REPORT ON A
GROUND MAGNETIC
AND
ELECTROMAGNETIC SURVEY
FOR
BAYRIDGE - PELANGIO JOINT VENTURE
BLUEBERRY ISLAND GOLD PROPERTY
HORWOOD TOWNSHIP
ONTARIO

RECEIVED
MAY 10 1988
MINING LANDS SECTION

Timmins, Ontario
March, 1988
Kenneth Guy
Geologist
SUMMARY and RECOMMENDATIONS
INTRODUCTION
LOCATION and ACCESS
PROPERTY
PREVIOUS WORK
GEOLOGY
LINECUTTING
SURVEY EQUIPMENT and PROCEDURES
DISCUSSION OF RESULTS
CERTIFICATE

FIGURES
1. REGIONAL LOCATION MAP after page 2
2. PROPERTY LOCATION MAP after page 3
3. VLF-EM PLAN MAP Back pocket
4. CONTOURED MAGNETIC PLAN MAP Back pocket
5. CONTOURED FRASER FILTER PLAN MAP Back pocket

GUY THIBAULT EXPLORATION SERVICES
SUMMARY AND RECOMMENDATIONS

The ground geophysical program has successfully located and defined a number of anomalies. Two VLF-EM anomalies are recommended for additional ground follow up, bringing the total for the project to fifteen.

The magnetic survey outlined an area of probable magnetic mafic volcanics.

The ground geophysical program should greatly aid during geological mapping and assist in stratigraphic correlation of the project area.

The following recommendations are made for the project area:

1) A detailed geological survey should be conducted concurrent with intensive prospecting. The geophysics indicates a near surface source for the VLF and magnetic anomalies.

2) A reconnaissance geochemical survey be conducted over the gold occurrences and the eastern portion of the property. This may aid in anomaly discrimination.

3) A reconnaissance Induced Polarization (IP) survey be conducted over some of the VLF-EM anomalies as well as in the vicinity of the gold occurrences.
REGIONAL LOCATION MAP

Figure 1
INTRODUCTION
During the period March 1988, a combined Very Low Frequency Electromagnetic (VLF-EM) and magnetic survey was carried out over the Bayridge - Pelangio Joint Venture property in Horwood Township, Ontario.

The purpose of the VLF-EM survey was to detect, on the ground, zones of conductivity which may be produced by conductive minerals and/or zones of shearing and faulting. The magnetic survey was performed to determine if any magnetic correlation exists with apparent conductivity and to aid in stratigraphic correlation.

The property encompasses a number of gold occurrences hosted by carbonatized volcanic rocks.

LOCATION AND ACCESS
The Blueberry Island Gold Property is located in central Horwood Township, Porcupine Mining Division, Ontario. The property lies approximately 70 miles southwest of Timmins, Ontario (Figure 1).

Access to the property is via Highway 616, south off Highway 101, to the northeast shore of Horwood Lake (Figure 2). Transportation by boat is then necessary to the claim group which straddles the shore of Horwood Lake.

© GUY THIBAULT EXPLORATION SERVICES
Air transportation, helicopter or fixed wing, is also available in Timmins.

**PROPERTY.**

The Blueberry Island Gold Property consists of 31 contiguous, unpatented mining claims in Horwood township. The survey covered in whole or in part 14 claims; the water covered portion of property. The remainder of the property was covered during an earlier survey.

The following claims were covered in whole or in part by the combined surveys:

- 995955 - 995958 inclusive
- 901425, 901426
- 955556 - 955562
- 798703 - 14 claims

The remainder of the claim block, land portion, was covered by surveys completed earlier. The entire project now has complete geophysical coverage.

**PREVIOUS WORK**

1949 - 1959 J.E. Lefever - 32 DDH's - 0.56 oz Au/ton over 10 feet, sludge sample assayed 7.8 oz Au/ton.

1960 Kerr Addison Mines Ltd. - magnetic survey, 7 DDH's, 3,076 feet, over the main showing - drilling indicated an auriferous zone 500 feet long by 4 feet.
wide with an average assay value of 0.204 oz Au/ton hosted in a sheared diorite — occurrence is a gold and sulphide bearing, quartz — carbonate vein system.

- 3 DDH's on the Stack vein, 0.67 oz Au/ton over 1 inch

1972 — Noranda Exploration Company Limited — magnetic and VEM surveys.

1980 — Ingamar Explorations Limited — magnetic and VLF-EM surveys.

1982 — Raise Contracting — geological survey, stripping and trenching encountered gold values.

1986 — Pelangio — Larder Mines Ltd. — VLF-EM survey.

GEOLOGY

The Horwood Lake Property lies within the northeast portion of the Swayze greenstone belt. The Swayze greenstone belt is a typical Superior Province, Archean age greenstone belt consisting of predominately mafic volcanics with lesser felsic to intermediate volcanics. Intercalated tuffs and sediments are also present. The volcanic sequence is intruded by mafic felsic intrusive rocks.

Extensive, intermittent mineral exploration has focused on gold mineralization in quartz vein systems and pyritized shear zones.
LINECUTTING

During February 1988, a total of 19.8 kilometres of line were cut on the property. The grid established on the land was extended out into the lake on the ice. The base line was extended at az 090 (E-W) with section lines every 100 metres off the base line. Picket stations were established every 25 metres on both section lines and base line.

SURVEY EQUIPMENT AND PROCEDURES

The Very Low Frequency-Electromagnetic (VLF-EM) survey was carried out using a Geonics EM16, operating at a frequency of 24.0 kHz utilizing the Cutler, Maine (NAA) transmission station. Readings of both In Phase (IP) and Quadrature (OP) were taken every 25 metres, with an accuracy of 1% on both.

A total of 19.0 km of line were surveyed during March 1988.

The data is presented as profiles on the VLF-EM plan map Figure 3.

The Magnetic survey was conducted with a Geometrics G-816 total field magnetometer. Readings were taken every 25 metres along section lines and base line. The intersection of the section lines on the base line served as base stations so that diurnal drift could be

GUY THIBAULT EXPLORATION SERVICES
monitored. This method allows readings to be taken and corrected with an accuracy of one gamma. A total of 19.8 kilometres of line were surveyed during March 1988.

DISCUSSION OF RESULTS

The VLF-EM survey detected 4 anomalies which were not attributed to shoreline effects. Two anomalies were continuations of anomalies outlined on land during the previous survey.

The anomalies break down into the following priorities:

HIGH - 2 - Additional ground follow-up recommended, good conductivity with corresponding magnetic signature or structure, possible contact zone or shear zone.

MODERATE - 2 - Additional follow-up is contingent upon results from high priority anomalies.

LOW - 0 - no follow-up recommended - likely surficial or overburden response.

The two anomalies continued from the earlier survey are F1 and Cl. Both were rated moderate previously and remain so based on the present survey.

The two anomalies detected uniquely by the present survey are designated F2 and D2. Both are rated high priority due their moderate conductivity and possible shear control. Both are in close proximity to known gold occurrences.

GUY THIBAULT EXPLORATION SERVICES
MAGNETIC SURVEY - The Magnetic survey delineated a northwest trending area of high magnetics through the property. This is a continuation of the unit outlined in the previous survey. This is probably a dioritic unit or magnetic mafic volcanic unit.

A spot high at L1W/6N appears to be a cultural effect possibly a drill casing.
CERTIFICATE

I, the undersigned, Kenneth Guy, residing at 180 Nadine Street, South Porcupine, Ontario graduated with a Bachelor of Science degree in Earth Science - Geology from the University of Waterloo, Waterloo, Ontario in 1978.

I have been employed in the field of Geology since graduation in 1978.

I am a Fellow of The Geological Association of Canada.

I do not hold, nor do I expect to receive an interest of any kind in these claims held by BAYRIDGE OR PELANGIO RESOURCES LIMITED or in any other mining claims they may have.

Kenneth Guy
Geologist

Timmins, Ontario

GUY THIBAULT EXPLORATION SERVICES
**Ministry of Northern Development and Mines**

**Ontario**

**Report of Work**

(geophysical, geological, geochemical and expenditures)

---

**Type of Surveys(s)**

<table>
<thead>
<tr>
<th>Geophysical</th>
<th>Days per Claim</th>
<th>Mining Claim</th>
<th>Expended Days Crs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Electromagnetic</td>
<td>40</td>
<td>P 995955</td>
<td></td>
</tr>
<tr>
<td>- Magnetometer</td>
<td>20</td>
<td>P 995956</td>
<td></td>
</tr>
<tr>
<td>- Radiometric</td>
<td></td>
<td>P 995957</td>
<td></td>
</tr>
<tr>
<td>- Other</td>
<td></td>
<td>P 995957</td>
<td></td>
</tr>
<tr>
<td>- Geological</td>
<td></td>
<td>P 995956</td>
<td></td>
</tr>
<tr>
<td>- Geochemical</td>
<td></td>
<td>P 995956</td>
<td></td>
</tr>
</tbody>
</table>

**Airborne Credits**

- Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

**Geophysical**

> RECOGNIZED

**Mineral Lands Section**

**Claim Holder(s)**

Pelangio Larder Mines Ltd.

**Prospector’s Licence No.**

T-971

**Address**

Box 1456, Timmins, Ontario

**Survey Company**

Guy Thibault Exploration Services

**Date of Survey**

10 02 88 - 10 03 88

**Total Miles of line Cut**

19.8 km

---

**Name and Address of Author (of Geo-technical report)**

Ken G, Timmins, Ontario

---

**Credits Requested per Each Claim in Columns at right**

<table>
<thead>
<tr>
<th>Special Provisions</th>
<th>Geophysical</th>
<th>Days per Claim</th>
<th>Mining Claim</th>
<th>Expended Days Crs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>For first survey: Enter 40 days. (This includes line cutting)</td>
<td>Electromagnetic</td>
<td>40</td>
<td>P 995955</td>
<td></td>
</tr>
<tr>
<td>For each additional survey: using the same grid: Enter 20 days (for each)</td>
<td>Magnetometer</td>
<td>20</td>
<td>P 995956</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Radiometric</td>
<td></td>
<td>P 995957</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td>P 995957</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geological</td>
<td></td>
<td>P 995956</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geochemical</td>
<td></td>
<td>P 995956</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Airborne Credits</td>
<td></td>
<td>955556</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>955557</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>955558</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>955559</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>955560</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>955561</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>955562</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>798703</td>
<td></td>
</tr>
</tbody>
</table>

**Expenditures (excludes power stripping)**

**Type of Work Performed**

- Claim(s) - MAY 1988

**Calculation of Expenditure Days Credits**

<table>
<thead>
<tr>
<th>Total Expenditures</th>
<th>Total Days Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15</td>
<td>+ 15 =</td>
</tr>
</tbody>
</table>

**Instructions**

Total Days Credits may be apportioned at the claim holder’s choice. Enter number of days credits per claim selected in columns at right.

**Date**

April 27 1988

**Certification Verifying Report of Work**

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

**Name and Postal Address of Person Certifying**

Maurice HIBBARD

Connaught, Ontario

**Date Certified**

April 27/88

---

**For Office Use Only**

**Total Days Credits**

90

**Date Recorded**

May 31 1988

**Mining Records**

May 31 1988

---

**1362 (55/12)**
REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. - MINING RIGHTS ONLY
S.R.O. - SURFACE RIGHTS ONLY
M.+ S. - MINING AND SURFACE RIGHTS

DESCRIPTION ORDER NO. DATA DISPOSITION FILE
SEC 36/80 - FLOODING

FLOODING RIGHTS ON HORWOOD LAKE 8 HARDIMAN BAY TO CONTOUR ELEV. 1117 FEET ARE RESERVED TO THE SPRUCE FALLS POWER AND PAPER CO. LTD. FILE: 75166 L.O. 746 42901 SE0042 2.11166 HORWOOD 200

LEGEND

TYPE OF DOCUMENT
PATENT, SURFACE & MINING RIGHTS -
SURFACE RIGHTS ONLY -
LEASE, SURFACE & MINING RIGHTS -
SURFACE RIGHTS ONLY -
MINING RIGHTS ONLY -
LICENSE FOR MINING RIGHTS -
GRANT IN COUNCIL -
RESERVATION -
CANCELED -
SANDS & GRAVEL -

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

TOWNSHIP
HORWOOD
M.R.O. ADMINISTRATIVE DISTRICT
CHAPLEAU
MINING DIVISION
PORCUPINE
LAND TITLES/REGISTRY DIVISION
SUDBURY

Ontario
Ministry of Land Management Resources
MARCH 1985

G-3228