

*Property of Joyce Clouston*

861318

NORTHWESTERN EXPLORATIONS, LIMITED

Examination Report

DALVENIE PROPERTY

Atlin M.D.

British Columbia

by

G. A. Noel

## TABLE OF CONTENTS

	<u>Page</u>
Summary	1
Introduction	1
General Geology	1
Property Geology	2
Sampling Results	3
Conclusions	3
Bibliography	4

## APPENDIX

Plan of New Deal Group of Mineral Claims  
Plan of Dalvenie Group of Mineral Claims  
Copy of Assay Sheet



## SUMMARY

On Dalvenie Mountain about 20 miles southeast of the south end of Dease Lake, copper and iron sulphides occur in a gabbro stock of the Cassiar intrusions along its eastern contact with late Paleozoic argillite, tuff, and quartzite. This mineralized zone is exposed in places over a length of 5000 feet in a north-south direction. The sulphides occur along shear and tension fractures in the gabbro and altered phases near the intrusive contact. No continuity can be established between the individual occurrences, the largest of which is about 150 feet long and eight feet wide. In addition, the copper content is low considering the restricted size of the showings.

## INTRODUCTION

The Dalvenie property comprises 13 crown granted mineral claims covering a total area of 588.29 acres. These claims include Dalvenie 1 - 8, Mac Mineral claim, and New Deal 1 - 4. These claims are owned by the Dalvenie Mining Syndicate of Victoria, B.C. with Judge J.B. Clearihue holding the majority control.

The ground was originally staked in 1899 by Joseph Clearihue. It was relocated in 1934 by the Syndicate and considerable surface trenching was done to expose the mineralization. In 1938 the claims were surveyed for crown granting.

The property is about 22 miles southeast of Lake House at the south end of Dease Lake, and about 30 miles northeast of Telegraph Creek, B.C. The showings lie along the east flank of Dalvenie Mountain at an elevation of 5000 feet. The property may be reached from Lake House, at the north end of the Telegraph Creek-Dease Lake road via 25 miles of pack trail along Tanzilla River and Gnat Creek. Horses may be obtained at either Lake House or Telegraph Creek. Access to the property may also be gained by float aircraft, landing on one of the small lakes at the head of Gnat Creek, just two miles southeast of the showings. Aircraft may be chartered at Watson Lake, about 150 miles to the north.

## GENERAL GEOLOGY

The Tanzilla River area is underlain by a thick series of sedimentary and volcanic rocks comprising the Sylvester Group of late Paleozoic age. This group mainly consists of volcanic fragmental rocks and flows but also includes some greywacke, argillite, quartzite, chert, and limestone. These rocks appear as a homoclinal structure, striking North 30 to 80 degrees west and

dipping at moderate to high angles to the northeast. However, an older group of rocks, partly Cambrian apparently overlies these, and the structure is interpreted as a major anticline which has been overturned to the southwest due to compression from the Cassiar intrusions which lie to the northeast. The crest of the anticline is marked by the northwest-trending belt of serpentine south of Eagle River.

The Sylvester Group is intruded by the Hotailuh batholith in the vicinity of Gnat Creek. This intrusive body is at least 20 miles long by 10 miles wide and ranges in composition from gabbro and diorite to granite.

Along the contact, the Sylvester Group are overturned and disrupted by minor thrust faults. The intruded rocks conform with the contact in strike and generally dip rather flatly away from the intrusive.

#### PROPERTY GEOLOGY

On the Dalvenie property, argillite, tuff and quartzite members of the Sylvester Group are intruded by a small gabbro stock about two miles long by one mile wide, elongated in a northerly direction. This gabbro is believed to represent an early phase of the main Cassiar intrusive sequence. The stock is completely surrounded by the sediments but granite of the Hotailuh batholith lies two miles to the east and one mile to the west.

Mineralization is exposed in the gabbro along its eastern contact with the sediments in eleven trenches over a total length of 5000 feet in a N 10° E direction. This mineralization consists of pyrite, pyrrhotite, arsenopyrite and chalcopyrite in both massive and disseminated form. The sulphides are accompanied by considerable silicification and in places carbonates, malachite and barite are developed. These sulphides occur as fillings and replacements along shear and tension fractures in the gabbro and altered phases near the intrusive contact.

The well sheared and fractured zones in the gabbro are, in places, more than ten feet wide. Most of the sulphides however, are confined to widths of about five feet. No evidence of continuity between the individual mineralized exposures could be established except for the southernmost workings on Dalvenie No. 3 claim. Here, three parallel mineral zones are exposed, the largest 150 feet in length and about eight feet wide.

SAMPLING RESULTS

The massive sulphides are fairly heavily oxidized where exposed making sampling difficult. However, in all sample locations the surface was freshened up as much as possible before sampling and fairly heavy continuous chip samples were taken. Thus it is believed that fairly representative samples were obtained.

The sampling indicates that the copper content varies greatly from one cut to another. The best assays are obtained in the cuts at the south end of the property, but even here the values are below 0.5% copper across the full mineralized width of 10 to 20 feet.

CONCLUSIONS

The sulphide occurrences show a general northerly alignment since they follow the gabbro contact. In detail, however, the sulphides are concentrated along northwest and northeast shear fractures presenting a quite discrete pattern. It is considered that elongation of the intrusive in a northerly direction resulted in this shearing along partly pre-existing tension fractures. As a consequence no continuity can be established between the various showings. In conjunction, the copper values are rather low with respect to the restricted widths.

Whitehorse, Y.T.

October 26, 1955

G. A. Noel  
G. A. Noel.



C O F Y

CERTIFICATE OF ASSAY

G. S. ELDRIDGE & CO. LTD.

File No. 15773

September 2, 1955

<u>Marked</u>	<u>Gold</u> <u>oz/ton</u>	<u>Silver</u> <u>oz/ton</u>	<u>Lead</u> <u>%</u>	<u>Zinc</u> <u>%</u>	<u>Copper</u> <u>%</u>
K8185	Trace				Trace
K8196	0.16	0.7			0.1
K8197	0.02	0.5			0.3
K8198	Trace	2.1			0.4
K8199	0.02	0.7			1.8

s/ G.S. Eldridge  
Provincial Assayer

*Copy of Open Claim*

Plan of  
Lot 3544  
Dalvenie 9 M.C.  
Cassiar Dist.

Scale 1 in. = 300 ft.

L. 3537

DALYENIE No 2 M.C.  
Located June 26<sup>th</sup> 1934

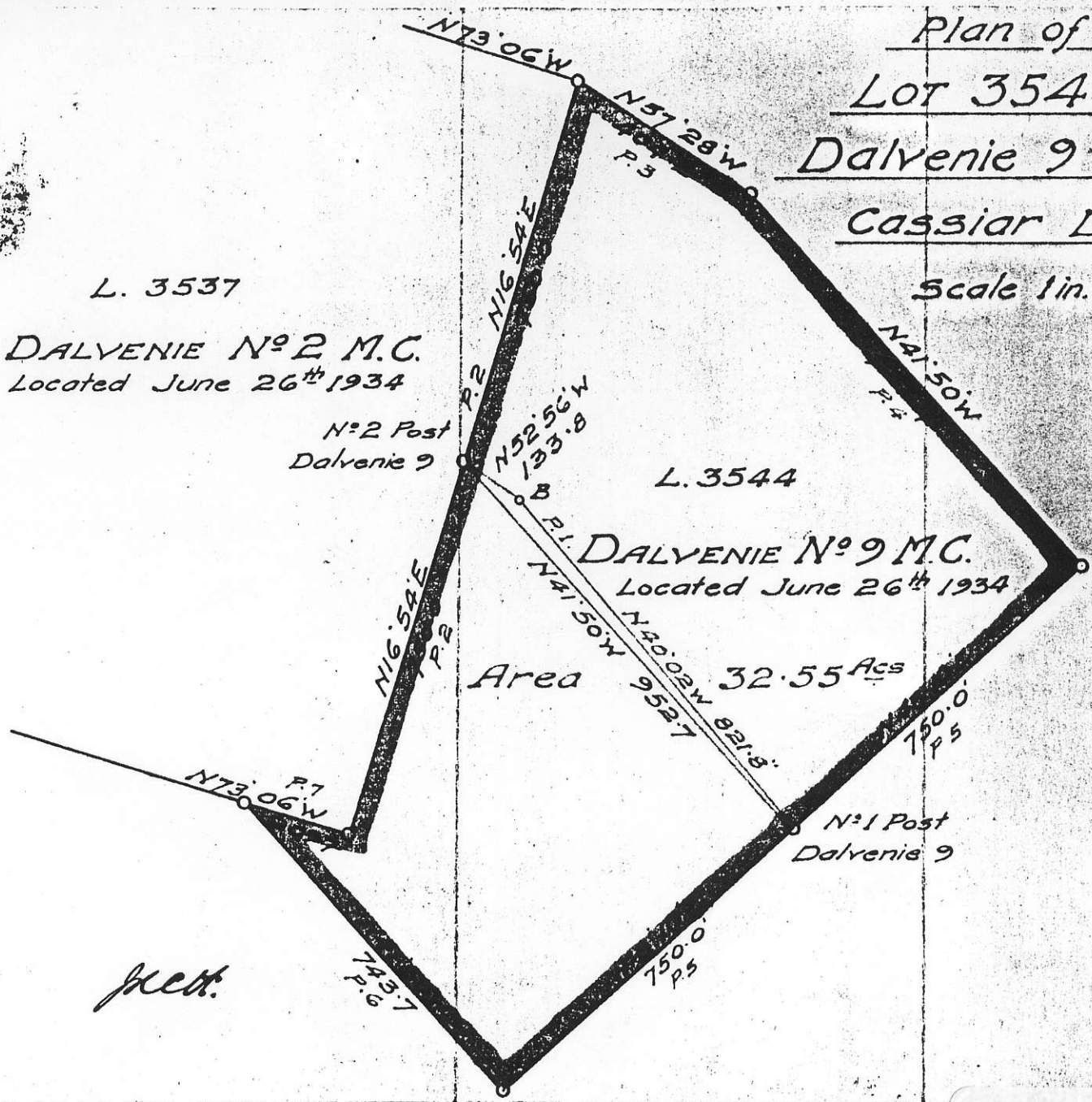
No 2 Post  
Dalvenie 9

L. 3544

DALYENIE No 9 M.C.  
Located June 26<sup>th</sup> 1934

Area 32.55 Acs

No 1 Post  
Dalvenie 9



861317  
Pass Claim Group



Plan of Lot 3545

Scale 1 in. = 300 ft.

MAC M.C.

CASSIAR DISTRICT

L. 3539

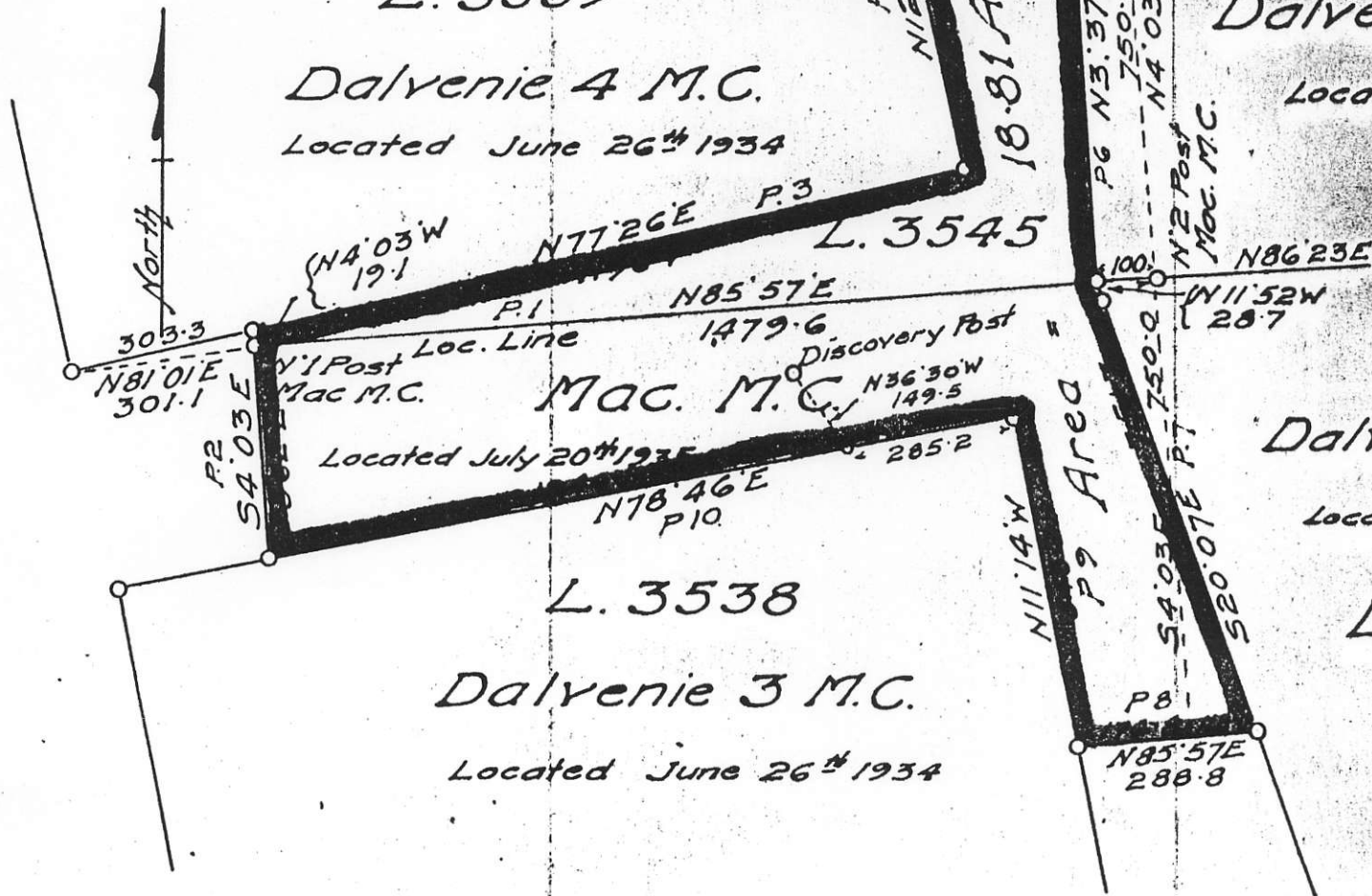
Dalvenie 4 M.C.

Located June 26<sup>th</sup> 1934

L. 3541

Dalvenie 6 M.C.

Located June 26<sup>th</sup> 1934



L. 3538

Dalvenie 3 M.C.

Located June 26<sup>th</sup> 1934

Dalvenie 7 M.C.

Located June 26<sup>th</sup> 1934

L. 3542

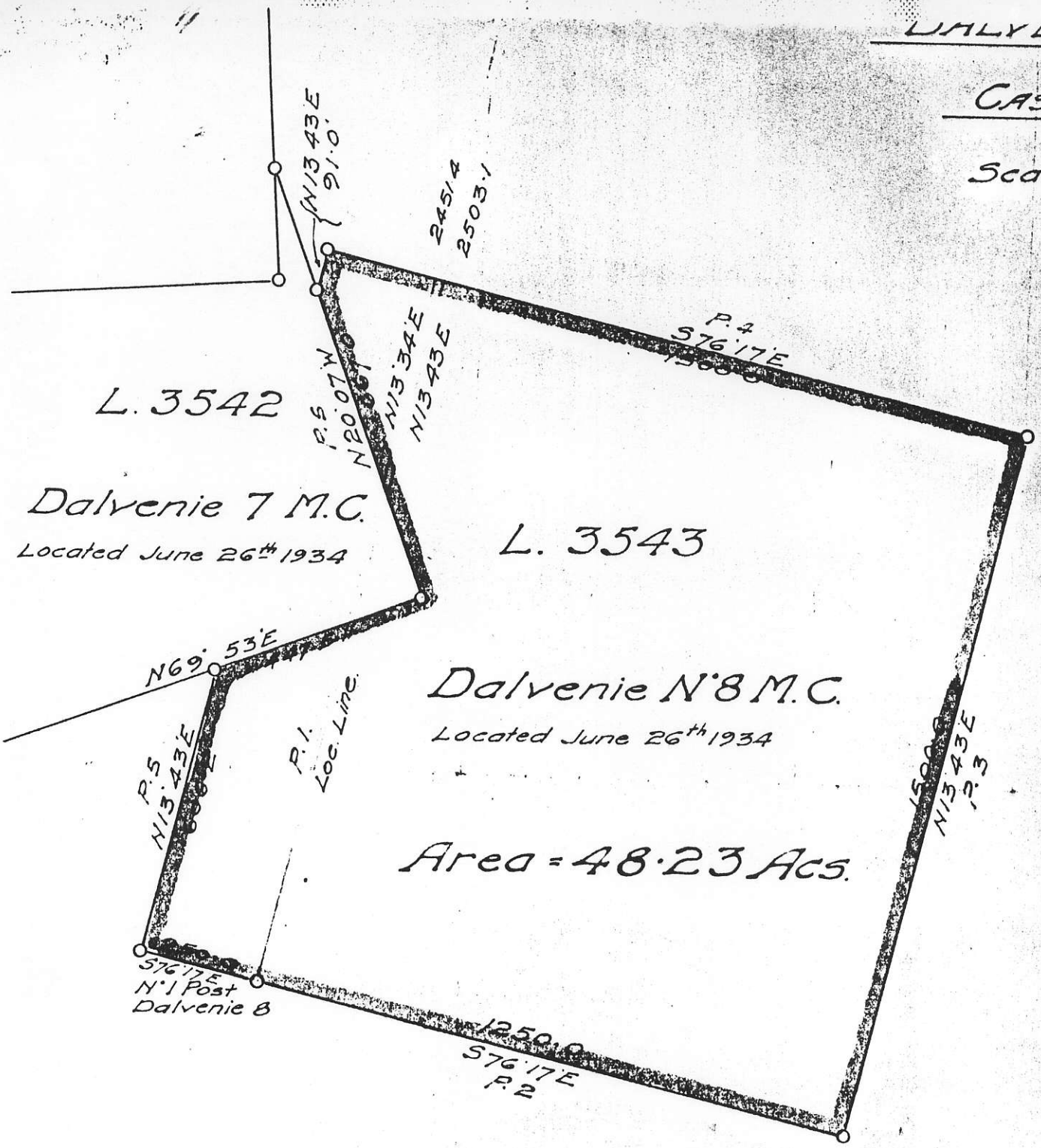
J.C.H.

K.R.H.

DALVENIE N. M.C.

CASSIAR DIST.

Scale 1 in. = 300 ft.



J.C.H.

J.C.H.

Plan of  
Lot 3542

DALVENIE #7 M.C.

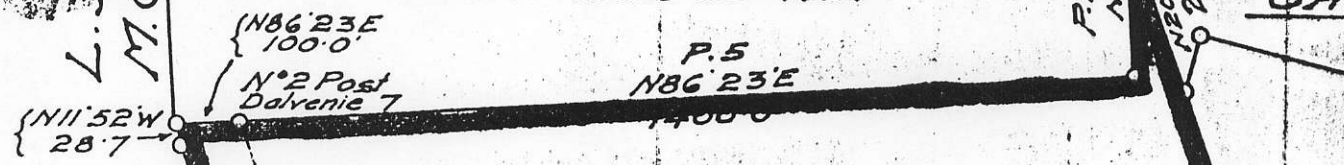
CASSIAR DIST.

Scale 1 in. = 300 ft.

L. 3541

#  
Dalvenie #6 M.C.

Located June 26<sup>th</sup> 1934

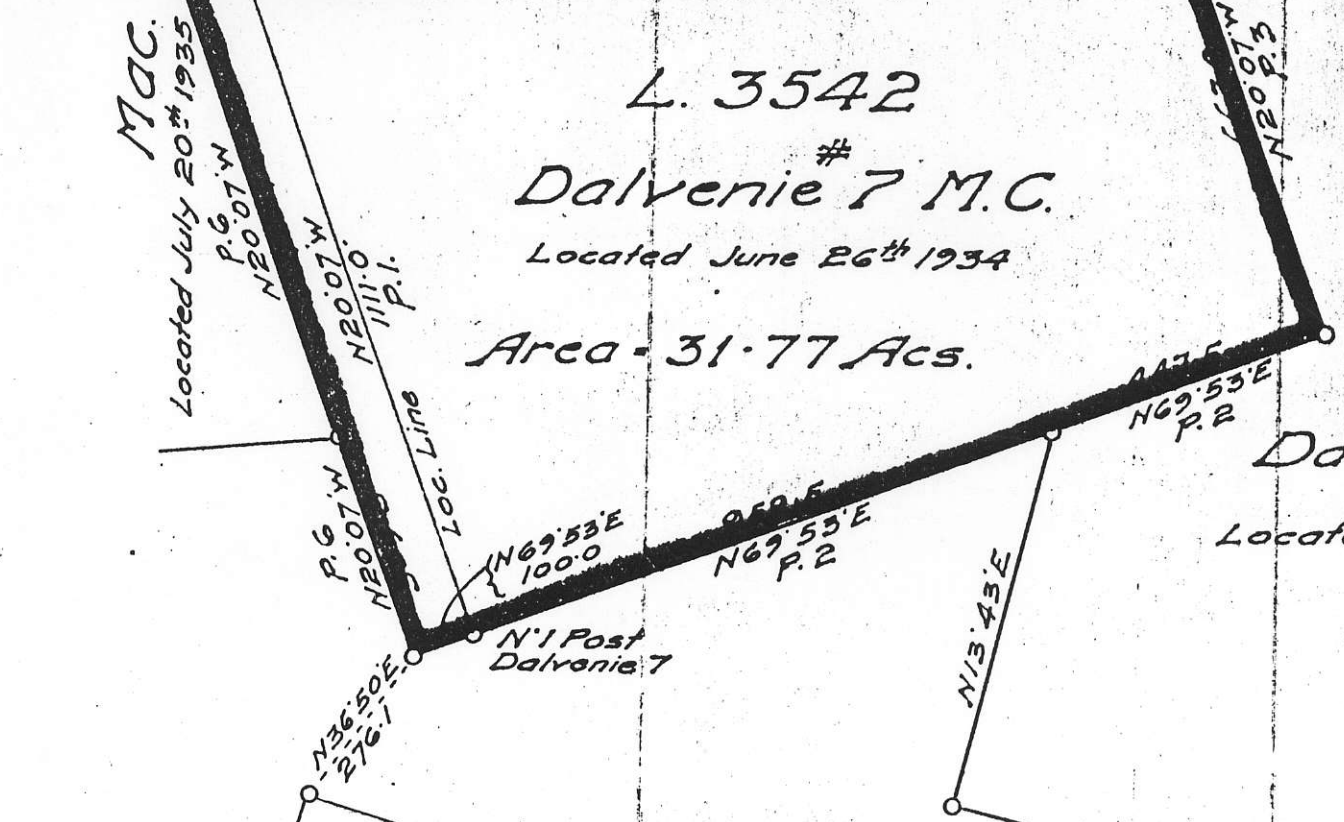


L. 3542

#  
Dalvenie #7 M.C.

Located June 26<sup>th</sup> 1934

Area - 31.77 Acs.



L. 3543

#  
Dalvenie #8 M.C.

Located June 26<sup>th</sup> 1934

L. 3537



J.R.H.

J.R.H.



L. 3547  
New Deal 1 M.C.

Located July 15<sup>th</sup> 1935

N<sup>2</sup> Post Dalvenie 6 P. 4  
N86°23'E

N86°23'E

Plan

of

Lot 3541

DALVENIE<sup>No</sup> 6 M.C.

CASSIAR DIST.

Scale 1 in. = 300 ft.

Lot 3541

Dalvenie<sup>No</sup> 6 M.C.

Located June 26<sup>th</sup> 1934

Area = 51.65 Acs.

L. 3545

Mac M.C.

Located July 20<sup>th</sup> 1935

N3°37'W

P. 5

N3°37'W

Loc. Line

1520.3

N3°37'W

P. 1

Discovery Post

619.1

N86°23'E }  
100.0 }

N<sup>1</sup> Post Dalvenie 6

N86°23'E  
P. 2

L. 3542 Dalvenie 7 M.C.

Located June 26<sup>th</sup> 1934

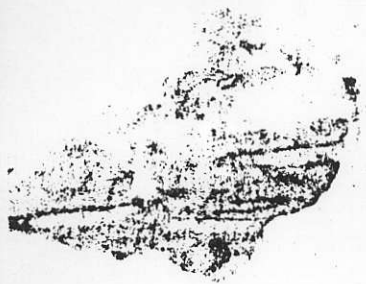
1297.0  
P. 3

203.9



J.A.C.H.

(K.R.)

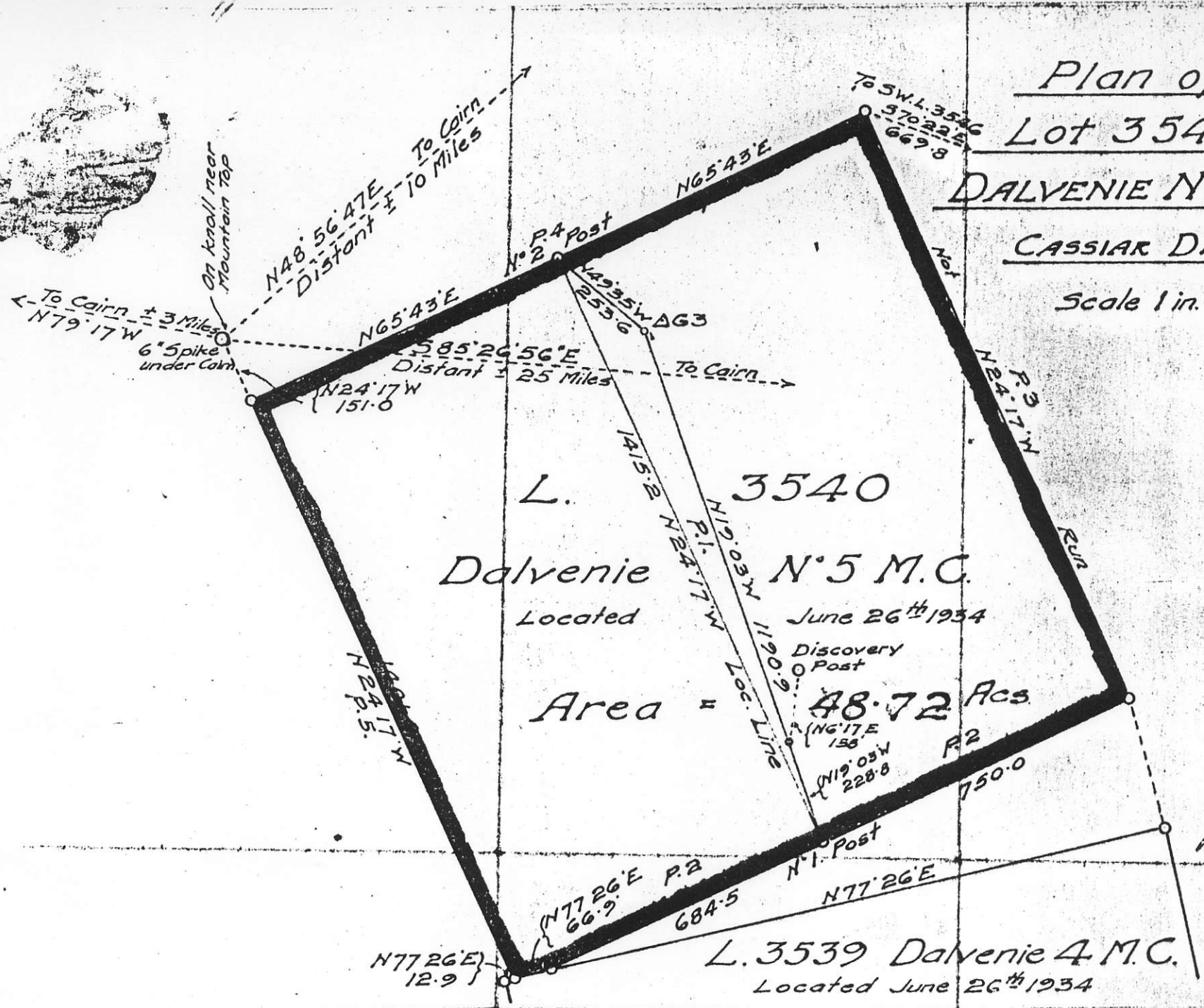


Plan of  
Lot 3540

DALVENIE N°5 M.C.

CASSIAR DIST.

Scale 1 in. = 300 ft.



*MCH.*

*[Signature]*

L. 3540  
Dalvenie N°5 M.C.  
Located June 26<sup>th</sup> 1934

Area = 48.72 Acs.  
Discovery Post

L. 3539 Dalvenie 4 M.C.  
Located June 26<sup>th</sup> 1934

3540 Dalvenie 5 M.C.

Located June 26<sup>th</sup> 1934

N<sup>o</sup> 2 Post Dalvenie 4

N77<sup>o</sup>26'E  
12.9

N77<sup>o</sup>26'E  
66.9

N65<sup>o</sup>43'E

P.4  
1420.2

S83<sup>o</sup>30'E

860.1

S60<sup>o</sup>30'E  
27  
Discovery Post

N37<sup>o</sup>45'W  
151.8  
A68

Plan of  
Lot 3539

DALVENIE N<sup>o</sup> 4 M.C.

CASSIAR DIST.

Scale 1 in. = 300 ft.

L. 3539

Dalvenie N<sup>o</sup> 4 M.C.

Located June 26<sup>th</sup> 1934

Area = 51.65 Acs

P.5  
N12<sup>o</sup>34'W

Loc. Line  
P.1  
N12<sup>o</sup>34'W  
1638.9

P.3

N12<sup>o</sup>34'W

P.2

750.0

N<sup>o</sup> 1 Post Dalvenie 4

P.2

446.7

303.3

L. 3545 Mac M.C.

Located July 20<sup>th</sup> 1935.



JACH.

KCH





N°2 Post  
Dalvenie 3  
L. 3545 Mac M.C.  
Located July 20<sup>th</sup>  
1935

Plan of  
Lot 3538  
DALVENIE N°3 M.C.

CASSIAR DIST.

Scale 1 in. = 300 ft.

L. 3538  
Dalvenie N°3 M.C.

Located June 26<sup>th</sup> 1934

Area 2  
51.56 Acs.

L. 3537  
Dalvenie 2  
Located June 26<sup>th</sup>  
1934

J.A.C.H.

H.C.H.

L. 3538

Dalvenie 3 M.C.

Located June 26<sup>th</sup> 1934

Plan of Lot 3537

DALVENIE N°2 M.C.

CASSIAR DIST.

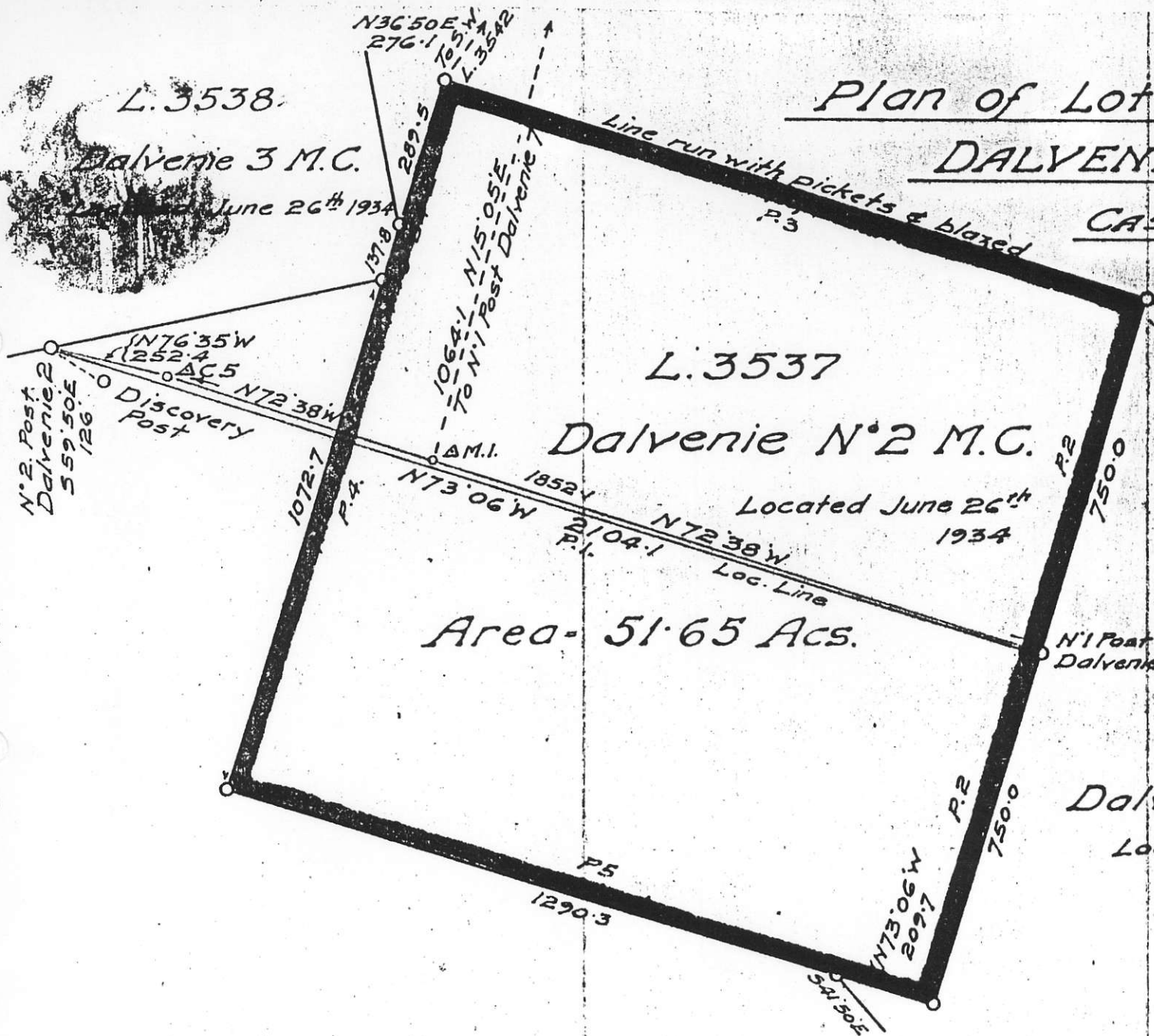
Scale 1 in. = 300 ft.

L. 3537

Dalvenie N°2 M.C.

Located June 26<sup>th</sup> 1934

Area - 51.65 Acs.



L. 3544

Dalvenie 9 M.C.

Located June 26<sup>th</sup> 1934.

*Jack*

*RGH*



Plan of  
Lot 3549

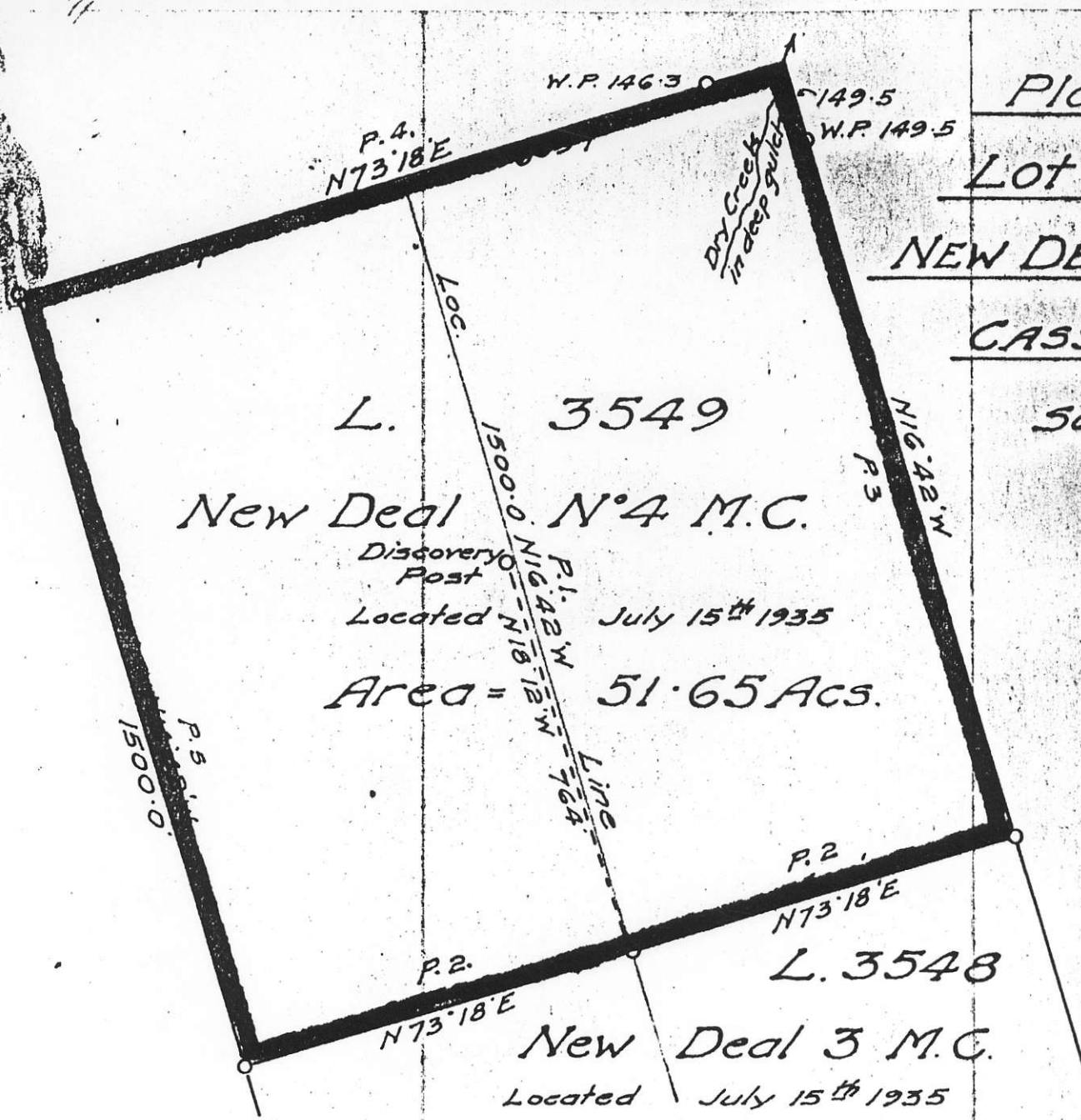
NEW DEAL N°4 M.C.

CASSIAR DIST.

Scale: - 1 in. = 300 ft.



J.R.H.



L. 3549  
New Deal N°4 M.C.

Area = 51.65 Acs.

L. 3548  
New Deal 3 M.C.  
Located July 15<sup>th</sup> 1935

L. 3549

New Deal 4 M.C.

Located July 15<sup>th</sup> 1935

N<sup>o</sup> 2 Post  
New Deal 3 Not

P. 5  
750.0 Run

P. 5  
750.0

Plan of

Lot 3548

NEW DEAL 3 M.C.

CASSIAR DIST.

Scale: - 1 in = 300 ft

L. 3548

New Deal N<sup>o</sup> 3 M.C.

Located July 15<sup>th</sup> 1935

Area = 51.20 Acs.

P. 6  
1383.2

P. 1  
623.9  
N19.22W

P. 1  
N16.42W

P. 1  
1488.0 Loc. Line  
N14.47W 865.2

P. 4  
N16.42W

Discovery Post

N22.52W  
158

P. 4  
207.7  
N8.45W

P. 3

104.85 P. 2 750.0

N10.47W 750.0

104.85  
N16.42W

P. 2 Run. N73.18E

N<sup>o</sup> 1 Post 750.0

New Deal 3 M.C.

L. 3546 New Deal 2 M.C.

Located July 15<sup>th</sup> 1935



J.R.H.

(K.R.)

L. 3548 New Deal #3 M.C.

Located July 15<sup>th</sup> 1935

N<sup>o</sup> 2 Post

New Deal 2 M.C.

Not Run P.5 N89°13'E N89°13'E

104.85  
N04°47'W  
104.85  
N1642'W  
750.0  
N73°18'E  
P.5  
N1°32'W P.4  
149.7  
AT

L. 3546

New Deal N<sup>o</sup> 2 M.C.

Located July 15<sup>th</sup> 1935

Area = 48.51 Acs.

P.6  
Not Run  
N04°47'W

P.1  
Not Run  
N04°47'W  
1408.8 Loc. Line  
N3°13'W  
894.45  
P.1

P.3

N04°47'W

To NE. L 3540

669.8  
N70°22'W

P.2  
N89°13'E

N<sup>o</sup> 1 Post  
New Deal 2 M.C.

N89°13'E

L. 3547 New Deal #1 M.C.

Located July 15<sup>th</sup> 1935

AS  
N1°53'W  
163.05  
Discovery Post  
AR N10°14'E  
31.0  
N11°17'E  
207.1  
P.2

561.33'E

Plan of  
Lot 3546

NEW DEAL 2 M.C.

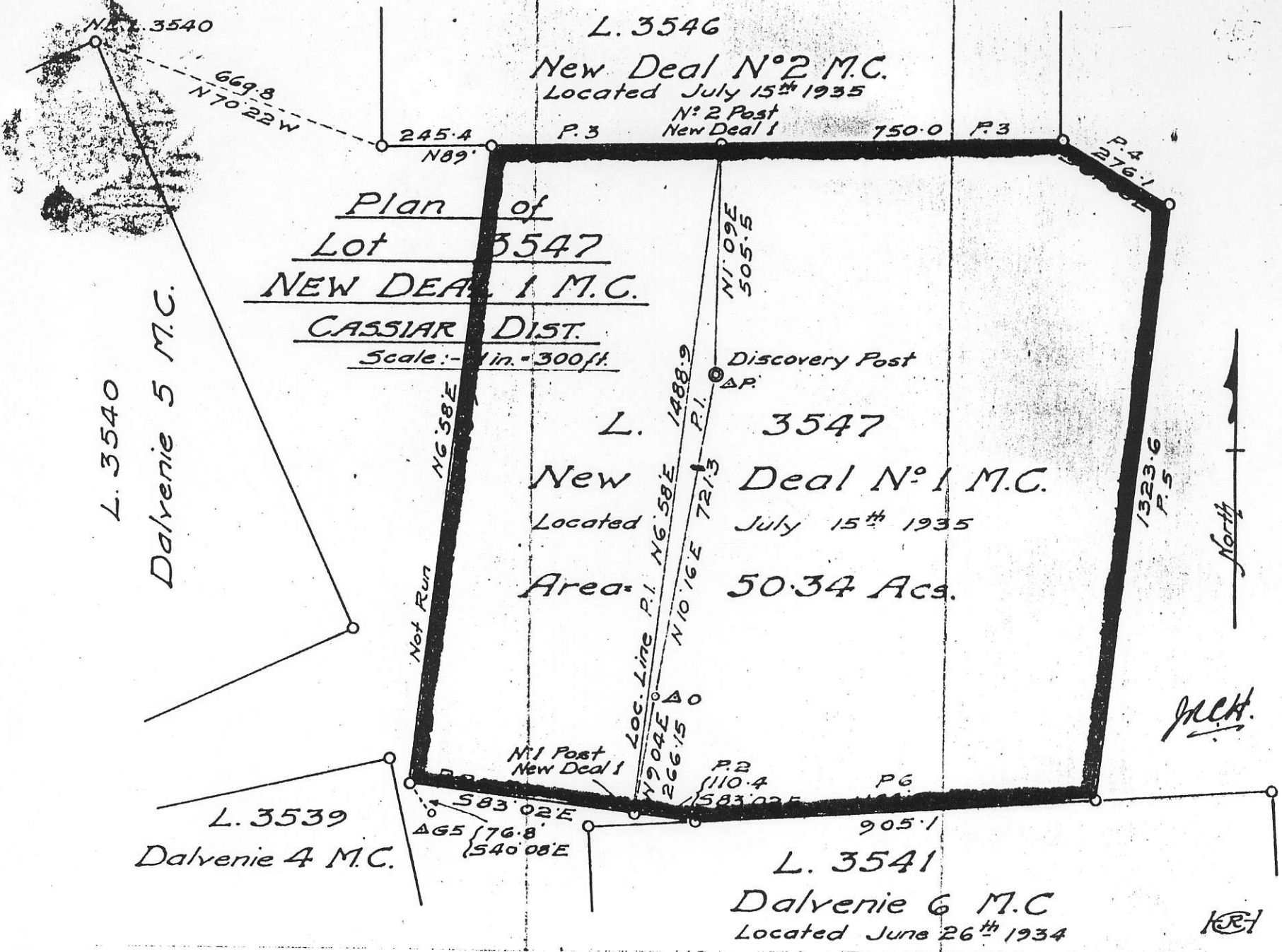
CASSIAR DIST.

Scale: 1 in = 300 ft.



J.C.H.

K.R.



L. 3546

New Deal No 2 M.C.

Located July 15<sup>th</sup> 1935

No 2 Post  
New Deal 1

Plan of  
Lot 3547  
NEW DEAL 1 M.C.

CASSIAR DIST.

Scale: - 1 in. = 300 ft.

L. 3547

New Deal No 1 M.C.

Located July 15<sup>th</sup> 1935

Area: 50.34 Acs.

3547

Deal No 1 M.C.

Located July 15<sup>th</sup> 1935

Area: 50.34 Acs.

L. 3540  
Dalvenie 5 M.C.

L. 3539  
Dalvenie 4 M.C.

L. 3541  
Dalvenie 6 M.C.  
Located June 26<sup>th</sup> 1934



J.C.H.

J.C.H.

N 1° 35' 40"

669.8  
N 70° 22' W

245.4  
N 89°

P. 3

No 2 Post  
New Deal 1

750.0

P. 3

P. 4  
276.1

N 1° 09' E  
505.5

Discovery Post  
AP

1488.9  
P. 1

N 6° 58' E  
1488.9  
P. 1

N 10° 16' E  
721.3  
P. 1

N 6° 58' E

Not Run

1523.6  
P. 5

No 1 Post  
New Deal 1

N 2° 04' E  
266.15  
P. 2

110.4  
P. 2

P. 6

583.02 E  
465  
76.8  
540.08 E

583.02 E

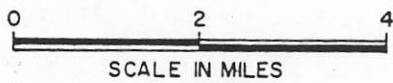
905.1





### CLAIM MAP

SHOWING LOCATION OF DALVENIE, MAC and  
NEW DEAL CLAIMS and RECENT CLAIMS STAKED  
by COPPER PASS MINES LTD (Dark Outline).



MAP SHEET 104 I/4 WEST  
from  
CLAIM RECORDING MAP SHEET 124M  
LIARD MINING DIVISION  
(claim locations approximate)