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Report on *93-L*
Magnetometer Survey
Smithers Area, British Columbia
on behalf of
Fortune Channel Mines Ltd.
March 12, 1970 R. O. Crosby, B.Sc.,
P. Eng.

REPORT ON
MAGNETOMETER SURVEY
SMITHERS AREA, BRITISH COLUMBIA
ON BEHALF OF
FORTUNE CHANNEL MINES LIMITED

MAR. 12, 1970

by

Richard O. Crosby, B.Sc., P.Eng.

March 12, 1970

CLAIMS:
(see following page)

LOCATION:

About 24 miles southeast of Smithers, B.C.
Omineca Mining Division
127° 54° NE

DATES:

December 7 to December 15, 1969
January 22 to February 13, 1970

CLAIMS:

<u>Name</u>	<u>Record Numbers</u>
BA 1 - 24	75291-314
LB 1 - 20	75315-334
CU 1 - 32	77528-559
MAG 1 - 44	75417-460
JANE 1 - 10	80208-217
LYBDENUM 1 - 3	25790-792
BARR 4	28811
BARR 6	28813
BARR 8	28815
BARR 10	28817
BARR 12	28819
BARR 15 - 25	28822-832
BARR 29	28836
BARR 31	28838
BARR 33 - 39	28840-846
BARR 40 - 52	49341-353
BARR 53 Fr	54237
VAN DOO	65437

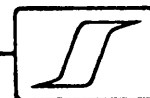
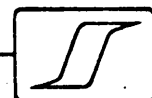


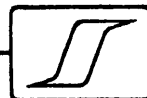
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(in envelope)	
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Plate 3 - Magnetometer Contour Plan	1" = 500'



SUMMARY

A magnetometer survey has revealed areas which are interpreted as alteration and contact zones within an acidic intrusive. These zones are presently being tested by diamond drilling.



REPORT ON
MAGNETOMETER SURVEY
SMITHERS AREA, BRITISH COLUMBIA
ON BEHALF OF
FORTUNE CHANNEL MINES LIMITED

INTRODUCTION

From December 7 to December 15, 1969 and January 22 to February 13, 1970, a magnetometer survey was executed on behalf of Fortune Channel Mines Limited over a group of mineral claims in the Smithers area, British Columbia. The claims covered by the survey are listed on the title page.

The survey consisted of magnetometer measurements read at stations every 100 feet along traverses separated by 500 feet. The traverses are oriented generally north-south. The magnetometer operators was Mr. Jerrold Davis of Vancouver, British Columbia. The supervision of survey procedures and interpretation of data was by Mr. Richard O. Crosby, P. Eng.

The magnetometer was a Sharpe MF-1, vertical force, fluxgate magnetometer. Appendix "A", attached gives full details of the instrument.

The intensity of the earths vertical magnetic field in the survey area measures approximately 56,300 gammas.

The purpose of the present programme was to detail survey an area which had been interpreted as an acidic intrusive from an airborne magnetic map.

Alteration zones and contact zones within this intrusive could possibly be represented by depressions or by persistent gradients in the magnetic field.



GEOLOGY

The geology of the area as reported by M. K. Lorimer, of L. J. Manning and Associates is as follows: "The claims area has been mapped by the G.S.C. Map 671 A, as being almost completely covered by heavy overburden. To the west there is an extensive area of undivided volcanic rocks and lesser areas of the same rocks appear within a few miles to the north, east and south. The only mapped exposure near the property is a small body of fossiliferous tuff along the banks of the Bulkley River. Within the Barr Group of claims (south central part of the area) there is an outcrop of highly altered granodiorite which coincides with a magnetic depression".

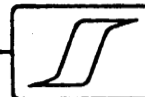
PRESENTATION OF DATA

Magnetic observations are presented in the form of a contour map of the observed vertical magnetic field on a scale of 1" = 500 feet, with a contour interval of 100 gammas. Corrections for diurnal variations and any possible instrumental drift have been made where required. A total of 46 miles of survey were completed.

DISCUSSION OF RESULTS

The observed magnetic relief is a total of about 2000 gammas and occurs mainly in the western part of the survey grid.

The remainder of the grid is relatively featureless except for limited areas of increased magnetic activity located



between L 11000 and L 13000; and a 500 gamma gradient trending northwesterly from the southern part of L 5000 to the northern part of L 7000.

CONCLUSIONS AND RECOMMENDATIONS

The magnetic survey has revealed features which tend to confirm the original interpretation of the aeromagnetic map of the area.

The intensely anomalous area in the extreme western part of the survey grid is interpreted as arising from shallow basic volcanics. The remainder of the grid is underlain by interpreted acidic intrusive rocks, with altered zones indicated by magnetically quiet areas. These are especially evident between L 15000 and L 20000; and in the extreme northeast quadrant.

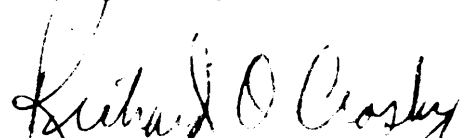
Three major faults are also revealed by the magnetic survey. A pair of northwest-southeast trending faults extending from the southern part of L 20500 to the northern part of L 23000 and from the southern part of L 5000 to the northern part of L 7000.

A third fault is interpreted as trending northeasterly from the southern part of L 20500 to L 15000.

It is recommended that the area be field checked and that the interpreted alteration zones and structurally disturbed zones be tested by diamond drilling.

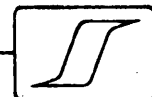
Respectfully submitted,

SEIGEL ASSOCIATES LIMITED



Richard O. Crosby, B.Sc., P.Eng.
Geophysicist.

Vancouver, B. C.
March 12, 1970.



APPENDIX "A"

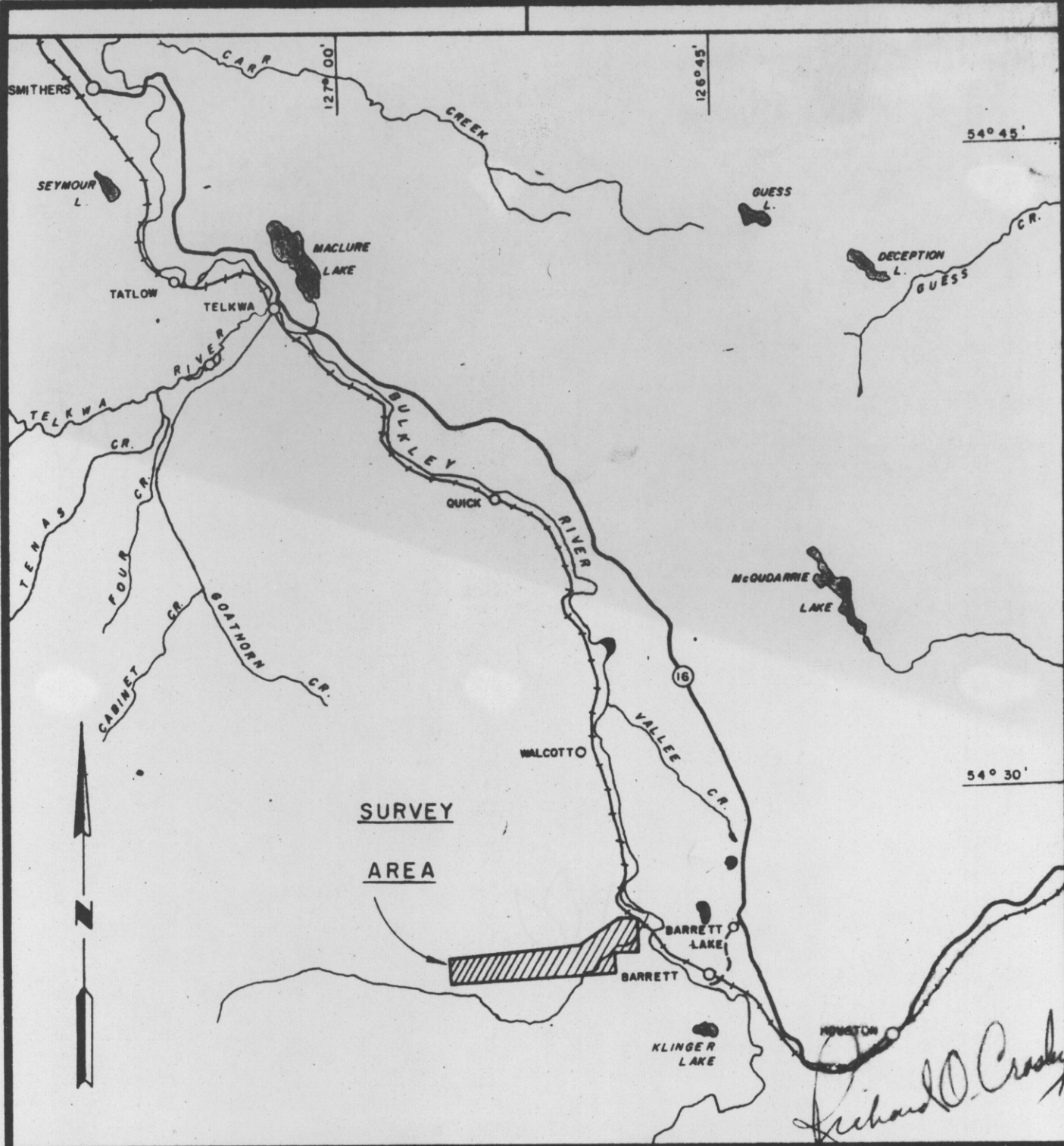
SPECIFICATIONS OF
FLUXGATE MAGNETOMETER
MODEL MF-1

Ranges:	Plus or minus — 1,000 gammas f. sc. 3,000 " 10,000 " 30,000 " 100,000 "
	Sensitivity 20 gammas/div. 50 " 200 " 500 " 2,000 "
Meter:	Taut-band suspension 1000 gammas scale 1 7/8" long — 50 div. 3000 gammas scale 1 11/16" long — 60 div.
Accuracy:	1000 to 10,000 gamma ranges ± 0.5% of full scale 30,000 and 100,000 gamma ranges ± 1% of full scale
Operating Temperature:	—40°C to +40°C —40°F to +100°F
Temperature Stability:	Less than 2 gammas per °C (1 gamma /°F)
Noise Level:	Total 1 gamma P-P
Long Term Stability:	± 1 gamma for 24 hours at constant temperature
Bucking Adjustments: (Latitude)	10,000 to 75,000 gammas by 9 steps of approximately 8,000 gammas and fine control by 10 turn potentiometer. Convertible for southern hemisphere or ± 30,000 gammas equatorial.
Recording Output:	1.7 ma per oersted for 1000 to 100,000 gamma ranges with maximum termination of 15,000 ohms.
Response:	DC to 5 cps (3db down)
Connector:	Amphenol 91-MC3F1
Batteries:	12 x 1.5V-flashlight batteries "C" cell type) (AC Power supply available)
Consumption:	50 milliamperes
Dimensions:	Instrument — 6 1/2" x 3 1/2" x 12 1/2" 165 x 90 x 320 mm Battery pack — 4" x 2" x 7" 100 x 50 x 180 mm Shipping Container — 10" dia x 16" 254 mm dia. x 410 mm
Weights:	Instrument — 5 lbs. 12 oz. 2.6 kg. Battery Pack — 2 lbs. 4 oz. 1.0 kg. Shipping — 13 lbs. 6.0 kg.



SCINTREX LIMITED

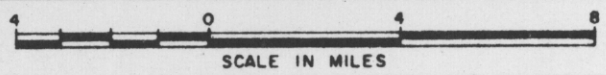
79 Martin Ross Avenue, Downsview, Ontario, Canada



FORTUNE CHANNEL MINES LTD.

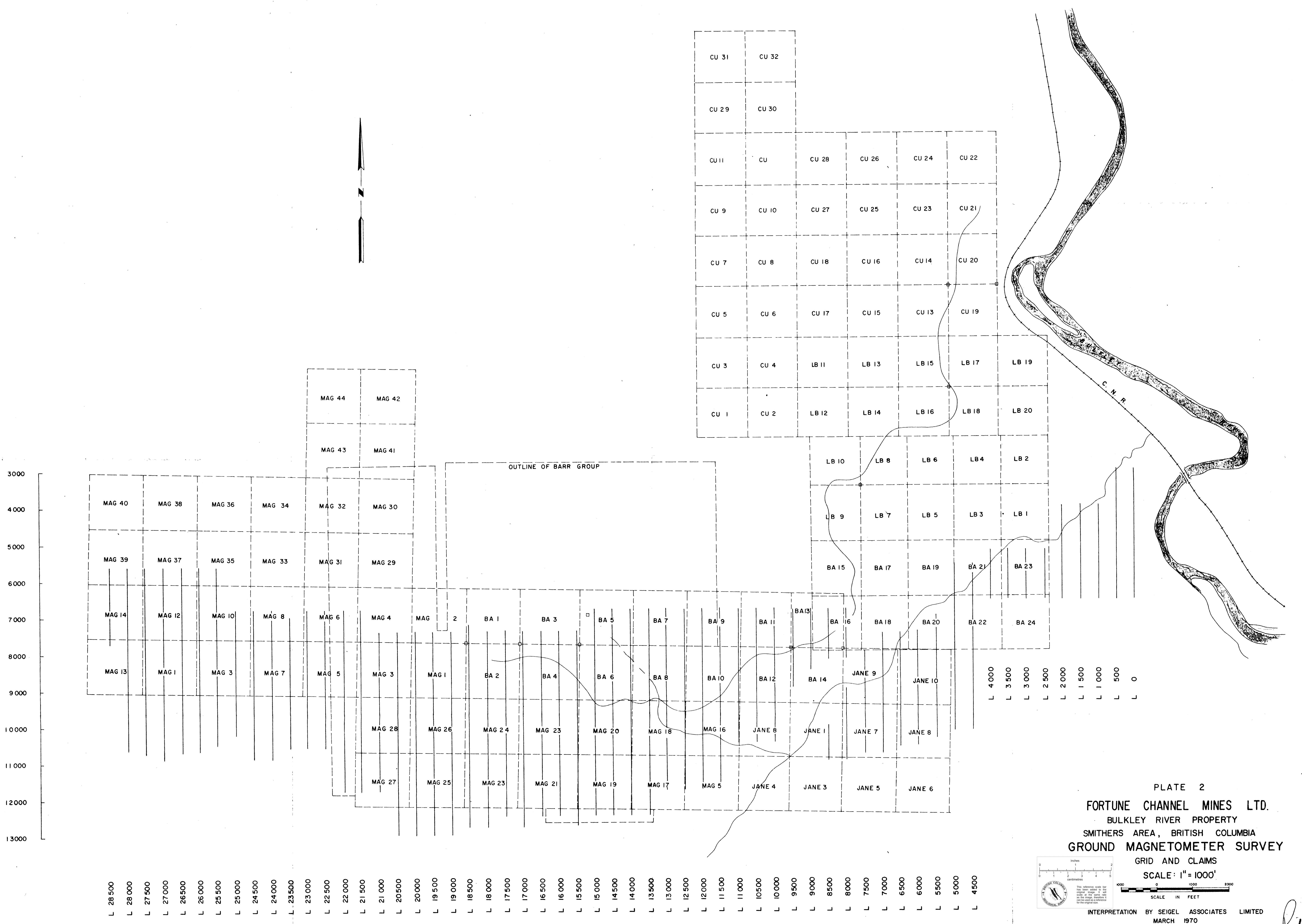
LOCATION MAP

SMITHERS AREA, BRITISH COLUMBIA



INTERPRETATION BY
SEIGEL ASSOCIATES LIMITED
MARCH 1970

PLATE I

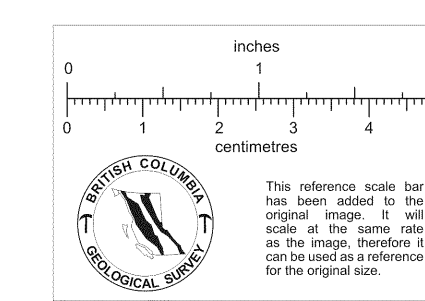


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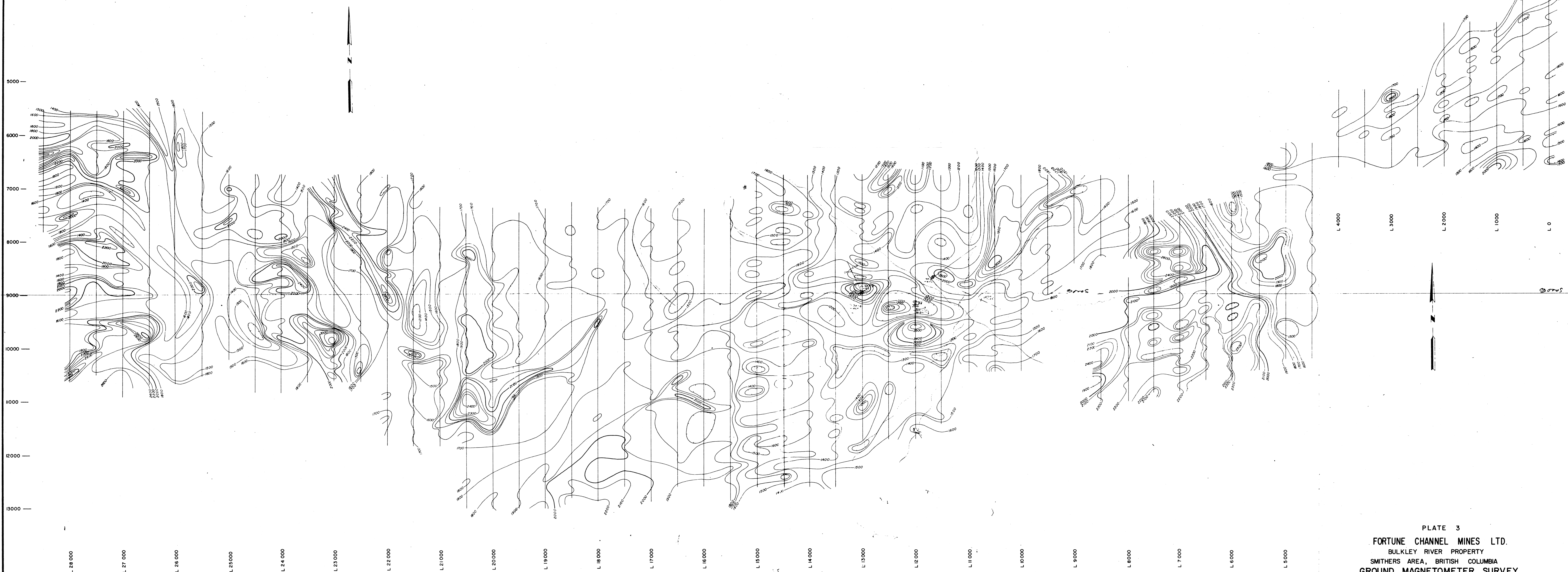
PLATE 2
FORTUNE CHANNEL MINES LTD.
BULKLEY RIVER PROPERTY
SMITHERS AREA, BRITISH COLUMBIA
GROUND MAGNETOMETER SURVEY
GRID AND CLAIMS
SCALE: 1" = 1000'



0 1000 2000
SCALE IN FEET

INTERPRETATION BY SEIGEL ASSOCIATES LIMITED
MARCH 1970

Richard O. Seigel



L 28 000 L 27 000 L 26 000 L 25 000 L 24 000 L 23 000 L 22 000 L 21 000 L 20 000 L 19 000 L 18 000 L 17 000 L 16 000 L 15 000 L 14 000 L 13 000 L 12 000 L 11 000 L 10 000 L 9 000 L 8 000 L 7 000 L 6 000 L 5 000

LEGEND
 100 GAMMA CONTOUR INTERVAL
 1000 GAMMA CONTOUR INTERVAL

NOTES
 SHARPE MF-1 INSTRUMENTATION

TO ACCOMPANY A GEOPHYSICAL REPORT
 BY R.O. CROSBY DATED MARCH 12, 1970

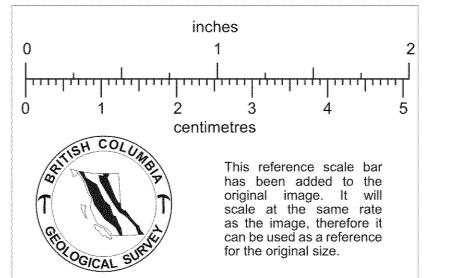


PLATE 3
 FORTUNE CHANNEL MINES LTD.
 BULKLEY RIVER PROPERTY
 SMITHERS AREA, BRITISH COLUMBIA
 GROUND MAGNETOMETER SURVEY
 MAGNETOMETER CONTOUR PLAN
 SCALE: 1" = 500'
 INTERPRETATION BY SEIGEL ASSOCIATES LIMITED
 MARCH 1970

Richard O. Crosby

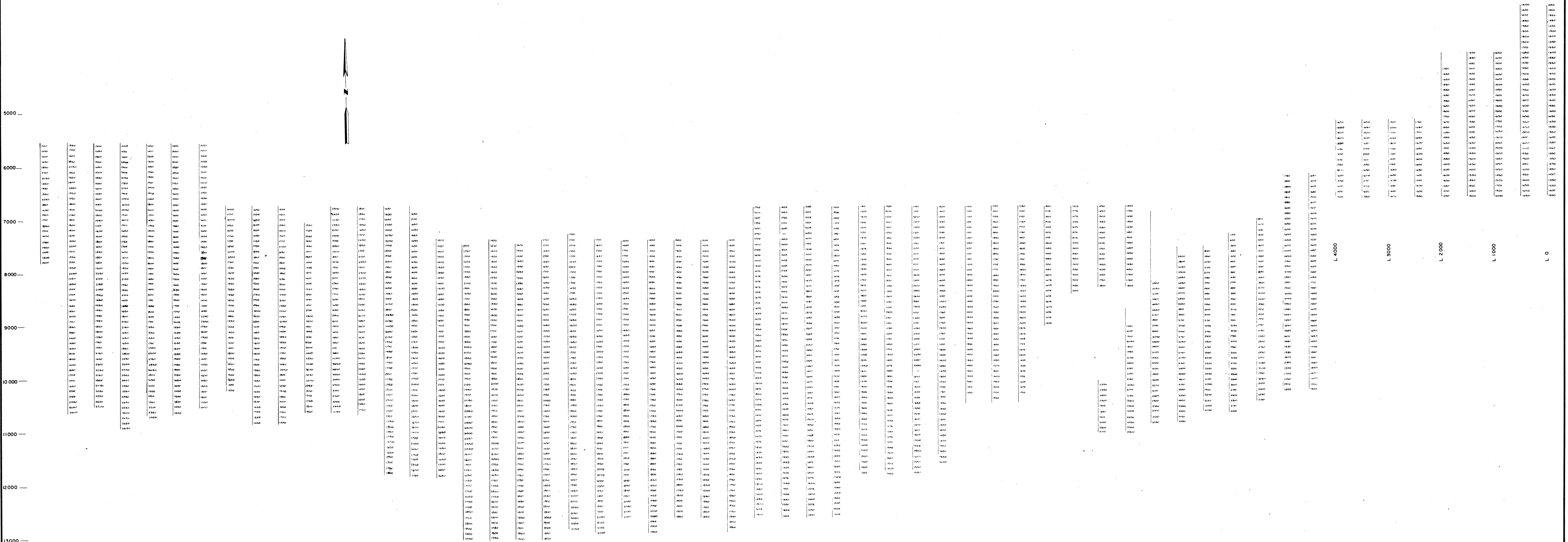


PLATE 4
 FORTUNE CHANNEL MINES LTD.
 BULKLEY RIVER PROPERTY
 SMITHERS AREA, BRITISH COLUMBIA
 GROUND MAGNETOMETER SURVEY
 GRID AND MAGNETIC VALUES
 SCALE: 1" = 500'
 SCALE IN FEET
 INTERPRETATION BY SEIGEL ASSOCIATES LIMITED
 MARCH 1970

TO ACCOMPANY A GEOPHYSICAL REPORT
 BY R.O. CROSSBY DATED MARCH 12, 1970