

DETAIL SURVEY

General

Between September 6th and 9th, 1967, further electromagnetic ^{34/2} surveying was done on the Cow property.

This detail survey was done on lines 200 feet apart to delineate the anomaly located by the previous reconnaissance survey of June, 1967. The survey was performed using a Crone electromagnetic unit with the readings being taken every 50 feet along the picket lines using frequencies of 480 and 1800 cycles per second respectively.

Discussion of Results

The results as shown on maps E-114-7 and 8, indicate two anomalous zones, "A" and "B". The causes of these anomalies appear to be flat lying conductors within the bedrock at a depth of 50 to 75 feet below the surface. The outlines of these zones are shown on map E-114-8, which is a contour plot of the 480 c.p.s. dip angles. Zone A has indicated overall dimensions of 600 by 300 feet, while Zone B has those of 600 by 200 feet. These conductors have average overall ratios of low to high frequency response of 0.84 and 0.56 respectively. The first ratio is within the range of responses for massive sulphide mineralization and graphite, while the latter lies within that normally obtained from disseminated sulphides and from graphite.

Recommendations

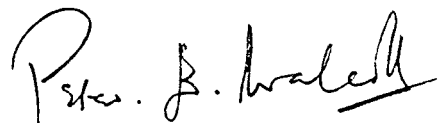
As numerous occurrences of graphite are known throughout the Ross River camp, it is therefore recommended that a gravity survey be run over the detail grid to determine whether the causitive sources of the anomalies be sulphide mineralization or graphite. No gravity highs will

be obtained over the anomalous zones if the conductors are graphitic as graphite has a specific gravity of less than that of the average rock. However, should the conductors be sulphide bodies gravity highs will be obtained over the anomalies as metallic sulphides have greater specific gravities than the surrounding rocks.

The estimated cost of such a survey would be in the order of \$2,000.00.

Respectfully submitted,

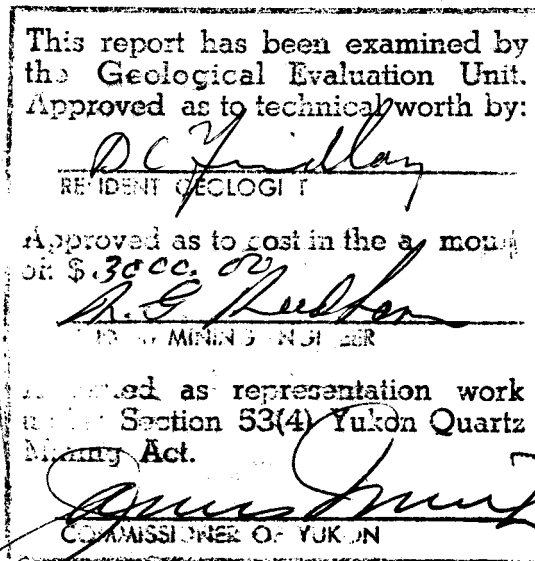
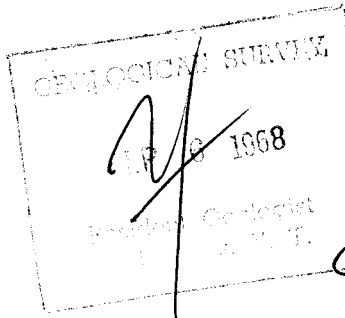
EAGLE GEOPHYSICS LIMITED



Peter E. Walcott, P. Eng.
Geophysicist.

Rexdale, Ontario.

February, 1968.



(ii)

COST OF SURVEY

Eagle Geophysics Limited provided a geophysicist, a geophysical operator, camp and food for \$160.00 per day, while draughting and interpretation were extra. Therefore the total cost of services provided by Eagle Geophysics Limited was \$900.00

(iii)

PERSONNEL EMPLOYED ON DETAIL SURVEY

<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Dates</u>
Peter E. Walcott	Geophysicist	Eagle Geophysics Ltd. P.O.Box 125, Rexdale, Ont.	Sept. 6th to 9th, 1967 Sept. 30th, 1967 February 13th, 1968
V. Pashniak	Geophysical Operator	"	Sept. 6th to 9th, 1967
D. Grant	Draughtsman	"	Dec. 13, 14, 15, 16, 1967
Mrs. D. Longman	Typist	"	Feb. 21, 1968

EAGLE GEOPHYSICS LTD.

P.O. BOX 125

REXDALE, ONTARIO

TELEPHONE 248-8055

July 5, 1968.

Quatsino Copper-Gold Mines Limited,
326-736 Granville Street,
Vancouver 2, B. C.

For the Attention of Mr. E. Shaw

Gentlemen:

This letter along with copies of a letter dated May 27, 1968 and a Bouger gravity map forwarded by Hunttec Limited will serve as a final report on a gravity survey conducted by Hunttec Limited of Toronto, Ontario on Cow Claims #21 and #22 during March - April 1968.

The gravity survey was done on the recommendation of Eagle Geophysics Limited to determine whether the causative sources of two previously located Crone E.M. conductors were either graphite and carbonaceous sediments or sulphide mineralization. (Report on Cow Claims, Ross River Area, Yukon Territory dated August 1967 and subsequent report dated February 1968).

The results of the gravity survey (see map) showed no gravity highs to be associated with the two anomalous zones 'A' and 'B' with the exception of a 0.2 mgal gravity high on Line 8.5 W over Zone 'B'. In fact a gravity low was obtained over Zone 'A'.

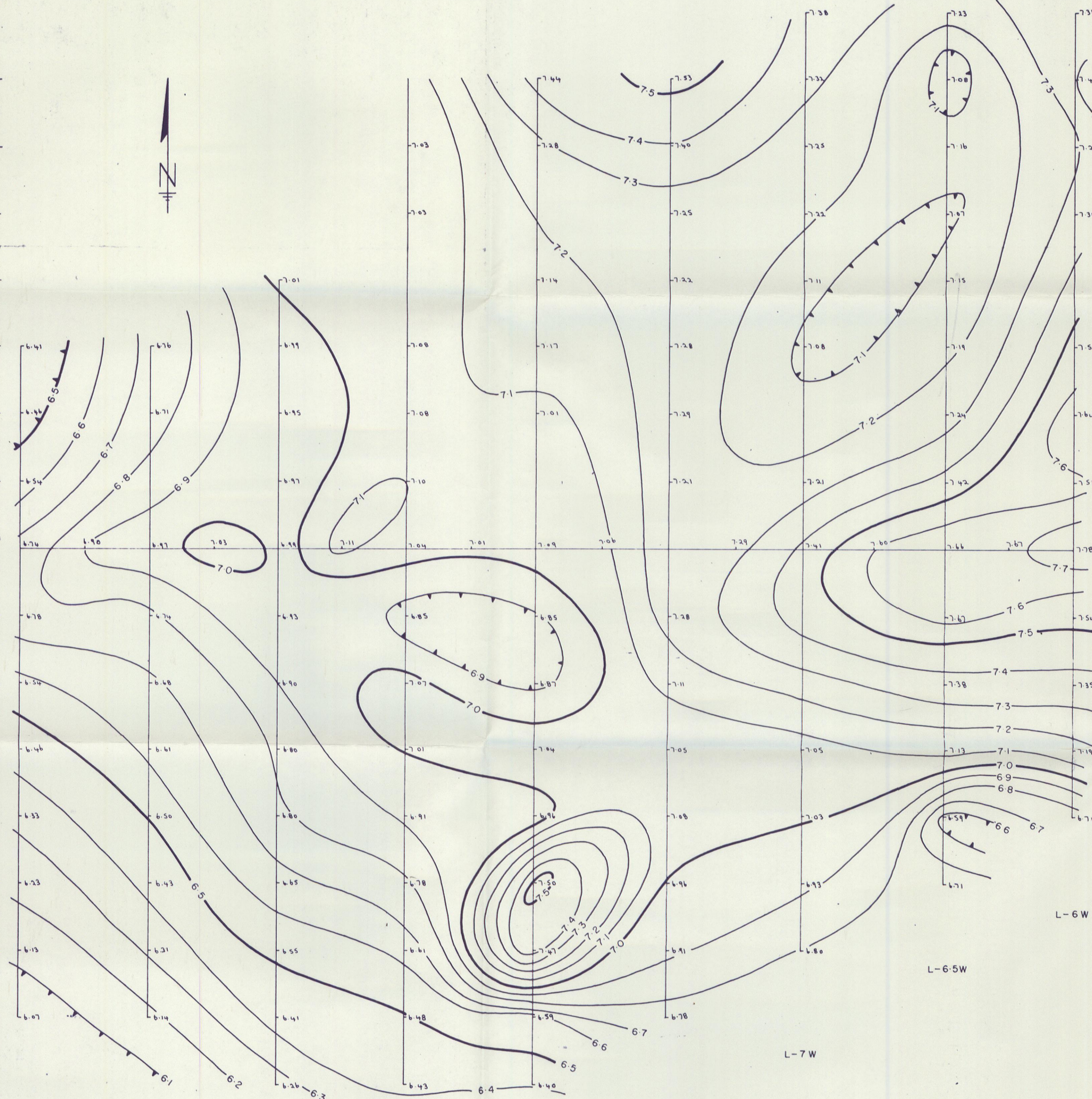
As a result the writer concludes that the electromagnetic anomalies were most probably caused by carbonaceous sediments and/or graphite and not by sulphide mineralization.

Therefore, it is the writer's recommendation that no further work be done on the property at this time, but that assessment be filed for the work done to date and the property be held in abeyance until such time as the assessment credits expire or a discovery in the area sparks renewed interest.

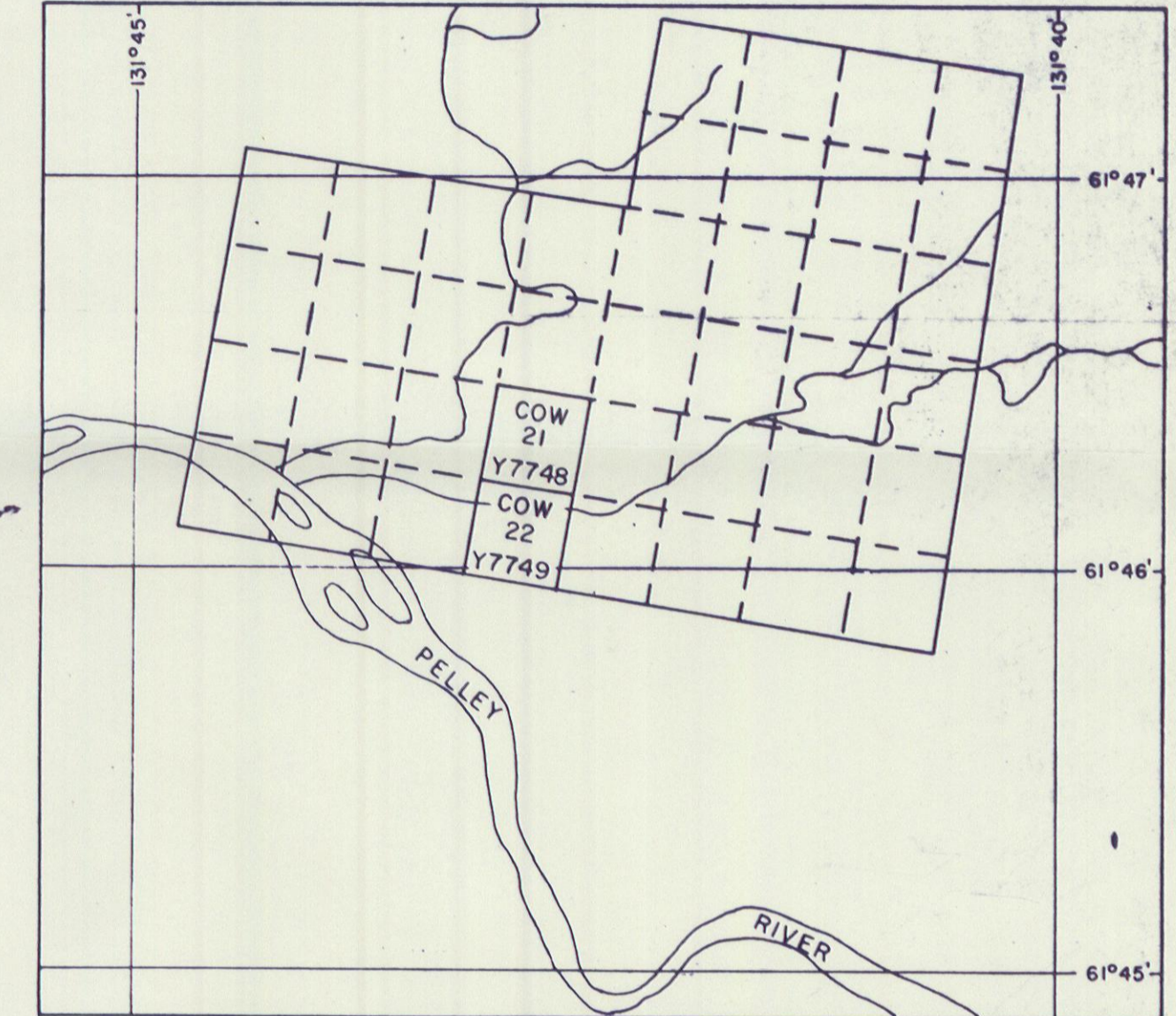
Yours very truly,
EAGLE GEOPHYSICS LIMITED
P. E. Walcott
Peter E. Walcott, Eng.
Geophysicist
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

PEW/sm

700N —
600N —
500N —
400N —
300N —
200N —
100N —
0 —
100S —
200S —
300S —
400S —
500S —
600S —
700S —
800S —



COW 21
COW 22



2 inches to 1 mile

L-10W L-9-5W L-9W L-8-5W L-8W L-7-5W

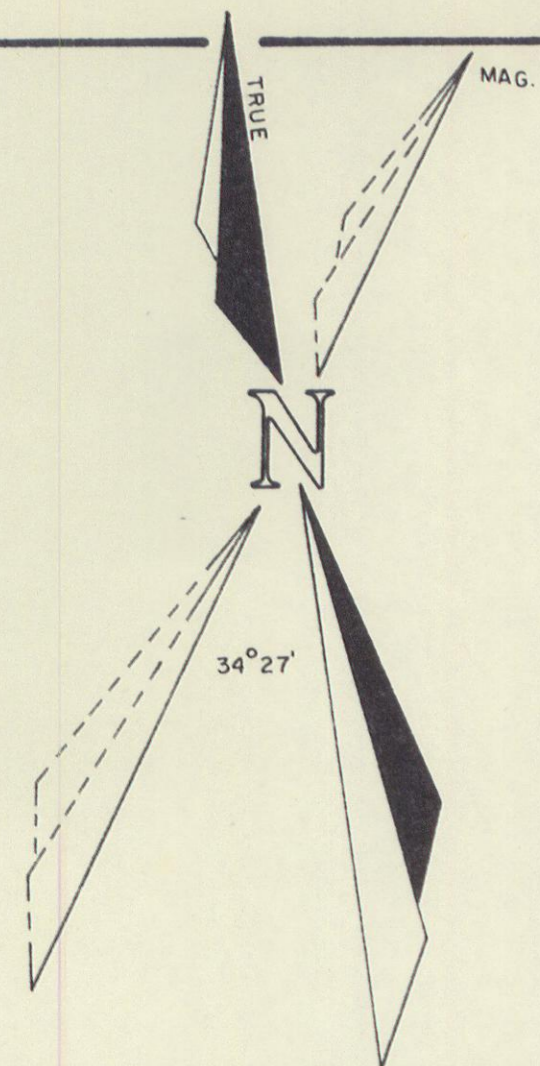
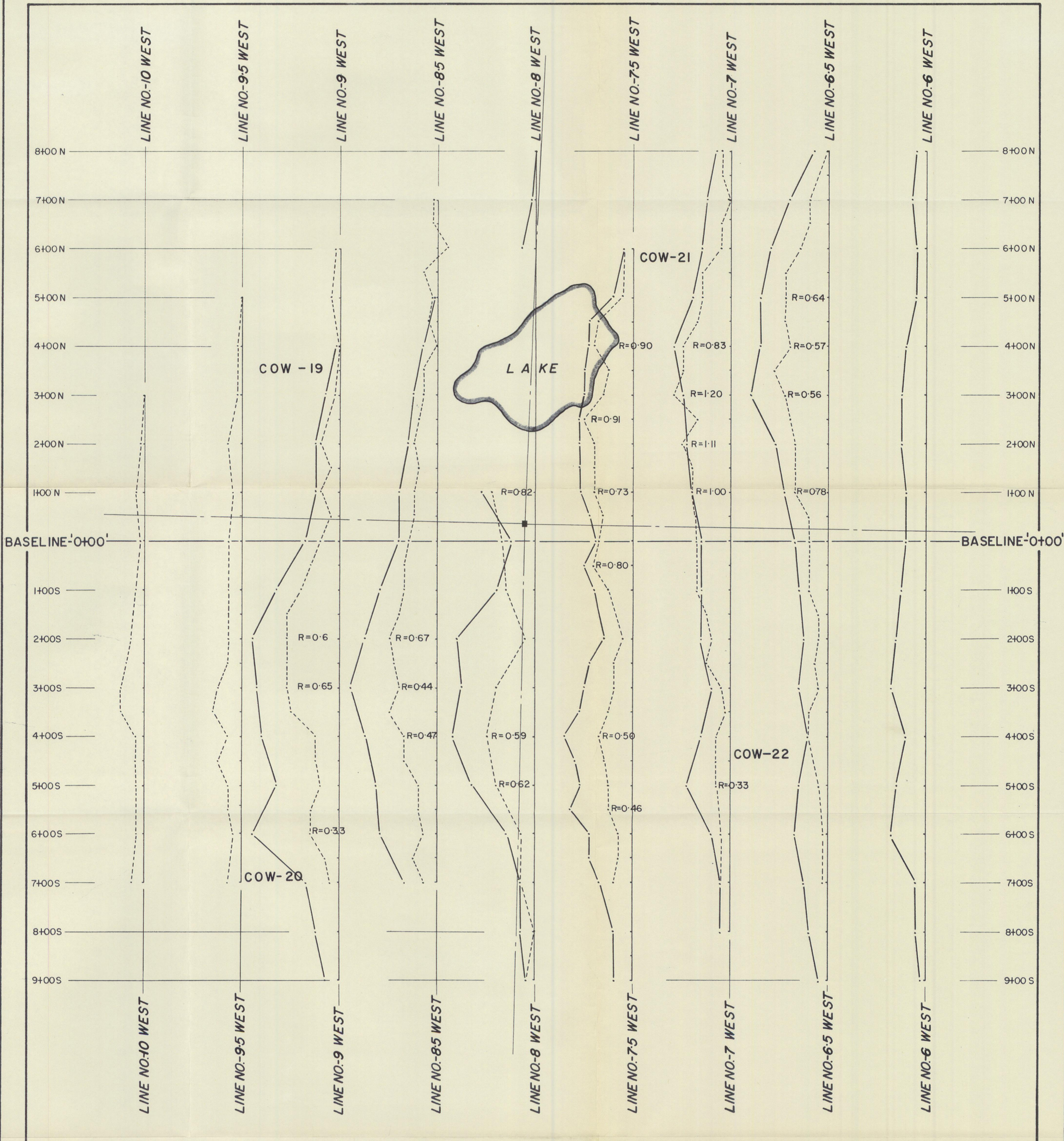
QUATSINO COPPER-GOLD MINES LIMITED

GRAVITY METER SURVEY
CLAIMS 21 and 22, COW GROUP
WATSON LAKE MINING DIVISION
ROSS RIVER, YUKON TERRITORY

BOUGUER GRAVITY CONTOUR MAP

CONTOUR INTERVAL: 0.1 MILLIGALS
SCALE: 1 inch to 100 feet

Surveyed by HUNTEC LIMITED, Toronto, Canada. April 1968



LEGEND
E.M. SURVEY

Dip Angle Profile
Frequency 1800 c.p.s.

Dip Angle Profile
Frequency 480 c.p.s.

Ratio of Dip Angles
Frequency 1800 and 480 c.p.s.

SYMBOLS

Claim Post and Boundary

Lake Outline

QUATSINO COPPER-GOLD MINES LIMITED
NEW PRIVATEER MINES LTD.
BUCHANAN MINES LIMITED

COW PROPERTY, ROSS RIVER, YUKON TERRITORY - WATSON LAKE MINING DIVISION

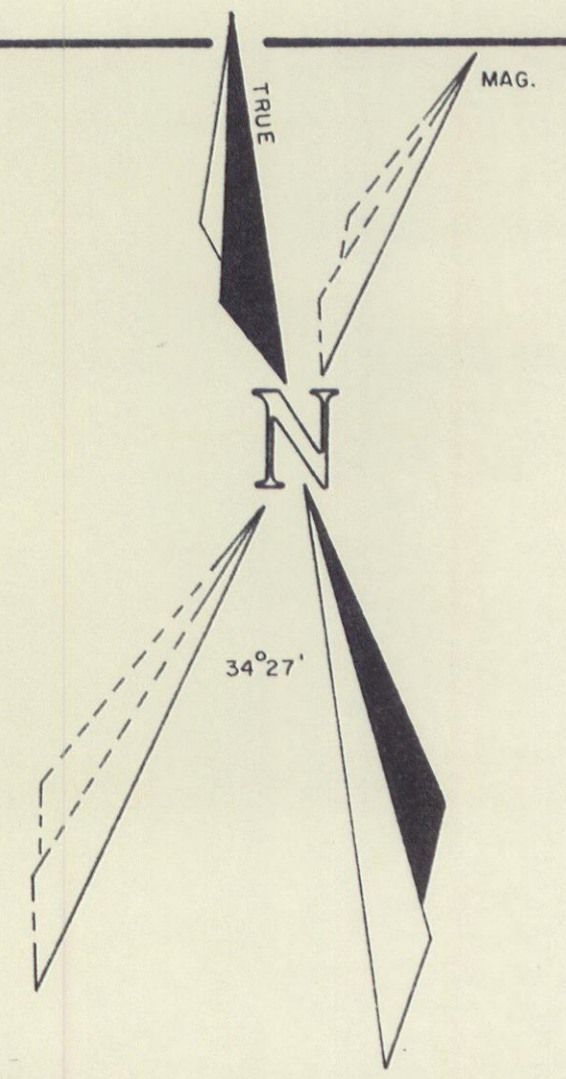
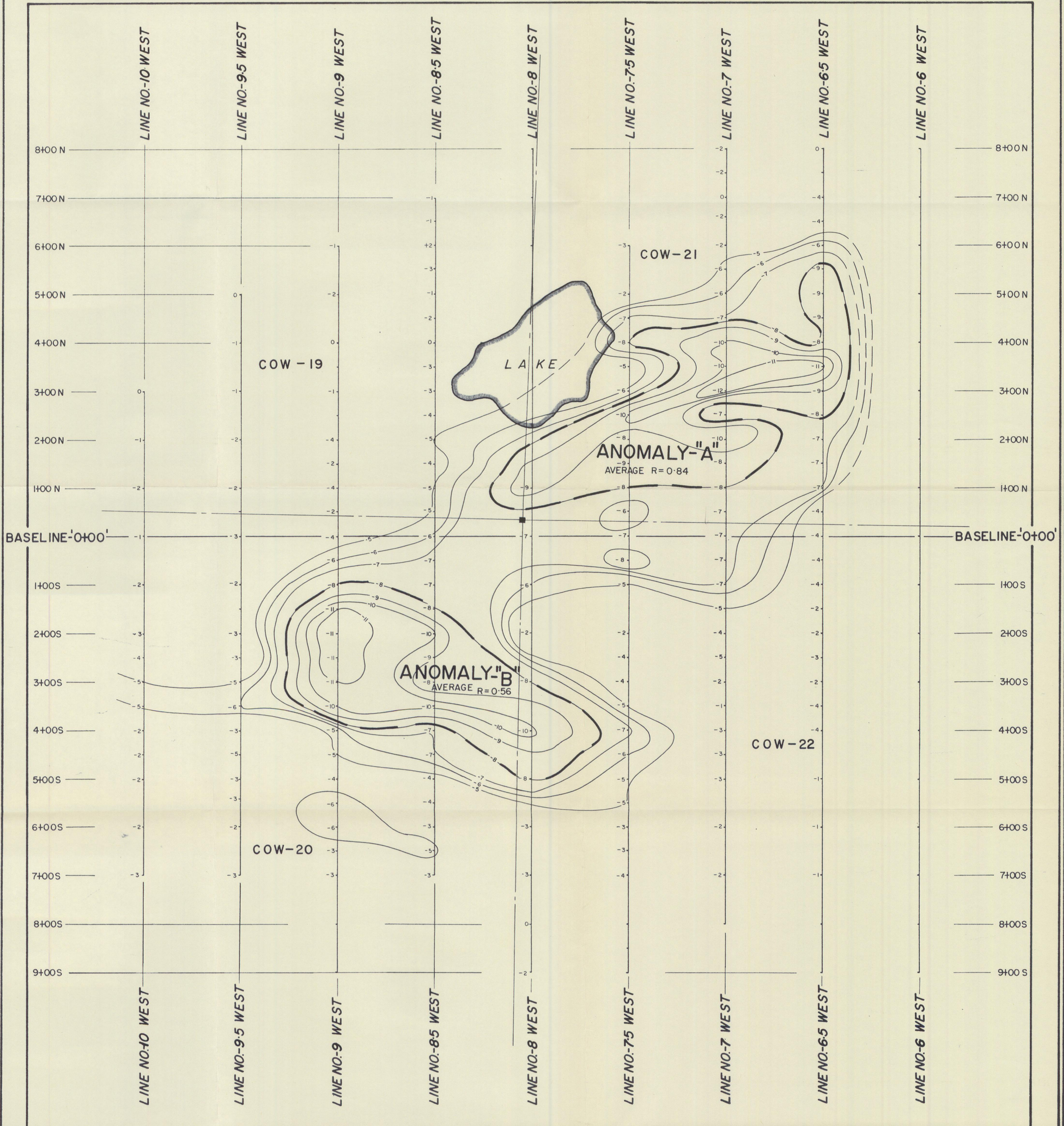
**CRONE TYPE
DETAIL ELECTROMAGNETIC SURVEY**

Scale - 1" = 100 Feet

0 100 200 300 400
FEET FEET

EAGLE GEOPHYSICS LIMITED

MAP NO. - E-114-7
SEPT.-1967



LEGEND

E.M. SURVEY

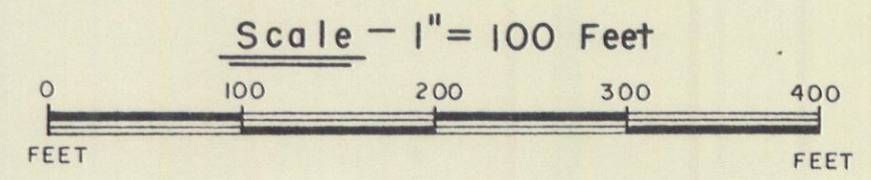
- 7- Dip Angle Contour
Frequency 480 c.p.s.
- 3- Dip Angle Reading
Frequency 480 c.p.s.
- Outline of Anomalous Zone
- R Ratio of Dip Angles
Frequency 1800 and 480 c.p.s.

SYMBOLS

- Claim Post and Boundary
- Lake Outline

QUATSINO COPPER-GOLD MINES LIMITED
NEW PRIVATEER MINES LTD.
BUCHANAN MINES LIMITED
 COW PROPERTY, ROSS RIVER, YUKON TERRITORY - WATSON LAKE MINING DIVISION

**CRONE TYPE
 DETAIL ELECTROMAGNETIC SURVEY**



EAGLE GEOPHYSICS LIMITED

MAP NO. - E-114-8

SEPT.-1967

3m/13
John E. Redell