

550

MAGNETIC SURVEY

of the

ALAMO CLAIM GROUP

Earlcrest Resources Ltd.

April 17, 1964.

by

Albert F. Reeve, Geological Engineer

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
PROPERTY	1
LOCATION & ACCESS	1
LOCAL TOPOGRAPHY & TIMBER	2
LOCAL GEOLOGY	2
MAGNETIC SURVEY	2
Purpose	2
Method	2
Precision	3
Survey grid	3
Instruments	4
Procedures	4
CONCLUSIONS	6
APPENDIX	
Authors certificate	
Base station observations	
Summary of cost of survey	
MAPS	
1 Magnetometer Survey Plan	
2 Physiographic Plan	

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 550 MAP

INTRODUCTION

This is a report on a magnetic survey of the Alamo Group of mineral claims during 1964. A contoured map showing all of the corrected magnetic readings is enclosed. A key location plan is inset on the magnetic map. Topographical information and claim boundaries are shown on a second enclosed map.

A summary of survey costs and certificate of the qualifications of the writer appear in the appendix. The field survey was conducted by A.F. Reeve, 1096 Comox Street, Vancouver, B.C., assisted by R.M. Blais of 206-1275 Comox Street, Vancouver, B.C.

PROPERTY

The following 42 contiguous mineral claims are held under option by Earlorest Resources Ltd., Suite 213 - 678 Howe Street, Vancouver, B.C.

<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>	<u>ASSESSMENT ANNIVERSARY</u>
Alamo 1 to	42363 to	April 24,
Alamo 32 incl.	42394 incl.	1964.
Alamo 34	42395	
Alamo 36 to	42396 to	April 24,
Alamo 44 incl.	42404 incl.	1964.

The above information was obtained from the records of Earlorest Resources Ltd.

LOCATION & ACCESS

The location of the claim group is given on the cover of this report and is illustrated on an inset on the Magnetic map. The property

access route departs from Highway #3 about 14½ miles southeast of Spences Bridge. From this point, a dirt road, passable by automobile, proceeds along the northwest side of the Skuhun Creek valley for about 8 miles. From this point, a recently bulldozed access road runs in a northerly direction about 4 miles to a campsite located on the survey grid; this section of the road is passable by four-wheel drive vehicles.

LOCAL TOPOGRAPHY & TIMBER

The survey grid lies on a rolling plateau at about the 5500' elevation. Maximum local relief is about 100'. The area is thickly timbered with small jackpine. Low areas and drainage courses are occupied by small lakes and open swamps or wooded by thick stands of small spruce. South of the survey grid, on the property, the ground is more rugged; being deeply dissected by drainage patterns as it slopes southward.

LOCAL GEOLOGY

The property is underlain by granitic rocks of the Guichon batholith. Such rocks host important deposits of copper sulphides in the Merrit - Ashcroft district. General geology of the area is described in G.S.C. Memoir 262, 1952.

MAGNETIC SURVEY

Purpose

The purpose of this survey was to investigate the area for structural features which might possibly be associated with the occurrence of copper sulphides.

Method

A method employing two magnetometers was used. One instrument

was set up at a base station to record variations in magnetic field strength with respect to time. A second magnetometer was employed to observe and record relative magnetic field strength at stations on the survey grid.

#### Corrections

- a) Diurnal & Daily Corrections - Data from base station observations was used to correct readings taken by the second instrument for daily and diurnal variations.
- b) Constant Correction - A constant value of 800 gammas was added to all readings to eliminate negative values.
- c) Temperature & Regional Gradient Corrections - Small corrections attributable to temperature and regional gradient were not considered significant for the purpose of the survey.

#### Precision

Base station observations consisted of the average of at least two readings recorded to the nearest 5 gammas. Average observation interval was about 35 minutes throughout each survey day.

Grid station observations were recorded to the nearest 10 gammas. Check readings at a number of grid stations showed that previous results could be repeated within  $\pm 25$  gammas. Differences in repeated observations were due mainly to some spatial imprecision in re-occupying the stations.

Final corrected results were rounded off to the nearest 10 gammas in accordance with the maximum sensitivity of the field instrument.

#### Survey Grid

A blazed claim location line (N-S true) was used as a base line. East-west compass lines were blazed and brushed out at 400' intervals

along the base line, extending 3500' west and 3000' east of the base line. The east-west lines were chained, and stations were marked with orange ribbon at 100' intervals. Station location numbers were marked on aluminum tags and affixed to trees or pickets.

At the time of the survey all of the lakes and swamps were frozen and covered with 2 - 3 feet of snow, so readings were taken in these areas without difficulty.

### Instruments

#### Base Station Recorder

- Sharpe "A - 2"
- Schmidt type magnetic balance
- Serial #201
- Sensitivity: 20 g/scale div.

#### Field Instrument

- Sharpe MF - 1
- Fluxgate type magnetometer
- Serial #21001
- Max. sensitivity: 10 g/scale div.

### Procedure

a) A preliminary trial traverse was run across the grid (MF - 1) to determine approximately the range of relative field strengths and normal background that would be encountered on the course of the survey.

b) The fluxgate magnetometer was adjusted by means of the latitude adjustment dial, to read within the maximum sensitivity range (10 gammas/scale division, +1000 gammas to -1000 gammas).

c) Station 2100 West - 1200 North was chosen as a base station, because the field strength at that point was about mid-background, and its location was conveniently close to the field camp.

d) The "A. - 2" magnetic balance was adjusted for latitude, by means of compensating magnets, to read about mid-scale (25 div. or 500 gamma) in its permanent position at the base station.

e) At each grid station, magnetic reading, time of reading, and notes on topography were recorded.

f) Base station observations consisted of time, scale reading, and readings in gammas. Readings were plotted in gammas against time. An arbitrary datum of 500 gammas was drawn on the time-field strength graphs. The same datum was maintained throughout the survey. To correct for daily and diurnal variation, differential values above and below the 500 gamma datum were scaled off; those above were subtracted and those below were added.

#### Sample Reduction

<u>Station</u>	<u>Reading</u>	<u>Time</u>	<u>Diurnal and Daily Correction</u>	<u>Correction Reading</u>	<u>+800 Gammas</u>
12N - 29E	+560 ga.	9:52	+35 ga.	595 ga.	1400 ga.
12S - 32W	+380 ga.	2:16	-30 ga.	350 ga.	1150 ga.

Note: at 9:52 base reading = 465 (corr. = +35)

at 2:16 base reading = 530 (corr. = -30)

#### Records

All corrected readings are shown on the enclosed magnetic plan.

Base station observations are listed in the appendix.

SUMMARY & CONCLUSIONS

The corrected magnetic data has been contoured at 200 gamma intervals on the enclosed magnetic plan. Values in 1400 - 1100 gamma range were considered to be background.

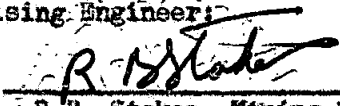
A number of isolated highs occur in the area. Notable among these is one of small areal extent on the eastern extremity of Line 24N, which reached a maximum of 3340 gammas.

Anomalous lows, below 900 gammas, are shown as shaded areas on the magnetic plan. The anomalous lows appear to define two principle magnetic patterns. One of these is a broad complex system located in the central part of the area fading out gradually to the northwest. The second of these magnetic features is located on the eastern portion of the grid. It consists of two linear configurations which strike south and south 20° east from a strong low of 190 gammas located on the northeast corner of the grid. The south striking branch is the strongest magnetic feature in the survey area.

Systems of magnetic lows coincide with lakes, swamps, and drainage courses. Such topographic features appear to be structurally controlled and it is not certain whether the coincident negative magnetic effects are partially caused by the structures themselves, or entirely by the topographic lows which they have produced.

The above magnetic patterns are significant because structures controlling important copper occurrences in other parts of the district are associated with topographic and magnetic lows.

Supervising Engineer:

  
R.B. Stokes, Mining Eng.

Respectfully submitted by:

  
A.F. Reeve, B.Sc.

April 17, 1964.



BASE STATION OBSERVATIONS

(Base Station 12S-21W)

<u>TIME</u>	<u>SCALE DIVISIONS</u>	<u>GAMMAS</u>
		<u>Date: April 4/64</u>
10:50	28.00	560
11:20	27.50	550
11:55	25.75	515
12:25	25.50	510
12:45	25.50	510
1:00	25.50	510
2:00	26.50	530
2:45	26.50	530
3:30	27.25	545
4:20	27.50	550
4:45	28.00	560
		<u>Date: April 5/64</u>
7:30	23.25	465
8:10	22.75	455
8:25	22.50	450
8:40	22.50	450
9:05	22.25	445
9:35	23.00	460
10:05	22.50	450
10:40	22.00	440
11:20	21.50	430
12:30	22.50	450
1:10	22.75	455

TIMESCALE DIVISIONSGAMMASDate: April 5/64

1:45	24.50	490
2:05	24.00	480
2:30	24.50	490
3:00	24.75	495
3:40	25.00	500
4:20	24.75	495

Date: April 6/64

7:45	25.75	515
8:05	26.00	520
8:20	25.50	510
9:00	24.50	490
9:35	23.50	470
10:10	23.00	460
10:40	22.50	450
11:10	22.75	455
11:45	23.00	460
12:25	22.00	440
1:00	21.50	430
1:30	21.00	420
2:00	21.25	425
2:30	20.50	410
3:05	21.25	425
3:30	21.50	430
4:00	21.50	430
4:30	21.50	430

TIMESCALE DIVISIONSGAMMASDate: April 7/64

7:45	24.25	485
8:10	24.00	480
8:45	23.25	465
9:30	22.75	455
10:00	22.25	445
10:35	20.00	400
10:50	19.75	395
11:00	19.75	395
11:10	19.75	395
11:30	19.50	390
12:00	19.75	395
12:30	20.00	400
1:00	20.25	405
1:30	20.75	415
2:05	20.50	410
2:40	21.50	430
3:20	22.00	440
3:50	22.00	440

Date: April 8/64

1:40	21.50	430
2:30	22.00	440
3:00	21.75	435
3:30	21.75	435
4:00	22.75	455
4:30	22.25	445
5:00	22.25	445

TIMESCALE DIVISIONSGAMMASDate: April 9/64

7:45	24.00	480
8:00	23.50	470
8:20	24.00	480
8:35	23.75	475
9:25	23.25	465
10:00	22.50	450
10:40	21.50	430
11:00	22.25	445
11:30	21.50	430
12:00	21.00	420
12:30	21.25	425
1:10	20.75	415
1:30	20.75	415
2:00	20.75	415
2:40	20.75	415

Date: April 10/64

6:45	25.50	510
7:00	25.75	515
7:10	26.25	525
7:20	26.50	530
8:00	27.00	540
8:35	27.50	550
9:05	27.25	545
9:30	27.00	540
10:00	26.75	535
10:35	25.75	515

TIMESCALE DIVISIONSGAMMASDate: April 10/64

11:00	25.50	510
11:30	25.50	510
12:00	25.50	510
12:30	25.50	510
1:00	25.00	500
1:30	25.50	510
2:00	25.75	515
2:30	25.00	500
3:00	24.75	495
3:30	25.75	515
4:00	26.50	530
4:30	26.50	530

SUMMARY OF SURVEY COSTS

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.

In the Matter of Filing of Assessment on the

To Wit: Alamo group of claims, Nicola Mining Division.

SUB-MINING RECORDER  
RECEIVED  
APR 23 1964  
M.R. # 67805 D  
VANCOUVER, B.C.

I, R. B. STOKES

of 213 - 678 Howe Street, Vancouver 1,

in the Province of British Columbia, do solemnly declare that the costs at least to the extent of those detailed below and on the assessment sheet attached were incurred.

Magnetic Survey - Magnetic Readings East-West lines - 113,000 line feet  
Base-line - 5,100 line feet. Intermediate points - 3,500 line feet. TOTAL  
- 121,600 line feet X  $\frac{1}{5,280}$  = 23 line miles.

1.23 line miles of magnetic survey (including drafting & report writing)  
@ \$50.00/mi. = \$1150.00. 2. Extra drafting (re physiographic map) 1 1/2  
man days @ \$30.00/day = \$45.00. TOTAL - \$1195.00.

Survey grid lay out, line cutting 23 miles of survey lines at \$50.00 per mile  
= \$1150.00. H. H. Shear, H. Krause, C. A. Langlois.  
Survey supplies, metal station tags \$37.30. Flagging Tape \$19.85 = \$47.15

Engineering Supervision 4 days @ \$50. per day, R.B. Stokes, P. Eng.  
=\$200.00.

TOTAL \$2,592.15

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 23  
day of April, 1964, A.D.

*M. J. Brown*

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

★o


Sub-Mining Recorder

CERTIFICATE

I, Albert F. Reeve, of 1096 Comox Street, Vancouver 5,  
British Columbia, hereby certify:

- (1) That I am a geological engineer residing at the above address.
- (2) That I am a graduate (1958) of the Provincial Institute of Mining,  
Haileybury, Ontario.
- (3) That I am a graduate (B.Sc. - 1961) of Michigan College of Mining  
and Technology, Houghton, Michigan.
- (4) That I am a certified member of the Association of Professional  
Engineers of the Province of Ontario.
- (5) That I am registered as an Engineer in Training with the Professional  
Engineers of the Province of British Columbia.
- (6) That I have practised as a geological engineer for three years.
- (7) That the accompanying report is the result of work which I perso-  
nally performed and supervised.

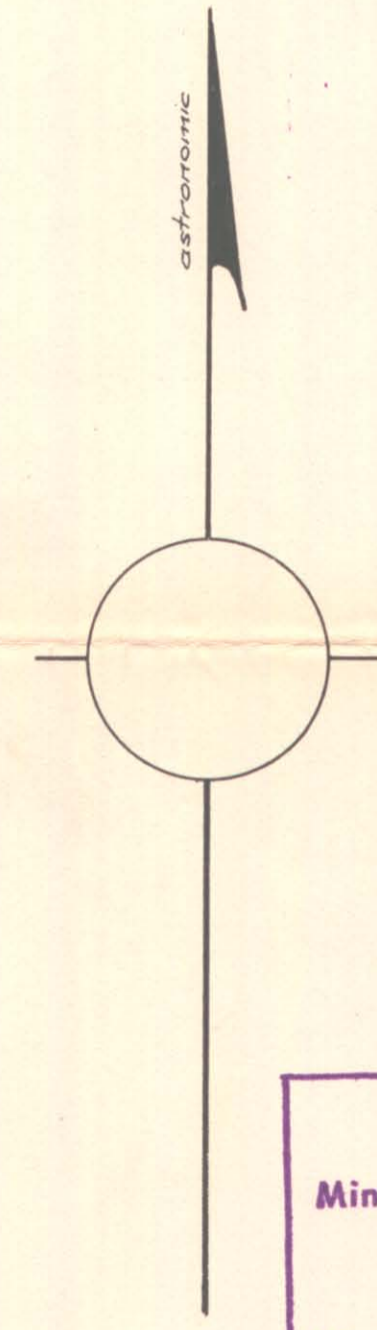
Signed: \_\_\_\_\_

  
A.F. Reeve, B.Sc.

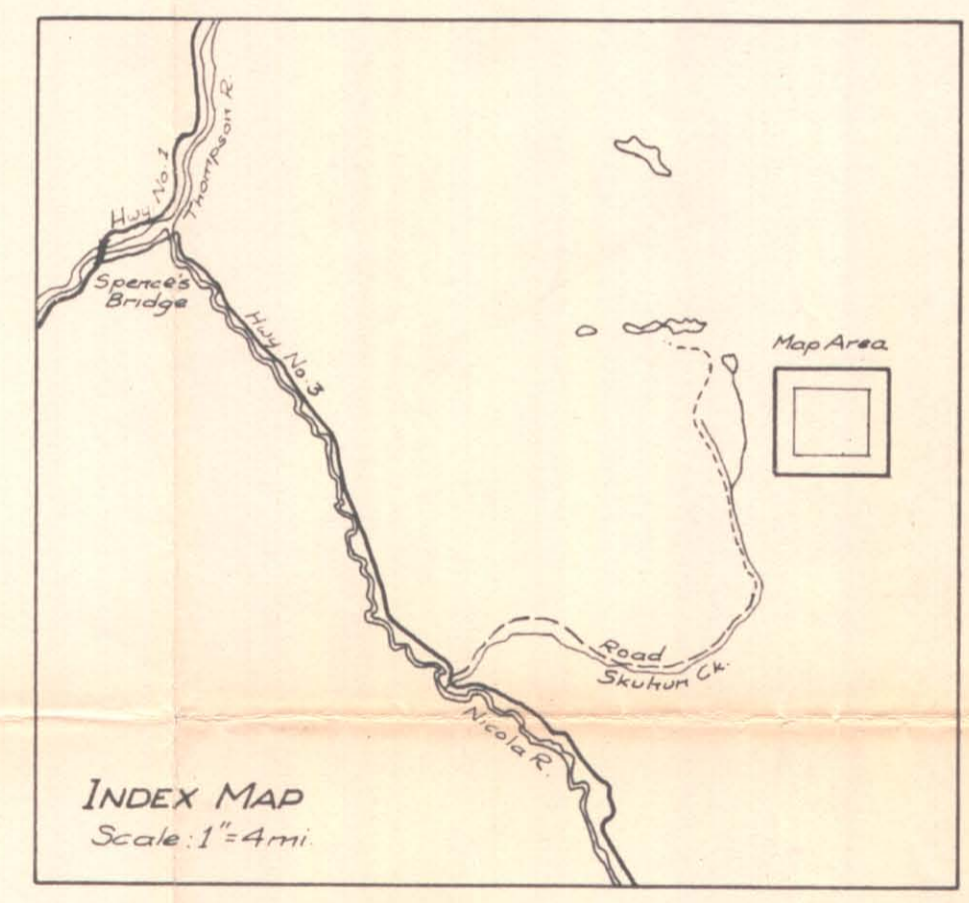
APPENDIX



M1



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 550 MAP 1



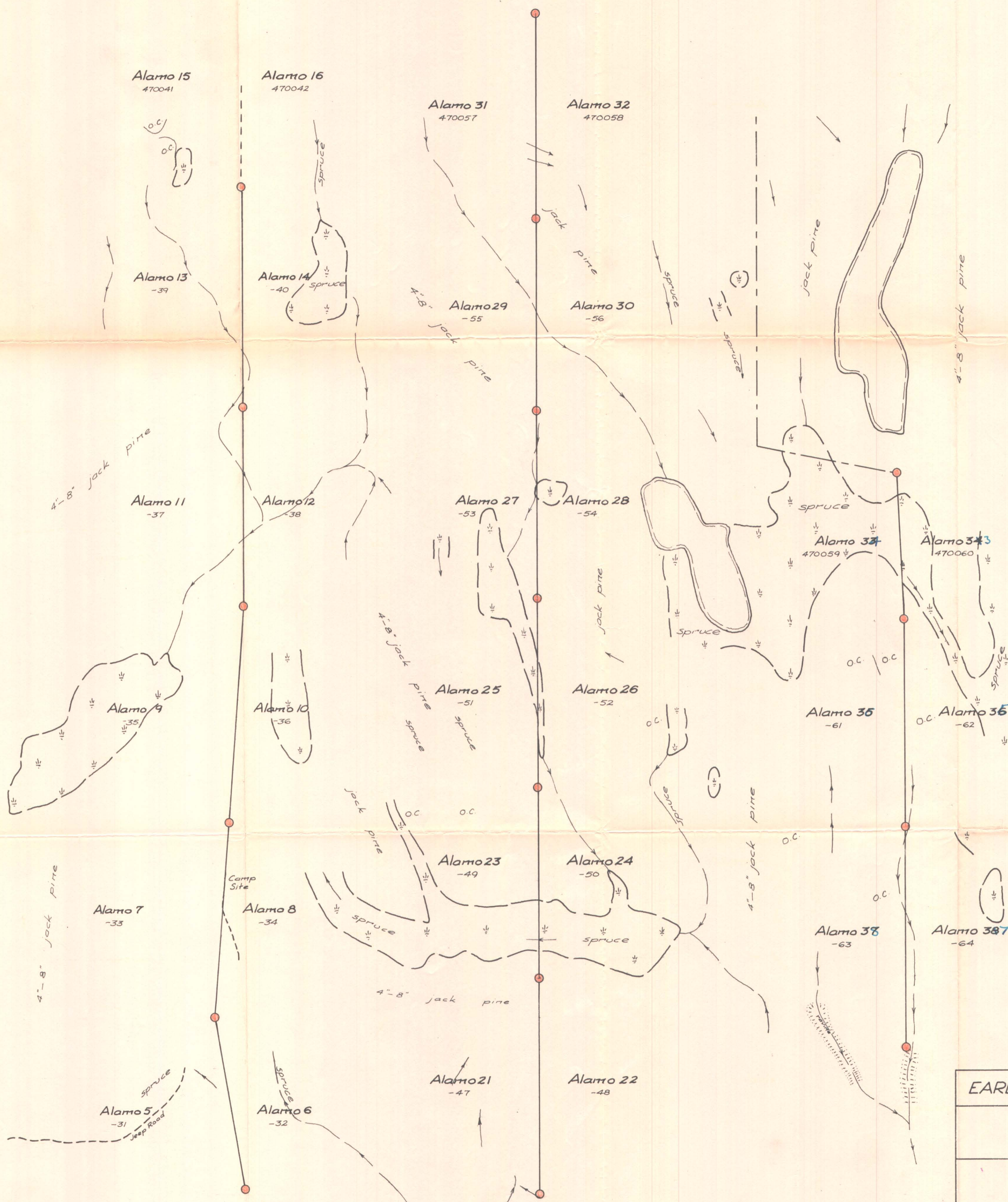
- low contours: 300 to 1100
- high contours: 1300 to 3300
- claim post

EARLCREST RESOURCES LTD.  
ALAMO GROUP  
Magnetometer Survey  
To accompany geophysical report by A.F. Reeve, B.Sc.  
on Alamo group, 15 miles east of Spence's Bridge, B.C.  
Kamloops M.D.  
Scale: 1"=400' Date: Apr 15/64 Drawn by: RAG

550

R. B. Stoker

Ma



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 550 MAP 2

Note: O.C. - outcrop  
\* - swamp

EARLCREST RESOURCES LTD.  
ALAMO GROUP  
Physiography

Scale 1"=400' Date: Apr. 16/64 Drawn by: R.A.G.

R. B. [Signature]  
ENGINEER