



41P01NE0005 63.3359 CYNTHIA

010

ELECTRO-MAGNETIC SURVEY

Cynthia Township, Ontario.

G

LOCATION

This survey was carried out in Cynthia Township, Timagami Area of Ontario. A part of the north-west corner of surveyed claim No. 61491 as shown on the attached map was covered by this survey. Readings were taken over an area 200' wide, west to east and along a length of 600' north to south.

INSTRUMENT USED

A Ronka EM-15 Electromagnetic Detector manufactured by Geonics Limited of Toronto was used to conduct the survey. Operating frequency 16KHZ : Readout: Meter indicates negative or positive secondary field, thus identifying Conductors or Magnetic targets. The meter itself has 20 divisions, 10 in the Negative and 10 in the Positive. The instrument was operated by the writer of this report and an assistant, Don Hardie did the lines and measuring.

PURPOSE OF THE SURVEY

To seek out electrically conductive areas which may indicate sulphide minerals. The anomalous sections to be targets for diamond drilling. The instrument was zeroed at post No. 2 of claim 61491 at 8.00 A.M. on November 10th, 1975. Lines were 50' apart and readings were taken at intervals of 15'.

RESULTS OF SURVEY

As indicated on the attached electro-magnetic survey map, four conductive sections marked A, B, C and D were noted. Where these anomalies have been uncovered and in some instances diamond drilled and blasted one can see good grade copper mineralization in the form of chalcopyrite. These anomalies will have to be probed by diamond drilling, possibly in January, 1976 provided this area remains accessible.

Attached hereto are two copies of my electro-magnetic survey map

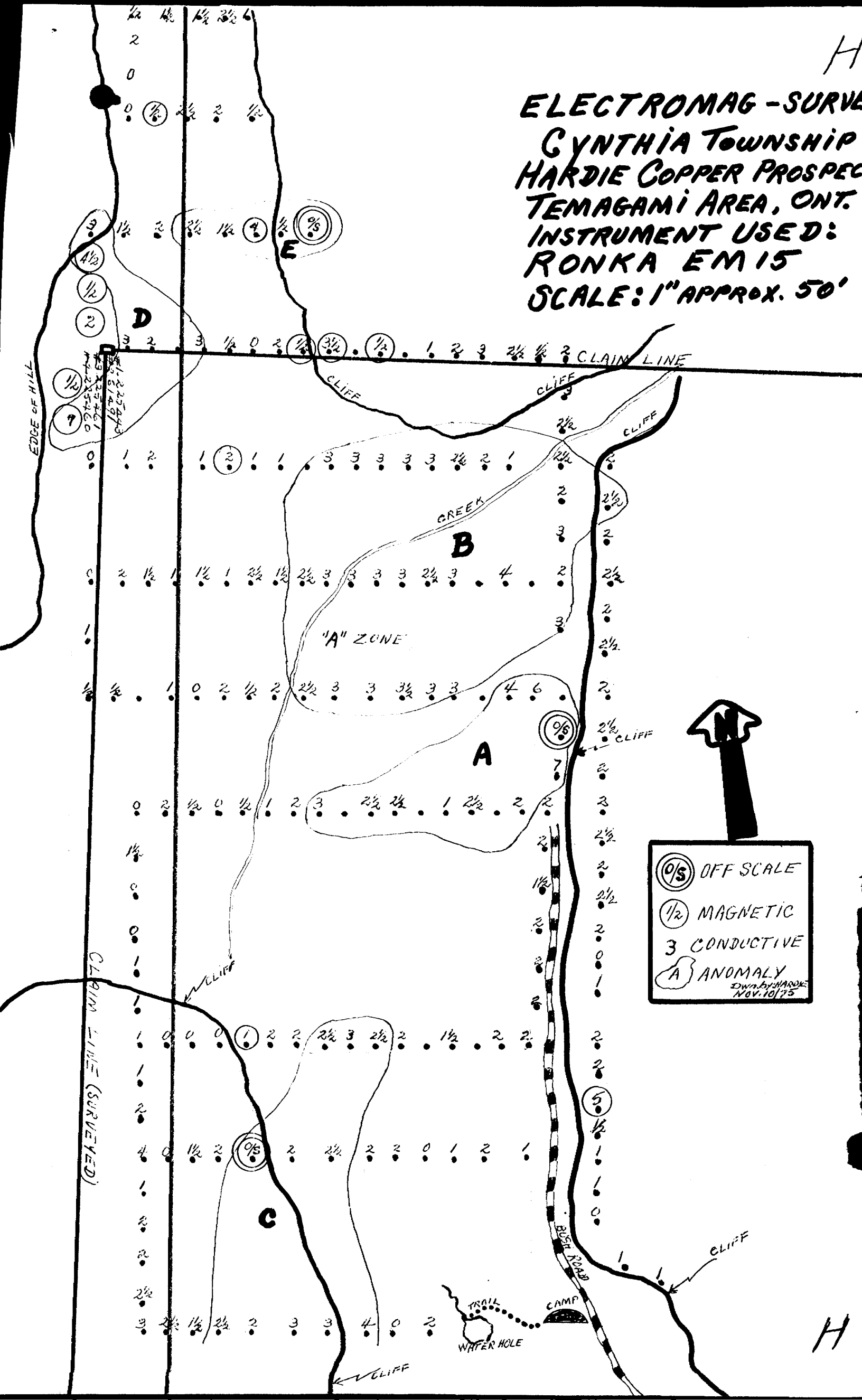
Arnold A. Hardie
Arnold Arthur Hardie

December 30th. 1975.

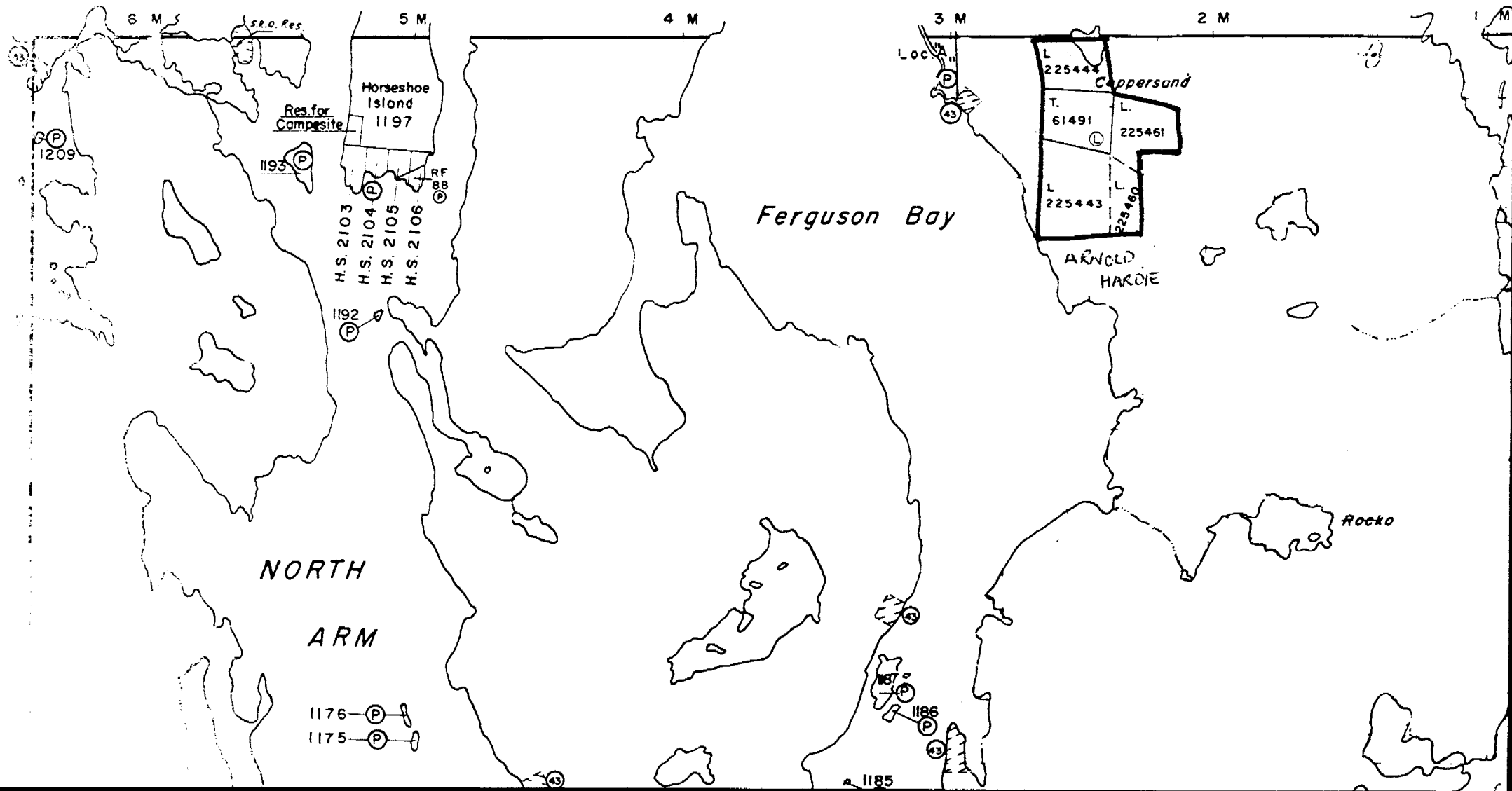
Geological Branch ODM
JAN 30 1976
RECEIVED

G

H
ELECTROMAG-SURV
CYNTHIA TOWNSHIP
HARDIE COPPER PROSPEC
TEMAGAMI AREA, ONT.
INSTRUMENT USED:
RONKA EM 15
SCALE: 1" APPROX. 50'



Aston Twp.





Toronto 6, Ontario,

January 30th. 1976.

W. O. Mackasey - Geologist,
Room 2412, Whitney Block,
Queen's Park,
Toronto, Ontario.

Dear Mr. Mackasey:

Re: M.E.A.P. Contract CG-95

Enclosed are duplicate copies of "A" Questionnaires 1 and 2, "B" Financial report, "C" Report of Work Completed, "D" Claims Map Cynthia Township, "E" Hardie Copper Prospect Map, "F" Locational Map Northern Timagami, "G" Report of Electro-Magnetic Survey, "H" Electro-Magnetic Survey Map, "I" Sampling Locations Map, "J" Gunnex Geological Map.

Exploration activities undertaken were as follows:

May 4 - 17 Removing trees and brush from "A" zone.
May 19- 21 Prospecting, drilling and blasting on "C" zone.
May 22- 30 Breaking up overburden on zone "A".
Sept 13- 15 Prospecting claim group using a Ronka EM 15.
Oct 20- Nov 14 Stripping contract completed in this period, Electro Magnetic survey over a part of the "A" zone as well as drilling and blasting of pits and trenches.
Nov 17 - 23 Drilling and blasting on the "A" zone and stripping a part of the "E" zone.

Results obtained during this past season lead me to believe, that we have several thousand tons of high grade copper ore. Therefore, I am presently trying to secure a contract for the purchase of concentrates from this property. I believe the purchase of a small pilot plant of 25 tons per day would be justified if I am able to negotiate a contract for the purchase of our product.

Further exploration work will be carried out in the "B" & "C" areas during the 1976 field season.

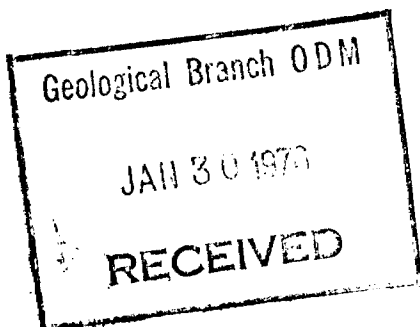
Trusting that you will find the enclosed material satisfactory, I am,

Yours very truly,

Arnold A. Hardie
Arnold A. Hardie,
110 Lamson Avenue,
Toronto 6, Ontario.

Encls. (10)

AAH:ch





Toronto, Ont., Dec. 30/75

Report of Work Completed - Re. M.E.A. Contract C.G.95.

During this past season a bush road was cleared to the property as shown on the attached map of Northern Timagami Area, a distance of about two miles. The general geology in the area of the showings are of coarse grained diabase. In some areas the diabase is underlain by argillite and conglomerate. At the lower contact of the diabase, quartz-carbonate veins were noted within the diabase and at times within the argillite. An area 200' X 200' was stripped and designated "A" zone, another section south of the camp 30' X 100' was stripped and shown as "B" zone, both of which are shown on my attached maps. Stripping, drilling and blasting have been carried out on these three zones A, B and C with the major part of the work carried out within the "A" zone. To date our work in "B" has not uncovered any mineralization. However, the electro-magnetic survey may indicate that a mineralized section may be located to the west of this area. Trenches drilled and blasted, stripping and diamond drilling show positively that a large flat lying carbonate vein, covering an extensive area is underlying the "A" zone. Within this section I estimate that we have probable 20,000 tons which might grade as much as 3% copper plus low values in silver and gold. Trenches drilled and blasted to depths of 14' indicate this to be possible. From my observations this past summer I feel the only way to put this probable ore into the positive class is by wholly removing it, since in the trenches you look at section 5' X 5' and it looks as tho it may run 10 to 15% copper whereas the next same size section may look like it would only run 2%. So some sections are quite erratic making it difficult to determine the overall grade.

Sampling

Sample No.	Results of Sampling		% Cu.	Ozs. P. Ton Ag.
	Type	Length or Depth		
1.	chip	100'	1.42	
2.	drill core	7.9'	1.58	
3.	drill core	2.4'	4.26	1.20
4.	bulk	20'	7.95	2.1
5.	chip	3'	2.32	
6.	grab		7.46	2.34
7.	chip	3'	5.64	
8.	chip	4'	1.02	
9.	chip	3'	19.9	
10.	grab			26.38
11.	chip	2'	2.80	
12.	bulk	30'	4.73	1.20

Bulk sample No. 12 above weighing 300 pounds and believed to be representative was tested at the Bureau of Mines in Ottawa and final flotation tests show that this ore is very fast floating and that at relatively coarse grinds high concentrate grades and recoveries are easily obtainable. The sampling and electro-magnetic survey was carried out at a cost of \$665.00. Map showing location of sampling is attached hereto as well as a separate map and report covering the electro-magnetic survey.

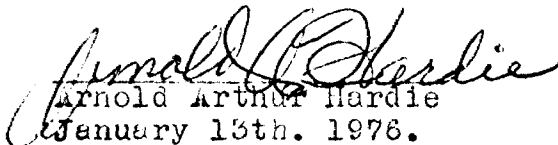
Technical Report Stripping

The purpose for which the area was stripped is to prepare the zone for pitting and trenching and possibly open pit mining. In the "A" zone shown on the attached map an area 200' X 200' was stripped of trees and then a D-2 Allis Chalmers dozer was used to partially remove the overburden. Due to difficult nature of the overburden the bulk of it had to be broken down with an Atlas Copco drill-breaker. This work was carried in the month of May after which a contract for removal of the overburden was given to K & E Trenching of Mount Albert, Ont. at a cost of \$6,000.00. This contract was started October 27, 1975 and completed November 14, 1975. In addition to the above a section 100' X 30' was stripped in the "B" zone and is shown on the attached Gunnex Ltd. map.

Technical Report Overburden and Trenches

These trenches were drilled out and blasted in order to try and determine the probable ore reserves and to get some idea of what the overall possible grade might be. Approximately 9000 yards of material were removed from the upper parts of this zone and nearly all had to be loosened with the drill-breaker. The upper parts of the ore zone are fractured heavily and highly oxidized making drilling extremely difficult until the unoxidized ores are reached. Approximately 1000 tons of the hard primary ores were removed. As may be seen from the attached "Hardie Copper Prospect Map" in excess of 200' of trenching was carried out and down to depths of 15'. In all of this work good grade copper ore was in evidence. The drill-breaker work was done in the month of May and the bulk of the trenching was completed during the period November 7 to November 23, 1975. The work was done by Rudy Bereziuk of Toronto, Ontario, Donald Hardie and myself. Drilling and blasing in the "B" and "C" zones was done in the latter part of the month of May 1975. This work revealed interesting chalcopryrite mineralization but more work will be required to learn if it does have economic possibilities.

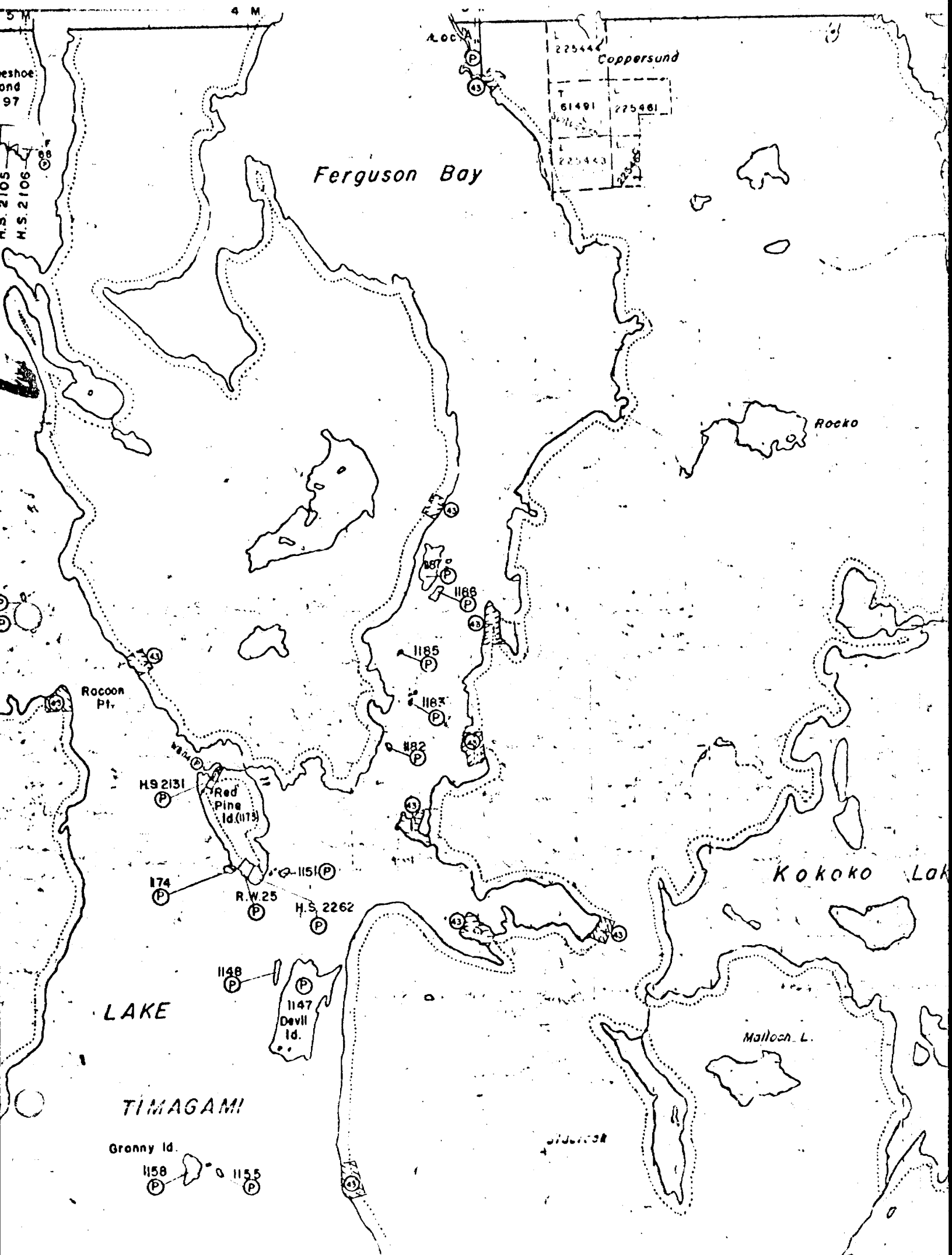
From the encouraging results so far obtained I am planning an intensive program for the 1976 field season. All of the above is respectfully submitted for your consideration.


Arnold Arthur Hardie
January 13th. 1976.

Attach:

1. Claims Map Cynthia Township
2. Hardie Copper Prospect Map
3. Location Map Northern Timagami
4. Electro-Magnetic Survey Map
5. Report - Re Electro Magnetic Survey
6. Gunnex Ltd. Geological & Topographical Map
7. Results of Sampling Map.

CLAIMS MAP CYNTHIA TWP.



SAMPLE MAP

LOCATION OF SAMPLING
HARDIE COPPER PROSPECT
CYNTHIA TOWNSHIP, ONT.

OVER BURDENED

STRIPPED AREA

CREEK

DIABASE

"A" ZONE

FLAT LYING QUARTZ CARBONATE VEIN

CLAIM T. 61491

DIABASE

LEGEND

- AREA STRIPPED
- DRILL CORE SAMPLE
- SAMPLE LOCATION

SCALE:
1" = APPROX. 50'

DRAWN BY A. HARDIE
DEC. 15

"B" ZONE
30' WIDE
100' LONG
STRIPPED

CAMP

BLISS ROAD

GRAND T. 61491
26-35 02.127.149

GRAND T. 61491
142 CO.
102.111

GRAND T. 61491
4-73 CO.
142.111

GRAND T. 61491
112.111

GRAND T. 61491
112.111

GRAND T. 61491
112.111

GRAND T. 61491
112.111

GRAND T. 61491
112.111

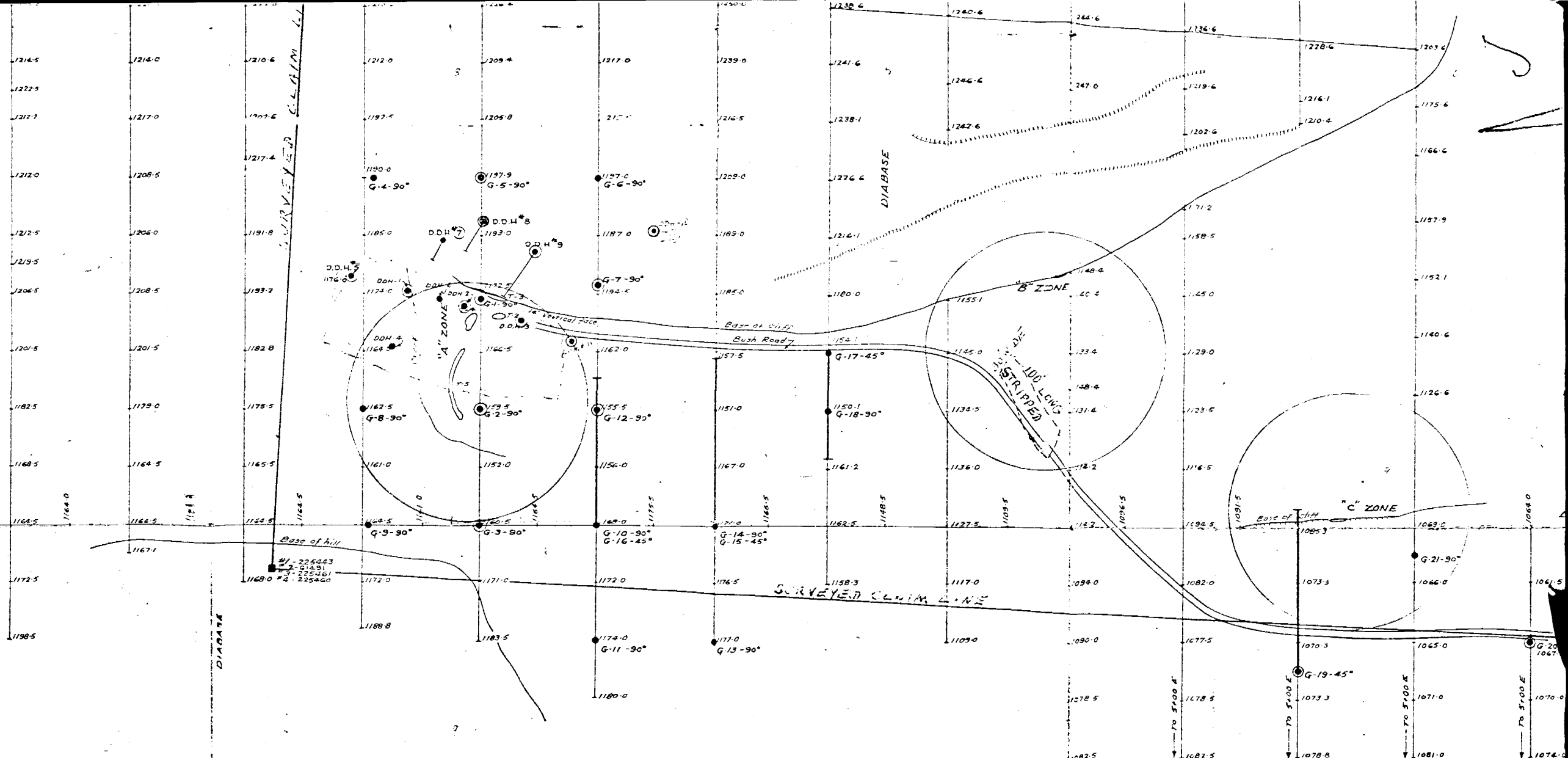
GRAND T. 61491
112.111

GRAND T. 61491
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GRAND T. 61491
112.111

GRAND T. 61491
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GUNNEX LTD.
A. HARDIE OPTION

CYNTHIA TWP. COPPER PROSPECT
TEMAGAMI AREA, ONT.

GEOLOGICAL & TOPOGRAPHICAL
- PLAN -
 Scale: 1" = 100'

Twp. of ASTON

TOWNSHIP

OF Cynthia

COPPERSAND LAKE

L-225444

1349.62'

④

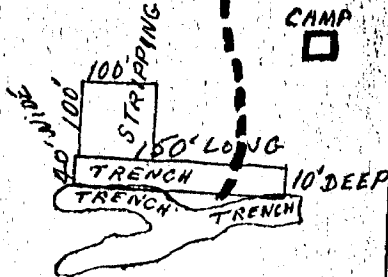
①

T-61491

LEASE NO. 102840

FIRE TOWER

CAMP



953.247

1185.95'

L-225461

③

②

1375.43'

L-225443

L-225460

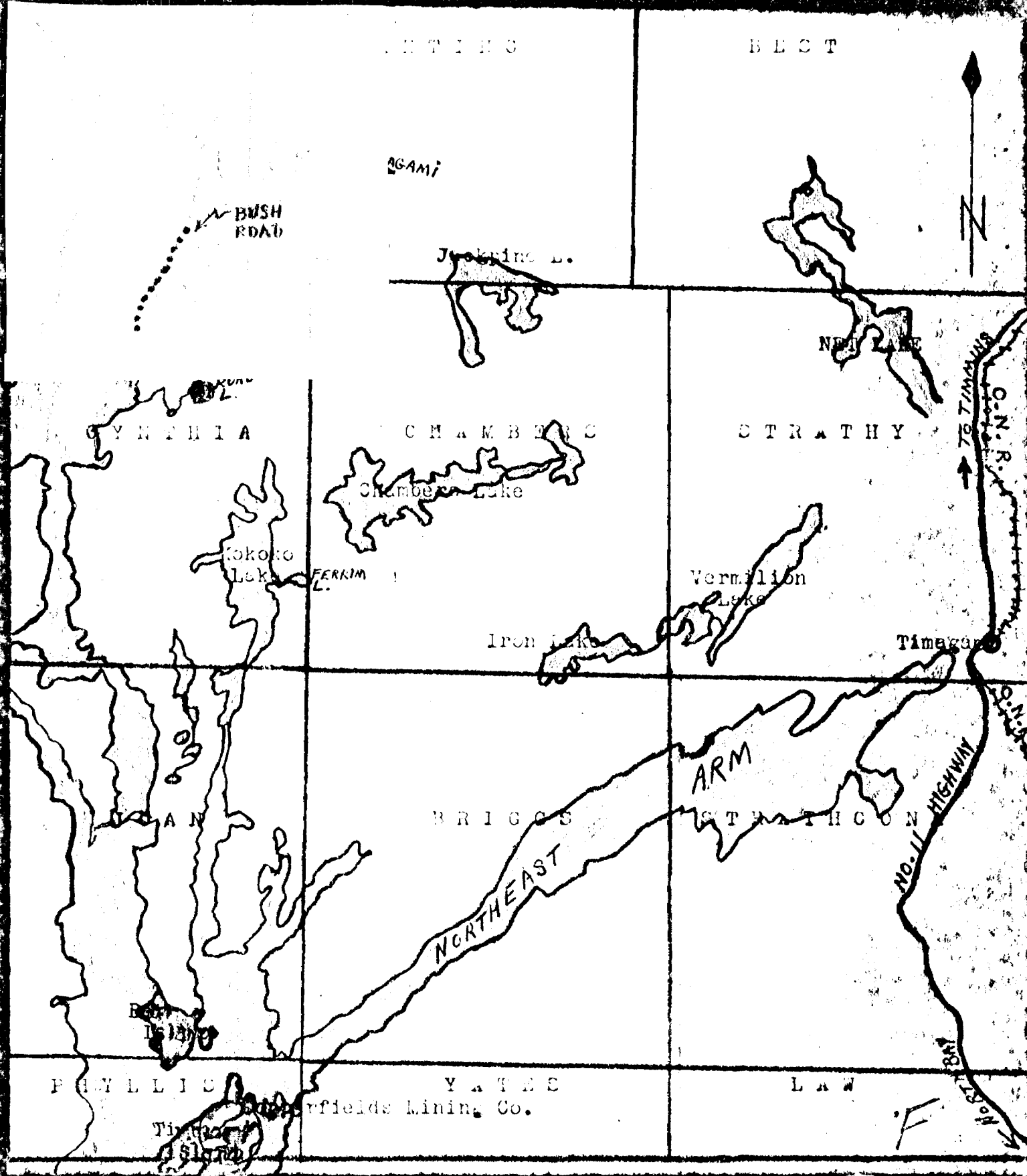
SCALE: 1 INCH = 300' APPROX.

F

NORTHEAST TITICACA

Scale: 1 inch equals 2 miles.

Drawn by *W. H. Heddington* Feb. 18/12

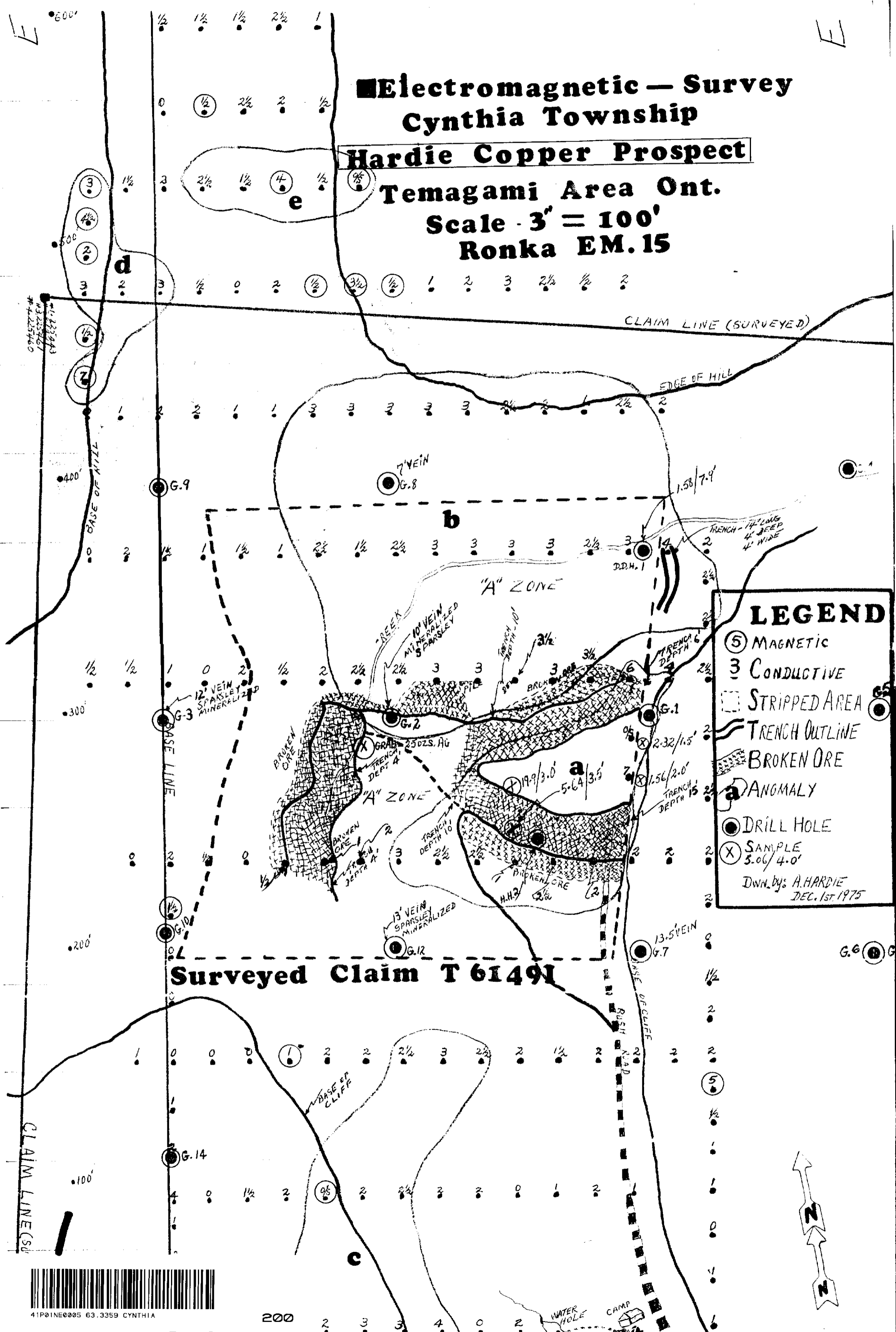


Electromagnetic - Survey Cynthia Township

Hardie Copper Prospect

Temagami Area Ont.

Scale - 3" = 100'
Ronka EM. 15



LEGEND

- ⑤ MAGNETIC
- ③ CONDUCTIVE
- ▭ STRIPPED AREA
- TRENCH OUTLINE
- ▨ BROKEN ORE
- ⓐ ANOMALY
- DRILL HOLE
- ⓧ SAMPLE 3.06/4.0'

Dwn. by: A. HARDIE
DEC. 1st 1975

Surveyed Claim T 61491



41P01NE0005 63.3359 CYNTHIA

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