<table>
<thead>
<tr>
<th>MAP No.</th>
<th>ASSESSMENT REPORT</th>
<th>TYPE OF WORK:</th>
</tr>
</thead>
<tbody>
<tr>
<td>115 B 16</td>
<td>N. M. E. A. P. CONFIDENTIAL OPEN FILE</td>
<td>GEOPHYSICS DRILLING</td>
</tr>
<tr>
<td>REPORT FILED UNDER</td>
<td>GAYMONT PROSPECTING SYNDICATE</td>
<td>DOCUMENT NO. 091722</td>
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<tr>
<td>DATE PERFORMED</td>
<td>1956</td>
<td>DATE FILED: Nov. 20, 1956</td>
</tr>
<tr>
<td>LOCATION - LAT. LONG.</td>
<td>61° 50' N 121° 55' W</td>
<td>AREA CUB CREEK</td>
</tr>
<tr>
<td>CLAIM NO.</td>
<td>CUB 1-51</td>
<td></td>
</tr>
<tr>
<td>WORK DONE BY</td>
<td>A. R. CLARK</td>
<td></td>
</tr>
<tr>
<td>WORK DONE FOR</td>
<td>GAYMONT PROSPECTING SYNDICATE</td>
<td></td>
</tr>
<tr>
<td>REMARKS</td>
<td>A well defined magnetic high and resistivity low occurs under glacier overburden. At the end of the moraine, massive sulphide boulders up to 15 tons in size containing Cu-Ni mineralization are found. Drilling failed to intersect bedrock as casing was always twisted before it was reached.</td>
<td></td>
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</tbody>
</table>
INTRODUCTION

Following the discovery of massive sulphide boulders in the bed of Cub Creek and the indication of a resistivity low about 1000 feet upstream from the last boulder occurrence late in 1955, a detailed survey of the whole area was planned for 1956.

LOCATION AND ACCESS

The property is situated about 120 miles northwest of the Whitehorse, Y.T., to the west of the Alaska Highway in the vicinity of mileage 1037. The property is reached via the Alaska Highway to 1037 and thence by the old Alaska Highway for seven miles. From that point a bulldozed road passable by jeep or truck in dry weather goes as far as Cub Creek.

TOPOGRAPHY AND OVERBURDEN

The property was relatively flat up to the mountains some three miles west of the end of the road. There were no outcrops observed on the flat portions of the area until one reached the second creek south of Cub Creek. The overburden in the vicinity of Cub Creek proved by diamond drilling to be very deep.

GEOPHYSICAL SURVEY

Using a picket line along a set of claim boundaries as a base line, the resistivity values were measured along chain and compass lines at right angles to this base line as far south as the second creek. The survey was extended as far into the basin of the Cub Creek glacier as snow conditions would allow.
A gravimeter was obtained through the courtesy of Prospectors Airways and three gravity profiles were obtained. The results of the survey are shown on the accompanying map and profiles. Attempts were made to measure depths of overburden at several locations.

DISCUSSION OF RESULTS

(a) Resistivity

For clarity in map presentation only those resistivity contours of $0.15 \times 10$ ohm cms or less were drawn. These contours indicated a conducting zone extending across the surveyed area. This area of low values coincided exactly with the low values obtained in the preliminary work during 1955. The frozen overburden had the unexpected effect of lowering all the values by at least a factor of 10 as evidenced by the values near the cliffs at the upper end of Cub Creek where the overburden was observably very shallow. This overburden effect made the actual numerical values of resistivity difficult to evaluate in terms of ore possibilities.

The results showed that a conducting zone extended south from Cub Creek. The zone itself appeared to be erratic in conductivity and appeared to be terminating before the creek showing the rusty outcrop was reached. The rusty outcrop did not exhibit markedly low values. No other conducting zone of interest was encountered anywhere else on the surveyed area.

(b) Gravity

All gravity profiles merely showed a smooth east west gradient. No elevations were taken and hence no corrections could be applied. However profile $G_1$ was along a relatively constant elevation gradient and failed to show any gravity change over the conducting zone.

The gravity change between profile $G_1$ and $G_3$, in the creek bed, allowed the difference in elevation between the two profiles to be calculated as 160 feet. Coupled with the drill results in the creek bed the overburden below profile $G_1$
was at least 400 feet deep. At this depth a pyrite or chalcopyrite orebody 10 feet wide and 1000 feet long would have produced a change in gravity of 0.1 milligals which would be undetectable without a careful topographic survey. To produce a gravity anomaly of 0.5 milligals an orebody of the same length would need to be at least 100 feet wide.

(c) Overburden Depth Tests

Before it was realized from drilling that the overburden was extremely deep, measurements were made near 10° 00'N, 5° 00'W to test overburden depth to 300 feet with inconclusive results. After bedrock had not been reached in a vertical drill hole 135 feet deep in the bed of Cub Creek, measurements were made in an effort to determine whether the creek was flowing over a deep channel previously gouged in the bedrock, by a resistivity profile across the creek valley. The evidence showed that no such gorge existed.

CONCLUSIONS

All evidence seems to indicate that the sulphide float found in the creek bed originated in the zone of better conductivity. The absence of a gravity anomaly merely showed that the sulphide body from which the float came was not extremely large. The erratic nature of the lowest resistivity values within the anomaly zone also strengthened the possibility that ore occurrences along the zone would be short in length. Overburden depth may become less toward the most southerly creek. If this assumption is correct the resistivity values should be less than those actually obtained. In view of the results of diamond drilling at Arch Creek the evidence of the presence of a massive sulphide orebody is not definite enough to warrant the large expenditure required to penetrate the deep overburden.

Respectfully submitted,

A. R. Clark

A. R. Clark,
Geophysical Consultant.

November 1, 1956.
**DIAMOND DRILL RECORD**

**PROPERTY**  CUB CREEK, CLAIM CUB No. 6  

**HOLE NO. 1**

- **SHEET NUMBER**
- **SECTION FROM**  
- **TO**
- **STARTED**  May 14, 1956
- **LATITUDE**
- **DATUM**  mutual boundary of Claims #6 and #4
- **DEPARTURE BEARING**  SW
- **Completed**  17, (abandoned)
- **ELEVATION**
- **DIP**  45°
- **ULTIMATE DEPTH**  124'
- **PROPOSED DEPTH**

<table>
<thead>
<tr>
<th>DEPTH FEET</th>
<th>FORMATION</th>
<th>SAMPLE NO</th>
<th>WIDTH OF SAMPLE</th>
<th>GOLD $</th>
<th>SLUDGE GOLD $</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 124</td>
<td>Overburden (clay and sand followed by coarse moraine material with very large boulders).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hole had to be abandoned at 124' because of broken casing.</td>
<td></td>
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</tr>
</tbody>
</table>

**Drilled by** Morissette Diamond Drilling Ltd.

**Signed** M. H. Frohberg.
DIAMOND DRILL RECORD

PROPERTY   CUB CREEK, CLAIM CUB No. 6  HOLE NO. 2

SHEET NUMBER

LATITUDE

DEPARTURE

ELEVATION

SECTION FROM
Drilled from set-up 400' SW of NE-Boundary

DATUM
and 600' SE of NW-Boundary

BEARING   SW

DIP   50°

STARTED   May 19, 1956

COMPLETED   23, (Abandoned)

ULTIMATE DEPTH   110'

DEPARTMENT BEARING sfd

PROPOSED DEPTH

DEPTH FEET FORMATION SAMPLE NO. WIDTH OF SAMPLE GOLD $ SLUDGE GOLD $

0 - 110 Overburden (clay followed by very coarse morainic material)

Hole was abandoned because of broken casing.

DRILLED BY Morissette Diamond Drilling Ltd.

Signed M. H. Frohberg.
## DIAMOND DRILL RECORD

**PROPERTY** CUB CREEK (CLAIM CUB NO. 4)  
**HOLE NO.** 3

- **SHEET NUMBER**
- **SECT FROM**
- **TO**
- **STARTED** May 26, 1956
- **Hole drilled in the bed of Cub Creek from**
- **LATITUDE**
- **DATUM** position 400 NW of SE-boundary & 250 SW of NE-boundary
- **DEPARTURE**
- **BEARING** Vertical
- **ELEVATION**
- **DIP** 90°
- **ULTIMATE DEPTH** 120'
- **COMPLETED** 30.

### DEPTH FEET | FORMATION | SAMPLE NO. | WIDTH OF SAMPLE | GOLD $ | SLUDGE GOLD $
---|---|---|---|---|---
0 - 120 | Overburden (Sand followed by coarse gravel) | | | | |

Hole had to be abandoned because of twisted-off casing.

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**N.M.P., TORONTO—STOCK FORM NO. 501 REV. 12/51**

**DRILLED BY** Morissette Diamond Drilling Limited

**SIGNED** M. H. Frohberg