

LUNDBERG EXPLORATIONS LIMITED

96 EGLINTON AVE. EAST
TORONTO 12, ONT.



REPORT ON THE GROUND E. M. SURVEY
ACE CLAIMS
NEAR GISCOME BRITISH COLUMBIA
FOR
TOTEM MINERAL LIMITED

Claim Group: Ace 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,
14, 59, 60, 65, 67.

Location: Ace Claims-Caribou Mining Division
30 miles northeast of Prince George
near the west end of Eaglet Lake
122 20' W. Long. 54 4' N. Lat.

Survey: Lundberg Explorations Limited
Box 69
Willowdale, Ontario

Report prepared by:
Basil T. Wilson
Chief Geologist

Work done: September 1st to 19th, 1959.

<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. <u>322</u> MAP</p>

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Introduction

The Ace claims, otherwise known as the Giscome property, were included in an air borne electromagnetic survey of an area south of Prince George. A conductive zone was outlined by this survey and in order to check this anomaly and find its location more accurately a ground electromagnetic survey was carried out over a portion of the Ace Group.

Location and Access

The property is located 1 1/2 miles east of Giscome, a town on the Canadian National Railway, at the west end of Eaglet Lake. Giscome is 30 miles northeast of Prince George. To reach the property from Giscome it is necessary to use a four wheel drive vehicle on a forestry access road which passes through the property.

Topography and Surface conditions

The claims are situated in a hilly area with elevations

of from 2000 to 2600 feet above sea level. The area is drained by the numerous tributaries of Bateman Creek which has cut deep valleys across the area.

A good part of the area has been burned over and is now covered by second growth poplar, birch and alders. Outcrops are plentiful on the hilltops but scarce in the valleys.

Geology

From south to north across the property the area is underlain by andesite carrying minor quantities of chalcopyrite, galena and pyrite, sheared^d andesite, banded cherty argillite, porphyritic rhyolite, silicified argillite, limestone, silicified, limestone,, quartz micagneiss, granodiorite and granodiorite porphyry.

The general strike is N80' E and varies from 45' to 85' to the south. There is some deviation from this strike, in the eastern portion of the area where the porphyritic ^{rhyolite} rhyolite is in contact with the sheared andesite.

Dragfolding was observed in the vicinity of line 2000 W. and faulting near line 2400 W. A granodiorite tongue crosses the micagneiss near line 2000 W. but no contact alterations were observed in the area.

A mineralized zone occurs on these claims. It has been opened by trenches which are now badly caved in. Lead and zinc sulphides occur in limestone. Some samples assayed

as much as 4.65' zinc and 1.93% lead.

Geophysical Survey

The result of a ground electromagnetic survey are shown on the map (27-471-55) which accompanies this report. The profiles surveyed, the in-phase and out of-phase (amplitude and phase) recordings and the claims boundaries are shown on a scale of one inch equal to 200 feet.

The survey shows a relatively continuous conductor having a length of 10,600 feet and N70' W strike. The intensity variations which are observed could be caused by varying depths of overburden. The conductor does not correlate with the outcrop of the mineralized limestone bed but since this bed dips toward the conductor it was hoped that this could mean a greater concentration in the limestone at depth.

Drilling however indicated the presence of a graphite shear zone which is a very good conductor.

Statistics

Area surveyed 1/2 square mile

Profiles surveyed 37

Length of profile surveyed 38100 feet

Method

The electromagnetic method used was the E. M. Gun equipment developed by the A. B. Elektrisk Malmletning, Stockholm, Sweden. The E. M. Gun is a two-man equipment for ore prospecting by the inductive electromagnetic method. It makes use of the fact that electric conductors, when subject to a primary alternating field, give rise to secondary fields, which cause the measured field components to deviate from normal values. The deviations thus indicate the presence of the conductors. For routine E. M. Gun investigations, the source of the primary field (the transmitter) and the measuring equipment (the receiver) are simultaneously moved to successive observation points, where the in-phase and out-of-phase components are measured in per cent of the primary field strength. The transmitter and the receiver are spaced a fixed distance apart (usually 100-200 feet) and are connected by a light reinforced cable. Surveys may be made with frequencies of 1760 or 440 C. P. S.

Conclusion

The survey successfully located a good conductive horizon. It also indicated that the limestone was not sufficiently

mineralized in its outcrop or near outcrop to be good conductor. Drilling proved the conductor to be graphite schist. Since there is apparently no genetic or structural relationship between the graphite and the sulphide the information given by the survey has not been of assistance in prospecting the property.

Respectfully submitted

LUNDBERG EXPLORATIONS LTD.



Basil T. Wilson
Chief Geologist

LUNDBERG EXPLORATIONS LIMITED

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~~TORONTO, ONT.~~
P.O. BOX 60
WILLOWDALE - ONTARIO



Statement of Qualifications

Persons engaged in this ground electromagnetic survey of the Ace Claim Group were employed by Lundberg Explorations Limited in the following capacities:-

- (a) Mr. K. Lovang - Instrument Operator

- (b) Mr. Robert A. Knutson - Instrument Operator and Geologist. Refer to Department of Mines File No. 166 for Statement of Qualifications.

- (c) Mr. Basil T. Wilson, Chief Geologist, B.Sc., M.Sc., Geology, Queens University, Kingston, Ontario; Professional Engineer (Mining Branch) Ontario.

LUNDBERG EXPLORATIONS LIMITED

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~~TORONTO 42, ONT.~~

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WILLOWDALE - ONTARIO



STATEMENT OF WORK DONE AND COSTS

Ace No. I Group

Line cutting and chaining (Berglund & Jaboe)

24,000 feet 380.00

E. M. Gun Survey (Knutson & Lovang)

19 days @ \$100.00/day 1,900.00

\$2,280.00

Ace No. II Group

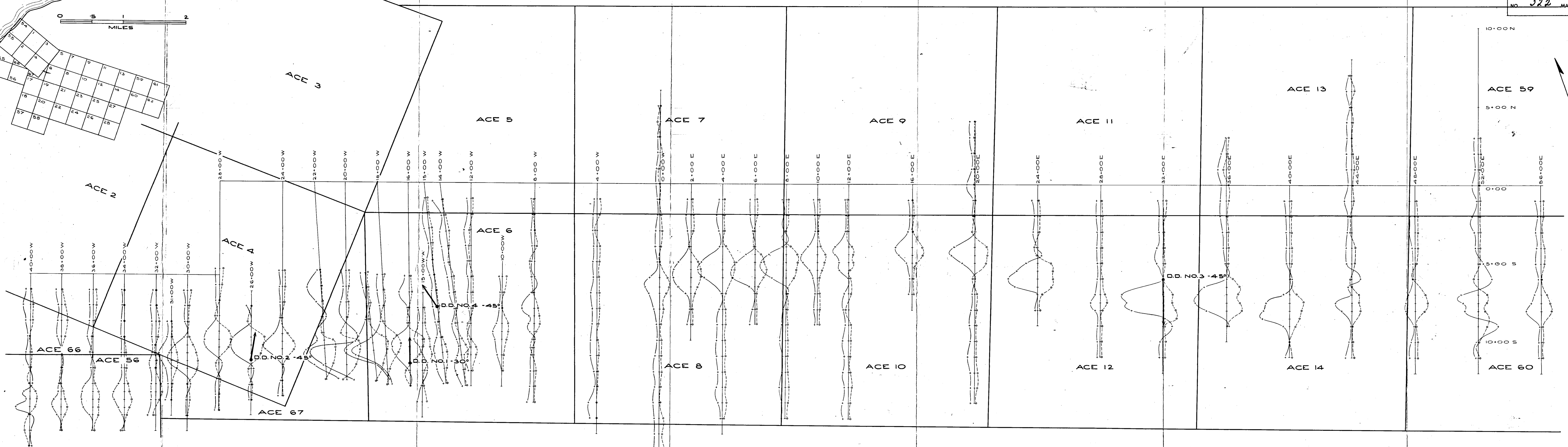
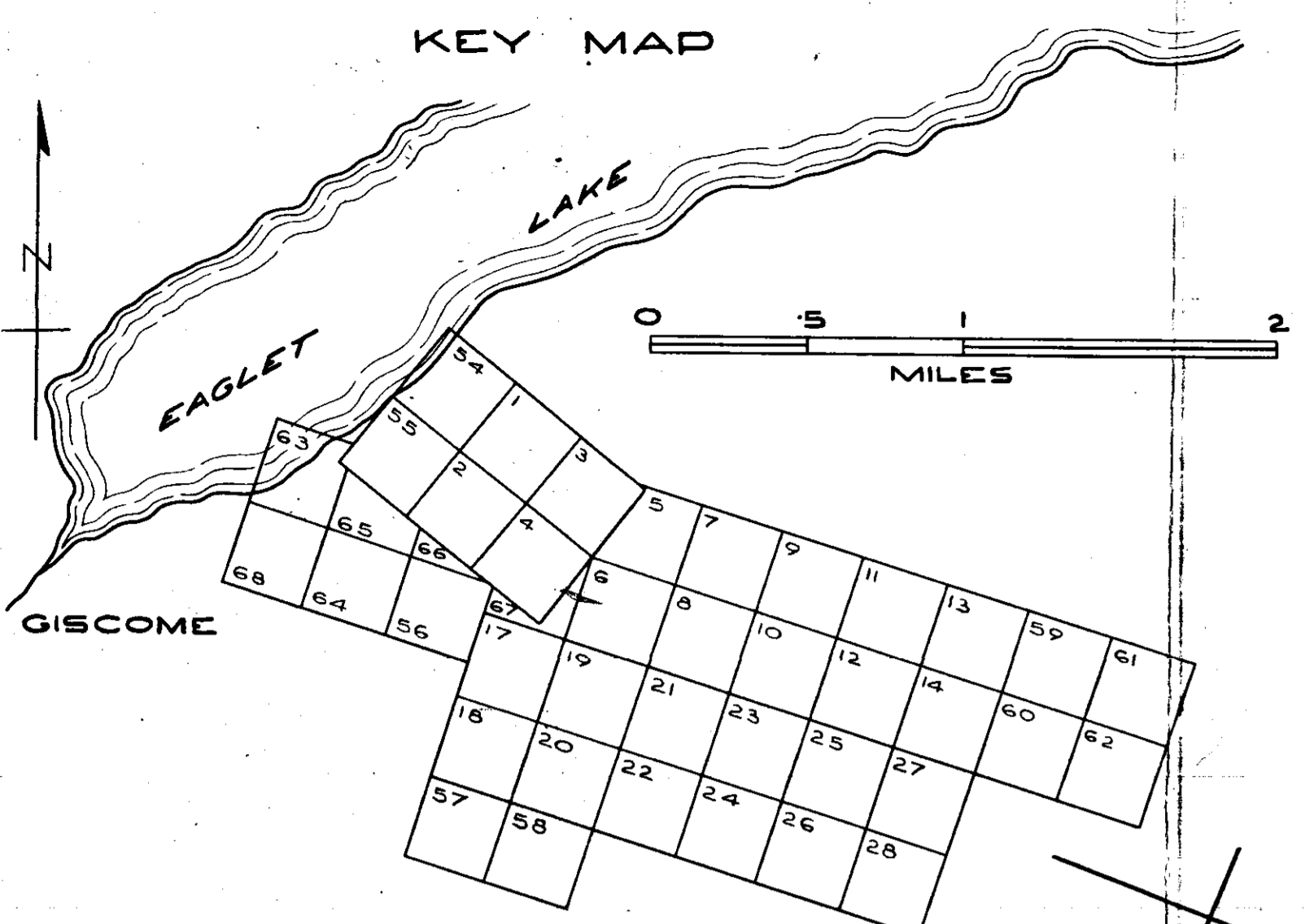
Line cutting and chaining (Berglund & Jaboe)

26,000 feet 400.00

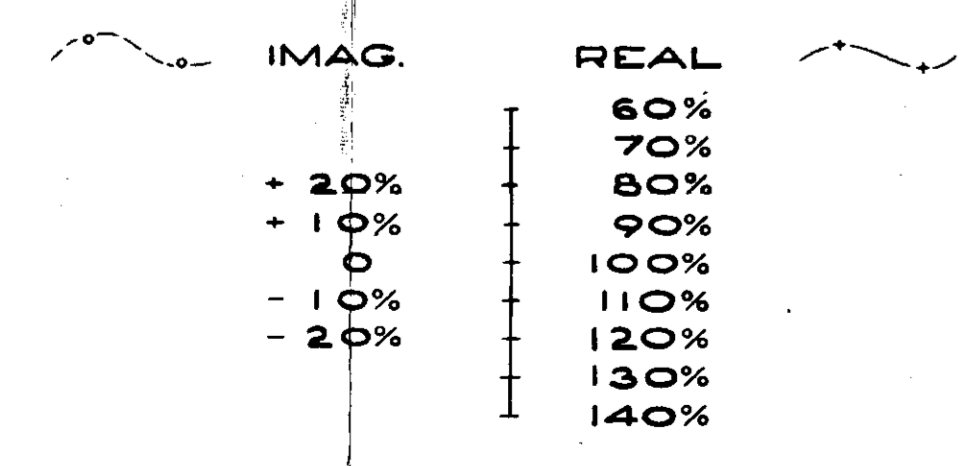
E. M. Gun Survey (Knutson & Lovang)

11 days @ \$100.00/day 1,100.00

\$1,500.00



E.M. GUN - 200 FOOT SEPARATION
PLOTING SCALE



MAP SHOWING
E.M. GUN RESULTS ON ACE CLAIMS
GISCOME - B.C.
FOR
TOTEM MINERALS LIMITED

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TO ACCOMPANY REPORT BY
LUNDBERG EXPLORATIONS LIMITED
TORONTO, AUG. 1960

Basil J. Wilson

