

2096

TABLE OF CONTENTS

INTRODUCTION	Page 1
LOCATION	Page 1
CLAIMS	Page 1 & 2
FIELD PROCEDURES	Page 2
GEOPHYSICAL SURVEY	Page 3
MAPS	Page 3

APPENDIX

1. GEO-X INTERPRETATION
2. CERTIFICATE - W.G. HAINSWORTH
3. OPERATOR QUALIFICATIONS

MAPS (In folder)

GROUP I - Torwest Magnetometer Survey	7
- Torwest E.M. Survey	8
- Ground Isomagnetic Plan - Geo-X.	- 1
- Ronka E.M. 16 Information - Geo-X.	2
- General Interpretation Map - Geo-X.	3

GROUP III

- Torwest E.M. Survey	9
- Torwest Magnetometer Survey	10
- Ronka E.M. 16 Information - Geo-X.	- 5
- Ground Isomagnetic Plan - Geo-X.	4
- General Interpretation Map - Geo-X.	6

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2096 MAP

W. G. HAINSWORTH

CONSULTING GEOLOGIST

January 2nd, 1970

The President & Directors,
Torwest Resources (1962) Ltd.,
702 - 850 W. Hastings Street,
Vancouver 1, B.C.

Gentlemen:

This report describes the assessment work carried out on your MARB Claim Groups I and III. Group II had earlier been registered for assessment purpose by an airborne geophysical program which, incidentally, was flown over all three groups.

Work on all three Marb groups was a continuous operation being carried out from October 1968 through to July 1969.

LOCATION

The 59 Marb claims lie some 8 miles west north-west of Merritt, B.C. in the Nicola Mining Division of British Columbia. They tie directly on to the production claims of Craigmont Mines Ltd. with the eastern boundary of the Marb group being within a mile of the open pit of Craigmont.

The claims are accessible by dirt road from two different localities. The western portion of the claim is worked by a road taking off north from highway #57, eleven miles west of Merritt. The eastern section of the group is best approached by a dirt road winding through the Craigmont property, past the open pit and on to the Marb claims.

Good travel within the claim block is afforded by numerous roads.

CLAIMS

The 59 claims are specified as:

<u>Claim</u>	<u>Record No.</u>	<u>Expiry Date</u>
Marb #1 - 6 incl.	37327 to 37332 incl.	July 19, 1970
Marb #7 - 9 incl.	39762 to 39764 incl.	Feb. 28, 1970
Marb #10-18 incl.	39766 to 39774 incl.	Feb. 28, 1970
Marb #21-31 incl.	37334 to 37344 incl.	July 19, 1970
Marb #32	37825	Oct. 4, 1969
Marb #34,35 & 36	37345 to 37347 incl.	July 19, 1970
Marb #37-44 incl.	37688 to 37695 incl.	Sept. 6, 1969

W. G. HAINSWORTH

CONSULTING GEOLOGIST

- 2 -

<u>Claim</u>	<u>Record No.</u>	<u>Expiry Date</u>
Marb #47 & 48	37826 to 37827 incl.	Oct. 4, 1969
Marb #51 & 52	37696 to 37697 incl.	Sept. 6, 1969
Marb #53-64 incl.	37828 to 37839 incl.	Oct. 4, 1969
Marb #10 Fr	39765	Feb. 28, 1970

For operation purposes the claims were divided into 3 groups namely:

- Group I - Marb 37-44, 47&48, 51-64
- Group II - Marb 21-36
- Group III - Marb 1-18 plus 10 Fraction

FIELD PROCEDURES

The procedures to be used were originated by the undersigned in the Torwest Vancouver office. The field work was carried out by Torwest field personnel with numerous field visits by the writer.

To best explore the claim block, picket lines (blazed and taped) were run off well-cut base lines at 400 foot intervals. Where geophysical or geochemical results warranted, additional intermediate lines or 200 foot spacing were run for the required distance.

The cutting of the baseline at the picketlines were carried out by Torwest field men with the help of occasional local labour.

For the record total footage cut on the groups:

- Group I - Baseline - 8,400 feet
- Picketline-119,000 feet
- Group III - Baseline - 6,000 feet
- Picketline- 38,700 feet

The picket lines were taped and marked every 100 feet. In addition the ends of all picket lines were measured to each other for more accurate map control location.

Torwest used all field operations that could be carried out by its personnel. These programs consisted of an electromagnetic survey utilizing a Ronka EM 16 instrument; a magnetometer survey with a fluxgate MF - 1 Sharpe instrument; and a geochemical survey with samples taken at 100 foot intervals and analyzed by T.S.L. Laboratories in Vancouver.

W. G. HAINSWORTH

CONSULTING GEOLOGIST

- 3 -

The interpretation of these results was made by qualified geophysicists, primarily Geo-X Surveys Ltd. personnel. The interpretation of Groups I and III surveys is included in this report.

GEOPHYSICAL SURVEY

This survey utilizing the Ronka EM - 16 instrument was carried out by Torwest's chief field man, Mr. M.A. Mathieu. Mr. Mathieu's past usage of this instrument well qualified him to run this survey.

Readings were taken every 100 feet along the picket lines with the observations, both quadrature and out-of-phase, being noted and recorded. These recordings were posted on to a claim area map at the base camp and forwarded to Vancouver when completed. The Geo-X company received these maps, prepared their interpretation and passed them back to the Vancouver office.

The magnetometer survey was run by Torwest's assistant field man, Mr. W.F. Petrie, who had many years of experience in handling this type of instrument. Operation was similar to the electromagnetic survey with 100 foot readings being recorded. Similar procedure was followed with the maps.

MAPS

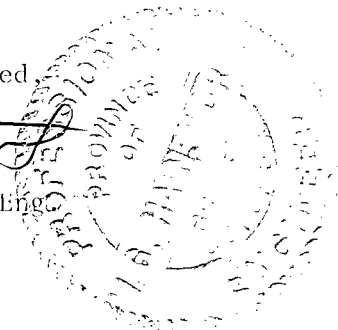
Maps prepared by Torwest personnel, in addition to those supplied by Geo-X are appended to this report. The qualifications of the operators are similarly attached.

The interpretation of the geophysical data by Geo-X is also included.

Respectfully submitted,



W.G. Hainsworth, P. Eng.



Vancouver, B.C.
January 2nd, 1970.

CORRELATION/INTERPRETATION

of the

Electromagnetic (Ronka EM 16)

and

Magnetometer (Sharpe MF-1) surveys

on the

Marb Claim Group

Map Area #1 (West Third)

and

Map Area #3 (East Third)

Nicola Mining Division

British Columbia

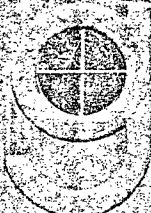
On behalf of

TORWEST RESOURCES (1962) LTD.

Report by:

D.R. Cochrane, P. Eng.

AUGUST 12, 1969



GEO-X SURVEYS LTD

627 HORNBY STREET, VANCOUVER, B. C.

604-685-4296
TELEX 84-80404

TABLE OF CONTENTS

Introduction	1
Procedure and Data Presentation	1, 2, 3
Discussion	
Magnetometer Survey, Map Area #1	3, 4
Ronka EM 16 Survey, Map Area #1	5, 6
Correlation/Interpretation, Map Area #1	6, 7
Discussion Magnetometer, Survey Map Area #3	7, 8, 9
Discussion Ronka EM 16, Survey Map Area #3	9
Correlation/Interpretation, Map Area #3	10

Figures:

1. Isomagnetic Plan Map Area #1
2. Ronka EM 16 Information Map Area #1
3. Correlation-general Interpretation Map Area #1
4. Isomagnetic Plan Map Area #3
5. Ronka EM 16 Map Area #3
6. General Interpretation Map Area #3

Appendix:

- | | |
|------------------------------|-------------|
| 1. Instrument Specifications | Ronka EM 16 |
| 2. Certificate D.R. Cochrane | Sharpe MF-1 |

INTRODUCTION:

The writer was retained in April, 1969, by Mr. W, Hainsworth of Torwest Resources (1962) Ltd., to make a study of the electromagnetic and magnetic survey data on Map area #2 (Central "Third" Portion) of the Marb group of mineral claims. That work was completed and the information is contained in a report dated April 30, 1969. Subsequent to this, and in June, 1969, Mr. Hainsworth forwarded the geophysics on Map Area #1 (West Third) and Map Area #3 (East Third) of the same Marb Group of claims. It is this latter data which is of concern here, and this report describes the interpretational procedure and discusses the results obtained.

PROCEDURE AND DATA PRESENTATION:

The following maps were supplied by Torwest Resources (1962) Ltd.:

- (a) An uncontoured "manual" plot of the magnetometer values of area #1 and area #3 on separate maps, both at a lateral scale of 1":300'.

- (b) Profile plots of the Ronka EM 16 data, area #1 and area #3 on separate maps, with both "in phase" and "quadrature" results at a lateral scale 1":300', profile scale 1":40%.

Prior to the commencement of drafting, an estimate of the cost of data processing with automatic computer plotting was made by James Cerne of Geo-X Surveys Ltd., and the cost was considered slightly in excess of that which could be immediately justified considering the extent of the drafting to that date. Consequently the magnetic data was hand contoured by Mr. D. Yip, geophysical draftsman, at 400 gamma intervals. Similarly the Ronka EM 16 information was contoured by hand by Mr. Yip and rate changes and crossovers located by him and the author. The work was directly supervised by Mr. Key, chief draftsman, and the author, who also rough drafted the Interpretation Plans. The following conventions were employed when processing the EM data:

- (i) True proper crossovers are defined as changes from positive to negative tilt angles when scanning the profiles in the same direction that the operator "faced" while taking the reading.
- (ii) Reverse crossovers are defined as changes from negative to positive angles when scanning the profiles in the same direction that the operator "faced" when raking the reading.
- (iii) True or proper rate changes (linear derivative anomalies) are defined as rapid changes in dip angles from negative to more negative or positive to less positive when

scanning the profiles in the "face" direction.

- (iv) Reverse rate changes are defined as rapid changes in angles from more to less negative or less to more positive angles when scanning the profiles in the "face" direction.

The length and or width of the arrow symbols are proportional to the size of the rate change. Large changes in tilt angles which correlate across two or more cross lines are designated as "conductors". The width of the conductor is, again, proportional to the amplitude of the change. Iso-in phase contours were drawn at -20; -10%; 0; and +10%. No attempt was made to process the quadrature data, however, this information was used, occasionally, in order to more accurately position crossovers.

DISCUSSION OF MAGNETOMETER RESULTS, AREA #1:

The arithmetic mean (A.M.) of a sample of 122 magnetometer readings from area #1 is 6231 gammas and standard deviation of 595 gammas. This compares with an average of 5630 and standard deviation of 735 gammas on the central area, adjacent to the east. The maximum recorded value on area #1 is 8250 and minimum 4400 gammas. The two areas are not able to be correlated directly since there is some difference in the

statistics and in values from close to the same stations.

However, there is a rough and approximate relation between the two.

The isomagnetic plan, Figure 1, (area #1) is rather complex. It features north directed trends with very slightly east-west cross trends predominating in the southwest quadrant. The center of the map area is relatively flat, magnetically speaking, and considerable complexity develops along the west side of the survey sheet and again in the northeast quadrant. The most persistent and highest intensity magnetic high is designated Magnetic High #1-A (to indicate map Area #1, anomaly priority A). This north trending magnetic ridge is centered on the Marb 39 claim. Magnetic High #1-B is situated close to the southwest corner of Map Area #1, and is a very narrow, north trending magnetic feature. Its west side is characterized by steep gradients. Flanking Magnetic High #1-B is a very magnetic "linear" belt consisting of a number of north directed magnetic linears, disrupted somewhat by a southern, east-west magnetic low (and broad linear). Other magnetic features are shown in simplified graphic form in Figure 3. Of special interest are the northeast directed linears which, with the north-south ones, form a rectilinear pattern about, and close to Magnetic High #1-A.

The remainder of the positive areas in excess of 6400 gammas are not named but are graphically displayed in Figure 3.

DISCUSSION OF RONKA EM 16 DATA, MAP AREA #1:

The Ronka EM 16 in phase results are moderately complex (see Figure 2). Iso-in phase response is a series of alternating branching bands of north trending positive, then negative response. By far the largest number of readings are negative and angles up to -50% were recorded. Some of the strongest and most persistent EM features are broad bands of high negative (below -20%) response. These are outlined in Figure 3.

A very prominent electromagnetic feature is a series of major crossovers and/or very steep and large angle changes, striking obliquely across the east center map area for over 3600 feet. It is designated conductor 1-A and apparently dies in the south and splays out at the north end. The axis of this conductor is immediately south of Magnetic High 1-A.

A second and similar crossover zone is designated conductor 1-B and is subparallel to the base line. It actually may be continuous and up to 2400 feet long (between 40 and 64 south). Conductor 1-C is some 600 feet east of Magnetic High 1-B, parallel to it and slightly south. Conductor 1-D, a very major change, is approximately 500 feet north of the north tip of Magnetic High #1-B, and this conductor axis struck northeast somewhat contrary to the regional iso-in phase trends. Many other crossover zones and rate change anomalies are displayed in graphic form in Figure 3. Single, isolated crossovers

or rapid rate change features should not be overlooked as economically interesting simply because of their apparent lack of lateral extent.

CORRELATION/INTERPRETATION; MAP AREA #1:

There is strong and throughgoing north-south bias to the magnetic and electromagnetic data. There is some slight rotation of these trends to NNE in the northeast quadrant, and to east-west in the southwest quadrant. The magnetic data shows a slightly higher arithmetic mean than for the area adjacent to the east, (Map Area #2). Both, however, display a wide range of values and thereby indicate a diversity of bedrock susceptibilities (and therefore, presumably rock types and/or alteration etc.). The isomagnetic plan, Figure 1, shows two areas of magnetic complexity and these are; (i) along the west boundary of the map area, (particularly in the southwest in and around Magnetic High #1-B); and (ii), in the northeast map quadrant (in and around Magnetic High #1-A). The indication is that these areas of magnetic complexity reflect geological complexity. A rather unusual directional and low amplitude feature is present across the south end of Magnetic High #1-B. It trends, predominantly east-west and is a low response area. A major change in bulk bedrock susceptibilities is indicated and this suggests a major change in lithology (possibly a contact). This is also

suggested by the VLF field angles; since the Magnetic Low correlates quite well with two large patches of less than -20% in phase response. (Thus a regional change in conductivity is also indicated). There is no obvious correlation between the magnetic positive zones and in phase lows, however, the patterns and trends are remarkably similar. However, we must assume considerable VLF station direction bias to the EM 16 results.

Some of the long, linear crossover features, such as conductor 1-A and 1-C, are subparallel to and spatially related to magnetic linears. This correlation would strongly suggest conductive shear/fault zones are causing the geophysical response.

DISCUSSION OF MAGNETOMETER RESULTS, AREA #3 (RERUN SURVEY)

The arithmetic mean (A.M.) of a sample of 81 magnetometer readings in area #3 is 5730 gammas, and the standard deviation is 455 gammas. A comparison list tabulates the basic statistics below:

<u>Area</u>	<u>Arithmetic Mean</u>	<u>Stndrd. Deviation</u>	<u>Max.</u>	<u>Min.</u>
1	6231	735	8250	4400
2	5630	735	10,900	4200
3	5730	455	8500	4000

The magnetic values in general, correlate reasonably well from one area to another. There is some considerable difference in overall trend directions between Areas 1 and 2 with that of Area 3, but this is, to some extent at any rate, partially due to the difference in picket line directions (line biasing). Area 3 shows two trend directions both north/south and east/west

directed trends. The most obvious and interesting magnetic feature is a complex situated in the southwest corner of the area #3, centered in and around the Marb #1, #2 and #3 claims. This anomaly is the same as anomaly #1 on Area 2 however the contour configuration is slightly different. The backbone of the magnetic high runs NW just south of the old campsite, and contains a one station value of 8500 gammas. It is characterized by a very steep gradient on its NE flank. Three small "above 6000" gamma patches are situated just north of anomaly #1 and immediately south of the base line. They are apparently associated with the aforementioned complex. Surrounding the nose of the 6000 gamma patches are smaller patches of "less than 5000 gamma response". The total range between the maximum peak on the magnetic complex and magnetic low to the north, is 4500 gammas and takes place within 2600 feet. The second most interesting magnetic feature is a magnetic high located in the opposite survey corner, north of the base line and in the extreme east sector. In this area, maximum response is 6800 gammas, and the magnetic high apparently continues to the east, off the survey area.

The flank of a magnetic low was outlined at the south end of lines 32 and 36, just east of Jackson Lake. This low may be a manifestation (dipole effect) from the anomaly #1, or may indicate that another such situation (magnetic complex) exists somewhere to the south perhaps on Marb #5 or #7 claims.

Several of the obvious magnetic linears are shown on the

accompanying maps. They primarily indicate the axes of magnetic lows and in some cases are zones of disruption.

DISCUSSION OF RONKA EM 16 SURVEY OF MAP AREA 3:

The Ronka EM 16 information of Area 3 is graphically displayed in Figure 5. It shows a dominance of north to north-east directed "iso-in phase" trends. These are somewhat contrary to the isomagnetic trends and magnetic linear directions, of Figure 4, however, as previously discussed, some station direction biasing is certainly affecting the electromagnetic response. The magnetics is probably a better guide to the true direction of the "grain" of the country.

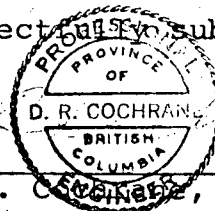
A very prominent "conductor" strikes NE by E across area 3, bisecting it into two roughly equal halves. This electromagnetic feature apparently indicates a major geological change since the "in phase" response is regionally reversed in sign across it, and the trend direction changes considerably. A subparallel "conductor axis" is situated in the northwest sector of Area 3. It is centered on the Marb 10 and Marb 12 claims and is over 1600 feet long. Several isolated, one line crossovers and rapid rate change anomalies are shown in Figure 5.

CORRELATION/INTERPRETATION, MAP AREA #3:

The major magnetic and electromagnetic features are compiled in Figure 6. Contrary to the other two areas, Area #3 shows a predominance of NE x E trends, with north and NW directed bias evident only in the southwest corner of the map area. If these trends are in fact real, then there must be a gross change in the geology somewhere between Areas 2 and 3. There is, of course considerable E/W partiability due to the grid direction in Area #3.

The two geophysical features which are predominant in the map area are the positive magnetic complex in the southwest (anomaly #1) and the EM conductor trending across the claims. The magnetic high is fairly irregular and is transected by a number of magnetic linears, some of which are characterized by coincident crossovers. It is possible that these represent faults. A similar, but considerably smaller magnetic high is situated in the northeast corner of the map area. The long somewhat discontinuous EM conductor almost joins the two. This axis of large changes in the VLF field dip angles may indicate a gross change in the geology between the two areas. Its cause should be investigated.

Respectfully submitted,



D. R. COCHRAN, P. Eng.

APPENDIX I

RONKA EM 16

SPECIFICATIONS

Primary Field: Horizontal from any selected VLF transmitting station.

Frequency Range: Approximately 15-25 kc.

Station Selection: By plug-in units. Two stations selected by a switch on front panel.

Measured Field: Vertical field, in-phase and quadrature components.

Accuracy of Readings: $\pm 1\%$ resolution.

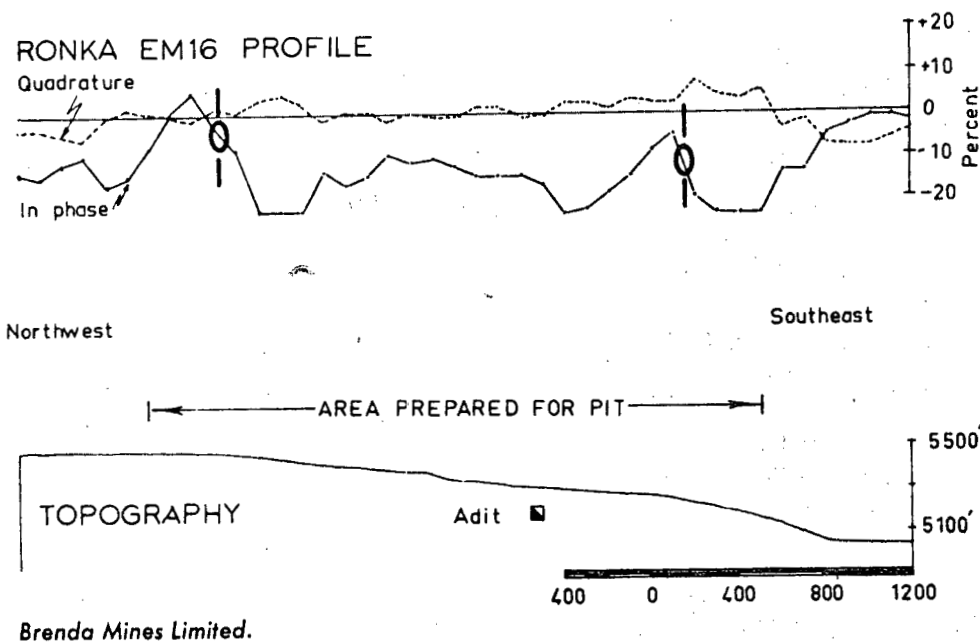
Range of Measurements: In-Phase $\pm 150\%$ or $\pm 90^\circ$, quadrature $\pm 40\%$

Output Readout: Null-detection by an earphone, real and quadrature components from mechanical dials.

Batteries: 6, size AA penlight cells. Life about 200 hours.

Size: 16 x 5.5 x 3.5 in. (42 x 14 x 12 cm)

Weight: 2.4 lbs. (1.1 kg)



APPENDIX I

Specifications for MF-1 Fluxgate Magnetometer

Maximum Sensitivity: 20 gammas (per scale division)
on 1000 gamma range.

Readability: 5 gammas (1/4 scale division)
on 1000 gamma range.

Ranges: (Full Scale) 1,000 Gammas
3,000 gammas
10,000 gammas
30,000 gammas
100,000 gammas

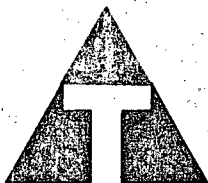
Maximum Range: ± 100,000 gammas

Latitude Adjustment Range: 10,000 to 75,000 gammas, Northern
hemisphere convertible to:
10,000 to 75,000 gammas, Southern
hemisphere or ± 30,000 gammas
equatorial.

Dimensions:
(including Battery Case) 7" x 4" x 16"

Weight: (including
Battery Case) 9 lbs.

Batteries: 12 flashlight batteries ("C" cell)



TORWEST RESOURCES (1962) LTD. (N.P.L.)

702 — 850 WEST HASTINGS STREET, VANCOUVER 1, BRITISH COLUMBIA

Telex: TORWEST 04-5901

Telephone: 682-2631

STATEMENT OF OPERATOR QUALIFICATIONS

RONKA 16 E.M. OPERATOR

M.A. Mathieu - Torwest Resources (1962) Ltd.

Field Superintendent 1958 to present - Age 34 -
Employed on MARB Map Area #1 from Oct. 1st - 31st,
1968. Employed on MARB Map Area #3 from May 10th
- June 8th, 1969.


MF-1 FLUXGATE MAGNETOMETER OPERATOR

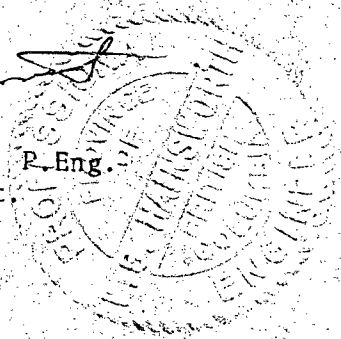
W.A. Petrie - Torwest Resources (1962) Ltd.

Field Assistant 1968 to present - Age 33 -
Employed on MARB Map Area #1 from Oct. 4th - 29th,
1968. Employed on MARB Map Area #3 from May 10th
- June 8th, 1969.

The above personnel are under the direct supervision of
the heresigned consultant. The program was laid out, directed and
supervised by myself.

TORWEST RESOURCES (1962) LTD.


per W.G. Hainsworth, P. Eng.
Consulting Geologist.



APPENDIX II

PERSONNEL

NAME: COCHRANE, Donald Robert

EDUCATION: B.A.Sc. - University of Toronto
M.Sc. (Eng.) - Queen's University

PROFESSIONAL
ASSOCIATIONS: Professional Engineer, (P. Eng.),
registered in British Columbia,
Ontario, Saskatchewan.

M.C.I.M.M., M.E.I.C., M.G.A.C.,
M.M.A.C.

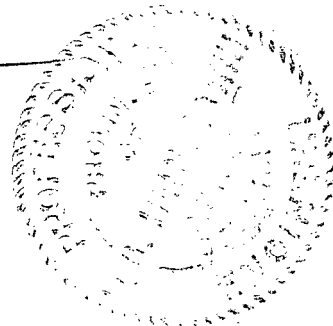
EXPERIENCE: Engaged in the Profession since 1962
while employed with Noranda Exploration
Co. Ltd., Quebec Cartier Mines Ltd.,
Meridian Exploration Syndicate.

Experience in West Indies, Central and
South America, U.S.A. and Canada.

CERTIFICATE

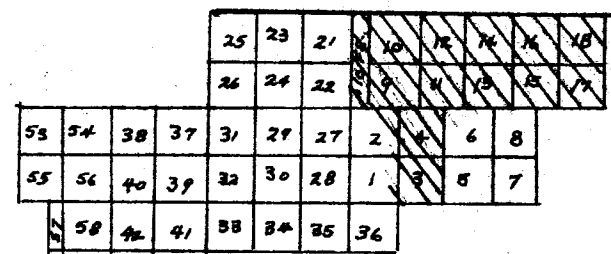
I, W.G. Hainsworth of Vancouver, B.C. do hereby certify:

1. That I am a Consulting Geologist, residing at 4664 Clovelly Walk, West Vancouver, B.C.;
2. That I am a graduate of the University of Western Ontario, B. Sc.;
3. That I have practiced my profession for 19 years;
4. That I am a member in good standing with the Association of Professional Engineers of British Columbia;
5. That I have no interest in the property nor in any securities pertaining thereto and that I do not expect to receive any such interest;
6. That the information contained in this report is based on personal knowledge of the property from previous supervision of work and examination of maps and data pertaining to the property and the area in general.



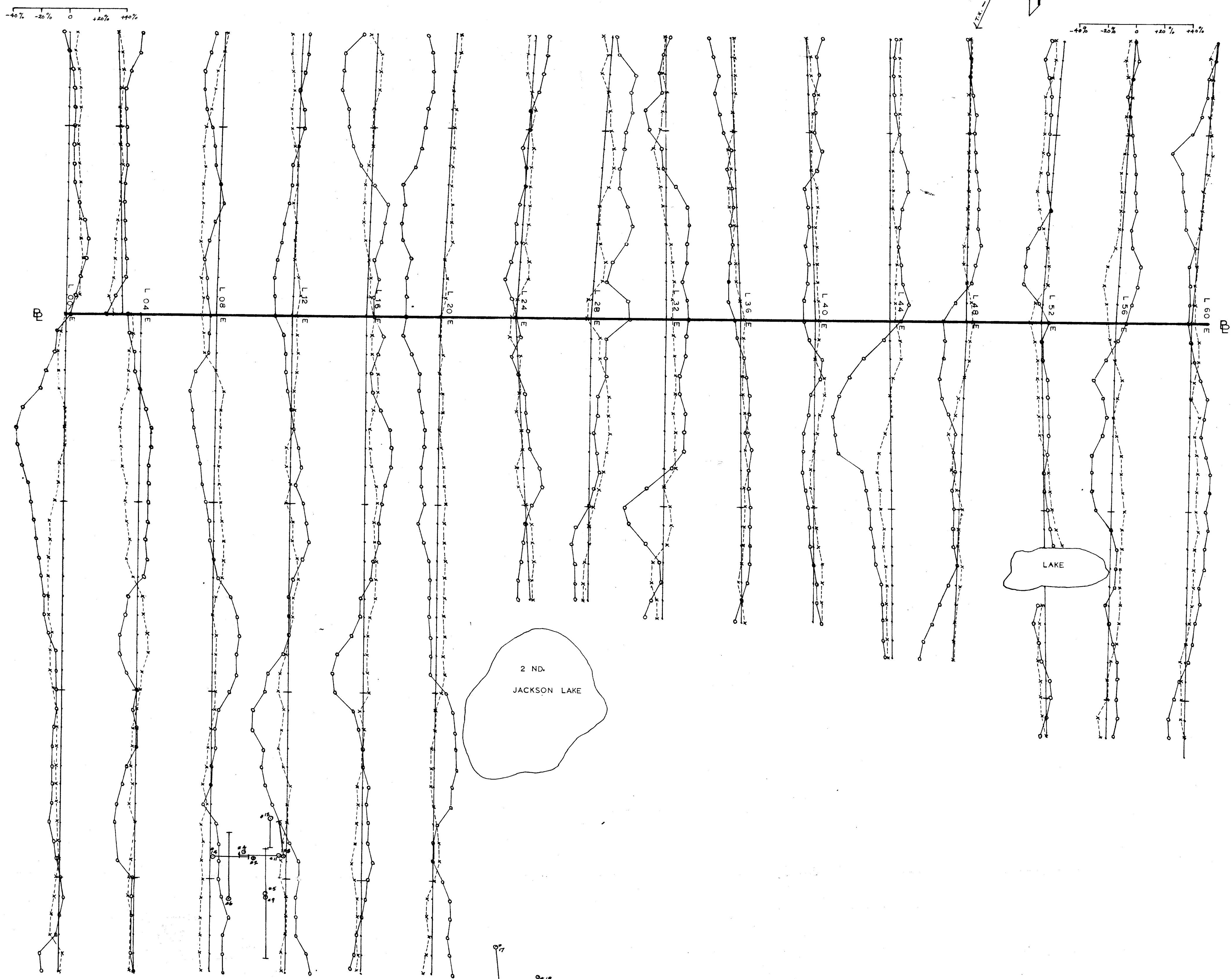
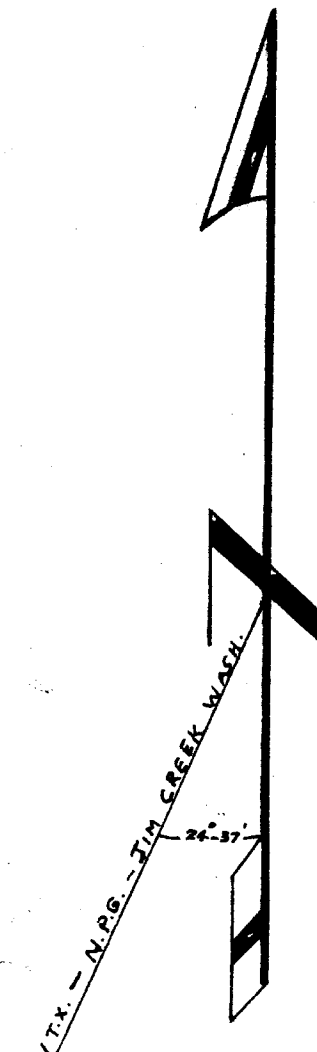
Vancouver, B.C.
January 2nd, 1970.

MARB GROUP OF MCS.



I.R. 3

CROSSHATCH SHOWS MAP AREA # 3



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2096** MAP # **8**

TORWEST RESOURCES (1962) LTD.

MARB GROUP NICOLA MINING DIVISION
E.M. SURVEY

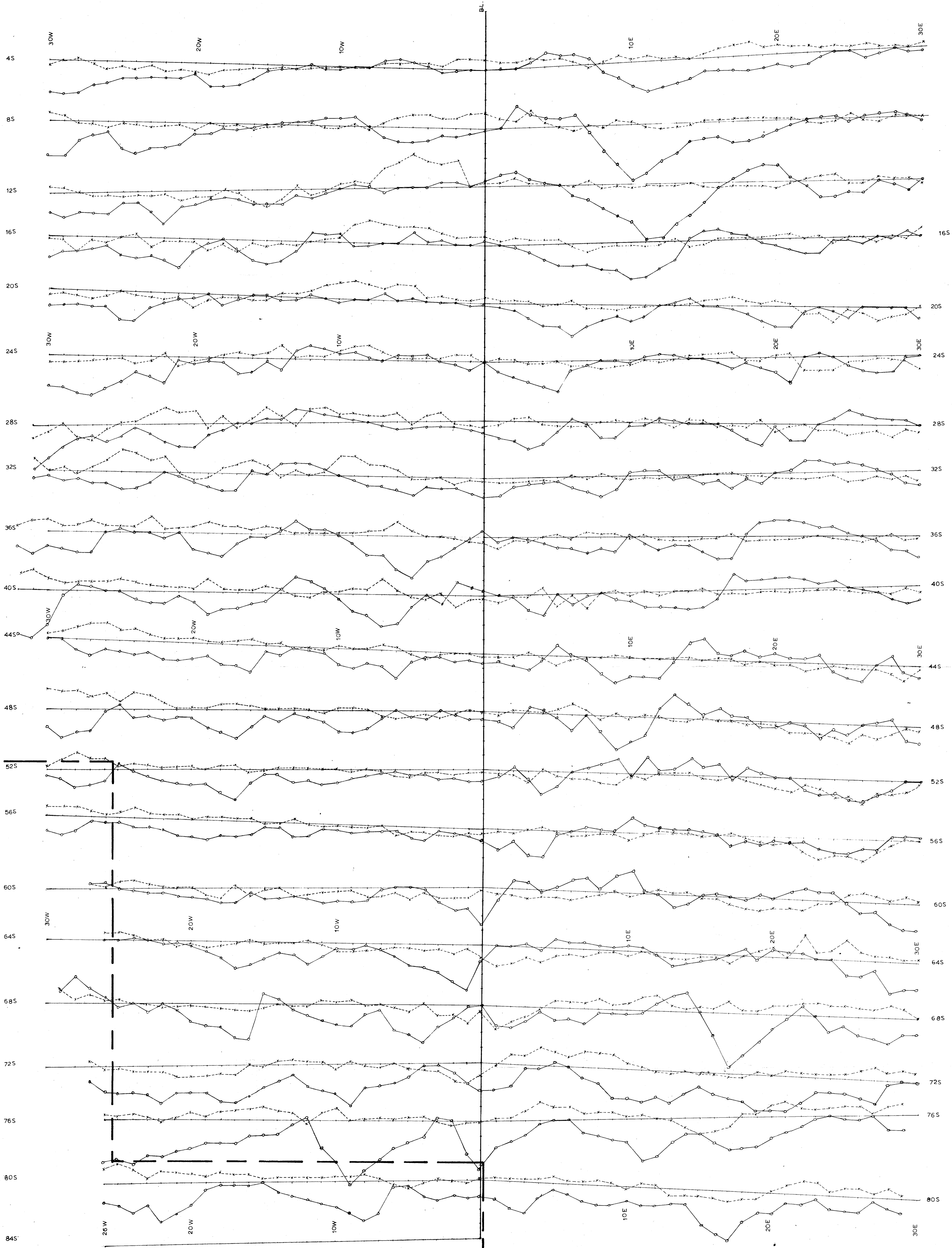
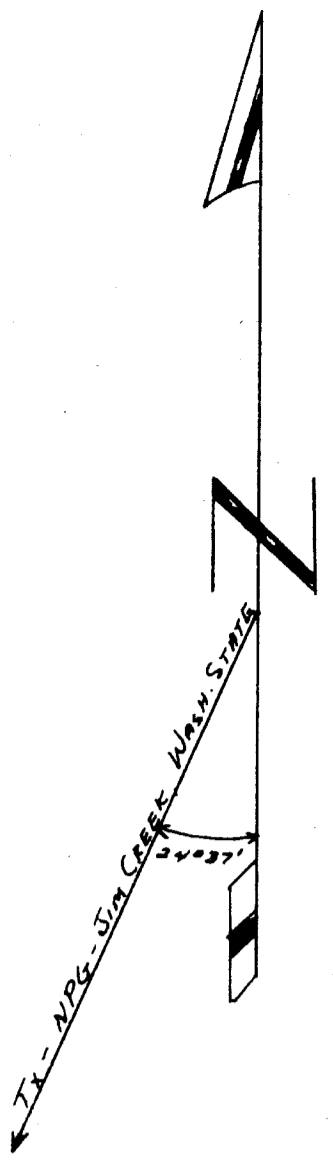
INSTRUMENT: RONKA E.M. 16
○ — IN PHASE
x — — — QUADRATURE
OPERATOR FACING EAST FOR READINGS

2096

SCALE: READINGS 1 INCH TO 40%
GRID 1 INCH TO 300 FT.

MAP AREA # 3

DATE: MAY 1969
Manuel Mathieu



I.R.# 9

I.R.# 9

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2096 MAP # 7

TORWEST RESOURCES (1962) LTD.

MARB GROUP NICOLA MINING DIVISION
E.M. SURVEY
INSTRUMENT: RONKA E.M.16

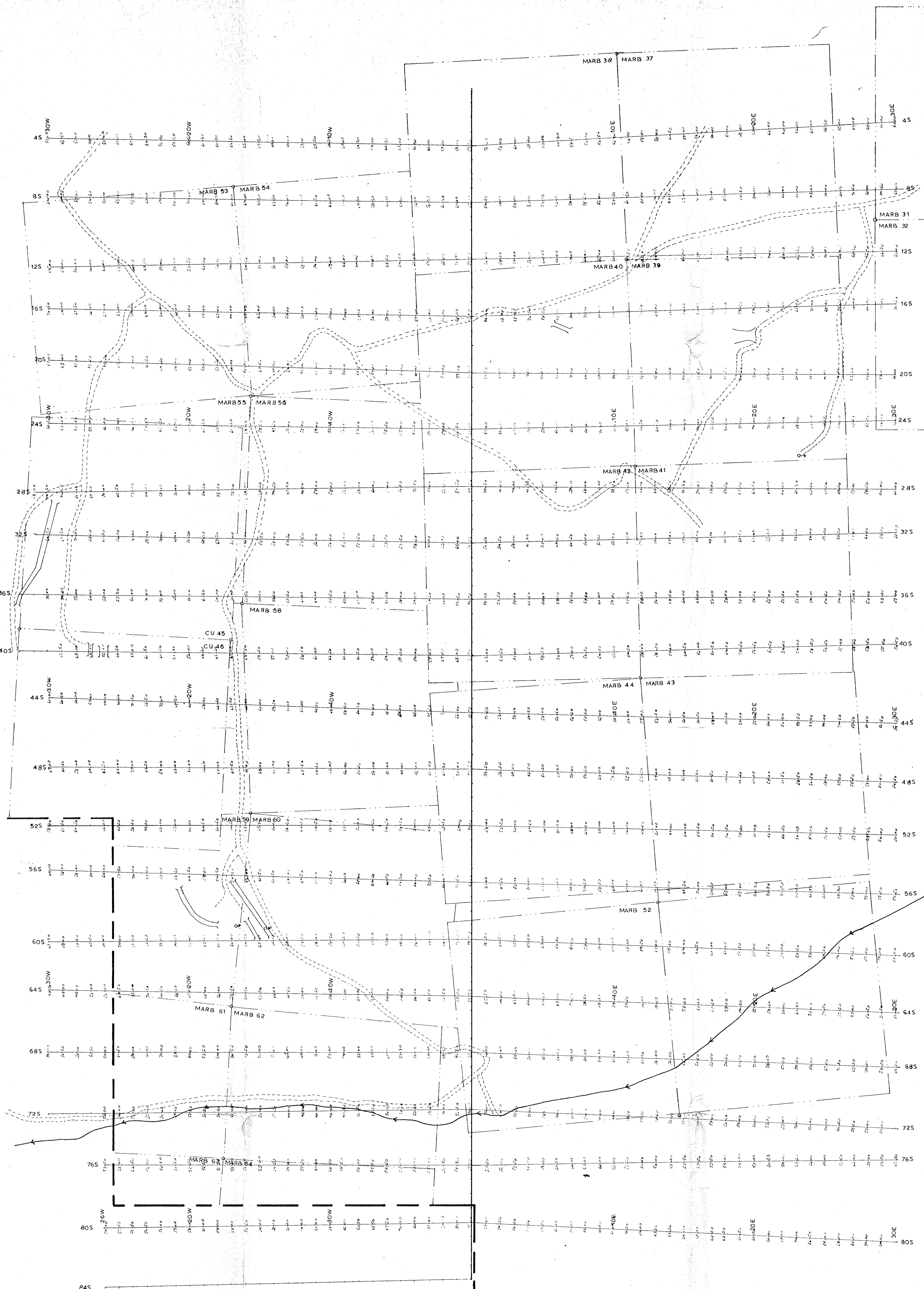
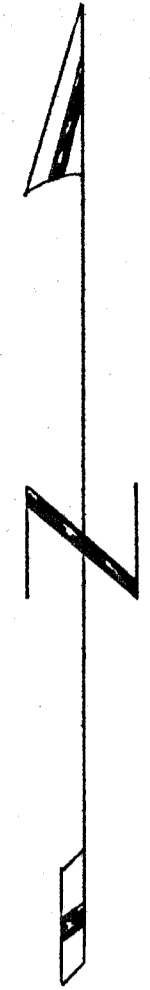
2096

—○— IN PHASE
- - - - - QUADRATURE
OPERATOR FACING WEST FOR ALL READINGS

SCALE: 1 INCH TO 300 FEET GRID
1 INCH TO 40% READINGS

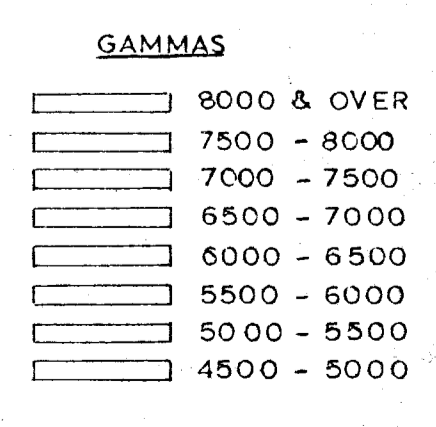
TRANSMITTER N.R.G.
JIM CREEK WASH.

DATE: OCTOBER 1968



I.R.# 9

I.R.# 9



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2096 MAP #10

TORWEST RESOURCES (1962) LTD.

MARB GROUP NICOLA MINING DIVISION
MAGNETOMETER SURVEY

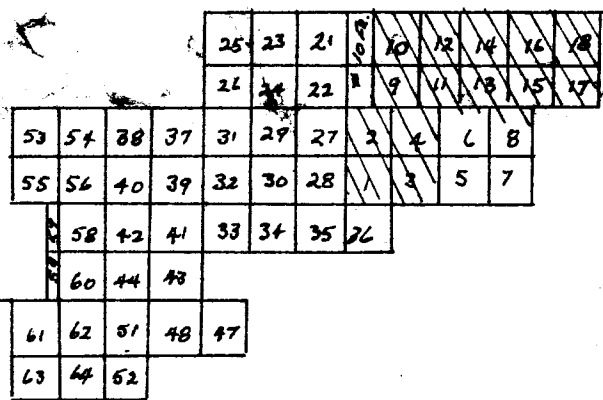
INSTRUMENT: SHARPE MF-1
CONTOUR INTERVAL 500 GAMMAS

2096

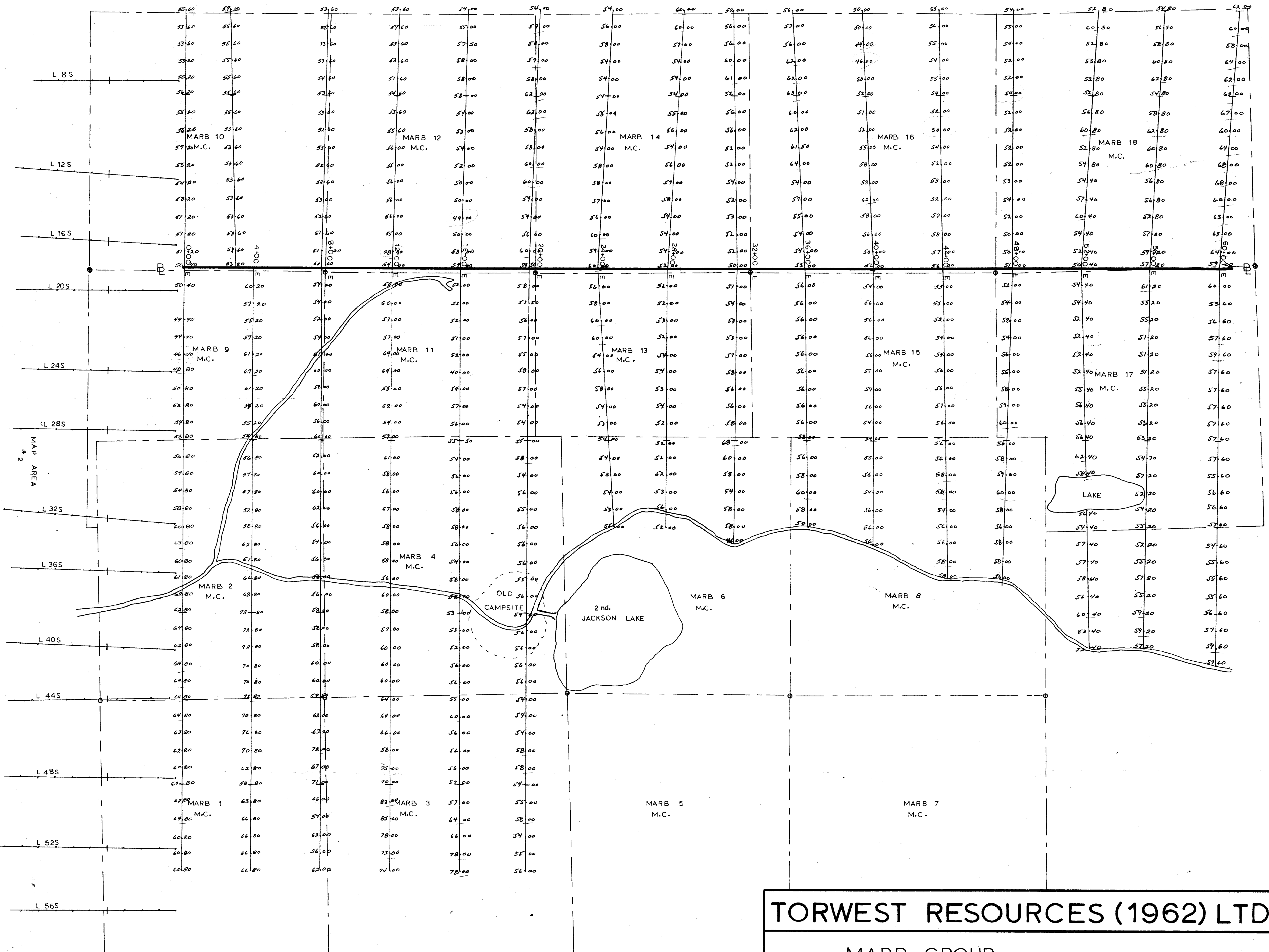
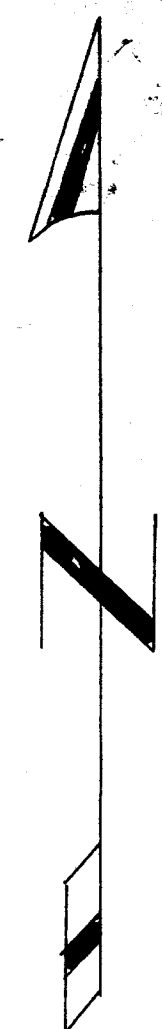
SCALE: 1 INCH TO 300 FEET

DATE: OCTOBER 1968
Maurice Mathew

MARB GROUP OF M.C.S.



I.R. #
CROSSHATCH SHOWS MAP AREA #3



TORWEST RESOURCES (1962) LTD

MARB GROUP NICOLA MINING DIVISION

MAGNETOMETER SURVEY

INSTRUMENT: SHARPE MF-1

(REVISED)

2096

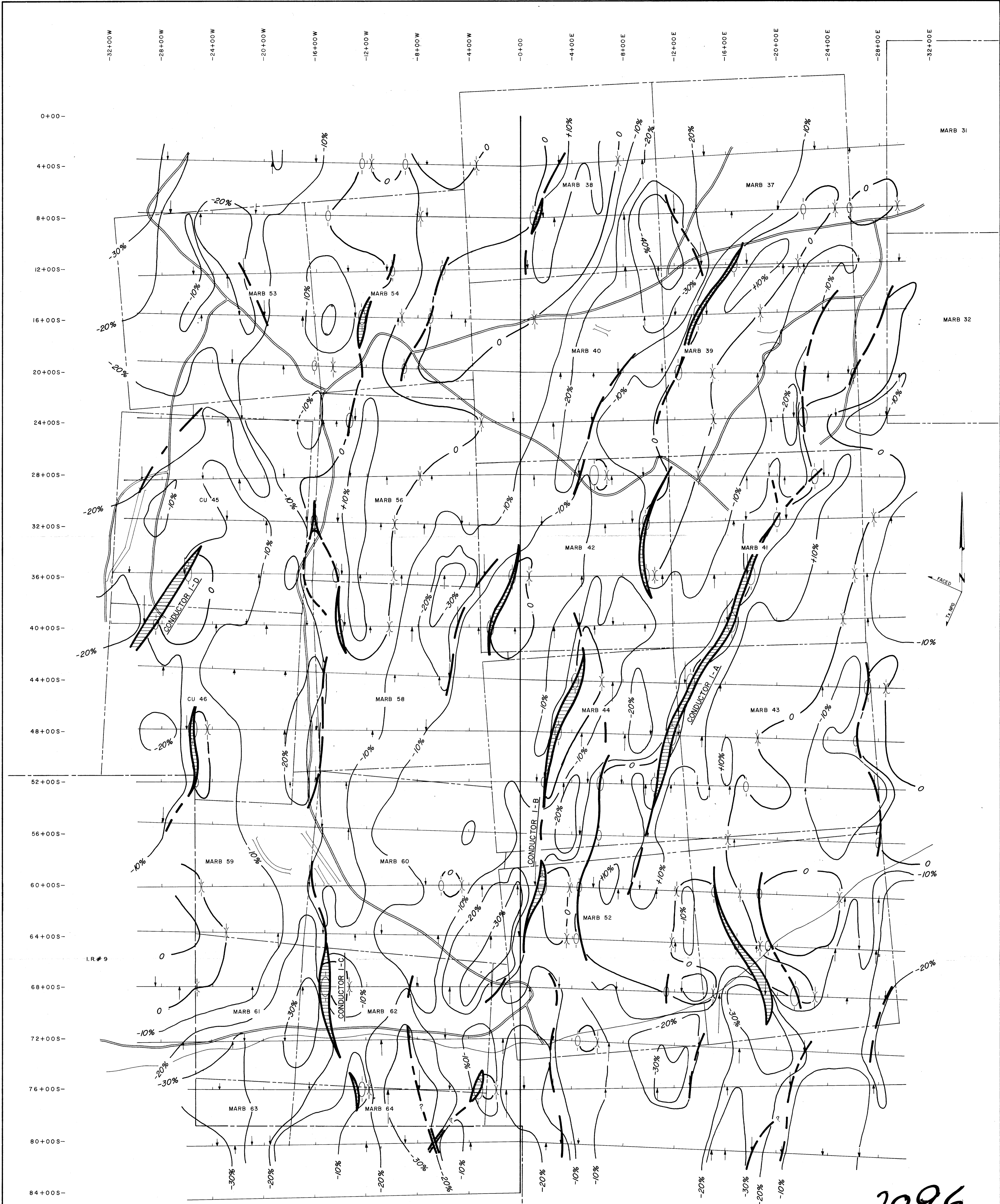
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2096 MAP #7

SCALE: 1 INCH TO 300 FEET

MAP AREA #3

DATE: MAY & JUNE 1969

Manuel Mathieu

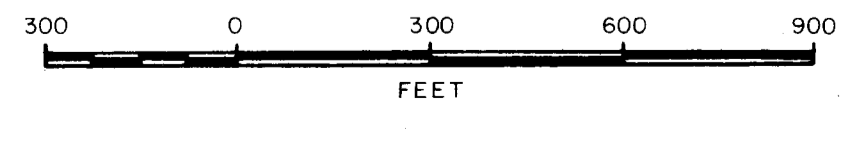


2096

NOTE: RONKA EM 16 SURVEY CONDUCTED BY TORWEST PERSONNEL. CONTOUR INTERVAL: 10%

- LEGEND**
- MINOR TRUE CROSSOVER
 - MODERATE TRUE CROSSOVER
 - MAJOR TRUE CROSSOVER
 - REVERSE CROSSOVER
 - PROPER RATE CHANGE
 - REVERSE RATE CHANGE
 - CONDUCTORS
 - IN PHASE > +10%
 - IN PHASE < -10%

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
No. 2096 MAP # 2



TORWEST RESOURCES (1962) LTD.
GUICHON CREEK AREA - NICOLA M.D.
BRITISH COLUMBIA

**RONKA EM 16
INFORMATION**
AREA # 1

TO ACCOMPANY THE GEOPHYSICAL REPORT ON THE INTERPRETATION/CORRELATION OF THE ELECTROMAGNETIC (RONKA EM 16) & MAGNETOMETER (SHARPE MF-1) SURVEYS OVER THE MARB GROUP OF CLAIMS OWNED BY TORWEST RESOURCES (1962) LTD. BY DONALD R. COCHRANE, PROFESSIONAL ENGINEER VANCOUVER, BRITISH COLUMBIA

	DRAWN	D.E.Y.	JOB NO.	FIG. NO.
	DATED	AUG. 12, 1969	1083	2
	CHECKED	<i>coll</i>		

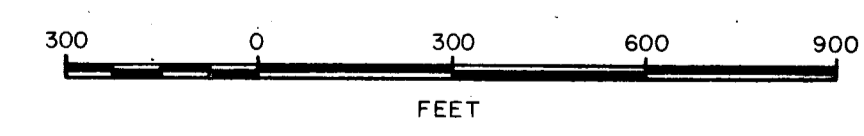


- LEGEND**
- MINOR TRUE CROSSOVER
 - MODERATE TRUE CROSSOVER
 - MAJOR TRUE CROSSOVERS
 - REVERSE CROSSOVER
 - PROPER RATE OF CHANGE
 - REVERSE RATE OF CHANGE
 - CONDUCTORS
IN PHASE >+10%
 - IN PHASE <-10%

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2096 MAP #5

2096

NOTE: RONKA EM 16 SURVEY CONDUCTED BY
TORWEST PERSONNEL
CONTOUR INTERVAL: 10%



TORWEST RESOURCES (1962) LTD.
GUICHON CREEK AREA-NICOLA M.D.
BRITISH COLUMBIA

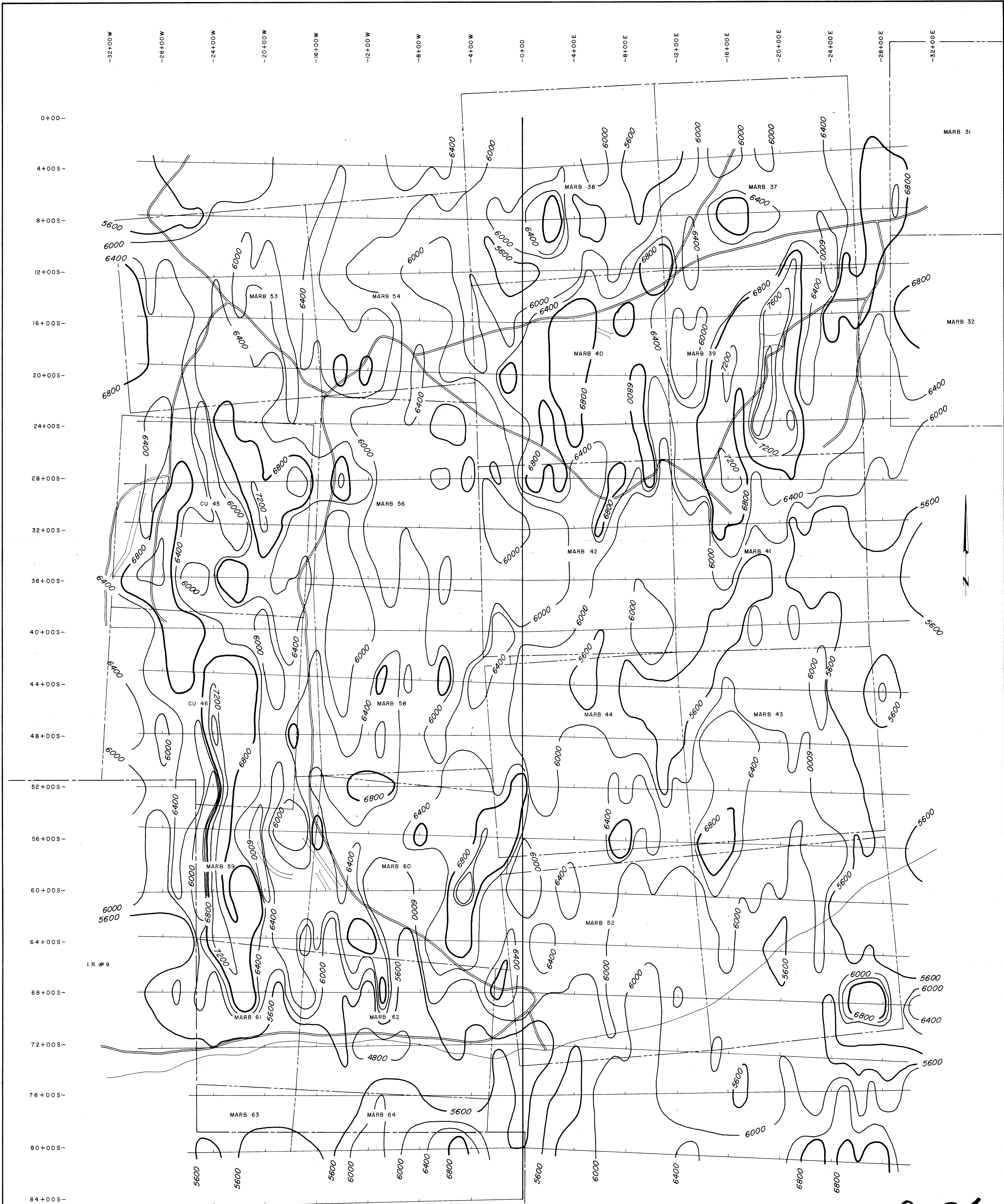
**RONKA EM 16
INFORMATION**

AREA # 3

TO ACCOMPANY THE GEOPHYSICAL REPORT ON THE INTERPRETATION / CORRELATION OF THE
ELECTROMAGNETIC (RONKA EM 16) & MAGNETOMETER (SHARPE MF-1) SURVEYS ON THE
MARB GROUP OF CLAIMS OWNED BY TORWEST RESOURCES (1962) LTD.
BY DONALD R. COCHRANE, PROFESSIONAL ENGINEER
VANCOUVER, BRITISH COLUMBIA

GEO - X SURVEYS LTD.

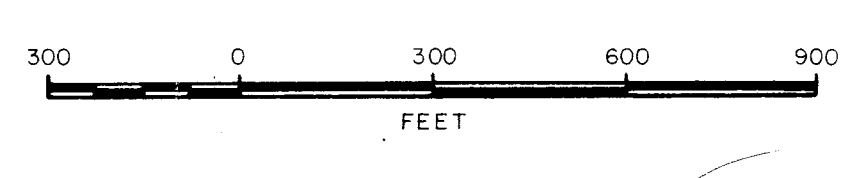
DRAWN	D.E.Y.	JOB NO.	FIG. NO.
CHECKED	AUG 12, 1969	1083	5



2096

NOTE: MAGNETOMETER SURVEY CONDUCTED BY TORWEST PERSONNEL. CONTOUR INTERVAL: 400 GAMMAS

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2096 MAP #1



TORWEST RESOURCES (1962) LTD.
GUICHON CREEK AREA-NICOLA M.D.
BRITISH COLUMBIA

GROUND ISOMAGNETIC
PLAN
AREA # 1

TO ACCOMPANY THE GEOPHYSICAL REPORT ON THE INTERPRETATION/CORRELATION OF THE ELECTROMAGNETIC (ROKAS EM 15) & MAGNETOMETER (SHARPE MF-1) SURVEYS OVER THE MARB GROUP OF CLAIMS OWNED BY TORWEST RESOURCES (1962) LTD. BY DONALD R. COCHRANE, PROFESSIONAL ENGINEER VANCOUVER, BRITISH COLUMBIA

G GEO - X SURVEYS LTD.

DRAWN	D. E. Y.	JOB NO.	FIG. NO.
DATED	AUG. 12, 1969	1083	1
CHECKED			

-32+00W -28+00W -24+00W -20+00W -16+00W -12+00W -8+00W -4+00W -0+00 -4+00E -8+00E -12+00E -16+00E -20+00E -24+00E -28+00E -32+00E

0+00-
4+00S-
8+00S-
12+00S-
16+00S-
20+00S-
24+00S-
28+00S-
32+00S-
36+00S-
40+00S-
44+00S-
48+00S-
52+00S-
56+00S-
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68+00S-
72+00S-
76+00S-
80+00S-
84+00S-



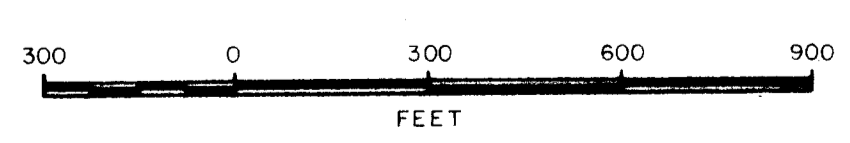
I.R. #9

- LEGEND**
- MAGNETIC HIGHS >6800 GAMMAS
 - MAGNETIC LOWS <5600 GAMMAS
 - MAGNETIC LINEARS
 - CENTERS OF MAGNETIC HIGHS
 - TRENCHES
 - ELECTROMAGNETIC CONDUCTORS
 - ELECTROMAGNETIC IN PHASE -20%
 - TRUE CROSSEVERS

TO ACCOMPANY THE THE GEOPHYSICAL REPORT ON THE INTERPRETATION/CORRELATION OF THE ELECTROMAGNETIC (IRNKA EM 16) & MAGNETOMETER (SHARPE MF-1) SURVEYS OVER THE MARB GROUP OF CLAIMS OWNED BY TORWEST RESOURCES (1962) LTD. BY DONALD R. COCHRANE, PROFESSIONAL ENGINEER VANCOUVER, BRITISH COLUMBIA

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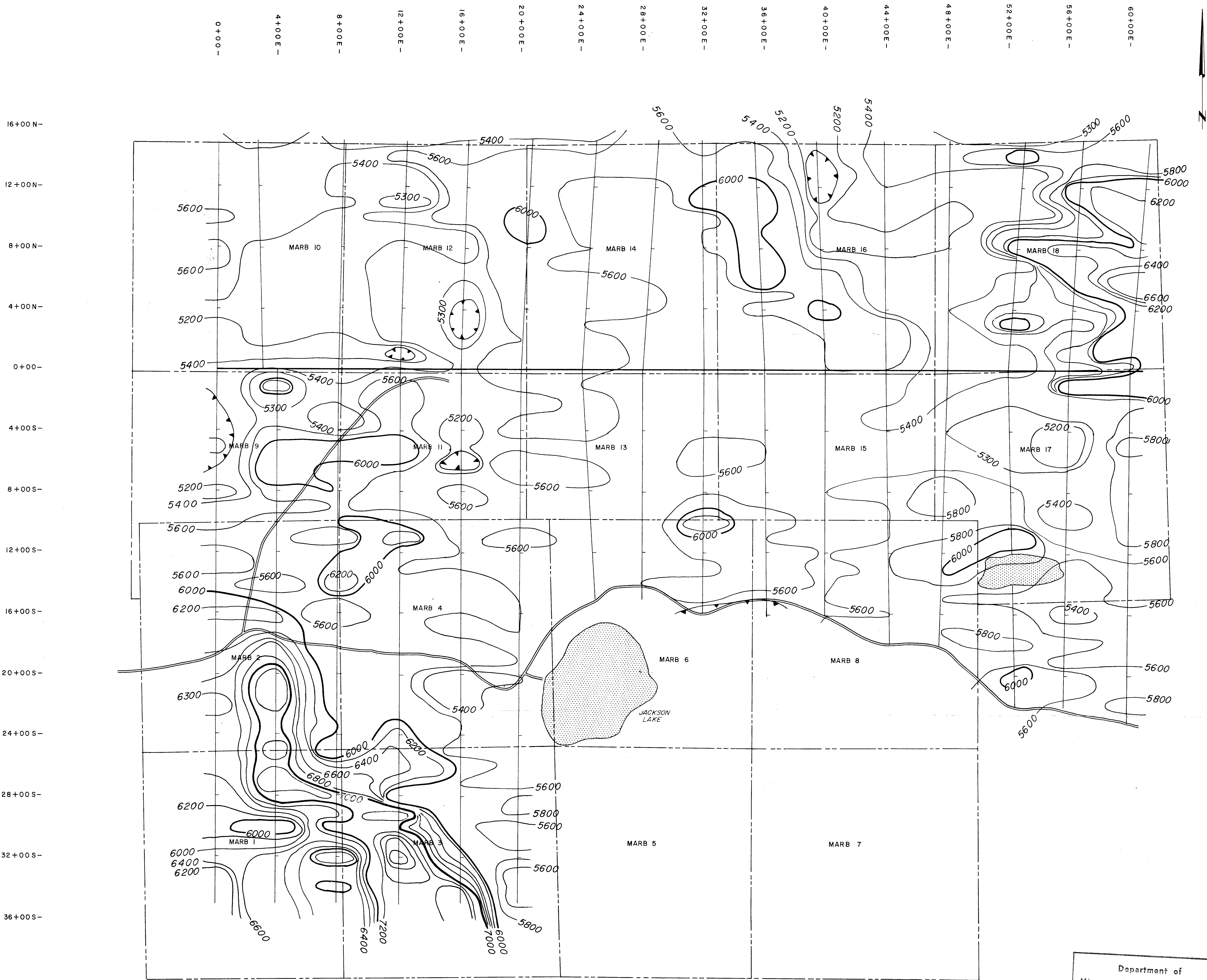
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO 2096 MAP #3



TORWEST RESOURCES (1962) LTD.
GUICHON CREEK AREA-NICOLA M.D.
BRITISH COLUMBIA

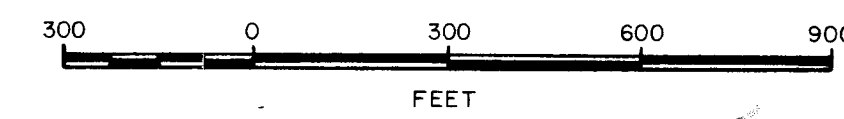
GENERAL INTERPRETATION
MAP
AREA # 1

GEO - X SURVEYS LTD.	DRAWN	D.E.Y.	JOB NO.	FIG. NO.
	DATED	AUG. 12, 1969	1083	3
	CHECKED	<i>[Signature]</i>		



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2096** MAP # **4**

2096



NOTE
CONTOUR INTERVAL 200 GAMMAS

TORWEST RESOURCES (1962) LTD.
GUICHON CREEK AREA - NICOLA M.D.
BRITISH COLUMBIA

GROUND ISOMAGNETIC
PLAN
AREA # 3

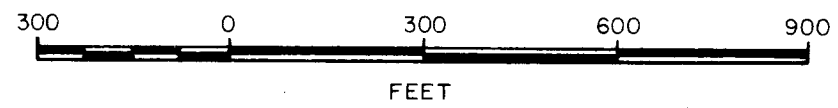
TO ACCOMPANY THE GEOPHYSICAL REPORT ON THE INTERPRETATION / CORRELATION OF THE
ELECTROMAGNETIC (RONKA EM 16) & MAGNETOMETER (SHARPE MF-1) SURVEYS ON THE
MARB GROUP OF CLAIMS OWNED BY TORWEST RESOURCES (1962) LTD.
BY DONALD R. COCHRANE, PROFESSIONAL ENGINEER
VANCOUVER, BRITISH COLUMBIA

9 GEO - X SURVEYS LTD.

DRAWN	D. E. Y.	JOB NO.	FIG. NO.
DATED	AUG. 12, 1969	1083	4
CHECKED			



- LEGEND**
- MAGNETIC HIGHS > 7000 GAMMAS
 - MAGNETIC HIGHS > 6200 GAMMAS
 - MAGNETIC LOWS < 5600 GAMMAS
 - MAGNETIC LINEARS
 - CENTERS OF MAGNETIC HIGHS
 - TRENCHES
 - ELECTROMAGNETIC CONDUCTORS
 - ELECTROMAGNETIC IN PHASE -20%
 - TRUE CROSSOVERS



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2096 MAP #5

TORWEST RESOURCES (1962) LTD.
GUICHON CREEK AREA - NICOLA M.D.
BRITISH COLUMBIA

GENERAL INTERPRETATION
MAP 2096
AREA # 3

TO ACCOMPANY THE GEOPHYSICAL REPORT ON THE INTERPRETATION / CORRELATION OF THE ELECTROMAGNETIC (IRONKA EM 16) & MAGNETOMETER (SHARPE MF-1) SURVEYS ON THE MARB GROUP OF CLAIMS OWNED BY TORWEST RESOURCES (1962) LTD. BY DONALD R. COCHRANE, PROFESSIONAL ENGINEER VANCOUVER, BRITISH COLUMBIA

GEO - X SURVEYS LTD.

DRAWN	D.E.Y.	JOB NO.	FIG. NO.
DATED	AUG. 12, 1969	1083	6
CHECKED			