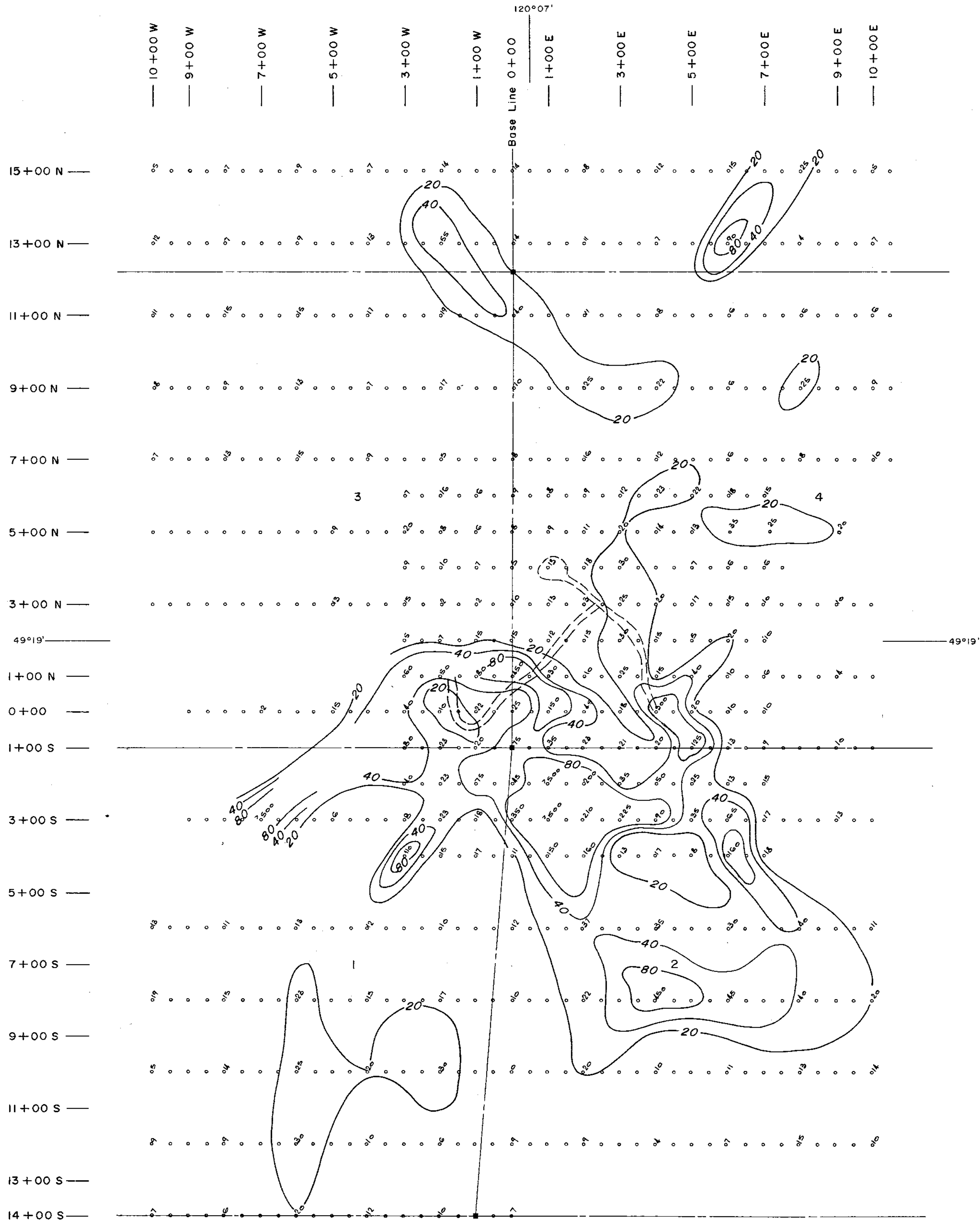
in the Province of British Columbia, do solemnly declare that the costs for the above surveys were as follows:

<u>PERSONNEL</u>	<u>PERIOD</u>	<u>WAGES</u>	<u>TOTAL</u>
T. Swann.....	September 1 - 9, 1972.....	\$65/day.....	\$585.00
T. Ashworth.....	"....."	\$40/day.....	360.00
Instrument Lease.....			135.00
Meals and Accomodations.....			360.00
Vehicle Lease and Transportation costs.....			200.00
Sample Analysis.....			525.00
Materials.....			35.00
Interpretation Maps and Reports.....			600.00
	TOTAL.....		<u>\$2800.00</u>

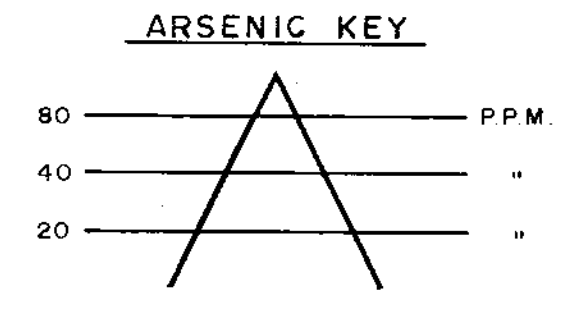
And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
 of Manusman, in the
 Province of British Columbia, this 3rd
 day of October, 1972, A.D.

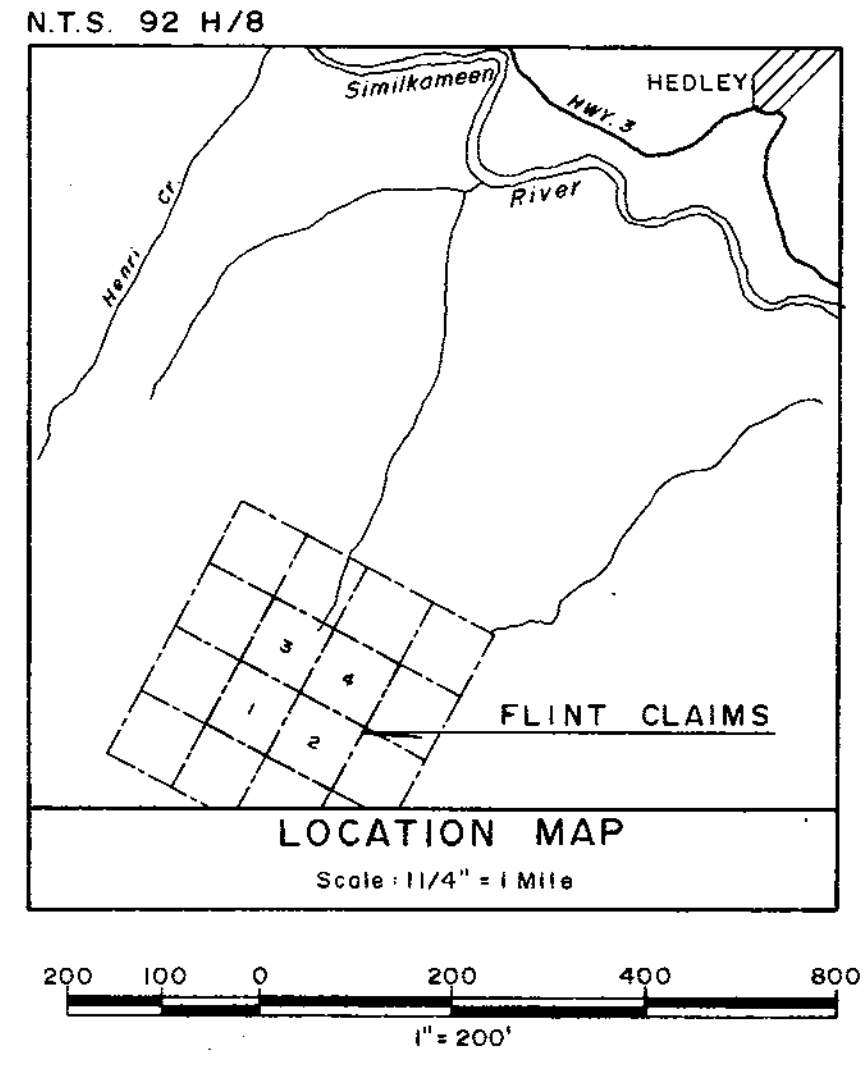
J.P. Phillips
 A Commissioner for taking Affidavits for British Columbia or
 A Notary Public in and for the Province of British Columbia.
 Sub-mitting Recorder



- LEGEND**
- Contour Line Contour interval: 20,40,80 P.P.M.
 - o Stations
 - Outline of Claims
 - Claim Posts
 - == Unpaved Roads
 - Trenching



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
No. **3904** MAP #4

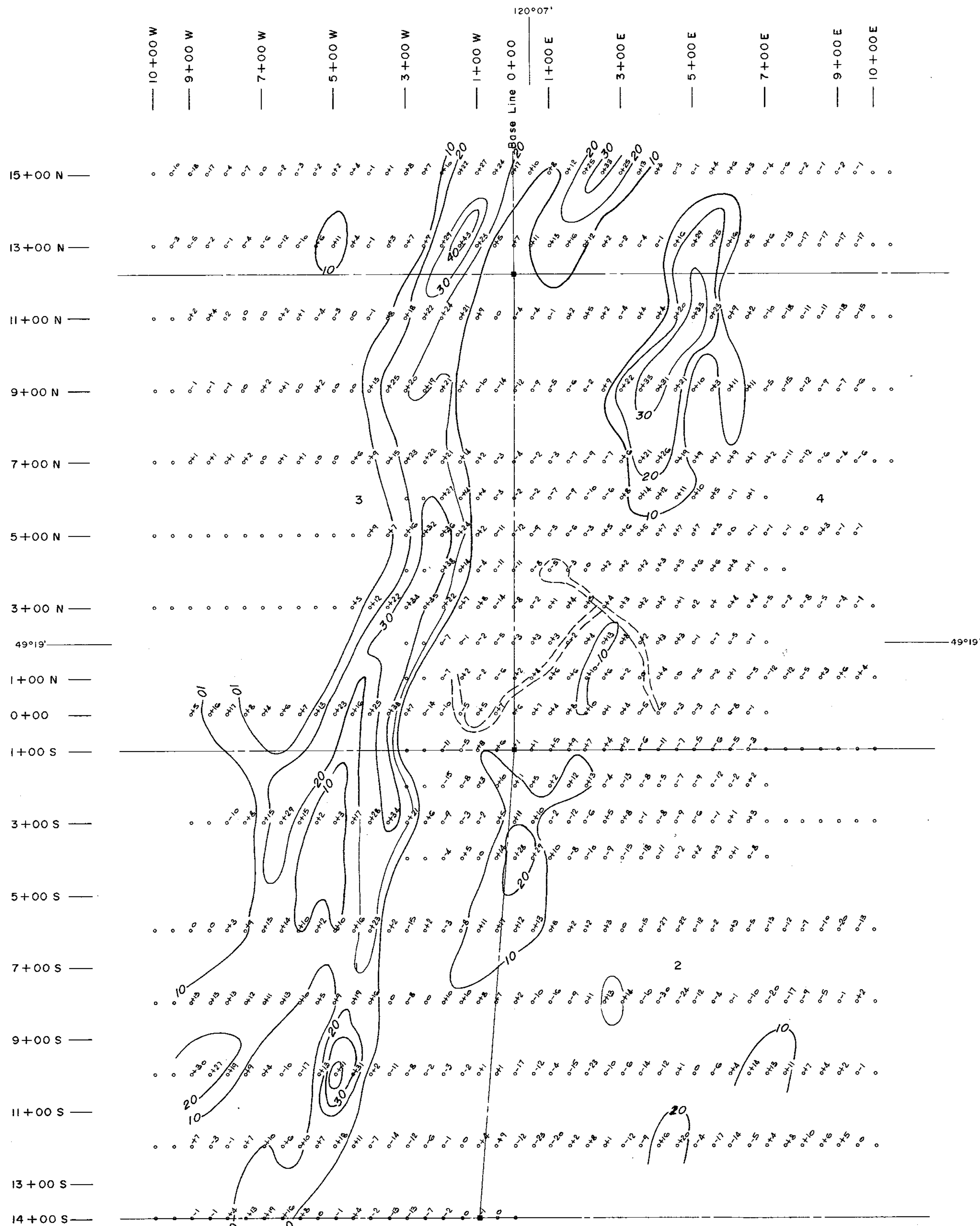


AUSTRO-CAN EXPLORATIONS LTD.
FLINT CLAIMS
OSOYOOS MINING DIVISION - BRITISH COLUMBIA

GEOCHEMICAL MAP
ARSENIC P.P.M.

Glen C. White geophysical consulting services Ltd.	INTERPRETED BY: G.E.W.
	DRAWN BY:
	CHECKED BY:
	DATE: SEPT. 27, 1972
FIG. No.: 4	

To Accompany Geophysical Geochemical Report on
THE FLINT CLAIMS
Date: *Sept. 27, 1972*
By GLEN E. WHITE - B.S. *Glen E. White* GEOPHYSICIST

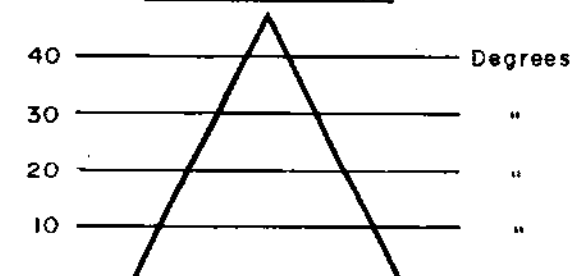


LEGEND

- Contour Line Contour Interval: 10, 20, 30, 40 Degrees
- Stations
- Outline of Claims
- Claim Posts
- Unpaved Roads
- Trenching

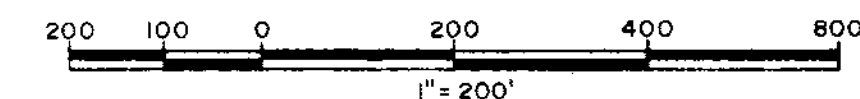
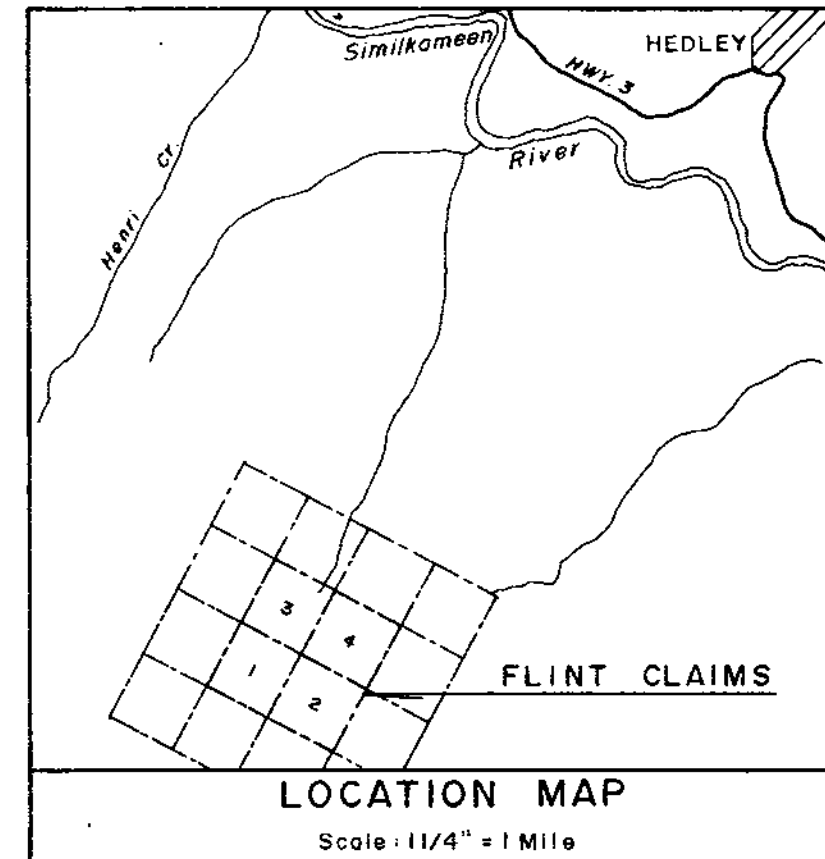
INSTRUMENT - RONK EM-16

**FILTERED
DIP ANGLE**



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **3904** MAP #2

N.T.S. 92 H/8



3904 M-2

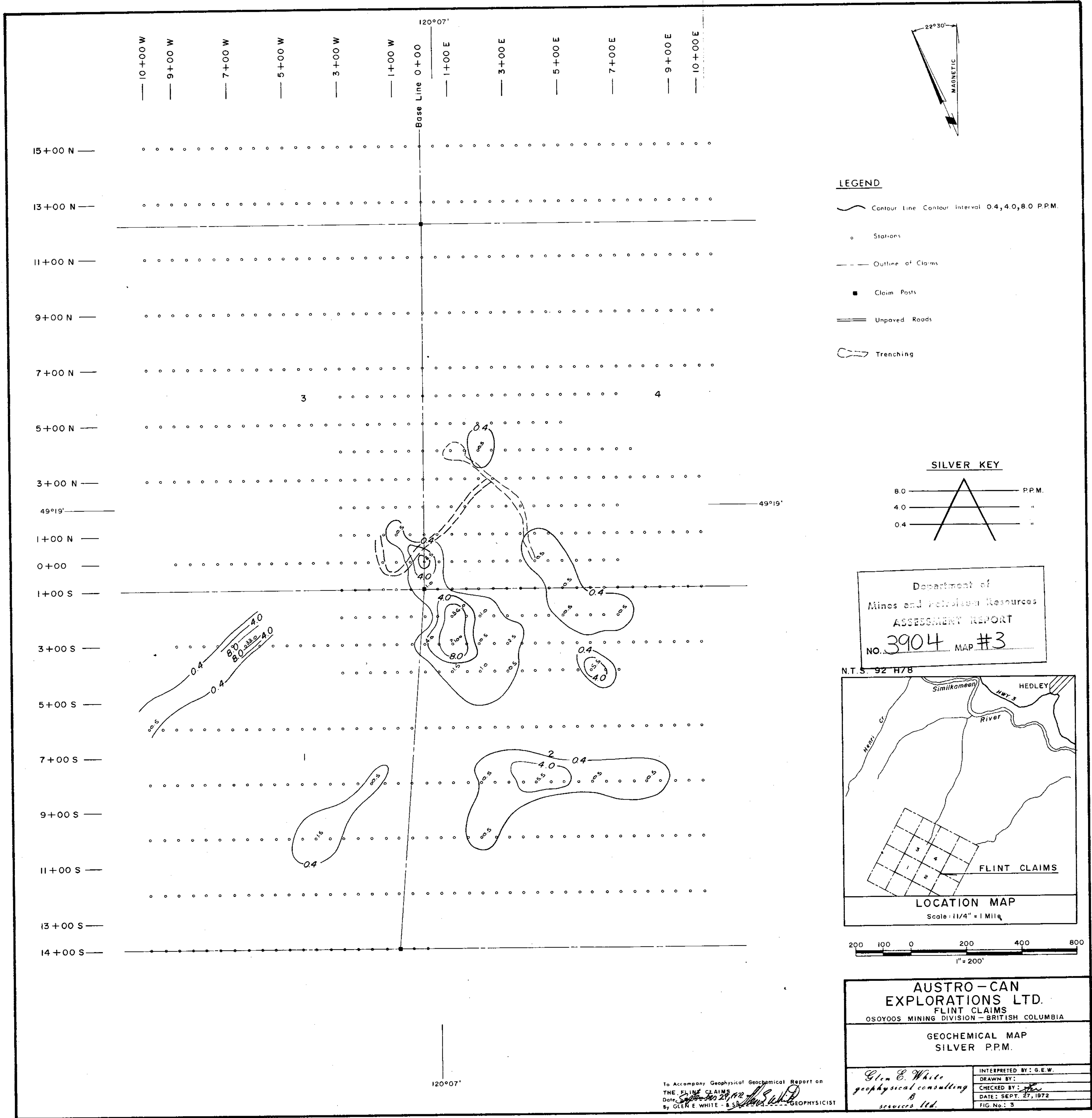
**AUSTRO-CAN
EXPLORATIONS LTD.**
FLINT CLAIMS
OSOYOOS MINING DIVISION - BRITISH COLUMBIA

**GEOPHYSICAL MAP
ELECTROMAGNETOMETER
FILTERED DIP ANGLE**

Glen C. White geophysical consulting services Ltd.	INTERPRETED BY: G.E.W.
	DRAWN BY:
	CHECKED BY: <i>[Signature]</i>
	DATE: SEPT. 27, 1972
FIG. No.: 2	

To Accompany Geophysical Geochemical Report on
THE FLINT CLAIMS
Date: *September 27, 1972*
by GLEN E. WHITE - G.E.W. - GEOPHYSICIST

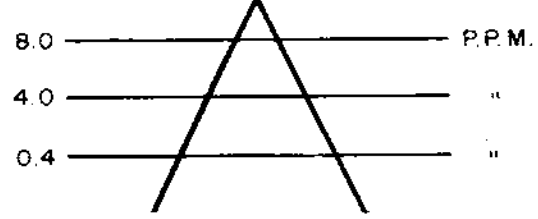
120°07'



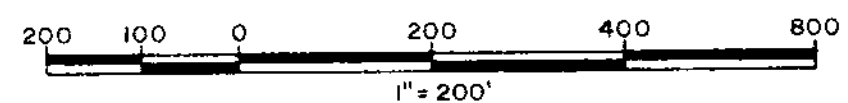
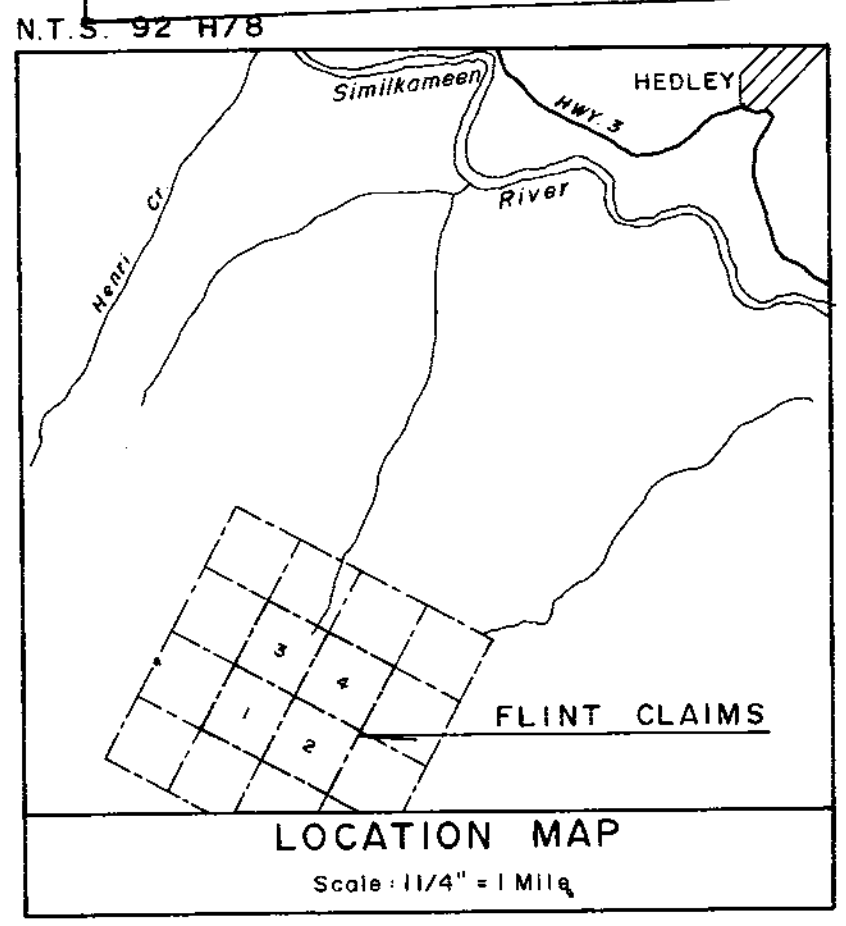
LEGEND

- Contour Line Contour Interval 0.4, 4.0, 8.0 P.P.M.
- Stations
- Outline of Claims
- Claim Posts
- Unpaved Roads
- Trenching

SILVER KEY



Department of
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AUSTRO-CAN EXPLORATIONS LTD.
FLINT CLAIMS
OSOYOOS MINING DIVISION - BRITISH COLUMBIA

GEOCHEMICAL MAP
SILVER P.P.M.

Glen E. White
geophysical consulting
B
services ltd.

INTERPRETED BY: G.E.W.
DRAWN BY:
CHECKED BY: <i>[Signature]</i>
DATE: SEPT. 27, 1972
FIG. No.: 3

To Accompany Geophysical Geochemical Report on
THE FLINT CLAIMS
Date: *Sept 27, 1972*
By GLEN E. WHITE - B.Sc. *[Signature]* GEOPHYSICIST

120°07'

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.

To Wit:

In the Matter of Line cutting, soil sampling and electromagnetometer surveying on behalf of Austro-Can Explorations Ltd.

I, Glen E. White

of Glen E. White Geophysical Consulting and Services Ltd.

in the Province of British Columbia, do solemnly declare that the costs for the above surveys were as follows:

<u>PERSONNEL</u>	<u>PERIOD</u>	<u>WAGES</u>	<u>TOTAL</u>
T. Swann.....	September 1 - 9, 1972.....	\$65/day.....	\$585.00
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Vehicle Lease and Transportation costs.....			200.00
Sample Analysis.....			525.00
Materials.....			35.00
Interpretation Maps and Reports.....			600.00
	TOTAL.....		<u>\$2800.00</u>

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 3rd day of October, 1972, A.D.

[Handwritten Signature]

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

Sub-mining Recorder

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3904 MAP