183

92I/6E
92I/7W

92I/5E-73
92I/5W-44

MAGNETOMETER SURVEY
UDD RAMSAY SYNDICATE
HIGHLAND VALLEY - 50°122°SE
OCTOBER 12 TO NOBEMBER 29, 1956

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2 maps in pocket

McPHAR GEOPHYSICS LIMITED

REPORT ON THE MAGNETOMETER SURVEY OF THE PIMAINUS LAKE AND ROSCOE LAKE PROPERTIES IN BRITISH COLUMBIA

FOR

UDD RAMSAY SYNDICATE

1. INTRODUCTION

At the request of Mr. B.M. Middleton, geologist for the Udd Ramsay Syndicate, magnetometer surveys were conducted on selected portions of the Pimainus Lake and Roscoe Lake properties in the Highland Valley area of British Columbia.

2. PURPOSE OF INVESTIGATION

The magnetometer work was performed in conjunction with geochemical soil sampling in an attempt to locate areas of copper mineralization. Previous work on other properties in the Highland Valley area indicated a correlation between copper mineralization and magnetic lows. These magnetic lows are thought to be due to the oxidation of accessory magnetite caused by the alteration accompanying the mineralization.

3. PRESENTATION OF RESULTS

The geophysical results for Pimainus Lake are presented on the accompanying map No. M-3131, at a scale of 1" / 400'. The magnetic intensity has been contoured at 500 gamma intervals.

Results for the Roscoe Lake property are shown on map No. M-4343 at a scale of 1" to 400'. The magnetic data are plotted as profiles, rather than as contours, because the variations in magnetic intensity indicate that interpolation between the traverse lines would be unreliable. The

interesting sections along the traverse lines are shown in red.

4. DISCUSSION OF RESULTS

(a) PIMAINUS LAKE

Most of the area is reported to be underlain by diorite with some granite occurring in the area between Pimainus and Swampy Lakes. A fault is suspected to lie along the river close to the baseline.

Two effects may be seen in the observed values of the magnetic field. The first is a change in the base level from approximately minus 300 gammas in the northern corner to about plus 400 gammas in the south. This change is probably due to the reported change in rock type with the smaller values being found over the area of granite. It is difficult to pick the exact location of the contact since the susceptibility contrast between the granite and diorite is apparently small. However, the results suggest that the contact zone probably occurs between the zero and the plus 500 gamma contour and lies for the most part south of a line joining Swampy and Pimainus Lakes.

Superimposed on this change of base level are a series of quite sharp magnetic anomalies. The majority of these are highs which often have reliefs of more than 2500 gammas (e. g. 500E on 30S and 1100W on 00). A few pronounced lows were also encountered (e. g. 1300E on 30S). All of these sharp variations are thought to be due to local concentration of magnetic material and not related to the oxidation process assumed to accompany the mineralization.

In addition to these sharp variations are several areas of low magnetic intensity which may prove interesting:- between lines 30S and 35S in the vicinity of 1000W ; along the baseline between lines 5S and 5N; the area east of Swampy Lake, between lines 10N and 20N where the magnetics are particularly flat and along line 10N east of the baseline.

Other lows are indicated by scattered readings throughout the area, but are considered of minor importance at present.

(b) ROSCOE LAKE

According to information obtained from Mr. Middleton, the Roscoe Lake property is wholely or largely underlain by granite. Two faults cross the property, approximately along the two base-lines.

Variations in magnetic intensity are generally small, ranging from a few hundred to a thousand gammas. Three interesting areas of low magnetic intensity were located on the grid for baseline No. 1, designated Zones A, B and C.

Zone A extends from line 45S to line 5S and possibly continues beyond the area surveyed. The magnetic relief ranges from 200 to 700 gammas and the width of the anomalies varies from 100 to 800 feet. On some of the lines the magnetic lows are poorly defined (i. e. L35S), whereas on others the anomalies are quite sharp (i. e. L15S, L40S). There is an interesting partial correspondence between the geochemical and magnetic anomalies, particularly in the area from L30S to L40S.

Zone B, extending from L55S to L70S, ranges from 150 to 250' in width, while the magnetic relief varies from 300 to 450 gammas. The zone appears to follow low ground along a creek.

Zone C extends from L80S to L95S and may represent a continuation of Zone B. It is somewhat wider than Zone B (from 300 - 400 feet) and has slightly greater magnetic relief (300 - 500 gammas). The geochemical results on Zones B and C are essentially negative.

No well defined zones of low magnetic intensity were noted on the grid from baseline No. 2.

5. RECOMMENDATIONS

(a) PIMAINUS LAKE

If the granite-diorite contact is considered significant with respect to mineralization, reconnaissance geological work should be carried out along the broadly defined magnetic contact to establish its exact location.

Some prospecting should be carried out, as convenient, in the localities previously discussed. Particular attention should be paid to the area east of Swampy Lake, which lies near the assumed contact and where some minor geochemical anomalies were found and also along 10E, where a fault may intersect the contact.

(b) ROSCOE LAKE

It is recommended that detailed prospecting, together with test-pitting and trenching be carried out on the three zones along Base Line No. 1, in order to determine whether or not the geophysical anomalies are related to copper mineralization. On the basis of the geochemical

results, Zone A appears to be the most interesting of the three and deserves more consideration than the other two.

McPHAR GEOPHYSICS LIMITED

Robert A. Bell.

Robert A. Bell,
Geologist.

D. B. Sutherland

D. B. Sutherland,
Geophysicist.

Dated: January 3rd, 1957.

STATEMENT OF COSTS OF GEOPHYSICAL AND GEOCHEMICAL WORK

ON UDD RAMSAY CLAIMS IN HIGHLAND VALLEY, BRITISH COLUMBIA

SURVEYS BY McPHAR GEOPHYSICS LIMITED

Name	Address	Dates	No. Days	Cost per Day	Qualifications
P. Beuden	Toronto	Oct. 12 Nov. 27	47	$35.00	Magnetometer Operator
M. Chessman	Toronto	Oct. 27 Nov. 29	33	$35.00	Geochemist
D. Anstess	Toronto	Oct. 28 Nov. 29	32	$35.00	Magnetometer Operator
R. McBean	Vancouver	Oct. 12 Nov. 21	41	$18.00	Magnetometer Assistant
R. Thomas	Allenby, B. C.	Oct. 12 Nov. 24	44	$18.00	Magnetometer Assistant
A. Chupa	Ashcroft, B. C.	Oct. 12 Nov. 24	44	$18.00	Geochemical Assistant, etc.
W. O. J. Groeneveld Meijer	Toronto		4	$35.00	Geochemist
R. A. Bell D. B. Sutherland	Toronto) Toronto)		8	$35.00	Sr. Geophysicist Maps, reports, etc.

McPHAR GEOPHYSICS LIMITED

D. B. Sutherland,
Geophysicist.

Dated: January 3rd, 1957.

SUMMARY OF QUALIFICATIONS

NAME: Robert A. Bell

ADDRESS: 62 Broadpath Road, Don Mills, Ontario.

ACADEMIC

Degree	University	Year	Major Subject
B. A.	University of Toronto	1949	Physics and geology
Ph. D.	University of Wisconsin	1953	Geology

MEMBERSHIP IN TECHNICAL SOCIETIES

Society of the Sigma Xi.
Gamma Alpha Scientific Fraternity.

SUMMARY OF PRACTICE

Employed as geologist for Union Carbide Carbon Corporation 1953-1955. Exploration for chromite manganese deposits in South Africa and Turkey.

February, 1956 joined McPhar Geophysics Limited. Engaged in various aspects of geological exploration as well as field application and interpretation of various airborne and ground geophysical methods.

Note: The above information is for the use of the B. C. Dept. of Mines in connection with reports submitted in support of applications for credit. At the discretion of the Department, it may be accepted in a specific instance or for a limited period of time in lieu of registration with the Association of Professional Engineers of British Columbia.

Robert A. Bell.

Robert A. Bell.

SUMMARY OF QUALIFICATIONS

NAME: D. B. Sutherland

ADDRESS: 9 Douglas Drive, Toronto, Ontario.

ACADEMIC

Degree	University	Year	Major Subject
B. A.	University of Toronto	1953	Physics and geology
M. A.	University of Toronto	1954	Geophysics

MEMBERSHIP IN TECHNICAL SOCIETIES

Society of Exploration Geophysicists.
European Association of Exploration Geophysicists.
American Institute of Mining and Metallurgical Engineers.
Canadian Exploration Geophysical Society.

SUMMARY OF PRACTICE

Employment has been with McPhar Geophysics Limited, 139 Bond Avenue, Don Mills, Ontario, since graduation. Although the electromagnetic method is the primary exploration service offered by our company, experience has also been obtained in supervising and interpreting results from most ground geophysical methods currently being used in mineral exploration:- These include: magnetic, gravity, resistivity, and seismic methods. Areas of activity embrace all of the mineral mining Provinces of Canada and the Northwest Territories, several mining camps in the United States and the Belgian Congo.

The applicant is presently providing consulting services for all airborne electromagnetic and scintillometer surveys flown by Aerophysics of Canada Limited, Ottawa, and has in the past provided similar services on aeromagnetic surveys.

Note: The above information is for the use of the B. C. Dept. of Mines in connection with reports submitted in support of applications for credit. At the discretion of the Department, it may be accepted in a specific instance or for a limited period of time in lieu of registration with the Association of Professional Engineers of British Columbia.

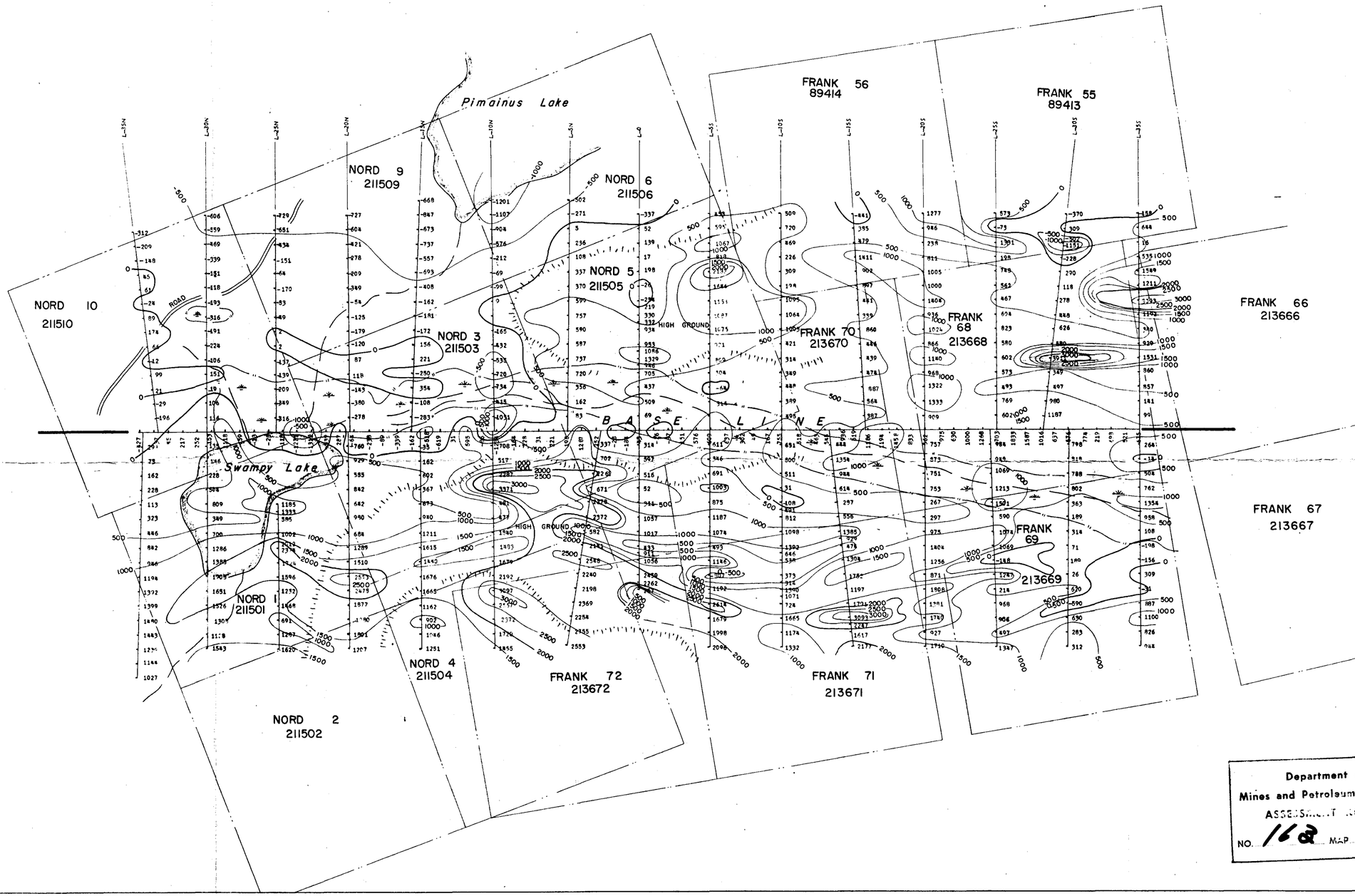
Don B Sutherland

D. B. Sutherland.

DWG. M-3131

McPHAR GEOPHYSICS LIMITED

MAGNETOMETER SURVEY



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 163 MAP #1

UDD RAMSAY SYNDICATE

PIMAINUS LAKE AREA HIGHLAND VALLEY BRITISH COLUMBIA

SCALE

400 300 200 100 0 400 800 1200 1600 2000
FEET FEET

One Inch = Four Hundred Feet

NOTE.....
OPERATOR..... D. ANSTESS
MAGNETOMETER... ASKANIA
SCALE CONSTANT... 23.6 γ
CONTOUR INTERVAL 500 γ
CLAIM BOUNDARIES APPROX.

#163
MAP 1

DRAWN: G. YOUNG
DATE: DECEMBER 1956.
APPROVED
DATE: Mar 7/57

DWG. M-3131

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MAGNETOMETER SURVEY

BILL 70
B88990

BILL 68
B 88437

BILL 67

BILL 14
B 87632

BILL 13
B 87631

BILL 21
213607

BILL 22
213608

BILL 27
B 87645

BILL 28
B87646

BILL 35
213617

BILL 41
213611

BILL 39
213609

BILL 34
213620

BILL 33
213619

BILL 32
213622

BILL 31
213621

BILL 59
B49160

BILL 54
213500

BILL 26
B87644

BILL 25
B87643

BILL 24
B87642

BILL 23
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BILL 20
213606

BILL 19
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BILL 18
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BILL 17
213603

BILL 16
B 87602

BILL 15
213601

BILL 12
B87639

BILL 11
B87630

BILL 10
B87628

BILL 9
B 87627

BILL 8
B 87620

BILL 7
B 87625

BILL 6
B 88556

BILL 5
B 88555

BILL 66
B88536

PAT 63
211463

PAT 32
211432

PAT 61
211461

PAT 31
211431

PAT 30
211430

PAT 29
211429

PAT 28
211428

PAT 27
211427

PAT 59
211459

Rosco Lake

Lake

Swamp

Creek

Road

CAMP

ZONE 'A' LINE 0 N

ZONE 'B' LINE 0 N

ZONE 'C' BASE LINE

L 0 N

L 25 N

L 50 N

L 75 N

L 100 N

L 125 N

L 150 N

L 175 N

L 200 N

L 225 N

L 250 N

L 275 N

L 300 N

L

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MAGNETOMETER SURVEY

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UDD RAMSAY SYNDICATE

ROSCO LAKE AREA HIGHLAND VALLEY BRITISH COLUMBIA

SCALE

400 200 0 400 800 1200 1600 2000 FEET

One Inch = Four Hundred Feet

TRUE N

NOTES

OPERATOR ..... P. BEUDEN
MAGNETOMETER.... WATT
SCALE CONSTANT, 28.8 γ
PROFILE SCALE 1" = 1000'
PICKET LINE = 500'

DRAWN G. YOUNG
DATE DECEMBER 1956
APPROVED
DATE 23/1/57

DWG. M4343

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