1981 Geophysical Assessment Report

TITLE	Airborne Electromagnetic and Magnetic Survey, Midway Property, Tootsee River Area, British Columbia and Yukon
CLAIMS	Mid (1-160) - Yukon Way (1-23), Bull (1-3), Bull 4 Fr., Macc Climax 1-11, Post 1 - British Columbia
COMMODITY	Pb/Zn/Ag
LOCATED	90 kilometres west of Watson Lake, Y.T. Latitude 60°00'N Longitude 130°10'W NTS 105B/1 and 104 O/16 Watson Lake Mining District, Yukon Liard Mining Division, British Columbia
BY	J.L. LeBel, AMAX Minerals Exploration Dighem Limited, Toronto, Ontario
FOR	Regional Resources Ltd.
WORK PERIOD	May 9, 1981 to May 21, 1981

090892

AMAX VANCOUVER OFFICE

Table of Contents

SUMMARY----------1
INTRODUCTION----------2
EQUIPMENT AND PROCEDURE----------5
DATA PROCESSING----------6
PRESENTATION OF RESULTS----------7
RESULTS----------8
DISCUSSION OF RESULTS----------11

Appendices

Appendix A - The Flight Record and Path Recovery
B - EM Anomaly List
C - Electromagnetics and Magnetics
D - Statement of Costs
E - Statement of Qualifications

Figures

Figure 1 - Location Map----------1:250,000---after page 2
Electromagnetics Sheets 1,2,3---1:15,000----in pocket
Resistivity Sheets 1,2,3--------1:15,000----in pocket
Magnetics Sheets 1,2,3----------1:15,000----in pocket
Enhanced Magnetics Sheets 1,2,3-1:15,000----in pocket

SUMMARY

A 782 line kilometre airborne electromagnetic/ magnetic survey was conducted on the Midway property which straddles the B.C./Yukon border approximately 90 kilometres west of Watson Lake, Y.T. At the time of the survey, the property consisted of 160 claims (Mid 1-160) in the Yukon and 39 claims (Way 1-25, Bull 1-3, Macc, Climax 1-11, Post 1) and one fractional claim (Bull 4 Fr.) in British Columbia.

The property is underlain by a sequence of clastic sedimentary rocks the lowest unit of which, a graphitic shale, hosts barite beds and exhalative chert horizons. A bedded massive sulphide horizon is located on the Bull 3 claim in a similar stratigraphic position.

Of numerous electromagnetic anomalies recorded by the survey the majority are caused by wide (or multiple), probably flat lying conductors and none can be readily attributed to a massive sulphide response.

A resistivity map prepared from the electromagnetic data shows that the area is moderately to highly conductive and that zones of very high conductivity correlate with the observed shale units.

Several small magnetic closures associated with conductors on the east side of the property suggest the presence of sulphides although known mineralization elsewhere is devoid of magnetic minerals.

INTRODUCTION

Results of a 782 line kilometre airborne electromagnetic and magnetic survey (Figure 1) flown on the Midway property are documented in this report. The survey was done by Dighem Limited, Suite 7010, 1 First Canadian Place, Toronto, Ontario between May 9th and May 21st, 1981. Base of operations for the survey was at Rancheria, Y.T.

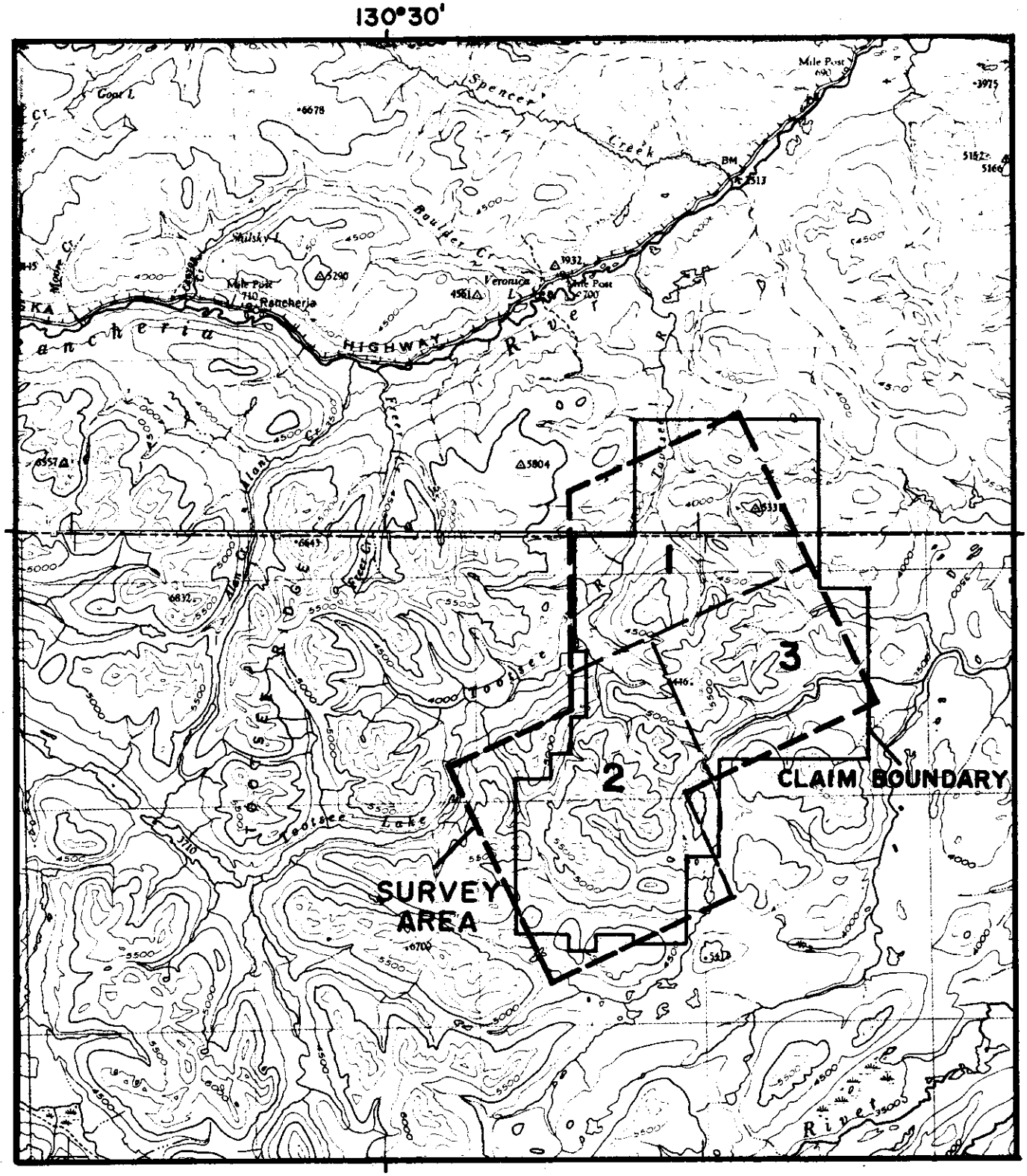
The Midway property straddles the B.C./Yukon border approximately 90 kilometres west of Watson Lake, Y.T. at latitude 60°00'N and longitude 130°10'W (NTS 105B and NTS 104O).

The property consists of 240 claims in the Watson Lake Mining District, Y.T. and 39 claims and one fractional claim in the Liard Mining Division, British Columbia. A summary of the claim status is shown below.

MIDWAY PROPERTY - CLAIM STATUS

CLAIM	GRANT NO.	EXPIRY DATE
Mid 1-128	YA 56975-57102	October 6, 1981
Mid 129-160	YA 57155-57186	October 22, 1981
Mid 161-225	YA 58936-59000	June 10, 1981
Mid 226-240	YA 65801-65815	June 10, 1981

CLAIM	RECORD NO.	EXPIRY DATE
Way 1-5	1684-1688	October 20, 1981
Way 6-23	1726-1743	November 26, 1981
Bull 1-3	1705-1707	November 12, 1981
Bull 4 Fr.	1725	November 26, 1981
Bull 5	1959	July 21, 1982
Climax 1	1716	November 26, 1981
Climax 2 & 3	1709, 1710	November 12, 1981



MIDWAY PROPERTY

LOCATION MAP

1:250,000

FIGURE 1

(cont'd)

CLAIM	RECORD NO.	EXPIRY DATE
Climax 4-11	1717-1724	November 26, 1981
Post 1	1708	November 12, 1981

OWNER: AMAX of Canada Limited

Access to the property is gained via a four-wheel drive road which departs from the Alaska Highway at mile-post 701.6. The road extends approximately 13 kilometres south of the B.C./Yukon border to about the midpoint of the west side of the property. From there, a bulldozer track continues south to the south end of the claim group.

The property is underlain by Mississippian argillites, sandstones and coarse clastics of the Lower Sylvester Formation, which lie stratigraphically between McDame Formation carbonates and Upper Sylvester Formation volcanic rocks. Siliceous, pyritic and baritic exhalites, thought to be distal equivalents to Pb-Zn-Ag-Ba mineralization occur within the argillite. A stratiform sphalerite-galena-pyrite showing has been identified on the Bull 3 claim (B.C.).

The Lower Sylvester Formation rocks strike northwest and occupy the central part of a broad northwesterly trending syncline. Stratigraphy dips at 10 to 30^{o} northeast and southwest toward the center of the structure. Numerous high angle faults cut stratigraphy, with vertical displacements of up to several hundred metres. A detailed account of property geology appears in a separate 1981 property geological and geochemical assessment report.

The objectives of the electromagnetic/magnetic survey were to; 1) investigate for the presence of massive sulphides, 2) identify and trace the favourable shale horizons and, 3) map regional geology and structure in a general way

to assist in orienting more detailed surface evaluation work.

The property is under option to AMAX of Canada from Regional Resources Ltd. Work on the property was managed by Cordilleran Engineering on Regional Resource Ltd's behalf with assistance given by AMAX personnel.

EQUIPMENT AND PROCEDURE

The survey was carried out with the Dighem II electromagnetic system. The Dighem system consists of two pairs of transmitter/receiver coils oriented in coaxial (standard) and coplanar (whale tail) configurations operating at approximately 900 hertz. The coils are mounted in a ten metre long bird towed approximately 30 metres below a helicopter. The helicopter used for the survey was an Aerospatiale Lama registration number C-GDEM. Ancilliary equipment consisted of a Sonotek PMH-5010 magnetometer with its sensor approximately 15 metres below the helicopter, a Sperry radio altimeter, Geocam sequence camera, Barringer 8-channel hot-pen analog recorder, and a Sonotek SDS 1200 digital data acquisition system with a Digi-Data D1130 9-track 800-bpi magnetic tape recorder. The analog equipment recorded four channels of EM data, two ambient EM noise channels (for the coaxial and coplanar receivers), and one channel each of magnetics and radio altitude. The digital equipment recorded the EM data with a sensitivity of 0.20 ppm/bit and the magnetic field to one gamma/bit.

Line spacing for the survey was 300 metres flown at an average bird height of 38 metres at an average airspeed of 103 kilometres per hour. Navigation was achieved visually using a 1:20,000 scale airphoto mosaic.

DATA PROCESSING

The data recorded by the survey was subjected to several computer processing steps to improve recognition of bedrock anomalies.

The processing steps include digital band pass filtering of the magnetic data and calculation of electromagnetic difference channels to subdue the effects of conductive overburden. The outputs of the coaxial coils are used to calculate the conductance and depth to the cause of each anomaly using two models, a vertical thin sheet and a horizontal thin sheet and the apparent resistivity and depth to a conductive earth.

The outputs of the coplanar coils are used to calculate the apparent resistivity of the ground in a continuous manner. The model used is a 'pseudo half-space' that is, a conductive half-space overlain by a resistive layer. The details of this and the other processing steps and the significance of the various calculated parameters are discussed in Appendix A.

Recorded data and calculated parameters are plotted in stacked profiles adjusted for variations in speed of the helicopter, at a scale compatible with the airphoto mosaic compilation map.

The computer generated profiles, rather than the original analog records, are used in the evaluation and interpretation of the results in this report.

PRESENTATION OF RESULTS

The results of the survey, electromagnetics, resistivity, magnetics and enhanced (filtered) magnetics, are presented in plan superimposed on a 1:15,000 scale airphoto mosaic. For convenience in handling the map is divided into three sheets.

Anomalies are located on the electromagnetic by various symbols which depict the quality and additional essential characteristics. The symbols are labelled with an alphabetic indentifier and conductance and depth for the vertical thin sheet model. Amplitude of each anomaly, conductance and estimated depth for the vertical thin sheet models and apparent resistivity and estimated depth for the conductive earth model are listed in Appendix B. Details of the grading and labelling system used by Dighem are described in Appendix C.

The magnetic and enhanced magnetic data are presented in contoured form using 25 and 100 gamma intervals respectively. The larger contour interval for the enhanced magnetics results from a 20 lines amplification imparted to the data by the filter operator (see discussion of magnetics in Appendix C).

The resistivity results are contoured at logarithmic intervals of 1, 1.3, 1.7, 2.3, 3.1, 4.2, 5.6, 7.5, 10.0 etc to accommodate the large resistivity range. The data are cut-off at one ohm-m and 1,000 ohm-m, the low and high sensitivity limits of the system. Numerical labels on the contours 'point' in the direction of increasing resistivity.

RESULTS

An abundance of anomalies were detected by the survey. Line to line correlation of the anomalies to show strike length and direction of the conductors was hampered by the variable character and numbers of the anomalies and the lack of guidance provided by the bland magnetic activity in the area. The trends of the conductors shown on the electromagnetic map were largely determined by use of the resistivity contour patterns. Most of the conductors are long, wide and gently dipping and a majority of them are located at some depth below the surface. There is no evidence that conductive overburden contributes to the electromagnetic response of the area.

There is minimal magnetic activity in the area and only a few anomalies have direct magnetic correlation.

Resistivities range from one ohm-m to 1,000 ohm-m. Most of the area is moderately to highly conductive, resistive areas greater than 1,000 ohm-m are restricted to the east and west edges of the area and occasional small closures elsewhere.

In selecting anomalies for ground follow-up an EM conductor and a coincident resistivity low were considered favourable criteria. A resistivity low alone was not considered a worthwhile target because it could be caused by high background EM response lacking a discrete peak. An example of this type of response occurs at the west end of line 32 on sheet two. Short strike length was also considered a favourable criterion.

Anomalies judged as worthwhile targets are listed below.

Anomaly 43E - A wide conductor which correlates with an interesting 50 gamma magnetic anomaly. The conductor extends to 44E and 42B but magnetic correlation degrades to flanking.

Anomaly 45B-46A - A wide conductor associated with a discrete two line magnetic closure. The resistivity map suggests that the conductor extends south through anomaly 41B.

Anomaly 46E-48E - A wide variable conductor on a steep magnetic gradient. The anomaly probably extends to 44C where it correlates with a distinctive magnetic anomaly.

Anomaly 54C-56D - A good conductor which correlates with an intense resistivity low. Several conductors immediately to the east have similar characteristics.

Anomaly 54H-56H - A conductor situated on the east edge of a resistivity low. The asymmetry of the resistivity low suggests a westward dipping feature.

Other Anomalies - Anomalies 44U, 57Q, 61X, 65N and others associated with resistivity lows immediately east of the 1,000 ohm-m resistivity contour.

Sheet 2

Anomaly 1400G-157 - A short good conductor which correlates with a 10 gamma magnetic anomaly not displayed by the magnetic contour map because of the coarse contour interval used.

Anomaly 25I - A highly resolved EM response on the edge of a large resistivity low. Anomaly 3000D has similar characteristics.

Anomaly 18F - A broad but strong conductor with essentially no out-of-phase response. The anomaly is part of a long conductor which extends for several kilometres to Anomaly 2C on the west side of the area.

Anomaly 12A-14A - Modest anomalies which reflect a 'compact' conductor on a well defined resistivity low.

Other Anomalies - Other anomalies which reflect discrete conductors are 23A-25C, 28F-29C and 32D-34D.

Sheet 3

Anomaly 21I-25E - An isolated conductor with a distinct resistivity low with a westerly dip.

Anomaly 35J-35K - A pair of single weak anomalies which have generated a small resistivity low.

Anomaly 28A-29B, C - Modest anomalies associated with a small magnetic closure. The anomalies reflect a wide source.

DISCUSSION OF RESULTS

The variations in the resistivity reflect the variable carbon content in the sedimentary lithologies. The zones of lowest resistivity (say less than 10 ohm-m), in general, correlate with the known graphitic shales which host the barite and exhalite horizons and the known massive sulphide horizon. The low resistivity zones are concentrated along the west and east sides of the area, in particular at the south-west end of the area where a broad resistivity low suggests the favourable shale horizon is several hundred metres thick.

The zones of high resistivity (greater than 1,000 ohm-m) at the margins of the area reflect carbonate rocks. Isolated closures elsewhere in the area reflect either faulted blocks of carbonates or in some cases volcanic rocks, the youngest member of the Sylvester Group. In many cases, especially at the margins of the area, the juxtaposition of high and low resistivity serves to identify the location of faults.

Most of the electromagnetic anomalies reflect long, wide (or multiple) conductors characteristic of conductive lithologies. None of the anomalies detected by the survey can be readily attributed to a massive sulphide conductor. The combination of conductors and resistivity lows outline the most graphitic shale units and therefore may assist in focussing ground examination.

The bland magnetic response of the area is consistent with the low magnetic susceptibility of sedimentary rocks. Several small magnetic closures, emphasized by the enhanced magnetics, associated with the conductive trends along the east side of the area are unique because of the general absence of magnetic activity elsewhere on the property. If these anomalies are caused by pyrrhotite, they may indirectly

indicate the presence of more desirable sulphide minerals, although the known mineralization is devoid of magnetic minerals.

Nov. 16/81

Date

J.L. LeBel

APPENDIX A

THE FLIGHT RECORD AND PATH RECOVERY

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THE FLIGHT RECORD AND PATH RECOVERY

Both analog and digital flight records are produced. The analog profiles are recorded on green chart paper in the aircraft during the survey. The digital profiles are generated later by computer and plotted on grey chart paper at a scale usually identical to the geophysical maps. The digital profiles, which may be displayed, are as follows:

Channel Number	Label	Parameter	Scale units/mm	Noise
20	MAG	magnetometer	10 gamma	2 gamma
21	ALT	bird height	10 feet	5 feet
22	CXI	coaxial coil-pair inphase	1 ppm	1-2 ppm
23	CXQ	coaxial coil-pair quadrature	1 ppm	1-2 ppm
24	CPI	coplanar coil-pair inphase	1 ppm	1-2 ppm
25	CPQ	coplanar coil-pair quadrature	1 ppm	1-2 ppm
26	VLFT	VLF-EM total field	1 %	1-2 %
27	VLFQ	VLF-EM vertical quadrature	1 %	1-2 %
28	CXS	ambient noise monitor (coaxial coil)	1 ppm	1 ppm
29	CPS	ambient noise monitor (coplanar coil)	1 ppm	1 ppm
33	DIFI	difference function inphase	1 ppm	1-2 ppm
34	DIFQ	difference function quadrature	1 ppm	1-2 ppm
35	REC1	first anomaly recognition function	1 ppm	1-2 ppm
36	REC2	second anomaly recognition function	1 ppm	1-2 ppm
37	SIGT	conductance	1 mho	
40	RES	log resistivity at main frequency	.03 decade	
41	DP	apparent depth at main frequency	3 m	
45	RES2	log resistivity at secondary frequency	.03 decade	
46	DP2	apparent depth at secondary frequency	3 m	

Note: Channels 42 to 44 are experimental.

The log resistivity scale of 0.03 decade/mm means that the resistivity changes by an order of magnitude in 33 mm. The resistivities at 0, 33, 67 and 100 mm up from the bottom of the chart are respectively 1, 10, 100 and 1000 ohm-m.

The fiducial marks on the flight records represent points on the ground which were recognized by the aircraft navigator. Continuous photographic coverage allowed accurate photo-path recovery locations for the fiducials, which were then plotted on the geophysical maps to provide the track of the aircraft.

The fiducial locations on both the flight records and flight path maps were examined by a computer for unusual helicopter speed changes. Such changes may denote an error in flight path recovery. The resulting flight path locations therefore reflect a more stringent checking than is provided by standard flight path recovery techniques.

The following brief description of DIGHEM^{II} illustrates the information content of the various profiles*.

*For a detailed description, see D.C. Fraser, Geophysics, v.44, p.1367-1394.

Single-frequency surveying

The DIGHEM^{II} system has two transmitter coils which are mounted at right angles to each other. Both coils transmit at approximately the same frequency. (This frequency is given in the Introduction.) Thus, the system provides two completely independent surveys at one pass. In addition, the digital flight chart profiles (generated by computer) include an inphase channel and a quadrature channel which essentially are free of the response of conductive overburden. Also, the EM channels may indicate whether the conductor is thin (e.g., less than 3 m), or has a substantial width (e.g., greater than 10 m). Further, the EM channels include channels of resistivity, apparent depth and conductance. A minimum of 11 EM channels are provided. The DIGHEM^{II} system therefore gives information in one pass which cannot be obtained by any other airborne or ground EM technique.

Figure A1 shows a DIGHEM^{II} flight profile over the massive pyrrhotite ore body in Montcalm Township, Ontario. It will serve to identify the majority of the available channels.

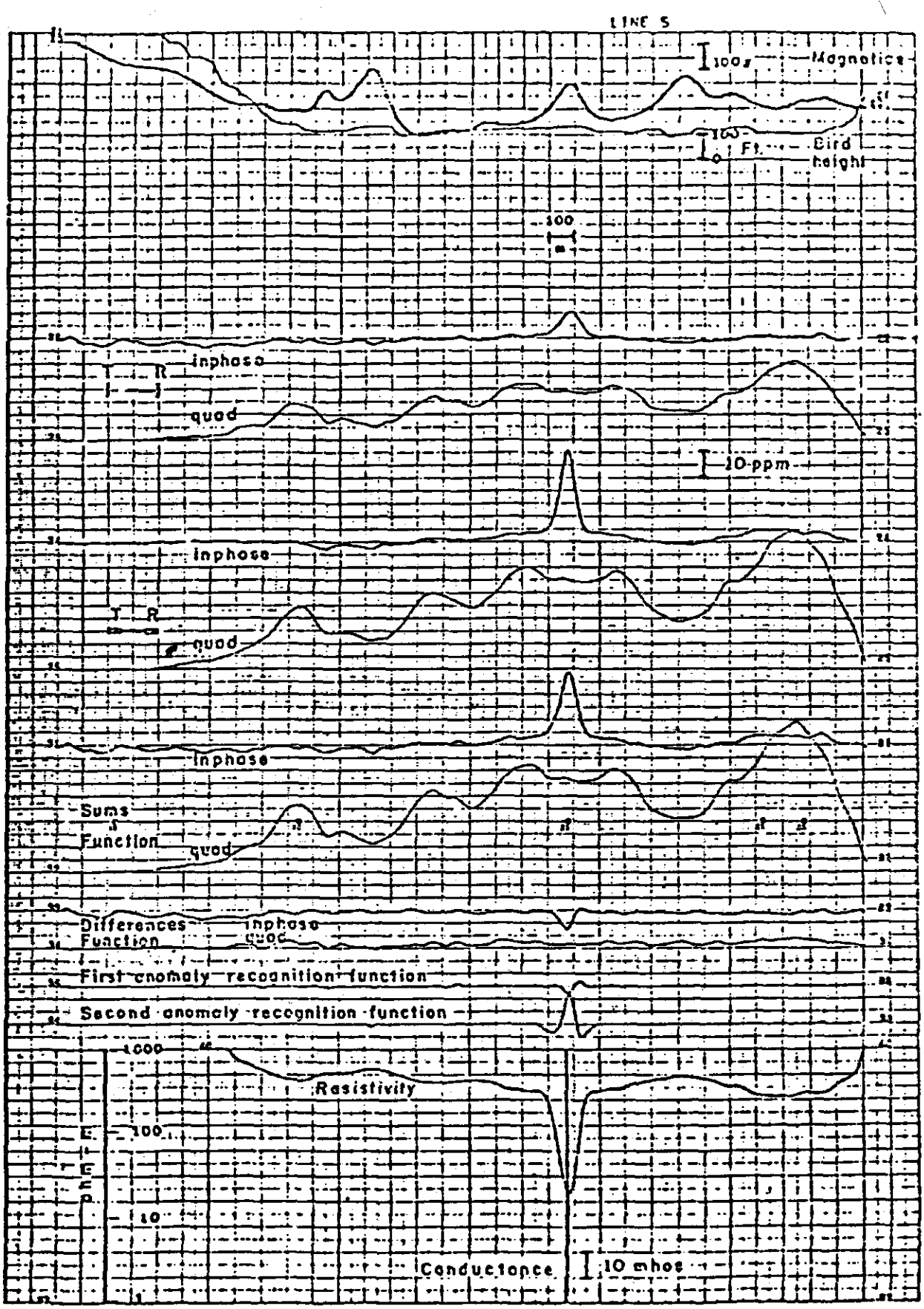

Fig. A1. Flight over Montcalm deposit, with line parallel to strike

The two upper channels (numbered 20 and 21) are respectively the magnetics and the radio altitude. Channels 22 and 23 are respectively the inphase and quadrature of the coaxial coil-pair, which is termed the standard coil-pair. This coil-pair is equivalent to the standard coil-pair of all inphase-quadrature airborne EM systems. Channels 24 and 25 are the inphase and quadrature of the additional coplanar coil-pair which is termed the whaletail coil-pair.

Channels 31 and 32 are inphase and quadrature sum functions of the standard and whaletail channels; they provide a condensed view of the four basic channels 22 to 25. The sum channels normally are not plotted.

Channels 33 and 34 are inphase and quadrature difference functions of the standard and whaletail channels. The difference channels are almost free from the response of conductive overburden. Channel 37 is the conductance. The conductance channel essentially is an automatic anomaly picker calibrated in conductance units of mhos; it is triggered by the anomaly recognition functions shown as channels 35 and 36.

Channel 40 is the resistivity, which is derived from the whaletail channels 24 and 25. The resistivity channel 40 yields data which can be contoured, and so the DIGHEM^{II} system yields a resistivity contour map in addition to an electromagnetic map, a magnetic contour map, and an enhanced magnetic contour map. The enhanced magnetic contour map is similar to the filtered magnetic map discussed by Fraser.*

Figure A2 presents the DIGHEM^{II} results for a line flown perpendicularly to the Montcalm ore body. Channel 20 shows the 175 gamma magnetic anomaly caused by the massive pyrrhotite deposit. For the EM channels, the following points are of interest:

1. On channels 22-25 and 31-34, the ore body essentially yields only an inphase response. The quadrature response is almost completely caused by conductive overburden (which also gives a small inphase response). The hachures show the EM response from the overburden. The overburden response vanishes on the

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*Cdn. Inst. Mng., Bull., April 1974.

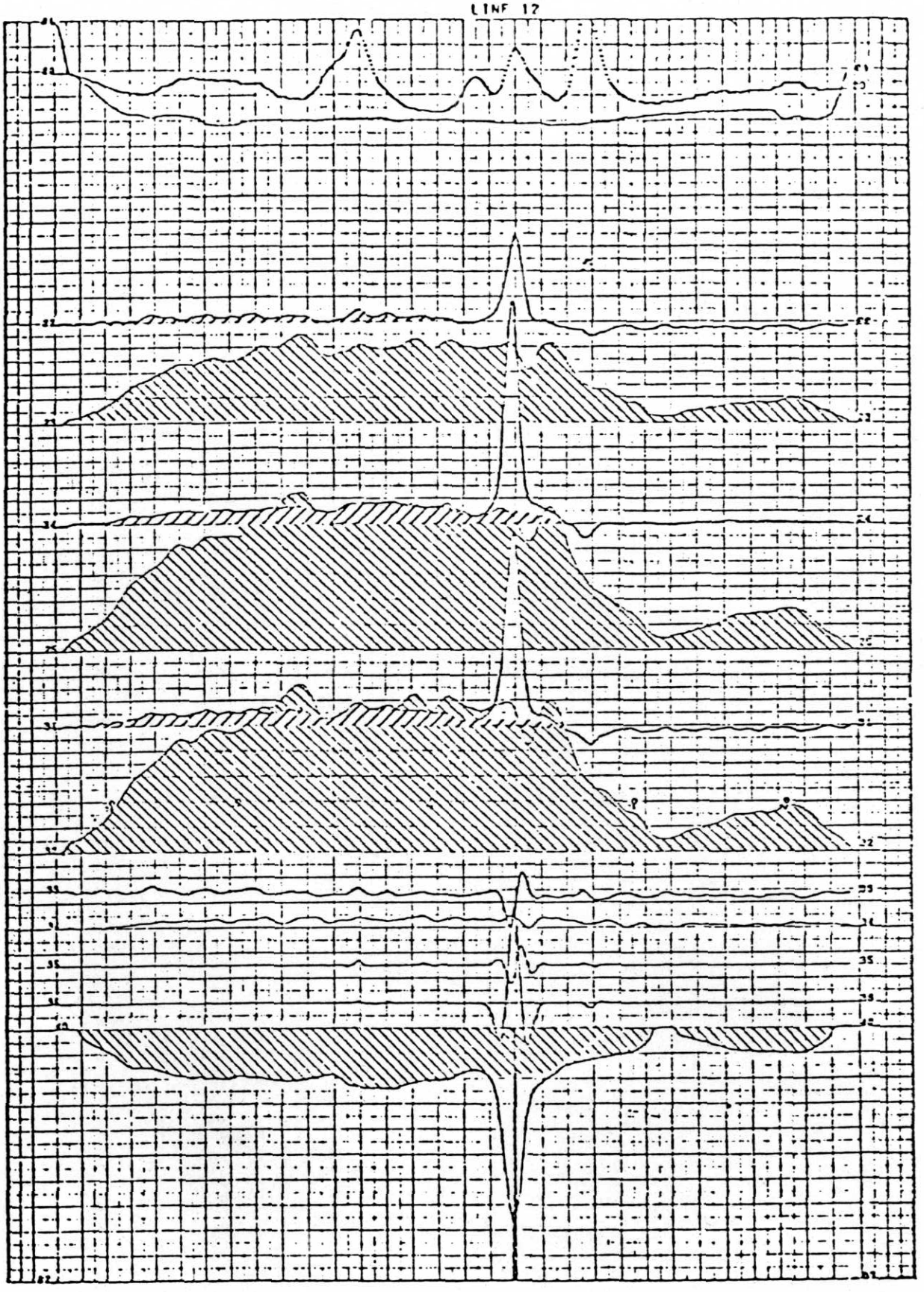

Fig. A2. Flight over Montcalm deposit, with line perpendicular to strike.

difference EM channels, as can be seen by comparing the quadrature channels 25 and 34. This is an important point to note because DIGHEM^{II} is the only EM system which provides an inphase channel and a quadrature channel which are essentially free of conductive overburden response.

2. The whaletail anomaly of channel 24 has a single peak. This shows that the conductor has a substantial width. If the width had been under 3 m, the conductor would have produced a weak m-shaped anomaly on channel 24.

3. The ore body yields a resistivity of 5 ohm-m in a background of about 200 ohm-m (cf. channel 40). A dipole-dipole ground resistivity survey with an a-spacing of 50 m showed a similar background, but the ore body gave a low of only 53 ohm-m because of the averaging effect inherent in the ground technique.

4. The ore body has a conductance of 330 mhos according to its EM response on this particular flight line. The conductance channel 37 saturates at 100 mhos, and so the deposit is indicated by a 100-mho spike.

Figure A1 illustrates the DIGHEM^{II} results for a line flown subparallel to the ore body. The ore body anomaly is small on the standard coil-pair (channel 22) but shows up strongly on the whaletail coil-pair (channel 24).

Dual-frequency surveying

For surveys flown primarily for resistivity mapping, as opposed to EM surveying, the two transmitter coils may be energized at two well-separated frequencies (e.g., 900 and 3600 Hz). Apparent resistivity and apparent depth maps can be made independently for each frequency. The interpretation procedure involves comparing the apparent resistivities and apparent depths at the two frequencies.

The use of two different coil-pair orientations (i.e., standard and whaletail) for dual-frequency resistivity mapping is an unorthodox procedure. However, as long as the current flow patterns are primarily horizontal, the different coil orientations do not influence the results, according to superposed dipole theory. Wire fences and other cultural features will produce local deviations,

because they usually respond preferentially to one or the other of the coil-pairs.

The difference channels 33 and 34 are not produced because the divergent frequencies of the two coil-pairs renders them meaningless. In addition, channels 35 to 37 also are not produced.

APPENDIX B

EM Anomaly List

[illegible] 10-JUL-1981

LINE / ANOMALY	COAXIAL COIL TOTAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL TOTAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE CONDUCTANCE MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET CONDUCTANCE MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESISTIVITY OHM-M	CONDUCTIVE EARTH DEPTH FEET
[illegible]	1	2	[illegible]	[illegible]	4	213	1	752	1035	0
[illegible]	2	[illegible]	[illegible]	[illegible]	4	122	2	338	28	243
[illegible]	[illegible]	1	[illegible]	[illegible]	17	208	3	343	16	253
[illegible]	29	14	[illegible]	12	47	0	2	137	3	136
[illegible]	2	[illegible]	1	[illegible]	3	65	1	138	420	14
[illegible]	2	7	0	[illegible]	1	43	1	211	184	69
[illegible]	1	0	2	0	[illegible]9	241	2	194	59	71
[illegible]	5	19	7	37	2	0	1	102	139	0
[illegible]	7	13	[illegible]	23	2	14	1	130	123	22
[illegible]	0	9	[illegible]	0	28	156	14	149	1	114
[illegible]	61	34	105	37	[illegible]9	23	15	87	1	61
4[illegible]	[illegible]	[illegible]	11	13	6	63	2	298	30	202
4[illegible]	0	0	3	0	51	0	14	164	1	123
4[illegible]	6	2	6	1	30	0	9	226	3	166
4[illegible]	10	0	14	0	38	98	5	146	7	89
4[illegible]	2	2	0	[illegible]	2	53	3	165	21	63
4[illegible]	0	[illegible]	0	0	2	100	2	266	36	160
4[illegible]	[illegible]	0	0	[illegible]	4	22	1	307	139	135
4[illegible]	7	17	12	[illegible]	3	0	1	115	55	15
4[illegible]	3	10	10	23	2	12	2	152	46	53
4[illegible]	[illegible]	11	0	19	1	15	1	183	154	56
4[illegible]	[illegible]	14	2	30	1	0	1	126	33	25
4[illegible]	1	0	[illegible]	0	[illegible]9	231	2	172	30	80
4[illegible]	[illegible]	2	12	[illegible]	11	92	3	205	21	123
4[illegible]	[illegible]	1	0	[illegible]	5	129	2	157	54	39
4[illegible]	4	[illegible]	[illegible]	[illegible]	7	69	2	220	54	97
4[illegible]	12	10	26	21	12	34	4	216	12	144

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
41B	7	6	17	14	9	63	4	227	12	157
41C	22	5	29	9	72	0	2	125	3	79
41D	29	8	47	14	55	3	10	116	1	76
41E	8	8	18	17	5	42	2	139	24	102
41G	4	2	1	0	11	52	1	552	130	352
41I	1	0	2	11	1	0	1	172	440	0
41J	8	8	7	7	8	3	2	167	52	46
41K	2	2	0	0	5	134	2	223	55	97
41M	21	15	7	21	4	0	1	128	97	13
41N	2	1	0	0	5	198	1	211	91	81
41O	8	10	9	13	4	18	2	136	41	39
41Q	4	1	1	0	38	240	1	241	80	107
41P	7	10	4	11	4	40	1	162	144	35
41T	15	1	14	6	49	76	2	337	31	234
42A	34	21	61	35	29	10	7	137	3	94
42B	22	22	34	25	12	13	4	128	9	74
42C	10	16	17	14	10	76	3	192	16	121
42D	2	6	1	6	2	18	1	151	457	0
42E	11	17	16	31	5	0	2	122	48	24
42F	3	3	1	3	4	129	2	236	59	111
42G	2	0	1	0	14	196	2	184	58	55
42H	4	2	3	1	10	84	2	174	47	59
43C	4	5	2	4	8	32	4	205	11	224
43D	5	0	1	0	11	149	4	184	9	113
43E	25	35	29	56	9	0	3	107	13	44
43F	4	12	0	15	2	0	2	228	29	133
43G	13	10	21	22	15	12	3	175	14	105
43H	4	3	2	6	7	76	2	245	34	142
43I	2	3	0	4	2	50	1	291	197	114
43K	5	4	3	5	13	63	4	265	13	182

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
43A	4	10	5	10	3	0	1	204	91	67
43B	4	6	6	8	4	34	1	217	62	92
43F	3	3	7	10	4	37	1	135	72	64
43G	3	1	3	1	21	208	1	334	82	181
43H	4	2	2	1	17	217	1	482	112	303
44A	5	0	5	1	49	54	4	159	13	86
44B	4	5	2	6	4	64	3	251	27	160
44C	14	13	22	20	12	54	3	180	14	115
44D	1	3	3	15	2	28	2	201	24	115
44E	9	2	7	0	21	79	5	200	6	138
44F	10	6	4	7	10	133	1	233	71	115
44H	1	4	4	1	2	159	1	238	69	118
44I	3	3	12	13	8	34	2	233	30	136
44M	6	11	7	20	3	9	1	137	93	25
44N	6	6	3	6	5	12	1	172	59	49
44P	4	6	2	5	4	92	1	314	69	177
44T	2	3	0	2	2	159	1	279	86	142
44U	3	1	3	0	49	30	13	322	1	277
45E	13	16	29	29	10	44	3	172	14	106
45C	5	7	9	12	5	82	3	193	19	116
45D	2	1	2	1	5	164	3	194	21	114
45E	4	6	1	10	3	47	2	216	33	117
45G	10	16	7	12	5	19	2	215	56	97
45I	3	4	3	6	4	89	2	238	54	117
45J	4	6	0	6	3	6	1	200	201	36

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
45A	2	2	3	4	5	103	2	222	44	108
45B	5	3	11	15	5	49	2	198	34	99
45F	4	7	0	6	3	51	1	217	74	93
45G	3	4	2	3	6	101	1	222	117	78
45P	10	7	12	8	16	54	2	215	44	103
46A	1	0	5	1	40	232	3	206	17	126
46B	1	1	0	2	4	130	3	191	22	108
46C	4	3	3	11	2	12	2	174	27	84
46E	2	0	0	0	10	209	3	313	17	227
46F	3	2	5	3	9	157	3	278	16	193
46G	11	7	20	15	15	41	3	139	18	113
46I	5	5	4	12	5	53	2	243	41	132
46J	1	4	0	4	3	120	1	176	344	18
46M	8	17	11	25	4	3	1	143	65	38
46N	6	14	5	19	3	9	1	151	132	31
46P	3	10	5	15	3	8	1	159	91	41
46T	3	4	0	4	2	105	1	137	374	0
47A	4	2	0	0	9	73	1	579	1035	0
47B	5	9	3	8	3	43	3	177	22	94
47C	5	4	8	6	12	105	3	163	17	90
47D	4	7	5	8	4	70	2	155	27	68
47E	35	27	50	43	18	0	4	127	10	70
47F	2	4	1	0	3	85	1	262	145	104
47G	1	7	3	8	2	4	1	162	94	42
47H	12	8	14	18	13	73	3	196	21	115
47I	8	15	5	27	3	0	1	143	63	40
47K	5	7	7	9	5	0	2	187	51	67
47M	4	4	6	5	8	119	1	220	85	89

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
48D	5	2	13	3	40	122	7	364	4	293
48C	3	4	5	3	5	77	2	275	30	179
48E	17	24	35	27	15	2	5	131	7	74
48G	1	0	2	1	35	374	4	246	9	180
48F	3	3	3	12	3	42	1	191	57	81
48G	4	7	2	0	4	127	2	237	49	126
48H	2	7	0	10	1	0	1	217	68	94
48I	2	0	3	0	36	254	2	255	29	161
48J	5	12	5	12	3	20	1	175	137	47
48M	3	3	1	1	5	121	1	150	700	0
49A	4	2	0	0	7	148	1	694	96	501
49B	8	5	27	9	27	0	10	166	2	115
49C	52	24	92	42	42	0	8	137	2	96
49E	4	5	2	1	6	27	1	256	84	107
49F	2	13	4	23	1	34	1	215	111	99
49G	10	7	4	3	9	70	2	204	44	95
49I	3	7	3	17	2	35	2	170	53	64
49J	5	4	5	7	6	105	1	209	58	93
49K	5	12	5	21	2	0	1	151	133	30
49M	3	3	0	0	7	144	1	230	133	74
49N	4	2	1	1	10	211	1	281	431	83
50A	22	9	34	15	34	0	9	118	2	72
50B	2	3	17	6	15	19	10	131	2	84
50C	3	4	2	1	5	148	1	446	271	229
50D	9	11	16	22	7	0	4	155	13	87
50E	4	2	1	0	8	179	2	340	35	237
50F	4	7	3	7	5	85	2	285	31	187
50G	6	6	7	10	7	65	1	210	67	87
50H	4	4	4	6	5	97	1	146	63	40
50J	3	0	4	1	49	247	1	301	93	151
51A	1	0	17	0	49	114	8	194	3	142

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
51E	12	12	6	13	8	45	4	217	9	151
51D	7	6	8	7	9	113	2	382	34	276
51F	14	0	24	0	49	57	9	184	2	135
51G	0	6	0	9	2	0	4	132	13	110
51H	10	10	15	13	9	19	2	179	15	108
51I	3	2	6	3	14	65	3	252	19	157
51J	3	5	2	7	3	16	1	204	106	61
51K	3	12	0	13	1	0	1	112	226	0
51N	3	1	4	4	12	149	1	286	65	151
52A	33	40	65	69	14	0	4	132	10	74
52B	8	6	9	8	11	70	2	368	60	232
52D	4	3	5	15	3	19	1	144	77	22
52E	3	0	0	1	49	220	2	179	47	78
52F	4	6	7	9	5	95	1	151	63	50
53A	0	15	0	33	3	0	3	113	14	47
53B	32	0	77	0	49	27	15	92	1	62
53C	76	46	123	91	30	0	10	99	1	67
53D	13	15	8	13	6	50	1	191	59	82
53E	2	0	6	0	49	201	3	174	14	99
53F	5	4	4	0	17	162	2	161	28	72
53G	5	10	1	15	2	25	2	137	43	45
53H	4	2	8	5	14	31	3	151	22	74
53I	31	39	58	71	11	0	3	89	13	26
54A	85	31	156	56	70	0	15	70	1	40
54B	7	0	7	0	49	45	3	159	17	85
54C	4	4	7	7	7	84	2	336	59	203
54D	8	3	16	5	33	99	4	193	10	126
54E	5	0	11	1	49	153	7	258	3	203
54F	8	6	7	10	9	72	3	211	21	130
54G	3	5	4	11	3	50	1	157	64	50

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
54F	4	3	6	8	7	83	2	214	30	118
54J	6	10	11	20	5	48	2	178	44	77
55E	58	35	114	72	31	0	7	91	3	49
55I	16	6	23	12	42	27	6	197	4	143
55J	15	6	23	12	33	0	6	198	5	137
55F	4	5	0	5	3	54	1	278	168	107
55G	2	3	5	13	2	39	2	219	41	115
55I	5	0	7	0	85	187	3	294	14	212
55J	1	0	1	0	54	390	3	298	22	205
55K	3	5	7	3	7	63	2	229	29	134
55M	5	0	7	1	49	120	2	164	30	63
55N	4	3	6	10	4	62	2	194	48	83
56A	4	0	5	1	49	146	5	245	7	179
56B	3	3	15	3	17	64	5	239	6	177
56D	26	19	95	43	37	0	9	133	2	92
56E	3	5	4	4	5	87	2	301	53	176
56F	5	5	4	3	5	64	2	270	45	154
56G	3	1	9	2	30	138	5	344	9	269
56H	6	3	7	4	17	93	2	219	51	99
56I	6	1	6	1	47	137	1	148	61	35
56J	6	2	6	7	16	56	1	201	123	49
57B	5	2	3	3	9	23	1	392	119	205
57C	0	0	7	7	5	149	2	218	47	106
57D	2	3	7	7	5	97	2	233	38	127
57E	3	5	3	15	3	55	1	203	83	81
57F	4	3	10	22	4	15	2	157	41	66
57G	5	0	6	1	22	130	2	199	39	92

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

[illegible]-Sal [illegible], TOMBIGBEE RIVER 20-JUN-1980.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH# FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
57J	1	3	0	10	1	9	1	233	117	96
57[illegible]	8	17	13	32	4	0	1	127	62	25
57K	3	6	1	7	2	45	1	130	178	43
57O	1	5	0	2	1	0	1	213	135	74
57L	4	0	3	0	48	101	2	411	51	273
58A	2	3	0	4	2	74	1	491	74	340
58[illegible]	6	8	8	11	5	53	3	294	23	204
58C	3	7	2	12	3	32	2	208	34	107
58D	2	1	0	1	6	144	1	218	64	94
58E	3	3	3	7	4	94	2	252	35	149
58F	8	7	15	17	8	19	2	171	26	81
58G	2	6	1	5	2	22	1	171	168	35
58H	0	1	0	0	5	184	1	175	73	57
58I	4	7	10	17	4	43	2	143	50	43
58J	8	12	20	20	6	0	2	143	32	50
59A	3	1	5	1	34	5	3	408	22	293
59C	3	5	1	3	2	50	2	296	57	165
59D	2	1	4	3	12	191	3	333	17	241
59E	4	1	3	0	20	180	3	360	23	258
59F	3	3	5	13	2	6	1	172	69	55
59G	3	3	6	8	6	84	1	200	59	82
59I	8	10	7	22	3	20	1	156	67	50
59J	4	2	9	9	9	79	2	197	31	99
59K	3	3	8	8	8	96	2	258	35	153
59M	5	2	8	6	14	11	2	190	39	79
60A	4	2	7	4	19	159	3	384	16	291
60B	1	0	2	0	49	223	7	223	4	158
60C	0	1	4	1	16	207	5	204	7	137
60E	5	9	3	11	4	30	1	229	95	93

ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
60F	2	5	0	9	2	17	1	208	83	72
60G	3	9	10	21	6	3	2	156	42	52
60I	5	7	7	9	8	30	2	194	31	96
60J	5	3	11	6	16	86	3	238	25	149
60M	5	5	8	14	5	57	2	178	47	72
60O	5	8	9	17	4	38	2	187	33	90
60Q	3	6	5	9	3	47	1	169	84	48
60T	5	2	0	3	8	163	1	272	197	108
62A	2	2	0	0	3	165	1	304	64	173
61B	2	11	0	33	1	10	2	151	43	62
61C	4	5	8	0	14	157	3	151	19	76
61E	5	6	11	10	8	20	3	168	14	94
61F	2	5	4	7	3	56	2	251	34	148
61H	2	3	0	7	1	12	2	258	29	193
61I	6	2	13	6	27	115	5	212	7	149
61J	3	0	0	0	14	264	7	254	4	204
61M	4	6	0	6	2	73	1	176	59	65
61N	13	4	21	15	24	28	3	138	15	113
61N	1	1	0	3	2	162	1	207	125	69
61O	1	0	0	0	4	204	1	150	66	50
61Q	2	3	5	17	2	0	1	128	69	25
61R	2	5	0	0	4	126	1	139	105	63
61T	5	4	12	7	14	112	2	208	43	102
61U	2	4	0	7	2	69	1	189	143	58
61V	8	12	4	21	3	11	1	140	60	38
61X	50	21	87	47	41	4	6	136	4	89
62L	5	4	10	3	15	100	3	345	18	250

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
62C	5	5	9	3	8	40	2	222	32	122
62D	13	5	24	7	32	64	3	202	19	125
62F	11	3	10	16	9	11	3	144	22	62
62G	1	1	.5	2	10	225	2	200	41	94
62H	7	7	20	11	13	103	3	235	21	154
63A	6	3	12	3	29	147	4	279	9	209
63B	20	11	15	23	7	0	2	122	28	34
63C	4	4	10	9	8	37	3	192	25	95
63E	0	2	0	0	4	182	1	269	72	133
63F	6	3	5	12	4	44	1	209	67	86
63G	7	4	7	9	10	88	2	269	33	167
63I	15	3	31	3	49	82	15	240	1	202
63J	4	2	2	3	9	147	1	226	66	100
63M	1	3	9	7	6	110	2	222	39	115
64A	5	2	7	1	30	158	2	292	30	196
64B	2	4	0	7	2	55	1	178	55	79
64C	4	6	11	17	5	65	2	168	30	79
64D	1	1	5	1	25	207	3	172	21	92
64E	3	1	0	0	5	167	2	209	42	102
64F	6	0	13	0	49	128	5	308	7	241
64G	1	0	7	2	46	246	2	211	29	118
64H	0	0	4	0	59	354	11	338	2	289
64I	0	5	0	2	1	68	1	276	72	145
64J	4	5	0	8	2	69	1	194	73	79
64K	5	3	14	10	15	126	2	224	26	134
65A	3	5	0	3	2	66	1	220	1035	0
65B	19	7	32	12	42	64	5	219	8	155
65C	2	0	0	2	5	184	2	192	48	81
65D	5	2	4	4	12	83	2	171	26	80
65F	3	0	0	0	78	242	3	234	17	192

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

C-3-1 A /X, TOOTSEE RIVER 10-JUN-1981

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
6SP	3	5	12	3	21	41	4	200	11	124
6SI	5	1	6	1	91	159	6	314	5	243
6SI	1	0	2	3	2	103	3	186	23	103
6SI	5	2	.6	3	26	139	2	306	37	199

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

TERMINATION OF JOB

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
1A	1	5	4	10	3	45	1	250	114	102
1B	24	23	48	50	13	0	3	105	15	37
1C	12	4	37	12	42	53	4	158	9	105
1D	18	18	16	28	8	0	2	117	28	32
1F	4	5	3	5	5	104	3	328	19	237
1G	3	3	8	5	9	178	5	249	7	282
1H	5	3	5	22	4	38	2	272	35	169
1J	2	1	5	2	21	0	4	293	11	197
1K	10	7	18	16	12	4	3	190	15	112
1M	16	4	33	8	78	0	11	121	1	75
1P	4	2	9	3	22	120	8	326	3	262
2A	31	57	31	99	7	0	3	98	16	25
2B	22	13	49	33	18	31	4	154	9	98
2C	1	0	0	0	32	328	25	325	1	299
2D	1	0	1	0	30	409	29	335	1	362
2E	22	12	32	21	23	3	5	137	4	133
2F	3	2	0	0	7	123	2	190	36	91
2H	114	39	223	80	84	0	15	92	1	54
3B	15	27	42	54	8	22	3	101	19	34
3E	8	8	13	20	7	62	2	120	30	39
3F	62	51	102	97	21	1	5	102	7	54
3H	3	3	6	5	6	118	2	204	34	104
3J	4	0	7	0	49	185	31	350	1	323
3K	8	4	14	9	19	0	6	172	4	115
3M	7	0	10	1	49	32	7	170	4	110
3N	2	5	0	1	6	113	2	182	36	81
3P	15	16	44	36	13	3	6	105	5	57

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

[illegible], TOBIN RIVER 10-JUN-198

LINE & ASSEMBLY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
[illegible]	22	47	.40	77	6	6	2	81	20	19
4C	44	23	69	43	19	7	4	112	9	57
4I	3	15	+	20	3	48	4	179	12	113
4E	57	15	110	35	86	0	12	116	1	79
4F	12	1	32	5	271	0	10	129	2	83
4G	32	14	.50	31	30	13	8	130	2	88
5C	13	31	35	56	7	7	3	119	19	47
5D	12	15	16	19	8	37	3	128	20	53
5F	88	24	161	45	104	0	18	90	1	63
5G	21	11	26	14	26	72	6	149	5	101
5I	17	0	42	0	49	33	10	149	2	107
5J	25	11	29	23	24	0	5	152	8	90
5K	2	1	3	3	16	111	3	240	20	159
5N	1	1	0	0	5	259	6	359	4	295
5O	1	2	6	3	4	149	5	355	8	283
6A	7	14	14	24	4	10	2	158	33	65
6B	16	10	21	15	17	29	3	167	21	87
6C	1	14	0	1	1	29	3	96	15	33
6D	73	0	128	0	49	27	19	96	1	70
6F	15	0	27	0	123	89	6	113	-4	70
6G	25	44	34	72	6	6	5	109	5	66
6H	10	3	22	13	13	175	4	340	13	260
7A	11	27	19	46	4	0	2	112	39	26
7C	16	3	41	16	32	24	10	88	2	53

.* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

100-542 W.O. TOOTSIE RIVER 10-JUN-199

LINE & FIDUCIAL	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
7C	188	15	147	34	49	0	15	38	1	61
7E	13	3	24	6	52	61	7	98	3	55
7F	9	15	0	23	3	0	4	110	11	52
7G	34	5	56	13	131	9	11	117	1	76
7H	41	19	87	32	50	0	10	138	1	98
7J	4	0	7	11	4	39	3	203	25	114
7K	3	1	4	1	21	0	5	227	7	146
8B	8	12	15	25	5	29	2	149	24	67
8C	1	0	0	0	10	212	3	281	15	187
8D	8	8	11	21	4	37	2	185	44	79
8E	64	10	134	36	96	3	12	86	1	57
8H	52	0	74	24	420	21	17	86	1	60
8J	6	0	8	0	49	165	16	115	1	84
8K	28	5	63	14	111	33	16	114	1	84
8N	0	0	4	3	8	187	1	232	82	133
8Q	6	3	0	0	24	132	2	231	37	175
8S	27	10	32	20	33	2	4	187	9	120
9A	3	6	7	12	4	14	2	194	49	78
9B	26	0	41	0	49	46	19	105	1	78
9C	2	16	0	26	1	0	9	104	2	67
9D	55	0	126	0	49	0	24	77	1	53
9E	19	12	14	20	19	41	3	213	24	127
10B	6	5	10	11	8	111	3	231	24	144
10C	7	14	13	29	4	10	2	134	31	43
10D	4	2	3	3	10	102	2	231	38	182
10E	19	19	33	33	12	10	4	126	12	63

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
10C	119	31	200	64	109	0	15	77	1	49
10D	4	0	2	0	3	240	5	212	4	161
10E	22	16	64	22	42	28	8	157	2	115
10K	6	7	15	14	8	0	3	205	20	120
11A	5	6	9	14	5	75	2	190	36	93
11C	30	1	54	3	299	18	10	132	1	92
11E	4	23	21	49	2	0	4	98	12	36
11F	30	13	69	30	40	0	11	144	1	103
11H	1	3	0	1	2	151	1	207	954	6
12A	3	3	5	3	10	109	1	243	73	107
12B	57	24	105	53	36	0	8	97	3	56
12C	0	0	9	3	17	107	7	188	4	128
12D	6	1	13	1	49	86	13	136	1	146
12E	24	3	45	10	49	10	9	112	2	72
12F	36	14	69	30	44	8	8	131	3	89
12G	7	8	9	6	8	10	2	202	41	91
13C	5	16	4	26	2	0	2	139	35	48
13E	2	0	7	0	19	155	3	146	22	63
13F	2	0	3	0	34	179	6	220	5	156
13G	3	3	5	5	5	102	3	279	15	195
13H	2	3	1	3	1	0	2	132	41	78
13I	7	3	0	4	9	125	3	215	24	128
13J	0	3	0	0	6	113	5	207	6	146
13K	33	17	53	33	26	0	7	151	3	105
13M	13	2	34	1	49	50	25	174	1	151
13N	3	9	0	10	4	17	2	251	41	149
13O	10	3	15	14	11	46	2	325	57	193
14A	6	8	9	15	5	0	1	177	76	45

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
14F	6	2	11	3	35	109	3	274	14	191
14ODE	65	14	124	26	49	0	19	116	1	87
14ODC	12	0	14	2	49	126	8	262	3	209
14ODL	5	3	3	1	12	152	3	240	22	156
14ODE	3	0	5	3	20	134	5	256	7	197
14ODC	4	1	12	1	52	108	20	222	1	194
14ODH	23	15	54	24	27	16	9	158	2	116
14ODJ	0	0	0	0	6	123	2	365	37	255
15A	4	9	9	14	4	0	2	160	38	56
15E	10	4	16	11	25	19	3	142	19	66
15C	36	18	60	41	27	0	7	119	3	74
15E	3	6	2	6	2	38	2	236	52	117
15F	19	10	28	21	20	22	4	212	10	143
15H	4	3	13	4	14	78	7	309	5	242
15I	7	5	0	3	6	86	1	403	74	253
15J	11	4	13	9	24	0	3	187	22	95
16A	2	5	3	9	2	0	1	96	398	0
16E	11	22	19	40	5	4	2	121	48	31
16C	10	9	3	13	8	6	2	150	33	53
16E	5	3	7	21	3	0	2	149	52	39
16F	2	10	4	19	2	0	1	126	85	14
16G	3	10	25	21	10	23	4	145	13	81
16H	24	6	46	13	72	23	5	140	8	82
16I	15	5	29	9	55	57	4	157	10	96
16J	2	10	3	15	4	33	4	161	13	98
16K	0	0	0	2	4	92	3	249	19	165

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
16A	•	12	9	22	3	0	1	160	60	50
16F	3	1	6	2	19	119	5	478	9	364
17A	12	20	15	33	5	0	1	85	55	0
17B	3	5	11	8	15	44	3	205	17	125
17C	8	11	20	26	7	8	3	147	22	65
17E	9	6	21	16	14	69	4	171	11	108
17G	5	0	9	4	59	146	3	137	16	115
17K	20	14	36	24	19	20	7	139	4	140
17L	0	5	0	8	7	85	6	176	4	123
17M	13	1	1	11	21	95	20	96	1	70
17N	36	4	92	21	49	19	20	102	1	75
17O	80	13	54	26	36	145	10	265	2	225
	24	8	37	14	46	22	5	234	7	169
18A	4	4	4	4	7	43	2	274	40	164
18E	4	0	7	0	49	159	5	209	6	149
18C	6	1	8	0	51	83	7	198	4	141
18D	13	8	11	9	14	52	5	229	7	165
18E	2	1	3	1	15	241	5	338	6	269
18F	6	0	6	0	102	38	31	159	1	137
19A	12	6	21	16	17	31	4	174	12	105
19B	2	2	4	2	10	157	2	400	40	279
19C	1	3	0	0	4	147	1	290	196	124
19D	5	14	3	14	2	34	1	172	96	64
19E	12	18	15	27	6	0	2	144	40	45
19F	35	24	44	42	17	0	3	141	14	75
19H	4	5	0	4	4	55	3	126	18	51
19I	9	9	14	15	9	46	3	163	15	94
19J	6	3	9	3	25	92	4	288	10	210
19K	7	6	9	9	5	3	2	178	26	87
19M	6	2	12	2	60	82	11	158	1	114

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
19C	3	1	0	1	8	23	2	351	41	217
19F	7	5	17	6	20	46	8	265	2	206
20A	12	21	22	29	6	0	2	111	33	22
20C	4	5	0	2	4	24	1	166	79	30
20D	5	5	4	3	5	22	1	178	61	54
20E	5	3	3	5	12	85	2	205	49	89
20G	3	3	5	3	9	20	2	192	33	92
20H	2	2	5	2	12	152	4	351	11	269
20I	5	5	3	2	8	0	2	395	50	251
20J	7	2	6	2	31	0	6	264	5	186
20K	2	6	1	7	2	0	3	260	20	171
20L	0	2	0	0	2	128	12	484	2	439
21B	2	20	5	37	1	0	1	76	120	0
21C	4	2	4	2	24	90	4	335	13	243
21D	7	2	9	7	24	101	3	158	15	90
21E	2	0	0	0	11	128	5	237	7	162
21F	4	6	2	0	4	73	3	235	25	192
21G	4	10	3	10	3	7	2	210	28	117
21H	6	1	12	1	85	149	5	264	6	203
21I	20	9	13	13	18	51	3	231	16	154
21J	16	5	26	11	39	0	8	211	3	153
21K	4	1	3	0	92	90	5	307	7	226
21M	6	4	16	10	15	16	4	228	9	155
22A	2	5	0	7	1	3	1	109	244	0
22B	4	6	4	3	4	62	1	175	123	46
22D	5	6	3	4	4	0	1	280	84	124
22F	4	2	4	0	21	96	4	180	12	103
22H	0	5	0	5	1	0	3	215	23	124

.* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
22J	7	2	11	3	22	3	3	131	20	93
22K	20	5	29	9	56	0	10	147	2	97
22L	3	1	1	0	37	86	5	259	9	184
22M	3	4	6	4	6	19	4	230	11	198
23A	6	5	8	3	9	0	3	144	16	63
23B	2	3	4	3	5	21	2	301	59	167
23C	2	0	6	3	33	111	5	226	7	157
23D	1	2	2	2	5	167	4	291	9	213
23E	6	0	1	2	32	115	3	225	21	133
23F	6	5	14	14	10	7	3	186	15	108
23G	1	2	0	7	6	23	2	227	41	114
23H	14	2	21	8	51	0	8	125	3	71
23I	2	5	9	5	6	13	6	187	5	127
23J	15	9	19	8	25	0	6	174	5	116
23K	34	22	29	22	24	20	5	155	7	98
23M	0	0	5	0	3	191	8	274	3	222
24A	2	1	6	1	44	131	5	363	7	282
24B	2	5	11	13	5	52	2	222	32	123
24C	14	13	6	12	8	14	5	146	6	89
24D	0	0	6	0	6	104	6	153	4	102
24E	1	0	2	0	4	126	8	120	-2	79
24F	52	26	118	50	45	30	9	110	2	75
25A	4	4	4	5	6	95	2	192	45	83
25C	2	2	9	2	26	134	4	264	9	192
25D	3	1	0	0	31	178	3	302	26	195
25E	3	2	7	0	44	106	5	285	6	213
25F	28	22	92	57	29	0	7	76	3	34
25G	0	0	1	0	6	107	3	232	16	153
25H	8	5	13	5	18	20	4	230	8	159
25I	31	19	75	28	37	0	9	111	2	67
26A	3	4	2	4	3	30	1	192	178	31

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
25C	2	3	11	7	10	104	3	232	16	197
25D	3	0	3	0	25	109	4	246	9	171
25E	4	4	4	11	4	101	2	257	38	152
25F	13	3	6	1	70	0	4	205	13	122
25G	2	0	0	0	7	243	4	251	11	172
25H	9	9	16	13	8	27	3	183	14	113
25I	41	27	102	55	31	21	7	137	3	95
25J	27	15	42	23	27	58	5	171	6	113
27A	2	3	5	5	4	116	1	216	77	91
27B	7	7	6	9	6	26	2	170	54	55
27C	1	0	1	0	49	365	3	342	19	242
27D	3	4	4	6	5	97	2	269	35	164
27E	2	2	5	6	5	129	2	272	46	155
27G	8	6	34	18	20	70	4	207	11	141
27H	37	15	76	25	50	13	7	138	3	92
27I	6	4	4	3	17	123	3	177	14	111
27J	11	0	18	0	49	119	9	203	2	157
27K	4	16	11	32	2	0	1	148	70	41
27M	1	12	6	21	1	0	1	209	136	67
28A	3	4	7	9	5	50	2	172	46	63
28B	8	10	13	17	6	53	3	212	16	141
28C	1	0	2	0	61	356	4	234	-8	213
28D	4	4	8	7	5	136	1	316	63	186
28E	6	4	6	9	9	74	2	251	39	151
28F	9	11	20	20	9	0	3	194	15	119
28G	1	0	0	2	4	259	3	238	19	148
28H	9	21	14	24	4	36	3	189	21	111
28I	13	2	17	2	90	90	6	212	4	160
28J	9	2	23	5	66	118	15	262	1	225
29A	2	6	0	3	1	8	1	217	193	59
29B	7	4	7	7	10	67	3	232	21	148

.* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

	COAXIAL COIL		COPLANAR COIL		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
LINE & ANOMALY	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* FEET	COND MHOS	DEPTH FEET	RESIS OHM-M	DEPTH FEET
20C	5	7	20	17	11	0	2	152	21	70
30003A	13	9	18	15	13	45	3	205	18	130
30003B	1	2	1	2	2	199	1	322	1035	0
30003C	1	4	0	2	1	47	1	220	1035	0
30003D	33	12	62	20	57	26	7	218	4	166
30003E	4	6	9	10	6	102	2	335	34	232
31A	1	9	0	11	1	22	1	134	346	1
31C	3	9	2	10	2	28	1	130	172	47
31D	6	5	1	1	8	79	3	190	25	100
32A	7	7	6	11	6	60	2	230	42	120
32B	4	5	5	8	5	58	2	252	44	137
32C	0	2	0	3	2	101	2	266	36	160
32D	4	3	16	9	15	55	3	210	15	131
32E	2	1	0	0	5	130	1	378	74	228
33A	3	2	6	5	9	107	2	232	36	176
33B	8	7	15	6	15	62	5	238	7	173
33C	2	0	7	1	32	111	4	191	12	103
33G	41	21	84	40	37	12	9	174	-2	131
33H	0	1	0	0	4	181	7	492	4	421
33I	38	25	100	46	34	9	11	121	1	87
33J	38	6	71	11	49	0	13	131	1	93
33K	5	6	0	13	6	24	4	172	10	104
34A	3	4	6	10	4	109	2	261	45	149
34B	11	8	25	16	16	82	3	141	14	76
34C	9	15	17	24	5	35	3	125	19	53
34D	33	43	72	76	12	0	4	118	11	59
34E	43	17	82	32	53	11	16	123	1	92

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

150-SH2 AMAX, TOOTSEE RIVER 10-JUN-198

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
34F	44	14	88	35	50	6	16	109	1	78
34G	36	13	65	24	52	42	14	151	1	117
34H	64	27	129	53	50	23	12	136	1	103
34I	2	19	0	47	2	0	5	133	6	82
35A	5	5	4	3	5	1	1	144	70	19
35B	6	4	5	9	8	54	2	186	56	67
35C	6	4	12	5	21	75	3	235	23	149
35I	14	4	45	1	49	4	20	93	1	63
35J	5	3	19	0	88	91	13	105	1	69
35M	4	6	29	15	13	23	11	106	1	67
36A	6	10	5	12	4	44	1	191	167	54
36B	9	6	11	10	13	52	1	188	122	50
37B	13	8	9	12	12	29	1	211	66	84
3300A	14	23	28	43	6	12	2	147	26	64
3800B	7	6	6	9	7	66	2	223	58	102
3800C	12	6	22	10	25	89	9	273	2	222
3800D	2	0	3	1	54	23	8	240	4	171

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
19C	5	9	3	21	2	0	2	145	45	49
19D	7	1	10	9	20	103	2	176	34	79
19E	31	45	35	80	7	0	2	108	15	43
19F	5	0	7	0	+9	163	5	198	5	116
19G	4	0	3	0	49	198	2	196	35	95
19H	5	9	3	21	4	26	1	145	54	42
19I	3	5	9	5	11	86	2	201	54	83
19J	3	7	3	3	3	33	1	170	160	35
19K	2	2	0	0	4	197	1	328	1035	0
19L	10	14	15	20	6	0	2	152	45	47
19M	3	10	1	20	1	0	1	112	161	0
20A	2	1	8	4	18	168	2	248	45	133
20B	10	13	0	11	6	43	1	145	87	37
20C	38	30	79	67	19	0	5	100	8	49
20D	41	22	86	49	32	0	5	96	4	51
20E	11	18	26	37	7	3	2	136	28	50
20F	5	9	4	9	4	63	1	145	135	25
20G	2	6	7	14	3	20	1	126	60	24
21A	2	0	2	0	44	161	5	323	5	245
21B	5	7	16	15	8	88	2	251	30	165
21C	4	0	5	1	49	193	2	206	41	99
21F	15	9	35	24	20	51	5	177	6	121
21G	15	0	32	1	49	76	5	207	4	156
21H	11	19	21	33	6	14	2	119	50	23
21I	2	0	6	1	49	262	1	268	94	131
21K	2	11	3	19	1	0	1	75	202	0
21M	1	2	0	0	3	189	1	89	239	0
21N	2	0	0	0	10	295	1	245	88	104
22A	13	7	15	13	17	20	5	226	6	163
22B	0	0	2	0	49	460	3	292	18	204

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	COAXIAL COIL		COPLANAR COIL		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
LINE & ANOMALY	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* FEET	COND MHOS	DEPTH FEET	RESIS OHM-M	DEPTH FEET
22C	0	4	8	7	1	44	1	258	68	128
22E	6	5	11	14	8	62	2	219	31	121
22F	4	0	7	5	29	163	1	236	88	99
22G	3	3	5	5	6	81	1	174	86	44
23A	6	2	7	2	34	0	8	247	4	180
23E	4	3	1	4	6	89	3	322	17	229
23C	2	2	6	4	9	131	5	301	7	232
23D	1	0	2	0	25	262	6	316	5	248
23E	0	1	3	3	2	149	2	293	42	179
23F	3	2	4	6	5	80	1	205	90	70
23G	2	5	4	9	3	39	1	176	98	49
23H	12	13	22	27	9	20	2	190	31	85
23I	2	5	0	10	1	25	1	152	111	40
23J	0	0	2	0	14	429	2	261	42	149
23K	3	4	4	8	4	69	2	224	58	101
24A	37	17	69	30	41	0	9	149	3	102
24E	9	4	19	8	25	1	5	182	4	124
24C	10	3	25	5	64	0	11	142	2	95
24D	3	0	12	0	49	96	3	193	14	114
24E	3	2	0	3	4	143	2	230	51	114
24F	4	1	8	0	96	205	2	227	51	109
24G	19	5	36	17	38	49	5	175	6	122
25A	5	2	9	3	30	0	12	204	1	155
25E	21	10	36	15	31	24	10	164	2	120
25C	11	9	22	20	12	0	6	140	4	83
25E	5	2	8	0	40	159	2	369	32	260
25F	4	8	5	16	3	31	1	143	110	32
26A	17	9	37	13	30	12	9	212	3	159
26B	7	3	13	5	29	43	2	281	27	191
26C	4	0	7	0	31	153	7	191	4	136
26D	20	11	43	26	22	0	7	140	3	93

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	COAXIAL COIL		COPLANAR COIL		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
LINE & ANOMALY	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* FEET	COND MHOS	DEPTH FEET	RESIS OHM-M	DEPTH FEET
26F	2	0	0	0	45	311	5	264	6	203
26G	11	5	5	5	9	80	3	210	20	130
26H	13	7	13	7	32	62	4	206	13	135
26I	16	12	21	21	12	0	3	149	18	73
26J	4	0	0	0	49	240	2	335	28	233
27A	9	6	11	10	12	71	2	269	41	157
27B	11	2	20	4	98	71	9	244	3	189
27C	0	3	0	0	5	132	4	283	9	210
27D	7	6	11	12	10	35	3	211	23	127
27F	4	3	4	4	7	111	1	353	119	182
27H	4	2	4	2	17	140	1	353	81	199
27I	2	1	4	4	8	120	1	147	62	25
28A	11	4	23	6	45	47	6	201	5	145
28C	14	10	20	17	13	0	4	160	13	84
29F	1	1	8	7	6	216	3	321	16	230
29G	16	7	32	15	29	37	4	180	9	115
29H	3	4	0	3	4	149	1	210	73	93
29J	2	3	5	5	5	158	1	297	77	162
29K	2	3	6	8	5	116	2	236	56	160
29A	2	2	0	1	6	225	4	448	14	356
29B	3	5	9	8	12	75	4	400	72	100
29C	4	6	8	9	8	76	3	253	16	175
29D	1	2	8	4	8	151	3	274	20	187
29E	3	5	15	5	22	46	4	234	9	163
29F	6	5	7	9	7	59	2	259	34	156
30A	15	9	30	15	22	14	9	192	3	141

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LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
30E	0	0	0	0	1	51	6	241	5	182
30C	11	11	23	26	9	19	4	160	11	96
30D	17	26	29	41	7	21	3	162	14	95
30E	3	1	1	0	30	203	3	296	22	197
30F	2	2	3	1	10	206	3	353	22	256
30G	28	33	5	16	3	37	1	199	64	89
30I	4	7	3	9	3	74	1	234	65	114
31A	11	3	27	14	20	35	8	206	2	156
31B	3	0	7	0	21	136	5	278	5	216
31C	5	9	16	17	6	0	3	168	14	94
31F	3	3	5	5	8	92	3	286	21	192
31G	3	3	6	4	8	140	3	362	14	273
31F	6	6	4	5	7	32	2	304	45	186
32A	11	4	26	9	38	38	5	226	6	164
32B	3	1	6	0	49	191	5	330	7	260
32C	4	6	6	10	6	117	3	315	17	224
32D	6	4	13	7	14	20	4	256	10	180
32F	6	3	9	7	13	57	2	231	35	127
32G	2	0	2	1	40	245	3	218	15	138
32H	3	7	12	13	8	81	3	221	24	135
32I	4	4	0	3	5	113	2	221	38	114
32J	3	6	4	12	3	56	1	243	118	104
32K	3	15	4	16	1	0	1	174	172	43
33B	4	7	2	5	2	69	3	344	22	248
33C	6	1	7	5	37	159	3	208	20	128
33D	7	3	6	7	13	126	3	205	19	129
33F	5	2	6	3	17	160	2	217	30	122
33H	1	2	4	0	6	210	2	251	44	139
33I	5	6	5	7	5	0	2	209	44	92

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LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
34A	3	2	13	2	48	142	5	239	7	234
34B	6	1	13	0	49	160	8	224	3	176
34C	11	5	6	10	12	100	1	250	8	180
34D	14	2	30	1	49	77	17	164	1	132
34E	10	11	14	22	7	60	5	186	7	130
34F	1	0	1	0	49	455	6	236	5	180
34G	4	7	4	10	3	83	1	213	88	91
34H	4	4	4	5	6	85	1	136	115	11
34I	7	10	4	8	4	15	1	156	114	35
35A	2	2	9	2	20	148	5	341	7	267
35B	1	0	6	0	27	205	19	168	1	137
35C	29	10	52	15	60	34	14	164	1	123
35D	14	6	18	14	19	4	8	164	3	113
35E	4	8	0	9	4	47	3	215	14	141
35F	7	5	29	13	21	73	6	187	5	132
35H	11	2	15	8	37	77	4	215	13	142
35J	7	11	7	9	5	0	2	158	50	42
35K	4	5	7	6	6	10	2	131	48	63
36A	0	0	0	4	4	245	1	305	93	159
36B	23	17	36	26	18	18	6	169	5	115
36C	10	5	22	7	30	58	6	237	4	180
36D	3	3	9	6	8	150	3	400	5	180
36E	12	14	10	26	6	20	3	165	17	91
36G	25	14	42	26	24	29	4	186	10	124
36H	5	7	8	12	5	85	1	213	88	90
37A	1	1	0	1	4	271	2	344	53	217
37B	18	14	26	22	14	36	5	194	7	133
37C	9	17	26	36	6	20	3	160	17	83
37D	2	5	10	14	5	71	3	196	23	112
37I	3	3	14	12	8	102	3	206	17	134

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/ LINE & ANOMALY	COAXIAL COIL REAL PPM	COAXIAL COIL QUAD PPM	COPLANAR COIL REAL PPM	COPLANAR COIL QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* FEET	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH FEET	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH FEET
									376	0
37F	4	5	7	8	6	79	2	257	28	163
37H	1	0	0	0	4	131	2	262	36	150
37I	5	5	7	9	7	67	2	175	48	66
38A	5	2	9	5	17	119	4	352	9	277
38B	9	3	6	3	8	104	2	390	55	260
38C	1	1	2	0	6	181	2	476	30	362
38D	8	8	13	9	10	49	2	276	27	183
38E	2	3	4	5	4	107	2	324	53	197
38F	4	1	3	0	38	127	2	352	28	240
3800A	1	3	0	7	1	0	1	108	629	0
[illegible]000	1	0	1	0	31	302	2	249	51	124

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

TERMINATION OF JOB

APPENDIX C

ELECTROMAGNETICS AND MAGNETICS

ELECTROMAGNETICS

DIGHEM electromagnetic responses fall into two general classes, discrete and broad. The discrete class consists of sharp, well defined anomalies from discrete conductors such as sulfide lenses and steeply dipping sheets of graphite and sulfides. The broad class consists of wide anomalies from conductors having a large horizontal surface such as flatly dipping graphite or sulfide sheets, saline water-saturated sedimentary formations, conductive overburden and rock, and geothermal zones. A vertical conductive slab with a width of 100 m would straddle these two classes.

The vertical sheet (half plane) is the most common model used for the analysis of discrete conductors. All anomalies plotted on the electromagnetic map are interpreted according to this model. The following section entitled Discrete conductor analysis describes this model in detail,

including the effect of using it on anomalies caused by broad conductors such as conductive overburden.

The conductive earth (half space) model is suitable for broad conductors. Resistivity contour maps result from the use of this model. A later section entitled Resistivity mapping describes the method further, including the effect of using it on anomalies caused by discrete conductors such as sulfide bodies.

Discrete conductor analysis

The EM anomalies appearing on the electromagnetic map are interpreted by computer to give the conductance (i.e., conductivity-thickness product) in mhos of a vertical sheet model. DIGHEM anomalies are divided into six grades of conductance, as shown in Table I. The conductance in mhos is the reciprocal of resistance in ohms.

Table I. EM Anomaly Grades

Anomaly Grade	Mho Range
6	greater than 99
5	50 - 99
4	20 - 49
3	10 - 19
2	5 - 9
1	less than 5

The mho value is a geological parameter because it is a characteristic of the conductor alone; it generally is independent of frequency, and of flying height or depth of burial apart from the averaging over a greater portion of the conductor as height increases.[1] Small anomalies from deeply buried strong conductors are not confused with small anomalies from shallow weak conductors because the former will have larger mho values.

Conductive overburden generally produces broad EM responses which are not plotted on the EM maps. However, patchy conductive overburden in otherwise resistive areas can yield discrete-like anomalies with a conductance grade (cf. Table I) of 1, or even of 2 for conducting clays which have resistivities as low as 50 ohm-m. In areas where ground resistivities can be as low as 1 ohm-m, anomalies caused by weathering variations and similar causes can have conductance grades as high as 4. The anomaly shapes from the multiple coils often allow such surface conductors to be recognized, and these are indicated by the letter S on the map. The remaining anomalies in such areas could be

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[1]This statement is an approximation. DIGHEM, with its short coil separation, tends to yield larger and more accurate mho values than airborne systems having a larger coil separation.

bedrock conductors. The higher grades indicate increasingly higher conductances. Examples: DIGHEM's New Insco copper discovery (Noranda, Quebec, Canada) yielded a grade 4 anomaly, as did the neighbouring copper-zinc Magusi River ore body; Mattabi (copper-zinc, Sturgeon Lake, Ontario, Canada) and Whistle (nickel, Sudbury, Ontario, Canada) gave grade 5; and DIGHEM's Montcalm nickel-copper discovery (Timmins, Ontario, Canada) yielded a grade 6 anomaly. Graphite and sulfides can span all grades but, in any particular survey area, field work may show that the different grades indicate different types of conductors.

Strong conductors (i.e., grades 5 and 6) are characteristic of massive sulfides or graphite. Moderate conductors (grades 3 and 4) typically reflect sulfides of a less massive character or graphite, while weak bedrock conductors (grades 1 and 2) can signify poorly connected graphite or heavily disseminated sulfides. Grade 1 conductors may not respond to ground EM equipment using frequencies less than 2000 Hz.

The presence of sphalerite or gangue can result in ore deposits having weak to moderate conductances. As an example, the three million ton lead-zinc deposit of Restigouche Mining Corporation near Bathurst, New Brunswick,

Canada, yielded a well defined grade 1 conductor. The 10 percent by volume of sphalerite occurs as a coating around the fine grained massive pyrite, thereby inhibiting electrical conduction.

Faults, fractures and shear zones may produce anomalies which typically have low conductances (e.g., grade 1 and 2). Conductive rock formations can yield anomalies of any conductance grade. The conductive materials in such rock formations can be salt water, weathered products such as clays, original depositional clays, and carbonaceous material.

On the electromagnetic map, the actual mho value and a letter are plotted beside the EM grade symbol. The letter is the anomaly identifier. The horizontal rows of dots, beside each anomaly symbol, indicate the anomaly amplitude on the flight record. The vertical column of dots gives the estimated depth. In areas where anomalies are crowded, the identifiers, dots and mho values may be obliterated. The EM grade symbols, however, will always be discernible, and the obliterated information can be obtained from the anomaly listing appended to this report.

The purpose of indicating the anomaly amplitude by dots is to provide an estimate of the reliability of the conductance calculation. Thus, a conductance value obtained from a large ppm anomaly (3 or 4 dots) will be accurate whereas one obtained from a small ppm anomaly (no dots) could be inaccurate. The absence of amplitude dots indicates that the anomaly from the coaxial coil-pair is 5 ppm or less on both the inphase and quadrature channels. Such small anomalies could reflect a weak conductor at the surface or a stronger conductor at depth. The mho value and depth estimate will illustrate which of these possibilities fits the recorded data best.

Flight line deviations occasionally yield cases where two anomalies, having similar mho values but dramatically different depth estimates, occur close together on the same conductor. Such examples illustrate the reliability of the conductance measurement while showing that the depth estimate can be unreliable. There are a number of factors which can produce an error in the depth estimate, including the averaging of topographic variations by the altimeter, overlying conductive overburden, and the location and attitude of the conductor relative to the flight line. Conductor location and attitude can provide an erroneous depth estimate because the stronger part of the conductor may be

deeper or to one side of the flight line, or because it has a shallow dip. A heavy tree cover can also produce errors in depth estimates. This is because the depth estimate is computed as the distance of bird from conductor, minus the altimeter reading. The altimeter can lock on the top of a dense forest canopy. This situation yields an erroneously large depth estimate but does not affect the conductance estimate.

Dip symbols are used to indicate the direction of dip of conductors. These symbols are used only when the anomaly shapes are unambiguous, which usually requires a fairly resistive environment.

A further interpretation is presented on the EM map by means of the line-to-line correlation of anomalies, which is based on a comparison of anomaly shapes on adjacent lines. This provides conductor axes which may define the geological structure over portions of the survey area. The absence of conductor axes in an area implies that anomalies could not be correlated from line to line with reasonable confidence.

DIGHEM electromagnetic maps are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with

geology when planning a follow-up program. The actual mho values are plotted for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of conductors in terms of length, strike direction, conductance, depth, thickness (see below), and dip. The accuracy is comparable to an interpretation from a ground EM survey having the same line spacing.

An EM anomaly list attached to each survey report provides a tabulation of anomalies in ppm, and in mhos and estimated depth for the vertical sheet model. The EM anomaly list also shows the conductance in mhos and the depth for a thin horizontal sheet (whole plane) model, but only the vertical sheet parameters appear on the EM map. The horizontal sheet model is suitable for a flatly dipping thin bedrock conductor such as a sulfide sheet having a thickness less than 15 m. The list also shows the resistivity and depth for a conductive earth (half space) model, which is suitable for thicker slabs such as thick conductive overburden. In the EM anomaly list, a depth value of zero for the conductive earth model, in an area of thick cover, warns that the anomaly may be caused by conductive overburden.

Since discrete bodies normally are the targets of EM surveys, local base (or zero) levels are used to compute local anomaly amplitudes. This contrasts with the use of true zero levels which are used to compute true EM amplitudes. Local anomaly amplitudes are shown in the EM anomaly list and these are used to compute the vertical sheet parameters of conductance and depth. Not shown in the EM anomaly list are the true amplitudes which are used to compute the horizontal sheet and conductive earth parameters.

X-type electromagnetic responses

DIGHEM^{II} maps contain x-type EM responses in addition to EM anomalies. An x-type response is below the noise threshold of 2 ppm, and reflects one of the following: a weak conductor near the surface, a strong conductor at depth (e.g., 100 to 120 m below surface) or to one side of a flight line, or aerodynamic noise. Those responses that have the appearance of valid bedrock anomalies on the flight profiles are mentioned in the report. The others should not be followed up unless their locations are of considerable geological interest.

The thickness parameter

DIGHEM^{II} can provide an indication of the thickness of a steeply dipping conductor. The ratio of the anomaly amplitude of channel 24/channel 22 generally increases as the apparent thickness increases, i.e., the thickness in the horizontal plane. This thickness is equal to the conductor width if the conductor dips at 90 degrees and strikes at right angles to the flight line. This report refers to a conductor as thin when the thickness is likely to be less than 3m, and thick when in excess of 10 m. In base metal exploration applications, thick conductors can be high priority targets because most massive sulfide ore bodies are thick, whereas non-economic bedrock conductors are usually thin. An estimate of thickness cannot be obtained when the strike of the conductor is subparallel to the flight line,when the conductor has a shallow dip, when the anomaly amplitudes are small, or when the resistivity of the environment is below 100 ohm-m.

Resistivity mapping

Areas of widespread conductivity are commonly encountered during surveys. In such areas, anomalies can be generated by decreases of only 5 m in survey altitude as

well as by increases in conductivity. The typical flight record in conductive areas is characterized by inphase and quadrature channels which are continuously active; local peaks reflect either increases in conductivity of the earth or decreases in survey altitude. For such conductive areas, apparent resistivity profiles and contour maps are necessary for the interpretation of the airborne data. The advantage of the resistivity parameter is that anomalies caused by altitude changes are virtually eliminated, so the resistivity data reflect only those anomalies caused by conductivity changes. This helps the interpreter to differentiate between conductive trends in the bedrock and those patterns typical of conductive overburden. Discrete conductors will generally appear as narrow lows on the contour map and broad conductors will appear as wide lows.

Channel 40 (see Appendix) and the resistivity contour map present the apparent resistivity using the so-called pseudo-layer (or buried) half space model defined in Fraser (1978)[2]. This model consists of a resistive layer overlying a conductive half space. Channel 41 gives the apparent depth below surface of the conductive material.

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[2]Resistivity mapping with an airborne multicoil electromagnetic system: Geophysics, v 43, p. 144-172.

The apparent depth therefore is simply the apparent thickness of the overlying resistive layer. The apparent depth (or thickness) parameter will be positive when the upper layer is more resistive than the underlying material, in which case the apparent depth may be quite close to the true depth.

The apparent depth will be negative when the upper layer is more conductive than the underlying material, and will be zero when a homogeneous half space exists. The apparent depth parameter must be interpreted cautiously because it will contain any errors which may exist in the measured altitude of the EM bird (e.g., as caused by a dense tree cover). The inputs to the resistivity algorithm are the inphase and quadrature components of the coplanar coil-pair. The outputs are the apparent resistivity of the conductive half space (the source) and the sensor-source distance. The flying height is not an input variable, and the output resistivity and sensor-source distance are independent of the flying height. The apparent depth, discussed above, is simply the sensor-source distance minus the measured altitude or flying height. Consequently, errors in the measured altitude will affect the apparent depth parameter but not the apparent resistivity parameter.

The apparent depth parameter is a useful indicator of simple layering in areas lacking a heavy tree cover. The DIGHEM^{II} system has been flown for the purpose of permafrost mapping, where positive apparent depths were used as a measure of permafrost thickness. However, little quantitative use has been made of negative apparent depths because the absolute value of the negative depth is not a measure of the thickness of the conductive upper layer and, therefore, is not meaningful physically. Qualitatively, a negative apparent depth estimate usually shows that the EM anomaly is caused by conductive overburden. Consequently, the apparent depth channel 41 can be of significant help in distinguishing between overburden and bedrock conductors.

Interpretation in conductive environments

Environments having background resistivities below 30 ohm-m cause all airborne EM systems to yield very large responses from the conductive ground. This usually prohibits the recognition of bedrock conductors. The processing of DIGHEM^{II} data, however, produces four channels which contribute significantly to the recognition of bedrock conductors. These are the inphase and quadrature difference channels (number 33 and 34), and the resistivity and depth channels (40 and 41). The EM difference channels

eliminate up to 99% of the response of conductive ground, leaving responses from bedrock conductors, cultural features (e.g., telephone lines, fences, etc.) and edge effects. An edge effect arises when the conductivity of the ground suddenly changes, and this is a source of geologic noise. While edge effects yield anomalies on the EM difference channels, they do not produce resistivity anomalies. Consequently, the resistivity channel aids in eliminating anomalies due to edge effects. On the other hand, resistivity anomalies will coincide with the most highly conductive sections of conductive ground, and this is another source of geologic noise. The recognition of a bedrock conductor in a highly conductive environment therefore is based on the anomalous responses of the two difference channels (33 and 34) and the resistivity channel (40). The most favourable situation is where anomalies coincide on all three channels.

Channel 41, which is the apparent depth to the conductive material, also helps determine whether a conductive response arises from surficial material or from a conductive zone in the bedrock. When this channel rides above the zero level on the grey profile paper (i.e., it is negative), it implies that the EM and resistivity profiles are responding primarily to a conductive upper layer, i.e., conductive

overburden. If channel 41 is below the zero level, it indicates that a resistive upper layer exists, and this usually implies the existence of a bedrock conductor.

Channels 35 and 36 are the anomaly recognition functions. They are used to trigger the conductance channel 37 which identifies discrete conductors. In highly conducting environments, channel 36 may not be generated because it is subject to some corruption by highly conductive earth signals. Some of the automatically selected anomalies (channel 37) are discarded by the human interpreter. The automatic selection algorithm is intentionally oversensitive to assure that no meaningful responses are missed. The interpreter then classifies the anomalies according to their source and eliminates those that are not substantiated by the data, such as those rising from geologic or aerodynamic noise.

The resistivity map often yields more useful information on conductivity distributions than the EM map. In comparing the EM and resistivity maps, keep in mind the following:

(a) The resistivity map portrays the absolute value of the earth's resistivity.

(b) The EM map portrays anomalies in the earth's resistivity. An anomaly by definition is a change from the norm and so the EM map displays anomalies, (i) over narrow, conductive bodies and (ii) over the boundary zone between two wide formations of differing conductivity.

The resistivity map might be likened to a total field map and the EM map to a horizontal gradient in the direction of flight[3]. Because gradient maps are usually more sensitive than total field maps, the EM map therefore is to be preferred in resistive areas. However, in conductive areas, the absolute character of the resistivity map usually causes it to be more useful than the EM map.

Reduction of geologic noise

Geologic noise refers to unwanted geophysical responses. For purposes of airborne EM surveying, geologic noise refers to EM responses caused by conductive overburden

[3]The gradient analogy is only valid with regard to the identification of anomalous locations. The calculation of conductance is based on EM amplitudes relative to a local base level, rather than to an absolute zero level as for the resistivity calculation.

and magnetic polarization. It was mentioned above that the EM difference channels (i.e., channel 33 for inphase and 34 for quadrature) tend to eliminate the response of conductive overburden. This marked a unique development in airborne EM technology, as DIGHEM^{II} is the only EM system which yields channels having an exceptionally high degree of immunity to conductive overburden.

Magnetite produces a form of geological noise on the inphase channels of all EM systems. Rocks containing less than 1% magnetite can yield negative inphase anomalies caused by magnetic polarization. When magnetite is widely distributed throughout a survey area, the inphase EM channels may continuously rise and fall reflecting variations in the magnetite percentage, flying height, and overburden thickness. This can lead to difficulties in recognizing deeply buried bedrock conductors, particularly if conductive overburden also exists. However, the response of broadly distributed magnetite generally vanishes on the inphase difference channel 33. This feature can be a significant aid in the recognition of conductors which occur in rocks containing accessory magnetite.

MAGNETICS

The existence of a magnetic correlation with an EM anomaly is indicated directly on the EM map. An EM anomaly with magnetic correlation has a greater likelihood of being produced by sulfides than one that is non-magnetic. However, sulfide ore bodies may be non-magnetic (e.g., the Kidd Creek deposit near Timmins, Ontario, Canada) as well as magnetic (e.g., the Mattabi deposit near Sturgeon Lake, Ontario).

The magnetometer data are digitally recorded in the aircraft to an accuracy of one gamma. The digital tape is processed by computer to yield a standard total field magnetic map which is usually contoured at 25 gamma intervals. The magnetic data also are treated mathematically to enhance the magnetic response of the near-surface geology, and an enhanced magnetic map is produced with a 100 gamma contour interval. The response of the enhancement operator in the frequency domain is shown in Figure 2. The 100 gamma contour interval is equivalent to a 5 gamma interval for the passband components of the airborne data. This is because these components are amplified 20 times by the operator of Figure 2.

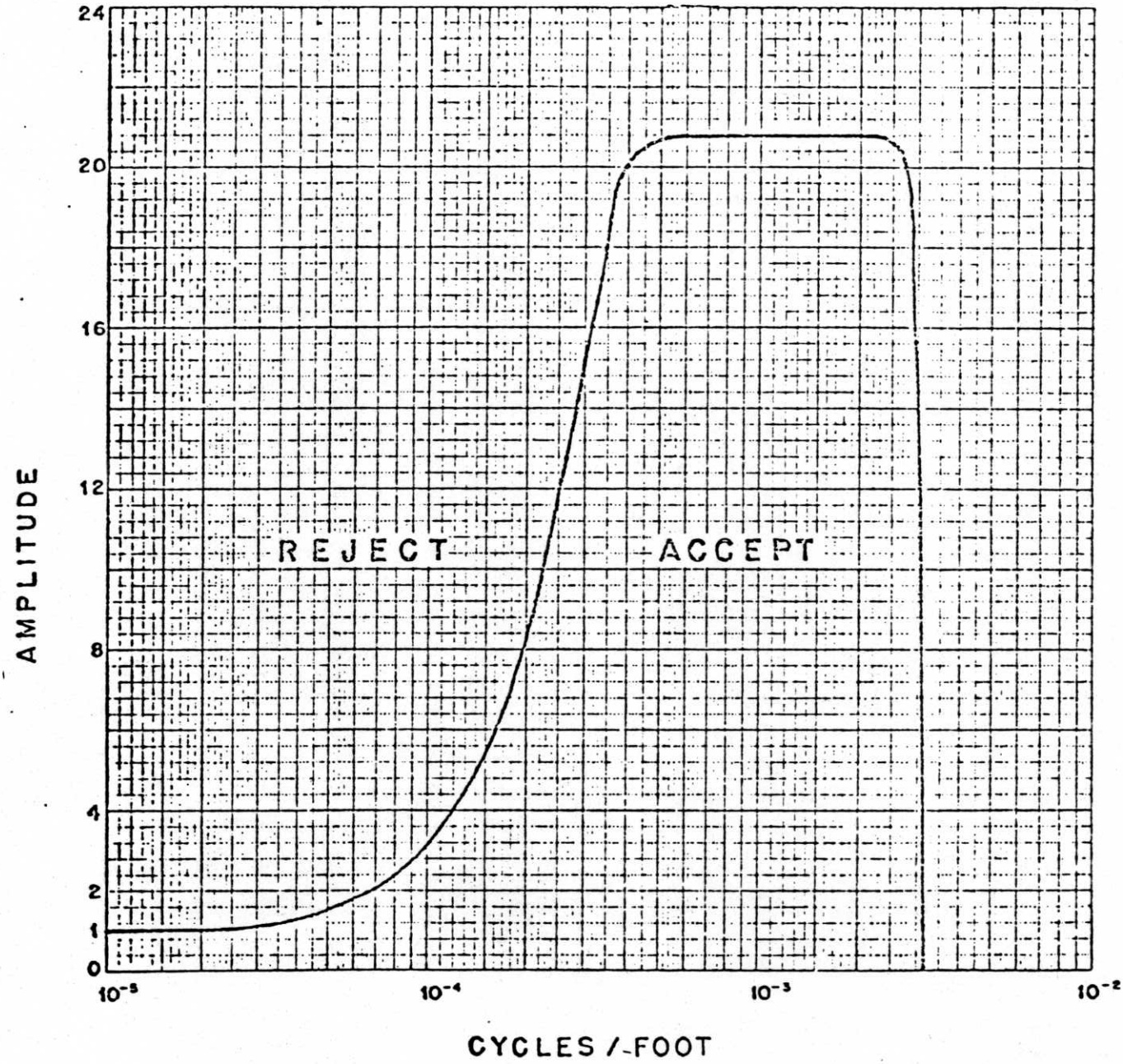


Figure 2 Frequency response of magnetic operator

The enhanced map, which bears a resemblance to a downward continuation map, is produced by digital bandpass filtering the total field data. The enhancement is equivalent to continuing the field downward to a level (above the source) which is 1/20th of the actual sensor-source distance.

Because the enhanced magnetic map bears a resemblance to a ground magnetic map, it simplifies the recognition of trends in the rock strata and the interpretation of geological structure. The contour interval of 100 gammas is suitable for defining the near-surface local geology while de-emphasizing deep-seated regional features.

APPENDIX D

STATEMENT OF COSTS

STATEMENT OF COSTS

Midway Property - Geophysical Assessment Report

Work Period: May 9 - May 21, 1981

Airborne Electromagnetic Survey - Dighem Limited, Toronto

Ferry/mobilization	$10,000.00
Survey 778 km @ 53/km	41,234.00
Total	$51,234.00

Contractor's invoices and disposition of costs are contained in: 1981 Geological and Geochemical Report on the Midway Property.

APPENDIX E

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

NAME: J. LAURENCE LEBEL

EDUCATION: B.Sc. (1971) Queen's University - Geological Engineering - Geophysics Option

M.Sc (1973) University of Manitoba - Geophysics

EXPERIENCE:

5/70-9/70 - Amax Exploration, Inc. Vancouver, B.C.
- conducting and compiling magnetometer surveys

5/71-9/71 - Amax Exploration, Inc. Toronto, Ont.
- conducting and reporting on IP/resistivity surveys

5/72-12/72- Gulf Minerals, Toronto, Ont.
- senior geophysical operator
- conducting and reporting on magnetometer electromagnetic and scintillometer surveys

3/73-12/73- Scintrex Surveys, Concord, Ont.
- Junior Geophysicist
- conducting, supervising of and reporting on airborne magnetometer and electromagnetic surveys, ground electromagnetic and IP/resistivity surveys

4/74 - - AMAX of Canada Limited -Toronto & Vancouver
- Staff Geophysicist

Office of the Regional Manager Mineral Resources
NOV 2 6 1981
Yukon Territory

Geophysical Report
on a
Horizontal Loop Pulse
Electromagnetometer Survey
on behalf of

Cordilleran Engineering Ltd.

Mid Claims - Rancheria Area Yukon
Watson Lake Mining District, NTS 105 B
Lat. 60°00'N, Long. 130°15'W

AUTHOR: Glen E. White, B.Sc., P.Eng.,
Geophysicist

DATE OF WORK: Sept. 15-25, 1981

DATE OF REPORT: Oct. 28, 1981

RECEIVED
1981 NOV 23
MINING RECORDER
WATSON LAKE, Y.T.
I.A. & N.D.

090892

INTRODUCTION

A limited amount of Horizontal loop pulse electromagnetometer surveying was conducted on the Mid claims to test an area of interesting geochemistry. This program was undertaken during the period Sept. 15-25, 1981 in conjunction with survey work on mineral claims in the province of B.C. The survey work was conducted by Glen E. White Geophysical Consulting & Services Ltd. on behalf of Cordilleran Engineering Ltd.

PROPERTY

The property consists of the Mid claims listed as follows:

CLAIM	GRANT NO.	EXPIRY DATE
Mid 1-128	YA 56975-57102	October 6/81
Mid 129-160	YA 57155-57186	October 22/81
Mid 161-225	YA 58936-59000	June 10/81
Mid 226-240	YA 65801-65815	June 10/81

LOCATION & ACCESS

The mineral claims are located 90 km west of Watson Lake Yukon, Lat. 60°00'N, Long. 130°15'W, N.T.S. 104/O, Laird M.F., B.C.

Access to the property is via unimproved roads south across the Rancheria River near Mile 706 on the Alaska Highway.

GENERAL GEOLOGY

The property is underlain by Mississippian argillites, sandstones and coarse clastics of the Lower Sylvester Formation, which lie stratigraphically between McDame Formation carbonates and Upper Sylvester Formation volcanic rocks. Siliceous, pyritic and baritic exhalites, thought to be distal equivalents to Pb-Zn-Ag-Ba mineralization occur within the argillites. One stratiform galena-sphalerite-pyrite showing has been identified on the Bull 3 claim (B.C.).

The Lower Sylvester Formation rocks strike northwest and occupy the central part of a broad northwesterly trending syncline. Stratigraphy dips at 10^{o} to 30^{o} northeast and southwest toward the center of the structure. Numerous high angle faults cut stratigraphy, with vertical displacements up to several hundred metres.

The north grid covers an area of strongly anomalous lead soil geochemistry, in an alluvium filled valley devoid of outcrop. Based on mapping conducted on adjacent ridges, the grid is underlain by Sylvester Formation carbonaceous argillite and sandstone, in fault contact with McDame Formation limestone to the northeast. The exposed clastic rocks are strongly faulted and sheared, strike northwest and dip at 30^{o} to 40^{o} northeast and southwest. Minor galena vein float has been found in the grid area. Overburden depth is unknown, but is likely greater than 15 metres.

PULSE ELECTROMAGNETOMETER SURVEY

The Crone pulse electromagnetometer system is a time domain E.M. system which can be used in the borehole mode, standard horizontal loop mode or deep penetrating fixed source mode.

The primary field for the fixed source VPEM technique is obtained from a surface loop of 150 metres per side which is energized by a current pulse of some 20 amps on a time base of 10.8 or 21.6 ms. The former of these was utilized in the surveys discussed herein. The resulting secondary field is temporaly sampled at eight windows on the decay curve, and spatially sampled in both vertical and horizontal components during a traverse of the area of interest. The convention of vertical component positive up and horizontal positive away from the loop applies. The eight channels of secondary field information are equivalent to a wide spectrum of frequencies from approximately 2 KHz to 16 Hz thus allowing conductor character and strength determination. Conductor attitude and depth information are obtained from model curves. The time derivative of the secondary field is sampled during primary field off time, thus the method is relatively free from geometrical restrictions.

The primary field information is recorded at each occupied station. This allows data plotting under two methods of normalization. Normalization with respect to instrument gain produces a constant gain plot in which the symmetry of an ideal dyke-like conductor response is preserved. The second method is intended to accomodate the rapid primary field strength reduction (approximately inverse cube) with increasing distance from the transmitter

loop. The data is normalized with respect to the primary field strength at each station thus reducing the de-emphasis of conductors present in the far primary field. This method, which distorts the anomaly shape somewhat, finds application in multiple conductor situations.

The vector focus method of data display is useful in some line source conductor conditions. A resultant vector can be obtained by vector addition of the vertical and horizontal components of the secondary field. A perpendicular to this resultant points to the apparent eddy current position.

DISCUSSION OF RESULTS

The horizontal loop profiles are illustrated on Figures 3-5 and the resulting interpretation on Figure 2. The survey lines with respect to the claims are shown on Figure 1. Line 21000N has a central zone of two or more parallel conductors with a deep core at 13688E. This zone likely represents a phyllite or argillaceous unit in contact with a limestone to the west.

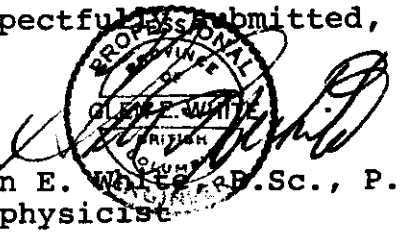
Line 21200N is characterized by a wide electrically connected zone from 13488E to 13713E with a super conductor at 13588E. A small conductor occurs at 13863E which connects to the one on line 21000N.

Line 21400N shows a pronounced shift of the data eastward which would suggest a fault zone. A good westerley dipping conductor occurs at 13388E in a resistive lithologic unit which may possibly represent graphite and/or sulphide mineralization in limestone.

CONCLUSION & RECOMMENDATIONS

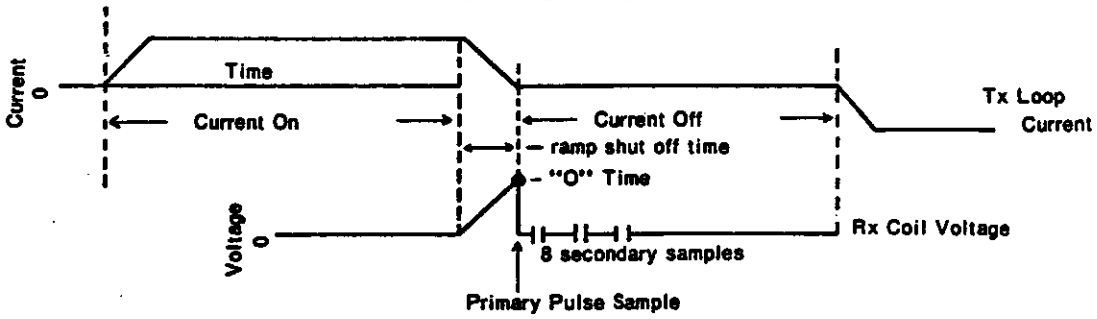
The three pulse horizontal loop test lines located three areas of interest (1) a strong central multiconductor zone (2) a good small parallel conductor to the east in a conductive environment and (3) a good conductor to the west on line 2100N in a resistive rock unit. These results should be correlated with the geochemical-geological data to outline further geophysical surveying.

Respectfully submitted,



Glen E. White, B.Sc., P.Eng.,
Geophysicist

PEM SPECIFICATIONS



Current Off time: 9.4 ms
Current on time: 10.8 ms
Current shut off (ramp) time: 1.4 ms
Sample times (zero to centre of sample): .15ms, .45ms, .85ms, 1.45ms, 2.45ms, 3.75ms, 5.85ms, 8.85ms.

Sample width: 100 μs
Zero time set at drop off point of primary pulse

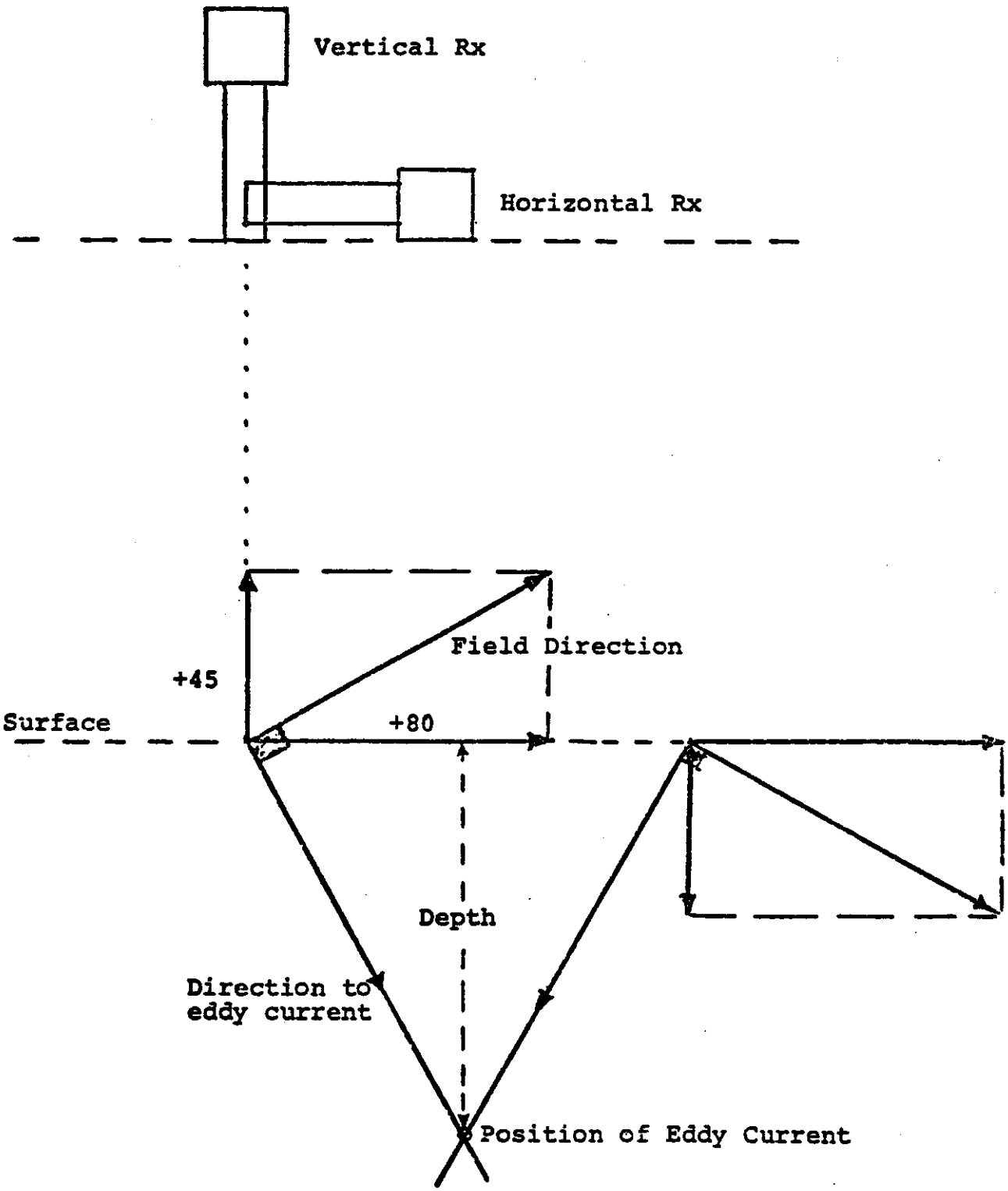
TRANSMITTER – Transmitter power and loop size may be increased to obtain increased penetration. Weight, portability and power capabilities of the control instrument are the limiting factors. The standard transmitter is designed to be carried by two men.

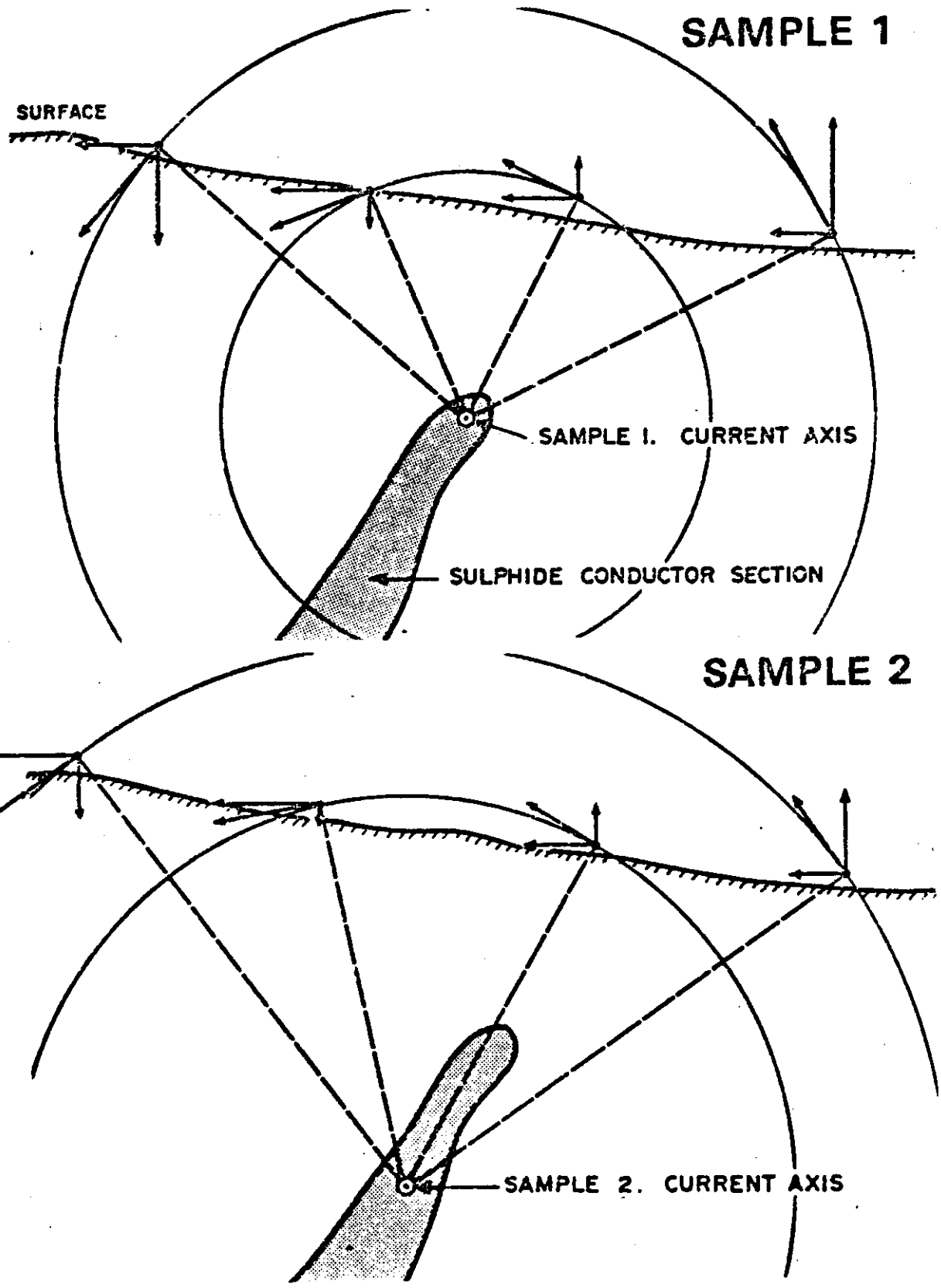
Loop diameter	– minimum 4 meters (13 feet)
Loop current	– 15 to 20 amps
Loop applied voltage	– 24 volts
Loop output	– minimum 4500 amps x meter ^{2}
Loop weight	– 11.8 kilos (26 lb)
Control unit weight	– 10 kilos (22 lb)
Control unit dimensions	– 20.5cm x 25.5cm x 36.5cm (8" x 10" x 14.5")
Battery supply weight	– 18.1 kilos (40 lb)
Battery supply	– 2 of 12 volt, 14 to 20 ampere hour

Timing control by radio synchronization

RECEIVER

- Receive coil dimensions: 55cm x 15cm (22" x 6")
- Receive coil weight: 4.5 kilos (10 lb)
- Preamplifier in coil
- Preamplifier batteries: 2 of 9 volt
- Receive coil tripod mounted
- Receiver measuring instrument dimensions: 28cm x 18cm x 21.5cm (11" x 7" x 9")
- Receiver measuring instrument weight: 6.3 kilos (14 lb)
- Timing control by radio synchronization
- Primary sample width: 100 μs
- Primary sample can be swept through primary pulse by means of a time calibrated pot
- Zero time set at primary pulse drop-off
- Secondary samples (eight of them) width: 100 μs
- Secondary samples time (zero to middle of sample): (1) .15ms (2) .45ms (3) .85ms (4) 1.45ms (5) 2.45ms (6) 3.75ms (7) 5.85ms (8) 8.85ms
- Automatic sampling for 5 seconds then all samples automatically stored
- Sample read out by means of meter
- Continuous sampling possible by switching function switch to "Continuous"
- Noise can be monitored by switching function switch to "Noise"
- Battery supply: 24 volt rechargeable, 2 of 12 volt Gel GC 12-15


Vertical Rx
Horizontal Rx
Field Direction
+45
Surface
+80
Depth
Direction to
eddy current
Position of Eddy Current



Location of the Current Path in the Conductor

STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P.Eng.

PROFESSION: Geophysicist

EDUCATION: B.Sc. Geophysicist - Geology
University of British Columbia.

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer, Province of British Columbia.

Associate member of Society of Exploration Geophysicists.

Past President of B.C. Society of Mining Geophysicists.

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

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

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

Two years Mining Geophysicist and supervisor Airborne and Ground Gerphysical Divions with Geo-X Surveys Ltd.

Two years Chief Geophysicst Tri-Con Exploration Surveys Ltd.

Eleven years Consulting Geophysicist.

Active experience in all Geologic provinces of Canada.

COST BREAKDOWN

B.C. - Yukon Projects

PERSONNEL	DATE	WAGES	TOTAL
B. Robertson	Sept. 15-25	$160.00	$1,760.00
B. Crassweller	Sept. 15-25	$112.00	$1,232.00
T. Purcell	Sept. 15-25	$112.00	$1,232.00

Instrument Lease	$1,100.00
Vehicle Rental	$ 667.17
Airfreight	$ 424.99
Airfares	$1,120.50
General Expenses	$ 252.57
Computer Plotting - Horizontal loop data	$ 250.00
Computer Plotting - Vector pulse	$ 250.00
Drafting & Reproduction	$ 485.00
Interpretation & Compilation	$1,000.00
Total	$9,774.23

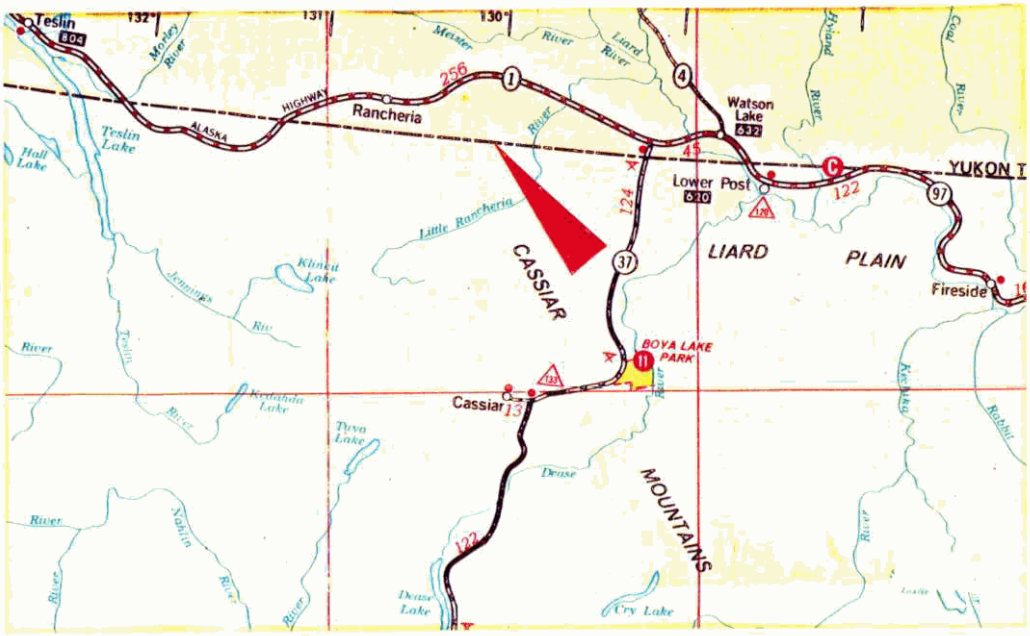
B.C.	75%	$7,330.67
Yukon	25%	$2,443.56

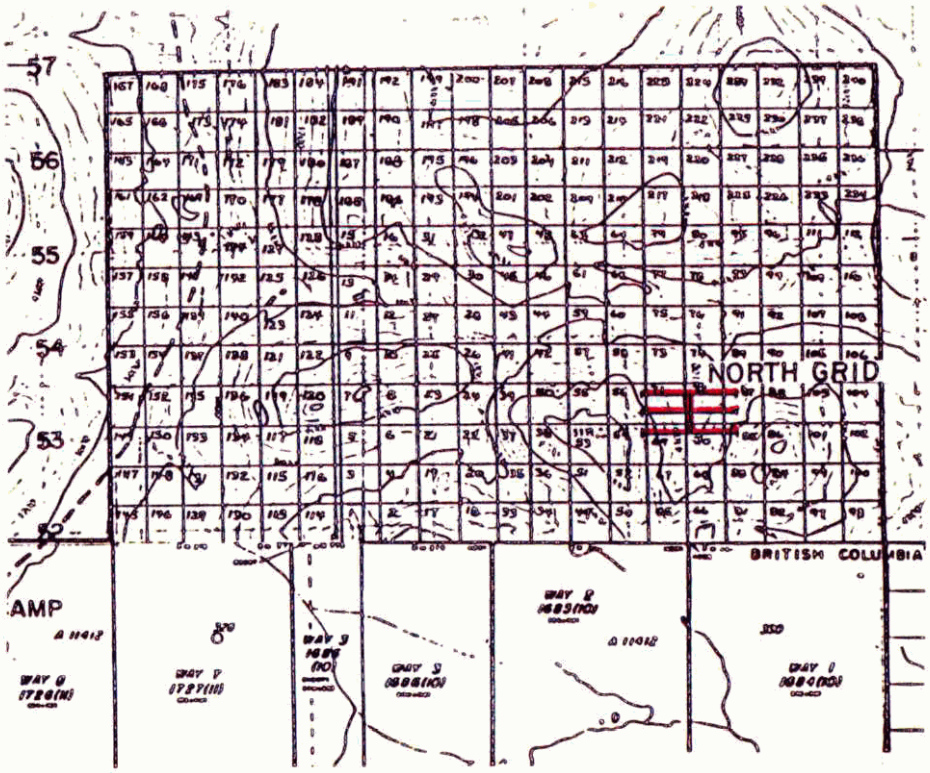
TABLE OF CONTENTS

	Page
Introduction	1
Property	1
Location & Access	1
General Geology	2
Pulse Electromagnetometer Survey	3-4
Discussion of Results	4
Conclusion & Recommendations	5
Instrument Specifications	6-8
Statement of Qualifications	9
Cost Breakdown	10

ILLUSTRATIONS

Figure 1	Claims and Location Map
Figure 2	Conductor Map
Figures 3-5	Horizontal Loop Profiles





CORDILLERAN ENGINEERING LTD.

MID CLAIMS

LOCATION AND CLAIMS MAP

Glen E. White
geophysical consulting
&
services ltd.

FIG. 1

BL 135+00 E

140+00 E

GOOD CONDUCTOR IN RESISTIVE LITHOLOGY

L 214+00 N

L 212+00 N

L 210+00 N

CONDUCTIVE ZONE

MAJOR FAULT ?

SUPER CONDUCTORS

CONDUCTIVE ZONE

LEGEND:

- ROAD
- STREAM
- SWAMP
- FAULT
- CONDUCTIVE ZONE
- CONDUCTORS

50 25 0 50 100 150

1:2500

N.T.S. 105 B / 1

CORDILLERAN ENGINEERING LTD.

MID CLAIMS

WATSON LAKE MINING DISTRICT - YUKON TERRITORY

CONDUCTOR MAP

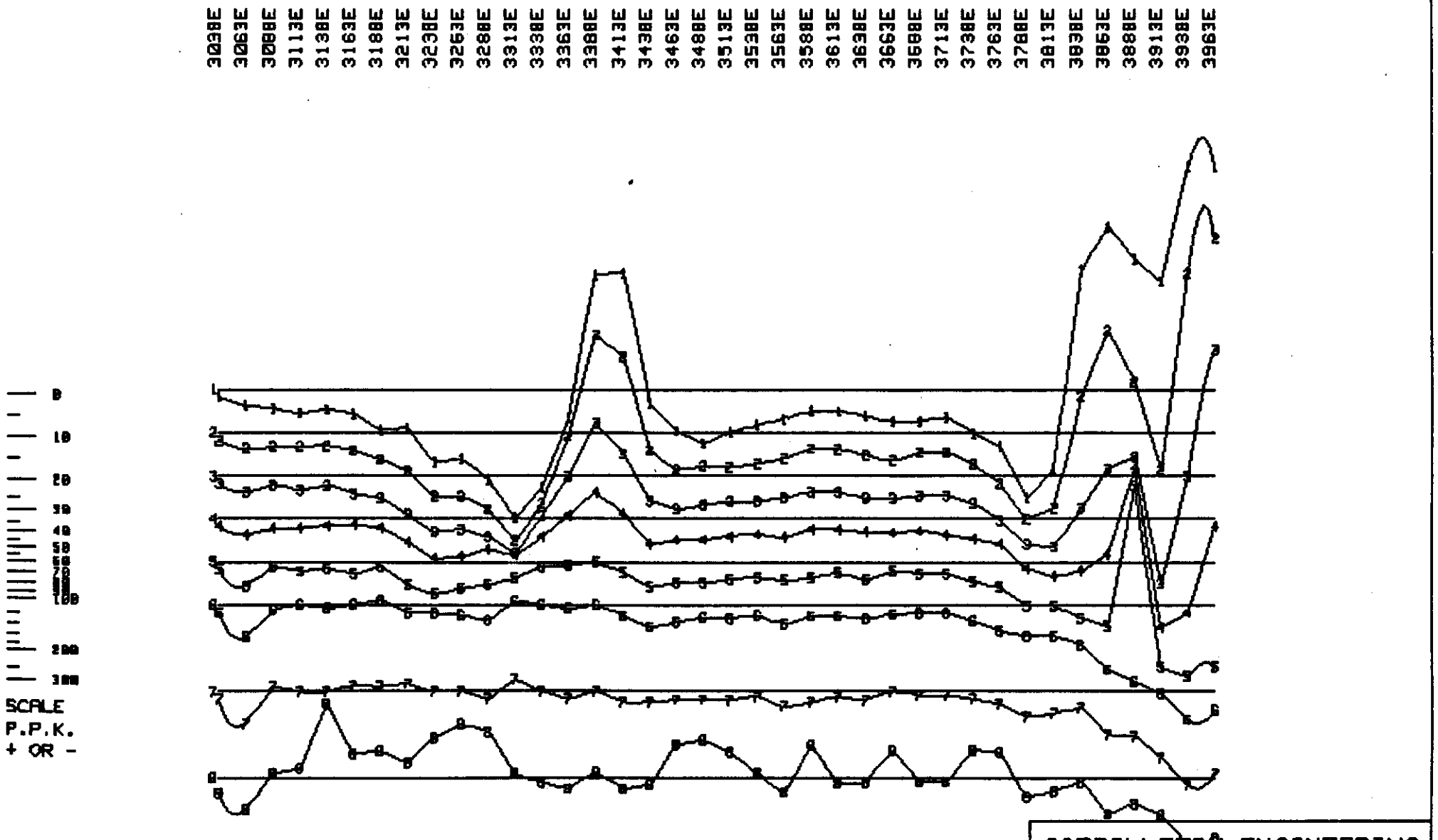
To Accompany Geophysical Report

Midway Property
Date October/81
By GLEN E WHITE B Sc ---------- GEOPHYSICIST

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA GLEN E. WHITE

Glen E White geophysical consulting & services ltd.

INTERPRETED BY :	G.E.W
DRAWN BY :	M.E.P.
CHECKED BY :	G.E.W.
DATE :	OCTOBER/81
FIG No :	2



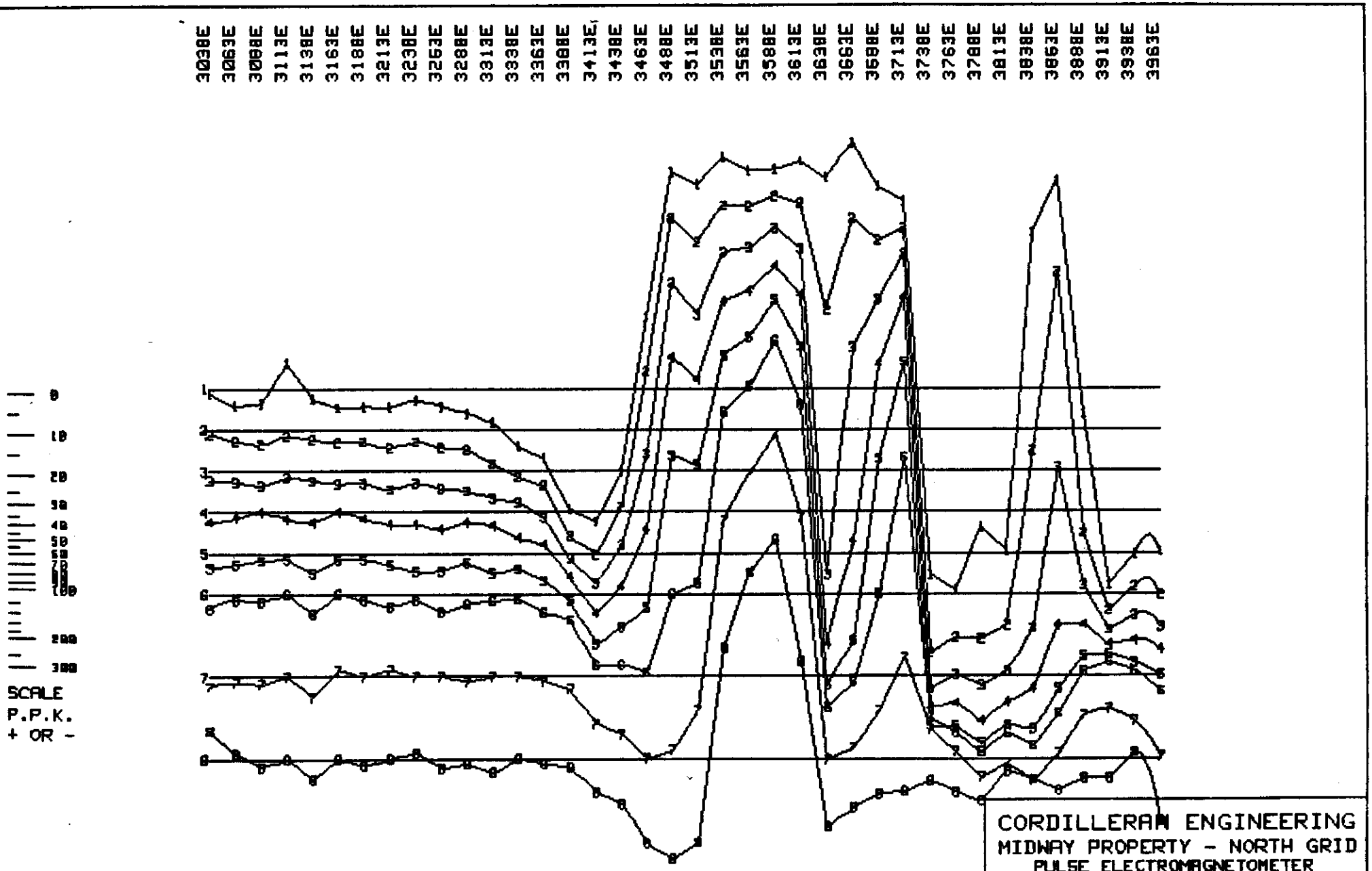
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - NORTH GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
21400N

DATE: SEPT/81 | FIG.: 3

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150



GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

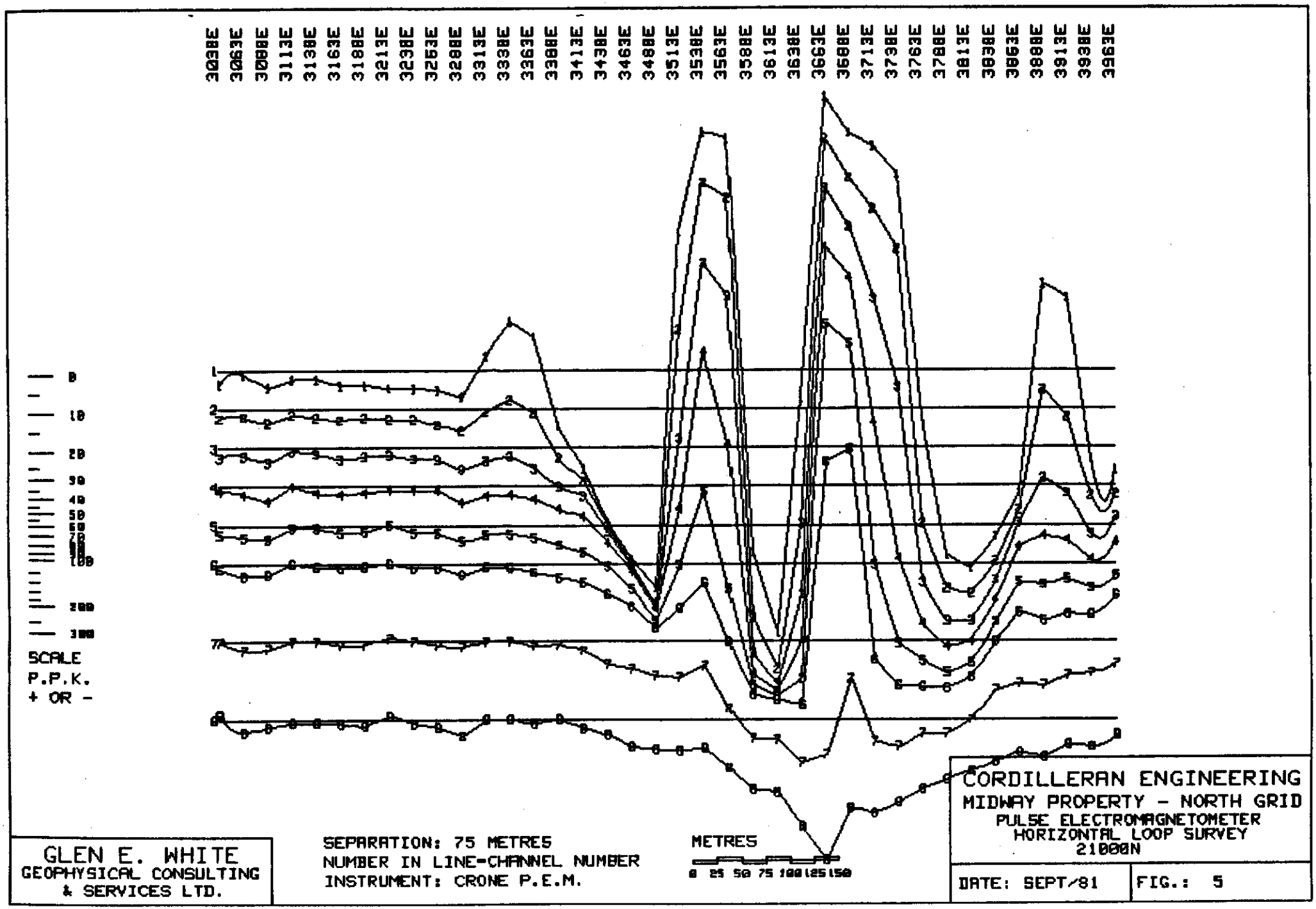
SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - NORTH GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
21200N

DATE: SEPT/81

FIG.: 4



GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEPARATION: 75 METRES
NUMBER IN LINE=CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - NORTH GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
21000N

DATE: SEPT/81 | FIG.: 5

INDIAN and NORTHERN AFFAIRS

TRANSMITTAL FORM

M R File No _____
S.M.R File No _____
Date Fwd 24 NOV 81

FROM Mining Recorder at WATSON LAKE

Supervising Mining Recorder at Whitehorse, Y.T.

FOR ACTION ARE:

☐ NEW APPL'N for PLACER LEASE to PROSPECT: Name:

☐ RENEWAL APPL'N PLACER LEASE to PROSPECT: Name: Lease No .....

☐ AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name Lease No .....

☐ ASSIGNMENT of PLACER LEASE No. .....
From: To:

☐ GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.
Owner:

☐ DIAMOND DRILL LOGS:
Claims: Claim sheet no.

☒ QUARTZ ASSESSMENT REPORT
Claims: MID 1-240 Claim sheet no. 105-B-1

Type of report:
Geophysical
Geological
Geochemical

Submitted by:
Cordilleran Engineering

Cls. work performed on:
MID 1-240.
(5 volumes)

$ Req. for ren. application
$106,000.-

Signature

REPLY ACTION Date Ret.

090892

Signature

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 106,000.00 .

Rick Debicki

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

Office of the Regional Manager
NOV 2 6 1981
WHITEHORSE
Yukon Territory

RECEIVED
1981
MINING RECORDER
WATSON LAKE, Y.T.
I.A. & N.D.

1981

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

M I D C L A I M G R O U P

WATSON LAKE MINING DISTRICT, YUKON TERRITORY
N.T.S. 105-B-1
Latitude: 60°02'N; Longitude: 130°12'W

OWNER: AMAX OF CANADA LIMITED

OPERATOR: REGIONAL RESOURCES LTD.

BY

CORDILLERAN ENGINEERING
1418-355 Burrard St.,Vancouver,B.C.

J. J. Hylands, P.Eng.
A. R. Hildebrand, B.Sc.
S. E. Parry, M.Sc.
J. D. Rowe, B.Sc.

NOVEMBER, 1981

CLAIMS: Mid 1-128 Grant No's YA56975-YA57102
Mid 129-160 Grant No's YA57155-YA57186
Mid 161-225 Grant No's YA58936-YA59000
Mid 226-240 Grant No's YA65801-YA65815

LOCATION: S. of Rancheria River, approximately 85 km West of Watson Lake, Y.T.

WORK PERIOD: May 29 to October 6, 1981

090892

TABLE OF CONTENTS

VOLUME I of II

	PAGE
INTRODUCTION	1
1981 EXPLORATION PROGRAM	4
Geology	4
Geochemistry	4
Geophysics	5
Prospecting	5
Grid Establishment	5
Trenching and Road Work	6
GEOLOGY	7
Regional Geology	7
Property Geology	8
Stratigraphy	9
Structure	12
Mineralization	13
GEOCHEMISTRY	16
Sampling	16
Analysis	17
Determination of Thresholds	17
Discussion	19
PHYSICAL WORK	21
Grid Establishment	21
Trenching and Road Work	23
COST STATEMENT	25
Apportionment of Costs, Yukon Territory and British Columbia	25
Helicopter	25
Camp Support	26
Mapping	26
Prospecting	27
Sampling	27
Linecutting	27
Management Fee	27
Professional Services	27
Geophysical Surveys	28
Trenching and Road Work	28
Summary of Costs,Yukon Territory,1981	29
Apportionment of Costs within Yukon Territory	29

TABLE OF CONTENTS

VOLUME 1 of II Cont'd

	Page
SUMMARY AND CONCLUSIONS	34
RECOMMENDATIONS	35
STATEMENTS OF QUALIFICATIONS	36
J.J.Hylands	36
A.R.Hildebrand	37
S.E.Parry	38
J.D.Rowe	39

A P P E N D I C E S

APPENDIX "A"	Statistical Treatment of Analytical Data
APPENDIX "B"	Analytical Results

L I S T O F F I G U R E S

FIGURE 1	Location Map	2
FIGURE 2	MID 1-240 Claim Group	3
FIGURE 3	Stratigraphic Section	10
FIGURE 4	North Grid	22
FIGURE 5	VALUE OF Work Done Per Block	32
FIGURE 6	Grouping Map	33

L I S T O F T A B L E S

TABLE 1	Yukon Territory Trenches,1981	23
TABLE 2	Yukon Territory Road Work,1981	24
TABLE 3	Value of Trenching and Road Work Per Claim,1981	29
TABLE 4	Value of Work Done on Each Claim in Blocks A to E	30
TABLE 5	Value Of Work Applied to Each Group, Mid Claims	31

TABLE OF CONTENTS

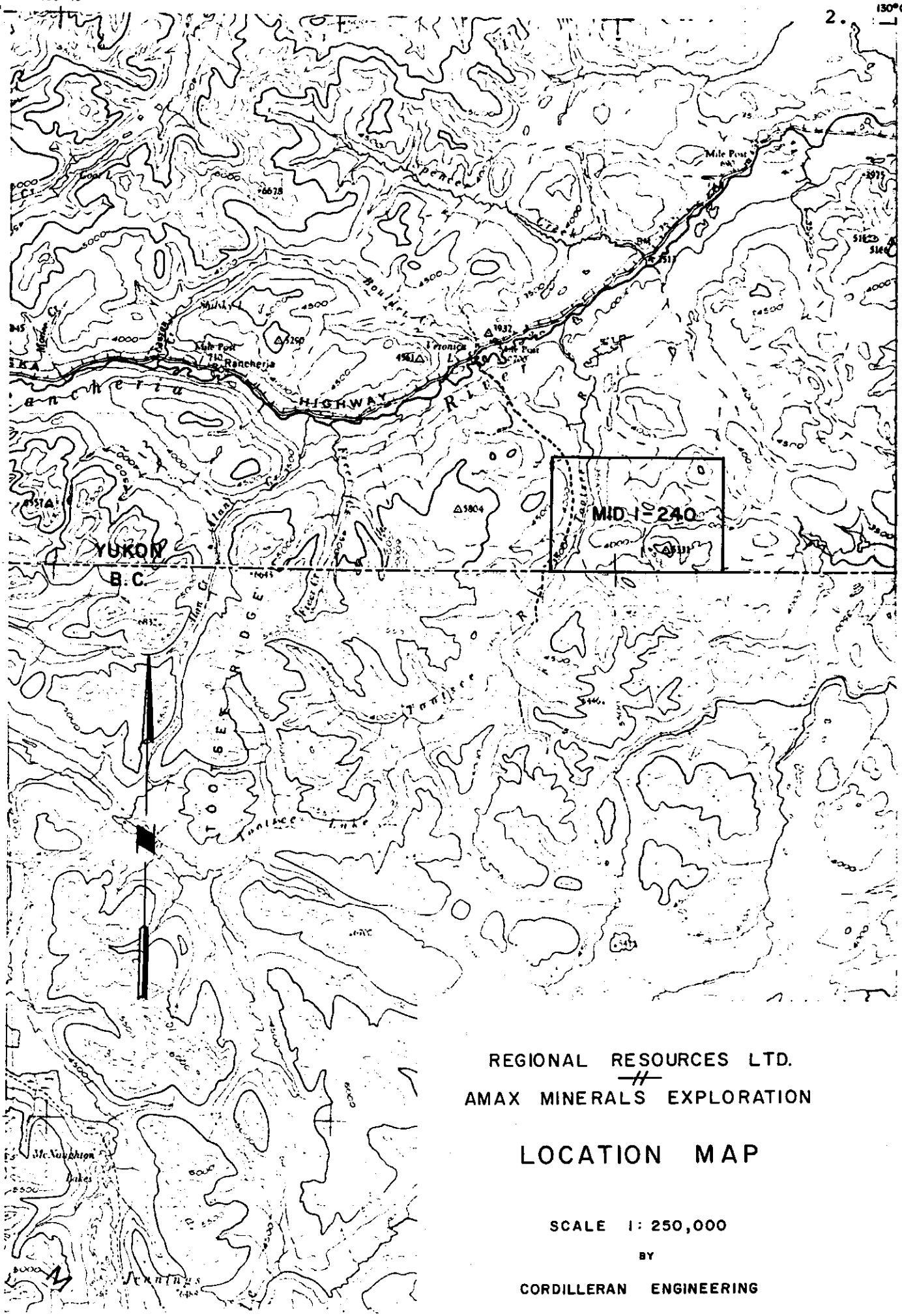
VOLUME II of II

LIST OF PLATES

			Scale
PLATE 1	Geology		1:10000
	SOIL GEOCHEMISTRY		
PLATE 2	North Grid Key Map #1	Pb	1:5000
PLATE 3	North Grid Key Map #1	Zn	1:5000
PLATE 4	North Grid Key Map #1	Ag	1:5000
PLATE 5	North Grid Key Map #1	Ba	1:5000
PLATE 6	North Grid Key Map #2	Pb	1:5000
PLATE 7	North Grid Key Map #2	Zn	1:5000
PLATE 8	North Grid Key Map #2	Ag	1:5000
PLATE 9	North Grid Key Map #2	Ba	1:5000
PLATE 10	North Grid Key Map #3	Pb	1:5000
PLATE 11	North Grid Key Map #3	Zn	1:5000
PLATE 12	North Grid Key Map #3	Ag	1:5000
PLATE 13	North Grid Key Map #3	Ba	1:5000
PLATE 14	North Grid Key Map #4	Pb	1:5000
PLATE 15	North Grid Key Map #4	Zn	1:5000
PLATE 16	North Grid Key Map #4	Ag	1:5000
PLATE 17	North Grid Key Map #4	Ba	1:5000
PLATE 18	Soil Geochemistry Compilation Map		1:20000
PLATE 19	Upper North Grid (Grid defined by tieline survey)		1:10000

INTRODUCTION

The **Mid Claim Group** lies south of the Rancheria River approximately 85 km west of Watson Lake, Yukon Territory. Access to the camp is by helicopter or via a rough four-wheel drive road which runs 28 km south from the Alaska Highway at Kilometre Post 1136 (**Figure 1, Location Map**). The **Mid Claim Group** consists of the **Mid 1-240 two-post claims (Figure 2, Claim Map)** staked in 1980 and 1981 by Cordilleran Engineering for Regional Resources Ltd. after a combined stream sediment sampling and prospecting program in 1980. Eighteen stream sediment samples returned results considered anomalous in lead, zinc, silver and/or barium (**Plate 1**). In addition, a barite horizon was found immediately south of the Y.T.-B.C. border and traced north into the claim area. In February, 1981, Regional Resources Ltd. optioned the property to AMAX of Canada Limited and engaged Cordilleran Engineering to manage exploration of the Midway property, consisting of the Mid claims in Y.T., and the Way, Bull and Climax claims in B.C.



REGIONAL RESOURCES LTD.

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AMAX MINERALS EXPLORATION

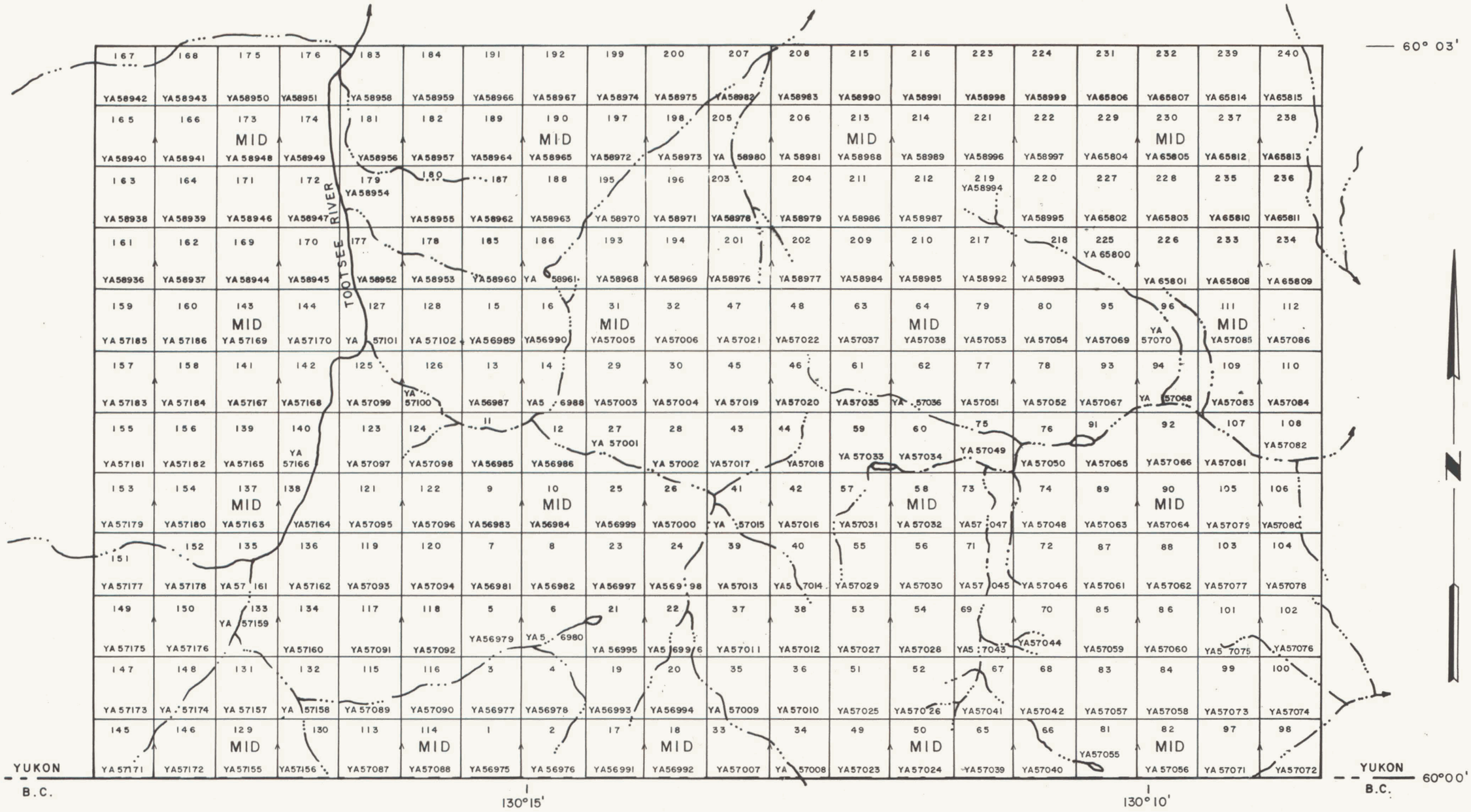
LOCATION MAP

SCALE 1: 250,000

BY

CORDILLERAN ENGINEERING

NOVEMBER 1981 FIGURE 1



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AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

MID 1-240 CLAIM GROUP

SCALE 2 in = 1 mi

Ft 1500 0 3000 6000 9000 10,500 Ft

NOVEMBER 1981 NTS 105 B 1 BY : CORDILLERAN ENGINEERING

FIGURE 2

1981 EXPLORATION PROGRAM

GEOLOGY

The claims were geologically mapped using aerial photographs enlarged to approximately 1:5000 scale for control. This data was then compiled at a scale of 1:10,000.

GEOCHEMISTRY

Twenty five hundred and forty six (2546) soil samples were collected from two gridded areas, one west of the Tootsee River and the second covering the probable source areas for the anomalous stream sediment samples.

1981 EXPLORATION PROGRAM (cont'd)

GEOPHYSICS

Both airborne and ground geophysical surveys were conducted over the Mid claims. These are reported under separate cover.

PROSPECTING

This phase consisted of additional follow-up sampling and examination of outcrops to determine the source of stream sediment and soil anomalies.

GRID ESTABLISHMENT

Two grids were established to provide control for soil sampling. These consisted of cut and picketed baselines (total of 6.60 km), blazed and flagged crosslines (total of 116.75 km), and blazed and flagged tielines (total of 9.6 km). In addition, 3.9 km of line were cut and chained for geophysical surveys.

1981 EXPLORATION PROGRAM (cont'd)

TRENCHING AND ROAD WORK

A minor amount of trenching was done to expose bedrock west of the Tootsee River. The backhoe was also used to improve short sections of the access road.

GEOLOGY

Regional Geology

The regional geology in the area of the Mid claims consists of Lower and Middle Paleozoic sediments intruded to the west by the Cassiar batholith of Cretaceous age.

Lower Cambrian rocks consist of limestone and minor dolostone, slate, and phyllite. These rocks are altered to marble and skarn near the contact of the batholith. Cambrian to Middle Silurian rocks are mainly slate, phyllite and limestone locally altered to hornfels and skarn. Silurian to Middle Devonian rocks consist of dolostone and quartzite. These Lower Paleozoic sediments were probably deposited in shallow water on the upper continental slope, forming a carbonate platform.

Upper Devonian and Lower Mississippian strata

GEOLOGY - Regional Geology (cont'd)

consist of a thick section of argillite, sandstone, and local conglomerate beds, overlain by volcanic intrusive and extrusive rocks of various compositions. The clastic rocks were deposited by turbidity currents in an offshore basin or trough which probably developed by subsidence of fault-bounded blocks, possibly associated with a rifting center.

Stratiform barite and siliceous, pyritic beds occuring at various levels within the clastic sequence are believed to have been precipitated from brines exhaled onto the sea floor through conduits along deep-seated boundary faults.

PROPERTY GEOLOGY

The Mid claims cover most of the clastic unit exposed in the area. Approximately 5% outcrop exposure is predominantly confined to ridges and steep bluffs. Exploration targets are shale-hosted stratiform Pb-Zn-Ba deposits comparable to those found in Macmillan Pass, Y.T. and Gataga, B.C. areas.

GEOLOGY (cont'd)

STRATIGRAPHY

Descriptions of the various lithologies in the stratigraphic section follow (**Figure 3**). Some of these lithologies are not exposed on the Mid claims, but descriptions from observations made further south are included.

McDAME GROUP: Middle Devonian

Unit Ma 50 m+

Clean, white, coarse grained quartzite. Massive with well rounded, welded quartz grains.

Unit Mb 500 m+

Fetid dolostone and calcite dolostone. Massive to well laminated, light to medium grey, locally fossiliferous and bioturbated. Abundant crackle breccia and pressure solution features.

LOWER SYLVESTER GROUP: Upper Devonian-Lower Mississippian

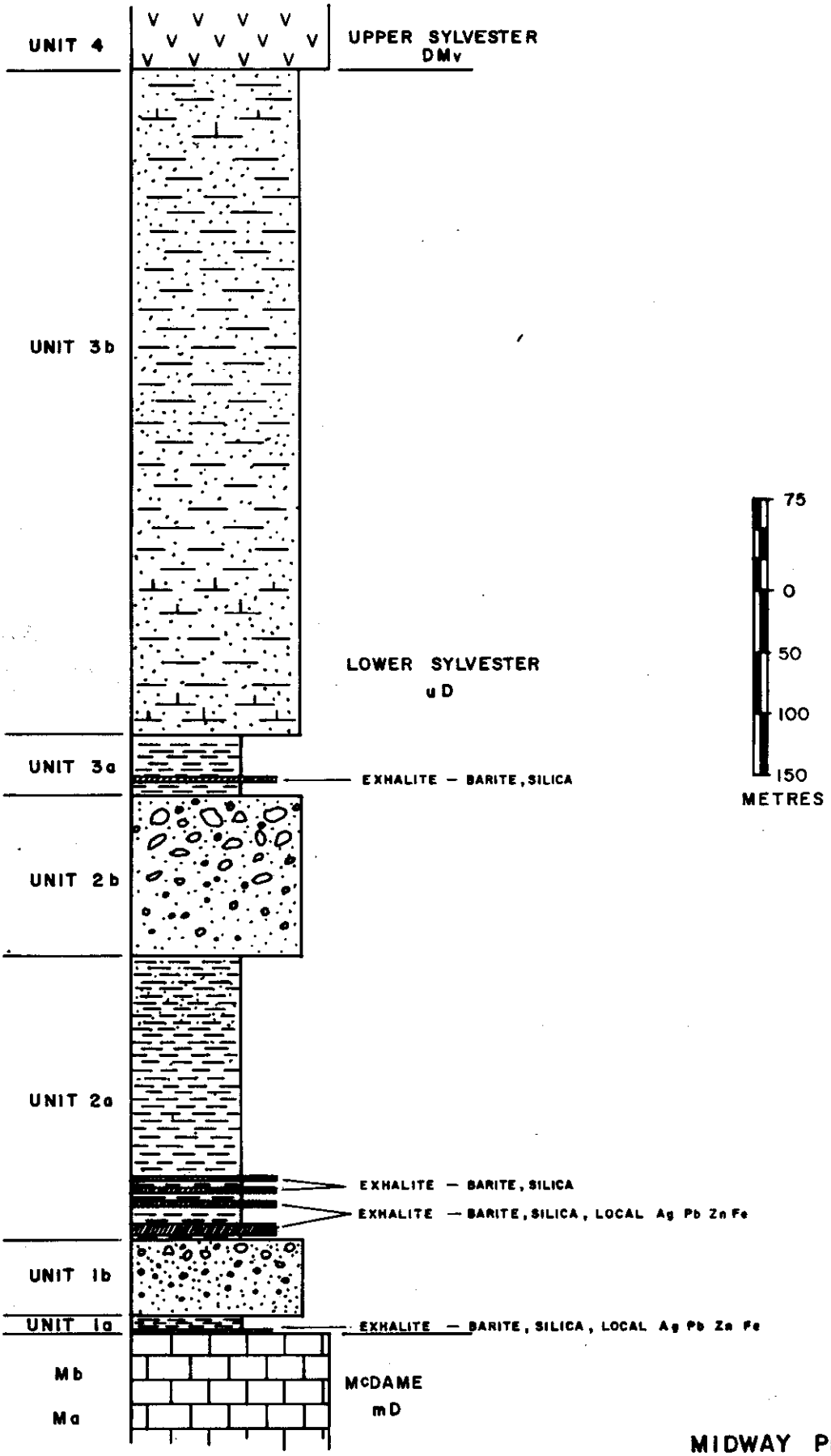
Unit 1a 10-30 m

Weakly to highly carbonaceous, weakly to highly siliceous, locally pyritic argillite. Massive to weakly laminated with local sandstone interbeds.

Near the base of Unit 1a a one-to two-metre thick sulfide bed (Fe,Pb,Zn,Ag) occurs locally, grading laterally into siliceous pyritic exhalite (see Mineralization).

Unit 1b 30-160 m

Moderately siliceous massive and laminated sandstones with minor interbedded argillite and conglomerate. Graded bedding is common, often grading upwards through fine conglomerate and massive sandstone, parallel laminated sandstone, and cross laminated sandstone with an occasional thin argillite cap. Disseminated pyrite is locally abundant in sandstone. The contact with Unit 1a is moderately gradational, whereas the contact with Unit 2a is sharp.



MIDWAY PROPERTY

STRATIGRAPHIC SECTION

NOVEMBER 1981 FIGURE 3

GEOLOGY - Stratigraphy (cont'd)

LOWER SYLVESTER GROUP (cont'd)

Unit 2a 70-150 m

Weakly to moderately carbonaceous, weakly to highly siliceous, moderately to strongly laminated argillite with interbedded parallel and cross-laminated sandstone. Sandstone content increases toward the top of this unit grading into Unit 2b. A 20m-100m thick section at the base of Unit 2a is highly siliceous with local interbeds of calcareous sandstone. This section hosts several siliceous, pyritic, baritic exhalite horizons and locally two stratiform sulfide beds (see Mineralization).

Unit 2b 70-150 m

Moderately siliceous massive and laminated sandstones with minor interbedded argillite and conglomerate. Very similar to Unit 1b. Finely disseminated pyrite occurs locally. Graded bedding is common. Fossil wood fragment casts occur locally in sandstone beds. There is a coarsening upward trend within Unit 2b, but the contact with Unit 3a is abrupt.

Unit 3a 0-30 m

This unit of moderately to highly carbonaceous and moderately to highly siliceous argillite locally overlies Unit 2b. It is massive to strongly laminated with local interbeds of calcareous sandstone and one or more thin beds of siliceous, baritic exhalite. This unit resembles the siliceous section at the base of Unit 2a.

Unit 3b 650-700 m

This unit is predominantly interbedded phyllite and quartzite (meta-sandstone?) with local beds of calcareous sandstone, argillite and green chert. Rocks of this unit appear more metamorphosed than those of underlying units. Some phyllite rocks contain abundant disseminated pyrite cubes, up to 3 centimetres wide. Cyclical sequences consisting of quartzite overlain by calcareous sandstone and phyllite are common. These may represent graded sandstone and shale beds.

GEOLOGY - Stratigraphy (cont'd)

UPPER SYLVESTER GROUP: Mississippian

Unit 4 300 m+

This unit consists of basalt, dacite and rhyolite flows, and coarse grained equivalent intrusive rocks. Minor phyllite and chert occur in the transition zone above Unit 3b. Pyroxenite and peridotite sills and plugs locally intrude the volcanic rocks.

STRUCTURE

Bedding attitudes in the area of the Mid claims generally strike northwest and dip 20 degrees to 30 degrees to the southwest. Local small-scale open folds have the same northwest trend, generally paralleling the contact of the Cassiar batholith. Abundant northwest trending faults also parallel the batholith, and are intersected by moderately abundant northeast trending faults. Some of the major faults with large displacements are shown on the Geology Map (**Plate** 1). The northeast trending fault across the middle of the property is steeply dipping and the west side has been dropped down at least 300 metres bringing Unit 3 into contact with Unit 2a. The west-northwest trending fault is also steeply dipping

GEOLOGY - Structure (cont'd)

and has dropped the south side about 100 metres to bring Unit 2a into contact with Unit Mb. Most of the faults on the property are steeply dipping, and displacement is mainly dip-slip forming grabens and step faults.

MINERALIZATION

Mineralization on the Midway property consists of stratiform pyrite, sphalerite and galena hosted by siliceous and/or baritic rocks herein referred to as exhalites. Exhalites are believed to have formed by chemical precipitation from brines which were vented onto the sea floor.

Siliceous exhalite generally consists of 95% very fine grained silica. It is weakly to strongly laminated with local finely disseminated pyrite and 1% to 3% finely laminated and disseminated barite. Siliceous exhalite appears to grade laterally into nodular, lensoid barite and silica, and occasionally into massive, laminated barite. Local massive sulfide beds are commonly highly siliceous and may represent

GEOLOGY - Mineralization (cont'd)

lateral equivalents of siliceous exhalite beds seen extensively on the property. Rapid facies changes from sulfide (FeS, ZnS, PbS) to sulfate ($BaSO_4$) to silicate (SiO_2) are common within lithologically similar sulfide deposits such as the Tom and Jason properties in Macmillan Pass, Yukon Territory.

No mineralization of economic potential has been discovered on the Mid claims to date. Fragments of laminated barite are present in the soil near line 12500E just north of the British Columbia-Yukon border (see **Geology Map, Plate 1**). These fragments occur along strike from a four metre thick exposure of massive laminated barite south of the border. Coincident Ba, Pb, Ag, and moderate Zn anomalies in the soil about 1000 metres northwest of the fragments indicate potential for barite- or silica-hosted sulfide mineralization in an overburden covered area (see **Geochemistry, Plates 2 to 17**).

Massive coarse crystalline barite veins up to one metre thick occur in the McDame dolostone just east of line 12500E (see **Geology Map, Plate 1**). The barite may have been remobilized into the fractured, porous dolostone from potential stratiform mineralization in nearby Unit 2a. Coarse crystalline galena veins also occur within dolostone in that

GEOLOGY - Mineralization (cont'd)

area. The veins contain high grade lead and silver, but are narrow and sparsely distributed. This mineralization may be related to similar veins of Cretaceous age which cut intrusive and sedimentary rocks 13 kilometres to the west.

On the west side of the claims, along the Tootsee River, baritic exhalite is interbedded with siliceous argillite and chert of Unit 3. The exhalite beds range from 4 centimetres to 1 metre in thickness, contain 5% to 100% barite and locally abundant finely disseminated pyrite. The barite is massive and poorly laminated unlike the barite of Unit 2a. Soil sampling in the vicinity of the Tootsee River exhalites returned low to moderate lead, zinc and silver values.

GEOCHEMISTRY

SAMPLING

Results from stream sediment sampling and reconnaissance prospecting in 1980 indicated two areas of potential mineralization, the west bank of the Tootsee River and the area centered on Survey Mountain (Plate 1).

Grids were established over both of these areas, with initial crossline spacings at 200m or 400m. Samples were obtained at 50m intervals on the crosslines and baselines by digging pits with a mattock to below the "A", or organic horizon, and filling standard gussetted kraft paper bags with soil. The samples taken are believed to represent the "B" soil horizon, or locally the top of the "C" horizon. All samples were dried in the bags in a propane-fired drying oven at the base camp. Subsequent screening produced a -40+80 mesh fraction retained for reference, and a -80 mesh fraction sent for analysis. In addition, a bulk sample was collected, dried and screened and portions included randomly with grid samples to check laboratory precision.

GEOCHEMISTRY (cont'd)

ANALYSES

All analyses were performed by Bondar-Clegg and Company Ltd., 130 Pemberton Avenue, North Vancouver, B.C. V7P 2R5, on the -80 mesh fraction. For Pb, Zn and Ag the samples were digested using hot HNO_3:HCl and the metal concentrations determined by atomic absorption spectroscopy (AAS). The lower detection limits were: Pb, 2ppm; Zn 1 ppm; Ag 0.2 ppm. Barium concentration was obtained by compressing powder into a pellet and analyzing by X-Ray Fluorescence. The detection limit reported for Ba was 20 ppm.

DETERMINATION OF THRESHOLDS

Analytical results from soil samples on the Mid claims had a wide range: Pb, 3 to 5280 ppm; Zn, 5 to 20,000 ppm; Ag, 0.2 to 16.6 ppm; and Ba, 90 to 80,720 ppm. To determine threshold and anomalous values for each element a statistical approach was used on a population of approximately 5700 samples

GEOCHEMISTRY - Determination of Thresholds (cont'd)

(Yukon and British Columbia sampling combined). Results from samples taken on lines 10400N to 12000N (B.C.) were omitted because there was exposed mineralization and old workings in this area. Similarly, results from samples taken on fill-in lines or at close spacings (25m) in areas defined as anomalous during the early part of the sampling program were omitted.

Normal histograms were plotted for each element; it was found that all elements were log normally distributed. Each population was plotted on a log normal basis, and the means and standard deviations for each element calculated (Appendix "A"). The silver population was found to be still markedly skewed, due to the high proportion of values in the 0.2 to 0.3 ppm range. The following categories were defined for each element.

Background:	less than mean + one Standard Deviation (S.D.)
Weakly Anomalous:	mean + one S.D. to mean + two S.D.
Moderately Anomalous:	mean + two S.D. to mean + three S.D.
Anomalous:	mean + three S.D. to mean + four S.D.
Strongly Anomaous:	greater than mean + four S.D.

All sample analyses greater than the threshold value for each

GEOCHEMISTRY - Determination of Thresholds (cont'd)

element are plotted on the Geochemical Maps, Plates 2 to 17. All results obtained, including those for check samples and duplicates, are in Appendix "B". Statistical categories for each element are tabulated on the geochemical maps.

DISCUSSION

Very few samples from the Tootsee Grid (Plates 2 to 5) returned results higher than threshold values, and those that are higher coincide with the mapped barite horizon. Barium results are predominantly anomalous to strongly anomalous. Only one zinc result was moderately anomalous, and coincides with the highest Ba result. Lead and silver results are weakly to moderately anomalous except for one strongly anomalous Pb result at 83E, 220N. The best grouping of results is in the vicinity of 85E, 230N (this is an area for detailed work in 1982).

Results from the area around Survey Mountain are compiled at a scale of 1:20,000 on Plate 18. A very broad

GEOCHEMISTRY - Discussion (cont'd)

lead anomaly is defined east and northeast of Survey Mountain which constricts to an arcuate zone west of Survey Mountain. The anomalous zinc zone is coincident with the lead but not so broad, and the anomalous silver zone is further restricted. Higher than threshold barium results northeast of Survey Mountain follow drainages. Southwest of Survey Mountain the anomalous barium results reflect the presence of a baritic exhalite horizon which can be traced to the southeast into B.C. (see **Geology Map, Plate 1**).

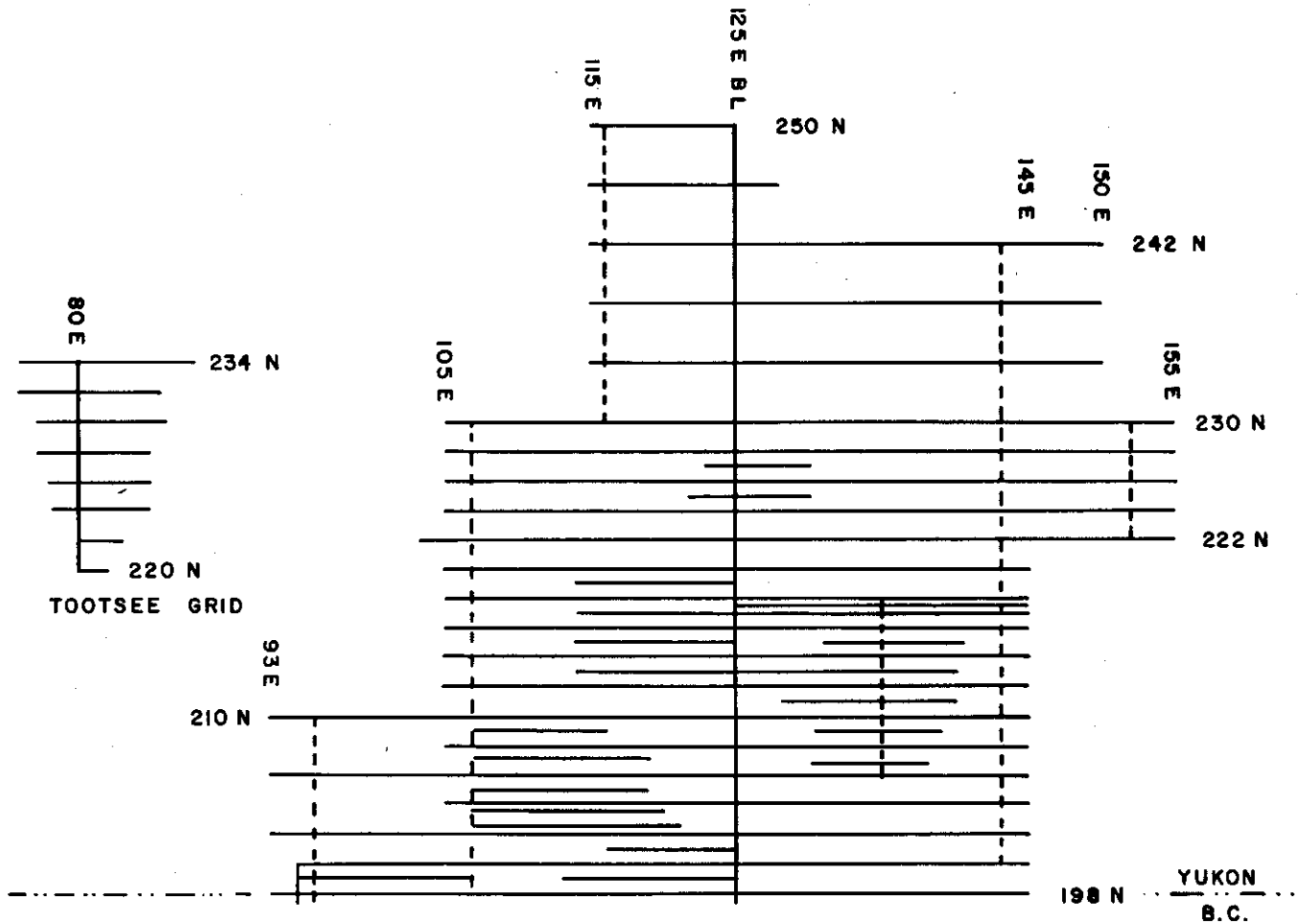
Prospecting and mapping in the area northeast of Survey Mountain (completely drift covered) indicates that the underlying bedrock is largely McDame limestone and quartzite. Galena veins with minor sphalerite have been found in this formation in the Tootsee River area. Soil geochemical response over these veins usually defines the vein systems very well. The broad nature of the anomalous lead zone northeast of Survey Mountain may be due to numerous lead-zinc-silver-bearing veins, or to a massive sulphide zone at the McDame-Sylvester contact.

Partially coincident Pb, Zn, Ag and Ba zones are defined over Border Hill. These appear to reflect the exhalite horizon found elsewhere at the base of Unit 3.

PHYSICAL WORK

GRID ESTABLISHMENT

Eastman Exploration Services of Whitehorse, Y.T., was contracted to establish a grid for sampling control. The line cutters maintained their own camp. There were an average of four line cutters on the Midway property between June 12 and September 12, 1981. During this period 134.6 km of baseline, crossline and tieline were established in Yukon Territory **(Figure 4)**. Baselines were cut and picketed; crosslines and tielines were compassed, flagged and brushed by machete. There are 6.2 km of baseline, 118.75 km of crossline and 12.8 km of tieline. The analytical results from the soil sampling survey have been plotted on idealized grids; the grid as defined by the tieline surveys is shown on **Plate 19.**



REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

NORTH GRID

PHASE I AND FILL-IN LINES

NTS 105 B 1

1 : 50,000

FIGURE 4

PHYSICAL WORK (cont'd)

TRENCHING AND ROAD WORK

A Bantam 366 Backhoe with a 1¼ yard bucket and a D6D Caterpillar tractor were leased from Grant Stewart Construction, Watson Lake. The backhoe was used in Yukon Territory to excavate trenches on the Mid 137 and 141 claims, and to improve the access road on the Mid 152, 160 and 162 claims (Plate 1).

TABLE I

YUKON TERRITORY TRENCHES, 1981

TRENCH	DATE	CLAIM	LENGTH m	WIDTH m	DEPTH m	VOLUME m3	COMMENTS
15	Sept.25	Mid 137	67	2.0	2.5	335	Unit 3
16	Sept.27	Mid 141	56	1.5	2.0	168	Unit 3
17	Sept.27	Mid 141	35	3.5	2.5	306	Unit 3
18	Sept.26	Mid 137	50	3.0	3.5	525	Barite horizon
18a	Sept.26	Mid 137	7	2.0	2.0	28	Unit 3
						1362	

In addition, the backhoe was used to ditch and/or widen sections of the access road where problems had been encountered during the summer (Table 2).

PHYSICAL WORK - Trenching and Road Work (cont'd)

TABLE 2

YUKON TERRITORY ROAD WORK, 1981

DATE	CLAIM	LENGTH m	WIDTH m	DEPTH m	VOLUME m3	WORK DONE
Sept.25	Mid 152	174	2	1.5	522	Widening of road
Sept.27	Mid 160	43	2	1.0	86	Ditching along road
Sept.27	Mid 160	83	2	1.5	249	Ditching/widening of road
Sept.28	Mid 162	105	2	1.5	315	Ditching/widening of road
Sept.28	Mid 162	166	2	1.0	332	Widening of road
					1504	

COST STATEMENT

APPORTIONMENT OF COSTS
YUKON TERRITORY AND BRITISH COLUMBIA

The Midway property straddles the B.C.-Y.T. boundary. The 1981 program was integrated - it was not feasible to apportion costs for prospecting, mapping, professional services, management fee or helciopter hours on a claim basis. To apportion these costs, to the Yukon Territory, the ratio of the relative areas surveyed is used - 240 Yukon claims of a total 921 claims/units in British Columbia and Yukon Territory.

HELICOPTER

A Bell 206B was leased from Northern Mountain Helicopters, Prince George, at an hourly rate of $375. Fuel for the helicopter and camp accommodation for the pilot and mechanic were supplied by Cordilleran Engineering. The helicopter was used daily during the period May 29 to October 6; 308 hours were flown. Fuel cost $2.70/gallon delivered, and was consumed at the rate of 22 gallons/hour. The pilot was in camp for 131 days, the mechanic for 96 days, for a total camp cost of 226 mandays x $74.80/manday = $16,904.80.

COST STATEMENT - Apportionment of Costs Y.T. & B.C.

HELICOPTER (cont'd)

The total helicopter operation cost was:

308 x ($375+$59.40) + $16,904.80 =$150,700

Cost/claim = $\frac{\$150,700}{921}$ = $163.63/claim

CAMP SUPPORT

	To October 6 (BC & YT)
Camp supplies	$21,780
Food	19,850
Fuel-gas,oil	1,750
Vehicle operating cost-repairs	1,000
Camp construction	3,200
Durable camp equipment	2,000
Truck rental	9,200
Camp equipment rental	6,600
Radio rental	2,550
Telephone,postage	2,200
Access road maintenance (June)	4,000
Expediting	6,700
Freight and express	4,290
Drafting, office supplies	6,225
Insurance	1,000
Fixed wing	4,000
Cook	10,240
Propane	1,650
	$108,235

Mandays, to October 6 = 1447

Cost/manday = $\frac{\$108,235}{1447}$ = $74.80

MAPPING

The three geologists spent 69 mandays mapping in Yukon Territory. ($\frac{240}{921}$ x 265 mapping days = 69 days)

Geologists- 69 mandays x $100/manday = $ 6900
Camp support - 69 mandays x $74.80/manday = $ 5160
$12061

Cost/claim = $\frac{\$12,061}{240}$ = $50.25/claim

COST STATEMENT - Apportionment of Costs Y.T. & B.C. (cont'd)

PROSPECTING

The prospector, S. Jones, spent 92 days working on the Midway property.

Salary	=	$ 6746
Camp support - 92 x $74.80	=	6882
Analyses - 49 x $7	=	343
		$13971

$$\text{Cost/claim} = \frac{\$13,971}{921} = \$15.17$$

SAMPLING

Eight samplers spent 470 mandays collecting and screening 8023 soil samples on the Midway property.

Salaries for 8 samplers	=	$ 23723
Camp support 470 x $74.80	=	35156
8114 analyses (includes check samples) x $7	=	56798
		$115677

$$\text{Cost/sample collected} = \frac{\$115,677}{8023} = \$14.42/\text{sample}$$

LINE-CUTTING

Eastman Exploration Services charged the following:

Baseline	-	$500/mile	= $310.75/km
Crossline	-	$200/mile	= $124.30/km
Tieline	-	$125/mile	= $ 77.70/km

MANAGEMENT FEE

The management fee charged to the Midway property from June 1 to October 6 was $58,295 or $\frac{\$58,295}{921} = \$63.29/\text{claim}$

PROFESSIONAL SERVICES

The cost of professional services for the Midway property in the period June 1 to October 6 was $59,468 or

$$\frac{\$59,468}{921} = \$64.57/\text{claim}$$

COST STATEMENT - Apportionment of Costs Y.T. & B.C. (cont'd)

GEOPHYSICAL SURVEYS

At the time of the airborne geophysical survey (May 1, 1981), the Midway property consisted of 829 claims and units. The airborne survey cost $51,234.

$$\text{Cost/claim} = \frac{\$51,234}{821} = \$62.40/\text{claim}$$

An area east of Survey Mountain was selected for detailed EM and gravity surveys. These surveys were conducted in mid-September, 1981, in conjunction with surveys in B.C. Twelve claims and units were surveyed for an estimated total cost of $29,268.

Gravity surveys	=	$ 15,505
EM Surveys	=	9,500
Camp support - 57 mandays x $74.80	=	4,264
		$ 29,268

$$\text{Cost/claim} = \frac{\$29,268}{12} = \$2439/\text{claim}$$

In the Yukon, the Mid 54,56,69 and 71 claims cover the survey area. The geophysical reports have been filed separately.

TRENCHING AND ROAD WORK

The Bantam 366 Backhoe was used for four days in trenching and road work on the Mid claims (**Table 1,pg.23; Table 2,** pg.24)

Backhoe	- 259½ hours x $57/hr =	$14,791.50
Lease cost	- $\frac{40}{30}$ x $9000 =	12,000.00
Camp support	- 40 mandays x $74.80 =	2,992.00
		$29,783.50

$$\text{Cost/hour} = \frac{\$29,783.50}{259.5} = \$114.77$$

The backhoe was used for 41 hours on the Mid claims, at a cost of $4,705.57 for 2866 m^3, or $1.64/$m^3$.

The value of work done per claims is shown in **Table 3, pg.29.**

COST STATEMENT - Apportionment of Costs Y.T. & B.C.

TRENCHING AND ROAD WORK (cont'd)

TABLE 3

VALUE OF TRENCHING AND ROAD WORK PER CLAIM, 1981

CLAIM	GROUP	CUBIC METRES MOVED	COST
Mid 137	B	888	$1,456.32
Mid 141	C	474	777.36
Mid 152	B	522	856.08
Mid 160	D	335	549.40
Mid 162	E	647	1,061.08
		2866	$4,700.24

SUMMARY OF COSTS, YUKON TERRITORY, 1981

Camp support	74.80/manday
Helicopter	163.63/claim
Mapping	50.25/claim
Prospecting	15.17/claim
Sampling	14.42/sample
Line cutting - baseline	310.75/km
- crossline	124.30/km
- tieline	77.70/km
Management fee	63.29/claim
Professional services	64.57/claim
Airborne geophysics	62.40/claim
Ground geophysics	2,439.00/claim
Trenching	1.64/m^3

APPORTIONMENT OF COSTS WITHIN YUKON TERRITORY

Because the Yukon claims have not been surveyed it has been assumed that all location lines are 3000 feet apart and run north-south (**Figure 2**). The 240 Yukon claims have been subdivied, as shown on **Figure 5**, into blocks on which various work was done. The value of work done per claim in each block is shown on **Table 4**.

The Yukon claims have been divided into 15 groups as shown on **Figure 6**. The value of work done on each group is obtained by combining **Figures 5** and **6**, and is summarized in **Table 5**.

TABLE 4

VALUE OF WORK DONE ON EACH CLAIM IN BLOCKS A to E

BLOCK	NO. OF CLAIMS	BASELINE km	BASELINE $310.75/km	CROSSLINE km	CROSSLINE $124.30/km	TIELINES km	TIELINES $77.70/km	SAMPLING No	SAMPLING $14.42	$ per CLAIM: GEOPHYSICS AIR $62.40	MAPPING $50.25	PROSPECTING $15.17	HELICOPTER $163.63	FEES $126.97	TOTAL VALUE	VALUE/ CLAIM
A	91	3.65	$1,134.25	101.8	$12,653.75	9.6	$745.90	2133	$30,757.86	$5,678.40	$ 4,572.75	$1,380.47	$14,890.33	$11,554.27	$ 83,367.98	$916.13
B	9	1.40	435.05	5.65	702.30			142	2,047.64	561.60	452.25	136.53	1,472.67	1,142.73	6,950.77	772.31
C	25	1.55	481.65	9.30	1,156.00			271	3,907.82	-	1,256.25	379.25	4,090.75	3,174.25	14,445.97	577.84
D	60									3,744.00	3,015.00	910.20	9,817.80	7,618.20	25,105.20	418.42
E	55									-	2,763.75	834.35	8,999.65	6,983.35	19,581.10	356.02
TOTALS:																
	240	6.60	$2,050.95	116.75	$14,512.05	9.6	$745.90	2546	$36,713.32	$9,984.00	$12,060.00	$3,640.80	$39,271.20	$30,472.80	$149,451.02	

COST STATEMENT - Apportionment of Costs within Yukon Territory (cont'd)

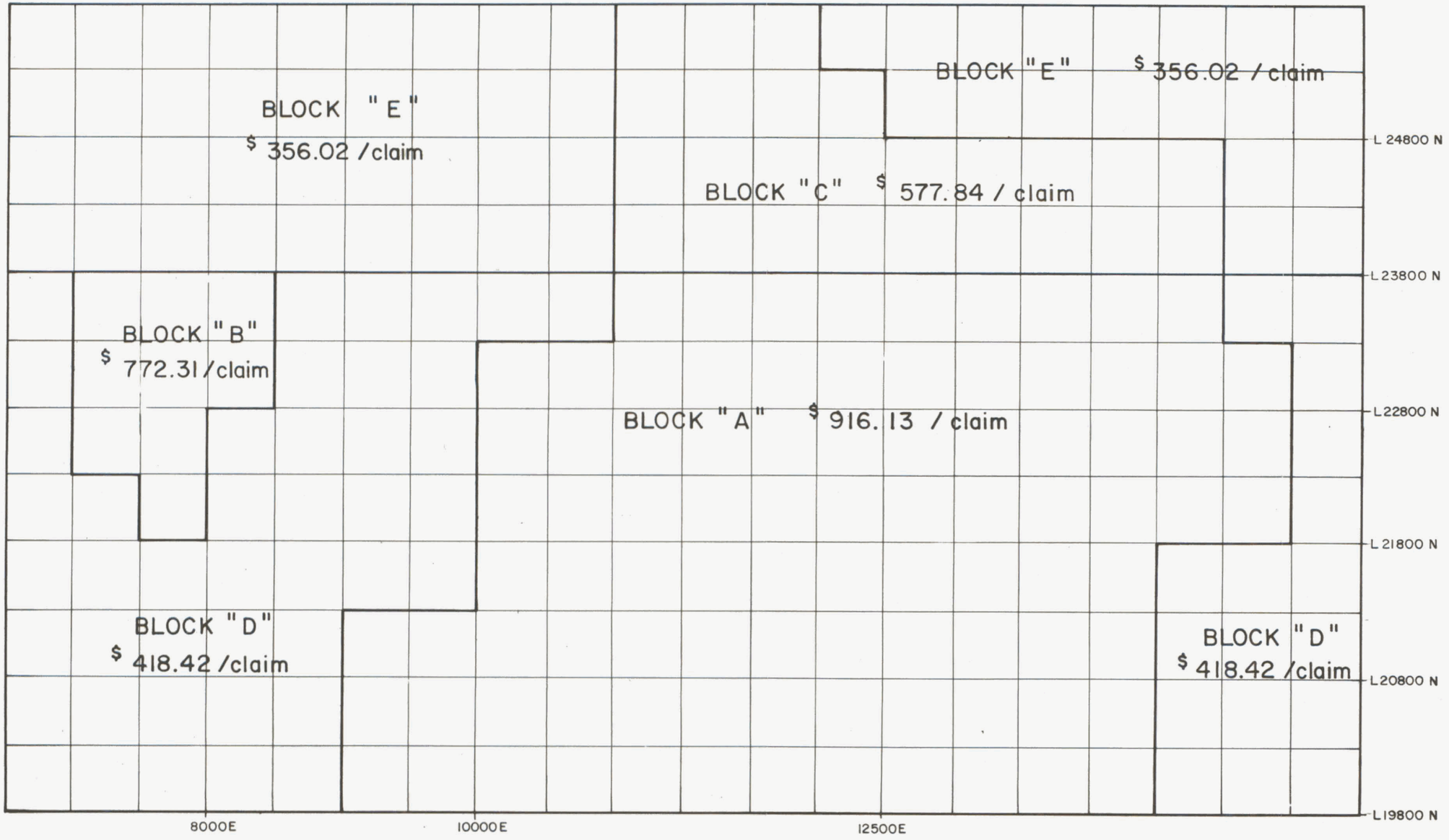
TABLE 5

VALUE OF WORK APPLIED TO EACH GROUP, MID CLAIMS

GROUP	NUMBER OF CLAIMS IN EACH BLOCK					GROUND GEOPHYSICS	TRENCHING	VALUE OF WORK
	A	B	C	D	E			
	$916.13	$772.31	$577.84	$418.42	$356.02			
A	4			12		$	$	$ 8,685
B	3	1		12			2312	10,853
C	2	4		10			777	9,882
D	6	4		6			549	11,645
E	2			1	13		1061	7,939
F	3		2		11			7,820
G	3		4		9			8,263
H	3		7		6			8,929
I	9		6		1			12,068
J	11		2		3			12,301
K	9		2		5	4878		16,058
L	9		2	2	3	4878		16,183
M	8			5	3			10,489
N	5			10	1			9,120
O	14			2				13,662
	91	9	25	60	55			$163,897

GROUND GEOPHYSICS: Mid 54 and 69, Group L, 2 x $2439 = $4878
Mid 56 and 71, Group K, 2 x $2439 = $4878

TRENCHING: Mid 137 and 152, Group B, $2312)
Mid 141 , Group C, $ 777)
Mid 160 , Group D, $ 549)
Mid 162 , Group E, $1061)
From Table 3



REGIONAL RESOURCES LTD.

—//—

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

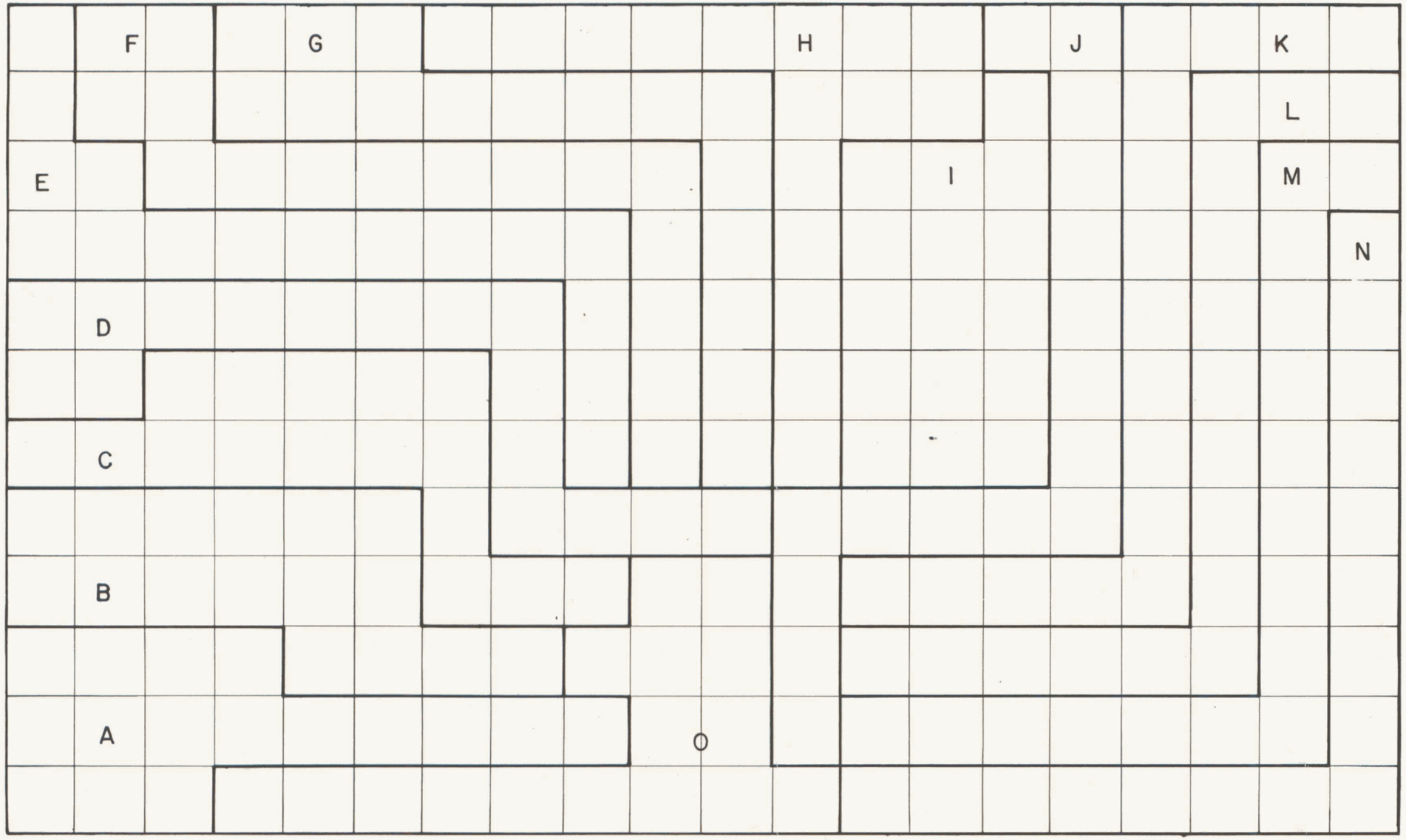
VALUE OF WORK DONE PER BLOCK

SCALE 2 in = 1 mi

Ft 1500 0 3000 6000 9000 10,500 Ft

NOVEMBER 1981 NTS 105 B 1 BY : CORDILLERAN ENGINEERING

FIGURE 5



REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

GROUPING MAP

SCALE 2in = 1mi

Ft 1500 0 3000 6000 9000 10,500 Ft

NOVEMBER 1981 NTS 105 B 1 BY : CORDILLERAN ENGINEERING

FIGURE 6

SUMMARY AND CONCLUSIONS

Mapping and prospecting on the Midway property have resulted in the recognition of specific stratigraphies which host massive sulphide mineralization. These particular lithologic units have been recognized on the Mid claims, and although no massive sulphides have been found, the lateral equivalents (exhalites) of the same horizons have been defined in a number of locations. The presence of exhalites combined with elevated soil geochemical results for Pb, Zn, Ag and Ba over wide areas and local geophysically defined conductors is very encouraging.

RECOMMENDATIONS

The large areas of interest northeast and southwest of Survey Mountain are almost completely overburden covered. To determine the causes of the geochemical/geophysical anomalies will require additional line cutting and expanded geophysical surveys. When targets have been defined, an access road will have to be built and the target areas trenched. Further exploration with a diamond drill may then be required.

CORDILLERAN ENGINEERING

1418 MARINE BUILDING, 355 BURRARD STREET, VANCOUVER, BRITISH COLUMBIA V6C 2G8 TEL: (604) 681-8381

STATEMENT OF QUALIFICATIONS

I, J. J. Hylands, with a business address at 1418 - 355 Burrard Street, Vancouver, British Columbia, V6C 2G8, do hereby certify that I have supervised or carried out the field work and have assessed and interpreted that data from this geological and geochemical sampling program on the Mid claims.

I also certify that:

1. I am a graduate of the University of British Columbia, Vancouver (B.A.Sc. Geological Engineering, Option I, 1966).
2. I have engaged in the study and practice of mineral exploration since graduation, in Canada, the United States and the Phillippines.
3. I am a Professional Engineer registered in the Province of British Columbia.

Respectfully submitted

CORDILLERAN ENGINEERING

J. J. Hylands, P.Eng.

JJH/z
November, 1981
Vancouver, B.C.

CORDILLERAN ENGINEERING

1418 MARINE BUILDING, 355 BURRARD STREET, VANCOUVER, BRITISH COLUMBIA V6C 2G8 TEL: (604) 681-8381

WRITER'S CERTIFICATE

I, Allan R. Hildebrand of Vancouver, British Columbia hereby certify that:

1. I am a geologist residing at 6428 Dunbar Street, Vancouver, British Columbia, and employed by Cordilleran Engineering of 1418 - 355 Burrard Street, Vancouver, B.C., V6C 2G8.

2. I received a Bachelor of Science degree from the Faculty of Geology at the University of New Brunswick, Fredericton, New Brunswick (1977).

3. I am an author of this report which is based on field work conducted from May 29 to October 6, 1981 on behalf of Regional Resources Ltd.

Respectfully submitted

CORDILLERAN ENGINEERING

Allan R. Hildebrand

A. R. Hildebrand, B.Sc.,
Geologist

ARH/z
November, 1981
Vancouver, B.C.

CORDILLERAN ENGINEERING

1418 MARINE BUILDING, 355 BURRARD STREET, VANCOUVER, BRITISH COLUMBIA V6C 2G8 TEL: (604) 681-8381

WRITER'S CERTIFICATE

I, Steven E. Parry, of Squamish, British Columbia hereby certify that:

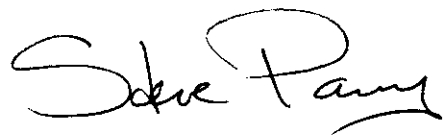
1. I am a geologist residing at 38035 3rd Ave., Squamish, B.C. V0N 3G0, and employed by Amax Minerals Exploration of Suite 601 - 535 Thurlow Street, Vancouver, B.C. V6E 3L6.

2, I received a Bachelor of Science degree from Queen's University, Kingston, Ontario (1977) and a Master of Science degree from the University of Western Ontario, London, Ontario (1979).

3. I am an author of this report which is based on field work conducted during May 29 to October 6, 1981 on behalf of Regional Resources Ltd.

Respectfully submitted

AMAX Minerals Exploration



S. E. Parry, M.Sc.,
Geologist

SEP/z
November, 1981
Vancouver, B.C.

CORDILLERAN ENGINEERING

1418 MARINE BUILDING, 355 BURRARD STREET, VANCOUVER, BRITISH COLUMBIA V6C 2G8 TEL: (604) 681-8381

WRITER'S CERTIFICATE

I, Jeffrey D. Rowe of Vancouver, British Columbia hereby certify that:

1. I am a geologist residing at 121 E 27th St., North Vancouver, B.C., and employed by Cordilleran Engineering of 1418-355 Burrard Street, Vancouver, B.C. V6C 2G8.

2. I received a Bachelor of Science degree from the Faculty of Geology at the University of British Columbia, Vancouver, B.C. (1975).

3. I am an author of this report which is based on field work conducted during May 29 to October 6, 1981 on behalf of Regional Resources Ltd.

Respectfully submitted

CORDILLERAN ENGINEERING

J. D. Rowe, B.Sc.,
Geologist

JDR/z
November, 1981
Vancouver, B.C.

APPENDIX "A"

Statistical Treatment of Analytical Data

APPENDIX "A"

STATISTICAL TREATMENT OF ANALYTICAL DATA

The mean and standard deviation of the soil sample values for Pb, Zn, Ag and Ba were obtained using the following formulae:

$$\text{Log mean } (\log \bar{x}) = \frac{\Sigma\ N \log x}{N}$$

$$\text{Log standard deviation } (\log S_x) = \left(\frac{N(\log x)^2 - ((N\log x)^2 \div N)}{N-1}\right)^{\frac{1}{2}}$$

MIDWAY; LEAD STATISTICS

Range, x, ppm	log x	N	%f	N log x	N (log x)^2
2	0.3	14	0.2	4.2	1.26
3	0.5	18	0.3	9.0	4.50
4	0.6	30	0.5	18.0	10.80
5	0.7	43	0.8	30.1	21.07
6-7	0.8	161	2.9	128.8	103.04
8	0.9	121	2.2	108.9	98.01
9-11	1.0	511	9.1	511.0	511.00
12-14	1.1	725	12.9	797.5	877.25
15-17	1.2	649	11.5	778.8	934.56
18-22	1.3	823	14.6	1069.9	1390.87
23-28	1.4	574	10.2	803.6	1125.04
29-35	1.5	439	7.8	658.5	987.75
36-44	1.6	351	6.2	561.6	898.56
45-56	1.7	235	4.2	399.5	679.15
57-70	1.8	196	3.5	352.8	635.04
71-89	1.9	187	3.3	355.3	675.07
90-112	2.0	139	2.5	278.0	556.00
113-141	2.1	127	2.3	266.7	560.07
142-177	2.2	97	1.7	213.4	469.48
178-223	2.3	63	1.1	144.9	333.27
224-281	2.4	51	0.9	122.4	293.76
282-354	2.5	39	0.7	97.5	243.75
355-446	2.6	20	0.4	52.0	135.20
447-562	2.7	6	0.1	16.2	43.74
563-707	2.8	4	0.1	11.2	31.36
		5623	**100.0**	**7789.8**	**11619.60**

Log $\bar{x}$ = 1.38535 log S_x = 0.38378

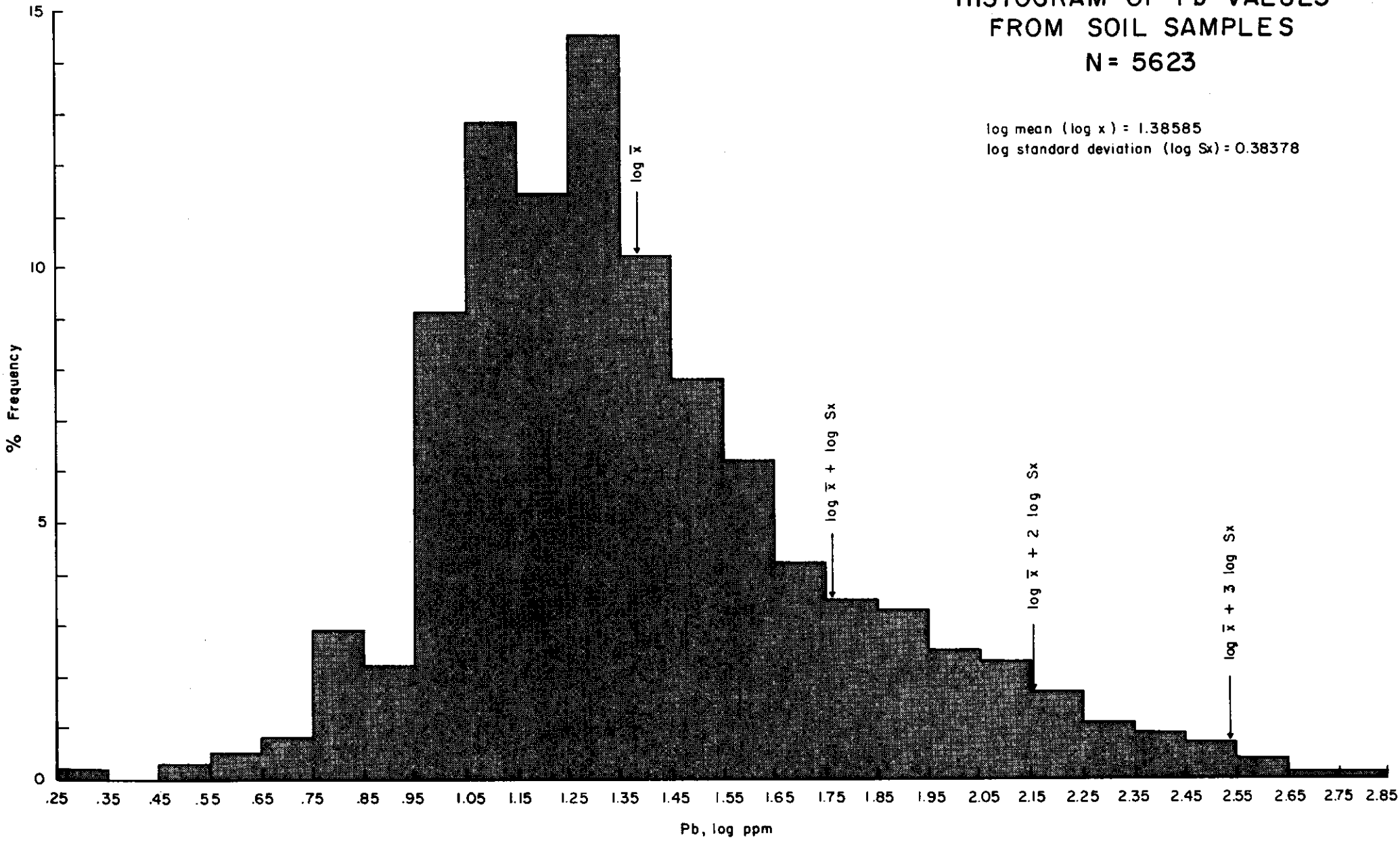
$\bar{x}$ = 24 ppm

log $\bar{x}$ + log S_x = 1.76913 , 59 ppm
log $\bar{x}$ + 2 log S_x = 2.15291 , 142 ppm
log $\bar{x}$ + 3 log S_x = 2.53669 , 344 ppm
log $\bar{x}$ + 4 log S_x = 2.92047 , 833 ppm

MIDWAY PROPERTY

HISTOGRAM OF Pb VALUES FROM SOIL SAMPLES N = 5623

log mean (log x) = 1.38585
log standard deviation (log Sx) = 0.38378



MIDWAY, ZINC STATISTICS

Range, x, ppm	log x	N	%f	N log x	N (log x)^2
5-7	0.8	6	0.1	4.8	3.84
8-11	1.0	0	0	0	0
12-19	1.2	9	0.2	10.8	12.96
20-35	1.4	65	1.1	91.0	127.40
36-50	1.6	232	4.0	371.2	593.92
51-79	1.8	1044	18.2	1879.2	3382.56
80-125	2.0	1767	30.9	3534.0	7068.00
126-199	2.2	1351	23.6	2972.2	6538.84
200-315	2.4	766	13.4	1838.4	4412.16
316-500	2.6	313	5.5	813.8	2115.88
501-800	2.8	144	2.5	403.2	1128.96
801-1258	3.0	27	0.5	51.0	153.00
		5724	100.0	11969.6	25537.52

$\log \bar{x} = 2.09112$ $\quad \log S_x = 0.29781$

$\bar{x} = 123$ ppm

$\log \bar{x} + \log S_x = 2.38893$, 245 ppm

$\log \bar{x} + 2 \log S_x = 2.68674$, 486 ppm

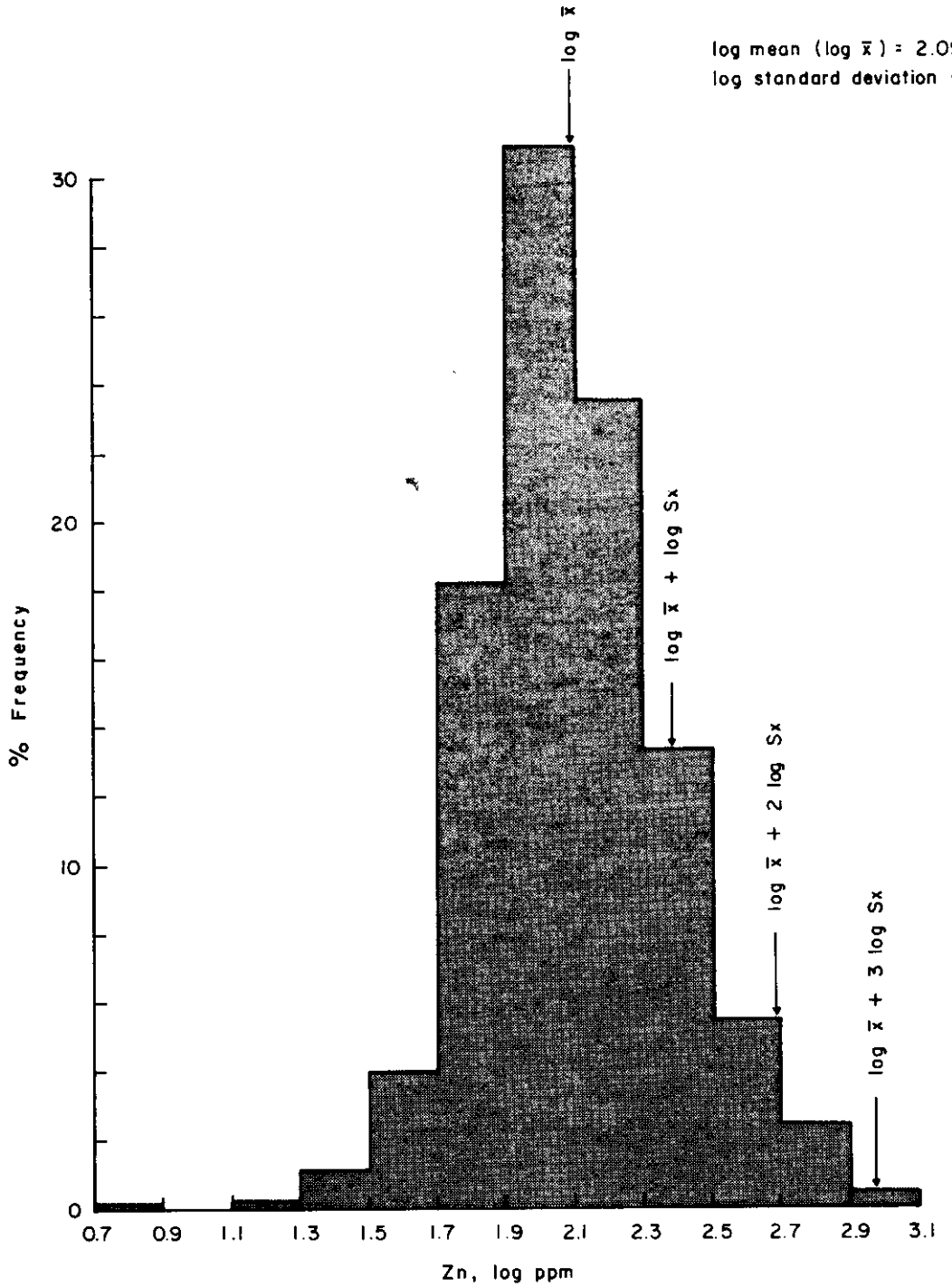
$\log \bar{x} + 3 \log S_x = 2.98455$, 965 ppm

$\log \bar{x} + 4 \log S_x = 3.28236$, 1916 ppm

MIDWAY PROPERTY

HISTOGRAM OF Zn VALUES FROM SOIL SAMPLES N= 5724

log mean (log $\bar{x}$) = 2.09112
log standard deviation (log Sx) = 0.29781



MIDWAY, SILVER STATISTICS

Range, x, ppm	log x	N	%f	N log x	N (log x)^2
0.2	-0.65	2325	40.8	-1511.25	982.31
0.3 - 0.4	-0.45	1108	19.4	- 498.60	224.37
0.5 - 0.6	-0.25	716	12.6	- 179.00	44.75
0.7 - 1.1	-0.05	811	14.2	- 40.55	2.03
1.2 - 1.7	+0.15	373	6.5	55.95	8.39
1.8 - 2.8	+0.35	263	4.6	92.05	32.22
2.9 - 4.4	+0.55	81	1.4	44.55	24.50
4.5 - 7.0	+0.75	22	0.4	16.50	12.38
		5699	99.9	-2020.35	1330.95

$\log \bar{x} = -0.35451$ $\quad \log S_x = 0.32846$

$\bar{x} = 0.44$ ppm

$\log \bar{x} \quad \log S_x = -0.02605$, 0.9 ppm

$\log \bar{x} + 2 \log S_x = 0.30241$, 2.0 ppm

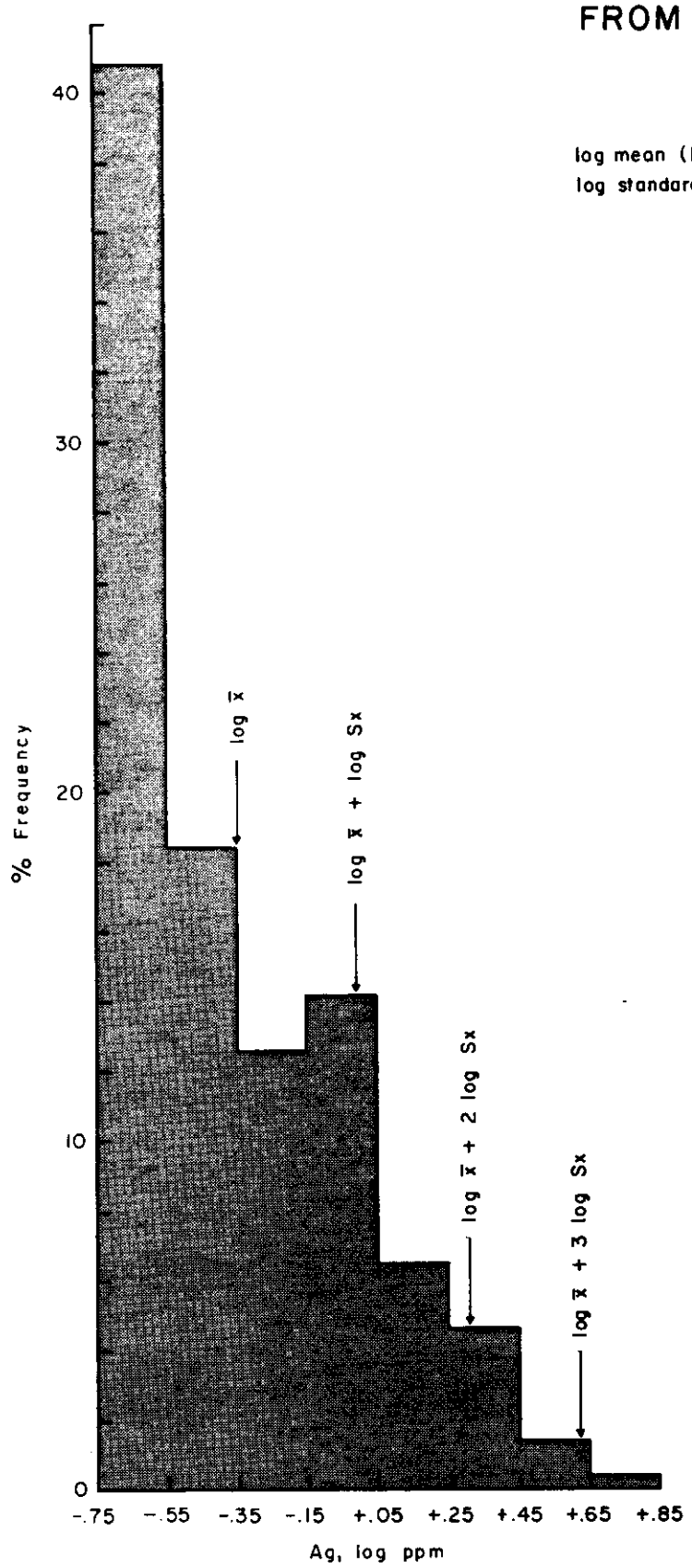
$\log \bar{x} + 3 \log S_x = 0.63087$, 4.3 ppm

$\log \bar{x} + 4 \log S_x = 0.95933$, 9.1 ppm

MIDWAY PROPERTY

HISTOGRAM OF Ag VALUES FROM SOIL SAMPLES N = 5699

log mean ($\log \bar{x}$) = 0.35451
log standard deviation ($\log Sx$) = 0.32846



MIDWAY, BARIUM STATISTICS

Range, x, ppm	log x midrange	N	%f	N log x	N (log x)^2
500-560	2.725	14	0.3	38.15	103.96
570-630	2.775	14	0.3	38.85	107.81
640-710	2.825	23	0.5	64.98	183.55
720-790	2.875	79	1.6	227.12	652.98
800-890	2.925	143	2.8	418.28	1223.45
900-1000	2.975	332	6.6	987.70	2938.41
1010-1120	3.025	553	11.0	1672.82	5060.30
1130-1260	3.075	535	10.6	1645.12	5058.76
1270-1410	3.125	582	11.6	1818.75	5683.59
1420-1580	3.175	539	10.7	1711.32	5433.46
1590-1780	3.225	491	9.8	1583.48	5106.71
1790-2000	3.275	415	8.3	1359.12	4451.13
2010-2240	3.325	291	5.8	967.58	3217.19
2250-2510	3.375	250	5.0	843.75	2847.66
2520-2820	3.425	180	3.6	616.50	2111.51
2830-3160	3.475	116	2.3	403.10	1400.77
3170-3550	3.525	103	2.0	363.08	1279.84
3560-3980	3.575	88	1.8	314.60	1124.70
3990-4470	3.625	73	1.4	264.62	959.27
4480-5010	3.675	60	1.2	220.50	810.34
5020-5620	3.725	52	1.0	193.70	721.53
5630-6310	3.775	38	0.8	143.45	541.52
6320-7080	3.825	36	0.7	137.70	526.70
7090-7940	3.875	16	0.3	62.00	240.25
		5023	**100.0**	**16096.27**	**51785.39**

$\log \bar{x} = 3.20451$ $\quad \log S_x = 0.20188$

$\bar{x} = 1601$ ppm

$\log \bar{x} + \log S_x = 3.40639$, 2549 ppm
$\log \bar{x} + 2 \log S_x = 3.60827$, 4058 ppm
$\log \bar{x} + 3 \log S_x = 3.81015$, 6459 ppm
$\log \bar{x} + 4 \log S_x = 4.01203$, 10281 ppm

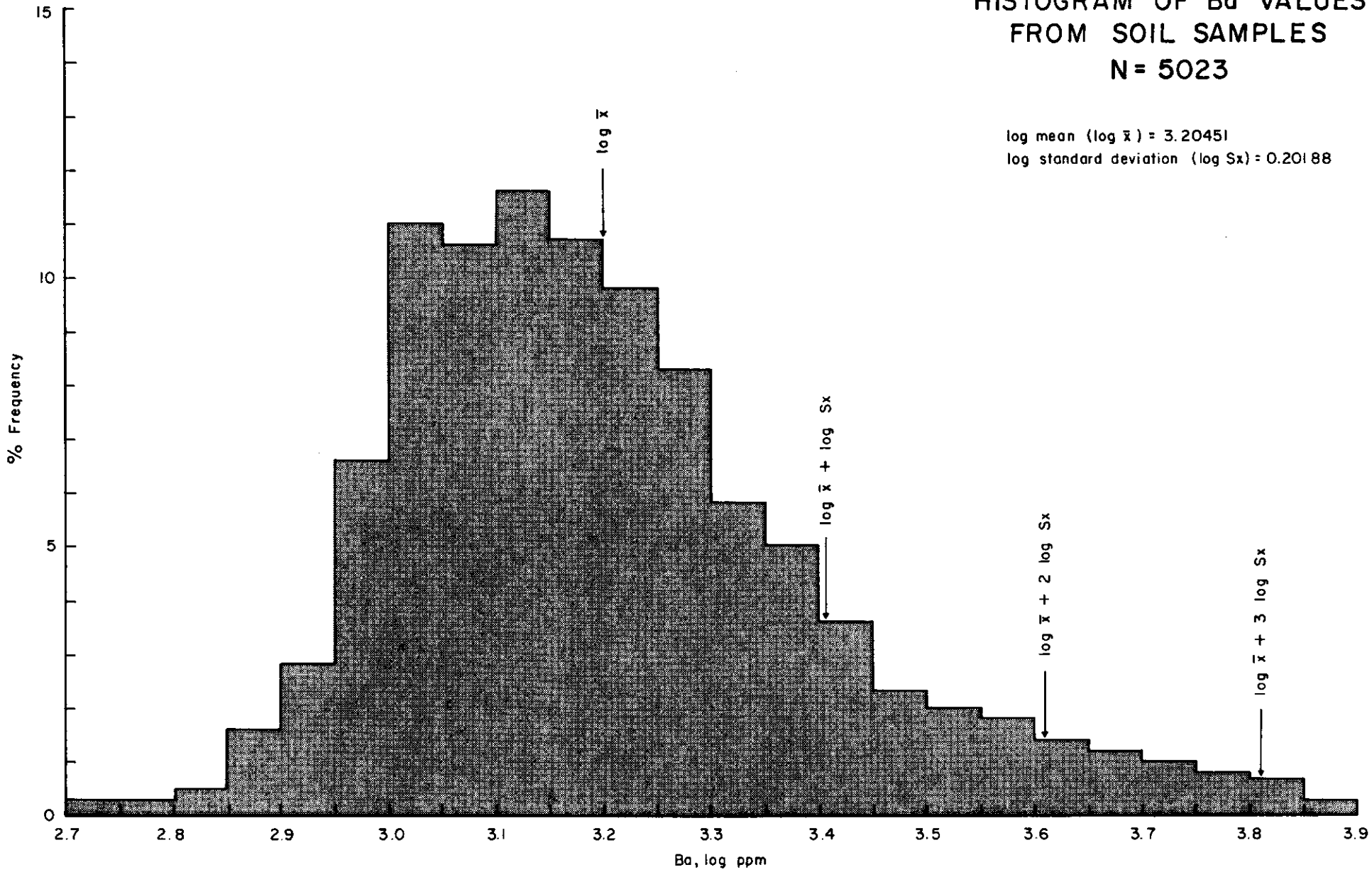
NOTE Approximately 700 Ba results were greater than 8000 ppm

MIDWAY PROPERTY

HISTOGRAM OF Ba VALUES FROM SOIL SAMPLES N = 5023

log mean ($\log \bar{x}$) = 3.20451

log standard deviation ($\log S_x$) = 0.20188



APPENDIX "B"

Analytical Results

APPENDIX "B"

ANALYTICAL RESULTS

NOTE:

CS-2	-	indicates check sample with batch number
DS	-	indicates duplicate sample
SJ,SR	-	indicates prospectors sample
B.C.	-	sample taken in British Columbia

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
19800N	9300E	48	135	0.7		1850	
	9350E	36	110	0.2		1640	
	9400E	38	72	0.2		1520	
	9450E	32	145	0.3		1430	
	9500E	79	201	0.5		1780	
	9550E	83	87	0.9		1680	
	9600E	52	186	0.4		2100	
	9650E	340	605	4.0		2110	
	9700E	460	660	5.5		2770	
	9750E	520	420	4.8		2340	
	9800E	94	280	0.7		2080	
	9850E	97	273	0.4		2400	
	9900E	119	281	1.2		3120	
	9950E	410	420	1.0		2400	
	10000E	32	152	0.8		1830	
	10050E	49	106	0.8		1830	
	10100E	30	134	1.4		1730	
	10150E	45	121	0.3		1990	
	10200E	73	267	0.8		1400	
	10250E	1410	299	3.8		980	
	10300E	174	153	5.4		1100	
	10350E	275	269	0.7		1110	
	10400E	70	187	0.4		980	
	10450E	172	280	1.0		980	
	10500E	350	505	1.4		910	
	10550E	27	80	0.2		810	
	10600E	23	91	0.3		880	
	10650E	34	74	0.2		800	
	10700E	64	145	0.5		990	
	10750E	73	154	0.4		930	
	10800E	36	89	0.2		960	
	10850E	98	125	0.2		840	
	10900E	29	69	0.2		1010	
	10950E	39	77	0.2		1000	
	11000E	27	92	0.2		1180	
	11050E	39	72	0.2		950	
	11100E	37	87	0.2		950	
	11150E	17	76	0.2		6010	
	11200E	79	55	0.2		920	
	11250E	57	78	0.2		1060	
	11300E	78	84	0.2		1100	
	11350E	26	79	0.2		1000	
	11400E	26	72	0.2		1130	
	11450E A	90	1070	1.5		1280	CS-2

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
198N	11450E B	46	121	0.2		2440	
	11500E	51	162	0.5		1320	
	11550E	43	155	0.2		5010	
	11600E	40	287	0.5		2280	
	11650E	59	90	0.2		1560	
	11700E	58	89	0.2		1760	
	11750E	60	124	0.2		1660	
	11800E	56	67	0.2		1920	
	11850E	136	131	2.6		1860	
	11900E	64	104	0.4		1790	
	11950E	78	119	0.4		2180	
	12000E	80	128	0.9		2050	
	12100E	58	104	0.2		1910	
	12150E	65	96	0.2		1930	
	12200E	68	137	0.9		3100	
	12250E	95	287	2.0		6180	
	12300E	115	144	0.5		4650	
	12350E	73	112	0.4		4350	
	12400E	79	135	0.7		7150	
	12450E	58	114	0.2		3930	
	12550E	60	99	0.2		6470	
	12600E	64	161	0.5		2110	
	12650E	46	86	0.2		1160	
	12700E	75	137	0.9		3210	
	12750E	54	106	0.4		1830	
	12800E	47	88	0.2		1130	
	12850E	30	150	0.2		1180	
	12900E	65	382	0.3		1330	
	12950E	72	198	0.6		1380	
	13000E	27	232	0.4		1510	
	13050E	64	166	0.4		1840	
	13100E	39	345	1.5		1740	
	13150E	25	89	0.4		1090	
	13200E	41	88	0.4		940	
	13250E	50	136	0.7		1200	
	13300E	42	121	0.6		970	
	13350E	17	64	0.2		880	
	13400E	34	132	0.4		1020	
	13450E	36	148	0.8		1150	
	13500E	28	235	0.2		1000	
	13550E	23	118	0.5		1040	
	13600E	27	535	1.3		1110	
	13650E	21	206	0.4		970	
	13700E	20	78	0.5		1090	
	13750E	28	125	0.2		890	
	13800E	24	118	1.2		1030	
	13850E	30	122	0.2		1050	
	13900E	25	102	0.2		1130	
	13950E	34	128	0.2		1270	
	14000E	23	99	0.2		1050	
	14050E	54	128	0.2		1120	
	14100E	36	117	0.2		1040	
	14150E	32	69	0.2		1160	
	14200E	27	101	0.2		1000	
	14250E	25	112	0.4		980	
	14300E	26	85	0.2		960	
	14350E	22	86	0.7		980	
	14400E	28	75	0.6		1060	
	14450E	28	78	0.5		1310	
	14500E	29	67	0.2		1150	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
20600N	9250E	96	1090	1.4		2410	CS-2
	9300E	11	58	0.2		1120	
	9350E	18	93	0.2		1120	
	9400E	18	75	0.2		1300	
	9450E	16	78	0.3		1210	
	9500E	14	63	0.2		1120	
	9550E	14	58	0.2		1170	
	9600E	13	73	0.2		1150	
	9650E	30	83	0.2		1540	
	9700E	17	80	0.9		1460	
	9750E	18	79	0.6		1550	
	9800E	19	65	0.3		1340	
	9850E	24	55	0.2		1420	
	9900E	29	108	0.2		1780	
	9950E	17	76	0.2		1380	
	10000E	12	89	0.2		1230	
	10050E	13	63	0.2		1080	
	10100E	19	101	0.2		1230	
	10150E	22	82	0.2		1110	
	10200E	21	73	0.3		1250	
	10250E	20	57	0.2		1260	
	10300E	24	68	0.2		1190	
	10350E	14	67	0.4		1230	
	10400E	17	166	0.2		1050	
	10450E	19	73	0.2		1100	
	10500E	35	182	1.0		1290	
	10550E	22	41	0.2		1090	
	10600E	18	35	0.2		1260	
	10650E	22	97	0.2		1170	
	10700E	47	150	0.3		1220	
	10750E	27	107	0.2		1230	
	10800E	45	144	0.2		1220	
	10850E	42	93	0.2		1220	
	10900E	88	327	1.7		2720	
	10950E	56	105	0.2		1460	
	11000E	28	68	0.4		1240	
	11050E	45	48	0.6		1280	
	11100E	34	103	0.2		1570	
	11150E	145	490	3.1		4100	
	11200E	70	170	0.2		2180	
	11250E	85	137	0.6		2650	
	11300E	42	128	0.6		2070	
	11350E	134	99	0.4		2900	
	11400E	141	93	0.4		2310	
	11450E	186	300	2.7		4680	
20800N	10500E	30	104	0.7		1120	
	10550E	15	62	0.2		1030	
	10600E	16	56	0.3		1020	
	10650E	26	84	0.5		1130	
	10700E	26	25	0.2		1080	
	10750E	29	95	0.2		1380	
	10800E	25	76	0.2		1160	
	10850E	26	94	0.2		1010	
	10900E	25	88	0.2		1110	
	10950E	25	84	0.2		1160	
	11000E	28	108	0.5		1330	
	11050E	26	89	0.2		1210	
	11100E	27	81	0.2		1220	
	11150E	36	100	1.0		1270	
	11200E	25	37	0.3		1170	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
208N	11250E	36	119	0.5		1080	
	11300E	38	124	0.4		1420	
	11350E	340	470	3.0		5990	
	11400E	182	500	1.8		6580	
	11450E	114	259	1.5		4740	
	11500E	91	152	0.6		1770	
	11550E	58	80	0.2		1480	
	11600E	32	159	1.4		1230	
	11650E	38	107	0.2		1310	
	11700E	28	113	0.2		1140	
	11750E	38	137	0.2		1130	
	11800E	50	123	0.4		940	
	11850E	82	112	0.6		940	
	11900E	26	84	0.2		1030	
	11950E	24	239	0.2		1380	
	12000E	20	181	0.2		1170	
	12050E	26	96	0.2		1110	
	12100E	48	126	0.2		1130	
	12150E	79	470	1.1		1260	
	12200E	32	96	0.2		1140	
	12250E	64	96	0.4		1090	
	12300E	28	285	0.6		1080	
	12350E	24	197	1.3		1100	
	12400E	42	106	0.4		1080	
	12450E	34	163	0.3		1080	
	13850E	38	83	0.9		1050	
	13900E	59	84	0.8		900	
	13950E	20	84	0.9		780	
	14000E	16	23	0.2		790	
	14050E	27	21	0.2		2080	
	14100E	68	76	1.0		1250	
	14150E	34	47	0.4		790	
	14200E	50	78	0.2		860	
	14250E	35	62	0.2		780	
21000N	9250E	96	1020	1.6		2420	CS-2
	9300E	14	68	0.2		1160	
	9350E	16	57	0.2		1040	
	9450E	15	60	0.2		1040	
	9500E	14	53	0.2		1170	
	9550E	18	86	0.3		1680	
	9600E	29	151	0.2		1850	
	9650E	15	169	0.2		1410	
	9700E	18	106	0.2		1950	
	9750E	29	127	0.2		2390	
	9800E	8	57	0.2		1250	
	9850E	9	25	0.2		1180	
	9900E	11	43	0.2		1190	
	9950E	8	64	0.2		1360	
	10000E	13	54	0.2		1250	
	10050E	13	37	0.2		1170	
	10100E	16	89	0.2		1780	
	10150E	20	125	0.2		2200	
	10200E	38	80	1.6		1830	
	10250E	37	101	0.2		1410	
	10300E	18	40	0.2		1180	
	10350E	18	67	0.2		1340	
	10400E	16	126	0.3		1290	
	10450E	21	105	0.2		1300	
	10500E	16	110	0.2		1310	
	10550E	18	65	0.3		1550	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
210N	10600E	18	65	0.8		1520	
	10650E	20	75	0.7		1250	
	10700E	14	48	0.4		1040	
	10750E	20	65	0.3		1520	
	10800E	23	60	0.4		1200	
	10850E	16	102	0.9		1050	
	10900E	32	77	0.4		1170	
	10950E	18	89	0.2		1040	
	11000E	18	64	0.2		1050	
	11050E	21	156	0.5		1140	
	11100E	21	117	0.2		1110	
	11150E	18	141	1.0		1050	
	11200E	32	120	0.9		1080	
	11250E	24	73	0.7		1060	
	11300E	24	163	0.7		1170	
	11350E	32	64	0.3		1370	
	11400E	49	101	0.2		1270	
	11450E	110	306	0.6		2620	
	11500E	220	106	1.5		1970	
	11550E	74	113	0.8		1250	
	11600E	134	76	0.5		1090	
	11650E	66	83	0.3		1050	
	11700E	82	140	0.5		1010	
	11750E	104	254	1.4		1010	
	11800E	40	106	0.3		1230	
	11850E	28	90	0.2		1110	
	11900E	26	100	0.2		1050	
	11950E	26	70	0.2		990	
	12000E	48	85	0.2		1240	
	12050E	22	117	0.2		1120	
	12100E	16	88	0.2		1120	
	12150E	27	100	0.2		1020	
	12200E	78	107	0.2		1080	
	12250E	58	118	0.2		1170	
	12300E	22	109	0.4		1080	
	12350E	26	185	0.3		1120	
	12400E	16	87	0.3		990	
	12450E	18	140	1.0		940	
2120ON	10500E	13	94	0.4		1800	
	10550E	10	67	0.3		1820	
	10600E	12	64	0.2		1570	
	10650E	14	122	0.7		1840	
	10700E	12	60	0.4		1470	
	10750E	12	136	0.2		1180	
	10800E	14	59	0.2		1710	
	10850E	12	91	0.2		1270	
	10900E	12	95	0.2		2460	
	10950E	13	120	1.2		1630	
	11000E	10	66	0.2		1240	
	11050E	22	118	0.2		1220	
	11100E	29	151	0.2		1370	
	11150E	47	144	0.2		1570	
	11200E	25	110	0.2		1190	
	11250E	18	117	0.3		1280	
	11300E	18	132	0.7		1150	
	11350E	20	129	1.0		1080	
	11400E	116	490	0.8		3490	
	11450E	129	195	0.4		1190	
	11500E	98	173	0.2		1110	
	11550E	132	415	0.8		1170	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
212 N	11600E	82	530	1.3		950	
	11650E	82	227	3.0		980	
	11700E	151	179	0.9		990	
	11750E	126	148	0.8		960	
	11800E	94	123	0.5		1010	
	11850E	143	120	0.6		960	
	11900E	110	131	0.7		970	
	11950E	29	191	0.6		1030	
	12000E	90	80	1.0		840	
	12050E	94	990	1.8		2450	CS-2
21400N	10500E	18	91	0.2		2460	
	10550E	8	30	0.2		1940	
	10600E	36	117	0.2		2370	
	10650E	20	59	0.2		1420	
	10700E	28	97	0.2		2310	
	10750E	16	59	0.2		1500	
	10800E	16	73	0.2		2170	
	10850E	25	89	0.2		2400	
	10900E	19	92	0.2		2200	
	10950E	16	109	0.2		2250	
	11000E	30	136	0.6		3930	
	11050E	14	136	0.2		2470	
	11150E	18	157	0.7		4570	
	11200E	12	174	0.9		1370	
	11250E	16	110	0.2		2590	
	11300E	18	79	1.6		4250	
	11350E	19	173	0.2		1100	
	11400E	22	78	0.2		1200	
	11450E	106	215	0.6		2970	
	11500E	36	127	0.2		1680	
	11550E	184	275	1.1		1410	
	11600E	86	143	0.4		1230	
	11650E	100	297	0.9		1160	
	11700E	126	215	0.6		1350	
	11750E	103	221	0.6		1040	
	11800E	280	321	1.9		910	
	11850E	260	343	1.7		990	
	11900E	78	379	1.0		1180	
	11950E	200	151	1.0		1380	
	12000E	178	152	0.9		1980	
	12050E	57	169	0.3		1110	
	12100E	32	116	1.2		1000	
	12150E	40	131	0.2		1040	
	12250E	58	143	0.4		1170	
	12300E	34	81	0.8		1010	
	12350E	40	104	0.8		2110	
	12400E	66	157	0.6		1660	
	12450E	60	181	0.3		1290	
	12550E	65	180	0.4		1570	
	12600E	220	885	2.8		3080	
	12650E	82	182	0.4		>20000	
	12700E	56	190	0.2		1130	
	12750E	92	268	1.0		4370	
	12800E	30	68	0.2		4150	
	12850E	132	221	0.9		2060	
	12900E	78	150	0.2		1530	
	12950E	260	540	0.4		2550	
	13050E	130	283	0.7		2340	
	13100E	87	357	0.8		1840	
	13150E	200	278	1.6		1820	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
214N	13200E	110	98	1.0		1470	
	13300E	138	165	1.6		370	
	13350E	140	300	1.0		1740	
	13400E	200	317	1.4		1810	
	13450E	100	226	0.2		1590	
	13500E	240	347	0.2		2000	
	13550E	320	313	0.6		2080	
	13650E	280	316	1.0		1640	
	13700E	240	1850	2.2		3220	
	13750E	480	1440	3.0		2550	
	13850E	280	430	1.5		640	
	13900E	660	251	1.6		850	
	13950E	184	262	0.2		1000	
	14000E	154	530	0.2		1170	
	14050E	104	156	0.5		850	
	14100E	118	217	1.0		770	
	14150E	186	295	0.8		840	
	14200E	128	283	0.3		780	
	14250E	88	140	0.3		550	
	14300E	156	188	1.0		710	
	14350E	120	183	0.4		780	
	14400E	145	272	0.5		730	
	14450E	116	172	0.4		830	
	14500E	124	246	0.7		920	
	14550E	106	730	1.8		2290	CS-1
21600N	10500E	42	180	0.4		3340	
	10550E	18	94	0.2		2460	
	10600E	33	105	0.2		2530	
	10650E	22	65	0.2		1970	
	10700E	28	83	0.2		2100	
	10750E	36	124	0.2		2290	
	10800E	26	89	0.3		1920	
	10850E	22	76	0.2		2180	
	10900E	20	89	0.2		2060	
	10950E	40	102	0.2		1860	
	11000E	26	112	0.2		1840	
	11050E	22	127	0.2		2040	
	11100E	28	156	0.2		2140	
	11150E	18	101	0.4		3230	
	11200E	13	106	0.6		2720	
	11250E	14	133	0.9		1650	
	11300E	16	174	0.8		1310	
	11350E	14	103	0.2		1690	
	11400E	12	76	0.2		1460	
	11450E	18	56	0.2		1090	
	11500E	50	177	0.3		1220	
	11550E	36	81	0.2		1560	
	11600E	620	288	1.2		1440	
	11650E	86	152	0.4		1310	
	11700E	86	120	0.3		1640	
	11750E	58	162	1.0		1470	
	11800E	320	240	1.5		890	
	11850E	174	195	0.8		1150	
	11900E	166	197	0.5		1400	
	11950E	270	142	1.3		1490	
	12000E	25	55	0.2		1080	
	12050E	25	84	0.4		770	
	12100E	78	94	0.6		1220	
	12150E	118	128	0.4		1330	
	12200E	170	140	0.4		1320	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
216N	12250E	230	161	0.5		1320	
	12300E	77	133	0.3		910	
	12350E	56	100	0.2		820	
	12400E	48	148	0.3		1330	
	12450E	74	166	0.3		950	
	12550E	78	273	0.3		910	
	12600E	104	389	0.4		1060	
	12650E	80	144	0.5		880	
	12700E	3200	5200	2.2		3470	
	12750E	132	227	0.5		970	
	12800E	920	1750	4.1		860	
	12850E	930	460	5.4		750	
	12900E	186	225	1.4		910	
	12950E	174	75	0.8		ND	
	13000E	270	328	2.2		1100	
	13050E	154	259	1.4		1310	
	13100E	74	257	1.3		1240	
	13150E	210	360	0.4		1260	
	13200E	127	159	1.2		1010	
	13250E	112	192	0.8		1300	
	13300E	260	430	1.5		1460	
	13350E	240	329	0.8		1290	
	13400E	320	515	1.8		1530	
	13450E	230	391	0.9		810	
	13500E	152	182	0.2		1340	
	13550E	126	205	1.0		1390	
	13600E	160	1290	2.1		3870	
	13650E	148	1300	1.2		1840	
	13700E	230	323	1.3		1000	
	13750E	230	1770	1.6		3930	
	13800E	700	560	1.6		1990	
	13850E	220	317	1.3		1530	
	13900E	120	445	0.9		830	
	13950E	54	368	0.2		460	
	14000E	78	222	0.2		800	
	14050E	138	279	0.7		1270	
	14250E	138	200	0.2		720	
	14300E	92	278	0.3		460	
	14350E	104	382	0.8		950	
	14400E	44	189	0.2		1060	
	14450E	72	208	0.4		730	
	14500E	80	219	0.2		930	
21800N	10500E	41	158	0.4		2810	
	10550E	34	158	0.5		2590	
	10600E	48	354	1.1		4170	
	10650E	34	186	0.4		2320	
	10700E	30	212	0.9		2510	
	10750E	42	168	0.5		2980	
	10800E	31	143	0.2		4190	
	10850E	26	170	0.2		3660	
	10900E	14	194	1.8		1540	
	10950E	23	199	1.6		2980	
	11000E	14	180	1.5		1760	
	11050E	27	65	0.3		3640	
	11100E	20	122	1.4		3600	
	11200E	14	92	0.7		6900	
	11400E	20	211	2.4		3480	
	11450E	24	94	0.2		1200	
	11500E	122	397	1.1		3850	
	11550E	78	332	1.0		1760	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
21BN	11600E	28	83	0.2		1500	
	11650E	34	62	0.4		1290	
	11700E	60	72	0.2		1170	
	11750E	42	86	0.3		1210	
	11800E	68	144	0.6		13260	
	11850E	320	685	1.8		4010	
	11900E	69	167	0.4		9790	
	11950E	78	159	0.3		2550	
	12000E	80	160	0.2		1890	
	12050E	85	233	0.3		2400	
	12100E	148	253	0.6		2520	
	12150E	155	248	0.8		2310	
	12300E	84	224	0.4		5200	
	12350E	100	199	0.7		6500	
	12400E	260	725	0.6		6280	
	12450E	182	500	0.7		6760	
	12600E	270	760	0.9		1970	
	12700E	350	940	2.0		810	
	12750E	490	322	1.8		600	
	12800E	96	155	0.2		610	
	12850E	109	229	0.2		1550	
	12900E	96	219	0.3		1240	
	12950E	150	209	0.9		1190	
	13000E	210	386	0.6		1290	
	13050E	350	367	1.0		210	
	13100E	360	342	0.4		160	
	13150E	168	281	0.5		1390	
	13200E	320	445	2.4		770	
	13250E	340	605	2.7		1690	
	13300E	100	605	0.2		1000	
	13350E	340	940	3.0		1320	
	13400E	78	331	0.5		2870	
	13450E	230	640	1.0		2480	
	13500E	220	505	1.1		2270	
	13550E	270	335	1.4		1840	
	13600E	146	340	0.4		1520	
	13650E	80	186	0.2		1460	
	13700E	120	299	0.2		1540	
	13750E	90	405	0.2		1430	
	13800E	38	140	0.2		1540	
	13850E	172	650	1.1		1400	
	13900E	102	160	0.8		1510	
	13950E	86	289	0.3		2160	
	14100E	310	250	1.6		1880	
	14150E	90	321	0.8		1900	
	14200E	182	780	1.5		1620	
	14250E	123	361	1.0		1860	
	14300E	132	465	1.1		1380	
	14350E	124	384	0.6		1720	
	14400E	99	209	0.8		1490	
	14450E	72	218	0.5		1250	
	14500E	42	133	0.3		1120	
	14550E	97	1090	1.5		2360	cs-2
22000N	10450E	90	1010	1.3		2350	cs-2
	10500E	54	308	0.6		2450	
	10550E	88	171	1.2		2750	
	10600E	32	156	0.4		3940	
	10650E	16	67	0.2		1320	
	10700E	16	95	0.3		3260	
	10750E	24	117	0.7		6000	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
22ON	10800E	15	177	1.0		2200	
	10850E	16	172	0.3		3010	
	10900E	20	81	0.5		1290	
	10950E	70	122	1.6		4010	
	11000E	34	100	0.3		1790	
	11050E	12	141	1.2		2190	
	11100E	8	46	0.2		1020	
	11150E	10	70	0.2		1470	
	11200E	7	46	0.2		970	
	11250E	4	34	0.2		990	
	11300E	8	44	0.2		1010	
	11350E	8	35	0.2		1050	
	11400E	22	158	0.2		1530	
	11450E	9	34	0.2		1050	
	11500E	12	52	0.2		1070	
	11550E	12	121	0.2		1130	
	11600E	16	56	0.2		1150	
	11650E	18	98	0.2		1160	
	11700E	14	98	0.2		1120	
	11750E	17	131	0.2		1050	
	11800E	18	114	0.2		1150	
	11850E	12	97	0.2		1100	
	11900E	108	180	0.2		710	
	11950E	56	111	0.3		6510	
	12000E	32	101	0.2		1610	
	12050E	30	165	0.2		1340	
	12100E	27	121	0.2		1550	
	12150E	22	102	0.2		1450	
	12200E	30	109	0.2		1270	
	12250E	94	166	0.3		1110	
	12300E	132	177	0.6		1580	
	12350E	39	227	0.2		1140	
	12400E	103	163	0.2		1050	
	12450E	26	128	0.2		910	
	12500E	30	192	0.2		1110	
	12550E	28	116	0.2		1090	
	12600E	22	92	0.2		1260	
	12650E	32	71	0.2		1220	
	12700E	260	253	0.9		1340	
	12750E	210	275	0.9		1560	
	12800E	98	205	0.5		1660	
	12850E	126	184	1.0		2070	
	12900E	108	190	0.2		1390	
	12950E	159	300	1.0		1700	
	13000E	164	415	0.9		810	
	13050E	340	410	1.6		1270	
	13100E	128	235	0.2		1420	
	13150E	173	307	0.4		1710	
	13200E	158	236	0.4		1350	
	13250E	120	283	0.9		1710	
	13300E	148	215	1.1		1950	
	13350E	132	297	0.8		1060	
	13400E	105	203	0.6		1240	
	13450E	78	183	0.2		1290	
	13500E	51	214	0.2		1460	
	13550E	42	373	0.3		1550	
	13600E	320	310	0.6		1710	
	13650E	156	785	0.7		1500	
	13700E	78	285	0.2		1630	
	13750E	30	123	0.2		1250	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
220N	13800E	30	78	0.2		1520	
	13900E	172	545	1.0		1590	
	13950E	200	470	0.2		1330	
	14000E	430	520	1.2		1300	
	14050E	108	450	0.4		1480	
	14100E	44	217	0.2		1580	
	14150E	94	278	0.7		2090	
	14250E	150	680	1.0		1900	
	14300E	132	510	0.6		1920	
	14350E	110	378	1.2		1590	
	14400E	102	317	0.4		1520	
	14450E	52	138	0.3		1770	
	14500E	80	249	0.4		1790	
	14550E	107	770	1.8		2360	CS-1
22200N	14600E	50	179	0.3		1550	
	14650E	50	165	0.2		1310	
	14700E	28	144	0.2		1300	
	14750E	48	180	0.6		1390	
	14800E	36	151	0.4		1930	
	14850E	36	182	0.6		1660	
	14900E	32	212	0.5		1590	
	14950E	30	196	0.5		1820	
	15000E	38	228	0.4		1490	
	15050E	36	193	0.3		1610	
	15100E	30	175	0.2		1780	
	15150E	37	158	0.3		1720	
	15200E	46	208	0.4		1740	
	15250E	42	206	0.4		2320	
	15300E	30	181	0.2		1630	
	15350E	46	219	0.2		1450	
	15400E	42	127	0.2		890	
	15450E	40	151	0.2		1170	
	15500E	33	155	0.2		1450	
	15550E	98	1110	1.4		2380	CS-2
S.J. 30		24	398	1.0		2610	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
20000N-10550E		44	224	0.6	1270	
	10600E	49	81	1.7	1720	
	10650E	940	136	3.7	1910	
	10700E	35	152	0.3	1380	
	10750E	28	73	0.7	950	
	10800E	32	54	0.3	1130	
	10850E	41	62	0.4	1090	
	10900E	32	70	0.5	970	
	10950E	45	84	0.2	870	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
20000N-10400E		99	800	1.7	2180	CS-1
10500E		52	211	0.6	1150	
11000E		36	68	0.5	1010	
11050E		27	56	0.2	1070	
11100E		30	79	0.2	900	
11150E		34	81	0.5	1000	
11200E		42	79	0.2	1540	
11250E		42	67	0.3	1030	
11300E		87	99	0.8	2180	
11350E		59	95	0.4	1880	
11400E		146	111	1.2	1950	
11450E		92	69	0.4	2120	
11500E		97	80	0.3	2180	
11550E		73	110	0.3	1890	
11600E		82	66	0.5	1840	
11650E		63	91	0.6	1880	
11700E		93	82	0.4	2470	
11750E		75	94	0.3	2030	
11800E		73	101	0.6	2090	
11850E		51	64	0.4	1800	
11900E		76	59	1.0	2490	
11950E		129	134	0.6	2550	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 131-1847 PAGE 10

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
200N						
12000E		108	162	2.2	6830	
12050E		71	109	0.7	3360	
12100E		67	340	2.2	4480	
12150E		63	285	1.7	9170	
12200E		55	159	1.4	11250	
12250E		47	111	0.4	>20000	
12300E		39	88	0.4	>20000	
12350E		64	97	0.6	>20000	
12400E		40	74	0.3	>20000	
12450E		36	86	0.2	>20000	
12550E		39	60	0.3	>20000	
12600E		76	121	0.6	17850	
12650E		35	84	0.2	1540	
12700E		45	115	0.2	1540	
12750E		43	112	0.4	1190	
12800E		51	139	0.5	1220	
12850E		23	311	0.5	1180	
12900E		45	151	0.8	1370	
12950E		27	225	0.9	1060	
13000E		35	121	0.4	1020	
13050E		18	89	0.7	1020	
13100E		32	154	0.7	1180	
13150E		40	142	0.3	>20000	
13200E		30	83	0.3	1290	
13250E		29	82	0.3	1680	
13300E		29	235	2.3	1160	
13350E		36	192	0.6	1150	
13400E		22	117	0.3	940	
13450E		24	182	0.3	1090	
13500E		28	189	0.7	1070	
13550E		25	156	0.5	980	
13600E		20	127	0.4	920	
13650E		22	129	0.3	830	
13700E		16	108	0.3	980	
13750E		15	105	0.4	1010	
13800E		27	122	0.3	980	
13850E		21	54	0.2	980	
13900E		23	89	0.7	1100	
13950E		34	112	0.4	1060	
14000E		55	136	0.3	1270	
14050E		32	51	0.2	1110	
14100E		25	109	0.3	1660	
14150E		18	65	0.3	890	
14200E		17	90	0.2	1130	
14250E		25	55	0.2	1400	
14300E		27	82	0.3	1570	
14350E		23	94	0.2	1440	
14400E		24	87	0.3	1050	
14450E		32	118	0.2	1220	
14500E		25	69	0.2	1320	
14550E		92	1140	1.7	2340	cs-2
20200N-9250E		101	850	1.8	2240	cs-1
9300E		23	168	0.2	1220	
9350E		36	94	0.2	1610	
9400E		44	52	1.4	1760	
9450E		35	106	0.2	1790	
9500E		27	101	0.7	2220	
9550E		9	13	1.0	1070	
9600E		19	94	0.2	1220	
9650E		28	78	0.8	2100	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 131-1847 PAGE 11

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
202N						
9700E		34	95	0.2	1440	
9750E		950	240	4.8	2040	
9800E		26	88	1.0	1580	
9850E		36	123	0.2	2380	
9900E		23	121	0.6	1360	
9950E		17	85	0.2	1320	
10000E		15	70	0.2	1160	
10050E		17	125	0.2	1320	
10100E		19	76	0.3	1580	
10150E		58	242	1.5	1930	
10200E		36	120	0.3	1420	
10250E		28	68	0.2	1240	
10300E		27	238	0.8	1400	
10350E		30	68	1.2	1520	
10400E		66	177	0.6	1110	
10450E		81	111	0.7	1500	
10500E		21	125	0.2	1690	
10550E		72	123	1.0	1190	
10600E		58	295	1.0	1630	
10650E		195	126	1.1	1310	
10700E		71	98	0.5	1130	
10750E		30	36	0.2	1880	
10800E		32	78	0.2	1130	
10850E		23	83	0.2	1260	
10900E		62	72	0.3	1360	
10950E		119	120	3.5	2360	
11000E		60	75	0.4	1360	
11050E		46	80	0.2	1390	
11100E		35	80	0.3	1320	
11150E		23	88	0.2	4260	
11200E		45	94	0.2	2690	
11250E		138	122	1.9	2590	
11300E		124	445	5.1	4790	
11350E		303	110	0.6	2060	
11400E		125	105	0.3	2490	
11450E		162	110	0.4	2290	
11500E		83	91	0.4	2070	
11550E		128	154	0.8	2350	
11600E		175	118	0.7	2680	
11650E		118	113	0.4	2130	
11700E		79	98	1.1	1870	
11750E		160	133	0.5	1830	
11800E		64	127	0.7	8500	
11850E		71	138	0.9	5280	
11950E		21	60	1.1	IS	
12000E		28	62	0.2	12400	
12050E		33	74	0.3	4310	
12100E		34	81	0.7	2220	
12150E		25	29	0.5	1600	
12200E		32	59	0.4	1950	
12250E		29	54	0.3	1890	
12300E		43	60	0.2	1410	
12350E		48	70	0.3	1270	
12400E		72	65	0.5	1380	
12450E		60	60	0.7	1160	
12500E		33	140	0.9	1100	
12550E		23	257	0.3	1160	
12600E		24	189	0.2	1150	
12650E		34	320	0.2	1370	
12700E		30	67	0.2	1000	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
202N						
12750E		21	63	0.4	710	
12800E		55	116	1.5	1390	
12850E		40	84	0.6	1120	
12900E		40	81	0.7	1170	
12950E		38	142	0.5	1080	
13000E		36	93	0.3	1130	
13050E		21	72	0.2	1050	
13100E		22	99	0.4	780	
13150E		33	102	0.2	850	
13200E		15	99	0.2	770	
13250E		21	91	0.2	1040	
13300E		31	130	0.2	1130	
13350E		26	69	0.2	1290	
13400E		62	70	0.5	1590	
13450E		23	102	0.4	1110	
13500E		31	32	0.2	1450	
13550E		23	53	0.6	1090	
13600E		25	56	0.2	1400	
13650E		32	113	0.2	1500	
13700E		17	111	0.2	910	
13750E		17	122	0.6	990	
13800E		15	78	1.5	1130	
13850E		18	114	0.2	1040	
13900E		32	86	0.2	1240	
13950E		19	79	0.2	950	
14000E		39	93	0.2	1420	
14050E		137	18	0.3	1250	
14100E		53	20	1.4	3100	
14150E		16	5	0.4	1280	
14200E		12	38	0.4	880	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
14250E		23	49	0.2	990	
14300E		31	18	0.2	740	
14350E		37	55	0.2	1020	
14400E		31	49	0.2	990	
14450E		19	42	0.2	1000	
14500E		20	47	0.3	1030	
14550E		93	760	1.5	2240	c s-1
20400N-10450E		89	810	1.4	2280	c s-1
10500E		22	95	0.2	1300	
10550E		74	123	2.0	2180	
10600E		27	78	0.4	1810	
10650E		141	269	4.7	1590	
10700E		32	144	0.2	1390	
10750E		32	81	0.2	1470	
10800E		43	74	0.4	2090	
10850E		17	46	0.2	1360	
10900E		16	39	0.2	1160	
10950E		21	50	0.2	1350	
11000E		202	635	3.7	4200	
11050E		39	73	0.6	1410	
11100E		30	79	0.2	2130	
11150E		21	58	0.4	2120	
11200E		23	104	0.2	1730	
11250E		33	94	0.4	1980	
11300E		63	85	2.2	1420	
11350E		116	165	1.2	3500	
11400E		82	67	0.5	2130	
11450E		1190	157	2.4	3060	
11500E		278	164	4.0	4180	
11550E		112	118	0.6	2890	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
204N						
11600E		116	280	1.5	8390	
11700E-A		73	111	0.6	>20000	
11700E-B		15	63	0.2	1090	DS?
11750E		77	143	1.1	15650	
11900E		42	70	0.2	2760	
11950E		24	59	0.2	1150	
12000E		21	93	0.2	1240	
12050E		24	84	0.2	1130	
12100E		36	113	0.6	1020	
12150E		25	109	0.4	1070	
12200E		24	87	0.2	1000	
12300E		20	52	0.2	850	
12350E		20	105	0.2	930	
12400E		33	164	0.5	1180	
12450E		35	132	0.3	1360	
12500E		20	180	0.2	1200	
12550E		24	221	0.4	1020	
12600E		30	275	0.6	1340	
12650E		28	154	0.2	970	
12700E		34	200	1.4	1390	
12750E		22	138	0.8	1010	
12800E		24	200	0.6	1010	
12850E		16	267	0.6	980	
12900E		13	195	0.5	1040	
12950E		21	145	0.5	920	
13000E		29	88	0.2	860	
13050E		34	88	0.3	710	
13100E		23	92	0.2	880	
13150E		27	94	0.2	990	
13200E		23	82	0.4	1080	
13250E		18	107	0.2	850	
13300E		15	114	0.6	950	
13350E		37	131	0.2	1070	
13400E		22	89	0.3	1110	
13450E		27	98	0.5	950	
13500E		168	635	0.9	1630	
13550E		35	103	0.4	1210	
13600E		31	95	0.6	1490	
13650E		17	109	0.5	1420	
13700E		26	105	0.2	1730	
13750E		55	197	0.3	2370	
13800E		3	6	0.2	950	
13850E		14	23	0.2	1120	
13900E		124	44	0.8	1000	
13950E		30	42	2.2	1410	
14000E		18	23	0.2	1050	
14050E		12	62	2.6	900	
14100E		12	55	0.4	950	
14150E		16	35	0.3	790	
14200E		10	20	0.2	890	
14250E		11	51	0.2	920	
14300E		14	64	0.2	970	
14350E		44	930	0.2	560	
14400E		174	695	0.4	1290	
14450E		69	234	0.2	1100	
14500E		27	120	0.2	840	
14550E		87	730	1.8	2340	CS-1
14600E		95	820	1.9	2250	CS-1
20600N-11500E		176	386	2.7	7370	
11550E		69	231	0.3	16350	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1847 PAGE 14

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
206N						
11600E		59	102	0.3	4000	
11650E		45	114	0.3	8530	
11700E		48	80	0.4	7890	
11750E		50	81	0.4	1650	
11800E		54	124	0.2	1910	
11850E		35	155	0.2	1240	
11900E		80	98	1.0	1190	
11950E		28	140	0.6	1180	
12000E		21	91	0.4	1030	
12150E		34	133	0.2	1080	
12200E		22	98	0.3	1140	
12250E		38	113	0.2	1160	
12300E		26	186	0.3	1160	
12350E		37	260	0.4	1390	
12400E		29	155	0.2	1050	
12450E		34	111	0.4	1000	
12550E		41	102	0.4	1050	
12600E		29	342	1.5	1000	
12650E		39	279	1.1	1020	
12700E		44	306	0.7	1280	
12750E		109	215	0.4	940	
12800E		107	126	1.0	930	
12850E		104	242	0.3	1170	
12900E		63	101	0.3	1030	
12950E		28	142	0.3	1090	
13000E		29	240	0.3	1080	
13050E		51	125	0.3	1000	
13100E		65	127	0.8	980	
13150E		53	126	0.3	870	
13200E		41	475	0.3	890	
13250E		64	171	0.2	1050	
13300E		41	107	0.2	1140	
13350E		37	138	0.4	1030	
13400E		114	213	0.6	1130	
13450E		70	115	0.4	1330	
13500E		52	78	0.4	1480	
13550E		39	87	0.3	1560	
13600E		66	72	0.3	1680	
13650E		23	54	1.0	1780	
13700E		58	64	0.3	2170	
13750E		38	75	0.2	1130	
13800E		23	89	0.2	1060	
13850E		30	74	0.3	1350	
13900E		10	97	0.2	960	
13950E		41	292	0.7	2650	
14000E		11	46	0.2	920	
14050E		17	49	0.3	920	
14100E		14	72	0.7	890	
14150E		16	55	0.3	860	
14200E		12	86	0.4	890	
14250E		35	96	0.3	1040	
14300E		18	131	0.7	920	
14350E		20	95	0.8	980	
14400E		10	54	0.4	830	
14450E		25	70	0.4	2140	
14500E		44	83	0.2	970	
14550E		80	1070	1.5	2300	
20800N-12500E		20	341	0.4	1190	CS-2
12550E		37	279	0.3	1190	
12600E		12	104	0.3	940	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
20+00N						
12650E		25	108	0.3	1000	
12700E		41	93	0.6	980	
12750E		19	79	0.2	960	
12800E		25	150	0.2	990	
12850E		24	105	0.3	990	
12900E		28	141	0.5	1080	
12950E		36	148	0.3	1020	
13000E		28	112	0.2	1010	
13050E		29	75	0.2	980	
13100E		37	74	0.4	980	
13150E		125	185	0.8	1150	
13200E		40	122	0.2	1120	
13250E		37	89	0.8	1030	
13300E		68	119	0.2	1140	
13350E		164	136	0.4	1560	
13400E		97	143	0.3	1150	
13450E		86	187	1.2	1220	
13500E		62	56	0.3	1000	
13550E		146	400	3.6	5380	
13600E		119	60	0.3	1340	
13650E		37	89	0.6	890	
13700E		65	71	0.3	1340	
13750E		36	44	0.4	1100	
13800E		108	117	0.7	710	
13850E		3	6	0.6	1040	
14300E		66	21	0.8	820	
14350E		43	51	0.2	810	
14400E		39	62	0.2	430	
14450E		24	31	0.2	500	
14500E		48	66	0.2	150	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
21000N-12500E		28	199	0.4	1040	
12550E		18	170	0.5	980	
12600E		22	166	0.8	1030	
12650E		29	82	0.7	910	
12700E		85	117	0.3	920	
12750E		17	110	0.2	910	
12800E		57	134	0.5	960	
12850E		42	129	0.2	1030	
12900E		43	125	0.2	990	
13000E		74	164	0.4	930	
13050E		109	62	0.6	1060	
13100E		42	93	0.3	1000	
13150E		139	72	0.5	1080	
13200E		76	145	0.2	1600	
13250E		63	277	0.4	1630	
13300E		95	445	0.3	2040	
13450E		122	113	0.4	1530	
13500E		118	258	1.6	2730	
13600E		221	1180	2.0	4060	
13700E		66	75	0.6	1080	
13750E		108	109	0.8	1080	
13800E		4	7	0.6	1920	
13850E		72	21	0.8	920	
13900E		47	53	0.2	960	
13950E		41	65	0.2	730	
14000E		24	33	0.2	830	
14050E		53	66	0.2	840	
14100E		25	70	0.7	860	
14150E		21	55	0.2	810	
14200E		27	49	0.2	720	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
21ON						
14250E		26	38	0.2	860	
14300E		27	62	0.6	790	
14350E		23	65	0.7	810	
14400E		24	60	0.2	780	
14450E		14	34	0.2	1960	
14500E		10	16	0.2	90	
14550E		95	755	1.6	2240	CS-1
21200N-12050E		152	165	1.2	970	
12100E		33	206	1.0	1030	
12150E		56	246	0.8	1130	
12200E		97	171	1.5	1310	
12250E		100	156	1.5	1750	
12300E		97	166	0.9	1400	
12350E		325	93	1.6	1950	
12400E		65	208	1.0	1620	
12450E		32	126	0.8	1580	
12500E		42	123	0.8	1490	
12550E		113	215	1.2	1440	
12600E		95	189	0.8	1570	
12650E		101	124	0.9	1190	
12700E		115	149	0.9	1730	
12750E		39	98	0.5	1140	
12800E		238	81	0.8	1210	
12850E		56	74	0.7	1260	
12900E		49	88	0.3	980	
12950E		190	425	1.9	1580	
13000E		155	400	0.3	1650	
13050E		175	805	2.0	7490	
13100E		71	390	0.8	2320	
13150E		101	337	0.7	1860	
13200E		90	331	1.0	1920	
13250E		175	520	1.0	1860	
13300E		226	675	2.2	1530	
13350E		235	515	1.0	1540	
13400E		130	355	1.1	2230	
13450E		86	200	0.4	1500	
13500E		72	148	0.8	2650	
13550E		104	213	1.0	2130	
13700E		346	630	1.2	9470	
13750E		218	196	1.4	1240	
13800E		450	76	1.7	1250	
13850E		185	46	1.6	1000	
13900E		371	500	3.6	620	
13950E		101	190	0.6	710	
14000E		72	77	0.3	730	
14050E		78	78	0.3	790	
14100E		72	107	0.2	720	
14150E		77	128	0.2	750	
14200E		71	96	0.2	590	
14250E		90	127	0.2	600	
14300E		62	228	0.7	790	
14350E		156	101	0.3	650	
14400E		41	72	0.2	430	
14450E		58	113	0.3	660	
14500E		81	136	0.2	740	
14550E		83	1055	1.4	2300	CS-2

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130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-1933

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	W PPM	Ba PPM	NOTES
12500E	19800N	54	108	1.0		5980	
	19850N	60	162	1.1		2650	
	19900N	31	73	0.4		8460	
	19950N	49	79	0.4		>20000	6*
	20000N	51	65	1.0		>20000	6*
	20050N	27	84	0.2		12000	
	20100N	60	81	0.4		>20000	6*
	20150N	41	81	0.2		1220	
	20200N	38	178	1.7		1220	
	20250N	64	105	0.5		1030	
	20300N	33	585	0.4		1850	
	20350N	37	196	0.3		1240	
	20400N	27	154	0.2		1150	
	20450N	49	148	0.2		990	
	20500N	900	383	6.8		1100	
	20550N	68	322	1.4		1060	
	20600N	66	405	1.4		1130	
	20650N	58	180	0.5		1300	
	20700N	33	180	0.2		1030	
	20750N	40	206	0.3		1040	
	20850N	73	194	0.5		1000	
	20900N	46	153	0.7		1300	
	20950N	20	170	0.3		950	
	21050N	35	108	0.2		950	
	21100N	31	94	0.4		970	
	21150N	139	137	1.2		1300	
	21250N	46	160	0.8		1660	
	21300N	40	134	1.0		1600	
	21350N	30	93	0.6		2230	
	21400N	51	188	0.4		2350	
	21450N	63	191	0.6		1840	
	21500N	81	223	0.6		1950	
	21550N	40	99	0.2		1320	
	21600N	54	106	0.2		1110	
	21650N	42	123	0.2		890	
	21700N	240	540	0.8		7160	

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ORIGINAL

Geochemical Lab Report

Midway #8

REPORT: 121-2129
FROM: CORDILLERAN ENGINEERING LTD. SUBMITTED BY: J.J. HYLANDS

DATE: 23-AUG-81 PROJECT: MIDWAY

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Pb	2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100	PREPARED PULP	AS RECEIVED, NO SP
Zn	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100		
As	.1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100		
Ba	20 PPM		X-RAY Fluorescence	-100		

REPORT COPIES TO: CORDILLERAN ENGINEERING
MR. J. J. HYLANDS

INVOICE TO: CORDILLERAN ENGINEERING

REMARKS: SHIPMENT# 8
PO# 358, 359, 360, 361, 362
SAMPLE #23000N-12750 SEMI-QUANT BA ASSAY 3.8%
INSERT FOR SAMPLE NUMBER

	AG PPM	PB PPM	ZN PPM	BA PPM
22600N-15550E	2.0	86	920	2350
22800N-11950E	0.4	15	212	1050
23000N-12950E	1.2	635	580	810

SAMPLE #23000N-15550 SHOULD READ 15500.

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
12500E	21850N	153	371	1.3	4080	
	21900N	38	92	0.3	1450	
	21950N	34	193	0.3	1300	
	22050N	131	208	0.8	960	
	22100N	116	225	0.4	790	
	22150N	37	222	0.3	900	
	22200N	55	119	0.3	1260	
	22250N	2630	542	8.8	1800	
	22300N	37	221	0.6	1580	
	22350N	45	279	0.3	1460	
	22400N	13	158	0.2	200	
	22450N	68	263	0.2	1460	
	22500N	59	183	0.2	1210	
	22550N	96	436	0.3	12750	
	22600N	134	562	0.4	1480	
	22650N	151	304	0.9	2620	
	22700N	72	342	0.2	800	
	22750N	103	689	0.3	1660	
	22800N	67	141	0.3	6260	
	22850N	31	123	0.9	5170	
	22900N	15	71	0.2	1270	
	22950N	29	52	0.6	1990	
	23000N	29	26	0.6	1940	
	23050N	14	31	0.4	1010	
	23100N	20	53	0.2	1040	
	23150N	16	22	0.2	980	
	23200N	56	13	0.2	1190	
	23250N	15	86	0.3	1460	
	23300N	13	33	0.2	1110	
	23350N	48	102	0.2	1320	
	23400N	10	72	0.3	1230	
	23450N	10	72	0.3	970	
	23500N	13	57	0.2	1300	
	23550N	10	71	0.2	940	
	23600N	10	64	0.2	1090	
	23650N	9	58	0.2	1030	
	23700N	15	102	0.2	1500	
	23750N	8	61	0.2	1170	
	23800N	18	77	0.4	2550	
	23850N	13	80	0.3	2040	
	23900N	20	119	0.2	2470	
	23950N	12	55	0.2	1410	
	24000N	16	63	0.2	2290	
	24050N	13	63	0.3	2240	
	24100N	8	56	0.2	1650	
	24150N	8	43	0.2	1640	
	24200N	12	62	0.2	1800	
	24250N	10	59	0.2	1600	
	24300N	13	69	0.2	1770	
	24350N	14	88	0.2	1830	
	24400N	13	98	0.2	1590	
	24450N	16	94	0.2	1720	
	24500N	15	66	0.2	1350	
	24600N	97	48	0.2	1350	
	24650N	1150	124	0.3	1800	
	24750N	26	41	0.3	2930	
	24800N	12	44	0.2	1560	
	24850N	9	40	0.2	1270	
	24900N	7	54	0.2	1610	
	24950N	8	34	0.2	1470	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
125E	25000N	11	36	0.2	1280	
11800N-	5450EX	260	120	2.9	3100	B.C.
21000N-	9400E	10	85	0.2	1050	
22200N-	10300E	86	721	1.4	2250	CS-1
	10350E	9	42	0.2	1030	
	10400E	16	63	0.2	1160	
	10450E	7	43	0.2	1030	
	10500E	8	38	0.2	1000	
	10550E	11	52	0.2	1390	
	10600E	5	33	0.2	1000	
	10650E	8	48	0.2	1040	
	10700E	4	32	0.2	1020	
	10750E	10	59	0.2	1530	
	10800E	8	47	0.2	970	
	10850E	20	67	0.2	1360	
	10900E	11	48	0.3	1090	
	10950E	22	90	0.2	1380	
	11000E	14	72	0.2	1220	
	11050E	14	62	0.2	1230	
	11100E	12	58	0.2	1170	
	11150E	12	43	0.2	1080	
	11200E	15	71	0.2	1230	
	11250E	12	56	0.2	1170	
	11300E	14	56	0.2	1190	
	11350E	16	65	0.2	1340	
	11400E	17	72	0.2	1380	
	11450E	17	69	0.2	1320	
	11500E	13	64	0.2	1170	
	11550E	12	47	0.2	1180	
	11600E	10	53	0.2	1150	
	11650E	10	38	0.2	1240	
	11700E	8	86	0.2	1160	
	11750E	12	54	0.2	1060	
	11800E	12	80	0.2	1040	
	11850E	6	37	0.2	1160	
	11900E	8	62	0.3	1220	
	11950E	7	53	0.2	1240	
	12000E	154	250	0.3	1120	
	12050E	206	355	0.8	890	
	12100E	91	389	0.2	1080	
	12150E	119	470	0.4	1080	
	12250E	141	346	0.4	1740	
	12300E	114	611	0.5	2530	
	12350E	98	460	0.2	1770	
	12400E	78	193	0.2	1560	
	12450E	60	151	0.2	1190	
	12550E	35	138	0.2	1500	
	12600E	89	331	0.2	1490	
	12650E	21	66	0.2	1130	
	12700E	96	292	0.3	1790	
	12750E	183	264	0.2	2300	
	12800E	270	495	1.3	1930	
	12850E	157	626	1.2	1420	
	12900E	80	173	0.2	1520	
	12950E	79	244	0.2	2150	
	13000E	113	208	0.3	3490	
	13050E	95	268	0.3	1840	
	13100E	168	10670	7.2	1620	
	13150E	96	506	2.7	2040	
	13200E	260	>20000	3.7	15000	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
222N	13250E	243	2010	2.4	1340	
	13300E	129	178	0.5	1250	
	13350E	106	213	0.6	280	
	13400E	123	238	0.8	1750	
	13450E	130	495	0.8	1330	
	13500E	125	762	0.7	4330	
	13550E	161	530	0.3	1660	
	13600E	265	457	0.2	1250	
	13650E	63	618	0.5	670	
	13700E	202	525	1.6	520	
	13750E	156	224	2.0	730	
	13800E	51	162	0.2	1630	
	13850E	36	180	0.2	1990	
	13900E	39	141	0.2	840	
	13950E	21	141	0.2	1090	
	14000E	17	79	0.2	1130	
	14050E	107	405	0.8	1820	
	14100E	87	302	0.6	1570	
	14150E	30	102	0.3	1180	
	14200E	169	135	1.3	1370	
	14250E	31	110	0.3	1310	
	14300E	33	129	0.2	1130	
	14350E	20	120	0.2	940	
	14400E	46	194	0.5	1370	
	14450E	41	221	0.2	1060	
	14500E	40	261	0.3	1240	
	14550E	29	185	0.3	1390	
22400N	10500E	8	47	0.2	1090	
	10550E	9	46	0.2	1100	
	10600E	12	70	0.2	1310	
	10650E	7	44	0.2	1060	
	10700E	18	95	0.3	1430	
	10750E	13	52	0.2	1190	
	10800E	15	76	0.2	1290	
	10850E	13	67	0.2	1230	
	10900E	20	76	0.2	1390	
	10950E	12	80	0.2	1110	
	11000E	11	56	0.2	1160	
	11050E	6	44	0.2	1100	
	11100E	16	76	0.2	1330	
	11150E	9	56	0.2	1120	
	11200E	8	45	0.2	1040	
	11250E	7	47	0.2	1160	
	11300E	13	69	0.2	1360	
	11350E	8	43	0.2	1100	
	11400E	5	48	0.2	1190	
	11450E	6	59	0.2	1130	
	11650E	17	87	0.3	1650	
	11700E	13	200	0.3	1700	
	11750E	17	384	0.5	1320	
	12000E	4	40	0.3	1180	
	12050E	18	820	0.2	2130	
	12100E	13	139	0.2	1560	
	12200E	25	122	0.2	1830	
	12250E	9	70	0.2	1050	
	12300E	46	290	0.2	1100	
	12350E	167	241	0.2	1340	
	12450E	58	348	0.2	1500	
	12550E	83	234	0.2	1720	
	12600E	72	158	0.2	1580	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
224N	12650E	417	705	0.8	1480	
	12700E	21	146	0.2	1360	
	12750E	125	173	0.2	1540	
	12800E	316	217	0.2	1180	
	12900E	83	102	0.3	1480	
	12950E		246	0.3	4060	
	13000E	94	120	0.2	13000	
	13050E	84	473	0.2	2670	
	13100E	302	401	0.8	1300	
	13150E	28	121	0.5	1390	
	13200E	58	301	0.2	1660	
	13250E	25	182	0.2	1150	
	13350E	60	246	0.2	1380	
	13400E	388	431	0.2	2030	
	13450E	120	253	0.2	1490	
	13500E	24	126	0.2	1450	
	13550E	77	374	0.2	1370	
	13600E	238	583	0.3	1480	
	13650E	130	994	0.4	1550	
	13700E	77	332	0.2	1280	
	13750E	93	712	0.2	1460	
	13800E	341	1295	0.2	1150	
	13900E	14	312	0.2	120	
	13950E	11	63	0.2	100	
	14050E	38	163	0.2	1340	
	14100E	64	232	0.4	1360	
	14150E	63	172	0.6	1310	
	14200E	41	120	0.2	1380	
	14250E	65	215	0.5	1360	
	14300E	20	50	0.2	1280	
	14350E	68	161	0.3	1460	
	14400E	33	137	0.2	1010	
	14500E	58	121	0.2	1150	
	14550E	39	105	0.2	1260	
	14600E	45	142	0.2	1290	
	14650E	28	101	0.2	1200	
	14750E	34	93	0.2	1030	
	14800E	43	132	0.2	1860	
	14850E	18	35	0.2	1060	
	14900E	35	432	0.4	1520	
	14950E	56	756	0.4	1930	
	15100E	30	442	0.3	1630	
	15150E	27	221	0.6	1440	
	15200E	35	212	0.4	1650	
	15250E	13	101	0.3	1080	
	15300E	34	77	0.2	1550	
	15350E	24	291	0.2	1670	
	15400E	44	462	0.2	1310	
	15450E	7	68	0.2	760	
	15500E	49	305	0.2	1030	
22600N	12550E	172	411	1.6	1170	
	12600E	457	244	2.3	1400	
	12650E	176	224	0.3	740	
	12700E	318	417	0.6	2830	
	12750E	43	331	0.2	1700	
	12800E	47	279	0.2	1500	
	12850E	37	373	0.2	1250	
	12900E	52	240	0.2	1300	
	12950E	63	128	0.4	1470	
	13000E	94	306	0.2	1590	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
226N	13050E	96	324	0.2	1760	
	13100E	130	356	0.5	1280	
	13150E	69	394	0.3	560	
	13200E	63	241	0.2	540	
	13250E	313	145	0.6	1580	
	13300E	227	148	0.8	1070	
	13350E	81	116	0.8	860	
	13400E	105	139	0.2	1090	
	13450E	70	242	0.2	1090	
	13500E	50	103	0.3	1530	
	13550E	48	143	0.3	1580	
	13600E	25	117	0.2	860	
	13650E	36	95	0.2	1210	
	13700E	106	287	0.8	1720	
	13750E	39	155	0.2	1550	
	13800E	64	82	0.2	1560	
	13850E	38	192	0.2	1530	
	13900E	86	176	0.2	1450	
	13950E	19	36	0.2	1630	
	14000E	44	96	0.2	1440	
	14050E	23	126	0.2	1250	
	14100E	46	248	0.2	1250	
	14150E	121	197	0.3	1320	
	14200E	98	230	0.2	1710	
	14250E	73	184	0.2	1870	
	14300E	25	142	0.2	1640	
	14350E	68	89	1.0	2320	
	14400E	50	196	0.3	1630	
	14450E	47	201	0.2	1310	
	14500E	92	358	0.6	1750	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
	14550E	46	206	0.4	1070	
	14600E	55	367	0.5	740	
	14650E	143	498	0.8	1340	
	14700E	106	762	0.6	1470	
	14750E	53	168	0.2	1100	
	14800E	57	201	0.2	1290	
	14850E	68	238	0.6	1690	
	14900E	67	1037	0.5	1240	
	14950E	13	651	0.3	2700	
	15000E	19	960	0.4	3190	
	15050E	15	103	0.2	1180	
	15100E	173	374	1.1	1840	
	15150E	17	106	0.2	1350	
	15200E	41	288	0.3	1100	
	15250E	55	343	1.1	1540	
	15300E	52	233	0.5	1300	
	15350E	32	166	0.2	1020	
	15400E	35	94	0.2	1030	
	15450E	29	106	0.2	930	
	15500E	86	647	0.3	990	
22800N	10500E	11	44	0.2	1200	
	10550E	15	118	0.3	3170	
	10600E	11	70	0.2	1390	
	10650E	19	75	0.2	1750	
	10700E	12	62	0.2	1330	
	10750E	15	62	0.2	1460	
	10800E	10	48	0.2	1290	
	10850E	14	57	0.2	1620	
	10900E	10	76	0.2	2070	
	10950E	29	80	0.2	2190	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES	SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
228N	11000E	7	66	0.2	1270			12700E	45	300	0.3	3360	
	11050E	36	95	0.4	2140			12800E	610	973	0.4	1610	
	11100E	16	89	0.3	1440			12850E	179	556	0.3	810	
	11150E	18	98	0.2	1410			12900E	119	1825	3.0	18380	
	11200E	20	170	0.3	1210			12950E	230	102	1.4	1790	
	11250E	13	96	0.2	1310			13000E	345	96	0.3	630	
	11300E	10	92	0.2	1230			13050E	100	105	0.2	800	
	11350E	17	136	0.8	1070			13100E	830	173	2.8	1020	
	11400E	23	186	0.9	1150			13150E	112	84	0.3	1210	
	11450E	21	227	0.4	1120			13200E	167	191	0.2	1080	
	11500E	11	249	0.6	1450			13250E	95	133	0.2	1010	
	11600E	9	98	0.2	1000			13300E	95	173	0.2	1150	
	11650E	13	131	0.2	1000			13350E	53	80	0.2	1300	
	11700E	13	107	0.2	1050			13400E	60	187	0.2	1250	
	11750E	16	519	0.2	1510			13450E	52	72	0.2	1060	
	11800E	16	227	0.6	1210			13500E	105	103	0.2	1040	
	11850E	12	182	0.3	930			13550E	53	106	0.2	1180	
	11900E	14	186	0.4	920			13600E	35	33	0.8	1740	
	12000E	16	222	0.2	1390			13650E	31	37	0.6	1700	
	12050E	21	244	0.6	1370			13700E	46	199	0.3	1190	
	12100E	31	237	1.0	1590			13750E	53	115	0.2	1150	
	12150E	76	413	0.7	1050			13800E	179	178	0.2	950	
	12200E	14	53	0.3	790			13850E	45	138	0.6	1350	
	12250E	25	132	0.6	1750			13900E	22	170	0.2	1160	
	12300E	21	58	0.5	1140			13950E	47	71	0.3	540	
	12350E	53	225	0.4	1260			14000E	90	42	2.4	420	
	12450E	77	245	0.4	4180			14050E	36	86	1.6	390	
	12550E	44	271	0.3	5580			14100E	37	161	0.2	1240	
	12600E	103	179	1.2	3300			14150E	58	118	1.4	760	
	12650E	359	142	1.8	4350			14200E	23	58	0.2	1130	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
228N	14250E	36	74	0.2	870	
	14300E	20	275	0.2	930	
	14350E	29	66	0.2	850	
	14400E	43	169	0.2	960	
	14450E	39	455	0.3	1300	
	14500E	35	252	0.2	1230	
	14550E	88	188	0.9	1000	
	14600E	85	128	0.2	1220	
	14650E	41	90	0.2	1070	
	14700E	41	104	0.5	770	
	14750E	114	128	0.8	760	
	14800E	160	250	0.2	1110	
	14850E	77	505	0.7	1830	
	14900E	129	312	0.6	1680	
	14950E	58	192	0.4	1930	
	15000E	134	230	0.2	1440	
	15050E	58	206	0.2	1080	
	15100E	80	209	0.2	1290	
	15150E	70	183	0.2	1190	
	15200E	39	175	0.2	1170	
	15250E	165	440	2.3	1100	
	15300E	48	200	0.2	1120	
	15350E	35	166	0.2	950	
	15400E	38	118	0.2	900	
	15450E	49	188	0.2	1240	
	15500E	39	192	0.2	980	
23000N-	10450E	77	1065	1.8	2380	C9-2
	10500E	12	120	0.2	2050	
	10550E	21	87	0.5	2150	
	10600E	24	121	0.9	3790	
	10650E	16	130	1.6	10070	
	10700E	53	117	0.6	1500	
	10750E	5	45	0.4	1420	
	10800E	17	127	0.5	2720	
	10850E	22	96	1.0	2600	
	10900E	23	115	0.5	4130	
	10950E	12	76	0.2	1690	
	11000E	15	99	0.2	2600	
	11050E	27	108	0.2	2490	
	11100E	13	100	0.2	1580	
	11150E	10	78	0.2	1070	
	11200E	8	61	0.7	1140	
	11250E	10	84	1.6	1070	
	11300E	9	111	0.2	1080	
	11350E	6	371	0.2	4300	
	11400E	12	156	0.3	990	
	11450E	10	115	0.2	1000	
	11500E	11	151	0.2	1040	
	11550E	15	94	0.3	980	
	11600E	13	102	0.4	970	
	11650E	22	74	0.2	1170	
	11700E	16	122	0.3	900	
	11750E	13	108	0.2	910	
	11800E	21	103	0.3	1210	
	11850E	16	112	0.2	990	
	11900E	24	99	0.3	1230	
	11950E	25	224	0.3	3740	
	12000E	24	87	0.2	1280	
	12050E	22	209	0.2	1600	
	12100E	19	89	0.2	2660	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
23oN	12150E	30	106	0.3	1210	
	12200E	31	130	0.2	1280	
	12300E	23	109	0.8	1210	
	12350E	18	144	0.6	1090	
	12400E	23	123	0.8	1630	
	12450E	15	39	0.9	1210	
	12550E	16	45	0.2	1100	
	12600E	27	67	0.2	1670	
	12650E	69	63	0.2	1400	
	12700E	44	355	0.2	910	
	12750E	155	730	0.2	>20000	
	12800E	99	229	0.2	3560	
	12850E	94	410	0.2	1720	
	12900E	363	1075	0.2	660	
	13000E	438	654	0.2	890	
	13050E	295	399	0.2	780	
	13100E	164	310	0.2	1100	
	13150E	147	174	0.2	800	
	13200E	103	191	0.2	840	
	13250E	37	82	0.2	510	
	13300E	321	370	0.2	1100	
	13350E	224	193	1.4	800	
	13400E	59	207	0.4	830	
	13450E	248	266	1.0	1070	
	13500E	55	207	0.2	1100	
	13550E	114	192	0.2	920	
	13600E	46	186	0.2	1070	
	13650E	58	154	0.2	1180	
	13700E	76	271	0.2	1160	
	13750E	42	142	0.2	950	
	13800E	50	182	0.2	1070	
	13850E	45	129	0.2	930	
	13900E	58	228	0.2	1090	
	13950E	77	213	0.2	1050	
	14000E	49	127	0.2	1150	
	14050E	37	172	0.2	1130	
	14100E	53	323	0.3	780	
	14150E	115	122	0.2	740	
	14200E	52	238	0.2	710	
	14250E	62	344	0.2	1000	
	14300E	55	361	0.3	750	
	14350E	30	150	0.4	940	
	14400E	56	265	0.2	1070	
	14450E	5	108	0.2	200	
	14500E	55	262	0.2	390	
	14550E	63	384	0.2	790	
	14600E	26	129	0.2	890	
	14650E	45	171	0.2	700	
	14700E	32	260	0.2	1320	
	14750E	54	286	0.2	1730	
	14800E	30	238	0.2	780	
	14850E	44	203	0.2	890	
	14900E	63	195	0.2	1210	
	14950E	127	303	1.3	1470	
	15000E	107	620	0.3	1290	
	15050E	86	311	0.2	1450	
	15100E	153	595	1.0	1310	
	15150E	89	207	0.3	1150	
	15200E	176	377	1.5	1090	
	15250E	82	258	0.2	1080	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
230N	15300E	38	132	0.3	1180	
	15350E	67	167	0.6	840	
	15400E	56	156	0.6	890	
	15450E	1268	1935	6.3	780	
	15550E	6	57	0.2	570	
23400N	11450E	88	765	1.6	2250	CS-1
	11500E	16	93	0.3	1180	
	11550E	32	121	0.4	1040	
	11600E	49	153	0.4	1110	
	11650E	22	94	0.2	1190	
	11700E	23	94	0.2	1300	
	11750E	25	83	0.2	1140	
	11800E	28	112	0.3	1100	
	11850E	26	104	0.3	1170	
	11900E	22	87	0.2	1120	
	11950E	11	78	0.2	1490	
	12000E	24	57	0.2	1380	
	12050E	16	77	0.2	980	
	12100E	19	71	0.2	1340	
	12150E	16	80	0.2	1130	
	12200E	13	73	0.2	1130	
	12250E	10	73	0.2	940	
	12300E	14	70	0.2	1250	
	12350E	20	99	0.2	1240	
	12400E	19	95	0.2	1460	
	12450E	11	77	0.2	1130	
	12550E	12	63	0.2	1240	
	12600E	14	32	0.2	1270	
	12650E	15	74	0.2	1580	
	12750E	20	95	0.2	1620	
	12800E	17	32	0.2	1090	
	12850E	7	17	0.2	820	
	12900E	17	38	0.2	1240	
	12950E	24	90	0.2	1560	
	13000E	29	62	0.2	940	
	13050E	18	28	0.2	1000	
	13100E	16	55	0.2	900	
	13150E	47	143	0.2	890	
	13200E	24	74	0.5	940	
	13250E	60	249	0.6	1000	
	13300E	46	147	0.2	890	
	13350E	30	71	0.2	750	
	13400E	54	186	0.2	930	
	13450E	33	103	0.2	930	
	13500E	45	221	0.2	980	
	13550E	46	128	0.2	1010	
	13650E	42	77	0.2	860	
	13700E	62	223	0.2	990	
	13750E	62	220	0.4	850	
	13800E	35	203	0.3	1050	
	13850E	31	160	0.2	1010	
	13900E	19	83	0.2	710	
	13950E	29	116	0.2	960	
	14000E	33	133	0.2	1040	
	14050E	26	112	0.2	1080	
	14100E	25	89	0.2	1030	
	14150E	66	341	0.2	1180	
	14200E	45	129	0.2	980	
	14250E	21	93	0.2	1070	
	14300E	33	182	0.2	1210	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
234N	14350E	29	180	0.2	1350	
	14400E	29	115	0.2	1120	
	14450E	22	80	0.2	1100	
	14500E	39	125	0.2	980	
	14550E	75	236	0.6	1270	
	14600E	54	181	0.6	1180	
	14650E	52	179	0.2	1050	
	14700E	78	206	0.2	1270	
	14750E	79	281	0.2	1460	
	14800E	20	113	0.2	1070	
	14850E	80	213	0.4	1410	
	14900E	35	177	0.2	1300	
	14950E	39	138	0.3	1390	
	15000E	99	180	0.7	920	
23800N	11450E	84	1275	1.5	2370	CS-2
	11500E	16	77	0.2	1440	
	11550E	13	80	0.3	1630	
	11600E	25	107	0.8	2510	
	11650E	24	150	0.6	2700	
	11700E	11	61	0.2	1400	
	11750E	17	92	0.2	2350	
	11800E	14	66	0.2	1200	
	11850E	9	74	0.2	1270	
	11900E	14	88	0.2	1550	
	11950E	8	36	0.2	1200	
	12000E	15	88	0.6	1960	
	12050E	19	106	0.2	1880	
	12100E	11	76	0.5	1840	
	12150E	18	112	1.0	3070	
	12200E	13	62	0.2	1600	
	12250E	17	97	0.4	2250	
	12300E	14	74	0.2	1690	
	12350E	11	63	0.2	1380	
	12400E	18	97	0.2	1380	
	12450E	16	94	0.3	1840	
	12550E	13	76	0.2	1600	
	12600E	10	60	0.2	1340	
	12650E	9	78	0.2	1420	
	12700E	14	84	0.3	1480	
	12750E	10	68	0.2	1350	
	12800E	8	59	0.2	1170	
	12850E	11	63	0.2	1230	
	12900E	14	69	0.3	1290	
	12950E	11	69	0.2	1180	
	13000E	14	77	0.2	1300	
	13050E	14	71	0.2	1230	
	13100E	14	83	0.2	1230	
	13150E	15	63	0.2	1130	
	13200E	168	374	0.4	950	
	13250E	46	113	0.3	990	
	13300E	39	166	0.2	1020	
	13350E	15	55	0.2	800	
	13400E	19	139	0.3	1220	
	13450E	23	118	0.2	1020	
	13500E	22	60	0.2	730	
	13550E	55	144	0.2	960	
	13600E	28	120	0.2	930	
	13650E	117	161	1.2	1210	
	13700E	52	121	0.6	810	
	13750E	37	85	0.2	810	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
238N	13800E	185	169	0.2	850	
	13850E	124	120	0.2	830	
	13900E	119	200	0.7	880	
	13950E	5280	520	45.0	1220	
	14000E	386	280	1.2	1290	
	14050E	433	224	2.4	1300	
	14100E	209	520	0.2	1370	
	14150E	157	276	0.5	1660	
	14200E	165	163	1.4	4920	
	14250E	159	317	0.4	1460	
	14300E	89	314	0.2	1330	
	14350E	738	420	2.6	1630	
	14400E	46	510	0.2	1190	
	14450E	133	222	0.8	1130	
	14500E	122	251	0.3	1190	
	14550E	99	178	0.4	860	
	14650E	155	375	1.4	1110	
	14700E	91	380	0.3	660	
	14750E	34	116	0.2	580	
	14800E	85	202	0.2	1130	
	14850E	44	194	0.2	960	
	14900E	77	335	0.2	1000	
	14950E	720	287	3.9	780	
	15000E	91	520	0.4	940	
24200N	11500E	7	55	0.2	2410	
	11550E	7	47	0.2	3360	
	11600E	12	72	0.4	2260	
	11650E	16	74	0.4	2290	
	11700E	11	63	0.2	1170	
	11750E	10	53	0.3	1860	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
	11800E	11	60	0.2	1960	
	11850E	10	56	0.3	1880	
	11900E	9	70	0.3	2040	
	11950E	6	61	0.2	1460	
	12000E	10	45	0.2	3910	
	12050E	9	45	0.2	1400	
	12100E	12	68	0.2	1940	
	12150E	8	57	0.2	1370	
	12200E	6	42	0.2	1330	
	12250E	7	54	0.2	3380	
	12300E	13	64	0.2	1800	
	12350E	11	74	0.2	1520	
	12400E	8	59	0.2	1330	
	12450E	12	76	0.2	1460	
	12500E	11	54	0.2	1400	
	12550E	12	53	0.2	1580	
	12600E	17	100	0.2	1220	
	12650E	13	71	0.2	1200	
	12700E	13	74	0.2	1390	
	12750E	15	77	0.2	1290	
	12800E	22	75	0.2	1370	
	12850E	13	81	0.2	1550	
	12900E	10	65	0.2	1270	
	12950E	14	117	0.2	950	
	13000E	19	77	0.2	1690	
	13050E	15	87	0.2	1140	
	13100E	26	62	0.2	1080	
	13150E	25	89	0.2	940	
	13200E	25	91	0.2	1140	
	13250E	28	67	0.2	1080	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2129

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
242 N	13300E	19	101	0.2	920	
	13350E	17	168	0.2	1020	
	13400E	16	92	0.2	1140	
	13450E	22	73	0.2	780	
	13500E	13	74	0.2	1070	
	13550E	22	82	0.2	750	
	13600E	17	59	0.2	990	
	13650E	21	61	0.2	1220	
	13700E	20	46	0.2	970	
	13750E	37	75	0.2	1511	
	13800E	77	217	0.2	1380	
	13850E	45	77	0.2	1020	
	13900E	198	575	1.0	330	
	13950E	20	151	0.2	550	
	14000E	21	76	0.2	620	
	14050E	24	48	0.2	520	
	14100E	39	84	0.2	1100	
	14150E	25	167	0.2	1270	
	14200E	61	165	0.2	890	
	14250E	54	120	0.2	840	
	14300E	37	126	0.2	1080	
	14350E	39	148	0.2	900	
	14400E	12	46	0.2	300	
	14450E	52	205	0.2	740	
	14500E	60	174	0.2	820	
	14550E	56	119	0.2	770	
	14600E	33	195	0.2	1040	
	14650E	31	116	0.2	990	
	14700E	39	83	0.2	760	
	14750E	37	184	0.2	1000	
	14800E	20	105	0.2	710	
	14850E	46	126	0.2	730	
	14900E	62	105	0.2	720	
	14950E	71	131	0.2	840	
	15000E	30	177	0.2	1090	
25000N	11800E	11	114	0.2	3250	
	11900E	10	65	0.2	2720	
	12100E	19	55	0.2	1610	
	12150E	13	63	0.2	1300	
	12450E	7	75	0.2	1460	
S-J	31	46	209	0.5	2190	
	32	15	237	0.3	2470	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 421-2168

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
24600N-11500E		21	56	0.3	1740	
11550E		9	42	0.2	1240	
11600E		12	89	0.2	1380	
11650E		6	30	0.3	1720	
11700E		10	47	0.2	1370	
11750E		8	61	0.2	1320	
11800E		9	55	0.2	1670	
11850E		19	124	0.3	1250	
11900E		10	51	0.3	1480	
11950E		8	37	0.2	1610	
12000E		10	28	0.3	1420	
12050E		4	60	0.2	1320	
12100E		11	61	0.3	1880	
12150E		9	65	0.3	1730	
12200E		11	103	0.2	1670	
12250E		9	64	0.2	1620	
12300E		10	105	0.3	1870	
12350E		10	66	0.2	1400	
12400E		13	65	0.2	1920	
12450E		10	65	0.2	1450	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2168 PAGE 4

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
20200N-11900E		44	191	1.1	13850	
20400N-11600E		106	352	2.0	6940	
	11650E	88	232	1.9	11680	
22600N-10500E		12	72	0.3	1680	
	10550E	10	65	0.2	1380	
	10600E	9	48	0.2	1040	
	10650E	7	44	0.2	1000	
	10700E	14	60	0.3	1180	
	10750E	10	59	0.3	1230	
	10800E	11	158	1.0	1040	
	10850E	7	43	0.3	1030	
	10900E	14	74	0.2	1330	
	10950E	12	64	0.2	1360	
	11000E	21	196	0.6	1300	
	11050E	9	95	0.2	1160	
	11100E	8	181	0.2	1150	
	11150E	24	410	0.4	1720	
	11200E	25	188	0.3	1580	
	11250E	24	262	0.4	1810	
	11300E	18	232	0.2	1790	
	11350E	14	135	0.4	1430	
	11400E	19	103	0.2	1290	
	11450E	13	113	0.3	1370	
	11500E	11	139	0.9	1110	
	11550E	16	160	0.6	1110	
	11600E	14	310	0.2	1360	
	11650E	12	167	0.2	1000	
	11700E	14	176	0.5	1070	
	11750E	18	188	0.2	1260	
	11800E	26	238	0.8	1050	
	11850E	47	270	1.1	880	
	11900E	22	725	1.7	2800	
	11950E	20	286	1.0	1570	
	12000E	19	280	0.5	1100	
	12050E	19	420	0.5	1720	
	12100E	22	217	0.3	1560	
	12150E	26	400	0.2	1520	
	12200E	23	395	0.3	1820	
	12250E	14	41	0.3	3490	
	12300E	187	490	1.6	4680	
	12350E	120	263	0.4	3000	
	12400E					5*
	12450E	348	380	0.5	1570	
24600N-12550E		40	51	0.3	1100	
	12600E	22	80	0.2	1100	
	12650E	32	83	0.3	1370	
	12700E	23	77	0.2	1360	
	12750E	17	46	0.2	950	
	12800E	75	130	0.3	1270	
S-R3		9	62	0.3	1090	
S-R4		9	50	0.3	960	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2312

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
22000N-8000E		10	75	0.2	800	
22000N-8050E		15	125	0.2	1080	
22000N-8100E		17	165	0.5	1330	
22000N-8150E		16	205	0.8	10480	
22000N-8200E		31	196	1.4	6980	
22200N-8000E		16	165	0.2	1370	
22200N-8050E		11	63	0.2	1170	
22200N-8100E		12	80	0.2	1150	
22200N-8150E		11	74	0.2	820	
22200N-8200E		7	44	0.2	1070	
22200N-8250E		14	42	1.6	1610	
22200N-8300E		800	98	1.0	7620	
22400N-7800E		14	120	0.2	1110	
22400N-7850E		15	63	0.2	1200	
22400N-7900E		21	89	0.2	1370	
22400N-7950E		21	100	0.2	1440	
22400N-8000E		10	60	0.2	1150	
22400N-8050E		14	74	0.2	1120	
22400N-8100E		13	124	0.2	1010	
22400N-8150E		10	105	0.2	1000	
22400N-8200E		17	185	0.2	980	
22400N-8250E		11	100	0.2	1010	
22400N-8300E		16	100	0.2	920	
22400N-8350E		12	121	0.2	1010	
22400N-8400E		14	162	2.0	14980	
22600N-7800E		14	59	0.2	1110	
22600N-7850E		24	106	0.2	1410	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
22600N-7900E		14	48	0.2	1050	
22600N-7950E		10	100	0.2	960	
22600N-8000E		10	51	0.2	1170	
22600N-8050E		10	49	0.2	1130	
22600N-8100E		22	64	0.2	1230	
22600N-8150E		16	61	0.2	1310	
22600N-8200E		44	265	0.2	1010	
22600N-8250E		13	120	0.2	1000	
22600N-8300E		12	140	0.2	1030	
22600N-8350E		14	150	0.2	1200	
22600N-8400E		13	108	0.2	1060	
22600N-8450E		41	195	2.4	2010	
22600N-8500E		43	142	0.4	2200	
22800N-7700E		13	45	0.2	1010	
22800N-7750E		29	96	0.2	1270	
22800N-7800E		32	96	0.2	1450	
22800N-7850E		10	105	0.2	1030	
22800N-7900E		5	36	0.2	1040	
22800N-7950E		10	45	0.2	1050	
22800N-8000E		8	63	0.2	990	
22800N-8050E		5	85	0.2	1020	
22800N-8100E		9	80	0.2	1120	
22800N-8150E		16	89	0.2	1260	
22800N-8200E		15	83	0.2	1300	
22800N-8250E		8	40	0.2	990	
22800N-8300E		13	44	0.3	1040	
22800N-8350E		10	50	0.2	1100	
22800N-8400E		31	180	0.2	1560	
22800N-8450E		13	105	0.2	1040	
22800N-8500E		73	194	0.2	2760	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
23000N-7700E		28	120	0.2	1520	
23000N-7750E		23	121	0.2	1160	
23000N-7800E		17	80	0.2	1080	
23000N-7850E		31	125	0.2	1520	
23000N-7900E		24	114	0.2	1450	
23000N-7950E		13	116	0.2	1010	
23000N-8000E		7	50	0.2	1000	
23000N-8050E		9	50	0.2	980	
23000N-8100E		6	32	0.2	1040	
23000N-8150E		10	47	0.2	1150	
23000N-8200E		10	84	0.2	1270	
23000N-8250E		25	100	0.2	1430	
23000N-8300E		7	40	0.2	1090	
23000N-8350E		13	70	0.2	1250	
23000N-8400E		8	49	0.3	1180	
23000N-8450E		112	150	1.0	17140	
23000N-8500E		91	190	4.1	20000	
23000N-8550E		45	460	4.9	2730	
23000N-8600E		15	82	0.3	1360	
23200N-7600E		22	130	0.2	1000	
23200N-7650E		18	94	0.2	860	
23200N-7700E		16	78	0.2	1100	
23200N-7750E		24	109	0.2	1490	
23200N-7800E		20	82	0.2	1140	
23200N-7850E		22	75	0.2	1140	
23200N-7900E		27	122	0.2	1480	
23200N-7950E		28	100	0.2	1390	
23200N-8000EX		27	145	0.2	1340	
23200N-8050E		7	55	0.2	990	
23200N-8100E		7	60	0.2	1020	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
23200N-8150E		4	36	0.2	1050	
23200N-8200E		12	60	0.2	1180	
23200N-8250E		11	80	0.2	1160	
23200N-8300E		16	90	0.2	1340	
23200N-8350E		23	80	0.2	1240	
23200N-8400E		19	79	0.2	1300	
23200N-8450E		13	63	0.2	1180	
23200N-8500E		9	46	0.2	1100	
23200N-8550E		19	203	0.2	1310	
23400N-7600E		12	195	0.2	870	
23400N-7700E		12	130	0.2	1050	
23400N-7750E		22	98	0.2	1350	
23400N-7800E		22	120	0.2	1210	
23400N-7850E		27	100	0.2	1470	
23400N-7900E		29	125	0.2	1570	
23400N-7950E		26	104	0.2	1370	
23400N-8050E		17	91	0.2	1030	
23400N-8100E		21	105	0.2	1430	
23400N-8150E		21	120	0.2	1620	
23400N-8200E		21	100	0.2	1490	
23400N-8250E		21	98	0.2	1510	
23400N-8300E		20	114	0.2	1490	
23400N-8350E		42	95	0.2	1330	
23400N-8400E		16	75	0.2	1370	
23400N-8450E		10	50	0.2	1080	
23400N-8500E		12	84	0.2	1320	
23400N-8550E		6	44	0.2	1040	
23400N-8600E		14	55	0.2	1340	
23400N-8650E		13	100	0.2	1200	
23400N-8700E		21	160	0.2	2080	
23400N-8750E		3	50	0.2	7330	
23400N-8800E		29	178	0.2	4190	
23400N-8850E		89	1080	1.9	2380	CS-2
8000E-23100N		8	87	0.2	970	
8000E-23150N		25	110	0.2	1470	
8000E-23200N		83	1080	1.4	2380	CS-2
8000E-23250N		11	60	0.2	1060	
8000E-23300N		10	51	0.2	1140	
8000E-23350N		34	96	0.2	1520	
8000E-23400N		13	80	0.2	1270	
8000E-22050N		23	106	0.2	1540	
8000E-22100N		15	70	0.2	1230	
8000E-22150N		11	198	0.2	1080	
8000E-22250N		9	35	0.2	1040	
8000E-22300N		14	48	0.2	1070	
8000E-22350N		16	66	0.2	1210	
8000E-22450N		14	142	0.2	1190	
8000E-22500N		14	71	0.2	1090	
8000E-22550N		8	59	0.2	1090	
8000E-22650N		5	35	0.2	1070	
8000E-22700N		8	45	0.2	1010	
8000E-22750N		7	50	0.2	980	
8000E-22850N		7	40	0.2	1010	
8000E-22900N		7	52	0.2	980	
8000E-22950N		9	99	0.2	960	
8000E-23050N		12	62	0.2	900	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 191-2707 PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
20700N-	13000E	36	150	0.4	970	
	13050E	38	90	0.6	900	
	13100E	76	105	0.4	1040	
	13150E	65	80	0.4	860	
	13200E	71	150	0.2	1270	
	13250E	54	110	0.4	1070	
	13300E	98	140	0.3	1040	
	13350E	136	310	0.4	1570	
	13400E	83	155	0.4	1440	
	13450E	96	120	0.4	1270	
	13500E	105	30	0.4	1090	
	13550E	67	235	0.4	4350	
	13600E	172	105	0.8	1270	
	13650E	236	50	5.2	1320	
	13700E	31	175	0.4	1200	
	13750E	173	320	1.0	1190	
	13800E	61	75	0.8	1960	
20900N-	13000E	31	110	0.6	1000	
	13050E	74	115	0.4	1120	
	13100E	75	125	0.4	860	
	13150E	101	225	0.2	1930	
	13200E	58	170	0.5	1090	
	13300E	64	245	0.3	2100	
	13350E	85	270	0.5	2350	
	13400E	70	90	0.2	1140	
	13450E	75	115	0.3	1290	
	13500E	177	210	0.6	1100	
	13550E	128	195	0.2	1600	
	13600E	124	200	1.2	2670	
	13650E	106	235	1.2	1430	
	13700E	156	95	1.0	1020	
	13750E	142	210	3.5	2170	
	13800E	113	90	0.6	2350	
	13850E	106	55	0.6	1310	
	13900E	116	90	0.4	1200	
	13950E	97	970	1.8	2420	CS-3

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
2178oN	14050E	106	440	1.8	1510	
	14100E	103	405	0.6	1540	
	14150E	97	455	1.4	1720	
	14200E	172	575	1.3	1670	
	14250E	142	625	1.4	1620	
	14300E	125	365	1.1	1330	
	14350E	100	315	1.3	1800	
	14400E	96	375	1.0	1740	
	14450E	42	360	0.7	740	
	14500E	48	300	0.6	1260	
	14550E	47	210	0.6	1340	
	14600E	92	980	1.8	2440	CS-3

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
21100N-	12800E	68	110	0.4	990	
	12850E	54	150	0.3	1120	
	12900E	116	110	0.7	1120	
	12950E	525	25	2.2	1060	
	13000E	341	30	1.5	1130	
	13050E	137	50	0.8	890	
	13100E	73	90	1.0	1070	
	13150E	125	185	0.4	1170	
	13200E	213	195	0.6	1160	
	13250E	64	150	0.6	1250	
	13300E	289	150	0.9	1630	
	13350E	202	285	0.3	1280	
	13400E	605	630	0.6	1210	
	13450E	93	135	1.0	1760	
	13500E	137	200	1.4	2340	
	13550E	185	645	2.8	3800	
	13600E	158	930	1.2	2260	
	13650E	223	150	0.4	1420	
	13700E	198	140	1.7	1010	
	13750E	695	90	6.4	1390	
	13800E	600	170	16.6	1510	
	13850E	565	20	1.0	990	
	13900E	303	415	1.8	1170	
	13950E	147	185	0.4	850	
	14000E	137	210	1.4	890	
21300N-	12550E	40	80	0.8	1810	
	12600E	44	145	0.5	1810	
	12650E	351	285	1.8	3750	
	12700E	171	350	2.0	1840	
	12750E	159	1200	0.4	1610	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
	12800E	37	140	0.2	1060	
	12850E	149	1380	2.2	2240	
	12900E	72	260	0.2	1340	
	12950E	234	740	1.1	1890	
	13000E	115	415	0.8	1990	
	13050E	202	1210	1.7	6260	
	13100E	115	660	1.4	2500	
	13150E	99	450	1.0	2430	
	13200E	209	430	1.9	1480	
	13300E	143	390	1.5	1550	
	13350E	115	415	0.9	1600	
	13400E	242	640	3.3	1410	
	13450E	99	330	0.4	1750	
	13500E	156	265	1.0	2000	
	13550E	194	220	0.9	1300	
	13600E	89	180	0.4	2470	
	13700E	236	1060	4.0	4190	
	13750E	143	125	0.6	1140	
	13800E	204	165	0.4	1320	
	13850E	820	990	12.0	1120	
	13900E	1015	1700	6.0	1060	
	13950E	163	320	0.4	640	
	14000E	430	540	5.6	540	
	14050E	92	950	1.8	2440	CS-3
21500N-	13000E	875	865	6.9	1600	
	13050E	825	625	8.1	1350	
	13100E	194	440	3.0	1230	
	13150E	102	315	0.6	1550	
	13200E	82	295	2.5	1340	
	13250E	99	315	2.6	1380	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
	13300E	113	370	1.2	1490	
	13350E	67	240	0.4	1340	
	13400E	149	335	1.6	1220	
	13450E	114	575	1.1	1440	
	13500E	239	550	1.4	1490	
	13550E	179	380	1.6	1960	
	13600E	133	300	1.1	1510	
	13650E	160	360	1.2	1640	
	13850E	204	190	2.6	1470	
	13900E	86	195	0.6	850	
	13950E	178	240	0.3	1380	
	14000E	66	215	0.2	240	
21700N-	13500E	380	690	1.8	1360	
	13550E	229	390	1.1	3900	
	13600E	455	950	1.0	1610	
	13650E	243	355	1.0	2160	
	13700E	123	240	0.8	2160	
	13750E	108	330	0.2	1260	
	13800E	113	245	0.9	1950	
	13850E	175	215	1.2	1480	
	13900E	26	495	0.4	1450	
	13950E	194	320	1.4	1860	
	14000E	139	325	0.6	1560	
	14050E	174	160	0.6	1820	
	14100E	45	385	0.4	1110	
	14150E	81	275	0.3	970	
	14200E	107	330	0.4	1060	
	14250E	100	255	0.9	1220	
	14300E	149	460	0.7	1170	
	14350E	88	940	1.8	2450	CS-3

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
21780N-	12550E	72	180	0.6	1930	
	12600E	297	990	2.1	2160	
	12650E	415	920	3.1	1800	
	12700E	325	330	2.0	1700	
	12750E	243	255	0.8	510	
	12800E	159	490	0.6	1030	
	12850E	122	170	0.2	1310	
	12900E	55	260	0.2	1480	
	12950E	785	440	7.2	1330	
	13000E	393	425	2.0	1390	
	13050E	281	295	1.5	1270	
	13100E	280	410	2.8	2590	
	13150E	155	610	0.6	1240	
	13200E	231	730	1.4	930	
	13250E	328	980	1.1	2230	
	13300E	308	1200	2.3	2200	
	13350E	180	520	1.1	2490	
	13400E	122	270	0.2	3170	
	13450E	1015	685	5.0	1850	
	13500E	161	430	0.4	1640	
	13550E	73	160	0.5	1740	
	13600E	113	320	0.2	1540	
	13650E	83	250	0.4	1520	
	13700E	201	305	1.7	2070	
	13750E	74	275	0.2	1400	
	13800E	114	400	0.2	1180	
	13850E	156	420	1.1	2100	
	13900E	149	480	0.8	2480	
	13950E	116	550	1.6	1770	
	14000E	123	460	1.3	1960	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 421-2970

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
20750N-10700	E	20	71	0.2	1170	
10750		22	63	0.3	1300	
10800		19	58	0.5	1050	
10850		31	141	0.4	1220	
10900		25	87	0.3	1260	
10950		18	21	0.2	1050	
11000		36	85	0.4	1470	
11050		32	86	0.8	1290	
11100		30	75	0.4	1220	
11150		38	92	0.4	1940	
11200		161	445	3.2	2640	
11250		44	185	0.6	1910	
11300		386	415	3.8	7720	
11350		250	273	1.5	10220	
11400		140	295	2.8	5690	
11450		44	116	0.3	7270	
11500		75	140	0.7	15660	
11550		57	136	1.5	1890	
11600		114	87	1.8	2110	
11650		29	132	0.6	1350	
11700		20	137	0.3	1270	
11750		40	73	0.8	1130	
11800		38	98	1.0	980	
11850		32	92	0.5	1050	
11900		28	158	0.7	1140	
21300N-11250	E	88	945	2.0	2430	CS-3
11300		21	133	0.6	1020	
11350		19	107	0.4	1070	
11400		53	188	1.0	2320	
11450		187	227	1.4	1190	
11500		440	515	1.5	1200	
11550		92	280	1.0	940	
11600		84	233	1.4	900	
11650		68	133	1.1	870	
11700		72	153	1.2	950	
11750		103	147	0.4	850	
11800		74	132	0.4	960	
11850		83	143	0.6	1080	
11900		48	110	0.6	900	
11950		26	195	0.8	930	
12000		37	145	0.5	930	
12050		43	161	0.6	1130	
12100		89	140	1.0	1090	
12150		63	346	1.5	1060	
12200		34	169	1.0	1160	
12250		116	188	1.2	1280	
12300		58	182	1.2	1430	
12350		36	138	1.0	1400	
12400		42	164	0.8	1530	
12450		28	86	0.8	1580	
21500N-11400	E	43	238	0.4	1860	
11450		42	168	0.5	1230	
11500		91	112	0.4	1190	
11550		112	182	0.6	1310	
11600		168	289	1.0	1250	
11650		540	258	3.4	1110	
11700		845	239	5.3	1110	
11750		121	123	1.1	890	
11850		1465	540	9.0	1240	
11900		245	273	2.4	960	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 421-2970

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
11950		61	480	1.1	1180	
12000		46	183	0.4	1190	
12050		64	173	0.6	1420	
12100		52	175	1.0	1070	
12150		53	187	0.7	1180	
12250		42	115	0.5	1080	
12300		51	122	0.4	1700	
12350		55	125	0.6	1030	
12400		62	140	0.4	1090	
12450		62	111	0.2	1040	
21700N-11350	E	88	920	1.8	2410	CS-3
11400		9	123	0.2	1480	
11450		13	73	0.2	1150	
11550		32	164	0.3	2050	
11600		71	92	0.6	1560	
11650		148	82	1.4	2040	
11700		375	176	3.0	2140	
11750		209	112	2.4	2130	
11800		106	201	0.8	2450	
11850		103	231	0.6	1480	
11900		66	152	0.2	1940	
11950		86	271	0.6	1180	
12000		168	207	0.2	1900	
12050		49	145	0.2	1580	
12100		80	242	0.4	1660	
12150		65	113	0.4	1380	
12200		38	116	0.8	1040	
12250		40	79	0.2	1010	
12300		55	147	0.5	1010	
12350		86	132	0.6	1010	
12400		78	130	0.4	1180	
12450		54	102	0.2	900	
12500						5*
12550		169	445	0.6	4540	
12600		28	108	0.6	2540	
12650		358	955	2.0	1010	
12700		113	241	0.4	1210	
12750		495	1005	2.3	850	
12800		141	191	1.0	320	
12850		131	172	0.4	420	
12900		55	181	0.2	340	
12950		67	198	0.3	350	
13000		115	209	1.0	2340	
13050		166	1855	0.2	1090	
13100		62	100	1.0	520	
13150		43	120	0.5	1080	
13200		223	330	1.3	1210	
13250		175	300	1.5	1120	
13300		49	184	1.0	1320	
13350		214	360	1.0	1540	
13400		208	460	2.9	1460	
13450		68	247	0.8	1360	
21900N-11400	E	11	163	2.0	5870	
11450		9	70	0.2	1030	
11500		14	88	0.4	1240	
11550		83	445	0.3	1840	
11600		36	157	0.3	1620	
11650		20	69	0.2	1380	
11700		31	92	0.2	1300	
11750		20	51	0.2	1150	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 421-2970

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
	11850	33	98	0.2	1600	
	11900	46	156	0.4	6520	
	11950	23	117	0.2	1310	
	12000	44	146	0.3	2120	
	12050	51	206	0.4	1950	
	12100	31	99	0.4	1690	
	12150	32	101	0.2	1780	
	12200	33	65	0.2	1990	
	12250	33	94	0.2	1140	
	12300	82	119	0.2	1450	
	12350	34	79	0.2	1170	
	12400	73	119	0.2	1130	
	12450	20	80	0.2	1130	
LINE22500N						
	12200E	27	208	0.2	1380	
	12250E	74	960	0.2	1750	
	12300E	109	381	0.8	>20000	
	12350E	27	180	0.2	1680	
	12400E	40	129	0.2	1200	
	12450E	17	119	0.2	900	
	12550E	53	267	1.0	1270	
	12600E	58	340	0.2	1170	
	12650E	277	117	1.5	910	
	12700E	256	365	0.3	2160	
	12750E	52	173	0.7	110	
	12800E	175	323	0.7	3980	
	12850E	38	224	0.2	2100	
	12900E	333	440	0.6	1400	
	12950E	37	237	0.2	1190	
	13000E	54	128	0.2	1280	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
LINE 22700N						
	12300E	46	108	0.2	1420	
	12350E	174	190	0.2	2880	
	12400E	226	300	1.4	2590	
	12450E	105	550	0.6	1370	
	12550E	130	615	0.5	2080	
	12600E	158	199	0.4	1350	
	12650E	330	305	1.9	5230	
	12700E	246	277	0.3	1950	
	12750E	73	197	0.3	2010	
	12800E	89	216	0.3	2270	
	12850E	110	195	1.5	2250	
	13000E	37	136	0.2	890	3*

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2970

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	Ag PPM	Ba PPM	NOTES
209N-10700	E	16	110	0.4	1150	
10750		23	131	0.5	1260	
10800		13	95	0.8	1090	
10850		18	80	0.4	1140	
10900		16	151	1.7	1040	
10950		22	206	1.1	1130	
11000		13	63	0.2	1180	
11050		19	107	0.5	1150	
11100		23	112	1.9	1190	
11150		19	121	1.0	1090	
11200		23	150	1.8	1090	
11250		13	86	2.1	1090	
11300		30	100	0.6	1430	
11350		34	107	0.7	1340	
11400		117	440	2.3	4520	
11450		410	193	2.4	1560	
11500		27	108	0.6	1090	
11550		32	161	0.9	1210	
11600		55	160	2.9	1290	
19900N-9450	E	68	900	1.9	2420	CS-3
9500		20	163	0.5	1230	
9550		65	610	0.8	2270	
9600		58	131	0.7	1780	
9650		22	131	0.2	1730	
9700		12	113	0.4	2330	
9750		18	118	0.2	1770	
9800		20	72	0.5	1690	
9850		17	91	0.5	1660	
9900		18	167	0.5	2220	
9950		33	230	0.7	3690	
10000		30	171	0.8	1740	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2970

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
199 N	10050	47	178	0.3	2610	
	10100	40	150	0.7	1880	
	10150	52	158	0.4	2720	
	10200	29	120	0.5	2640	
	10250	50	214	1.3	1510	
	10300	98	500	2.1	1840	
	10350	38	130	0.6	920	
	10400	55	138	0.6	970	
	10450	27	95	0.9	1080	
	10500	17	96	0.2	1140	
	10550	26	124	0.9	1090	
	10600	55	245	1.1	1180	
	10650	130	194	0.8	1500	
	10700	83	153	0.5	1140	
	11250	88	900	1.9	2430	CS-3
	11300	20	106	0.3	1150	
	11350	41	139	0.5	1570	
	11400	28	92	0.4	1280	
	11450	33	89	0.5	1060	
	11500	52	105	0.2	1760	
	11550	60	99	0.2	1750	
	11600	65	105	0.5	1630	
	11650	70	102	0.5	1890	
	11700	70	85	0.2	3030	
	11750	76	110	0.3	2100	
	11800	52	95	1.1	1420	
	11850	61	90	0.5	1800	
	11900	84	148	0.6	2570	
	11950	47	100	>1.7	1690	
	12000	62	89	0.4	1730	
	12050	44	105	0.2	1690	
	12100	41	82	0.4	1850	
	12150	36	90	0.2	1910	
	12200	87	295	2.5	5900	
	12250	69	340	3.0	8160	
	12300	61	150	1.9	11300	
	12350	38	103	0.6	15660	
	12400	40	103	0.7	13350	
	12450	42	80	0.7	>20000	
20000N-9450	E	86	950	1.8	2410	CS-3
	9500	17	165	0.9	1430	
	9550	30	100	0.3	1390	
	9600	25	88	0.8	1630	
	9650	25	130	1.0	1320	
	9700	27	103	0.2	1700	
	9750	35	119	0.8	1900	
	9800	30	176	0.4	1810	
	9850	29	205	0.2	1570	
	9900	77	250	0.7	2130	
	9950	296	130	1.4	1500	
	10000	110	375	1.0	2310	
	10050	85	180	0.9	2300	
	10100	30	109	0.4	2650	
	10150	60	175	0.4	2880	
	10200	36	150	0.9	2210	
	10250	27	135	0.3	1800	
	10300	40	160	0.4	2340	
	10350	26	150	0.5	1090	
	10400	24	120	0.7	910	
	10450	32	118	0.8	1070	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2970

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
10500		15	160	0.7	1210	
10550		59	98	1.7	1440	
10600		2290	90	9.3	1560	
10650		49	100	0.4	890	
10700		27	41	0.8	1350	
20100N-11600	E	60	93	0.7	1740	
11650		53	80	0.9	1580	
11700		71	110	1.2	1990	
11750		119	130	0.8	2700	
11800		74	100	0.5	2060	
11850		61	103	0.4	2010	
11900		43	90	1.3	1300	
11950		130	255	3.7	8670	
12000		51	135	1.5	3060	
12050		54	485	1.7	12760	
12100		71	135	0.6	10370	
12150		55	85	0.2	2340	
12200		39	70	0.5	6840	
12250		60	103	0.3	15630	
12300		116	108	1.1	2780	
12350		56	80	0.5	15430	
12400		52	305	0.9	12960	
12450		63	92	0.8	>20000	
20250N-10650	E	80	950	1.5	2420	CS-3
10700		44	80	0.6	1050	
10750		47	65	0.7	5420	
10800		190	172	2.1	6940	
10850		25	80	0.5	3410	
10900		82	97	>0.4	4180	
10950		68	81	0.5	4490	

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
11000		46	90	0.5	1950	
11050		34	74	0.5	1150	
11100		39	84	0.3	1530	
11150		32	108	0.3	1770	
11200		70	102	0.4	2040	
11250		32	108	0.7	1960	
11300		185	81	1.3	3810	
11350		37	108	0.5	1610	
11400		143	118	0.2	2990	
11450		44	120	0.5	3430	
11500		86	158	1.1	1940	
11550		90	200	1.2	2640	
11600		42	64	0.7	1260	
11650		1400	375	11.0	>20000	
11700		83	195	0.7	12090	
11750		109	290	3.5	12060	
11800		62	205	0.2	2860	
11850		30	80	0.2	1130	
11900		22	58	0.3	3120	
11950		36	120	0.9	2430	
12000		25	90	0.4	1200	
12050		34	110	0.4	1370	
12100		38	121	0.4	1430	
20350N-10700	E	106	210	0.9	2800	
10750		46	95	0.2	1990	
10800		29	102	0.2	1380	
10850		20	81	0.5	1290	
10900		17	58	0.2	1130	
10950		212	310	3.6	3530	
11000		89	152	0.8	2060	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 121-2970

SAMPLE NUMBER	ELEMENT UNITS	Pb PPM	Zn PPM	As PPM	Ba PPM	NOTES
11050		84	108	0.4	1900	
11100		24	64	0.2	1590	
11150		55	109	1.1	3150	
11200		29	98	0.9	2160	
11250		60	350	1.4	4350	
11300		339	580	2.1	5480	
11350		103	139	1.3	2430	
11400		128	181	1.1	2560	
11450		329	200	0.8	2980	
11500		147	175	1.5	2750	
11550		140	191	7.0	3070	
11600		284	400	2.3	8550	
11650		96	335	1.2	18270	
11700		69	240	1.4	7460	
11750		28	98	0.2	10510	
11800		28	100	0.5	6870	
11850		38	140	0.2	1930	
11900		27	103	1.0	1150	
11950		35	120	0.2	1060	
12000		45	118	0.3	1310	
20550N-10700	E	24	102	0.3	1360	
10750		20	63	0.2	1150	
10800		14	82	0.3	1190	
10850		34	175	0.5	2310	
10900		23	115	0.2	1520	
10950		24	72	0.4	1380	
11000		17	100	0.3	1790	
11050		17	70	0.9	1810	
11100		56	102	0.6	2090	
11150		45	95	0.5	1670	
11200		22	78	0.6	1550	
11250		114	70	1.2	2400	
11300		58	100	0.6	2440	
11350		36	50	1.4	1470	
11400		63	83	0.3	2030	
11450		244	375	2.0	6360	
11500		134	305	2.1	7410	
11550		33	85	0.3	7150	
11600		83	165	0.6	>20000	
11650		101	123	1.8	2690	
11700		35	45	0.3	3010	
11750		49	91	0.3	1610	
11800		28	60	0.2	1210	
11850		22	84	0.2	1140	
11900		74	145	1.2	1020	

APPENDIX "C"

PERSONNEL

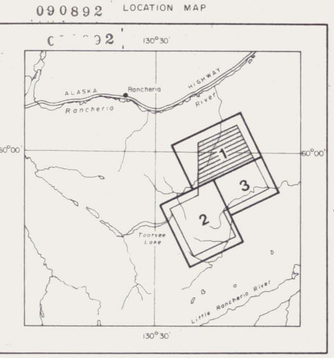
PERSONNEL

J.J.Hylands 1418-355 Burrard St. Vancouver, B.C.	Project Manager
J.D.Rowe 1418-355 Burrard St. Vancouver, B.C.	Geologist
A.R.Hildebrand 1418-355 Burrard St. Vancouver, B.C.	Geologist
S.E.Parry 601 - 535 Thurlow St. Vancouver, B.C.	Geologist
L. Lebel 601 - 535 Thurlow St. Vancouver, B.C.	Geophysicist
J.Tindle General Delivery Whistler, B.C.	Cook
Scott Jones 1418-355 Burrard St. Vancouver, B.C.	Prospector
Alex Robertson 4651 Valley Road North Vancouver, B.C.	Senior Assistant
Paul Maika P.O.Box 1734 Salmon Arm, B.C.	Sampler
Kelinda Sax 11303 - 58 Ave. Edmonton, Alta.	Sampler
Allison Neil 205 Victoria St. Chilliwack, B.C.	Sampler
Colin Cromarty 12061 216 St. Maple Ridge, B.C.	Sampler

PERSONNEL (cont'd)

Phil Unden 1240 St. Georges North Vancouver, B.C.	Sampler
Ross Mirko 1125 Duchess Ave. West Vancouver, B.C.	Sampler
Richard Irving 1875 San Juan Ave. Victoria, B.C.	Sampler

090892 LOCATION MAP



Scale 1 : 500,000

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

ELECTROMAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

SCALE 1:15,000

3/4 1/2 0 1/2 1 1/2 Kilometres

1/4 0 1/4 1/2 3/4 Miles

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

SHEET 1

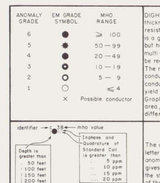
Nov. 16/81 R. L. Seibel

Flight line

Fiducials and numbers

ANOMALY GRADE	EM GRADE SYMBOL	MHO RANGE
6	●	≥ 100
5	●	50 — 99
4	●	20 — 49
3	○	10 — 19
2	○	5 — 9
1	○	≤ 4
	×	Possible conductor

DIGHEM anomalies are divided into six grades of conductivity - thickness product. This product in mhos is the reciprocal of resistance in ohms. The mho is a measure of conductance, and is a geologic parameter. Most swamps yield Grade 1 anomalies but highly conducting clays can give Grade 2 anomalies. The multi-coil anomaly shapes often allow surface conductors to be recognized, and these are indicated by the letter S on this map. The remaining Grade 1 and 2 anomalies could be weak bedrock conductors. The higher grades indicate increasingly higher conductances. Examples: The ore bodies of the Magusi River camp yield Grade 4 anomalies, while Matagami and Whistle give Grade 5. Graphite and sulphides can span all grades but, in this survey area, field work may show that the different grades indicate different types of conductors.



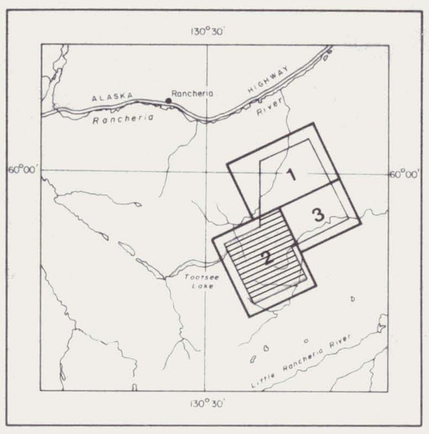
The actual mho value is plotted beside the EM grade symbol. The letter is the anomaly identifier. The horizontal rows of dots indicate anomaly amplitude on the flight record, and the vertical column gives the estimated depth. This depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or conductive overburden effects.

	Conductor axis
S	Probable surface response
S?	Possible surface response
L	Probable line (power, telephone, pipe, or fence)
L?	Possible line
?	Questionable anomaly
	Apparent thickness ≥ 10 m
	Dip
100γ	Direct magnetic correlation at 100 gamma

DIGHEM maps are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with geology when planning a follow-up program. The actual mho values are plotted for those who wish quantitative data. The anomaly, ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of all conductors in terms of length, strike direction, conductance and depth. The accuracy is comparable to an interpretation from a ground EM survey having the same line spacing.

JOB 150, AUGUST 198

LOCATION MAP



Scale 1 : 500,000

DIGHEM^{II} SURVEY

090892

TOOTSEE RIVER, BRITISH COLUMBIA

ELECTROMAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

SCALE 1:15,000

3/4 1/2 0 1/2 1 1½ Kilometres

1/4 0 1/4 1/2 3/4 Miles

SHEET 2

7(a).16/8/

Flight line

Fiducials and numbers

ANOMALY GRADE	EM GRADE SYMBOL	MHO RANGE
6	●	≥ 100
5	✱	50 — 99
4	●	20 — 49
3	◉	10 — 19
2	○	5 — 9
1	○	≤ 4
	×	Possible conductor

DIGHEM anomalies are divided into six grades of conductivity – thickness product. This product in mhos is the reciprocal of resistance in ohms. The mho is a measure of conductance, and is a geologic parameter. Most swamps yield Grade 1 anomalies but highly conducting clays can give Grade 2 anomalies. The multi-coil anomaly shapes often allow surface conductors to be recognized, and these are indicated by the letter S on this map. The remaining Grade 1 and 2 anomalies could be weak bedrock conductors. The higher grades indicate increasingly higher conductances. Examples: The ore bodies of the Magusi River camp yield Grade 4 anomalies, while Mattabi and Whistle give Grade 5. Graphite and sulphides can span all grades but, in this survey area, field work may show that the different grades indicate different types of conductors.

identifier → 18 ← mho value

Depth is greater than
- 50 feet
- 100 feet
- 150 feet
- 200 feet

In-phase and Quadrature of Standard Coil is greater than
- 5 ppm
- 10 ppm
- 15 ppm
- 20 ppm

Refer to list of anomalies in survey report for the actual ppm values for all coils, and for conductor depths.

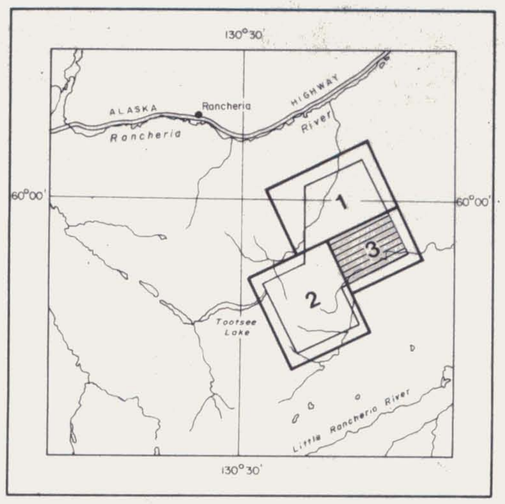
The actual mho value is plotted beside the EM grade symbol. The letter is the anomaly identifier. The horizontal rows of dots indicate anomaly amplitude on the flight record, and the vertical column gives the estimated depth. This depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or conductive overburden effects.

	Conductor axis
S	Probable surface response
S?	Possible surface response
L	Probable line (power, telephone, pipe, or fence)
L?	Possible line
?	Questionable anomaly
	Apparent thickness >10 m
	Dip
100γ	Direct magnetic correlation of 100 gammas

DIGHEM maps are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with geology when planning a follow-up program. The actual mho values are plotted for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of all conductors in terms of length, strike direction, conductance and depth. The accuracy is comparable to an interpretation from a ground EM survey having the same line spacing.

JOB 150, AUGUST 198

LOCATION MAP



Scale 1 : 500,000

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

ELECTROMAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

SCALE 1:15,000

3/4 1/2 0 1/2 1 1 1/2 Kilometres

1/4 0 1/4 1/2 3/4 Miles

SHEET 3

Nov. 16/81

Flight line

1258

Fiducials and numbers

1188

ANOMALY GRADE	EM GRADE SYMBOL	MHO RANGE
6	●	≥ 100
5	✱	50 — 99
4	●	20 — 49
3	◎	10 — 19
2	○	5 — 9
1	○	≤ 4
	×	Possible conductor

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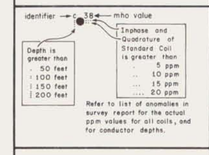


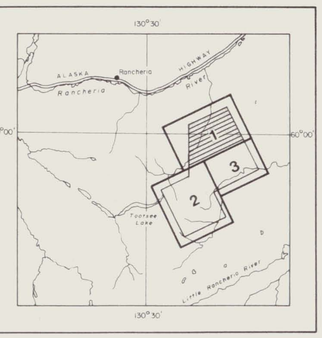
The actual mho value is plotted beside the EM grade symbol. The letter is the anomaly identifier. The horizontal rows of dots indicate anomaly amplitude on the flight record, and the vertical column gives the estimated depth. This depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or conductive overburden effects.

	Conductor axis
S	Probable surface response
S?	Possible surface response
L	Probable line (power, telephone, pipe, or fence)
L?	Possible line
?	Questionable anomaly
○	Apparent thickness > 10 m
>	Dip
100¢	Direct magnetic correlation of 100 gammas

DIGHEM maps are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with geology when planning a followup program. The actual mho values are plotted for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of all conductors in terms of length, strike direction, conductance and depth. The accuracy is comparable to an interpretation from a ground EM survey having the same line spacing.

JOB 150, AUGUST 1981

LOCATION MAP 090892



Scale 1 : 500,000

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

ENHANCED MAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
A. R. FRASER

SCALE 1:15,000

3/4 1/2 0 1/2 1 1 1/2 Kilometres

1/4 0 1/4 1/2 3/4 Miles

Nov/16/81 J.L.LeDel

SHEET 1

Flight line

Fiducials and numbers

ISOMAGNETIC LINES

(enhanced field)

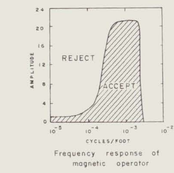
5000 ..... 5000 gammas

1000 ..... 1000 gammas

200 ..... 200 gammas

100 ..... 100 gammas

..... magnetic depression

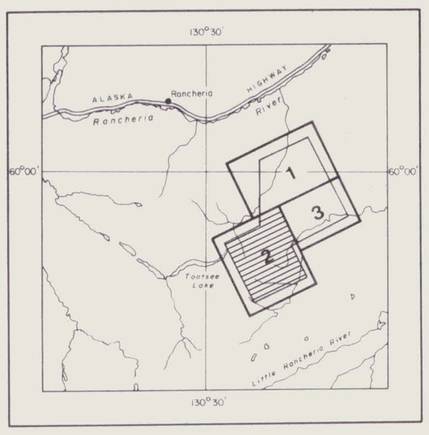


Frequency response of magnetic operator

JOB 150, AUGUST 1981

090892

LOCATION MAP



Scale 1 : 500,000

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

ENHANCED MAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

SCALE 1:15,000

3/4 1/2 0 1/2 1 1/2 Kilometres

1/4 0 1/4 1/2 3/4 Miles

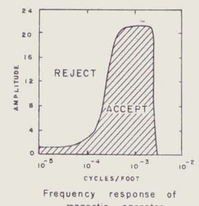
SHEET 2

Nov. 16/81

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

Flight line

Fiducials and numbers



Frequency response of magnetic operator

ISOMAGNETIC LINES

(enhanced field)

5000 gammas

1000 gammas

200 gammas

100 gammas

magnetic depression

JOB 150, AUGUST 1981

090892

DIGHEM^{II} SURVEY

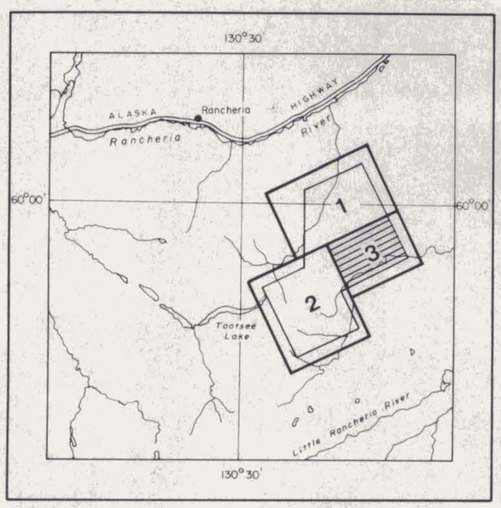
TOOTSEE RIVER, BRITISH COLUMBIA

ENHANCED MAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

LOCATION MAP



Scale 1 : 500,000

SCALE 1:15,000

3/4 1/2 0 1/2 1 1½ Kilometres

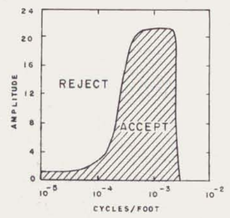
1/4 0 1/4 1/2 3/4 Miles

SHEET 3

Nov. 16/81

Flight line

Fiducials and numbers



Frequency response of magnetic operator

ISOMAGNETIC LINES

(enhanced field)

5000 gammas

1000 gammas

200 gammas

100 gammas

magnetic depression

JOB 150, AUGUST 1981

50 25 0 50
METRES

REGIONAL RESOURCES LTD.
AMAX OF CANADA LIMITED
MIDWAY PROPERTY

SURVEY CREEK AREA (NORTH)

COMPLETE BOUGUER GRAVITY MAP

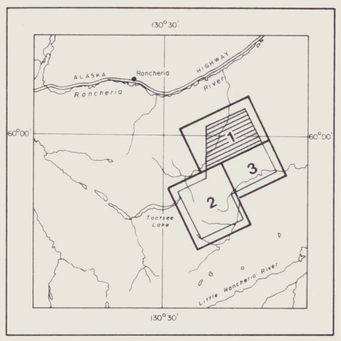
CONTOUR INTERVAL: 0.2 MGAL

Ager, Berretta & Associates Inc.
Vancouver, Canada

DWN. BY: T.M.
SCALE: 1:1,000
DATE: NOV. 1981

FIG. NO. 3

LOCATION MAP



Scale 1 : 500,000

090892

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

MAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

SCALE 1:15,000

3/4 1/2 0 1/2 1 1 1/2 Kilometres

1/4 0 1/4 1/2 3/4 Miles

Nov. 16/81

SHEET 1

Flight line

1250

Fiducials and numbers

1250

ISOMAGNETIC LINES

(total field)

1000 ..... 1000 gammas

200 ..... 200 gammas

..... 50 gammas

..... 25 gammas

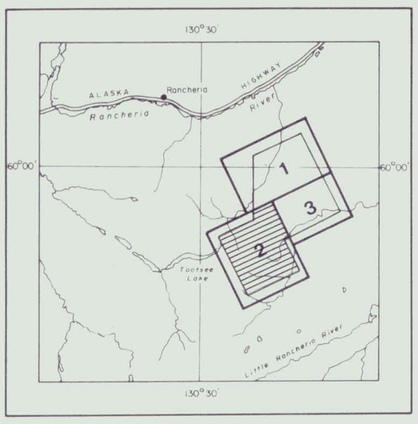
..... magnetic depression

Magnetic Inclination within the survey area: 77°

JOB 150, AUGUST 1981

090892

LOCATION MAP



Scale 1 : 500,000

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

MAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

SCALE 1:15,000

3/4 1/2 0 1/2 1 1½ Kilometres

1/4 0 1/4 1/2 3/4 Miles

SHEET 2

Flight line

1981

Fiducials and numbers

9621

ISOMAGNETIC LINES

(total field)

1000 ..... 1000 gammas

200 ..... 200 gammas

..... 50 gammas

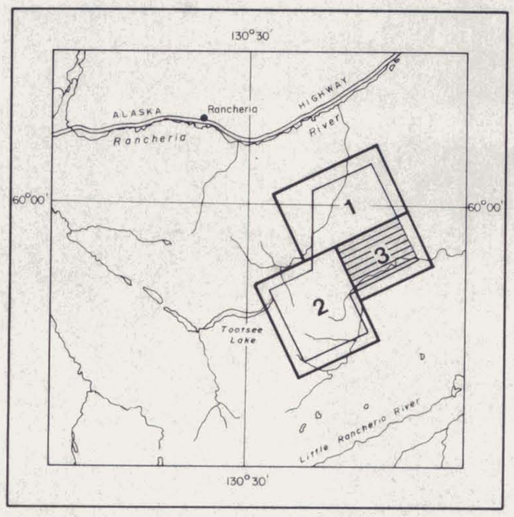
..... 25 gammas

..... magnetic depression

Magnetic Inclination within the survey area : 70°

JOB 150, AUGUST 1981

LOCATION MAP



Scale 1 : 500,000

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

MAGNETICS

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

SCALE 1:15,000

3/4 1/2 0 1/2 1 1 1/2 Kilometres

1/4 0 1/4 1/2 3/4 Miles

090892

Nov 14/81 D. Fraser

SHEET 3

Flight line

Fiducials and numbers

ISOMAGNETIC LINES

(total field)

1000 ..... 1000 gammas

200 ..... 200 gammas

..... 50 gammas

..... 25 gammas

..... magnetic depression

Magnetic Inclination within the survey area: 70°

ADR 50, AUGUS

MID 1 to MID 240 CLAIM BOUNDARY

NO OUTCROP

TOOTSEE RIVER

BORDER

YUKON B.C.

SURVEY MTN.

BL 12500E

DITCH 167 m

DITCH 105m

DITCH 83 m

DITCH 63 m

TRENCH 16

TRENCH 17

TRENCH 18

TRENCH 18a

TRENCH 15

ROAD WORK 114 m

Baritic Exhalite

Baritic Horizon

SALEM VEIN FLAT

MARTY VEIN

INTERPRETED FROM BOUGUER GEOCHEMISTRY

MAP 6

MAP 1 MAP 2 MAP 3

CLAIM BOUNDARY

MAP 4 MAP 5

KEY MAP

SCALE 1 : 200,000

EXPLANATION

- Barite / exhalite horizon
- Outcrop
- Geological contact
- Fault
- 20° Bedding attitude
- Pb >80, Zn >360, Ag >1.6, Ba >5000 — Stream sediment sample locations with anomalous results

LEGEND

UPPER DEVONIAN

UPPER SYLVESTER FORMATION

4 — Mafic, felsic volcanics, coarse grained metadiorite sills, minor pyroxenite

LOWER SYLVESTER FORMATION

3 — Interbedded light green to black chert, phyllite, dark grey calcareous sandstone and local carbonaceous, siliceous black argillite, minor light grey bedded barite, minor light grey to buff siliceous exhalite

2b — Grey massive to laminated sandstone, fine to coarse grained conglomerate, minor grey to black sand-banded argillite

2a — Dark grey to black sand-banded argillite, massive carbonaceous siliceous black argillite, minor light grey bedded to nodular barite and light grey to buff siliceous exhalite

1b — Grey massive to laminated sandstone, fine to coarse grained conglomerate, minor grey to black sand-banded argillite

1a — Carbonaceous siliceous black argillite, minor light grey to buff siliceous exhalite

MIDDLE DEVONIAN

McDAME FORMATION

Mb — Fetid grey dolomite, dolomitic limestone, fossiliferous limestone

Ma — White coarse grained metaquartzite

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

GEOLOGY

MID 1 to MID 240

WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 105 B

1:10,000

500 400 300 200 100 0 200 400 600 800

SCALE IN METRES

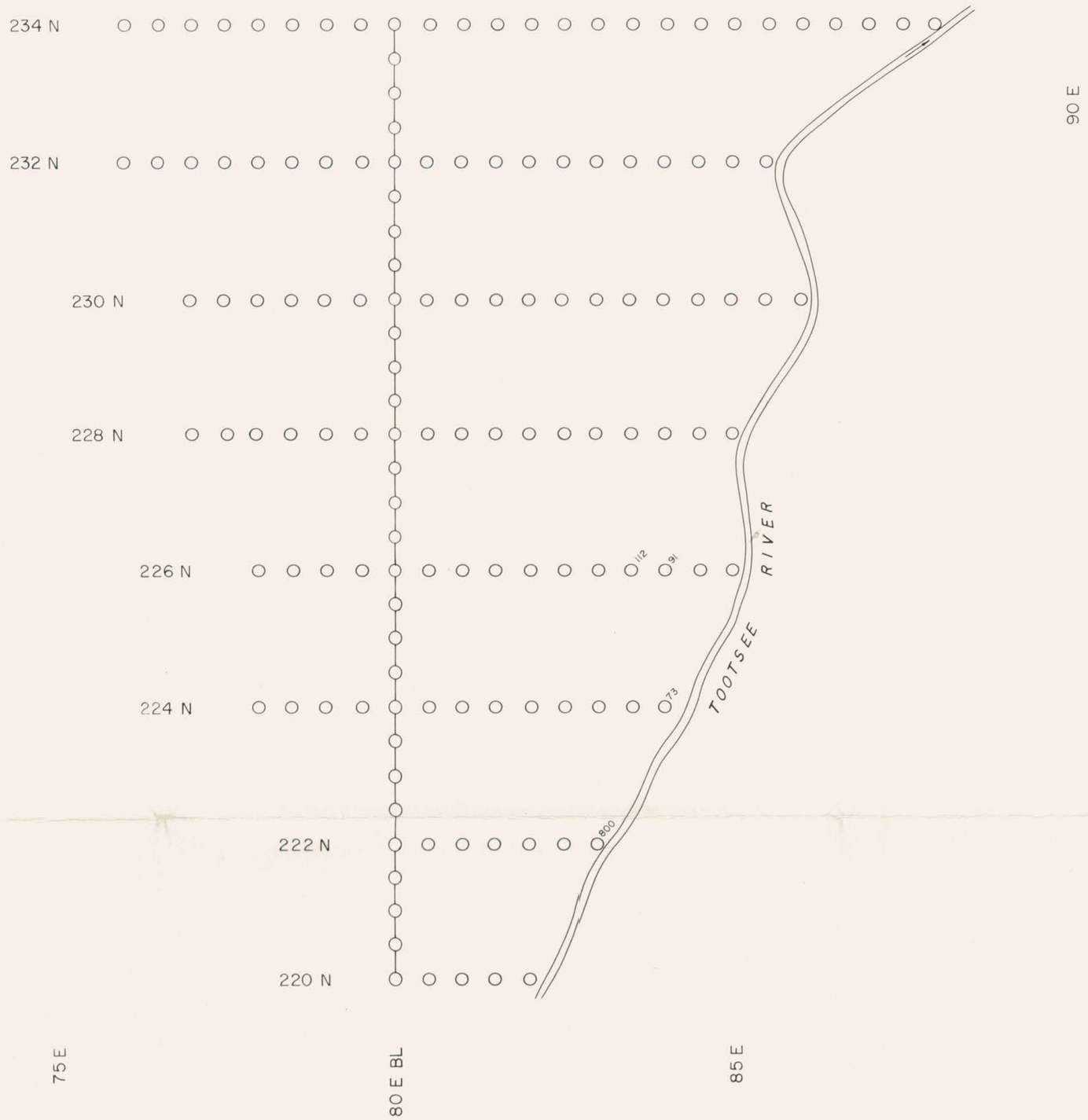
BY

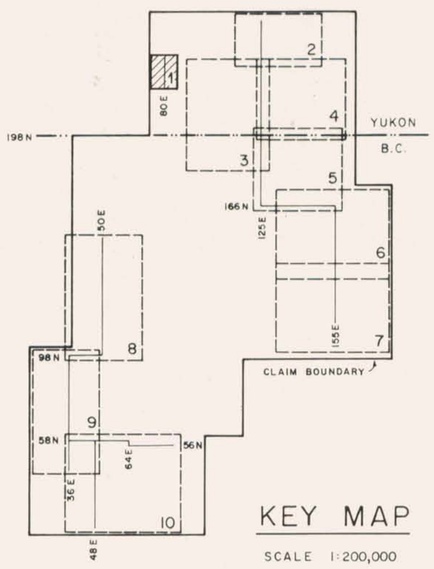
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

OCTOBER 1981

PLATE 1

099892





KEY MAP

SCALE 1:200,000

LEGEND

Pb CONCENTRATION IN PPM

○	BACKGROUND	< 60
○	WEAKLY ANOMALOUS	60 - 140
○	MODERATELY ANOMALOUS	141 - 340
○	ANOMALOUS	341 - 830
○	STRONGLY ANOMALOUS	> 830

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○	SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
○ NS	NO SAMPLE COLLECTED
○ IS	INSUFFICIENT SAMPLE
⊕	LEGAL CORNER POSTS AND CLAIM BOUNDARIES

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY - Pb

NORTH GRID KEY # 1

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N T S 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

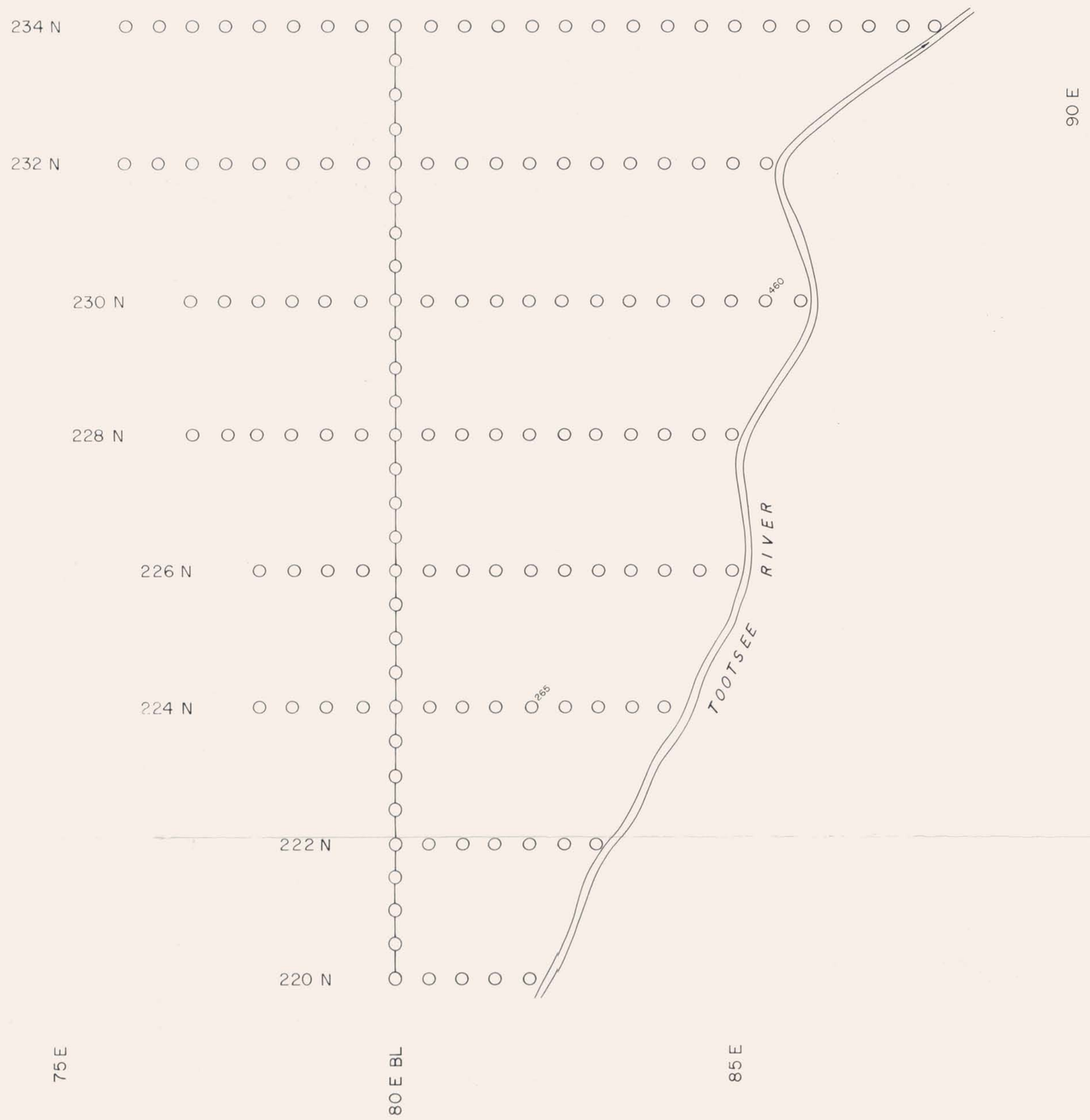
SCALE IN METRES

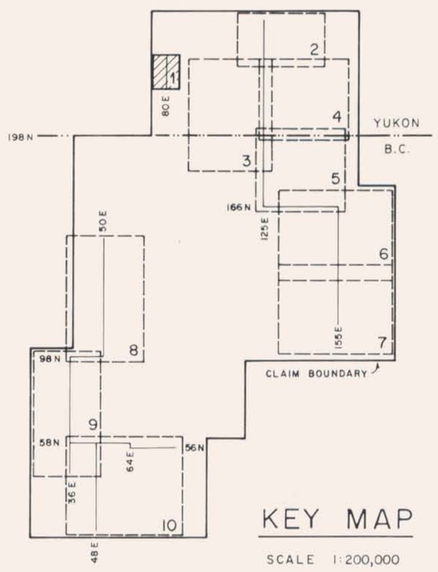
BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B C V6C 2G8

DECEMBER 1981

PLATE 2

090892





KEY MAP

SCALE 1:200,000

LEGEND

Zn CONCENTRATION IN PPM

○	BACKGROUND	< 250
○	WEAKLY ANOMALOUS	251 – 500
○	MODERATELY ANOMALOUS	501 – 1000
○	ANOMALOUS	1001 – 2000
○	STRONGLY ANOMALOUS	> 2000

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○	SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
○ NS	NO SAMPLE COLLECTED
○ IS	INSUFFICIENT SAMPLE
—⊕—	LEGAL CORNER POSTS AND CLAIM BOUNDARIES

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Zn

NORTH GRID KEY # 1

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N T S 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

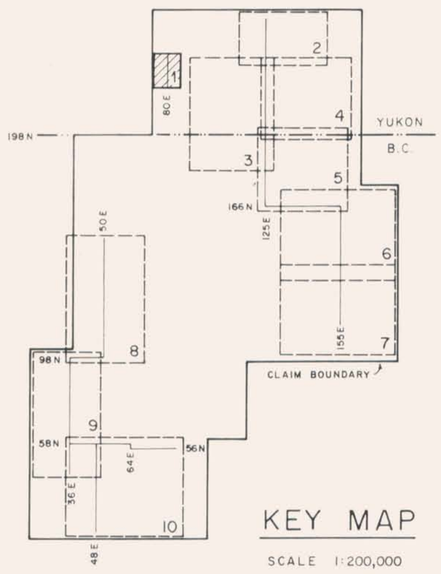
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B C V6C 2G8

DECEMBER 1981

PLATE 3

090692



KEY MAP

SCALE 1:200,000

LEGEND

Ag CONCENTRATION IN PPM

○	BACKGROUND	< 0.9
○	WEAKLY ANOMALOUS	0.9 - 2.0
○	MODERATELY ANOMALOUS	2.1 - 4.3
○	ANOMALOUS	4.4 - 9.0
○	STRONGLY ANOMALOUS	> 9.0

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○	SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
○ NS	NO SAMPLE COLLECTED
○ IS	INSUFFICIENT SAMPLE
⊕	LEGAL CORNER POSTS AND CLAIM BOUNDARIES

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY - Ag

NORTH GRID KEY # 1

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

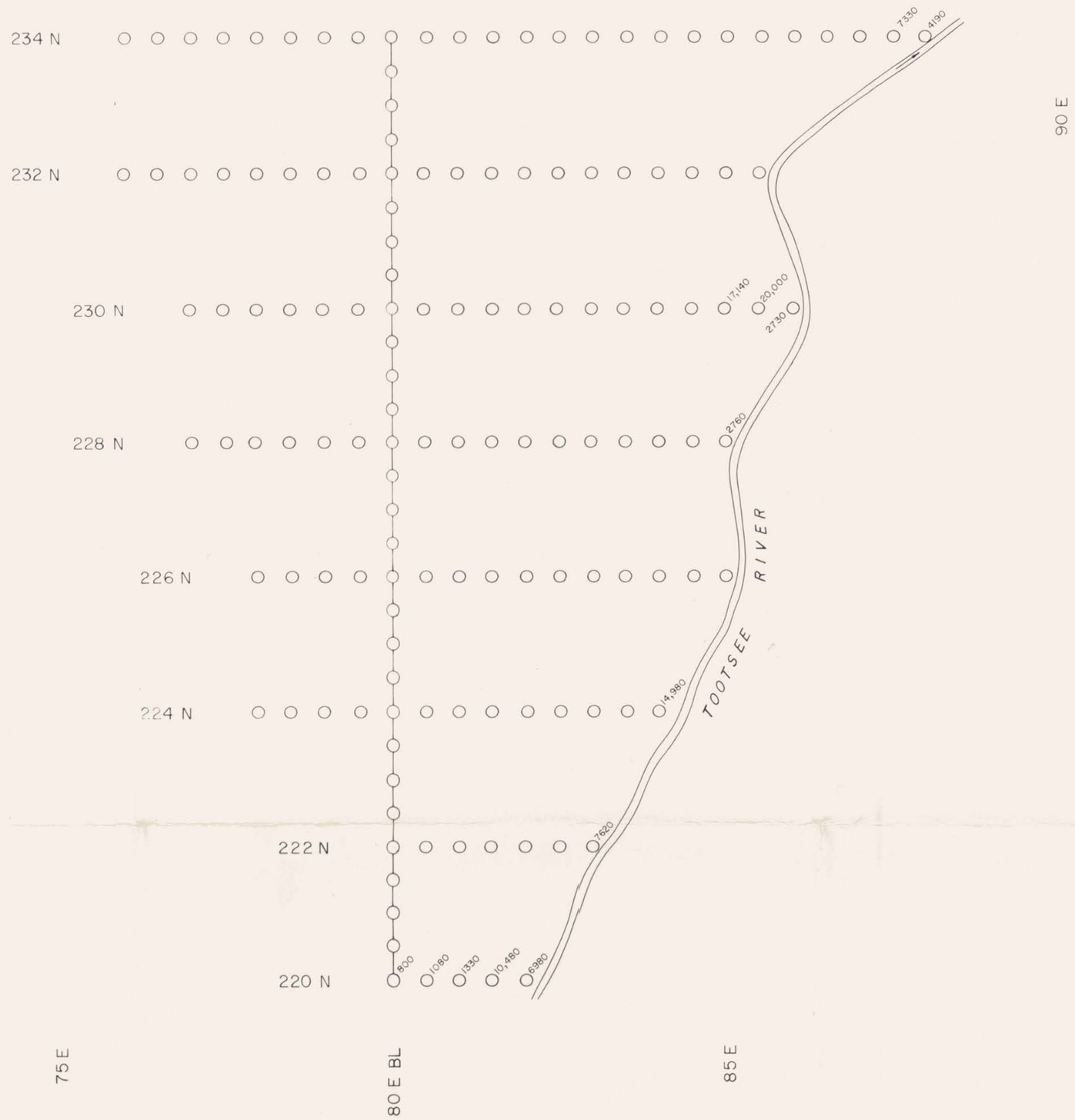
SCALE IN METRES

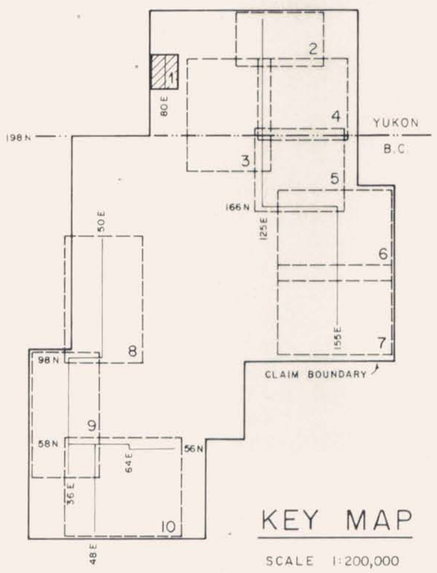
BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 4

090692





KEY MAP

SCALE 1:200,000

LEGEND

Ba CONCENTRATION IN PPM

BACKGROUND	< 2500	
WEAKLY ANOMALOUS	2500 – 4000	
MODERATELY ANOMALOUS	4001 – 6500	
ANOMALOUS	6501 – 10300	
STRONGLY ANOMALOUS	> 10300	

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

	SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
NS	NO SAMPLE COLLECTED
IS	INSUFFICIENT SAMPLE
	LEGAL CORNER POSTS AND CLAIM BOUNDARIES

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Ba

NORTH GRID KEY # 1

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

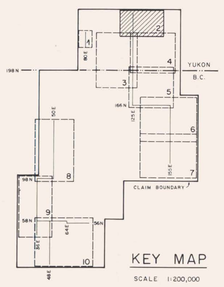
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 5

030892



KEY MAP

SCALE 1:200,000

LEGEND

Pb CONCENTRATION IN PPM

○	BACKGROUND	< 60
○	WEAKLY ANOMALOUS	60 - 140
○	MODERATELY ANOMALOUS	141 - 340
○	ANOMALOUS	341 - 830
○	STRONGLY ANOMALOUS	> 830

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM

○ NS NO SAMPLE COLLECTED

○ IS INSUFFICIENT SAMPLE

LEGAL CORNER POSTS AND CLAIM BOUNDARIES

N

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY - Pb

NORTH GRID KEY # 2

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

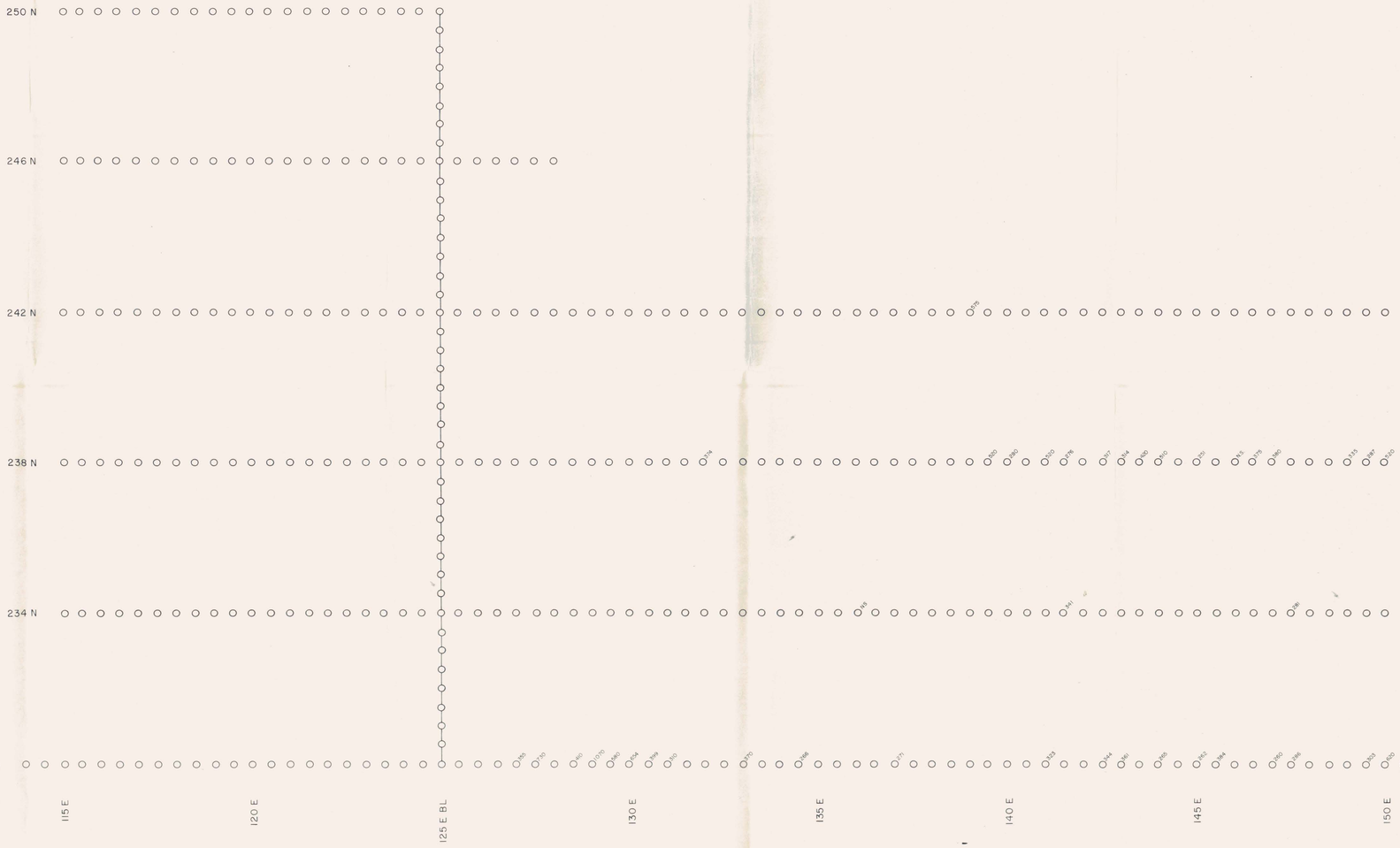
SCALE IN METRES

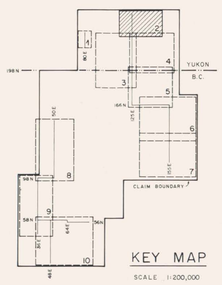
BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 6

2680092





KEY MAP

SCALE 1:200,000

LEGEND

Zn CONCENTRATION IN PPM

○	BACKGROUND	< 250	
○	WEAKLY ANOMALOUS	251 – 500	
○	MODERATELY ANOMALOUS	501 – 1000	
○	ANOMALOUS	1001 – 2000	
○	STRONGLY ANOMALOUS	> 2000	

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM

○ NS NO SAMPLE COLLECTED

○ IS INSUFFICIENT SAMPLE

LEGAL CORNER POSTS AND CLAIM BOUNDARIES

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Zn

NORTH GRID KEY # 2

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 7

090092

250 N

246 N

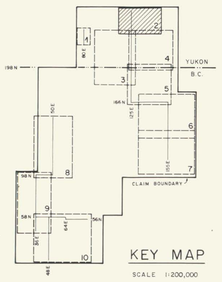
242 N

238 N

234 N

230 N

115 E | 120 E | 125 E BL | 130 E | 135 E | 140 E | 145 E | 150 E



KEY MAP

SCALE 1:200,000

LEGEND

Ag CONCENTRATION IN PPM

BACKGROUND	< 0.9	
WEAKLY ANOMALOUS	0.9 - 2.0	
MODERATELY ANOMALOUS	2.1 - 4.3	
ANOMALOUS	4.4 - 9.0	
STRONGLY ANOMALOUS	> 9.0	

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM

NS NO SAMPLE COLLECTED

IS INSUFFICIENT SAMPLE

LEGAL CORNER POSTS AND CLAIM BOUNDARIES

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY - Ag

NORTH GRID KEY # 2

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

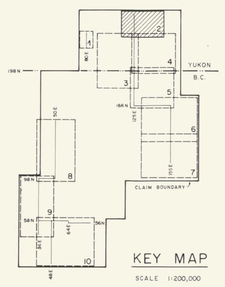
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 8

090892



KEY MAP

SCALE 1:200,000

LEGEND

Ba CONCENTRATION IN PPM

○	BACKGROUND	< 2500	
○	WEAKLY ANOMALOUS	2500 – 4000	
○	MODERATELY ANOMALOUS	4001 – 6500	
○	ANOMALOUS	6501 – 10300	
○	STRONGLY ANOMALOUS	> 10300	

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM

○ NS NO SAMPLE COLLECTED

○ IS INSUFFICIENT SAMPLE

LEGAL CORNER POSTS AND CLAIM BOUNDARIES

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Ba

NORTH GRID KEY # 2

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

SCALE IN METRES

BY

CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 9

00892

230 N
228 N
227 N
226 N
225 N
224 N
222 N
220 N
219 N
218 N
217 N
216 N
215 N
214 N
213 N
212 N
210 N
209 N
208 N
20750 N
206 N
20550 N
204 N
20350 N
20250 N
202 N
201 N
200 N
199 N
198 N B.C.-YUKON BORDER
197 N
196 N
194 N
190 N
186 N

95 E
100 E
105 E
110 E
115 E
120 E
125 E BL

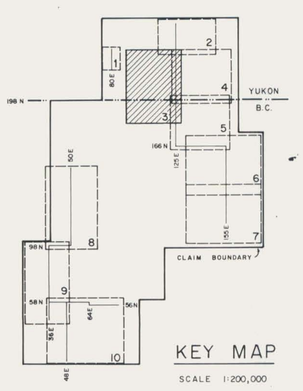
LEGEND

Pb CONCENTRATION IN PPM

○	BACKGROUND	< 60
○	WEAKLY ANOMALOUS	60 – 140
○	MODERATELY ANOMALOUS	141 – 340
○	ANOMALOUS	341 – 830
○	STRONGLY ANOMALOUS	> 830

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
○ NS NO SAMPLE COLLECTED
○ IS INSUFFICIENT SAMPLE
LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP
SCALE 1:200,000

REGIONAL RESOURCES LTD.
AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Pb

NORTH GRID KEY # 3

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 10

090802

230 N
228 N
227 N
226 N
225 N
224 N
222 N
220 N
219 N
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217 N
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212 N
210 N
209 N
208 N
20750 N
206 N
20550 N
204 N
20350 N
20250 N
202 N
201 N
200 N
199 N
198 N B.C.-YUKON BORDER
197 N
196 N
194 N
190 N
186 N

95 E
100 E
105 E
110 E
115 E
120 E
125 E BL

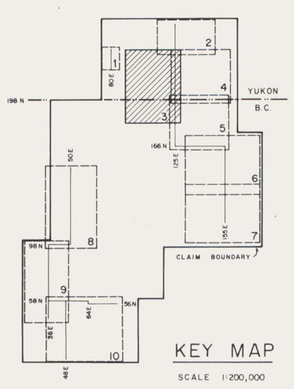
LEGEND

Zn CONCENTRATION IN PPM

BACKGROUND	<250
WEAKLY ANOMALOUS	251 - 500
MODERATELY ANOMALOUS	501 - 1000
ANOMALOUS	1001 - 2000
STRONGLY ANOMALOUS	>2000

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

- SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
- NS NO SAMPLE COLLECTED
- IS INSUFFICIENT SAMPLE
- LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP

SCALE 1:200,000

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY - Zn

NORTH GRID KEY # 3

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 11

268060

230 N
228 N
227 N
226 N
225 N
224 N
222 N
220 N
219 N
218 N
217 N
216 N
215 N
214 N
213 N
212 N
210 N
209 N
208 N
20750 N
206 N
20550 N
204 N
20350 N
20250 N
202 N
201 N
200 N
199 N
198 N B.C.-YUKON BORDER
197 N
196 N
194 N
190 N
186 N

95 E
100 E
105 E
110 E
115 E
120 E
125 E BL

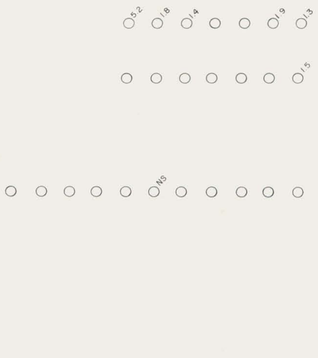
LEGEND

Ag CONCENTRATION IN PPM

○	BACKGROUND	< 0.9
○	WEAKLY ANOMALOUS	0.9 – 2.0
○	MODERATELY ANOMALOUS	2.1 – 4.3
○	ANOMALOUS	4.4 – 9.0
○	STRONGLY ANOMALOUS	> 9.0

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
○ NS NO SAMPLE COLLECTED
○ IS INSUFFICIENT SAMPLE
LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP
SCALE 1:200,000

REGIONAL RESOURCES LTD.
//
AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Ag

NORTH GRID KEY # 3

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 12

090892

230 N
228 N
227 N
226 N
225 N
224 N
222 N
220 N
219 N
218 N
217 N
216 N
215 N
214 N
213 N
212 N
210 N
209 N
208 N
20750 N
206 N
20550 N
204 N
20350 N
20250 N
202 N
201 N
200 N
199 N
198 N B.C.-YUKON BORDER
197 N
196 N
194 N
190 N
186 N

95 E
100 E
105 E
110 E
115 E
120 E
125 E BL

N

LEGEND

Ba CONCENTRATION IN PPM

○	BACKGROUND	< 2500
○	WEAKLY ANOMALOUS	2500 – 4000
○	MODERATELY ANOMALOUS	4001 – 6500
○	ANOMALOUS	6501 – 10300
○	STRONGLY ANOMALOUS	> 10300

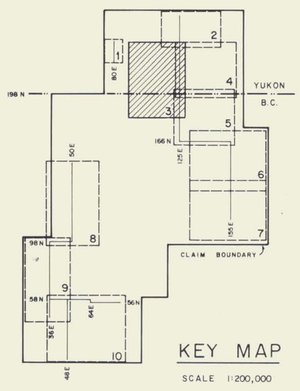
NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM

○ NS NO SAMPLE COLLECTED

○ IS INSUFFICIENT SAMPLE

LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP

SCALE 1:200,000

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Ba

NORTH GRID KEY # 3

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 13

230 N
228 N
227 N
226 N
225 N
224 N
222 N
220 N
218 N
217 N
216 N
215 N
214 N
213 N
212 N
211 N
210 N
209 N
208 N
207 N
206 N
204 N
202 N
200 N
B.C.-YUKON BORDER 198 N

125 E BL
130 E
135 E
140 E
145 E
150 E
155 E

N

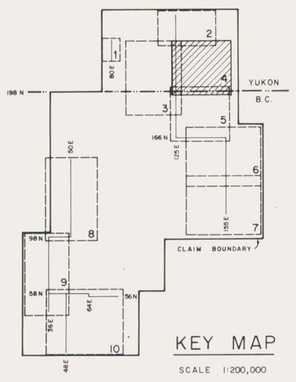
LEGEND

Pb CONCENTRATION IN PPM

○	BACKGROUND	< 60
○	WEAKLY ANOMALOUS	60 - 140
○	MODERATELY ANOMALOUS	141 - 340
○	ANOMALOUS	341 - 830
○	STRONGLY ANOMALOUS	>830

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
○ NS NO SAMPLE COLLECTED
○ IS INSUFFICIENT SAMPLE
LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP
SCALE 1:200,000

REGIONAL RESOURCES LTD.
—//—
AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY - Pb

NORTH GRID KEY # 4

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 14

090892

LEGEND

Zn CONCENTRATION IN PPM

○	BACKGROUND	< 250
○	WEAKLY ANOMALOUS	251 – 500
○	MODERATELY ANOMALOUS	501 – 1000
○	ANOMALOUS	1001 – 2000
○	STRONGLY ANOMALOUS	> 2000

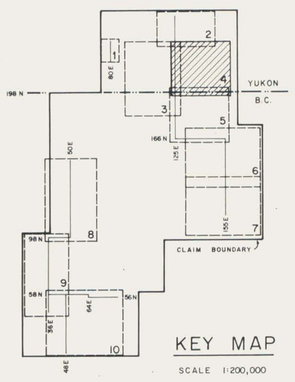
NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM

○ NS NO SAMPLE COLLECTED

○ IS INSUFFICIENT SAMPLE

⊕ LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP

SCALE 1:200,000

090892

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Zn

NORTH GRID KEY # 4

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500

SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 15

230 N
228 N
227 N
226 N
225 N
224 N
222 N
220 N
218 N
217 N
216 N
215 N
214 N
213 N
212 N
211 N
210 N
209 N
208 N
207 N
206 N
204 N
202 N
200 N
B.C.-YUKON BORDER 198 N

125 E BL
130 E
135 E
140 E
145 E
150 E
155 E

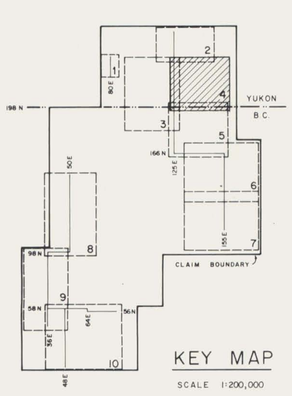
LEGEND

Ag CONCENTRATION IN PPM

○	BACKGROUND	< 0.9
○	WEAKLY ANOMALOUS	0.9 – 2.0
○	MODERATELY ANOMALOUS	2.1 – 4.3
○	ANOMALOUS	4.4 – 9.0
○	STRONGLY ANOMALOUS	> 9.0

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

○ SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
○ NS NO SAMPLE COLLECTED
○ IS INSUFFICIENT SAMPLE
LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP
SCALE 1:200,000

REGIONAL RESOURCES LTD.
AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY – Ag

NORTH GRID KEY # 4

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

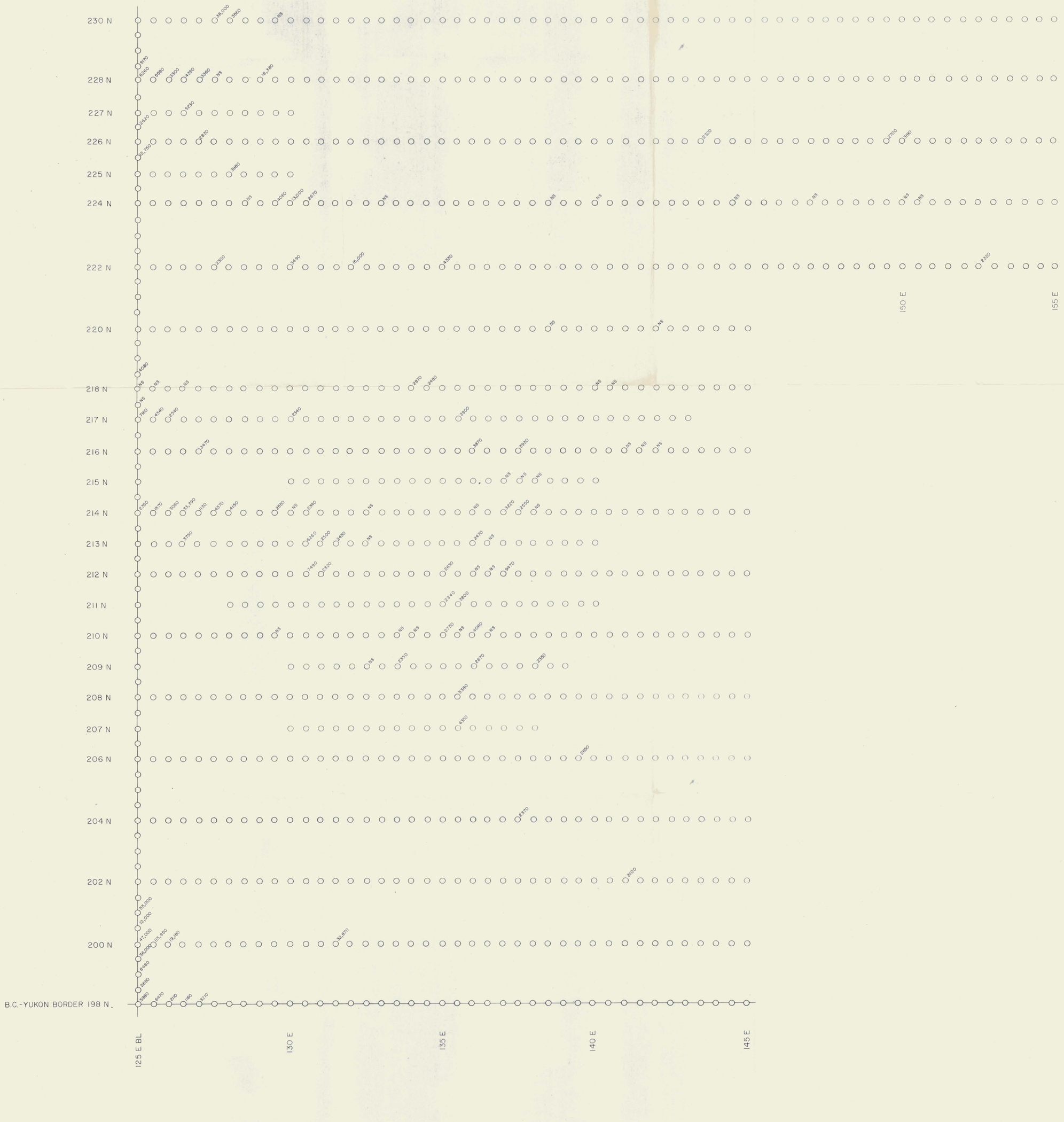
100 50 0 100 200 300 400 500
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 16

090082



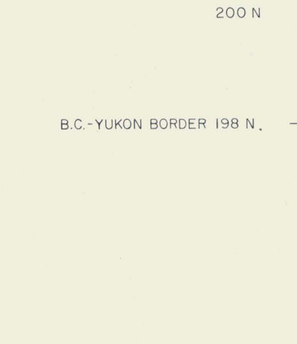
LEGEND

Ba CONCENTRATION IN PPM

BACKGROUND	< 2500
WEAKLY ANOMALOUS	2500 - 4000
MODERATELY ANOMALOUS	4001 - 6500
ANOMALOUS	6501 - 10300
STRONGLY ANOMALOUS	> 10300

NOTE: ONLY ABOVE BACKGROUND RESULTS PLOTTED

- SOIL SAMPLE LOCATION AND ELEMENT CONCENTRATION IN PPM
- NS NO SAMPLE COLLECTED
- IS INSUFFICIENT SAMPLE
- LEGAL CORNER POSTS AND CLAIM BOUNDARIES



KEY MAP

SCALE 1:200,000

REGIONAL RESOURCES LTD.

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY - Ba

NORTH GRID KEY # 4

LIARD MINING DIVISION, B.C.
WATSON LAKE MINING DISTRICT, Y.T.
N.T.S. 104 O, 105 B

1 : 5,000

100 50 0 100 200 300 400 500
SCALE IN METRES

BY
CORDILLERAN ENGINEERING
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

DECEMBER 1981

PLATE 17

09692

EXPLANATION

LEAD CONTENT IN SOIL >60 PPM

ZINC CONTENT IN SOIL >250 PPM

SILVER CONTENT IN SOIL > 0.9 PPM

BARIUM CONTENT IN SOIL > 2500 PPM

REGIONAL RESOURCES LTD.

—#—

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

SOIL GEOCHEMISTRY COMPILATION

MID 1 to MID 240

WATSON LAKE MINING DISTRICT, Y.T.

N.T.S. 105 B

1 : 20,000

800 400 0 400 800 1200 1600

SCALE IN METRES

BY

CORDILLERAN ENGINEERING

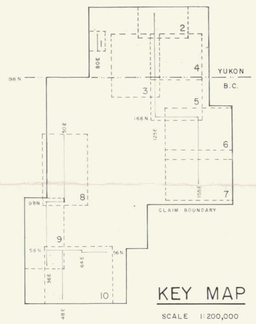
1418 - 355 BURRARD STREET

VANCOUVER, B.C. V6C 2G8

NOVEMBER 1981

PLATE 18

090892



KEY MAP

SCALE 1:200,000

LEGEND

CUT PICKET LINE (usually a base line)

FLAGGED AND BLAZED COMPASS LINE (tie line)

FLAGGED AND BLAZED COMPASS LINE (soil sampling line)

REGIONAL RESOURCES LTD.

—//—

AMAX MINERALS EXPLORATION

MIDWAY PROPERTY

UPPER NORTH GRID

GRID KEY No.s 1,2,3&4

WATSON LAKE MINING DISTRICT, Y.T.

NTS 105 B

1:10,000

400 200 0 200 400 600

SCALE IN METRES

BY

CORDILLERAN ENGINEERING

1418 – 355 BURRARD STREET

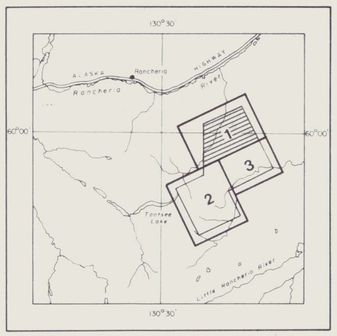
VANCOUVER, B.C. V6C 2G8

NOVEMBER 1981

PLATE 19

090892

LOCATION MAP



Scale 1 : 500,000 090892

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

RESISTIVITY

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
D. C. FRASER

SCALE 1:15,000

3/4 1/2 0 1/2 1/2 Kilometres

1/4 0 1/4 1/2 3/4 Miles

Nov 16/81 D.C. Fraser

SHEET 1

Flight line

Fiducials and numbers

LEGEND

Contours in ohm-m at eight intervals per decade

100
75
56
42
31
23
17
13
10

Note

The numbers face in the direction of increasing value.

JOB 150, AUGUST 1981

090892

LOCATION MAP

Scale 1 : 500,000

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

RESISTIVITY

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
D. C. FRASER

SCALE 1:15,000

3/4 1/2 0 1/2 1 1½ Kilometres

1/4 0 1/4 1/2 3/4 Miles

SHEET 2

Nov. 16/82
L. LeBel

Flight line

1888

Fiducials and numbers

1888

LEGEND

Contours in ohm-m
at eight intervals per decade

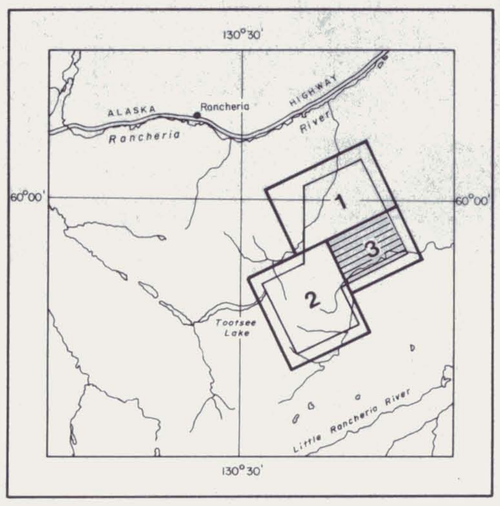
100
75
56
42
31
23
17
13
10

Note

The numbers face in the direction of increasing value.

JOB 150, AUGUS

LOCATION MAP



Scale 1 : 500,000

090892

DIGHEM^{II} SURVEY

TOOTSEE RIVER, BRITISH COLUMBIA

RESISTIVITY

FOR

AMAX MINERALS EXPLORATIONS

REGISTERED PROFESSIONAL ENGINEER
D. C. FRASER
PROVINCE OF ONTARIO

SCALE 1:15,000

3/4 1/2 0 1/2 1 1½ Kilometres

1/4 0 1/4 1/2 3/4 Miles

SHEET 3 Nov. 16/81 D. C. Fraser

Flight line

Fiducials and numbers

LEGEND

Contours in ohm-m
at eight intervals per decade

100
75
56
42
31
23
17
13
10

Note

The numbers face in the direction of increasing value.

JOB 150, AUGUST 1981

Office of the Regional Ma
NOV 2 6 1981
WHITEHORSE
Yukon Territory

MIDWAY PROPERTY

REGIONAL RESOURCES LTD
AMAX OF CANADA LIMITED

Survey Creek Area (North Grid)
MID 54, 56, 69 and 71 claims
Midway Property
Watson Lake Mining Division
NTS 105 B/1
60° 01'N, 130°19'W

RECEIVED
1981 NOV 23
MINING RECORDER
WATSON LAKE, Y.T.
I.A. & N.D.

090892

by

Ager, Berretta & Associates Inc.

November 1981

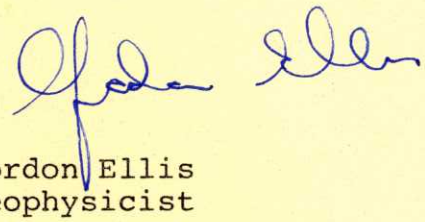
AGER, BERRETTA & ASSOCIATES INC.

Telephone: (604) 669-7748
CONSULTING
GEOPHYSICISTS
206 - 595 Howe Street
Vancouver, B.C., Canada
V6C 2T5

SUMMARY

The results of a 1981 gravity survey over the Survey Creek Area, Midway property, are contained in this report. There is an area of interest defined by a 0.2 milligal response adjacent to an apparent contact on the west side of the grid. This appears to be the only significant anomaly resulting from the work.

Respectfully submitted



Gordon Ellis
Geophysicist

November 1981

TABLE OF CONTENTS

	page
Introduction	1
Survey Procedures and Instrumentation	1
Interpretation	4
Conclusion	4
Appendix I - Gravity Fundamentals	
Appendix II - Gravity Listing	

FIGURES

Location Map	1
Grid Position	2
Survey Creek Area, Complete Bouguer	3

MIDWAY PROPERTY GRAVITY SURVEY
1981

At the request of Amax of Canada Ltd. and Cordilleran Engineering, Ager, Berretta and Associates Inc. completed a gravity survey of the Survey Creek area, Yukon Territory. The survey area covers the MID 54, 56, 69 and 71 claims in the Watson Lake mining district, Yukon Territory. The purpose of the survey was to attempt to delineate potential drill targets in the search for massive sulphides.

SURVEY PROCEDURES AND INSTRUMENTATION

Field personnel were based in the project camp on the property. Transport to and from the grid area was by helicopter. Grid lines and station locations had been previously established by the client.

Elevation datum was estimated from contour maps of the area. Elevations were obtained through use of an electronic level developed in-house by the consultant. Standard leveling and survey closure methods were used and station elevations were calculated to within a relative accuracy of $\pm$0.10 feet. For terrain correction purposes, elevations were established outside the grid area by using altimeters.

Gravity observations were made using a LaCoste & Romberg Model G gravity meter (serial no. 199) with a reading accuracy of $\pm$0.01 milligals. Instrument and diurnal drift were accounted for by tying into base station GB7-81 at the camp and by periodically tying back into completed lines.

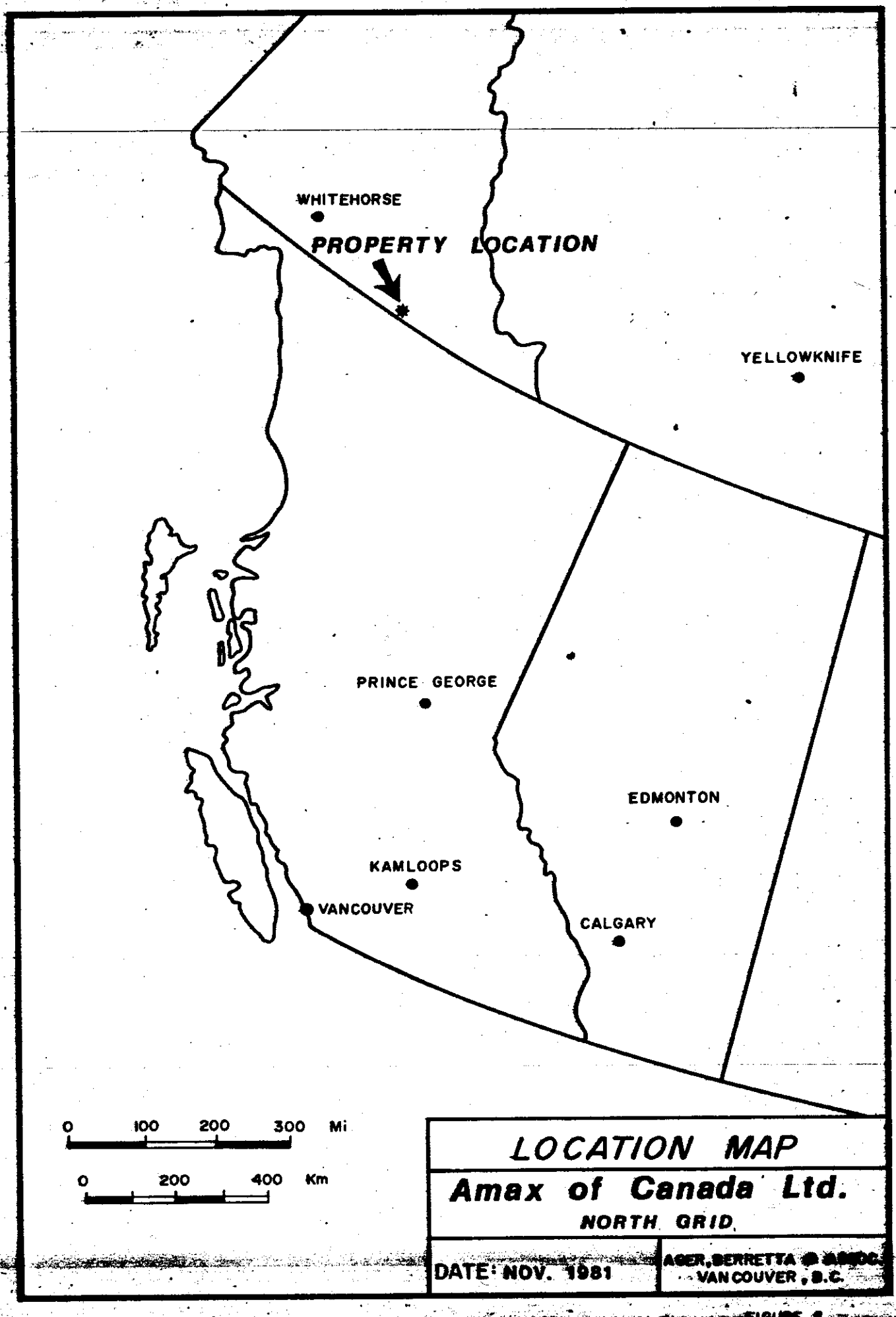
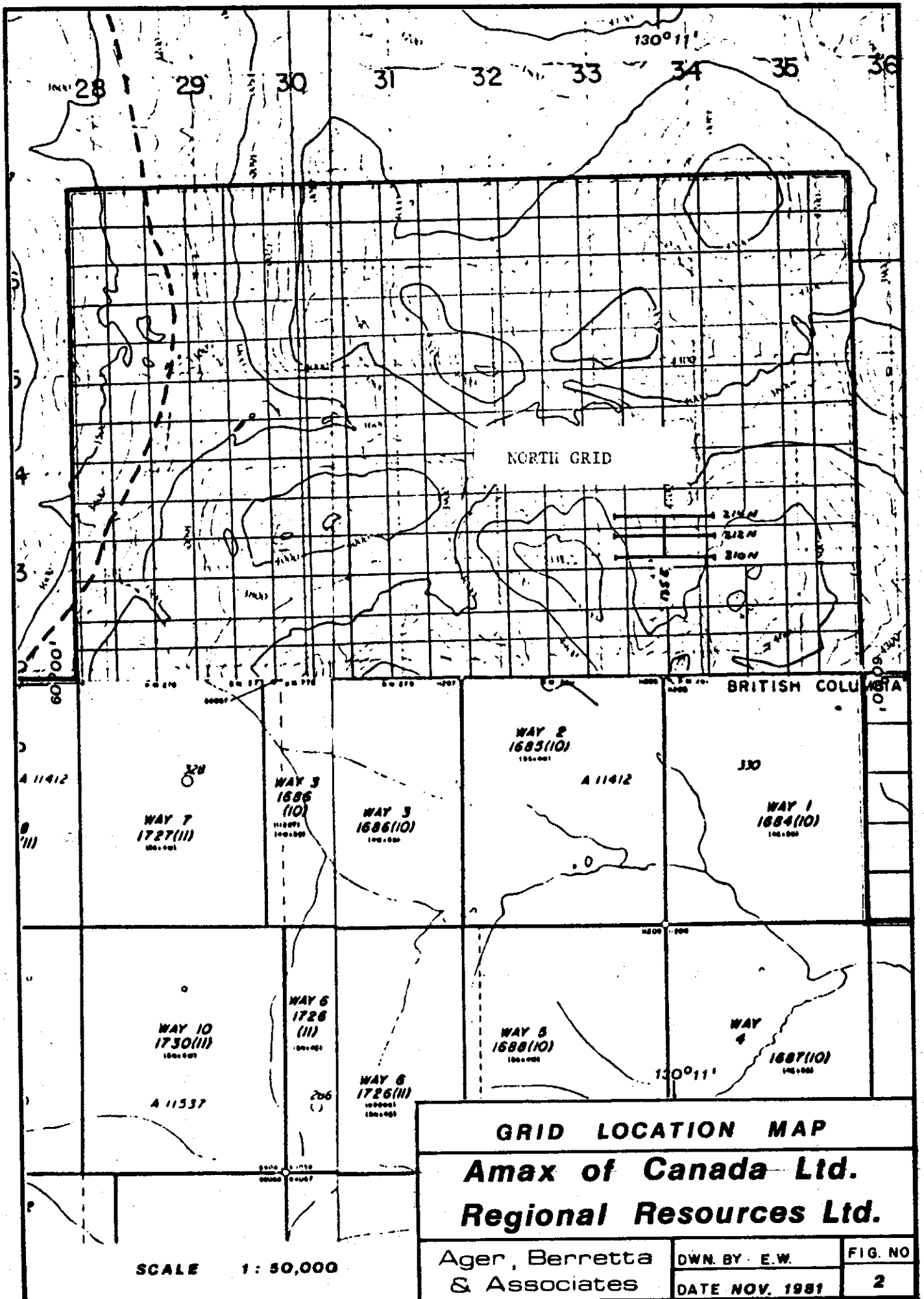

WHITEHORSE
PROPERTY LOCATION
YELLOWKNIFE
PRINCE GEORGE
EDMONTON
KAMLOOPS
VANCOUVER
CALGARY
0 100 200 300 Mi
0 200 400 Km
LOCATION MAP
Amax of Canada Ltd.
NORTH GRID
DATE: NOV. 1981
VANCOUVER, B.C.

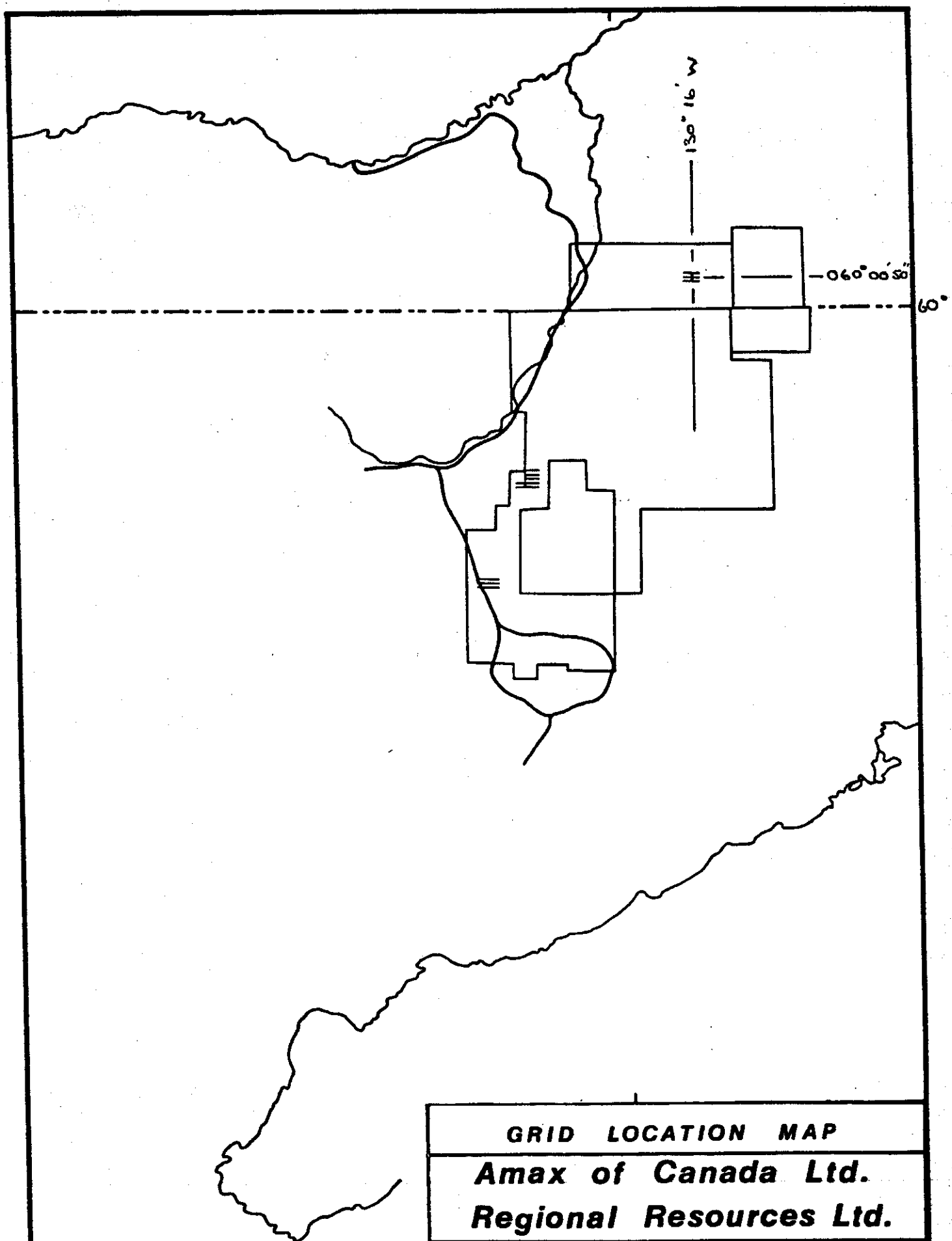
FIGURE 1



GRID LOCATION MAP

Amax of Canada Ltd.
Regional Resources Ltd.

Ager, Berretta & Associates	DWN. BY · E.W.	FIG. NO
	DATE NOV. 1981	2



GRID LOCATION MAP

Amax of Canada Ltd.

Regional Resources Ltd.

Ager, Berretta & Associates	DWN BY E.W.	FIG. NO
	DATE NOV. 1981	3

INTERPRETATION

A brief description of gravity fundamentals is included as Appendix I.

In order to determine appropriate Bouguer correction factors, elevation-gravity correlation analysis was carried out. A complete Bouguer Gravity map has been developed and is given as Figure 3.

SURVEY CREEK AREA

Three east west lines of one kilometre each and one central base line were surveyed (Figure 3). The Bouguer corrections were calculated using a density of 2.55 as derived through gravity-elevation correlation analysis. The grid area is overburden covered everywhere except in the west where shales outcrop. Very little background geology is available.

The gravity is relatively flat over the center and east of the grid. A subtle high near 13375 east appears to be only an apparent high resulting from a low in the valley to the east. The gradient at 13100 east is on a slope and may be related to a contact. An anomaly of approximately 0.2 milligals is present at 13175 east on line 21000. This is of interest because it is near the contact mentioned above. There are no other definitive anomalies on this property.

CONCLUSION

One low priority anomaly has been delineated at 13175 east on line 21000. Further geological information may render this of greater interest. An effort should be made to determine the nature of the apparent contact immediately west of the anomaly at 13175.

APPENDIX I

GRAVITY FUNDAMENTALS

There are a number of steps required in order to obtain meaningful, relative gravity values from raw field data. The final values are referred to as Complete Bouguer Gravity and are derived from the following components:

g_o = observed gravity = field observations corrected for drift and adjusted to primary base station gravity datum.

g_{fa} = free air effect = correction for the relative distance of the gravity station from the mass of the earth (point source mass). This calculation assumes a normal free air and corrects for relative differences in distance from the elevation datum.

g_{bs} = Bouguer slab effect = correction for the relative differences in thickness of rock material between gravity stations and the elevation datum. This calculation requires that a mean density for rock types between the lowest and highest grid elevations be established. All stations are then corrected for the gravity effect caused by this assumed slab of the derived density above the elevation datum.

g_l = latitude effect = correction for change of observed gravity with change in latitude - due primarily to the difference in the earth's radius between the poles and equator.

g_t = terrain effect = correction for variations caused by local terrain. The vertical component of the gravitational effect exerted by nearby hills, or not exerted by valleys or gullys, will affect the net reading obtained at any one station. The overall effect on a given line profile or grid area will be a function of the station spacing relative to the frequency of of the terrain correction.

Accurate and appropriate application of the above corrections yields Complete Bouguer Gravity values which are, in theory, free from all effects except those caused by relative changes in density within rock units below the survey area.

$G_{cb} = g_o - (g_{fa} + g_{bs} + g_l + g_t)$ = Complete Bouguer Gravity.

Changes in relative gravity values which may result in "anomalies" are a function of:

- the difference in densities between rock units;
- the sizes of rock units relative to each other and relative to the grid spacing or "target" size;
- the distance from the area of density contrast to the observation points.

For example: Steeply dipping, near surface massive sulphide deposits or coal seams will give sharp featured gravity anomalies, the former greater than background, the latter less than background. Density contrasts at depth, such as slopes or changes in basement stratigraphy, will result in very low frequency changes, often referred to as gradients.

APPENDIX II Gravity Listing

Field Work: 18 to 28 September 1981

Elevation Factor Density: 2.55 grams/cc

Gravity Datum as printed: Arbitrary

Elevation Datum: from contour maps

Base station GB7-81 at camp meter reading 4831.00 meter number 199

CREW

Greg Paquin - Project Geophysicist

Jim Girard - Gravity Observer

Larry Carlson - Field Assistant

Gordon Ellis - Senior Geophysicist/Data Interpretation

NORBL

DENSITY = 2.550 BOUGER FACTOR = .201729

STATION COORD	ELEV(M)	ELEV(FT)	OBS G	LAT G	TER G	CB GRAV
1400.0	1260.8	4136.4	94.50	.88	.64	350.36
1375.0	1260.3	4134.9	94.58	.90	.68	350.40
1350.0	1259.7	4132.7	94.73	.92	.70	350.46
1325.0	1260.3	4134.9	94.52	.94	.74	350.45
1300.0	1260.4	4135.2	94.45	.95	.79	350.45
1275.0	1259.1	4131.0	94.52	.97	.87	350.36
1250.0	1258.8	4129.9	94.51	.99	.92	350.36
1225.0	1260.2	4134.6	94.07	1.01	.95	350.26
1200.0	1262.5	4142.2	93.47	1.02	.98	350.16
1175.0	1261.0	4137.0	93.69	1.04	1.01	350.11
1150.0	1261.0	4137.2	93.60	1.06	1.02	350.06
1125.0	1261.7	4139.3	93.31	1.08	1.03	349.94
1100.0	1263.5	4145.2	93.00	1.09	1.04	350.01
1075.0	1264.8	4149.7	92.79	1.11	1.05	350.11
1050.0	1267.8	4159.6	92.19	1.13	1.07	350.15
1025.0	1271.3	4170.9	91.39	1.15	1.08	350.07
1000.0	1274.3	4180.7	90.78	1.16	1.09	350.09

NOR210

DENSITY = 2.550 BOUGER FACTOR = .201729

STATION COORD	ELEV(M)	ELEV(FT)	OBS G	LAT G	TER G	CB GRAV
4000.0	1383.5	4539.2	68.62	1.16	2.13	351.01
3975.0	1374.6	4509.9	70.39	1.16	2.08	350.93
3850.0	1365.1	4478.8	72.21	1.16	2.04	350.80
3825.0	1354.0	4442.1	74.42	1.16	1.98	350.69
3900.0	1345.6	4414.7	76.17	1.16	1.88	350.65
3875.0	1338.2	4390.5	77.75	1.16	1.80	350.67
3850.0	1330.4	4364.8	79.24	1.16	1.70	350.48
3825.0	1322.3	4338.1	80.96	1.16	1.61	350.47
3800.0	1315.1	4314.7	82.49	1.16	1.49	350.44
3775.0	1310.3	4298.8	83.56	1.16	1.39	350.43
3750.0	1306.5	4286.3	84.37	1.16	1.38	350.46
3725.0	1302.7	4274.1	85.14	1.16	1.37	350.47
3700.0	1295.6	4250.7	86.39	1.16	1.38	350.29
3675.0	1284.2	4213.2	88.61	1.16	1.39	350.22
3650.0	1270.9	4169.7	91.22	1.16	1.41	350.17
3625.0	1262.1	4140.9	93.05	1.16	1.41	350.23
3600.0	1261.3	4138.1	93.36	1.16	1.33	350.29
3575.0	1261.4	4138.3	93.40	1.16	1.20	350.21
3550.0	1263.6	4145.7	92.88	1.16	1.16	350.11
3525.0	1268.0	4160.1	92.00	1.16	1.13	350.08
3500.0	1274.3	4180.7	90.72	1.16	1.09	350.03
3475.0	1280.6	4201.3	89.52	1.16	1.11	350.12
3450.0	1287.1	4222.7	88.17	1.16	1.15	350.12
3425.0	1289.1	4229.3	87.67	1.16	1.19	350.07
3400.0	1294.9	4248.3	86.35	1.16	1.28	350.00
3375.0	1301.7	4270.7	84.93	1.16	1.36	350.04
3350.0	1307.4	4289.4	83.69	1.16	1.50	350.09
3325.0	1312.1	4304.7	82.59	1.16	1.67	350.11
3300.0	1318.9	4327.1	81.00	1.16	1.85	350.07
3275.0	1329.1	4360.7	78.79	1.16	2.00	350.07
3250.0	1337.7	4388.7	76.90	1.16	2.17	350.08
3225.0	1347.3	4420.2	74.66	1.16	2.37	349.98
3200.0	1358.8	4458.0	72.34	1.16	2.52	350.13
3175.0	1368.0	4488.1	70.44	1.16	2.67	350.23
3150.0	1377.2	4518.4	68.32	1.16	2.86	350.16
3125.0	1390.1	4560.8	65.25	1.16	3.08	349.92
3100.0	1400.6	4595.1	62.94	1.16	3.27	349.91
3075.0	1413.7	4638.2	59.76	1.16	3.43	349.54
3050.0	1427.9	4684.6	56.44	1.16	3.58	349.22
3025.0	1440.0	4724.5	53.60	1.16	3.64	348.89
3000.0	1456.6	4779.0	49.65	1.16	3.69	348.35

NOR212

DENSITY = 2.550 BOUGER FACTOR = .201729

STATION COORD	ELEV(M)	ELEV(FT)	OBS G	LAT G	TER G	CB GRAV
4000.0	1325.3	4348.2	80.31	1.02	1.73	350.42
3975.0	1324.2	4344.6	80.65	1.02	1.60	350.41
3950.0	1324.3	4344.8	80.61	1.02	1.58	350.36
3925.0	1323.4	4342.0	80.89	1.02	1.55	350.43
3900.0	1320.9	4333.5	81.30	1.02	1.52	350.30
3875.0	1313.5	4309.3	82.73	1.02	1.50	350.21
3850.0	1305.5	4283.2	84.29	1.02	1.48	350.15
3825.0	1296.9	4254.8	85.90	1.02	1.44	349.98
3800.0	1286.7	4221.6	88.04	1.02	1.42	350.05
3775.0	1278.7	4195.3	89.72	1.02	1.38	350.08
3750.0	1271.5	4171.7	91.21	1.02	1.34	350.08
3725.0	1263.2	4144.2	92.96	1.02	1.30	350.10
3700.0	1253.1	4111.1	94.93	1.02	1.26	349.99
3675.0	1246.8	4090.4	96.37	1.02	1.23	350.13
3650.0	1245.4	4085.9	96.76	1.02	1.20	350.21
3625.0	1244.6	4083.4	97.05	1.02	1.11	350.25
3600.0	1245.3	4085.5	97.00	1.02	1.04	350.26
3575.0	1246.1	4088.1	96.79	1.02	1.02	350.20
3550.0	1248.8	4097.0	96.19	1.02	1.03	350.15
3525.0	1253.8	4113.6	95.15	1.02	1.00	350.11
3500.0	1262.5	4142.2	93.46	1.02	.97	350.14
3475.0	1269.2	4164.0	92.28	1.02	.99	350.32
3450.0	1272.5	4174.7	91.57	1.02	1.02	350.30
3425.0	1280.5	4201.0	89.88	1.02	1.09	350.30
3400.0	1287.7	4224.8	88.35	1.02	1.13	350.27
3375.0	1295.1	4249.0	86.82	1.02	1.18	350.28
3350.0	1296.8	4254.6	86.39	1.02	1.27	350.29
3325.0	1302.6	4273.7	85.13	1.02	1.39	350.32
3300.0	1309.0	4294.5	83.72	1.02	1.54	350.34
3275.0	1315.4	4315.5	81.99	1.02	1.70	350.06
3250.0	1322.9	4340.2	80.28	1.02	1.84	350.01
3225.0	1331.9	4369.7	78.18	1.02	1.99	349.87
3200.0	1341.0	4399.6	76.15	1.02	2.14	349.83
3175.0	1349.7	4428.0	74.17	1.02	2.28	349.74
3150.0	1359.1	4459.1	72.05	1.02	2.43	349.68
3125.0	1367.7	4487.4	70.12	1.02	2.56	349.61
3100.0	1377.9	4520.5	67.79	1.02	2.73	349.49
3075.0	1388.7	4556.3	65.25	1.02	2.86	349.28
3050.0	1400.5	4594.7	62.65	1.02	3.00	349.19
3025.0	1410.9	4628.9	60.34	1.02	3.08	349.06
3000.0	1420.3	4659.7	58.28	1.02	3.15	348.96

NOR214

DENSITY = 2.550 BOUGER FACTOR = .201729

STATION COORD	ELEV(M)	ELEV(FT)	OBS G	LAT G	TER G	CB GRAV
4000.0	1303.7	4277.1	85.04	.88	1.50	350.41
3975.0	1291.3	4236.5	87.40	.88	1.48	350.25
3950.0	1281.4	4204.1	89.37	.88	1.47	350.22
3925.0	1270.7	4169.1	91.58	.88	1.45	350.25
3900.0	1261.9	4140.1	93.32	.88	1.43	350.19
3875.0	1255.3	4118.4	94.60	.88	1.42	350.13
3850.0	1249.6	4099.7	95.84	.88	1.40	350.20
3825.0	1246.6	4089.9	96.46	.88	1.26	350.07
3800.0	1243.2	4078.6	97.12	.88	1.16	349.94
3775.0	1239.4	4066.2	97.87	.88	1.10	349.87
3750.0	1235.9	4054.9	98.62	.88	1.04	349.87
3725.0	1234.4	4050.0	98.93	.88	.96	349.79
3700.0	1234.3	4049.6	98.99	.88	.85	349.72
3675.0	1235.1	4052.3	98.91	.88	.79	349.74
3650.0	1234.9	4051.5	99.20	.88	.72	349.91
3625.0	1239.6	4067.0	98.41	.88	.68	350.04
3600.0	1239.2	4065.6	98.53	.88	.70	350.10
3575.0	1245.0	4084.8	97.40	.88	.62	350.06
3550.0	1252.2	4108.2	96.17	.88	.59	350.24
3525.0	1253.6	4112.9	95.87	.88	.61	350.25
3500.0	1260.8	4136.4	94.47	.88	.64	350.33
3475.0	1264.5	4148.5	93.74	.88	.68	350.38
3450.0	1267.0	4156.8	93.05	.88	.73	350.25
3425.0	1274.4	4181.0	91.47	.88	.77	350.20
3400.0	1281.9	4205.6	89.90	.88	.83	350.20
3375.0	1287.8	4225.0	88.78	.88	.87	350.31
3350.0	1292.1	4239.1	87.85	.88	.90	350.28
3325.0	1297.4	4256.6	86.71	.88	.97	350.28
3300.0	1302.6	4273.7	85.56	.88	1.03	350.25
3275.0	1306.9	4287.8	84.54	.88	1.10	350.17
3250.0	1311.6	4303.3	83.33	.88	1.20	350.01
3225.0	1317.2	4321.4	81.96	.88	1.28	349.83
3200.0	1321.7	4336.3	80.88	.88	1.38	349.76
3175.0	1325.4	4348.3	79.97	.88	1.47	349.69
3150.0	1328.9	4359.8	79.06	.88	1.62	349.63
3125.0	1333.7	4375.7	77.94	.88	1.79	349.66
3100.0	1338.4	4391.1	76.84	.88	1.95	349.67
3075.0	1344.3	4410.3	75.65	.88	2.10	349.81
3050.0	1351.3	4433.5	74.23	.88	2.25	349.96
3025.0	1359.2	4459.3	72.60	.88	2.59	350.26
3000.0	1370.2	4495.5	70.26	.88	2.70	350.26

COST SUMMARY

Field Work - gravity and elevations	$2950.00
Mobilization/demobilization	366.25
Data preparation and final report	560.00
TOTAL COST	$3876.25