

84-#967-13114

1984 GEOCHEMICAL AND GEOPHYSICAL ASSESSMENT REPORT

ON THE  
DIANE GROUP

by

Alex Boronowski, Geologist  
Grant Hendrickson, Geophysicist

Lat. 50°03'N, Long. 12°45W  
NTS 92 I/2

Nicola Mining Division

DIANE 1 to 5

Owner: Aberford Resources Ltd.  
Calgary, Alberta

Operator: Kidd Creek Mines Ltd.  
701-1281 W. Georgia Street  
Vancouver, B.C.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

October, 1984

13,114 Vancouver, B.C.

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## **INTRODUCTION**

### **General Statement**

The purpose of the Iron Mountain project was to evaluate the precious metal potential associated with the quartz-specularite veining in shear zones.

Results indicate that the Aberford, North, LA and South Zones of the Diane 1 claim contains sporadic low-grade gold, silver and copper values within quartz-specularite veins. The veins trend predominantly northwesterly and dip near vertically. The veins have intruded northeasterly trending basaltic andesite flows and breccia, of the Triassic to Jurassic age Nicola Group.

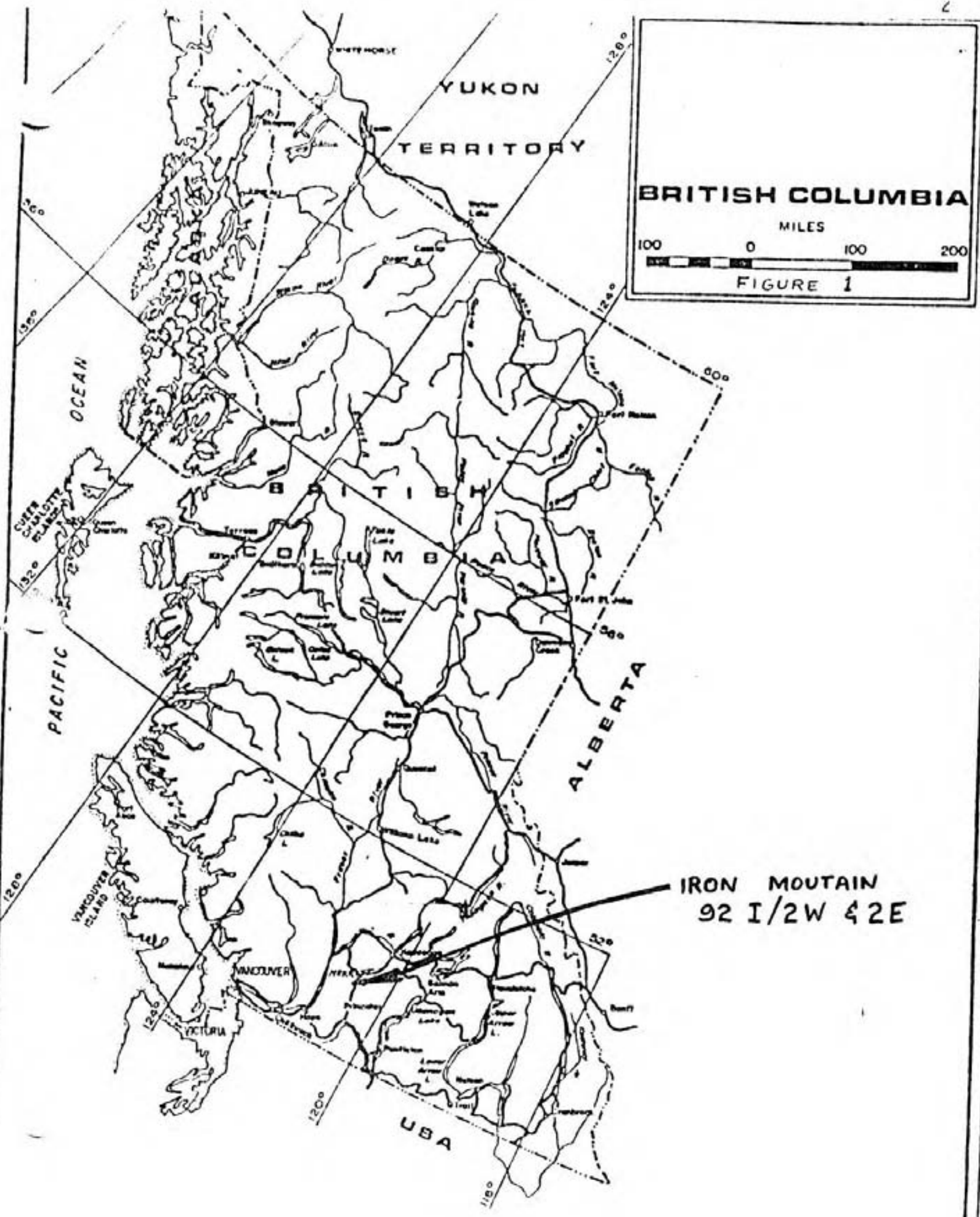
### **Location and Access**

The Diane Group of mineral claims is situated approximately 8 km south of Merritt, B.C. (Figure 1). Access to the property is by a well maintained road used for servicing the microwave installation on Iron Mountain's peak (1697 m). This access road is reached via the Veale road which branches off the Coldwater road approximately 5 km south of the Coldwater road - Highway #5 junction. An alternative access is by the Fox Farm road which branches off Highway #5 approximately 2 km east of Merritt. The proposed Coquihalla highway, an alternative route to the Coast, will eventually link Hope to Kamloops via Merritt. This proposed four-lane highway will cut across the western flank of Iron Mountain.

### **Physiography**

The property is situated within the Interior Plateau of south central B.C.. The topography of Iron





**BRITISH COLUMBIA**  
 MILES  
 100 0 100 200  
 FIGURE 1

IRON MOUNTAIN  
 92 I/2W 42E

Mountain is typical of the high rolling uplands of this region. The mountain is moderately forested with pine, fir and spruce. Open timbered and grassy slopes occur on the plateau top of the mountain, and southern to eastern slopes. 'Open rangelands' occupy most of the broad valleys. Outcrop exposure on the mountain varies considerably from up to 50% on the steep western slope to zero on the southern slope. Till cover is generally 1 to 2 metres but exceeds 10 metres on the lower slopes (Coquihalla Highway Geotechnical Engineer).

**History** (prominent events occurring on Iron Mountain)

- 1927-28 Emmett Todd, of Comstock B.C. Ltd., sank the 70 foot 'Leadville' shaft on the barite-galena vein near the mountain's summit.
- 1947 'Leadville' shaft renamed the 'Lucky Todd'. The shaft was rehabilitated and 36 tons of ore were shipped to Trail. Net content 67 oz Ag, 11, 819 lb Pb and 484 lb Zn.
- 1951 Granby Mining Corp. de-watered the shaft.
- 1968-74 Acoplomo Mining and Development Co. Ltd., under the direction of Sherwin F. Kelly conducted magnetometer, E.M., soil sampling, surveys and a minor diamond drilling program. Trenching believed to be conducted by Acaplomo.
- 1977 Quintana Minerals Corp. mapped the property.
- 1978 W.J. McMillan of the BCMM conducts regional mapping on the Iron Mountain. Preliminary Map #1:25,000.
- 1979-1981 Chevron optioned the property from JMT and conducted geological mapping, soil sampling and a geophysical survey.
- 1983 Billiton Canada Ltd. conducted a geophysical survey.
- 1983 Aberford staked the Diane 1 to 5 claims west of and adjoining JMT's Gyprock Group.
- 1984 Kidd Creek conducted a geochemical survey and an IP survey.

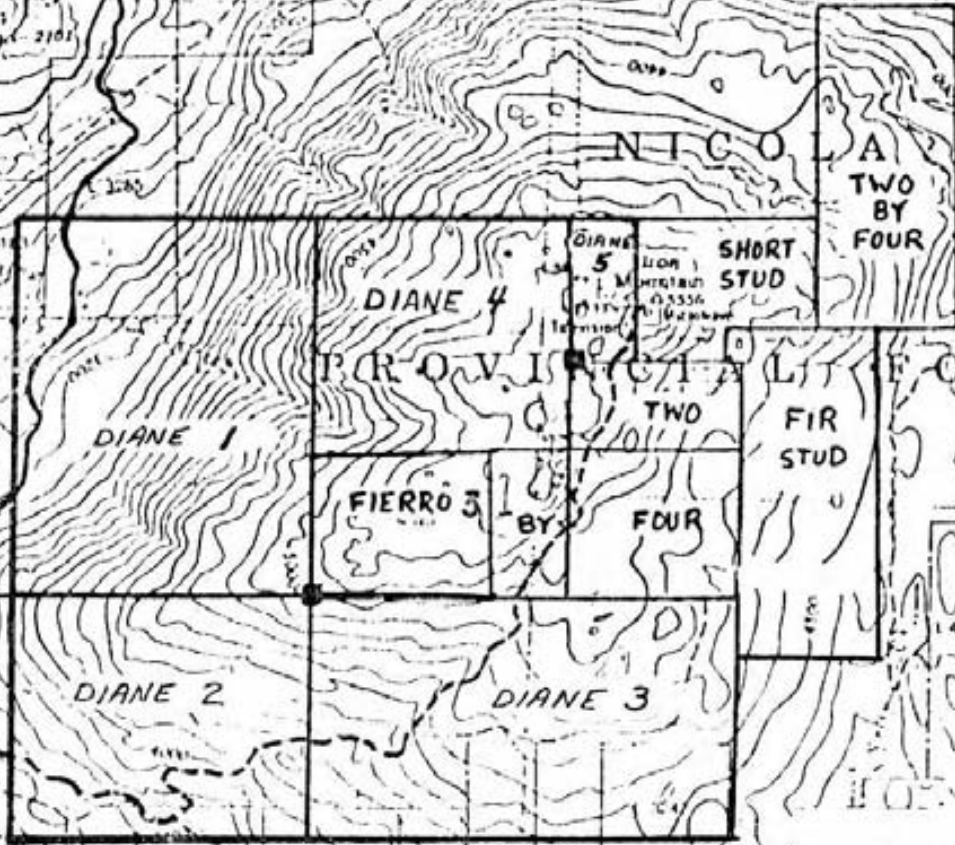
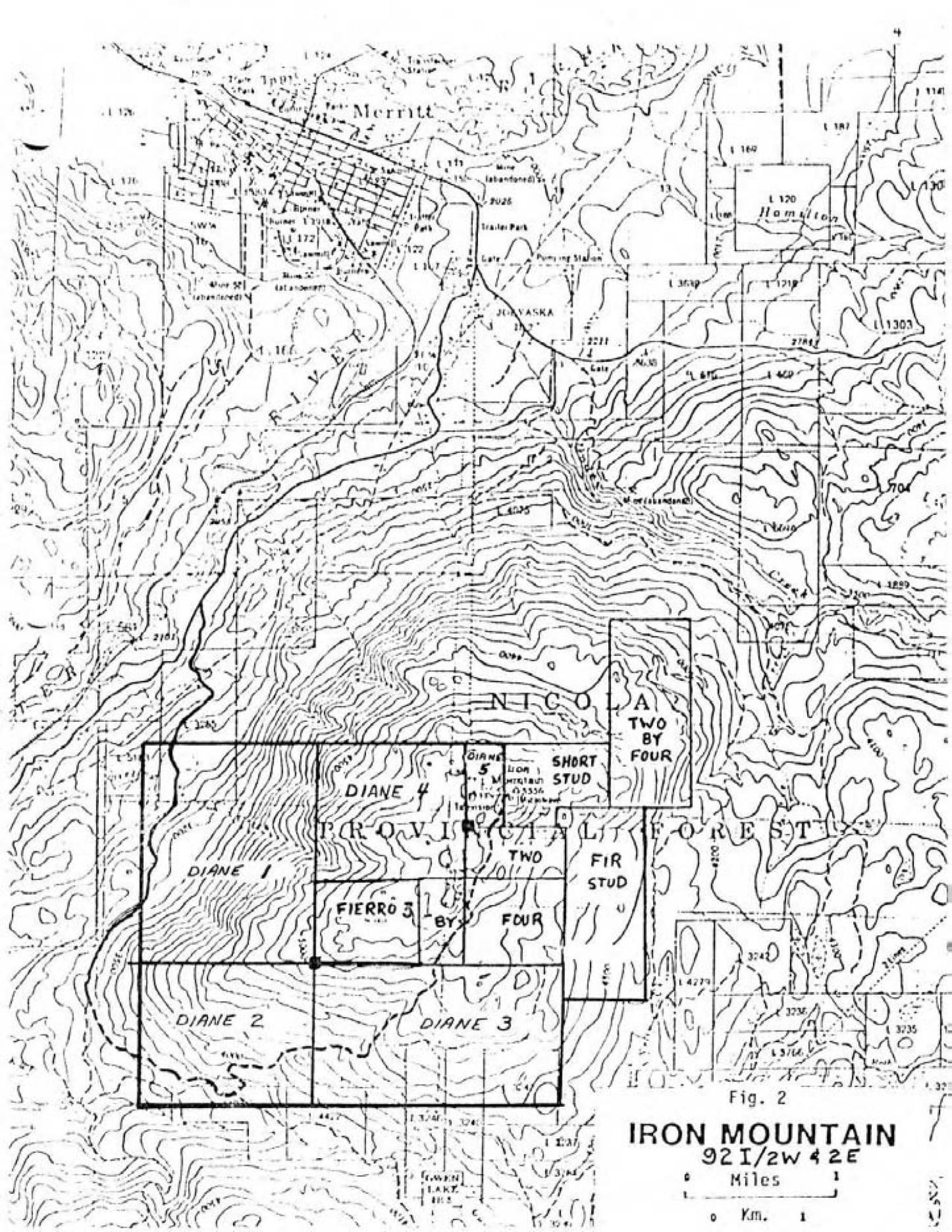
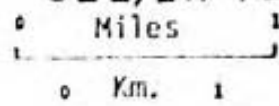


Fig. 2

**IRON MOUNTAIN**  
92 I/2W 4 2E



**Ownership: (Figure 2)**

The Diane Group is comprised of the following:

Claim Name	Record No.	Expiry Date	No. of Units
Diane 1	1431	Aug 2, 1987	20
Diane 2	1432	Aug 2, 1987	12
Diane 3	1433	Aug 2, 1987	15
Diane 4	1434	Aug 2, 1987	9
Diane 5	1435	Aug 2, 1987	2

Recorded Owner: Aberford Resources

Operator: Kidd Creek Mines Ltd.

**SUMMARY OF WORK DONE****Geophysical Survey**

A total of 3.5 line kilometres of magnetometer, induced polarization and resistivity surveying were conducted on Diane 1.

**Line-cutting**

A total of 4.0 line kilometres of cut line were established on Diane 1.

**Orthophoto base map**

An orthophoto base map at 1:5000 with 10 m contours of approximately 4,000 acres was completed. One RC print, one chronoflex positive, and contour overlays were produced and cover the entire Diane Group.

**Geochemical Survey**

A total of 529 pulps were analysed for gold. Sixty-seven selective rock samples were analysed for gold and a 30-element ICP exploration package. A total of 296 follow-up soil samples were analysed for gold. A total of 83, one-metre interval rock chip channel samples were analysed for Cu Ag Au.

Results are plotted on maps of scale 1:5,000 and listed separately in Appendix C. The survey covered the entire Diane Group.



## DETAIL TECHNICAL DATA AND INTERPRETATION

### Geophysical survey

#### Introduction

During the period June 25 to July 6, 1984 a Kidd Creek Mines Ltd. geophysical crew conducted Induced Polarization, Resistivity and Magnetic surveys of mineral claims held under option in the Merritt area of British Columbia.

The main objective of these surveys was to exploit the physical properties of magnetic susceptibility, minor sulphide content and silicification in an attempt to determine the spatial position of the sulphide and iron oxide mineralization on the properties and to assist in the mapping of the geology.

#### Personnel

Brian Bower-geology student, U.B.C.  
June 25-30, July 4

Tim Huttemann-geophysics student, U.B.C.  
June 25-30, July 1-6

Tom Koecher-engineering student, U.B.C.  
June 25-30, July 4

Dave Mallalieu-geologist, Kidd Creek Mines Ltd.  
June 29-30

Grant Hendrickson-geophysicist, Kidd Creek Mines Ltd  
June 25-30

#### Equipment

1- Scintrex I.P.R. 10	Time Domain I.P. Receiver
1- Scintrex 250 Watt	Time Domain I.P. Transmitter
2- Scintrex MP-4	Magnetometers (one used in base station mode)

#### Data presentation

The data is presented in plan form at a scale of 1 to 2000.

The magnetic data is total field and is contoured in 400 nanotesla intervals to show the main features. The base field chosen for the magnetic survey is 57700 nanotesla.

In addition, a computer listing of the magnetic data is included at the back of this report. Magnetic profiles are machine-plotted beside these listings. Magnetic readings were taken every 10 metres.

The chargeability data is contoured at 1 m-sec intervals to show the very modest sulphide content of the rocks. The resistivity data is contoured at 500 ohm-m intervals to show the main trends. The induced polarization readings were taken every 20 metres.

#### **Survey Procedure**

A 3.5 km grid of seven east-west lines spaced 50 metres apart was established on the property. Station separation was 20 metres.

For the Induced Polarization survey, current electrodes (AB) were stainless steel while potential electrodes (MN) were porous ceramic pots filled with copper sulphate and containing a copper electrode. These more elaborate potential electrodes are considered necessary to prevent undesirable electrode polarization in a high accuracy survey. This type of potential electrode works on the principle that an electrode immersed in a solution of one of its own salts cannot polarize.

The Schlumberger electrode array was used for the following reasons:

- (a) simple anomaly shape
- (b) provides some information on dip
- (c) least affected by topography

- (d) better signal-to-noise ratio for a given depth of investigation (important when using a small portable transmitter).
- (e) operational ease in rough topography
- (f) good lateral resolution provided "MN" is kept small

Transmitter dipole separation on the survey was fixed at 140 m horizontal and the receiving dipole separation was fixed at 20 m horizontal. However, slope distance electrode separation varied considerably with the topography. The current dipole (AB), while remaining parallel to, was separated from the receiving dipole (MN) by a few metres. This separation avoided or reduced any electromagnetic and capacitive coupling problems. In addition, three slices of the decay curve were monitored to ensure curve shape was normal. Extra effort was made to ensure electrode contacts with the ground were always well under 50 k ohms. The care taken with the survey, plus strong primary signals (generally much greater than 50 mV) ensured accurate data to within one half a milli-second. The survey tested the 10 to 70 metre depth with prime emphasis on the upper 25 metres. A curve showing the typical depths of investigation characteristics for the array (assuming homogeneous ground) is included as Appendix A.

For the magnetic survey a base station magnetometer was run continuously (sampling every 10 seconds) to monitor the diurnal shift of the earth's magnetic field. A portable magnetometer was used with the sensor attached to a tall staff to ensure against errors created by magnetic objects on the operator. Both magnetometers were total field microprocessor-controlled

instruments capable of performing automatic diurnal corrections and plotting when connected to each other and a suitable printer. These state of the art instruments proved to be very convenient to use and durable under field conditions. A base station standard of 57700 nanotesla was assumed for all diurnal corrections.

### **Discussion of results**

Overburden thickness is negligible, thus the results are indicative of bedrock conditions.

#### **Chargeability results**

Measured over the 20 metre dipole length, the average sulphide content of the rocks is one percent. Zones of slightly increased sulphide content are contoured at 1 m sec above background. The apparent correlation of gold mineralization with copper iron sulphide is not strong enough to use reliably, however, it suggests this technique could be very significant.

At the nearby Craigmont Mine, minor chargeability anomalies were significant. Hematite mineralization does not respond to induced polarization, however, magnetite responds weakly, particularly if grain size is small.

#### **Resistivity results**

These results reflect the geology. Within volcanic rocks, tuffs are frequently in the 400 to 1500 ohm-m range. Andesites are frequently in the 2000 to 4000 ohm-m range, whereas the more felsic rocks are generally well above 4000 ohm-m.

There is not enough sulphide mineralization to affect the resistivity results, however, the presence of abundant iron oxide, (hematite) may slightly lower the resistivity results. Intense fracturing and shearing



frequently create low resistivity zones when water-filled. Subsequent silicification or carbonization may result in high resistivity, linear zones.

### **Magnetic results**

The magnetic results reflect the magnetite content of the rocks. Basic volcanic flows tend to be more magnetic than tuffs. Felsic volcanic rocks generally have a low magnetic susceptibility coupled with a high resistivity. Hematite mineralization is generally non-magnetic, thus is not revealed by this survey except when it occurs with magnetite. The association of magnetite with copper iron sulphide at the nearby Cragmont Mine was a significant exploration lead.

### **Conclusion**

The geophysical surveys have mapped the rocks in the grid according to their magnetic susceptibility, sulphide content and resistivity. These three parameters are clearly related to the geology, thus serve as a further aid in the understanding of the property and its potential.

The direct detection of gold mineralization is not possible with the geophysical method used. The indirect detection of gold mineralization is only possible if gold is associated with (a) sulphide mineralization, (b) magnetite mineralization, (c) intense silicification.

Further geophysical work will depend on the evaluation of the geological results.

  
G. Hendrickson

## Geochemical Survey

The purpose of the survey was to outline geochemically anomalous gold targets to be followed up by a geophysical survey.

Soil (1,219) and rock (81) pulps, collected by Chevron Canada Ltd. during their 1979 to 1981 program on the Gyprock Group, were analysed for Au by AA. Refer to Chevron's Assessment Reports by G.W. Laforme, January 1982, and W.A. Howell, March 1981, for more detail. Five hundred and twenty-nine of the results lie within the outline of the 1984 Diane Group as shown on Figures 7 and 9.

Two hundred and ninety-six follow-up soil samples were collected from the 'B' horizon, which ranged in depth from 20 to 35 cm. The samples were packaged in gusseted kraft paper bags and shipped to Acme Analytical Laboratories Ltd. in Vancouver.

The samples were dried and sieved to -80 mesh. A 10 g sample was ignited, leached with hot aqua regia and then underwent MIBK extraction, followed by AA analysis for Au.

Sixty-seven selected rock samples were crushed, pulverized and sieved to a -100 mesh. A 30-element ICP analysis of 0.5 grams of these samples proceeded as follows:

1. Digestion with 3 ml of 3:1:3 HCl to HNO<sub>3</sub> to H<sub>2</sub>O at 95°D for 1 hour.
2. The sample is diluted to 10 mls with H<sub>2</sub>O. This leach is partial for Ca, P, Mg, Al, Fe, La, Na, K, W, Ba, Si, Cr, Tl, B, Mn, Si, Zr, Ce, Sn, Y, Bn and Ta.
3. Gold detection involved a fire assay preparation from a 10 g sample and analysis by AA.

A total of 83, one metre interval, rock chip channel samples collected from thirteen trenches and one pit were analysed for Cu, Ag, and Au by AA, using the preparations described above.

Geochemical results are plotted at a scale of 1:5000 on Figures 7 and 9. Trench sample results are plotted on the accompanying plans at scales of 1:100 and 1:200. Sample location data and grid lines are plotted in Figures 6 and 8, as well as on the accompanying trench plans.

## **Results, Interpretation and Conclusion**

### **Soil Geochemistry**

The soil survey indicated a few anomalous gold values (above the 5 ppb lower detection limit for the analytical technique) within the Aberford Zone, adjacent to the hand-trenches. A 15 ppb Au value was obtained from the South Zone (Figure 7). Two gold values (15 ppb, 10 ppb) which were obtained adjacent to Sterling Creek, will require follow-up work. Two samples at 1550N 480W and 500W returned anomalous gold values of 55 ppb and 10 ppb, respectively. These anomalies occur along the upper edge of a steep outcrop. More follow-up is required in this general area.

The soil geochemical results demonstrated that anomalous gold values are obtainable where gold-bearing outcrops surface. Therefore a mechanical rather than chemical dispersion has occurred.

An orientation soil survey (Appendix C, samples SA 18073 to SA 18096) suggested that copper and molybdenum may be useful as pathfinders. However, rock sampling results indicated that high copper and molybdenum values were not always indicative of gold mineralization.

### Rock geochemistry

One-metre interval, rock chip, channel samples were collected from Trenches G, H, I, Tree Pit, J, K, L, N, O, R, S, T, U and W as shown on Figure 7 and on the accompanying trench plans, Appendix D.

Sampling indicated low- to medium-grade copper values up to 52,886 ppm, low-grade silver values up to 10.3 ppm, and low-grade gold values up to 7810 ppb, associated with quartz-specularite veins in shear zones. The quartz veins are often brecciated. The genesis and tectonic history are believed to be complicated. The gold is not believed to be related to the specularite since some specularite did not carry gold.

Trench J yielded 5136 ppb across 6.0 metres, which is the best result from the nine hand-trenches excavated within the Aberford Zone. The Aberford Zone, which is believed to be a narrow shear zone, has an exposed strike length of 200 metres. The quartz-specularite veins along this zone pinch and swell and are discontinuous. The South Zone yielded 52,886 ppm copper and 51 ppb Au across 1.0 metre. The LA Zone contains a narrow quartz specularite vein (10 cm) which yielded 3160 ppb Au. Low-grade gold values (up to 880 ppb over 1.0 metre) were obtained from three trenches in the North Zone. Four select grabs from quartz-specularite veins north-northwest of the North zone contain up to 890 ppb Au. The four zones (North, South, LA and Aberford) are widely separated, which indicates that there may be several shear zones parallel to the main structural trend containing the Aberford Zone.

In summary, the shear zones and mineralized quartz vein systems cross-cut stratigraphy, are discontinuous and narrow but cover an extensive area. There does not appear to be a stratigraphic control of the mineralization or emplacement of quartz veins. The low-grade gold mineralization is associated with an epithermal, quartz veining system along shear zones within volcanoclastics and mafic flows.

  
A. J. Boronowski

**STATEMENT OF EXPENDITURES  
DIANE GROUP**

**WAGES**

Alex Boronowski 14 days @ \$192/day June 30; July 4-10, 12-13, 24-27	\$ 2,688.00
Brian Bower 16 days @ \$74/day July 5-10, 12-13, 24-31	1,184.00
Tom Koecher 15 days @ \$64/day July 5-10, 12-13, 25-31	960.00
Dave Mallalieu 6 days @ \$88/day July 1-6	528.00

**FOOD AND ACCOMMODATION**

51 man-days @ \$35/man/day	1,785.00
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**TRANSPORTATION**

20 days @ \$40/day	800.00
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**LINE-CUTTING**

June 20-25; 6 days; 4,0 km at \$600/line-km	2,400.00
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**ORTHOPHOTO MAPPING**

	4,400.00
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**GEOPHYSICAL SURVEY**

June 27-30, 11 man-days 3.5 km at \$575/line-km	2,015.50
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**ANALYSES**

729 soil samples for Au @ \$4/sample	2,916.00
83 rock samples for Cu Ag Au; \$8.25/sample	684.75
20 rock samples for 30-element & Au; 11.50/sample	230.00

**REPORT WRITING**

	229.75
--	--------

	<u>\$20,818.00</u>
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**STATEMENT OF QUALIFICATIONS  
DIANE GROUP**

I, Alexander J. Boronowski, of Vancouver, British Columbia, do hereby certify that:

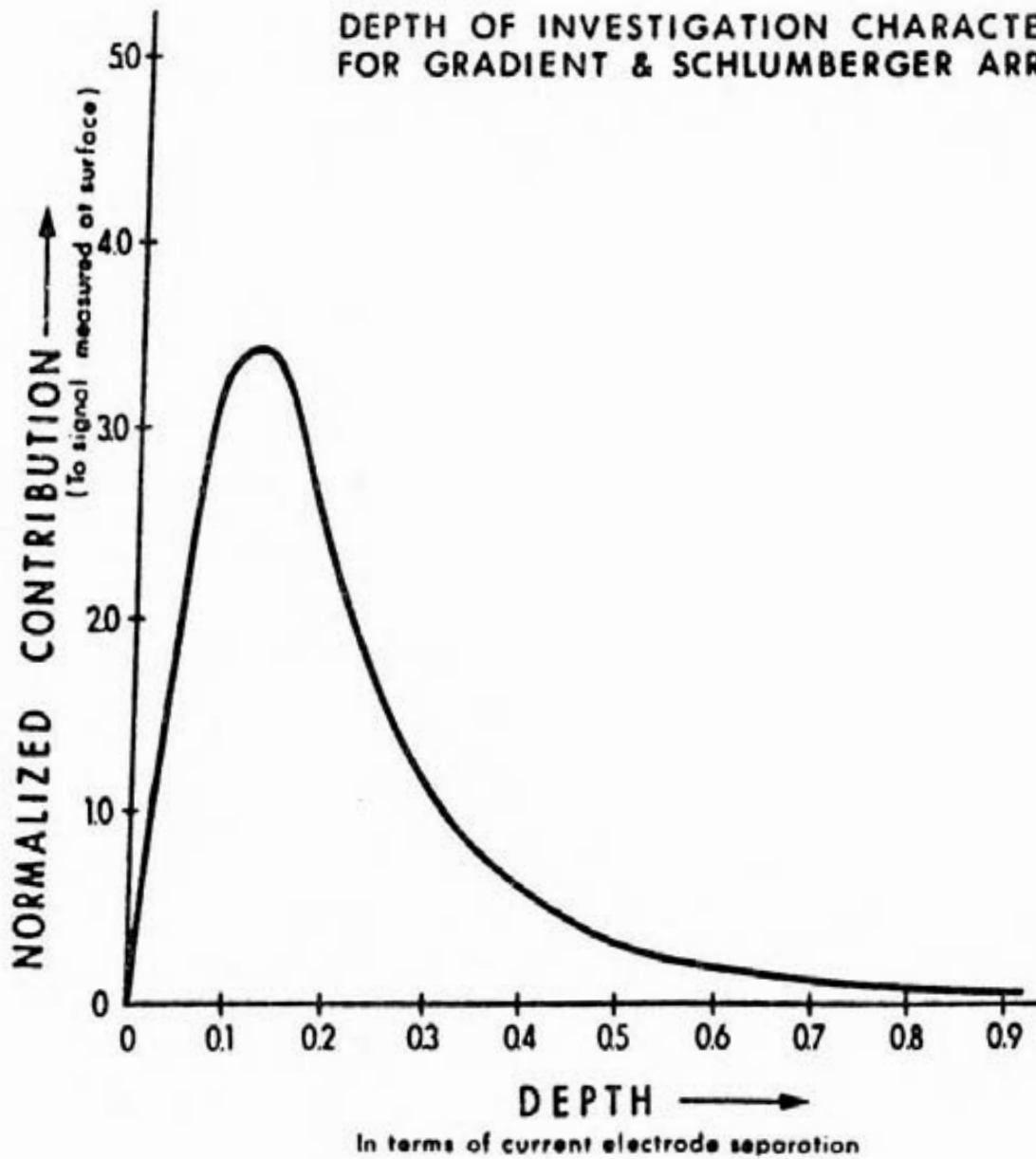
1. I am a professional geologist working full time for Kidd Creek Mines Ltd.
2. I am a graduate of the University of British Columbia (1970) with a BSc degree in Geology.
3. I am a fellow of the Geological Association of Canada.
4. Since 1970, I have worked in the mining industry as a professional geologist.

**APPENDIX A**

**Depth of Investigation Characteristics for I.P.**



### DEPTH OF INVESTIGATION CHARACTERISTICS FOR GRADIENT & SCHLUMBERGER ARRAYS



Taken from a paper by: B.B. Bhattacharya & Indrajit Dutta  
Geophysics Vol.47 No.8 page 1201

**APPENDIX B**  
**Computer Listings of Magnetic Data**

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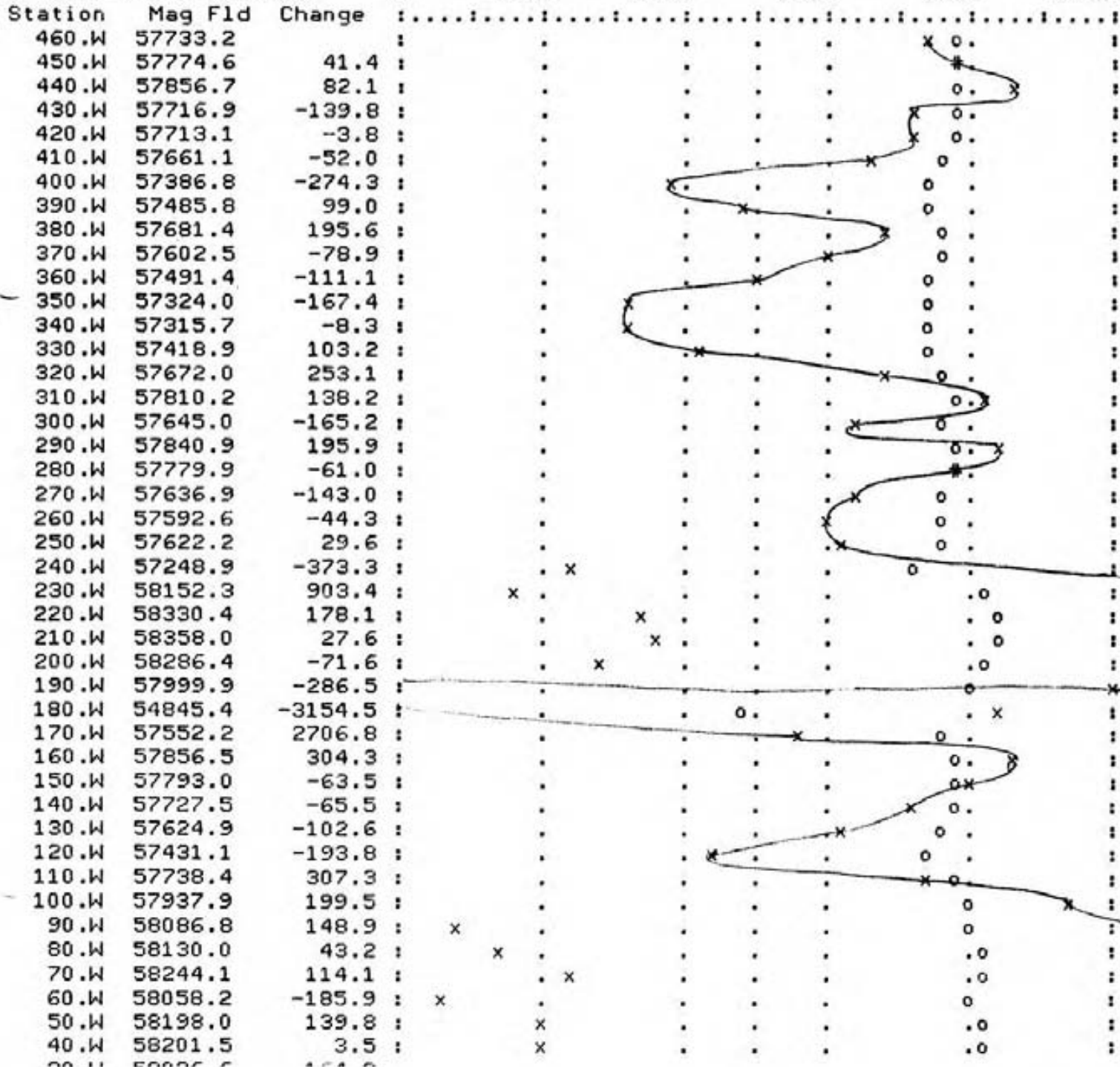
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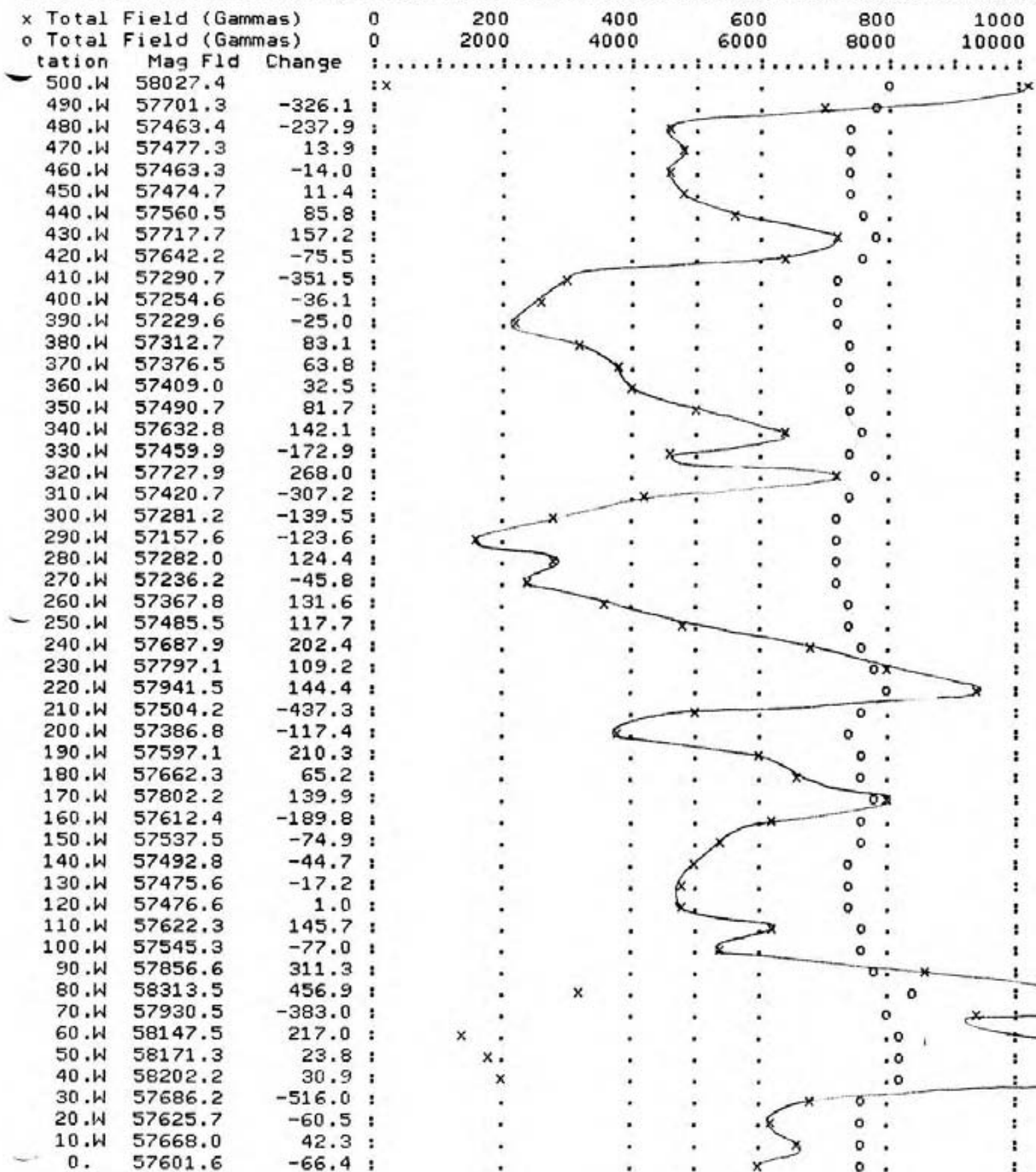
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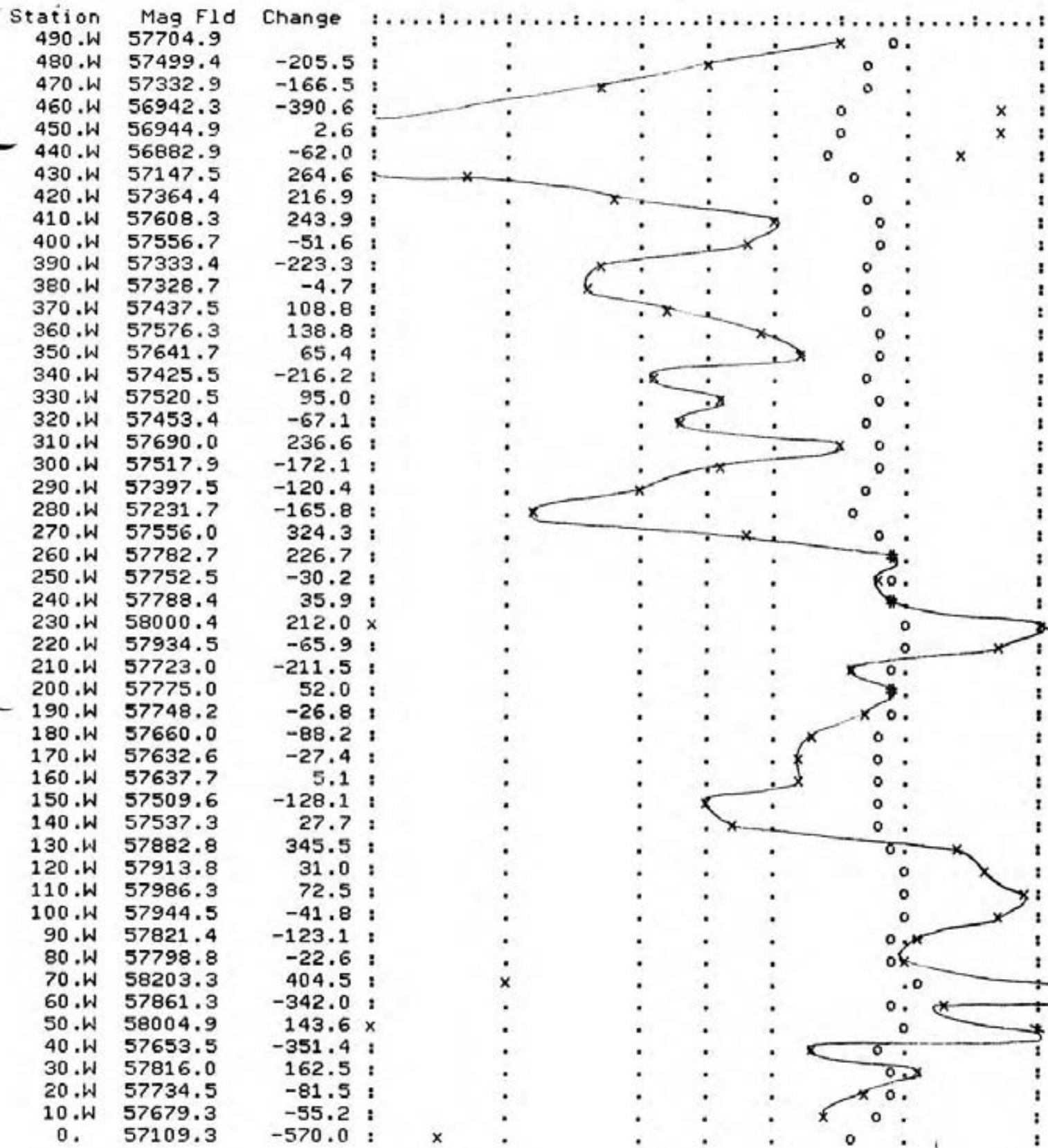
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o	Total Field (Gammas)	0	2000	4000	6000	8000	10000	
Station	Mag Fld	Change	.....					:
500.W	57817.7	:	.	.	.	0.X	:	
490.W	58176.0	358.3	x.	.	.	.0	:	
480.W	58283.0	107.0	.	x	.	.0	:	
470.W	58311.8	28.8	.	x	.	.0	:	
460.W	58534.0	222.2	.	.	x	.0	:	
450.W	58065.5	-468.5	x	.	.	.0	:	
440.W	57862.9	-202.6	.	.	.	0.X	:	
430.W	57779.9	-83.0	.	.	.	.	:	
420.W	57983.6	203.7	.	.	.	0	:	
410.W	57537.0	-446.6	.	.	.	0	:	
400.W	57590.6	53.6	.	.	x	0	:	
390.W	57594.4	3.8	.	.	x	0	:	
380.W	57412.4	-182.0	.	.	.	0	:	
370.W	57412.4	0.0	.	.	.	0	:	
360.W	57586.6	174.2	.	.	x	0	:	
350.W	57713.9	127.3	.	.	.	0	:	
340.W	57517.3	-196.6	.	.	.	0	:	
330.W	57581.1	63.8	.	.	.	0	:	
320.W	57421.9	-159.2	.	.	.	0	:	
310.W	57882.3	460.4	.	.	.	0	:	
300.W	58126.0	243.7	x	.	.	.0	:	
290.W	57596.4	-529.6	.	.	.	0	:	
280.W	57722.4	126.0	.	.	.	x 0	:	
270.W	57881.5	159.1	.	.	.	0	:	
260.W	58104.3	222.8	x	.	.	.0	:	
250.W	58112.6	8.3	x	.	.	.0	:	
240.W	57651.3	-461.3	.	.	.	0	:	
230.W	57938.1	286.8	.	.	.	0	:	
220.W	57775.5	-162.6	.	.	.	0	:	
210.W	57348.3	-427.2	.	.	.	0	:	
200.W	57423.6	75.3	.	.	.	0	:	
190.W	57528.2	104.6	.	.	.	0	:	
180.W	57459.3	-68.9	.	.	.	0	:	
170.W	57739.4	280.1	.	.	.	x 0	:	
160.W	57965.3	225.9	.	.	.	0	:	
150.W	57958.0	-7.3	.	.	.	0	:	
140.W	57466.3	-491.7	.	.	.	0	:	
130.W	57547.0	80.7	.	.	.	0	:	
120.W	57588.8	41.8	.	.	.	0	:	
110.W	57394.5	-194.3	.	.	.	0	:	
100.W	57841.2	446.7	.	.	.	0	:	
90.W	57716.2	-125.0	.	.	.	x 0	:	
80.W	57938.3	222.1	.	.	.	0	:	
70.W	58105.1	166.8	x	.	.	.0	:	
60.W	57933.1	-172.0	.	.	.	0	:	
50.W	58006.4	73.3	x	.	.	0	:	
40.W	57600.2	-406.2	.	.	.	0	:	
30.W	57805.5	205.3	.	.	.	0X	:	
20.W	57849.3	43.8	.	.	.	0	:	
10.W	57848.0	-1.3	.	.	.	0	:	
0.	57608.8	-239.2	.	.	.	x 0	:	

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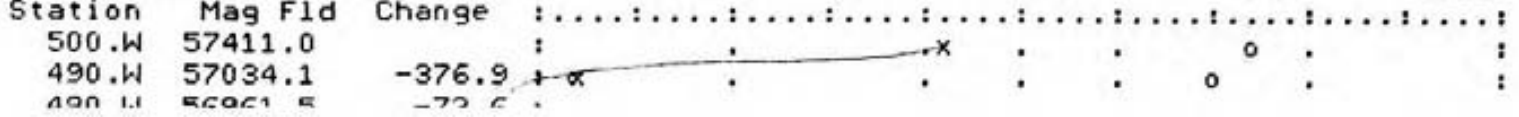


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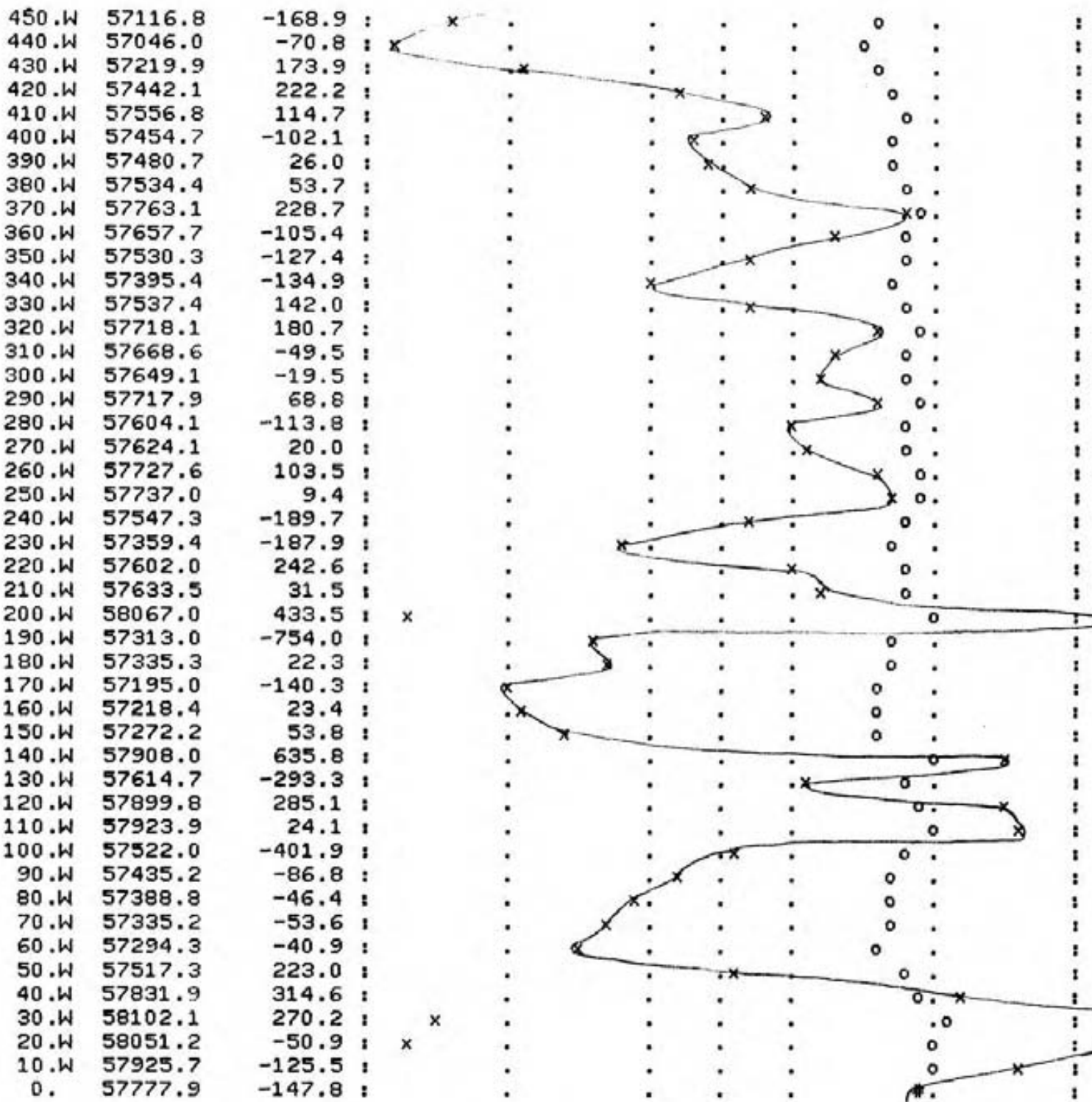


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Line: 1400.N Grid:                      3.                      Job:                      3.                      Date: 84/07/01                      Operator:                      1.  
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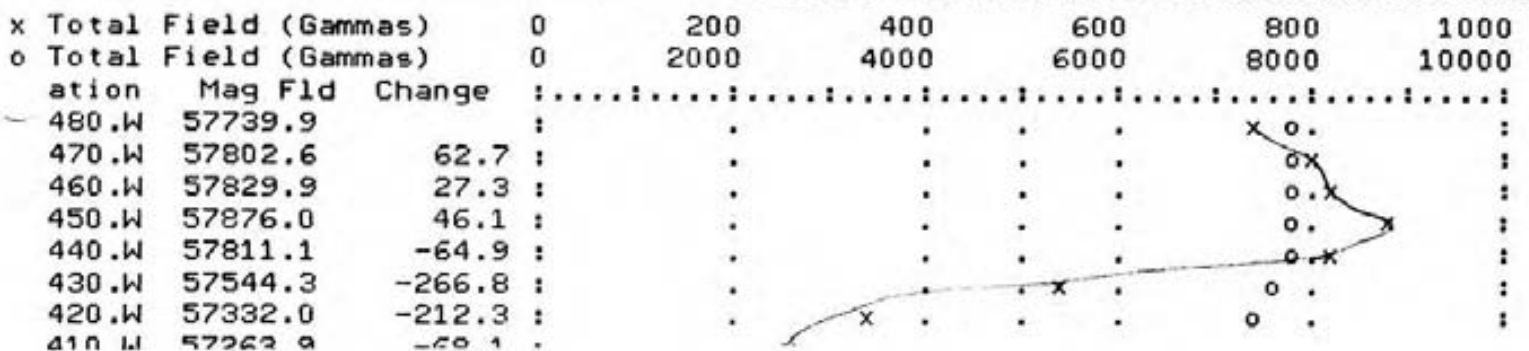
x Total Field (Gammas)	0	200	400	600	800	1000
o Total Field (Gammas)	0	2000	4000	6000	8000	10000

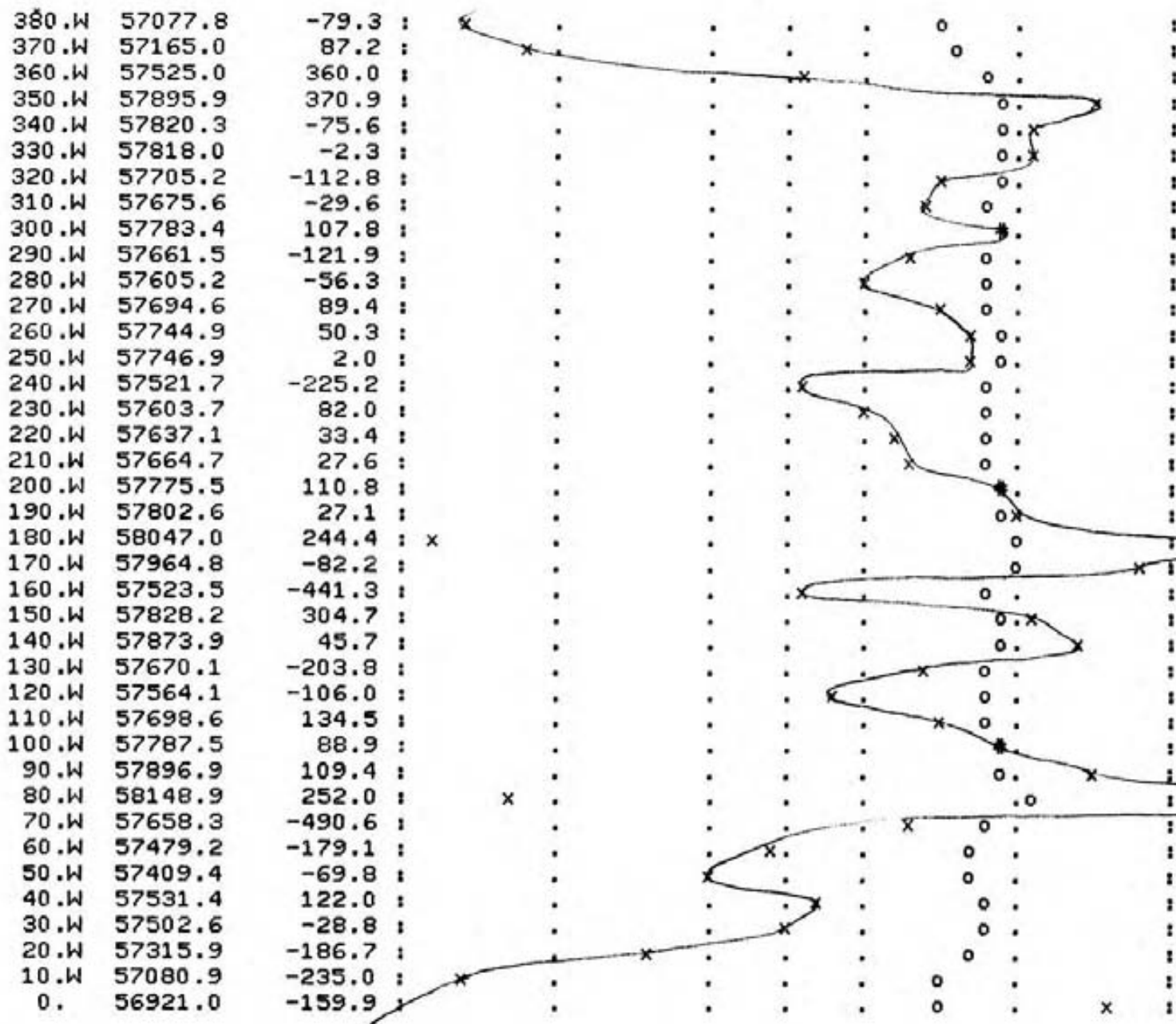




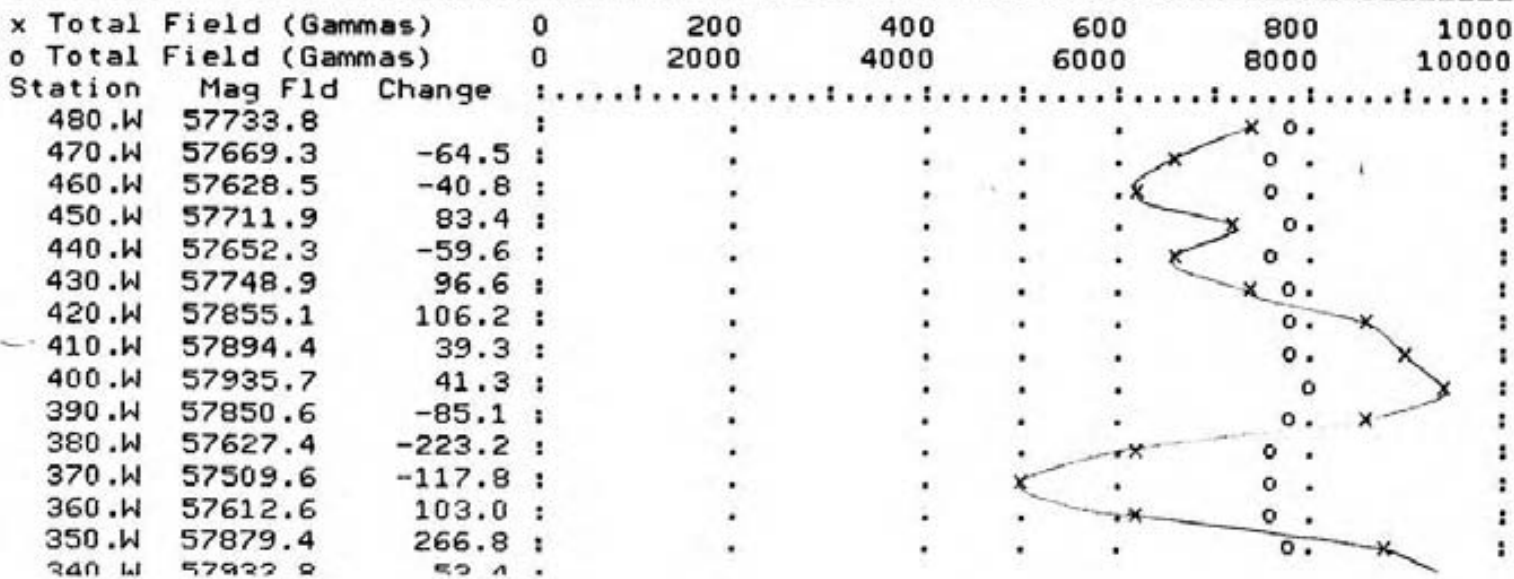


-----  
 SCINTREX V1.3                      Magnetometer  
 Base Field 57700.                    \*Uncorrected Data                    Ser No:998988.  
 Line: 1450.N Grid:                    3.                    Job:                    3.                    Date: 84/07/01                    Operator:                    1.  
 -----





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SCINTREX V1.3                      Magnetometer  
Base Field 57700.                    \*Uncorrected Data                    Ser No:998988.  
Line: 1500.N Grid:                    3.      Job:                    3.      Date: 84/07/01      Operator:                    1.  
-----





310.W	58126.1	-234.5	:
300.W	57890.8	-235.3	:
290.W	57820.5	-70.3	:
280.W	57623.5	-197.0	:
270.W	57865.5	242.0	:
260.W	57873.8	8.3	:
250.W	57703.1	-170.7	:
240.W	58012.2	309.1	:x
230.W	58229.3	217.1	:
220.W	58177.7	-51.6	:
210.W	58031.4	-146.3	:x
200.W	58019.8	-11.6	:x
190.W	58182.7	162.9	:
180.W	57710.8	-471.9	:
170.W	57720.1	9.3	:
160.W	57833.7	113.6	:
150.W	57587.3	-246.4	:
140.W	57719.2	131.9	:
130.W	57718.3	-.9	:
120.W	57671.3	-47.0	:
110.W	57638.9	-32.4	:
100.W	57629.2	-9.7	:
90.W	57589.8	-39.4	:
80.W	57593.0	3.2	:
70.W	57579.2	-13.8	:
60.W	57517.2	-62.0	:
50.W	57483.4	-33.8	:
40.W	57486.1	2.7	:
30.W	57415.4	-70.7	:
20.W	57412.9	-2.5	:
10.W	57396.4	-16.5	:
0.	57277.8	-118.6	:

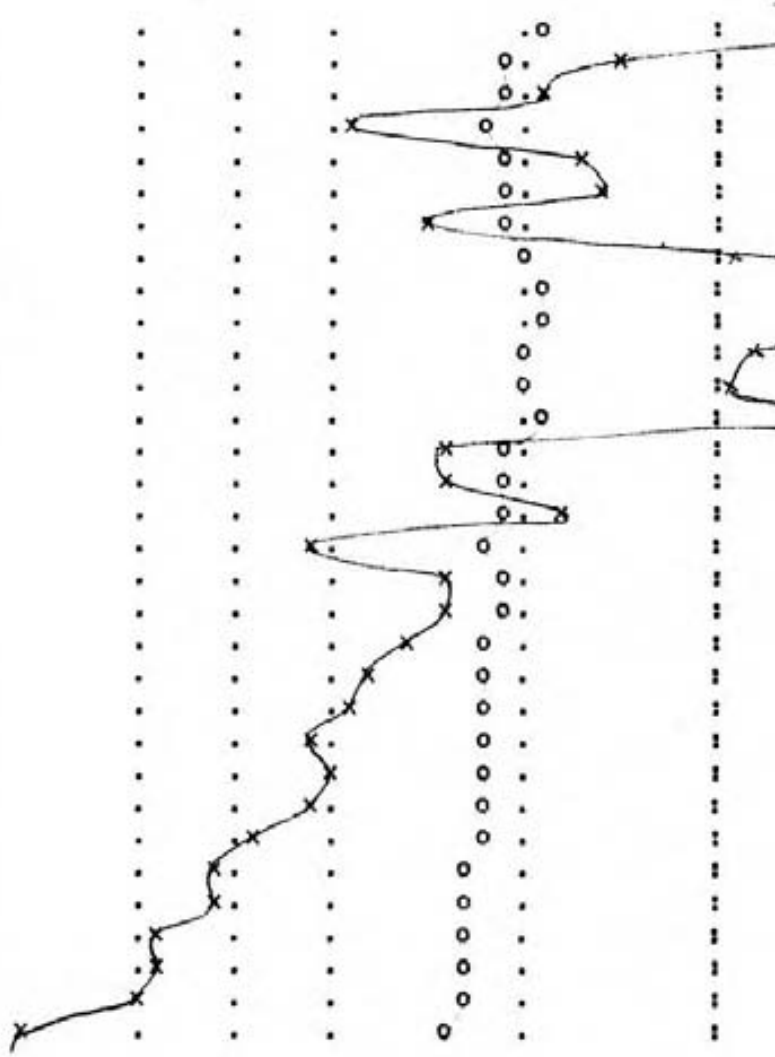
x

.x

x.

:

x.



**APPENDIX C**  
**Geochemical Results**

SAMPLE	AU* PPB	
SA-18097	5	1500 N 00 W
SA-18098	5	20
SA-18099	5	40
SA-18100	5	60
SA-18101	5	80
SA-18102	5	100
SA-18103	135	STANDARD
SA-18104	5	120
SA-18105	5	140
SA-18106	5	160
SA-18107	5	180
SA-18108	35	200
SA-18109	5	220
SA-18110	45	240
SA-18111	5	260
SA-18112	25	280
SA-18113	5	300
SA-18114	5	320
SA-18115	5	340
SA-18116	5	360
SA-18117	5	380
SA-18118	5	400
SA-18119	5	420
SA-18120	5	440
SA-18121	5	460
SA-18122	5	1500 N 480 W
SA-18123	5	1450 N 480 W
SA-18124	5	460
SA-18125	135	STANDARD
SA-18126	5	440
SA-18127	5	420
SA-18128	5	400
SA-18129	5	380
SA-18130	5	360
SA-18131	5	340
SA-18132	5	320
SA-18133	5	300

SAMPLE	AUX PPB	
SA-18134	5	280
SA-18135	5	260
SA-18136	5	240
SA-18137	5	220
SA-18138	5	200
SA-18139	5	180
SA-18140	5	160
SA-18141	5	140
SA-18142	5	120
SA-18143	5	100
SA-18144	5	80
SA-18145	130	STANDARD
SA-18146	5	60
SA-18147	5	40
SA-18148	5	20
SA-18149	5	1450 N 00 W
SA-18150	5	1400 N 00 W
SA-18151	5	20
SA-18152	5	40
SA-18153	5	60
SA-18154	5	80
SA-18155	5	100
SA-18156	5	120
SA-18157	15	140
SA-18158	5	160
SA-18159	5	180
SA-18160	10	200
SA-18161	5	220
SA-18162	100	240
SA-18163	5	260
SA-18164	5	280
SA-18165	5	300
SA-18166	5	320
SA-18167	5	340
SA-18168	5	360
SA-18169	5	380
SA-18170	130	STANDARD

SAMPLE	AU*	PPB	
SA-18171	5		400
SA-18172	5		420
SA-18173	5		440
SA-18174	5		460
SA-18175	5		480
SA-18176	5		1400 N 500 W
SA-18177	5		1350 N 480 W
SA-18178	5		460
SA-18179	115		STANDARD
SA-18180	5		440
SA-18181	5		420
SA-18182	5		400
SA-18183	5		380
SA-18184	5		360
SA-18185	5		340
SA-18186	5		320
SA-18187	5		300
SA-18188	5		280
SA-18189	5		260
SA-18190	150		1350 N 240 W
SA-18191	5		220
SA-18192	5		200
SA-18193	5		180
SA-18194	5		160
SA-18195	5		140
SA-18196	5		120
SA-18197	5		100
SA-18198	5		80
SA-18199	5		60
SA-18200	5		40
SA-18201	5		20
SA-18202	5		1350 N 00 W
SA-18203	5		1300 N 00 W
SA-18204	5		20
SA-18205	5		40
SA-18206	5		60
SA-18207	5		80

SAMPLE	AUX PPB	
SA-18208	5	100
SA-18209	5	120
SA-18210	105	STANDARD
SA-18211	5	140
SA-18212	5	160
SA-18213	5	180
SA-18214	5	200
SA-18215	5	220
SA-18216	5	240
SA-18217	5	260
SA-18218	5	280
SA-18219	5	300
SA-18220	5	320
SA-18221	5	340
SA-18222	5	360
SA-18223	5	380
SA-18224	5	400
SA-18225	5	420
SA-18226	5	440
SA-18227	5	460
SA-18228	5	480
SA-18229	5	1300 N 500 W
SA-18230	100	STANDARD
SA-18231	5	1250 N 500 W
SA-18232	5	480
SA-18233	15	1250 N 460 W
SA-18234	5	440
SA-18235	5	420
SA-18236	5	400
SA-18237	5	380
SA-18238	5	360
SA-18239	5	340
SA-18240	5	320
SA-18241	5	300
SA-18242	5	280
SA-18243	95	STANDARD
SA-18244	5	260

SAMPLE	AU# PPB	
SA-18245	5	240
SA-18246	5	220
SA-18247	5	200
SA-18248	5	180
SA-18249	5	160
SA-18250	5	140
SA-18251	5	120
SA-18252	5	100
SA-18253	5	80
SA-18254	5	60
SA-18255	5	40
SA-18256	5	20
SA-18257	5	1250 N 00 W
SA-18258	5	1200 N 00 W
SA-18259	5	20
SA-18260	5	40
SA-18261	5	60
SA-18262	5	80
SA-18263	5	100
SA-18264	5	120
SA-18265	135	STANDARD
SA-18266	5	140
SA-18267	5	160
SA-18268	5	180
SA-18269	5	200
SA-18270	5	220
SA-18271	5	240
SA-18272	5	260
SA-18273	5	280
SA-18274	5	300
SA-18275	5	320
SA-18276	5	340
SA-18277	5	360
SA-18278	5	380
SA-18279	5	400
SA-18280	5	420
SA-18281	5	440

SAMPLE	AU# FPB		
SA-18282	5	1200 N	460 W
SA-18283	5	1550 N	00 W
SA-18284	5		20
SA-18285	5		40
SA-18286	5		60
SA-18287	5		80
SA-18288	5		100
SA-18289	105	STANDARD	
SA-18290	5		120
SA-18291	5		140
SA-18292	5		160
SA-18293	5		180
SA-18294	5		200
SA-18295	5		220
SA-18296	5		240
SA-18297	5		260
SA-18298	25	1550 N	280 W
SA-18299	5		300
SA-18300	5		320
SA-18301	5		340
SA-18302	5		360
SA-18303	5		380
SA-18304	5		400
SA-18305	5		420
SA-18306	5		440
SA-18307	5		460
SA-18308	55	1550 N	480 W
SA-18309	10	1550 N	500 W
SA-18310	120	STANDARD	
SA-18311	5	1600 N	500 W
SA-18312	5		480
SA-18313	5		460
SA-18314	5		440
SA-18315	5		420
SA-18316	5		400
SA-18317	5		380
SA-18318	5		360



SAMPLE	AUX PPB	
SA-18319	5	340
SA-18320	5	320
SA-18321	5	300
SA-18322	5	280
SA-18323	5	260
SA-18324	5	240
SA-18325	5	220
SA-18326	105	STANDARD
SA-18327	5	200
SA-18328	5	180
SA-18329	5	160
SA-18330	5	140
SA-18331	5	120
SA-18332	5	100
SA-18333	5	80
SA-18334	5	60
SA-18335	5	40
SA-18336	5	20
SA-18337	5	1600 N 00 W
SA-18338	5	1650 N 00 W
SA-18339	5	20
SA-18340	15	40
SA-18341	5	60
SA-18342	10	80
SA-18343	5	100
SA-18344	5	120
SA-18345	5	140
SA-18346	5	160
SA-18347	5	180
SA-18348	5	200
SA-18349	5	220
SA-18350	5	240
SA-18351	5	260
SA-18352	5	280
SA-18354	5	300
SA-18355	5	320
SA-18356	5	340
SA-18353	?	STANDARD

SAMPLE	AU* PPB	
SA-18357	5	360
SA-18358	5	1650 N 380 W
SA-18359	5	1700 N 400 W
SA-18360	5	380
SA-18361	5	360
SA-18362	5	340
SA-18363	5	320
SA-18364	5	300
SA-18366	5	380
SA-18367	5	260
SA-18368	5	240
SA-18369	5	220
SA-18370	5	200
SA-18371	5	180
SA-18372	5	160
SA-18373	5	140
SA-18374	5	120
SA-18375	5	100
SA-18376	5	80
SA-18377	5	60
SA-18378	5	40
SA-18379	5	20
SA-18380	5	1700 N 00 W
SA-18365	?	STANDARD

KIDD CREEK MINES PROJECT # 948 FILE # 84-1358

SAMPLE#		MO	CU	PB	ZN	AS	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AU#		
		PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM		
<i>ABERFORD GRID</i>																																		
<i>1350N 200W</i>	SA-18073	1	39	3	122	.4	9	5	771	2.63	2	2	ND	2	20	1	2	2	51	.33	.09	4	12	.22	300	.07	4	1.64	.02	.07	2	5		
	210 SA-18074	1	32	6	83	.1	11	6	550	2.46	2	2	ND	2	21	1	2	2	58	.33	.05	4	17	.33	250	.10	5	2.09	.01	.06	2	5		
	220 SA-18075	2	212	5	98	.2	14	8	934	2.95	2	2	ND	2	25	1	2	2	66	.42	.05	7	21	.41	285	.09	7	3.20	.01	.08	2	5		
	230 SA-18076	1	18	1	52	.1	10	6	427	2.39	2	2	ND	2	26	1	2	2	66	.38	.04	4	18	.32	197	.12	6	1.64	.01	.06	2	5		
	240 SA-18077	1	61	1	62	.1	13	11	720	2.96	2	2	ND	2	25	1	2	2	75	.40	.03	5	21	.39	222	.12	7	2.12	.01	.08	2	5		
	250 SA-18078	1	55	6	97	.1	12	8	2202	2.74	2	2	ND	2	29	1	2	2	58	.49	.07	7	17	.33	512	.10	7	2.84	.02	.10	2	5		
	260 SA-18079	2	36	6	118	.1	11	9	1646	2.94	2	2	ND	2	18	1	2	2	53	.25	.12	6	12	.24	345	.07	4	2.49	.02	.09	2	5		
	270 SA-18080	2	39	2	106	.1	11	12	1888	2.37	2	2	ND	2	24	1	2	2	42	.37	.08	6	10	.21	590	.07	7	2.64	.02	.13	2	5		
	278 SA-18081	1	21	3	82	.1	8	5	641	2.00	2	2	ND	2	19	1	2	2	35	.26	.04	3	7	.17	294	.08	6	2.13	.02	.11	2	5		
	288 SA-18082	1	46	1	58	.1	12	8	530	2.99	2	2	ND	2	31	1	2	2	75	.41	.03	7	25	.39	273	.13	10	2.19	.01	.09	2	5		
<i>1400N 180W</i>	SA-18083	1	21	1	61	.2	9	6	425	2.43	2	2	ND	2	26	1	2	2	64	.50	.05	4	20	.33	186	.11	7	1.38	.02	.06	2	5		
	190 SA-18084	1	20	2	130	.1	13	7	1239	2.09	2	2	ND	2	26	1	2	2	48	.47	.11	5	14	.25	328	.09	6	1.97	.02	.10	2	5		
	200 SA-18085	1	17	1	75	.1	11	8	655	2.59	2	2	ND	2	27	1	2	2	69	.47	.04	5	21	.35	284	.13	7	1.89	.02	.06	2	5		
	210 SA-18086	1	21	2	112	.1	10	6	620	2.27	2	2	ND	2	22	1	2	2	53	.38	.04	4	16	.31	284	.12	9	2.18	.02	.10	2	5		
	220 SA-18087	1	32	3	78	.1	11	8	774	2.47	2	2	ND	2	24	1	2	2	59	.39	.03	6	18	.32	319	.12	9	2.68	.02	.07	2	5		
	230 SA-18088	7	862	6	97	.7	11	58	2264	4.70	4	2	ND	2	14	1	2	2	65	.20	.14	5	14	.30	282	.08	5	2.47	.01	.06	2	540		
	240 SA-18089	1	264	3	79	.1	12	11	448	3.10	2	2	ND	2	19	1	2	2	60	.27	.11	4	17	.31	202	.10	6	2.98	.01	.06	2	325		
	250 SA-18090	1	60	1	92	.1	11	10	1503	2.63	2	2	ND	2	35	1	2	2	55	.52	.04	7	17	.29	384	.12	9	2.58	.01	.14	2	5		
	260 SA-18091	1	33	1	73	.1	7	4	516	1.59	2	2	ND	2	20	1	2	2	34	.28	.03	3	10	.16	210	.08	4	1.75	.02	.08	2	5		
	270 SA-18092	1	24	1	108	.1	8	5	640	1.44	2	2	ND	2	16	1	2	2	27	.19	.11	2	7	.14	243	.07	5	1.65	.02	.06	2	5		
<i>STANDARD</i>	SA-18093	11	1353	15	195	.4	4	9	889	4.26	13	2	ND	2	63	1	11	2	39	4.03	.11	2	2	.96	50	.01	4	.46	.04	.14	2	120		
<i>41N 47E</i>	SA-18094	2	71	2	78	.1	11	10	933	2.45	6	2	ND	2	40	1	2	2	58	.81	.10	4	17	.40	258	.06	3	1.57	.02	.16	2	5		
<i>47N 45.5E</i>	SA-18095	1	19	4	84	.2	11	8	639	2.38	2	2	ND	2	25	1	2	2	60	.35	.06	3	17	.33	210	.10	4	1.91	.01	.06	2	5		
<i>47N 46.25E</i>	SA-18096	1	32	5	113	.3	10	7	792	2.04	2	2	ND	2	27	1	2	2	42	1.08	.03	5	13	.33	395	.08	6	2.41	.02	.05	2	5		
	STD A-1/AU 0.5	2	29	39	186	.3	36	13	1029	2.78	10	2	ND	2	37	1	2	2	56	.62	.10	6	64	.63	263	.09	7	2.05	.02	.20	2	490		



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604) 984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : KIDD CREEK MINES LTD.,  
ATTN: PETER DELANCEY  
701 - 1281 W. GEORGIA ST.  
VANCOUVER, B.C.  
V6E 3J7

CERT. # : A8411951-001-A  
INVOICE # : I8411951  
DATE : 1-JUN-84  
P.O. # : NONE  
948

ATTN: AL BORONOWSKI

Sample description	Prep code	Au ppb FA+AA					
DA 4601	213	30	--	--	--	--	--

*STREAM sediment from west side of IRON MOUNTAIN-STIRLING CREEK*



MEMBER  
CANADIAN TESTING  
ASSOCIATION

Certified by *Hart Buchler* .....

SAMPLE#	CU PPM	AG PPM	AU** PPB
AB-16304	732	.1	50
AB-16305	541	1.1	240
AB-16306	239	.1	70
AB-16307	138	.1	10
AB-16308	558	.1	36
AB-16309	302	.1	9
AB-16310	114	.1	6
AB-16311	126	.1	10
AB-16312	1276	.2	140
AB-16313	36774	.1	64
AB-16314	752	3.0	5900
AB-16315	884	4.7	5200
AB-16316	777	4.3	590
AB-16317	1476	4.0	575
AB-16318	1435	3.0	380
AB-16319	843	1.9	5
AB-16320	3016	.4	29
AB-16321	1942	.2	8
AB-16322	1710	.1	4
AB-16323	926	.1	11
AB-16324	1104	.1	28
AB-16325	2696	3.5	870
AB-16326	3507	.3	38
AB-16327	1620	.2	39
AB-16328	7862	2.2	230
AB-16329	3065	.7	150
AB-16330	17899	.5	34
AB-16331	4583	.5	55
AB-16332	1639	.2	85
AB-16333	3904	.1	23
AB-16334	7920	.3	880
AB-16335	5694	1.2	290
AB-16336	3213	.3	14
AB-16337	359	.2	4
AB-16338	253	17.6	3
AB-16339	111	4.7	1
AB-16340	179	.2	2
STD S-1/FA-AU	122	31.5	56

SAMPLE#	CU PPM	AG PPM	AU** PPB
AB-16341	95	.1	2
AB-16369	66	.1	13
AB-16370	50	.1	6
AB-16371	19	.1	2
AB-16372	21	.2	7
AB-16373	55	.1	3
AB-16374	126	.2	13
STD S-1/FA-AU	121	31.6	53

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS, VANCOUVER B.C.  
PH: (604)253-3158 COMPUTER LINE:251-1011

DATE RECEIVED JUNE 30 1984

DATE REPORTS MAILED

*July 6/84*

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PULVERIZED TO -100 MESH.  
AU\*\*, PD, PT - 10 GM FIRE ASSAY CONCENTRATION, HNO3 LEACHED,  
AQUA REGIA DIGESTION, GRAPHITE FURNACE AA ANALYSIS.

ASSAYER *D. T. T. T.* DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINES PROJECT# 948 FILE# 84-1358

PAGE# 2

SAMPLE	AU** PPB
AB-16033	4
AB-16034	12
AB-16035	2
AB-16036	11
AB-16037	45
AB-16038	8
AB-16039	3



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

DATE RECEIVED: JULY 18 1984

DATE REPORT MAILED: *July 23/84*

### GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-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.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: ROCK AU\*\* ANALYSIS BY FA+AA FROM 10 GRAM SAMPLE.

ASSAYER: *N. Papp* DEAN TOYE. CERTIFIED B.C. ASSAYER

KIDD CREEK MINES PROJECT # 948 FILE # 84-1641 PAGE 1

SAMPLE#	CU PPM	AG PPM	AU** PPB
AB 16051	128	.2	1
AB 16052	45	.1	1
AB 16053	15	.1	1
AB 16054	20	.1	1
AB 16055	11	.1	1
AB 16056	7	.1	1
AB 16057	4	.1	1
AB 16058	45	.1	2
AB 16059	274	.2	1
AB 16060	314	.2	3
AB 16061	113	.1	2
AB 16062	103	.1	1
AB 16063	103	.1	2
AB 16064	107	.1	3
AB 16065	695	.1	9
AB 16066	1159	.1	115
AB 16067	710	.1	5
AB 16068	389	.1	18
AB 16069	167	.1	4
AB 16070	75	.1	4
AB 16071	13	.1	1
AB 16072	68	.1	3
AB 16073	179	.1	4
AB 16074	125	.1	3
AB 16075	214	.1	8
AB 16076	17	.1	2
AB 16077	104	.3	1
AB 16078	113	.1	1
AB 16079	128	.2	1
AB 16080	124	.2	1
AB 16081	169	.1	11
AB 16082	44	.2	3
AB 16083	174	.1	2
AB 16084	177	.1	1
AB 16085	174	.1	3
AB 16086	79	.1	2
AB 16087	40	.1	2
AB 16088	470	.1	2
STD S-1/FA-AU	124	35.3	52

SAMPLE#	CU PPM	AG PPM	AU** PPB
AB 16089	825	.1	11
AB 16090	273	.1	4
AB 16091	90	.1	6
AB 16092	75	.1	1
AB 16093	121	.1	1
AB 16094	168	.1	1
AB 16095	71	.1	1
AB 16256	1777	.1	21
AB 16258	1039	.1	1
AB 16259	1086	.1	2
AB 16260	696	.1	1
AB 16261	728	.1	1
AB 16262	548	.1	3
AB 16263	272	.1	1
AB 16264	347	.1	1
AB 16265	219	.1	1
AB 16266	267	.1	1
AB 16267	144	.1	1
AB 16268	158	.1	7
AB 16269	13076	2.9	16
AB 16270	815	.9	3
AB 16271	4333	4.3	13
AB 16272	932	.3	5
AB 16273	999	.4	9
AB 16274	2010	.4	150
AB 16275	1035	.2	165
AB 16276	1282	.1	1
AB 16277	64	.2	1
AB 16278	47	.1	1
AB 16279	411	.1	3
AB 16280	80	.1	1
AB 16281	237	.1	2
AB 16282	121	.3	20
AB 16283	35	.1	1
AB 16284	12	.1	1
AB 16285	19	.1	2
AB 16286	8	.1	2
AB 16287	52886	6.2	155
STD S-1/FA-AU	124	35.6	51

### GEOCHEMICAL ASSAY CERTIFICATE

A .50 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL:HNO3:H2O AT 90 DEG. C. FOR 1 HOUR.  
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : AG CU AU\*\*  
SAMPLE TYPE : ROCK - CRUSHED AND PULVERIZED TO -100 MESH.  
AU\*\*, PD. PT - 10 GM FIRE ASSAY CONCENTRATION, HNO3 LEACHED,  
AQUA REGIA DIGESTION, GRAPHITE FURNACE AA ANALYSIS.

ASSAYER: *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINES PROJECT# 948 FILE# 84-1516 PAGE# 1

SAMPLE	AG PPM	CU PPM	AU** PPB
AB 16101	.1	890	4
AB 16102	.3	1600	41
AB 16103	.3	1350	20
AB 16104	.3	1700	31
AB 16105	.5	1250	410
AB 16106	.1	805	1
AB 16107	.1	570	2
AB 16108	.1	30	1
AB 16109	.1	102	1
AB 16110	.1	520	1
AB 16111	.8	1450	65
AB 16112	.1	415	2
AB 16113	.1	132	8
AB 16114	.1	380	1
AB 16115	.1	90	1
AB 16116	.1	655	1
AB 16117	.2	1050	15
AB 16118	.5	1650	75
AB 16119	.3	1100	5
AB 16120	.4	735	125
AB 16121	.1	750	1
AB 16122	.5	1650	75
AB 16123	.1	230	11
AB 16124	.1	102	2
AB 16125	.1	225	1
AB 16126	.1	415	24
AB 16127	.1	315	4
AB 16128	.1	700	15
AB 16129	.1	1700	32
AB 16130	.1	645	55
AB 16131	.1	715	110
AB 16132	.1	460	50
AB 16133	.2	530	605
AB 16134	.1	950	125
AB 16135	.1	1600	115
AB 16136	.1	305	10
AB 16137	.1	365	30

SAMPLE	AG PPM	CU PPM	AU*Y PPB
AB 16138	.3	184	1
AB 16139	.4	535	6
AB 16140	.2	29	6
AB 16141	.3	195	5
AB 16142	.2	170	7
AB 16143	.1	74	2
AB 16144	.4	275	4
AB 16145	.2	168	210
AB 16146	.3	305	7
AB 16147	.2	260	10
AB 16148	.2	370	8
AB 16149	.5	1050	40
AB 16150	.2	138	1
AB 16151	.3	174	5
AB 16152	.5	435	5
AB 16153	.6	2350	3
AB 16154	.9	4200	8
AB 16155	1.2	1800	2
AB 16156	1.0	1850	20
AB 16157	1.7	1050	1
AB 16158	6.0	2350	1
AB 16159	8.6	1150	20
AB 16160	8.0	780	23
AB 16161	1.2	880	4
AB 16162	2.5	475	3
AB 16163	3.1	365	280
AB 16165	83.2	1550	3
AB 16166	71.8	435	6
AB 16167	36.8	345	2
AB 16168	16.4	255	2
AB 16169	95.4	650	3
AB 16170	83.2	825	8
AB 16171	6.5	198	2
AB 16172	1.2	50	1
AB 16173	1.8	44	1
AB 16174	1.6	72	1

SAMPLE	AG PPM	CU PPM	AU** PPB
AB 16175	1.2	82	5
AB 16176	.6	50	1
AB 16177	.6	82	1
AB 16178	.6	32	1
AB 16179	.3	23	1
AB 16180	.8	14	1
AB 16181	.3	13	1
AB 16182	.9	23	1
AB 16183	2.0	19	2
AB 16184	4.3	58	1
AB 16185	7.8	132	2
AB 16186	9.5	190	1
AB 16187	8.2	395	1
AB 16188	.2	106	1
AB 16189	.3	11	2
AB 16190	.2	16	1
AB 16191	.2	17	1
AB 16192	.1	32	8
AB 16193	.3	390	1
AB 16194	.1	82	1
AB 16195	.2	32	1
AB 16196	.3	435	490
AB 16197	.1	23	2
AB 16198	.1	42	1
AB 16199	.1	245	1
AB 16200	.1	64	1
AB 16201	.1	45	5
AB 16202	.2	14	4
AB 16203	.1	17	4
AB 16204	.1	164	65
AB 16205	.3	525	130
AB 16206	.1	1250	410
AB 16207	.4	905	715
AB 16208	.4	890	560
AB 16209	.8	1750	690
AB 16210	.2	205	14
AB 16211	.3	470	42

SAMPLE	AG PPM	CU PPM	AU** PPB
AB 16212	.5	525	120
AB 16213	.5	430	55
AB 16214	1.1	690	2390
AB 16215	.7	625	715
AB 16216	1.1	1150	1900
AB 16217	.6	1150	235
AB 16218	.7	910	450
AB 16219	.4	220	1780
AB 16220	4.5	1150	5610
AB 16221	1.8	1550	1980
AB 16222	2.9	1350	3730
AB 16223	2.5	7600	735
AB 16224	.3	1750	30
AB 16225	.3	815	12
AB 16226	.1	290	5
AB 16227	.1	270	9
AB 16228	2.2	1500	2870
AB 16229	1.8	1950	2160
AB 16230	1.7	1350	795
AB 16232	3.1	445	990
AB 16233	2.2	174	360
AB 16234	2.0	705	350
AB 16235	2.6	2450	340
AB 16236	3.3	795	390
AB 16237	1.4	810	45
AB 16238	.7	385	32
AB 16239	.5	425	15
AB 16240	.6	465	18
AB 16241	.7	415	12
AB 16242	5.7	3000	155
AB 16243	1.9	3200	140
AB 16244	.3	455	73
AB 16245	.3	445	30
AB 16246	6.3	1950	5610
AB 16247	5.4	825	5320
AB 16248	10.3	820	7810

SAMPLE	AG PPM	CU PPM	AU** PPB
AB 16249	20.3	1650	980
AB 16250	2.4	3200	39
AB 16251	.7	1550	23
AB 16252	.9	550	13
AB 16253	.3	160	3
AB 16254	.7	2150	12
AB 16255	1.2	2500	3960
AB 16465	.4	695	1
AB 16466	.7	1450	40
AB 16467	.4	3200	31
AB 16468	.4	1350	14
AB 16469	.6	1350	30
AB 16470	.9	1700	12
AB 16471	.9	705	30
AB 16472	.8	555	60
AB 16473	.4	255	8
AB 16474	.2	134	2
AB 16475	.3	21	6
AB 16476	.3	34	1
AB 16477	.1	35	1
AB 16478	.2	8	9
AB 16479	.3	220	1
AB 16480	.1	14	1
AB 16481	.1	5	1
AB 16482	.2	16	1
AB 16483	.4	49	1
AB 16484	.1	62	1
AB 16485	.2	62	1
AB 16486	.2	32	1
AB 16487	.1	34	2
AB 16488	.5	112	3
AB 16489	.8	410	3
AB 16490	.4	260	2
AB 16491	.4	184	3
AB 16492	.3	345	4
AB 16493	.3	485	3
AB 16494	.2	194	51



SAMPLE	AG PPM	CU PPM	AU** PPB
AB 16495	.4	245	65
AB 16496	.3	385	14
AB 16497	.4	445	3
AB 16498	.1	76	6
AB 16499	.4	112	1
AB 16500	.3	102	1

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 2ML 3-1-3 HCL-HNO3-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, R, AL, NA, K, N, SI, ZR, CE, SN, Y, MO AND TA, AU DETECTION LIMIT BY ICP IS 1 PPM.  
 - SAMPLE TYPE: ROCK CHIPS AU11 ANALYSIS BY FA+AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: MAY 30 1984 DATE REPORT MAILED: *June 4/84* ASSAYER: *D. C. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINES PROJECT # 948 FILE # 34-0915

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SAMPLE#	MG	CU	FE	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CO	SB	BI	V	CR	P	LA	CR	MG	BA	TI	D	AL	NA	K	N	SI	ZR	CE	SN	Y	MO	TA
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	%	%	%	%	%	%	%	
AE-16017	10	249E	1	70	2.4	5	8	44E	15.7E	10	2	2	2	4	5	2	2	52	.09	.07	2	1	.69	40	.07	2	2.49	.01	.15	21	2200						
AB-18014	5	204E	5	49	2.1	5	28	249	10.20	10	2	2	2	7	4	2	2	46	.09	.09	2	16	.78	36	.01	2	1.71	.71	.27	4	2600						

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR NA, FE, CU, P, CR, Ni, Mn, TI, B, Rb, Cs, Sr, Y, K, AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK CRIPS AUST ANALYSIS BY FAMA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUNE 19 1984 DATE REPORT MAILED: *Jan 20/84* ASSAYER: *D. Tope*...DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK PROJECT # 948 FILE # 84-1155

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SAMPLE#	NO	CU	PB	ZN	AG	NI	CO	NI	FE	AS	U	MO	TH	SR	CB	SR	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AUT
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
AB 16022	1	2942	2	115	1.0	1	17	884	12.84	8	4	ND	2	4	1	2	2	74	.32	.07	2	30	1.27	28	.01	3	2.55	.01	.12	2	80
AB 16023	4	1605	2	19	20.5	3	5	151	13.91	11	2	5	3	9	1	2	2	20	.09	.08	3	3	.19	117	.01	3	.80	.01	.18	2	7200
AB 16024	6	115	13	42	.6	3	7	349	7.65	17	9	ND	2	3	2	2	2	47	.08	.03	5	1	.04	206	.01	5	.28	.01	.11	6	33
AB 16025	1	49	1	16	.1	2	12	91	14.23	8	4	ND	3	2	1	2	2	9	.01	.03	4	1	.01	61	.01	2	.01	.01	.10	2	3
STD A-1740 0.5	2	30	39	186	.3	36	13	1008	2.77	9	2	ND	2	37	2	2	2	56	.62	.10	7	64	.63	255	.10	7	2.03	.02	.19	2	48
AB-16026	1	30	15	42	.1	1	12	229	15.01	7	2	ND	2	21	1	2	2	18	.02	.02	6	1	.02	1302	.02	4	.01	.01	.11	2	4
AB-16027	6	109	6	26	.2	1	2	228	2.68	12	2	ND	2	7	1	2	2	9	.03	.06	8	1	.01	567	.01	4	.21	.01	.22	2	1
AB-16028	1	24	12	16	.2	1	11	57	9.37	8	2	ND	2	3	1	2	2	6	.01	.04	13	1	.02	113	.01	2	.25	.01	.21	2	6
AB-16029	11	1115	43	310	.4	1	8	840	5.64	10	2	ND	2	3	2	2	2	8	.03	.02	20	1	.38	92	.01	5	.90	.01	.06	2	565
AB-16030	6	1665	10	40	.2	2	7	457	6.75	6	2	ND	2	1	1	2	2	7	.01	.02	8	1	.25	51	.01	2	.69	.01	.04	13	375
AB-16031	1	46	11	158	.1	1	5	1279	5.49	11	2	ND	2	17	1	2	2	22	.19	.08	12	2	.67	471	.02	7	1.49	.02	.17	2	4
AB-16032	1	23	6	223	.2	6	14	2360	4.95	2	2	ND	2	12	2	2	4	112	1.54	.12	2	9	1.75	95	.08	6	2.33	.03	.07	2	3
AB-16040	1	556	3	12	.1	1	5	46	20.26	6	2	ND	2	1	1	2	2	41	.92	.02	11	1	.03	43	.02	3	.01	.01	.09	2	570
AB-16041	1	10	10	117	.1	1	10	308	18.22	2	2	ND	2	7	1	2	2	14	.03	.06	10	1	.32	308	.01	5	1.24	.01	.20	2	3
AB-16042	1	28	14	11	.1	1	4	67	24.04	7	2	ND	2	1	1	2	2	24	.02	.02	2	1	.02	27	.01	3	.01	.01	.06	2	1
AB-16043	22	206	355	195	17.2	1	4	178	2.20	33	2	ND	2	14	3	25	3	3	.06	.04	3	1	.01	108	.01	2	.27	.01	.15	2	2
AB-16044	2	4	6	50	.1	1	4	617	3.39	2	2	ND	2	4	1	2	2	9	.13	.08	12	1	.27	220	.01	5	.96	.01	.24	2	1
AB-16045	2	66	11	185	.2	5	14	1155	4.88	9	2	ND	2	14	1	2	2	10	1.21	.16	18	5	.68	520	.01	5	1.33	.02	.17	2	1
AB-16046	1	6	6	68	.1	2	19	358	2.59	3	2	ND	2	31	1	2	3	54	.37	.09	3	5	.99	1684	.06	6	1.24	.01	.16	2	1
AB-16047	3	10	17	66	.2	2	6	575	3.91	30	2	ND	2	14	1	2	2	14	.06	.06	7	1	.24	654	.01	5	.71	.01	.19	2	1
AB-16048	2	9	15	100	.1	1	11	874	4.87	7	2	ND	2	22	1	2	3	95	1.99	.24	8	1	1.46	68	.21	11	1.71	.02	.07	2	1
AB-16049	1	202	3	231	.2	4	14	2784	8.92	3	2	ND	2	5	2	2	3	219	.42	.06	4	9	1.43	129	.02	5	2.70	.02	.08	2	1
AB-16050	1	6	10	8	.1	1	1	42	18.54	4	2	ND	2	2	1	2	2	11	.01	.01	15	1	.03	23	.05	5	.01	.01	.15	3	1
AB 16164	6	1207	490	328	93.9	1	5	834	1.30	138	2	ND	2	15	13	633	2	2	.09	.05	2	1	.01	1248	.01	5	.19	.01	.12	2	3
AB 16231	2	88	7	51	1.2	21	13	477	3.28	4	2	ND	2	41	1	8	2	114	1.53	.09	4	21	1.04	134	.12	6	1.78	.06	.11	2	2





GEOCHEMICAL ICP ANALYSIS

500 GRAM SAMPLE IS DIGESTED WITH 3-1-3 MCL-HNO3-HCl AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR Na, Fe, Ca, P, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Sr, Zr, Ce, Sm, Y, Nb AND Ta. NO DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK CHIPS ANALYSIS BY FA-44 FROM 10 GRAM SAMPLE.

DATE RECEIVED: AUG 21 1984 DATE REPORT MAILED: *Aug 27/84* ASSAYER: *D. J. J.* DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK PROJECT # 948 FILE # 84-2224

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SAMPLE#	MO	CU	PB	ZN	AS	KI	CO	NI	FE	AS	B	AL	TH	SR	CO	SB	BI	V	CA	P	LA	CR	MG	BA	TI	S	AL	NA	K	W	ALIA
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
AB-16377	14	42	26	729	.6	2	3	91	2.83	106	5	ND	2	12	1	2	2	8	.01	.01	3	8	.01	895	.01	9	.04	.01	.03	2	1
AB-16378	1	21	1	159	.1	2	3	2103	3.69	7	5	ND	2	10	1	2	2	28	.19	.09	13	3	.74	219	.01	3	1.40	.01	.18	2	2
AB-16379	1	13	9	24	.1	2	3	929	2.01	6	5	ND	2	4	1	2	2	17	.45	.08	11	4	.04	163	.02	4	.27	.01	.18	2	1
AB-16380	1	5	4	74	.1	6	13	850	5.74	5	5	ND	2	11	1	2	2	92	.46	.10	2	13	1.48	19	.14	6	1.61	.04	.01	2	1
AB-16381	1	138	9	52	3.3	3	4	295	1.13	13	5	ND	2	17	1	2	2	5	.71	.04	2	3	.24	219	.01	6	.12	.01	.07	2	9
AB-16382	1	359	85	290	34.6	2	6	1314	2.47	27	5	ND	2	44	7	164	2	15	2.63	.13	2	3	.63	902	.01	7	.21	.01	.10	2	2
AB-16383	18	504	39	17	.6	6	106	182	12.58	40	5	ND	2	89	1	2	2	69	.50	.06	2	4	.21	59	.11	9	.57	.01	.01	2	2
AB-16384	1	7	2	22	.1	3	19	411	3.98	4	5	ND	2	15	1	2	2	56	.39	.13	2	3	1.76	17	.17	2	1.88	.03	.02	2	1
AB-16385	3	2103	5	27	.1	5	18	500	6.02	3	5	ND	2	40	1	2	2	37	.58	.08	2	5	2.04	75	.08	2	1.78	.01	.01	2	1
AB-16386	1	24	3	120	.1	1	5	1475	3.93	8	5	ND	2	4	1	2	2	8	.09	.07	9	4	.17	444	.01	5	.45	.01	.15	2	1
AB-16387	1	171	8	76	.1	1	3	574	2.72	18	5	ND	2	4	1	6	2	4	.05	.07	6	2	.05	138	.01	6	.28	.02	.10	2	1
AB-16388	2	449	5	160	.1	10	11	2037	10.09	2	5	ND	2	5	1	2	2	121	.72	.11	3	27	2.21	187	.02	2	2.97	.01	.06	2	1
AB-16389	1	7	8	20	.1	1	5	683	1.43	4	5	ND	2	52	1	2	2	9	.58	.06	3	4	.02	2947	.01	14	.18	.01	.15	2	1
AB-16390	1	86	3	56	.1	7	14	1167	5.05	2	5	ND	2	11	1	2	2	37	.38	.14	5	11	1.30	159	.11	2	1.25	.02	.04	2	1
AB-16391	1	6	4	23	.1	2	5	699	3.96	2	5	ND	2	6	1	2	2	65	.54	.11	8	4	.74	83	.02	4	.98	.02	.11	2	1
AB-16392	1	97	15	37	.3	9	14	842	5.25	2	5	ND	2	19	1	2	2	102	.40	.12	2	5	2.29	18	.15	4	2.09	.02	.02	2	1
AB-16393	1	212	8	20	.2	6	40	302	3.10	34	5	ND	2	11	1	2	2	34	.39	.10	3	13	1.48	36	.09	6	1.49	.07	.15	2	1
AB-16394	8	71	37	97	.3	10	26	746	16.32	20	5	ND	2	3	1	2	2	72	.07	.06	2	11	1.55	28	.01	5	2.88	.01	.08	2	4
AB-16395	2	16	3	15	.1	3	16	788	3.02	4	5	ND	2	16	1	2	2	11	.38	.12	4	4	1.16	12	.16	7	1.08	.04	.01	2	1
AB-16396	1	492	13	829	2.9	6	14	3207	7.25	4	5	ND	2	11	5	2	2	123	.14	.08	6	6	1.87	979	.06	5	2.07	.01	.04	2	16
AB-16397	5	45	77	79	.2	2	5	660	1.64	12	5	ND	2	14	1	2	2	7	.05	.06	7	3	.04	1423	.01	2	.24	.01	.19	2	1
AB-16398	7	6512	679	6963	17.9	1	2	258	.82	17	5	ND	2	3	7	6	2	3	.06	.02	8	4	.04	109	.01	4	.12	.01	.08	2	43
AB-16399	2	9424	12	102	81.7	1	5	662	1.71	17	5	ND	2	35	1	12	2	2	.11	.05	4	4	.01	3240	.01	6	.18	.01	.12	2	6
AB-16400	2	784	122	1458	12.3	2	6	1654	2.07	295	5	ND	2	27	9	29	2	6	.04	.05	3	3	.01	2266	.01	5	.12	.01	.10	2	1
AB-16401	1	40	10	109	.1	1	4	720	1.76	12	5	ND	2	4	1	2	2	6	.13	.09	10	2	.16	289	.01	4	.48	.01	.19	2	1
AB-16402	8	2202	5742	15708	4.4	3	9	480	3.86	65	5	ND	2	36	9	7	3	46	.04	.03	4	5	.75	3001	.01	8	.90	.01	.11	2	1
AB-16403	1	125	308	1632	14.9	2	7	1451	.99	29	5	ND	2	76	11	11	2	11	.06	.02	9	2	.01	3183	.01	2	.05	.01	.01	2	1
AB-16404	1	960	669	1940	17.2	1	8	708	1.65	47	8	ND	2	128	7	7	2	11	.01	.01	20	4	.01	3406	.01	2	.04	.01	.03	2	1
AB-16405	6	31	23	47	1.0	2	4	182	1.79	7	5	ND	2	12	1	2	2	6	.13	.09	8	3	.06	590	.01	2	.25	.01	.12	2	1
AB-16406	1	14	10	287	.2	2	5	742	2.38	5	5	ND	2	12	1	2	2	14	.22	.08	14	3	.42	619	.01	6	.65	.02	.10	2	1
AB-16407	5	287	27125	2307	90.5	2	6	109	6.16	79	5	ND	2	74	22	2	4	6	.01	.01	2	2	.06	20	.01	2	.11	.01	.02	2	41
AB-16408	2	25	102	163	1.3	1	1	61	2.58	19	5	ND	2	53	1	2	2	6	.04	.06	11	2	.09	501	.01	2	.20	.02	.14	2	1
AB-16409	8	5341	57	102	1.5	9	11	1720	7.49	6	5	ND	2	24	1	2	2	81	.12	.08	2	28	1.67	1022	.01	2	2.22	.01	.04	2	3
AB-16410	78	10610	12	72	1.0	4	10	1640	10.03	5	5	ND	2	5	1	2	2	62	.12	.12	2	5	1.58	116	.01	2	2.62	.01	.02	2	25
AB-16411	2	232	8	17	.9	1	2	174	15.81	2	5	ND	2	5	1	2	2	12	.08	.07	3	1	.18	104	.02	2	.02	.01	.05	2	110
AB-16412	5	304	8	24	1.2	3	12	220	12.50	2	5	ND	2	4	1	2	2	22	.03	.05	2	8	.45	187	.02	4	.69	.01	.02	16	26
AB-16413	1	106	5	42	.1	5	6	524	6.31	2	5	ND	2	6	1	2	2	20	.21	.15	4	1	.62	114	.01	2	1.51	.01	.02	2	1
STD 5-1/F6-80	91	123	114	184	32.4	152	81	505	3.16	116	97	35	175	126	82	69	91	59	.56	.12	129	64	.58	123	.09	164	1.41	.02	.19	62	51

KIDD CREEK PROJECT # 948 FILE # 84-2224

PAGE 2

SAMPLE#	MO	CU	PB	ZN	AS	NI	CO	PM	FE	AS	U	AU	TH	SR	CD	SS	BT	V	CA	P	LA	CR	MS	BA	TI	B	AL	KA	K	M	AU18	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
AB-16414	2	22	8	20	.1	5	4	1735	3.66	7	5	ND	2	53	1	2	2	33	10.29	.02	3	3	.33	40	.01	2	.31	.01	.02	3	8	
AB-16415	1	1118	3	49	3.5	6	6	437	6.80	10	5	ND	5	6	1	2	6	37	.10	.09	2	11	.75	180	.01	2	1.94	.01	.23	2	1610	
AB-16416	4	1212	7	17	14.2	2	2	120	6.22	7	5	3	5	5	1	2	12	18	.10	.09	2	8	.13	91	.01	2	.54	.01	.19	2	3160	
AB-16417	3	39	34	39	.5	3	2	167	2.03	11	5	ND	5	10	1	2	4	4	.19	.09	9	3	.10	107	.01	2	.31	.02	.12	2	6	
AB-16418	1	9	11	28	.3	1	2	225	1.50	73	5	ND	6	17	1	4	3	5	.05	.05	5	2	.02	714	.01	2	.17	.01	.14	2	21	
AB-16419	1	10	6	8	.1	2	3	180	.62	5	5	ND	5	100	1	2	2	3	.19	.03	4	3	.01	1984	.01	2	.09	.01	.09	2	1	
AB-16420	1	6	8	10	3.6	1	3	464	.83	2	5	ND	5	112	1	2	3	4	.45	.03	4	1	.01	1879	.01	2	.03	.01	.08	2	1	
AB-16421	2	64	62	97	2.5	3	3	139	2.53	82	5	ND	5	36	1	2	4	4	.07	.06	4	5	.01	813	.01	2	.10	.01	.13	2	14	
AB-16422	1	306	9	143	.6	7	16	909	4.53	69	5	ND	2	52	1	26	2	51	3.84	.07	2	14	2.42	74	.01	3	.70	.02	.08	2	4	
AB-16423	9	30	8	85	.1	7	7	1387	5.79	27	5	ND	2	93	1	4	2	102	5.45	.10	3	24	1.47	57	.01	2	1.25	.04	.04	2	1	
AB-16424	1	16	8	86	.1	2	13	1209	2.31	4	5	ND	2	71	1	4	2	12	3.21	.11	2	1	1.21	811	.01	2	.23	.02	.12	2	1	
AB-16425	2	121	6	38	.4	1	10	121	7.15	8	5	ND	5	4	1	2	4	4	.06	.05	5	2	.02	232	.01	2	.17	.01	.15	6	2960	
AB-16426	4	1473	331	564	44.9	3	7	3042	4.33	199	5	ND	2	100	12	533	2	69	4.61	.03	2	5	1.66	177	.01	2	.17	.01	.07	2	4	
AB-16427	1	3240	311	413	59.4	2	5	784	1.31	551	5	ND	4	23	13	851	2	7	.70	.04	2	5	.12	1068	.01	3	.20	.01	.08	2	19	
AB-16428	2	3032	176	3253	9.9	6	11	2248	3.80	5	5	ND	2	73	53	5	3	10	3.70	.06	3	2	1.39	689	.01	7	.49	.01	.21	2	1	
AB-16429	1	22	7	91	.2	2	16	577	5.60	9	5	ND	6	4	1	2	4	7	.09	.05	7	3	.03	202	.01	3	.20	.01	.13	2	2	
AB-16431	2	35	68	93	.4	1	6	469	2.41	7	2	ND	2	21	1	9	2	6	.11	.06	5	1	.03	1412	.01	3	.41	.01	.24	2	1	
AB-16432	2	21	14	176	.2	1	6	1163	2.69	16	2	ND	2	15	2	3	2	5	.13	.07	4	1	.03	1496	.01	3	.44	.01	.23	2	1	
AB-16433	1	269	7	50	.1	3	14	496	11.78	8	2	ND	2	5	2	2	2	33	.09	.06	20	1	.12	253	.02	5	.71	.01	.23	2	6	
AB-16434	1	231	8	15	.1	1	6	40	21.62	14	2	ND	3	3	2	2	2	33	.02	.02	3	1	.03	57	.02	5	.01	.01	.16	9	54	
AB-16435	21	17	16	14	.3	1	3	35	2.79	20	2	ND	2	16	1	2	2	4	.01	.05	7	1	.01	39	.01	5	.28	.01	.23	2	2	
AB-16436	43	95	32	35	.6	1	7	139	2.89	115	2	ND	2	9	1	2	3	4	.02	.03	5	1	.01	407	.01	2	.32	.01	.27	2	28	
AB-16437	1	6	4	7	.1	1	21	45	15.61	6	2	ND	2	2	1	2	2	9	.01	.04	10	1	.02	60	.05	4	.04	.01	.15	2	3	
AB-16438	1	5	6	8	.1	1	3	37	12.91	7	2	ND	2	4	1	2	2	9	.01	.06	10	1	.02	77	.02	3	.14	.01	.19	2	18	
AB-16439	1	53	5	9	.1	1	14	194	14.86	7	2	ND	2	2	1	2	2	16	.17	.03	21	1	.02	65	.03	6	.06	.01	.17	2	3	
AB-16440	1	1	1	3	.1	1	1	9	1.98	3	2	ND	2	7	1	2	2	15	.01	.01	2	3	.01	19	.01	2	.14	.01	.03	2	1	
AB-16441	3	24	13	14	.1	1	40	76	23.14	13	2	ND	3	4	1	2	2	6	.01	.04	17	1	.02	37	.01	4	.01	.01	.10	4	2	
AB-16442	1	2530	6	14	.4	4	13	72	17.70	6	2	3	2	2	1	2	2	16	.02	.03	15	1	.07	25	.01	5	.12	.01	.13	14	7000	
AB-16443	1	23	1	21	.1	1	26	199	24.33	10	2	ND	2	3	1	2	2	18	.01	.03	17	1	.02	52	.02	3	.01	.01	.10	3	45	
AB-16444	1	20	2	39	.1	1	11	302	14.19	4	2	ND	2	3	1	2	2	24	.06	.04	17	1	.12	58	.02	5	.26	.01	.19	2	11	
STD A-1/FA-AU	1	30	40	188	.3	36	13	1039	2.81	10	2	ND	2	37	2	2	2	37	.62	.10	8	65	.64	258	.09	8	2.07	.02	.20	2	50	

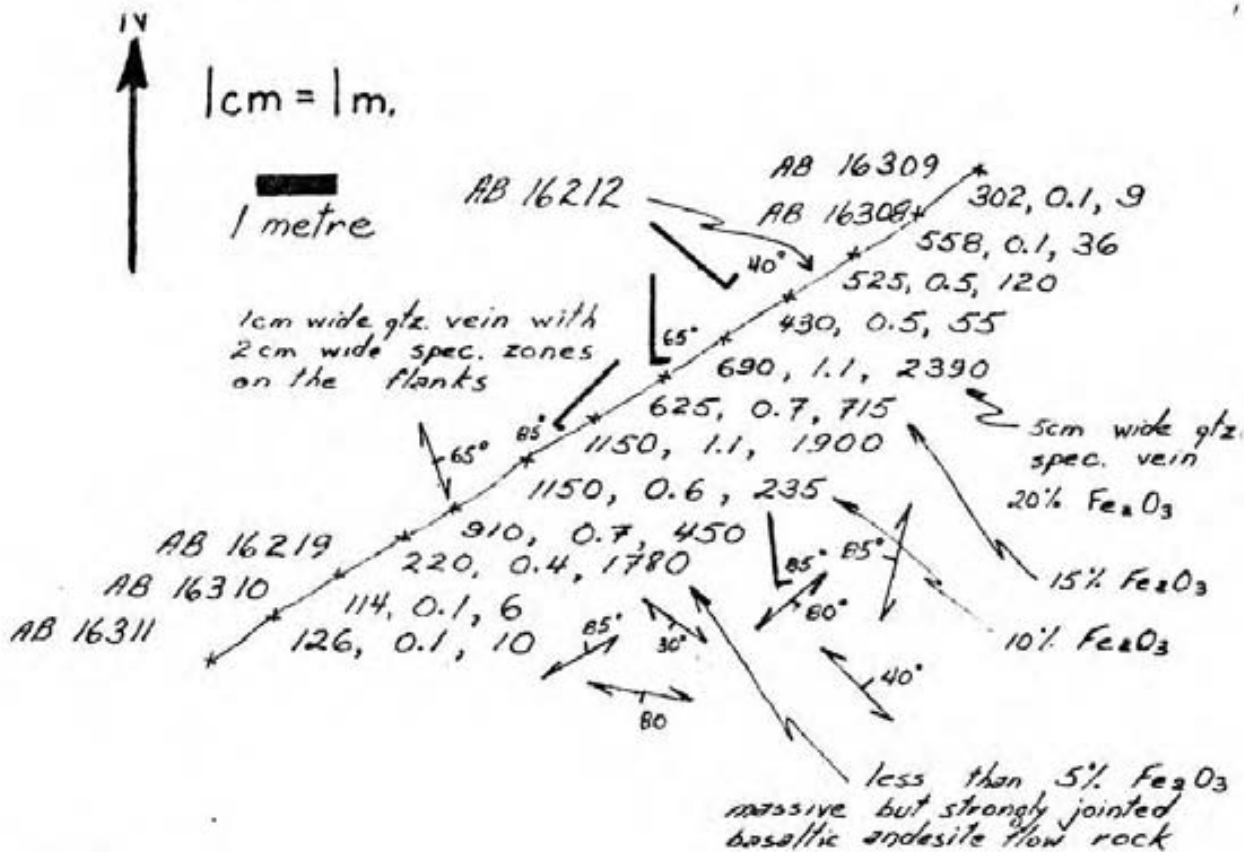
*Trench A*



## APPENDIX D

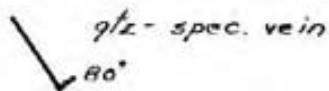
### Trench Results and Sample Locations

- 10 Trench G results and sample locations
- 11 Trench H results and sample locations
- 12 Tree Pit results and sample locations
- 13 Trench I results and sample locations
- 14 Trench J results and sample locations
- 15 Trench K,L,N results and sample locations
- 16 Trench O results and sample locations
- 17 Trench R results and sample locations
- 18 Trench S,T,U results and sample locations
- 19 Trench W results and sample locations



### LEGEND

126, 0.1, 10 = 126 ppm Cu, 0.1 ppm Ag, 10 ppb Au.



STATION 1350N 240W ■

## BASALTIC ANDESITE FLOW

dark green, fine grained; 15-30%, less than 1mm. plagioclase laths epidote patches; pervasive chloritization; hairline quartz stringers trend 320°; minor calcite; weak sericitization, zones containing patches and veins of quartz-specularite are lighter in colour due to strong silicification and appear to be less magnetic than barren rock (weak to moderately magnetic versus strongly magnetic); chloritization is stronger and more chlorite patches in the mineralized rock; quartz-specularite veined zones generally trend between 010° and 320°, although cross-cutting randomly orientated veins are present.

### SAMPLES

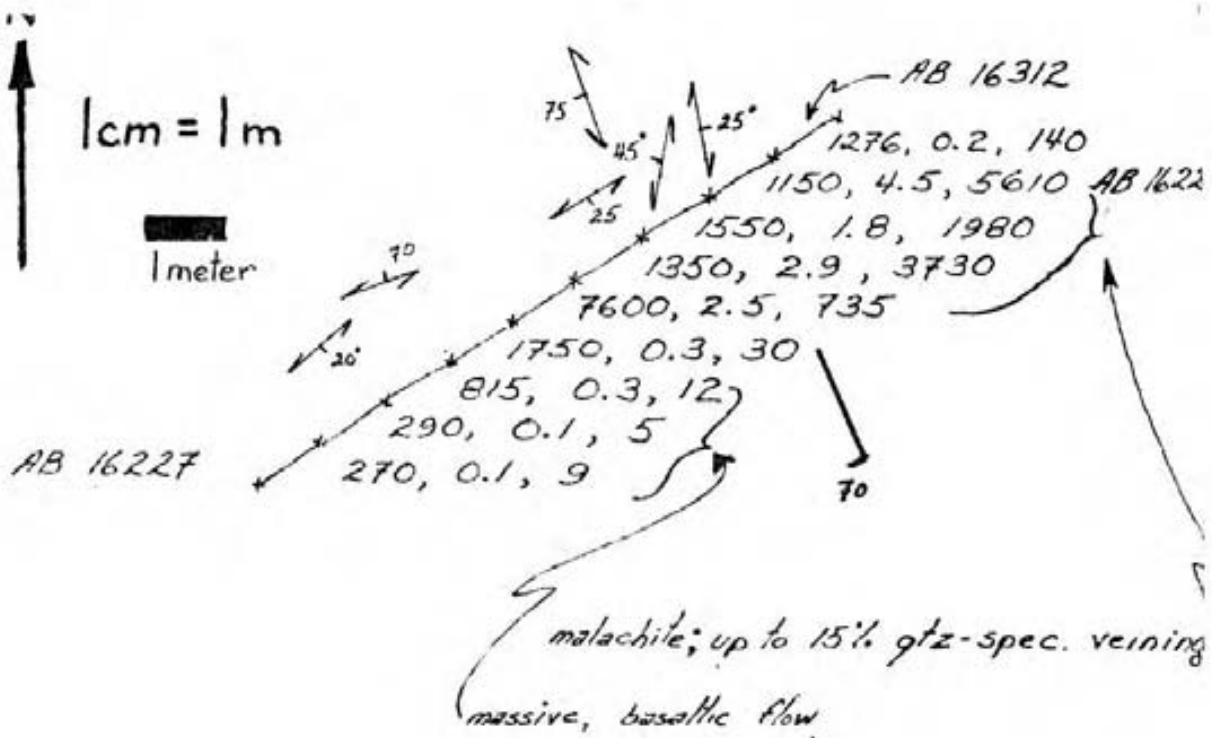
AB 16308 & AB 16309

AB 16310 & AB 16311

AB 16212 to AB 16219 inclusive

## TRENCH G

1 meter rock chip channel samples



STATION  
 ■ 1400 N 230 E

### BASALTIC ANDESITE FLOW

dark green, fine grained; 20% plagioclase laths less than 1mm.; moderate to strong chloritization; minor calcite and sericitization; similar to trench G

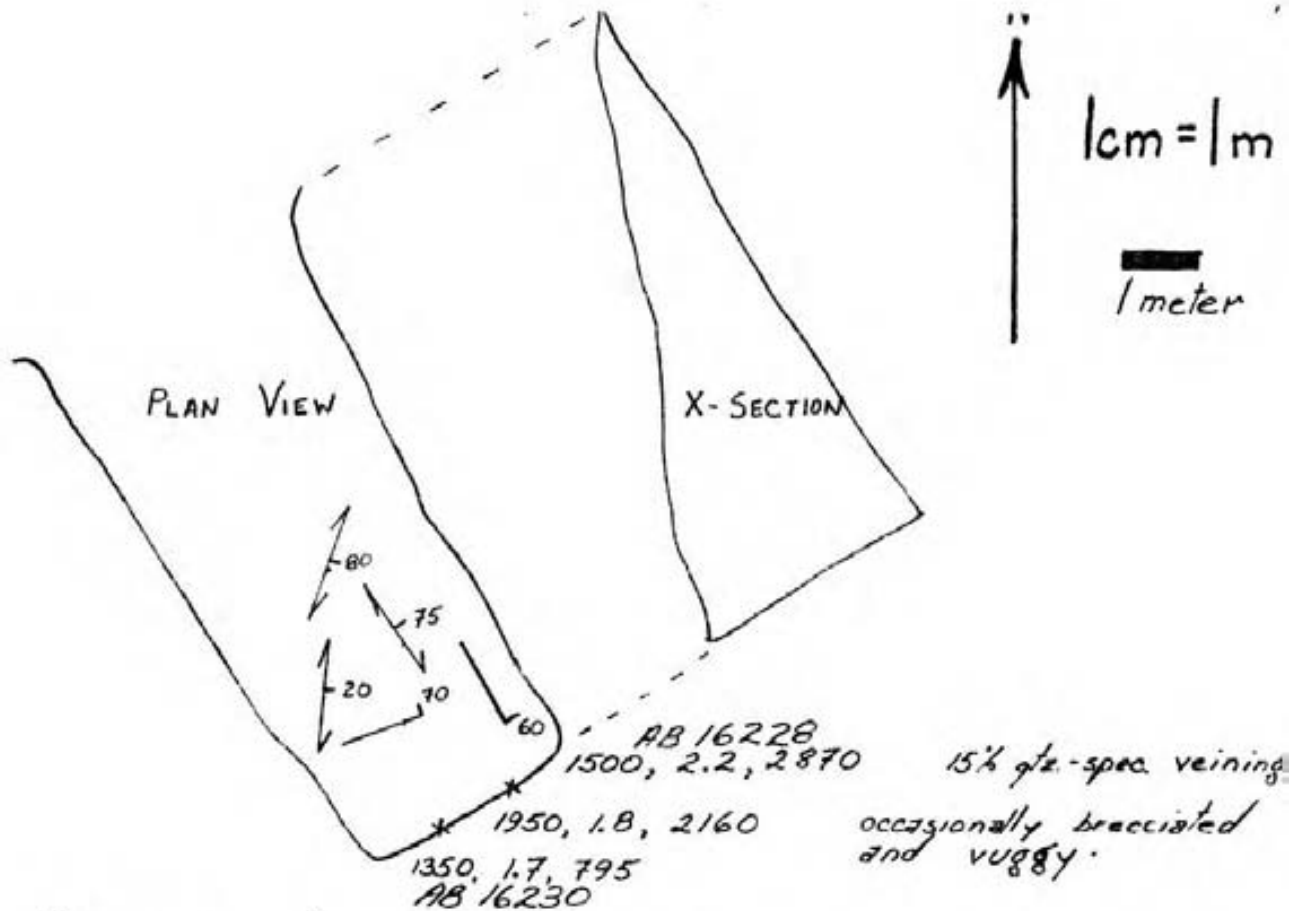
### TRENCH H

1 meter rock-chip channel sampling

270, 0.1, 9 = 270 ppm Cu., 0.1 ppm Ag., 9 ppb Au

50 qtz-spec veins 50 fractures jointing

SAMPLES AB 16312; AB 16220 to AB 16227



### BASALTIC ANDESITE FLOW

fine to very fine grained, dark green; strong chloritization and silicification; moderate to strong epidote development; more vugginess in strongly silicified zones.

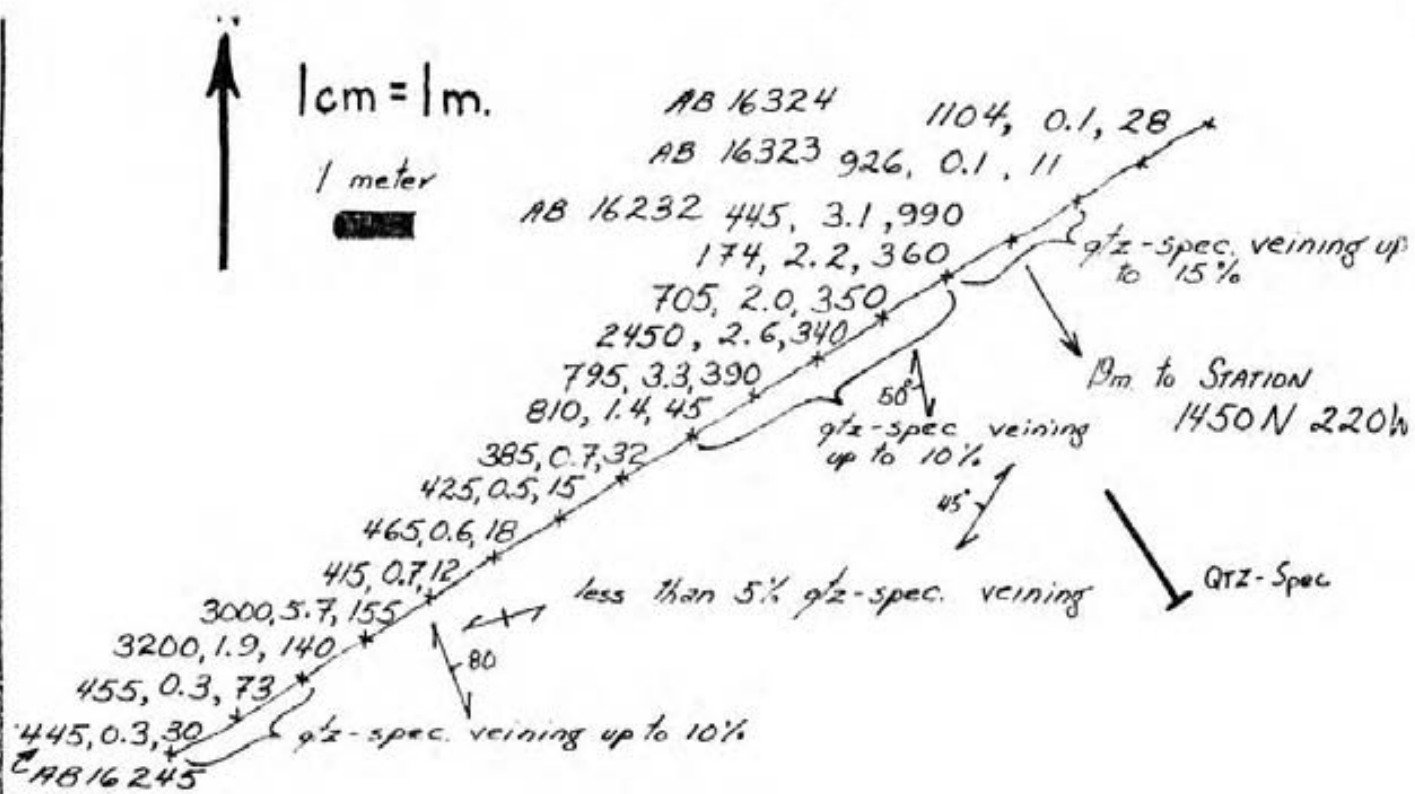
### TREE PIT

SAMPLES AB16228 to AB16230  
1 meter rock-chip channel sampling

1950, 1.8, 2160 = 1950 ppm Cu, 1.8 ppm Ag, 2160 ppm Pt

50  
QTZ-SPEC VEINS

50  
FRACTURES-JOINTS



### BASALTIC ANDESITE FLOW

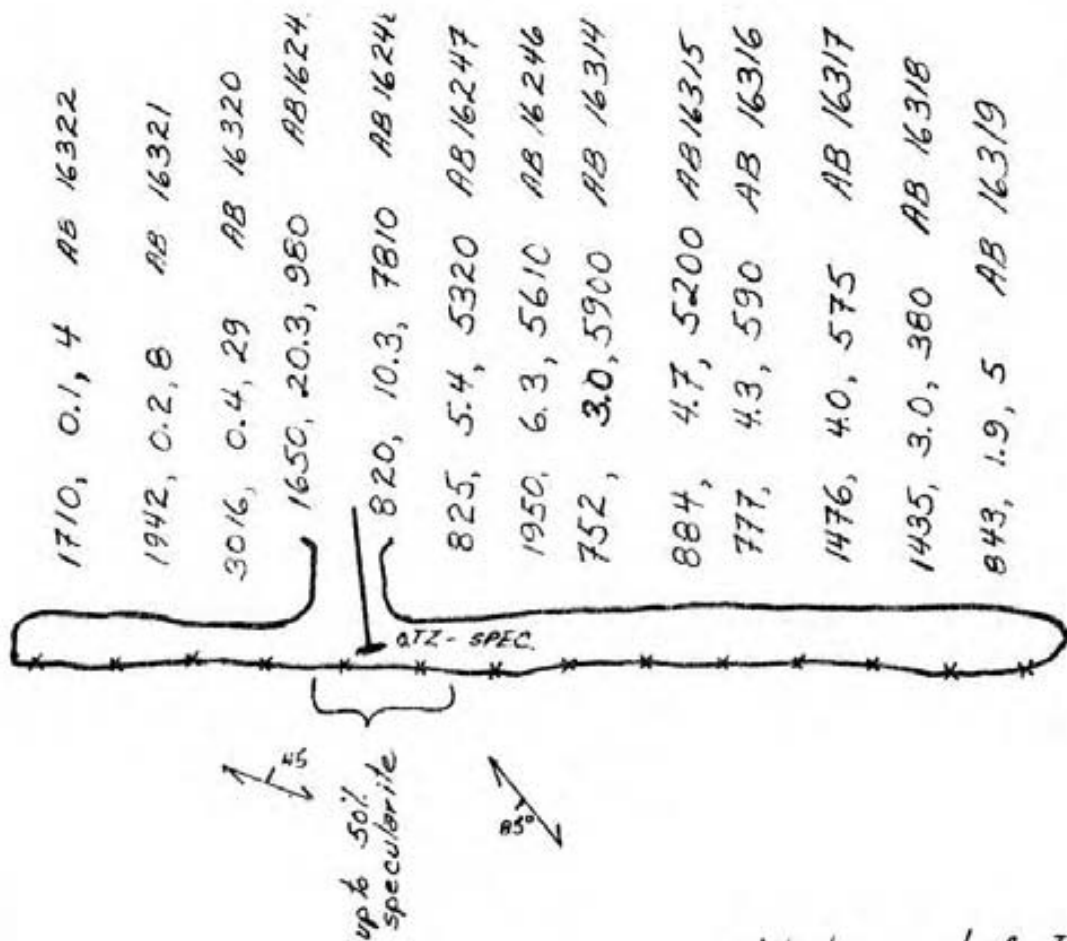
dark green, fine to very fine grained; very strong silicification and chloritization; moderate to strong epidotization; more vugginess with increased silicification; the more strongly altered rocks are generally less magnetic; occasionally magnetite has been leached out of the silicified rock leaving 1mm<sup>2</sup> vugs; quartz and quartz-specularite veins are randomly orientated, however the NNW trend predominates.

### TRENCH I

SAMPLES AB 16323, AB 16324, AB 16232 to AB 16245 inclusive  
 1 meter rock-chip channel sampling

445, 0.3, 30 = 445ppm Cu, 0.3ppm Ag, 30ppb Au





Western end of Trench I ←

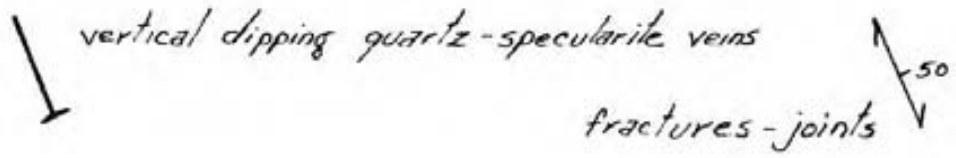
**BASALTIC ANDESITE**

dark green, fine grained; very strongly chloritized, silicified and epidotized; abundant vugs, up to 10%; vugs average 1mm<sup>2</sup>; moderately magnetic; quartz-specularite veins generally trend NNW.

**TRENCH J.**

SAMPLES AB 16314 to AB 16322, AB 16246 to AB 16249  
1 meter rock-chip channel sampling

1710, 0.1, 4 = 1710 ppm Cu, 0.1 ppm Ag, 4 ppb Au





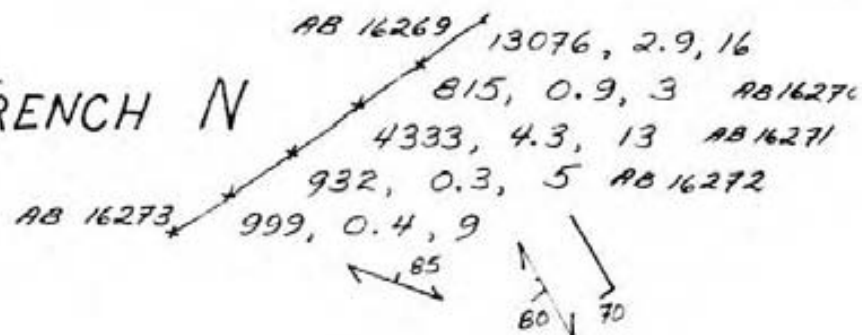
1 cm = 1 m



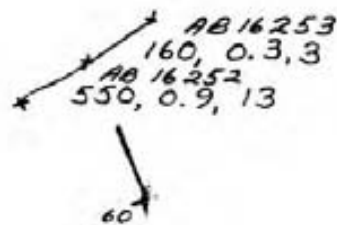
### BASALTIC ANDESITE

dark green, very fine to fine grained; hairline quartz veinlets up to 2cm wide; moderately magnetic

### TRENCH N



### TRENCH L



### BASALTIC ANDESITE

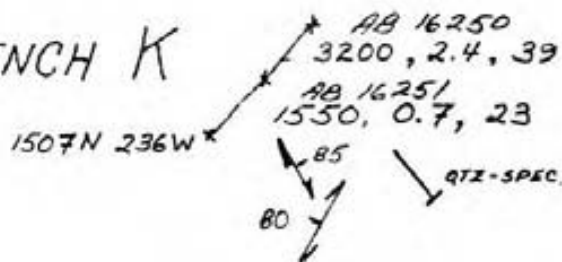
dark green, fine grained; up to 5% plagioclase laths; less than 5% quartz amygdalae; 340° predominant fracturing and vein direction; pinch and swell quartz specularite veins up to 3cm wide; moderately magnetic; disseminated pyr and knots up to 1% pyrite.

## TRENCHES K, L, N.

SAMPLES AB 16250, AB 16251, AB 16252, AB 16253, AB 16269 to AB 16273

1 meter rock-chip channel sampling  
550, 0.9, 13 = 550 ppm Cu, 0.9 ppm Ag, 13 ppb H.

### TRENCH K



### BASALTIC ANDESITE

dark green, fine grained; strongly silicified, chloritized, and epidotized; brecciated; up to 10% vugs, less than 1mm<sup>2</sup>; specularite up to 15%.

QTZ-SPEC. VEINS

FRACTURES-JOIN



↑  
1 cm = 1 m  
—  
1 meter

AB 16274 2010, 0.4, 150  
AB 16275 1035, 0.2, 165  
AB 16276 1282, 0.1, 1

■ STATION 1250 N 420 W

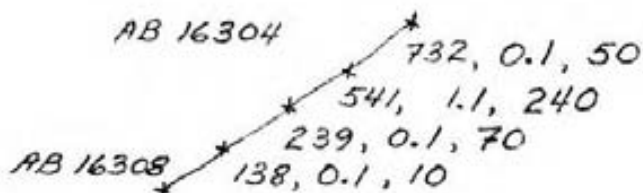
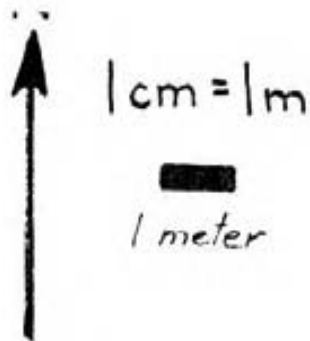
### BASALTIC ANDESITE

dark green, fine grained; up to 1% pyrite as patches and disseminations; less than 5% minute (<1mm) plagioclase laths.

### TRENCH 0

1 meter rock-chip channel sampling

1282, 0.1, 1 = 1282 ppm Cu, 0.1 ppm Hg, 1 ppb Pb



■ STATION 1350 N 240W

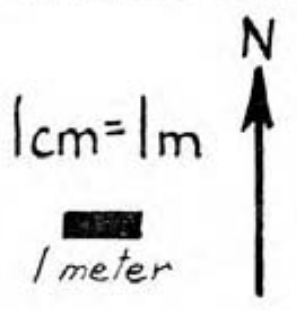
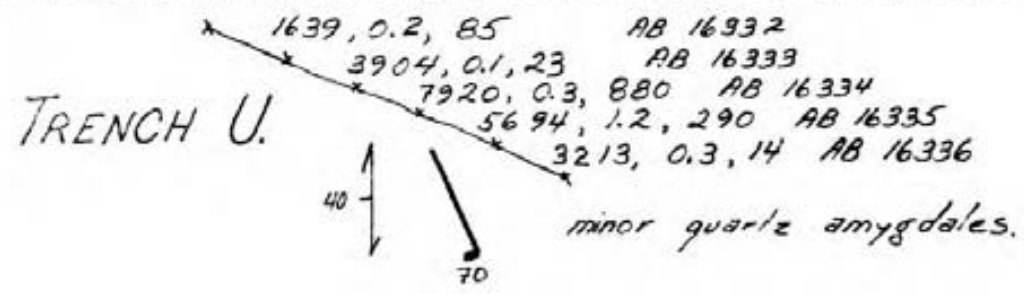
### BASALTIC ANDESITE

dark green, fine grained; 15-30%, less than 1mm plagioclase laths; epidote patches; strongly chloritized; quartz stringers trend NNW; moderately magnetic; minor calcite; weak sericitization.

### TRENCH R

1 meter rock-chip channel samples

SAMPLES AB 16304 to AB 16308 inclusive  
138, 0.1, 10 = 138 ppm Cu., 0.1 ppm Ag., 10 ppb Au



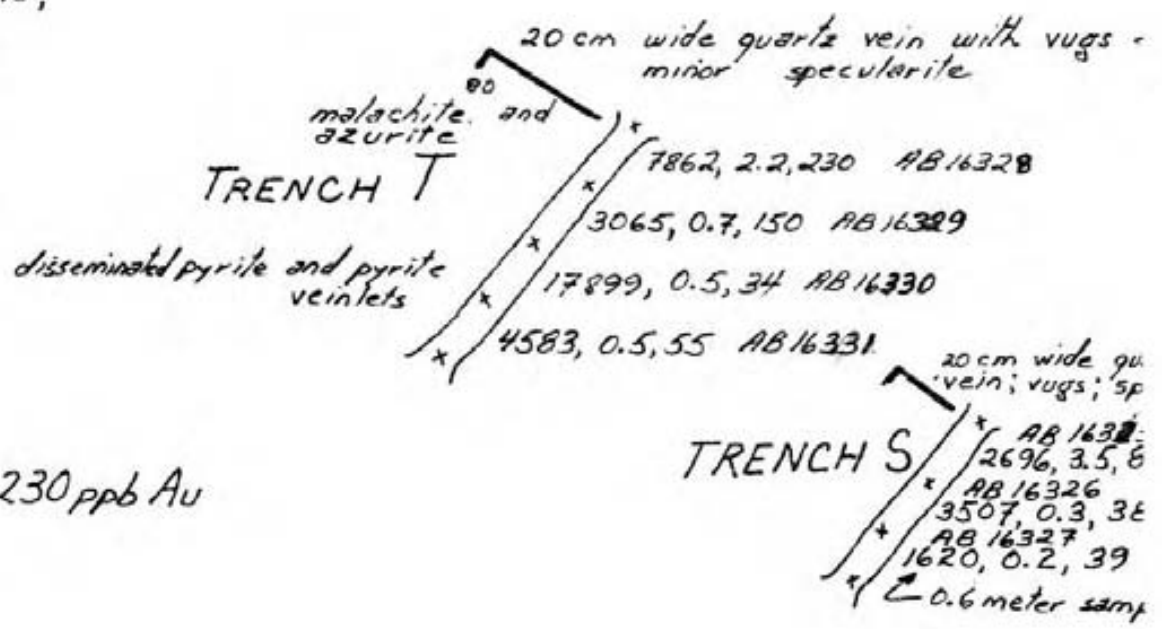
**BASALTIC ANDESITE**

dark grayish green to green, fine grained moderate to strong propylitic (chlorite, epidote, calcite) alteration; calcite and quartz filled vugs with occasional radiating epidote crystals; remnant. plagioclase crystals; moderately magnetic; quartz - specularite veinlets.

**TRENCHES S, T, U.**

1 meter rock-chip channel samples

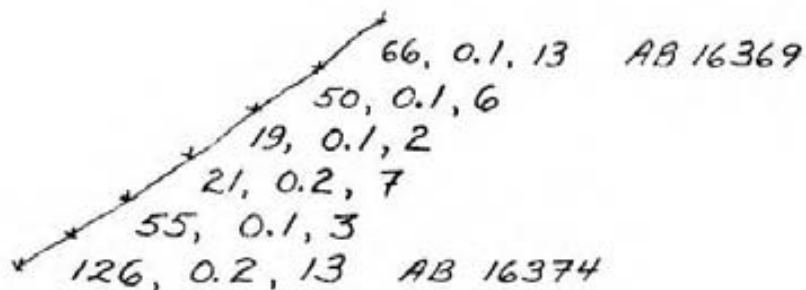
7862, 2.2, 230 = 7862 ppm Cu, 2.2 ppm Ag, 230 ppb Au





1 cm = 1 m

1 meter



### BASALTIC ANDESITE

medium green, fine grained; massive; strongly propylitized  
less than 5% plagioclase laths up to 3mm long; disseminated  
pyrite in silicified zones; very fine grained specularite  
with quartz veins

### TRENCH W

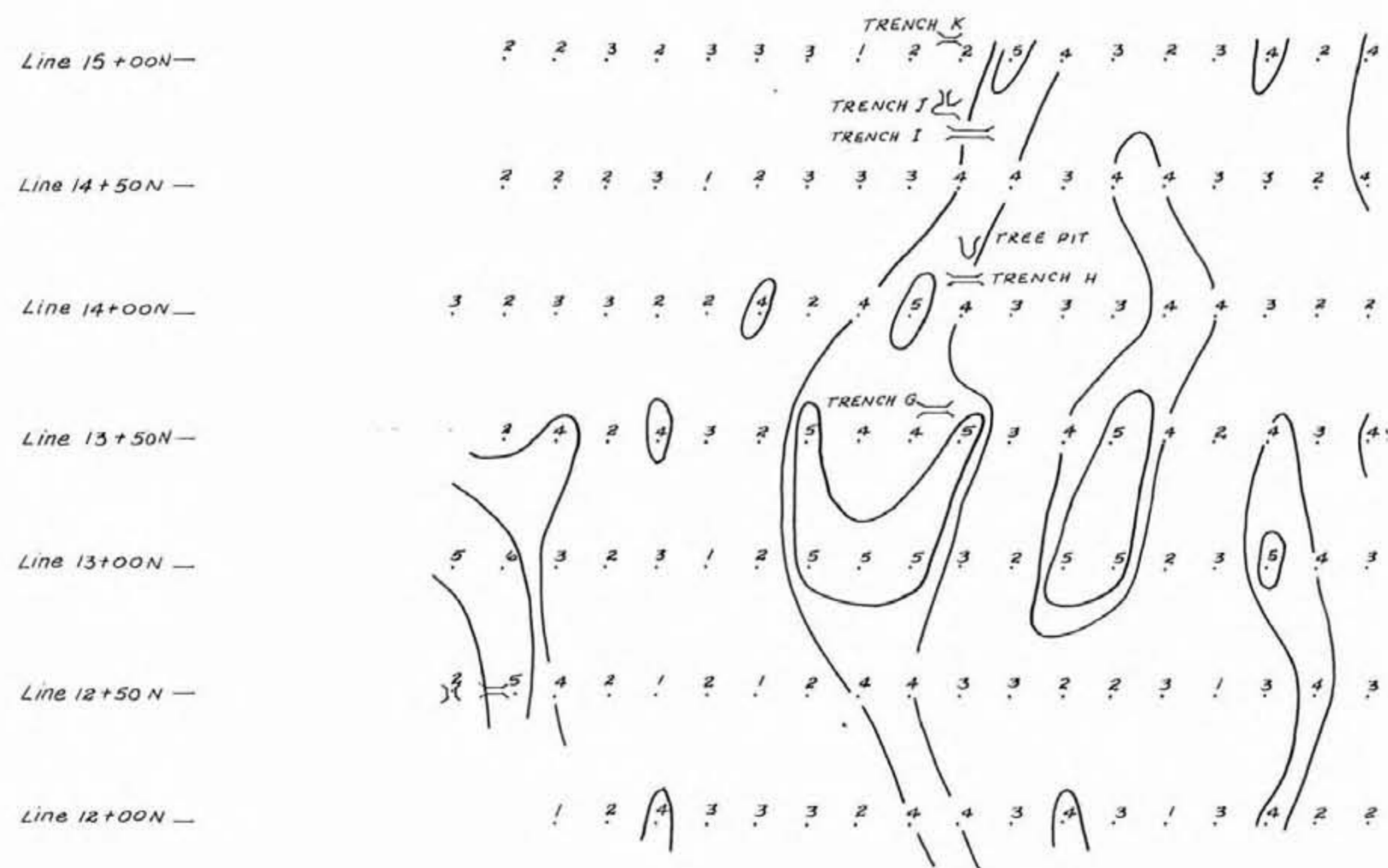
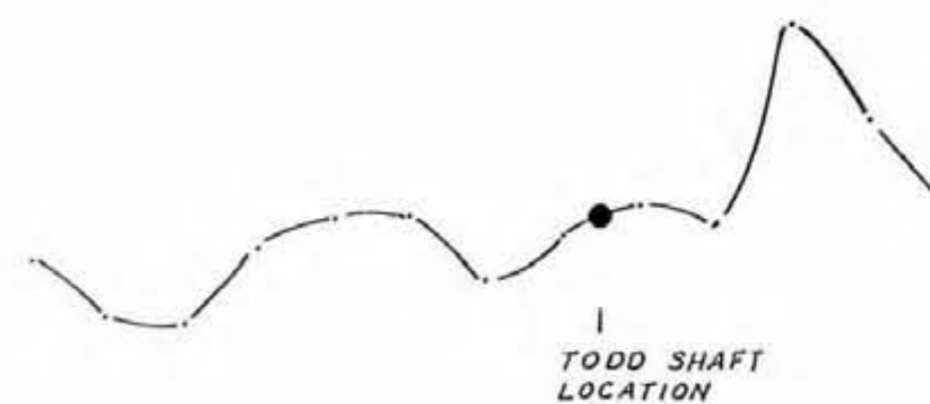
1 meter rock-chip channel samples

SAMPLES AB 16369 to AB 16374

126, 0.2, 13 = 126 ppm Cu, 0.2 ppm Ag, 13 ppb Au

TODD SHAFT LINE  
LINE 99  
BEARING 110°

10 msec  
5 msec  
0 msec



GEOLOGICAL SEARCH  
ASSESSMENT REPORT

13,114

Shaft or Trench Location

SCHLUMBERGER ARRAY  
AB = 140m, MN = 20m  
Contour interval = 1 msec

**Kidd Creek Mines Ltd.**

KAMLOOPS - MERRITT GOLD  
(IRON MOUNTAIN)  
IP SURVEY  
CHARGEABILITY (msec)

NTS 92 I/2W, 2 E

Proj. 948

WORK BY

DRAWN BY

DATE: SEPT. 25/1984

GH, TH

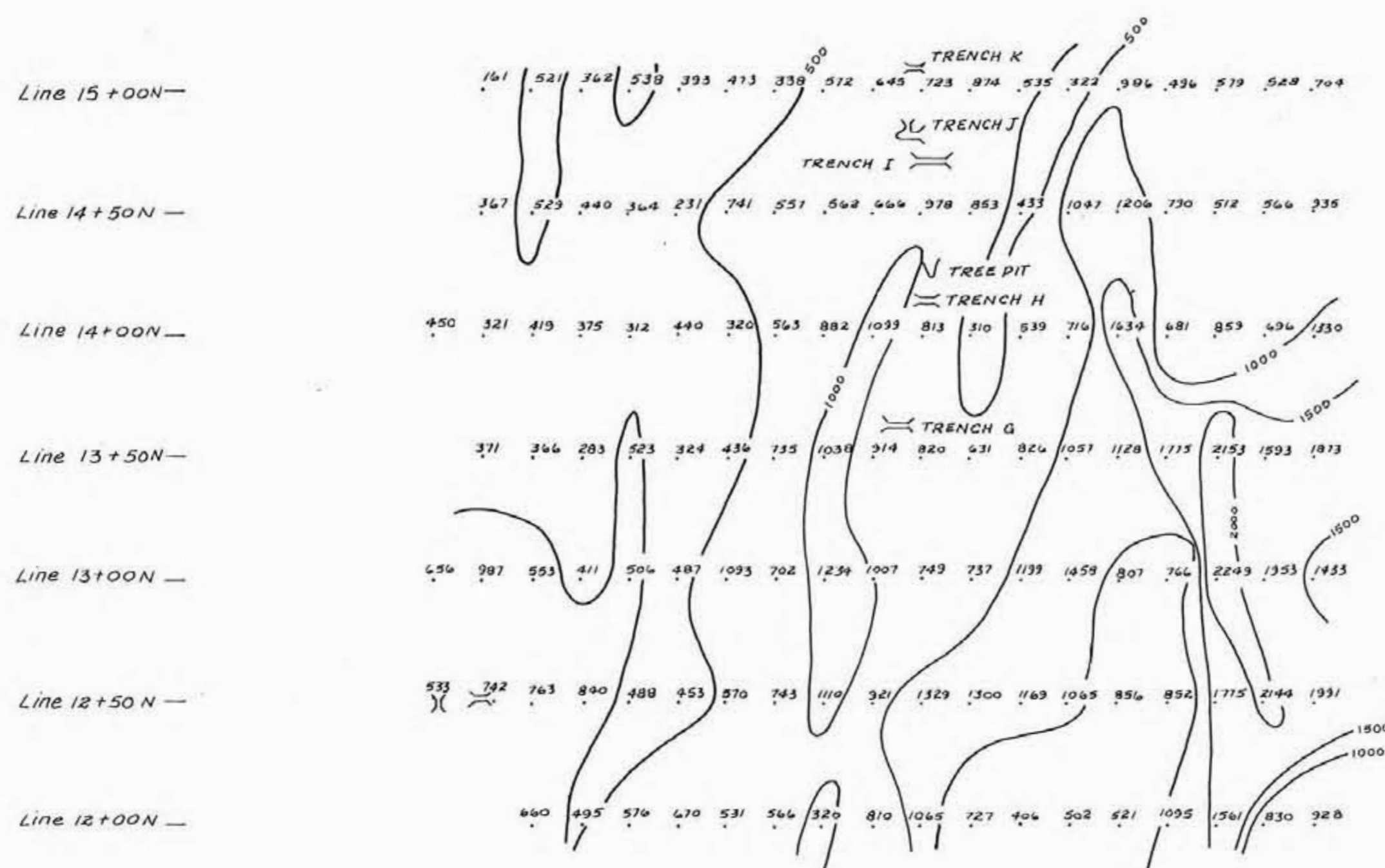
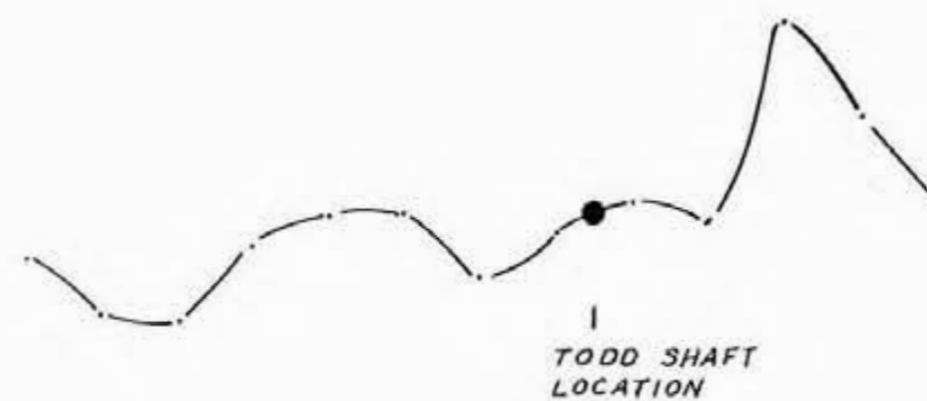
ER

0 100 200 m  
SCALE IN METRES 1 : 2000

Figure: **3**

1000  $\Omega$ -m  
500  $\Omega$ -m  
0  $\Omega$ -m

TODD SHAFT LINE  
LINE 99  
BEARING 110°



  
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

13,114  
Shaft or Trench Location

SCHLUMBERGER ARRAY  
AB = 140m, MN = 20m  
All values in OHM-m  
Contour interval: 500  $\Omega$ -m

**Kidd Creek Mines Ltd.**

KAMLOOPS - MERRITT GOLD  
(IRON MOUNTAIN)

IP SURVEY  
RESISTIVITY ( $\Omega$ -m)

NTS 92I/2W, 2E

Proj. 948

WORK BY

DRAWN BY

DATE: SEPT. 25/1984

GH, TH

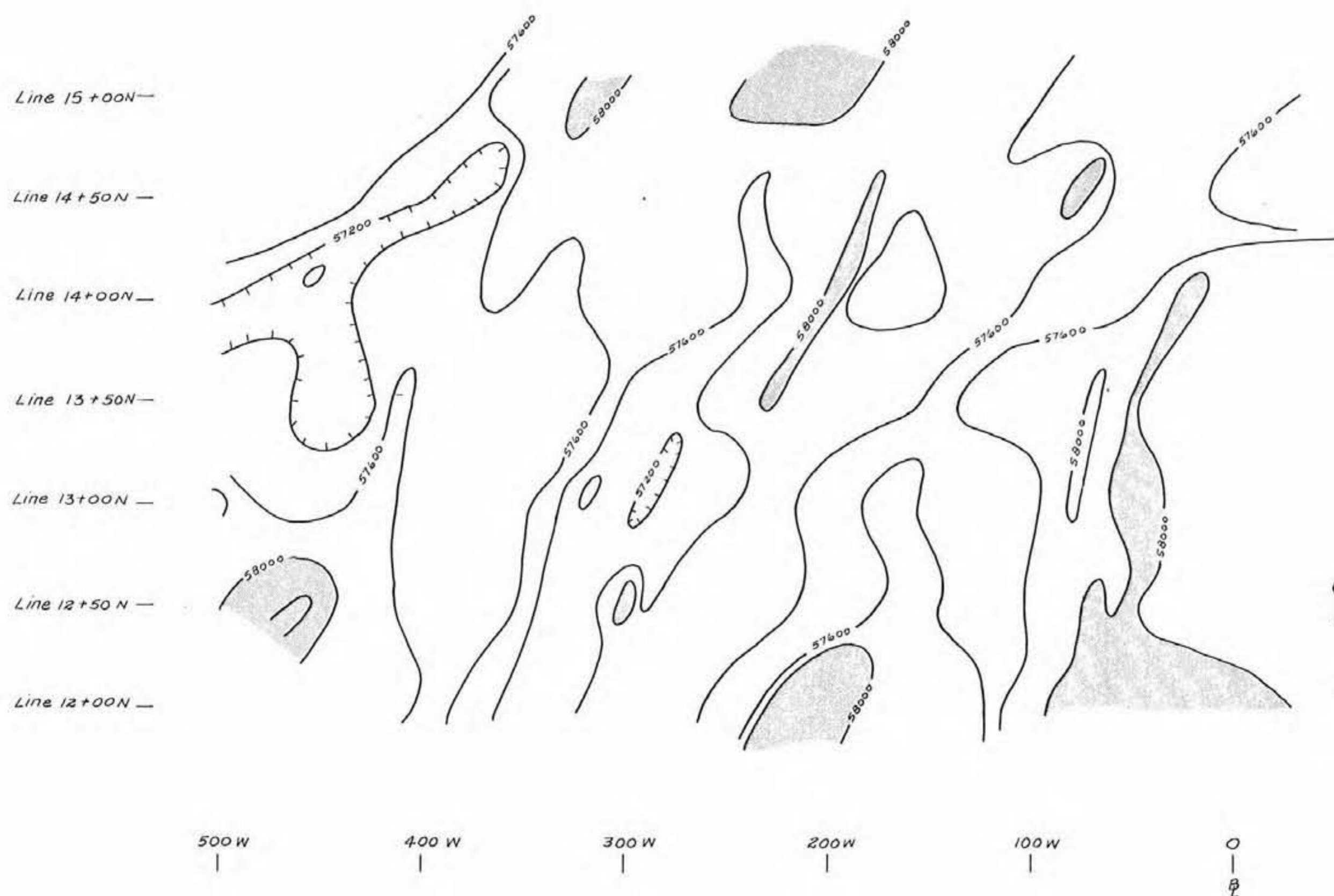
ER

0 100 200 m  
SCALE IN METRES 1 : 2000

Figure:

4





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

13,114

Contour interval : 400 δ  
Shaded areas above 58000 δ

**Kidd Creek Mines Ltd.**

KAMLOOPS - MERRITT GOLD  
(IRON MOUNTAIN)  
MAGNETIC TOTAL FIELD STRENGTH  
CONTOUR MAP

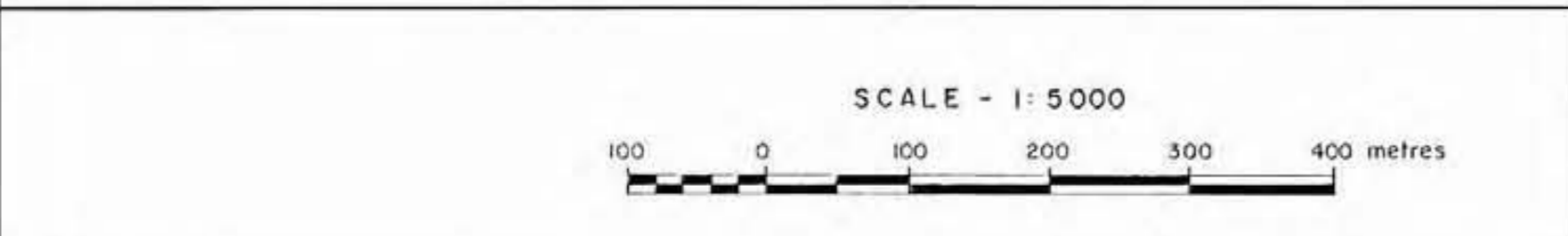
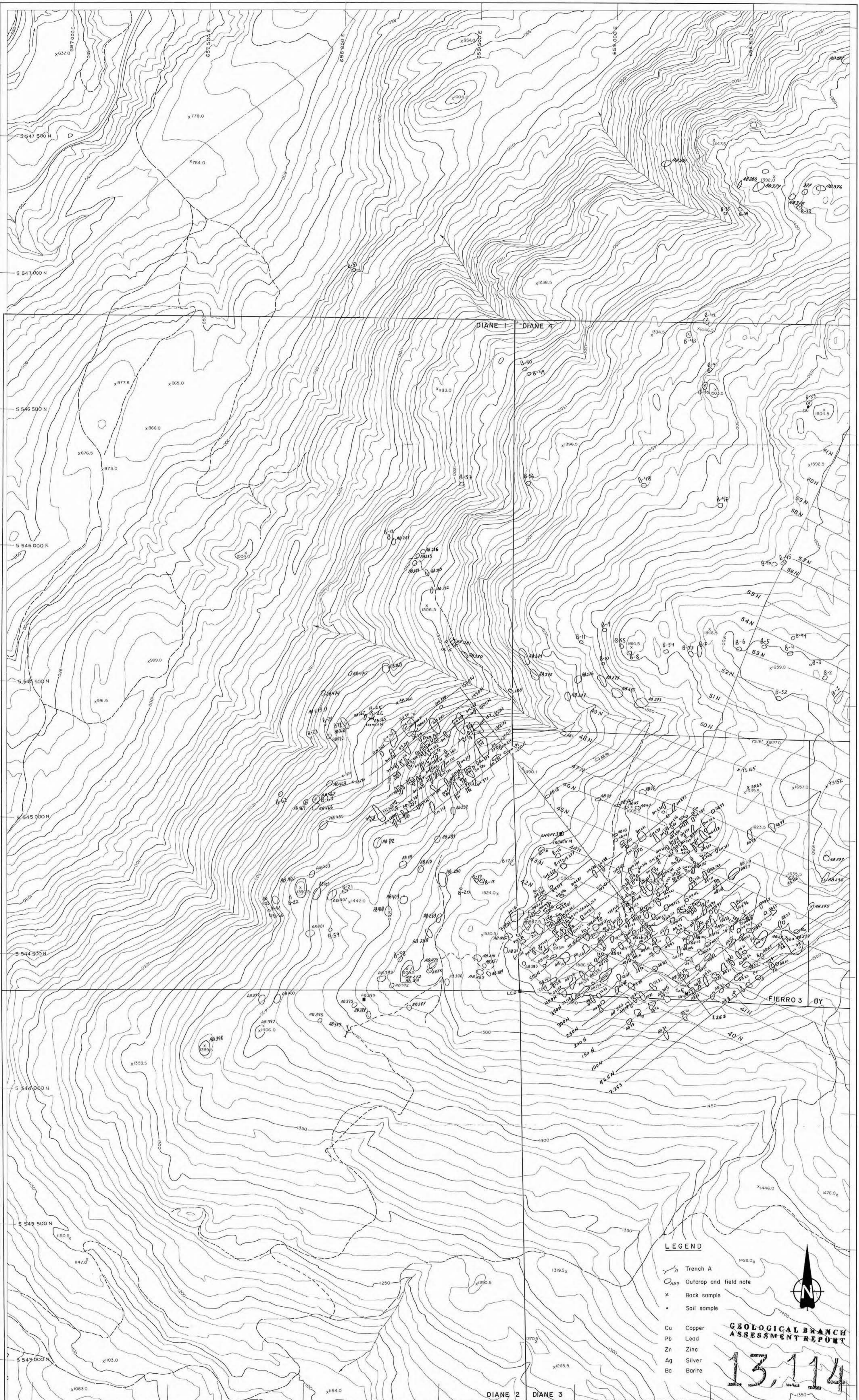
NTS 92 I/2W, 2 E Proj. 948

WORK BY GH, TH	DRAWN BY ER	DATE: SEPT 25 / 1984
-------------------	----------------	----------------------

0 100 200 m  
SCALE IN METRES 1 : 2000

Figure: **5**





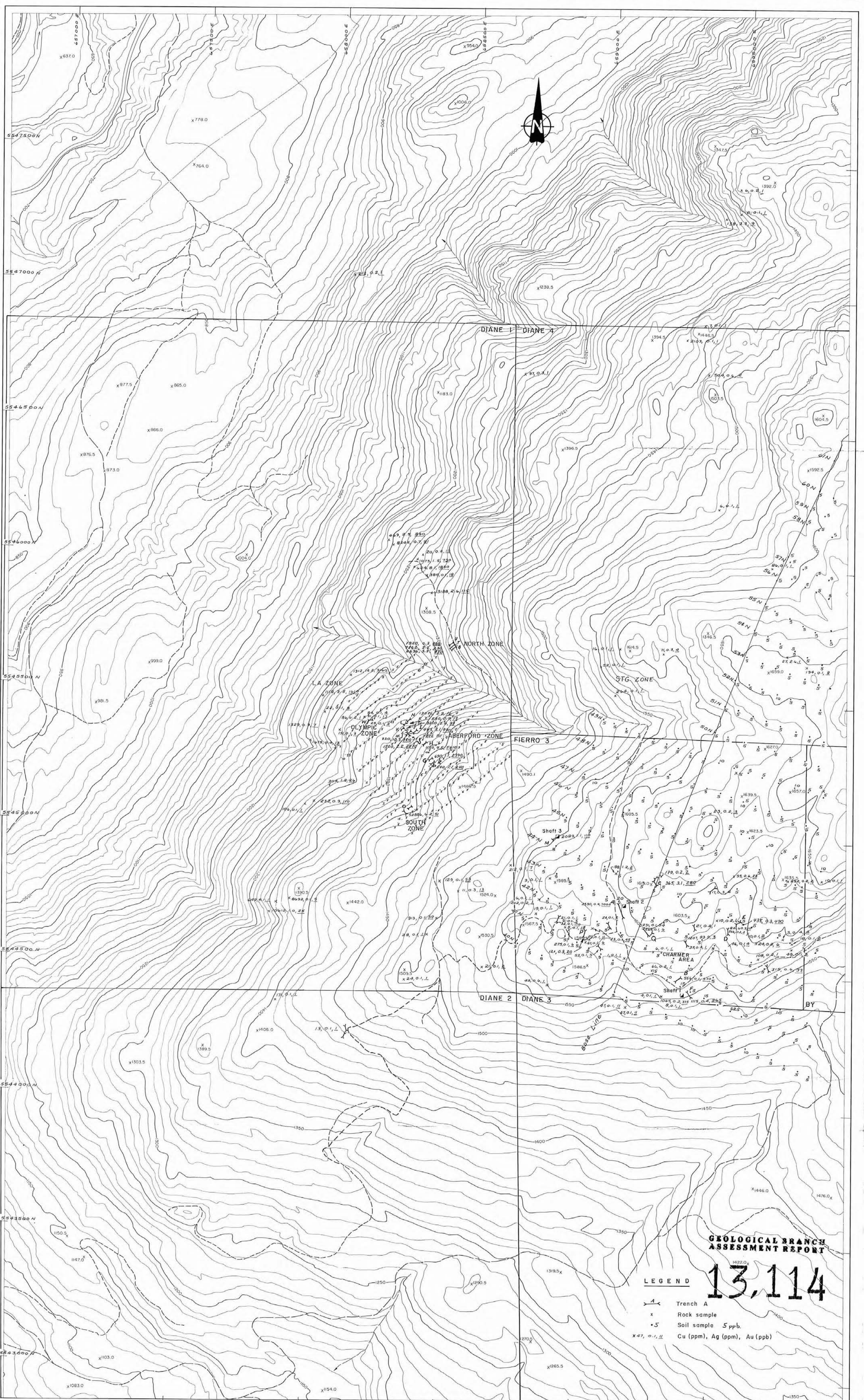
Sheet Index  
1 2  
PRELIMINARY RECONNAISSANCE TYPE MAPPING  
Scale and elevation data based on aerial photography taken in good weather  
and interpreted and plotted.

**McElhanney**  
THE McELHANNEY GROUP LTD.  
1166 Alberni Street, Vancouver B.C., Canada  
Compiled from aerial photography taken in 1979  
at an approximate scale of 1:20,000  
SCALE 1:5000 CONTOUR INTERVAL 10 Metres  
DATE COMPILED June 1994 SHEET NUMBER 1 of 2

KIDD CREEK MINES LTD.  
**IRON MOUNTAIN**  
LOCATION MAP  
NTS 921/2E/2W ORTHOPHOTO MAP Fig. 6

**13,114**



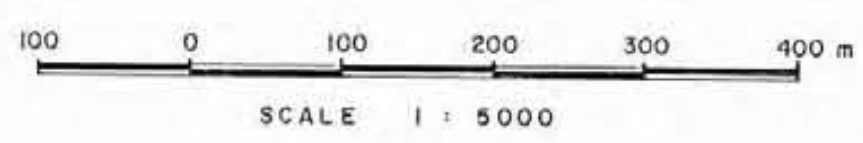


**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13,114**

**LEGEND**

- Trench A
- Rock sample
- Soil sample 5 ppb.
- Cu (ppm), Ag (ppm), Au (ppb)



Shear Index  
 2  
 PRELIMINARY RECONNAISSANCE TYPE MAPPING  
Scale and elevation shown should not be used for detailed mapping or engineering purposes.



**THE McELHANEY GROUP LTD.**  
 1166 Alberni Street, Vancouver B.C., Canada  
 Compiled from aerial photography taken in 1979  
 at an approximate scale of 1:20,000

**KIDD CREEK MINES LTD.**

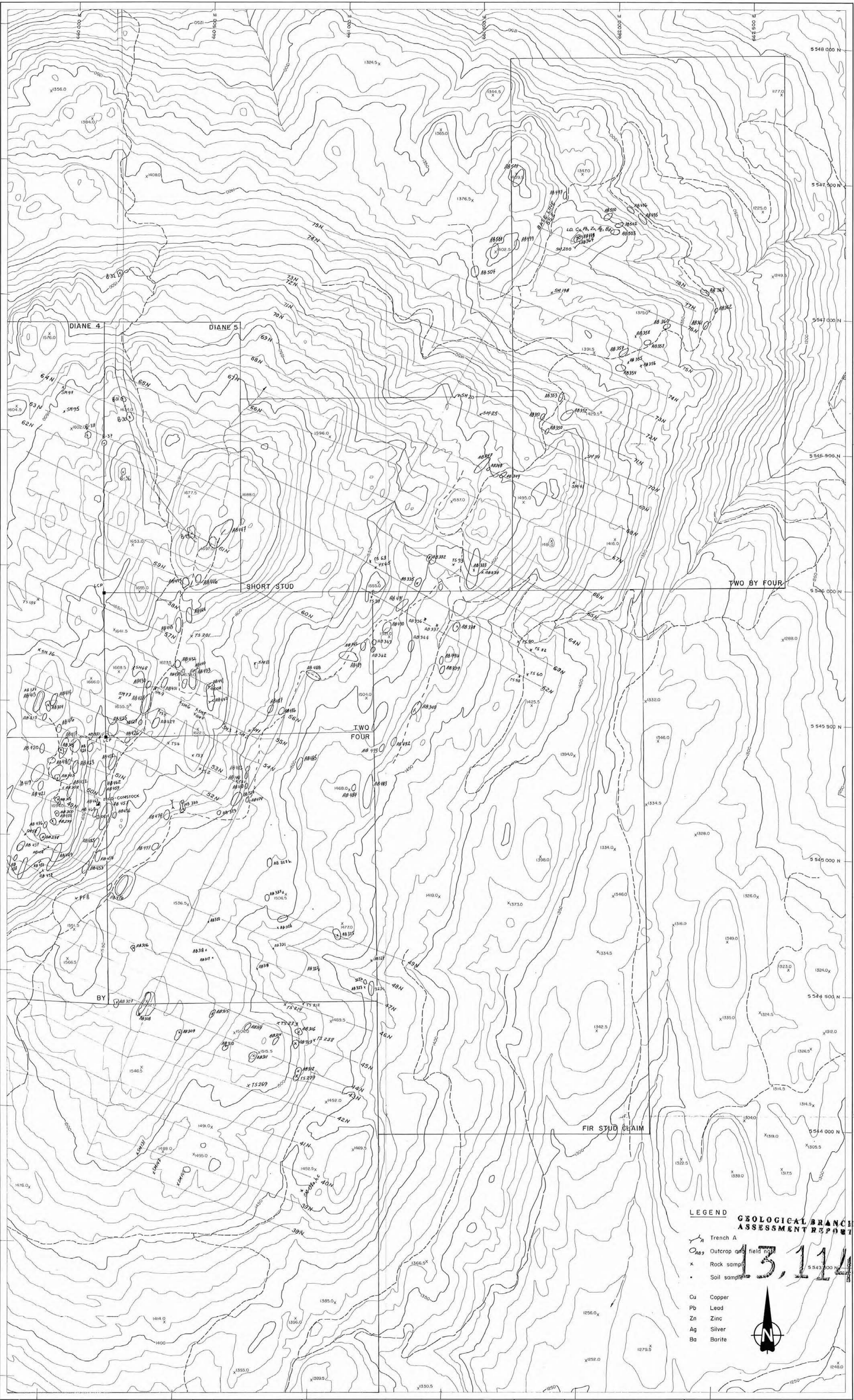
**IRON MOUNTAIN  
GEOCHEMISTRY**

REF. No. 40136-0

SCALE 1 : 5000  
 DATE COMPILED June 1984  
 SHEET NUMBER 1 of 2

CONTOUR INTERVAL 10 Metres  
 NTS 921/26/ZW  
 ORTHOPHOTO MAP Fig. 7





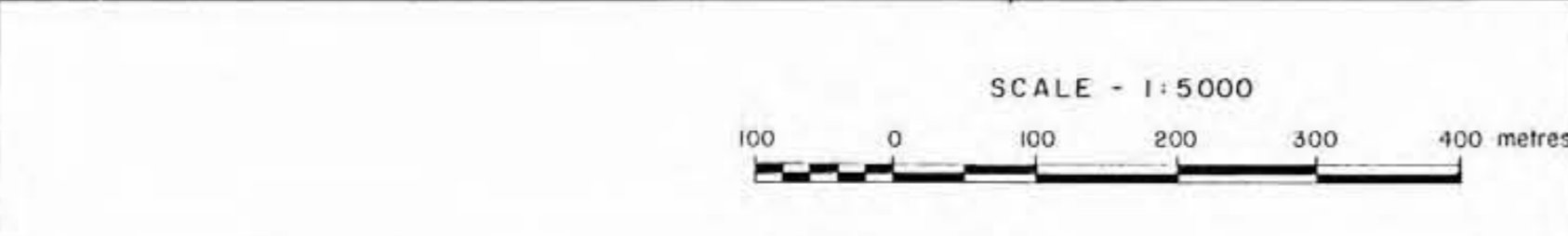
**LEGEND**

- Trench A
- Outcrop and field note
- Rock sample
- Soil sample

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**13, 11**

- Cu Copper
- Pb Lead
- Zn Zinc
- Ag Silver
- Ba Barite



Sheet Index

1 2

PRELIMINARY RECONNAISSANCE TYPE MAPPING

Scale and elevation shown based on limited ground control reading in good relative but uncertain map accuracy.

**THE McELHANNEY GROUP LTD.**  
 1106 Alberni Street, Vancouver B.C., Canada

Compiled from aerial photography taken in 1979  
 at an approximate scale of 1:20,000

SCALE 1:5000

DATE COMPILED June 1984

SHEET NUMBER 2 of 2

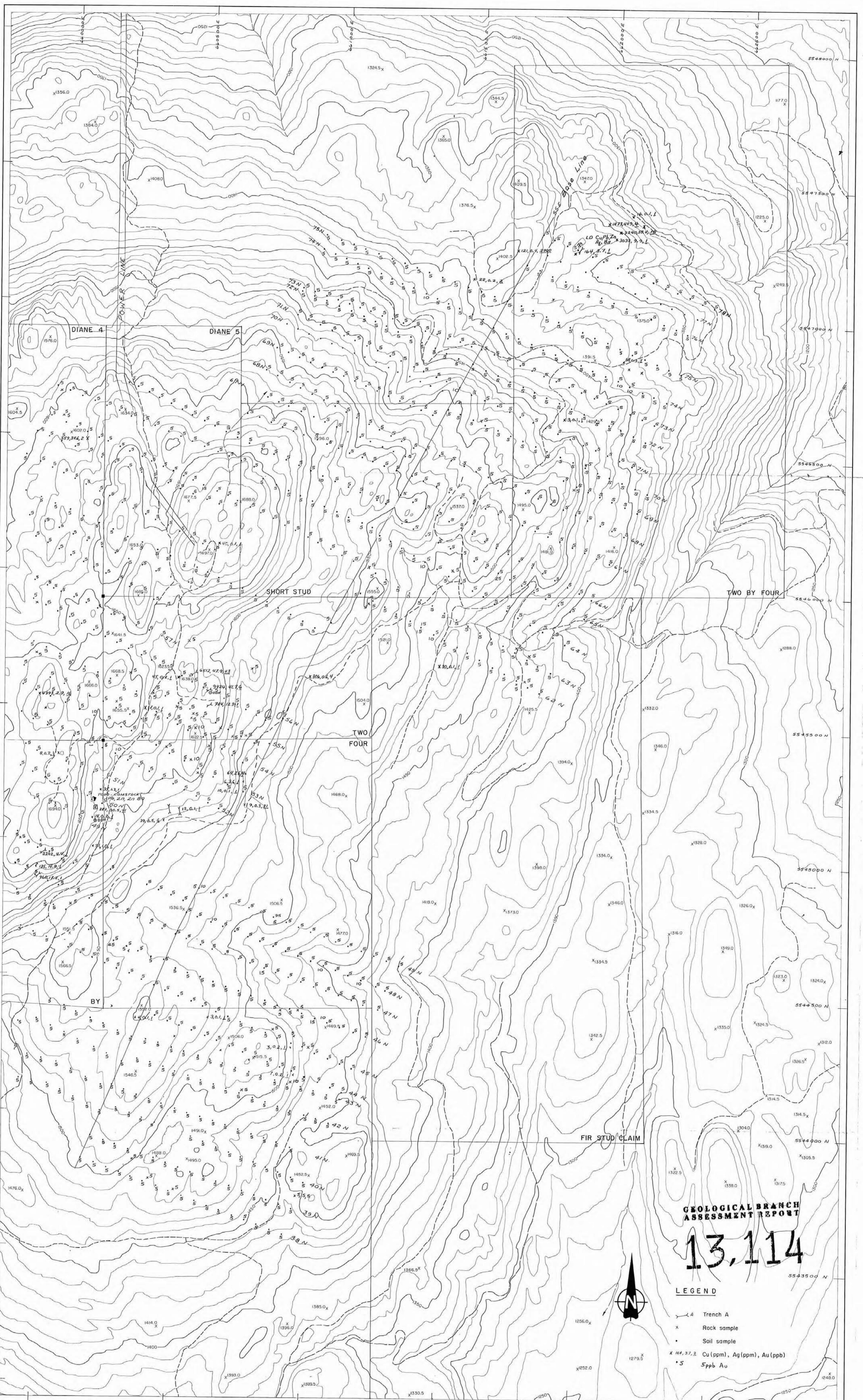
REF. No. 40136-0

KIDD CREEK MINES LTD.

**IRON MOUNTAIN LOCATION MAP**

NTS 921/28/2W ORTHOPHOTO MAP Fig. 8





**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13.114**

**LEGEND**

- A Trench A
- x Rock sample
- Soil sample
- x 164, 37, 2 Cu (ppm), Ag (ppm), Au (ppb)
- 5 Spb Au



SCALE - 1:5000  
0 100 200 300 400 metres

Sheet Index  
1 2

PRELIMINARY RECONNAISSANCE TYPE MAPPING  
Scale and elevation shown based on latest ground control resulting in good relative but uncertain map accuracy.



**THE McELHANNEY GROUP LTD.**  
1166 Alberni Street, Vancouver B.C., Canada  
Compiled from aerial photography taken in 1979  
at an approximate scale of 1:20,000  
SCALE 1:5000 Contour Interval 10 Metres  
DATE COMPILED June 1984 SHEET NUMBER 2 of 2

**KIDD CREEK MINES LTD.**  
**IRON MOUNTAIN  
GEOCHEMISTRY**

REF. No. 40136-0

NTS 921/2E/2W ORTHOPHOTO MAP Fig. 9