

## ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 89.04.18

ASSESSMENT REPORT 17300

MINING DIVISION: Osoyoos

PROPERTY: Bell-Juniper  
LOCATION: LAT 49 14 41 LONG 119 49 44  
UTM 11 5458293 294109  
NTS 082E04W 082E05W

CLAIM(S): Bell, Juniper, Juniper 1-3

OPERATOR(S): Lone Jack Res.

AUTHOR(S): Crooker, G.F.

REPORT YEAR: 1988, 44 Pages

## COMMODITIES

SEARCHED FOR: Copper, Gold, Silver

## GEOLOGICAL

SUMMARY: Sedimentary and volcanic rocks of the Middle to Late Triassic Apex Mountain Group have been intruded by ultramafic to alkalic rocks of the Jurassic(?) Olalla stock. Gold, silver and copper mineralization on the property is related to skarns, shears and narrow quartz veinlets.

## WORK

DONE: Geochemical, Geophysical, Physical  
LINE 16.6 km  
MAGG 16.6 km  
Map(s) - 1; Scale(s) - 1:5000  
SOIL 80 sample(s); AU  
Map(s) - 1; Scale(s) - 1:5000

## RELATED

REPORTS: 12088, 14767  
MINFILE: 082ESW170

GEOCHEMICAL AND GEOPHYSICAL REPORT

LOG NO. 0425	RD.
LOCATION:	
FILE NO.	

on the

BELL AND JUNIPER 1 TO 4 CLAIMS AND JUNIPER REV CG (LOT 1604)

Olalla Area  
Osoyoos Mining Division

82E-4W, 5W  
(49°15' N. Lat., 119°49' W. Long.)

FILMED

for

LONE JACK RESOURCES LTD.  
Box 69  
Sechelt, B.C.  
V0N 3A0  
(Operator)

GRANT F. CROOKER  
(OWNER)

by

GRANT F. CROOKER, B.Sc., F.G.A.C.  
Geologist

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,300

April, 1988

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## SUMMARY AND RECOMMENDATIONS

The Bell Property is located approximately five kilometers north of Keremeos at Olalla B.C.. Lone Jack Resources Ltd. has under option one four post claim (Bell-20 units), one reverted Crown Grant (Juniper-Lot 1604) and four two post claims (Juniper 1 to 4) totalling 25 units.

The Olalla area has been the scene of exploration for base and precious metals since the late 1890's. Approximately 20 kilometers northwest of the property at Hedley, Mascot Gold Mines Limited began production in early 1987 with ore reserves of 7,200,000 tons grading 0.15 ounces per ton gold. Mining is by open pit methods.

Previous work on the Bell Property has discovered a number of small showings with gold and copper values. Mineralization is related to skarns, shears and quartz veins. The highest assay values have been from 3 to 6 centimeter wide quartz veinlets which gave up to 0.324 oz/ton gold and 17.20 ozs/ton silver.

This program consisted of establishing a grid over part of the property and carrying out a magnetometer survey and a limited amount of soil sampling. The soil samples were analyzed for gold only. The purpose of the program was to delineate gold geochemical anomalies associated with the known showings. It was also hoped the magnetometer survey would indicate magnetic anomalies associated with skarn mineralization.

The results from the limited amount of soil sampling were quite favourable. A number of small gold geochemical anomalies were indicated occurring near old workings. Gold values ranged up to 300 ppb. The limited amount of soil sampling leaves the size of the anomalies unknown at this time.

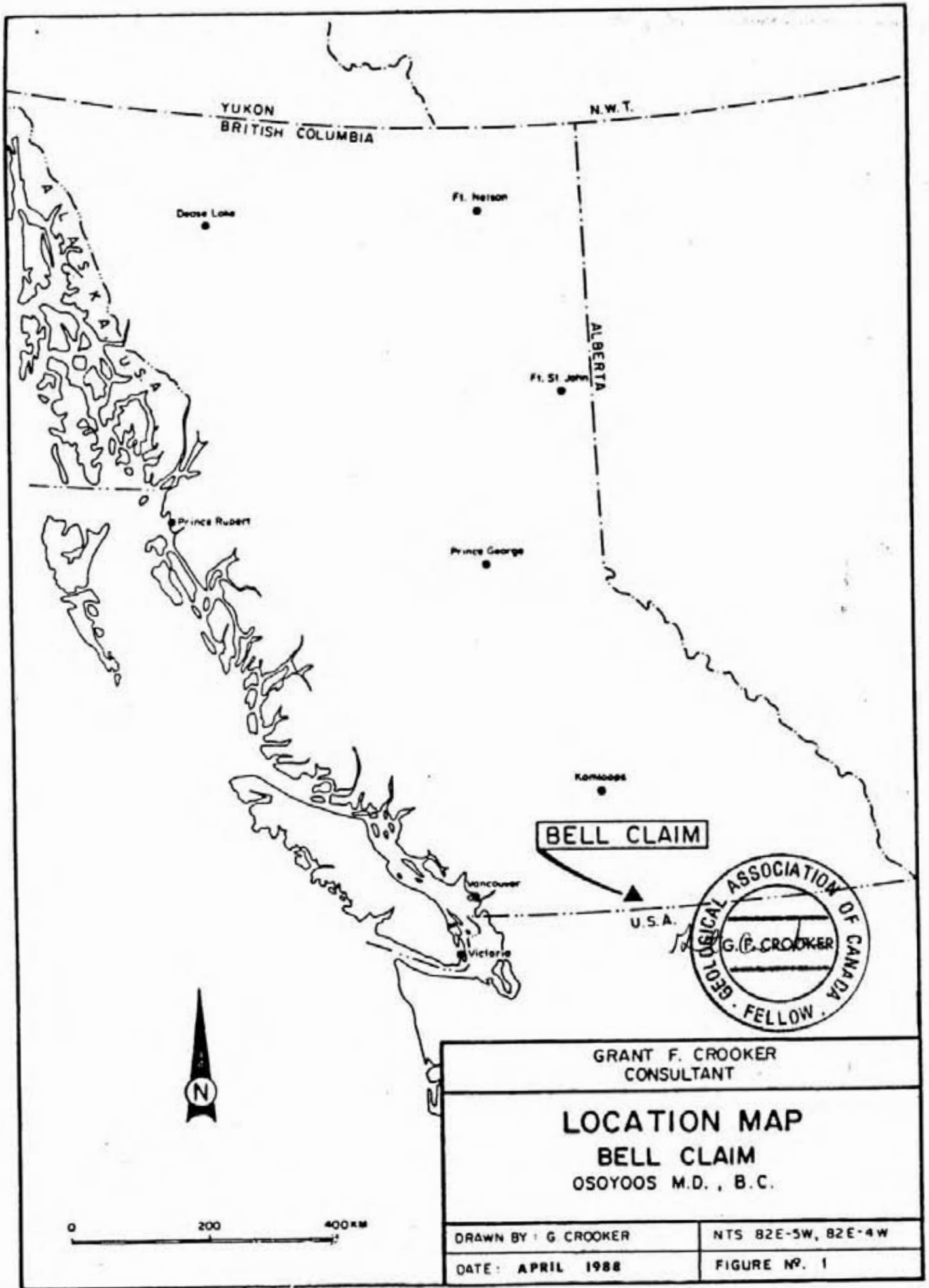
The magnetometer survey indicated several small areas within the Apex Mountain Group with slightly higher than background magnetic values. These magnetic highs may represent skarn zones.

Recommendations are to complete the work program covered by this report. This should include completing the grid, magnetometer survey and soil sampling over the property. In addition, a VLF-EM survey and detailed prospecting should be carried out.

Respectfully submitted,

G. F. CROOKER  
 Geologist, Sc., F.G.A.C.,  
 Consulting Geologist





## 1.0 INTRODUCTION

### 1.1 GENERAL

Field work was carried out on the Bell Property from March 14th to 28th 1988, by Grant Crooker Geologist, and Lee Mollison, field assistant.

A grid was established over part of the claims, and a magnetometer survey carried out over the grid. Selected lines were also soil sampled.

### 1.2 LOCATION AND ACCESS

The property (Figure 1) is located at Olalla, 5 kilometers north of Keremeos in southern British Columbia. The property lies between 49°14' and 49°16' north latitude and 119°48' and 119°50' west longitude (NTS 82E-4W, 5W).

Access to the property is via Highway 3A, which bisects the property. Several logging and mining roads give good access to various areas of the property.

### 1.3 PHYSIOGRAPHY

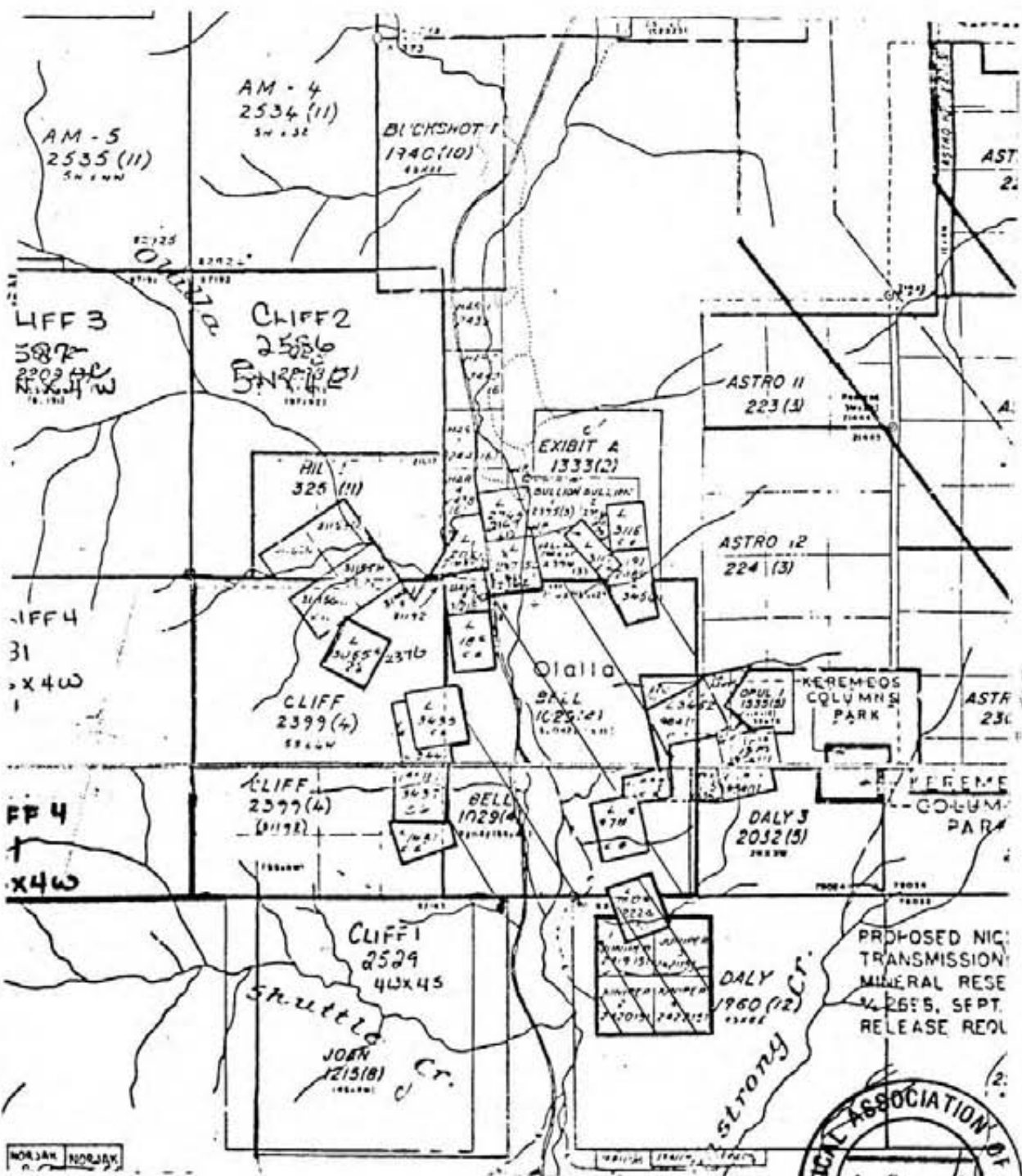
The property covers the bottom of the Keremeos Creek Valley and extends up the hillsides on the east and west sides of the valley. Elevation varies from 500 to 1000 meters above sea level and topography varies from flat in the valley bottom to steep on the valley sides. A number of areas are extremely precipitous.

Keremeos Creek flows in a southerly direction through the claims. Vegetation consists of sagebrush and bunch grass with scattered fir and pine trees.

### 1.4 PROPERTY AND CLAIM STATUS

The Bell Property (Figure 2) is owned by Grant Crooker of Keremeos, B.C., and is under option to and operated by Lone Jack Resources Ltd., P.O. Box 69, Sechelt, B.C., VON 3A0.

The property consists of one four post claim (Bell), four two post claims (Juniper 1 to 4) and one reverted Crown Grant (Juniper, Lot 1604).



GRANT F. CROOKER	
CLAIM MAP	
Lot 1604 & Bell Claim	
DRAWN BY: G. CROOKER	N.T.S. : 82 E - 4W, 3W
DATE: APRIL 1988	FIGURE NO. 2

Claim	Units	Mining Division	Record No.	Record Date
Bell	20	Osoyoos	1029(4)	April 24, 1980
Juniper	1	Osoyoos	2224(5)	May 13, 1985
Juniper 1	1	Osoyoos	2419(5)	May 12, 1986
Juniper 2	1	Osoyoos	2420(5)	May 12, 1986
Juniper 3	1	Osoyoos	2421(5)	May 12, 1986
Juniper 4	1	Osoyoos	2422(5)	May 12, 1986

Upon acceptance of this report all claims will be in good standing until at least 1990.

### 1.5 AREA AND PROPERTY HISTORY

The property is located in the Olalla-Hedley Gold Camp in southern British Columbia. Mining activity has been carried out in this area since the 1880's. The property is located 20 kilometers southeast of Hedley, where Mascot Gold Mines Limited began production early in 1987 with ore reserves of 7,200,000 tons grading 0.15 ounces per ton gold and containing 1,000,000 ounces of recoverable gold. Mining will be by open pit methods.

A number of mining properties have been explored in the Olalla area since the 1880's. These include the Bullion, Dolphin, Golconda, Something Good and Shepard-Sunrise. Exploration has been oriented towards copper, molybdenum, silver and gold.

On the Something Good Property (Lot 1451, Minfile 82E-SW-014) immediately west of the Bell Claim a carbonate shear and breccia zone occurs in argillaceous and cherty sediments near the contact of a large pyroxenite body. Calcite, quartz, and pyrite occur within the zone.

Three adits were driven on the zone in 1936-1937. The No. 1 adit (2541 feet ASL) was driven for 350 feet, and followed the footwall of the shear zone. The first 110 feet of the adit followed a well defined breccia zone. Samples taken by the resident geologist for the B.C. Dept. of mines in 1937 (M.S. Hedley) ranged from 0.05 ounces per ton gold over 54 inches to 2.20 ounces per ton gold over 11 inches. Beyond this point the graphitic shear contained negligible gold values. The No. 3 adit (2342 feet ASL) was driven for 385 feet in the pyroxenite. Negligible gold values were encountered in the adit. Limited diamond drilling was also carried out, and some values were reported.



On the Golconda Property (Minfile 82E-SW-016) located one kilometer west of the Bell Property a shear zone up to five feet wide and made up of one or more slickensided and gouge filled fault planes cuts pyroxenite. A number of quartz lenses between 30 and 60 feet long and 12 to 50 inches wide occur within the shear zone. These zones appear to occur at changes in attitude in the structure. The quartz is crudely banded and contains pyrite, chalcopyrite, molybdenum, and minor galena. Values in gold and silver also occur within the structure.

Several adits follow the shear zone, which strikes south 56° east. Limited production has come from the property, and a small mill has operated several times.

The Shepard-Sunrise Property (Lot 18s, Minfile 82E-SW-015) located along the western boundary of the Bell Claim appears to have the most economically significant mineralization in the Olalla Camp. Several mineralized quartz veins on the property have been explored by trenching, diamond drilling and several adits.

The diamond drilling was carried out in two phases, the first between 1946 and 1948 by Hedley-Monarch Mines Ltd., and the second during 1961 and 1962 by Friday Mines Ltd.. The work has indicated ore reserves of 2177.28 tonnes of 0.99 ounces per ton gold and 2.50 ounces per ton silver. It has been reported that 300 tons of ore averaging 0.53 ounces per ton gold and 0.45 ounces per ton silver were shipped during the 1946-1948 period.

The mineralization appears to be related to the east-west striking Valley Fault. During drilling on the quartz veins, a gold bearing pyritic-silicious breccia zone was discovered. This breccia zone also appears to be related to the Valley Fault, and reported drill hole intersections are as follows:

D.H. No.	Intersection	Width	oz Au	oz Ag	Location
H-5	315.6'-354.7'	39.1'	0.056	0.14	Shepard-Sunrise
H-8	383.0'-391.1'	8.1'	0.330	1.08	Shepard-Sunrise
H-8	365.2'-400.7'	35.5'	0.110	0.35	Shepard-Sunrise
H-10	354.9'-360.1'	5.2'	0.063	0.25	Shepard-Sunrise
H-10	403.8'-411.7'	7.9'	0.139	0.53	Shepard-Sunrise

Some of these drill intersections are within 200 meters of the Bell Claim boundary, although the exact drill hole locations have been lost.

The only specific references to the area now covered by the Bell Property are in the B.C. Department of Mines annual reports for 1899 and 1900. They report several open cuts and a 40 foot shaft in the vicinity of the Roadside Showing (108+00E, 83+00N). Good copper ore assaying about \$ 7.00 per ton in gold was reported.

During the period 1980 through 1986 geological mapping, prospecting, geophysical surveys and geochemical sampling were carried out over several areas of the property. Several skarn zones, shear zones and narrow quartz veins containing anomalous gold and silver values were found. The highest assays of 0.324 oz/ton gold and 17.20 oz/ton silver were obtained from a 3 to 6 centimeter wide quartz vein.

Previous work has been scattered over a number of areas of the property, and the 1988 grid has been established so that the entire property can be covered with one grid.

## 2.0 EXPLORATION PROCEDURE

A grid was established over a portion of the property and a magnetometer survey carried out over the grid. Selected lines were also soil sampled.

### GRID PARAMETERS

- baseline direction E-W
- survey lines perpendicular to baseline
- survey line separation 100 meters
- survey station spacing 25 meters, slope corrected
- survey total - 16.6 kilometers
- declination 21°

### GEOCHEMICAL SURVEY PARAMETERS

- survey line separation 100 meters
- survey sample spacing 25 meters
- survey totals - 5.3 kilometers
  - 195 soil samples collected
- 80 soil samples analyzed for Au (50 meter spacing)
- sample depth 5 to 15 centimeters
- sample taken from brown B horizon

All samples were sent to Min-En Laboratories Ltd., 705 West 15th Street, North Vancouver, B.C. for geochemical analysis. Laboratory techniques for geochemical analysis consists of preparing samples by drying at 95° C, and sieving or grinding to minus 80 mesh. A wet gold analysis with an atomic adsorption finish is then carried out on the samples. Sensitivity is to five ppb.

### GEOPHYSICAL SURVEY PARAMETERS

#### TOTAL FIELD MAGNETIC SURVEY

- survey line spacing 100 meters
- survey station spacing 25 meters
- survey totals - 16.6 kilometers
- Scintrex MP-2 magnetometer used for all survey
- measured total magnetic field in gammas
- instrument accuracy  $\pm 1$  gamma

A base station reading was taken at the beginning and ending of each day. These values were used to obtain standard values for all baseline readings. All loops ran off the baselines were then corrected to these standard values by the straight line method.

The geochemical data was plotted on figure 3 and the magnetic data on figure 4 at a scale of 1:5000.

## GEOLOGY AND MINERALIZATION

### 3.1 REGIONAL GEOLOGY

The Bell Property is located within the Intermontane Belt of British Columbia. An ultramafic to alkalic stock in the northern and central portion of the property has intruded marine sedimentary and volcanic rocks in the southern portion of the property.

Early work in the area by Bostock and others described the marine sedimentary and volcanic sequence as belonging to the Old Tom, Shoemaker, Bradshaw, and Independence Formations. However as these formations do not form distinct, mappable units, Milford(1984) referred to the sequence as the Apex Mountain Group.

The Apex Mountain Group consists of five major lithofacies: massive and bedded chert, greenstone, chert breccia, argillite and limestone. Together they form a broadly folded, east dipping sequence that has an overall increase in age towards structurally higher rocks in the area. The maximum and minimum ages based on faunal ages in limestones and chert are Early Carboniferous and Middle to Late Triassic respectively.

The depositional environment of the Apex Mountain Group is interpreted to be generally deep, open-ocean basin. Shallow water deposition occurred locally. The group is interpreted to represent at least part of an ancient subduction complex that formed by eastward directed underthrusting and accretion of successively younger slices of oceanic sedimentary and volcanic rocks.

Other assemblages possibly temporally correlative with the Apex Mountain Group include the Kobau, Chapperon, Harper Ranch, and Cache Creek Groups.

The ultramafic to alkalic stock occupies approximately six square miles and is of late Mesozoic age. The stock grades from a peripheral zone of pyroxenite, high in mafics and magnetite, to a magnetite deficient granitic core. Faulting with associated veining, brecciation and mineralization occurred as contemporaneous or post consolidation features.

### 3.2 CLAIM GEOLOGY

The property is mainly underlain by intrusive rocks of the Olalla Stock. The stock ranges in composition from ultramafic to alkalic.

The largest portion of the property is underlain by augite pyroxenite. This is a dark green, fine to medium grained equigranular rock consisting almost entirely of subhedral augite with varying amounts of magnetite. It is apparently the product of crystal segregation during early cooling of the stock and is considered to be the oldest igneous rock in the area.

The northeastern portion of the property is underlain by syenodiorite. It is typically a light grey, fine to medium grained rock with hypidiomorphic texture. Augite is the dominant mafic mineral with significant concentrations of magnetite.

The southern portion of the property is underlain by sedimentary and volcanic rocks of the Apex Mountain Group (The area was previously mapped as Shoemaker Formation). This is generally a black, green, grey or blue chert. Lesser amounts of fine grained greenish greenstone and light blue crystalline limestone are found within the Apex Mountain Group.

### 3.3 MINERALIZATION

A number of small showings have been found on the property exhibiting several types of mineralization. These include skarns, shears and quartz veins with gold, silver and copper values.

At the Roadside Showing (108+00E, 83+00N) a number of narrow sulphide zones occur within cherts of the Apex Mountain Group, near the contact with the Olalla Stock. The zones are mainly pyrite with lesser chalcopyrite and hematite. One sample taken from this area in 1983 gave 0.05 oz/ton gold and 2% copper over 0.5 meters.

Several showings occur in the southeastern portion of the Bell Claim (Hillside Showing). These include a caved adit (121+50E, 82+00N) with chalcopyrite bearing garnet skarn on the dump. Samples of this material have assayed 2.14% copper, 0.45 oz/ton silver and 0.025 oz/ton gold. Several short adits have been driven in an area of shearing and narrow quartz veinlets (121+00E, 83+25N). The quartz veins vary from 3 to 6 centimeters in width and contain chalcopyrite, malachite, azurite and possibly tetrahedrite. Although the veins are narrow, they assayed up to 0.324 oz/ton gold and 17.20 ozs/ton silver.

At the Juniper Showing (121+00E, 7875N) a northeast striking, steeply northwest dipping limestone lens 50 meters plus long and 3 to 5 meters wide has been partially skarnified. Massive pyrrhotite and pyrite occur sporadically throughout the lens. Samples of the skarn assayed up to 0.176 oz/ton gold.

## 4.0 GEOCHEMISTRY

### 4.1 SOIL GEOCHEMISTRY

#### Gold

Gold values ranged from 5 to 300 ppb and samples 15 ppb and greater were considered anomalous. Fourteen samples were anomalous and four small anomalies were outlined.

On the western section of the grid, three samples on line 107+00E between 81+50N and 82+00E were anomalous. Values ranged up to 300 ppb and several old hand pits have been dug in this area.

On the eastern section of the grid three small anomalies were outlined. The anomalies are all near old hand pits or adits and appear to be related to skarn or shear/vein mineralization. The limited amount of sampling leaves the size of the anomalies unknown at this time.

## 5.0 GEOPHYSICS

### 5.1 MAGNETOMETER SURVEY

Magnetic contours show a strong magnetic response in the northern section of the grid with total field values ranging from 58,000 gammas to 73,000 gammas. The central and southern sections of the grid are relatively inactive with values ranging from 56,000 gammas to 58,000 gammas. Several isolated high and low values occur within the inactive area.

The magnetic data indicates the pyroxenite rocks in the northern portion of the grid are highly magnetic with values up to 73,000 gammas. However a portion of the grid believed from mapping to be underlain by pyroxenite (86+00 N to 92+00N on lines 115+50E, 116+50E and 117+50E) gave much lower values in the 57,000 to 60,000 gamma range.

The sedimentary and volcanic rocks of the Apex Mountain Group in the southern portion of the grid area are relatively nonmagnetic. Higher magnetic values within this area may indicate skarn zones.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey indicated several small areas within the Apex Mountain Group with slightly higher than background magnetic values. These magnetic highs may represent skarns zones.

The results from the limited amount of soil sampling were quite favourable. A number of small gold geochemical anomalies were indicated occurring near old workings. Gold values ranged up to 300 ppb. The limited amount of soil sampling leaves the size of the anomalies unknown at this time.

Rock sampling from the mineralized zones in previous years has given values of up to 0.324 ounce per ton gold and 17.2 ounces per ton silver. The mineralization is related to skarns, narrow quartz veins and shears.

Recommendations are to complete the work program covered by this report. This should include completing the grid, magnetometer survey and soil sampling over the property. In addition, a VLF-EM survey and detailed prospecting should be carried out.

Respectfully submitted,

G. F. CROOKER  
G. F. CROOKER B.Sc., F.G.A.C.,  
Consulting Geologist





## 7.0 REFERENCES

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- Sturdevant, J.A. (1963) Petrography of the Olalla Stock, Okanagan Mountains, British Columbia, unpublished M.Sc. Thesis, University of New Mexico.

## CERTIFICATE OF QUALIFICATIONS

I, Grant F. Crooker, of Upper Bench Road, Keremeos, in the Province of British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia in 1972 with a Bachelor of Science Degree in Geology.
2. That I have prospected and actively pursued geology prior to my graduation and have practised my profession since 1972.
3. That I am a member of the Canadian Institute of Mining and Metallurgy.
4. That I am a Fellow of the Geological Association of Canada.
5. That I am the owner of the Bell, Juniper and Juniper 1 to 4 mineral claims.

Dated this 13th day of April, 1988, at Keremeos, in the Province of British Columbia.

  
Grant Crooker, B.Sc., F.G.A.C.  
Consulting Geologist  
FELLOW

**Appendix I**

**CERTIFICATES OF ANALYSIS**

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

TELEPHONE: (604) 980-5814 OR (604) 988-4524

TELEX: VIA USA 7601067 UC

Analytical Report

Company: GRANT CROOKER  
Project: BELL CLAIM  
Attention: GRANT CROOKER

File: 8-367  
Date: APRIL 4/88  
Type: SOIL GEOCHEM

Date Samples Received : MARCH 30/88  
Samples Submitted by : GRANT CROOKER

Report on ..... 80 SOILS ..... Geochem Samples  
.....  
..... Assay Samples  
.....

Copies sent to:  
1. GRANT CROOKER, KEREMEDS, B.C.  
2.  
3.

Samples: Sieved to mesh ..... -80 ..... Ground to mesh .....  
Prepared samples stored: ..... X ..... discarded: .....  
rejects stored: ..... discarded: ..... X .....

Methods of analysis:  
AU-WET.A.A.

Remarks

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

TEL: (604) 980-8814 OR (604) 988-4524

TELEX: VIA USA 7601687 UC

Certificate of GEOCHEM

Company: GRANT CROOKER  
Project: BELL CLAIN  
Attention: GRANT CROOKER

File: 8-367/P1  
Date: APRIL 4/88  
Type: SOIL GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	AU-WET PPB
107+00E 8000N	5
107+00E 8025N	10
107+00E 8050N	5
107+00E 8075N	15
107+00E 8100N	5
107+00E 8125N	5
107+00E 8150N	300
107+00E 8175N	130
107+00E 8200N	25
107+00E 8250N	10
107+00E 8300N	5
107+00E 8350N	10
107+00E 8450N	5
107+00E 8500N	15
107+00E 8550N	10
107+00E 8600N	45
108+00E 8100N	5
108+00E 8150N	5
108+00E 8200N	10
108+00E 8250N	5
108+00E 8300N	5
108+00E 8350N	5
108+00E 8400N	5
108+00E 8450N	10
108+00E 8500N	5
108+00E 8550N	5
108+00E 8600N	5
108+00E 8650N	15
108+00E 8700N	5
108+00E 8750N	5

Certified by



MIN-EN LABORATORIES LTD.

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

Telex: (604) 980-5814 OR (604) 988-4524

TELEX: VIA USA 7601067 UC

Certificate of Geochem

Company: GRANT CROOKER  
 Project: BELL CLAIM  
 Attention: GRANT CROOKER

File: 8-367/P2  
 Date: APRIL 4/88  
 Type: SOIL GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	AU-NET PPS
108+00E 8850N	5
108+00E 8900N	5
108+00E 8950N	5
108+00E 9000N	5
109+00E 8000N	10
109+00E 8050N	280
109+00E 8100N	15
109+00E 8150N	10
109+00E 8200N	20
109+00E 8250N	5
109+00E 8300N	5
109+00E 8350N	5
109+00E 8400N	10
109+00E 8450N	5
109+00E 8500N	5
109+00E 8550N	5
109+00E 8600N	5
120+00E 8000N	10
120+00E 8050N	5
120+00E 8100N	5
120+00E 8250N	25
120+00E 8300N	5
120+00E 8330N	265
120+00E 8400N	10
120+00E 8450N	20
120+00E 8500N	5
120+00E 8550N	5
120+00E 8600N	5
121+00E 8000N	30
121+00E 8050N	10

Certified by   
 MIN-EN LABORATORIES LTD.

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7N 1T2

PHONE: (604) 930-5314 OR (604) 930-4524

TELEX: VIA USA 7601057 UC

Certificate of Geochem

Company: GRANT CROOKER  
Project: BELL CLAIM  
Attention: GRANT CROOKER

File: 8-367/P3  
Date: APRIL 4/88  
Type: SOIL GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	AU-WET PPS
121+00E 8100N	NO SAMPLE
121+00E 8150N	NO SAMPLE
121+00E 8200N	60
121+00E 8250N	45
121+00E 8300N	5
121+00E 8350N	5
121+00E 8400N	110
121+00E 8450N	10
121+00E 8500N	20
121+00E 8550N	10
+00E 8600N	5
122+00E 8000N	45
122+00E 8050N	75
122+00E 8100N	NO SAMPLE
122+00E 8150N	5
122+00E 8200N	33
122+00E 8250N	100
122+00E 8300N	5
122+00E 8350N	5
122+00E 8400N	5
122+00E 8450N	5
122+00E 8500N	10
122+00E 8550N	65

Certified by 

MIN-EN LABORATORIES LTD.

**Appendix II**

**GEOPHYSICAL EQUIPMENT SPECIFICATIONS**



## MP-2 PROTON PRECESSION MAGNETOMETER

Resolution: 1 gamma

Total Field Accuracy:  $\pm$  gamma over full operating range

Range: 20,000 to 100,000 gammas in 25 overlapping steps.

Internal Measuring Program: A reading appears 1.5 seconds after depression of Operate Switch & remains displayed for 2.2 secs. Recycling feature permits automatic repetitive readings at 3.7 sec. intervals.

External Trigger: External trigger input permits use of sampling intervals longer than 3.7 seconds.

Display: 5 digit LED readout displaying total magnetic field in gammas or normalized battery voltage.

Data Output: Multiplied precession frequency and gate time outputs for base station recording using interfacing optionally available from Scintrex.

Gradient Tolerance: Up to 5,000 gammas/meter.

Power Source: 8 size D cells  $\approx$ 25,000 readings at 25° C under reasonable conditions.

Sensor: Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance.

Harness: Complete for operation with staff or back pack sensor.

Operating Temperature Range: -35 to +60° C.

Size: Console, 8 x 16 x 25 cm; Sensor, 8 x 15 cm; Staff 30 x 66 cm;

Weights: Console, 1.8 kg; Sensor, 1.3 kg; Staff, 0.6 kg;

Manufacturer: Scintrex  
222 Snidercroft Road  
Concord, Ontario

Appendix III

MAGNETIC DATA

Mar 15, 1955

line	Station	Time	Mag.	
BL	110+25E			
	110+00	8:27	56527	56528
	107+75		56807	56808
	109+50		56883	56884
	109+25		56857	56858
	107+00	8:27	56943	56944
	108+75		56537	56539
	108+50		56820	56822
	108+25		56842	56844
	108+00	8:34	56772	56774
	107+75		56810	56813
	107+50		56945	56948
	107+25		57025	57027
BL	107+00E	8:42	57041	57045

Mar 15, 1955

Line	Stat.	Time	Mag.	
BL	107+25E			
	107+50			
	107+75			
	108+00E			
	108+25			
	108+50			
	108+75			
	109+00E			
	109+25			
	109+50			
	109+75			
	110+00E			
	110+25	8:15	56330	56346
	110+50		56515	56531
	110+75		56604	56620
	111+00E		56692	56709
	111+25		56607	56624
	111+50		56657	56674
	111+75		56737	56754
	112+00E		56621	56638
	112+25		56607	56624
	112+50		56603	56625
	112+75		56888	56905
BL	113+00		56552	56609

LEVEL(S)

100 (100) 110 (110) 120 (120) 130 (130) 140 (140) 150 (150) 160 (160) 170 (170) 180 (180) 190 (190) 200 (200) 210 (210) 220 (220) 230 (230) 240 (240) 250 (250) 260 (260) 270 (270) 280 (280) 290 (290) 300 (300) 310 (310) 320 (320) 330 (330) 340 (340) 350 (350) 360 (360) 370 (370) 380 (380) 390 (390) 400 (400) 410 (410) 420 (420) 430 (430) 440 (440) 450 (450) 460 (460) 470 (470) 480 (480) 490 (490) 500 (500) 510 (510) 520 (520) 530 (530) 540 (540) 550 (550) 560 (560) 570 (570) 580 (580) 590 (590) 600 (600) 610 (610) 620 (620) 630 (630) 640 (640) 650 (650) 660 (660) 670 (670) 680 (680) 690 (690) 700 (700) 710 (710) 720 (720) 730 (730) 740 (740) 750 (750) 760 (760) 770 (770) 780 (780) 790 (790) 800 (800) 810 (810) 820 (820) 830 (830) 840 (840) 850 (850) 860 (860) 870 (870) 880 (880) 890 (890) 900 (900) 910 (910) 920 (920) 930 (930) 940 (940) 950 (950) 960 (960) 970 (970) 980 (980) 990 (990) 1000 (1000)

BL	Stat.	Min 24, 1966 Time	Mag	
BL	113+25E		56516	56533
	113+50		56490	56497
	113+75		56429	56446
	114+00	8:25	56533	56550
	114+25			
	114+50			
	114+75			
	115+00E			
	115+25			
	115+50	8:55	56335	56350
	115+75		56142	56165
	116+00E		56350	56401
	116+25		56131	56352
	116+50		56453	56477
	116+75		56451	56473
	117+00		56826	56843
	117+25		56501	56523
	117+50		56375	56397
	117+75	9:05	56970	56992
	118+00E		56505	56527
	118+25		56504	56527
	118+50		56504	56527
BL	119+75E		56566	56587

Line	Stat	Min 24, 1968 Time	Mag	
BL	119+00E		56534	56587
	119+25		56600	56624
	119+50		56670	56694
	119+75		56687	56711
	120+00E	9:15	56536	56560
	120+25		56625	56649
	120+50		56795	56819
	120+75		56648	56672
	121+00		56668	56692
	121+25		56675	56719
	121+50	9:25	56717	56742
	121+75		56717	56742
	122+00		56755	56780
	122+25		56646	56671
	122+50		56781	56726
	122+75		56647	56672
	123+00	9:33	56611	56637

11 D. PERINELLI, D. BAJI, IN VALCORNICIA, CANTONE  
 (LUNIGIANA, VALLEPISTOIA)

LEVEL (S)

Line	Stat	Time	Mag	
108+00E	8000 N	10:20	56733	56744
107+00E	8000 N	10:30	57041	57083
	8025		57225	56227
	8050		56952	57022
	8075		56946	56988
	8100 N		56824	56946
	8125		56973	57015
	8150		57194	57222
	8175		57208	57250
	8200 N	10:40	57174	57211
	8225		57197	57229
	8250		57327	57419
	8275		57420	57412
	8300 N		57441	57483
	8325		57500	57522
	8350		57411	57453
	8375		58201	58222
	8400 N	10:50	58408	58472
	8425		58330	58372
	8450		58358	58380
	8475		58322	58370
107+00E	8500 N		57905	57947

Line	Stat	Time	Mag	
107+00E	8525 N		57891	57933
	8550		58380	58422
	8575		58320	58362
	8600	11:00	58352	58400
	8625		58100	58143
	8650		57890	57933
	8675		65675	65718
	8700		61083	61126
	8725		60792	60835
	8750		60221	60264
	8775		60098	60131
	8800		59980	59023
	8825	11:10	58119	58162
	8850		59734	59777
	8875		59016	59059
	8900 N		59958	60001
	8925		60262	60305
	8950		59355	59398
	8975		58939	58982
	9000 N		59205	59248
	9025	11:20	59275	59318
	9050		59774	59817
107+00E	9075 N		60436	60479

H.D. PENNELL LTD. MADE IN MANITOBA, CANADA  
DUNSMUIR WATERPROOF

- LEVEL (S)

Mar 22, 1968

line	SECT	Time	mag	
107400E	9100N		60730	60773
	9125		60827	60870
	9150		60129	60175
	9175	11:30	60234	60273
	9200		60440	60482
	9225		60443	60482
	9250		60740	60793
	9275		60968	61012
	9300N		60357	60401
	9325		61639	61682
	9350		61635	61678
	9375	11:40	62063	62107
	9400N		62207	62251
	9425		62398	62442
	9450		62976	63020
	9475		63959	64013
	9500		64556	64600
	9525		65559	65603
	9550		70226	70270
	9575		69450	69494
	9600	11:50	70405	70539
	9625		69660	69704
107400E	9650N		69516	69560

Mar 21, 1968

line	SECT	Time	mag	
107400E	9675N		64568	64612
	9700		64901	64945
	9725		65415	65459
	9750		63755	64019
	9775		63755	63803
107400E	9800N	12:00	63743	63788
108400E	9800N	12:15	63871	63916
	9775		65581	65626
	9750		65434	65479
	9725		63501	63546
	9700		67978	68023
	9675		66705	66750
	9650		63061	63106
	9625		62237	62282
	9600		68350	68395
	9575		69007	69052
	9550		68854	68900
	9525		66989	67035
	9500	12:25	65048	65094
	9475		62545	62591
	9450		62359	62405
108400E	9425		61977	62023

LEVEL (S)

Mar 22 1988

line	Stat	Time	Mag
108400E	9400N		62273 6239
	9375		61211 61257
	9350		60735 60781
	9325		60421 60467
	9300N		59727 59833
	9275		59945 60031
	9250		59191 59237
	9225	12:35	61010 61056
	9200		61036 61082
	9175		61301 61347
	9150		59405 59511
	9125		59328 59434
	9100N		58060 58166
	9075		59108 59154
	9050		59928 59974
	9025		59046 59092
	9000		59537 59643
	8975		59675 59741
	8950	12:45	59739 59785
	8925		59833 59879
	8900		59341 59387
	8875		59773 59839
108400E	8850N		61136 61232

Mar 22 1988

line	Stat	Time	Mag
108400E	8825N		59476 59542
	8800		59598 59644
	8775	12:55	64057 64147
	8750		56770 56817
	8725		57342 57389
	8700		57760 57807
	8675		57337 57383
	8650		57352 57399
	8625		57274 57321
	8600		57331 57378
	8575	1:05	57398 57445
	8550		57477 57524
	8525		58084 58131
	8500		57774 57821
	8475		57522 57569
	8450		56833 56880
	8425		56356 56403
	8400	1:15	57668 57715
	8375		56697 56746
	8350		56961 57008
	8325		57420 57467
	8300		56954 56901
108400E	8275N		56913 56965

LEVEL(S)

A DIFFERENTIAL NAVIGATION SYSTEM CANADA  
DANSBY WATERCO

Mar 22, 1982

line	Stk	Time	mes	
108100E	8250N		57072	57120
	8225		56940	56988
	8200	1:25	56952	56920
	8175		56847	56895
	8150		56925	56973
	8125		56890	56923
	8100		56799	56847
	8075		56761	56809
	8050	1:35	56749	56783
	8025		56948	56896
108100E	8000N	1:40	56726	56774

Mar 15, 1982

line	Stk	Time	mes	
110100E	90100N	8:56	56509	56528
	9025		56536	56555
	9050		56557	56576
	9075		56613	56632
	9100	9:00	56391	56410
	9125		56554	56573
	9150		56522	56521
	9175		56555	56554
	9200N		56393	56412
	9225		56220	56238
	9250		56260	56278
	9275		56321	56339
	9300N		56237	56255
	9325	9:10	56166	56134
	9350		56249	56267
	9375		56304	56301
	9400N	9:20	56363	56380
	9425		56720	56737
	9450		56514	56531
	9475		56570	56587
	9500N		56824	56841
	9525		55789	55806
	9550N		55864	55881



Mar 15, 1958

Line	Sta.	Time	M.S	
110+00 E	85+75		56125	56142
	86+00 N		56303	56320
	86+25	9:30	56512	56526
	86+50		56910	56926
	86+75		56994	57010
	87+00 N		56941	56957
	87+25		57049	57065
	87+50		57271	57287
	87+75		57168	57184
	88+00		57195	57211
	88+25	9:40	57116	57132
	88+50		57032	57053
	88+75		57228	57244
	89+00 N		56584	56599
	89+25		56547	56562
	89+50		56555	56570
	89+75		56952	56997
	90+00 N		56962	56977
	90+25	9:50	56930	56945
	90+50		57035	57050
	90+75		56886	56901
	91+00 N		57033	57048
	91+25 N		56960	56974

H & PERMALITO, MADE IN U.S.A. OVER CANADA  
KANSAS WATERWORKS

LEVEL (S)

Line	Sta.	Time	May	May
110+00E	91+50N		57126	57124
	91+75	10:00	57386	57400
	92+00N		57630	57652
	92+25		57763	57777
	92+50		58090	58112
	92+75		58300	58314
	93+00N		58800	58824
	93+25		60279	60293
	93+50		61573	61587
	93+75	10:10	62698	62711
	94+00N		61763	61776
	94+25		59972	59985
	94+50		59730	59743
	94+75	10:20	59602	59613
	95+00N		58584	58596
	95+25		58594	58606
	95+50		58858	58870
	95+75		58752	58764
	96+00N	10:30	58370	58387
	96+25		58620	58632
	96+50		58499	58511
	96+75		58612	58625
110+00E	97+00N		59793	59792

March 15, 1988

Line	Sta.	Time	May	May
110+00E	97+50N		59828	59839
	97+50		57180	57191
	97+25	10:40	59683	59694
110+00E	98+00N		58587	58598
	98+25		56467	56477
	98+50N	10:50	58010	58020
Hit Tialine at 98+50N + 110+00E - A TL 98+00N, 110+00E				
109+00N, 98+25N A TL in 109+00N				
109+00E	98+25N	11:10	58474	58483
	98+00N		60130	60139
	97+75		57170	57179
	97+50		61758	61766
	97+25		60855	60856
	97+00N		60805	60813
	96+75		60662	60670
	96+50	11:20	62477	62885
	96+25		69375	69383
109+00E	96+00N		73450	73457

LEVEL(S)

K.D. PERMILLITU, MADE IN VANCOUVER, CANADA. DUKSMA, WA, 198008

Mar 15, 1988

line	Sta	Time	Mag	
109+00E	95+75N		68175	5583
	95+50		67637	55105
	95+25		62690	52337
	95+00N	11:30	62295	52302
	92+75		59660	52057
	92+50		62020	52327
	92+25		61051	61053
	92+00N		61507	61554
	93+75		61327	61334
	93+50		62257	62264
	93+25		61651	61658
	93+00N		50859	60302
	92+75		61275	61232
	92+50	11:40	50375	60335
	92+25		59470	59477
109+00E	92+00N	11:42	58175	58121
109+00E	86+00N	12:25	56776	56770
	85+75		58086	58089
	85+50		57877	57880
	85+25		57522	57525
	85+00E		57372	57375
109+00E	84+75	12:30	56708	56711

Mar 15, 1988

line	Sta	Time	Mag	
109+00E	84+00N		55785	55789
	84+25		56343	56346
	84+00		57237	57240
	83+75		59180	59182
	83+50		57277	57279
	83+25		56961	56963
	83+00N		57056	57058
	82+75		56928	56930
	82+50		56488	56490
	82+25	12:40	56814	56816
	82+00N		56224	56226
	81+75		56368	56370
	81+50		56656	56658
	81+25		56399	56401
	81+00		56488	56490
	80+75		56473	56475
	80+50		56867	56868
	80+25		56896	56897
109+00E	80+00N	12:50	56946	56947
110+00E	80+00N	12:51	56527	56528

LEVEL(S)

100% PEHANI LIT. MADE IN VANCOUVER CANADA  
 DUNGGAN WATERPROOF

Mar 25, 1988

line	Stat.	Time	mag	
122+00E	8000N	8:45	56744	56780
123+00E	8000N	8:47	56590	56626
	8025		56600	56678
	8050		56693	56729
	8075	8:55	56733	56769
	8100		56690	56726
	8125		56781	56817
	8150		56750	56786
	8175		56911	56947
	8200		56798	56834
	8225		56893	56929
	8250		56674	56710
	8275	9:05	56706	56742
	8300		57384	57420
	8325		58220	58266
	8350		57011	57047
	8375		57101	57137
	8400		57048	57084
	8425		56969	57005
	8450		57371	57407
	8475		57086	57122
123+00E	8500	9:15	57063	57104

LEVEL (S)

P. O. PLUMBING, LTD. MADE BY PROCDORER COMPANY  
 5000 10th AVE. W. VANCOUVER, B.C.

Mar 25, 1988

line	stat.	time	mag	
123+00E	8525N		57069	57105
123+00E	8550N	9:18	57108	57143
122+00E	8550N	9:23	57157	57192
	8525	9:25	57036	57065
	8500		56931	56966
	8475		56928	56963
	8450		56969	57004
	8425		56903	56938
	8400		57217	57252
	8375		57162	57197
	8350		57214	57249
	8325	9:35	56937	56972
	8300		57060	57103
	8275		56882	56917
	8250		56870	56905
	8225		57025	57060
	8200		57204	57239
	8175		56767	56802
	8150		56758	56793
	8125		56819	56854
	8100	9:45	56709	56744
122+00E	8075N		56793	56828

Mar 25, 1988

line	stat	time	mag	
122+00E	8050N		56677	56712
	8025		56677	56712
122+00E	8000N	9:57	56745	56780
120+00E	8000N	10:00	56514	
121+00E	8000N	10:05	56649	56695
	8025		56622	56674
	8050		56784	56830
	8075		56659	56705
	8100		56675	56741
	8125	10:15	56682	56728
	8150		56663	56709
	8175		56696	56742
	8200		56723	56769
	8225		56764	56810
	8250	10:25	56851	56897
	8275		56876	56922
	8300		57118	57164
	8325		56940	56986
	8350		57041	57087
	8375		56993	57039
121+00E	8400		56825	56871

LEVEL(S)

Mar 25, 1988				
line	st. c	time	mag	
121+00E	8425N	10:35	56889	56934
	8450		56868	56913
	8475		56859	56904
	8500		56893	56938
	8525		56999	57044
	8550		57119	57164
	8575	10:45	57426	57471
121+00	8600N		57293	57338
120+00E	8600N	10:52	59232	59277
	8575		58259	58304
	8550		56975	57020
	8525	10:55	56752	56797
	8500		56805	56850
	8475		56860	56905
	8450		56865	56910
	8425		56843	56887
	8400		57198	57242
	8375	11:05	56949	56993
	8350		56880	56924
	8325		56867	56911
	8300		56725	56769
120+00E	8275N		56721	56765

Mar 25, 1988				
line	st. c	time	mag	
120+00E	8250N		56735	56779
	8225		56722	56766
	8200		56761	56805
	8175	11:15	56723	56767
	8150		56605	56649
	8125		56662	56706
	8100		56736	56780
	8075		56559	56603
	8050		56593	56642
	8025		56619	56662
120+00E	8000N	11:25	56516	56560

H. D. PERHALLI, ASIN, INYANGGILYER, GAMBAR  
 LINDSAY WALL PHOTOGRAPH

LEVEL (S)

Mar 25, 1988				
line	SEct	time	mag	
116+50E	8000N	11:35	56392	56374
117+50E	8000N	11:41	56344	56425
	8025		56258	56339
	8050		56539	56620
	8075	11:45	56484	56565
	8100		56593	56674
	8125		56583	56664
	8150		57045	57126
	8175		56699	56779
	8200		56626	56706
	8225		56642	56722
	8250		56519	56599
	8275	11:55	56490	56570
	8300N		56554	56634
	8325	12:05	56566	56644
	8350		56582	56660
	8375		56573	56651
	8400		56571	56649
	8425		56568	56646
	8450		56525	56602
	8475		56522	56599
117+50E	8500N	12:15	56694	56771

Mar 25, 1988				
line	SEct	time	mag	
117+50E	8500N		56916	56993
	8550		57379	57456
	8575		56848	56925
	8600		57269	57346
	8625		56228	56304
	8650		57400	57476
	8675		54698	54774
	8700		57156	57232
	8725	12:25	56721	56797
	8750		56702	56778
	8775		56926	57052
	8800		56662	56738
	8825		57175	57250
	8850		56691	56766
	8875		56200	56281
	8900		56405	56430
	8925		58971	59046
	8950	12:35	57447	57522
	8975		57891	57956
	9000N		57408	57122
	9025		58181	58255
	9050		58026	58100
117+50E	9075		58143	58219

R. D. PENHALL LTD. MADE IN WISCONSIN, CANADA  
LINDSAY VALLEY, ONTARIO

LEVEL (S)

Mars, 1988

line	st. t	time	mag	
117+50E	9100N		59460	59534
	9125		59667	59741
	9150		61116	61190
	9175		62361	62435
	9200	12:45	63909	63982
	9225		64535	64608
	9250		64290	64363
	9275		65499	65522
	9300		67470	67543
	9325		62901	62974
	9350		70570	70623
	9375		61885	61958
	9400		61954	62026
	9425		63960	64032
	9450	12:55	64794	64866
	9475		63742	63814
	9500		62398	62470
	9525		62068	62140
	9550		61465	61537
	9575		60997	61069
117+50E	9600N	1:01	59450	59521

Mar 25, 1988

line	st. t	time	mag	
116+50E	9600N	1:05	62495	62566
	9575		61788	61859
	9550		62094	62165
	9525		61809	61870
	9500		64912	64982
	9475		64266	64336
	9450		65206	65276
	9425		64253	64323
	9400	1:15	64222	64292
	9375		65485	65555
	9350		63929	63992
	9325		65317	65386
	9300		68997	69066
	9275		65333	65402
	9250		62229	62318
	9225		60863	60932
	9200		60693	60762
	9175		59397	59466
	9150		59168	59237
	9125	1:25	58932	59001
	9100		58359	58427
	9075		57928	58000
116+50E	9050N		57648	57716

LEVEL (S)

H. O. PENJALJID. MAJLIS RANCANGETIL CANAL  
DUSUN WATERSHED





Mar 28, 1985

line	Stat	Time	Mag	
115+50E	8000N	11:25	56338	56356
	8025		56206	56175
	8050		56088	56057
	8075		56286	56255
	8100		56225	56194
	8125		56294	56263
	8150		56160	56131
	8175		56169	56140
	8200		56464	56435
	8225		56416	56387
	8250		56490	56461
	8275		56591	56564
	8300	11:35	56601	56574
	8325		56476	56429
	8350		56392	56365
	8375		56574	56569
	8400		56619	56594
	8425		56649	56624
	8450		56651	56628
	8475		56649	56626
	8500		57323	57300
	8525		57426	57403
115+50E	8550N	11:45	56741	56723

Mar 28, 1985

line	Stat	Time	Mag	
115+50E	8575N		56542	56521
	8600		56542	57100
	8625		57705	57630
	8650		57913	57777
	8675		57442	56620
	8700	11:45	56077	56020
	8725		55859	55870
	8750		55720	55733
	8775	12:00	56521	56800
	8800	12:15	56702	56570
	8825		55173	55163
	8850		56543	56538
	8875		56931	56928
	8900		56501	56798
	8925		58943	58940
	8950		58724	58723
	8975		58807	58846
	9000	12:25	58452	58481
	9025		58012	58013
	9050		58671	78675
	9075		58746	58747
	9100		58451	58452
115+50E	9100N		58975	58978

LEVEL (S)

R. D. PENNELL LTD. MADE IN VANCOUVER, CANADA  
DURSBURG WALTER P. JOHNSON

Mar 28, 1988				
line	start	time	mag	
115+50E	9125N		59263	59266
	9150		59068	59071
	9175		59015	59020
	9200	12:35	59581	59586
	9225		61259	61264
	9250		62138	62143
	9275		65259	65266
	9300		63456	63463
	9325		61977	61984
	9350		62482	62492
	9375		63063	63072
	9400		62965	62974
	9425		68603	68612
	9450		66545	66556
	9475	12:45	66554	66565
115+50E	9500N		65739	65750
	9525		63162	63175
115+50E	9550		61465	61478
	9515		62310	62323
115+50E	9600N	12:50	61688	61701
115+50E	8000W	11:15	56337	56356

Mar 24, 1988				
line	start	time	mag	
118+60E	8000N	8:25	56517	56527
	7975N		56509	56522
	7950		56388	56399
	7925	8:35	56439	56452
	7900		56265	56278
	7875		56434	56449
	7850	8:45	56290	56305
	7825		56747	56764
	7800		56218	56235
	7775		56321	56338
	7750	8:55	56366	56385
	7725		56321	56340
	7700		56479	56498
	7675		56375	56396
	7650	9:05	56512	56535
	7625		56452	56475
	7600		56339	56362
	7575		56313	56341
	7550	9:15	57129	57152
	7525		56324	56349
	7500		56825	56850
	7475		56852	56877
118+60E	7450	9:25	56633	56655

H. O. PENNELL LTD. MADE IN VANCOUVER CANADA  
DUNSMUIR WAREHOUSE

LEVEL (S)

Mar 28, 1988

line	Stat.	time	mag	
118+00E	7425		56651	56678
	7400		56720	56747
118+00E	7375N	9:30	56697	56724
119+00E	7375N	9:35	56816	56845
	7400		56575	56626
	7425	9:45	56543	56574
	7450		56604	56637
	7475		56527	56550
	7500	9:55	57214	57249
	7525		56385	56420
	7550		57207	57242
	7525		56389	56426
	7550	10:05	56500	56537
	7575		56497	56534
	7600		56930	56962
	7625	10:15	56111	56152
	7650		56362	56403
	7675		56439	56480
	7700		56632	56673
7725		56511	56554	
119+00E	7750N	10:25	57213	57256

Mar 28, 1988

line	Stat	time	mag	
119+00E	7775N		56435	56478
	7800		56391	56436
	7825	10:35	56574	56619 78425 = 114
	7850	10:45	56609	56658
	7875		56579	56625
	7900	10:55	56555	56606
	7925		56695	56746
	7950		57013	57126
	7975	11:05	56499	56555 119225E
119+00E	8000N	11:06	56555	56611ms
119+00E	8025N	11:11	56472	

LEVEL (S)

**Appendix IV**

**COST STATEMENT**

## COST STATEMENT

### SALARIES

- Grant Crooker, Geologist  
March 14-16, 24, 25, 28-30,  
April 12, 1988  
9 days @ \$ 350/day \$ 3150.00
  
- Lee Mollison, Field Assistant  
March 14-16, 24, 25, 28, 1988  
6 days @ \$ 150.00/day 900.00

### MEALS and ACCOMMODATION

- Grant Crooker - 6 days @ \$ 60.00/day 360.00
- Lee Mollison - 6 days @ \$ 60.00/day 360.00

### TRANSPORTATION

- Vehicle Rental (Ford 3/4 ton 4x4)  
March 14-16, 24, 25, 28, 1988  
6 days @ \$ 60.00/day 360.00
- Gasoline 30.00

### EQUIPMENT RENTAL

- Magnetometer - Scintrex MP-2  
March 14-16, 24, 25, 28, 1988  
6 days @ \$ 25.00/day 150.00

### SUPPLIES

- Hipchain thread, flagging, etc. 129.45

### FREIGHT

7.70

### ANALYSIS

- 80 soil samples, Au-fire  
@ \$ 5.40 per sample 432.00

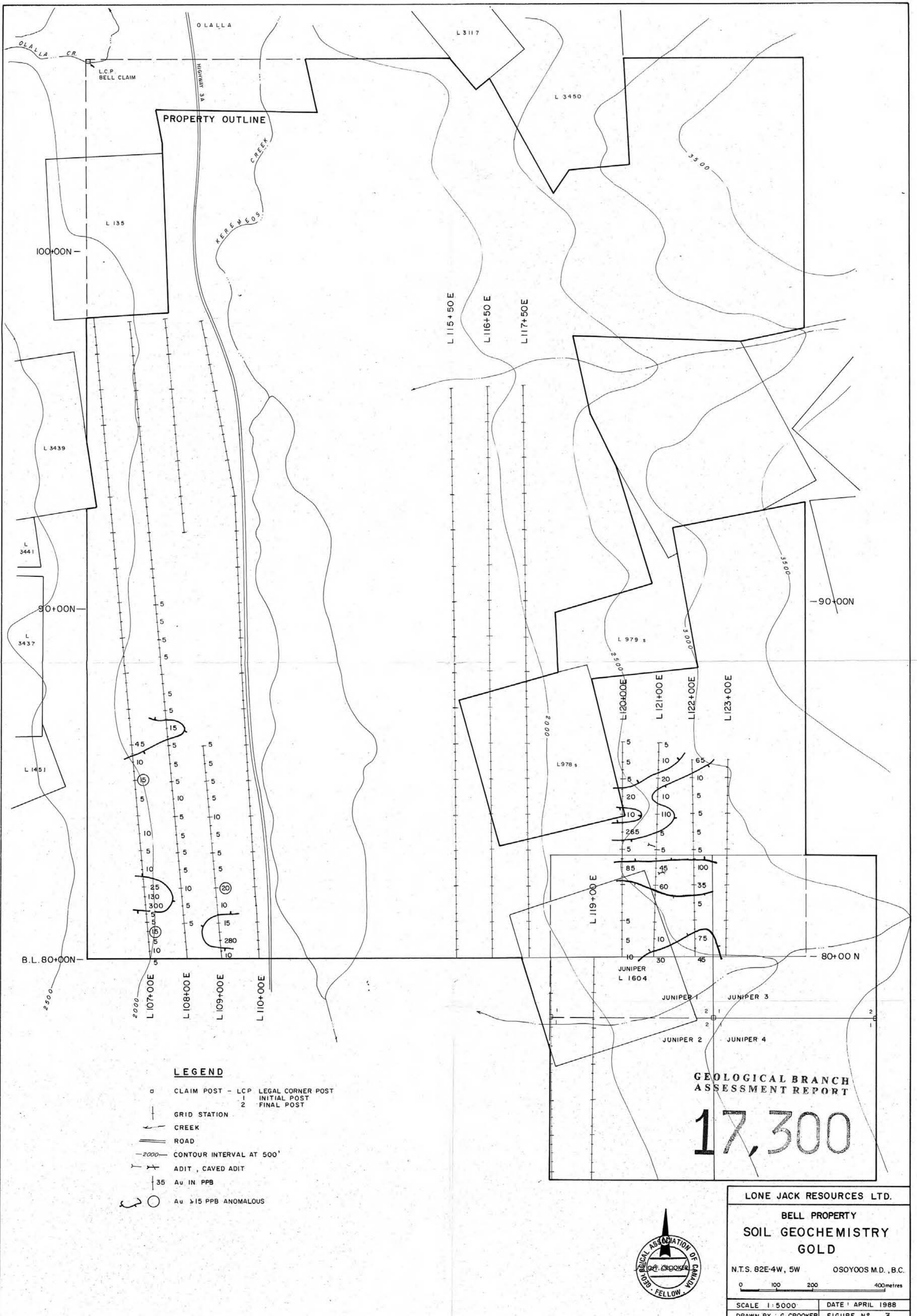
### DRAUGHTING

300.00

### PREPARATION of REPORT

- Secretarial, reproduction, telephone,  
Office overhead etc. 500.00

**TOTAL** **\$** **6679.15**



**LEGEND**

- CLAIM POST - LCP LEGAL CORNER POST
- 1 INITIAL POST
- 2 FINAL POST
- GRID STATION
- CREEK
- ROAD
- 2000— CONTOUR INTERVAL AT 500'
- ADIT, CAVED ADIT
- 35 Au IN PPB
- Au >15 PPB ANOMALOUS

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**17,300**

LONE JACK RESOURCES LTD.

BELL PROPERTY  
SOIL GEOCHEMISTRY  
GOLD

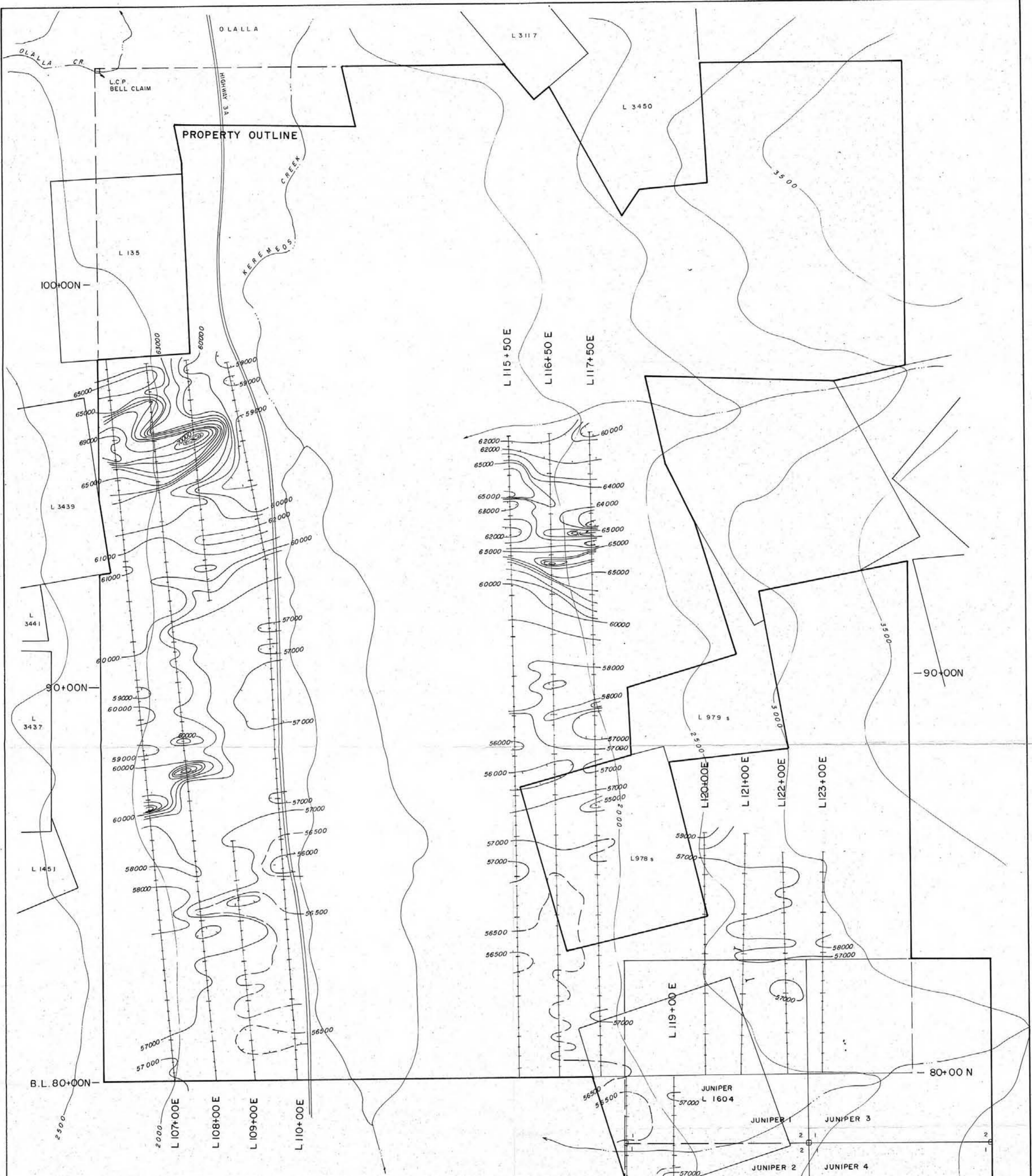
N.T.S. 82E-4W, 5W OSOYOOS M.D., B.C.

0 100 200 400 metres

SCALE 1:5000 DATE APRIL 1988

DRAWN BY: G. CROOKER FIGURE NO. 3

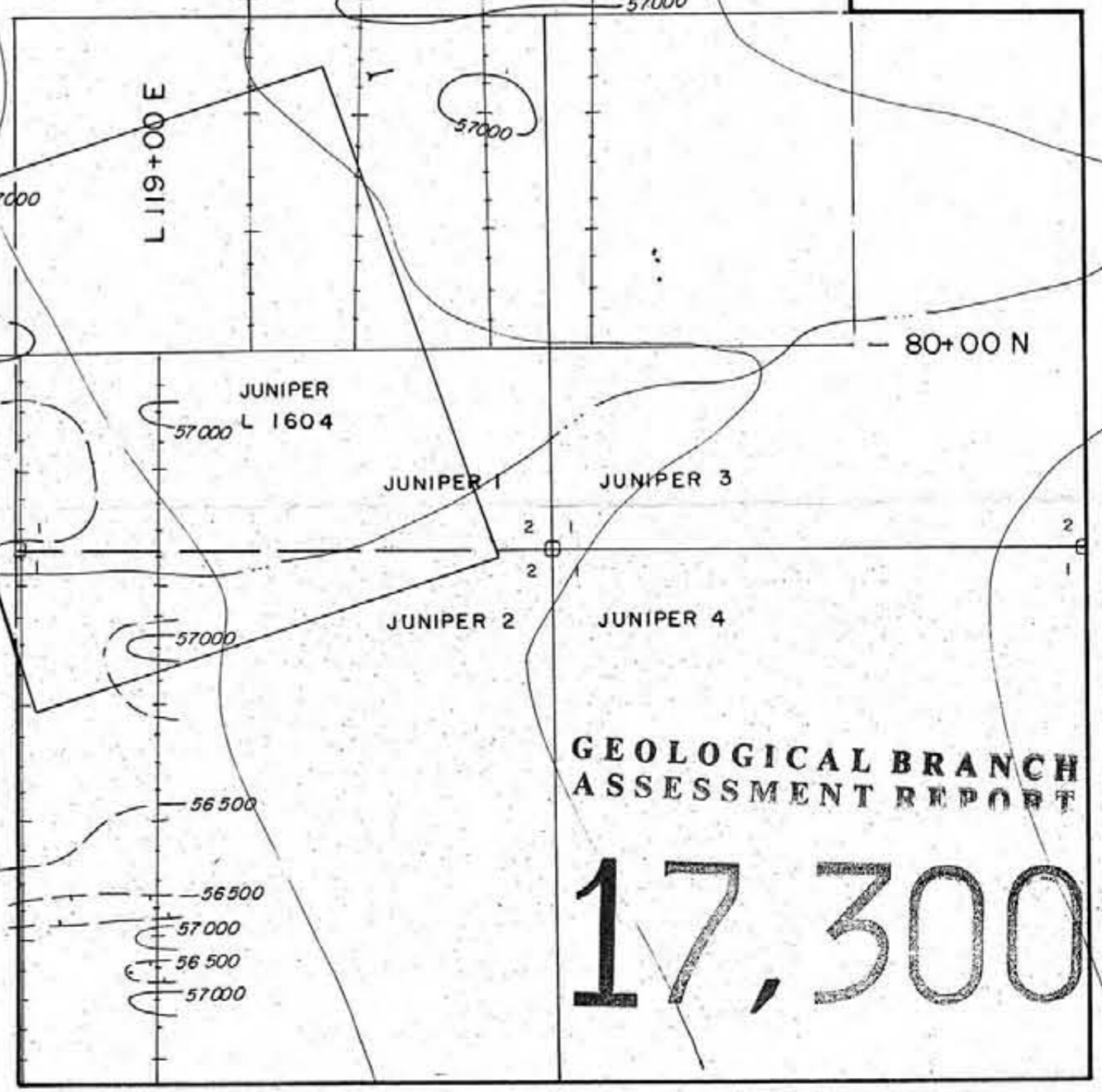




**LEGEND**

- CLAIM POST - LCP LEGAL CORNER POST
- INITIAL POST
- FINAL POST
- ⊕ GRID STATION
- ~ CREEK
- == ROAD
- 2000- CONTOUR INTERVAL AT 500'
- ADIT
- MAGNETIC CONTOUR 1000 GAMMAS
- " " 500 "

INSTRUMENT MP-2 SCINTREX  
TOTAL FIELD MAGNETOMETER



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**17,300**



LONE JACK RESOURCES LTD.

BELL PROPERTY

**MAGNETOMETER SURVEY**

N.T.S. 82E-4W, 5W OSOYOOS M.D., B.C.

0 100 200 400 metres

SCALE 1:5000 DATE APRIL 1988

DRAWN BY: G. CROOKER FIGURE N<sup>o</sup>. 4