

2424

REPORT ON A MAGNETOMETER  
SURVEY ON THE 'M.J.' CLAIM GROUP  
SIMILKAMEEN MINING DIVISION, B.C.

for

M. E. JORGENSEN

by

R. B. STOKES, P. ENG.  
and  
D. G. LEIGHTON  
GEOPHYSICIST/ GEOLOGIST

STOKES EXPLORATION MANAGEMENT CO. LTD.  
#209 - 678 Howe Street,  
Vancouver 1, B. C.

June 5, 1970.

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
PROPERTY	1
GEOLOGY	2
GROUND CONTROL	2
MAGNETIC SURVEY FIELD PROCEDURES	3
RESULTS AND INTERPRETATION	3
SUMMARY	5
APPENDIX I -- COST BREAKDOWN FOR ASSESSMENT PURPOSES	
APPENDIX II -- REFERENCES	
APPENDIX III -- INSTRUMENT SPECIFICATIONS	
APPENDIX IV -- CERTIFICATION	

TABLE OF ILLUSTRATIONS

- #1 1. GEOPHYSICAL PLAN  
- MAGNETIC I In pocket
- #2 2. GEOPHYSICAL PLAN  
- MAGNETIC II In pocket
- 

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. **2424** MAP.....

## INTRODUCTION

This report describes the results of a magnetic survey carried out by Stokes Exploration Management Co. Ltd. (SEMCO) for M. E. Jorgensen on the 'M.J.' Group of claims, Whipsaw Creek, British Columbia.

The survey was to supplement other geological and geochemical surveys on the property with the object of better delineation of zones of possible economic significance.

Field work was completed between May 26th, 1970 and June 1st, 1970 under the direction of D.G. Leighton and the project was supervised from Vancouver by R. B. Stokes, P.Eng.

## PROPERTY

The 'M.J.' claim group is located about 18 miles southwest of Princeton on the easterly slope of Skaist Mountain. The property may be reached by a road running along Whipsaw Creek for a distance of approximately 12 miles from the Hope-Princeton Highway.

The claims surveyed include:

<u>Claim</u>	<u>Record No.</u>	<u>Expiry Date</u>
M.J. 1 - 7	25011 - 17	June 3, 1970
M.J. 8 - 14	22724 - 30	June 3, 1970
M.J. 16 - 21	22732 - 37	June 3, 1970
M.J. 23	22729	June 3, 1970
HONDA 1 - 4	23308 - 11	August 12, 1970
L.M.F. 1 - 2	23116 - 17	August 5, 1970
	<b>Total</b>	<b>27 claims</b>

## GEOLOGY

The 'M.J.' property is underlain, for the most part, by a phase of igneous rock known as the Eagle Granodiorite. The Eagle granodiorite is generally considered to be the metamorphic equivalent of the Nicola formation which it grades into the east.

The intrusive is strongly inhomogeneous with a foliation striking NNW and dipping at moderate angles to the west. This foliation parallels the attitude of the Nicola rocks.

A more detailed description of the local geology can be found in previous reports (see Appendix II - References) and will not be repeated here.

## GROUND CONTROL

A base line is located on the eastern edge of the 'M.J.' claims groups. This line runs between station 8 + 100 N and 72 + 00 S on a bearing of N 20°W. The southern end of this base line intersects the Whipsaw Creek road.

Cross lines are located at 400 foot intervals from base line station 8 + 100 N. These lines run at right angles to the base line and extend 3000 feet to the west. Cross line stations are marked at 200 foot intervals.

The basic grid was established during the previous field season as control for a geochemical survey. For the present survey some of the lines had to be reflagged as deep snow masked some of the stations.

## MAGNETIC SURVEY

### FIELD PROCEDURES:

The magnetic data described in this report were compiled from information recorded along grid lines as shown on the accompanying plan. A McPhar M500 Fluxgate Magnetometer (see Appendix III for the instrument specification) was used to measure the vertical component of the earth's magnetic field. Diurnal variations were corrected in the usual way, by looping traverses to a series of stations located along the base line.

The instrument was operated by D.G. Leighton and M. Elson. Readings were recorded at 100 foot intervals along the grid lines. This interval was reduced to 50, then to 25 foot intervals in areas of a high gradient.

### RESULTS AND INTERPRETATION:

The results of the magnetic survey are presented on two accompanying plans (see pocket.) Plan I shows magnetometer readings as recorded at 100 foot intervals on grid lines. Plan II is a magnetic contour map prepared from the data shown on Plan I. Contours are drawn at 100 gamma (1 gamma =  $10^{-5}$  gauss) intervals. Plan II has been coloured to facilitate interpretation.

One anomalous magnetic high was detected in the vicinity of grid station 28S 4W. Although this anomaly does not coincide with a geochemical high, it may be indirectly related to sulphide mineralization. High concentrations of mafic minerals, especially hornblende, have been noted in this area. In one place the hornblende was found in close association with chalcopyrite.

The magnetic lows located in the southeastern corner of the claims area are probably related to inclusions of Nicola sediments within the Eagle granodiorite or to alteration zones.

Results and Interpretation (Cont'd)

A number of linear magnetic features can be seen on the contoured magnetic results. These lineations, which run in a northwesterly direction across the property, conform to faults as determined from airphoto studies made of the area. Some of these have a bipolar aspect, the origin of which is unknown.

SUMMARY

1. M. E. Jorgensen of 3091 West 35th Avenue, owns 27 mineral claims located about 18 miles southwest of Princeton, B.C. known as the 'M.J.' Group.
2. Stokes Exploration Management Co. Ltd. (SEMCO) employed 3 men between May 26th and June 1st, 1970 to make a magnetometer survey of the 'M.J.' claim group.
3. One anomalous zone was detected which consisted of a magnetic high located in the vicinity of grid station 28 S 4 W. This anomaly does not coincide with a geochemical high.
4. The magnetic results generally confirm the presence of some of the fault structures previously determined from airphoto studies.
5. Additional magnetic work is not recommended at this time.

Respectfully submitted:

STOKES EXPLORATION  
MANAGEMENT CO. LTD.



D.G. Leighton,  
Geophysicist/Geologist



R.B. Stokes, P.Eng.

June 5, 1970.



APPENDIX I

COST BREAKDOWN FOR ASSESSMENT PURPOSES

Wages and Employee Benefits (see following page for details)	\$1,749.00
Truck Rental	211.75
Room and Board	206.18
Magnetometer Rental	70.00
Miscellaneous Expenses - Including equipment expended, photocopying, etc.	37.50
	<hr/>
TOTAL	\$2,274.43
	<hr/> <hr/>



PAY ROLL JOB CLASSIFICATION

Name BAYROLL

May 26 to  
Pay Period June 6, 1970 Project Whipsaw Creek Client M.E. Jorgensen Code 112

Name/Job	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	Rate	Amount	
Dickinson, R.A.																																	4 D	48.	192.00
Elsion, M.	x																																6 D	48.	288.00
	7																																		
Leighton, D.G.	x	x	x	x	x	x																											12 D	80.	960.00
	7	7	7	30	30	30																													
Stokes, R.B. P. Eng				x																													1 D	125.	125.00
				30																															
Turner, I.					x																												1 D	40.	40.00
				26																															
Waskett-Myers M.			x	x	x																												3 D	48	144.00
			22	22	22																														

TOTAL 1,749.00

JOB CLASSIFICATION

REMARKS:

- 01 Claim Surveys
- 02 Line Cutting
- 03 Access Roads/Trails
- 04 Prospecting
- 05 Geological Surveys
- 06 Geochemical Surveys
- 07 Geophysical Surveys
- 08 Sampling/Sample Preparation
- 09 Plugger Drilling
- 10 Hand Trenching
- 11 Diamond Drilling
- 12 Core Logging
- 13 Bulldozer Trenching
- 14 Cooking
- 15 Expediting
- 16 Travelling
- 17 Preliminary
- 18 Exploration Planning
- 19 Property Examination
- 20 Claim Staking
- 21 General Supervision
- 22 Drafting
- 23 Specialized Drafting
- 24 Photogrammetry
- 25 Compilation
- 26 Secretarial
- 27 Accounting
- 28 Non Chargeable—Semco
- 29 .....
- 30 Compilation and Report Preparation

R.B. Stokes, P. Eng, Mining Engineer  
D.G. Leighton B Sc Geophysicist  
R.A. Dickinson - Operator/Helper  
M.S. Elson - Operator/Helper

PREPARED BY: D.G. Leighton  
APPROVED: \_\_\_\_\_

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.

To WIT:

In the Matter of Application for Certificates  
of Work in the 'M.J.' Claim Group,  
Princeton Area, British Columbia.

I, D. G. Leighton, Geophysicist  
*R.D. STOKES P.ENC*

of #209 - 678 Howe Street, Vancouver, 1, B.C.

in the Province of British Columbia, do solemnly declare that the underlisted expenditures were made on behalf of M. E. Jorgensen on the exploration (geophysical survey) of the 'M.J.' Claim Group:

1.	Payroll (including drafting and report preparation	\$1,749.00
2.	Transportation (truck rental)	211.75
3.	Equipment rental (Magnetometer)	70.00
4.	Food and Board	206.18
5.	Miscellaneous expense including equipment expended, blueprinting, etc.	<u>37.50</u>

TOTAL \$2,274.43

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the *City*  
of *Vancouver*, in the  
Province of British Columbia, this *12*  
day of *June*, 1970, A.D.

*D.G. Leighton*

*R. B. Stokes*

*R. B. Stokes*  
A Commissioner for taking Affidavits within British Columbia or  
A Notary Public in and for the Province of British Columbia.

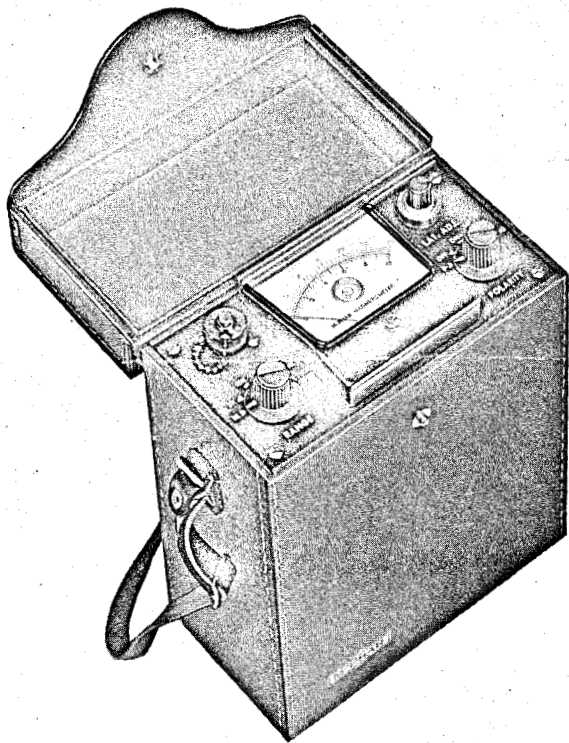
APPENDIX II

REFERENCES

- Rice, H.R. 1947, Geology and Mineral Deposits of the Princeton Map-Area, B.C.  
G.S.C. Memoir #243.
- Stokes, R.B. and Leighton, D.G., 1969, A Geochemical Report on the 'M.J.' Claim Group at Princeton, B.C.
- Stokes, R.B. and Leighton, D.G., 1969, Report on the 'M.J.' Claim Group, Princeton Area, B. C.
- Preto, V.A.G., 1968, Lode Metals Report of B.C. Minister of Mines, pp. 213 and 213.
-

INSTRUMENT

**SPECIFICATIONS**



**MAXIMUM SENSITIVITY** — 20 gammas per scale division on 1000 gamma range.

**MAXIMUM MEASUREMENT**—Zero to  $\pm 300,000$  gammas in six ranges.

RANGE SWITCH POSITION	FULL SCALE IN GAMMAS	GAMMAS PER SCALE DIVISION
1K	1,000	20
3K	3,000	50
10K	10,000	200
30K	30,000	500
100K	100,000	2,000
300K	300,000	3,000

**MEASUREMENT POLARITY** — The above ranges can be reversed in polarity as a simple function of the on-off switch.

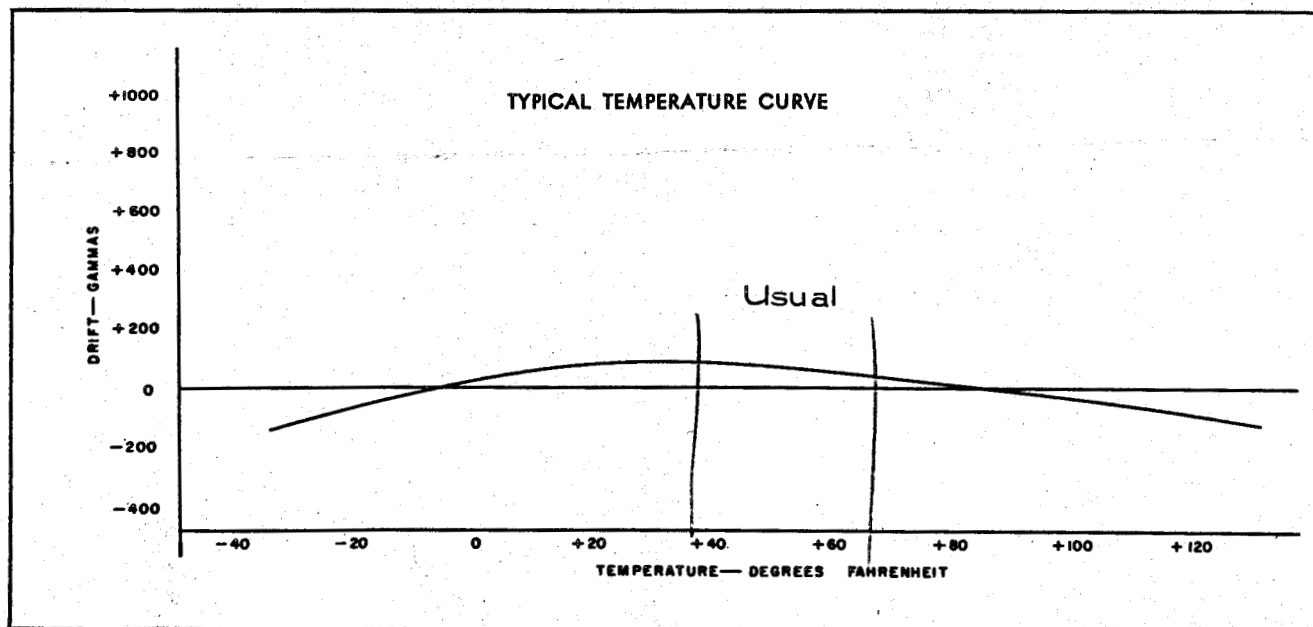
**LATITUDE ADJUSTMENT** — A fine and course latitude adjustment permit cancelling the earth's field up to 100,000 gammas.

**SELF-LEVELLING SENSING HEAD** — The unique self-levelling Sensing Head of this magnetometer is inserted into the instrument as a plug-in unit. It is easily detached for replacement (all McPhar Sensing Heads are interchangeable) or for other reasons. McPhar Sensing Heads are not sensitive to orientation.

**WEIGHT** — 6 pounds, including batteries and leather Carrying Case.

**CASE DIMENSIONS** — 4 x 7 x 11½ inches.

**TEMPERATURE STABILITY** — The temperature drift of the instrument, including the battery supply, is contained to within .300 gammas over a temperature range of  $-30^{\circ}\text{F.}$  to  $+130^{\circ}\text{F.}$  See chart.



## APPENDIX IV

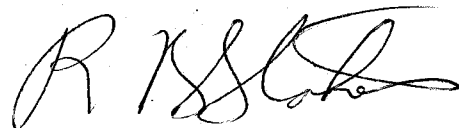
### CERTIFICATION

I, RONALD B. STOKES, do hereby certify that:

1. I am a practicing Professional Mining Engineer with offices at Suite 213 - 678 Howe Street, Vancouver 1, British Columbia and resident of Vancouver.
2. I am a graduate of the Camborne School of Mines, Cornwall, England, 1952 in Mining Engineering.
3. I have practised Mining Engineering and Mining Exploration for eighteen years, fifteen of which were based in British Columbia.
4. I am a Member, in good standing of the Association of Professional Engineers of the Province of British Columbia.
5. I am a Member of the Canadian Institute of Mining and Metallurgy and Associate Member of the Institution of Mining & Metallurgy, England, and the Australasian Institute of Mining & Metallurgy.
6. I am President of Stokes Exploration Management Co. Ltd. which carried out the program of exploration.

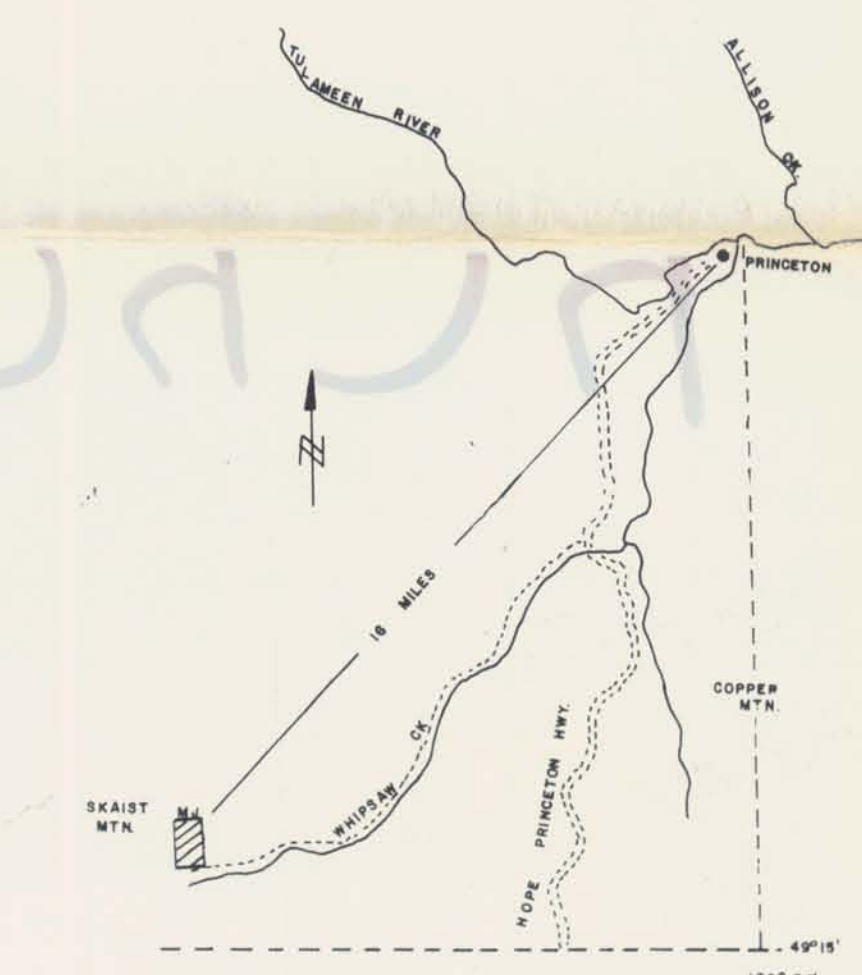
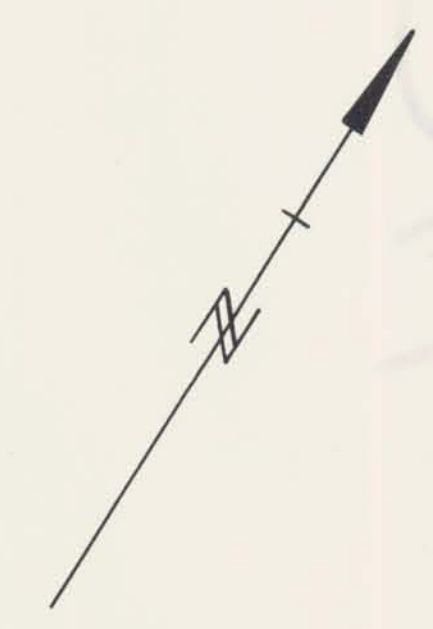
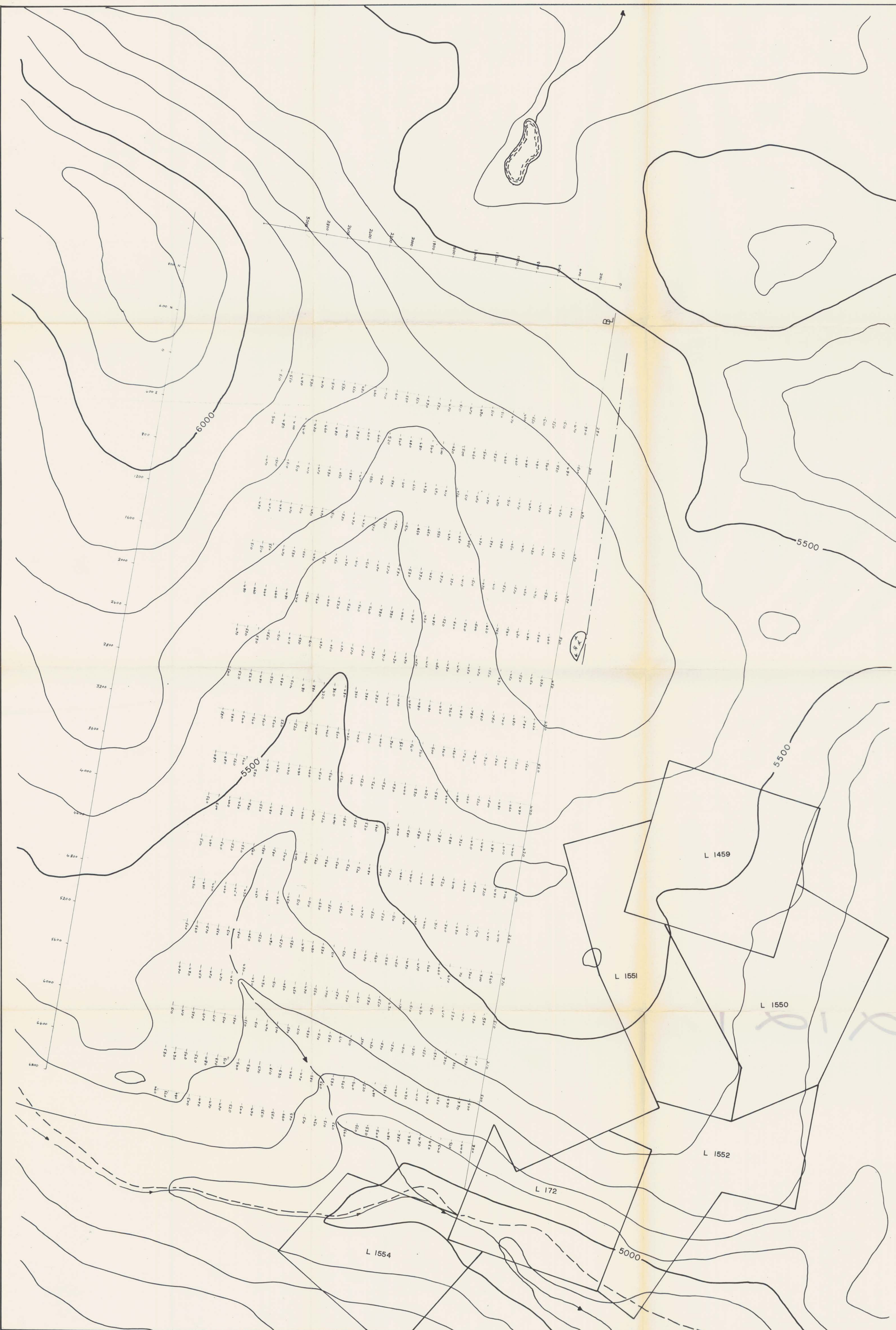
This report is based on study and interpretation of data assembled by personal examination on the property and work carried out under my supervision.

7. I have no direct, indirect or anticipated interest in the 'M.J.' Claim Group.



R. B. STOKES, P. ENG

June 5, 1970.



KEY PLAN  
1" = 4 MILES

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **2424** MAP #1

**LEGEND**

- CREEK
- ROAD
- SWAMP

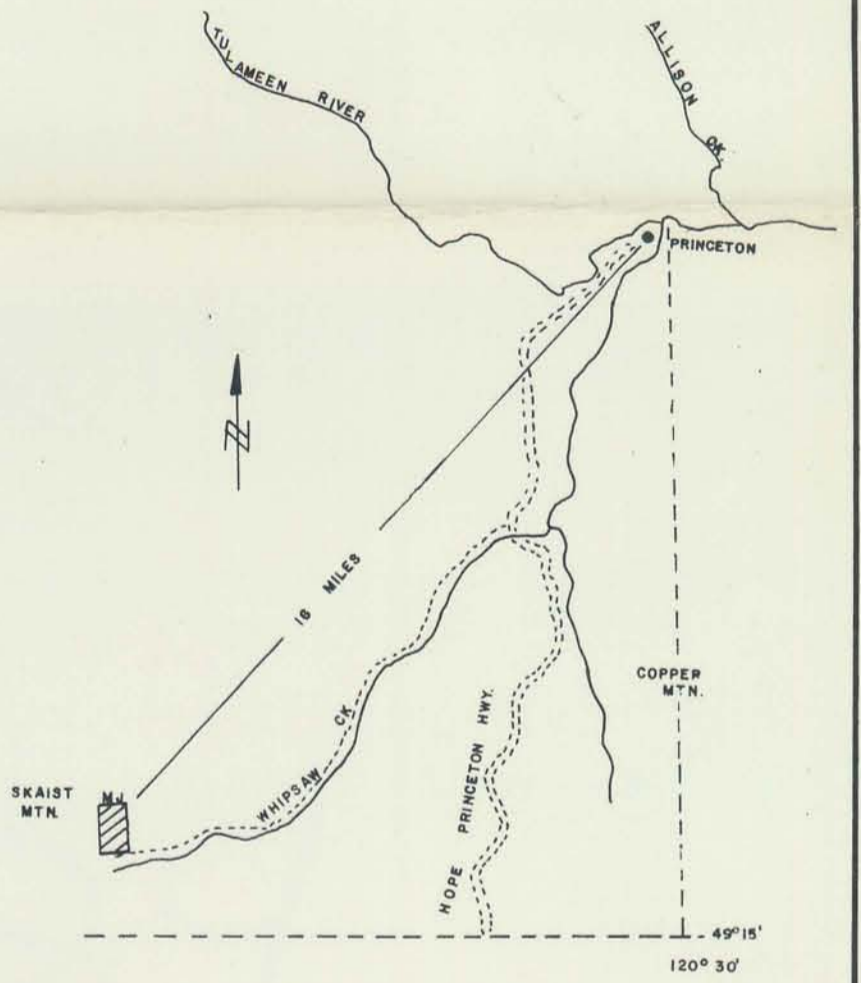
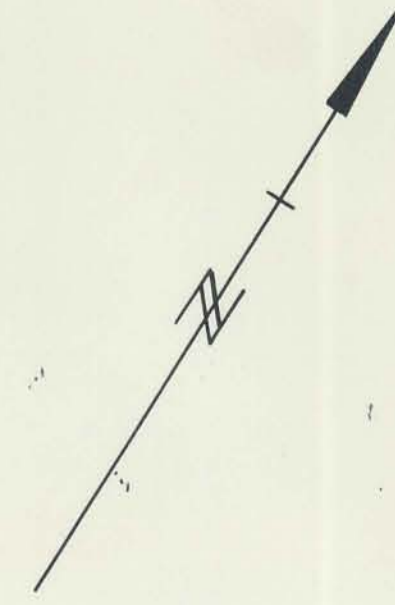
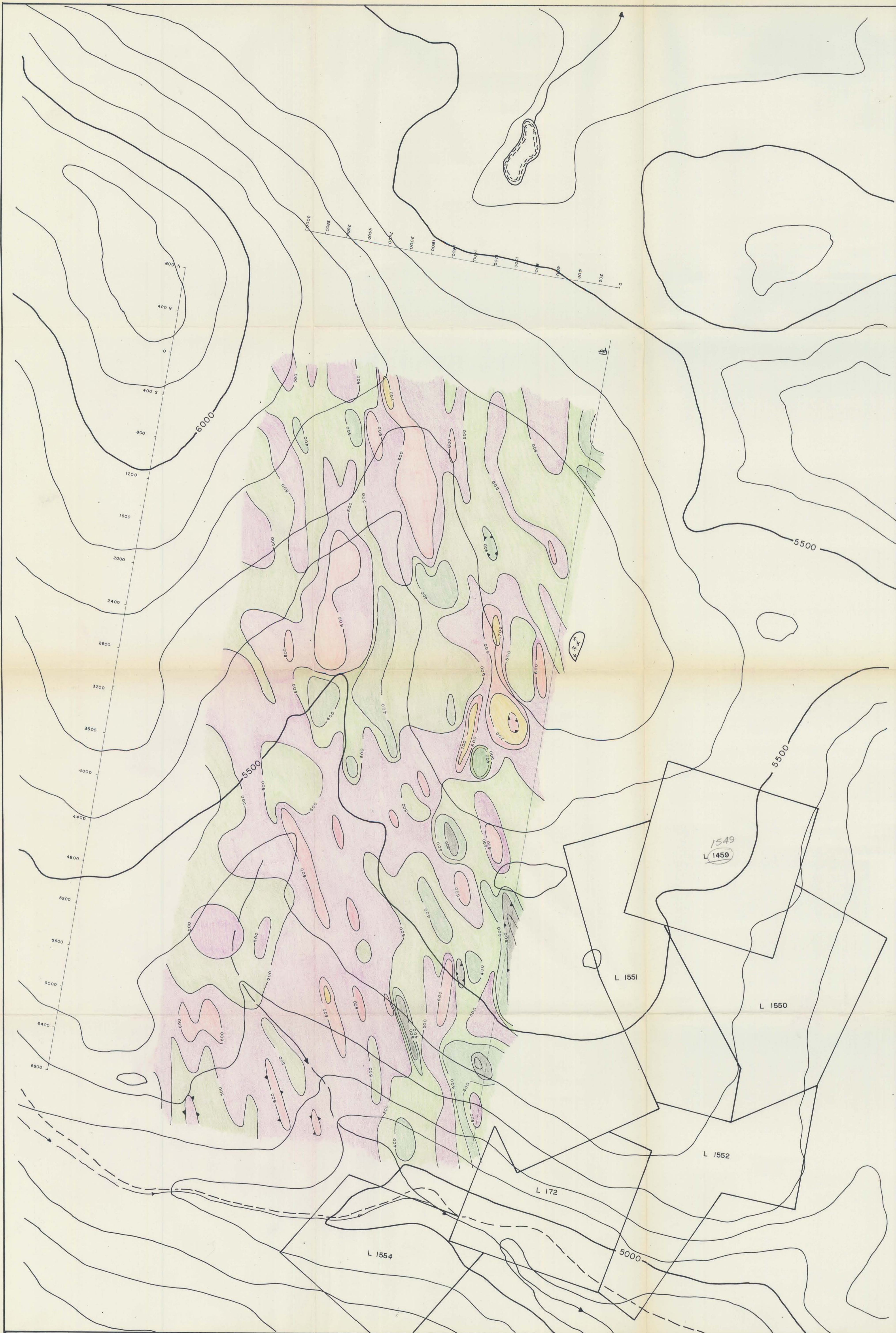
**2424**

MAP TO ACCOMPANY  
GEOPHYSICAL REPORT  
ON THE  
M. J. CLAIM GROUP  
WHIPSAW CREEK AREA  
SIMILKAMEEN MINING DIVISION  
BY  
R. B. STOKES, P. ENG.  
AND  
D. G. LEIGHTON

*N.B.* Numbers indicate magnetic field (vertical) in gammas.

M. J.	CLAIM	GROUP
GEOPHYSICAL PLAN - MAGNETIC		
WHIPSAW	CREEK	PROJECT
PRINCETON	B. C.	

*R. B. Stokes*



KEY PLAN  
1" = 4 MILES

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **2424** MAP #2

MAP TO ACCOMPANY  
GEOLOGICAL REPORT  
ON THE  
M. J. CLAIM GROUP  
WHIPSAW CREEK AREA  
SIMILKAMEEN MINING DIVISION  
by  
R. B. STOKES, P. ENG.  
and  
D. G. LEIGHTON

**LEGEND**

- CREEK
- ROAD
- SWAMP

**MAG. CONTOUR KEY**

- > 700 gammas
- 600-700
- 500-600
- 400-500
- 300-400
- < 300

- MAGNETIC LOW
- MAGNETIC HIGH

CONTOUR INTERVAL - 100 GAMMAS

**2424** *R. Stokes*

M. J. CLAIM GROUP  
**GEOLOGICAL PLAN - MAGNETIC**  
WHIPSAW CREEK PROJECT  
PRINCETON B. C.