



52C11NE0048 2.1763 HALKIRK & FARRINGTON

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PROJECTS UNIT.

REPORT ON THE  
OPTION AGREEMENT EXPLORATION PROGRAM  
CARRIED OUT BY CANADIAN NICKEL COMPANY  
LIMITED ON THE BELACOMA MINES LIMITED  
PROPERTY, HALKIRK TOWNSHIP, KENORA  
MINING DIVISION, N.T.S. 52C11E

E. Debicki

September, 1974

SUMMARY

An option agreement was signed by the Canadian Nickel Company Limited and Belacoma Mines Limited on September 15, 1973 after a property examination in April 1973 indicated the possibility of finding economic Cu-Ni mineralization. The Belacoma Mines property consists of 21 contiguous claims located in Halkirk Township, Kenora Mining Division. Fort Frances, Ontario is located approximately 15 miles to the west.

Exploration by Canadian Nickel included cutting a grid over the claim block and carrying out an electromagnetic, magnetic and geological survey. Three diamond drill holes, totalling 986 feet, were completed.

Results of the exploration program indicate that the rock types from west to east consist of a northeast trending sequence of metasediments, highly magnetic tuffs, intermediate to mafic volcanics and a gabbro sill. Mineralization consisting of small pockets of stringer and disseminated pyrrhotite, pyrite and chalcopyrite was found mainly in the tuffs and gabbro. A total of 18 electromagnetic conductors were located. The magnetic survey indicated that the tuffs are highly magnetic while the volcanics and gabbro contain small isolated highs. Results of diamond drilling that undercut surface mineralization and tested electromagnetic conductors combined with surface sampling and geophysics, indicate there is no mineralization of economic significance in the areas tested.

The option agreement was terminated in July, 1974.

## INTRODUCTION

The Belacoma Mines Limited Option area is comprised of a block of 21 contiguous claims, located in Halkirk Township, Kenora Mining Division. A property examination by Canadian Nickel Company Limited in April, 1973 indicated the possibility of finding an extension of economic Cu - mineralization discovered by Noranda approximately two miles southwest and along strike from the Belacoma ground. An option agreement between Belacoma Mines Limited and Canadian Nickel Company Limited, was signed on September 15, 1973. Subsequent evaluation of the option block by Canadian Nickel consisted of electromagnetic, magnetic and geological surveys and diamond drilling. Results of this evaluation were not economically encouraging and the option agreement was terminated in July, 1974.

## LOCATION AND ACCESS

The property is located in Lots 8, 9 and 10 of Concessions IV and V, Halkirk Township, M2081 Rainy River District, Kenora Mining Division. The N.T.S. Reference is 52C11E. Access to the area is by Highway 11 which cuts through the southwest corner of the claim block. Ft. Frances, Ontario is located approximately 15 miles to the west. The C.N.R. also passes immediately south of the property.

## PROPERTY STATUS

The Belacoma Mines Option consists of 21 contiguous claims, all in good standing. The claim numbers are K 241990-99, K 242276-79, K 273760-64, K 315571 and K 364543, which are wholly owned by Belacoma Mines Limited. All ground around the Belacoma property is staked.

## PREVIOUS GEOLOGICAL WORK

The property is part of a larger area mapped in 1969 by F. R. Harris of the Ontario Department of Mines. Mapping was done at a scale of 1" = 1/4 mile and reported on ODM Preliminary Map 586. No other geological work by government agencies pertains directly to the claim area.

HISTORY AND DEVELOPMENT

Foreign Work

Extensive foreign work has been done on the ground presently owned by Belacoma Mines Limited.

Prior to 1967, Noranda Mines held most of the ground in the area. In 1966, they carried out an EM survey over the eastern 13 claims of the present claim block. This work was done as part of a ground follow-up program to evaluate an airborne survey. Six zones of conductivity were found and these were tested by drilling five holes, four vertical and one inclined, located at approximately

- |    |                      |                     |
|----|----------------------|---------------------|
| 1) | 42 + 70 N; 6 + 80 E  | vertical            |
| 2) | 42 + 00 N; 22 + 40 E | vertical            |
| 3) | 45 + 00 N; 10 + 90 E | vertical            |
| 4) | 45 + 00 N; 18 + 00 E | vertical            |
| 5) | 55 + 00 N; 13 + 00 E | Azimuth 090 degrees |

There are no logs available for these holes and they were all drilled in gabbro.

In 1967, the ground was acquired by S. Lakatos, who optioned the block to North 60 Explorers Ltd. They had an I.P. survey conducted by Sulmac Exploration Services Ltd. which outlined four areas of potential interest. From March 1967 to May 1967, North 60 Explorers drilled 3 holes located at

- |    |                   |                   |          |
|----|-------------------|-------------------|----------|
| 1) | 12 + 00 N, 0 + 00 | - 45 degrees West | 608 feet |
| 2) | 12 + 00 N; 0 + 00 | - 65 degrees West | 691 feet |
| 3) | 40 + 00 N; 0 + 00 | - 45 degrees West | 609 feet |

Minor po and cp was encountered in rock types logged as agglomerate, tuff and intermediate volcanic, in the drill holes located at 12+00 N. In the drill hole located at 40 + 00 N, po, cp and py stringers and disseminations were intersected in gabbro, diorite, and peridotite. Assays reported were not encouraging. Much of the core is stored at 26 + 00 N, 5 + 00 E. In May, 1967, Cliffs of Canada conducted a magnetometer survey over the I.P. grid.

In October, 1970, Kerr Addison Mines Limited drilled a hole located at 40 + 17 N, 3 + 00 E at -45 degrees, bearing S65°E to a depth of 170.5 feet. Minor po, py and cp were intersected in rock types logged as sediment, gabbro, rhyolite, granodiorite and intermediate volcanics. Assays were negative.

Hudson Bay Exploration and Development Company conducted an EM-17 survey over part of claim K 273761 from 6S to 00 during May, 1972. Very weak conductivity is associated with mineralization consisting of po and cp found in several pits.

Belacoma Mines drilled two holes in March, 1973. The first hole, located

at 18 + 00 N, 4 + 50 E, was drilled to a depth of 318 feet at -45 degrees on a bearing of 295 degrees. It intersected basalt with minor po, py and traces of cp. The second hole, located at 52 + 00 N, 6 + 50 E, was drilled to a depth of 283 feet at -45 degrees south. The hole intersected gabbro and hornblende - feldspar schist with minor po, cp and py.

In addition, a large number of pits and trenches are located on the claim block. These are mostly in volcanics and gabbro. Part of this trenching has been done by S. Lakatos.

#### Canico Work

The property was first visited on April 30, 1973 by J. J. Hannila and P. Coutu of Canadian Nickel, who were accompanied by S. Lakatos, Vice-President, Belacoma Mines Limited. The area visited was a series of pits (Pit 1 to Pit 5) blasted in a newly discovered mineralized zone. These pits are located in the approximate vicinity of 10 + 00 N and 5 + 00 W. As a result of encouraging results obtained during the property examination, Canadian Nickel and Belacoma Mines Limited entered into an option agreement on September 15, 1973. During September and October 1973, a grid previously established from 6 + 00 S to 52 + 00 N, with the base line trending at 045 degrees, was re-established and extended to 72 + 00 N. Cross-lines are spaced 400 feet apart. The total miles of line cutting was 13.1. From September 23 to October 31, an electromagnetic, magnetic and geological survey was carried out over the grid. In addition, two diamond drill holes for a total footage of 691 feet were drilled on the property from September 29 to October 9, 1973. The first hole (BH 48596), located at 11 + 00 N, 7 + 35 W was drilled to a depth of 305 feet at -50 degrees and at a bearing of 315 degrees. The second hole (BH 48597), located at 36 + 00 N, 3 + 55 E, was drilled to a depth of 386 feet at -50 degrees and at a bearing of 315 degrees. The drilling was done by Canico, utilizing a Longyear 24 drill.

In May 1974, a third diamond drill hole (B.H. 49276) was drilled at 16 + 00 N and 6 + 95 W. It went to a depth of 295 feet at -45 degrees and an azimuth of 270 degrees (grid) or bearing of 315 degrees. The drilling was done by Canico using a Morissette Mini-Drill. A limited amount of sample collecting was carried out by E. L. Hoffman on claim K 242777, during the later part of May 1974.

The option agreement was terminated in July 1974.

#### GENERAL GEOLOGY

The general geology of the area is outlined by ODM Map P586. A Precambrian volcanic - sedimentary sequence striking approximately east - west, has been intruded by gabbro sills. To the north granite gneisses and migmatites have been intruded by granites.

Structural deformation has folded the entire sequence into a series of north-east trending anticlines and synclines. Minor faults and shears occur throughout the area. Diabase dikes cut all of the above formations.

#### GEOLOGY OF THE CLAIM BLOCK

The geology of the claim block was mapped by J. J. Hannila and assistants during September and October, 1973. Mapping outlined four main rock types on the property.

- 1) Metasediments
- 2) Tuff - lapilli tuff
- 3) Intermediate - mafic volcanic
- 4) Gabbro

This assemblage is part of a northeast trending sequence of rocks occurring on the south limb of an anticline. The nose of this anticline is located approximately one half mile northeast of the northern boundary of the property. Top determinations indicate that the metasediments are lower most in the sequence and occur on the western boundary of the claim block. Going from west to east, the metasediments are overlain by a tuff-lapilli tuff, followed by an intermediate to mafic volcanic. A gabbro sill has intruded the volcanics and occurs along the eastern portion of the property.

#### Metasediments

The sedimentary rocks have been altered to quartz-biotite schist, with local garnetiferous sections. There are some beds with remnant feldspar clasts, rounded to angular in shape. The rocks are probably an altered greywacke.

#### Tuff-Lapilli Tuff

The pyroclastics consist of a tuff-lapilli tuff of basaltic composition which overlies the metasediment. The contact is interpreted to be sharp and conformable (?).

The tuff is greenish to grey in colour and very fine grained. It is strongly schisted and highly magnetic.

The lapilli tuff has a grey, fine grained matrix with fragments rounded to angular. They range in size from 1/4 inch to 2 inches in size and are more felsic than the matrix. Some of the fragments appear cherty. This unit is highly magnetic containing 10 - 15 % magnetite. There is a definite gradation in fragment size from coarse to fine, indicating tops to the southeast. This is well exhibited at 10 + 00 N, 2 + 00 W. The lapilli tuff grades into a fine tuff.

A non-magnetic tuff occurs only in a few spots and is differentiated from the remainder of the sequence by only its non-magnetism.

### Intermediate - Mafic Volcanic

The volcanics are of intermediate to mafic composition. They are fine to medium grained, massive, partly chloritic and partly gabbroic where they are in contact with the gabbro. A fine grained hornblende - feldspar schist at the base of the unit is a metamorphosed equivalent of the basic volcanic. Interfingering between the tuff and mafic volcanic was observed in B.H. 49276 but this feature is not apparent on outcrop exposures.

### Gabbro

The gabbro consists of a sill intruded into the mafic volcanic sequence. It comprises the largest area of all the units. Many textural and compositional variations are found. The sill has been differentiated from a mafic gabbro along its base in the west upwards into an anorthositic gabbro in the east.

The most common variety is a medium to coarse grained hornblende gabbro. There are also some pegmatitic phases. This gabbro has a "normal" granitic texture and appears to be unaltered. The hornblende is black and the feldspar white to grey.

Bordering the mafic volcanic is a highly altered coarse grained hornblende gabbro. It grades west from the hornblende gabbro and is up to 500 feet wide between 36 N and 72 N. This gabbro shows concentrations of feldspar and hornblende locally and is often lineated. The hornblende is greenish - black and fibrous.

One variety of the hornblende gabbro shows lathy fractured grey - white feldspar. The feldspar is often lineated and the mafics have been altered to chlorite and fibrous amphibole. It occurs east of the unaltered hornblende gabbro.

The anorthositic gabbro is probably a phase differentiate of the hornblende gabbro and only scattered outcrops were located. A grey to brown, medium to coarse grained feldspar becomes dominant in this gabbro. It is slightly altered.

Farthest to the east occurs a mafic gabbro with some garnetiferous sections. It is composed of mainly medium grained black amphibole. Garnets are not well developed.

Gabbro dikes intrude the tuffaceous volcanics in the southern part of the grid.

Minor dikes of granitic composition occur in the gabbro and volcanics.

A list of thin sections is attached in the Appendix.

## STRUCTURE

The rock units of the claim block lie on the south limb of an anticline, near its nose. The main structural feature of the property is the schistosity. It occurs in the sediments, tuffs and volcanics. The general trend is in a northeast direction. Dips are generally steeply southeast in the volcanics and sediments to vertical in the gabbro. The sediments show an abrupt change in the direction of schistosity around 40 N. It changes from 040° - 050° to 320° as the nose of the anticline is approached. Variations elsewhere represent shearing in the area. Many of the conductors follow contacts and the trace of the schistosity.

Lamination is characteristic of the highly altered hornblende gabbro. It is more apparent in the northern parts and here the conductors strike along the lamination. There are also minor faults and fractures associated with the lamination.

Shearing and faulting on a local scale is evident in the gabbro. Some large shears and faults are probably present in the gabbros from 52 N to 72 N as there are long lineations with sharp scarp walls. The contacts of the tuff - sediments and volcanic - tuff are partially sheared and have conductors following them. Shearing is probably responsible for some of the conductors in the gabbro. A north - northwest trending fault cutting through 20 N and 00 has displaced the eastern block approximately 600 feet to the north.

## ECONOMIC GEOLOGY

Interest in the area was activated in the late 1950's and early 1960's by a discovery of Cu - mineralization in gabbro, later proven to amount to approximately 300,000 tons grading 3 % Cu. This deposit was discovered by Noranda and later optioned to North Rock Mines and Seemar Mines. The deposit is a probable sulphide precipitate, occurring at the base of a magmatically differentiated gabbro sill. It occurs approximately 2 miles southwest of the Belacoma ground. Since this gabbro sill, with a lowermost mineralized contact, strikes northeast onto the Belacoma property, the possibility arises of finding a continuation of this mineralization.

On the Belacoma ground, the gabbro contains the major proportion of the mineralization. It is disseminated pyrrhotite, chalcopyrite and pyrite up to 5%. Often the mineralization is exposed in pits and is associated with the unaltered hornblende gabbro. However, no economic concentrations were found.

The tuffs are strongly magnetic due to magnetite amounting to 10-15%. Minor disseminated chalcopyrite, pyrrhotite and pyrite also occur throughout the rock unit. Small concentrations of this sulphide mineralization have been exposed in several pits. During the initial property examination, J.J. Hannila sampled Pits 1 to 5 located in the vicinity of 10N, 10W and occurring within the tuffaceous unit. This mineralization was a new zone discovered in early 1973.



The mineralization was found to be mostly pyrrhotite with varying amounts of chalcopyrite occurring as disseminated blebs or massive bands. Sulphide content varied from 3-4% to 40% in the pits. The zone along the pits is about 700 feet long. Due to the scarp nature of the contact, no reliable estimate of the width of the zone could be made but it appears to be 3-4 feet wide on surface, dipping southeast. Drilling (BH 48596 and BH 49276) to undercut this mineralization indicated the zone was limited to the surface. Surface sampling of Pit 1 - 5 (Field Number L-1 to L-9) returned a high value of 1.27% Cu and 1.20% Ni in Pit 1.

The volcanics and sediments contain no primary mineralization. Secondary pyrrhotite, pyrite and minor chalcopyrite replacement along fracture surfaces and schistosity planes is common.

The mineralization on the property is spotty and no economic concentrations were found.

A list of surface sample assays is attached in the Appendix. All samples were assayed in the company laboratory.

#### DRILL RESULTS

##### Borehole 48596

This borehole was drilled to undercut surface mineralization in Pits 1 to 5 and to test a strong electromagnetic conductor associated with the mineralization. Schistose magnetic lapilli tuff and crystal tuff were intersected containing stringers and disseminations of pyrrhotite, pyrite and chalcopyrite up to 8%. Assays were negative. The hole bottomed in meta-sediments.

##### Borehole 48597

This borehole was drilled to test a strong electromagnetic conductor located along the contact of a gabbro pod and hornblende - feldspar schist. Gabbro, volcanic and gabbroic volcanic were intersected. Disseminated and stringer pyrrhotite, pyrite and chalcopyrite returned a best assay of 0.45% Cu and 0.12% Ni over 1.7 feet.

##### Borehole 49276

This borehole was drilled 500 feet east of Borehole 48596 as a second attempt to determine if surface mineralization found in Pit 1 to Pit 5 continued at depth. A strong electromagnetic conductor was also tested. An intercalated sequence of magnetic tuff, lapilli tuff and basalt was drilled. Disseminated and stringer pyrrhotite, pyrite and chalcopyrite generally less than 2-3% was encountered throughout the hole. The conductor was explained by

a mineralized shear zone. Assays were negative. The hole bottomed in meta-sediments.

## GEOPHYSICS

### Magnetometer Survey

A MF-1 Fluxgate magnetometer was used to conduct a magnetic survey over the claim block. The magnetic trend follows closely the schistosity of the rock units. The magnetite bearing tuffs are highly magnetic but the other units are relatively low. Isolated highs within the volcanics and gabbro are due to local concentrations of pyrrhotite mineralization. The sediments are flat, magnetically.

### Electromagnetic Survey

The electromagnetic survey was carried out using the Inco SCR, Mark III, Mark IV and Mark V Vertical Loop systems. A total of 18 conductors were traced out in all of the four rock units. They are variable in strike, length and strength. They follow the schistosity of the rock units and are cut off by faulting and shearing. Faults and shears, mineralized faults and shears, rock contacts and the numerous concentrations of sulphide mineralization, are the cause for these conductors.

## CONCLUSIONS

Mineralization on the Belacoma property was found to be spotty throughout the gabbroic and tuffaceous horizons. Extensive surface sampling, geology, geophysics and drilling by Canadian Nickel combined with previous foreign work indicates there is little possibility of discovering any mineralization of significant proportions to be economic. Therefore, the Belacoma Mines Limited - Canadian Nickel Company Limited Option Agreement was terminated in July 1974.

E. Debicki/sn

September 17, 1974

Attachment

*Qualifications: Nil*

*E. Debicki*

REFERENCES

- F. R. Harris, 1970; Rainy Lake Area (West Part), District of Rainy River; Ontario Dept. of Mines Preliminary Map P 586, Scale: 1" = 1/4 mile.
- F. R. Harris, 1970; Geology of the Rainy Lake Area, District of Rainy River; Ontario Dept. of Mines Open File Report 5053.
- F. R. Harris, 1974; Geology of the Rainy Lake Area, District of Rainy River; Ontario Department of Mines, Geological Report 115.
- F. R. Harris, 1974; Rice Bay, Rainy Lake, Rainy River District; Ontario Dept. of Mines Map 2278, Scale: 1" = 1/2 mile.

APPENDIX

Thin Sections

<u>Thin Section No.</u>	<u>Field No.</u>	<u>Location</u>	<u>Rock Type</u>
C-73-2378	L-1	Pit 5	Para-amphibolite
C-73-2379	L-5	Pit 1	Para-amphibolite
C-73-2380	L-10	Pit 3	Argillaceous, micaceous feldspathic, gritty quartzite
C-73-2381	L-13	Belacoma BH-1 at 140 feet	Ortho-amphibolite
C-73-2382	L-14	Belacoma BH-1 at 216-3 feet	Meta-basalt
C-73-2383	L-15	Belacoma BH-1 at 249-5 feet	Amphibolite
C-74-0129	B-49	44+20N/20E	Anorthosite
C-74-0130	B-54	52N/15+50W	Metamafic Schist
C-74-0131	B-57	68N/22+20E	Hornblende-tremolite metamafic

Assays

<u>Assay No.</u>	<u>Field No.</u>	<u>Assays</u>					
		<u>Cu</u>	<u>Ni</u>	<u>Zn</u>	<u>Co</u>	<u>S</u>	<u>Fe</u>
G 48075	L-1	ND	ND	0.2	.007	2.4	8.8
76	L-2	ND	.15	0.2	.021	2.6	14.5
77	L-3	1.26	.59	0.2	.085	8.5	13.5
78	L-4	.63	.36	0.2	.050	6.2	16.2
79	L-5	ND	ND	0.2	.009	ND	9.4
80	L-6	.29	1.23	-	.174	13.5	13.5
81	L-7	ND	.17	-	.021	2.5	20.8
82	L-8	ND	ND	-	.014	ND	19.8
83	L-9	ND	.12	0.2	.013	ND	12.6
84	L-10	ND	ND	-	ND	ND	6.0
85	L-11	.86	.09	-	.023	2.9	17.2
86	L-12	.06	.07	0.2	.017	1.4	14.9
87	L-13	ND	ND	0.2	.009	ND	8.9
88	L-14	ND	ND	0.2	.015	0.6	11.6
G 50160	B-18	-	.13	0.2	.016	-	13.3
61	B-20	.21	.12	0.2	.034	4.5	14.7
62	B-21	.84	.09	0.2	.025	3.7	12.2
63	B-28	-	.11	0.2	.011	-	11.7

<u>Assays</u>		<u>Assays</u>					
<u>Assay No.</u>	<u>Field No.</u>	<u>Cu</u>	<u>Ni</u>	<u>Zn</u>	<u>Co</u>	<u>S</u>	<u>Fe</u>
G 50164	B-29	.45	.09	0.2	.023	3.4	16.0
65	B-30	.22	.17	0.2	.037	5.9	23.4
66	B-31	-	.11	0.2	.026	1.2	16.6
67	B-34	.13	.10	0.2	.012	1-3	9.8
68	B-35	-	-	-	.01	1-2	2.9
G 51504	B-39	.32	.08	0.2	.044	9.7	19.7
05	B-44	.43	.13	0.2	.012	1.6	10.4
06	B-45	.16	.09	0.2	.013	1.7	9.9
07	B-47	.20	ND	0.2	.003	ND	10.5
08	B-54	ND	.09	0.2	.012	ND	NA
		<u>PPM</u>	<u>PPM</u>	<u>PPM</u>	<u>Co</u>	<u>S</u>	<u>Fe</u>
		<u>Cu</u>	<u>Ni</u>	<u>Zn</u>			
G 51613	B-3	120	160	55	-	-	7.9
14	B-4	30	785	85	.009	-	9.0
15	B-5	25	570	145	.007	-	7.1
16	B-6	75	120	60	-	-	5.2
17	B-7	565	160	80	.006	-	8.1
18	B-10	195	160	85	.006	-	9.0
19	B-14	90	710	55	.011	-	11.4
20	B-16	235	530	90	.010	-	11.6
21	B-17	20	325	85	.009	-	10.2
22	B-22	20	70	50	.007	-	10.1
23	B-23	40	905	65	.012	-	NA
24	B-24	35	70	65	.007	-	10.5
25	B-25	165	1010	130	.015	-	12.1
26	B-27	110	160	90	.008	-	8.2
27	B-29	-	930	90	.023	2.1	14.8
28	B-32	75	90	65	.011	-	11.1
29	B-33	20	530	125	.008	-	8.6
30	B-37	50	60	25	-	-	3.3
31	B-38	25	55	60	.009	-	10.7
32	B-39	300	135	55	.008	0.7	7.7
33	B-40	130	165	60	-	-	6.3
34	B-41	120	230	85	.007	-	7.8
35	B-42	55	180	70	.007	-	7.0
36	B-43	185	405	75	.006	-	5.4
37	B-46	315	315	20	-	0.8	NA
38	B-46B	10	700	85	.007	-	6.9
39	B-47	680	645	20	.01	1.4	NA
40	B-48	100	70	20	-	-	2.8
41	B-50	15	70	40	-	-	5.2
42	B-51	50	95	45	-	-	5.9
43	B-52	35	75	30	-	-	3.6
44	B-53	45	80	60	-	-	8.8
45	B-56	70	80	25	-	-	2.6
46	B-58	45	120	105	.007	-	8.4

<u>Assay No.</u>	<u>Field No.</u>	<u>Assays</u>					
		<u>PPM</u> <u>Cu</u>	<u>PPM</u> <u>Ni</u>	<u>PPM</u> <u>Zn</u>	<u>Co</u>	<u>S</u>	<u>Fe</u>
G 52604	1EH74	100	780	80	.010	.6	13.0
05	2EH74	55	1110	70	.014	ND	14.6
06	3EH74	110	1100	95	.014	ND	10.8
07	4EH74	75	990	100	.013	ND	14.0
08	5EH74	165	1745	85	.022	1.7	29.1
09	6EH74	80	820	110	.011	.6	10.3
10	7EH74	40	1030	70	.013	ND	13.9

ND = Not detected

NA = Not analysed

PPM = Parts per million

File Appendix (1974) *DB*

BOREHOLE RECORD  
\*\*\*\*\*

DATE PROCESSED AUG

1974

CHK'D.....

BOREHOLE# 49276-0 BELACOMA  
\*\*\*\*\*

NIS# 52C11E  
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DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP  
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INCLINATION AND TROPARI TESTS  
\*\*\*\*\*

LOGGED BY..DEBICKI E J. STARTED..MAY C6,1974 COMPLETED..MAY 17,1974  
\*\*\*\*\*

COMMENTS  
\*\*\*\*\*

DRILLED CANICO MORISSETTE MINI DRILL-T WAKEGJIG AND  
D BEAUVAIS EXT/CORE CLAIM 273760 320 E 290 S POST 4  
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DEPTH LENGTH SAMPLE# MINZN ROCK  
\*\*\*\*\*

0.0 0.0 COLLAR  
3.0 3.0 CASING-BEDROCK SETUP-START OF CORE  
10.8 7.8 FX014505 MVMW TUFF BASALTIC FG DK GREY GREEN CHLORITIC 48 0.020 0.110 0.013 0.020 0.200 12.100 0.000  
WELL BEDDED OCCASIONAL COARSE GRAIN  
ED BANDS-SMALL CLOTS & STRS CARBONA-  
TE-OCCASIONAL SPK PO PY-STRONGLY  
MAGNETIC (MT 5 TO 10%).

13.1 2.3 FX014506 MVMW BSLT META FG DK GREY SLIGHTLY GREEN BIOTI 63 0.020 0.020 0.009 0.020 0.200 11.100 0.000  
TIC CHLORITIC, WELL FOTD SMALL SPKS  
PY SHARP CTS

15.2 2.1 FX014507 MVMW TUFF AS TO 10.8 VERY MINOR MT SPKS PO 54 0.020 0.100 0.010 0.020 0.200 9.600 0.000  
PY

15.6 0.4 TUFF LAPIILLI GREY GREEN CHLORITIC WELL 63  
BEDDED SHARP CONTACTS

16.6 1.0 BSLT AS TO 13.1 BUT FINER GRAINED  
16.7 0.1 TUFF AS TO 15.6 TOPS INDICATED UPHOLE  
NON-MAGNETIC

20.0 3.3 FX014508 MVMW BSLT META FG DK GREY GREEN CHLORITIC OCCA 66 0.020 0.100 0.011 0.020 0.200 11.900 0.000  
SIONAL BIOTITIC ZONES NO CONTACTS  
VISIBLE HIGHLY CARBONATED UNIFORM  
THROUGHOUT LOCAL SMALL TUFFACEOUS  
BANDS (NO CONTACTS VISIBLE) WELL  
FOLIATED LOCAL SPKS PY PO STRONGLY  
MAGNETIC (MT 5-10%)

25.0 5.0 FX014509 MVMW BSLT AS TO 20.0 46 0.020 0.100 0.015 0.020 0.200 11.700 0.000

30.0 5.0 FX014510 MVMW BSLT AS TO 20.0 54 0.020 0.110 0.012 0.020 0.200 11.200 0.000

35.0 5.0 FX014511 MVMW BSLT AS TO 20.0 46 0.020 0.110 0.012 0.020 0.200 11.900 0.000

40.0 5.0 FX014512 MVMW BSLT AS TO 20.0 52 0.020 0.120 0.013 0.020 0.200 12.200 0.000

45.0 5.0 FX014513 MVMW BSLT AS TO 20.0 47 0.020 0.110 0.012 0.020 0.200 11.200 0.000

50.0 5.0 FX014514 MVMW BSLT AS TO 20.0 49 0.020 0.120 0.013 0.020 0.200 11.700 0.000

55.0 5.0 FX014515 MVMW BSLT AS TO 20.0 57 0.020 0.110 0.013 0.020 0.200 11.500 0.000

60.0 5.0 FX014516 MVMW BSLT AS TO 20.0 59 0.020 0.110 0.012 0.020 0.200 10.900 0.000

65.0 5.0 FX014517 MVMW BSLT AS TO 20.0 56 0.020 0.110 0.011 0.020 0.200 11.200 0.000

70.0 5.0 FX014518 MVMW BSLT AS TO 20.0 60 0.020 0.100 0.013 0.020 0.200 11.400 0.000

78.0 8.0 FX014519 MVMW BSLT AS TO 20.0 50 0.020 0.120 0.013 0.020 0.200 12.100 0.000

82.6 4.6 FX014520 MVMW BSLT META FG GREY GREEN WEAKLY FOTD LOCAL 62 0.100 0.100 0.014 0.020 1.200 12.100 0.000  
CARBONATE STRS LOWER CT SHARP SMALL  
STRS CP PO PY 2-3% INCREASING IN 4

DEPTH	LEI	SAMPLE#	MNZN	KJCK	DESCRIPTION	ANG	CU	NI	CO	ZN	S	FE	AU
86.2	3.6	FX014521	MVVW	TUFF	DOWNHOLE FLOW FG TO APHANITIC GREY SLIGHTLY GREEN SHARP CTS SPKS PO CP LESS THAN 1%	0.020	0.120	0.010	0.010	0.020	0.200	9.200	0.000
87.6	1.4	FX014522	MVVW	TUFF	FLOW FG GREY BIOTITIC TOP BECOMING MASSIVE DOWNHOLE SHARP CTS SPKS CP PO LESS THAN 1%	0.020	0.060	0.011	0.020	0.020	0.900	10.000	0.000
92.6	5.0	FX014523	MVW	BSLT	( ) SCHIST HIGHLY ALTERED (BIOTITE CHLORITE) FG DK GREY GREEN STRONGLY FOTD SHARP CTS 4-5% PO CP PY CUBES IN CLOTS ALONG FOTN PLANES	39	0.070	0.170	0.021	0.020	2.000	12.600	0.000
94.3	1.7	FX014524	MVW	BSLT	SCHIST-AS TO 92.6 2-3% PO CP PY CUB ES ALONG FOTN PLANES	72	0.020	0.120	0.020	0.020	1.100	11.100	0.000
97.6	3.3	FX014524	MVW	BSLT	SCHIST-AS TO 92.6 1-2% PO PY ALONG FOTN PLANES	60	0.020	0.120	0.020	0.020	1.100	11.100	0.000
99.7	2.1	FX014524	MVW	BSLT	SCHIST-AS TO 92.6 1-2% PO PY ALONG FOTN PLANES	85	0.020	0.120	0.020	0.020	1.100	11.100	0.000
103.5	3.8	FX014525	MVW	TUFF	FLOW FG GREY SHARP WAVY CTS WEAKLY FOTD STRONGLY MAGNETIC (MT 4-5%)	54	0.020	0.170	0.022	0.020	1.500	12.100	0.000
107.5	4.0	FX014526	MVW	TUFF	CLOTS PO CP 1-2% AS TO 103.5 CLOTS PO MINOR CP 1-2% MT 2-3%	0.070	0.120	0.020	0.020	0.020	1.200	0.000	0.000
108.5	1.0	FX014527	MVW	TUFF	AS TO 103.5 FLOW CTS AT 108.0 108.3 CLOTS PO CP 1% MT 2-3%	0.020	0.080	0.013	0.020	0.020	0.200	11.800	0.000
112.3	4.4	FX014528	MVW	TUFF	AS TO 103.5 CLOTS PO 1% MT 2-3%	0.020	0.100	0.015	0.020	0.020	0.600	11.500	0.000
119.7	6.8	FX014529	MVW	TUFF	AS TO 103.5 4-5% MT 1% PO AS CLOTS AND SMALL STRS	66	0.020	0.120	0.014	0.020	0.200	11.400	0.000
120.4	0.7	FX014530	MVVW	BSLT	AS TO 92.6 SPKS PO LESS THAN 1%	70	0.020	0.090	0.011	0.020	0.200	10.400	0.000
126.9	0.5	FX014531	MVW	TUFF	AS TO 103.5 MT 4-5% PO 1-2% ALONG FRACTURE PLANES	0.020	0.110	0.012	0.020	0.020	0.200	10.900	0.000
128.2	1.3	FX014532	MVVW	BSLT	FG DK GREY GREEN BIOTITIC AND CHLDR TIC LESS ALTERED THAN 92-6 SMALL SPK S PO LESS THAN 1%	66	0.020	0.020	0.009	0.020	0.200	9.500	0.000
130.1	1.9	FX014533	MVVW	BSLT	( ) ALTERED TO 75% BIOTITE FG DK GRE Y BROWN 20% CARBONATE SPKS STRONGLY FOTD SPKS PY 1%	72	0.020	0.100	0.014	0.020	1.000	9.900	0.000
133.5	3.4	FX014533	MVVW	BSLT	AS TO 128.2 SPKS PY PO 1%	72	0.020	0.100	0.014	0.020	1.000	9.900	0.000
133.8	0.3			BSLT ( ) AS TO 130.1									
134.9	1.1	FX014534	MVVW	TUFF	AS TO 103.5 SPKS PO 1%	0.020	0.100	0.010	0.020	0.020	0.200	9.600	0.000
136.6	1.7	FX014535	MVW	BSLT	AS TO 128.2 SPKS & STRS PO PY 1-2%	0.110	0.090	0.014	0.020	1.000	11.100	0.000	0.000
143.7	7.1	FX014536	MVW	TUFF	AS TO 103.5 MT 3-4% PO SPKS & STRS 1-2%	74	0.020	0.110	0.014	0.020	0.200	9.500	0.000
144.0	0.3			BSLT AS TO 130-1									
146.2	2.2	FX014537	MVVW	TUFF	AS TO 103.6 BUT DARKER GREY SLIGHTLY GREEN WEAKLY FOTD MT 3-4% SPKS PO 14	66	0.020	0.110	0.012	0.020	0.600	9.600	0.000
147.4	1.2	FX014537	MVVW	BSLT	AS TO 130.1 LOWER CT WAVY SPKS PO PY	0.020	0.110	0.012	0.012	0.020	0.600	9.600	0.000
157.2	9.8	FX014538	MVW	TUFF	AS TO 146.2 STRS & CLOTS PO CP 3-4% ALONG FRACTURE SURFACES MT 2-3% SEVE RAL SMALL QTZ STRS WITH PO-CORE BADL Y SHEARED	62	0.280	0.140	0.018	0.020	1.800	10.700	0.000
162.6	5.4	FX014539	MVW	TUFF	AS TO 146.2 SPKS PO 1% MT 3-4%	60	0.020	0.110	0.011	0.020	0.600	10.400	0.000
173.0	10.4	FX014540	MVW	TUFF	AS TO 146.2 SPKS PO 1% MT 3-4%	60	0.020	0.110	0.012	0.020	0.200	9.900	0.000
175.1	2.1	FX014541	MVW	TUFF	AS TO 146.2 SPKS PO 1% MT 3-4%	61	0.020	0.120	0.014	0.020	0.200	10.400	0.000
181.7	6.6	FX014542	MVW	TUFF	AS TO 146.2 SPKS PO 1% MT 3-4%	60	0.020	0.110	0.011	0.020	0.200	10.100	0.000
187.9	6.2	FX014543	MVW	TUFF	AS TO 146.2 SPKS PO 1% MT 3-4% LOWER	60	0.020	0.130	0.015	0.020	0.700	10.300	0.000



DEPTH	CT SHARP	DESCRIPTION	ANG	CU	NI	CO	ZN	S	FE	AU
192.9	5.0 FX014544	MVW VOLC SCH FG GREY GREEN FSP HORNBLLENDE CHLORITE MICA WELL FOTD & BANDED UNIFORM THROUGHOUT NUMEROUS CARBONAT E STRS POSSIBLE MTSO	72	0.020	0.020	0.008	0.020	0.200	11.100	0.005
196.6	5.7 FX014545	MVW VOLC AS TO 192.9 SPKS & STRS PO CP PY	74	0.020	0.020	0.008	0.020	0.200	10.600	0.000
199.1	2.5	MTSD FG GREY QTZ MICA SHARP CTIS	76							
206.0	6.9 FX014546	MVW VOLC AS TO 192.9 SPKS & STRS PO CP	75	0.020	0.020	0.009	0.020	0.200	10.800	0.000
211.0	5.0 FX014547	MVW VOLC AS TO 192.9 OCCASIONAL SPKS PO LESS THAN 1%	75	0.120	0.020	0.008	0.020	0.600	11.100	0.000
213.6	2.6 FX014548	MVW VOLC AS TO 192.9 LARGE QTZ VEIN WITH 2-3% PO CP	75	0.270	0.020	0.010	0.020	2.100	11.300	0.005
218.6	5.0 FX014549	MVW VOLC AS TO 192.9 SEVERAL SPKS PO	75	0.020	0.020	0.007	0.020	0.900	10.000	0.000
226.3	7.7 FX014550	MVW VOLC AS TO 192.9 SPKS PO CP PY LESS THAN 1% LOWER CT SHARP	78	0.020	0.020	0.006	0.020	0.200	8.000	0.000
249.5	23.2	MTSD FG GREY QTZ BIOTITE FSP COMPOSITIONA L BANDING OCCASIONAL FSP ROUNDED CLAST BANDS OCCASIONAL SPK PY 231.8 TO 233.8 GARNETIFEROUS	75							
295.0	45.5	MTSD FG GREY BROWN QTZ BIOTITE NUMEROUS CARBONATE STRS FOOT OF HOLE CONDUCTOR EXPLANATION 147.4 TO 157.2 PO CP 3-4% ALONG FRACTURE SURFACES IN SHEAR ZONE MAG EXPLANATION MAGNETITE THROUGHOUT VOLCANICS AND TUFFS	80							

ASSAYS OF THE FOLLOWING ELEMENTS WERE REQUESTED FOR THIS HOLE.....CU, NI, ZN, CO, S, AU, FE

FOR THIS HOLE, ASSAYS OF THE FOLLOWING ELEMENTS HAVE BEEN RECEIVED..AU, CO, CU, FE, NI, S, SG, ZN

BOREHOLE SUMMARY  
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FOOTAGE	MINZN	ROCK
3.0		
10.8	MVW	TUFF
13.1	MVW	BSLT
15.2	MVW	TUFF
15.6		TJFF
16.6		BSLT
16.7		TUFF
78.0	MVW	BSLT
82.6	MVW	BSLT
87.6	MVW	TUFF
99.7	MVW	BSLT
119.7	MVW	TJFF
120.4	MVW	BSLT
126.9	MVW	TUFF
133.5	MVW	BSLT

134.9	MVW	BSLT
136.6	MVW	TUFF
143.7	MVW	BSLT
144.0	MVW	TUFF
146.2	MVW	BSLT
147.4	MVW	TUFF
187.9	MVW	BSLT
196.6	MVW	TUFF
199.1	MVW	VOLC
211.0	MVW	MTSD
213.6	MVW	VOLC
226.3	MVW	VOLC
295.0	MVW	MTSD

*Feld Assment. R - 1973*

BOREHOLE RECORD  
 \*\*\*\*\*  
 DATE PROCESSED NCV 20,1973  
 CHK'D.....

BOREHOLE# 48596-0 BELACOMA  
 PROPERTY BELACOMA  
 NIS# 52C 11E  
 SH# ANOM# 305 315 00  
 DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP  
 315 00 -50 00 N 1100 W 735  
 INCLINATION AND TROPARI TESTS  
 DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP DEPTH AZIMUTH DIP

\*\*\*\*\*  
 LOGGED BY.. HANNILA J J  
 STARTED.. SEPT 29, 1973 COMPLETED.. OCT 02, 1973  
 DRILLED EXT BY CANICO ALL CASING RECOVERED POST NO 4  
 OF K 273760 IS 75W 575N  
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\*\*\*\*\*  
 TOPS OF WEDGES  
 \*\*\*\*\*  
 COMMENTS  
 \*\*\*\*\*

DEPTH	LENGTH	SAMPLE#	MNZN	ROCK	COLLAR	DESCRIPTION	ANG	CU	NI	ZN	CO	S	FE	AU
0.0	0.0													
2.0	2.0				COLLAR									
69.2	67.2			TUFF	CASING NO DB LAPILLI FG GREEN BLAK MGTC LAPLI 1/8 81 TO 3/4 INCH SIZE LOCLY SHD FRID TRAC PO CP MASS TO MUD SCRC LOGL VFG CHLC									
88.0	18.8			TUFF	VFG CHLRTC DARK GREEN MGTC MANY VESC 63 QTZ FILD TO 72.5 GRADS TO SCH WITH NO VESCLS TRAC VFG DISS PY									
89.1	1.1			TUFF	XIL FG GREY TOPS DOWN HOLE CONTS ARE SHRP AT 68 DEGS SLIGT SCHD									
96.0	6.9			TUFF	AS TO 88.0									
119.8	23.8			TUFF	AS TO 69.2 CONT GRAD MNCR DISS PO CP									
123.5	3.7			TUFF	AS TO 88.0									
129.1	5.6			TUFF	AS TO 69.2 SMALL PO STRS TRAC CP									
135.0	5.9			TUFF	AS TO 89.0 FG DISS PO CP CONT GRAD									
146.7	11.7			TUFF	AS TO 69.2 DISS STRS FO CP CONTS ARE GRAD									
167.2	20.5			TUFF	AS TO 89.0 MNCR CISS PO SCHD									
172.2	5.0	FX016818	MVW	TUFF	AS TO 167.2 MNCR STRS DISS PU									
182.8	10.6	FX016819	MVW	TUFF	AS TO 167.2 8% STRS DISS PO 0.9 % CP AT 182.5 ZONE 1 INCH WIDE CP PU		0.020	0.190	0.020	0.022	1.300	20.300	0.000	
185.8	3.0	FX016820	MVW	TUFF	AS TO 167.2 MNCR DISS PO		0.110	0.220	0.020	0.022	3.400	17.000	0.005	
188.4	2.6	FX016821	MVW	TUFF	AS TO 167.2 6% DISS STRS PO									
195.5	7.1	FX016821	MVW	VOLC	META FG GREY BRWN SLCS POSS TUFF FEM CHLRTC SECS 5% PC MNCR PY CP DISS									
200.5	5.0	FX016822	MVW	TUFF	FG CHLRTC BIOTC GREY TO BLAK MASS TO SCHD MNCR PO PY SMALL SHR AT 200.0									
203.3	2.8			TUFF	AS TO 200.5									
231.3	28.0			VOLC	HB FELD SCH WELL BNDD PCSS MTSD									
244.1	12.8			MTSD	FG WELL HNDU BIO QTZ FELD SCH PTLY									
305.0	60.9			MTSD	QTZ BIO SCH WITH SMALL FELD PULS RNDD TO ANGLR GREY BRWN FG POSS META SANDST SHR AT 298.3 TO 303.0 FOOT CF HOLE									

ASSAYS OF THE FOLLOWING ELEMENTS WERE REQUESTED FOR THIS HOLE.....CU, NI, ZN, CO, AU, S

FOR THIS HOLE, ASSAYS OF THE FOLLOWING ELEMENTS HAVE BEEN RECEIVED..AU, CO, CU, FE, NI, S, SG, ZN

BOREHOLE SUMMARY  
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FOOTAGE	MNZN	ROCK
2.0		
167.2		TUFF
172.2	MVW	TUFF
182.8	MVW	TUFF
185.8	MVW	TUFF
188.4	MVW	TUFF
195.5	MVW	VOLC
200.5	MVW	TUFF
203.3		TUFF
231.3		VOLC
305.0		MTSD

Field Assessment - 1973

DATE PROCESSED DEC 06, 1973

BOREHOLE RECORD

CHK'D.....

BOREHOLE# PROPERTY NTS# SH# ANCH# SH# AZIMUTH DIP DEPTH AZIMUTH DIP LATITUDE DEPARTURE ELEVATION LEVEL

48597-0 BELACCMA 52C IIF 385 315 00 -50 00 N 36CC E 355

DEPTH AZIMUTH CIP DEPTH AZIMUTH CIP DEPTH AZIMUTH CIP DEPTH AZIMUTH CIP

LOGGED BY..C.BATTOCHIC STARTED..CCT 02, 1973 COMPLETED..CCT 05, 1973

CRILLET EXT BY L24 ALL CASING PULLED FOST NC 2 OF K 242276 150S 400E

DEPTH LENGTH SAMPLE# MNZN RCCK COLLAR

0.0 0.0 MUC AND SANC

7.5 7.5 GABB ARE APT AND SOME AMPB ALIC TO BIO

14.8 7.3 GABB DARK TC LIGHT GREEN CLR FCTD SLTY

16.5 1.7 GABB BND AT 78 DEG FELIC STRGS AT 48 DEG

21.8 5.3 GABB CG GREEN CLR FELIC STRC TRACE OF PY

24.4 2.6 GABB PO CP AND DISS ILMN

50.4 26.0 GABB FG TC CG LIGHT GREEN TO DARK GREY

55.4 5.0 FX016823 MVVM GABB FG TO CG FELIC STRGS AT 50.4

56.9 1.5 FX016824 MW GABB AS TO 50.4 STRG CF 15 2 PO 2 2 PY

61.9 5.0 FX016825 MVVM GABB AS TC 50.4 CG BND OF FELIC GABB 59.7

67.8 5.5 GABB AS TC 50.4

69.0 1.2 VCIC FG PORPH FELIC STRGS DARK GREEN GREY

108.3 39.3 GABB AS TC 50.4

113.3 5.0 FX016826 MVVM GABB AS TC 50.4 TRACE PY

115.0 1.7 FX016827 MW VOLC FG DARK GREEN WITH QTZ AND FELIC

120.0 5.0 FX016828 MVVM GABB AS TC 50.4 CG HBL GABB AT 115.0 TO 115.7

219.5 55.5 GABB AS TC 50.4 CG HBL GABB AT 109.3 TO 189.9 AND AN ALTO GABB SHRD AT 191.8

SAMPLE ENTRIES

COMMENTS

386.0 GABB

DEPTH	LENGTH	SAMPLE#	MNZN	ROCK	DESCRIPTION	ANG	CU	NI	ZN	CG	S	FE	AU
221.0	1.5	FX016829	MVM	GABB	TO 193.0 TRACE OF PY CP AS TO 50.4 ALTD AMPB TO 810 1 & PU CP	0.41C	0.020	0.020	0.020	0.016	1.300	8.500	0.000
225.6	4.6	FX016830	MVM	GABB	AS TO 50.4 FC	0.02C	0.020	0.020	0.020	0.007	0.200	7.000	0.000
228.0	2.4	FX016831	MVM	GABB	AS TO 50.4 DISS MIN IN CG GABB 5.5 & PO 0.5 & CP MINCR PY	0.230	0.110	0.020	0.020	0.033	2.000	10.700	0.000
233.0	5.0	FX016832	MVM	GABB	AS TO 50.4	0.020	0.020	0.020	0.020	0.008	0.200	7.100	0.000
307.3	74.3				GABB AS TO 50.4 ALTD SHRD ZONE AT 268.7 35 TO 268.8 MINCR CP PY FC								
312.3	5.0	FX016833	MVM	GABB	AS TO 50.4 SLTY ALTD AND SHRD AT 322.7 TO 323.5 CTZ VEIN MINCR PY	0.02C	0.020	0.020	0.020	0.007	0.200	8.000	0.000
314.2	1.9	FX016834	MW	VLCL	AS TO 115.0 SLTY ALTD 11 & PO 1 & CP MINCR PY	0.45C	0.060	0.020	0.020	0.024	6.500	15.900	0.000
319.2	5.0	FX016835	MVM	GABB	AS TO 50.4 CTZ AND FELIC VEIN	0.02C	0.020	0.020	0.020	0.006	0.200	7.500	0.000
386.0	66.8				GABB TEXT VARYG FROM FG TO CG WITH ALTD ZONE AT 373.7 TO 374.8 ALTD AMPB TO BIG LIGHT TO DARK GREEN CTZ AND FELIC STRGS MINCR STRGS AND VEINS OF PO TRACE CP PY FOOT CF HCLE								

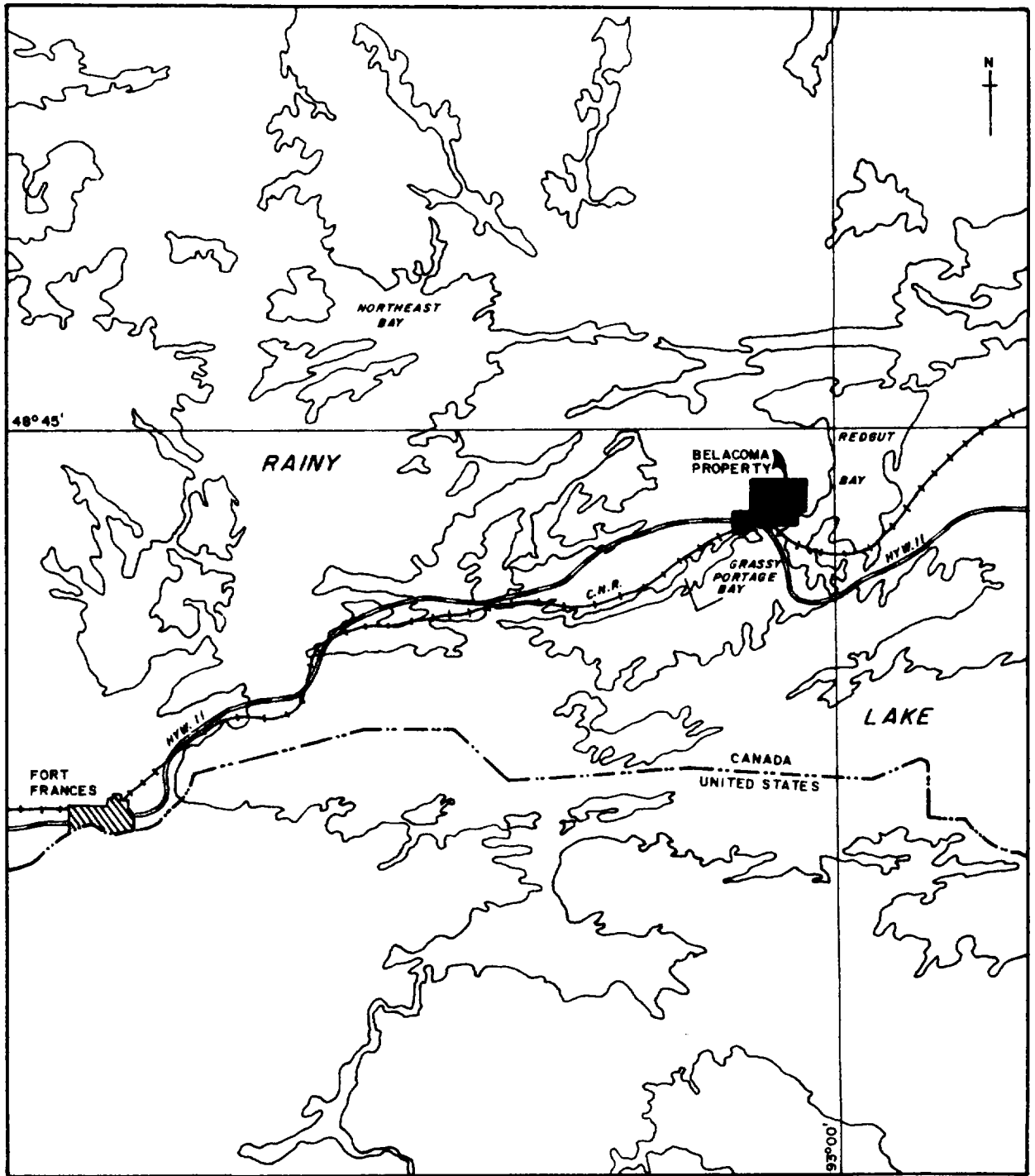
ASSAYS OF THE FOLLOWING ELEMENTS WERE REQUESTED FOR THIS HOLE.....CU, NI, ZN, CG, S, FE, AU

FOR THIS HOLE, ASSAYS OF THE FOLLOWING ELEMENTS HAVE BEEN RECEIVED..AU, CG, CU, FE, NI, S, SG, ZN

BOREHOLE SUMMARY  
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FOOTAGE MNZN ROCK

0.0		
7.5	CB	
50.4	GABB	
55.4	MVM	GABB
56.9	MW	GABB
61.9	MVM	GABB
67.8	GABB	
69.0	VLCL	
108.3	GABB	
113.3	MVM	GABB
115.0	MW	VLCL
120.0	MVM	GABB
219.5	GABB	
221.0	MW	GABB
225.6	MVM	GABB
228.0	MW	GABB
233.0	MVM	GABB
307.3	GABB	
312.3	MVM	GABB
314.2	MW	VLCL
319.2	MVM	GABB



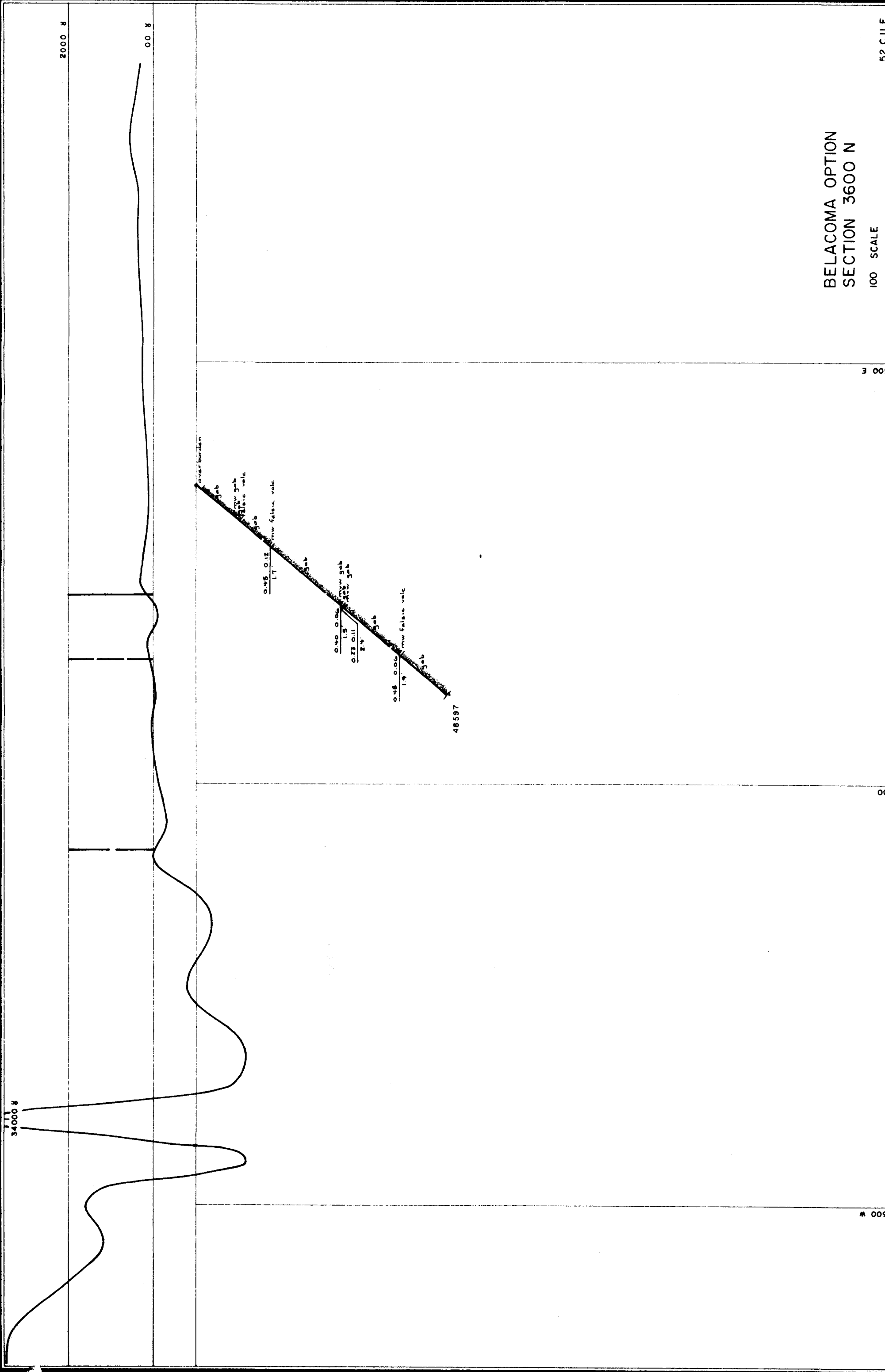
BELACOMA PROPERTY  
LOCATION MAP



SCALE: 1" = 4 MI.







2000 R

00 R

34000 R

BELACOMA OPTION  
SECTION 3600 N

100 SCALE

52 C I E

500 E

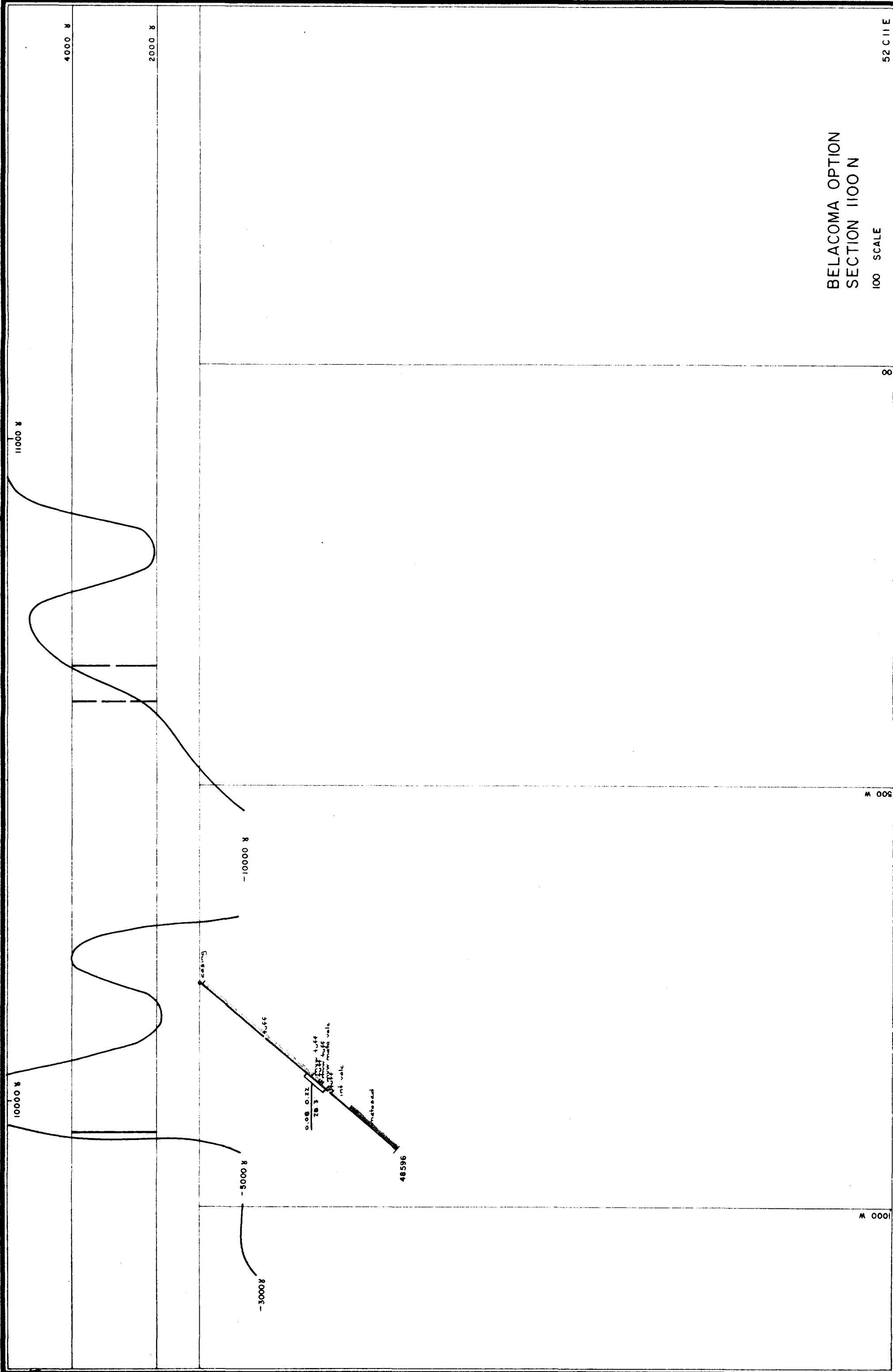
00

500 W

BELACOMA OPTION  
SECTION 1100 N

100 SCALE

52 C 11 E



This survey 2.1763 is covered by an adjacent instrument file



52C11NE0048 2.1763 HALKIRK & FARRINGTON

GEOPHYSICAL - GEOLOGIC TECHNICAL DATA

900

RECEIVED DEC 8 1975

PROJECTS UNIT

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 Geological, Magnetometer, Electromagnetic
Township or Area Halkirk
Claim holder(s) Belacoma Mines Limited
Survey Co. Canadian Nickel Co. Ltd.
Author of Report E. J. Debicki
Address 80 Selkirk Street, Sudbury, Ontario
Covering Dates of Survey September 1973 - October 1973
Total Miles of Line cut 13.1

Table with 2 columns: (prefix) and (number). Rows include claim numbers from 241990 to 364543, with a total of 21 claims.

Table for SPECIAL PROVISIONS CREDITS REQUESTED. Columns: DAYS per claim, Geophysical (Electromagnetic, Magnetometer, Radiometric, Other), Geological, Geochemical.

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

DATE: Oct. 15/75 SIGNATURE: E.J. Debicki
Author of Report or Agent

PROJECTS SECTION L.D
Res. Geol. Qualifications
Previous Surveys

Checked by date

GEOLOGICAL BRANCH

Approved by date

GEOLOGICAL BRANCH

Approved by date

OFFICE USE ONLY

If space insufficient, attach list

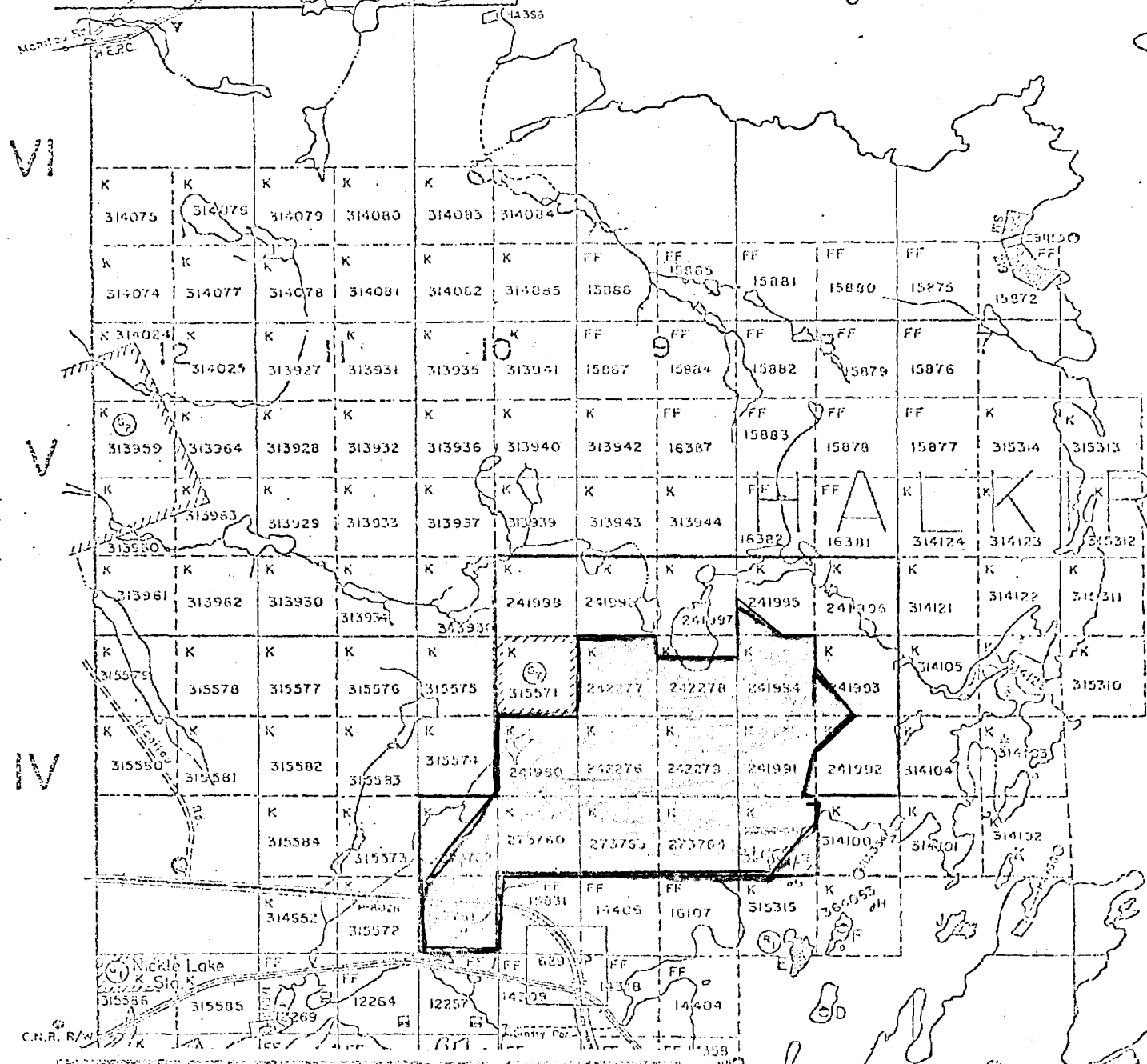
# OBIKOBA LAKE M.2126

Area covered by Mag Survey



Rainy

Reconnaissance Survey by H.A. Smith 1961 W.R.P. 5M 22ch x 3W



WATTEN TR. M.2128

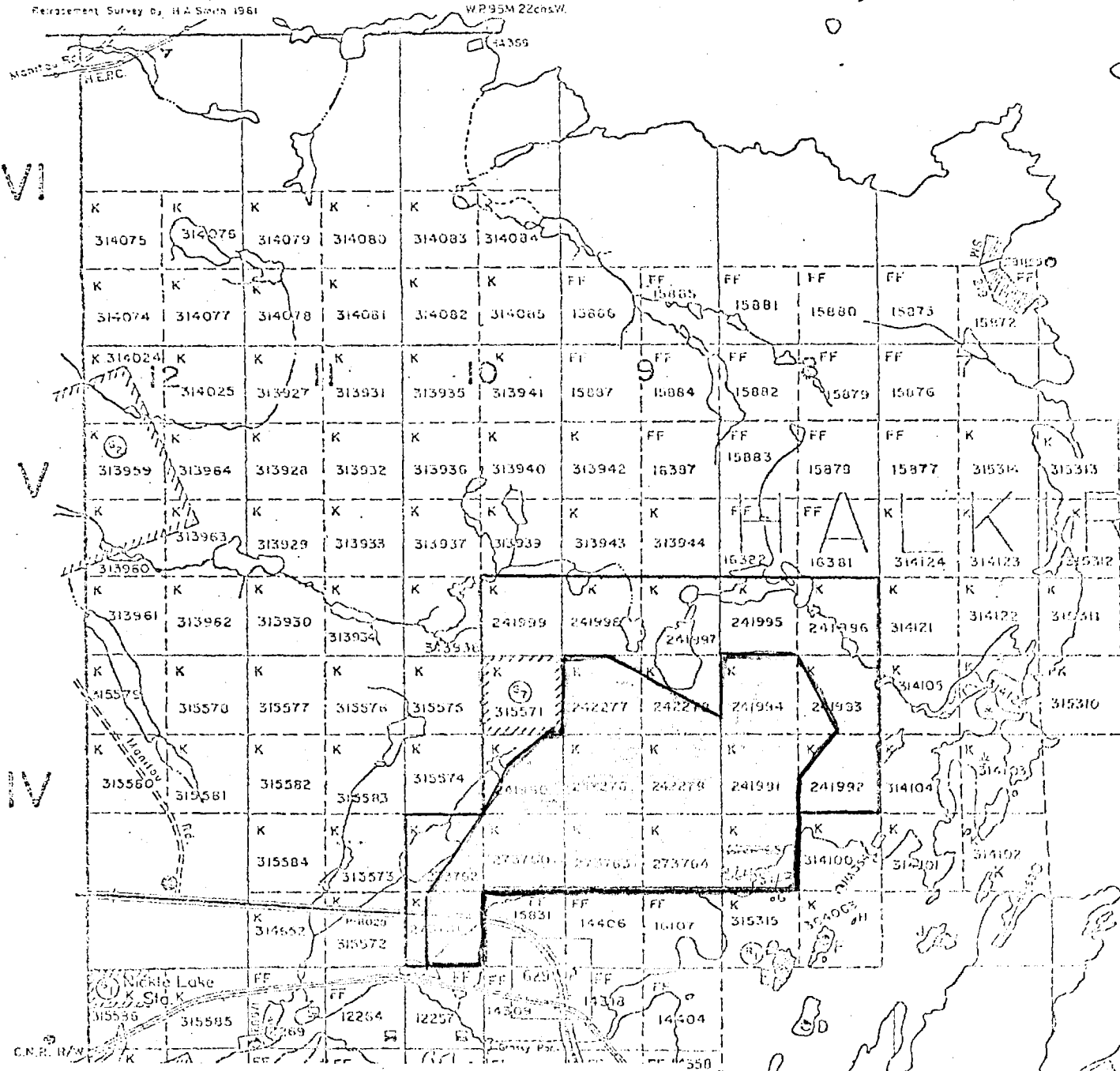
BELACOMA OPTION  
 HALKIRK TWP.  
 KENOJA MINING DIVISION  
 Scale: 1 inch = 1/2 mile

# OBIKOBA LAKE M.2126

Area covered by Geology Survey

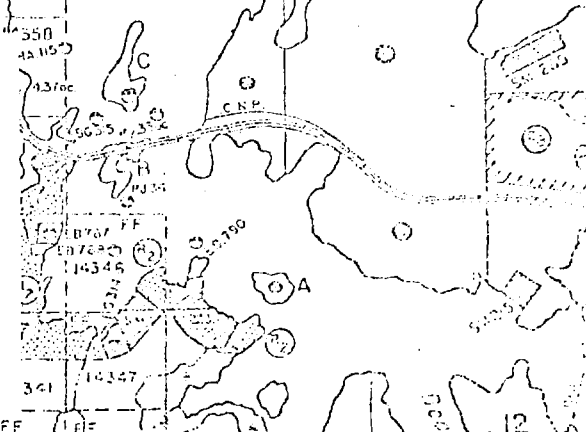


Rainy



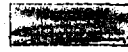
WATTEN TR M.2128

BELACOMA OPTION  
HALKIRK TWP.  
KENORA MINING DIVISION  
Scale: 1 inch = 1/2 mile

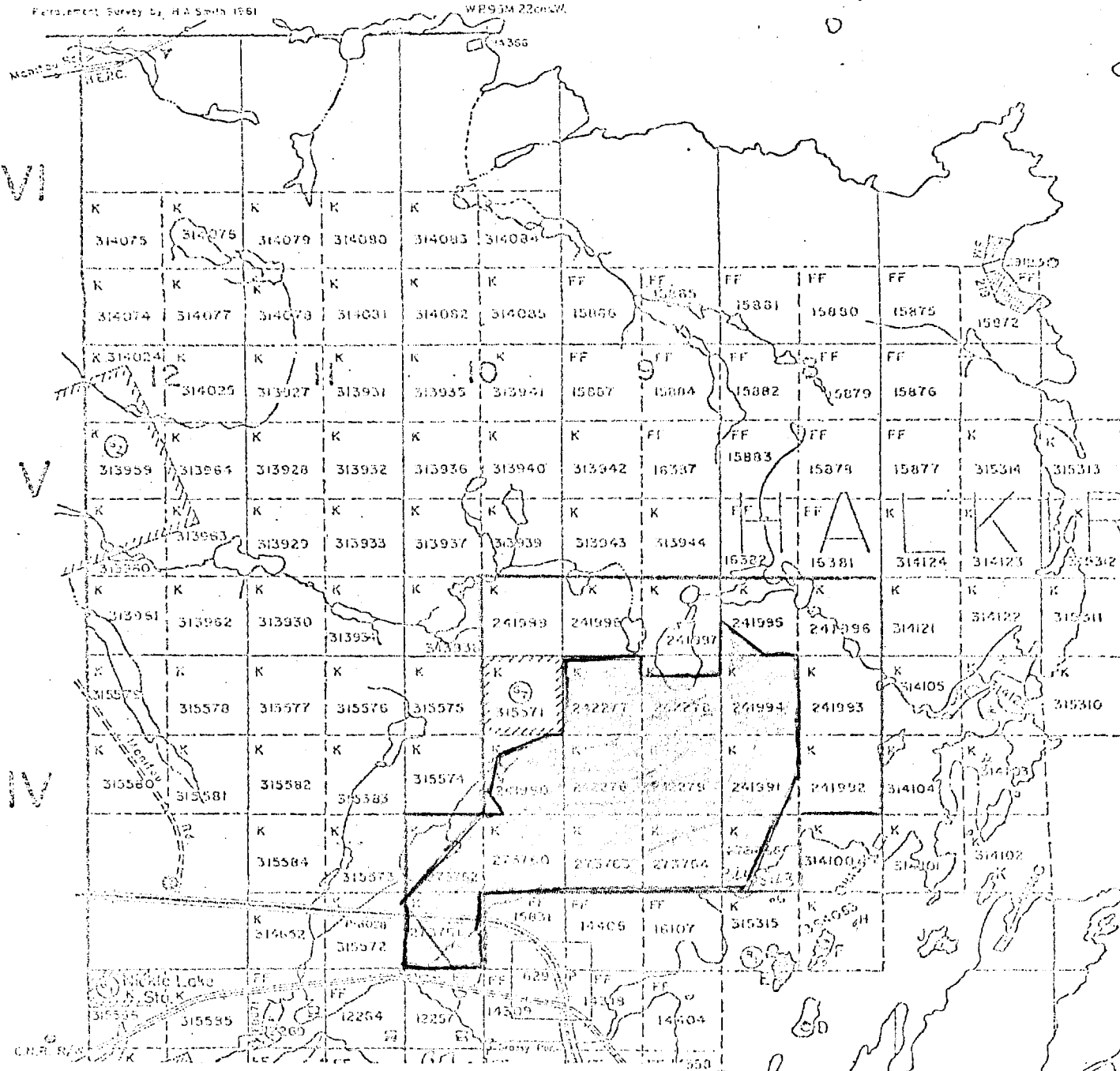


# OBIKOBA LAKE M.2126

Area covered by E.M. Survey



Rainy



WATTEN TR M.2126

BELACOMA OPTION  
 HALKIAK TWP.  
 KENORA MINING DIVISION  
 Scale: 1 inch = 1/2 mile

400' surface rights reservation along the shores of all lakes and rivers.

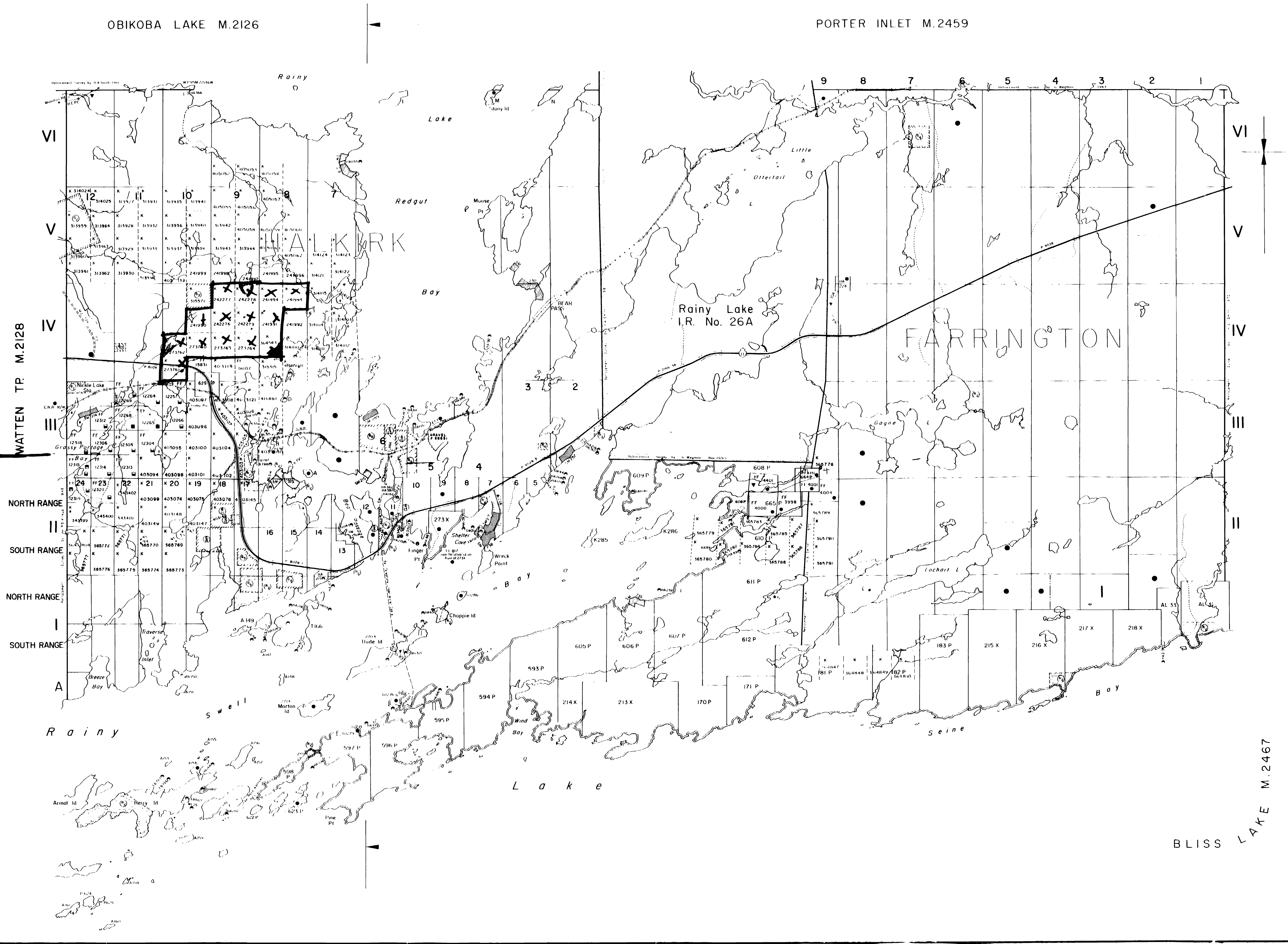
All Islands in Rainy Lake WITHDRAWN FROM STAKING under Sec.39 sub(c) of Mining Act R.S.O. 1950.

OTHER AREAS WITHDRAWN FROM STAKING

S.R. - SURFACE RIGHTS		M.R. MINING RIGHTS	
Section	Order No.	Date	Disposition
42	RSO 1960	JUNE 1960	S.R.
43	PUBLIC RESERVE	1967	S.R.
44	43RSO(1970)	6/27/75	M.R.M.R. 176403
45	43RSO(1970)	5/27/75	S.R. 18528

SAND and GRAVEL

M.T.C. PIT No.	File
901	1657
GRAVEL	File 159653
GRAVEL	File 145478
"	37867
"	37861
"	38532
"	18532
"	38530
"	38531
"	145642
M.T.C. PIT No. 993	File 37872
GRAVEL	File 38532
M.T.C. PIT No. 910	File 38526
GRAVEL	File 176403
"	37867
"	152701



**LEGEND**

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- RAILS
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

**DISPOSITION OF CROWN LANDS**

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	○
MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	◑
SURFACE RIGHTS ONLY	◒
MINING RIGHTS ONLY	◓
LICENSE OF OCCUPATION	◔
CROWN LAND SALE	CS
ORDER IN COUNCIL	OC
RESERVATION	(R)
CANCELLED	(C)
SAND & GRAVEL	(S)

SCALE: 1 INCH = 40 CHAINS

ACRES	HECTARES
40	16

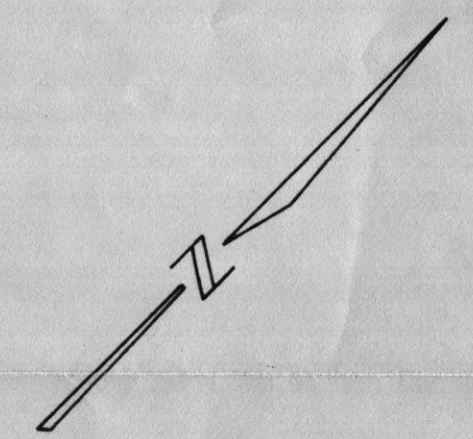
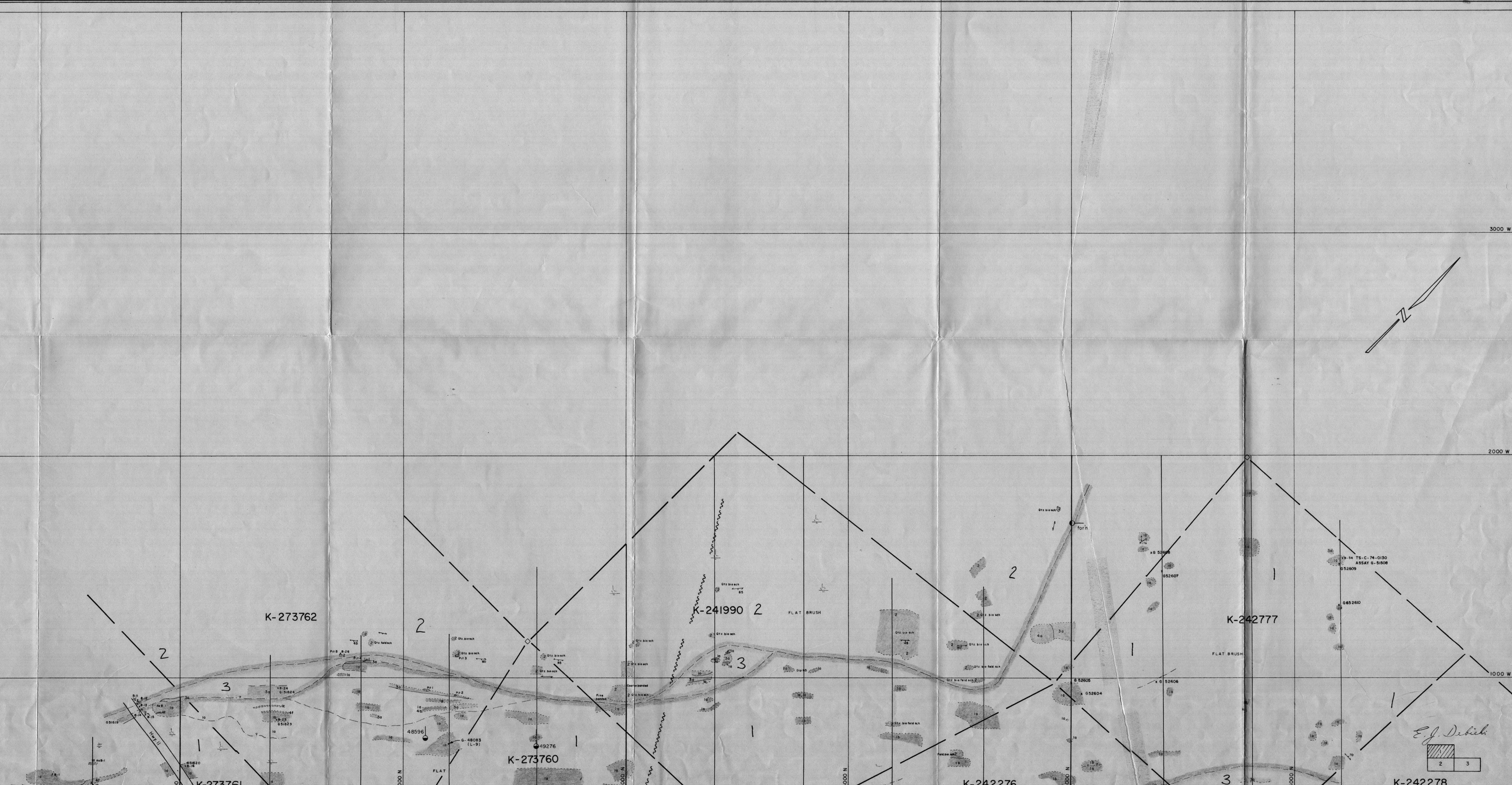
TOWNSHIPS  
**HALKIRK AND FARRINGTON**  
 DISTRICT  
 RAINY RIVER  
 MINING DIVISION (2.1763)  
 KENORA

Ministry of Natural Resources  
 Ontario Surveys and Mapping Branch  
 Date: APRIL 1975 Plan No.  
 Whitney Block  
 Queen's Park, Toronto  
**M.2081**





3000 S

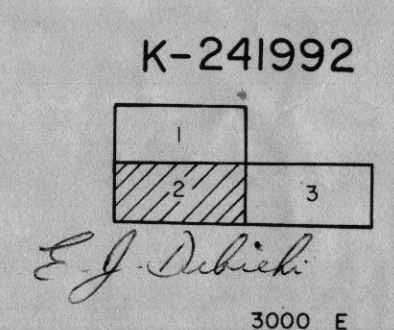


*E.J. DeBick*  
2 3

3000 W

2000 W

1000 W





**ASSAYS and/or THIN SECTIONS**

<b>Pit No. 1</b>	TS C-73-2379	Assay G-48079	Field No. L-5	ND Cu, ND Ni, Zn <0.2
	Assay G 48077	Field No. L-3	1.26 Cu, 0.59 Ni, Zn <0.2	
	Assay G 48078	Field No. L-4	0.63 Cu, 0.36 Ni, Zn <0.2	
	Assay G 48080	Field No. L-6	0.29 Cu, 1.23 Ni	
<b>Pit No. 2</b>	Assay G 48076	Field No. L-2	ND Cu, 0.15 Ni, Zn <0.2	
<b>Pit No. 3</b>	TS C-73-2380	Assay G 48084	Field No. L-10	ND Cu, ND Ni, Zn -
	Assay G 48081	Field No. L-7	ND Cu, 0.17 Ni, Zn -	
	Assay G 48082	Field No. L-8	ND Cu, ND Ni, Zn -	
<b>Pit No. 5</b>	TS C-73-2378	Assay G 48075	Field No. L-1	ND Cu, ND Ni, Zn <0.2
<b>Belacoma B.H. 1</b>	TS C-73-2381	Assay G 48087	Field No. L-13	at 140.0'
	TS C-73-2382	Field No. L-14	at 216.3'	
	TS C-73-2383	Assay G 48088	Field No. L-15	at 249.5' ND Cu, ND Ni, Zn <0.2
	Assay G 48086	Field No. L-12	at 100.6'	0.06 Cu, 0.07 Ni, Zn <0.2

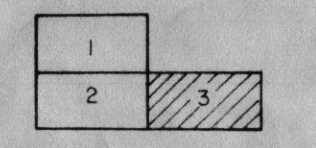
**LEGEND**

- 1 Volcanic (Intermediate - Mafic - Pyroclastic)
- 1a Tuff (Green-Black, Magnetic, Basaltic Composition)
- 1b Lappilli Tuff
- 1c Tuff (Non-Magnetic)
- 2 Metasediments
- 3 Volcanic (Intermediate-Mafic)
- 3a Hornblende Feldspar (Schist-Massive)
- 3b Andesite (Gabbro Sections)
- 4 Gabbro
- 4a Hornblende Gabbro (Granitic texture - Hypidiomorphic granular)
- 4b Highly Altered Hornblende Gabbro (Hornblende - Feldspar Concentrations)
- 4c Feldspar Lathy - Hornblende Altered Gabbro (Lineated Feldspar)
- 4d Anorthositic Gabbro
- 4e Mafic Gabbro (Garnetiferous Gabbro)
- 4f Dykes
- 5 Granite
- 6 Aplite Dykes
- Area of Outcrop
- Geological Contact Known
- Geological Contact Interpreted
- Drill Holes
- Pits
- Roads
- Schistosity - Dip
- Known Claim Posts

**GEOLOGICAL SURVEY  
BELACOMA PROPERTY**

Scale: 1" = 200'

*E.J. Dulich*  
Compiled by J.J. Hannila



3000 W

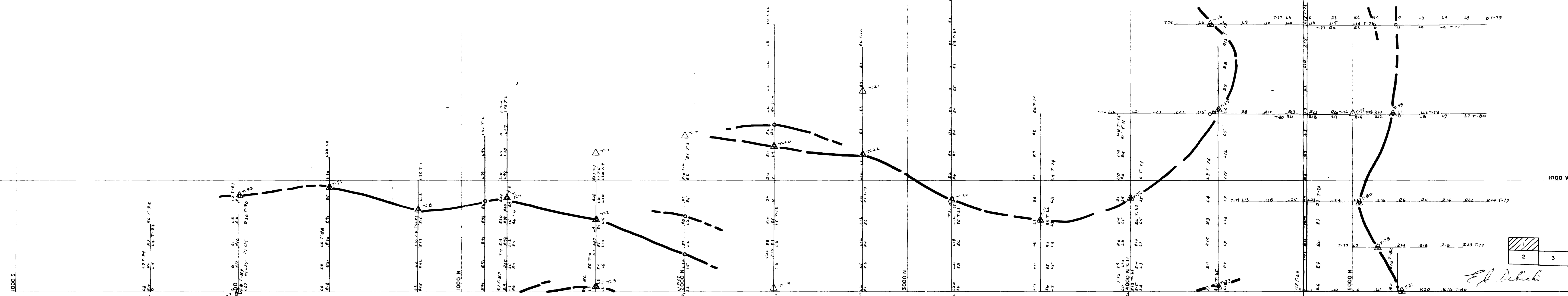
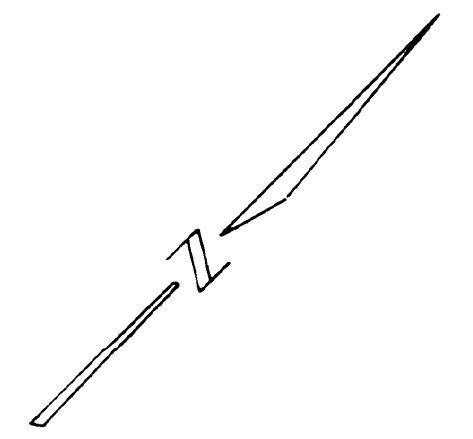
2000 W

1000 W

5000 N

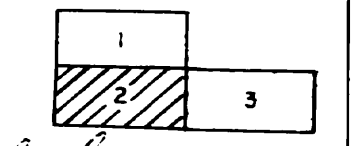
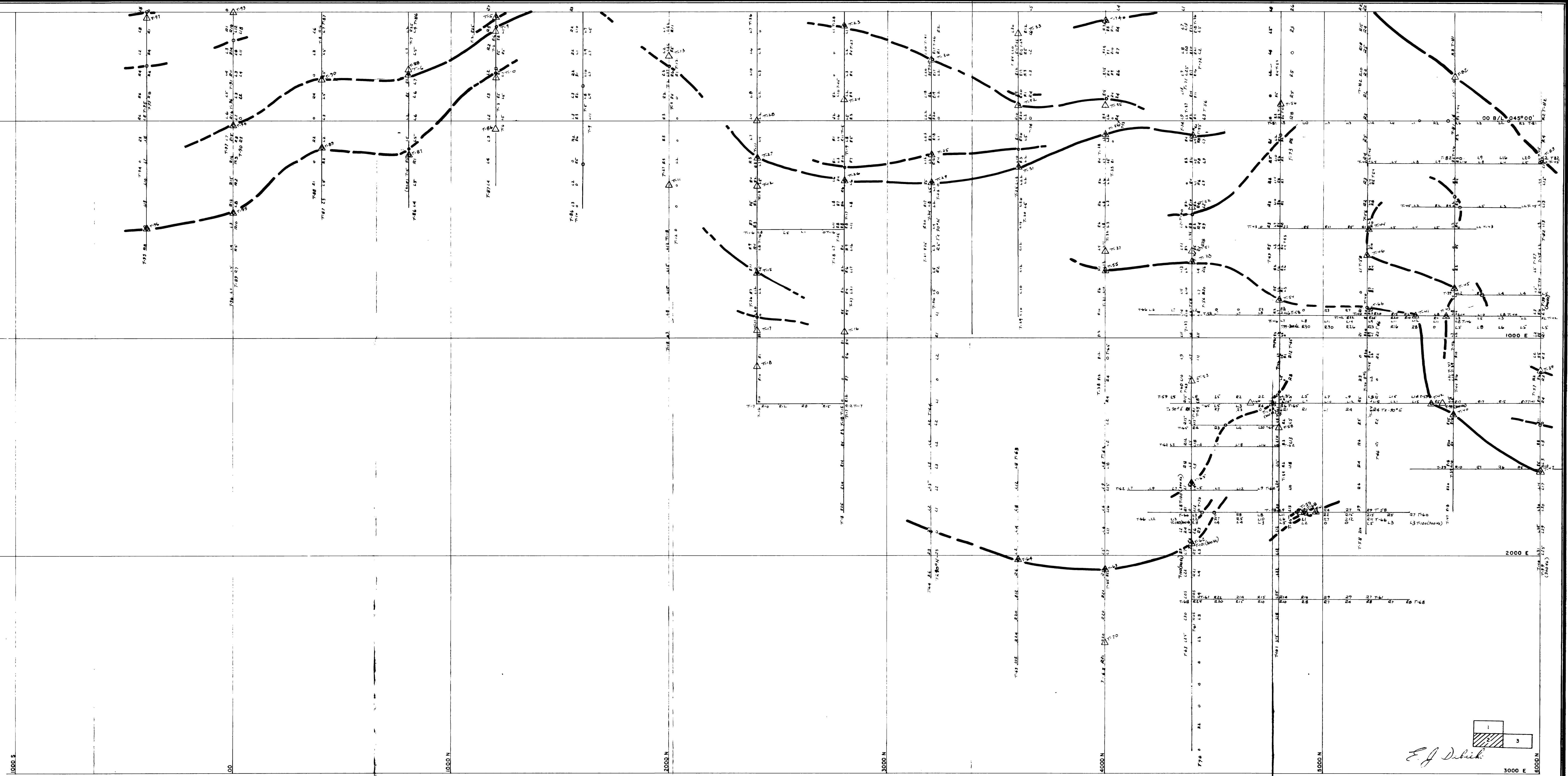
ELECTROMAGNETIC SURVEY  
 BELACOMA PROPERTY  
 SCALE 1"=200'

LEGEND  
 Dip angle readings in degrees - R24 LB  
 E.M. transmitter location and number - Δ T-4  
 Conductor axis - ————  
 Frequency - 1000 Hz  
 Instrument - inco Vertical Loop



*E. H. Deibel*





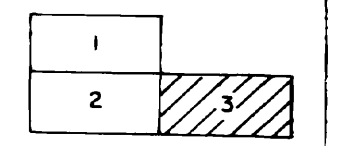
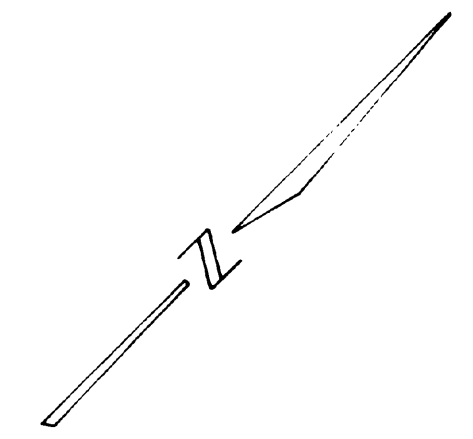
*E. J. DeBick*

00 B/L 045° 00'

1000 E

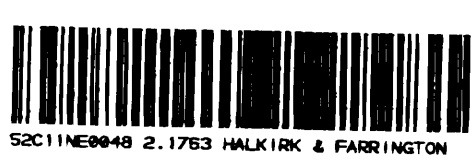
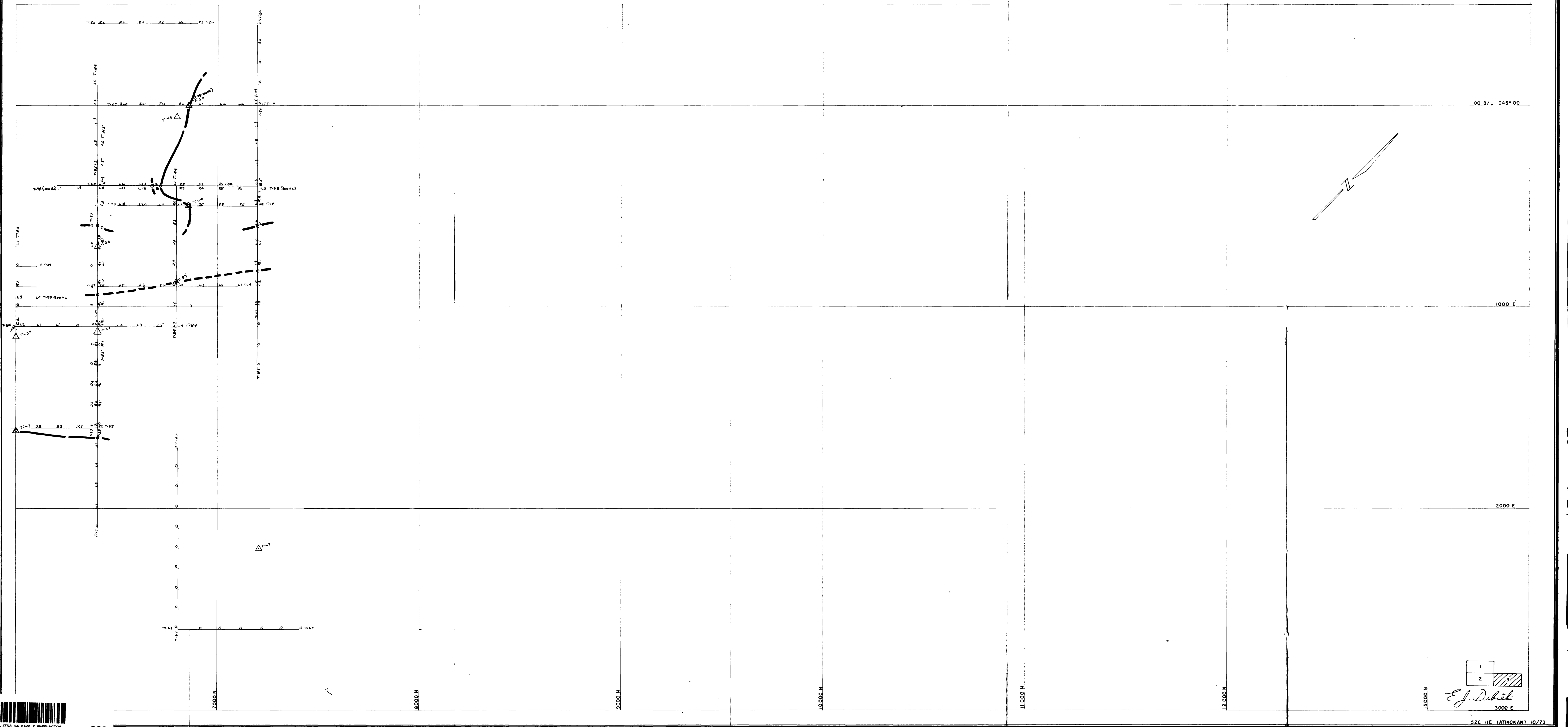
2000 E

3000 E

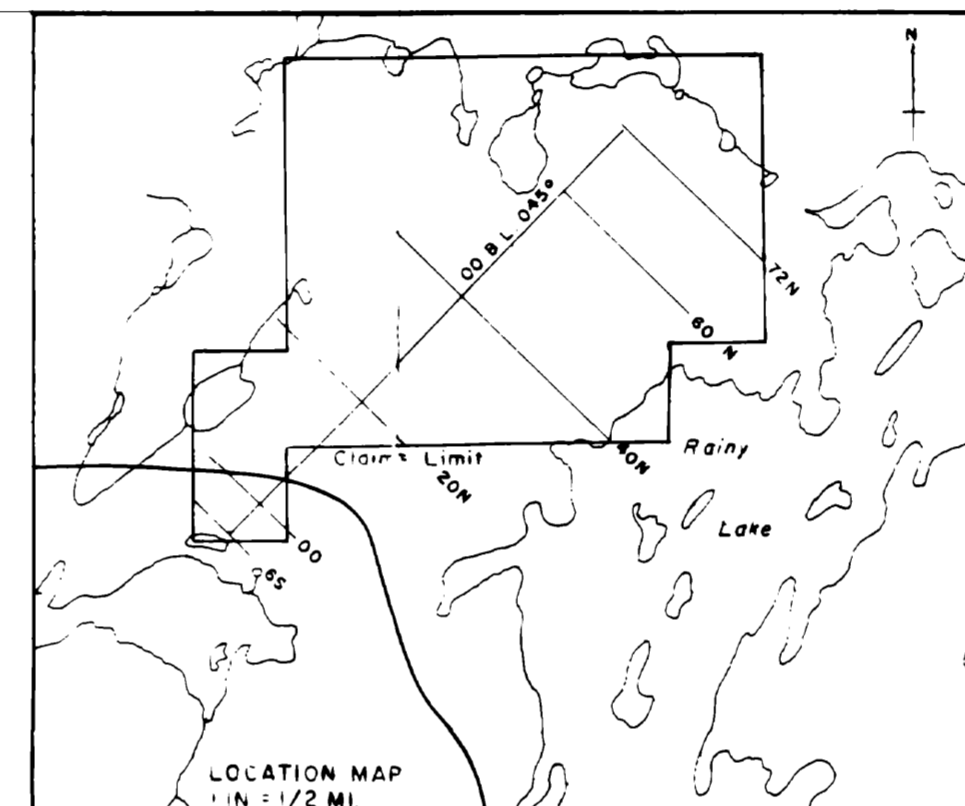


*E. J. Doherty*  
3000 E

52C 11E (ATIKOKAN) 10/73

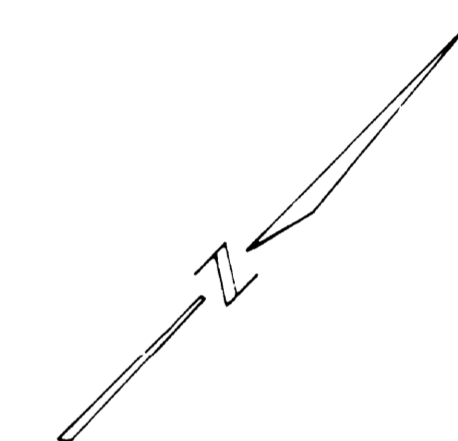


3000 W



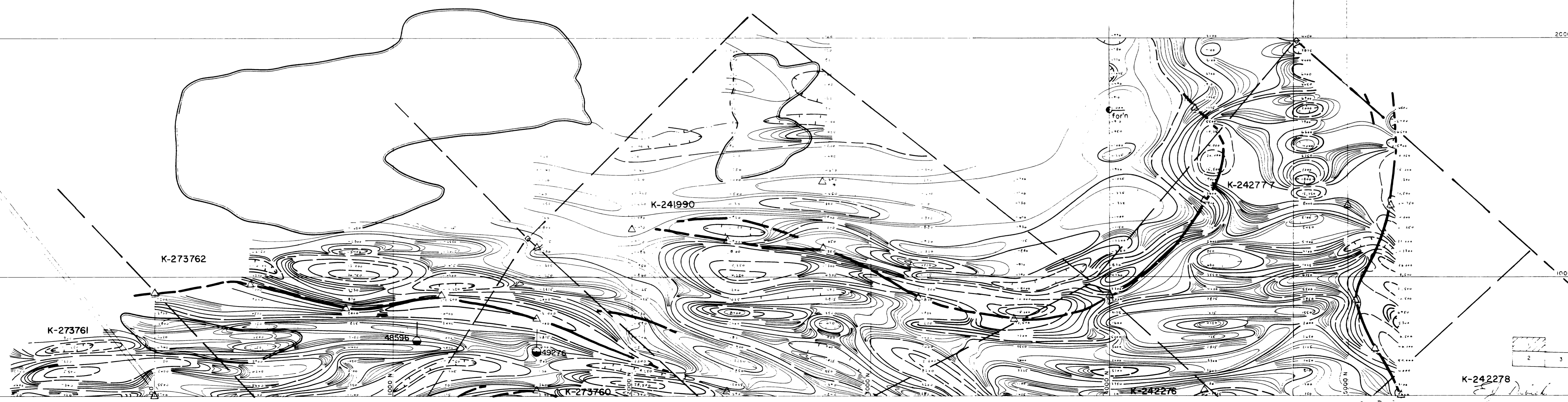
**MAGNETIC SURVEY  
BELACOMA PROPERTY  
SCALE 1" = 200'**

**LEGEND**  
 Magnetic station in gammas - .2850  
 Contour interval - 200 gammas  
 0 and 5000 gamma line -   
 1000 gamma line -   
 200 gamma line -   
 Relative low -   
 Instrument - MF-1 Fluxgate  
 Conductor axis -



2000 W

1000 W

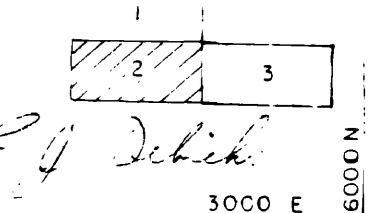


270

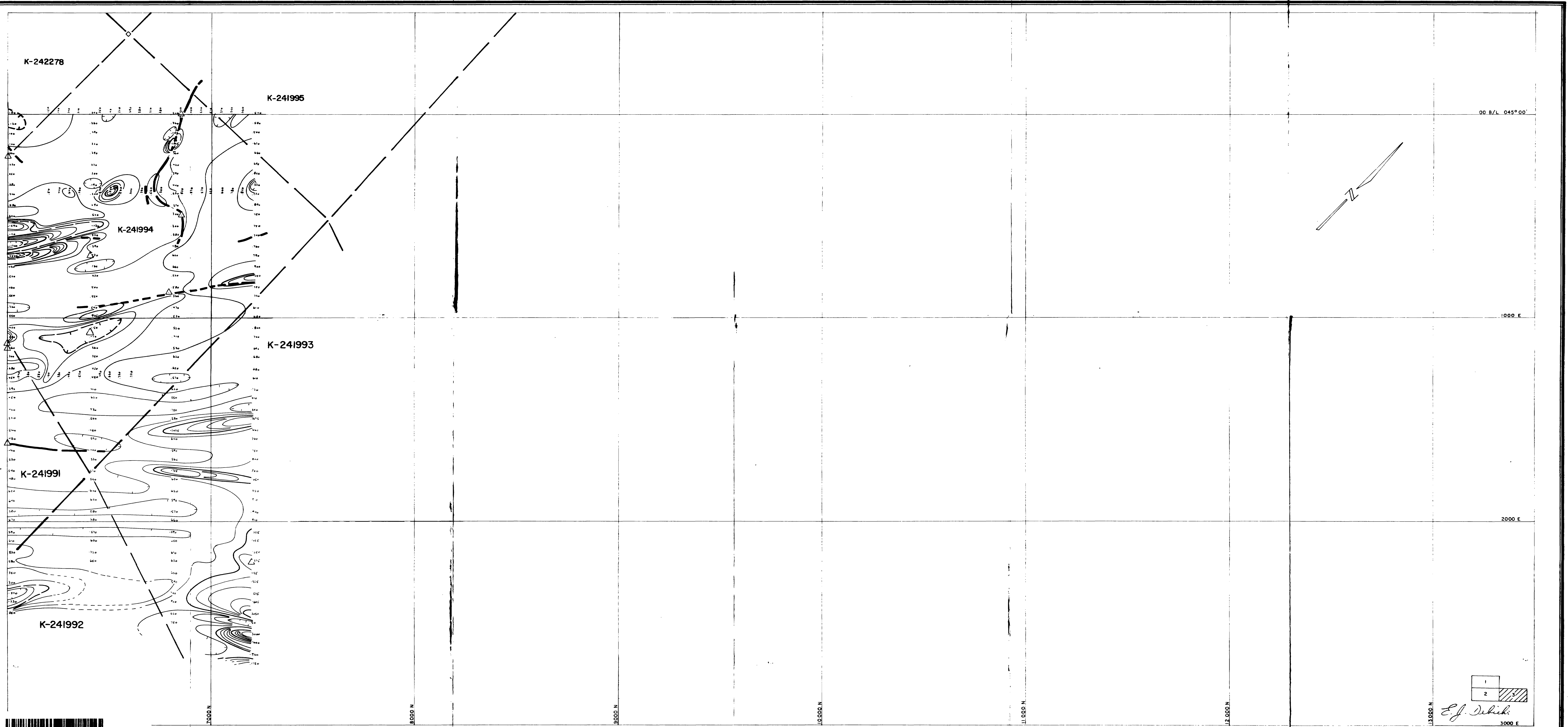
K-242278

2 3

S2C 1'E (ATIKOKAN) 10/73







2.1763

1  
 2  
 3  
*E.J. Delick*  
 3000 E