

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

Lat. $53^{\circ}34'N$

Long. $132^{\circ}15'W$

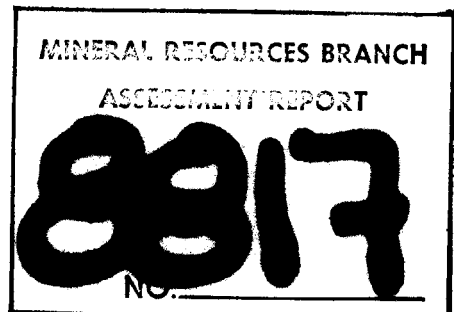
NTS 103F/9E, 9W

for

R. CALABRIGO & ASSOCIATES
Vancouver, B. C.

by

A.F. ROBERTS, P. ENG.



Part 3
g 3

February 6, 1981

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- 3] Road Map: MacMillan, Bloedel,
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- 4] Topographic Map: NTS 103F/9E, 9W,
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- 5] Claim Map: B.C. Department of Mines &
Petroleum Resources, and other sources,
1:50,000.....[Follows page 3]
- 8] Geology Map: Bulletin 54, enlarged,
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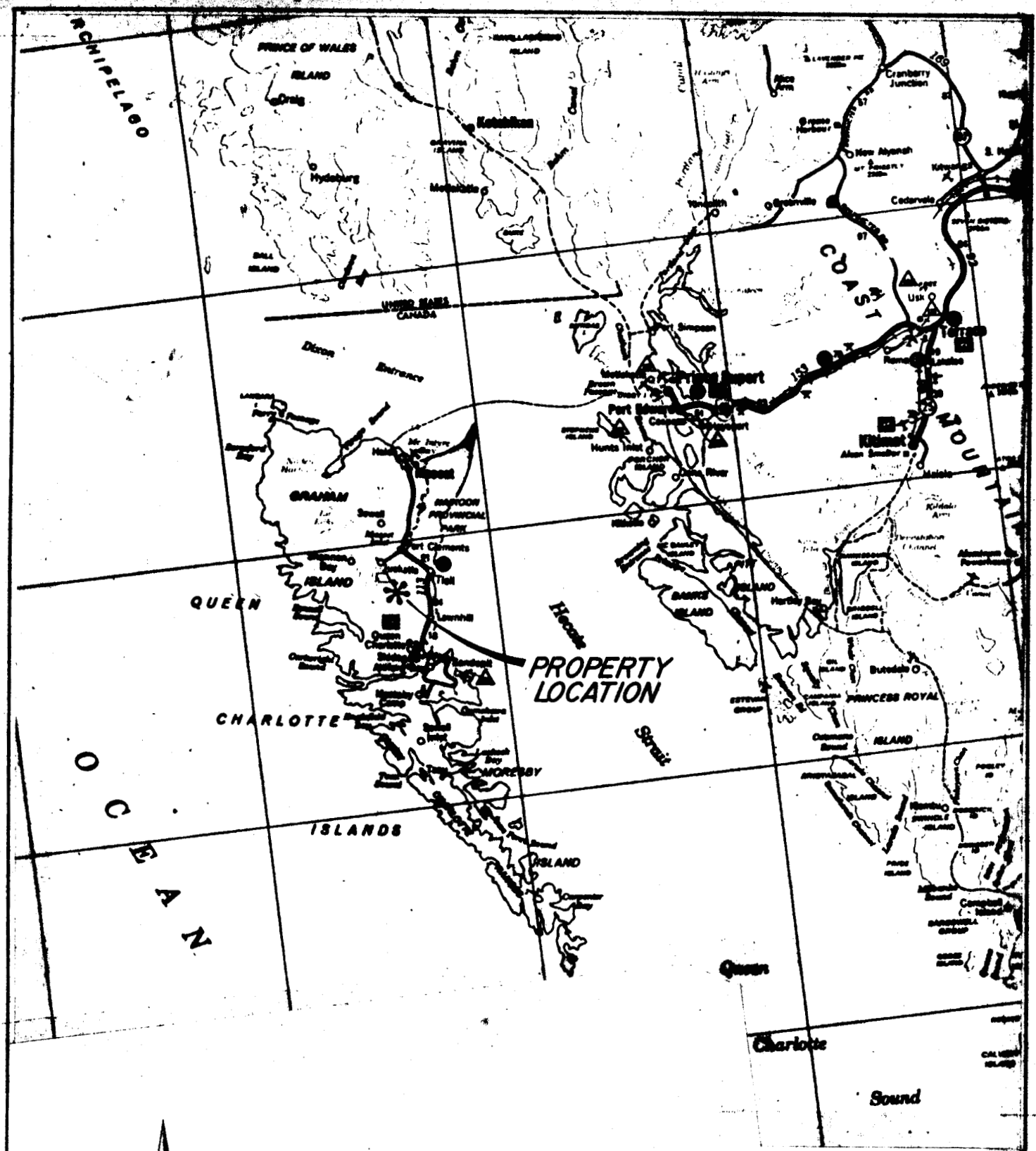
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REFERENCES

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



----- RENO CALIBRIGO
 VANCOUVER, B.C.

SOUTH FLORENCE
 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 6, 1981.

S U M M A R Y

The direction of the lines and the wide spacing makes an analysis difficult.

Enough positive features have been indicated to warrant further work which must be on east-west lines, and a closer spacing.

A 1979 reconnaissance-geochemical survey indicated 5% of the few samples taken were twice background in gold, and 7% anomalous in mercury.

It is recommended that a complete geochemical-geophysical program be undertaken over the entire property, on lines 100 metres apart, with 25 metre spacings.

The soil samples, all "B" horizon, should be assayed for gold, arsenic, silver, mercury.

This Phase I program is estimated to cost \$47,000.00.

Provided Phase I produces satisfactory results, Phase II, trenching and/or diamond drilling, will cost in excess of \$100,000.00.

Respectfully submitted,

A. F. Roberts

A.F. Roberts, P. Eng.
February 6, 1981



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VLF-EM SURVEY
SOUTH FLORENCE CLAIM [20 UNITS]
QUEEN CHARLOTTE ISLANDS, B. C.
SKEENA M. D.

Lat. $53^{\circ}34'N$

Long. $132^{\circ}15'W$

NTS 103F/9E, 9W

for
R. CALABRIGO & ASSOCIATES
Vancouver, B. C.

by
A.F. ROBERTS, P. ENG.

February 6, 1981

INTRODUCTION 1]

This report on the VLF-EM Survey is authorized by Mr. R. Calabrigo, the principal of the group.

Its purpose is to analyze the data from the survey and any other pertinent data, then to determine the worthiness of the property for further expenditures on exploration.

The survey was carried out in the period August 3 - September 2, 1980, by Strato Geological Ltd. of Vancouver, B.C.

A minor geochemical survey was performed by Team Mineral Services of Delta, B.C., in 1979. This survey will be referred to in this report.

The writer is familiar with the area from other work for these same people, and several other companies over the last four years.

1] Reports and Drill Logs for Consolidated Cinola Mines Ltd., and other companies, Qualifying Reports, and Exploration Reports, A.F. Roberts, P.Eng., 1977 to date

LOCATION, ACCESS, TOPOGRAPHY 2] 3] 4]

The property lies about 13 km south of Juskatla, MacMillan-Bloedel's main office, via logging roads. Branch Road No. 4 cuts the westerly third of the property.

Permission to use the logging roads should be obtained from the MacMillan-Bloedel Office as these are active logging roads, closed to all other traffic during working hours, except with permission to use them.

Florence Creek and its branches divide the property into thirds, so water is not a problem.

The western half has been logged off and is covered with slash and strong second growth timber. The balance is virgin timber, with a heavy undergrowth of salal.

The topography is quite rough, elevations range from 100 m. in the north to 200 m. in the southwest corner.

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

CLAIM 5]

The claim is described as follows:

<u>Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
South Florence	20	1792	October 15, 1980

This claim is part of a group: Hill, Hook, South Florence, MB-14, MB-12, totalling 82 units, registered as the MB-12 Group.

Work has been filed to keep the claims in good standing to the expiry dates in 1981.

The L.C.P. and other posts, fulfill the requirements of the Mining Act.

The exact location and the area covered, can only be determined by a legal survey.

HISTORY 6] 7]

There is no individual history for this claim. It was staked originally during the staking rush that followed the announcement of the drilling results on the Consolidated Cinola property, 4 km to the south, where preparations are being made to go into production as an open pit gold mine.

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

Other companies, including majors, are carrying out extensive exploration, and diamond drilling programs in the general area.

GENERAL GEOLOGY 8] 9]

Bulletin 54 has the western three-quarters of the claim as being underlain by Paleocene Masset Formation consisting of sub-aerial basalt flows, and breccias, rhyolite, rhyolite ash flows and dacite.

The northeast quarter, overlain by Quaternary sediments, underlain by the Skonun Formation [Mio-Paleocene] of sands, sandstone, mudstone and conglomerate.

The writer has seen basalt, rhyolite, ash in the area, with pyrite.

Any specimen carrying pyrite will assay 0.001 in gold as a minimum, and higher if well silicified.

No structure is indicated on the map. However, it is quite possible that the Sandspit fault or one of its strands passes through the property. It is this fault that is believed to be associated with the gold mineralization on the Consolidated Cinola property.

8] Geology Map: Bulletin 54,
enlarged, 1:62,500 [Follows page 4]

9] B.C. Department of Mines & Petroleum Resources, Sp-
cogna Gold Prospect, Queen Charlotte Islands, B. C.,
103F/9, A. Sutherland Brown, T.G. Schroeter, 1977

GEOCHEMISTRY

A minor geochemistry program was carried out on the South Florence Claim, by Team Mineral Services Inc. of Delta, B.C. in 1979.

The grid was 500 m. by 100 m. 96 samples were taken with 5 ppb as background for gold, 5 were twice background at 10 ppb. This is 5.21%, and occurs near the centre of the claim.

Five were anomalous for mercury at a threshold value of 300 ppb. As many, again, were close to anomalous.

With such wide spacing, the sampling provides little conclusive information. They do suggest that further close sampling may indicate a large anomalous area.

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

This survey was carried out using a Sabre Model 27, VLF-EM Instrument made by Sabre Electronics Ltd., of Burnaby, B.C. The Serial No. of the instrument used was 103.

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- | | | |
|-----|--|-----------------|
| 10] | Appendix A - Operating Instructions
for Sabre Model 27, VLF-
EM Instrument | [End of Report] |
| 11] | Plate A: Plan, Dip Angle,
1 cm = 25 m. | [Back Pocket] |
| 12] | Plate B: Plan, Total Field,
1 cm = 25 m. | [Back Pocket] |
| 13] | Plate C: Plan, Fraser Filter,
1 cm = 25 m. | [Back Pocket] |
| 14] | Plate D: Cross-sections, Dip Angle,
Fraser Filter, Total Field | [Back Pocket] |

The survey was done by Strato Geological Ltd., of Vancouver, B.C., who also have constructed the maps.

The contouring was done by the writer.

The grid was on 200 metre by 25 metre spacing on north-south lines.

Neither the spacing or the line direction is ideal for this type of work, as east-west lines give a better profile and are not as subject to distortion when using the Seattle transmitter.

Both in profile and plan the dip angle is remarkably flat, with few crossovers of any strength, or contrast. On lines 14+00E to 18+00E there are two broad, flattish zones with a maximum contrast of plus eight degrees. These zones extend from 14+00S to 8+00S, and 4+00S to 0+00S.

On line 0+00E to 2+00E there are two negative anomalies running to plus 9 degrees, extending the full length of the lines.

With such wide spacing of the lines and their direction, any analysis is open to question.

However, when the Fraser Filter calculations are plotted, they indicate a strong trend slightly north of east, in a number of narrow positive and negative bands alternately with the best values of Total Field at 70% coinciding with the best Fraser Filter values.

CONCLUSIONS & RECOMMENDATIONS

It is impossible to correlate the positive gold values of geochemistry with the current geophysical program, but the fact that so many values were obtained in so few samples is encouraging, and they appear to be in an area of positive Fraser Filter values.

The wide spacing of the lines in the VLF-EM program, and being north-south lines instead of east-west, makes analysis difficult.

The fact that the Fraser Filter produces some quite strong positive and negative values on each line is encouraging, but the wide spacing leaves the contouring in doubt.

This property is indicating enough positive features to warrant a more complete survey on closer spaced lines, with a proper geochemical survey carried out concurrently.

ESTIMATE OF COSTSPhase I

Estimate 21 lines at 2.5 km
[100 m x 25 m Grid]

VLF-EM, soil sampling combined,
Say 50 km @ \$350.00/km \$17,500.00

Assay - 2,000 soil samples.
Assay for gold, silver, arsenic,
mercury at \$9.00/sample 18,000.00

Geological mapping, supervision,
reports 5,000.00

ub-total 40,500.00

15% contingencies 6,075.00

Total \$46,575.00

Say \$47,000.00

Phase II

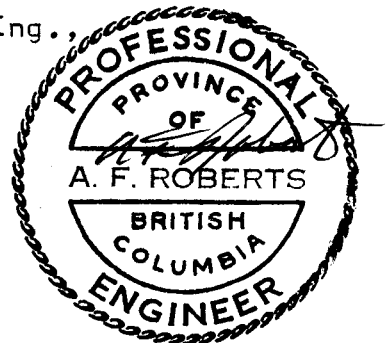
When justified by Phase I, a Phase II
program consisting of trenching and/or
diamond drilling can be expected to
cost in excess of

\$100,000.00

Respectfully submitted,



A. F. Roberts, P. Eng.,
February 6, 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.

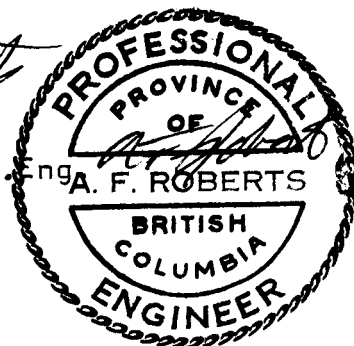
Previous to, and during University, I worked underground as a miner, and on several exploration-development projects.

- 4] The accompanying report is based entirely on my personal examination of properties in the area, over the last four years, and on material referred to in the text.
- 5] I have no interest, direct or indirect, in the South Florence Claim, nor have I any interest, direct or indirect, in any companies with whom Mr. R. Calabrigo 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 which 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 sixth day of February, 1981.

A. F. Roberts

A.F. Roberts, P. Eng. A. F. ROBERTS



STATEMENT OF COSTS
 SOUTH FLORENCE CLAIM [20 UNITS]
 PART OF MB-12 GROUP
 [SOUTH FLORENCE MB-12, MB-14, HOOK, HILL - 82 UNITS]

Labour	\$4,025.00	
Transportation	775.00	
Drafting, supplies	460.00	
EM Rental	<u>150.00</u>	
Total		\$5,410.00

Employees:

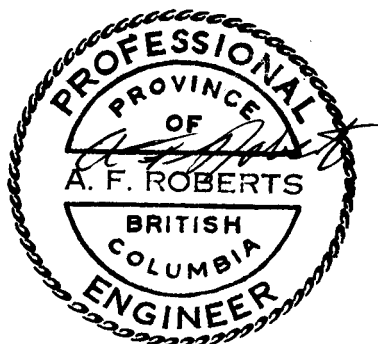
G. Smith
 R. Bruskwiech
 B. Fisher
 T. Higginson
 J. McLeod
 A. House
 K. Dorland

Total Costs Hill Claim	2,296.01	} including reports]
Total Costs Hook Claim	1,974.41	
Engineer's Report	<u> </u>	

Total applicable to MB-12 Group 1,123.65

Total \$6,533.65

Field expenses, etc. supplied by
 Strato Geological Ltd.,
 Vancouver, B.C.



A. F. Roberts

A.F. Roberts, P.Eng.,
 February 6, 1981

A. F. ROBERTS, P.ENG.
 CONSULTING MINING ENGINEER

APPENDIX A

OPERATING INSTRUCTIONS
SABRE MODEL 27, VLF-EM UNIT
FRASER FILTER CALCULATIONS

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"; Weighs 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

DETAILED
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.} ~~damp~~ push button switch and observe field strength meter reading for sufficient time to obtain an average F.S. meter reading. (depressed ^{F.S.} ~~damp~~ 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:-

<u>Line</u>	<u>Station</u>	<u>Null</u>	<u>Filter</u>
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

VLF-EM SURVEY

0.2 V

PROPERTY G.A.R.S. TRANS SEATTLE PAGE 1
 OPERATOR INSTR. 5202E DATE NOV 14/74

Line	Sta.	Hull	Filter	f. S.
(8N	0E	+3		50
	1E	+4	-2	50
	2E	+4	-5	52
	3E	+6	-6	52
	4E	+7	-8	57
(5E	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	+2	-5	50
(14E	14E	-4	-1	50
	15E	-4	+6	50
	16E	-4	+10	55
	17E	-2	+1	55
(18E	18E	0	-2	50
	19E	+1		
	20E	-1		

X OVER

X OVER

Fig. 1 Example of Field Sheet

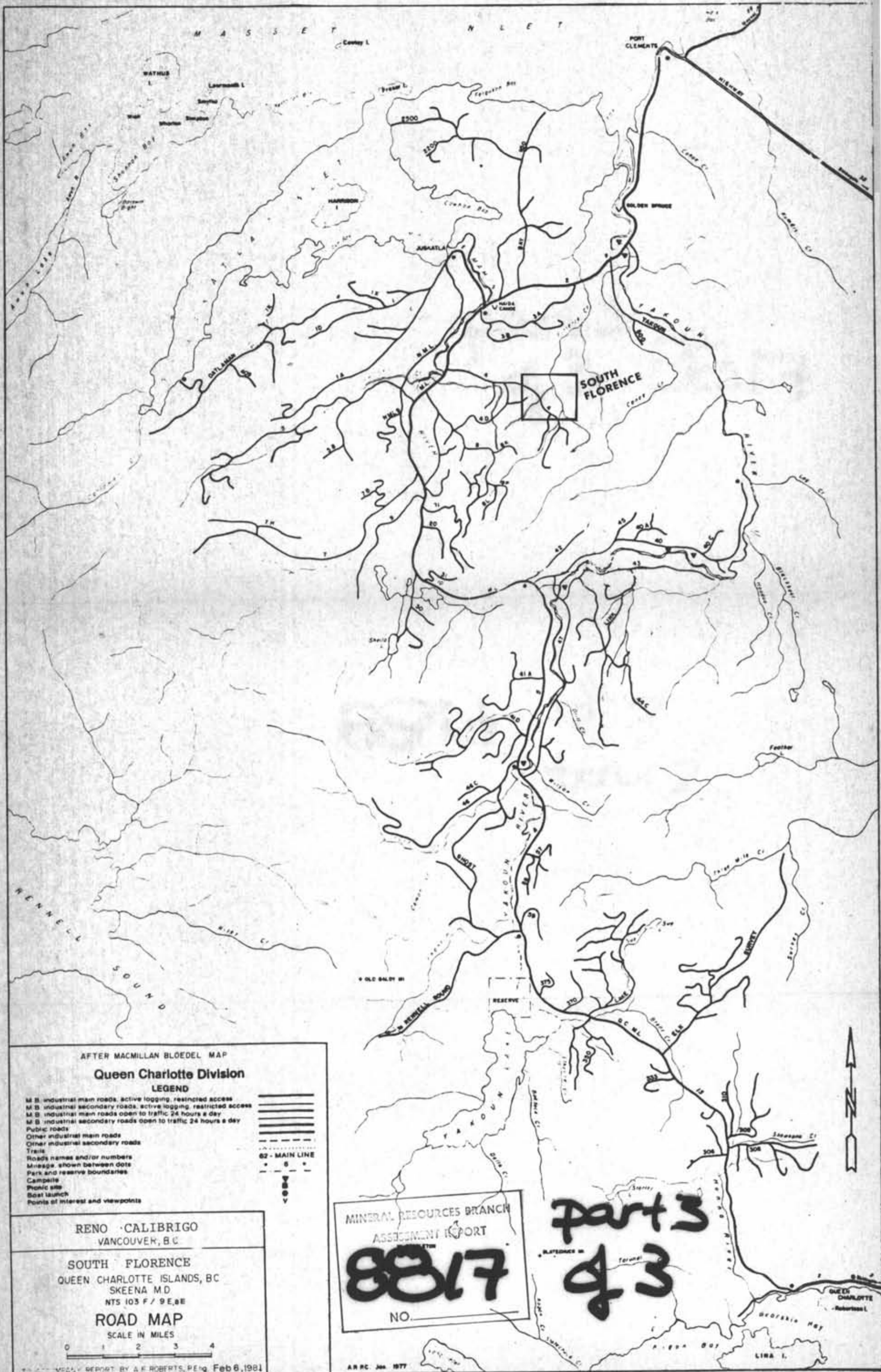
VLF-EM SURVEY

Station - 024

PROPERTY G.I.T.S. TRANS SEATTLE PAGE 1.
 OPERATOR INSTR. SOURCE DATE 11/11/74

					Filter	F. S.
(FILTER CARD)					-3	50
					-5	52
					-6	52
					-8	52
					-12	52
					+3	52
					+20	60
					+2	65
					-4	62
					-10	50
FILTERED READINGS $(a+b) - (c+d)$					-7	48
$(+16+2) - (-4+(-10)) =$ $(+18) - (-14) = +32$					-15	48
()					-14	48
					-6	40
					-1	50
					+5	50
					+10	55
()					+1	52
					-2	50

Fig. 2 Field Sheet with Filter Card Overlaid



AFTER MACMILLAN BLOEDEL MAP

Queen Charlotte Division

LEGEND

- M.B. industrial main roads, active logging, restricted access
- M.S. industrial secondary roads, active logging, restricted access
- M.B. industrial main roads open to traffic 24 hours a day
- M.S. 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
- Message shown between dots
- Park and reserve boundaries
- Campsite
- Picnic site
- Boat launch
- Points of interest and viewpoints



RENO · CALIBRIGO
VANCOUVER, B.C.

SOUTH FLORENCE
QUEEN CHARLOTTE ISLANDS, B.C.
SKEENA M.D.
NTS 103 F / 9 E, 6 E

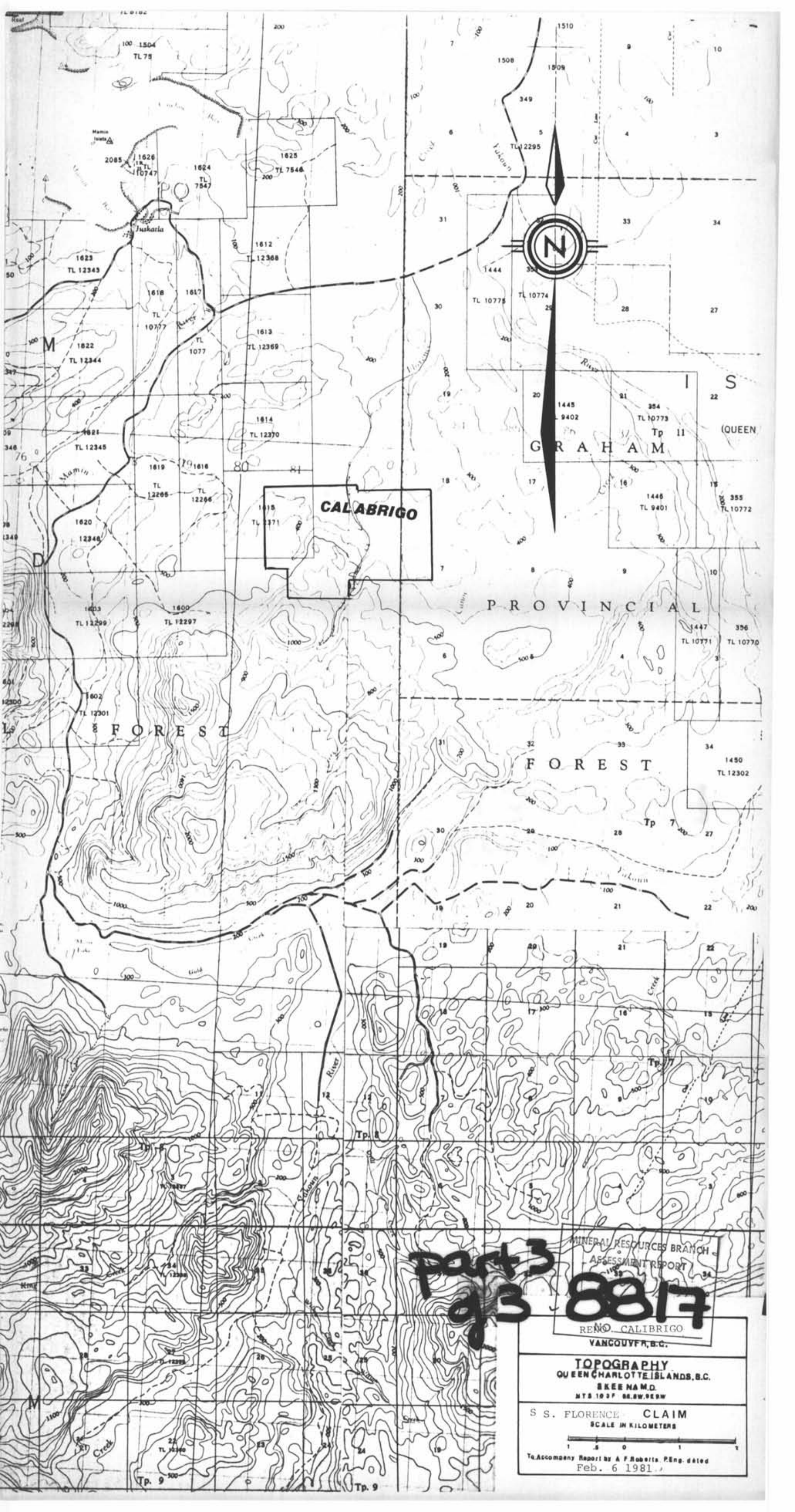
ROAD MAP
SCALE IN MILES



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

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part 3
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CALABRIGO

PROVINCIAL

FOREST

GRAHAM

QUEEN ISLANDS

Part 3
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MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

RENO, CALABRIGO
VANCOUVER, B.C.

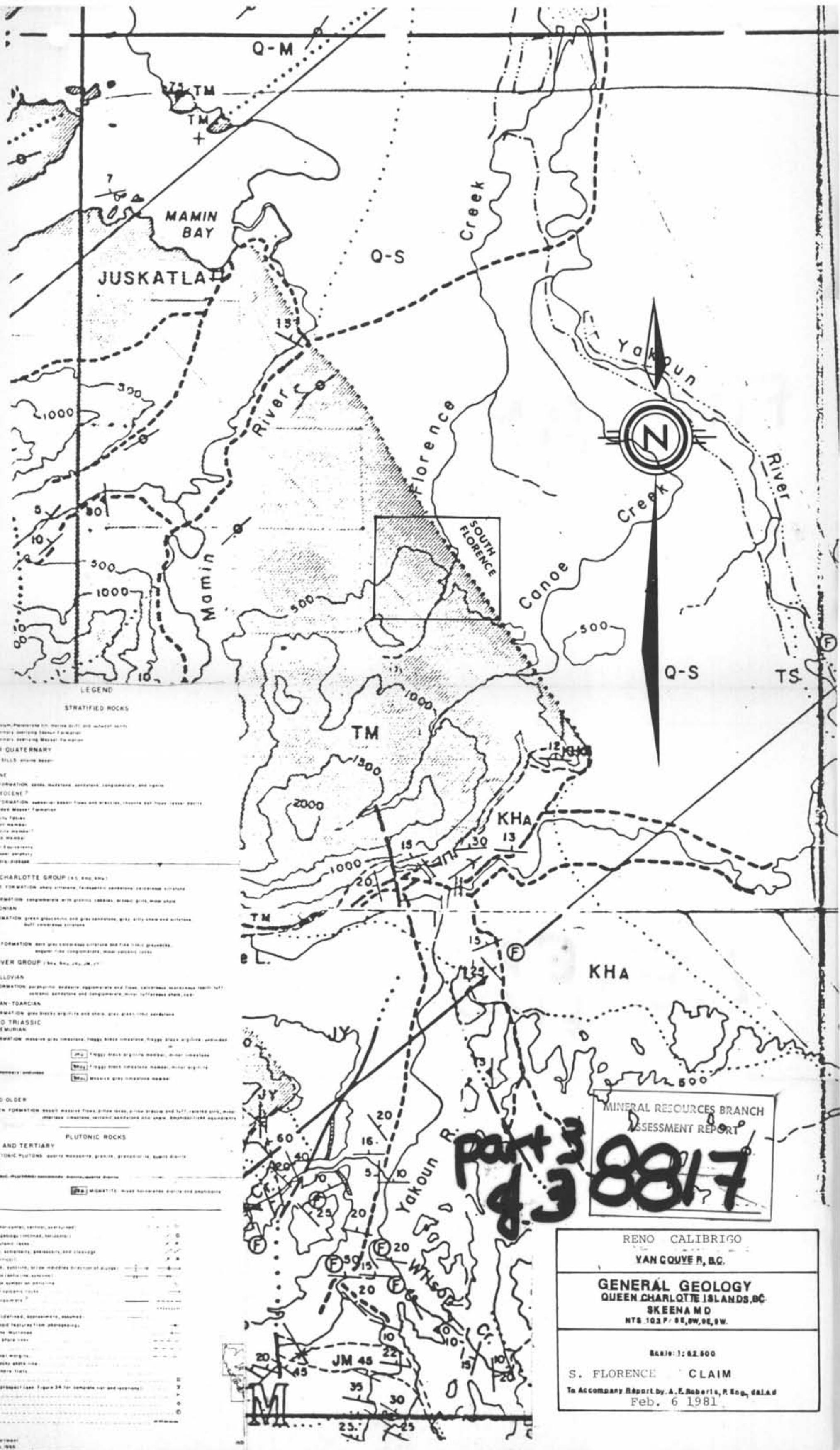
TOPOGRAPHY
QUEEN CHARLOTTE ISLANDS, B.C.
SKEE NAM D.
M.T.S. 1037 S.S.W. 987W

S.S. FLORENCE CLAIM
SCALE IN KILOMETERS
1 5 0 1 5
To Accompany Report by A.F. Roberts, P.Eng. dated
Feb. 6 1981



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PART
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ANGELO TOSI VANCOUVER, B.C.
TOPOGRAPHY QUEEN CHARLOTTE ISLANDS, B.C. BKEE M.A.D. M.T.S. 1037 / S.L.W. 929W
MB 8 CLAIM SCALE IN KILOMETERS
To Accompany Report by A.F. Roberts, P.Eng. dated Feb. 3 1981



LEGEND

- QUATERNARY**
- Q-M Recent alluvium, Pleistocene till, marine drift, and beach ridges
 - Q-S Quaternary covering Skeena Formation
 - Q-M Quaternary covering Masset Formation
- TERTIARY OR QUATERNARY**
- TM Hill hills above beach
- TERTIARY**
- MID-PLIOCENE**
- SKOON Formation: sands, mudstones, sandstones, conglomerates, and lignite
- PALEOCENE-Eocene?**
- MASSET Formation: sandstone, siltstone, shale, and claystone, locally with lignite, locally with fossiliferous sandstone
 - TM Unconformably Masset Formation
 - TMa Masset Formation
 - TMb Masset Formation
 - TMc Masset Formation
 - TMd Masset Formation
 - TMe Masset Formation
 - TMf Masset Formation
 - TMg Masset Formation
 - TMh Masset Formation
 - TMi Masset Formation
 - TMj Masset Formation
 - TMk Masset Formation
 - TMl Masset Formation
 - TMm Masset Formation
 - TMn Masset Formation
 - TMo Masset Formation
 - TMp Masset Formation
 - TMq Masset Formation
 - TMr Masset Formation
 - TMs Masset Formation
 - TMt Masset Formation
 - TMu Masset Formation
 - TMv Masset Formation
 - TMw Masset Formation
 - TMx Masset Formation
 - TMy Masset Formation
 - TMz Masset Formation
- CRETACEOUS**
- QUEEN CHARLOTTE GROUP (K, J, and I)**
- KW Kwikwaka Formation: grey siltstone, fossiliferous sandstone, calcareous siltstone
 - KH Kiska Formation: conglomerate with pebbles, sandstone, shale, and siltstone
 - ALBIA ALBIA Formation: green glauconitic and grey sandstone, grey siltstone and siltstone, buff calcareous siltstone
- NEOCOMIAN**
- LS Lonsdale Formation: dark grey calcareous siltstone and fine silty sandstone, major fine conglomerate, minor calcareous siltstone
- VANCOUVER GROUP (V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ

PLUTONIC ROCKS

 - PT Post-tectonic plutons: quartz monzonite, granite, granodiorite, quartz diorite
 - JURASSIC? JY
 - PTa Migmatite: mixed felsic and mafic, quartz and biotite**

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

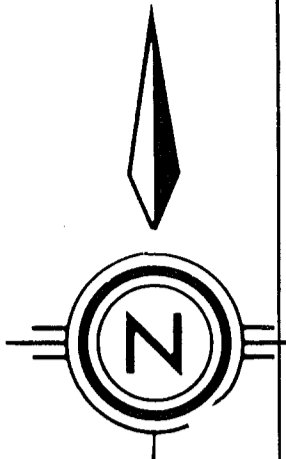
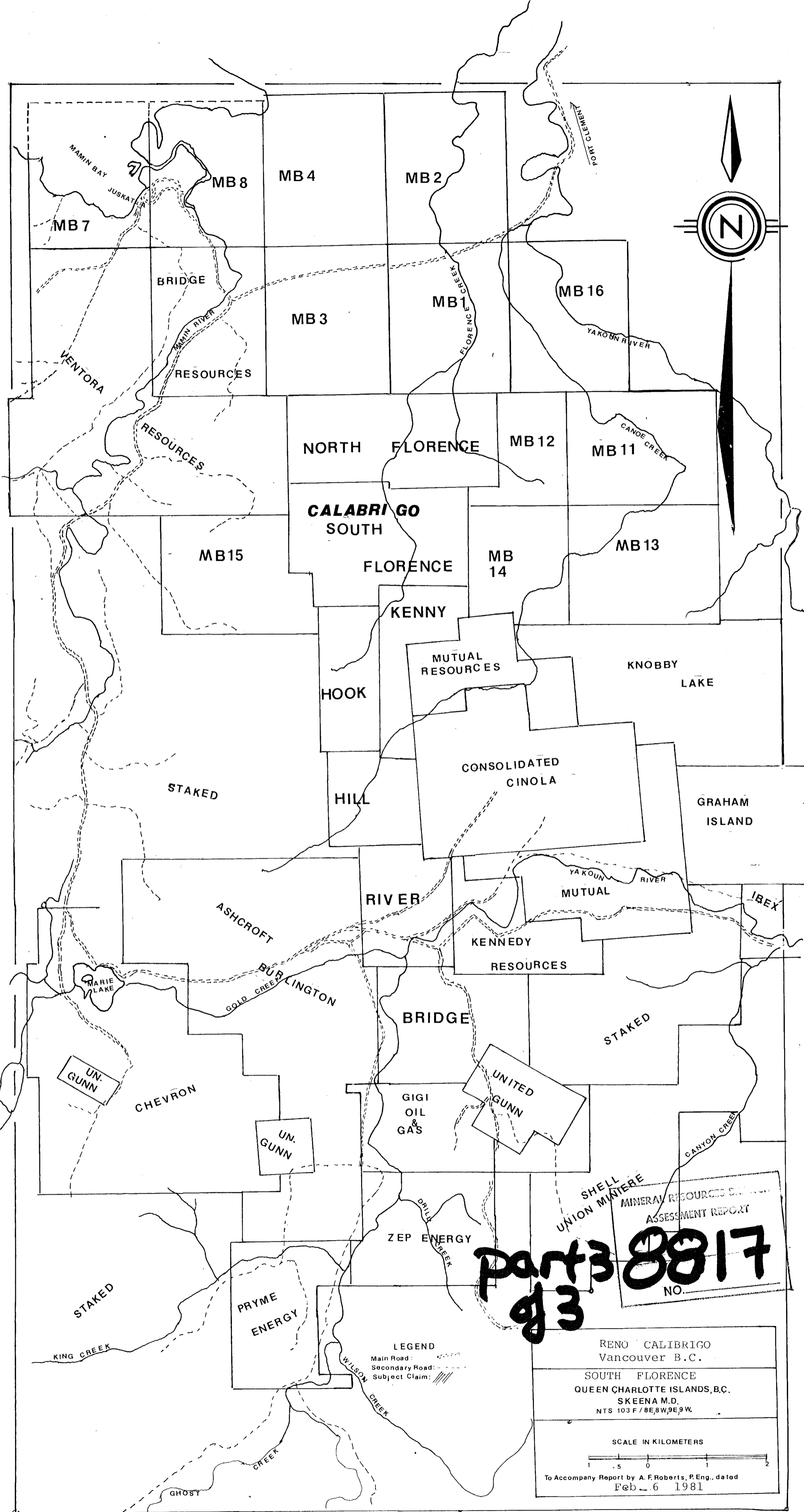
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RENO CALIBRIGO
VAN COUVE R. BC.

GENERAL GEOLOGY
QUEEN CHARLOTTE ISLANDS, BC
SKEENA MD
NTS 102 P/ 88, 89, 90, 91

Scale: 1:62,500

S. FLORENCE CLAIM
To Accompany Report by A. E. Roberts, P. Eng., dated
Feb. 6 1981



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

SHELL MINERAL RESOURCES DIV.
 UNION MINIERE
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 NO.

RENO CALIBRIGO
 Vancouver B.C.
 SOUTH FLORENCE
 QUEEN CHARLOTTE ISLANDS, B.C.
 SKEENA M.D.
 NTS 103 F / 8E, 8W, 9E, 9W.
 SCALE IN KILOMETERS
 1 0.5 0 1 2
 To Accompany Report by A. F. Roberts, P. Eng., dated
 Feb. 6 1981

PLATE A DIP ANGLE

MINERAL RESOURCES BRANCH
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RENO CALABRIGO
VANCOUVER, B. C.

SOUTH FLORENCE

QUEEN CHARLOTTE ISLANDS

SKRPA M.D. NTS 103P/88

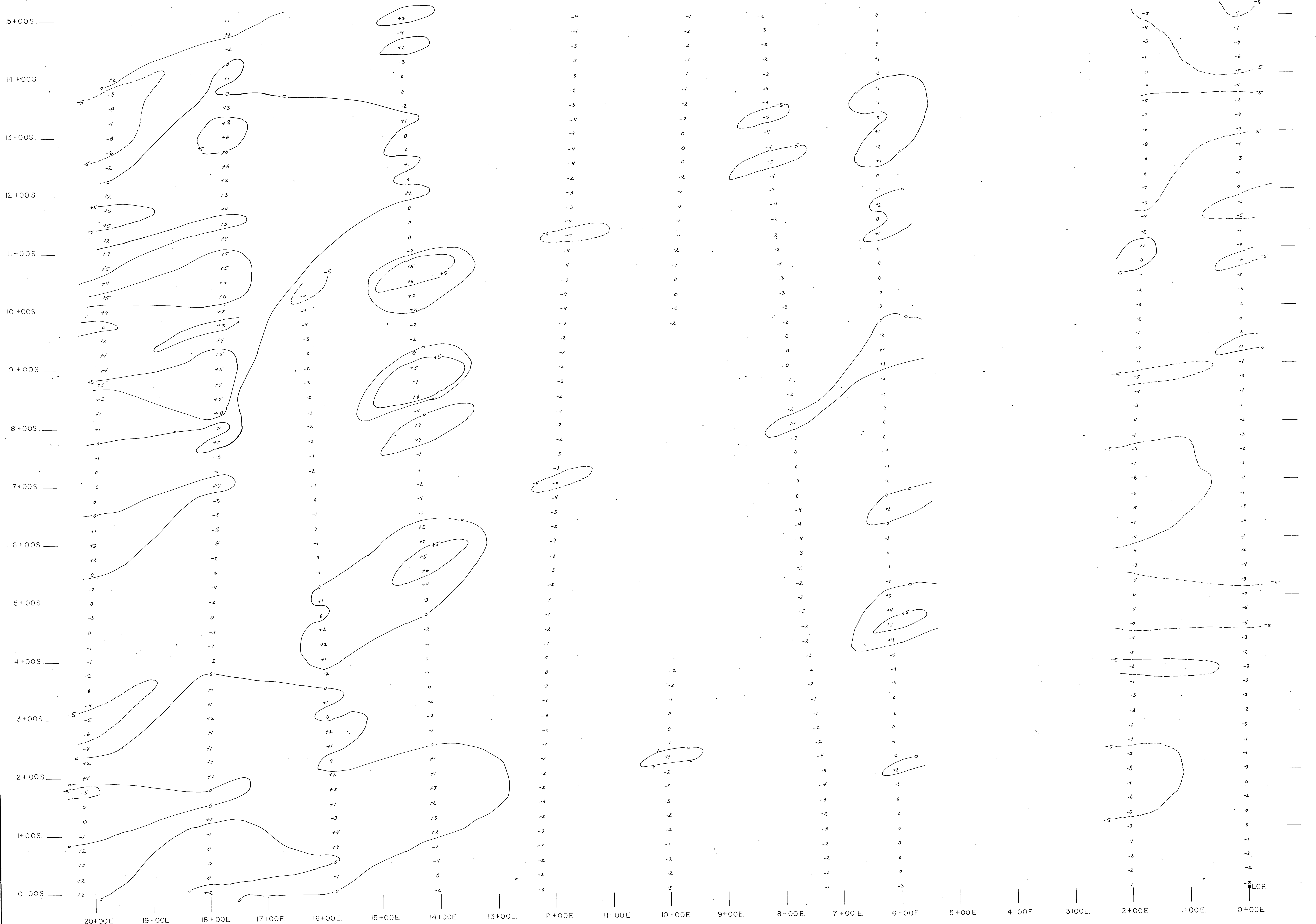
GEOPHYSICAL SURVEY

SCALE
1 CM = 25 METERS

TO ACCOMPANY A REPORT BY A.F. ROBERTS, P. ENG.
FEBRUARY 6, 1981

LEGEND

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



RENO CALABRIGO
VANCOUVER, B. C.

SOUTH FLORENCE

QUEEN CHARLOTTE ISLANDS

SKERRA M.D. NTS 103F/88

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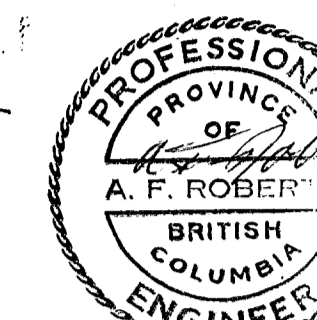
POSITIVE AREAS

NEGATIVE AREAS

ELEVATION

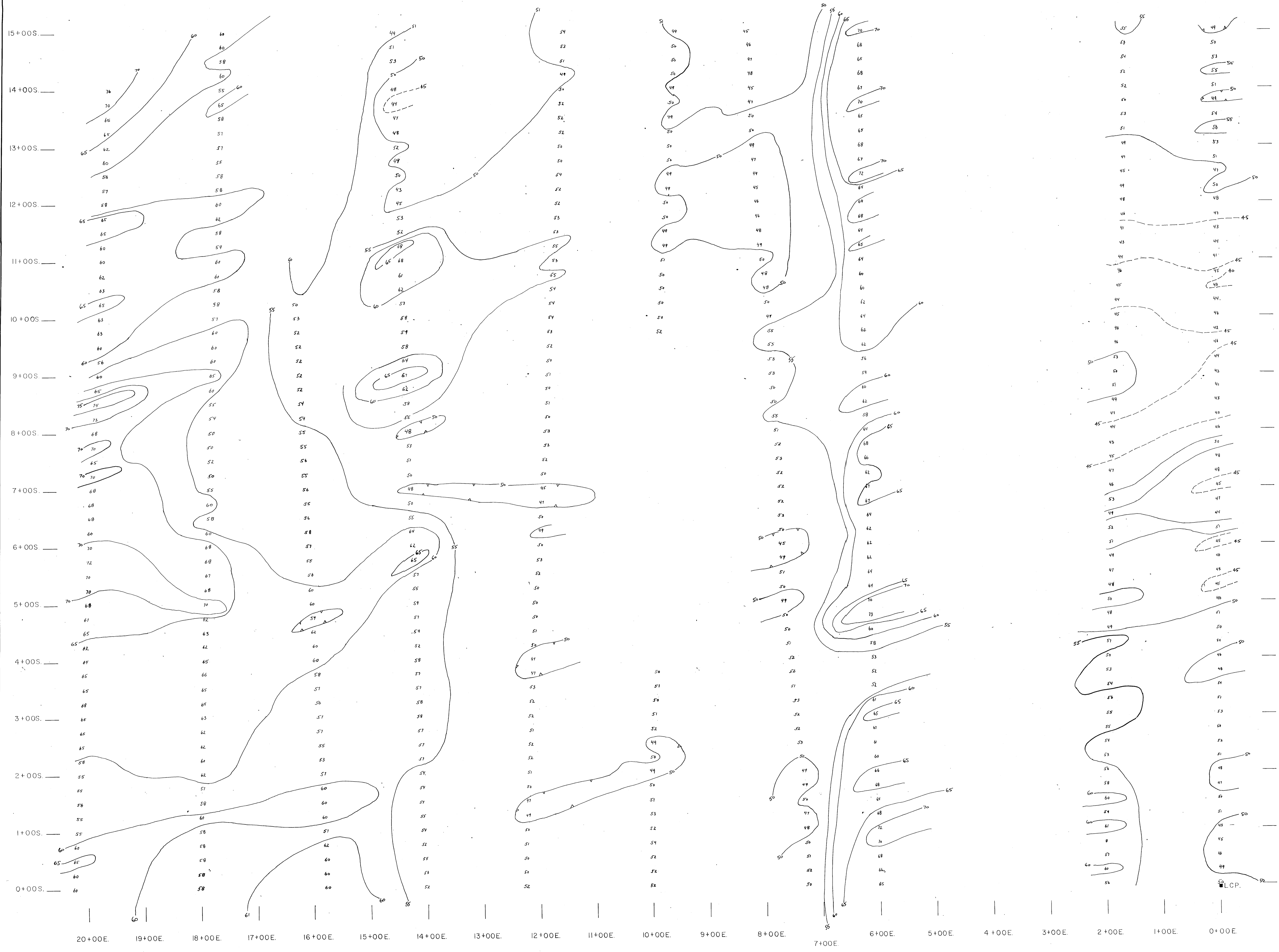
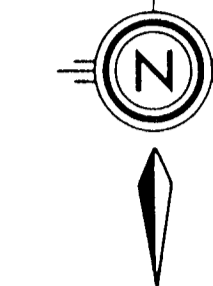
DEPRESSION

CONTOUR INTERVALS 5



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT NO. **8817**

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of 3



L.C.P.

RENO CALABRIGO
VANCOUVER, B.C.

SOUTH FLORENCE

QUEEN CHARLOTTE ISLANDS

SKENA M.D. NPS 103P/88

GEOPHYSICAL SURVEY

SCALE
1 CM = 25 METERS

TO ACCOMPANY A REPORT BY A.F. ROBERTS, P. ENG.
FEBRUARY 6, 1981

LEGEND

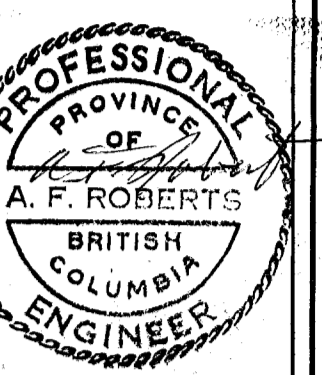
POSITIVE AREAS

NEGATIVE AREAS

ELEVATION

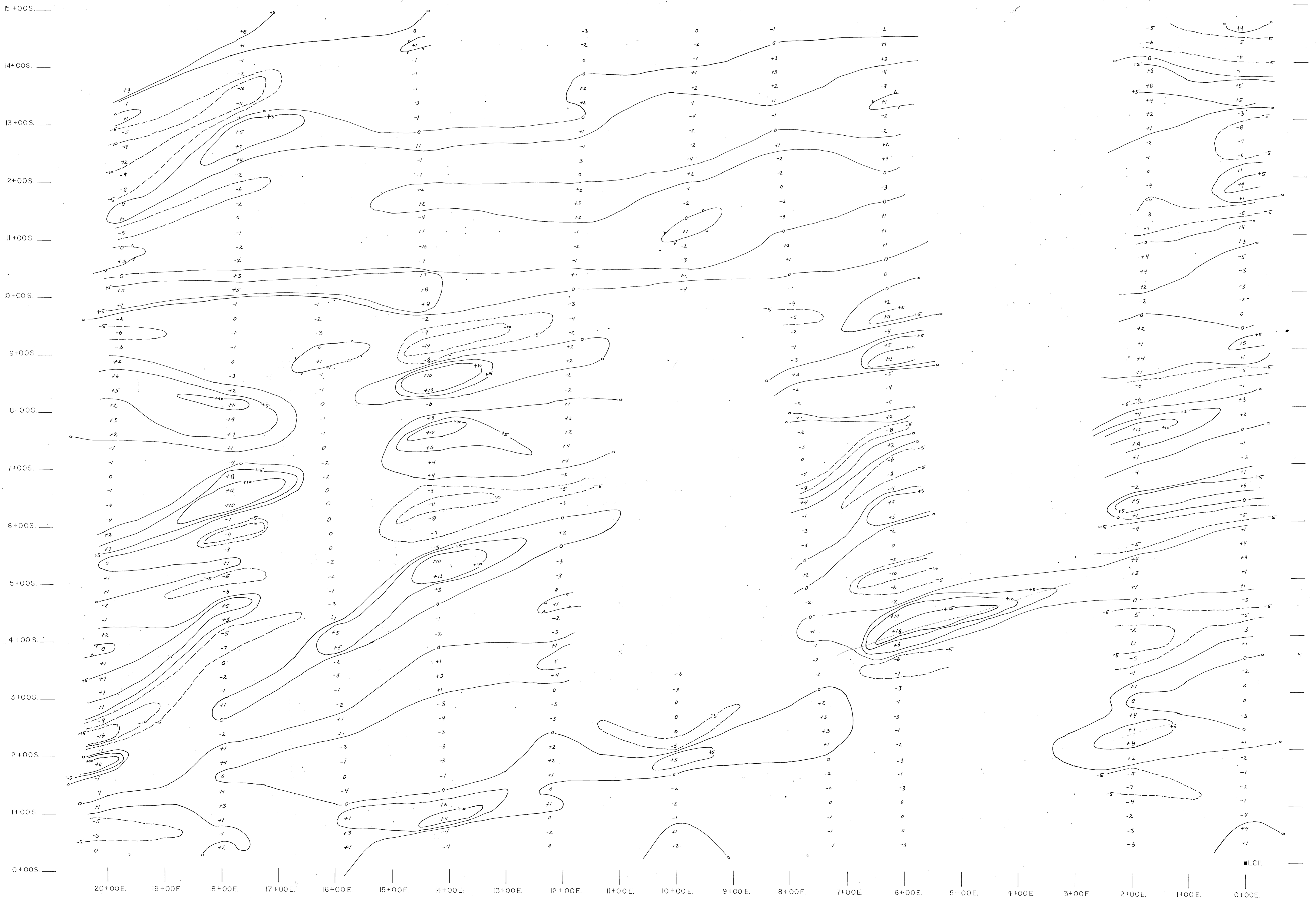
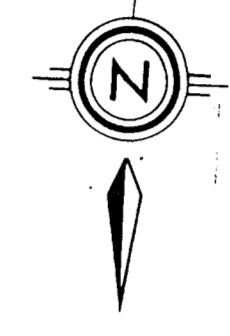
DEPRESSION

CONTOUR INTERVALS 5



MINERAL RESOURCES BRANCH
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RENO CALABRIGO
VANCOUVER, B. C.

SOUTH FLORENCE
QUEEN CHARLOTTE ISLANDS
SKRENA M.D. NTS 103F/88

GEOPHYSICAL SURVEY

SCALE
1 CM = 25 METERS

TO ACCOMPANY A REPORT BY A.F. ROBERTS, P. ENG.
FEBRUARY 6, 1981

LEGEND

Total Field
Dip Angle
Fraser Filter

PROFESSIONAL
ENGINEER
A. F. ROBERTS
BRITISH COLUMBIA

PLATE D
CROSS SECTION

MINERAL RESOURCES BRANCH
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