



REPORT ON THE PROPERTY OF  
ARIES COPPER MINES LIMITED  
Michipicoten Island, Ontario

by;

GERALD. M. FRIEDMAN,  
PH.D.

SUMMARY

The property of Aries Copper Mines reported on herein is a copper prospect. It is situated on Michipicoten Island in Lake Superior. This property consists of a block of 125 contiguous claims comprising an area of about 5000 acres. It is located on the north shore of the island extending along the shore for a length of about 5 miles.

The geology of the property is similar to that of the great copper producing area of Michigan, the property being underlain by the rocks of the Middle Keweenaw formation which is the principal copper producing horizon of the Michigan mines. The productive members of the Middle Keweenaw are mainly basalt flows with intercalated conglomerates both of which carry native copper and some native silver. Native copper has been found in basalt on the Aries property at several places and native silver has been picked up on the shore by prospectors.

The occurrence of these metals on the Aries property in a formation which elsewhere has yielded an enormous production of copper presents a very attractive picture. It seems not unreasonable to expect that extensive copper deposits of economic grade will be discovered on this property by systematic exploration. A geophysical survey of the property is recommended as the first step of an extended program of exploration.

## INTRODUCTION

The information contained in this report has been compiled from government reports, aerial photographs of the Ontario Department of Lands and Forests and data collected by two of my former geology students, Messrs. Irvin Bass B.Sc, and Tom Gerrard on a reconnaissance trip to the Aries Copper Mines property. Samples collected by these geologists and by field men of the Company have aided materially in compiling this report.

## PROPERTY AND TITLE

The property of Aries Copper Mines Limited takes in a total of 125 contiguous unsurveyed and unpatented mining claims namely; SSM 44976 to 45005, inclusive, and 45110 to 45204, inclusive, comprising an area of about 5,000 acres. The claims are registered in the name of the company.

## LOCATION AND ACCESS

The property is located on the north shore of Michipicoten Island and extends along the shore for a length of about 5 miles in an east-west direction. It has a depth from one mile to one and three-quarters of a mile north-south.

Michipicoten Island lies in the northeastern part of Lake Superior about 50 miles west of Michipicoten Harbour, Ontario. The Island can be reached by boat from Sault Ste. Marie, a distance of about 150 miles; from Mamainse Harbour, a distance of about 100 miles; and from Michipicoten Harbour a distance of about 50 miles. Due to ice conditions on the lake the Island is inaccessible by boat from the end of December to the end of April. The Company has built camps and landing facilities at the mouth of Bonner Creek at the northeast corner of the property.

## FACILITIES

The island is heavily covered with a stand of old timber consisting mainly of hardwood and spruce, thus timber for buildings and underground use can be obtained locally.

There are numerous lakes on the Island, and water both for domestic purposes and mill use is available in sufficient quantities even in localities which are too far away from the shore of Lake Superior.

There is no power available on the Island. Due to the distance from the mainland, it will be impossible to bring hydro-electric power to the Island. Therefore any future mining operations will have to depend on diesel power or power generated by oil-fired automatic boilers.

## HISTORY

The occurrence of native copper on Michipicoten Island has been known for nearly 100 years. The presence of domeykite, a copper mineral, on Michipicoten Island, is mentioned in standard mineralogical textbooks. The reports of the Ontario Department of Mines (1898 to 1913) and the Report of the Royal Commission on Mineral Resources of Ontario (1890) make frequent reference to mining developments on Michipicoten Island. The Report of the Royal Commission<sup>1</sup> also mentions a rich discovery of native silver and nickel ore on that part of the old Bonner Location, which is now included in the Aries property.

1. Report of the Royal Commission, "The Mineral resources of Ontario and measures for their development" 1890, p. 61.

First mining attempts on Michipicoten Island appear to have been conducted in 1860 and 61 by New York interests. Shafts were sunk, a stamp mill was erected and several barrels of copper were produced. Interest in the area waned many years ago but has now been revived, and the whole Island has been blanketed by staking. Exploration of the Island for copper deposits is proceeding on several locations.

#### GENERAL GEOLOGY

The property is underlain by interbedded Keweenawan volcanic flows and sediments. These formations strike about  $72^{\circ}$  West of North on the extreme eastern part of the property but the strike changes to  $85^{\circ}$  West of North about a quarter of a mile to the west. On the western part of the property the strike varies from  $65^{\circ}$  East of North to due west. The dip is to the south at about  $35^{\circ}$  to  $55^{\circ}$ . The formations are gently folded, and individual beds near the lake shore do not appear to exceed one hundred feet in thickness.

The igneous rocks are represented by various phases of basalt, including an amygdaloidal variety, by quartz-porphry and felsite. The sediments are mostly conglomerate, sandstone and shale.

The basalt includes a fine-grained variety in which the matrix minerals cannot be recognized and a coarser-grained variety in which feldspars and pyroxenes are easily discernable. Amygdule fillings include calcite, native copper, chlorite, analcite, hornblende and prehnite(?). Locally both amygdaloidal and non-amygdaloidal basalt phases carry native copper, and surface samples are coated with malachite.

The property is traversed by a system of faults, joints and shatter zones. The majority of these have a north-east strike. The aerial pictures show two near-parallel lineaments which have a strike of about  $65^{\circ}$  -  $80^{\circ}$  East of North and can be traced for a distance of over two miles. These lineaments probably represent faults.

#### ECONOMIC GEOLOGY

The enormous deposits of native copper in the Keweenawan flows and sediments of Upper Michigan constituted for over eighty years one of the principal sources of the copper wealth in the United States. The success of the Michigan Copper Mines in producing millions of tons of copper and large amounts of silver from the Middle Keweenawan has established this formation as one of the principal copper bearing horizons on the North American continent.

This copper belt underlies the Keweenaw Peninsula, where the famous Calumet and Hecla Mine is located, and extends to Keweenaw Point on the shore of Lake Superior. Keweenawan flows and sediments of the same type and relative age occur on Michipicoten Island, which is located in Lake Superior opposite Keweenaw Point, and underlie the Aries property.

Logan in his "Geology of Canada" refers to the Keweenawan formations of the north shore of Lake Superior, including those of Michipicoten Island, as "Upper Copper-Bearing Series".

On the Keweenaw Peninsula Copper occurs in the basalts, conglomerates, and in veins following strike fissures, cross fractures and fault zones. On Michipicoten Island copper has been found in

basalts on the Aries property and in conglomerates on a property on the west end of the Island. Native copper has been found, in lumps up to 35 lbs. in weight, intermittently for a distance of nearly a mile along a bed outcropping in Lake Superior a short distance from, and striking parallel to the shore. This occurrence, which can be reached only at low water, dips toward the shore so that, at shallow depth, it will underly the Aries property.

According to a Government report<sup>1</sup> a bed of amygdaloidal basalt carrying native copper is traceable for several miles along the shore. This may or may not be the same bed as the one described above.

The report of the Royal Commission mentioned before gives several analyses of copper and nickel minerals found on the Island. The specimens were furnished by "Mr. Charles Bonner from a mine on Michipicoten Island". Reference to "Bonner" and "mine" points to the possibility that the samples were obtained from the north part of the "Bonner Location", now included in the Aries property, where an old shaft is located. The report mentions mixtures of niccolite occur in some of the Michigan copper mine.

In another place, the Report of the Royal Commission states:<sup>2</sup>  
"Another ore nickel, said to be from the same mine as the preceding, occurs as the gangue of native copper and native silver".

1. Ontario Bureau of Mines, "Michipicotan Island"; Vol. 19, pt. 2, 1910
2. Report of the Royal Commission, op. cit., p. 444.

The faults or shatter zones shown by the aerial photographs to extend diagonally across the Aries property may be of importance, both in having provided channelways for ascending ore solutions and as ore carriers. In Michigan cross fractures often were producers of "mass" copper.

According to Butler and Burbank's hypothesis regarding the origin of the Michigan copper deposits<sup>1</sup> native copper was deposited in the permeable sections of the Keweenaw rocks by ascending solutions. Ore bodies were formed mainly in the brecciated tops of amygdaloidal flows and the coarse phases of the conglomerates (examples: the Kearsarge flow and the Hecla and Calumet conglomerate).

Comparison of the conditions on the Aries property with those prevailing in the producing area of the Michigan copper district establishes a similarity in geology, structure and mineralogy, so striking that a repetition of the conditions which made ore there, can be expected here with confidence.

#### CONCLUSIONS

The Aries Copper Mines property on Michipocoten Island is underlain by the Middle Keweenaw formation from which, in Michigan, enormous quantities of copper have been produced. Native copper in Keweenaw basalt has been found on the Aries property. A Government report<sup>2</sup> mentions the occurrence of high-grade ore on the "Bonner Location" which now forms part of the Aries holdings.

1. U.S. Geol. Survey, Prof. Paper No. 144, "The Copper Deposits of Michigan" by B.S. Butler and W.S. Burbank, 1929.
2. Report of the Royal Commission, op. cit., p. 61

Geologically and structurally conditions on the property have a striking similarity to those prevailing in the Michigan copper districts. The property of Aries Copper Mines offers excellent chances for the occurrence of extensive copper deposits of economic grade.

RECOMMENDATIONS

The property warrants an extensive program of exploration. The carrying out of an electro-magnetic survey is recommended as the first step.

Anomalies obtained by such survey should be tested by closely spaced diamond drilling.

Respectfully submitted

(sgd) GERALD M. FRIEDMAN

Gerald M. Friedman, B.Sc., M.A., Ph.D.

Dated October 24, 1955.

References

Ontario Department of Mines Reports, 1898 to 1913  
Report of the Royal Commission, "The Mineral Resources of Ontario and Measures of their Development", 1890  
U.S. Geol. Survey, Prof. Paper No. 144, "The Copper Deposits of Michigan" by B.S. Butler and W.S. Burbank, 1929  
U.S. Geol. Survey, Prof. Paper No. 184, "Precambrian Rocks of the Lake Superior Region" by C.K. Leith, R.J. Lund and A. Leith, 1935.





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# McPHAR GEOPHYSICS LIMITED

## REPORT ON THE ELECTROMAGNETIC SURVEY OF A GROUP OF CLAIMS, MICHIPICOTEN ISLAND, ONTARIO FOR ARIES COPPER MINES LIMITED

### 1. INTRODUCTION

At the request of Mr. W. A. Hesse, an electromagnetic survey was conducted on part of a group of claims on the north side of Michipicoten Island on behalf of Aries Copper Mines Limited. This work was done during November and December 1955 and covers about half of the total claim group. It is tentatively planned to survey the remaining claims at a future date.

The survey was run in an attempt to locate sub-surface electrical conductors with the hope that any conductors so found might prove representative of economically significant mineralization. The area involved is geologically similar in rock type and age to the Keweenaw Point copper producing area in Michigan U. S. A. The Keweenaw copper mineralization is primarily native copper and silver in a vesicular lava and conglomerate. Some fractures well mineralized with native copper also occur. It was considered probable that this type of mineralization or at least the high grade sections, would be sufficiently good electrical conductors to be detectable by ground electromagnetic methods.

A copy of a geological report by Dr. Gerald M. Friedman was made available to us to aid in the interpretation.

NOTE: Map E4244-1 not available. RA, 3/1/79

2. PRESENTATION OF RESULTS

Field results and conductor axes are plotted on the enclosed maps Nos. E4244-1-2. Topographic features as shown are largely from field notes and positioning on picket lines is reasonably accurate. Between lines the features have been approximated.

3. DISCUSSION OF RESULTS

Numerous indications of conductors were observed. Where there appears to be some continuity of conductors from line to line they have been designated as zones. These zones are labelled alphabetically and will be discussed in that order.

ZONE A

Conductors are indicated on line 4E and 5E about 1000 feet south of the baseline. The zone displays only moderate conductivity and appears to be dipping flatly to the south. On line 5E in particular the dip angle profile suggests a flat lying conductive body of 300 foot width (approximate). Due to the relatively poor conductivity, the depth to the conductor is difficult to estimate but should not greatly exceed 50 feet. DDH 1 (see attached schedule) has been suggested to test Zone A.

ZONE B

In the southeast corner of the area, conductors are indicated at 35+00S line 1E, 36+50S to 39+00S line 2E, 42+00S line 4E and a possible conductor at 45+20S line 5E. The conductivity and/or depth appear to vary over the length of the zone but in general the

conductivity seems somewhat higher than for Zone A. At 35+00S line 1E the conductivity appears best and a drill hole (DDH 2 attached schedule) has been recommended to test the anomaly on this line.

#### ZONE C

Zone C in the top northeast corner of the surveyed area runs from 48+00N line 3W to 53+50N line 1W. The conductivity is reasonably good (i. e. comparable to Zone B) but the conductor seems fairly deeply buried, probably in excess of 100 feet. The zone appears to be steeply dipping. DDH 3 on line 2W is suggested to check this anomaly (see attached schedule).

#### ZONE D

Zone D from 38+00N line 4W to 45+20N line 2W is similar to Zone C insofar as the electromagnetic indications are concerned. If Zone C proves to be of interest, Zone D would warrant follow up exploration.

#### ZONE E

Zone E, some 400 to 500 feet south of baseline 1 on lines 1W, 2W and 3W, displays poor conductivity on line 3W, but increasingly good conductivity on lines 2W and 1W. In fact on line 1W the dip angle profile indicates the conductivity here is as good or better than any other conductor on the property. Weaker conductors approximately 150 feet south of baseline 1 on lines 1W and 2W, confuse the dip indications, but a south dip is considered most likely. DDH 4 is recommended to check Zone E on line 1W. Drilling of the rest of the zone or the weaker con-

ductors mentioned would not be warranted unless DDH 4 is definitely economically interesting (i. e. type and grade of mineralization) since we would expect the amount of conductive mineralization to decrease with decrease in electromagnetic response.

#### ZONE F

Zone F, from 25+50S line 5W to 30+40S line 3W is indicated on the high frequency curve only and is a poor conductor. Remarks regarding possible follow up exploration of Zone E apply also to this zone.

An east-west line at 21+00S between lines 3W and 1W and one at 36+00S between lines 4W and 2W indicate the presence of some north-south striking conductors. Suggestions of north-south conductors exist over most of the northeast quarter of the surveyed area, and in several places in the south half of the area. Undoubtedly these conductors could be located by electromagnetic surveying along east-west lines. The indicated geological strike is east-west and in view of the anticipated type of mineralization, north-south conductors were considered to be of secondary interest. Consequently electromagnetic surveying on east-west lines was not pursued.

#### ZONE G

Zone G is the most extensive anomaly located, striking east-west from 10+30S line 14W to 14+00S line 10W (and possibly extending east to line 9W).

Again the conductivity is only fair as evidenced by the small low frequency response. A south dip is indicated for most of the zone. At the west end, conductors 200 feet south of the main zone indicate a possible widening of the zone or possibly a parallel conductor. Two drill holes have been recommended (DDH 5 and DDH 6 attached schedule) to cross section the zone on line 13W.

#### ZONE H

Zone H at 36+00N, lines 18W and 19W displays poor conductivity and appears to dip flatly south. DDH 7 (attached schedule) is spotted to check this weak 'kick'.

#### ZONE J

Zone J is in the southwest corner of the surveyed area. Conductors at 36+00S on lines 22W and 23W and at 38+90S line 24W indicate a gently curving east-west strike. A south dip is indicated. The zone may extend east to line 21W (suggested conductor at 37+20S line 21W). DDH 8 (attached schedule) is recommended to check this conductive zone.

#### 4. CONCLUSIONS AND RECOMMENDATIONS

The survey has indicated a number of conductive 'zones'. In the absence of any geological detail, priorities can only be assigned on the basis of apparent conductivity and the intuitive priority of east-west striking zones over north-south striking zones.

Since virtually nothing is known about the geology of the old mine, electromagnetic results in the vicinity of the old mine do not help in estimating the significance of the conductive zones located. For this purpose a limited drilling program has been recommended. If any of the zones prove economically significant, detail electromagnetic surveying on intermediate lines (say every 220 feet) would be advisable to accurately trace the conductive zone. This should be done before any extensive drilling is programmed on any one of the zones. The eight hole program should be completed before the balance of the claim group is covered by electromagnetic surveying. It is possible that the anomalous zones located can all be attributed to conductive but economically uninteresting structures. If this is the case further electromagnetic surveying would scarcely be warranted. In any event it would be well to establish some sort of calibration of the electromagnetic results before spending additional money surveying the balance of the claim group. On the other hand, electromagnetic (or other geophysical) surveys can best be performed in the winter due to the large number of beaver ponds and swampy sections. Depending on the urgency of completing the electromagnetic work this winter, it may not be feasible to carry out the limited drilling program first, since winter drilling on Michipicoten Island would be extremely difficult and expensive.

We would appreciate an opportunity to assist in

correlating drilling results with geophysical results. Additionally we would be pleased to assist in planning further electromagnetic work or drilling if warranted.

McPHAR GEOPHYSICS LIMITED

*F. W. McCamus*

F. W. McCamus,  
Geophysicist.

*E. G. Robinson*

E. G. Robinson,  
Geologist.

Dated: January 26th, 1956.

RECOMMENDED DRILLING SCHEDULE

DDH 1	11+50S B. L. 1 Line 4E	300' at 60°	N along picket line
DDH 2	37+00S B. L. 1 Line 1E	375' at 45°	N15°E
DDH 3	55+50N B. L. 1 Line 2W	400' at 45°	S along picket line
DDH 4	7+50S B. L. 1 Line 1W	400' at 60°	N along picket line
DDH 5	13+90S B. L. 1 line 13W	300' at 45°	N along picket line
DDH 6	15+50S B. L. 1 Line 13W	300' at 45°	N along picket line
DDH 7	34+50N B. L. 1 Line 19W	350' at 45°	N along picket line
DDH 8	37+00S B. L. 1 Line 23W	350' at 45°	N along picket line

Total drilling recommended - 2,375'

McPHAR GEOPHYSICS LIMITED

*F. W. McCamus*

F. W. McCamus,  
Geophysicist.

Dated: January 26th, 1956.



# McPHAR GEOPHYSICS LIMITED

## GENERAL NOTES ON THE McPHAR ELECTROMAGNETIC METHOD

Electromagnetic measurements are made in terms of "dip angles" and are recorded in degrees. The dip angles measure the amount of distortion of the primary (applied) electromagnetic field caused by secondary fields associated with currents induced in sub-surface electrical conductors. These angles are plotted in degrees on the accompanying maps either beneath or to the right of the station from which each observation was taken. Where a minus sign precedes a number, the angle of dip is to the west or south; the absence of a sign preceding a number indicates an easterly or northerly dip angle.

Transmitting coil locations are termed "setups"; each one being marked on the maps with a triangle and bearing a code number. Several lines are traversed with the receiving coil when the transmitting coil is at any one location; the readings on these lines are related to the corresponding setup by the code at the end of each series of readings.

"Conductor-axes" are marked on the maps according to the legend. They are, in general, vertical projections to the surface of the upper extremities of electrically-conductive bodies.

Electromagnetic anomalies can result from either sulphide mineralization, graphite, carbonaceous sediments, fault and shear zones, or any combination of these factors. Consequently, exploration of a property subsequent to an electromagnetic survey should be based not only on the indicated electromagnetic anomalies, but should take into account all the geologic and physiographic data that can be obtained.

ASSESSMENT DETAILS

SPONSOR: ARIES COPPER MINES LIMITED

LOCATION: MICHIPICOTEN ISLAND PROVINCE: ONTARIO

TYPE OF SURVEY: Electromagnetic

LINE CUTTING MAN DAYS: NIL      DATE STARTED: November 19th, 1955

OPERATING MAN DAYS: 56      DATE FINISHED: December 28th, 1955

CONSULTING MAN DAYS: 6      NUMBER OF STATIONS: 2412

DRAUGHTING MAN DAYS: 9-1/2      MILES OF LINE SURVEYED: 43.3

TOTAL MAN DAYS: 71-1/2

CONSULTANTS:

F. W. McCamus, Geophysicist,  
1200 Don Mills Road, Don Mills, Ontario.

E. G. Robinson, Geologist,  
186 Berry Road, Toronto 18, Ontario.

FIELD TECHNICIANS:

W. Sigouin, National Hotel, Rouyn, Quebec.

W. Latta, Tweed, Ontario.

DRAUGHTSMEN:

J. Fair, 16 Deevale Road, Downsview, Ontario.

G. Jekabson, 27 Thorncliffe Avenue, Toronto, Ontario.

McPHAR GEOPHYSICS LIMITED

*F. W. McCamus*  
F. W. McCamus,  
Geophysicist.

Dated: January 26th, 1956.

*Payroll for  
Aries Copper Mines Ltd*

ARIES ASSESSMENT WORK

SUMMER 1956

NAME	ADDRESS	PERIOD FROM	EMPLOYED TO	DAYS WORKED	TOTAL
Philip Paquette	Garden River, Ontario.	April 29	May 31	31	88
		June 13	Aug 12	57	
Ocminio Syrette	Garden River, Ontario.	May 1	May 31	29	71
		June 13	July 23	38	
		Aug. 9	Aug. 12	4	
Albert Pitwanakwat	134 Churchill Avenue, Sault Ste. Marie, Ont.	July 21	Aug. 6	16	16
Arthur Labatt	65 Central Street, Sault Ste. Marie, Ont.	Sept. 15	Sept. 24	10	10
Basil Scully	Cobalt, Ontario.	Sept. 19	Sept. 24	6	6
J. A. Hesse	Port Credit, Ontario.	{ Apr. 29	May 6	8	49
		{ May 27	May 31	5	
		{ June 16	June 29	14	
		{ July 10	July 23	14	
		{ Aug. 2	Aug. 12	11	
		{ Sept. 15	Sept. 24	10	
Subtract 13 days for dip needle survey $62 - 13 = 49$					
				TOTAL	<u>240</u>

ARIES COPPER MINES LIMITED

*W. Hesse*

ARIES COPPER MINES LIMITEDInterpretation of Electromagnetic Survey

In evaluating the results of the electromagnetic survey carried out by McPhar Geophysics Ltd. on the Company's property it shall be assumed that the anomalies obtained were caused by metallic mineralization. The rocks underlying the property are hard and dense, mainly basalts-melaphyres, and do not tend to develop graphite schists. Carbonaceous sediments do not occur on the property. A check of the locations of the anomalies on aerial photographs does not show any coincidence with faults.

The mineral sought is native copper occurring, mainly in small particles, disseminated throughout vesicular lavas along certain definite horizons. As only a continuous body or band of mineralization will form a conductor of sufficient length and capacity it is evident that in this case, anomalies result only where there is a hookup of copper particles to create any length of conductor. That means that the anomalies established by the survey do not necessarily indicate localities of richest mineralization or greatest length or thickness of ore but solely lengths of conductor resulting from uninterrupted metallic contact.

For that reason it could very well be that anomalies, G.F. and B indicate one and the same mineralization bed, the gap between the zones being stretches where metallic contact is interrupted. The strike of the ore bearing beds is generally east/west, the dip to the south. Zones F and B occur at points of surface elevations considerably below that at anomaly G. Disregarding other causes, such as folding, the difference in elevation alone would account for the apparent curvature in the horizontal plane of the line G-F-B.

It also appears likely that a second bed of mineralization may be indicated by a line connecting a number of reactions designated on the McPhar map as "existence of conductor axis uncertain" starting at a point 1300' S of TL 1, on line 13W it runs to line 8W, possibly to line 5W, that is for a distance of 3600' possibly 5,600'.

Considering the type of mineralization which does not readily and only under the most favourable circumstances, create a conductor the significance of this indication should not be underestimated. Zones E and A lie east and south of this line and could indicate the continuation of the same bed.

Zones C & D in the northeast corner of the property may indicate a copper bearing bed that is known to occur, offshore, in the lake.

The importance of zones J and H, near the west boundary of the area surveyed so far cannot be judged until the geophysical survey of the west part of the property has been completed. It is intended to carry out the survey of this ground, which has a width of about  $1\frac{1}{2}$  miles, in the coming season.



41N13SE0007 41N13SE0011 MICHIPICOTEN ISLAND

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G & H MINE CONSULTANTS LTD.  
Sault Ste. Marie & Cobalt, Ont.

REPORT ON THE MINING PROPERTY OF

ARIES COPPER MINES LIMITED

LOCATED IN MICHIPICOTEN ISLAND LAKE SUPERIOR

SAULT STE. MARIE MINING DIVISION  
DISTRICT OF ALGOMA, ONTARIO, CANADA

By

M.C. Halsted, BSc., Eng.

Dated: March 23, 1956

Revised: June 15, 1956.

March 1st, 1956

Mr. E.D. Scott,  
J.H. Crang & Company,  
40 Adelaide Street West,  
Toronto, Ontario.

Dear Mr. Scott:

Re: Aries Copper Mines

The following are our comments on the above named property:

On February 20th, Mr. Scott, of Crang & Company, requested consideration of the merits of the above property from information which they submitted and any personal knowledge of the area.

We have summarized the contents of the submitted information.

Verbal Information from: Messrs. Low and Scott of Crang & Company

Purpose of Consideration: Financing for additional work.

Work Proposed: Preliminary diamond drilling to test indicated anomalies, continuation of electromagnetic survey, if warranted. Geophysics of McPhar.

Claims Currently held: 198

Principal: W. A. Hesse

SUMMARIES OF SUBMITTED INFORMATION

1. Property Examination Report

By Dr. G.M. Friedman  
Dated: October 24, 1955

Examination: Not personal - work done by two assistants and with aid of Government Reports.

Property and Title;

198 claims registered in name of Company.

Location and Access:

Located on north shore of Michipicoten Island. Has 5 miles of shoreline and extends inland for 1 to 1-3/4 miles. Access from Michipicoten Harbour by boat -- distance of 50 miles. Open from May 1st to Jan. 1st.

to: Mr. E.D. Scott

March 1st, 1956

**Buildings:** Frame dry camp and landing facilities  
at the mouth of Bonner Creek.

**Timber, Water and Hydro:**

Heavy mature timber cover - hardwoods  
and spruce. Ample water for domestic  
and mill purposes. No available hydro  
power - must generate diesel power.

**History:** Native copper known since 1850's . Native  
copper and silver as well as nickel  
sulphides reported by Royal Commission  
in 1890 as located on old Bonner property  
(within the Aries holdings). First mining  
reported in 1860-1861. Subsequent work  
reported two shafts - 520 and 360 feet  
with 1500 feet lateral development.

**General Geology:**

Middle Keweenaw volcanics and sediments  
of type responsible for Michigan's copper  
production. Basaltic flows are amygdal-  
oidal and contain disseminated as well as  
metallic amygdaloids of native copper.

**Structure:** Gently folded formations of beds believed  
not to exceed 100 feet in thickness.  
Property traversed by system of faults  
joints and shatter zones.

**Economic Geology:**

For comparison, Michigan's Calumet and  
Hecla Mines Produced from mid-Keweenaw  
flows and sediments copper found in  
amygdaloidal flows, conglomerates and in  
veins following fissures, cross-fractures  
and fault zones.

On Michipicoten Island, copper is found  
in amygdaloidal basalts and in conglomerates.  
Lumps up to 35 pounds have been found.  
Mineralization traced a mile along a basalt  
horizon outcropping just below high water  
and paralleling the shore. Dips under  
Aries property. Other metallics found  
are domeykite and niccolite.

To: Mr. E.D. Scott

March 1st. 1956

Conclusions: Geologically and structurally, conditions have striking similarity with Michigan copper district.

Recommendations. 1. Electromagnetic survey  
2. Anomalies to be tested by close spaced diamond drilling.

2. Summary of Report by Royal Commission - Michipicoten Island - 1890

General: Joseph Cozens purchased Charles Jones, Bonner and Harbour locations (13,000 acres) prior to report.

Large sum of money spent previously by operators on improvement and development, chiefly on the Jones portion.

History: First work in 1860-61 by Fletcher. Sank several exploration shafts and did lateral work. Encouraging. Erected stamp mill - shipped several barrels copper.

1875 - Quebec and Lake Superior Mining Association took over.

By 1880, dwellings, farm and large clearing completed. Phillips (Milwaukee) sank several shafts 90 to 150 feet deep. Found heavy copper in all.

1880 - Michipicoten Native Copper Company (England) formed. \$220,000 raised and spent. 1883 - company reorganized - \$100,000 more funds provided - later \$50,000 raised by bonds - all spent.

1884 - Company liquidated for debt. Property purchased by Dr. Curtis (England)

1885 - \$70,000 provided and spent.

1887 - Curtis died, work stopped, property purchased by J. Cozens.

To this date all work done on amygdaloidal beds. This year copper found in conglomerates.

1887- discovered copper in conglomerates similar to Calumet and Hecla. Sank shaft, found base carrying 2 feet of 5% copper.

FOR ADDITIONAL INFORMATION  
RE: REPORT BY ROYAL COMMISSION; SEE GENERAL FILE



To: Mr. E.D. Scott

March 1st. 1956

3. G.S.C. - Progress Report - 1863 - 1866 - by T. Macfarlane

A detailed geological study only:

A purplish-brown, imutely, chloritic, amygdaloidal rock (basalt) - host for copper on Michipicoten Island as well as a Mamainse.

Reports that in back of drift off Fletcher exploration shaft, 3 feet of disseminated and native copper estimated to run 1% to 1.5% copper.

4. Electromagnetic Survey - by McPhar Geophysics - Report Jan. 26, 1956

Introduction:

Survey done in November and December 1955, covered half of the ground only.

Results:

Numerous conductors found. Nine were found traceable from line to line as follows:

Zone A - moderate conductivity, apparent flat dip south, depth approximately 50 feet.

Zone B - better conductivity than Zone A, depth variable.

Zone C - good conductivity, depth exceeds 100 feet, dip steep.

Zone D - similar to Zone C.

Zone E - poor to good conductivity

Zone F - poor conductivity

Zone G - most extensive, fair conductivity, side.

Zone H - poor conductivity, apparent flat southerly dip.

Zone J - curving east-west strike; southerly dip.

Conclusions and Recommendations:

Priority (in absence of geological detail) given to east-west zone over north-south zones. Limited diamond drill program to test present anomalies recommended. If warranted from diamond drilling, carry out detailed electromagnetic survey over

anomalies and complete survey (reconnaissance) over a remaining ground. Electromagnetic survey best carried out in winter, diamond drill program in summer.

5. Report to Shareholders - dated November 16, 1955

Officers:           President - Charles Robson  
                      General Manager - W.A. Hesse

Capitalization:

5,000,000 shares @\$1. par  
authorized February 23, 1956.

Issued:           600,000 to Pluton Uranium, 300,000 to  
                      C.C. Talarico, 500,000 private sale  
                      @ 10¢ per share

WE conclude that the prospect is a valid one which should be, if a suitable financing arrangements can be made pursued and we recommend \$50,000 as the first money required.

The property lies on Michipicoten Island and has poor communications and power.

All of which is respectfully submitted.

C.C. HUSTON & ASSOCIATES

(sgd) C.C. Huston, P. Eng.

ARIES COPPER MINES LIMITED

Exploration Programme

1. Completion of Geophysical Survey

a. Survey of west part of property \$6,000  
b. Detail work on established zones 6,000

         \$ 12,000

2. Geological mapping

16,000

3. Diamond drilling

a. Testing of established zones

Zone G	17 holes	350' each,	5950'
Zone F	5 holes	400' each,	2000'
Zone B	4 holes	400' each,	1600'
Zone E	2 holes	400' each,	800'
Zone A	2 holes	350' each,	700'
Zone C	4 holes	400' each,	1600'
Zone D	5 holes	500' each,	2500'

          
15150

b. Fill in drilling

Area between G and F  
6 holes 400' each 2400'

Area between F and B  
3 holes 400' each 1200'

Area between E and A  
4 holes 400' each 1600'

          
5200'

Total footage 20350' at an estimated  
overall cost of \$600 per foot (A core)

\$122,100

Reserved for contingencies

          
22,500

172,500

G & H MINE CONSULTANTS LTD.

Sault Ste. Marie & Cobalt, Ontario

REPORT ON THE MINING PROPERTY OF ARIES COPPER MINES LIMITED  
Located on Michipicoten Island in Lake Superior, Sault Ste.  
Marie Mining Division, District of Algoma, Ontario, Canada.

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SUMMARY

Aries Copper Mines Limited hold 198 Mining Claims on Michipicoten Island in Lake Superior. The Island is in the Sault Ste. Marie Mining Division, District of Algoma, Ontario, Canada.

The rock formations of Keweenaw age found on Michipicoten Island are the same as those on the Keweenaw Peninsula, Northern Michigan, which area has produced millions of dollars worth of copper.

With the incentive created by the increased price for copper and the advent of geophysical surveys as an aid in locating ore bodies, the whole of the favourable rock formation on Michipicoten Island has been staked.

Aries Copper Mines Limited have completed a geophysical survey covering the eastern half of their holdings.

Several strong anomalies have been mapped. Anomaly G shows a length of 3,400 feet. Anomalies F and B, lying east and slightly south of G, may lie on the same break which in that case would have a length of about 12,000 feet all on the Aries property.

The old Bonner Copper Mine location, located in the east part of the property, is part of the company holdings.

A copper bearing bed lying under the water along the north shore is believed to dip under the Aries property.

It is the writers opinion that the anomalies are due to copper deposits and not fault zones or iron deposits. For this reason, an extensive program of diamond drilling has been recommended.

### PROPERTY

Aries Copper Mines Limited hold one hundred and ninety-eight contiguous unsurveyed and unpatented mining claims located on Michipicoten Island in Lake Superior, with a total of 7,920 acres, more or less.

The property is in the Sault Ste. Marie Mining Division, District of Algoma, Ontario, Canada, and the claims are numbered as follows:

SSM 44976 to SSM 45004	inclusive
SSM 45110 to SSM 45204	"
SSM 48540 to SSM 48576	"
SSM 48876 to SSM 48911	"

### ACCESS

The property is accessible by lake boat or aeroplane. The company has built a dock at the mouth of Bonner Creek near the north east corner of the property.

### GEOLOGY

The area covered by this report is geologically similar in rock types and age to the Keweenaw Point copper producing area in Michigan, U.S.A., where large deposits of native copper have been mined during the past eighty years. On the Aries property native copper has been found in outcrops of amygdaloidal lavas at several places. These finds were made in the course of claim staking and line cutting. No attempts were made to map these occurrences.

A copper bearing bed is known to occur on the north side of the property for a length of over a mile. This bed occurs off shore, under water, and dips towards the shore so that, at shallow depth, it will underlie the Aries property. Some years ago, when the water in Lake Superior was very low, a lump of native copper weighing 35 lbs. was obtained from the outcrop of this bed near the east shore of Bonner Bay. This is the same bed concerning which McFarlane in the Report of the Geological Survey of Canada for 1863 to 1866, states as follows: "A soft amygdaloidal bed holding native copper is traceable for some miles along the shore, sometimes beneath the surface of the water in the bays, and again running a little distance inland. In this bed, in the north bay, an attempt was made, a few years since, to work a remarkable deposit of native copper and silver, which were found disseminated in grains through a green, hydrous silicate of nickel. The ore being stamped, the nickel, whose value was not suspected, was washed away from the residue of native metals, which gave in one trial twelve parts of silver and eighty-eight of copper. A shaft was sunk here to a depth of 70 feet; but after considerable outlay, the working was abandoned."

A reference, later in McFarlane's Report, to the distance from a given point identifies "the north bay" as the bay lying in front of the Aries property and established the fact that the shaft and workings described by him are situated on the Aries property.

#### GEOPHYSICAL SURVEY

An electromagnetic geophysical survey of the eastern two-thirds of the property was conducted by the McPhar Geophysics Limited in

November and December, 1955. The western one-third of the property is to be done this year.

In all, nine zones or anomalies were established and two probable anomalies were indicated in addition.

McPhar Geophysics Limited, in their reports to the company, leave the question of what causes the anomalies open.

In interpreting these anomalies the physical features, such as the height of the hills, dip and strike of the formation have to be taken into account.

Across the south east half of the property there are three anomalies G, F and B. These three, if the surface was at the same elevation, would be in a straight line almost east and west. At G the beds dip at about  $36^{\circ}$ <sup>45</sup> to the south. The eastern part of this area, which takes in anomalies F and B, is at a much lower elevation than anomaly G, but the dip of the formation is about the same as at the location of G.

Because of the dip of the formation and the lower elevation, the eastern anomalies, F and B, appear to be on a curve and some distance south of anomaly G on the map.

Lying five-eighths of a mile north of anomalies F and B are anomalies E and A, and west of there a probable anomaly. All these line up in identically the same direction as G, F and B mentioned above. Then, lying north east of these anomalies are anomalies D and C; on the western part of the property surveyed are anomalies H and J.

The writer's interpretation of the situation is as follows:

The rocks underlying the property are hard, dense and mainly basalt. They do not tend to develop graphitic schists; carbonaceous sediments do not occur on the property; a study of aerial

photographs of the area shows no connection between the anomalies and fault structures. Therefore, it is assumed that the anomalies obtained were caused by metallic mineralization and the resultant magnetic fields set up about them.

Taking into account anomalies C, F and B; they lie along a 12,000 foot break which dips to the south; anomaly G is 3,400 feet long; then there is a low before anomaly F, which is 1,600 feet long; then another low is zone B which is about 800 feet long.

A second break,  $\frac{5}{8}$  of a mile to the north, strikes in the same direction as the break along anomalies G, F and B. From west to east it shows weak conductors compared to anomalies E and A which are high.

On the north east claims anomalies C and D are strong, 1,600 feet in length. Both lie partly on a claim not owned by the company; and it is believed that there is some connection between anomalies C and D and a known copper bearing bed off shore in the lake which dips under the property.

Anomaly H, in the north west section of the surveyed area, is 600 feet long, and anomaly J, in the south west section, is 1,800 feet in length.

#### TIMBER

There is sufficient timber on the Island so that timber necessary for mining can be obtained near the mining operations

#### WATER

There are small lakes and creeks of sufficient size to supply all mine and mill requirements for water.



POWER

Electric power is not available on the Island. Mining operations will have to depend upon diesel or steam powered electric generators.

CONCLUSIONS AND RECOMMENDATIONS

The old Bonner Mine referred to in Government reports, is located on the property. Rich copper ore reported, but only a limited amount of work appears to have been done. Anomalies C and D are believed connected with a known copper bearing bed.

Anomalies A,B,C,D,E,F and G all appear strong. It is believed that these anomalies are due to copper mineralization.

To diamond drill the known anomalies at 200 foot intervals will take 20,000 feet of diamond drilling at a cost of \$5.00 per foot or \$100,000.00

A geophysical survey should be completed on the balance of the property. This will cost approximately 6,000.00.

I am recommending that the anomalies be drilled at 600 foot intervals instead of 200 foot intervals and that the geophysical survey of the balance of the property be done at an early date.

With a reserve for contingencies, this work will cost approximately \$50,000.00. The company should arrange for this amount to take care of the recommended exploration.

Respectfully submitted,

M.C. HALSTEAD, B.Sc., P. Eng.

Attached map

Dated March 23, 1956

Revised June 15, 1956

**REPORT ON THE MINING PROPERTY OF ARIES COPPER MINES LIMITED located on Michipicoten Island in Lake Superior, Sault Ste. Marie Mining Division, District of Algoma, Ontario, Canada.**

**SUMMARY**

Aries Copper Mines Limited hold 198 Mining Claims on Michipicoten Island in Lake Superior. The Island is in the Sault Ste. Marie Mining Division, District of Algoma, Ontario, Canada.

The rock formations of Keweenaw age found on Michipicoten Island are the same as those on the Keweenaw Peninsula, Northern Michigan, which area has produced millions of dollars worth of copper.

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Several strong anomalies have been mapped. Anomaly G shows a length of 3,400 feet. Anomalies F and B, lying east and slightly south of G, may lie on the same break which in that case would have a length of about 12,000 feet, all on the Aries property.

The old Bonner Copper Mine location, located in the east part of the property, is part of the company holdings.

A copper bearing bed lying under the water along the north shore is believed to dip under the Aries property.

It is the writers opinion that the anomalies are due to copper deposits and not fault zones or iron deposits. For this reason, an extensive program of diamond drilling has been recommended.

**PROPERTY**

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SSM	45110	to	SSM	45204	"
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SSM	48876	to	SSM	48911	"

**ACCESS**

The property is accessible by lake boat or aeroplane. The company has built a dock at the mouth of Bonner Creek near the north east corner of the property.

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**S SM- 493**

**NOT TO BE REMOVED FROM  
THE OFFICE OF THE RESIDENT  
GEOLOGIST, ONT. DEPT. OF MINES  
SAULT STE. MARIE, ONT.**

A copper bearing bed is known to occur on the north side of the property for a length of over a mile. This bed occurs off shore, under water, and dips towards the shore so that, at shallow depth, it will underlie the Aries property. Some years ago, when the water in Lake Superior was very low, a lump of native copper weighing 35 lbs. was obtained from the outcrop of this bed near the east shore of Bonner Bay. This is the same bed concerning which McFarlane, in the Report of the Geological Survey of Canada for 1863 to 1866, states as follows: "A soft amygdaloidal bed holding native copper is traceable for some miles along the shore, sometimes beneath the surface of the water in the bays, and again running a little distance inland. In this bed, in the north bay, an attempt was made, a few years since, to work a remarkable deposit of native copper and silver, which were found disseminated in grains through a green, hydrous silicate of nickel. The ore being stamped, the nickel, whose value was not suspected, was washed away from the residue of native metals, which gave in one trial twelve parts of silver and eighty-eight of copper. A shaft was sunk here to a depth of 70 feet; but after considerable outlay, the working was abandoned."

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S SM-493

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There is sufficient timber on the Island so that timber necessary for mining can be obtained near the mining operations.

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There are small lakes and creeks of sufficient size to supply all mine and mill requirements for water.

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#### CONCLUSIONS AND RECOMMENDATIONS

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A geophysical survey should be completed on the balance of the property. This will cost approximately \$6,000.00.

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With a reserve for contingencies, this work will cost approximately \$50,000.00. The company should arrange for this amount to take care of the recommended exploration.

NOT TO BE REMOVED FROM  
THE OFFICE OF THE RESIDENT  
GEOLOGIST, ONT. DEPT. OF MINES  
SAULT STE. MARIE, ONT.

Respectfully submitted,

Attached:  
One map.

M. C. Halstead, B.Sc., P. Eng.

Dated: March 23rd, 1956.  
Revised: June 15th, 1956.

S 511 103

CERTIFICATION

I, MILTON C. HALSTEAD, of the City of Sault Ste. Marie, Ontario, Canada, hereby certify:

1. THAT I am a Mining Engineer with offices at 604 Queen Street East, Sault Ste. Marie, Ontario.
2. THAT I am a graduate of the University of Manitoba, B.Sc. 1929, and a member of the Association of Professional Engineers of the Province of Ontario, and a member of the Corporation of Professional Engineers of Quebec.
3. THAT I have no interest either direct or indirect in the property or securities of the Company, and that I do not expect any interest in the property or securities of Aries Copper Mines Limited.
4. THAT this report is based on government reports, reports and data supplied by McPhar Geophysics Limited, and reports of Dr. G. Friedman, Geologist on the property and company reports on the work done.
5. THAT this certificate applies to the following Mining Claims: SSM-44976 to SSM-45004 inclusive, SSM-45110 to SSM-45204 inclusive; SSM-48540 to SSM-48576 inclusive, SSM 48876 to SSM-48911 inclusive, Sault Ste. Marie Mining Division, Ontario.

To the best of my knowledge there is no previous history of work on any of the properties covered by this report, except as stated.

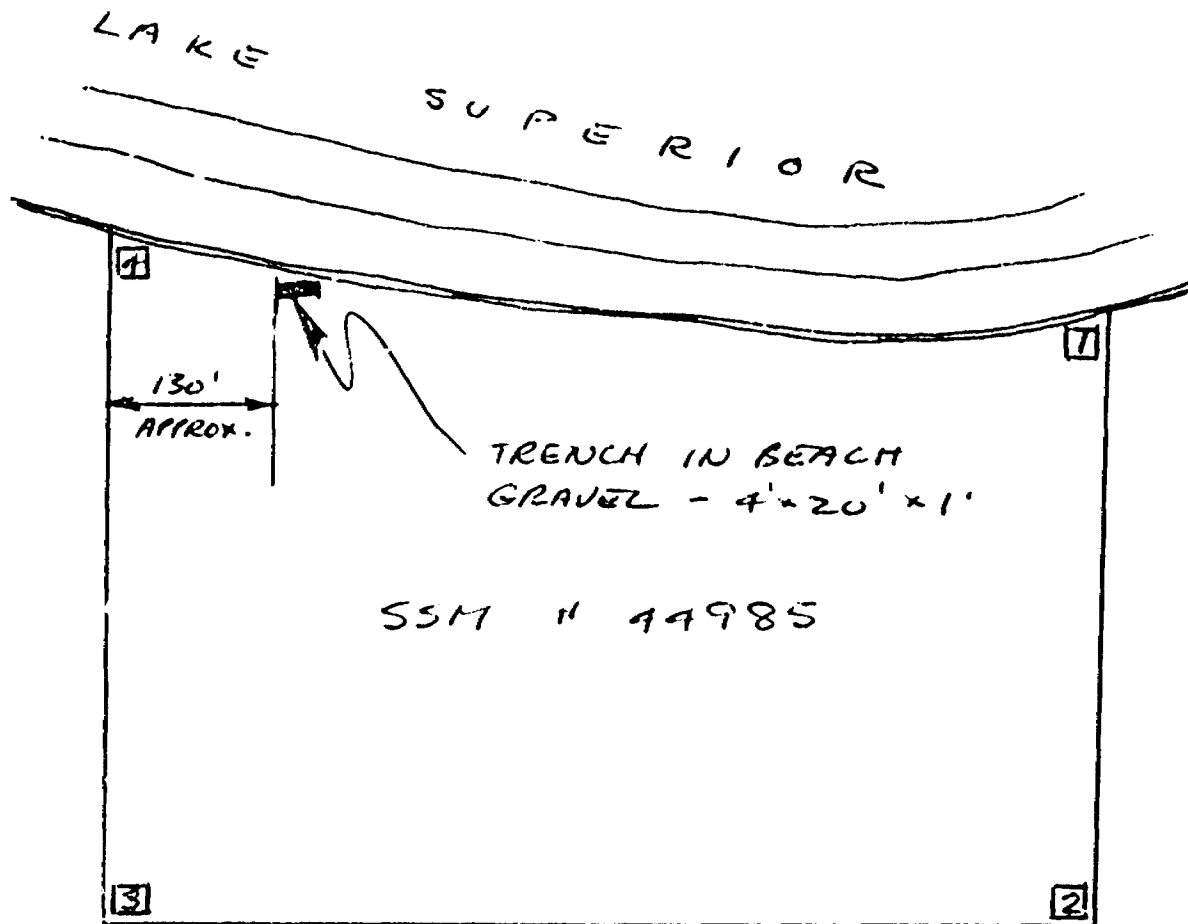
M. C. Halstead, B.Sc., P. Eng.

Dated: March 23rd, 1956  
Unchanged as of June 15th, 1956

LOCATION OF ASSESSMENT WORK

MINING CLAIM \* SSM 44985

MICHIPICOTEN ISLAND, ONT.

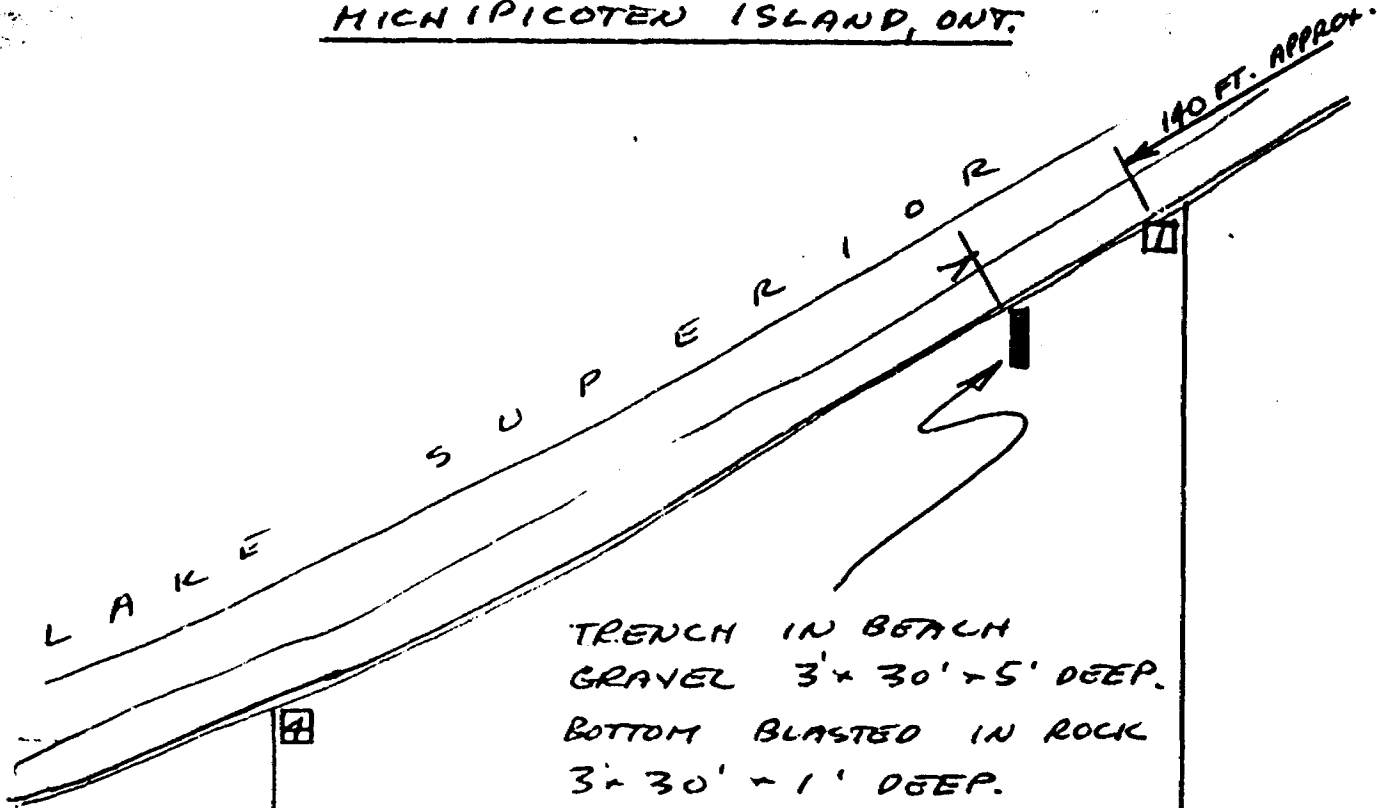


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LOCATION OF ASSESSMENT WORK

MINING CLAIM # SSM 44983

MICHIPICOTEN ISLAND, ONT.



SSM 44983

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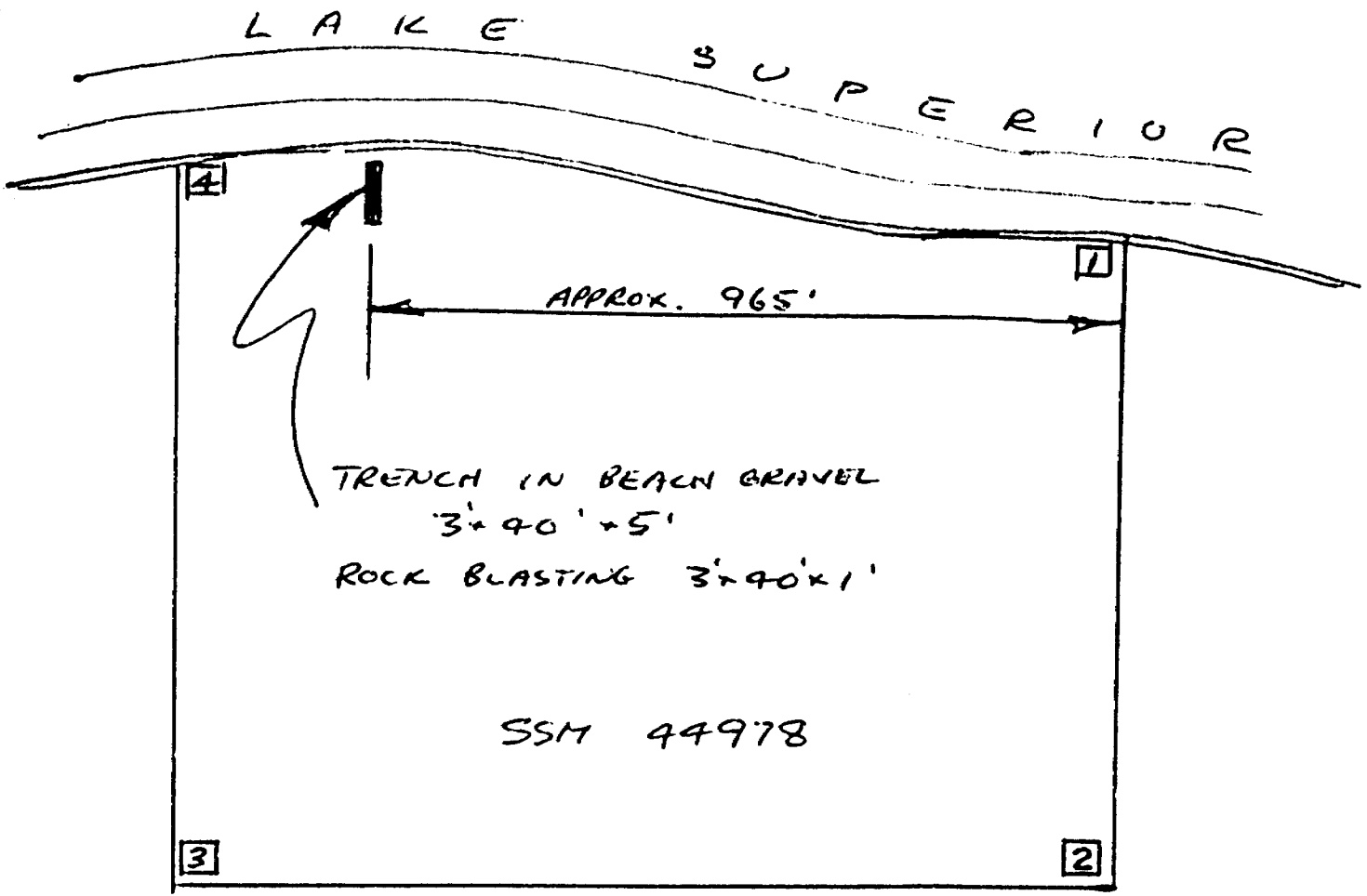
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LOCATION OF ASSESSMENT WORK

MINING CLAIM SSM 44978

MICHIPICOTEN ISLAND, ONT.



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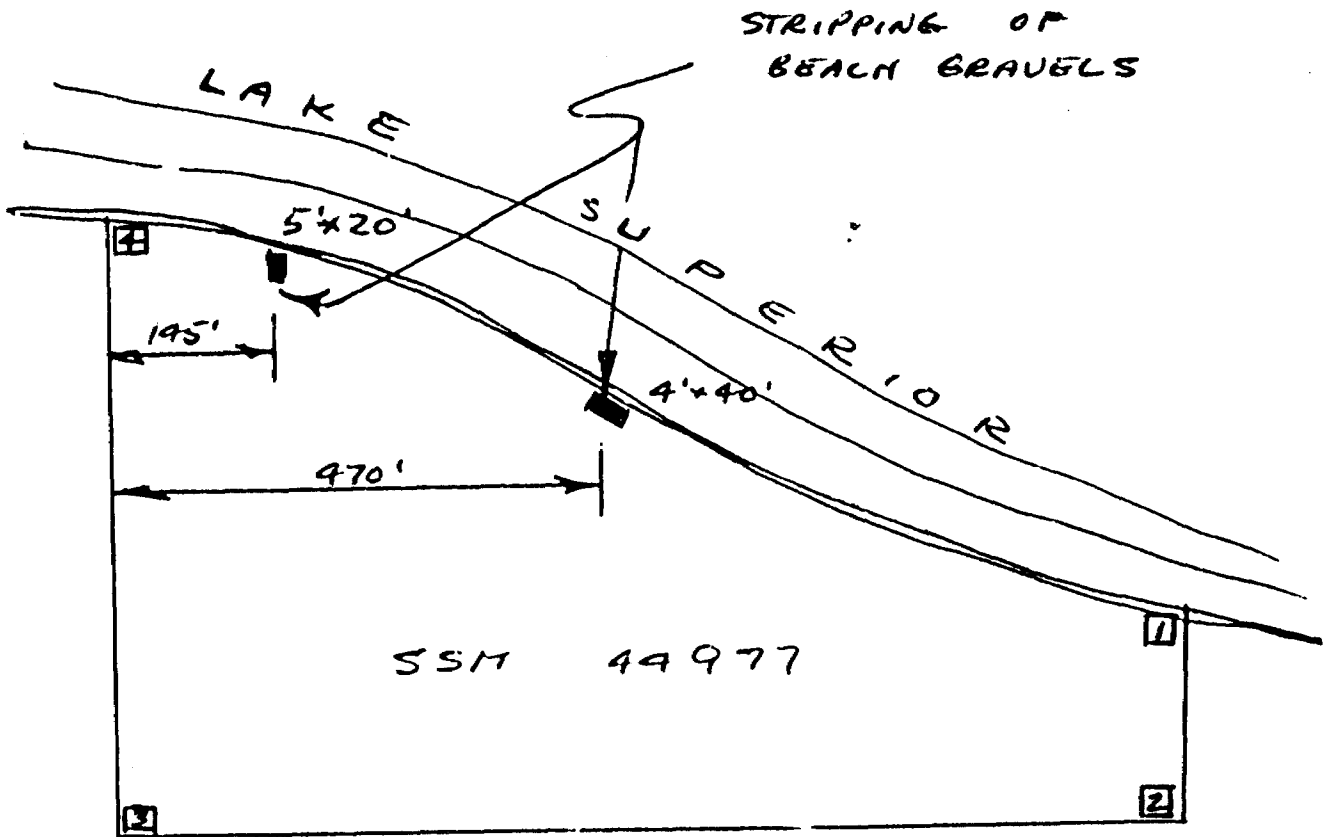
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LOCATION OF ASSESSMENT WORK

MINING CLAIM SSM 44977

MICHIPICOTEN ISLAND, CNT.

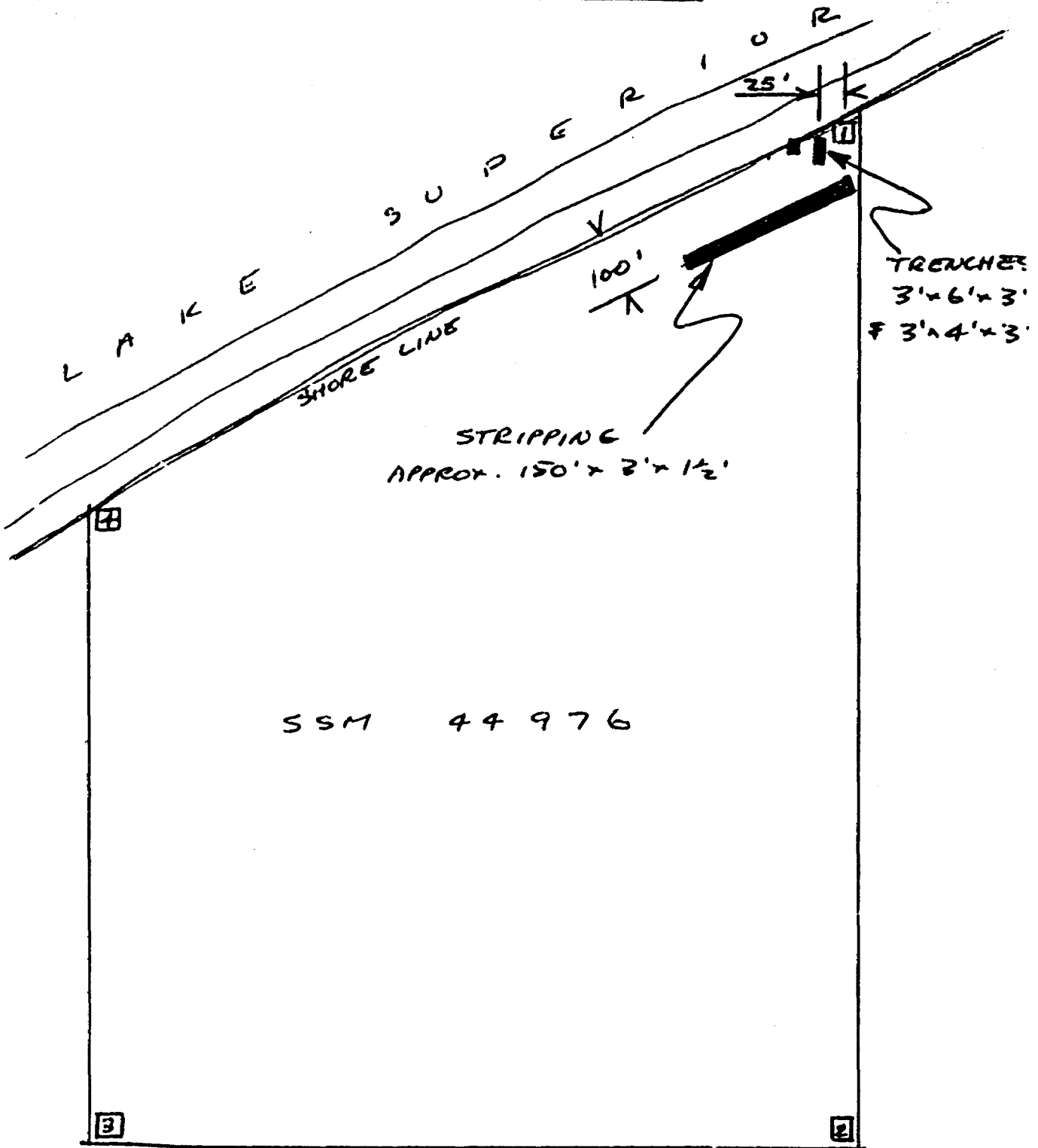


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LOCATION OF ASSESSMENT WORK

MINING CLAIM # SSM 44976

MICHIPICOTEN ISLAND, ONT.



SSM-408

# LAKE SUPERIOR.

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# LAKE SUPERIOR

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S.M. 408

**RECEIVED**  
JUL 19 1956

ARIES COPPER MINES LIMITED



STATUTORY PROSPECTUS

RESIDENT GEOLOGIST  
SAULT STE. MARIE

(a) The full name of the Company is ARIES COPPER MINES LIMITED (hereinafter referred to as "the Company"). The address of the Head Office of the Company is #11 King Street, West, Toronto 1, Ontario.

(b) The Company was incorporated under the laws of the Province of Ontario by Letters Patent dated the 4th day of April, 1955 under the name, ARIES URANIUM MINES LIMITED. Supplementary Letters Patent have been issued to the Company dated the 12th day of September, 1955, changing the name of the Company to ARIES COPPER MINES LIMITED.

(c) The names in full, present occupations and home addresses in full of each of the Officers and Directors of the Company are as follows:

Charles Robson, Manufacturer	R.R. #2 Oshawa, Ontario.	President and Director.
Dominic Carmine Talarico, Commercial Fisherman	253 Bruce Street, Sault Ste. Marie, Ontario.	Vice-President and Director.
William Albert Hesse, Mining Geologist.	201 Mineola Road, West Port Credit, Ontario.	General Manager and Director.
Archibald Burnside Whitelaw, Solicitor.	130 Laurel Avenue, Toronto 18, Ontario.	Secretary-Treasurer and Director.
Lloyd Sherwood Collacutt, Transport Operator.	770 Simcoe Street North Oshawa, Ontario.	Director.

There is no promotor of the Company unless one or more of the shareholders of the Company, hereinafter referred to in paragraph K hereof, is to be considered as a promotor by reason of his having received consideration for the sale of property to the Company.

(d) Messrs. Campbell, Lawless, Parker & Black, #366 Bay Street, Toronto 1, Ontario, are the Auditors of the Company.

(e) Chartered Trust Company, #34 King Street, West, Toronto 1, Ontario is the Registrar and Transfer Agent of the Company.

(f) The authorized capital consists of 5,000,000 shares of the par value of \$1.00 each, of which 1,400,005 shares have been issued and allotted to date.

(g) No bonds or debentures of the Company are outstanding or are proposed to be issued.

(h) Certificates representing 810,000 shares of the capital stock of the Company are held in escrow by Chartered Trust Company subject to release pro rata only with the consent of the Board of Directors of the Company and of The Ontario Securities Commission and subject further to transfer, hypothecation or other alienation only with the consent of The Ontario Securities Commission.

(i) 500,005 shares have been sold for cash to date.

<u>Number of shares:</u>	<u>Price per Share:</u>	<u>Total Cash Received:</u>
5	\$ 1.00	5.00
<u>500,000</u>	<u>.10</u>	<u>\$ 50,000.00</u>
<u>500,005</u>		<u>\$ 50,005.00</u>

No commission was paid or is payable in respect of the sale of any of the aforesaid shares.

NOT TO BE REMOVED FROM  
THE OFFICE OF THE RESIDENT  
GEOLOGIST, ONT. DEPT. OF MINES  
SAULT STE. MARIE, ONT.

(j) No securities other than the shares referred to in paragraph (i) have been sold for cash to date.

(k) No shares have been issued or are to be issued or cash paid or is to be paid to any person for promotional services as such.

(l) (1) By Memorandum of Agreement made in writing on the 10th day of October, 1955, the Company acquired from Dominic Carmine Talarico, 253 Bruce Street, Sault Ste. Marie, Ontario, 30 Unpatented Mining Claims registered as Nos. SSM 44976-44991 inclusive, and SSM 44992 -45005, inclusive. The said Unpatented Mining Claims are located on Michipicoten Island, Sault Ste. Marie Mining Division, Province of Ontario. In consideration of the transfer of the said Claims to the Company, the Company agreed to allot and issue to the said Dominic Carmine Talarico 300,000 shares of its capital stock as fully paid and non-assessable. Of the said shares, 10% were free of escrow and 90% were placed in escrow with Chartered Trust Company as described in paragraph (g) hereof. Other than the said Dominic Carmine Talarico, no person has received or is to receive a greater than 5% interest in the said shares.

(l) (2) By Memorandum of Agreement made in writing on the 10th day of October, 1955, the Company acquired from Pluton Uranium Mines Limited, #11 King Street, West, Toronto, Ontario, 95 Unpatented Mining Claims registered as Nos. SSM 45110 -45204, inclusive. The said Unpatented Mining Claims are located on Michipicoten Island, Sault Ste. Marie Mining Division, Province of Ontario. In consideration of the transfer of the said Claims to the Company, the Company agreed to allot and issue to the said Pluton Uranium Mines Limited 600,000 shares of its capital stock as fully paid and non-assessable. Of the said shares, 10% were free of escrow and 90% were placed in escrow with Chartered Trust Company as described in paragraph (g) hereof. No person has received or is to receive a greater than 5% interest in the said shares received by Pluton Uranium Mines Limited as aforesaid, except Wallace Begg Cumming, #73 McDougall Street, Sault Ste. Marie, Ontario, a former Director of the Company, who received 30,000 shares.

(l) (3) The Company has staked on its own behalf the following Unpatented Mining claims situate on Michipicoten Island, Sault Ste. Marie Mining Division, which are registered as follows: SSM 48540 - 48576, inclusive, and SSM 48876 - 48911, inclusive. The said Mining Claims were acquired at no cost to the Company other than staking and recording expenses. For particulars of the properties reference is made to the report of M. C. Halstead dated 23rd March 1956 which is attached to and forms part of this Prospectus.

(m) Other than tents, small buildings and camp equipment, there is no surface plant or equipment on the properties and there is no underground development except the old shaft referred to in the Report of M. C. Halstead, aforesaid, the dimensions and depth of which are not known.

(n) No securities of the Company are presently under option or underwriting agreement. No option agreements or underwriting agreements are presently contemplated.

The Company as a Security Issuer, through its Officers, will offer its shares to the public with a minimum return to the Treasury of 75% of the proceeds received from the sale of such shares and/or the Company may sell its shares through registered Security Dealers with a minimum return to the Treasury of the Company of 75% of the proceeds received from the public from the sale of such shares. The minimum return to the Company through the sale of shares, either as a Security Issuer through its Officers or through registered Security Dealers, will not be less than 10¢ per share and costs of distribution paid by the Company, if any, will not exceed 15%.

(o) The Company proposes to expend the proceeds from the sale of shares referred to in paragraph "n" above in development and exploration work in accordance with the recommendations set out in the Report of M. C. Halstead, P. Eng., hereinbefore referred to and in payment of corporate expenses. The program of development work recommended by Mr. Halstead is estimated by him to cost approximately \$50,000.00. The extent of future development program will depend upon the results achieved from time to time.

(p) To date, preliminary expenses in connection with the incorporation and organization of the Company amount to approximately \$2500.00 and exploration and development expenses to about \$30,500.00. It is anticipated that in the coming year

administrative expenses will not exceed \$5,000.00 and development and exploration expenses should not exceed \$75,000.00.

(q) There is no indebtedness to be created or assumed other than as shown on the balance sheet showing the position of the Company as at April 30, 1956, which is attached to and forms part of this Prospectus.

(r) Particulars of the principal business in which each Director and Officer has been engaged during the past three years is as follows:

Charles Robson, Manufacturer, being President of Robson Leather Company Limited, Oshawa, Ontario, for more than the past three years.

Dominic Carmine Talarico, Commercial Fisherman, being owner of Talarico Fisheries, Sault Ste. Marie, Ontario, for more than the past three years.

William Albert Hesse, Self-employed as Geologist and Manager of various Mining Companies, including Pluton Uranium Mines Limited, for more than the past three years.

Archibald Burnside Whitelaw, Solicitor and Partner in Firm of Macdonald & Macintosh, Barristers, Etc., Toronto, Ontario, for more than the past three years.

Lloyd Sherwood Collacutt, Transport Operator, being President in the Firm of Woods Transport & Cartage Whitby Limited for more than the past three years.

(s) Other than Dominic Carmine Talarico, whose interest is fully disclosed in paragraph(1)(1) of this Prospectus, none of the Directors or Officers of the Company was interested directly or indirectly, either personally or as a partner in a firm, in any of the properties acquired by the Company except Charles Robson and William Albert Hesse, who are Directors and Officers of Pluton Uranium Mines Limited, the Vendor of properties mentioned in paragraphs(1)(2) hereof and neither of them own more than 5% of the shares of Pluton Uranium Mines Limited.

(t) Between October 1st, 1955 and January 31st, 1956, Wallace Begg Cumming, a former Director of the Company received a total of \$800.00 to cover office costs and secretarial services. At the present time, the Company has made no arrangement for further payments in this connection and does not contemplate paying any remuneration to any Director or Officer of the Company during the present fiscal year.

(u) No dividends have been paid by the Company to the date of this Prospectus.

(v) Pluton Uranium Mines Limited is by reason of beneficial ownership of shares in the Company in a position to elect or cause to be elected a majority of Directors of the Company.

(w) Free Vendors' shares, shares previously sold for cash and Vendors' shares which may be released from escrow, may be offered for sale to the public but the proceeds from the sale of such shares will not accrue to the Treasury of the Company. There is no arrangement for the sale of Vendors' shares known to the signatories hereto.

(x) In order to arrange finances for preliminary work on the Company's properties, the Company sold 500,000 shares of its capital stock at 10¢ per share to Directors and Officers of the Company and other persons associated with them. Such shares are held by Chartered Trust Company in voluntary escrow, subject to release on the written consent of the Board of Directors of the Company. Other than the foregoing, there are no other material facts not disclosed herein.

DATED at Toronto this 29th day of May, 1956.

The foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required under Section 38 of The Securities Act (Ontario), and there is no further material information applicable other than in the financial statements or reports where required.

DIRECTORS

"Charles Robson"  
CHARLES ROBSON

"William Albert Hesse"  
WILLIAM ALBERT HESSE

"Dominic Carmine Talarico"  
DOMINIC CARMINE TALARICO

"Archibald Burnside Whitelaw"  
ARCHIBALD BURNSIDE WHITELAW

"Lloyd Sherwood Collacutt"  
LLOYD SHERWOOD COLLACUTT



**ARIES COPPER MINES LIMITED**  
(no personal liability)

**BALANCE SHEET**  
As at April 30th, 1956

**A S S E T S**

**CURRENT**

Cash on hand and in bank		5,457.96
Accounts receivable		125.63
Unemployment insurance stamps		2.72
Inventory of stores		<u>1,780.04</u>

7,366.35

**FIXED**

<b>Mining Claims</b>			
Purchase of 125 claims for 900,000 shares at .20¢ per share	180,000.00		
Mining recorder, affidavits, maps, etc.	<u>840.20</u>	180,840.20	
<b>Cost of 37 claims staked - (SSM 48540 to 48576 inclusive)</b>			
Labour	272.50		
Recording, affidavits, etc.	<u>301.00</u>	573.50	
<b>Cost of 36 claims staked - (SSM 48876 to 48911 inclusive)</b>			
Labour	296.90		
Recording, transfers, affidavits, etc.	<u>486.00</u>	<u>782.90</u>	
Camp buildings and equipment		182,196.60	
		<u>5,243.50</u>	187,440.10

**DEFERRED EXPENSE**

Exploration, Development, Administration, etc.		34,361.27	
Incorporation expenses		<u>2,477.81</u>	<u>36,839.08</u>
			<u>231,645.53</u>

**ANALYSIS OF THE CAPITAL STOCK ISSUED**

	<u>Shares Issued</u>	<u>Discounts</u>	<u>NET</u>
<b>CARMINE TALARICO</b>			
For unpatented mining claims recorded as SSM 44976 - 44991 inclusive and SSM 44992 - 45005 inclusive	300,000.	240,000	60,000.
<b>PLUTON URANIUM MINES LIMITED</b>			
For unpatented mining claims recorded as SSM 45110 - 45204 inclusive	600,000.	480,000	120,000.
Issued for Cash	<u>500,005.</u>	<u>450,000</u>	<u>50,005.</u>
	<u>1,400,005.</u>	<u>1,170,000</u>	<u>230,005.</u>

In each case the purchase agreements, dated in October, 1955, state that 10% of the shares issued for the properties are to be free and the balance to be held in escrow to be released on the consent of the Board of Directors and the Ontario Securities Commission.

Toronto, May 31, 1956

ARIES COPPER MINES LIMITED  
(no personal liability)

BALANCE SHEET  
As at April 30th, 1956

LIABILITIES

CURRENT

Accounts payable 1,640.53

CAPITAL STOCK

Authorized

5,000,000 shares par value \$1.00 each

Issued and fully paid 1,400,005.00

Less: Share discount 1,170,000.00

230,005.00

231,645.53

Approved by:

"W. A. Hesse" Director

"A. B. Whitelaw" Director

AUDITORS' REPORT

We have examined the accounts of Aries Copper Mines, Limited for the period from October, 1, 1955 to April 30, 1956. Our examination included a general review of the accounting procedure and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion the above balance sheet and related statement presents fairly the financial position of the Company as at April 30, 1956 and as shown by the books of the Company.

CAMPBELL, LAWLESS, PARKER & BLACK

Chartered Accountants

ARIES COPPER MINES LIMITED

DEFERRED EXPLORATION, DEVELOPMENT AND ADMINISTRATION EXPENSES

From October 1st, 1955 to April 30th, 1956

EXPLORATION AND DEVELOPMENT

Geophysical surveys	8,352.60
Contract surveying for line cutting	4,163.27
Engineers' salaries and expenses	3,521.91
Employees wages	8,028.86
Camp supplies and expenses	1,657.80
Foodstuffs	2,852.29
Transportation - sundry	1,536.18
Workmen's compensation	409.63
Employee insurance	86.64
Fire Insurance.	<u>158.00</u>

30,767.18

MINE OFFICE

Accounting salaries	800.00
Rent	90.00
Stationery and supplies	227.15
Telegraph and telephone	325.00
Bank charges and sundry expenses	<u>198.66</u>

1,640.81

ADMINISTRATION

Travelling expenses	438.64
Transfer agents, share certificates, etc.	349.00
Ontario Government licenses, filing fees, etc.	350.00
Accounting and audit charges	500.00
Rent	220.00
General expenses including stenographic services	<u>95.64</u>

1,953.28

34,361.27

SEE GENERAL  
FILE

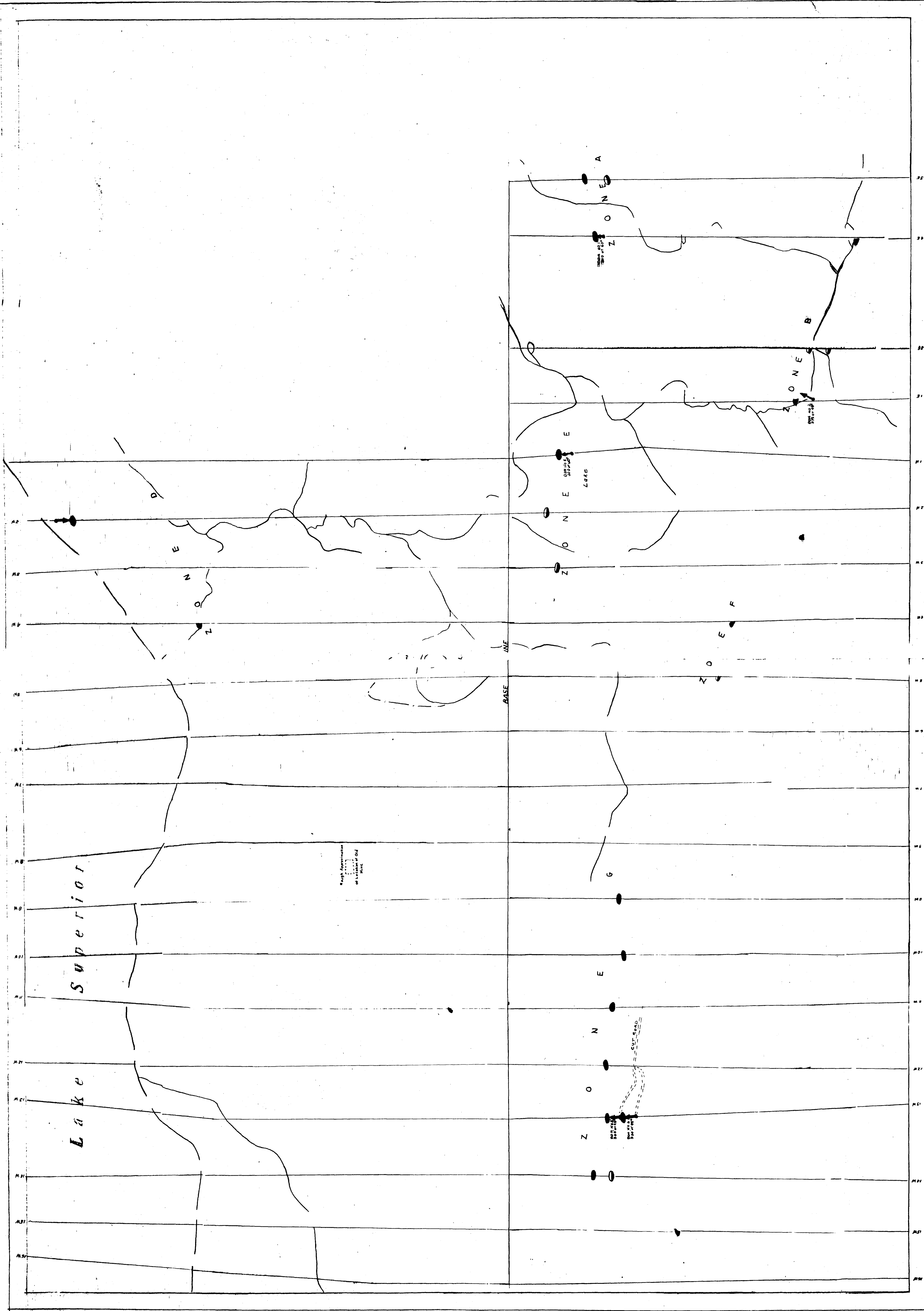
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MATERIAL)

FOR:

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TITLE:

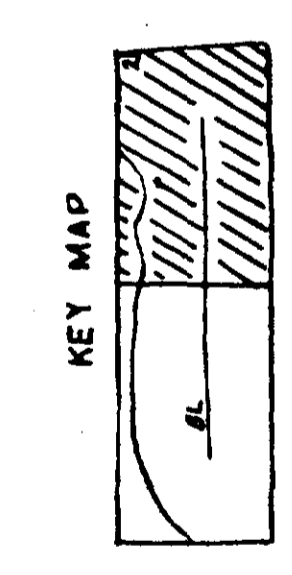
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SYMBOLS  
 CONTAINS THE EXPLANATION  
 OF THE SYMBOLS USED IN THIS  
 REPORT. THE SYMBOLS ARE  
 LISTED IN THE ORDER IN WHICH  
 THEY OCCUR IN THE REPORT.

ARIES COPPER MINES LIMITED  
 MICHIPICOTEN ISLAND  
 ONTARIO

4N13SE-0011 #1

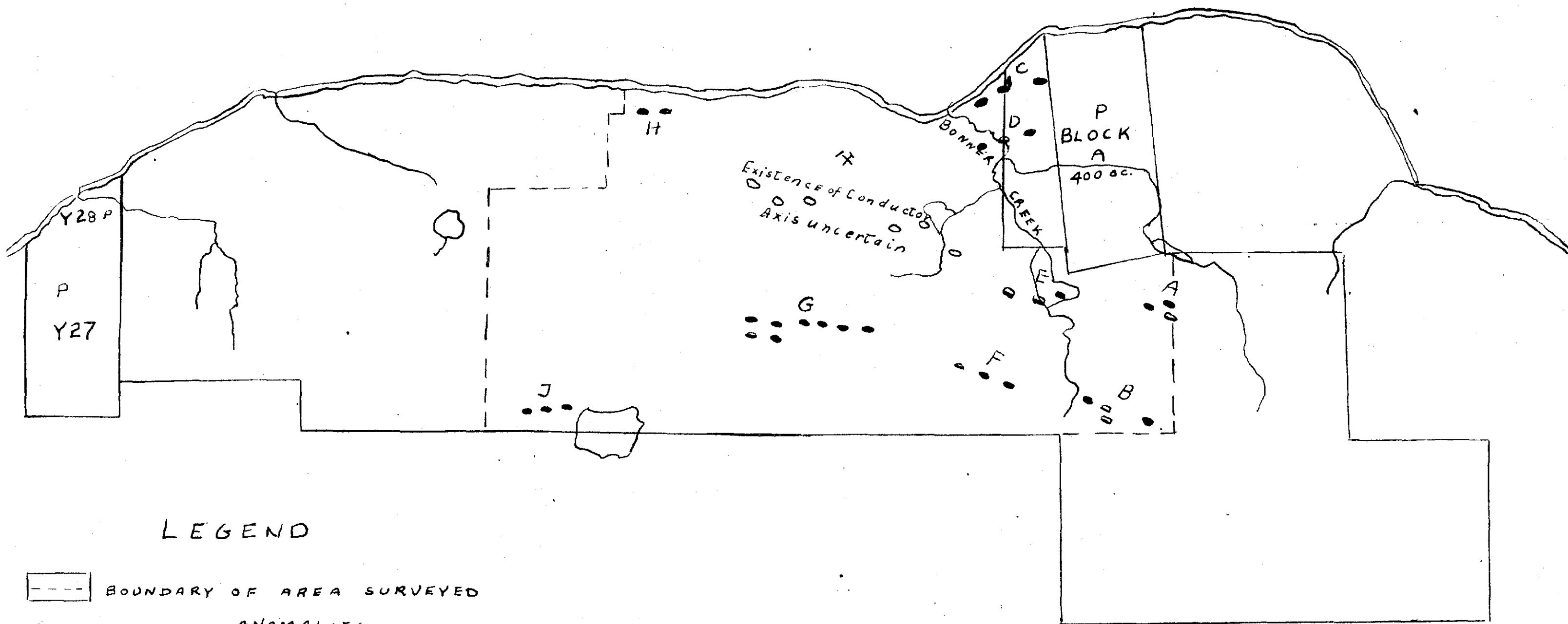


LEGEND  
 TRANSMITS LOCATION  
 RECORDS THIS CFS  
 IS LOCATED AT THE END OF EACH  
 SERIES OF RECORDS. RECORDS ARE  
 0 - 100 METERS


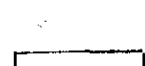
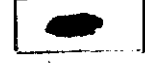


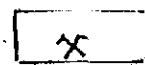
1100-0011  
 4N13SE-0011 #1



# LAKE SUPERIOR



## LEGEND

-  BOUNDARY OF AREA SURVEYED
-  ANOMALIES
-  CONDUCTOR AXIS ESTABLISHED
-  ANOMALIES.
-  DIRECTION OF COND. AXIS UNKNOWN
-  APPROXIMATE LOCATION OF OLD SHAFT



N.B. GEOLOGY OF PROPERTY NOT MAPPED ACCORDING TO REPORTS OF THE GEOLOGICAL SURVEY OF CANADA AND THE ONTARIO DEPT. OF MINES, THE PROPERTY IS UNDERLAIN MAINLY BY BASALTS STRIKING EAST-WEST  $L'S N-70^{\circ}-E$  AND DIPPING SOUTH  $30^{\circ}-50^{\circ}$

SKETCH MAP  
OF  
PROPERTY  
OF  
ARIES COPPER MINES LTD.  
MICHIGICOTEN ISLAND  
SHOWING  
GEOPHYSICAL SURVEY ANOMALIES

DATED JUNE 15/56 *M. C. Halstead P. Eng.*