

5898 # 201 # 08
180-#1030 # 8685

REPORT ON THE
VLF-EM SURVEY
ON THE
MB-16 CLAIM [20 UNITS]
QUEEN CHARLOTTE ISLANDS, B.C.
SKEENA M. D.

Lat. $53^{\circ}36'N$

Long. $132^{\circ}12.5'W$

for
ANGELO TOSI
Vancouver, B. C.

by
A.F. ROBERTS, P. ENG.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

8685

February 2, 1981

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- 14] Appendix A - Operating Instructions for
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MAPS

- 1] Location Map, B.C. Road Map,
1 cm = 24 km.....[Frontispiece]
- 2] Road Map: MacMillan Bloedel,
7/16" = 1 mile.....[Follows page 1]
- 3] Topographic Map: NTS 103F/9E,
1:50,000.....[Follows page 2]
- 4] Claim Map: B.C. Department of Mines &
Petroleum Resources, and other sources,
1:50,000.....[Follows page 3]
- 7] General Geology Map, Bulletin 54,
Enlarged, 1:62,500.....[Follows page 4]

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13]	Plates D-1, D-2: Cross Sections, Dip Angle, Fraser Filter, Total Field.....	[Back Pocket]

REFERENCES

- 5] B.C. Department of Mines & Petroleum Resources, Bulletin 54, Geology of the Queen Charlotte Islands, B.C., A. Sutherland Brown, 1968
- 6] History of the Queen Charlotte Islands, B.C., Vol. II, K. Dalzell
- 8] B.C. Department of Mines & Petroleum Resources, Babe Gold Prospect, Queen Charlotte Islands, B.C. [103F/9], A. Sutherland Brown, T.G. Schroeter, 1977
- 9] Reports and Drill Logs for Consolidated Cinola Mines Ltd., and other companies, 1977 to date, A.F. Roberts, P. Eng.



ANGELO TOSI
VANCOUVER, B.C.

QUEEN CHARLOTTE ISLANDS, B.C.
SKEENA M.D.
NTS 103 F / 9E, 8E

LOCATION MAP

SCALE IN KILOMETRES

0 24 48 72 96

TO ACCOMPANY REPORT BY A.F. ROBERTS, P.Eng. Feb 2, 1980

S U M M A R Y

The VLF-EM survey has indicated anomalous conditions in the SE area of the property.

This anomaly has minimum dimensions of 600 metres by 150 metres and may cross the river.

It is recommended that the VLF-EM survey be completed over the balance of the property, and that a geochemical survey be carried out over the entire property, assaying for gold, silver, arsenic and mercury.

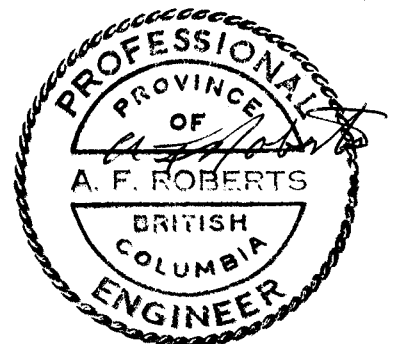
This Phase I program is estimated to cost \$56,000.00.

A Phase II program of trenching and/or short hole diamond drilling as a followup on success in Phase I, will cost in excess of \$100,000.00.

Respectfully submitted,



A.F. Roberts, P. Eng.,
February 2, 1981



REPORT ON THE
VLF-EM SURVEY
ON THE
MB-16 CLAIM [20 UNITS]
QUEEN CHARLOTTE ISLANDS, B.C.
SKEENA M.D.

Lat. $54^{\circ}36'N$

Long. $132^{\circ}12.5'W$

for

ANGELO TOSI
Vancouver, B. C.

by

A.F. ROBERTS, P. ENG.

February 2, 1981

INTRODUCTION

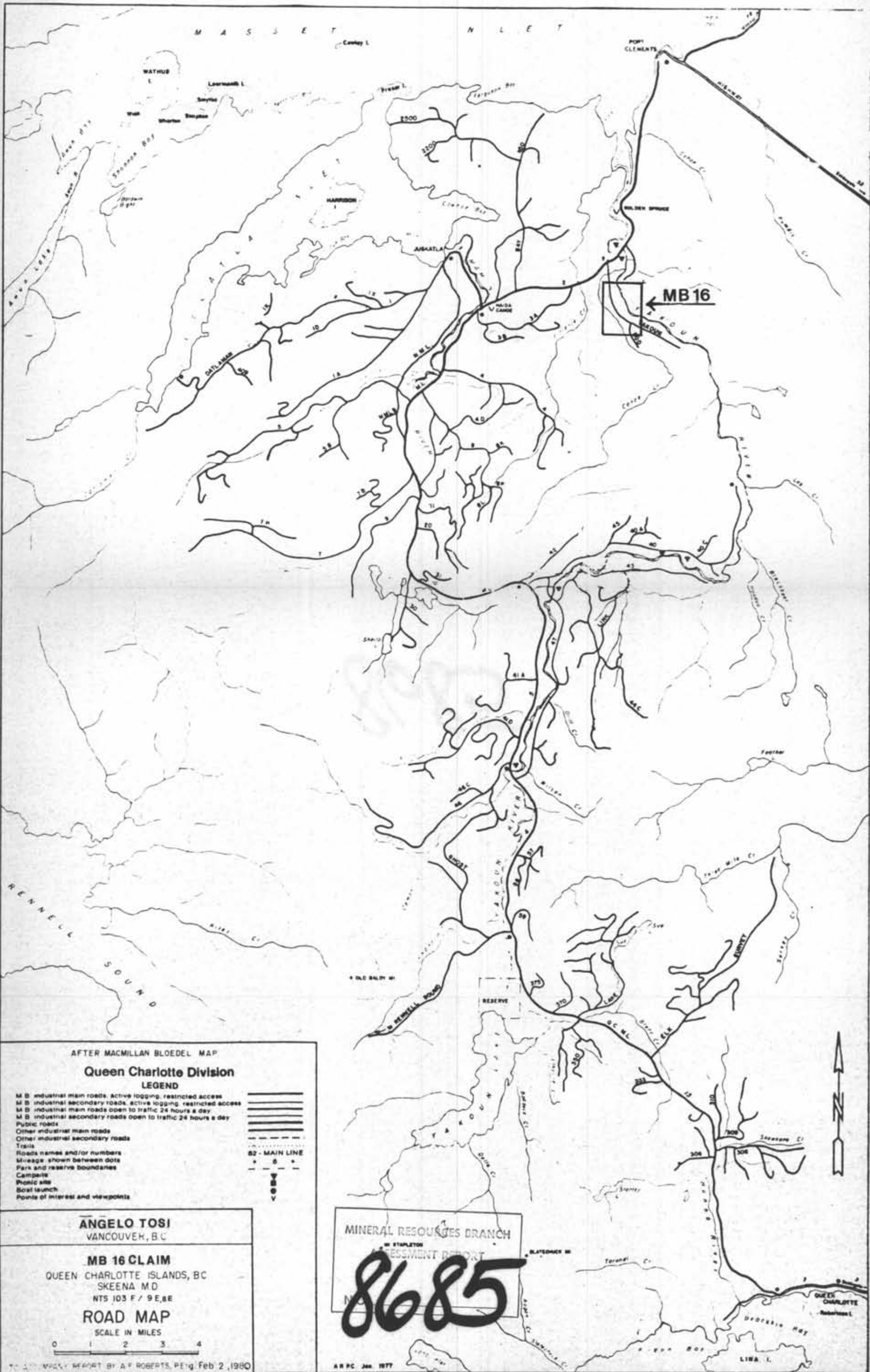
This report is authorized by Mr. Angelo Tosi, owner of the claim.

Its purpose is to analyze the results of the survey, and if justified recommend a further program of exploration.

The survey was carried out by Strato Geological Ltd. of Vancouver, in the period August 5 - October 5, 1980.

Strato also did the mapping, but the contouring and interpretation are by the writer.

A small geochemistry program by Team Mineral Services Inc., of Delta, B.C., over a portion of the property is referred to. It was done in 1979.



AFTER MACMILLAN BLOEDEL MAP

**Queen Charlotte Division
LEGEND**

- M.B. industrial main roads, active logging, restricted access
- M.B. industrial secondary roads, active logging, restricted access
- M.B. industrial main roads open to traffic 24 hours a day
- M.B. industrial secondary roads open to traffic 24 hours a day
- Public roads
- Other industrial main roads
- Other industrial secondary roads
- Trails
- Roads names and/or numbers
- Mileage shown between dots
- Park and reserve boundaries
- Camps
- Picnic site
- Boat launch
- Points of interest and viewpoints



ANGELO TOSI
VANCOUVER, B.C.

MB 16 CLAIM
QUEEN CHARLOTTE ISLANDS, B.C.
SKEENA M.D.
NTS 103 F / 9E,8E

ROAD MAP
SCALE IN MILES



MINERAL RESOURCES BRANCH
BY STAPLETON
ASSESSMENT REPORT

8685

LOCATION, ACCESS, TOPOGRAPHY 1] 2] 3]

1] The property is about 10 km slightly west of south from Port Clement.

The property is cut by Branch Road 9, almost diagonally from west to east, paralleling the Yakoun River.

The Yakoun River cuts through the east third of the property, and Canoe cuts across the southwest quarter.

The property is low lying with elevations running from a few feet above sea-level to a maximum of 200 feet [60 metres], although most of the claim is above 100 feet [30 metres] except along the river.

The area has been logged over about 40% and the balance is covered with slash and second growth timber.

With two rivers crossing the property, water is not a problem.

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- 1] Location Map: B.C. Road Map,
1 cm = 24 km [Frontispiece]
- 2] Road Map: MacMillan Bloedel
7/16" = 1 mile [Follows page 1]
- 3] Topographic Map: NTS 103F/9E
1:50,000 [Follows page 2]



MINERAL RESOURCES BRANCH
 8685

MB 16

CRAHAM

PROVINCIAL

FOREST

QUEEN

ANGELO TOSI
 VANCOUVER, B.C.

TOPOGRAPHY
 QUEEN CHARLOTTE ISLANDS, B.C.
 SKEE N.M.D.
 N.T.S. 1:50,000

MB 16 CLAIM
 SCALE IN KILOMETERS

1 0.5 1 1.5 2

To Accompany Report by A. F. Roberts, P. Eng. dated
 FEB. 2, 1980

CLAIM 4]

The property is described as follows:

<u>Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>
MB-16	868	20	December 20, 1980

Assessment for \$6,000.00 was filed on the group of which this is one claim.

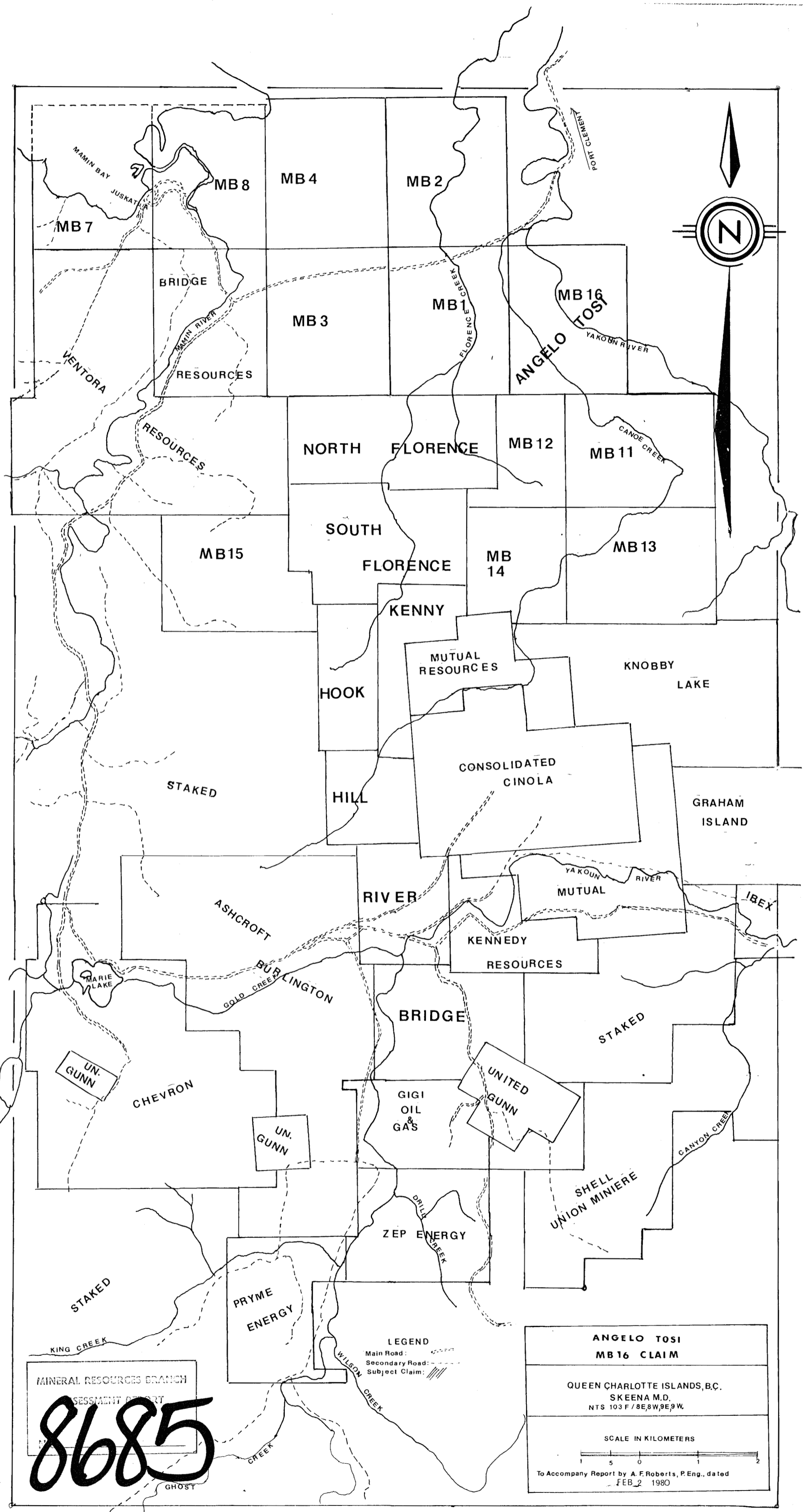
Therefore, the expiry date will be December 20, 1981. This report is part of the assessment claim.

HISTORY 5] 6]

There is no record of previous work on the property. This claim was staked in the rush that followed the publication of the results of the diamond drilling on the Consolidated Cinola property, where several million tons of open pit gold ore have been drilled off, and production is contemplated.

Diamond drilling is being carried on by several major and junior mining companies in the area at the present time.

-
- 4] Claim Map: B.C. Department of Mines & Petroleum Resources, and other sources, 1:50,000 [Follows page 3]
- 5] B.C. Department of Mines & Petroleum Resources, Bulletin 54, Geology of the Queen Charlotte Islands, B.C., A. Sutherland Brown, 1968
- 6] History of the Queen Charlotte Islands, Vol. II, K. Dalzell



LEGEND
 Main Road: ———
 Secondary Road: - - - -
 Subject Claim: //

**ANGELO TOSI
 MB16 CLAIM**

QUEEN CHARLOTTE ISLANDS, B.C.
 SKEENA M.D.
 NTS 103 F / 8E, 8W, 9E, 9W.

SCALE IN KILOMETERS

1 5 0 1 2

To Accompany Report by A. F. Roberts, P. Eng., dated
 FEB. 2 1980

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT

8685

GHOST

GENERAL GEOLOGY 7] 8] 9]

In general, according to Bulletin 54, the property is covered by Quaternary sediments, overlying the Skonun Formation consisting of sands, sandstone and conglomerate. This in turn should overlie the Masset Formation of rhyolite-basalt flows, breccias and ash flows.

No outcrops were seen, or reported from the property. There is no indication of structure or mineralization.

GEOCHEMISTRY

In 1979, Team Mineral Services took 51 soil samples from 1+00 metres east of the LCP to 3+00E and south to 16+00S.

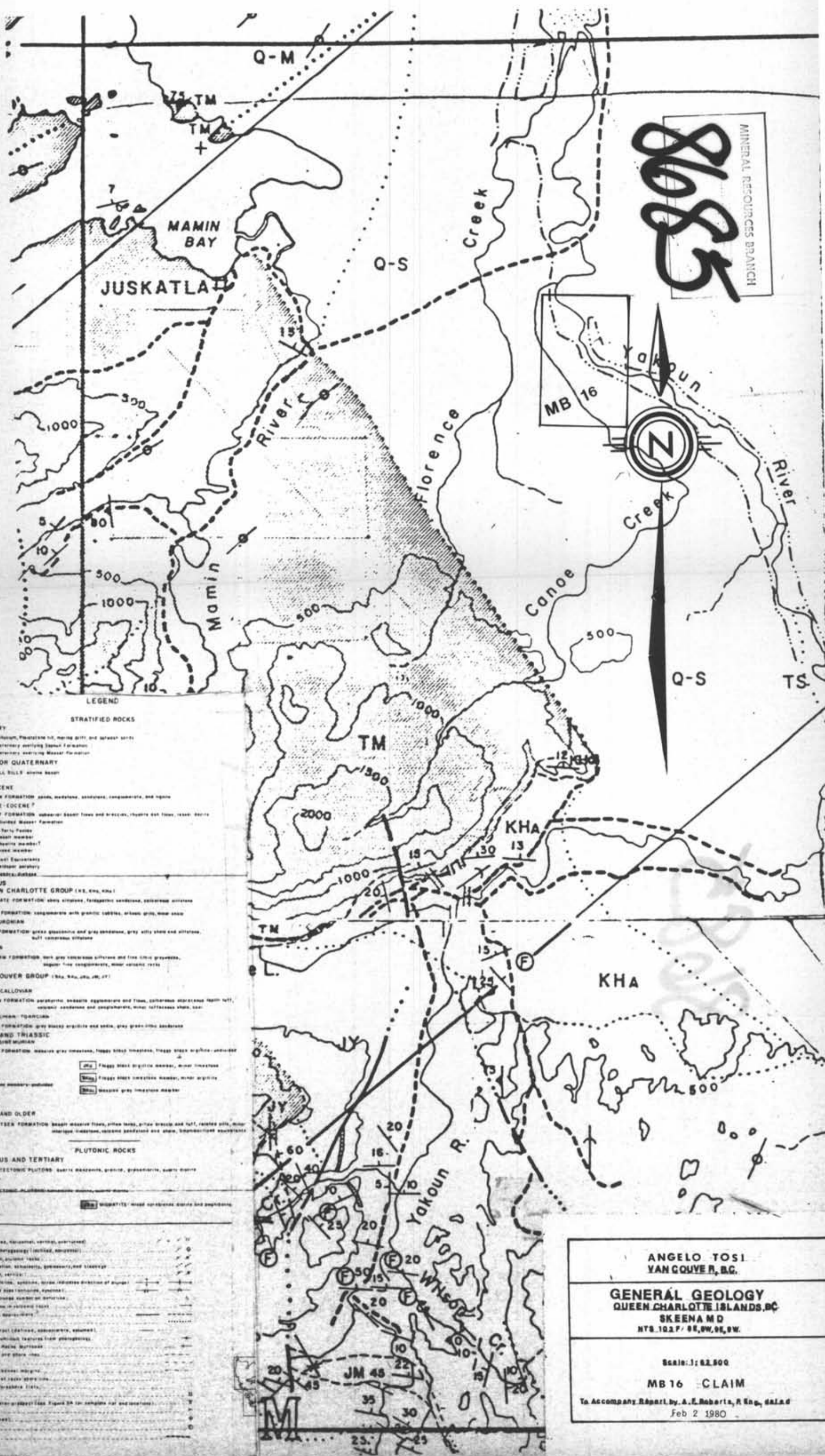
These were assayed for gold and mercury. The results gave one sample of 10 ppb at 1+00E, 1+00S, one at 10 ppb at 3+00E, 14+00S.

Mercury gave four samples above 300 ppb, threshold value, and a number close to 300 ppb.

There isn't any correlation between the gold and mercury values.

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- 7] General Geology Map: Bulletin 54,
1:62,500 [Follows page 4]
- 8] B.C. Department of Mines & Petroleum Resources: Babe Gold Prospect, Queen Charlotte Islands, B.C. [103F/9E]
A. Sutherland Brown, T.G. Schroeter, 1977
- 9] Reports and Drill Logs for Consolidated Cinola Mines Ltd., and other companies, 1977 to date, A.F. Roberts, P. Eng.

81685
MINERAL RESOURCES BRANCH



- LEGEND**
- STRATIFIED ROCKS**
- QUATERNARY**
- Q-S Quaternary siltstone
 - Q-M Quaternary siltstone
- TERTIARY OR QUATERNARY**
- TM Tertiary or Quaternary siltstone
- TERTIARY**
- MID-PLIOCENE**
- TM Tertiary or Quaternary siltstone
- PALEOCENE - EOCENE**
- TM Tertiary or Quaternary siltstone
- CRETACEOUS**
- QUEEN CHARLOTTE GROUP (KHA, KHA, KHA)**
- KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
 - KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
 - KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
- STECOMIAN**
- KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
- VANCOUVER GROUP (KHA, KHA, KHA, KHA)**
- JURASSIC**
- SAUJICAN-CALLOVIAN**
- KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
- PLIOCENE - TURONIAN**
- KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
- JURASSIC AND TRIASSIC**
- KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
- TRIASSIC**
- KARWIN AND OLDER**
- KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite
- CRETACEOUS AND TERTIARY**
- JURASSIC**
- KHA KHA Formation: sandstone, siltstone, conglomerate, and lignite

ANGELO TOSI
VAN COUVE R., B.C.

GENERAL GEOLOGY
QUEEN CHARLOTTE ISLANDS, B.C.
SKEENA M.D.
NTS. 102 F/ 95, 96, 97, 98

Scale: 1:62,500

MB 16 CLAIM

To Accompany Report by A.E. Roberts, R. Eng., dated
Feb 2 1980

The lack of arsenic and silver assays prevents any kind of correlation. Arsenic is considered to be more stable in the soils, and silver occurs with the gold, and can be a good indicator, where gold could be lost in an acid environment.

The sample is too small, and the area covered is only a small part of the claim; and the flags for the stations were not found during the VLF-EM survey.

GEOPHYSICAL SURVEY 10] 11] 12] 13] 14]

This survey was carried out on a 100 metre by 25 metre grid, with east-west lines.

The grid is tied to the LCP in the NW corner, and covers the ground west of the Yakoun River.

The VLF-EM unit used was a Sabre Model 27, Serial No. 103.

Results were tabulated, Fraser Filter values calculated, and applied to cross sections of each line, and to individual plans.

10]	Plate A:	Plan, Dip Angle 1 cm = 25 m	[Back Pocket]
11]	Plate B:	Plan, Fraser Filter 1 cm = 25 m	[Back Pocket]
12]	Plate C:	Plan, Total Field 1 cm = 25 m	[Back Pocket]
13]	Plates D1, D2:	Cross sections, Dip Angle, Fraser Filter, Total Field	[Back Pocket]
14]	Appendix A:	Operating Instructions, Sabre Model 27, VLF-EM Unit Fraser Filter Calculations	[At back]

This survey showed almost solidly negative dip angles.

A major exception is at the east end of Line 18+00S, where a strong positive angle is shown, but with a negative Fraser Filter, and the last readings suggest that it is heading downwards as on the following lines to the south.

The major anomaly here is one stretching from 19+00S through 25+00S, associated with strong Fraser Filter anomaly with readings to plus 20, and Total Field values to 86%, the lowest being 65%.

This anomaly looks as if it may cross the river and appear on the north bank.

The general trend appears to be slightly west of north.

The size is 600 metres long by 150 metres, by Fraser Filter. The Total Field suggests a greater width, but cut off to the north.

There are a number of positive areas of small size, and are not considered too significant, although they must not be ignored, if they may be confirmed by other methods.

CONCLUSIONS

The recent survey has found a number of anomalous areas, one of which appears to be of major importance.

This anomaly is located at 19+00S through 25+00S, and in the area centered on 14E, with a north-westerly strike. Fraser Filter plotting suggests a width of 150 metres. But the Total Field strength suggests that it could be wide.

It may go north of the river.

A geochemical survey may confirm this anomaly as gold bearing.

RECOMMENDATIONS

Complete the geophysical survey over the balance of the property.

Over the entire property, complete a geochemical survey on the same lines. Assay for gold, silver, arsenic, mercury.

ESTIMATED COSTSPhase I

a]	VLF-EM survey over the balance of the property	
b]	Geochemical survey over entire property	
a]	21 km @ \$300/km	\$ 6,300.00
b]	52 km @ \$350/km	18,200.00
	Assaying - 2,400 @ \$9.00	21,600.00
	Supervision, reports, etc.	<u>3,000.00</u>
	Sub-total	\$49,100.00
	15% contingencies	<u>7,365.00</u>
	Total	<u>\$56,465.00</u>

Say \$56,000.00

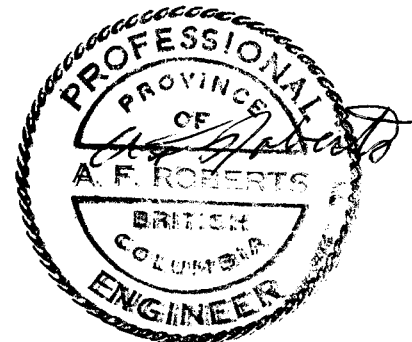
Phase II

With success in Phase I, a program of stripping and short hole drilling will cost in excess of \$100,000.00

Respectfully submitted,

A. F. Roberts

A.F. Roberts, P. Eng.,
February 2, 1981



CERTIFICATE

I, A.F. ROBERTS, of 812 Fairbrook Crescent, Richmond, British Columbia, do hereby certify that:

- 1] I am a graduate of the University of British Columbia, B.Ap.Sc., in Mining Engineering, 1951.
- 2] I am a Registered Professional Engineer of the Province of British Columbia; and am a Member of the Canadian Institute of Mining and Metallurgy.
- 3] I have practiced my profession since 1951, with Quatsino Copper-Gold Mines Ltd., Giant Mascot Mines Ltd., Cochenour-Willans Gold Mines Ltd., Mogul Mines Ltd., Kerr-Addison Gold Mines Ltd., Atlantic Coast Copper Corporation Ltd., Wasamac Mines Ltd., Brenda Mines Ltd., and T.C. Explorations Ltd.

Since January 1970, I have been an independent Consulting Engineer.

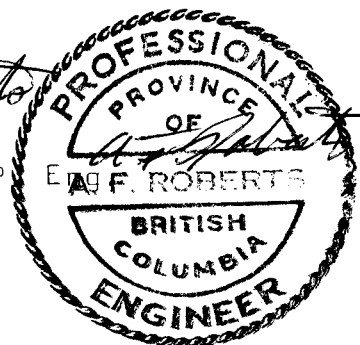
Previous to, and during University, I worked underground as a miner, and on several exploration-development projects.

- 4] The accompanying report is based entirely on my personal examination of the property and on material referred to in the text.
- 5] I have no interest, direct or indirect, in the MB-16 Claim, nor have I any interest, direct or indirect, in any companies with whom Mr. Angelo Tosi may be associated. I have not, nor do I expect to receive any interest in the shares of any company, in its securities, or any company with whom it may become associated.
- 6] I consent to the use of this report in, or in conjunction with, a prospectus, or a statement of material facts, relating to the raising of funds for this project.

DATED at Vancouver, British Columbia this second day of February, 1981.

A. F. Roberts

A.F. Roberts, P. Eng.



STATEMENT OF COSTS

APPLIED TO MB-GROUP

[MB-1, MB-11, MB-13, MB-16] FLORENCE: 98 UNITS

RECORD NOS.: 853, 863, 865, 868, 801

WORK DONE ON MB -16:

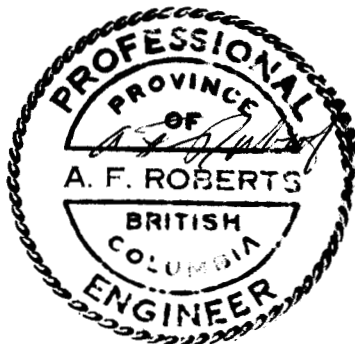
Labour	\$8,975.00	
Transportation	1,400.00	
Drafting	240.00	
Field Supplies	125.00	
EM Rental	<u>130.00</u>	\$10,870.00

Personnel:

G. Smith
 B. Fisner
 K. Dorland
 T. Higginson
 R. Baskiewich
 A. House

The above data supplied by
 Strato Geological Ltd.,
 Vancouver, B.C.

Engineer's Report		<u>1,237.94</u>
	Total	<u><u>\$12,107.94</u></u>



A. F. Roberts
 A.F. Roberts, P. Eng.,
 February 2, 1981

APPENDIX A

OPERATING INSTRUCTIONS
SABRE MODEL 27
VLF-EM INSTRUMENT
FRASER FILTER CALCULATIONS

SABRE ELECTRONIC
INSTRUMENTS LTD.

4245 EAST HASTINGS STREET

BURNABY, B.C. V5C 2J5

TELEPHONE: 291-1017

SABRE MODEL 27 VLF-EM RECEIVER

The model 27 EM unit was designed originally for a large Canadian mining company to overcome the deficiencies inherent in existing units.

The instrument is so stable and selective that completely reliable measurements can be made on distant stations without interference from nearby powerful transmitters. Stability and selectivity are especially important when making field-strength measurements, which are now being emphasized as a means of locating conductors.

This EM receiver is very compact, requires no earphones or loudspeakers and is housed in a heavy scotch saddle leather case. All of these features add up to make an ideal one-man EM unit of unexcelled electrical performance and mechanical ruggedness.

SPECIFICATIONS

Source of Primary Field - VLF radio stations (12 to 24 KHz.)

Number of Stations - 4, selected by switch; Cutler, Main on 17.8 KHz. and Seattle, Washington on 18.6 KHz. are standard, leaving 2 other stations that can be selected by the user.

Types of Measurement

1. Dip angle in degrees, read on a meter-type inclinometer with a range of $\pm 60^\circ$ and an accuracy of $\pm \frac{1}{2}^\circ$.
2. Field strength, read on a meter and a precision digital dial with an accuracy exceeding 1%.
3. Out of phase component, read on the field strength meter as a residual reading when measuring the dip angle.

SABRE MODEL 27 VLF-EM RECEIVER - (Continued)

Dimensions and Weight

Approx. 9½" x 2½" x 8½"; Weight 5 lbs.

Batteries

8 alkaline penlite cells. The instrument will run continuously on 1 set of batteries for over 200 hours; So that in normal on-off use, the batteries will last all season. The battery condition under load is shown by pushing a button and reading voltage on the field strength meter.

SELECTION OF STATIONS:

The stations are selected by the switch on the control panel, with the following abbreviations being used;

C = Cutler, Maine.	Frequency = 17.8 Khz.
S = Seattle, Wash.	Frequency = 18.6 Khz.
A = Annapolis, Md.	Frequency = 21.4 Khz.
H = Hawaii.	Frequency = 23.4 Khz.

The two most useful stations are Cutler and Seattle and these will be used almost exclusively. Note that Seattle is off the air for several hours on Thursdays for maintenance (between 10 A.M. and 2 P.M. usually). Cutler is off the air for the same length of time every Friday.

If Equipment fails to operate:

- (a) Check that station is transmitting (see above). If one station appears to be dead, check another one to see if it is operating normally.
- (b) Check batteries. If they read low or the reading begins to drop after the test button is held down for a few seconds, replace them. Note also that there are 8 batteries in the instrument and they cannot be individually checked by the test button. If the batteries have been in the unit for a long time it is possible that one is dead or very weak but that the total voltage indicated by the test button is near normal. It is cheap insurance to instal new batteries before starting a big survey.
- (c) If unit still fails to operate check that battery connectors are tight, then check wiring of battery connectors for breaks or damage.

VLF-EM OPERATING INSTRUCTIONS

The equipment is operated in the usual way as follows:

1. With the instrument held horizontal in front of you, turn around until a null appears on the field strength meter. You should now be facing the station.
2. With the receiver still facing the station, lift it to the vertical position and rotate it slightly in the vertical plane to your right or left until the best null appears on the field strength meter. Record the angle on the inclinometer at which the null appears. This is the DIP ANGLE (Positive or negative).
3. Return the instrument to the horizontal plane and turn around until the field strength meter is at its maximum reading. Set this maximum reading at 100 on the meter and record the reading on the gain control dial. This is the Field Strength Reading.
4. Repeat steps 1, 2 and 3 at each station.
5. To test the batteries turn the power switch on and push the test button. The field strength meter should read above the red mark. Battery life is approximately 200 hours and if the instrument is turned off between readings, the batteries should last for an entire season.

NOTE: An alternative way of measuring field strength is as follows:

Proceed as in step 3, setting the meter to 100. Now push the field strength button (marked FS) and the meter will read 50. (If it doesn't, adjust the gain control slightly). Leave the Gain Control setting where it is and take comparative Field Strength readings at each station by pressing the Field Strength button and recording the meter reading, which will vary from its Base Station Reading as you pass over conductive zones.

PREFERRED
METHOD

RECEIVED
OPERATING INSTRUCTIONS
SABRE VLF-EM RECEIVER

INTRODUCTION:

The VLF-EM method utilizes electromagnetic field transmitted from radio stations in the 15-25 K Hz range. The signals are propagated with the magnetic component of the field being horizontal in undisturbed areas.

Conductivity contrasts in the earth create secondary fields, producing a vertical component and changes in the field strength or amplitude. These conductive areas may be located, and to a degree, evaluated by measuring the various parameters of this electromagnetic field.

The Sabre VLF-EM receiver is tuned to receive any 4 transmitter stations: usually C-Cutler Maine, S-Seattle, H-Hawaii and P-Panama.

The station used in the survey should be selected so that the direction of the signal is roughly perpendicular to the direction of the grid lines which, in turn, should be laid out perpendicular to the regional strike.

MEASUREMENTS:

The Sabre VLF-EM receiver can be used to measure the following characteristics of the VLF field.

- (a) Tilt angle of resultant field;
- (b) Field strength of (a) horizontal component of field
(b) vertical component of field

Field Procedure

The following procedure should be followed to measure the dip angle of null and the field strength of the horizontal component of the VLF field.

Initial Field Strength Adjustment

Adjust the gain control to provide a suitable relative field strength measurement, as follows:-

(a) hold receiver in horizontal position (meter faces horizontal) and rotate in a horizontal plane until a null is indicated on the F.S. Meter; rotate 90° in this horizontal plane (F.S. meter reads maximum)

(b) adjust gain control so that the F.S. meter reads 100

(c) record gain control setting (000 to 999). Close guard over gain control and do not readjust unless a major field strength occurs.

The above procedure should be carried out at the beginning of each day's survey and checked during the day.

Dip Angle Measurement Procedure

1. Hold receiver in horizontal position and rotate in the horizontal plane until a null is observed. This aligns receiver in the field and the operator should be facing southerly or easterly depending on transmitter location.

2. Bring receiver up to the vertical position (meter faces vertical) and rotate the receiver in the vertical plane perpendicular to the transmitter direction until a null or minimum reading is observed on the field strength meter.

3. Hold the receiver in this field strength null position and read the inclinometer in degrees. Record this dip angle of null along with sign (+ or -).

Horizontal Field Strength Measurement Procedure

1. Return receiver to the horizontal position.

2. Reestablish null bearing in horizontal plane.

3. Rotate receiver 90° in the horizontal plane.

4. Depress ^{F.S.} lamp push button switch and observe field strength meter reading for sufficient time to obtain an average F.S. meter reading. (depressed ^{F.S.} lamp switch slows needle action and reduces meter reading by half. The reading will normally range around 50).

5. Record F.S. reading.

Filtering Technique For VLF-EM Dip Angle Data

The standard profile method of presenting dip angle data may be difficult to interpret. A filtering technique, described by D.C. Fraser 1969 (Geophysics, V.34 No. 6, P. 958-967) enables the data to be presented on a plan map with conductive areas defined by contours.

The following explains the calculation:-

Line	Station	Null	Filter
8N	0 E	+ 3	
	1 E	+ 4	
	2 E	+ 4	
	3 E	+ 6	
	4 E	+ 7	
	5 E	+ 9	
	6 E	+ 12	
	7 E	+ 16	
	8 E	+ 2	
	9 E	- 4	
	11 E	- 6	
	12 E	- 1	
		+3+4= +7	+7-(+10)= -3
		+4+4= +8	+8-(+13)= -5
		+4+6= +10	+10-(+16)= -6
		+13	+16
		+21	-8
		+28	-12
		+18	+3
		-2	+30
		-14	+32
		-16	+14
		-6-1= -7	-14-(-7)= -7

Fig. 1 is an example of a field sheet showing null angle reading, filtered reading and relative field strength. Fig. 2 shows the field sheet with filter card overlaid. The small window in the side of the card shows the four readings used to calculate the filtered reading, and an arrow showing that the filter reading is to be plotted between station 8E and 9E as indicated in fig. 1. The card is moved down the field sheet, one reading at a time as a guide while carrying out the filtering procedure. Throughout the survey care must be taken to ensure that the filtered data has the correct sign. The positive values only are plotted and contoured while for negative values, only the negative sign is plotted.

Crone suggests in instructions for the Radem VLF-EM, the use of N-S or E-W notation instead of (+ or -) signs, however for filtering a sign must be substituted.

The following convention may be used to ensure the correct sign of filtered data and provide a consistent crossover pattern when studying the profiled null angle data.

1. When taking a reading, always face southerly, on east-west lines, and always face easterly on north-south lines.

2. Record data on field sheets (top to bottom) as follows: on N-S lines record from south to north

: on E-W lines record from west to east

3. Plot and profile dip angle data on plan maps facing map north or map west.

The above convention will provide correct data regardless of the property location relative to the transmitter being used.

J.T. WALKER

MAY 17, 1974

024 VLF-EM SURVEY

PROPERTY G. A. S. TRANS DATE 11/1/77
 OPERATOR: INSTR. SPECTR DATE 11/1/77

Line	Stn.	Roll	Filter	f. S.
SW	0E	+3		50
	1E	+4		50
	2E	+4	-5	52
	3E	+6	-6	52
	4E	+7	-8	52
	5E	+9	-12	52
	6E	+12	+3	52
	7E	+16	+30	60
	8E	+2	+32	65
	9E	-4	+11	62
	10E	-10	-7	50
	11E	-6	-10	48
	12E	-1	-14	48
	13E	+3	-6	50
	14E	+4	-1	50
	15E	+4	+6	50
	16E	-4	+10	55
	17E	-2	+1	55
	18E	0	-2	50
	19E	+1		
	20E	-1		

X OVER

X OVER

Fig. 1 Example of Field Sheet

024 VLF-EM SURVEY

PROPERTY G. A. S. TRANS. SCOTT PAGE 1
 OPERATOR INSIR. SOURCE DATE 10/21/74

				Filter	W. S.
					50
				-3	50
				-5	52
				-6	52
				-8	52
				-12	52
				+3	52
				+20	60
				+2	65
				+32	62
				+14	50
				-7	48
				-18	48
				-14	40
				-6	50
				-1	50
				+5	50
				+10	55
				+1	55
				-2	50

Filter Card	Filtered Reading (a+b)	Reading (c+d)	Result
+ a	+16		
+ b	+2		
- c	-4		
- d	-10		
	(+16+2)	-(-4+(-10)) =	
	(+18)	(-14) =	+32

Fig. 2 Field Sheet with Filter Card Overlaid

PLATE A DIP ANGLE

ANGELO TOSI
VANCOUVER, B.C.

MB 16 CLAIM

QUEEN CHARLOTTE ISLANDS
SKREKA M.D. NTS 103P/8E

GEOPHYSICAL SURVEY

SCALE 0 100
1 CM = 25 METERS

TO ACCOMPANY A REPORT BY A.F. ROBERTS, P. ENG.
FEBRUARY 2, 1981

LEGEND

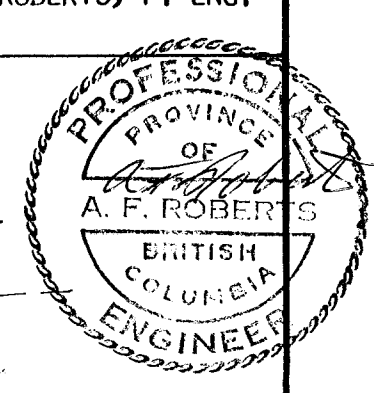
POSITIVE AREAS ————

NEGATIVE AREAS - - - - -

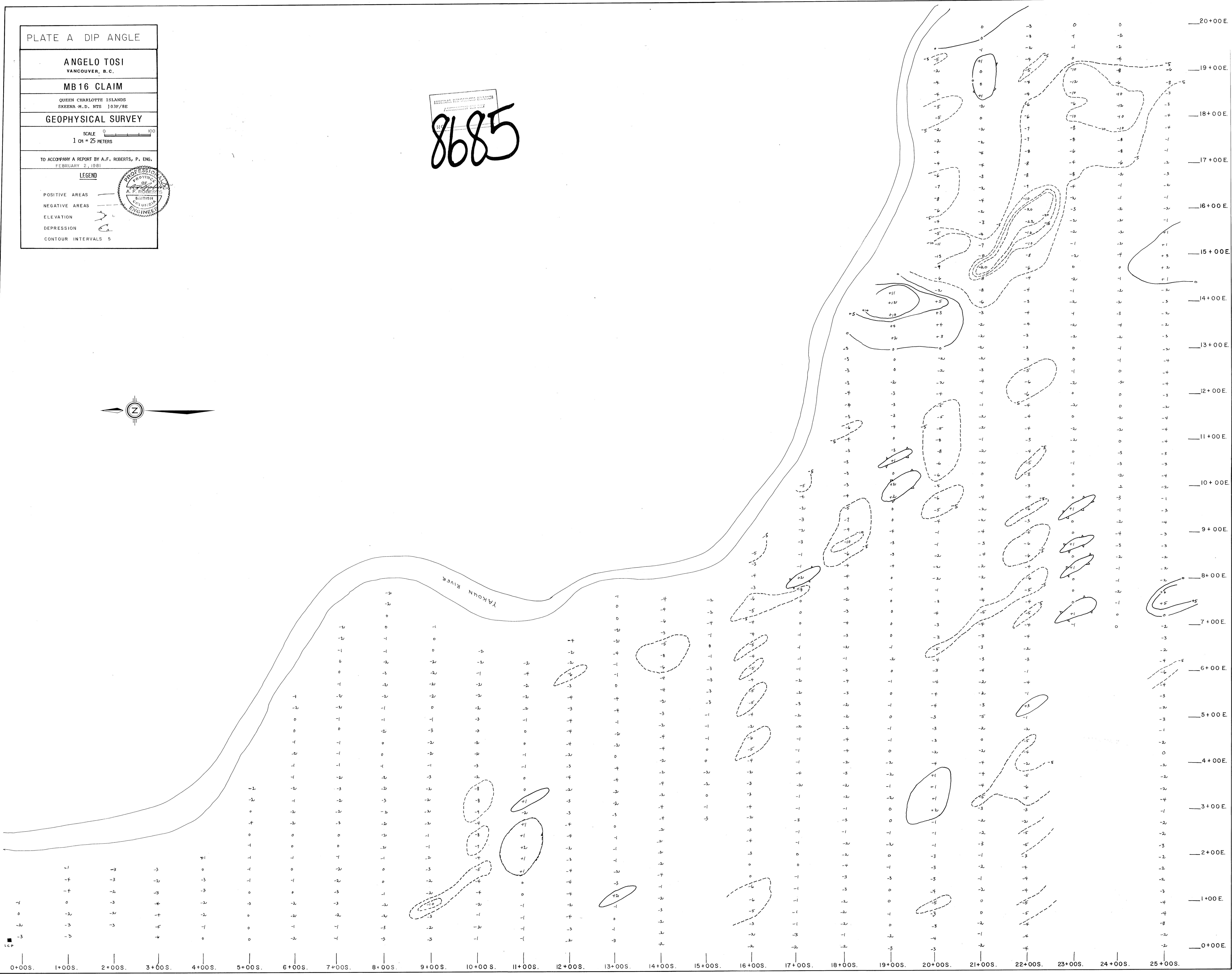
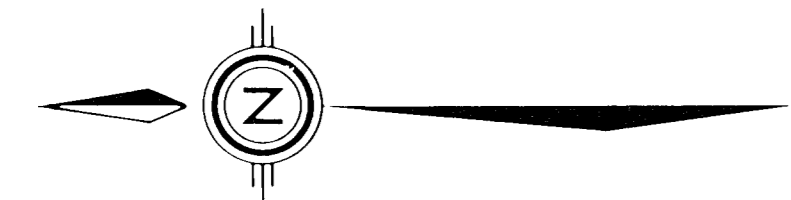
ELEVATION ————

DEPRESSION - - - - -

CONTOUR INTERVALS 5



MINERAL RESOURCES BRANCH
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0+00S. 1+00S. 2+00S. 3+00S. 4+00S. 5+00S. 6+00S. 7+00S. 8+00S. 9+00S. 10+00S. 11+00S. 12+00S. 13+00S. 14+00S. 15+00S. 16+00S. 17+00S. 18+00S. 19+00S. 20+00S. 21+00S. 22+00S. 23+00S. 24+00S. 25+00S.

20+00E.
19+00E.
18+00E.
17+00E.
16+00E.
15+00E.
14+00E.
13+00E.
12+00E.
11+00E.
10+00E.
9+00E.
8+00E.
7+00E.
6+00E.
5+00E.
4+00E.
3+00E.
2+00E.
1+00E.
0+00E.

PLATE B FRASER FILTER

ANGELO TOSI
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MB 16 CLAIM

QUEEN CHARLOTTE ISLANDS
SKEENA M.D. NTS 103P/8E

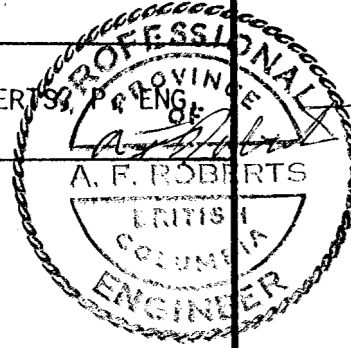
GEOPHYSICAL SURVEY

SCALE 0 100
1 CM = 25 METERS

TO ACCOMPANY A REPORT BY A.F. ROBERTS
FEBRUARY 2, 1981

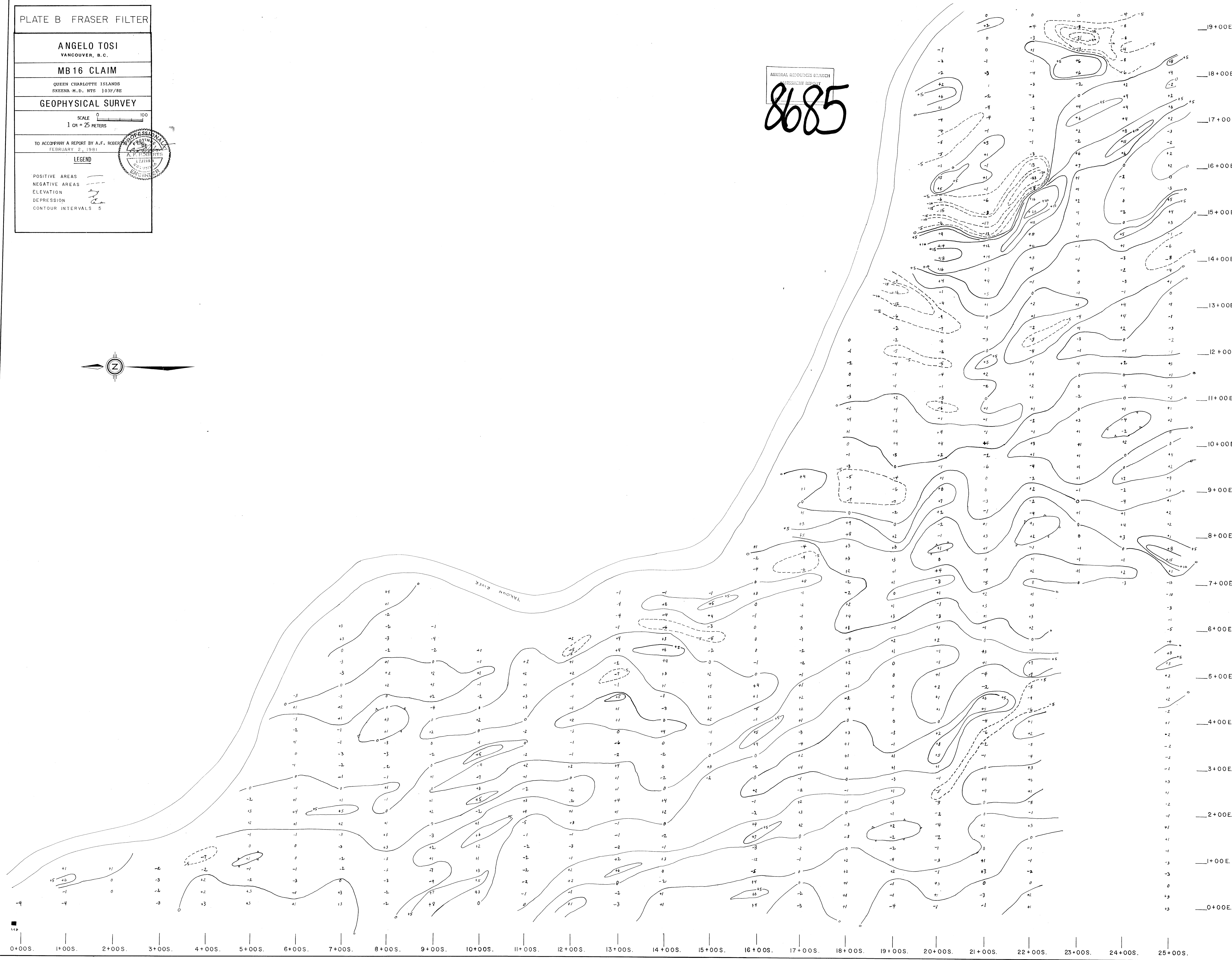
LEGEND

POSITIVE AREAS
NEGATIVE AREAS
ELEVATION
DEPRESSION
CONTOUR INTERVALS 5



MINERAL RESOURCES BRANCH
PROSPECTIVITY REPORT

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0+00S. 1+00S. 2+00S. 3+00S. 4+00S. 5+00S. 6+00S. 7+00S. 8+00S. 9+00S. 10+00S. 11+00S. 12+00S. 13+00S. 14+00S. 15+00S. 16+00S. 17+00S. 18+00S. 19+00S. 20+00S. 21+00S. 22+00S. 23+00S. 24+00S. 25+00S.

19+00E.
18+00E.
17+00E.
16+00E.
15+00E.
14+00E.
13+00E.
12+00E.
11+00E.
10+00E.
9+00E.
8+00E.
7+00E.
6+00E.
5+00E.
4+00E.
3+00E.
2+00E.
1+00E.
0+00E.

PLATE C TOTAL FIELD

ANGELO TOSI
VANCOUVER, B.C.

MB 16 CLAIM

QUEEN CHARLOTTE ISLANDS
SKRENA M.D. NTS 103F/8E

GEOPHYSICAL SURVEY

SCALE 0 100
1 CM = 25 METERS

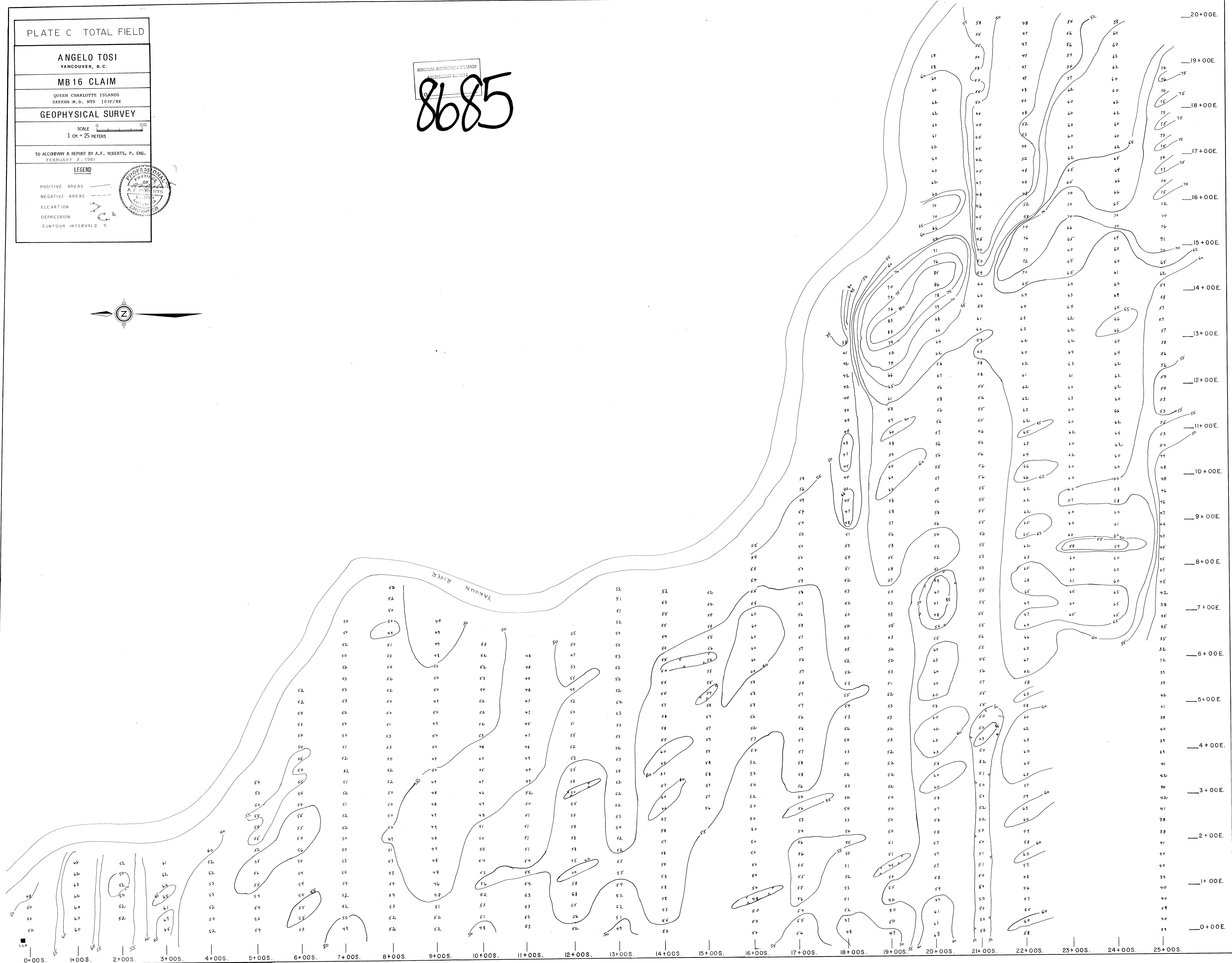
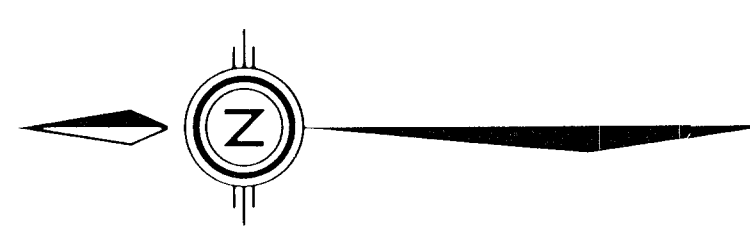
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LEGEND

- POSITIVE AREAS
- NEGATIVE AREAS
- ELEVATION
- DEPRESSION
- CONTOUR INTERVALS 5



MINERAL RESOURCES BRANCH
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GEOPHYSICAL SURVEY

SCALE 0 100
1 CM = 25 METERS

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LEGEND

FIELD STRENGTH —
DIP ANGLE —
FRASER FILTER —

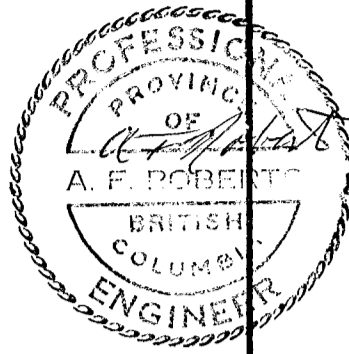
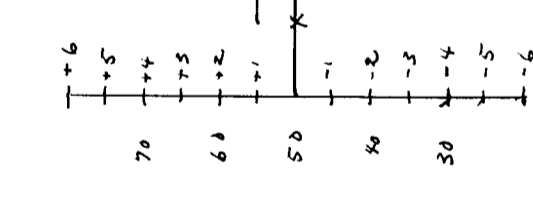
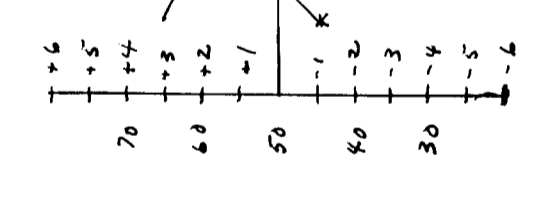
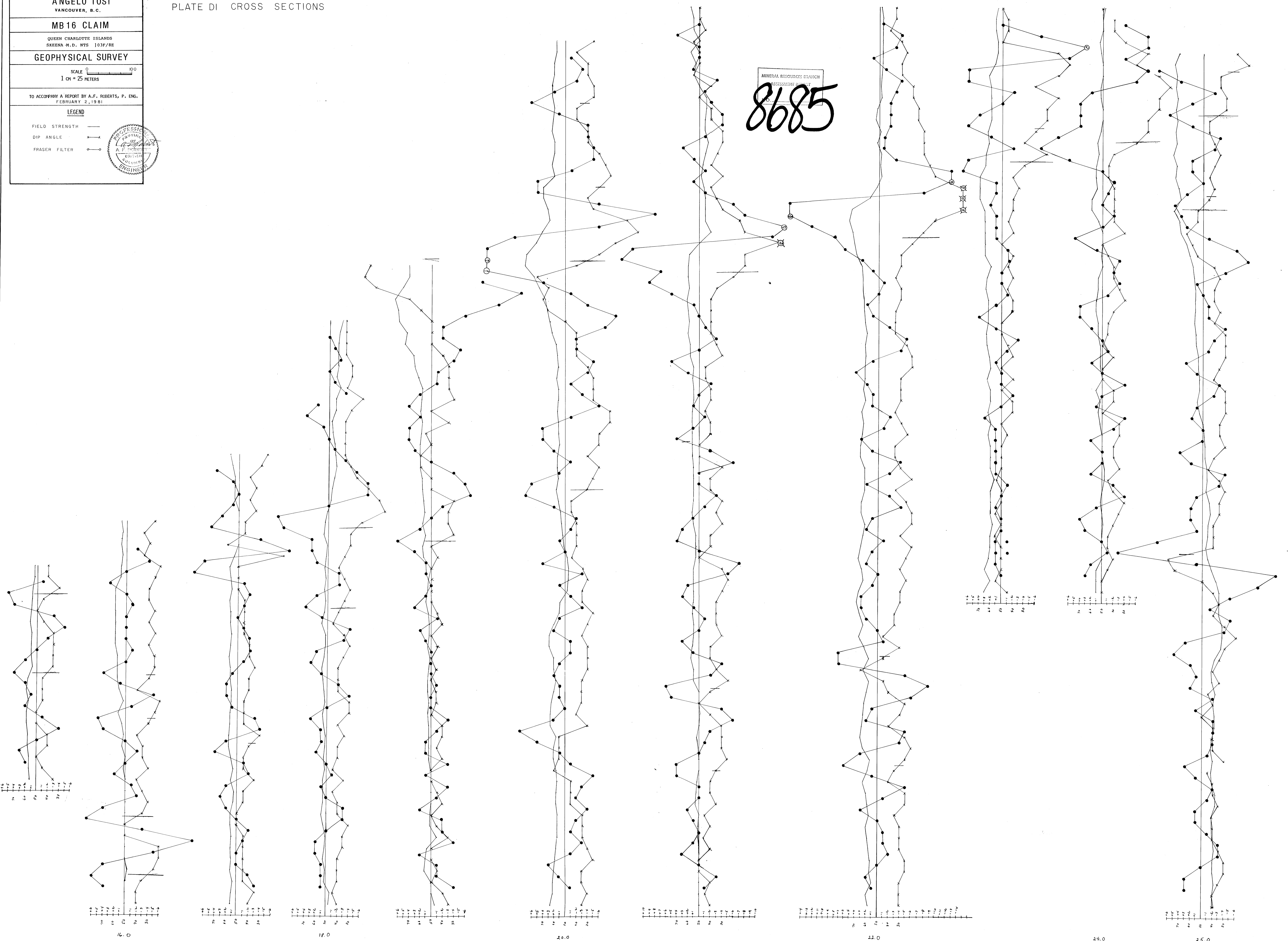


PLATE DI CROSS SECTIONS

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14.0

16.0

18.0

20.0

22.0

24.0

25.0

14.0

16.0

ANGELO TOSI

VANCOUVER, B. C.

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QUEEN CHARLOTTE ISLANDS
SKEENA M.D. NTS 103F/8E

GEOPHYSICAL SURVEY

SCALE 0 100
1 CM = 25 METERS

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LEGEND

FIELD STRENGTH —
DIP ANGLE x—x
FRASER FILTER o—o

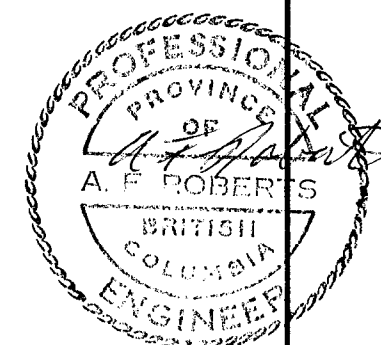


PLATE D2 CROSS SECTIONS

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