REPORT ON
THE 1975 H.E.M. SURVEY
WES 31-36, 43-49, 51, 67-76 CLAIMS
104 I/1W
LIARD MINING DIVISION

by

J. Peter Neilans, P.Eng.

October 21, 1975
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATION AND ACCESS</td>
<td>1</td>
</tr>
<tr>
<td>DESCRIPTION OF WORK</td>
<td>1</td>
</tr>
<tr>
<td>COST STATEMENT</td>
<td>3</td>
</tr>
<tr>
<td>INTERPRETATION AND EVALUATION</td>
<td>4</td>
</tr>
<tr>
<td>STATEMENT OF QUALIFICATION</td>
<td>Appendix I</td>
</tr>
</tbody>
</table>

# LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>#</th>
<th>Map</th>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Map 1</td>
<td>Location Map</td>
<td>Page 2</td>
</tr>
<tr>
<td>2</td>
<td>Map 2</td>
<td>Grid and Claim Location Map</td>
<td>Pocket</td>
</tr>
<tr>
<td>3-12</td>
<td>Maps 3-12</td>
<td>EM Profiles</td>
<td>Pocket</td>
</tr>
</tbody>
</table>
LOCATION AND ACCESS

The Wes 31-36, 43-49, 51 and 67-76 mineral claims are situated approximately 4.1 miles east of Kutcho Creek and 14.5 miles south of Rainbow Lake in the Liard Mining Division. The respective coordinates are 58°10' N Lat. and 128°22' W Long. Access to this property is by float plane from Watson Lake, Y.T. to Rainbow Lake and by helicopter the remaining distance.

DESCRIPTION OF WORK

The Demigun model electromagnetic equipment operating at a frequency of 2640 Hz. was used for this survey. It was manufactured in Sweden by the ABEM Instrument Group of the Craelius Company.

The survey was carried out by traversing in a north-south direction on compass lines. The receiver-transmitter separation remained constant at 300 feet. All measurements were recorded in percent strength of the primary field. Both quadrature (in-phase) and imaginary (out-of-phase) components were measured.

The work was done on April 10, 14-16, July 4-7, 11-12, 1975 on the above mentioned claims which are owned and operated by Imperial Oil Limited.
COST STATEMENT

1. **Salaries**
   - G. Dunn: 10 d @ $47/d = 470 $ 940
   - F. Shulist: 6 d @ $47/d = 282 July 4-7, 11-12
   - P. Neilans: 4 d @ $47/d = 188 Apr. 10, 14-16

2. **Camp Costs**
   - Board and lodging: 20 man-days @ $20/m-d = 400 980
   - Fuel: 250
   - Camp equipment: 330

3. **Transportation**
   - Skidoo, sled, gas, etc.: 2500 2880
   - Helicopter: 5 hrs. @ $276/hr. = 1380

**Total** $ 4800
INTERPRETATION AND EVALUATION

Several conductive areas of varying size and shape were outlined. Of these, thirteen warrant noting. They are as follows:

1. A weak conductor located between L180W, 83S and L168W, 86S.
2. A weak to moderate conductor located between L180W, 67S and L128W, 70S. This conductor may have a weak tail or multiple zone located on the eastern end, to the south.
3. A weak conductor located between L172W, 56S to L108W, 58-63S. Similar to the above conductor this has a weak zone of multiple conductors to the east and south.
4. A weak conductor exists between L100W, 59 and 50S and L76W, 59S. This is generally very weak and poorly defined.
5. A moderately strong conductor located between L112W, 49S and L96W, 50S exists. This is one of the stronger conductors examined.
6. Between L84W, 51S and L68W, 57S, there is a weak conductor. This may be an extension of the conductor no. 5.
7. A weak to moderate strength conductor lies between L116W, 42S and L112W, 41S.
8. A conductive zone lies between L100W, 40S and L72W, 42-47S. The zone is stronger and better defined to the west but rapidly fades into a broad zone of weak multiple conductors to the east.
9. A weak to moderate zone of conductivity exists between L124W, 32S and L92W, 34S.
10. A short conductor exists between L8W, 47S and L4W, 44-47S. This conductor is quite weak.


12. Another weak, narrow conductor exists between L24W, 11S and L20W, 12S.

13. A moderately strong, short conductor exists between L4W, 12S and L00W, 12S. This conductor is narrow in width but quite strong especially on line 4W.

In general, the conductive horizons found are quite weak and poorly defined. Mostly out-of-phase responses were definitive in locating these conductors. The length, poor definition, and poor conductivity suggests a conductive rock type. Conductors 1-4, 6-9 fall into this category.

Conductor 5, although much stronger and better defined, may be a continuation of the same conductive horizon seen in conductor 6.

Conductor 10 is a weak, moderately wide zone of conductivity. Is in proximity to a steep ravine to the south and its poor definition makes it suspect of being due to short cable effects.

Conductors 11-13 are relatively short, fairly weak in conductivity, with the exception of no. 13, and narrow. Of all the horizons encountered, these offer the best chances for sulphide mineralization.

The results of this survey indicate that initial exploration should be directed to conductors 11-13, 5 and 10.

Respectfully submitted

J. Peter Neilans

J. Peter Neilans, P. Eng.
APPENDIX I

STATEMENT OF QUALIFICATIONS
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I, J. PETER NEILANS, of Vancouver, British Columbia, hereby certify the following qualifications:

(a) I obtained a B.A.Sc. degree in Geological Engineering (1973) from the University of British Columbia, Vancouver, B.C.

(b) I have been practising my profession as a geological engineer in Canada for two years.

(c) I am a registered member of the Association of Professional Engineers of British Columbia.

J. Peter Neilans, P.Eng.
STATEMENT OF QUALIFICATIONS

Frank Shulist

1. He was awarded a Diploma in Mining Technology from the Haileybury School of Mines, Haileybury, Ontario (May 13, 1972).

2. Since graduation, he has been employed as a geophysical technician with Imperial Oil Ltd.

Gary Dunn

1. He was awarded a Diploma in Mining Technology from the Haileybury School of Mines, Haileybury, Ontario (May 6, 1974).

2. Since graduation, he has been employed as a geophysical technician with Imperial Oil Ltd.

I, J. Peter Neilans, P.Eng., certify the above to be correct and true.

J. Peter Neilans, P.Eng.