A GEOPHYSICAL REPORT ON

AN AIRBORNE MAGNETOMETER SURVEY

ON THE "SLIM GROUP"

NICOLA MINING DIVISION

BRENDA LAKE AREA, B.C.

(LAT. 49 LONG. 120 N.E.)

FOR

QUINALTA PETROLEUM LTD, and FLEETWOOD RESOURCES LTD. 502 Fine Building Calgary, Alberta

# CLAIMS COVERED

All or Parts of Slim Nos.: 1-22

Survey Sy: Musky Industries & Services Ltd.

Report By: Jos. Sullivan, P. Eng.

April 24 To May 18, 1966

92 H/16E



876

## TABLE OF CONTENTS

		Page
Introduction		1
Location		1
Geological Summary		2
Survey Results		2
Interpretation		3 & 4
Location Map	follows page	1 # 1 1 # 2
Claim Map	follows page	1 #2
Geological Map	follows page	2 # 3
Flight line & Trend Map	follows page	4 # 4

# Appendix I

Claims Surveyed Personnel Employed on Survey Instrumentation

## Appendix II

Operators Report

# Appendix III

Photo of Flight lines

# Accompanying Chart

Map pocket # 3

REPORT ON
AN AIRBORNE MAGNETOMETER
SURVEY FOR
FLEETWOOD-QUINALTA JOINT VENTURE
SLIM CLAIM GROUP
BRENDA LAKE, B.C.

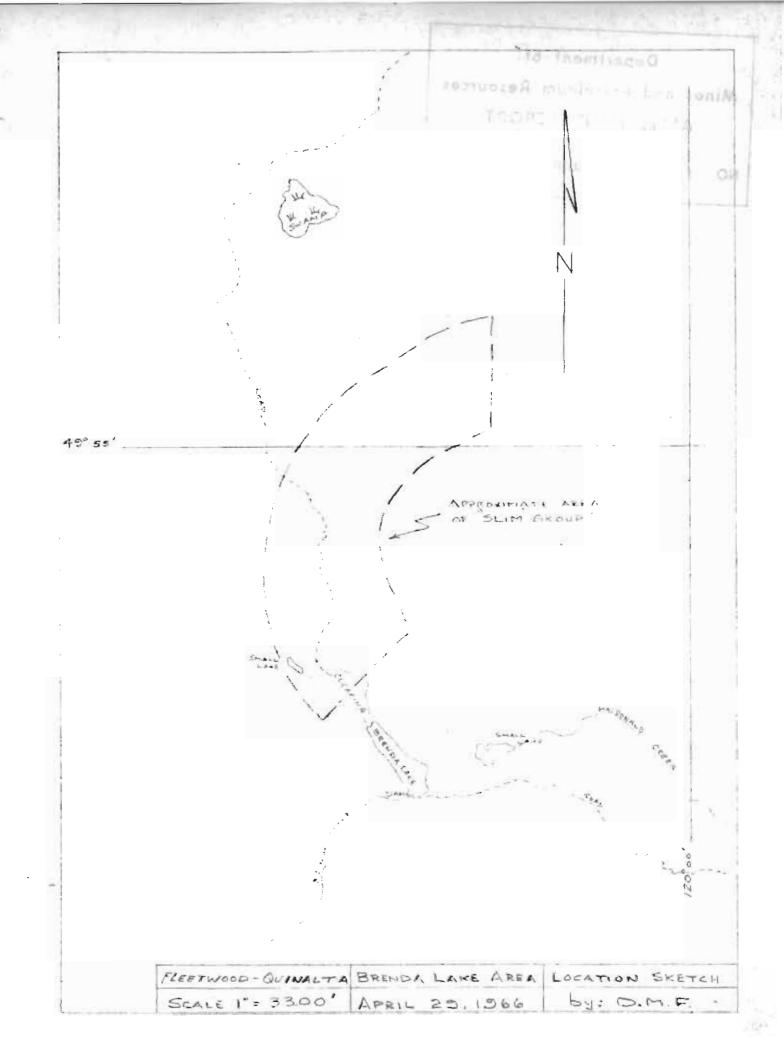
#### INTRODUCTION:

An airborne magnetometer survey was conducted as a joint venture for Fleetwood Resources Ltd. and Quinalta Petroleum Ltd., by Husky Industries and Services Ltd. on April 24th, 1966. The instrument was a magnetometer, adjusted to record the vertical intensity of the earth's magnetic field. Six north-south flights were conducted across the Slim Group of mineral claims, located in the Brenda Lake district of British Columbia.

LOCATION: (Lat.49°53' Long. 120°02')

The properties are situated in the Nicola Mining
Division along the east facing slopes of the Okanagan valley.
Brenda Lake is within the property limits.

The following location sketch shows Brenda Lake located with respect to McDonald Creek and to the main district road.



### GEOLOGICAL SUMMARY:

The chief rock types underlying the area surveyed are Treassic volcanics. These are composed of lava beds of intermediate composition, plus argillite, tuff, limestone and sericite-chlorite schist. The general geological trend is northwest.

Chalcopyrite and molybdemite, localized in wide shear zones, are the known ore minerals of the district.

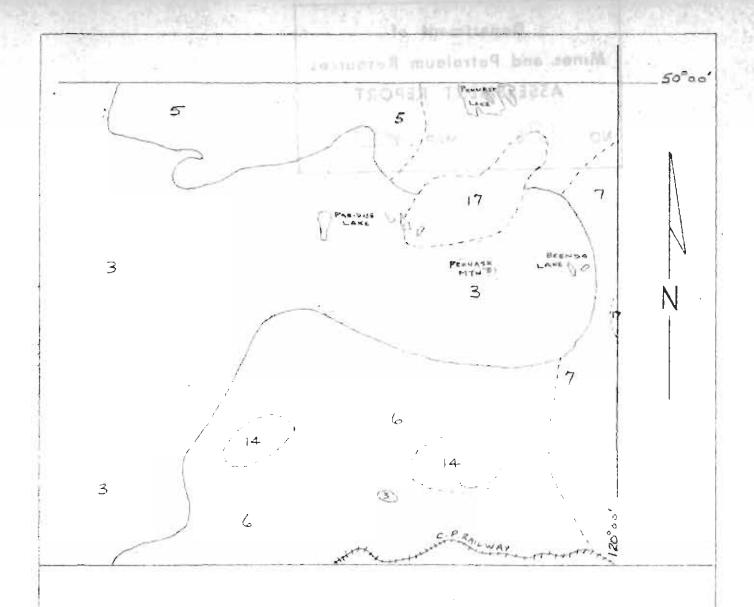
The object of this survey was to aid in locating such a sulphide deposit.

### SURVEY RESULTS:

The recorder charts and the air photos are reproduced on one sheet in proper sequence. This enables a visual comparison of data from line to line, and also a comparison of gamma changes with topography.

Generalizing, all the charts show large changes in the gamma count across the entire flight, but there is rarely reproduction of a signature from one chart to the next.

Only on two occasions was the writer able to trace a marked similarity in signatures through the survey. This occurs on lines 5, 4, 2 and 3 (regardless of the numbering, these are adjacent flights).



# LEGEND

- 3 VARICOLOURED LLAVE; ARGILLITE, TUFF, LIMESTONE; CHLORITE AND SERICITE SCHIST
- Coast Intrusions: 5, grey, stightly gneissic granodiorite; 6, mainly reddish, coarse-grained, siliceous granite and granodiorite; 7, light coloured granodiorite, quartz diorite, and gabbro
- OTTER INTRUSIONS: PINK AND GREY GRANITE AND GRANODIDRITE
- VARICOLOURED ANDESITE AND BASALT

FLEET WOOD - QUINALTA	BRENDA LAKE AREA	GEOLOGY
SCALE I' - 4 MILES	APRIL 29, 1966	by: D.M.F

The similarities consist of a general rise in magnetic readings from north to south ar the north end of the four lines mentioned. Then a pronounced drop of from 600 to 900 gammas ends the trend. Also, north of the break, or change in trend, there is a pronounced magnetic depression, in the order of 700 gammas or better, plotted as trend No.1 on the accompanying flight line plan.

### INTERPRETATION:

From the geological summary we see that the survey has been conducted over the Nicola Volcanic Series.

Consequently, many variations are to be expected in the underlying rock units, including many variations in the magnetite content. This will explain the many large changes in gamma count along each flight line.

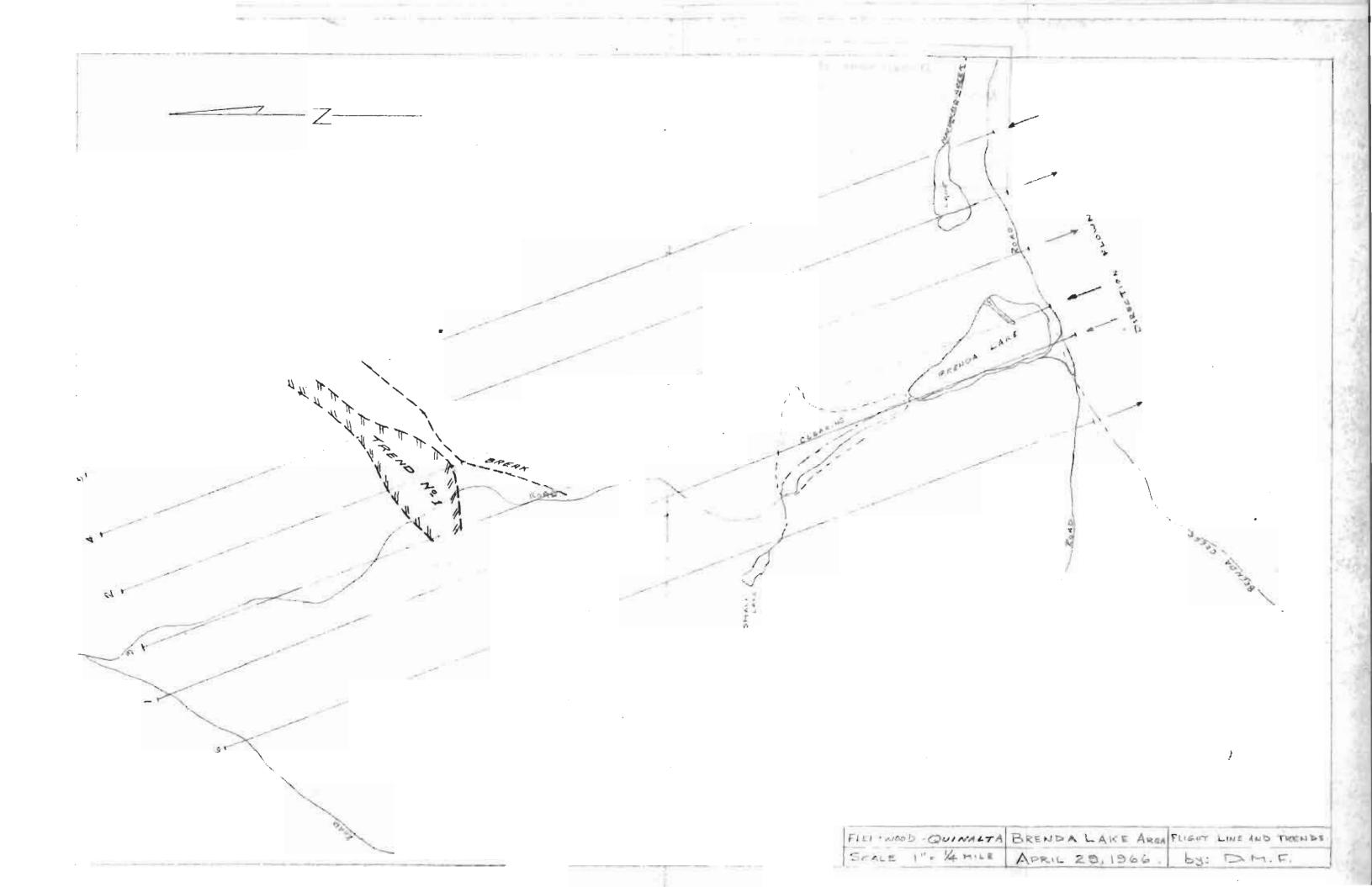
The break and the No.1 trend are major features worthy of further consideration. The break could well be a deep seated fault or shear zone, or a major change in the composition of the underlying rocks. The No.1 trend widens considerably when the break changes strike, suggesting a relationship between the two features.

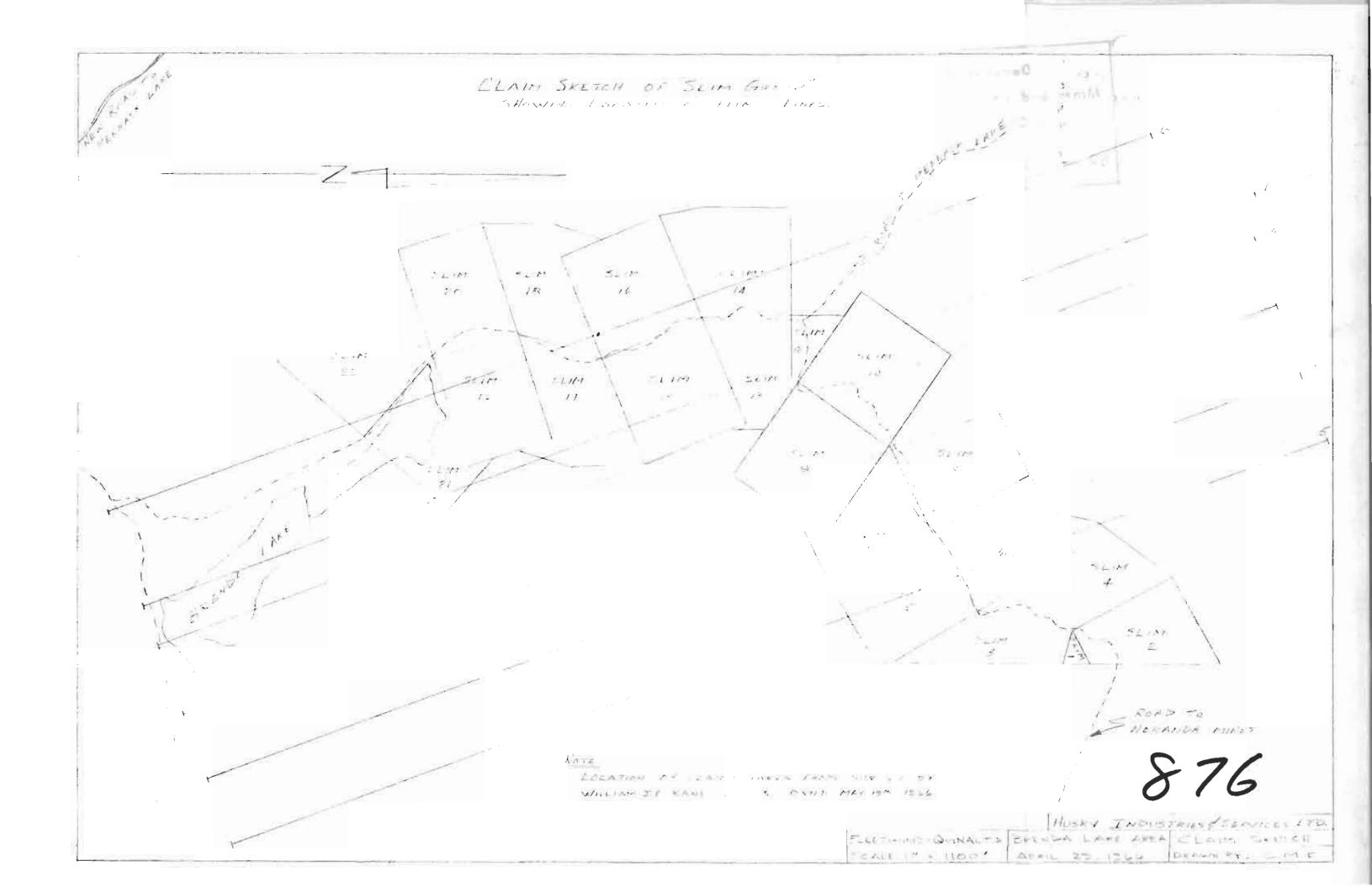
It is recommended therefore, that both the break and the magnetic depression be investigated on the ground, particularly where they appear on flight line No.2. Locating and assessing the importance of the area will probably involve a magnetic ground survey, accompanied by prospecting and geological mapping.

Respectfully submitted,

Jos. Sullivan, P. Eng.

May 18th, 1966





### APPENDIX I

### Claims Surveyed:

All or parts of:

Slim No.'s 1 - 22 inclusive

Recorded No.'s 25696 - 25717 inclusive

### Personnel Employed on Survey:

<u>Name</u>	Occupation	Address	Dates Worked
Jos. Sullivan	P. Eng.	2766 West 30th.Ave. Vancouver B.C.	May 12th-18th, 1966
D. Fritz	0perator	Husky Industries & Services Ltd.	April 24th, 1966
R. Robillard	Helper	Husky Industries & Services Ltd.	April 24th, 1966
D. Fritz	Drafting	Husky Industries & Services Ltd.	April 26th - May 13th, 1966
M. Sandner	Typing	Husky Indastries & Services Ltd.	May 17th-18th, 1966

#### Instrumentation:

Magnetometer sensing head - Saturable core type - manufactured by Sabre Electronics Ltd., Burnaby, B.C.

D.C. Operational amplifier and related circuitry

Recorder - Bausch & Lomb model VOM 6

Camera - Robot model 24

A saturable core is mounted in an oil dampened gimbal and attached to a boom on the front of a helicopter. Impulses from the core, proportional to the vertical component of the earth's magnetic field, are amplified and recorded continuously and automatically on the chart recorder. An electrically run camera automatically timed to the chart recorder, is used to photograph each flight line, providing an accurate ground location of each flight line flown.

### APPENDIX II

## Operator's Report

Fleetwood Resources Ltd. and Quinalta Petroleum Ltd.

Brenda Lake, B.C. Nicola Mining Division

Slim Claim Group

Line No.	Chart Length	Mileage	Direction Flown
1	16.7	3	North
2	16.7	3	South
3	14.7	3	North
4	14.7	3	South
5	17.7	3	North
6	15.6	3	South
	Total	18 miles	

Date flown: April 24th, 1966

Speed: 60 m.p.h.

Altitude: 600 feet

Lines: 1500 feet apart

Sensitivity: 1000 gamma full scale

Pilot: W. Manning, Northern Helicopters Ltd.

Operator: D. Fritz, Husky Industries and Services Ltd.



QUINALTA PETROLEUM LTD.

HEAD OFFICE: 502 FINA BUILDING PHONE 262-1870

CALGARY, Alberta

January 20, 1967

Mr. T. S. Dobson Mining Recorder Court House Merritt, B. C.

Dear Sir:

## Re: Slim & Pod Groups

Enclosed herewith two revised copies, in support of our work claim, of the Aeromag Surveys done on the above groups by Husky Industries & Services Ltd., (now known as "Geo-X Surveys Ltd.") Their covering letter sated "Enclosed are three copies of the geophysical report on the Slim group of claims, which have been revised to conform with the requirements of the department.

Please note that the reports do not contain photo mosaics as these are not presently available. Please take the photos out of the reports that you now have, and place after Appendix III."

We have placed the photos in one and you have their only other report we ever had. Perhaps you would transfer the photos and return the old report.

Thank you in this regard.

Yours very truly,

Orville V. Burkinshaw

for

QUINALTA PETROLEUM LTD.

OVB/ah

