

Geophysical Report
on an
Induced Polarization Survey
on behalf of

SI-#589
-9310

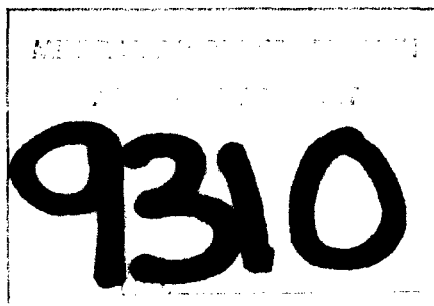
G. Grauer and Associates

MOL 1 claim Stump Lake area
Nicola M.D., N.T.S. 92 I/8W
Lat. $50^{\circ}22'N$, Long. $120^{\circ}26'W$

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

DATES OF WORK: June 29 - July 3

DATE OF REPORT: July 31, 1981



Glen E. White

GEOPHYSICAL CONSULTING & SERVICES LTD.

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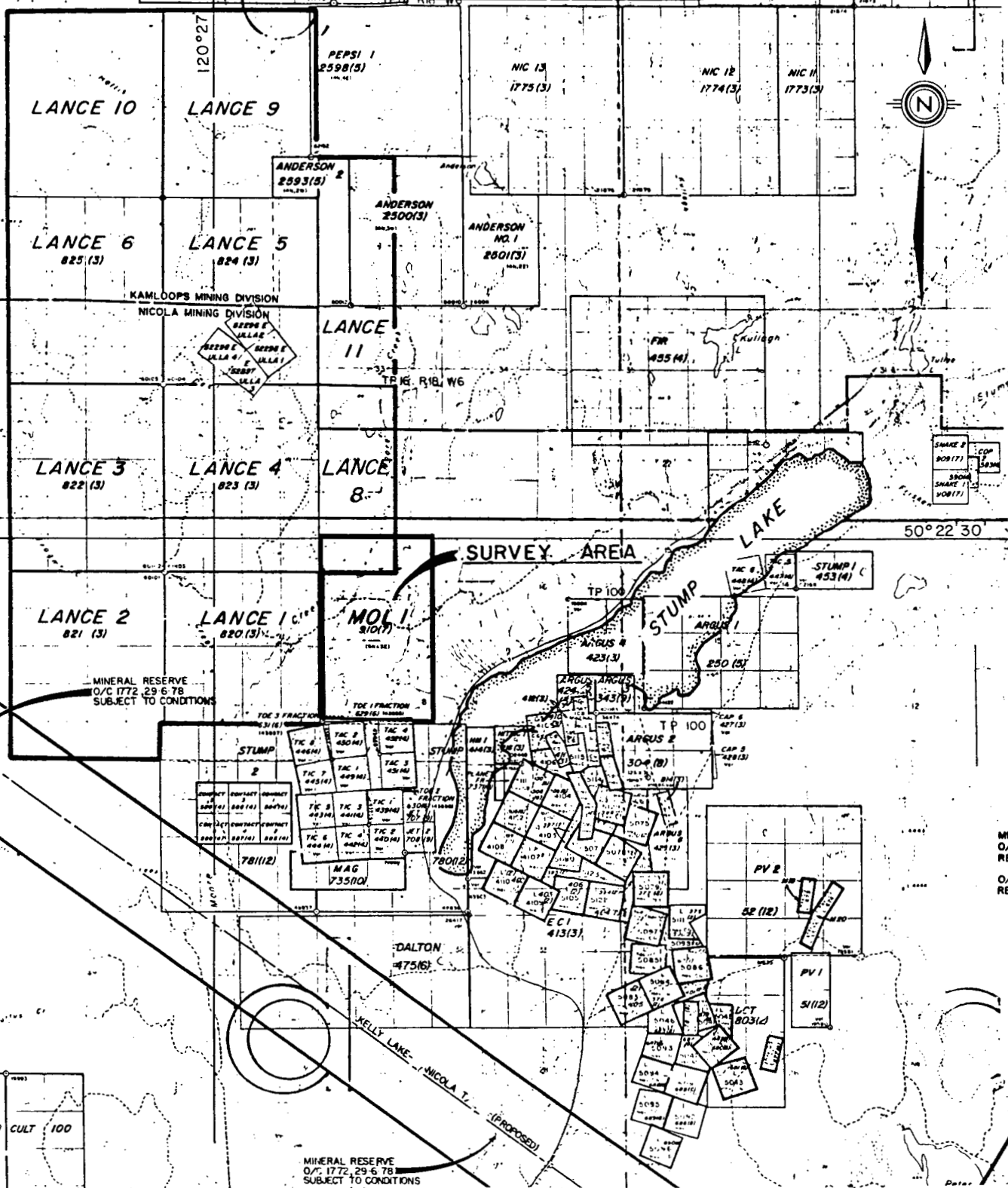
- Figure 1 Location and claims map
- Figure 2 Chargeability - milliseconds
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TP17 R19 W6

1432 (10)

TP17 R19 W6

1432 (10)



50°22'30"

MINI
O/C
REL
O/C
REL

0 1000 2000 3000
METRES

G. GRAUR & ASSOCIATES - MOL 1 CLAIM - KAMLOOPS & NICOLA M.D.-B.C. LOCATION MAP

Glen E. White
geographical consulting
&
services ltd.

INTRODUCTION

The MOL claim is an area of continuous overburden cover. Thus a limited amount of reconnaissance induced polarization surveying was undertaken to try and detect any chargeability sources. The survey work was completed during the period June 29 - July 3, 1981 by Glen E. White Geophysical Consulting & Services Ltd. on behalf of G. Grauer and Associates.

PROPERTY

The property consists of the MOL mineral claim record #910 comprising 15 units as illustrated on Figure 1.

LOCATION AND ACCESS

The MOL claim is located immediately west of the south end of Stump Lake, B.C., Lat. $50^{\circ}22'N$ and Long. $120^{\circ}26'W$ in N.T.S. 92 I/8W and the Nicola Mining Division. Access to the property is by unimproved ranch roads from Stump Lake.

GENERAL GEOLOGY

The claim block is near or on the western edge of the Nicola sequence of rocks where they are in contact with granitic rocks of Jurassic age. The regional geology is illustrated on the Nicola map sheet Map 886A, 92 I east half. Copper - molybdenum mineralization is known to exist north of the claim on the Lance claims being explored by Dynamic Oil Ltd. Copper mineraliza-

ation has also been reported on the TIC-TAC claims to the south.

SURVEY GRID

The survey grid consisting of flagged lines was placed during the induced polarization survey. The lines are spaced 500 m apart and orientated in an east-west direction. Some 5 km of surveying were completed.

INDUCED POLARIZATION

The equipment used on this survey was the Huntec pulse-type unit and Mark III receiver. Power was obtained from a Briggs and Stratton motor coupled to a 2.5 KW 400 cycle, three phase generator, providing a maximum of 2.5 KW D.C. to the ground. The cycling rate is 1.5 seconds "current on" and 0.5 seconds "current off", the pulse reversing continuously in polarity. Power was transmitted to the ground through two potential electrodes, P_1 and P_2 . Which were deployed in the three electrode array with an "a" spacing of 100 m and separations of $n=1$.

The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through electrodes C_1 and C_2 , the primary voltage (V_p) appearing between electrodes P_1 and P_2 during the "current on" part of the cycle. A cycle time of 4 seconds was used with a duty ratio of 2.2-1, T_p .20ms and T_d 60ms.

The apparent chargeability (M') in milliseconds, is calculated by $T_p (M_1 + 2M_2 + 4M_3 + 8M_4) = M'$, where T_p is the basic integrating time in tenths of seconds.

M_1 , M_2 , M_3 and M_4 are the chargeability effects at various times on the voltage decay curve following switch off of the transmitter, measured as a percentage of the primary voltage, V_p recorded during the "current on" time. By the use of these factors, one can gain an estimate of the decay curve in terms of chargeability for the given time T_p . This gives a quantitative value to the data measured.

The apparent resistivity, in ohm-meters is proportional to the ratio of the primary voltage to the measured current, the proportionality factor depending on the geometry of the electrode array used. The chargeability and resistivity obtained are called "apparent" as they are values which that portion of the earth sampled by the array would have if it were homogeneous. As the earth sample is usually inhomogeneous, the calculated apparent chargeability and apparent resistivity are functions of the actual chargeabilities and resistivities of the rocks sampled and of the geometry of the rocks.

DISCUSSION OF RESULTS

The induced polarization survey detected a high chargeability of 14 milliseconds above a background of some 4 milliseconds. The anomaly is located in the southeast corner of the survey grid and appears to extend north-westward into the survey area from the TIC-TAC claims. A high of 10.4 milliseconds was outlined on the west side of the MOL claim and may be part of the same anomalous feature.

The apparent resistivity data shows very little variations between a low of 9 ohm-meters and a high of 42

ohm-meters. These values are low and likely reflect conductive glacial till which covers the area. This type of overburden would likely inhibit ion migration making geochemical surveying inconclusive.

CONCLUSION AND RECOMMENDATIONS

The reconnaissance induced polarization survey located an anomalous northwesterly trending chargeability feature which gives highs of 10.4 and 14.6 milliseconds above a background of 4 milliseconds. This anomaly should be examined with a detailing induced polarization survey to test its' width and depth extent. A geological investigation should also be undertaken to try and determine the geological setting.

Respectfully submitted,

A circular professional seal for Glen E. White, a Professional Engineer in the Province of British Columbia. The seal contains the text "PROFESSIONAL ENGINEER OF THE PROVINCE OF BRITISH COLUMBIA" around the perimeter and "GLEN E. WHITE" in the center. A signature is written across the seal.
Glen E. White, P.Eng.,
Geophysicist

A P P E N D I X

Instrument Specifications

A. Induced Polarization Receiver

- (1) Type - Hunttec MK III time domain
- (2) Sensitivity - $V_p = 10^{-7}$ to 10^{-6} volts 1%
resolution
 $V_p = 10^{-6}$ to 10 volts 0.1%
resolution
- (3) Range - 30×10^{-6} to 10 volts
- (4) Self Potential - \neq 1 volt
- (5) M Factor - 0.1%
- (6) Power - 0.7 ampere at 12 volts
Rechargeable batteries
- (7) Size - 16" x 9" x 5 3/4"

B. Induced Polarization Transmitter

- (1) Type - Hunttec LOPO M-3
- (2) Maximum Current - 1.5 D.C.
- (3) Maximum Voltage - 1,800 V D.C.
- (4) Load Power - \neq 160 watts @ 75% efficiency
- (5) Load Current - Continuously adjustable
- (6) Cycle time - 2, 4, 8 or 16 seconds

STATEMENT OF QUALIFICATIONS

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

PROFESSION: Geophysicist

EDUCATION: B.Sc. Geophysics - 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 Geophysical Divisions with
Geo-X Surveys Ltd.

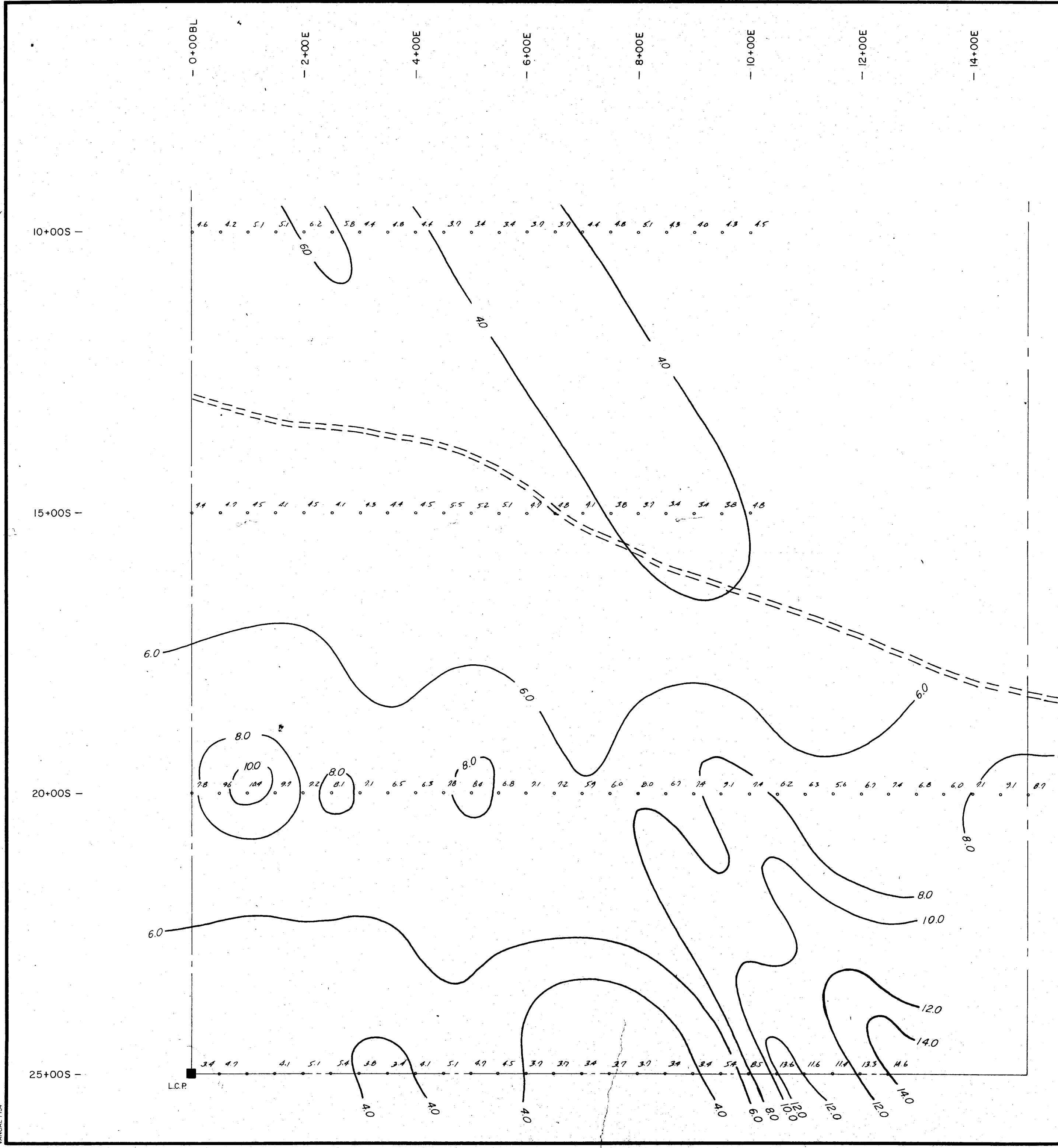
Two years Chief Geophysicist Tri-Con Exploration
Surveys Ltd.

Ten years Consulting Geophysicist.

Active experience in all Geologic provinces of
Canada.

COST BREAKDOWN

<u>PERSONNEL</u>	<u>DATES</u>	<u>WAGES</u>	<u>TOTAL</u>
M. Gray	June 29 - July 3	\$165.00	\$ 825.00
T. Spring	June 29 - July 3	\$145.00	\$ 725.00
N. Spring	June 29 - July 3	\$110.00	\$ 550.00
K. Smith	June 29 - July 3	\$110.00	\$ 550.00
Meals and Accomodations			\$ 600.00
Instrument			\$ 600.00
Vehicle			\$ 225.00
Interpretation and Reports			<u>\$ 425.00</u>
Total			\$4,500.00

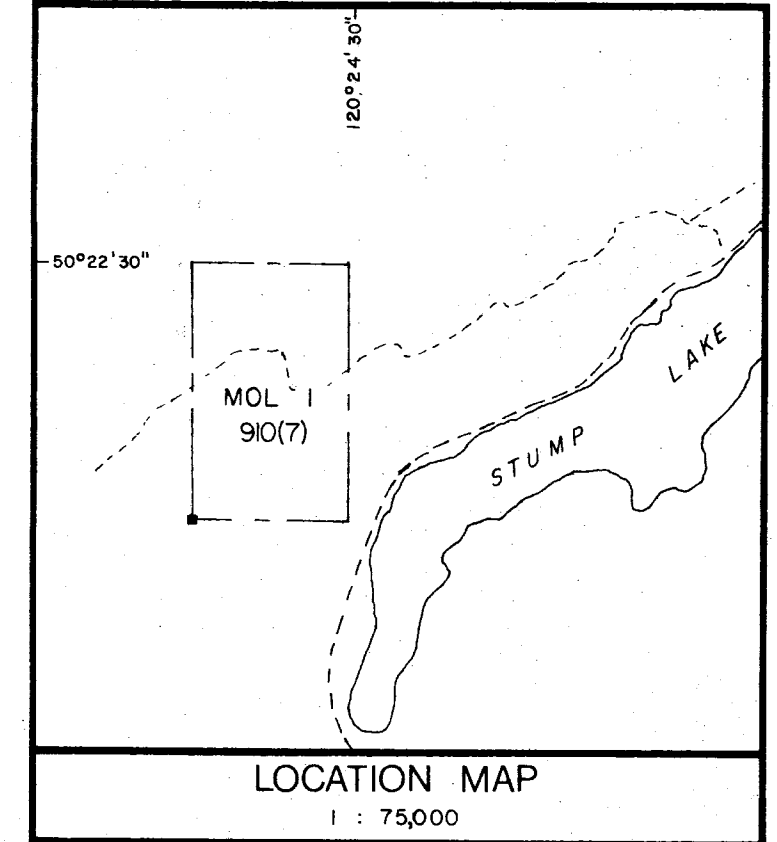


LEGEND:

- ==== ROAD
- STATIONS
- LEGAL CLAIM POSTS
- - - CLAIM BOUNDARY

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9310
NO.

N.T.S. 92 1/8W



100m 50m 0 100m 200m 300m
1 : 5000

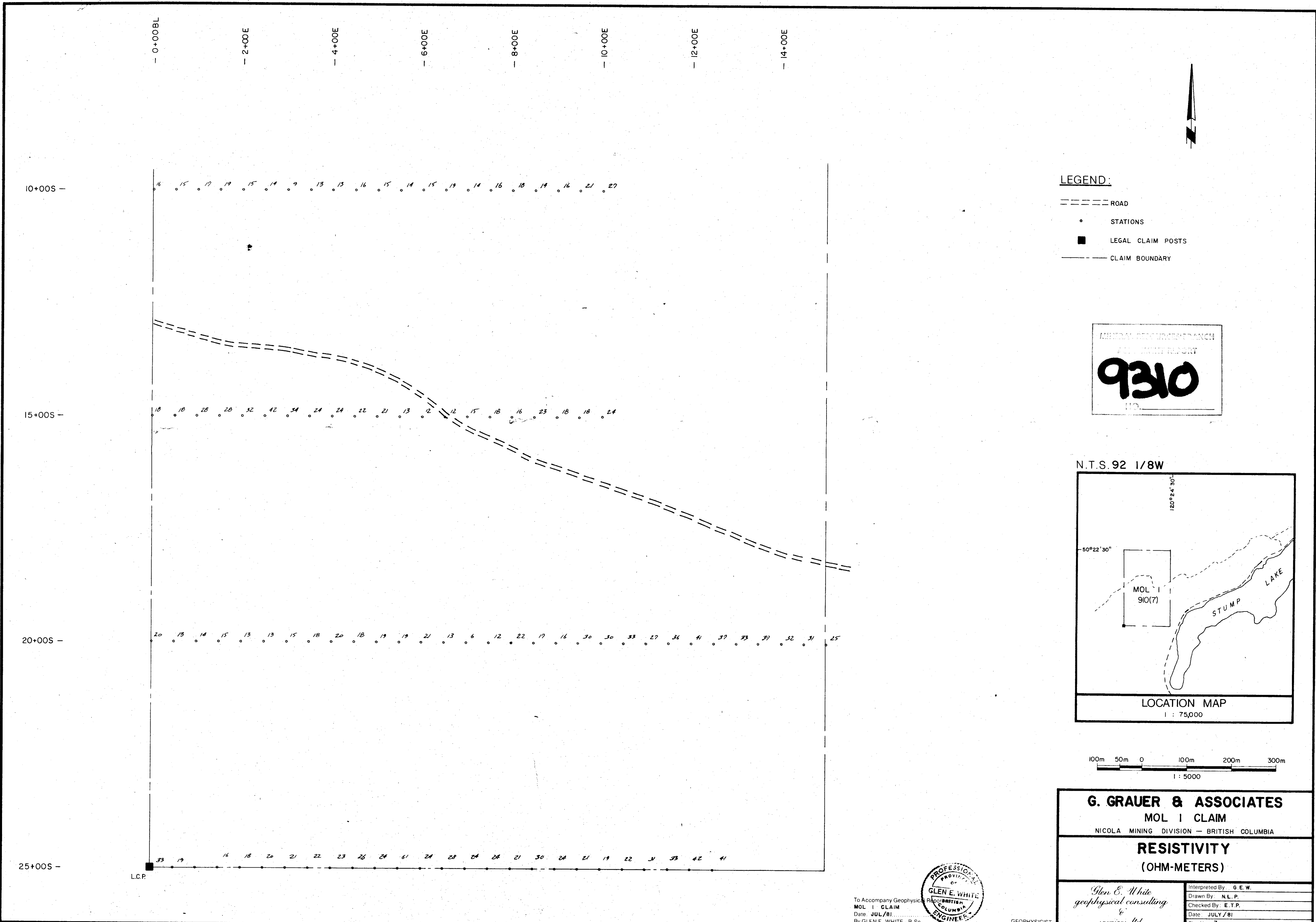
G. GRAUER & ASSOCIATES
MOL 1 CLAIM
NICOLA MINING DIVISION — BRITISH COLUMBIA

CHARGEABILITY
MILLISECONDS

<i>Glen E. White</i> geophysical consulting & services Ltd.	Interpreted By: G.E.W. Drawn By: N.L.P. Checked By: E.T.P. Date: JULY/81 Fig No: 2
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To Accompany Geophysical Report
MOL 1 CLAIM
Date: JUL/81
By: GLEN E. WHITE - B.Sc.
GLEN E. WHITE
PROFESSIONAL
PROVINCE OF
BRITISH
COLUMBIA
GEOPHYSICIST

VANDAL 7154

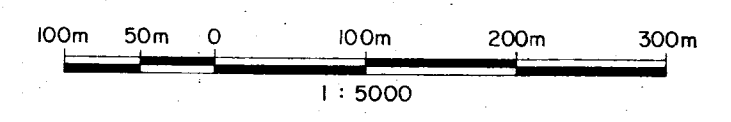
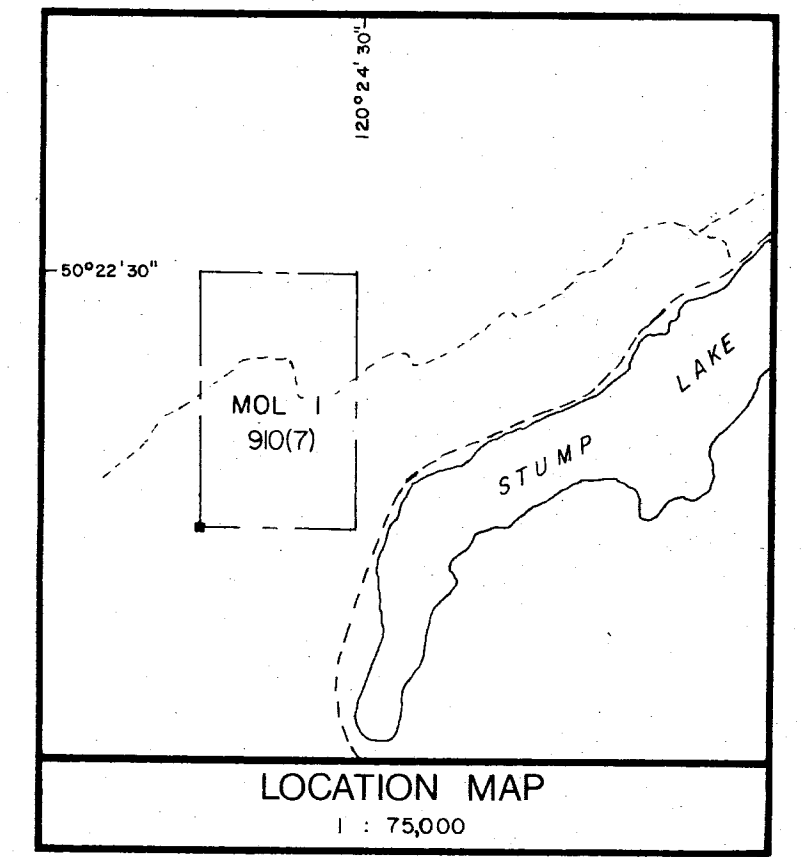


LEGEND:

- ROAD
- STATIONS
- LEGAL CLAIM POSTS
- - - CLAIM BOUNDARY

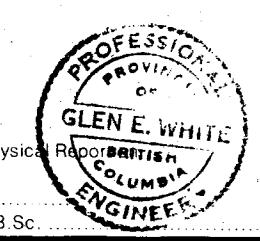
MINERAL RESOURCES BRANCH
 ACTIVITY REPORT
9310
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N.T.S. 92 1/8W



G. GRAUER & ASSOCIATES
 MOL 1 CLAIM
 NICOLA MINING DIVISION — BRITISH COLUMBIA
RESISTIVITY
 (OHM-METERS)

<i>Glen E. White</i> geophysical consulting & services Ltd.	Interpreted By: G.E.W.
	Drawn By: N.L.P.
	Checked By: E.T.P.
	Date: JULY/81
Fig. No. 3	



To Accompany Geophysical Report
MOL 1 CLAIM
 Date: JUL/81
 By: GLEN E. WHITE - B.Sc. GEOPHYSICIST

MHB RESOURCES LIMITED

ASSESSMENT REPORT

GEOLOGICAL - GEOCHEMICAL - GEOPHYSICAL

SURVEYS OF THE

JPG MINERAL CLAIMS GROUP

NICOLA MINING DIVISION

MERRITT AREA

BRITISH COLUMBIA

Latitude: 50° 14.7' North 120° 40.2' West

Stripping: H. Allen Diamond Drilling Ltd, Merritt

Geological Survey: William J. Weymark P. Eng.

GeoChemical Survey: William Chang, M. Sc.
Field and Office

William J. Weymark P. Eng.

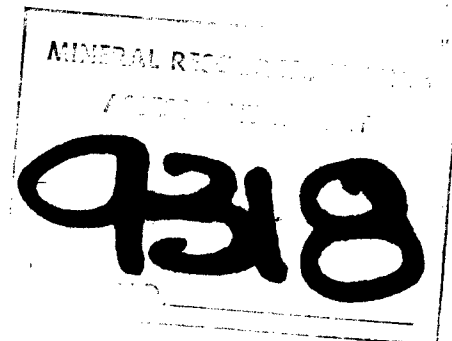
Geophysical Surveys: William Chang, M. Sc. Geophysics McGill

William J. Weymark P. Eng.

Chemical Analyses: Cantest Ltd, Vancouver, B. C.

7th MAY 1981

WEYMARK ENGINEERING LTD
1063 Balfour Avenue
Vancouver, B. C.



MHB RESOURCES LIMITED

ASSESSMENT REPORT

GEOLOGICAL - GEOCHEMICAL - GEOPHYSICAL

SURVEYS OF THE

JPG MINERAL CLAIMS GROUP

NICOLA MINING DIVISION

MERRITT AREA

BRITISH COLUMBIA

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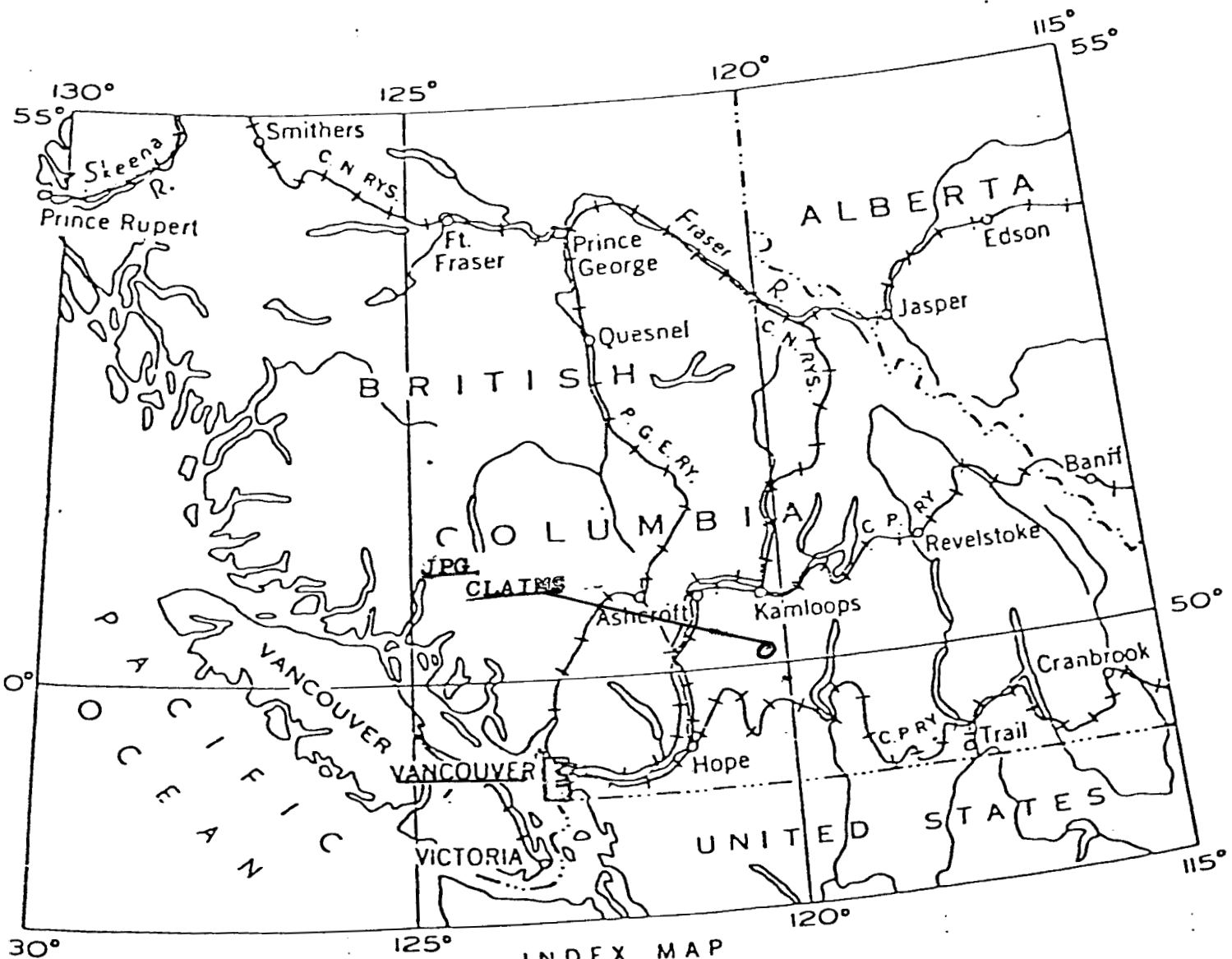
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- Annex - B Descriptive Details, Fluxgate Magnetometer
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- Figure: 8 - Histogram of Metal Background, Cordillera
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INDEX MAP
LOCATION
JPG MINERAL CLAIMS GROUP
LOOKOUT - GARCIA LAKE AREA
NICOLA MINING DIVISION
BRITISH COLUMBIA

WEYMARK ENGINEERING LTD.

Consulting Engineers

3310 WESTMOUNT ROAD
WEST VANCOUVER, B.C.
CANADA

TELEPHONE
922-1536

7 May 1981

MHB RESOURCES LTD
3856 Winlake Crescent
Burnaby, B. C.

Gentlemen:

Re: Assessment Report
Trenching - Geological - Geophysical
JPG Mineral Claims Group
Nicola Mining Division
British Columbia

We are pleased to submit for your information, this Assessment Report relating to the Trenching - Geological - Geo-Chemical - Geophysical surveys undertaken on the JPG Mineral Claims Group completed during the 1980 - 1981 field season.

Surface trenching and stripping was completed by H. Allen Diamond Drilling Ltd. using a D6 Cat Tractor with Labour. Geological Mapping in the field and correlation in the office was by William J. Weymark P. Eng. Geo-chemical - Geophysical surveys in the field were by Wm. Chang M.Sc. Geophysics, McGill University and Chemical Analysis was by Cantest Ltd of Vancouver and Chemex of North Vancouver, British Columbia.

Background information relating to the Claims Group is given in the following reports:-

1. Weymark Engineering Ltd., Primary Report dated 10th February 1981
2. Bulletin No 69, B. C. Department of Mines by V. A. Preto, Geology of the Nicola Group Between Merritt and Princeton, British Columbia and included References.

1.0 Property:

The JPG Group of Mineral Claims, consists of the following parcels:-

JPG - 1 9 Units, Record Number 766 (11)
JPG - 2 12 Units, Record Number 773 (11)

The Reference Claim Map of the B. C. Department of Mines is M 92 - 1/2 E and the Geographical Co-ordinates are 50°- 05' North and 120° 41' West. See Figure - 2.

2.0 Access and Location:

Access to the claims is easy via automobile by Highway No: 5, the turnoff being about 8 miles South-east from Merritt, and 50 miles Northerly from Princeton. See Figures 2 and 3. Restricted access and working conditions would only occur during heavy snowfall and fire-peril periods.

3.0 Climate:

Climatic conditions are Central Interior with Hot Summers and Cold Winters. Precipitation is light and of the order of 10 - 15 inches per year. Exploration work could be carried out year round except during extreme Snowfall and Fire-peril periods.

4.0 Physiography:

The claims area is generally flat with minor stream and local valleys, for the most part being quasi rolling topography. The part involving the northern set of JPG Claims is more rugged. The area is grazing land and is grove timbered with deciduous, -aspen - coniferous stands. Elevations range from 3300 to 3700 feet above sea level, See Figure: 3. Rock outcrops are numerous but the surface is mostly covered with glacial debris and alluvial gravel deposits, ranging in depth from a few inches to 10 or more feet. There is ample water on the claims, being small ponds and lakes with connecting streams to meet exploration and development needs. Permits are required for the use of water and timber resources.

5.0 Geology:

Geological References are Maps 886A, Nicola, by W. E. Cockfield, Memoir 249 Geology and Mineral Deposits of Nicola Map-Area British Columbia, 1961 and subsequent compilations by the B. C. Department of Mines viz- Bulletin No. 69 by W. A. Preto, Geology of the Nicola Group, between Merritt and Princeton.

Base Formations are sub-units of the Western Belt, Nicola Group of Upper Triassic Age. These consist of an east-facing sequence of calc-alkaline flows which grade upward into pyroclastic rocks, epiclastic sediments and abundant limestone.

Figure - 4 shows the distribution of the various categories with:

- 3a - Plagioclase - Andesite to Dacite Flows with minor Breccia
- 3b - Andesitic to Dacitic Breccia and Tuff
- 3c - Grey, massive to cherty limestone

Structurally, the formations are affected by the major faults that transect the area, being northerly trending and cross faulted and fracturing. The dominant fault line in the area is to the East of the Claims, striking Northerly - East - see Figure - 4. On the Claims area as mapped, the fault expressed occurs in the Southwesterly section of JPG - 1 and trends North-westerly South - easterly. Northerly trending shear and fracture zones occur in the central portion of the claims area, See Figure-5

The area is noted for its mineral deposits, mines and prospects. Assemblages include, - Chalcopyrite-bornite-native copper mixes with pyrite - magnetite-hematite and some contained gold and silver.

Field Geological Mapping was done on a Scale of 400 Feet to the Inch, using the same Grid layout as for the Geochemical and Geophysical Surveys. The outcrop Map is given on Figure- 5.

As discussed in the above paragraphs, the geological setting is a metavolcanic - sedimentary complex. Phases grade from andesitic to rhyolite - dacite to basaltic, some of which is porphritic to sedimentary limestones-cherts-sandstones and siltstones. The basaltic phases appear to be the base formation beds. Further detailed study would be required to determine attitudes of the various beds.

Gangue minerals in the rocks , apart from the formatives, are plagioclase feldspar, hematite, quartz, calcite. In the altered sections epidote and chlorites dominate. Metallic minerals are native copper, chalcopyrite, bornite, malachite, azurite, hematite sphalerite and other related sulphides.

Apart from shearing and schistose occurrences, particularly within the mineral zones, the dominant structural feature on the property is the southwesterly trending fault? in the mid western unit of Claim JPG - 1, see Figure: 5. Boundaries of the various beds are apparent, where exposed, strikes are to the Northeast with dips about 70° to the South east. Some folding is indicated.

Metallic minerals of interest in the mineral zones are copper-iron and zinc with minor containments of gold and silver. The dimensions of the exposed zones are of the order of Five to 20 feet feet in width traceable for some 1500 - 2000 feet. There are three parallel zones revealed to-date.

Detailed surface and depth investigations are required to determine controlling lithological and structural characteristics.

6.0 Surface Trenching and Diamond Drilling

An initial programme of surface trenching and stripping was carried out by the company involving some 20,000 sq. ft (1840 sq meters) and ripping some 680 cu. ft (30 Cu M). This work was done by H. Allan Diamond Drilling Ltd of Merritt using a D7 Cat. See Figure -5.

7.0 Geo-Chemical Survey

As part of the initial phase of the investigations of the metalliferous possibilities of the JPG Mineral Claims Group, a Geo-Chemical testing of the soils for Gold and Copper was carried out by Weymark Engineering Ltd. Soil samples of the B-Horizon of the soil profile were taken on the eastern claims and especially about the mineral zones,- see Figure - 6. The record of the samples and analyses is given in Annex - A. Chemical Analyses were made by Cantest Ltd of Vancouver using HClO4 and atomic absorption. Plots of the results and interpretations are given on Figure:: 6.

Figure: 7 summarizes the mathematical characteristics of the sampling results for both Gold and Copper.

The number of samples tested was 155 Gold and 165 for Copper.

Mathematical Summaries

	<u>Gold</u> <u>PPm</u>	<u>Copper</u> <u>PPM</u>
Average	0.0109	34.9
Standard Deviation	0.0094	14.4
Variance	0.0082	207
Threshold	0.02	40.0

Figure: 8 depicts the areal pattern of metal abundance throughout the Cordillera and the Histogram of the average level of metal background. As noted thereon, the background for Copper is 60ppm. The levels recorded on the JPG Claims exceed these background levels.

Assessment Report, Continued: JPG Mineral Claims, Nicola Mining Division

Geo-Chemical Survey, Continued:

Results:

Figure: 6, depicts planimetric plots of the Chemical Analyses of the Soil Samples respectively for Gold and Copper. Anomalous values for Gold records in the 6+00 S - 2+50W plot having a dimension of about 150 x 300 feet with values exceeding 0.1 ppm.

Several anomalous zones are indicated for Copper mainly in the 0+00 - 7+50 S -- 0+00 - 5+00 W block with values exceeding 50 - 100 PPM.

Reference is to Figure: 12 for the relationship and coincidence with the Geophysical recorded zones.

8.0 Geophysical Surveys:

Magnetometer and Electro-Magnetic surveys of the geophysical features of the claims were carried out using the referenced Grid System for the Geo-Chemical and Geological Surveys.

The Magnetometer Survey was conducted using a Scintrex Fluxgate Magnetometer, MF - 2-100 Model 753011, Serial Number 7905203. Reading differences were referenced to Station 15+00N : 10+00 W set at 560 gammas. The readings are given on Figure-8 and were taken by Wm. Chang M. Sc. Geophysics McGill University, see Qualifications Annex D. Details about the Magnetometer are given in Annex - B.

The dominant anomalous zones are shown on Figure: 8 and occur in the South-Eastern Claims peaking in the 4+00S - 2.50 W plot, with a Northeasterly strike.

The EM-Geophysical Survey was conducted using a Scintrex Scopas Instrument, Serial Number 101023, SE 80, Model 707022 and Reference Transmitting Station Jim Creek, Washington, USA, 48N; 121W 55; 18.6 KHZ; 250 KW. Details of the Instrument are given in Annex - C. The readings of the Survey are given on:-

- Figure: 9 - EMF (VLF) Azimuth Contours
- Figure: 10- EMF (VLF) Vertical Field
- Figure: 11- EMF - (VLF) Dip Angle Contours

The readings were made by Wm. Chang, M. SC. Geophysics. Interpretation was by Wm. Chang M. Sc in conjunction with W. J. Weymark P. Eng.

Results:

Several anomalous zones were signatored for the different recordings. The dominant variations appear in the South Eastern Claims, particularly in the 0+00-10+00 S - 0+00 - 5+00 W block.

A Composite Plot of the anomalous zones, as interpreted for the Em and Magnetometer surveys is given on Figure: 12. As shown thereon, the general trend is to the North-East with coincidence with the Geo-Chemical results, peaking in the 0+00 - 7.50S - 0+00 - 5+00 W block.

9.0 Summary Conclusions:

The results of the Geological - Geochemical - Geophysical Surveys as presently interpreted are:

- i. The geological formations provide a favourable setting for Gold-Silver-Copper and other metallic minerals being similiar to those in the General Area in which commercial deposits of ore have been located and currently mined. Structural features provide the necessary controlling avenues and bounds for metallic mineral deposition.
- ii. Gold and Copper anomalous zones of significant extent have been defined on the claims area. These are coincident with Geophysical and Geological features.
- iii. Magnetometer and EM-Geophysical anomalous zones have been signaturred and are, in general coincident with Geo-Chemical and Geological Trends.
- iv. Surface stripping and trenching have revealed mineral zones of significance with grade values in gold-silver and copper.

10.0 Recommendations:

On the basis of the results obtained from the relating Geological-Geochemical-Geophysical and stripping surveys conducted , and reported upon in this Report, it is considered that further field tests are warranted. Future programmes should include the work items presented in Weymark Engineering Ltd., Primary Report dated 10th February 1981, including detailed geological mapping, extensions to the presented Geochemical - Geophysical-Stripping Surveys and Diamond Drilling to determine the extent and nature and distribution of the Gold-Silver-Copper Mineralization as zoned and the potentialities of the JPG Mineral Claim Group.

Respectfully submitted,


William J. Weymark P. Eng.

CERTIFICATE

I, William James Weymark, P. Eng., Consulting Engineer, President of Weymark Engineering Ltd., of the District of West Vancouver, of the Province of British Columbia, hereby certify that:

1. I am a graduate of Mining Engineering of Queen's University, Kingston, Ontario, B. Sc., 1940 and have been practising my Profession for thirty-five years.

2. I am a member of the Association of Professional Engineers of the Province of British Columbia, the Consulting Engineers Division of the Association of Professional Engineers of British Columbia and of the Consulting Engineers of Canada.

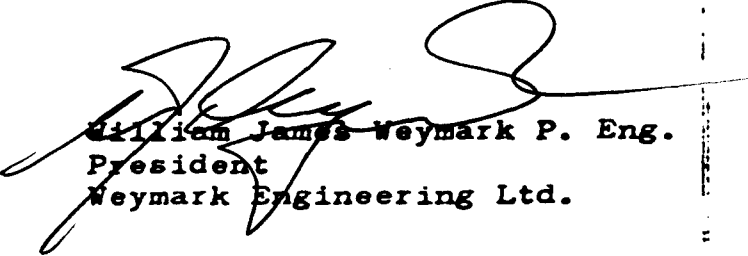
3. I am a practising Consulting Engineer and reside at 3310 Westmount Road, West Vancouver, British Columbia.

4. I am a member of the Canadian Institute of Mining and Metallurgy and of the American Institute of Mining, Metallurgical and Petroleum Engineers, and of the American Geophysical Union.

5. I have no direct or indirect interest whatsoever in MHB RESOURCES LTD., or in the JPG Mineral Claims Group, the CMS Mineral Claims Group or in the Ham Mineral Claims Group, nor do I expect any interest, direct or indirect in this organization or properties or any affiliate or in any security of the Company.

6. The findings of the accompanying report are based on my personal examinations of the JPG, the CMS, and the Ham mineral claims at various times during the past six months and the review of the available information relating to them and the preparation of this report.

DATED at West Vancouver, British Columbia, this 7th Day of May 1981


William James Weymark P. Eng.
President
Weymark Engineering Ltd.

APPENDICES



T test ltd.

1650 PANDORA STREET, VANCOUVER, B.C. V5L 1L6 • TELEPHONE 254-7278 • TELEX 04-54210

Report On Geochemical Analysis File No. 9348D

Reported To Weymark Engineering Report No. _____

1063 Balfour Avenue P.O. # _____

Vancouver, B.C. Date January 15, 1981

Attention: _____

We have tested one hundred and forty-eight (148) samples and report as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>GOLD ppm Au</u>	<u>COPPER ppm Cu</u>
00 - E 00-N	L 0.01	32.
0 + 00 4 + 00S	L 0.01	24.
00W + 500S	L 0.01	30.
700S	L 0.01	29.
750S	L 0.01	58.
800S	L 0.01	44.
3 - W 550S	L 0.01	42.
0 + 50W 4 + 00S	L 0.01	38.
50W 00 - N	0.01	30.
500S	L 0.01	46.
600S	L 0.01	50.
700S	L 0.01	55.
800S	L 0.01	36.
100W 00 - N	L 0.01	28.
50N	0.01	24.
100N	L 0.01	36.
150N	L 0.01	40.
200N	0.01	34.
0 + 50N	0.01	38.
100S	0.01	105.
100W 150S	L 0.01	30.
200S	L 0.01	48.
250S	L 0.01	26.
300S	L 0.01	29.
400S	L 0.01	44.
500S	L 0.01	42.
(a) 600S	L 0.01	25.
(b) 600S	L 0.01	42.

L - Less than

..../2

WEYMARK ENGINEERING

<u>SAMPLE IDENTIFICATION</u>	<u>GOLD ppm Au</u>	<u>COPPER ppm Cu</u>
700S	L 0.01	68.
800S	L 0.01	42.
150 W 200N	L 0.01	36.
400S	L 0.01	38.
500S	0.01	46.
600S	L 0.01	42.
800S	L 0.01	32.
200W 200N	L 0.01	30.
100S	L 0.01	26.
150S	L 0.01	38.
200S	L 0.01	29.
250S	L 0.01	25.
300S	L 0.01	28.
400S	0.03	30.
500S	L 0.01	42.
600S	L 0.01	28.
800S	L 0.01	33.
250W 200N	L 0.01	26.
100S	L 0.01	32.
300S	L 0.01	30.
350S	L 0.01	82.
400S	L 0.01	28.
500S	L 0.01	30.
600S	0.12	65.
800S	L 0.01	32.
275W 350S	L 0.01	42.
400S	L 0.01	128.
300W 00N	L 0.01	26.
(a)100N	L 0.01	24.
(b)100N	L 0.01	20.
150N	L 0.01	18.
200N	0.01	20.
300N	L 0.01	18.
400N	0.01	36.
500N	L 0.01	15.
600N	0.01	14.
700N	0.01	12.

L - Less than

WEYMARK ENGINEERING

<u>SAMPLE IDENTIFICATION</u>	<u>GOLD ppm Au</u>	<u>COPPER ppm Cu</u>
800N	L 0.01	20.
900N	L 0.01	28.
1000N	L 0.01	13.
0 + 50S	L 0.01	25.
100S	L 0.01	28.
300S	L 0.01	32.
(a) 350S	L 0.01	38.
(b) 350S	L 0.01	32.
400S	L 0.01	26.
450S	L 0.01	50.
500S	L 0.01	38.
600S	L 0.01	28.
650S	L 0.01	52.
700S	0.01	38.
750S	0.01	35.
800S	0.01	48.
350W 00N	L 0.01	16.
(a) 0 + 50S	0.01	26.
(b) 0 + 50S	L 0.01	30.
100S	L 0.01	32.
300S	0.01	38.
350S	L 0.01	42.
400S	L 0.01	32.
450S	L 0.01	36.
500S	0.01	40.
350W 550S	L 0.01	28.
350W 600S	L 0.01	13.
400W 00N	L 0.01	45.
1000N	L 0.01	36.
1100N	0.01	22.
1200N	0.01	34.
0 + 50S	0.01	32.
100S	0.01	52.
200S	L 0.01	24.
400S	L 0.01	32.
450S	L 0.01	35.
500S	L 0.01	28.
550S	L 0.01	26.
600S	L 0.01	12.
450W 00N	L 0.01	18.
400S	L 0.01	38.
500S	L 0.01	29.

L - Less than

...../4

WEYMARK ENGINEERING

<u>SAMPLE IDENTIFICATION</u>		<u>GOLD ppm Au</u>	<u>COPPER ppm Cu</u>
500W	00N	L 0.01	22.
	1200N	L 0.01	30.
	1300N	L 0.01	26.
	1400N	L 0.01	22.
	1500N	L 0.01	25.
	1600N	L 0.01	44.
	1700N	L 0.01	32.
	1800N	0.01	34.
	1900N	L 0.01	42.
	2000N	L 0.01	46.
	400S	0.01	30.
	500S	L 0.01	42.
550W	400S	0.01	38.
	500S	0.01	36.
600W	00N	L 0.01	46.
	2000W	0.02	40.
	400S	L 0.01	42.
	450S	L 0.01	45.
	500S	L 0.01	50.
700W	00N	L 0.01	39.
700W	2000N	L 0.01	38.
750W	100N	L 0.01	29.
	200N	L 0.01	20.
	300N	L 0.01	29.
	400N	L 0.01	24.
	500N	L 0.01	20.
	600N	L 0.01	36.
	700N	L 0.01	35.
	800N	L 0.01	24.
	900N	L 0.01	20.
	1000N	L 0.01	22.
	1100N	L 0.01	31.
	1200N	L 0.01	36.
	1300N	L 0.01	29.
	1400N	L 0.01	26.
	1450N	0.01	48.
800W	00N	L 0.01	45.
	1450N	L 0.01	52.
	2000N	L 0.01	46.
900W	2000N	L 0.01	40.

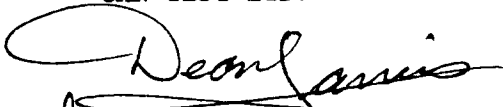
L - Less than

WEYMARK ENGINEERING

<u>SAMPLE IDENTIFICATION</u>	<u>GOLD ppm Au</u>	<u>COPPER ppm Cu</u>
1000W 1500N	L 0.01	40.
1600N	L 0.01	28.
1700N	L 0.01	42.
1800N	L 0.01	33.
1900N	L 0.01	36.
2000N	L 0.01	35.

L - Less than

CAN TEST LTD.


F.C. Burgess
Chief Assayer

/cs



can test ltd.

1650 PANDORA STREET, VANCOUVER, B.C. V5L 1L6 • TELEPHONE 254-7278

Telex 04 54210

Weymark Engineering

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE

1063 Balfour

Vancouver, B.C.

File No. 8411D-2

Date Oct. 28, 1980

We hereby Certify that the following are the results of semi quantitative spectrographic analysis made on COMPOSITE samples submitted.

		1	2	3	4	5	Sample Identification
Aluminum	Al	7.					<p>Sample 1: VAL-NICOLA COMPOSITE - A, B, & C</p> <p>Sample 2:</p> <p>Sample 3:</p> <p>Sample 4:</p> <p>Sample 5:</p> <p>Percentages of the various elements expressed in these analyses may be considered accurate to within plus or minus 35 to 50% of the amount present.</p> <p>Semi-quantitative spectrographic analytical results for gold and silver are normally not of a sufficient degree of precision to enable calculation of the true value of ores. Therefore, should exact values be required, it is recommended that these elements be assayed by the conventional Fire Assay Method. Quantitative and Fire Assays may be carried out on the retained pulp samples.</p> <p>Silicon, aluminum, magnesium, calcium and iron are normal components of complex silicates.</p> <p>MATRIX - Major constituent MAJOR - Above normal spectrographic range TRACE - Detected but minor amounts N.D. - Not detected * - Suggest assay (above 0.3%)</p> <p style="text-align: center;">PERCENT</p> <p>All results expressed as _____</p> <p>Note: Pulps retained one week.</p> <p>ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS, CONCLUSION OR EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED.</p> <p style="text-align: center;">CAN TEST LTD.</p> <p style="text-align: right;"><i>F. Burgess</i></p>
Antimony	Sb	ND					
Arsenic	As	ND					
Barium	Ba	ND					
Beryllium	Be	ND					
Bismuth	Bi	ND					
Boron	B	ND					
Cadmium	Cd	ND					
Calcium	Ca	2.					
Chromium	Cr	ND					
Cobalt	Co	ND					
Copper	Cu	*					
Gallium	Ga	ND					
Gold	Au	TRACE					
Iron	Fe	MAJOR					
Lead	Pb	ND					
Magnesium	Mg	1.					
Manganese	Mn	0.07					
Molybdenum	Mo	ND					
Niobium	Nb	ND					
Nickel	Ni	ND					
Potassium	K	ND					
Silicon	Si	MATRIX					
Silver	Ag	TRACE					
Sodium	Na	1.					
Strontium	Sr	0.02					
Tantalum	Ta	ND					
Thorium	Th	ND					
Tin	Sn	ND					
Titanium	Ti	0.5					
Tungsten	W	ND					
Uranium	U	ND					
Vanadium	V	0.01					
Zinc	Zn	0.1					

To:

Weymark Engineering

1063 Balfour

Vancouver, B.C.

Attention:



can test ltd.

1650 PANDORA STREET, VANCOUVER, B.C. V5L 1L6

Telep 254-7278
4-54210

Certificate of Assay

File No. 8896D-1

Date Dec. 8, 1980

We hereby Certify that the following are the results of assays made by us upon submitted Ore samples.

Sample Identification	GOLD	SILVER						
	Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent
Meritt #1	0.097	0.02						
Meritt #2	0.039	L 0.01						
Meritt #3	0.020	0.01						
Meritt #4	0.014	L 0.01						

L - Less than

Note: Pulps retained three months.

Rejects retained two weeks.

ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED.

Form No. 13-C

CAN TEST LTD.

[Signature]

Provincial Assayer

ANNEX - B



CAN TEST LTD.

1650 PANDORA STREET, VANCOUVER, B.C. V5L 1L6 • TELEPHONE 254-7278

Telex 04-54210

To: **Weymark Engineering**

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE

1063 Balfour

Vancouver, B.C.

File No. 8896D-2

Date Dec. 8/80

We hereby Certify that the following are the results of semi quantitative spectrographic analysis made on Ore samples submitted.

		1	2	3	4	5	Sample Identification
Aluminum	Al	7.	5.	5.	8.		<p>Sample 1: Meritt #1</p> <p>Sample 2: Meritt #2</p> <p>Sample 3: Meritt #3</p> <p>Sample 4: Meritt #4</p> <p>Sample 5:</p> <p>Percentages of the various elements expressed in these analyses may be considered accurate to within plus or minus 35 to 50% of the amount present.</p> <p>Semi-quantitative spectrographic analytical results for gold and silver are normally not of a sufficient degree of precision to enable calculation of the true value of ores. Therefore, should exact values be required, it is recommended that these elements be assayed by the conventional Fire Assay Method. Quantitative and Fire Assays may be carried out on the retained pulp samples.</p> <p>Silicon, aluminum, magnesium, calcium and iron are normal components of complex silicates.</p> <p>MATRIX - Major constituent MAJOR - Above normal spectrographic range TRACE - Detected but minor amounts N.D. - Not detected * - Suggest assay (above 0.3%)</p> <p>All results expressed as <u>Percent</u></p> <p>Note: Pulps retained one week.</p> <p>ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS, CONCLUSION OR EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED</p>
Antimony	Sb	ND	ND	ND	ND		
Arsenic	As	ND	ND	ND	ND		
Barium	Ba	ND	TRACE	ND	ND		
Beryllium	Be	ND	ND	ND	ND		
Bismuth	Bi	ND	ND	ND	ND		
Boron	B	ND	ND	ND	ND		
Cadmium	Cd	ND	ND	ND	ND		
Calcium	Ca	0.5	2.+	2.+	1.		
Chromium	Cr	ND	ND	ND	ND		
Cobalt	Co	ND	ND	ND	ND		
Copper	Cu	0.001	*	*	0.03		
Gallium	Ga	ND	ND	ND	ND		
Gold	Au	TRACE	TRACE	TRACE	TRACE		
Iron	Fe	3.	MAJOR	3.+	3.+		
Lead	Pb	ND	ND	ND	ND		
Magnesium	Mg	0.1	1.	2.	1.		
Manganese	Mn	0.005	0.05	0.07	0.03		
Molybdenum	Mo	ND	ND	ND	ND		
Niobium	Nb	ND	ND	ND	ND		
Nickel	Ni	ND	ND	ND	ND		
Potassium	K	ND	ND	ND	ND		
Silicon	Si	MATRIX	MAJOR	MATRIX	MATRIX		
Silver	Ag	TRACE	TRACE	TRACE	TRACE		
Sodium	Na	ND	ND	2.+	ND		
Strontium	Sr	ND	0.03	0.05	TRACE		
Tantalum	Ta	ND	ND	ND	ND		
Thorium	Th	ND	ND	ND	ND		
Tin	Sn	ND	ND	ND	ND		
Titanium	Ti	0.5	0.3	0.3	0.6		
Tungsten	W	ND	ND	ND	ND		
Uranium	U	ND	ND	ND	ND		
Vanadium	V	TRACE	0.03	0.01	TRACE		
Zinc	Zn	ND	0.1	0.1	ND		

CAN TEST LTD.

C.F. Burgess

Spectroscopist



SCINTREX

SCOPAS[®]

VLF
RECONNAISSANCE
UNIT MODEL 100

The SCOPAS[®] VLF System employs V.L.F. Radio Stations in the 15 to 25 kHz Range as primary field sources. The undisturbed field from these remote sources is essentially horizontal and of relatively constant strength. When conductors are present, the geometry and amplitude of the field are locally distorted and polarization of the field may occur.

With the versatile SCOPAS[®] unit, all amplitudes and geometric parameters as well as the characteristics of the polarization ellipse can be measured.

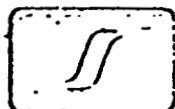
For fast reconnaissance surveys dip-angle and field directions can be rapidly determined. For detailed surveys, ampli-

tude relations and the elliptical polarization in the horizontal and vertical planes can be determined as well. Thus, the operator can select the parameters most useful for his search problem.



**SPECIFICATIONS OF SCOPAS
VLF ELECTROMAGNETIC
UNIT MODEL SE-80**

- Primary Field:** From any selected VLF transmitting station in frequency range between 15.4 kHz to 25 kHz.
- Station Selection:** By means of an eight step switch and variable control covering full range.
- Measured Values:**
- a) The azimuth of horizontal field.
 - b) The dip of the axis of the coil at the minimum field, measured from the vertical.
 - c) The amplitude of the horizontal field strength in any direction.
 - d) The amplitude of the vertical field strength.
- The phase angle between the maximum horizontal and vertical field can be calculated from measured values.
- Normal Reading Accuracy:** Amplitude $\pm 2\%$.
Azimuth $\pm 2^\circ$.
Dip $\pm 1^\circ$. — Dependent on signal strength.
- Batteries:** Two 9 volt dry cells.
- Dimensions:** 9.66" x 3.68" x 5.80"
24.5 cm x 9.4 cm x 14.7 cm
- Weight:** 3 lbs. (1.35 kg)
- Accessories:** Carrying strap.



SCINTREX LIMITED
222 Snidercroft Road • Concord, Ontario, Canada



M700 Flux Gate Magnetometer

ANNEX - B

Rugged, reliable instrument for hand-held field operation

Self Levelling sensing head

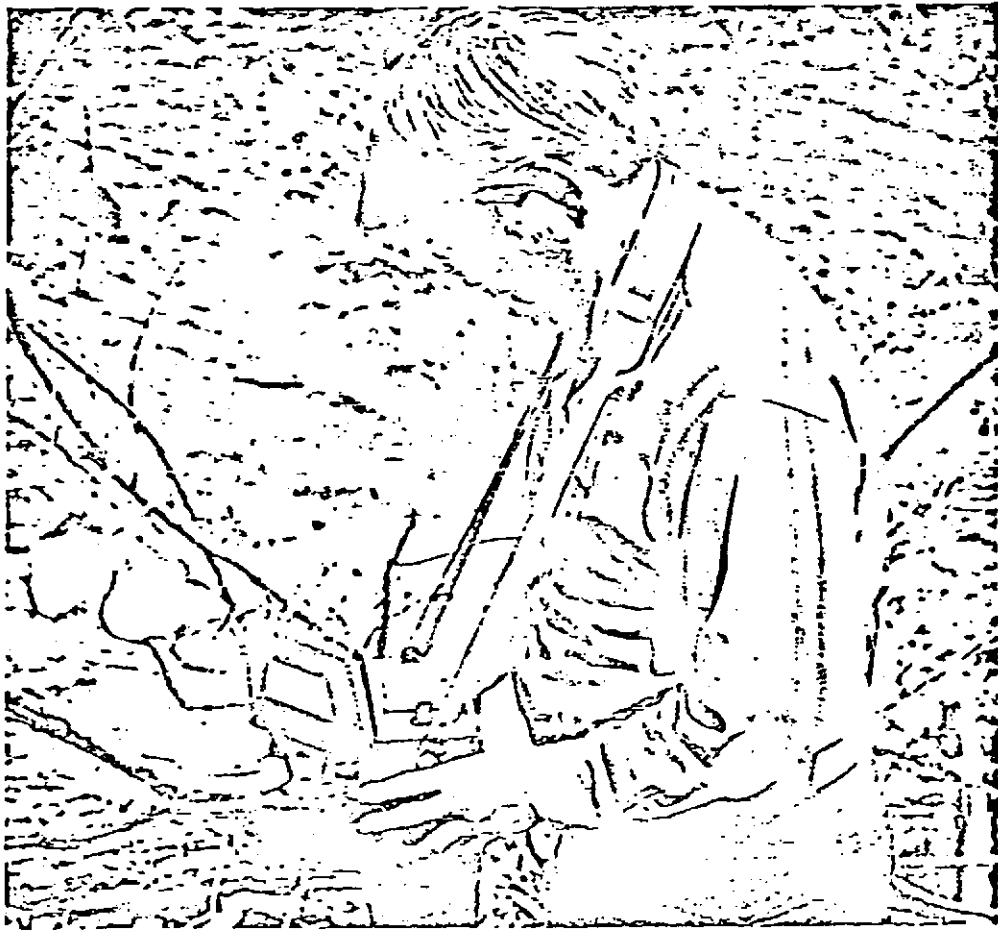
Five scale ranges: 1,000 to 100,000 gammas

Low temperature drift

Latitude adjustment up to ± 100,000 gammas

Reverse measurement polarity by turn of switch

Long battery life



M700 Flux Gate Magnetometer is a simple and efficient instrument for measuring changes in the earth's magnetic field. The two operating controls are mounted on the face of the instrument with the latitude adjustment and accessory socket concealed behind a panel on the side.

For measuring the vertical component of the earth's magnetic field, the instrument is set to zero at a chosen base station.

At each station on the survey the M700 is held roughly level, and a measurement of the increase or decrease in the magnetic field is read off the meter directly in gammas.

Measurement Ranges

Measurement Ranges	Sensitivity
1,000 gammas	20 gammas/div.
3,000 gammas	50 gammas/div.
10,000 gammas	200 gammas/div.
30,000 gammas	500 gammas/div.
100,000 gammas	2,000 gammas/div.

Operating temperatures -35°C. to 55°C. Temperature drift less than 50 gammas over entire operating range

Dimensions 4 x 7 x 10½ in. (10 x 18 x 27 cm.)

Weight

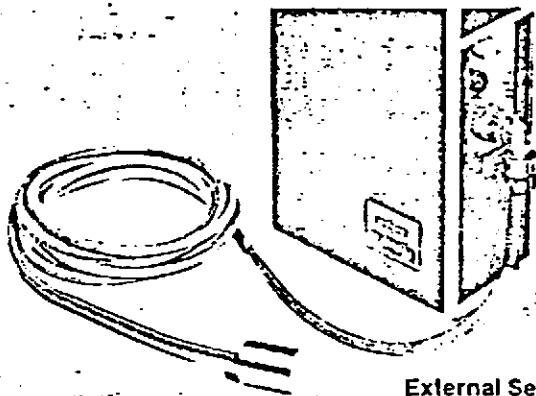
6½ pounds (3 kg.), less batteries and carrying case

8 pounds (3.8 kg.) with batteries

Batteries

Two internally mounted 9V batteries provide up to two months operation under normal conditions.

Accessories increase flexibility of the M700



External Sensing Head

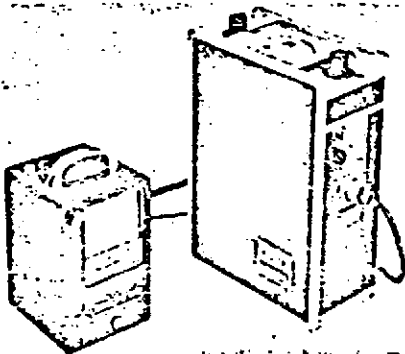
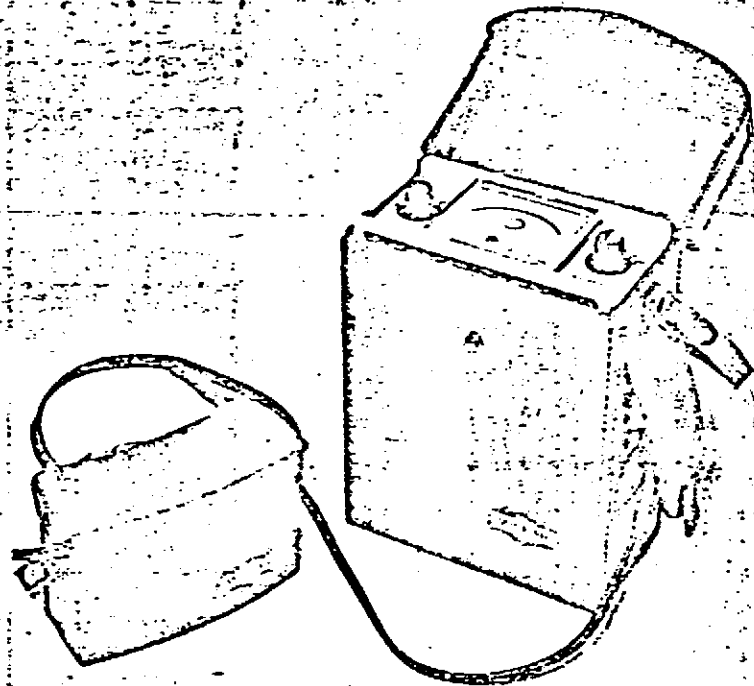


Chart Recorder



External Battery Pack

Side accessory socket allows use of:

external battery pack

chart recorder

external sensing head

horizontal sensing head

Accessory socket is located in the side panel of the M700 along with the latitude adjustment control and accessory switch. It allows the use of various pieces of equipment that extend the range of this instrument.

External Battery Pack For below freezing operation the internal batteries are removed and the external battery pack used. It is carried under the operator's clothing to prevent battery freezing. An alternate external-battery pack is available consisting of 12 "C" size flashlight batteries.

Chart Recorder For long term base station monitoring an external heavy duty battery pack and chart recorder can be attached to the M700. Any current type recorder with a sensitivity of one milliamperes for full scale deflection or any potential type recorder with a sensitivity of one volt for full scale deflection can be used with the magnetometer.

External Sensing Head An external sensing head can be used on the M700 without modification to the instrument. The sensing head plugs into the accessory socket.

McPhar Geophysics Instrument Sales Offices

Canada
McPhar Geophysics Ltd.
139 Bond Street, Don Mills, Ontario
Tel.: (416) 449-5551

811 — 837 W. Hastings Street, Vancouver, B.C.
Tel.: (604) 685-3613

Singapore
McPhar (Asia) Pte. Ltd.
51 Kallang Place, Singapore 12
Tel.: 530311

Australia
McPhar Geophysics Pty. Ltd.
50 Mary Street, Unley 506, S. Australia
Tel.: 72-2133

28 Nicholson Road, Subiaco, W.A. 6008
Tel.: 841-4955

63 Alexander Street, Manly 2095, N.S.W.
Tel.: 977-4192

United States
McPhar Geophysics Inc.
818 W. Miracle Mile, Tucson, Arizona 85705
Tel.: (602) 624-2588

Philippines
McPhar Geoservices (Philippines) Inc.
P.O. Box 3279, Manila
Tel.: 50-53-06

CERTIFICATE, Wm. CHANG, M. Sc.

CERTIFICATE

I, William (Woong) B. Chang, of the City of Coquitlam, in the Province of British Columbia, hereby certify:

1. That I am a Geophysicist, and my address is 1967 Flynn Crescent, Coquitlam, B. C.
2. That I am a graduate of the Seoul National University with the degree of B.Sc. (1964) in Mining Engineering, of McGill University with the degree of M.Eng. (1970) in Applied Geophysics.
3. That I have worked on Exploration geophysics and geochemistry more than ten years.

Dated this 8th day of May 1981.



William B. Chang
Geophysicist

ANNEX - E

COST - DISTRIBUTION

1. Chemical Analyses	\$1,419.25
2. Stripping and Trenching	
H. Allen, P. O. Box 1397 Merritt, B.C.	
January 7 - 8 th 1981 - 12 hrs @	
\$35.00 per hour	520.00
G. F. Gressy, helper	250.00
P.O. Box 406, Merritt B. C.	
January 6 -7-8-9 th , 1981	
3. Wm. Chang M. Sc. GeoChemical and Geo- physical Surveys	
1967 Flynn Crescent, Coquitlam, B. C.	
<u>Field</u> 8,10-16,18-21;23-24 December 1980	
23 - 26 January 1981	
Total 16 days x \$175 per day =	2,800.00
<u>Office</u>	
9,17, 23,24,26,-29 December 1980	
21,27 January 1981; 2-3 February 1981	
Total: 10 days x \$175 =	1,750.00
Expenses - automobile	1,681.83
Geophysical Instruments rental	425.00
Kram Enterprises Ltd, Vancouver	
	<hr/>
	\$6,656.83
4. Weymark Engineering Ltd.	
<u>Field</u> Surveys, Stripping,Geo-Chemical Geological, Geophysical†	
Nov,-8-12; Dec 1-15	* \$4,000.00
<u>OFFICE</u> - Report preparation, Assembly, Collation, plotting, fairdrawing, Report interpretation *	
January 20 - 27, 1981	1,600.00
May 1 - 7, 1981	1,600.00
<u>Field</u> Expenses incl automobile	875.00
5. Reproductions and maps	135.00
	<hr/>
Total	\$11,056.08
* William J. Weymark P. Eng.	
3310 Westmount Road	
West Vancouver, B.C.	

ILLUSTRATIONS

TO 1

COQUIHALLA HIGHWAY/(PROPOSED)
MINERAL RESERVE
O/C 568, 9-3-78
SUBJECT TO CONDITIONS

NICOLA
3

801(1)

MINERAL RESERVE
O/C 2788 79-10-25
SUBJECT TO CONDITIONS

BEN

577(4)

AL

829(4)

MARK
828(4)
JAN 3 530(18)
JAN 2 529(18)

Hamilton

60

346(10)

MERRITT

FAR

345(10)

JPG 2
773(11)

COPPER COPPER
648(12) 649(12)
COPPER COPPER
644(12) 645(12)

RB 3
834(8)

Marquart L.

J-J 150(10)

Godoy

JA
920(7)

GP
924(7)

TB
925(7)

ED
923(7)

Garcia L.

RB 2

835(4)

2

TWO BY
FOUR

484(7)

SHORT
STUD
567(7)

AL 1
878(5)

XX
96(4)

PRINCETON

OC 1
969(10)

TWO BY
THREE

483(7)

Howard's
Creek

Edna L.

MHB RESOURCES LIMITED
JPG MINERAL CLAIMS GROUP
NICOLA MINING DIVISION
CLAIMS LOCATION

Date: 30/1/81
DRWN: WJW

SCALE:
1.25mi = 1 in

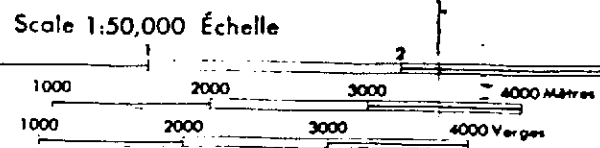
Reference: M 92 1/2E

FIGURE: 2



J.P.G. 773(11)
 J.P.G. 755(11)

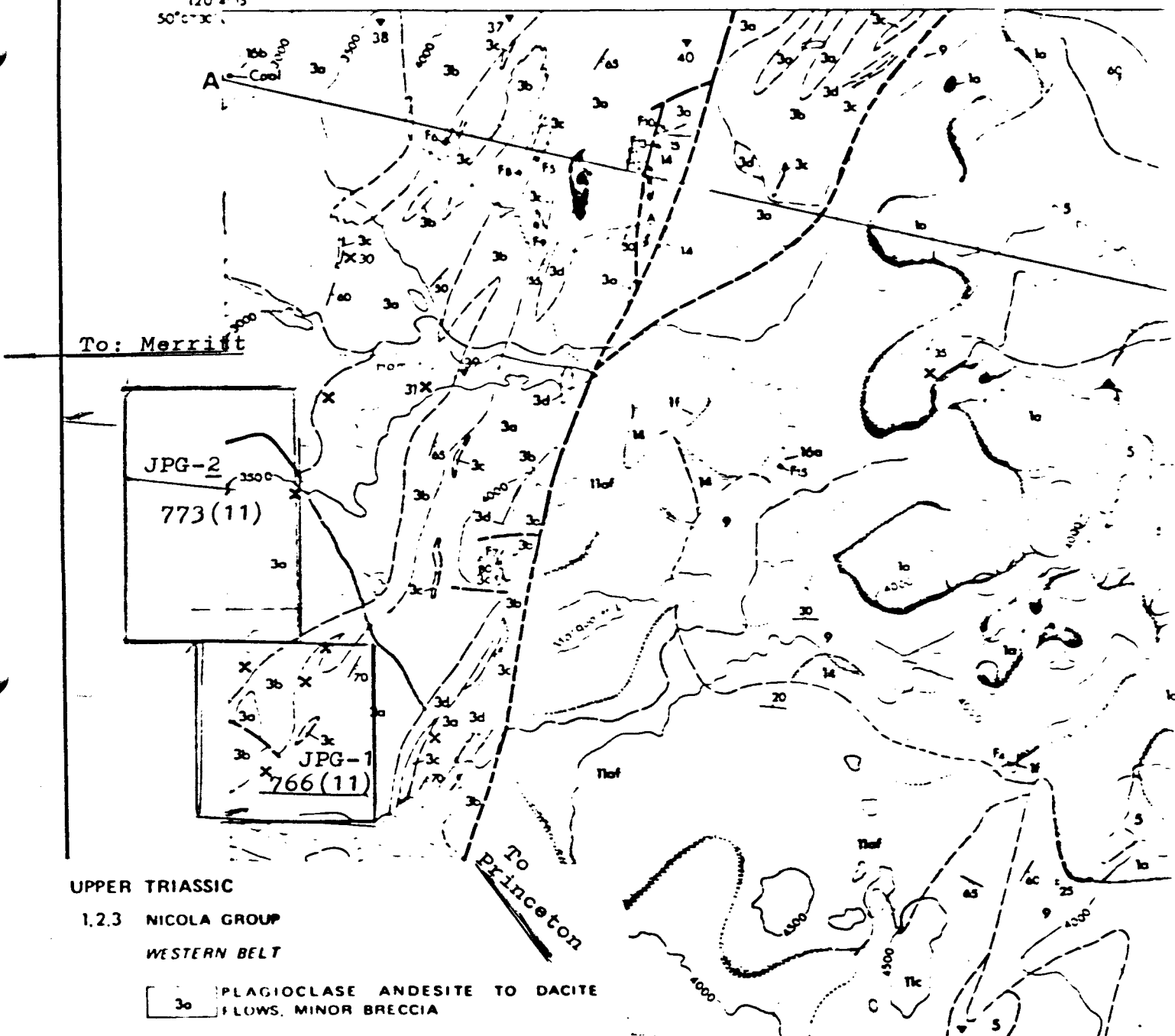
MERRITT
 BRITISH COLUMBIA



MHB RESOURCES LIMITED
 JPG MINERAL CLAIMS GROUP
 NICOLA MINING DIVISION

ACCESS - TOPOGRAPHY
 Date: 30/1/81
 DRWN: WJW
 SCALE: As Shown

120° 0' 15"
50° 0' 00"



UPPER TRIASSIC
1.2.3 NICOLA GROUP
WESTERN BELT

- 3a PLAGIOCLASE ANDESITE TO DACITE FLOWS, MINOR BRECCIA
- 3b ANDESITIC TO DACITIC BRECCIA AND TUFF
- 3c GREY, MASSIVE TO CHERTY LIMESTONE, COMMONLY FOSSILIFEROUS
- 3d CALCAREOUS VOLCANIC CONGLOMERATE, SANDSTONE, AND SILTSTONE, MINOR TUFF AND BRECCIA

Reference: Geology of the Nicola Group Between Merritt and Princeton: V. A. Preto 1972 - 1975
Bulletin 69, 1979: Ministry of Energy, Mines and Petroleum Resources

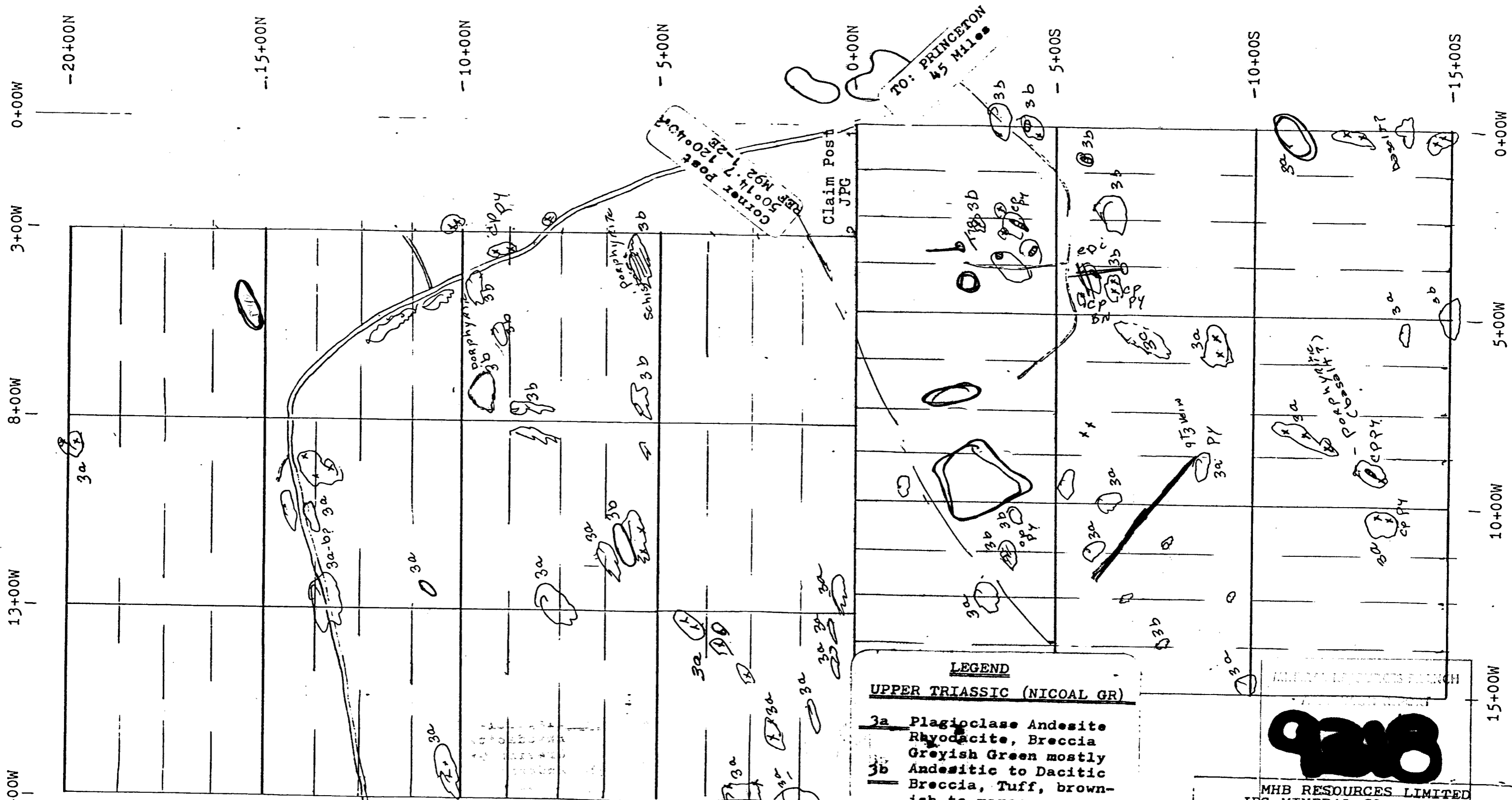
MHB RESOURCES LIMITED
JPG MINERAL CLAIMS GROUP

WEYMARK ENGINEERING LTD.
CONSULTING ENGINEERS
WEST VANCOUVER, BRITISH COLUMBIA
CANADA

REGIONAL GEOLOGY

DATE 30 May 1981
SUBMITTED W.J.W.
DRAWN W.J.W.
TRACED

SCALE 1: 50,000
CHECKED WJW
FILE No
CONTRACT

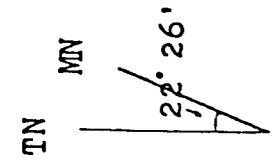


- LEGEND**
- UPPER TRIASSIC (NICOAL GR)**
- 3a** Plagioclase Andesite
Rhyodacite, Breccia
Greyish Green mostly
 - 3b** Andesitic to Dacitic
Breccia, Tuff, brownish to maroon
 - 3c** Grey Massive to Cherty
Limestone
 - 3d** Volcanic Conglomerate
Sandstone, Siltstone
Minor Tuff and Breccia
- cp, py Chalcopyrite, pyrite
Bn. MaBornite, malachite
- Striping - Trenching
 - Fault
 - Geological Boundary

Legend

- Outcrops
- Strike - Dip
- Diamond Drill Hole

Reference: See Figure: 4



Scale
1 cm = 100 M
0 200 M

**TO: MERRITT
Eight Miles**

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CONSULTING ENGINEERS
WEST VANCOUVER, BRITISH COLUMBIA
CANADA

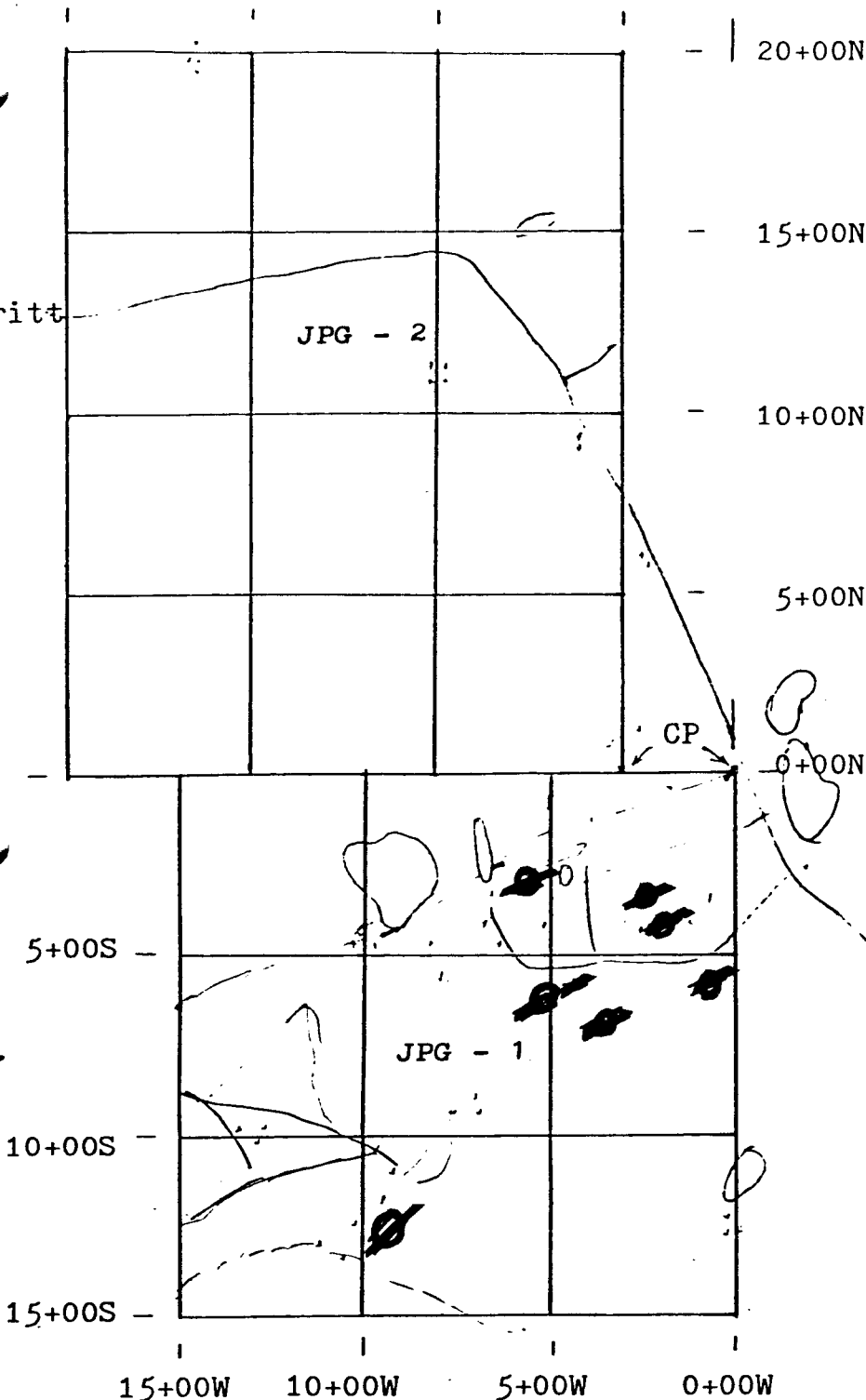
LOCAL GEOLOGY

DATE 30 May 1981
SUBMITTED WJW
DRAWN WJW
TRACED WJW

SCALE 1: A = Sho
CHECKED WJW
FILE No
CONTRACT MEB - 1

18+00W 15+00W 8+00W 3+00W 0+00

To Merritt



GEOLOGY*

UPPER TRIASSIC

NICOLA GROUP

- 3a Plagioclase Andesite to Dacite Flows
- 3b Andesitic to Dacitic Breccia and Tuff
- 3c Grey Massive to Cherty Limestone

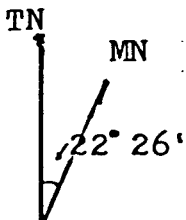
- == Trenches
- Copper Mineralization and related sulphides
- Geological Boundary
- Fault - Shearing

SAMPLES*

- A - 2.57% Copper
- B - 0.01% Copper
- C - 0.17% Copper
- * Certificate - 8411D-1
- #1 - 0.097 Gold **
- 0.039 Gold - #2
- 0.020 Gold - #3
- 0.014 Gold - #4
- ** Certificate No. 8896D-1

Stripping

- 8 Trenches
- 25' x 100' = 20,000 Sq ft = 1800 M²
- Rock Trenching
- 8 - 5 x 17 = 680ft² = 23 M³



Scale

1 cm = 200 M
0 400 M

* Reference: Geology of the Nicola Group Between Merritt and Princeton V.A. Preto, Bulletin 69, 1979, Ministry of Energy, Mines and Petroleum Resources of B.C.

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JPG MINERAL CLAIMS GROUP
NICOLA MINING DIVISION

GEOLOGY - TRENCHES - ASSAYS

DATE: 2/2/81
SCALE: As Shown
DRWN: WJW

18+00W

13+00W

8+00W

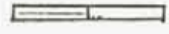
3+00W

0+00W

2 = 0.02 ppm Au
40 = 40 ppm Cu

Scale

1 cm = 100 M



0 200 M

To
Merritt

Geochemical
Soil Samplings

Gold Contour Map

0.01 0.01 - 0.1 ppm

0.1 Above 0.1 ppm

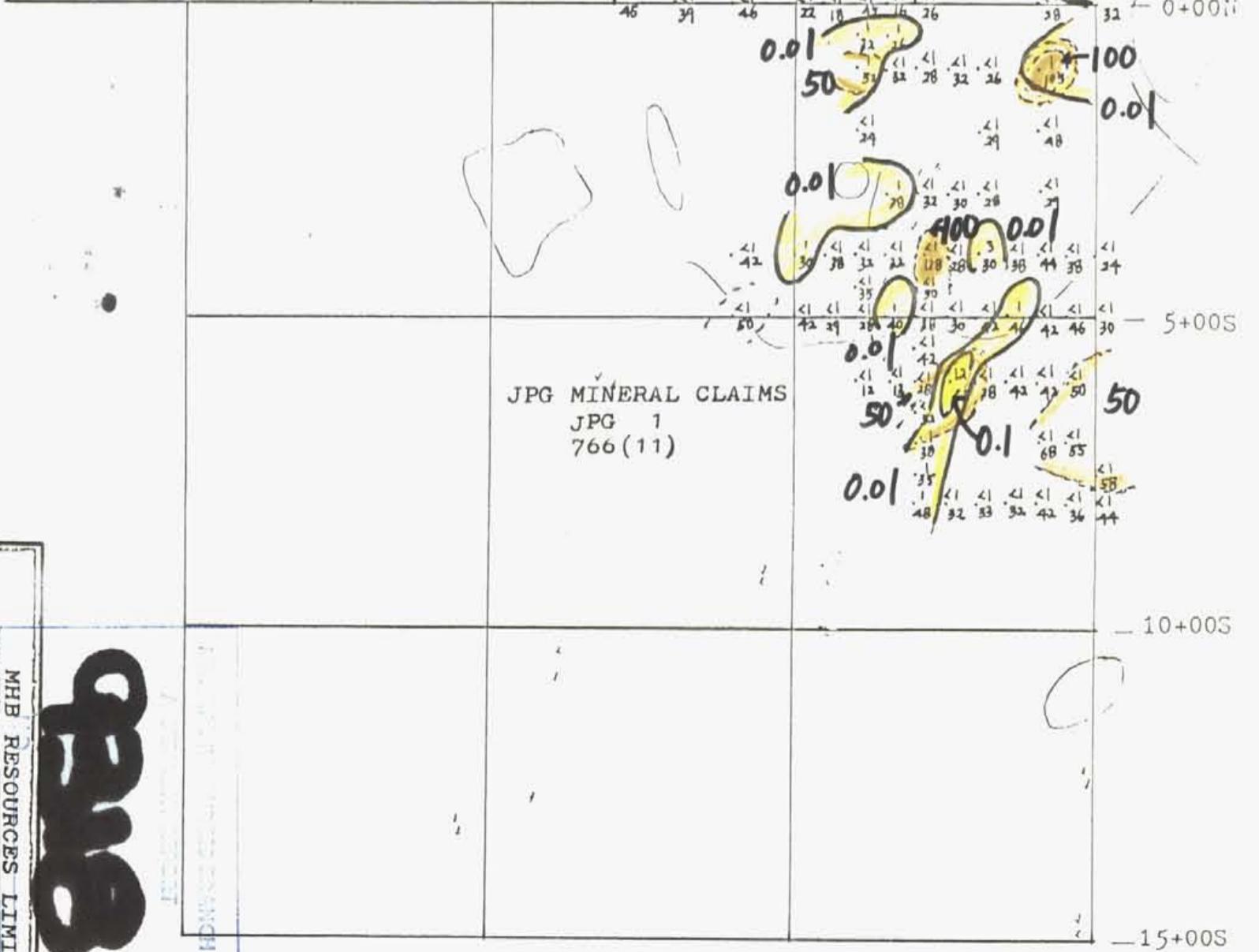
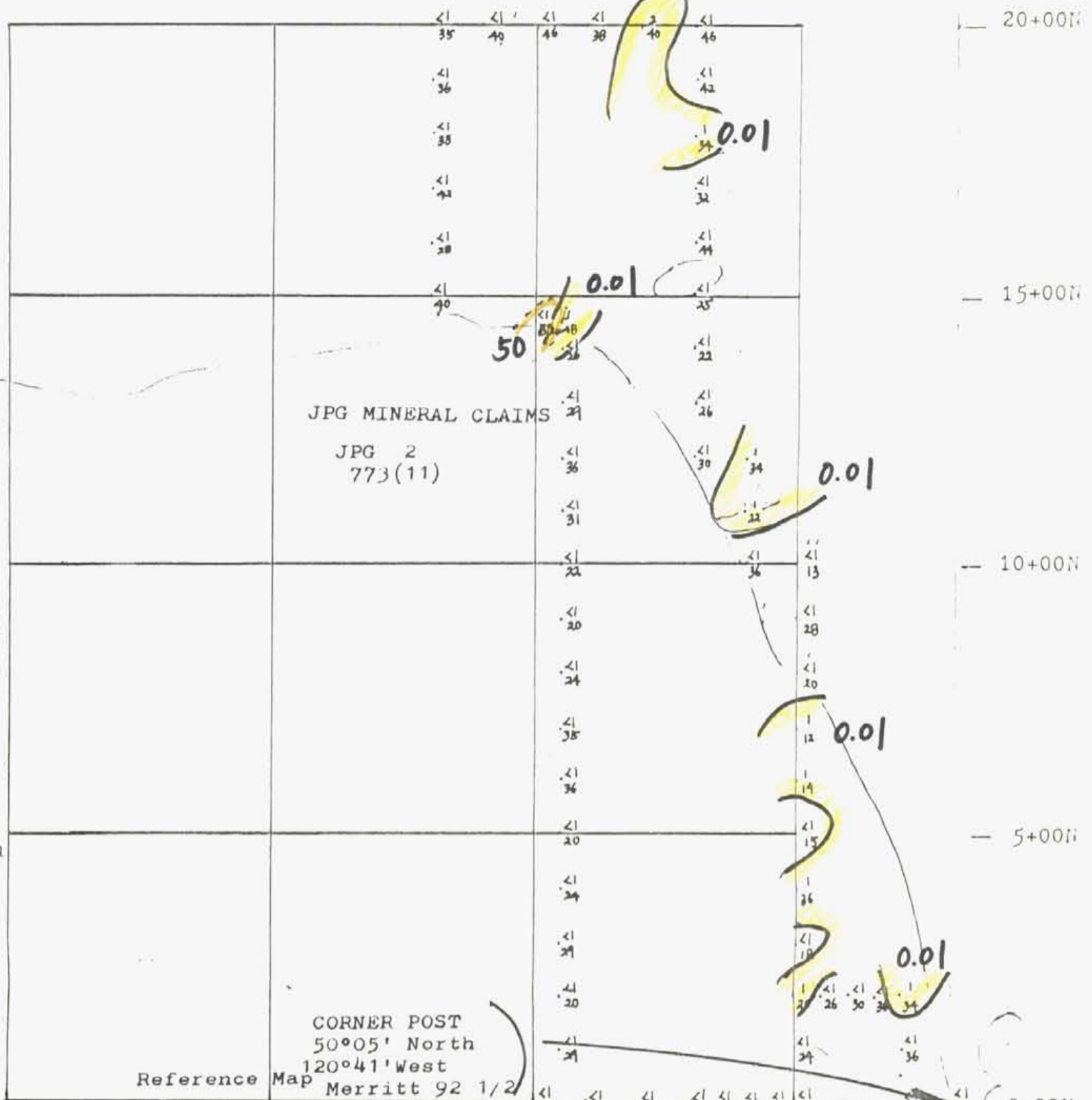
Copper Contour Map

50 50 - 100 ppm Cu

100 Above 100 ppm Cu

Samples taken by
H. Krause

Chemical Analyses by
Can Test Ltd.,
Vancouver, B.C.



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JPG MINERAL CLAIMS GROUP

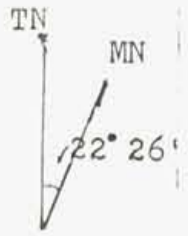
WEYMARK ENGINEERING LTD.
CONSULTING ENGINEERS
WEST VANCOUVER, BRITISH COLUMBIA
CANADA

GEOCHEMICAL SURVEY

DATE 15, 2/81
SUBMITTED WJM
DRAWN WCHANG
CHECKED WCHANG
SCALE AS SHOWN
FILE NO. MHB-1
CONTRACT

CHANG

18+00W 13+00W 8+00W 3+00W 0+00W



Scale
1 cm = 100 M



To
Merritt
1000

Magnetic VF
860 7 - EM Vertical
75 - 4 - Field
Azimuth Dip Angle

Magnetometer: Scintrex
Fluxgate, Mo 753011,
Se 7605203, MF-2/100
EM VLF: Scintrex SE80
Scopas, Mo 707011, Se
101023, Transm: NLK
Jim Creek, Wash, 18.6
KHz, 250 Kw, 48N12
121W55

Magnetic Contour Map

- Contour Interval 500 gammas
- 500 Low below -500 gm
- 0 -500 - 0 gammas
- 0 0 - +500 "
- 500 +500 - +1000 "
- 1000 +1000 - +1500 "
- 1500 +1500 - +2000 "
- 2000 Above +2000 "

*Differences referred
to Station 15+00 N
10+00 W set at 560
gammas

* Field Readings by
Wm Chang, MSc.

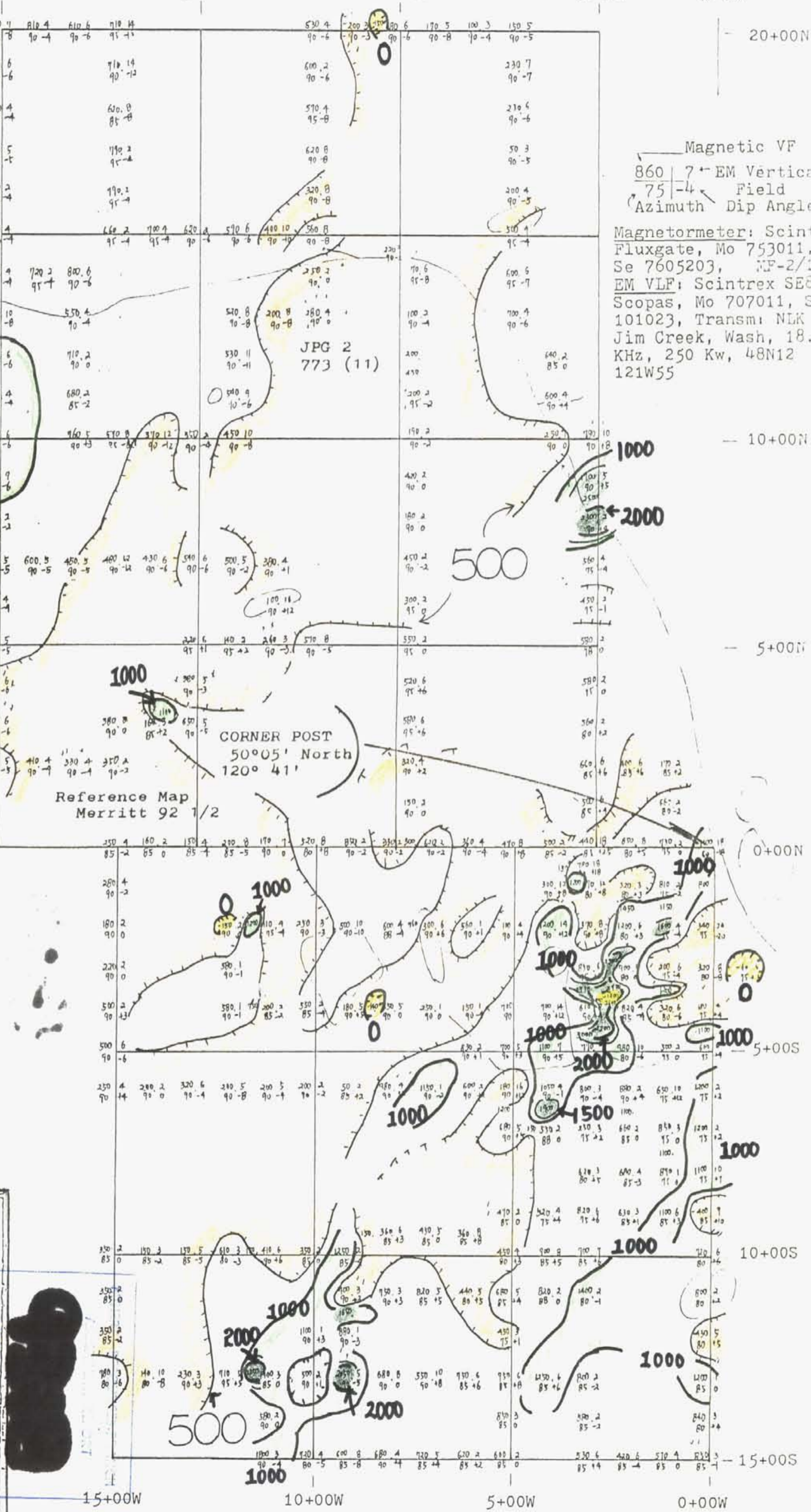
Reference Map
Merritt 92 1/2

CORNER POST
50°05' North
120° 41'

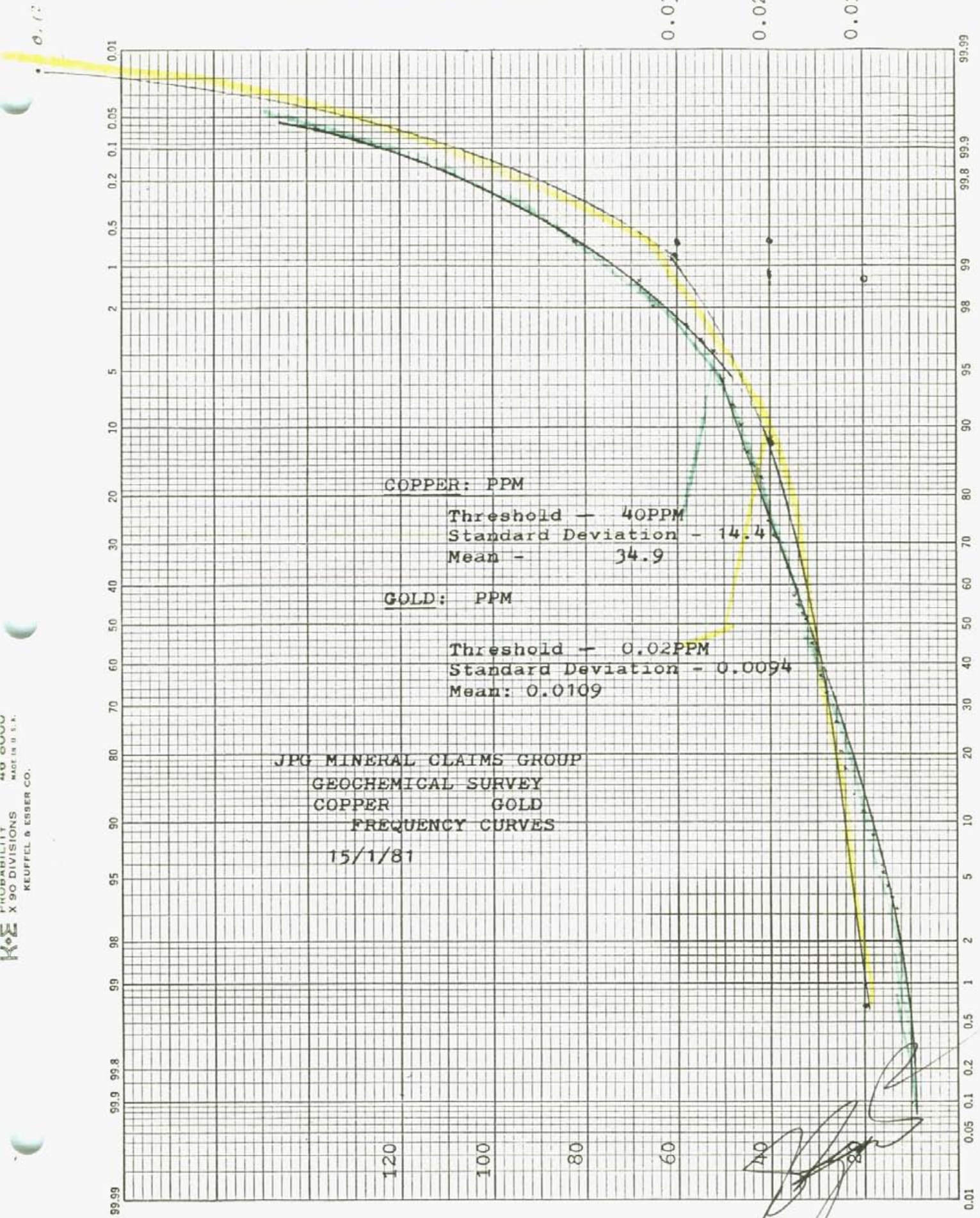
DATE 15/2/81	SCALE AS SHOWN
SUBMITTED WJM	CHECKED WJM
DRAWN WCHANG	FILE NO. WMB-1
CONTACT: WCHANG	

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WEST VANCOUVER, BRITISH COLUMBIA
CANADA

JPG MINERAL CLAIMS GROUP
MHB RESOURCES LIMITED



SOIL SAMPLES
GOLD PARTS PER MILLION



PROBABILITY
 X 90 DIVISIONS
 MADE IN U.S.A.
 KEUFFEL & ESSER CO.

SOIL SAMPLES
COPPER IN PARTS PER MILLION

FIGURE: 7

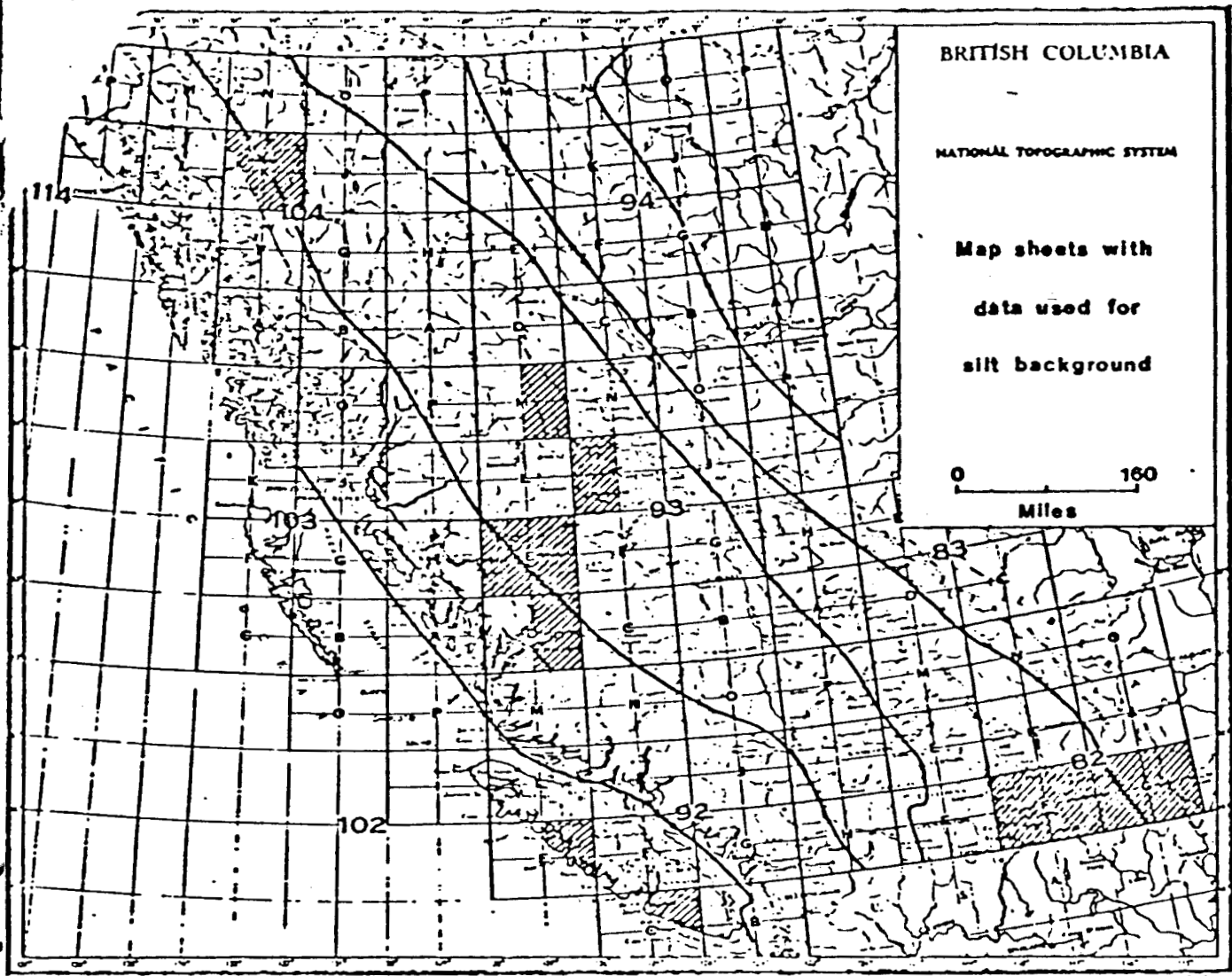


FIGURE 2—Distribution of NTS areas in which silt background data are available.

Zonal Pattern of Backgrounds

It would be extremely useful to know accurately the areal pattern of metal abundances (background) throughout the Cordillera. This is not yet possible, but reflections of these figures are available to a greater or lesser degree in the regional background levels of silts and soils. Intensive work by exploration geochemists has led to the determination of these values, but they are not widely available and in fact relatively few companies seem to have made the effort to assemble and interpret them. Backgrounds for soils are available to those diligent enough to search the assessment report files of the British Columbia Department of Mines and Petroleum Resources. The writer assumes that silt backgrounds fairly truly represent averaged regional geochemical abundances. C. S. Ney and his former colleagues of Kennco Explorations, (Western) Limited provided the silt background for the NTS areas shown on Figure 2. These values were used to construct Figure 3, which purports to represent backgrounds for Cu, Zn, Mo and Pb for the respective belts. The values are listed in Table 4.

The writer sampled the geochemical reports in our assessment files to provide the data for Figure 5, which shows background for the same metals (Cu, Zn, Mo, and Pb) in soils. The data in the files are diverse — different standards of sampling and laboratory

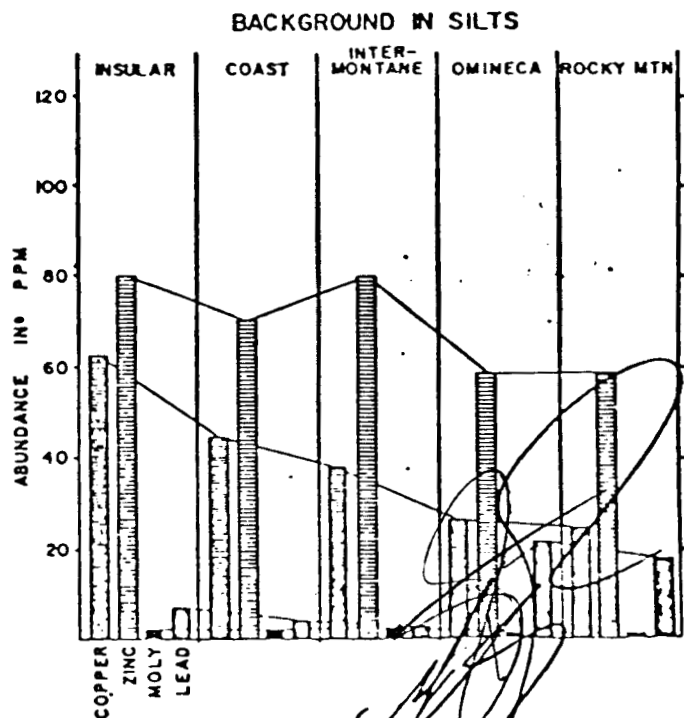
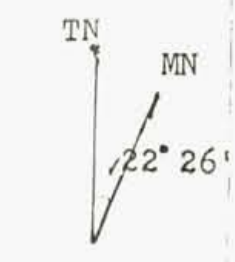


FIGURE 3—Histogram of the average level of metal background in silts by tectonic belt.

18+00W 13+00W 8+00W 3+00W 0+00W

20+00N



Scale
1 cm = 100 M

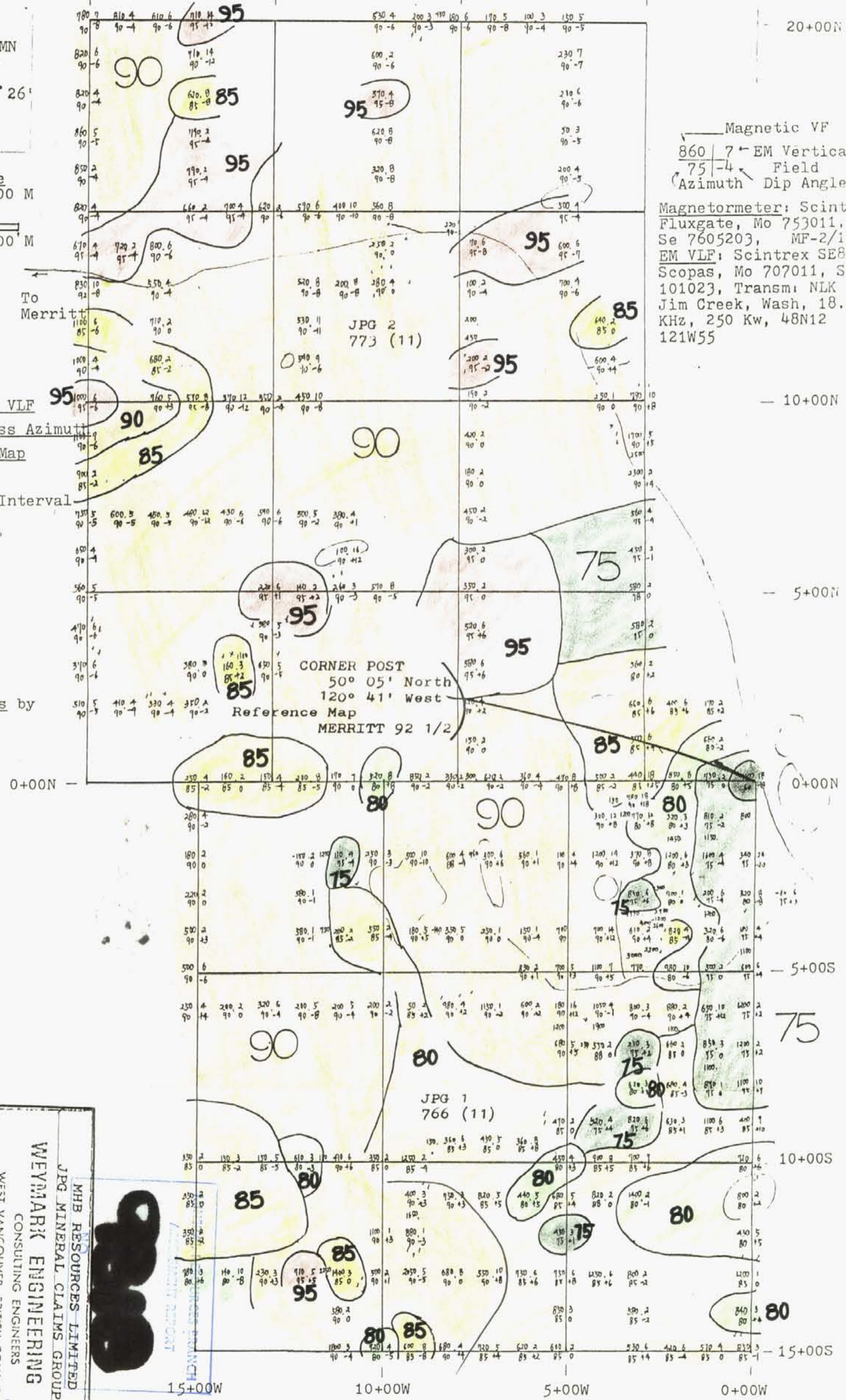
Magnetic VF
860 / 7 ← EM Vertical
75 / 4 ← Field
Azimuth Dip Angle

Magnetometer: Scintrex
Fluxgate, Mo 753011,
Se 7605203, MF-2/100
EM VLF: Scintrex SE80
Scopas, Mo 707011, Se
101023, Transm: NLK
Jim Creek, Wash, 18.6
KHz, 250 Kw, 48N12
121W55

EM Scintrex VLF
Apparent Compass Azimuth
Countour Map

- Contour Interval
5°
- Below 70°
 - 75 75°
 - 80 80°
 - 85 85°
 - 90 90°
 - 95 95°

Field Readings by
Wm Chang, MSc



DATE 15, 2/81
SUBMITTED WJM
DRAWN WCHANG
CHECKED WCHANG
FILE NO. MHB-1
CONTRACT

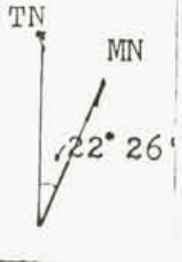
WYEMARIC ENGINEERING LTD.
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WEST VANCOUVER, BRITISH COLUMBIA
CANADA

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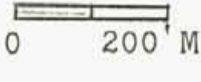
EMF (VLF) AZIMUTH ANOMALIES
GEOPHYSICAL SURVEY REPORT

SCALE AS SHOWN

18+00W 13+00W 8+00W 3+00W 0+00W



Scale
1 cm = 100 M



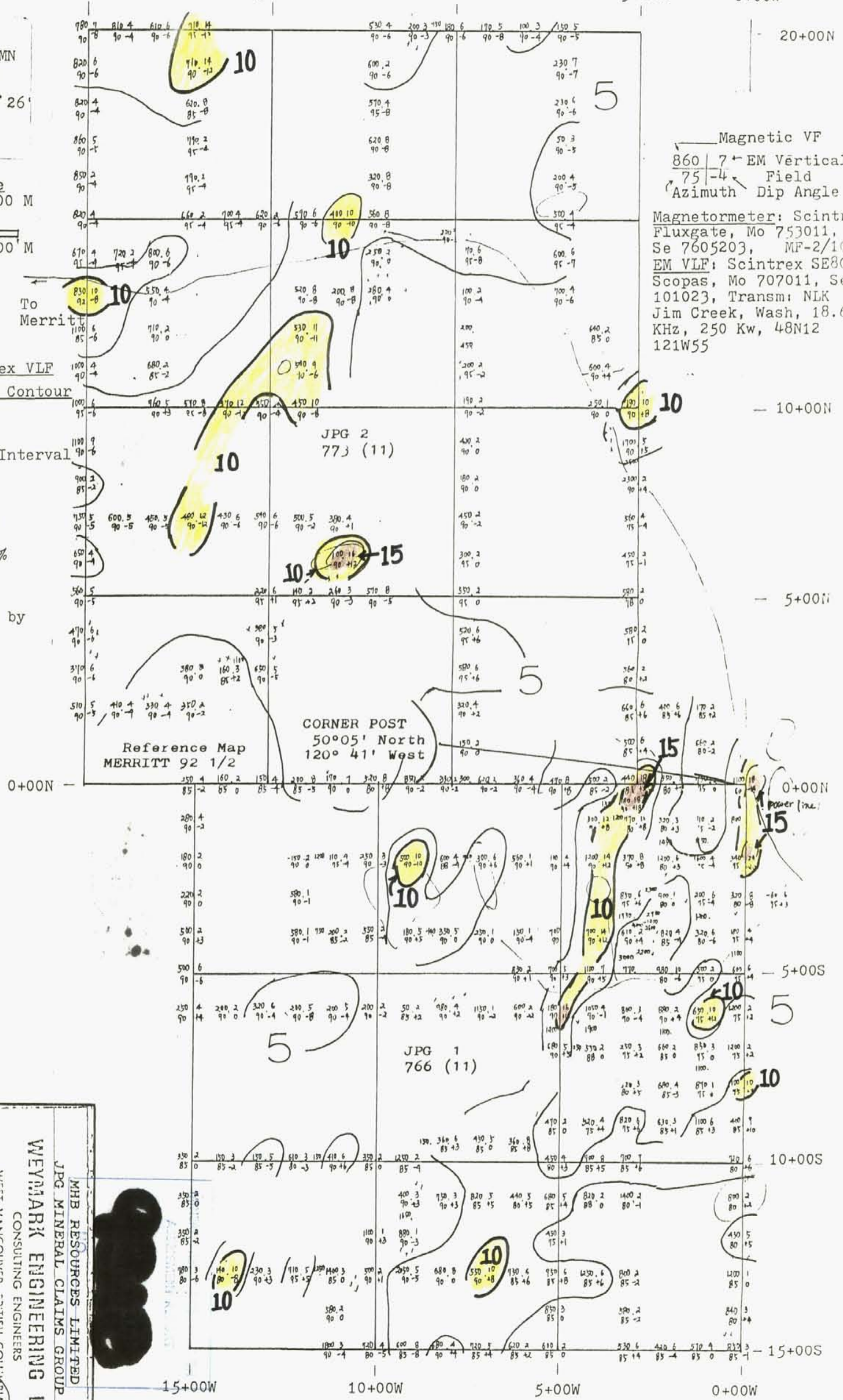
EM Scintrex VLF
Vertical Field Contour
Map

- Contour Interval
- 5 %
- 5 - 10 %
- 10 10 - 15 %
- 15 Above 15 %

Field Readings by
Wm Chang, MSC

Magnetic VF
860 / 7 ← EM Vertical
75 / -4 ← Field
Azimuth Dip Angle

Magnetometer: Scintrex
Fluxgate, Mo 753011,
Se 7605203, MF-2/100
EM VLF: Scintrex SE80
Scopas, Mo 707011, Se
101023, Transm: NLK
Jim Creek, Wash, 18.6
KHz, 250 Kw, 48N12
121W55

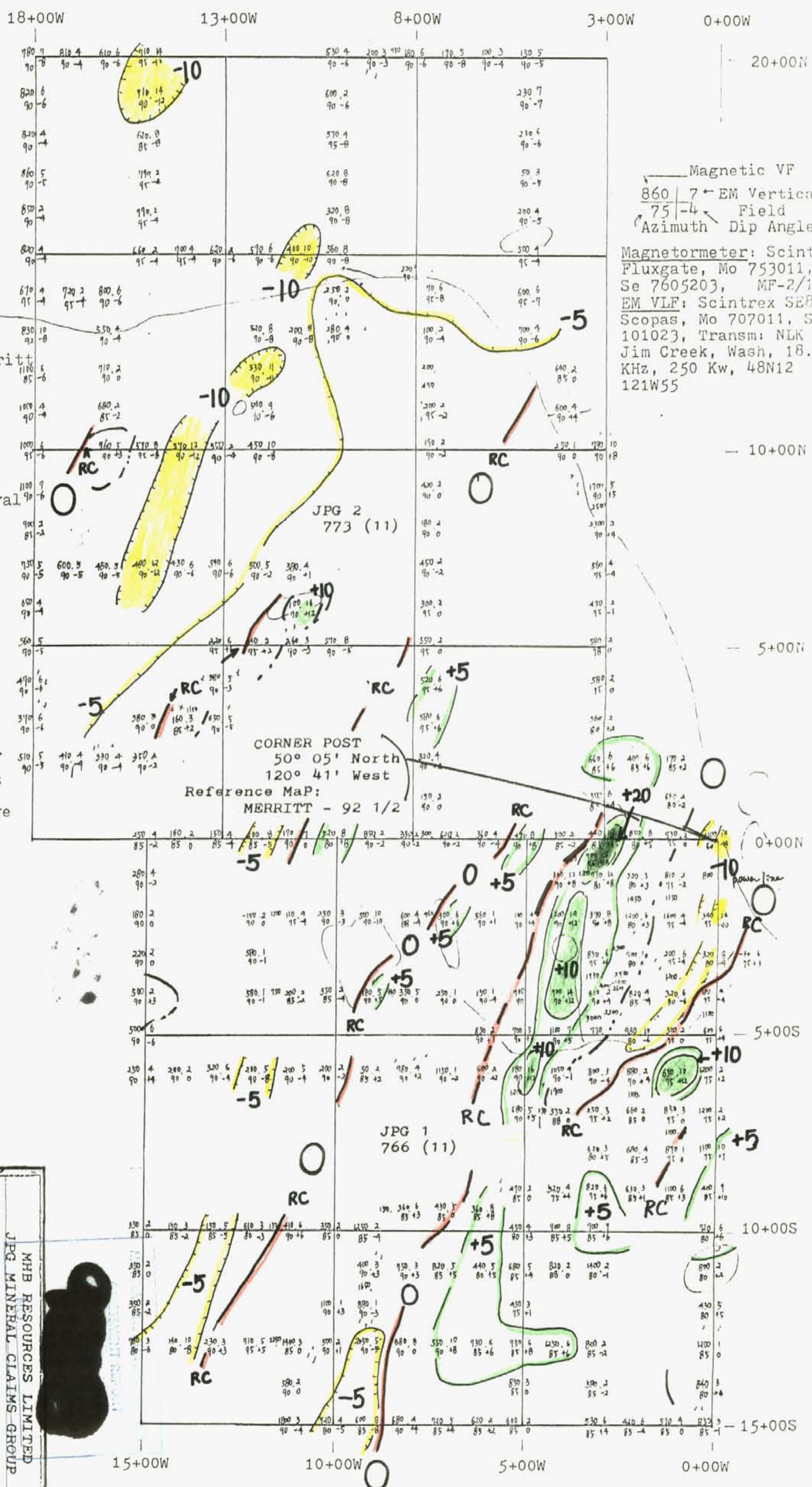


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GEOPHYSICAL SURVEY
 EMF (VLF) VERTICAL FIELD

DATE 15/2/81
 SUBMITTED WJM
 DRAWN WCHANG
 CHECKED WJM
 FILE NO. MHB-1
 CONTRACT



Magnetic VF
 860 / 7 ← EM Vertical
 75 / -4 ← Field
 Azimuth Dip Angle

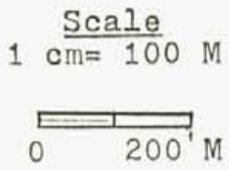
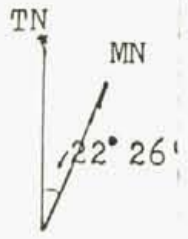
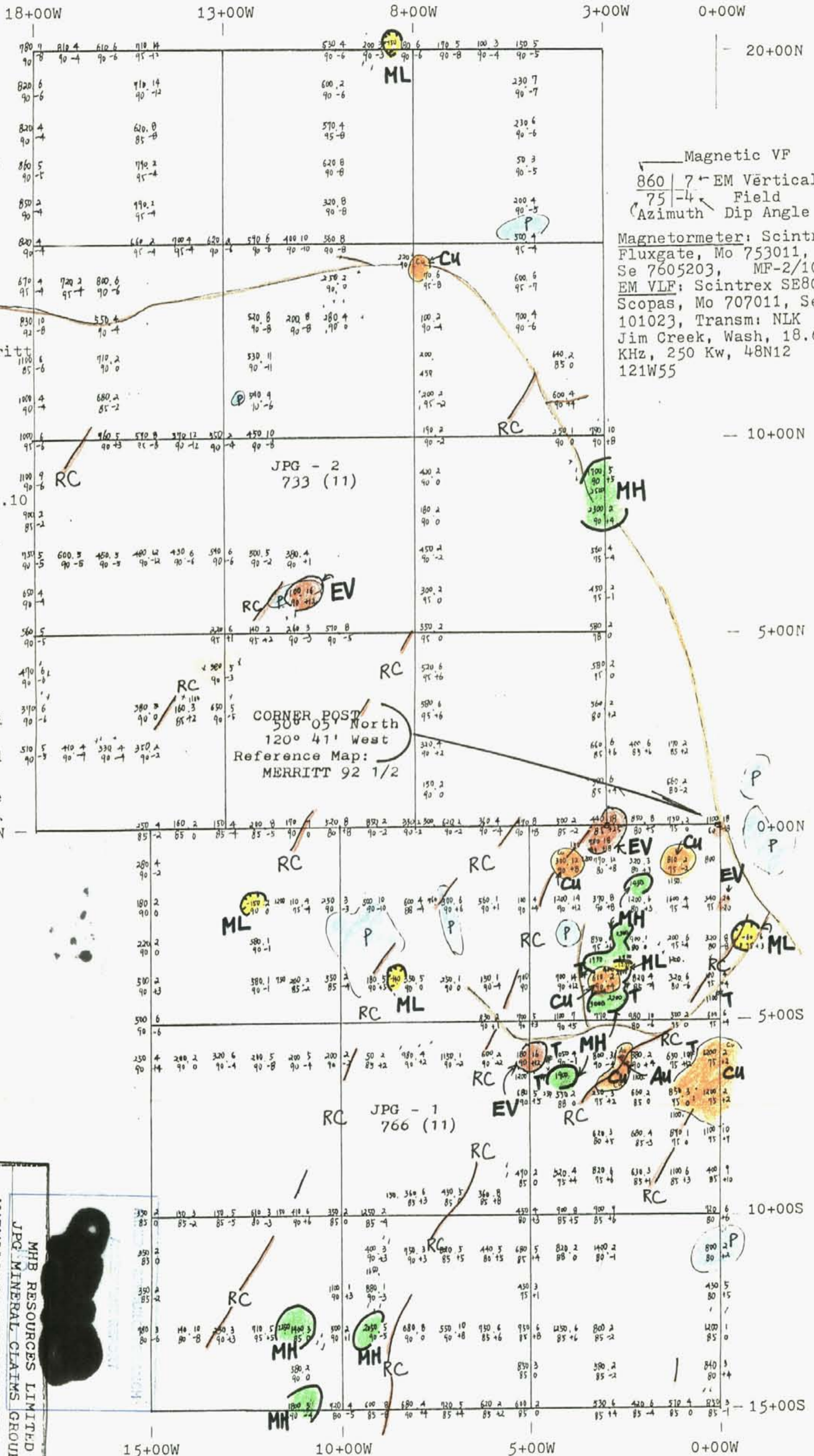
Magnetometer: Scintrex
 Fluxgate, Mo 753011,
 Se 7605203, MF-2/100
 EM VLF: Scintrex SE80
 Scopas, Mo 707011, Se
 101023, Transm: NLK
 Jim Creek, Wash, 18.6
 KHz, 250 Kw, 48N12
 121W55

EM Scintrex VLF
 Dip Angle Countour
 Map

- Contour Interval
 5°
- 10 Below -10°
 - 5 -5°
 - 0 0°
 - +5 +5°
 - +10 +10°
 - +15 +15°
 - +20 +20°
 - +25 Above +25°

RC Real Crossover
 * Real Crossover at
 change points from
 positive to negative
 signs toward
 West on EW Lines

<p>DATE 15, 2/81</p> <p>SUBMITTED WJM</p> <p>DRAWN WCHANG</p> <p>TRACED WCHANG</p>		<p>CHECKED AS Shown</p> <p>FILE NO. MHB - 1</p> <p>CONTRACT:</p>	
<p>WEYMARK ENGINEERING LTD.</p> <p>CONSULTING ENGINEERS</p> <p>WEST VANCOUVER, BRITISH COLUMBIA</p> <p>CANADA</p>			
<p>MHB RESOURCES LIMITED</p> <p>JPG MINERAL CLAIMS GROUP</p>			



Magnetic VF
 860 | 7 ← EM Vertical Field
 75 | -4 ← Azimuth Dip Angle

Magnetometer: Scintrex Fluxgate, Mo 753011, Se 7605203, MF-2/100
 EM VLF: Scintrex SE80 Scopas, Mo 707011, Se 101023, Transm: NLK Jim Creek, Wash, 18.6 KHz, 250 Kw, 48N12 121W55

JPG Mineral Claim
 Composite
 Anomalous Zones

Geochemical

- Au** Gold, above 0.10 ppm Au
- Cu** Copper, above 50 ppm Cu

Geophysical

- Magnetometer
- MH** High, Above 1500 gammas
- ML** Low, Below 0 gammas
- Electro-Magnetic
- EV** EM VLF, High Vertical Field Above 15 %
- EA** Azimuth Change
- RC** Real Crossover

- *****
- #T** Trench
 - *** Outcrop
 - |** Road
 - P** Pond
 - Claim Post

CORNER POST
 50° 05' North
 120° 41' West
 Reference Map:
 MERRITT 92 1/2

DATE 15, 2/81
 SUBMITTED WJM
 DRAWN WCH/DB
 CHECKED WJM
 WCH/DB

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 CONSULTING ENGINEERS
 WEST VANCOUVER, BRITISH COLUMBIA
 CANADA

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GEOCHEMICAL COMPOSITE
 ANOMALOUS ZONES

SCALE AS SHOWN