REPORT FOR
AUGMITTO EXPLORATIONS LIMITED
ON THEIR
PIFHER TOWNSHIP PROPERTY
THUNDER BAY MINING DIVISION, ONT.

By

A.C.A. HOWE INTERNATIONAL LTD.
Vernon Shein, B.Sc.

Report No. 479
October 25, 1983

Toronto, Ontario

A. C. A. HOWE INTERNATIONAL LIMITED
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>2</td>
</tr>
<tr>
<td>2. PROPERTY DESCRIPTION</td>
<td>3</td>
</tr>
<tr>
<td>3. LOCATION AND ACCESS</td>
<td>4</td>
</tr>
<tr>
<td>4. TOPOGRAPHY</td>
<td>5</td>
</tr>
<tr>
<td>5. PREVIOUS WORK</td>
<td>6</td>
</tr>
<tr>
<td>6. GEOLOGY</td>
<td>7</td>
</tr>
<tr>
<td>7. PRESENT WORK</td>
<td>8</td>
</tr>
<tr>
<td>8. GEOPHYSICAL RESULTS</td>
<td>10</td>
</tr>
<tr>
<td>9. GECHEMICAL RESULTS</td>
<td>18</td>
</tr>
<tr>
<td>10. CONCLUSIONS</td>
<td>21</td>
</tr>
<tr>
<td>11. RECOMMENDATIONS</td>
<td>23</td>
</tr>
<tr>
<td>12. BUDGET PROPOSAL</td>
<td>27</td>
</tr>
</tbody>
</table>

Certificate - Vernon Shein

References

Appendix 1 - Base Maps

Map 1: Claim post locations and gross geological features
Map 2: Horizontal Field Strength (VLF-EM)
Map 3: Dip Angle Profile (VLF-EM)
Map 4: Fraser Filter (VLF-EM)
Map 5: Total Magnetic Field Strength
Map 6: Geochemistry
Map 7: Composite Anomaly
Map 8: Diamond Drill Hole Locations

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Appendix 2 - Paterson, Grant and Watson Geophysical Report

Appendix 3 - A.D. Pudifin Report (1973)
- Diamond Drill Log
- I.P. Survey Results
SUMMARY

During the period of August 1983, A.C.A. Howe International Limited performed geophysical and geochemical surveys as well as surface mapping for Augmitto Explorations Limited on their Pifher Township property in the Thunder Bay Mining Division of the province of Ontario.

The target of the project was gold mineralization hosted in basic to intermediate metavolcanics marginal to the Elmhirst Lake (felsic intrusive) Stock.

Five prominent geophysical-geochemical anomalies were identified. However, further work is necessary in order to further evaluate each of these anomalies. In this regard a program of detailed geochemical soil sampling and induced polarization survey at an expected cost of $73,518.00 is herein outlined.
1. INTRODUCTION

A.C.A. Howe International Limited has recently completed three surveys over Augmitto Explorations' Pifher Township gold property. This work included magnetic, electromagnetic and geochemical surveys, the results of which are presented in this report.
2. PROPERTY DESCRIPTION

The Pifher Township property of Augmitto Explorations Limited consists of twelve contiguous mining claims located approximately fifteen miles northwest of Jellicoe in the Thunder Bay Mining District of Ontario. The claims are shown on the Property Disposition map in Appendix 1, Map 1, and are listed along with recording dates as follows:

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</table>
3. LOCATION AND ACCESS

The property is located in the east central part of Pifher Township, approximately 15 miles northwest of Jellicoe in the Thunder Bay Mining District of Ontario.

The property is easily accessed from the junction of Trans-Canada Highway #11 and Highway #801 approximately 10.5 miles to the south. The hamlet of Jellicoe is located 5 miles east of this junction.

The Canadian National Railway line, high voltage electrical power and a natural gas pipeline are all located within eight miles to the south of the property.
4. TOPOGRAPHY

The Pifher Township property consists of low lying marsh in the southwest with a prominent northeast trending ridge on the eastern side of the property. The maximum relief of the property is approximately 100 feet. The outcrop exposure is approximately 5% with maximum exposure in areas adjacent to the marsh, i.e. western portion of property.

The marsh areas are covered in thick mats of organic humus while the better drained areas are covered in glacial till of varying depth.

The vegetation is heavy and mixed. It consists of cedar, larch, white spruce, poplar, alder, Labrador tea and mosses.
5. PREVIOUS WORK

In the early 1970's the following limited exploration for base metals was undertaken.

1971 - Limited prospecting and trenching revealed extensive volcanic flows which hosted disseminated copper. One line of IP and a few traverses of VLF-EM identified a conductive zone on the claim property.

1972 - A grid was cut and limited IP and EM were carried out.

1972-1973 - Eight diamond drill holes were completed to test surface showings and IP anomalies. Total footage was 3,285 feet (see Appendix 3). The location of the diamond drill holes are plotted on Map 8, Appendix 1.

1973 to Present - The property has been held by Augmitto Explorations Limited, but no further exploration work has been undertaken.
6. GEOLOGY

The Augmitto property is underlain in the north by acid igneous rocks of the Elmhirst Lake Stock. These rocks range in composition from granite to granodiorite to quartz diorite and underlie claims TB 767891, TB 317341, TB 318086, TB 318090, TB 318087 (?) and half of TB 318089 (see Map 1, Appendix 1).

In the south central portion of the property there is a wedge of silicified, fine grained quartz eye porphyry that occurs marginal to the stock. This wedge underlies portions of claims TB 317344, TB 318089 and TB 317343. It thins out to the northwest and eventually gives way to the south to basic and intermediate volcanics and intrusive rocks of dacitic, andesitic and dioritic composition. These rocks underlie claims TB 767893, TB317345, TB 767892, TB 317344 and portions of TB 317343 and TB 318089 (see Map 1).

The contact between the basic and intermediate metavolcanics and felsic intrusives strikes northwest.

The wedge of quartz porphyry occurs between the metavolcanics and the Elmhirst Lake Stock. W.O. Mackasey (1975) observed this quartz porphyry at the Quebec Sturgeon River Mine, Irwin Township, 13.5 miles northwest of Jellicoe. He noted that the quartz porphyry occurred in the vicinity of the mine and may have resulted from the "silicification related to the intrusion of the granodiorite stock"*.

7. PRESENT WORK

The work program on the Pifher Township project comprised geochemical and geophysical surveys, and limited surface mapping. The results of the work are illustrated on the following maps found in Appendix 1 at the rear of this report.

Map 1: Claim post locations and gross geological features
Map 2: Horizontal Field Strength (VLF-EM)
Map 3: Dip Angle Profile (VLF-EM)
Map 4: Fraser Filter (VLF-EM)
Map 5: Total Magnetic Field Strength
Map 6: Geochemistry
Map 7: Composite Anomaly
Map 8: Diamond Drill Hole Locations

The locations of the claim posts were recorded as they were encountered during the geophysical survey. Surface mapping was performed in the same manner with the main goal being to map the contact between the acid and basic-intermediate rocks.

The magnetic field strength was measured using a Barringer Proton Precision magnetometer. The VLF-EM survey was performed with a Crone Radem VLF-EM receiver.

The earths magnetic field was noted as unsettled for the majority of the survey period by the Geomagnetic Forecasting Service.

The VLF-EM receiver was tuned to the Annapolis, Maryland station. Two days of VLF-EM transmission were disrupted due to station shutdown.

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8. GEOPHYSICAL RESULTS

Introduction

In August 1983 A.C.A. Howe International Ltd. performed geophysical ground surveys for Augmitto Explorations Ltd. on their Pifher Township property.

The work consisted of a ground magnetics survey using a Barringer PPM and an EM survey using a Crone Radem VLF-EM receiver.

The surveys were performed on a cut grid with crosslines spaced 100 m apart and stations at 25 m intervals.

The relatively flat magnetic response (59700-60706 nT) prompted A.C.A. Howe International Ltd. to consult with Paterson, Grant and Watson Limited on the interpretation of the geophysical data. Their report and recommendations are included in Appendix 2 at the rear of this report.

Ground Magnetics

The magnetic survey measured the total magnetic in nanotesla (nT). Although the magnetic field strength is relatively flat, five major north trending anomalies were identified (see Map 5, Appendix 1).

1. Anomaly (a)

This anomaly consists of two parallel belts (see Map 5). The western belt is a magnetic depression with a minimum value of 59648 nT. The eastern belt is a magnetic high with a maximum value of 60266 nT. This anomaly parallels the contact between andesite/diorite and quartz porphyry and is adjacent to a magnetically inferred fault (see Map 5). Sulphide mineralization was
present in samples 7-3 and 7-5. This anomaly probably represents a zone of sulphide mineralization.

2. Anomaly (b)

This anomaly consists of a "z" shaped magnetic depression (see Maps 5 and 7) with a minimum value of 59730 nT. The northern portion of the anomaly is coincident with the southern portion of VLF field strength anomaly (see Maps 7 & 2). The southern portion of the anomaly is coincident with the andesite and quartz porphyry contact and contains an isolated 10 ppb geochemical high.

3. Anomaly (c)

This roughly circular anomaly (see Map 5) consists of a magnetic high of 60036 nT, and has been interpreted by Paterson, Grant and Watson as "a weakly magnetic granitic stock" (see Appendix 2, P. 2). It is adjacent to VLF anomaly (see Map 7) and lies directly on the contact between quartz-porphyry and granite.

4. Anomaly (d)

This anomaly consists of an elliptically shaped magnetic high with a maximum value of 60272 nT (see Map 5). It is coincident with the western portion of a prominent VLF anomaly (see Map 7), parallel to a magnetically inferred fault and conforms to geochemical anomaly 2 (see Map 6). This anomaly is located 100 m north along strike of the anomaly identified by Paterson, Grant and Watson as conductor 3 (see Map 5) "a possible bedrock conductor" at the andesite-quartz porphyry contact (see Appendix 2, P. 4).
5. **Anomaly (e)**

This anomaly is a linear magnetic high, which is trending at 335 degrees, and has a maximum value of 600 nT (see Map 5). It is adjacent to conductor 4 which Paterson, Grant and Watson describe as "a conductive zone within the granodiorite" (see Appendix 2, P. 4). Anomaly (e) is coincident with a magnetically inferred fault and is 75 m west of a 10 ppb geochemical high anomaly 4 (see Map 6).

**VLF-EM**

The EM survey measured the horizontal field strength (see Map 2) and the dip angle to the conductor (see Map 3). The Fraser Filter technique was applied to the dip angle data and a contour map was produced (see Map 4).

The results of the magnetic and EM surveys have been plotted on a Composite Anomaly Map (see Map 7). Six north trending Fraser Filter - Field Strength anomalies are identified.

1. **Anomaly 1** (see Map 7)

The field strength anomaly consists of three separate highs, two of which are aligned north-south; the third high is located 200 m west of the southern high and separated from the other two anomalies by a 50 m wide, 025 degrees trending EM depression (see Map 2, conductor (a)). The north-south anomalies have maximum values of 149% and 248% respectively, while the third anomaly has a maximum value of 173%.
The Fraser Filter anomaly consists of two peaks trending at 025 degrees (see Map 4, conductor (a)). The north peak has a value of 47 and the south peak has a value of 42.

This double anomaly is coincident with a marsh (see Map 1) and has been interpreted by Paterson, Grant and Watson as an eroded shear zone.

2. **Anomaly 2** (see Map 7)

The field strength anomaly trends at 350 degrees and has a maximum value of 206%; (see Map 2, conductor (b) ) the Fraser Filter anomaly has a maximum value of 26 (see Map 4, conductor (b) ).

This double anomaly coincides with magnetic anomaly (d) (see Map 5) and is parallel to geochemical anomaly 2 (see Map 6).

Paterson, Grant and Watson have magnetically inferred a fault parallel to this double anomaly (see Appendix 2, P. 4 and Map 5, conductor 2).

3. **Anomaly 3** (see Map 7)

The field strength anomaly consists of two highs trending at 320 degrees. The northern peak has a maximum value of 199% while the southern peak has a maximum value of 186% (see Map 2, conductor (c) ).

The Fraser Filter anomaly consists of two separate highs. The western peak trends at 180 degrees and has a maximum value of 82. The eastern peak trends 325 degrees and has a maximum value of 67 (see Map 4, conductor (c) ).

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This double anomaly is parallel to geochemical anomaly 4 (see Map 6) and magnetic anomaly (e) (see Map 5). It is described as conductor 4 by Paterson, Grant and Watson as a "...strong, narrow VLF anomaly" and "correlates with a conductive zone within the granodiorite" (see Appendix 1 P. 4 and Map 5, conductor 2).

4. Anomaly 4 (see Map 7)

The field strength anomaly is an elliptical high which trends at 350 degrees and has a maximum value of 450% (see Map 2, conductor (d) ).

The Fraser Filter anomaly is also an elliptical high, trends at 360 degrees, and has a maximum value of 64 (see Map 4, conductor (d) ).

This double anomaly is adjacent to magnetic anomaly (c) which is at the contact between granite and the quartz porphyry (see Map 5).

The source of this anomaly (#4 Map 7) is probably the underlying marsh. However it should be noted that geochemical anomaly (c) (Map 6) is located 50 m to the west.

5. Anomaly 5 (see Map 7)

This field strength anomaly is a 345 degree trending depression which has a minimum value of 43% (see Map 2, conductor (e) ).
The Fraser Filter anomaly is a small high which trends at 015 degrees and has a maximum value of 12 (see Map 4, conductor (e)). This anomaly overlaps the southern portion of field strength anomaly (a) (see Map 2).

This double anomaly coincides with geochemical anomaly 1 (see Map 6). The anomaly is parallel to a magnetically inferred fault and is hosted in the andesitic volcanics.

6. Anomaly 6 (see Map 7)

The field strength anomaly is a 295 degrees trending linear high which has a maximum value of 120 (see Map 2, conductor (f)).

The Fraser Filter anomaly is a narrow, 300 degrees trending linear high which has a maximum value of 11 (see Map 4, conductor (f)).

This double anomaly coincides with geochemical anomaly 6 (see Map 6).

This double anomaly is located within a possible fault zone and is hosted in volcanics (see Map 5).

There are three isolated VLF field strength anomalies (see Map 2).

1. Anomaly 1 (see Map 2)

This anomaly consists of a north trending elliptical high with a maximum value of 148%. This conductor is probably related to the conductive overburden of marsh (see Map 1).
2. **Anomaly 2** (see Map 2)

This anomaly is a 030 degrees trending high which has a maximum value of 141%. This conductor is hosted in andesite and coincides with geochemical anomaly "a" (see Map 6).

It is probably related to mineralization in the volcanics.

3. **Anomaly 3** (see Map 2)

This circular anomaly with a very steep EM gradient has a maximum value of 269%. This anomaly is adjacent to geochemical anomaly 7 (see Map 6). However, it is probably the result of the conductive overburden of the underlying marsh.

There are three isolated Fraser Filter anomalies (see Map 4).

1. **Anomaly 1** (see Map 4)

This north trending anomaly has a maximum value of 16. It is probably due to the conductive overburden of the underlying marsh.

2. **Anomaly 2** (see Map 4)

This north trending "s" shaped high has a maximum value of 23. The northern tip coincides with geochemical anomaly "g" (see Map 6).

The anomaly is probably the result of the conductive overburden of the underlying marsh.
3. Anomaly 3 (see Map 4)

This north trending high has a maximum value of 14. It is hosted in diorite. Sample 7-3 (see Map 1), contained minor sulphides. The anomaly may therefore represent a zone of sulphide mineralization. Geochemical anomaly "e" (see Map 6) is located 75 m north west of the tip of this conductor.
9. GEOCHEMICAL RESULTS

Introduction

In August 1983 A.C.A. Howe International Ltd. performed a geochemical soil and humus sampling program for Augmitto Explorations Limited on their Pifher Township property.

The survey was performed on a cut grid with crosslines spaced 100 m apart and stations at 25 m intervals. Six hundred, seventy-nine samples were collected; 25% (170) being humus samples with the remaining 75% (509) being soils. The soils were collected from the B₁ soil horizon. This was our main target horizon since the A₁ soil horizon was inconsistently distributed throughout the property. The B₁ horizon was a red-orange, compact, clay-rich soil, lying directly beneath an extensively eluviated A₂ soil horizon.

The soil samples were fire assayed for gold while the humus samples were assayed by atomic absorption.

The background value range is less than or equal to 2 p.p.b.

There are seven approximately north trending continuous anomalies that range in value from 9-26 p.p.b. Three anomalies occur in the granodioritic Elmhirst Lake Stock, while the remaining four anomalies occur in volcanics.
1. **Anomaly 1** (see Map 6)

This north trending anomaly is open-ended to the south. It has a maximum value of 22 ppb and is hosted in andesite. The anomaly coincides with a double VLF anomaly (see Map 7, conductor (c)) and an inferred fault (see Map 5).

2. **Anomaly 2** (see Map 6)

This north trending "z" shaped anomaly coincides with VLF anomaly 2 (see Map 7) and magnetic anomaly "d" (see Map 5). It is parallel to a magnetically inferred fault in the andesite volcanics and VLF target 2 of the Paterson, Grant and Watson report (see Appendix 1, P. 4). It has a maximum value of 13 ppb.

3. **Anomaly 3** (see Map 6)

This 045 degrees trending elliptical anomaly has a maximum value of 26 ppb. It parallels the margins of two separate marsh areas and coincides with the southern portion of double VLF anomaly 1 (see Map 7). The underlying bedrock is andesite.

4. **Anomaly 4** (see Map 6)

This small anomaly consists of two adjacent highs of 9 and 10 ppb hosted in granodiorite. It is located between magnetic anomaly "e" (see Map 5) and related fault to the west and VLF conductor 4. Paterson, Grant and Watson describe VLF conductor 4 as "a conductive zone within the granodiorite" (see Appendix 1, P. 4).
5. **Anomaly 5 (see Map 6)**

This anomaly consists of two adjacent highs of 15 and 22 ppb hosted in granite. It occurs on strike with double VLF anomaly 6 (see Map 7).

6. **Anomaly 6 (see Map 6)**

This "v" shaped set of highs occurs within a magnetically inferred 060 degrees striking fault. It has a maximum value of 19 ppb and is probably hosted in volcanics (andesite). There is also a double VLF anomaly (see Map 7, conductor 6) that conforms to the geochemical anomaly.

There were seven isolated geochemical assays with gold values greater than or equal to 10 ppb (see Map 6). They are as follows:

- Anomaly g : 11 p.p.b.
10. CONCLUSIONS

Based on the results of the magnetic, electromagnetic and geochemical surveys, in addition to the Diamond Drill Log and limited IP survey conducted by A.D. Pudifin (see Appendix 3), the following anomalies reflect probable bedrock mineralization and warrant additional follow-up work.

(i) Geochemical anomaly 2 (see Map 6) is continuous for 350 m. The presence of a magnetic high, VLF conductor, and an IP chargeability high reflect a zone of chalcopyrite-phrrhotite mineralization mentioned in the Summary Report (Appendix 3). "The zone is 16-20 feet wide and contains chalcopyrite and pyrrhotite and minor pyrite" (see Appendix 3, Induced Polarization Survey, P. 2).

(ii) Geochemical anomalies 1 and 3 (see Map 6) reflect a fault related zone of bedrock mineralization. They share the same gold values and electromagnetic trend.

(iii) Magnetic anomaly "a" (see Map 5) is adjacent to DDH AM-2 with gold values of 0.01-0.04 oz Au/ton (see Appendix 2, Diamond Drill Log). Holes Am-3 and AM-6 report minor sulphides including pyrite, chalcopyrite and pyrrhotite. AM-3 at 298 feet contained traces of gold and the gold indicator mineral tourmaline.

Pudifin reported an IP chargeability high which coincides with magnetic anomaly "a". There is also isolated geochemical anomaly "e" (35 ppb).
(iv) Geochemical anomaly 4 (see Map 6) may reflect a mineralized bedrock zone. Although the geochemical values are moderate, the adjacent magnetic and electromagnetic anomalies indicate a conductive zone. (Note the offset lineation of magnetic and electromagnetic anomalies on Map 5 striking north-south.)

(v) Geochemical anomalies 5 and 6 (see Map 6) occur at either end of a VLF-EM anomaly. Both anomalies are eight to eleven times the background gold value. This mineralized zone may be the result of the north-east trending fault zone implied by the Paterson, Grant and Watson report (see Map 5). This fault has also been postulated by Pudifin.
11. RECOMMENDATIONS

Interpretation of the geophysical, geochemical and geological data on the Pifher Township property has indicated five zones of probable mineralization.

The following work is warranted:

1. Diamond Drilling - Three diamond drill holes are required to test mineralization zone (i) (see Conclusions section of this report).

Drill hole 1: Location: 0+75N, 2+38E (see Map 8)
Direction: 261 degrees
Dip: 60 degrees
Length: 250 feet

This hole will intersect the conductor at a depth of approximately 85 feet.

Drill hole 2: Location: 1+00N, 2+50E (see Map 8)
Direction: 283 degrees
Dip: 45 degrees
Length: 580 feet

This hole will intersect the magnetic/VLF/geochemical anomaly and will test if the fault (indicated on Map 5) is the site of mineralization.

If the results from holes 1 and 2 indicate a zone of mineralization, hole 3 should then be drilled.

Drill hole 3: Location: 2+00N, 0+75E (see Map 8)
Direction: 090 degrees
Dip: 45 degrees
Length: 580 feet
EM data suggests that the conductor is plunging north. This hole will test the downdip extension of the mineralized zone.

2. **Induced Polarization Survey** - A program of IP surveying is recommended for mineralization zones ii, iii, iv, v (see Conclusions section of this report).

The following lines should be cut for the survey and picketed at 25m intervals (see Map 8).

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The IP program should utilize a dipole spacing of 25m with n separations ranging from n=1 to n=5. This dipole - dipole IP system run over the present grid with additional lines cut at 50m intervals would provide greater resolution than the Pudifin IP survey.
3. Geochemical Sampling - Geochemical anomalies a, c, d, 7 require detailed geochemical sampling to verify and delineate each anomaly (see Map 6). A sampling interval of 25 feet along a cross pattern centered on the anomalous station is the proposed method of sampling. A distance of 25 feet should be sampled in each direction. E.g.

○ ○ ○ 1 INCH = 25 FEET
X - ANOMALOUS STATION
○ ○ ○ ○ - SAMPLE TO COLLECT
○ ○ ○
12. **BUDGET PROPOSAL**

(a) **Diamond Drilling:**
- Mobilization/demobilization cost
  - 1410 feet @ $30/foot all inclusive
  - $42,300.00

(b) **Geophysical Survey:**
- I.P. survey - 7 line miles @ $1500/
  - line mile all inclusive
  - 10,500.00

(c) **Analytical:**
- Soils for geochemical analysis
  - 36 samples @ $10/sample
  - Estimated 200 rock assays @ $10/assay
  - 360.00
  - 2,000.00

(d) **Linecutting:**
- 3 line miles @ $300/line mile
  - 900.00

(e) **Professional Fees:**
- geologist, reports, drafting, etc.
  - 25 days @ $275/day
  - 6,875.00

(f) **Transportation:**
- rental vehicles, fuel, freight, etc.
  - 2,000.00

(g) **Room and Board:**
- 1 person @ $60/day for 20 days
  - 1,200.00

(h) **Communications:**
  - 200.00

(i) **Field Supplies:**
  - Subtotal
  - $66,835.00

(j) **Contingencies @ 10%**
  - 6,683.50
  - TOTAL
  - $73,518.50

Respectfully submitted

[Vernon Shein]

Toronto, Ontario  
October 25, 1983

Vernon Shein, B.Sc.  
A.C.A. HOWE INTERNATIONAL LTD.
CERTIFICATE

I, Vernon Morgan Shein, of 58A Arthur Street, St. Catherines, Ontario, hereby certify that:

1. I am a geologist and am currently acting on a contract basis for A.C.A. Howe International Limited, Mining and Geological Consultants, with offices at Suite 800, 159 Bay Street, Toronto, Ontario, M5J 1J7.

2. I am a graduate of Concordia University, Montreal, Quebec with a Bachelor of Science degree (1982); specialization Geology.

3. I have no interest in the Pifher Township property owned by Augmitto Explorations Limited, nor do I anticipate such interest.

4. This report is based on geophysical and geochemical surveys performed by myself and my assistant, Mr. Glen Groskoff, during the month of August 1983.

Toronto, Ontario
October 25, 1983

Vernon M. Shein, B.Sc.

A. C. A. HOWE INTERNATIONAL LIMITED
REFERENCES

Mackasey, W.O.
1975:
Geology of Dorothea, Sandra and Irwin Townships, District of Thunder Bay; Ontario Division of Mines, Geoscience Report 122, 83 p. Accompanied by Map 2294, scale 1 inch to 1/4 mile.

Mason, J.K. and McConnell, C.D.
1983:
APPENDIX 1 - Base Maps

Map 1: Claim post locations and gross geological features
Map 2: Horizontal Field Strength (VLF-EM)
Map 3: Dip Angle Profile (VLF-EM)
Map 4: Fraser Filter (VLF-EM)
Map 5: Total Magnetic Field Strength
Map 6: Geochemistry
Map 7: Composite Anomaly
Map 8: Diamond Drill Hole Locations
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Map 7: Composite Anomaly
Map 8: Diamond Drill Hole Locations
GROUND MAGNETIC AND V.L.F.
ELECTROMAGNETIC INTERPRETATION
PIFHER TOWNSHIP PROPERTY

for

A.C.A. HOWE INTERNATIONAL

by

PATERSON, GRANT AND WATSON LIMITED

Toronto, Canada September, 1983
1. INTRODUCTION
2. GROUND MAGNETICS
3. VLF ELECTROMAGNETICS
4. RECOMMENDATIONS

LIST OF MAPS

Map P-8332-1 - Magnetic Contours and Geophysical Interpretation, Pifher Township Area. Scale: 1:4,800
1. INTRODUCTION
At the request of A.C.A. Howe International, Paterson, Grant and Watson Limited has carried out a review of the ground geophysical work, carried out on the Augmitto Exploration Limited Property in Pifher Township, northwestern Ontario. All the geophysical field work and data compilation/drafting of the results were carried out by A.C.A. Howe International. The contouring of the ground magnetic grid values and the geophysical interpretation were carried out by Paterson, Grant and Watson Limited.

2. GROUND MAGNETICS
The total magnetic field readings were recorded at a 25 m station spacing using a survey line separation of 100 m. The readings have been corrected for diurnal variation using the standard method of grid "looping". The corrected readings have been transferred to a base map, showing "actual" station locations and a contour map of the total field has been drawn. The minimum contour level, shown as a light broken line, is 10 nanoteslas. Larger magnetic gradients, or more active patterns, have been contoured using 20 (light solid) or 100 (heavy solid) nanoteslas.
The magnetic contour map reveals, in general, a relatively subdued pattern of magnetic relief. The magnitude of the majority of the magnetic anomalies is 80 nanoteslas, or less. West of the baseline, the regional magnetic trend increases from generally less than 59,900 nT south of Line 5N to over 59,920 north of Line 5N. This change probably reflects the change from andesite volcanics in the south to diorite and/or granodiorite to the north. The overall similarity in both lineation and magnitude between these two rock types is indicative of a common origin.

To the east of the baseline, the generally subdued pattern is replaced by a more active zone, with individual anomalies ranging from several hundred to one thousand nanoteslas. This active zone lies within a complex region of intercalated quartz eye porphyry and intermediate volcanics. This acid-intermediate complex has been severely distorted by northeast-southwest and north northwest-south southeast faulting.

East of approximately 600 E, the magnetic pattern returns to the more subdued character noted to the west of the baseline, reflecting the return to granodioritic rocks. The circular magnetic feature evident at the eastern ends of Lines 3+85N, 5N, 6N and 7N correlates with a weakly magnetic granitic stock. A small outcrop of granite has been noted 880E on Line 5N.
3. VLF ELECTROMAGNETICS

The ground VLF electromagnetic survey was carried out on the same grid as the total field magnetic survey; namely 25m stations on lines separated by 100 m. A number of anomalous responses have been detected using the VLF technique and these conductors have been interpreted and plotted on the magnetic interpretation map using the Field Strength and Fraser Filtered (Dip Angle) profile plots.

A number of relatively broad, continuous, VLF anomalies correlate with swampy conductive overburden and these features have been noted as dotted lines on the interpretation map. The four remaining conductive zones cannot be directly correlated with conductive overburden and have been indicated as numbered conductors on the magnetic interpretation map.

Conductor 1

This strike limited, weak conductor lies within the diorite/andesite complex approximately 400 m west of the baseline on Line 6N and 7N. This feature lies immediately south of a zone of conductive overburden and exhibits a relatively weak response and must therefore be considered a second priority target.
Conductor 2
This weak conductor lies at the extreme southern edge of the survey, east of the baseline and is "open" to the south. The conductor correlates with a north northwest - south southeast fault, within the quartz porphyry-andesite complex.

Conductor 3
This weak conductor lies between two northeast-southwest faults, at the western edge of the quartz porphyry-andesite complex. Even though the electromagnetic response is weak; the limited strike length and lack of mapped conductive overburden are indicative of a possible bedrock conductor.

Conductor 4
This conductor lies 280m east of the baseline on Line 12N and is "open" to the north. The strong, narrow VLF anomaly and the lack of mapped conductive overburden indicate that this anomaly probably correlates with a conductive zone within the granodiorite.
4. RECOMMENDATIONS

Interpretation of the available geology, ground magnetics and VLF electromagnetics on the Pifher Township property has indicated four possible bedrock conductors. Zones 2 and 3 lie within or, on the edge of, the quartz eye prophyry-andesite complex, while zones 1 and 4 lie within the intermediate volcanic/plutonic units.

In order to further test these four zones for possible bedrock sulphide content we would recommend a program of induced polarization surveying, utilizing a dipole spacing of 25 m with n separations ranging from n=1 to n=5.

Prior to undertaking the I.P. survey, positive geochemical encouragement, in the form of anomalous Au values in soils or rock chips, should be available.

Respectfully submitted,
PATERSON, GRANT AND WATSON LIMITED

D. J. Misener, P.Eng., P.Eng.
APPENDIX 3 - A.D. Pudifin Report (1973)
- Diamond Drill Log
- I.P. Survey Results
- Summary Report on Exploration Program
  1971-1973

A. C. A. HOWE INTERNATIONAL LIMITED

During the summer of 1971, prospecting and reconnaissance geophysical work was carried out which resulted in finding of disseminated copper mineralization in rhyolitic and dacitic volcanic rocks.

In 1972, a system of lines were cut on the southwesterly 12 claims stated in Pifher Township. An Induced Polarization survey was carried out over these lines which indicated two main anomalously high chargeability areas as well as some moderate to weak chargeability anomalies. Prospecting and trenching also were carried out with the aid of a bulldozer. This work resulted in the finding of a zone of chalcopyrite-pyrrhotite mineralization in the southwesterly part of claim TB-317343.

This zone is generally 16-20 ft. wide and consists of disseminated and blebs of chalcopyrite and pyrrhotite with minor pyrite in an altered, part chloritized acid volcanic rock of dacitic to rhyolitic composition. The rock is irregularly porphyritized. Some dykes and irregular small bodies of felspar porphyry are present. The zone was uncovered mainly at two locations indicating at least 250 ft. strike-length in an northeasterly direction. Rock trenching showed the zone to dip vertically at surface.

A second zone located in the central part of claim TB-318089, just south of a small lake was uncovered in which fairly fine disseminated chalcopyrite and pyrite was found to occur. This zone was on the extension of one of the higher Induced Polarization anomalies. The mineralization was found to extend over a width of up to 200 ft. Values in copper were fairly low but one selected grab sample assayed .25 oz. gold/Ton, 1.43 oz. silver/Ton and 3.77% copper.

A program of Diamond Drilling was commenced in November 1972 to test surface showings and geophysical anomalies.

Three holes were put down in this phase, totalling 1302 ft. of drilling.

Hole No. AM-1 was put down under the surface showing on claim TB-317343. No significant mineralization occurred in the hole.
Hole No. AM-2 was put down on claim TB-317344 to test an Induced Polarization anomaly. This hole cut mostly rhyolite, some feldspar porphyry, andesite and dacite.

Disseminated chalcopyrite, pyrrhotite and pyrite occurred in the hole in a zone of chloritized dacite. The following values were obtained:

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<th>Silver</th>
<th>Copper</th>
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<td>.76</td>
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including

<table>
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<th>Length</th>
<th>Gold</th>
<th>Silver</th>
<th>Copper</th>
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<td>27.7</td>
<td>.03</td>
<td>.24</td>
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</table>

Hole No. AM-3 was put down under hole 2, and 100 ft. back of it at $45^\circ$. This hole did not cut the mineralization obtained in the hole 2.

In the spring of 1973 additional lines were cut and Induced Polarization survey run on the area adjacent and to the east of where hole AM-2 was put down, to complete the outline of the anomaly obtained in the original work, tracing it to the northeast.

Following this, diamond drilling was continued with an additional five holes being put down, totalling 1983'.

Hole AM-4 was put down on an Induced Polarization anomaly, south of the small lake combined with surface indications. Some disseminated pyrite, pyrrhotite and chalcopyrite were encountered in the hole but was not of ore grade.

Hole AM-5 was put down to test a westerly extension of the chargeability anomaly north of the lake. Results were similar to AM-4.

Hole AM-6 was put down 200 ft. northeast of AM-2 to test for the extension of the mineralized zone obtained in that hole. It failed to intersect the zone.

Holes AM-7 and AM-8 were put down south of the lake to test interpreted structures associated with the chargeability anomaly south of the lake. Hole AM-8 cut lightly mineralized rhyolite from 116' to 193' plus some other minor sulphide mineralization. Hole AM-7 cut some disseminated pyrite, pyrrhotite and chalcopyrite, not of economic grade.

Some additional drilling is recommended to test for a southwesterly plunge of the mineralization obtained in hole AM-2.

Some further investigation should also be carried out near the southwest corner of the property on a chargeability high anomaly which occurs in a band of fragmental acid volcanic rocks.

Respectfully submitted,


A.D. Pudifin, Geologist.
AUGMITTO EXPLORATIONS LIMITED
PIFHER AND ELMHIRST TOWNSHIPS
THUNDER BAY MINING DIVISION
ONTARIO
INDUCED POLARIZATION SURVEY

BY

PUDIFIN AND COMPANY

PROPERTY

The property of Augmitto Explorations is comprised of sixty-two contiguous, unsurveyed, unpatented mining claims of about 40 acres each, registered with the Ontario Department of Natural Resources and Northern Affairs as follows:

TB-318015 - TB-318017 incl.
TB-318023 - TB-318026 "
TB-318032 - TB-318035 "
TB-318041 - TB-318045 "
TB-318050 - TB-318057 "
TB-318062 - TB-318067 "
TB-318072 - TB-318091 "
TB-317341 - TB-317352 "

Total area of the property is about 2480 acres.

The southwesterly twelve claims only, located in Pifher Township were covered by the survey: ie: TB-317341 to BB-317352.

LOCATION AND ACCESS

The property is located in the east-central part of Pifher Township and the west-central part of Elmhirst Township, Thunder Bay Mining Division, Ontario.

The property is crossed by a gravel road which leads from Trans-Canada Highway No. 11, 10½ miles to the southward. This road (No. 801) leads northward from a point 5 miles west of the Hamlet of Jellicoe, and 15 miles east of Beardmore.

Canadian National Railway, high voltage electric Power Line and Natural Gas Pipeline are all located within 8 miles in a direct line to the south of the property.

GENERAL GEOLOGY

The property lies within a general 'greenstone' belt which extends from Longlac area, westerly to Lake Nipigon, a distance of about 80 miles. This belt varies from about 8 to 25 miles wide.
This belt includes rocks of Archaean Age including basic to acid volcanic flows, tuffs and agglomerates and some interbedded metasediments, including Iron Formation.

Numerous intrusive rocks occur within the 'greenstone' belt which are mostly granitic composition with lesser amounts of granodiorite, quartz diorite, diorite and eyenite. All of these rock types are porphyritic in places. Lesser amounts of basic intrusions occur — mainly diabase and gabbro.

The central part of Elmhirst Township is underlain by an intrusive complex of granitic — granodiorite — diorite composition.

A large number of occurrences of gold, copper and some zinc, nickel, silver, lead, molybdenum and iron are found within the 'greenstone' belt.

LOCAL GEOLOGY

The central part of the property is underlain by acid volcanic rocks which strike in a northeasterly-southwesterly direction. These rocks include dacite with interflow rhyolite and some tuffs and agglomerates.

A band of porphyritic meta rhyolite and rhyolitic fragmental tuff occurs along the southeasterly edge of the property in Pifher Township. The extent of the volcanics to the northeast into Elmhirst Township is not known, but is believed to underly about 3/4 of the present property.

An intrusive granodiorite complex occurs in the central part of Elmhirst Township which extends into the northeastern part of the claim group. The location of the contact between this intrusive and the volcanics is not precisely known. Elsewhere in the area, it is marked by a 'hybridization' of the volcanic rocks with strong porphyritization, with or without shearing.

Structurally, the property is located on the southeasterly limb of an anticlinal structure, the axis of which crosses part of Pifher Township in a northeasterly direction.

A northeasterly striking fault zone is believed to cross the property passing through the small lake 3/4 mi. west of milepost 2 on the Pifher-Elmhirst Township Line.

Some shearing and brecciation occur along the south side of the small lake.
PREVIOUS WORK

Some prospecting and trenching were carried out in the spring and summer of 1971 which revealed a rather extensive belt of rhyolitic to dacitic flows and fragmental tuffs and agglomerates. This belt is being underlain by granite on available geological maps.

One line of Induced Polarization survey was run across the strike extension of the known mineralized zone on the adjoining Carling Copper Mines Limited Property. A high chargeability response was obtained on the Augmitto claims, increasing in intensity to the northwest, closer to the presumed fault.

A few VLF electromagnetic survey traverses were made over the same area which indicated a conductive zone striking in a northeasterly direction.

In the autumn of 1972 a bulldozer was used for stripping and trenching. One copper showing was uncovered in this work.

SURVEY METHOD AND INSTRUMENT DATA

An east-west baseline was cut off of which north-south picket lines were cut at 400 ft. intervals generally and at 200 ft. intervals over most of the northeasterly five claims.

The equipment used was a Huntex Mark III, time domain type, Induced Polarization system.

In general, the method consists of passing a direct current through the ground which builds up charges at the interfaces between metallic particles and electrolytes. The current is then switched off and the redistribution of these charges is measured as a voltage decay, referred to as 'overvoltage' or 'I.P.' effect at the ground surface. Comparison of this secondary voltage Vs with the primary voltage Vp measured when the current is on provides a measure of the chargeability of subsurface material.

The Mark III system provides additional data on the shape of the decay curve. A minimum amount of four points on the curve is read at each station, or a minimum total of six parameters per station.

In the present survey, a Dipole—Dipole electrode array was used. This array employs four moving electrodes, the layout of which is as follows:

\[ C_1 \quad a \quad C_2 \quad na \quad x_{P1} \quad a \quad x_{P2} \]
Apparent Resistivity is found from:

\[ \rho_a = K \frac{V_p}{I_g} \] (ohm-meters)

where  
- \( V_p \) = primary voltage
- \( K = 0.305 \frac{n(n+1)(n+2)}{\pi} a \)
- \( I_g \) = transmitter current (amps)
- \( a \) = electrode separation \( P_1-P_2 \) in feet
- \( n \) = multiple of \( a \)

This array has the advantage of low inductive coupling, symmetrical anomalies and good sensitivity and selectivity with appropriate choice of 'a' and 'n'.

In the present survey, an 'a' spacing of 200 ft. was used, and \( n = 1 \) generally. In addition, about two-thirds of the area was surveyed using \( n = 2 \).

RESULTS OF THE SURVEY

The Chargeability and Apparent Resistivity results are plotted on accompanying plans Nos. 48 and 49 respectively on a scale of 1 in. to 200 ft. The data at separation \( n = 1 \) are plotted on the right hand side of picket lines and are contoured. Data at \( n = 2 \) are plotted on the left side of the line and are not contoured.

Units of chargeability are plotted in milliseconds while Apparent Resistivity is in ohm-meters.

Two main zones of anomalous chargeability were outlined in the survey. They occur along the eastern edge of the area surveyed. The more northerly zone crosses claim TB-317344 with a northeasterly strike. Chargeabilities of 30 to 40 millisecond occur over a length of about 1100 ft. - some 6 to 8 times background.

The other zone is centred about 800 to 900 ft. across strike to the southeast and is parallel to the anomaly described above. It is outlined for a length of about 400 ft. and is of similar strength. Both anomalies are 'open' to the northeast, off of the area covered by the survey.

The southerly of the two anomalies is associated with known mineralization of pyrite and chalcopyrite - where 200 to 300 ft. to the northeast, rusty fractures and surface staining occur. A composite of three grab samples taken from a shallow trench located about 150 ft. east of the survey area, assayed
1.54% copper, .05% zinc, .52 oz. silver/Ton, and .05 oz. gold/Ton. The claim on which this showing occurs has now been obtained by the Company.

A narrow linear northeasterly striking zone of weaker anomalous chargeability (about 3 x background) crosses claim TB-317346. It occurs partly on higher ground, hence can probably be trenched.

Four other zones of weak chargeability occur in the central and southwesterly part of the survey area.

Generally most of the chargeability anomalies occur in an area of higher resistivity. What has been observed in the area is that disseminated sulphides in a highly siliceous environment give rise to chargeability highs in resistivity highs.

The anomaly combination in the survey area would indicate a source of disseminated sulphides rather than massive sulphides.

Parts of the anomalies in the central and southwestern part of the property occur on higher ground and can probably be trenched.

Two drill holes have been put down on the larger, stronger chargeability anomaly on claim TB-317344.

One hole, collared at 22+00 N, 4+50W, bearing 147° at 45° intersected a mineralized zone from 127.3 ft. to 165.0 ft. (37.7 ft.) assaying .76 copper, .02 oz. gold/Ton and .196 oz. silver/Ton. A second hole put down 100' below encountered only minor sulphides. The mineralization occurs in a chloritized dacite located between a rhyolite and an andesite horizon.

SUMMARY AND RECOMMENDATIONS

Two main zones of anomalous chargeability were outlined by the survey. They are located along the east edge of the area surveyed. The more northerly zone has been outlined for a strike length of about 1100 ft. while the more southerly zone has been outlined for a length of about 500 ft. Both anomalies strike in a northeast-southwest direction and are 'open' to the northeast off of the area covered by the survey. The Company holds the ground on strike to the northeast.

Both anomalies are considered as fairly strong, being 6 to 8 times background chargeability.

Pyrite and chalcopyrite have been found in both anomalous zones hence the anomalies could be in large part, due to chalcopyrite.
The anomalies increase in intensity to the northeast. They occur in rhyolite to dacitic volcanics with some interflow andesite.

A few weaker chargeability anomalies (2 - 3 times background) occur in the central and southwestern part of the area surveyed. Some of them could be trenches with the aid of a bull-dozer, and is recommended.

The chargeability anomalies in general occur in areas of higher resistivity. It has been found that disseminated sulphides occur partly in the more siliceous volcanics which would explain this anomaly combination.

The more northerly of the stronger chargeability anomalies has been drilled by two shallow holes, one of which cut 37.7 ft. of chalcopyrite mineralization assaying 0.76% copper. On the more southerly anomaly, a shallow trench was put down, where a composite of three grab samples assayed 1.5% copper.

It is thus evident that the two main anomalous zones are caused in part by chalcopyrite mineralization.

It is therefore recommended that a program of exploration be continued on the property, this work to include the following:

1. Cut lines at 400 ft. intervals on the easterly extension of the known I.P. anomalies.
   Estimated cost: 30 mi. x 90.00/mi........... 2,700.00

2. Carry out an additional 10 miles of Induced Polarization survey.
   Estimated cost.......................... 4,500.00

3. Carry out an additional 3000 ft. of diamond drilling on the known I.P. anomalies and known mineralization.
   Estimated cost.......................... 30,000.00

4. Surface prospecting of the area northeast of the area to be surveyed.
   Estimated cost.......................... 4,000.00

5. Carry out test magnetometer survey claims TB-317341, 317343 and 317344, about 5 mi........... 400.00
   Total estimated cost..................... $41,600.00.

Respectfully Submitted,
PUDIFIN AND COMPANY

Jellicoe, Ont.

A.D. Pudifin, B.Sc.,
Consultant Geologist.
SURVEY DATA

No. of miles of picket lines surveyed at n = 1 .......... 12.46
No. of miles of picket lines surveyed at n = 2 .......... 8.22
No. of stations observed ........................................ 608
No. of parameters read .......................................... 3,648

Fieldwork was carried out between November 20, 1972 and December 12, 1972.

Office work, calculations, draughting was carried out between January 3 and January 14, 1973.

Personnel required to carry out the field work is as follows:-

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Draughting and Calculations (between January 4 and January 14, 1973.)

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Report

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Total .......................... 122
Hole No.: AM-1

DIAMOND DRILL LOG

AUGMITTO EXPLORATIONS LIMITED,
34 Adelaide Street West,
Toronto, Ontario.

DRILLED BY: Lake Superior Diamond Drilling Company Ltd.

LOCATION: Pifher Township,
Thunder Bay Mining Division,
Ontario.

CLAIM NO.: TB-317343

DIP
COLLAR: 45°
200 Ft. 43°
400 Ft. 40°
600 Ft. 40°

LENGTH: 605 Ft.
BEARING: 335°
LATITUDE: 0+85N
DEPARTURE: 8+35W

DATE: Started November 17, 1972
Finished November 30, 1972

LOGGED BY: A. D. Pudifin
From | To | Description
--- | --- | ---
Collar | 7 | Casing.
7 | 60 | Feldspar porphyry. Fine grained. Medium to dark grey groundmass. Phenocrysts generally to 1/16", some to 1/8". 36'-38' finer grained, no phenocrysts. A number of rusty fractures.
60 | 212 | Dacitic to trachytic volcanic. Fine grained. Medium grey colour. 60'-77' sheared. 35°-45° to core axis. Several rusty seams. Sericitic, some carbonate. 77' plus-occasional fragments discernable. Agglomeratic (acid). Generally altered slight to moderate porphyritization. Bleb chalcopyrite at 78' and 98'. At 153' ½" band with pyrrhotite and minor chalcopyrite. 202.4 - 203.7 - lost core.
212 | 223.5 | Feldspar porphyry. Light grey, fine grained groundmass. Phenocrysts to 1/8", some to ¾". At 219' - ½" quartz vein with minor chalcopyrite. 223.5-224.5 quartz carbonate at contact.
223.5 | 247.9 | Trachyte to dacite. Fine grained. Similar to 60-212.
304 | 337 | Trachyte. Fairly fine grained. Lightly porphyritized. Medium to light grey colour.
605 Feet - End of hole.
DIAMOND DRILL LOG

AUGMITTO EXPLORATIONS LIMITED,
34 Adelaide Street West,
Toronto, Ontario.

DRILLED BY: Lake Superior Diamond Drilling Company Ltd.

LOCATION: Pifher Township,
Thunder Bay Mining Division,
Ontario.

CLAIM NO.: TB-317344

DIP
COLLAR: 45°
200 Ft. 42°

LENGTH: 300 Ft.
DIRECTION: 147°
LATITUDE: 22+00N
DEPARTURE: 4+50'W
AX W

DATE: Started December 2, 1972  Finished December 6, 1972

LOGGED BY: A. D. Pudifin
<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Description</th>
<th>Length</th>
<th>Sample</th>
<th>Analyses</th>
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<tbody>
<tr>
<td>Collar</td>
<td>10</td>
<td>Casing.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.4</td>
<td>28.5</td>
<td>Feldspar porphyry dyke. Fine grained medium to dark grey groundmass. Upper contact - 35° to core axis. Lower contact - 45° to core axis, sharp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.5</td>
<td>32.5</td>
<td>Rhyolite. Part brecciated with chloritic fracture filling.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.5</td>
<td>34.2</td>
<td>Dyke. Altered. Probably related to 25'-28' section.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34.2</td>
<td>57.5</td>
<td>Rhyolite. Fine grained. Generally well brecciated with chloritic cement. Last 1' andesitic (well chloritized).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57.5</td>
<td>63.2</td>
<td>Feldspar porphyry. Medium grained, dark grey groundmass. Phenocrysts to 1/8&quot;.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63.2</td>
<td>127</td>
<td>Rhyolite. Fine grained, medium to light grey colour. Porphyritic (altered).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>120.0 - 125.0</td>
<td>5.0</td>
<td>9009</td>
<td>.01</td>
</tr>
<tr>
<td>127</td>
<td>176</td>
<td>Dacite (originally?). Highly altered dark greenish grey colour. Strongly chloritized, porphyritized. Contains 5%-15% sulphides disseminated - blebs of pyrite, pyrrhotite, and chalcopyrite.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>127.3 - 130.0</td>
<td>2.7</td>
<td>9001</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>About 3% pyrite, some chalcopyrite</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>130.0 - 135.0</td>
<td>5.0</td>
<td>9002</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td></td>
<td>About 8% sulphides</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>135.0 - 140.0</td>
<td>5.0</td>
<td>9003</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>About 10% sulphides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>140.0 - 145.0</td>
<td>5.0</td>
<td>9004</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15% sulphides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>145.0 - 150.0</td>
<td>5.0</td>
<td>9005</td>
<td>.04</td>
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<td></td>
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<td>15% sulphides</td>
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<tr>
<td>From</td>
<td>To</td>
<td>Description</td>
<td>Length</td>
<td>Sample</td>
<td>Analyses</td>
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</tr>
<tr>
<td>127</td>
<td>176</td>
<td>(continued)</td>
<td>5.0</td>
<td>9006</td>
<td>.01</td>
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<tr>
<td></td>
<td></td>
<td>150.0 - 155.0</td>
<td></td>
<td></td>
<td>.17</td>
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<tr>
<td></td>
<td></td>
<td>7% sulphides</td>
<td></td>
<td></td>
<td>.36</td>
</tr>
<tr>
<td>155.0</td>
<td>160.0</td>
<td></td>
<td>5.0</td>
<td>9007</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7% sulphides</td>
<td></td>
<td></td>
<td>.15</td>
</tr>
<tr>
<td>160.0</td>
<td>165.0</td>
<td></td>
<td>5.0</td>
<td>9008</td>
<td>.01</td>
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<tr>
<td></td>
<td></td>
<td>4% sulphides</td>
<td></td>
<td></td>
<td>.08</td>
</tr>
<tr>
<td>176</td>
<td>195.8</td>
<td>Andesite. Fairly fine grained, medium grey to greenish colour. Some shearing about 40° to core axis.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>195.8</td>
<td>232.8</td>
<td>Feldspar porphyry. Medium grained dark grey groundmass. Phenocrysts to 1/8&quot;, a few to 1/4&quot; (intrusive).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>232.8</td>
<td>236</td>
<td>Andesite. Fairly fine grained. Medium greenish grey colour. Fairly uniform.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>236</td>
<td>245</td>
<td>Feldspar porphyry. Medium grained.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>245</td>
<td>248.5</td>
<td>Andesite</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>248.5</td>
<td>266.5</td>
<td>Meta rhyolite. Fine grained. Some alteration.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>266.5</td>
<td>300</td>
<td>Feldspar porphyry. Medium grained (intrusive). Phenocrysts to 1/8&quot;.</td>
<td></td>
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</table>

300 Feet - End of hole.

AVERAGES:

<table>
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<tr>
<th>From</th>
<th>To</th>
<th>Length (ft.)</th>
<th>Au</th>
<th>Ag</th>
<th>Cu</th>
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</thead>
<tbody>
<tr>
<td>127.3</td>
<td>165.0</td>
<td>37.7</td>
<td>.022</td>
<td>.196</td>
<td>.76</td>
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<tr>
<td>127.3</td>
<td>150.0</td>
<td>22.7</td>
<td>.03</td>
<td>.24</td>
<td>1.02</td>
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<td>130.0</td>
<td>150.0</td>
<td>20.0</td>
<td>.032</td>
<td>.262</td>
<td>1.09</td>
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<tr>
<td>150.0</td>
<td>165.0</td>
<td>15.0</td>
<td>.01</td>
<td>.13</td>
<td>.36</td>
</tr>
</tbody>
</table>
DIAMOND DRILL LOG

AUGMITTO EXPLORATIONS LIMITED,
34 Adelaide Street West,
Toronto, Ontario.

DRILLED BY: Lake Superior Diamond Drilling Company Ltd.

LOCATION: Pifher Township,
Thunder Bay Mining Division,
Ontario.

CLAIM NO.: TB-317344

DIP COLLAR: 45°
200 Ft. 12°

LENGTH: (250 Ft.)

DIRECTION: 165°
LATITUDE: 22+80N
DEPARTURE: 5+00W
AX \text{?}

DATE: Started December 8, 1972
Finished December 16, 1972

LOGGED BY: A. D. Pudifin
<table>
<thead>
<tr>
<th>From (Collar)</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>31</td>
<td>Casing.</td>
</tr>
<tr>
<td>31</td>
<td>58.3</td>
<td>Meta rhyolite. Fine grained, hard, brecciated. Light to medium grey colour.</td>
</tr>
<tr>
<td>58.3</td>
<td>71.1</td>
<td>Dacite. Altered. Fairly fine grained. Medium grey colour. Last 5 feet somewhat more siliceous. At 42.5' seams of pyrite, minor chalcopyrite.</td>
</tr>
<tr>
<td>131</td>
<td>152</td>
<td>Rhyolite. Fine grained. Light to medium grey colour, brecciated. At 79' - seam of pyrrhotite with chalcopyrite. 105-130 core badly broken, blocky. 107-108.5. 118-120 -- lost core.</td>
</tr>
<tr>
<td>152</td>
<td>214.7</td>
<td>Dacite. (Bordering on andesite). Fine grained medium grey colour. Altered. 140-144 more siliceous.</td>
</tr>
<tr>
<td>214.7</td>
<td>237.5</td>
<td>Feldspar porphyry. Fine grained, medium grey groundmass. White angular to subangular phenocrysts to 1/8&quot;.</td>
</tr>
<tr>
<td>237.5</td>
<td>(250')</td>
<td>Felsite. Fine grained, siliceous. Similar to 152-214 minus phenocrysts.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rhyolite. Brecciated. Fragments are rhyolitic, groundmass more basic -- chloritized.</td>
</tr>
<tr>
<td>From</td>
<td>To</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7.5</td>
<td>9</td>
<td>Rhyolite, brecciated, fragments are rhyolitic, groundmass more basic, chloritized. Some quartz eyes. Some fine disseminated pyrite &amp; pyrrhotite.</td>
</tr>
<tr>
<td>249</td>
<td>257</td>
<td>Feldspar porphyry. Medium grained, 1' ground core lower contact.</td>
</tr>
<tr>
<td>257</td>
<td>297</td>
<td>Hybrid, altered, siliceous, acid volcanic, irregularly porphyritized. Hard Light to medium grey color. A number of thin seams pyrite along fractures. 296.5-298' highly siliceous, some tourmaline, streaks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>296.3 - 300.0 Quartzose, some tourmaline. Somewhat brecciated.</td>
</tr>
<tr>
<td>297</td>
<td>360</td>
<td>Dacite, fine grained, highly altered, progressively downhole. Section similar to 127-176 of hole AM-2. Slight occasional porphyritization. Some chloritization especially 333-345'. Some brecciation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>340.0 - 345.0 About 2% fine disseminated pyrrhotite, pyrite, minor chalcopyrite.</td>
</tr>
<tr>
<td>360</td>
<td>397</td>
<td>Acid volcanic, hybrid, altered, silicified, porphyritized. Some quartz eye phenocrysts (porphyritized meta rhyolite). Fine disseminated pyrrhotite, minor pyrite, throughout, minor chalcopyrite.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>397' end of hole.</td>
</tr>
</tbody>
</table>
HOLE NO. AM - 4

DIAMOND DRILL LOG

Augmitto Explorations Limited
34 Adelaide Street West
Toronto, Ontario

DRILLED BY: Norwescon Development Limited

LOCATION: Picher Township
Thunder Bay Mining Division
Ontario

CLAIM NO. TB-318082

FOOTAGE DIP
Collar 45°
425 ft. 40°

LENGTH: 454 feet
DIRECTION: 120°
LATITUDE: 11+80E
DEPARTURE: 3+95E
CORE SIZE: AX


LOGGED BY: A. D. Pudifin
<table>
<thead>
<tr>
<th>Feet</th>
<th>To</th>
<th>Description</th>
<th>Length</th>
<th>Sample Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.0</td>
<td>78.0</td>
<td>Porphyritic dacite. Generally fine-grained groundmass. Medium grey colour. Several rusty, loaded fractures to 24.0 with some chalcopyrite, pyrite.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.0-20.0 rusty fractures, some cp</td>
<td>5.0</td>
<td>9012 0.02 Tr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20.0-25.0</td>
<td>5.0</td>
<td>9013 Tr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>42-44.1 fairly heavy chalcopyrite</td>
<td>1.8</td>
<td>9014 0.005 Tr.</td>
</tr>
<tr>
<td>78.0</td>
<td>80.0</td>
<td>Porphyritic metarhyolite, fine grained, greenish yellow-grey colour, glassy quartz eye phenocrysts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80.0</td>
<td>82.0</td>
<td>As 14.0-78.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82.0</td>
<td>85.0</td>
<td>As 78.0-80.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>85.0</td>
<td>92.5</td>
<td>As 14.0-78.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>92.5</td>
<td>190.0</td>
<td>Rhyolite fine grained, medium grey to slightly yellowish-greenish tinge. Some quartz and feldspar phenocrysts - porphyritic. 123.0-125.0 lost core.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>190.0</td>
<td>203.0</td>
<td>Andesite. Fairly fine grained, medium greenish grey colour. Numerous random fine fractures with quartz-carbonate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>203.0</td>
<td>281.0</td>
<td>Dacite. Fine grained, medium grey colour, altered irregularly slightly porphyritic. 223.0-231.0 strongly porphyritized (feldspar). 233.6'-2.0 heavy streaks chalcopyrite.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>281.0</td>
<td>289.0</td>
<td>Meta rhyolite. Fine grained, medium-light mottled grey colour, somewhat porphyritized.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>289.0</td>
<td>297.0</td>
<td>Dacite. Fine grained, medium-dark grey colour. Splashes and blebs bronzy pyrrhotite.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>297.0</td>
<td>333.0</td>
<td>Meta rhyolite. May be tuffaceous to 305 altered. 300.0-303.0 whitish pyrr - 10%</td>
<td>3.7</td>
<td>9016 Tr. Tr.</td>
</tr>
<tr>
<td>333.0</td>
<td>360.0</td>
<td>Feldspar porphyry. Medium grained, angular to sub-angular phenocrysts. Medium to light grey colour.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>360.0</td>
<td>372.0</td>
<td>Dacite. Fine grained, porphyritized. Upper contact gradational.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>372.0</td>
<td>377.0</td>
<td>Rhyolite. Fine grained, mottled light to medium greenish grey colour. May be agglomeratic.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From</td>
<td>To</td>
<td>Description</td>
<td></td>
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<tr>
<td>------</td>
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<td>------------------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>377.0</td>
<td>444.0</td>
<td>Meta rhyolite. Altered, sub porphyritized. Fine grained, hard. Feldspar and glassy quartz phenocrysts in places. Some garnet splashes at 430.0–440.0. 143.6–420.0 splashes cp, pyrr 420.0–425.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>444.0</td>
<td>454.0</td>
<td>Andesite. Fine grained, medium grained. Grey colour. Fairly uniform. Sheared 55–60° to core axis. A few specks and streaks pyrr and cp.</td>
<td></td>
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</tr>
<tr>
<td>454.0</td>
<td></td>
<td>END OF HOLE.</td>
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HOLE NO. AM - 5

DIAMOND DRILL LOG

Augmitto Explorations Limited
34 Adelaide Street West
Toronto, Ontario

DRILLED BY: Norwescon Development Limited

LOCATION: Pichor Township
Thunder Bay Mining Division
Ontario

CLAIM NO. TB-3173/A

FOOTAGE DIP
Collar 45°
200 ft.

LENGTH: 370 feet
DIRECTION: 150°
LATITUDE: 20+00N
DEPARTURE: 8+50W
CORE SIZE: AX


LOGGED BY: A. D. Pudifin
<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collar</td>
<td>6.0</td>
<td>Casing</td>
</tr>
<tr>
<td>6.0</td>
<td>293.5</td>
<td>Rhyolite. Fine grained, medium to light grey colour. Hard. Badly broken, some brecciation. Occasional pyrite plated on fractures. 55' altered, sheared, silicified. 55.0-95.0 slightly porphyritic. Some irregular fracturing with quartz carbonate. 130.0-143.0 lost core. 143.0-155.0 more siliceous, strongly brecciated. Small amount epidote, minor pyrite, few specks chalcopyrite. 228.0-293.5 fresher rhyolite. A few glassy quartz eyes. A few chloritic spots, often with fine chalcopyrite. 150.0-205.0 slightly agglomeratic. 228.0 8 inches ground core. 234.0-235.0, 236.0-237.0, 247.0-248.0 lost core.</td>
</tr>
<tr>
<td>293.5</td>
<td>297.5</td>
<td>Feldspar porphyry. Medium grained, medium grey colour.</td>
</tr>
<tr>
<td>297.5</td>
<td>317.5</td>
<td>Altered dacite? Brecciated, some quartz carbonate - irregularly strongly chloritized. 297.5-298.5 heavy, coarse chalcopyrite with quartz; some pyrrhotite. 297.6-298.6 about ½% chalcopyrite 1.0 9016 .02 with rest/quartz. 298.5-317.5 irregular streaks and disseminated pyrrhotite with minor chalcopyrite.</td>
</tr>
<tr>
<td>317.5</td>
<td>370.0</td>
<td>Dacite. Altered, may be part agglomeratic, part silicified. Some fracturing and brecciation with quartz carbonate. Occasional minor pyrite.</td>
</tr>
<tr>
<td>370.0</td>
<td>END OF HOLE.</td>
<td></td>
</tr>
</tbody>
</table>
DIAMOND DRILL LOG

AUGMITTO EXPLORATIONS LIMITED
34 Adelaide Street West
Toronto, Ontario

DRILLED BY: NORMESCON DEVELOPMENT LIMITED
LOCATION: Pipher Township
Thunder Bay Mining Division
Ontario

CLAIM NO. TB 317344

FOOTAGE DIP LENGTH: 250 feet
Collar 45° DIRECTION: 150°
200 ft.


LOGGED BY: A. D. Pudifin
<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collar</td>
<td>10.0</td>
<td>Casing</td>
</tr>
<tr>
<td>10.0</td>
<td>66.0</td>
<td>Meta-rhyolite porphyry. Fine-grained, siliceous groundmass. Quartz eye phenocrysts and secondary porphyritization of feldspar. 6.0-about 55.0 dioritization - type of alteration. 20.0-25.0 about 5% disseminate pyrite. Minor chalcopyrite, at 22.5' - 3&quot; heavy pyrite, chalcopyrite. 5.0 9020</td>
</tr>
<tr>
<td>86.0</td>
<td>92.0</td>
<td>Feldspar porphyry. Medium-grained. Siliceous groundmass. Sub-angular phenocrysts.</td>
</tr>
<tr>
<td>92.0</td>
<td>105.5</td>
<td>Meta dacite. Medium-darkish grey colour. Fairly fine grained. 97.0-98.0 about 20% pyrite, some chalcopyrite.</td>
</tr>
<tr>
<td>105.5</td>
<td>109.0</td>
<td>Feldspar porphyry.</td>
</tr>
<tr>
<td>114.0</td>
<td>130.0</td>
<td>Rhyolite. Fine grained, motiled. Brecciated. 120.0-125.0 about 3% pyrrhotite. Last 5 feet becomes more basic.</td>
</tr>
<tr>
<td>130.0</td>
<td>142.0</td>
<td>Feldspar porphyry. Medium grained. Sub-angular phenocrysts.</td>
</tr>
<tr>
<td>142.0</td>
<td>152.5</td>
<td>Andesite. Altered, fairly fine grained. Medium grey to greenish tinge. Some scattered pyrrhotite.</td>
</tr>
<tr>
<td>152.5</td>
<td>166.5</td>
<td>Rhyolite. Fine grained, motiled. Brecciated in part. Minor pyrrhotite and pyrite.</td>
</tr>
<tr>
<td>166.5</td>
<td>250.0</td>
<td>Feldspar porphyry. Medium grained. Phenocrysts angular to sub-angular. A few fractures with quartz carbonate.</td>
</tr>
<tr>
<td>250.0</td>
<td>END OF HOLE.</td>
<td></td>
</tr>
</tbody>
</table>
# Diamond Drill Log

Augmitto Explorations Limited  
34 Adelaide Street West  
Toronto, Ontario  

**Drilled By:** Norwescon Development Limited  
Red Lake, Ontario  

**Location:** Pifher Township  
Thunder Bay Mining Division  
Ontario  

**Claim No.:** TB-318089  

<table>
<thead>
<tr>
<th>Footage</th>
<th>DIP</th>
<th>Length: 449 Feet</th>
<th>Direction: 80°</th>
<th>Latitude: 12°50'S</th>
<th>Departure: 2+20E (Chained from L-4E)</th>
<th>Core Size: AX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collar</td>
<td>45°</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**Logged By:** A. D. Pudifin.
Collar 4.0 Casing
4.0 17.0 Dacite. Fine grained, medium grey colour. Somewhat porphyritized (feldspar).
17.0 62.5 Porphyritic meta rhyolite. Fine grained, medium grey colour, quartz eye phenocrysts to 1/16". Occasional stringers of carbonate and fine stringers of chalcopyrite.
62.5 192.0 Feldspar porphyry. Medium grained, medium grey groundmass. Feldspar phenocrysts to 1/8" angular to subangular. Occasional quartz carbonate stringer.
192.0 222.0 Porphyritic meta rhyolite, similar to 14.0-62.0.
222.0 237.0 Agglomerate, rhyolitic. Fine grained, light grey fragments in darker groundmass. Occasional minor sulphides pyrite-pyrrhotite-chalcopyrite.
237.0 286.0 Dacite. Somewhat fine grained, medium grey colour. Porphyritized. Phenocrysts vague. Minor quartz-carbonate stringers.
286.0 382.0 Andesite. Somewhat fine grained. A bit soft. Slightly greenish tinge to about 310'.
310-312 fine stringer parallel to core axis carbonate with pyrite, chalcopyrite.
310-340 scattered disseminated brassy pyrrhotite with minor chalcopyrite.
310-320 bleached and porphyritized patches.
at 360' 1/2" with tourmaline, pyrrhotite, chalcopyrite.
360-377 bleached and porphyritized patches.
376-377.5 1/8-1/4" stringer quartz carbonate about parallel to core axis.

382.0 427.0 Porphyritic meta rhyolite. Fine grained, hard, grey to yellowish tinge. Quartz eyes and some feldspar phenocrysts. 418-419 1/8" stringer quartz about parallel to core axis with some pyrite.
427.0 449.0 Meta andesite. Medium grained. Porphyritized, fine grained, subangular. Somewhat dioritic appearance.
449.0 END OF HOLE.
HOLE NO. AM-8

DIAMOND DRILL LOG

Augmitto Explorations Limited
34 Adelaide Street West
Toronto, Ontario

DRILLED BY: Norweacon Development Limited
Red Lake, Ontario

LOCATION: Pifher Township
Thunder Bay Mining Division
Ontario

Claim No.: TB-318082

FOOTAGE  DIP
Collar  45°
200 feet  38°

LENGTH: 460 feet
DIRECTION: 145°
LATITUDE: 13°50'E
DEPARTURE: 2+90E (Chained from L-4E)
CORE SIZE: AX


LOGGED BY: A. D. Pudifin.
<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
<th>DESCRIPTION</th>
<th>LENGTH</th>
<th>SAMPLE</th>
<th>ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collar</td>
<td>4.0</td>
<td>Casing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>35.0</td>
<td>Feldspar porphyry. Medium grained, phenocrysts to 1/8&quot;, angular. A few rusty fractures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>116.0</td>
<td>193.0</td>
<td>Rhyolite. Fine grained, hard. Becomes porphyritic at about 127°. Some fracturing with fine quartz-carbonate. Occasional minor pyrite and specks chalcopyrite. 138-140° quartz stringers to 1/4&quot; wide, glassy to bluish.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>193.0</td>
<td>235.5</td>
<td>Dacite. Altered, porphyritized. Fairly uniform, vague phenocrysts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>235.5</td>
<td>240.0</td>
<td>Rhyolite. Altered. Some brecciation, carbonatization.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>240.0</td>
<td>272.5</td>
<td>Dacite. Somewhat altered, slightly porphyritized.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>272.5</td>
<td>347.0</td>
<td>Rhyolite. Fine grained, light grey. 313-327° light greenish colour. Generally porphyritized, quartz and feldspar. Occasional pyrite smeared on fractures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>347.0</td>
<td>372.0</td>
<td>Feldspar porphyry. Fine grained. Possible porphyritized dacite.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>372.0</td>
<td>375.0</td>
<td>Andesite. Sheared 55° to core axis. Chloritic, carbonitized. Minor pyrite dissemination.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>375.0</td>
<td>395.0</td>
<td>Dacite altered, porphyritized.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>395.0</td>
<td>399.5</td>
<td>Meta andesite. Altered, carbonitized. Minor pyrite.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>399.5</td>
<td>440.0</td>
<td>Meta dacite. 432-440° Several fractures at random to core axis with quartz carbonate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>440.0</td>
<td>460.0</td>
<td>Porphyritic meta rhyolite. Quartz and feldspar phenocrysts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>460.0</td>
<td>END OF HOLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mrs. Audrey Hayes  
Mining Recorder  
Ministry of Natural Resources  
P.O. Box 5000  
Thunder Bay, Ontario  
P7C 5G6

Dear Madam:

Geophysical (Electromagnetic & Magnetometer)  
Geological & Geochemical survey and assaying  
expenditures submitted on Mining Claims  
TB 767891 to 94 inclusive, in the Area of  
Tyrol Lake.

The assessment work credits as listed with the  
above mentioned Notice of Intent, have been approved  
as of the above date.

Please inform the recorded holder of these mining  
claims and so indicate on your records.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416) 965-6918

D. Kinvig:sc

cc: Daniel Laurendeau  
228 - 8th Street  
Noranda, Quebec  
J9X 2A8

cc: Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario

cc: Resident Geologist  
Thunder Bay, Ontario
**Technical Assessment Work Credits**

**Recorded Holder**: DANIEL LAURENDEAU  
**Township or Area**: TYROL LAKE AREA

<table>
<thead>
<tr>
<th>Type of survey and number of Assessment days credit per claim</th>
<th>Mining Claims Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geophysical</td>
<td>$5008.80 SPENT ON ASSAYING SAMPLES TAKEN FROM MINING CLAIMS:</td>
</tr>
<tr>
<td>Electromagnetic</td>
<td></td>
</tr>
<tr>
<td>Magnetometer</td>
<td></td>
</tr>
<tr>
<td>Radiometric</td>
<td></td>
</tr>
<tr>
<td>Induced polarization</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Geophysical</td>
<td>TB 317341</td>
</tr>
<tr>
<td></td>
<td>317343 to 45 inclusive</td>
</tr>
<tr>
<td></td>
<td>318086-87</td>
</tr>
<tr>
<td></td>
<td>318089-90</td>
</tr>
<tr>
<td></td>
<td>767891 to 94 inclusive</td>
</tr>
<tr>
<td>Geological</td>
<td>334 DAYS CREDIT ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT.</td>
</tr>
<tr>
<td>Geochemical</td>
<td></td>
</tr>
</tbody>
</table>

Section 77 (19) See “Mining Claims Assessed” column

Geological: ___________ days  

Geochemical: ___________ days

- Man days [ ]  
- Airborne [ ]  
- Special provision [ ]  
- Ground [ ]

- Credits have been reduced because of partial coverage of claims.  
- Credits have been reduced because of corrections to work dates and figures of applicant.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

- not sufficiently covered by the survey  
- Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19) — 60.
### Recorded Holder
DANIEL LAURENDEAU

### Township or Area
TYROL LAKE AREA

### Type of survey and number of Assessment days credit per claim

<table>
<thead>
<tr>
<th>Type of survey</th>
<th>Mining Claims Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electromagnetic</td>
<td>TB 767892-93</td>
</tr>
<tr>
<td>Magnetometer</td>
<td></td>
</tr>
<tr>
<td>Radiometric</td>
<td></td>
</tr>
<tr>
<td>Induced polarization</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Section 77 (19) See "Mining Claims Assessed" column

<table>
<thead>
<tr>
<th>Type of survey</th>
<th>No. of Man days</th>
<th>No. Airborne</th>
<th>Special provision</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geological</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geochemical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Man days ☐
- Airborne ☐
- Special provision ☐
- Ground ☐

☐ Credits have been reduced because of partial coverage of claims.
☐ Credits have been reduced because of corrections to work dates and figures of applicant.

### Special credits under section 77 (16) for the following mining claims

15 DAYS GEOCHEMICAL

TB 767891
767894

### No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey
☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19)—60.
<table>
<thead>
<tr>
<th>Type of survey and number of Assessment days credit per claim</th>
<th>Mining Claims Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geophysical</td>
<td>TB 767891 to 94 inclusive</td>
</tr>
<tr>
<td>Electromagnetic</td>
<td>40 days</td>
</tr>
<tr>
<td>Magnetometer</td>
<td>20 days</td>
</tr>
<tr>
<td>Radiometric</td>
<td></td>
</tr>
<tr>
<td>Induced polarization</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Section 77 (19) See “Mining Claims Assessed” column

Geological                                                   | 20 days                |

Geochemical                                                  |                        |

<table>
<thead>
<tr>
<th>Man days</th>
<th>Airborne</th>
<th>Special provision</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

☐ Credits have been reduced because of partial coverage of claims.

☐ Credits have been reduced because of corrections to work dates and figures of applicant.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19) — 60.
1984 04 12

Mrs. A.M. Hayes
Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-6918.

Yours very truly,

[Signature]

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

Encls.
cc: Daniel Laurendeau
228 - 8th Street
Noranda, Quebec
J9X 2A8

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario
An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the “Special Provision-Performance and Coverage” method and you are of the opinion that a re-appraisal under the “Man-days” method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.
RE: GEOPHYSICAL SURVEY SUBMITTED ON MINING CLAIMS TB 767891 TO TB 767894 INCLUSIVE, AREA OF TYROL LAKE.

Dear Sir,

Enclosed is the magnetometer survey plot of actual readings collected as per your request.

Yours truly,

[Signature]

RECEIVED
MARCH 7 1984

MINING LANDS SECTION

RECEIVED
MARCH 7 1984

Good
March 6, 1984.

Daniel LaBerge
228 - 8th Street
Noranda, Quebec
J9X 2A8

Dear Sir:

RE: Geophysical (Electromagnetic) and Geochemical surveys
on mineral claims TB 76 and TB 90, 1984.

Tyhol Lake.

Enclosed is the magnetometry data in duplicate, for the above survey, the actual readings for the laboratory analyses, and copies of plans to this office.

For further information, please contact Mr. G. K. R. (416) 965-1380.

Yours very truly,

J.R. Morton
Acting Director
Land Management Branch

Whitney Block
Room 6643
Queen's Park
Toronto, Ontario
N7A 1N3

Phone: 416/965-1380

D. Kinzig

Encls:

cc: Mr. Vernon Shein
68 A Arthur Street
St. Catharines, Ontario
L2N 1H2
Mining Lands Comments

To: Geophysics

Comments

☐ Approved ☐ Wish to see again with corrections Date Signature

To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections Date Signature

To: Geochemistry  DR. FORTESCUE

Comments

☐ Approved ☐ Wish to see again with corrections Date Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)
<table>
<thead>
<tr>
<th>To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mining Lands Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>all area numbers need</td>
</tr>
<tr>
<td>main lines of holes</td>
</tr>
<tr>
<td>are shown on property</td>
</tr>
<tr>
<td>geology map</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To: Geophysics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments</td>
</tr>
</tbody>
</table>

Approved  
Date: Jan 13/84  
Signature: R. Baker

<table>
<thead>
<tr>
<th>To: Geology - Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments</td>
</tr>
</tbody>
</table>

Approved  
Date: Jan 16/84  
Signature: C. Kitch

<table>
<thead>
<tr>
<th>To: Geochemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments</td>
</tr>
</tbody>
</table>

Approved  
Date:  
Signature: L. D.

<table>
<thead>
<tr>
<th>Approved</th>
<th>Wish to see again with corrections</th>
<th>Date</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mrs. Audrey Hayes  
Mining Recorder  
Ministry of Natural Resources  
P.O. Box 5000  
Thunder Bay, Ontario  
P7C 5G6

Dear Madam:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Geological, Geochemical and Data for Assaying survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims TB 767891 to 94 inclusive in the Township of Tyrol Lake.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch  
Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1N3  
Phone:(416)965-1380

A. Barr:mc

cc: Daniel Laurendeau  
228 8th Street  
Noranda, Quebec  
J9X 2A8
Initial Check

Approved Reports of Work sent out

Notice of Intent filed

Approval after Notice of Intent sent out

Duplicate sent to Resident Geologist

Duplicate sent to A.F.R.O.
**Ministry of Natural Resources**

**Report of Work**
Geophysical, Geological, Geochemical and Expenditures

**File #: 767991**

The Mining Act

**Instructions:**
- Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Note: Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

**Type of Survey(s)**

- Electromagnetic
- Magnetometer
- Radiometric
- Other

**Township or Area:** Tyrol Lake
**Prospector's Licence No.:** K19560

**A.C.O. Howe International Ltd.**
**Address:** 67 Richmond St. W., Suite 500, Toronto, ON. M5G 0A1
**Date of Survey (from & to):** 02/03/83 to 03/03/83
**Total Miles of line cut:** 12.8

**Survey Company:** A.C.O. Howe International Ltd.
**Name and Address of Author (of Geo-Technical report):** Vernin Shein, 58 A Arthur, St. Catharines, ON., L2M 1H2

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

<table>
<thead>
<tr>
<th>Mining Claim</th>
<th>Exp. Days Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB 219412</td>
<td>60</td>
</tr>
<tr>
<td>319343</td>
<td>7</td>
</tr>
<tr>
<td>317344</td>
<td>27</td>
</tr>
<tr>
<td>319348</td>
<td>27</td>
</tr>
<tr>
<td>318079</td>
<td>27</td>
</tr>
<tr>
<td>31887</td>
<td>27</td>
</tr>
<tr>
<td>310899</td>
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<tr>
<td>767891</td>
<td>60</td>
</tr>
<tr>
<td>767892</td>
<td>60</td>
</tr>
<tr>
<td>767893</td>
<td>60</td>
</tr>
<tr>
<td>767894</td>
<td>60</td>
</tr>
</tbody>
</table>

**Calculations of Expenditure Days Credits**

- Total Expenditures: $4,882.30
- Total Days Credits: 325.5

**Expenditures (excludes power stripping)**

**Type of Work Performed**

- Humus and Soil Assays

**Performed on Claim(s):**

- TB 219412
- 319343
- 317344
- 319348
- 318079
- 767891
- 767892
- 767893
- 767894

**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:**

- Vernin Shein, 58 A Arthur, St. Catharines, ON., L2M 1H2

**Date Certified:** 27/09/83

**Certified by (Signature):**

**Date Approved as Recorded:** 03/11/83

**Branch Director:**

**Date Recorded:** 03/11/83

**For Office Use Only:**

- Total Days Cr. Recorded:
- Data Approved as Recorded:
- Mining Recorder:
- Audley M. Haywood

**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.
Ontario Ministry of Natural Resources

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) PAM MAGNETOMETER, VLF-EM, GEOCHEMICAL, GEOLOGICAL
Township or Area PIFHER TOWNSHIP
Claim Holder(s) AUGMITTO EXPLORATIONS LIMITED

Survey Company ACA HOWE INTERNATIONAL LTD
Author of Report VERNON SHEIN
Address of Author 58 A ARTHUR ST. CATHARINES, ON
Covering Dates of Survey JULY 22 - AUG 18, 1983
Total Miles of Line Cut 12.8

SPECIAL PROVISIONS CREDITS REQUESTED
Geophysical DAYS per claim
- Electromagnetic 40
- Magnetometer 20
- Radiometric
- Other
Geological 20
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: SEPT 2, 1983 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. Qualifications 28066

Previous Surveys
File No. Type Date Claim Holder

TOTAL CLAIMS

MINING CLAIMS TRAVERSED
List numerically

T.B. 767.891
T.B. 767.892
T.B. 767.893
T.B. 767.894
T.B. 317.341
T.B. 317.343
T.B. 317.344
T.B. 317.345
T.B. 3180.86 GONE TO LEASE
T.B. 3180.87
T.B. 3180.89
T.B. 3180.90

File: 767 891
GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS — If more than one survey, specify data for each type of survey

<table>
<thead>
<tr>
<th>Number of Stations</th>
<th>Number of Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>778</td>
<td>2-VLF, 1-PPM, 1-GEOMAG</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Station interval</th>
<th>Line spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 m</td>
<td>100 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Profile scale</th>
<th>Contour interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(^\circ) = 20(^\circ) (DIP ANGLE PROFILE)</td>
<td>VLF (FRAZER FILTER 10 UNITS) (FIELD STRENGTH 10(^\circ)), PPM (MAG) 1000 T</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Accuracy Scale constant</th>
<th>Diurnal correction method</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARRINGER PPM, MODEL GM-122</td>
<td>5^9</td>
<td>ADVANCING BASE STATION</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Base Station check-in interval (hours)</th>
<th>Base Station location and value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>BASE LINE</td>
</tr>
</tbody>
</table>

**MAGNETIC**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Coil configuration</th>
<th>Coil separation</th>
<th>Accuracy</th>
<th>Method</th>
<th>Frequency</th>
<th>Parameters measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRONE VLF Radar-EM Receiver</td>
<td>VERTICAL COIL</td>
<td>SINGLE COIL</td>
<td>½ DEGREE DIP</td>
<td>Fixed transmitter</td>
<td>ANNAPOLIS, MARYLAND 21.4 KHZ</td>
<td>HORIZONTAL FIELD STRENGTH, DIP ANGLE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scale constant</th>
<th>Base station value and location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elevation accuracy</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ELECTROMAGNETIC**

<table>
<thead>
<tr>
<th>Electrode array</th>
<th>Electrode spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GRAVITY**

<table>
<thead>
<tr>
<th>Method</th>
<th>Parameters</th>
<th>Frequency Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delay time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Integration time</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INDUCED POLARIZATION**

<table>
<thead>
<tr>
<th>Type of electrode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
### SELF POTENTIAL

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Survey Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corrections made</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### RADIOMETRIC

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Values measured</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Energy windows (levels)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Height of instrument</th>
<th>Background Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of detector</th>
<th>Overburden (type, depth – include outcrop map)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

<table>
<thead>
<tr>
<th>Type of survey</th>
<th>Instrument</th>
<th>Accuracy</th>
<th>Parameters measured</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional information (for understanding results)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### AIRBORNE SURVEYS

<table>
<thead>
<tr>
<th>Type of survey(s)</th>
<th>Instrument(s) (specify for each type of survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accuracy (specify for each type of survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aircraft used (specify for each type of survey)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sensor altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Navigation and flight path recovery method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aircraft altitude</th>
<th>Line Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miles flown over total area</th>
<th>Over claims only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dear Mr. Barr

28/11/83

RE: Analytical Expenditures; Fipper Township

At the time of submission of Report of Work #451, I was given a cost estimate for soil sample assay of $4222.30 by X-Ray Assay Laboratories Limited.

The final cost of the soils assay was $5002.80.

Yours truly,

[Signature]
<table>
<thead>
<tr>
<th>BOX</th>
<th>DESCRIPTION</th>
<th>METHOD</th>
<th>X-RAY CODE</th>
<th>UNIT COST</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AU</td>
<td></td>
<td>10. 7: 0: 0: 0</td>
<td>6.50</td>
<td>3308.50</td>
</tr>
<tr>
<td>2</td>
<td>AU, HUMUS</td>
<td></td>
<td>2. 20: 0: 0: 0</td>
<td>6.50</td>
<td>1105.00</td>
</tr>
<tr>
<td>3</td>
<td>SOIL, DRYING &amp; SCREENIN</td>
<td></td>
<td>2: 0: 0: 0: 0</td>
<td>0.70</td>
<td>356.30</td>
</tr>
<tr>
<td>4</td>
<td>HUMUS: DRYING &amp; BLENDIN</td>
<td></td>
<td>2: 0: 0: 0: 0</td>
<td>0.70</td>
<td>119.00</td>
</tr>
<tr>
<td>5</td>
<td>HOURS SORTING - COMPUTE</td>
<td></td>
<td>19: 0: 0: 0: 0</td>
<td>30.00</td>
<td>120.00</td>
</tr>
</tbody>
</table>

**TOTAL** 5008.80

TERMS NET 30 DAYS
1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

RETURN THIS COPY WITH YOUR PAYMENT

TOTAL CANADIAN FUNDS 5008.80
GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken 12

Total Number of Samples 679
Type of Sample Soil
(Nature of Material)
Average Sample Weight 30-50 g
Method of Collection HOLE DUG WITH CRUANCE
Soil Horizon Sampled B
Horizon Development A, Poor, A2 Poor-6000, B-6000
Sample Depth 9-20 ft
Terrain FLAT, 100' RELIEF

Drainage Development Poor-FAIR
Estimated Range of Overburden Thickness 0-5 m

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)
Mesh size of fraction used for analysis

ANALYTICAL METHODS
Values expressed in: per cent □ p. p. m. □ p. p. b. □
Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)
Others Au

Field Analysis (________ tests)
Extraction Method
Analytical Method
Reagents Used

Field Laboratory Analysis
No. (________ tests)
Extraction Method
Analytical Method
Reagents Used

Commercial Laboratory (________ tests)
Name of Laboratory
Extraction Method
Analytical Method FIRE ASSAY DCL
Reagents Used

General

General

Samples Assayed by
X-RAY ASSAY LABORATORIES LTD
1895 LESLIE ST, DON MILLS, ONT
M3B-3J4
TEL (416) 445-5765
NOTE: SCALE FOR PLOTTING DIP ANGLES
1 INCH = 20°

LEGEND

STATION AND WEST DIP ANGLE

STATION AND EAST DIP ANGLE

VLF - DIP ANGLE PROFILES OF PIFHER TOWNSHIP PROPERTY
FOR AUGUNITTO EXPLORATIONS LIMITED

DESIGNED: V.SHEIN

PIFHER TOWNSHIP PROPERTY

SHIER 1983 SURVEY

APPROVED

DATE

APPROVED

DATE

DRAWN

DATE

MADE BY

CHECKED

DATE

REVISIONS

DATE

LOCATION

DESCRIPTION

DATE

REFERENCE DRAWINGS

REVISING

DUG No *

1200

1000

900

800

700

600

500

400

300

200

100

0

100 M M E T E R S

100 M M E T E R S

100 M M E T E R S

100 M M E T E R S

100 M M E T E R S

100 M M E T E R S

100 M M E T E R S

100 M M E T E R S
Pipher Township Property
Summer 1963 Survey

Legend:
- Topographical features
- Magnetic field anomaly
- Groundwater levels

Note: Magnetic susceptibility for the area is 5,100 liters/m³.