

The Granby Mining Company Limited

And

Phoenix Copper Company Limited (N.P.L.)

Geophysical Investigation

of 6 Claims of

The Moe Group of Mineral Claims

Located 2 Miles West of Eholt, B. C.

In The Greenwood M. D.

- - - - -

By P. R. Matthew, - P. Eng.

August 1959

TABLE OF CONTENTS

	<u>Page</u>
1. Introduction	1
2. Schedule of Claims	2
3. Cost Statement	3
Schedule of Labour	3
Schedule of Expenses	4
Labour Distribution to Various Jobs	4
Summary of Total Costs	4
4. Geophysical Survey	5
Magnetometer Survey	5-6
Electro-Magnetic Survey	6-7
5. Conclusions	7
6. Recommendations	7
7. Maps	
1. Location map - British Columbia	
# 2. Location map - Greenwood Area	
# 3. Gamma Readings on the Moe Group of Claims	
# 4. Contoured Gamma Readings on the Moe Group of Claims	
# 5. Electro-Magnetic Survey on the Moe Group of Claims	

INTRODUCTION

During part of July and August of 1959 a magnetometer survey was made of the ground covered by the Moe No. 123, 4, 5, & 6 located mineral claims. The magnetometer work was followed up by a limited amount of electromagnetic work.

The Moe group of claims lies two miles west of Eholt, B. C. The latitude of the claims is $49^{\circ} 09'$; The longitude $118^{\circ} 35.5'$

The area is covered by Canadian Geological Survey Map No. 6-1957, Kettle River (East Half).

The purpose of this report is to present evidence of expenditure and of work accomplished in making the geophysical survey to form a basis for application for Certificates of Work on the six claims listed in the attached schedule of claims.

SCHEDULE OF CLAIMS

<u>Claim Name</u>	<u>Record No.</u>	<u>Tag No.</u>	<u>Due Date</u>	<u>Locator</u>
Moe #1	16799	B73277	21 July 1960	P.R. Matthew
Moe #2	16800	B73278	21 July 1960	P.R. Matthew
Moe #3	16801	B73279	21 July 1960	P.R. Matthew
Moe #4	16802	B73280	21 July 1960	P.R. Matthew
Moe #5	16803	B73281	21 July 1960	P.R. Matthew
Moe #6	16804	B73282	21 July 1960	P.R. Matthew

COST STATEMENT

The following statement shows costs of a magnetometer and electro-magnetic survey carried out on the Moe group of claims, by a crew of three men employed by the Granby Mining Company Limited. Supervision was provided by the writer employed by Phoenix Copper Company Limited (N.P.L.). The surveys were carried out during parts of July and August of 1959. Calculations are based on figures taken from the duly audited records of the Granby Mining Company and the Phoenix Copper Company Limited (N.P.L.) which are available at Allenby, B. C. and Grand Forks, B. C.

Costs as calculated are based on the daily pay rate plus expenses for the three men who worked on the job with limitations on the pay of professional and technical men as required by the Mining act.

Only those operating costs directly chargeable to the job are included and no indirect costs such as proportions of office expense, motor vehicle depreciation and insurance are included.

Schedule of Labour

Name	Job	Days	Rate	Total
*G.F. Camroux	Leadman	7	\$25.00	175.00
J. Murdock	Helper	5	15.00	75.00
G. Sarich	Helper	4	15.00	60.00
R.R. Matthew	Supervision	7	25.00	175.00
				<u>485.00</u>

*M. G.F. Camroux is a graduate mining engineer with years of experience in mining; his last position with a mining company was Assistant Superintendent of the Copper Mountain mine. Before commencing geophysical work he was instructed in the techniques involved by Mr. K. C. Fahrni, P. Eng., Chief geologist for The Granby Mining Company, Limited.

Schedule of Expenses

Groceries & Meals	Totals \$149.90	5 days out of 16	46.84
Motel	184.00	5 days out of 16	57.50
Gas, oil & Small hardware	57.39	5 days out of 16	<u>17.93</u>
Total			122.27

Labour Distribution to Different Jobs on Moe Group

Line cutting & pickets			
Leadman	2 shifts at \$ 25.00		50.00
Helpers	4 shifts at 15.00		60.00
Magnetic Survey			
Leadman	3 shifts at 25.00		75.00
Helpers	3 shifts at 15.00		45.00
Electro-Magnetic Survey			
Leadman	1 shift at 25.00		25.00
Helpers	2 shifts at 15.00		30.00
Calculations & Interpretation			
Leadman	1 shift at 25.00		25.00
Supervision Calculations			
Geologist	7 shifts at 25.00		<u>175.00</u>
Total			485.00

SUMMARY OF TOTAL COSTS FOR MOE GROUP (6 Claims)

Wages and Salaries as per schedule	485.00
Living Expenses for crew	104.34
Gas, oil and small hardware	<u>17.93</u>
Totals:	607.27

GEOPHYSICAL SURVEYS

General

The Moe group of claims occupy a rounded knol lying between Jewel lake and Boldue lake. A rough narrow road leading from Eholt station to Jewel lake cuts through the claims. The area is covered by moderate to heavy timber and bush. Some recent logging has been carried out on the ground. Outcrops are common, and there is evidence of a few early prospect pits and shafts.

Control

The claim location lines were used as a base line. This line runs for 4500 feet in an east-west direction. Cross lines were run north and south from the base lines with magnetometer readings taken every two hundred feet. Direction control was by compass and distances were measured by pacing.

All points in the grid were marked by pickets and flagging tape. Each picket was marked according to a rectangular grid system.

MAGNETOMETER SURVEY

Instrument

The magnetometer survey was run with a "Radar" magnetometer manufactured by Eastern Geophysics Limited, 69 Kipling Avenue South, Toronto, Ontario. The instrument is rated at 25.5 gammas per scale division.

Control

The base line was run as a closed traverse of one hour and ten minutes duration. An assumed strength of 3000 gammas was used as a basis for the point 1600 N 00 E. Cross lines were run in closed traverses of less than two hours duration. All readings were adjusted to the base line gamma values.

RESULTS OF MAGNETOMETER SURVEY

A large anomaly is located near the centre of the Moe group. This anomaly is round in shape and covers an area of approximately 50 acres. Using an assumed value of 3000 gammas for the surrounding ^{area}, the anomaly averages about 3000 gammas higher with several high points of 7000 gammas or higher. Immediately south of the anomaly there is an east-west trough of lows. Values in the trough drop as low as -213 gammas. The average value in the bottom of the trough appears to average 2000 to 1500 gammas. Several lesser high values occur outside the main anomaly, but generally they are joined to it and appear to radiate outwards from the main anomaly.

Until a complete geological study is made of the ground it is impossible to say what causes the concentration of a magnetic mineral or minerals, however, the rather classic shape of the anomaly would suggest a small plug or stock with radiating dikes of the same material. The low to the south of the anomaly suggests the host rock has a plunge to the south.

ELECTRO-MAGNETIC SURVEY METHODS

Instrument

The electro-magnetic survey was run with a Doolimeter electro-magnetic set. Model 57-06, manufactured by Midwest Mining Supplies Ltd., Winnipeg, Manitoba.

Method

The electro-magnetic equipment was used only in an attempt to check for the possibility of conductors in the area of known magnetic highs and around some of the old test pits and shafts. The electro-magnetic work was very limited and was done before the magnetometer readings were adjusted and plotted.

Results

All electro-magnetic readings were very low, however, with the transmitter set at 1600 N 3000 E a very broad and indefinite "cross-over" was found to the south-east. This might indicate a very weak conductor more-or-less paralleling the edge of the main magnetic anomaly in the area of extreme magnetic highs. This indication is very weak but serves as a guide to geological and further geophysical investigations.

The remaining electro-magnetic work was negative.

Conclusions

A rather classic magnetic anomaly occurs on the Moe group of claims, and possibly a very weak conductor has been located near the edge of the magnetic anomaly.

Recommendations

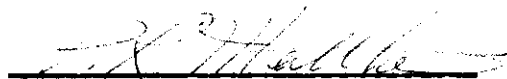
It is recommended that a detailed geological investigation be made of the anomalous area. If the anomaly cannot be "written off" on the basis of geology then the next logical step would be stripping or diamond drilling, depending on the depth of overburden,

SCHEDULE OF MAPS

1. Location map - British Columbia.
2. Location map - Greenwood Area.
3. Gamma Readings on the Moe Group of Claims.
4. Contoured Gamma Readings on the Moe Group of Claims.
5. Electro-Magnetic Survey on the Moe Group of Claims.

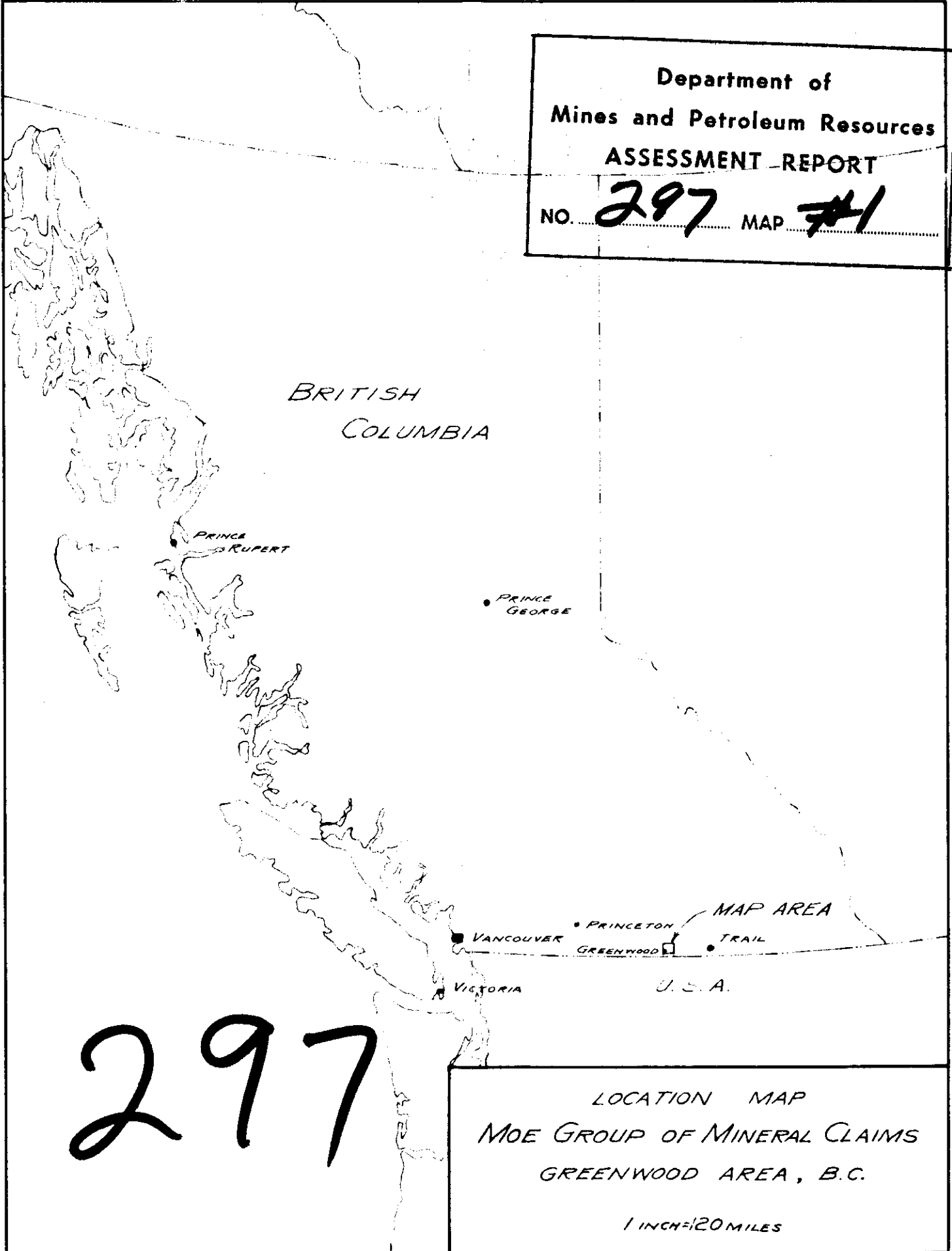
- - - - -

Report respectfully submitted,



P. R. Matthew, B. C.,
Professional Engineer in B. C.

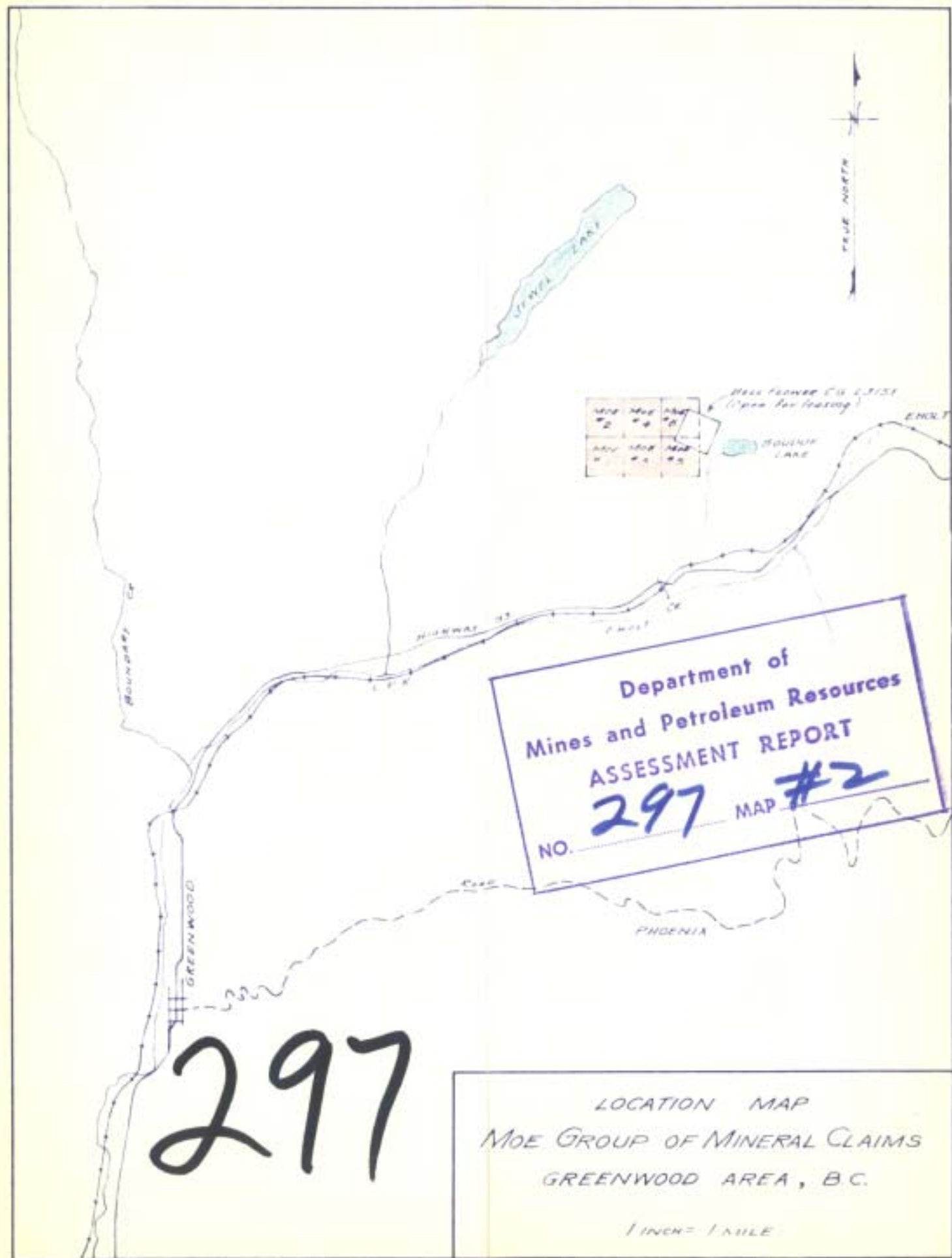
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 297 MAP #1



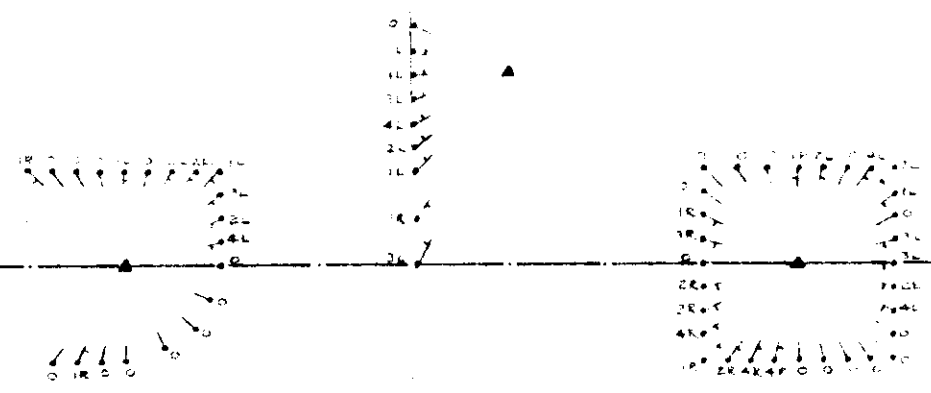
LOCATION MAP
MOE GROUP OF MINERAL CLAIMS
GREENWOOD AREA, B.C.
1 INCH=20 MILES

A. R. Matthews

P.R. Matthe



BASE LINE 1600N



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **297** MAP # **3**

297

LEGEND

- ▲ TRANSMITTER LOCATION
- RECEIVER LOCATION & READING
- OLD PITS & SHAFTS

Report 297
ELECTRO-MAGNETIC SURVEY
MOE GROUP OF MINERAL CLAIMS
GREENWOOD AREA, B.C.
1 INCH = 400 FEET

P. R. Mott

297

3127	3331	3450	3433	3531	3255	3229	2999	3229	3178	3227	3690	3050	3586	2872	3153	3229	2974	3102	3051	3000 N	
3153	3484	3127	3484	3561	3586	3280	3280	3101	3229	3380	3737	3984	3713	3178	2974	3535	2974	3051	2993	2800 N	
3032	3219	3156	3535	3535	3401	3254	3178	3178	3667	3516	3662	3841	3026	3051	3280	2872	2897	2498	2600 N		
3382	3255	3371	3677	3510	3357	3331	3229	3060	3493	3737	4018	3934	4197	3535	3051	3371	2446	2745	2343	2400 N	
3055	3000	3756	3407	3111	3331	3254	3821	3182	3580	4185	4732	3343	4017	3867	3229	3633	4345	3102	2443	2200 N	
3493	3393	3025	3382	3448	4355	437	4835	3917	4274	5777	6287	5677	5473	3641	3719	3152	3152	2721	3127	2000 N	
3106	3612	3229	3050	2566	3821	4759	3662	4467	6273	6186	4171	3074	4800	4851	4255	3994	3101	4255	4355	1800 N	
3000	3165	2374	2785	3000	3450	3637	3554	5724	5256	4785	3268	4300	3076	2694	4025	3127	4478	3153	4430	2005	2562
CLAIM POSTS LOCATION & BARE LINE																					
3127	3255	3127	2974	4377	4453	3917	4402	5283	5014	6825	4632	4172	4504	4785	5022	4274		3736	3174	1400 N	
2870	2943	3280	3821	3459	3182	2314	4917	5167	5423	5422	6417	4478	4101	6327	2532	3382	3401	3025	2974	1200 N	
3051	4305	3102	2872	3914	2617	2642	2464	2713	7411	4122	3280	2770	2311	7080	2388	5014	3662	3346	1811	1000 N	
3004	3074	2348	2831	2364	2490	3611	2562	2314	2323	4300	4473	3841	1444	1537	2056	4291	2948	4977	1354	800 N	
3045	3280	3152	2948	2541	2821	2313	-213	2311	1923	2805	1363	1877	1903	2184	1852	2005	2102	2107	2082	600 N	
3051	3357	3025	2897	2847	2923	2647	2203	2821	2413	5218	2260	2566	2132	2413	2107	3030	2184	2311	2235	400 N	
3255	3357	2348	234	3153	2643	2648	2617	2770	2348	3484	3051	2821	2413	2713	2133	2285	2081	2515	1413	200 N	
3000	3382	2872	2974	2349	2923	2999	2515	2446	2999	3408	3074	2821	2438	2872	2949	2897	1750	1929	2005	0 N	

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 297 MAP #4

All readings are based on an assumed gamma value of 3000 for the point 1600N - OE

GAMMA READINGS
MOE GROUP OF MINERAL CLAIMS
GREENWOOD AREA, B.C.
1 INCH=400 FEET

F.R. Mattheis

Report 297



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **297** MAP **#5**

297

Report 297
 GAMMA CONTOURS
 MOE GROUP OF MINERAL CLAIMS
 GREENWOOD AREA, B.C.
 CONTOUR INTERVAL = 500 GAMMAS
 1 INCH = 400 FT.

A.R. Matthe