

86-715-15311

Reconnaissance Geological and
Geophysical Assessment Report

on the

RAWHIDE GROUP
(Rawhide 1, 2, 3, & 4)

located

FILMED

Kamloops Mining Division
Lat. $50^{\circ} 10' N$; Long. $120^{\circ} 50' W$
⁰⁹⁷ N.T.S. 92I/4W ^{49.6'}
(Southwest of Lytton)

(Field work July 1 to Aug. 26, 1986)

Report by:

Owner/Operator: Mr. D.G. Cardinal, P.Geol.
Hope, B.C.
Nov. 20, 1986.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,311

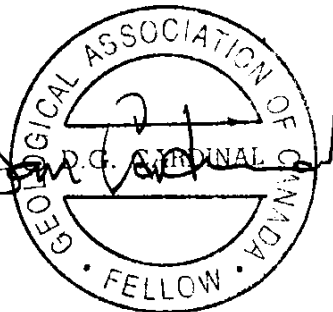


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A. INTRODUCTION

The RAWHIDE GROUP is situated in the Coastal Mountain Ranges approximately 20 air-km. southwest of Lytton, B.C. . An old horse pack trail which originally started from the mouth of Kwoiek Creek can still be observed along the alpine areas leading to the showings. The trail was established by the early gold seekers in order to explore the area. The ground came open in August, 1984 and was subsequently staked by the present owners.

The bedrock geology underlying the claims basically consists of argillites, phyllites and minor greenstone schist in contact with faulted serpentine and talc. The gold and silver mineralization is hosted in phyllites and greenstone schist associated, in part with siliceous-carbonate zones.

Geological and geophysical reconnaissance surveys were conducted over the mineralized zones to evaluate the potential for gold and silver. Gridline surveys were established for control and geology and geophysics conducted over the grid system. The work herein outlined including, field procedures, results and conclusion is submitted for assessment work credits.

B. LOCATION AND ACCESS

The Rawhide Group of mineral claims is located 20 air kilometers southwest of Lytton, British Columbia. The claims straddle a ridge between North Kwoiek Creek and Kwoiek Creek in the Coast Mountains.

The topography consists of rugged peaks and steep valleys. The tree line is approximately 2000 meters; above which, alpine meadows are found.

Access to the area is via ferry at Lytton or North Bend and then by well maintained access roads to the mouth of Kwoiek Creek. Good summer logging roads cut through the southern and northern portion of the claims.

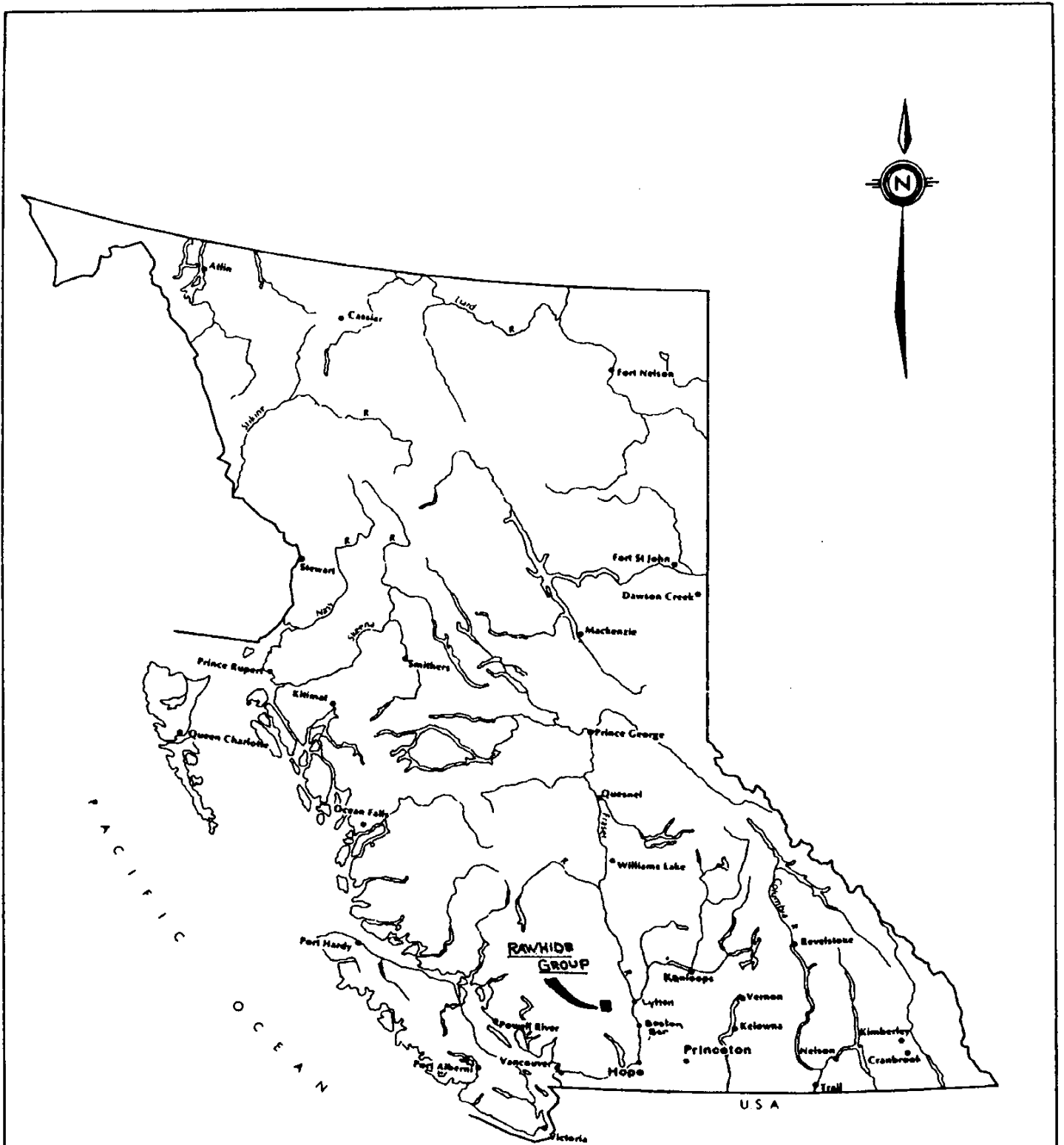
The main gold workings are situated at about 2200 meter elevation and are presently accessible only by helicopter.

C. CLAIM INFORMATION

The claims are presently held by the writer and are located in the Kamloops Mining Division and were recorded at the Vancouver Sub-Recorder's office.

Pertinent data is as follows:

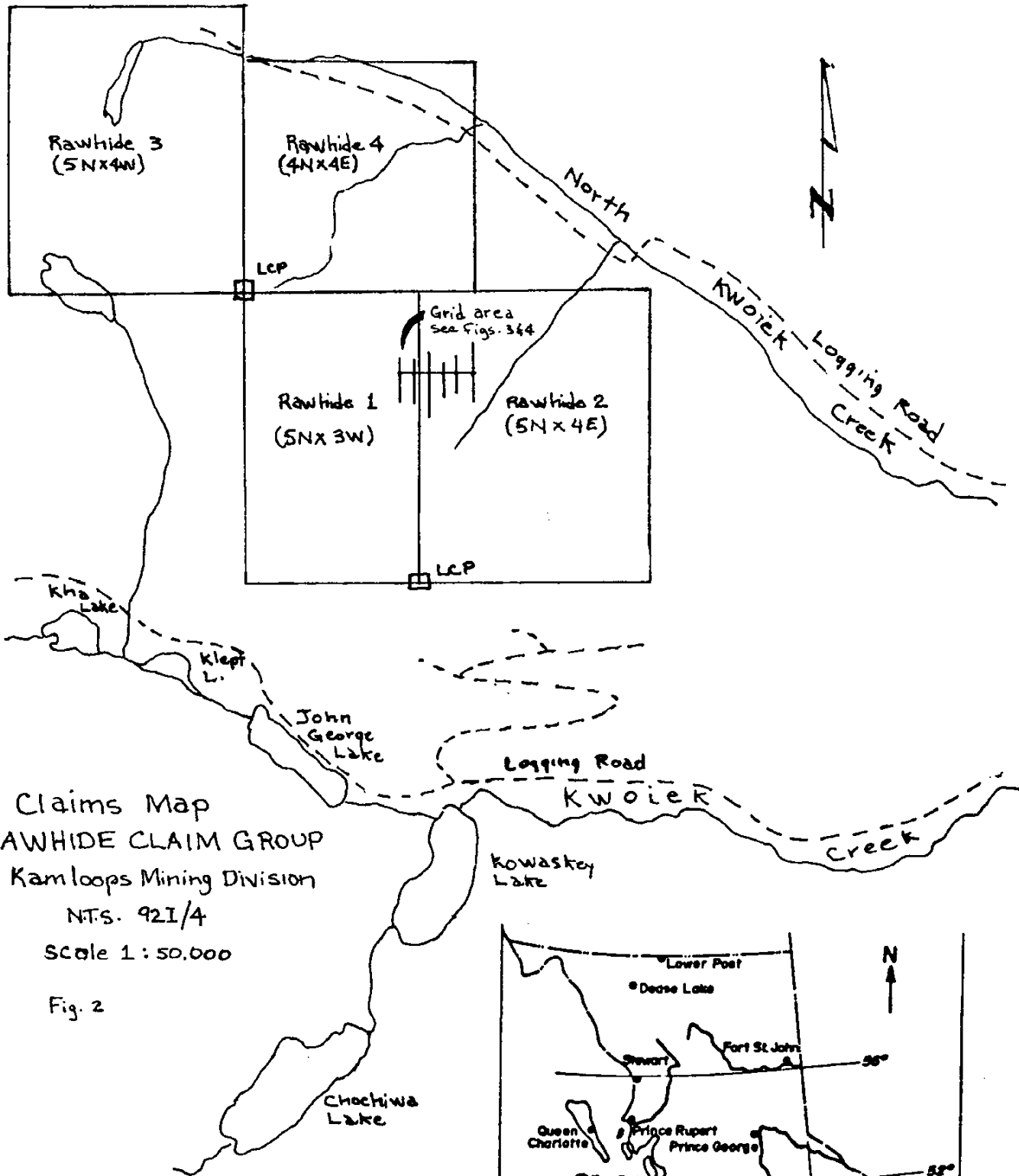
| <u>Claim Name</u> | <u>Record No.</u> | <u>No. Units</u> | <u>Expiry Date</u> |
|-------------------|-------------------|------------------|--------------------|
| Rawhide 1-4 | 5849-5852 | 71 | Aug. 28, 1987 |



RAWHIDE CLAIM GROUP

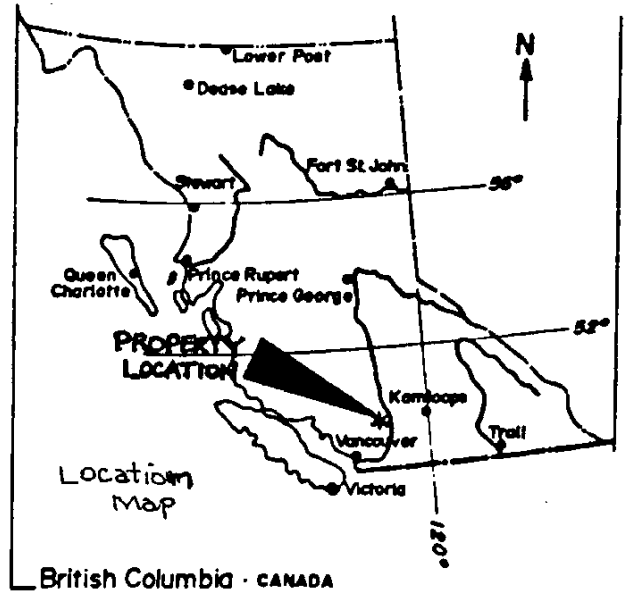
Figure 1
- Location map

Antimony
+
Mountain



Claims Map
RAWHIDE CLAIM GROUP
Kamloops Mining Division
NTS. 92I/4
Scale 1 : 50,000

Fig. 2



D. PHYSIOGRAPHY AND CLIMATE

The claims are situated in the Pacific Coast Range Mountains and cover elevations ranging between 2100m to 1500m A.S.L.. The area consists of open alpine vegetation with sparse pine and small balsam growth and resembles plateau-like environment.

Most areas of the property are normally free of snow by early June and conducive to surface exploration until early October. During mid summer, temperatures reach +25° C. and by late August a light early morning frost can be expected.

E. BRIEF HISTORY

The Rawhide Claims cover several old gold and silver workings which were first documented in 1929 by the B.C. Minister of Mines. It is reported that during this period a 40 ft. (13m) adit and numerous open-cuts had been completed. Since this time little to no physical work has been carried out. In the 1960s' an attempt was made to drill part of the mineralized zone but an unfortunate helicopter accident abruptly terminated the project.

In 1977 the ground was restaked by a prospector from Surrey, B.C., Mr. G. Beyko and subsequently transferred to Aquarius Resources Ltd. Between 1977 to 1982 Aquarius and a joint venture group from Calgary conducted extensive

BRIEF HISTORY (Cont'd.)

exploration surveys including geological and geochemical. During this period an anomalous zone was delineated and extended southwards. In 1982 the project was curtailed due to lack of funds, the claims were kept in good standing until August of 1984 at which time the claims were dropped and the ground came open to staking.

The ground was then staked in the same month (1984) by the present owners, approved by the Kamloops Gold Commissioner's office with clear title and no contraventions. Reconnaissance work has systematically been carried out as of 1985 to date by the present owners. This season (1986) reconnaissance sampling, geological and geophysical surveys have been conducted and herein outlined for assessment work credits.

F. FIELD WORK PROCEDURES AND OBJECTIVE

The objective of the reconnaissance field surveys was to try to delineate and extend an altered mineralized horizon identified at the old portal and open-cuts. The geophysical VLF-EM surveys were conducted southward from the portal over glacial moraine cover in attempt to pick up the extension of the mineralized zone. The geological surveys were carried out in order to define the rock types in the immediate vicinity of the old workings and to identify the possible cause of the mineralized zone including its' alteration, sulphide mineralization and, its' possible extension.

FIELD WORK PROCEDURES AND OBJECTIVE (Cont'd.)

A grid system was established over the zone with the baseline (B/L) 0+00 starting at the portal entrance and southward for 500m, L 5+00E. The B/L runs east-west approximately parallel to the strike of the mineralized zone and sedimentary bedding. Crosslines were run every 50m apart up to L 3+00E and then every 100m to L 5+00E (fig. 3). Stations were established every 20m intervals running east-west across the general strike of the structures.

VLF-EM readings were taken at every station and recorded, each reading included the station number, % Field Strength and, Dip Angle. The type of instrument employed was a Sabre Model 27 VLF-EM Receiver manufactured by Sabre Electronic Instruments Ltd. of Vancouver, B.C.. The transmitter station used was the Annapolis, Md. (U.S.A.) at frequency 21.4 KHz.

After all the readings were obtained from the gridlines the data was tabulated and then filtered using the Fraser Filter Method. This method allows for the data to be presented on a plan map with conductive areas defined by contours (fig. 3). The Fraser Filter Method is a mathematical derived formula used to filter out background noises caused by topography or other abnormal features taken during dip angle or null readings.

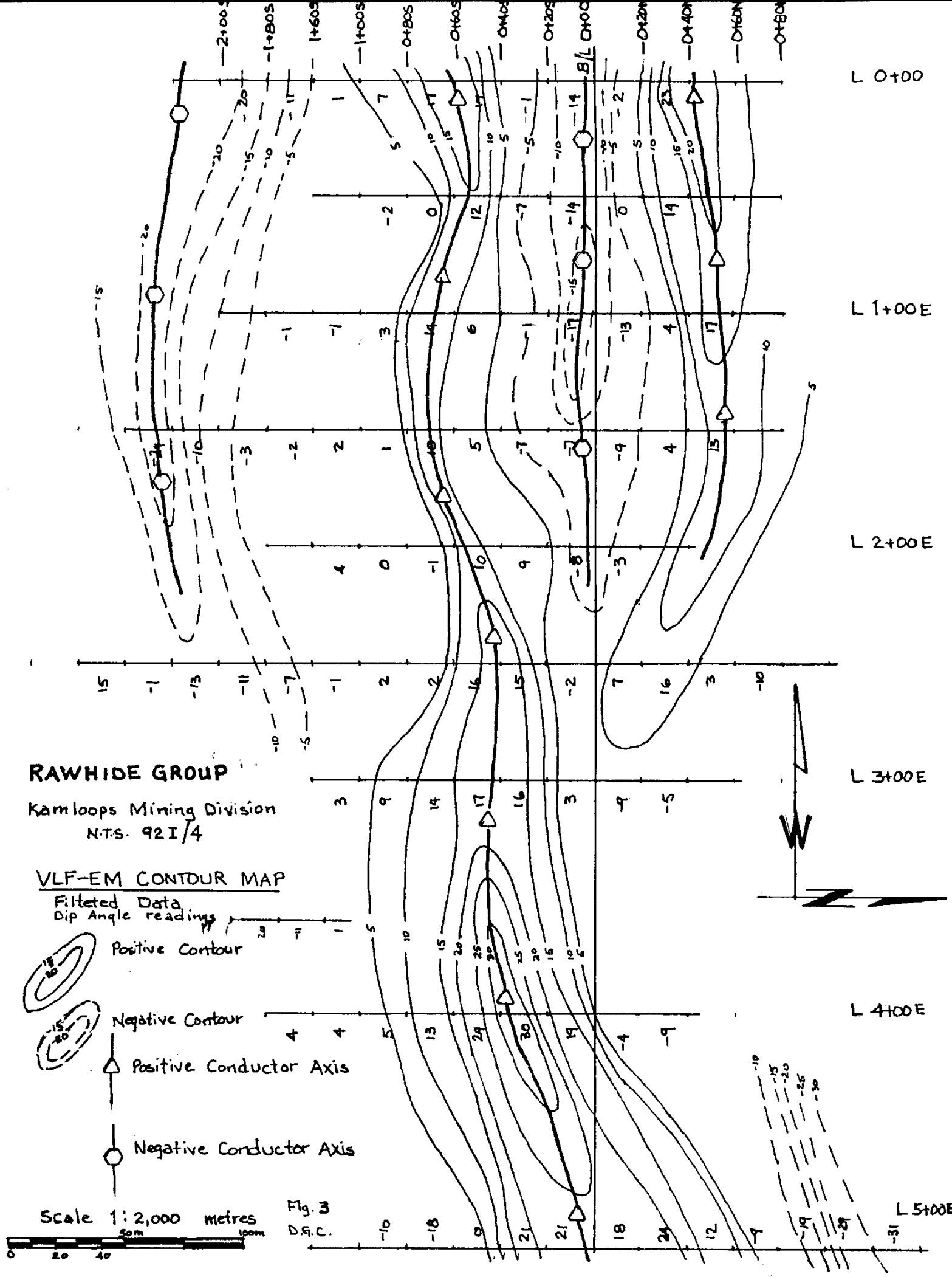
The data was then plotted on a grid map, contoured and interpreted (fig. 3). Reconnaissance surveys were conducted over the grid and rock outcrops including the mineralized zone and the old workings were tied to the grid system.

G. FIELD RESULTS

G1. Geophysics

Positive filtered data and the negative filtered data were contoured separately (fig. 3) and both show east-west parallelling anomalies. A major anomaly with an east-west conductor axis was delineated at L 0+00-0+60S which continues eastward beyond L 5+00E. Over 90% of this area is covered by a glacial moraine as a result, masking the bedrock and the cause of most of the anomalies. Another anomaly represented by a negative conductor axis and which parallels the B/L is believed to reflect the mineralized zone exposed at the portal.

Two other anomalies were also delineated, a negative conductor along the southern part of the grid and a positive conductor along the northern portion. The southern negative conductor has a much similar response to the negative B/L conductor and as result may reflect another mineralized structure. The positive anomalies are believed to represent fault-shear structures which may also host mineral bearing zones along strike.



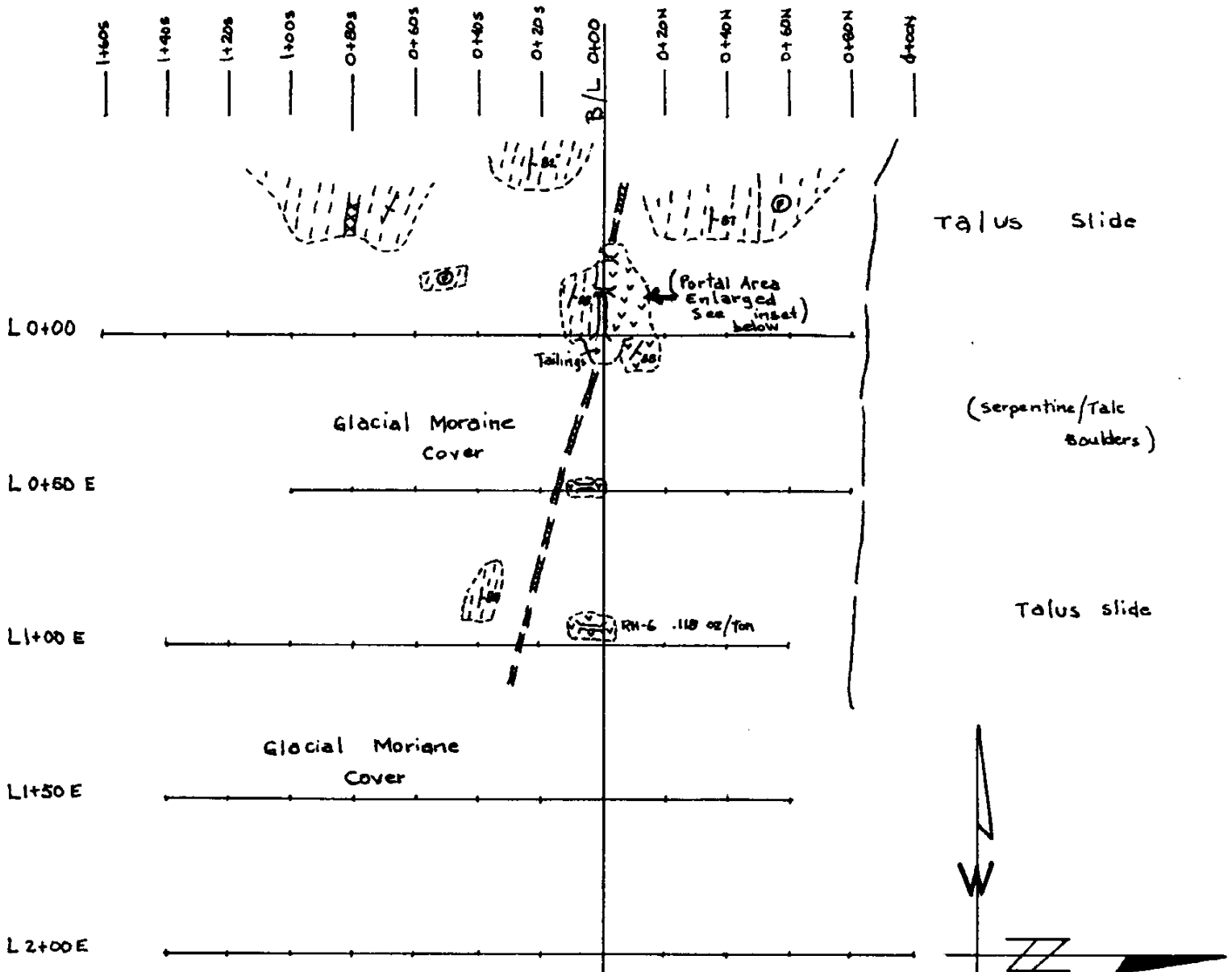
G. FIELD RESULTS (Cont'd.)

G2. Geology

Mapping traverses were conducted along the western part of the grid area mainly in the area of the old workings and the mineral zone. All rock outcrops including the workings were tied to the grid (fig. 4). The main rock type encountered was a dark grey, finely laminated phyllite-argillaceous phyllite which strikes easterly and dipping steeply to the north. Unidentified fossils were also noted occurring in the phyllites. At the portal is a contact between argillaceous phyllite and a pale greenstone unit identified as a tuffaceous-chlorite schist.

Hosted at the contact boundary is an iron-rich, siliceous, mineral zone carrying anomalous values of gold and silver, and other sulphides. The iron bearing formation is represented by a silicified, chlorite-actinolite schist hosting disseminated magnetite, garnet, pyrrhotite, pyrite and, abundant arsenopyrite with secondary quartz veinlets. The silicified zone is also associated with a granular, sugary textured quartz which, in turn hosts the chlorite and actinolite. The quartz's texture suggests a sedimentary origin, later metamorphosed to an iron-rich skarn hosting interesting values of gold and silver.

The portal was measured using a chain and compass and has a short drift with dimensions 13m by 1.5m (fig. 4, enlarged).



RAWHIDE GROUP
 Kamloops Mining Division
 N.T.S. 92 I/4

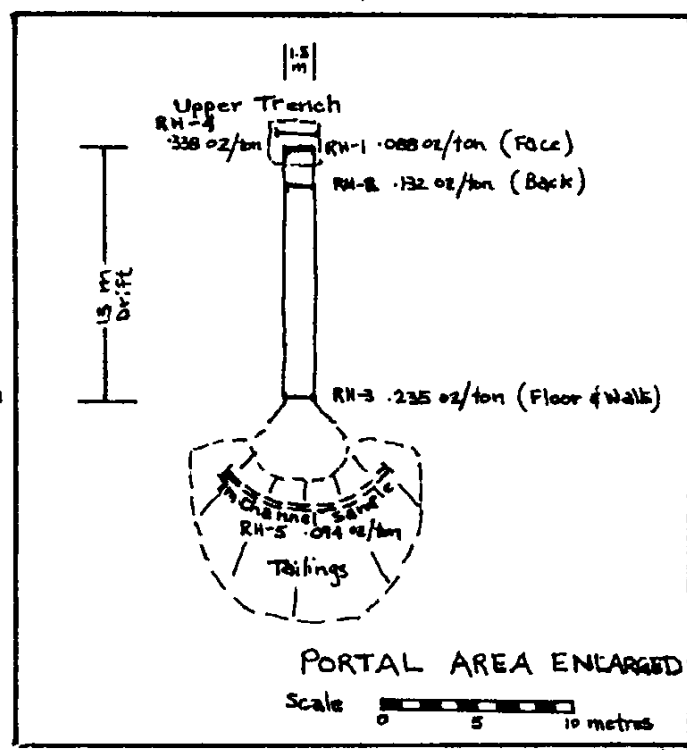
RECONNAISSANCE GEOLOGY

Legend:

- Rock outcrop
- Fissile Argillite-Phyllite finely laminated
- Greenstone, tuffaceous-chlorite schist
- Fossiliferous
- Iron formation - Contact Skarn silification, magnetite, pyrite, garnet, arsenopyrite, pyrrhotite, actinolite schist
- Inferred
- RH-4 sample station Au in oz/ton
- Portal
- open-cut
- RH-4 sample station Au in oz/ton
- Foliation
- strike & dip of bedding



D.G.C.



PORTAL AREA ENLARGED
 Scale 0 5 10 metres

G2. Geology (Cont'd.)

Four other open-cuts were also noted following the strike of the mineralized zone. The zone in the portal and open-cuts is approximately 2m wide and heavily mineralized with sulphides and, was traced for about 100m eastward before being lost in glacial cover. Three rock chip samples were collected from the underground numbered RH-1 to 3 with gold assays ranging between .088 oz/ton to .235 oz/ton. RH-4 chip sample was obtained from upper (surface) trench with assay values of .338 oz/ton gold. The chip samples represent 1.5m - 2m widths taken across the silicified, iron-rich skarn zone mentioned above. Approximately 100m east on B/L-1+00E a grab sample, RH-6 was obtained from open-cut in rusty, carbonitized, tuffaceous-chlorite schist which assayed .118 oz/ton Au.

A 7m channel sample, RH-5 was also collected from the tailings dump which assayed at .094 oz/ton. One other grab sample (RH-7) was collected approximately 500m west of B/L-0+00, not shown on the grid map. The sample was obtained from a 1m wide quartz vein hosted in granite which carried disseminated tetrahedrite and malachite staining. Geochem analysis returned 1,799 ppm Cu. 513.5 ppm Ag and, 620 ppb Au.

H. CONCLUSION

The reconnaissance surveys conducted on the Rawhide Claims met two prime objectives. Firstly, to carry out work for assessment requirements so that the ground can be kept in good standing and; secondly but more importantly, to delineate through reconnaissance geophysics and geology potential zones and to identify the controls and, sulphide mineralization found at the old workings.

The geophysical surveys outlined at least four parallel VLF-EM conductors on the surveyed grid system. The mineralized zone at the portal gives negative dip angle values and as a result, is reflected as a negative anomaly with a good conductor axis which is traceable eastward along the B/L. Three other EM conductors were outlined and may also reflect potential mineral bearing structures and will therefore require follow-up work to properly define the cause of these conductor anomalies.

Bedrock geology in the vicinity of the old workings predominantly consists of steeply dipping, east-west phyllite which, in places is fossil bearing. The auriferous mineralized zone exposed at the portal is identified as an iron-rich formation occurring at the contact between argillaceous-phyllite and tuffaceous-chlorite schist. The iron formation in part, appears to represent a skarn zone which has developed

CONCLUSION (Cont'd.)

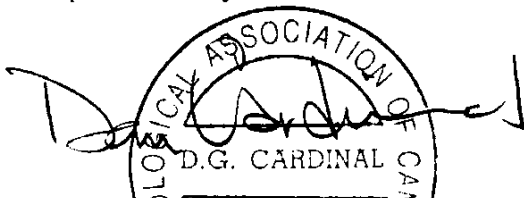
at the lithological contact between the two different rock types. Typical skarn minerals occur along the contact consisting of magnetite, garnet, pyrrhotite and, actinolite schist. Other minerals were also introduced along the contact, possibly at a later time consisting of silica, arsenopyrite, pyrite, minor chalcopyrite and anomalous amounts of gold and silver.

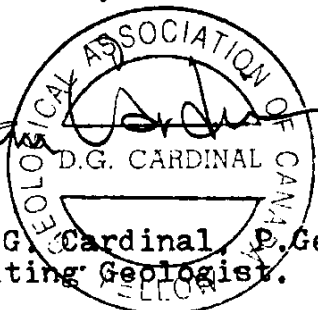
All samples (RH-1 to 6) collected around the portal were anomalous in gold ranging between .088 Oz/ton to .338 Oz/ton Au. The combined reconnaissance geophysical and geological surveys have defined a potential goldbearing horizon extending eastward and warrants follow-up surveys.

I. COST BREAKDOWN

| Field Personnel: | Cost |
|--|-------------|
| Consulting Geologist, 10 days @ \$300/day (July 1 to Aug. 26, 1986) | \$ 3,000.00 |
| Geophysical Operator, 10 days @ \$150/day (July 1 to Aug. 26, 1986) | 1,500.00 |
| Field Equipment: | |
| VLF-EM Instrument, rental 10 days @ \$25/day | 250.00 |
| Camp materials - food, fuel, power saw & gear | 650.00 |
| Transportation: | |
| Mob. & Demob. Helicopter - Jet Ranger, 3 hrs. @ \$450/hr. | 1,350.00 |
| Analyses: | |
| 5 rock geochem for Au, Ag, Cu. and 2 ICP analysis | 127.00 |
| Report: | |
| Report writing, typing, drafting & copies | 1,200.00 |
| <hr/> | |
| Total | \$ 8,077.00 |

Respectfully Submitted,


D.G. CARDINAL
Mr. D.G. Cardinal, P. Geol.
Consulting Geologist.

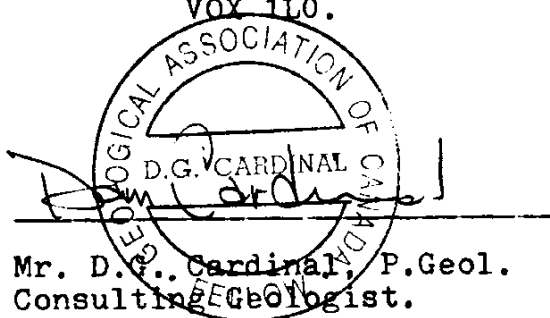


APPENDIX I

PROFESSIONAL CERTIFICATE

I, Daniel G. Cardinal of the Municipality of Hope,
British Columbia, do hereby certify that:

1. I'am a graduate of the University of Alberta (1975)
and hold a B.Sc. degree in Geology.
2. I'am registered as a Fellow of the Geological
Association of Canada, (F.G.A.C.); a member in
good standing with the Association of Professional
Engineers, Geologists and Geophysicists of Alberta,
(P.Geol.) and, a member of The Yukon Professional
Geoscientists Society.
3. I have been practising my profession for the past
eleven years.
4. The findings in this report are from a personal
property examination conducted by me on the
Rawhide Claim Group between July 1 to August 26,
1986.
5. I'am a professional geologist residing in Hope,
B.C., mailing address, P.O. Box 594, Hope, B.C.
VOX 1L0.



Mr. D.G. Cardinal, P.Geol.
Consulting Geologist.

APPENDIX II

BIBLIOGRAPHY

Report of the Minister of Mines 1929
p. C236

Duffell and McTaggart (1952), Glacier
Group (24), G.S.C. Memoir 262, Ashcroft
Map Area. p. 104.

Littlejohn, Cochrane (1978), Geological
and Geochemical Assessment Report on the
Alpine Claim (12 units)

Madeisky, Cochrane (1979), Geological
and Geochemical Work on the Alpine Glacier
Group

Sinclair, A.J. (1974). Selection of
threshold values in geochemical data
using probability graphs, J. Geochem.
Exploration 3: 129-149

APPENDIX III

ACME ANALYTICAL LABORATORIES LTD.
 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
 PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 9 1986

DATE REPORT MAILED:

Sept 17/86

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-MNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SM.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: ROCK CHIPS AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toy* DEAN TOYE. CERTIFIED B.C. ASSAYER.

CARLAC MINERALS

PROJECT-RAWHIDE FILE# 86-2557

PAGE 1

| SAMPLE# | Cu PPM | Ag PPM | Au* PPB | | | |
|------------|-----------|-----------|------------|---|------|-----------|
| RH-1 | 361 | .8 | 3100 | ≡ | .088 | oz/ton Au |
| RH-2 | 249 | 1.5 | 4490✓ | ≡ | .132 | " " |
| RH-3 | 205 | 1.6 | 8100✓ | ≡ | .235 | " " |
| RH-6 | 30 | 1.7 | 3990✓ | ≡ | .118 | " " |
| RH-7 | 1799 | 513.5✓ | 620 | | | |
| STD C/AU-R | 57 | 7.1 | 530 | | | |

✓ Assay required for correct result

APPENDIX III (Cont'd.)

CARLAC MINERALS PROJECT - RAWHIDE FILE # 86-2557

PAGE 2

| SAMPLE# | Mo | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | U | Au | Th | Sr | Cd | Sb | Bi | V | Ca | P | La | Cr | Ng | Ba | Ti | B | Al | Na | K | W | Au11 | Pt11 | Pd11 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|---|------|-----|-----|-----|-------|------|------|
| | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | % | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | % | % | PPM | PPM | % | PPM | % | % | % | % | % | PPM | PPB | PPB | PPB |
| RH-4 | 13 | 95 | 11 | 23 | 1.6 | 48 | 9 | 469 | 4.86 | 14880 | 5 | 8 | 1 | 5 | 1 | 26 | 3 | 47 | .08 | .030 | 3 | 2 | .06 | 6 | .01 | 9 | .14 | .02 | .03 | 1 | 11494 | 3 | 4 |
| RH-5 | 6 | 111 | 11 | 84 | .8 | 36 | 15 | 552 | 7.49 | 4265 | 5 | 4 | 1 | 9 | 1 | 5 | 2 | 142 | .22 | .067 | 3 | 79 | .78 | 91 | .06 | 9 | 1.49 | .05 | .25 | 1 | 3245 | 3 | 3 |