



52J02SE8671 2.6473 SQUAW LAKE

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Report
On
A VLF-EM Surv.

Kuryliw, Sturgeon Lake
Rainbow Island, Iron Duke and 590678 Claim Groups
District of Patricia, Ontario

2.6473

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MAR 5 1984

MINING LANDS SECTION

February 28, 1984

Chester J. Kuryliw, M.Sc., P.Eng.
Consulting Geologist



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Table of Contents

Title Page

Property, Location and Access

Introduction

General Geology

Table of Formations

Structural Geology

Local Geology

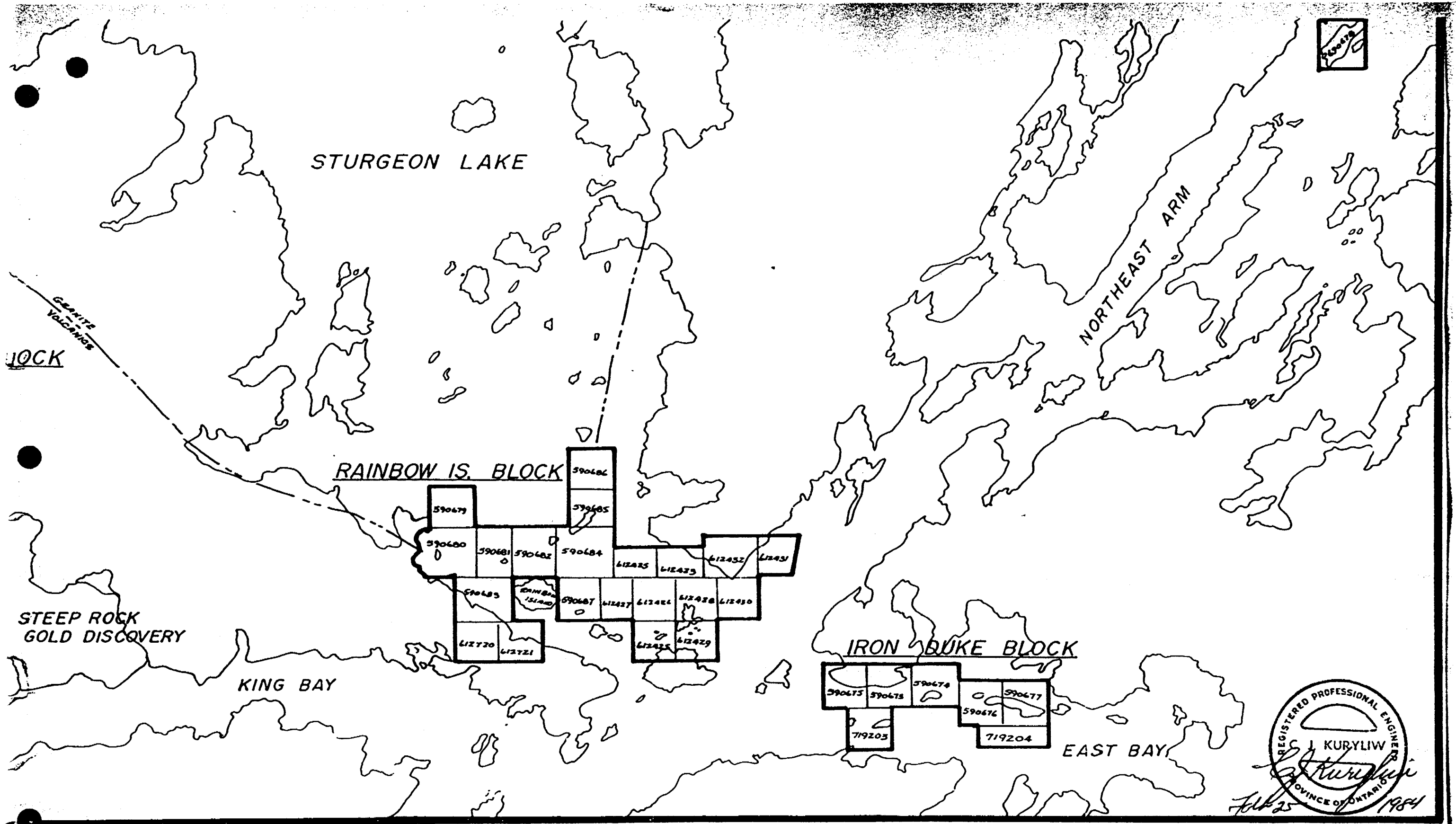
Instrument, Unit and Method

Results of Electromagnetic Survey

Conclusions

Recommendations

Certificate



KEY MAP

1" = 1/2 mile

SCALE: 1" = 1/2 Mile



Property, Location and Access

The Kuryliw East Claim Blocks on Sturgeon Lake consists of three separate groups. The claim groups are included in the claim plan of Squaw Lake, Plan number M-1904, Patricia district of Northwestern, Ontario.

(1) The "Rainbow Island" 21 Claim Group

Pa. 590679 - 590687 inclusive (9 claims)

Pa. 612420 - 612421 (2 claims)

Pa. 612423 - 612432 inclusive (10 claims)

(2) "Iron Duke" 7 Claim Group

Pa. 590673 - 590677 inclusive (5 claims)

719203 - 719204 (2 claims)

(3) A single claim, Northeast arm of Sturgeon Lake

Pa. 590678

Location and Access

The claim groups of the property are located about 70 miles north of Ignace. The town of Ignace is 150 miles west of Thunder Bay along the Trans Canada Highway. The property is accessible from Ignace by following highway 599 northwards from the Trans Canada Highway to the Six Mile Lake gravelled logging road. A truck road branches eastwards to King Bay (the last two miles is essentially a tractor road). In winter the claim groups are accessible by tractor or snowmachine over the ice of King Bay and Sturgeon Lake, in summer the claim groups can be reached by boat.

The "Rainbow Island" claim group is located on Sturgeon Lake and adjoining mainland just north of the junction of King Bay, East Bay and the northeast arm of Sturgeon Lake.

The "Iron Duke" claim group occurs in East Bay near its junction with the northeast arm of Sturgeon Lake about $\frac{1}{2}$ mile southeast of the Rainbow Island group.

The single claim 590678 occurs over an island in the northeast arm of Sturgeon Lake about 5 miles to the Northeast of the Rainbow Island group.

Introduction

These claim groups were staked in late December 1982 and early January 1983. The ground staked appeared to have geologic potential for the discovery of gold deposits. The "Rainbow Island" group surrounds the Rainbow Island gold deposit located on a single claim and it is surrounded by previously discovered gold occurrences within a few hundred feet of the boundaries of this claim group, these are the "Rickaby" to the northeast, the "Oz" Island to the south and the "Horn" to the northwest. The Rainbow Island claim group also lies on the easterly projected extension of the Steep Rock gold discovery at King Bay. Details of the Steep Rock discovery was published in the January 13, 1983 issue of the Northern Miner Press.

This writer carried out the geologic field mapping of all shorelines included in the claim groups and some shorelines and islands adjacent to the claim group. Some of the claim lines on the land portion of the group were also mapped. The geologic data was plotted on plans, scale 1" = 200 feet. Topographic plans were used to prepare the base map with controlled points.

This mapping was carried out during July and August of 1983. Much of the shorelines of the islands and mainlands were almost continuous shoreline outcroppings of the rocks of the area. The shoreline mapping provided sufficient information and data to outline and interpret the geology of the local areas.

During early January 1984 line grids were cut over the land areas and extended over lake ice covering all claim groups. These line grids were then covered by a magnetic survey and an electromagnetic VLF, EM-16 survey. The compiled data of these geophysical surveys was not available at the time of the writing of this report.

General Geology

The general geology of the Sturgeon lake area consists of a belt of Precambrian Volcanic and sedimentary rocks of Archean age that encircle the Lewis Lake and Lake of the Bays granite batholiths. In the area of the North and North-East arms of Sturgeon Lake the volcanic belt wraps around the southern and eastern edges of the Lewis Lake batholith. Embayments of the granite into the volcanics along the eastern edge of the batholith coincides with several gold occurrences of economic significance.

The volcanic belt has been resolved into two main sequences, the more southerly volcanic sequence that surrounds the lower area of Sturgeon Lake exhibits an abundance of sulphide occurrences. The area adjacent to and south of the lake hosts the 4,000 ton per day Mattabi Mine which produces Cu - Zn - Pb - Ag ore. The northerly sequence of volcanics up against the Lewis Lake batholith contains numerous gold occurrences which includes the St. Anthony mine, a past gold producer and the newly discovered Steep Rock gold deposit.

The geology to the northwest of King Bay up to the Lewis Lake batholith consists of a sequence of rock formations of volcanic origin. This sequence of formations was mapped by this writer over a length of 5 miles and a depth of 3 miles with some periferal reconnaissance geology. The "Kuryliw" sequence of rock formations going south from the Lewis Lake batholith is as follows,

- (1) Basaltic Pillow Lava formation (1,500 feet thick)
- (2) Andesitic Pillow lava formation (500 feet thick)
- (3) Felsic Volcanogenic Sediments formation (1,500 - 2,000 ft thick)
- (4) Andesite-Basalt Pillow Lava formation (15,000 feet thick)

(5) Intrusives

The "Kuryliw" sequence of volcanic formations was extensively intruded by basic rocks, largely gabbro and some amphibolite. 10 to 25% of the area of the "Kuryliw" volcanic sequence is occupied by gabbroic intrusions. The majority of the intrusions are concentrated along and near the volcanogenic sediments. About 4 miles west of King Bay the "Kuryliw" sequence of formations has been intruded by granodiorite that occurs as a complex of dykes and dykelets that form a broad stockwork. These granodiorite dykes cut across all gabbros in the volcanics. Some narrow irregular intrusions of sericitic quartz porphyry dykes were located in the mapping.

(6) The Lewis Lake "Granite" Batholith

The mineral composition of the batholith near its southern and eastern edges consists mainly of coarse white plagioclase feldspar which is in part porphyritic. It also contains 5 - 10% quartz and up to 7% ferromagnesian. The batholith extends as a nose to the southeast into Sturgeon Lake just north of the junction of East Bay and King Bay. There is a gradual phase change in the composition of the batholith rock in the nose to the southeast. It becomes depleted in Quartz and ferromagnesian so that they become white syenitic rock composed almost completely of feldspar.

There is a progressive zoning of the nose of the batholith southeastwards. The zoning is arbitrarily delineated in the mapping as follows,

(A) Syenite

(B) Syenite with 10 - 30% inclusions of volcanics and gabbro.

(C) Volcanics with gabbro intruded by numerous dykes of syenite.

The known gold occurrences at the batholith nose intrusion consists of a gold bearing blue-grey quartz vein located at the contact of Syenite and a long inclusion of narrow lavas on Rainbow Island. On Rickaby point the gold bearing blue-grey quartz similarly occurs at the contact of a syenitic dyke and massive lava.

(7) Quartz - Porphyry Felsic Rock

South of King Bay on the Kerr Addison this rock trends eastwards towards East Bay and westwards across the Six Mile Road.

TABLE OF FORMATIONS

PRECAMBRIAN

0.2

QUARTZ VEINS

ACID INTRUSIVES

7

QUARTZ-FELDSPAR PORPHYRY DYKES

6A

GRANITE, LEWIS LAKE BATHOLITH.

6B

SYENITIC GRANITE DYKES (WHITE FELDSPAR PORPHYRY)

5

GRANODIORITE, INTRUSIVE

5B

GRANODIORITE, DYKES AND INFILLING OF BLOCK BRECCIA

BASIC INTRUSIVES

4G

GABBRO

4GP

GABBRO (PORPHYRITIC ANORTHOSITE)

4A

AMPHIBOLITE

VOLCANICS - 'KURYLIW SEQUENCE' (SOUTH FROM LEWIS L. BATHOLITH)

3B

BASALTIC LAVA, PILLOWED, AMPHIBOLIZED. (1500')

3P

ANDESITIC PILLOW LAVA, FELDSPAR PORPHYROBLASTS (500')

3

FELSIC VOLCANOGENIC SEDIMENT GROUP, FELD SPATHIC (1500-2000')

3-A

AGGLOMERATE

3-L

LAPILLI-AGGLOMERATES AND TUFFS

3-T

TUFFS

3-A

ANDESITE-BASALT LAVAS, PILLOWED (15 000')

3-M

" " " , MASSIVE

STURGEON LAKE-EAST BAY

2

SEDIMENTS: ARGILLITE 2-A, CHERT 2-C, MUDSTONE 2-M, IRON FORMATION IF,

1

DACITIC AGGLOMERATES & LAPILLI-TUFFS

Structural Geology

The "Kuryliw" sequence of volcanic formations occurs wrapped around the south and east side of the Lewis Lake batholith. The southern outline of the batholith curves southeastwards above King Bay. This causes folds and crenulations in the formations of the "Kuryliw" sequence for a length of three miles and it includes the west end of King Bay and the Steep Rock gold discovery.

A strong east-west fault that dips 57° southwards at the north side of East Bay is shifted southwards to follow King Bay by the wedging action of the southeasterly nose intrusion of syenite from the Lewis Lake batholith. The westward extension of the east-west fault follows the north side of King Bay and extends at least seven miles westwards beyond King Bay. About four miles west of King Bay the "Kuryliw" sequence of formations is cut by a series of north-south faults that progressively displace the rock formations $\frac{1}{2}$ mile northwards over a one mile length. These north-south faults traced southwards are found to swing southwestwards as branches of the East Bay - King Bay fault.

There is a recognizable progression in the results of the tectonic dynamics of the area. The highest temperature and fluidity of the periphery of the Lewis lake batholith occurs at its south-east nose where the formations of the "Kuryliw" sequence are truncated, also block stoping of the volcanics occurs and numerous dykes finger south-eastwards from the nose intrusion. To the north and northwest of King Bay the formations of the "Kuryliw" sequence accommodated the batholith intrusion by folding and crenulating when subjected to the stresses. About 4 miles to the west of King Bay the rocks of the "Kuryliw" formation were faulted and sheared when subjected to the stresses of the

At the southeast nose of the batholith the formations of the "Kuryliw" sequence are truncated and only the largest southerly formation now occurs to the east and north of the nose. Mapping of the pillow lava trends indicate that the trend of the formation generally follows the outline of the batholith rim.

Local Geology

The Rainbow Island Claim Group

This claim group covers the syenitic nose intrusion of the Lewis Lake batholith and its progressive zoning southeastwards that has been arbitrarily delineated by the mapping as follows,

- (A) Syenite
- (B) Syenite with 10 - 30% inclusions of volcanics and gabbro.
- (C) Volcanics with gabbro which is intruded by numerous dykes of syenite.

The contacts of the competent syenite sykes with the older less competent altered lavas and gabbros become the sites of shearing and fracturing during later adjustments to tectonic stresses. Gold mineralization was introduced to these sites of fracturing and shearing at the contact as exemplified by the "Rainbow Island", "Rickaby Point" and "Oz Island" gold vein occurrences.

The Iron Duke Claim Group

The Iron Duke Claim group is located over the strong east-west fault in East Bay. This fault predates the intrusion of the southeast nose of the Lewis Lake batholith. This east-west fault is readily recognizable in the old Iron Duke adit. It is marked by a fault-breccia zone at its hanging wall to the south and a 20 foot thick milky white quartz vein on its footwall. The white quartz vein contains 10 - 20% massive pyrite. South of the fault the cherty felsic sediments strike east-west and dip about 80° southwards. North of the fault (which has a 57° dip to the south) the sediments form a bow-fold. To the west of the adit the sediments north of the fault trend northeasterly and

to the east of the adit they trend southeasterly. In both cases the northerly sediment trends are cut by the fault.

The large white quartz vein that follows the East Bay fault appears to predate the gold bearing dark blue-grey quartz. The white quartz vein could provide an excellent host rock where it is intruded by syenitic dykes and such favourable sites should be tested.

Claim 590678

This claim in the north-east arm of Sturgeon Lake occurs about six miles north-east of Rainbow Island. The rocks in the area of the island are coarse dacitic agglomerates that trend north-east and dip 55° southeastwards.

The rocks underlying the claim are agglomerate and granular lapilli-tuff which have been intensely carbonatized with some green fucshite. Flat lying quartz filled tension fractures cut across the carbonatized rock. A gabbro intrusion occurs to the southeast and probably a deep seated ultrabasic intrusive is the source of the carbonatization. O.G.S. compilation map 2442 noted gold mineralization from quartz on this claim.

Instrument, Unit and Method

EM-16 Specifications

Measured Quantity:

In-phase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field.

Sensitivity:

In-phase: $\pm 150\%$

Quad-phase: $\pm 40\%$

Output:

Nulling by audio tone with a possible resolution of $\pm 1\%$. In-phase indication is read from a mechanical inclinometer. The quad-phase is measured from a graduated dial.

Operating Frequency:

17.8 kHz VLF radio band Cutler, Maine, N.A.A.

Instrument Method:

The VLF transmitting station creates a concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground there will be secondary fields radiating from these bodies. This equipment measures the vertical components of these secondary fields.

The EM-16 is a sensitive receiver that measures the vertical field components. The receiver has two inputs, with two receiving coils built into the instrument. One coil has a vertical axis the other coil is horizontal.

The direction of the survey lines were oriented to cross the geologic formation and the lines are at right angles to the direction of the VLF station. Readings of both the In-phase and Quad-phase components were read at 100 foot stations along the lines with some 50 foot station intervals read at strongly anomalous locations. All readings were taken facing west.

The readings were plotted on the plans at the station locations and curves were drawn for the In-phase and Quad-phase components along the lines. Interpreted conductors were also indicated on the plans.

Results of the Electromagnetic Survey

Rainbow Island Group

Several weak VLF-EM conductors were located. The significance of some of these is enhanced by the possibility that some may represent the extensions of known gold deposits. The known gold occurrences that surround this claim group provides encouragement and enhances the possibilities of discovery gold deposits in this claim group. It is this writers opinion that a drilling program to test a number of these weak conductors is warranted.

Conductor "A" and "B"

This is a weak conductor, 800 feet long, in syenitic granite that carries inclusions of Andesite and Gabbro. It may be generally on the westerly trend of the Rainbow Island vein structure. Conductor "B" is 2,000 feet long.

Conductor "C"

This is a weak conductor, 800 feet long, in syenitic granite that contains inclusions of syenitic lava.

Conductor "D"

This is a weak conductor about 800 feet long in syenitic granite that has inclusions of syenitic lava.

Conductor "E"

This is a weak one-line conductor that may represent the extension of the Rainbow Island gold bearing structure westwards.

Conductor "F"

This weak conductor occurs parallel to and about 500 feet north of the Rainbow Island vein structure and may represent a parallel inclusion of lavas that maybe gold bearing.

Conductor "G"

This is a medium strength conductor about 1,000 feet long and it runs east-west parallel to the Rainbow Island vein. It is located about 1,500 feet south of the vein near the syenite volcanic contact.

Conductor "H" and "I"

These conductors occur in Andesite-Basalt pillow lavas on the land area in the south-west corner of the claim group. These are medium strength conductors.

Conductor "J"

This is a weak conductor, 800 feet long in syenitic granite near volcanics which may be the easterly extension of the Oz Island gold vein.

Conductor "K" and "L"

These are weak conductors that occur in syenitic granite near their northerly contact with Andesitic volcanics.

Conductor "M"

This is a weak conductor that trends north-easterly along the volcanics.

Conductor "N", "O", "P", "Q" AND "R"

These weak conductors occur in the more massive syenitic granite at the northern edges of the claim group.

Iron Duke Group

Conductors "A", "B" and "C"

This is a very strong conductor that is in part formational and it also occurs at a strong east-west regional fault. There is a correlation of a strong magnetic high along the conductor. The occurrence of 20 - 25 foot thick pyritic quartz vein along the east-west fault at the Iron Duke adit makes this conductor of interest because an ODM map indicated low gold values in that vein. It should be tested by at least one longer drill hole that crosses the conductive formations.

Conclusions

Rainbow Island Claim Group

The magnetic survey provides very little assistance in evaluating the VLF-EM conductors located. This is due to the fact that the syenitic granite, pillow lavas, and gabbros of the local area all have similar low levels of magnetic relief.

Several weak VLF-EM conductors were located. The significance of some of these is enhanced by the possibility that some may represent the extensions of currently known gold deposits. The known gold occurrences that surround this claim group provides encouragement and enhances the possibilities of success in discovering gold deposits in this claim group. It is this writer's opinion that a drilling program to test a number of these weak conductors is warranted.

Iron Duke Claim Group

The very strong VLF conductor that is also highly magnetic which runs along the north portion of the claim group is closely parallel to a strong regional fault and a 20 - 25 foot thick pyritic quartz vein that occurs along that fault. It should be tested by at least one drill hole just west of the adit. A drill hole should also test the westward projection of the fault and vein where it contacts syenitic granite.

Claim 590678

The magnetic high anomaly on the southern half of the large island probably outlines a talc-peridotite intrusion which has heavily carbonatized the dacitic agglomerate. The carbonatized

Conclusions

2

agglomerate contains numerous flat lying quartz-filled fractures. This alteration zone should be checked for gold bearings mineralization by a drill hole.



February 28, 1984

C.J. Kuryliw, M.Sc., P.Eng.

Recommendations

All drill holes recommended are to be drilled northwards across the target co-ordinates at an inclination of -50° to the designated depth. AQ wire line core should be adequate for this program.

Diamond Drilling Recommended

Rainbow Island Group

<u>Conductor</u>	<u>Drill Hole No</u>	<u>Target Location</u>	<u>Bearing</u>	<u>Dip</u>	<u>Depth</u>	<u>Total Feet</u>
A	1	112-W, 5+50-N	N	-50°	300'	
B	2	116-W, 0+50-S	N	-50°	300'	
B	3	96-W, 2-S	N	-50°	300'	
C	4	92-W, 2-N	N	-50°	300'	
D	5	80-W, 2+25-S	N	-50°	300'	
F	6	78-W, 2-S	N	-50°	300'	
G	7	84-W, 22-S	N	-50°	300'	
H	8	104-W, 24+75-S	N	-50°	300'	
I	9	96-W, 27+50-S	N	-50°	300'	
J	10	48-W, 18-S	N	-50°	300'	
K	11	32-W, 4+50-S	N	-50°	300'	
O	12	32-W, 26+50-S	N	-50°	300'	
						<u>3,600 ft</u>

Iron Duke Group

A	13	16-E, 2+50-N	N	-45°	600'
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Claim 590678

	14	4-E, 3-N	N-W	-50°	400'
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A total drilling recommended = 4,600 feet at estimated cost of \$27.00 per foot which includes drilling contract, engineering and assaying.

Total cost 4,600 feet @ \$27.00 per foot = \$124,200.00



February 28, 1984

C.J. Kuryliw, M.Sc. P.Eng
Consulting Geologist

CHESTER J. KURLIOW, M.Sc., P.Eng.
Consulting Geologist

C E R T I F I C A T E

I, Chester J. Kuryliw of 50 Thunder Drive, Dryden, Ontario, do hereby certify that:

- (1) I am a Professional Engineer and I am currently employed as a Consulting Geologist for several mining companies.
- (2) I am a graduate of:
The University of Manitoba B.Sc. Degree, 1949
The University of Manitoba M.Sc. Degree, 1966
- (3) I am a registered Engineer of the Association of Professional Engineers of Ontario and also Manitoba. I am a fellow of the Geologic Association of Canada, also a member of the Canadian Institute of Mining and Metallurgy.
- (4) I have practiced my profession for over 35 years, most of those years at gold mines, during which time I often planned, supervised and directed underground exploration, development and production.
- (5) My report is based upon a study of the magnetic and electromagnetic survey results on the property which were carried out under my supervision and I plotted the results. I also carried out geologic mapping in the field over the property, plotted the results with correlations and interpretations and these are incorporated in this report.



February 25, 1984

Chester J. Kuryliw, M.Sc., P.Eng.



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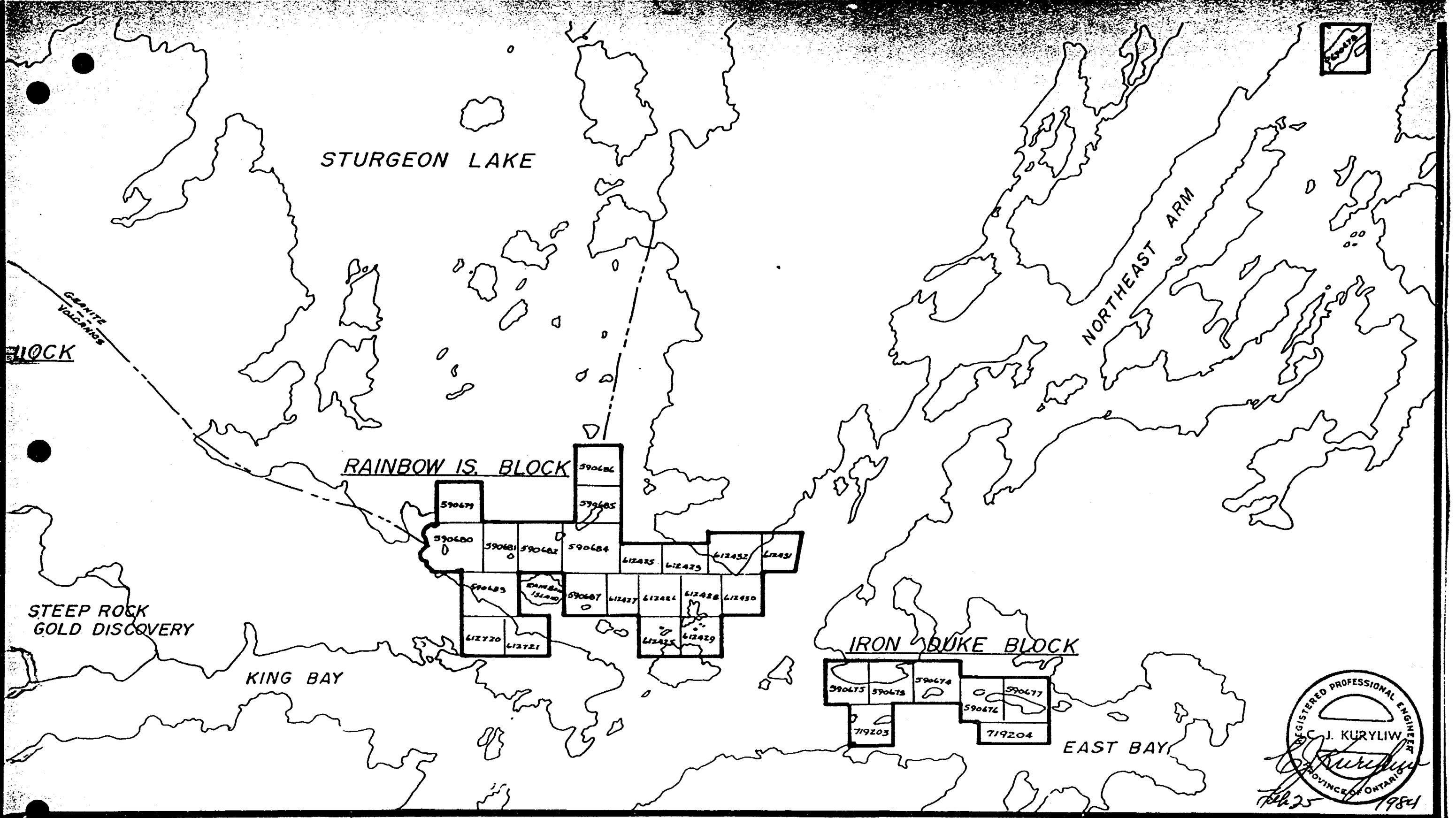
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- (7) Quartz - Porphyry Felsic Rock

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6A

GRANITE, LEWIS LAKE BATHOLITH.

6B

SYENITIC GRANITE DYKES (WHITE FELDSPAR PORPHYRY)

5

GRANODIORITE, INTRUSIVE

5B

GRANODIORITE. DYKES AND INFILLING OF BLOCK BRECCIA

BASIC INTRUSIVE:

4G

GABBRO

4GP

GABBRO (PORPHYRITIC ANORTHOSITE)

4A

AMPHIBOLITE

VOLCANICS - 'KURYLIW SEQUENCE' (SOUTH FROM LEWIS L. BATHOLITH)

3B

BASALTIC LAVA, PILLOWED, AMPHIBOLIZED. (1500')

3P

ANDESITIC PILLOW LAVA, FELDSPAR PORPHYROBLASTS (500')

3

FELSIC VOLCANOGENIC SEDIMENT GROUP, FELD SPATHIC (1500-2000')

3A1

AGGLOMERATE

3-L

LAPILLI-AGGLOMERATES AND TUFFS

3-T

TUFFS

3-A

ANDESITE-BASALT LAVAS, PILLOWED (15 000')

3-M

" " " , MASSIVE

STURGEON LAKE-EAST BAY

2

SEDIMENTS: ARGILLITE 2-A, CHERT 2-C, MUDSTONE 2-M, IRON FORMATION I.F.

1

DACITIC AGGLOMERATES & LAPILLI-TUFFS

Structural Geology

The "Kuryliw" sequence of volcanic formations occurs wrapped around the south and east side of the Lewis Lake batholith. The southern outline of the batholith curves southeastwards above King Bay. This causes folds and crenulations in the formations of the "Kuryliw" sequence for a length of three miles and it includes the west end of King Bay and the Steep Rock gold discovery.

A strong east-west fault that dips 57° southwards at the north side of East Bay is shifted southwards to follow King Bay by the wedging action of the southeasterly nose intrusion of syenite from the Lewis Lake batholith. The westward extension of the east-west fault follows the north side of King Bay and extends at least seven miles westwards beyond King Bay. About four miles west of King Bay the "Kuryliw" sequence of formations is cut by a series of north-south faults that progressively displace the rock formations $\frac{1}{4}$ mile northwards over a one mile length. These north-south faults traced southwards are found to swing southwestwards as branches of the East Bay - King Bay fault.

There is a recognizable progression in the results of the tectonic dynamics of the area. The highest temperature and fluidity of the periphery of the Lewis Lake batholith occurs at its south-east nose where the formations of the "Kuryliw" sequence are truncated, also block stopping of the volcanics occurs and numerous dykes finger south-eastwards from the nose intrusion. To the north and northwest of King Bay the formations of the "Kuryliw" sequence accommodated the batholith intrusion by folding and crenulating when subjected to the stresses. About 4 miles to the west of King Bay the rocks of the "Kuryliw" formation were faulted and sheared when subjected to the stresses of the intrusion.

At the southeast nose of the batholith the formations of the "Kuryliw" sequence are truncated and only the largest southerly formation now occurs to the east and north of the nose. Mapping of the pillow lava trends indicate that the trend of the formation generally follows the outline of the batholith rim.

Local Geology

The Rainbow Island Claim Group

This claim group covers the syenitic nose intrusion of the Lewis Lake batholith and its progressive zoning southeastwards that has been arbitrarily delineated by the mapping as follows,

- (A) Syenite
- (B) Syenite with 10 - 30% inclusions of volcanics and gabbro.
- (C) Volcanics with gabbro which is intruded by numerous dykes of syenite.

The contacts of the competent syenite sykes with the older less competent altered lavas and gabbros become the sites of shearing and fracturing during later adjustments to tectonic stresses. Gold mineralization was introduced to these sites of fracturing and shearing at the contact as exemplified by the "Rainbow Island", "Rickaby Point" and "Oz Island" gold vein occurrences.

The Iron Duke Claim Group

The Iron Duke Claim group is located over the strong east-west fault in East Bay. This fault predates the intrusion of the southeast nose of the Lewis Lake batholith. This east-west fault is readily recognizable in the old Iron Duke adit. It is marked by a fault-breccia zone at its hanging wall to the south and a 20 foot thick milky white quartz vein on its footwall. The white quartz vein contains 10 - 20% massive pyrite. South of the fault the cherty felsic sediments strike east-west and dip about 80° southwards. North of the fault (which has a 57° dip to the south) the sediments form a bow-fold. To the west of the adit the sediments north of the fault trend northeasterly and

to the east of the adit they trend southeasterly. In both cases the northerly sediment trends are cut by the fault.

The large white quartz vein that follows the East Bay fault appears to predate the gold bearing dark blue-grey quartz. The white quartz vein could provide an excellent host rock where it is intruded by syenitic dykes and such favourable sites should be tested.

Claim 590678

This claim in the north-east arm of Sturgeon Lake occurs about six miles north-east of Rainbow Island. The rocks in the area of the island are coarse dacitic agglomerates that trend north-east and dip 55° southeastwards.

The rocks underlying the claim are agglomerate and granular lapilli-tuff which have been intensely carbonatized with some green fucshite. Flat lying quartz filled tension fractures cut across the carbonatized rock. A gabbro intrusion occurs to the southeast and probably a deep seated ultrabasic intrusive is the source of the carbonatization. O.G.S. compilation map 2442 noted gold mineralization from quartz on this claim.

Instrument, Unit and Method

The West Block grids were surveyed using a portable Scintrex model MP-2 precession magnetometer.

The sensitivity of the instrument is (\pm) 1 gamma. The principle of operation is based upon the fact that a proton rich fluid such as kerosene when placed in a magnetic field will have its protons aligned along the magnetic field vector. The magnetic field is induced in the sensor upon depressing the instrument pushbutton, then this field is suddenly removed. Protons which behave as elementary gyroscopes will start to align with a precession frequency that is directly proportional to the magnetic field of the earth. The magnetometer counts this frequency, divides it by the appropriate constant to obtain a reading in gammas and displays the reading in the form of a five digit number.

A base station was established on base line 00-N at 4E near the Six Mile Lake Road. The base station reading was 59950 gammas. A second base station was established near a truck road and a lake in the South West part of the claim block at 16-S on line 4 West. That station read 59930 gammas. The main base station was read at the start and finish of each survey day to check for diurnal variations and the instrument operations.

To correct for diurnal changes all baseline stations on 00-N at the picket line crossings were established as secondary base stations. This was accomplished by checking in at the main base station then reading the baseline stations and checking back into the main base station within an hour. These secondary baseline stations were

corrected and plotted and then these served as alternate base stations for check-ins during the surveys of picket lines. In this manner all picket line stations which were read at 50 foot stations along picket lines were corrected for diurnal variations before plotting on the plans.

The plotting of the readings on the survey plans scale 1" = 200 feet were reduced by 59,000 gammas so that local magnetic variations could be magnified and this reduced the numerical size of the readings plotted. For example the base station reading of 59950 was plotted 950 on the plans.

Contouring of the corrected and plotted magnetic readings was carried at 200 gamma intervals from the 0 - 2000 gamma range.

Results of the Magnetic Survey

Rainbow Island Group

The plan of the plotted and contoured readings over the Rainbow Island claim group exhibits a remarkably flat magnetic relief with very few significant contours. The syenitic granite that underlies most of the lake claims has magnetic readings in the 59,700 gamma to 59,850 gamma range. Inclusions of lavas and gabbros were not picked up by this survey because these rocks exhibit a magnetic relief in the same low range. In the volcanic rocks at the south-west corner of the Rainbow Island claim group some low magnetic relief indicates (partially) the north-easterly trend of the volcanics.

Iron Duke Claim Group

Strong magnetic anomalies trend south 80° east from the north west corner of the group. This magnetic high follows iron-sulphide rich cherty sediments and is bordered on the south side by a strong regional fault. The fault is occupied by the Iron Duke addit's quartz vein that is 20 - 25 feet thick and dips southwards following the fault at 57°. This highly pyritic quartz vein is reported to have some low gold values but it is this writer's opinion that good possibilities for discovering enriched gold mineralization in the vein could occur where the sediments and the vein come in contact with syenitic granite. The differences in rock competency should provide favourable structures for gold emplacement.

Claim 590678

The southern half of the large island on this claim has a magnetic high anomaly that probably indicates the presence of a talc-peridotite intrusion which heavily carbonatized the dacitic agglomerate and introduced some malachite (Fucshite). The carbonatized agglomerate contains numerous flat lying quartz-filled fractures that have been reported (ODM map) to contain gold values. It is this writers opinion that the north-west or footwall side of peridotite should be drilled to check for gold bearing structures.

Conclusions

Rainbow Island Claim Group

The magnetic survey provides very little assistance in evaluating the VLF-EM conductors located. This is due to the fact that the syenitic granite, pillow lavas, and gabbros of the local area all have similar low levels of magnetic relief.

Several weak VLF-EM conductors were located. The significance of some of these is enhanced by the possibility that some may represent the extensions of currently known gold deposits. The known gold occurrences that surround this claim group provides encouragement and enhances the possibilities of success in discovering gold deposits in this claim group. It is this writer's opinion that a drilling program to test a number of these weak conductors is warranted.

Iron Duke Claim Group

The very strong VLF conductor that is also highly magnetic which runs along the north portion of the claim group is closely parallel to a strong regional fault and a 20 - 25 foot thick pyritic quartz vein that occurs along that fault. It should be tested by at least one drill hole just west of the adit. A drill hole should also test the westward projection of the fault and vein where it contacts syenitic granite.

Claim 590678

The magnetic high anomaly on the southern half of the large island probably outlines a talc-peridotite intrusion which has heavily carbonatized the dacitic agglomerate. The carbonatized

agglomerate contains numerous flat lying quartz-filled fractures. This alteration zone should be checked for gold bearings mineralization by a drill hole.



February 28, 1984

C.J. Kuryliw, M.Sc., P.Eng.

Recommendations

All drill holes recommended are to be drilled northwards across the target co-ordinates at an inclination of -50° to the designated depth. AQ wire line core should be adequate for this program.

Diamond Drilling Recommended

Rainbow Island Group

<u>Conductor</u>	<u>Drill Hole No</u>	<u>Target Location</u>	<u>Bearing</u>	<u>Dip</u>	<u>Depth</u>	<u>Total Feet</u>
A	1	112-W, 5+50-N	N	-50°	300'	
B	2	116-W, 0+50-S	N	-50°	300'	
B	3	96-W, 2-S	N	-50°	300'	
C	4	92-W, 2-N	N	-50°	300'	
D	5	80-W, 2+25-S	N	-50°	300'	
F	6	78-W, 2-S	N	-50°	300'	
G	7	84-W, 22-S	N	-50°	300'	
H	8	104-W, 24+75-S	N	-50°	300'	
I	9	96-W, 27+50-S	N	-50°	300'	
J	10	48-W, 18-S	N	-50°	300'	
K	11	32-W, 4+50-S	N	-50°	300'	
O	12	32-W, 26+50-S	N	-50°	300'	
						<u>3,600 ft</u>

Iron Duke Group

A	13	16-E, 2+50-N	N	-45°	600'
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Claim 590678

	14	4-E, 3-N	N-W	-50°	400'
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A total drilling recommended = 4,600 feet at estimated cost of \$27.00 per foot which includes drilling contract, engineering and assaying.

Total cost 4,600 feet @ \$27.00 per foot = \$124,200.00



February 28, 1984

C.J. Kuryliw, M.Sc. P.Eng
Consulting Geologist

CHESTER J. KURYLIW, M.Sc., P.Eng.
Consulting Geologist

C E R T I F I C A T E

I, Chester J. Kuryliw of 50 Thunder Drive, Dryden, Ontario, do hereby certify that:

- (1) I am a Professional Engineer and I am currently employed as a Consulting Geologist for several mining companies.
- (2) I am a graduate of:
The University of Manitoba B.Sc. Degree, 1949
The University of Manitoba M.Sc. Degree, 1966
- (3) I am a registered Engineer of the Association of Professional Engineers of Ontario and also Manitoba. I am a fellow of the Geologic Association of Canada, also a member of the Canadian Institute of Mining and Metallurgy.
- (4) I have practiced my profession for over 35 years, most of those years at gold mines, during which time I often planned, supervised and directed underground exploration, development and production.
- (5) My report is based upon a study of the magnetic and electro-magnetic survey results on the property which were carried out under my supervision and I plotted the results. I also carried out geologic mapping in the field over the property, plotted the results with correlations and interpretations and these are incorporated in this report.



February 25, 1984

Chester J. Kuryliw, M.Sc., P.Eng.

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

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

Type of Survey MAGNETIC GEOPHYSICAL EM-16 VLF
Township or Area SQUAW LAKE AREA
Claim holder(s) CHESTER J. KURYLIW, M.Sc., P.ENG.
CONSULTING GEOLOGIST
50 THUNDER DR.
Author of Report DRYDEN, ONTARIO
PON 1171 SAME
Address 807 223 6080 SAME
Covering Dates of Survey JAN 5 1984 - FEB 25 1984
(linecutting to office)
Total Miles of Line cut 40 MILES CUT + LONG GRID

MINING CLAIMS TRAVERSED	
List numerically	
Pa. 590.673	(prefix) (number)
Pa. 590.674	
Pa. 590.675	
Pa. 590.676	
Pa. 590.677	
Pa. 590.678	
Pa. 590.679	
Pa. 590.680	
Pa. 590.681	
Pa. 590.682	
Pa. 590.683	
Pa. 590.684	
Pa. 590.685	
Pa. 590.686	
Pa. 590.687	
Pa. 612420	
Pa. 612421	
Pa. 612423	
Pa. 612424	
Pa. 612425	
Pa. 612426	
Pa. 612427	
TOTAL CLAIMS <u>22</u>	
<u>OF 29</u>	

SPECIAL PROVISIONS CREDITS REQUESTED	Geophysical	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic	<u>20</u>
	-Magnetometer	<u>40</u>
	-Radiometric	_____
ENTER 20 days for each additional survey using same grid.	-Other	_____
	Geological	_____
	Geochemical	_____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Feb 27/84 SIGNATURE: [Signature]
Author of Report

PROJECTS SECTION
Res. Geol. _____ Qualifications 63.1787
Previous Surveys _____

Checked by _____ **RECEIVED** _____
date _____

GEOLOGICAL BRANCH _____
MINING LANDS SECTION

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

OFFICE USE ONLY

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

MAG 4200 MAG 4300
Number of Stations VLF EM 2000 Number of Readings VLF EM 2000

Station interval _____

Line spacing 400 FT. AND 200 FT.

Profile scale or Contour intervals MAGNETIC CONTOUR @ 200 GAMMAS, EM PROFILES 1" = 40'
(specify for each type of survey)

MAGNETIC

Instrument SCINTREX MAP-2 PRECESSION MAGNETOMETER

Accuracy - Scale constant (±) 1 GAMMA

Diurnal correction method BOX STN. RECD, ESTABLISH BASE LINE STNS, REGRAD AND LINE PICKET LINE
LOOPS

Base station location ON NE, NEAR THE SIX MILE ROAD, 2 1/2 MILES S-N, 2 1/2 E, STURDIVANT

ELECTROMAGNETIC

Instrument GEONICS EM-16 VLF

Coil configuration HORIZ + VERT

Coil separation _____

Accuracy ± 1%

Method: Fixed transmitter Shoot back In line Parallel line

Frequency 17.8 KHZ. CUTLER MAINS
(specify V.L.F. station)

Parameters measured IN PHASE (±) 150%, QUAD PHASE (±) 40%

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION - RESISTIVITY

Instrument _____

Time domain _____ Frequency domain _____

Frequency _____ Range _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS MAG 4200 MAG 4200
Number of Stations VLF EM 2000 Number of Readings VLF EM 2000
Station interval 50 FT. FOR MAGNETIC SURVEY, EM @ 100' STA INTERVAL & 50' STA AT CONDUCTORS.
Line spacing 400 FT AND 200 FT.
Profile scale or Contour intervals MAGNETIC CONTOURS @ 200 GAMMAS, EM PROFILES @ 1" = 40'
(specify for each type of survey)

MAGNETIC

Instrument SCINTREX M.P.2 PRECISION MAGNETOMETER
Accuracy - Scale constant (±) 1 gamma.
Diurnal correction method BASE STA READ, ESTABLISH BASE LINE STNS, REREAD BASE STA, PICKET LINE LOOPS.
Base station location ODN, 4-E NEAR TNE, SIX MILE ROAD, 2ND BASE STA @ 0-N 91E STURGEON LAKE

ELECTROMAGNETIC

Instrument GEONICS EM-16 VLF
Coil configuration HORIZ & VERTICAL
Coil separation _____
Accuracy (±) 1.0%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 17.8 KHZ. CUTLER, MAINE
(specify V.L.F. station)
Parameters measured IN PHASE (±) 1.50%, QUAD PHASE (±) 40%

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION - RESISTIVITY

Instrument _____
Time domain _____ Frequency domain _____
Frequency _____ Range _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____



Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

#84-35

Instructions

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

Apr. 1984

26473

Mining

The Mining Act

Type of Survey(s) **GEOPHYSICAL** Township or Area **SQUAW LAKE M-1904**

Claim Holder(s) **CHESTER J. KURYLIW** Prospector's Licence No. **P-8658**

Address **50 THUNDER DRIVE, DRYDEN ONT. P8N-1W1**

Survey Company **CHESTER J. KURYLIW M.Sc. P.ENG.** Date of Survey (from & to) **Day 1 Mo. 84 Day 2 Mo. 84** Total Miles of line Cut **39.5**

Name and Address of Author (of Geo-Technical report) **CHESTER J. KURYLIW M.Sc. P.ENG. (AS ABOVE)**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Electromagnetic	40
	Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	Radiometric	
	Other	
Man Days Complete reverse side and enter total(s) here	Geological	
	Geochemical	
	Other	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
PA.	590673	60	PA	612429	60
	590674	60		612430	60
	590675	60		612431	60
	590676	60		612432	60
	590677	60		719203	60
	590678	60		719204	60
	590679	60			
	590680	60			
	590681	60			
	590682	60			
	590683	60			
	590684	60			
	590685	60			
	590686	60			
	590687	60			
	612420	60			
	612421	60			
	612423	60			
	612424	60			
	612425	60			
	612426	60			
	612427	60			
	612428	60			

PATRICIA MINING DIV.
RECEIVED
FEB 14 1984
A.M. 7 8 9 10 11 12 P.M. 1 2 3 4 5 6

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

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

Pa. 590673 Total number of mining claims covered by this report of work. **29.**

For Office Use Only

Total Days Cr. Recorded **1740** Date Recorded **Feb. 14, 1983** Mining Recorder **[Signature]**

Date Approved as Recorded **[Signature]** Branch Director **[Signature]**

Date **FEB 15 1984** Recorder/Holder or Agent (Signature) **[Signature]**

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

Name and Postal Address of Person Certifying **CHESTER J. KURYLIW M.Sc. P.ENG. 50 THUNDER DR. DRYDEN ONT.**

Date Certified **FEB 15 1984** Certified by (Signature) **[Signature]**



Ministry of
Natural
Resources

Geotechnical
Report
Approval

File
26473

Mining Lands Comments

To: Geophysics *Mr. Barlow.*

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <i>Aug 14 1984</i>	Signature <i>RRL</i>
--	---	----------------------------	-------------------------

To: Geology - Expenditures

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Geochemistry

Comments

L.D.

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

Your File: 35
Our File: 2.6473

1984 03 19

Mining Recorder
Ministry of Natural Resources
P.O. Box 669
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims PA 590673 et al in the Area of Squaw Lake.

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

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

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

A. Carr:dg

cc: C.J. Kuryliw
50 Thunder Drive
Dryden, Ontario
P8N 1W1

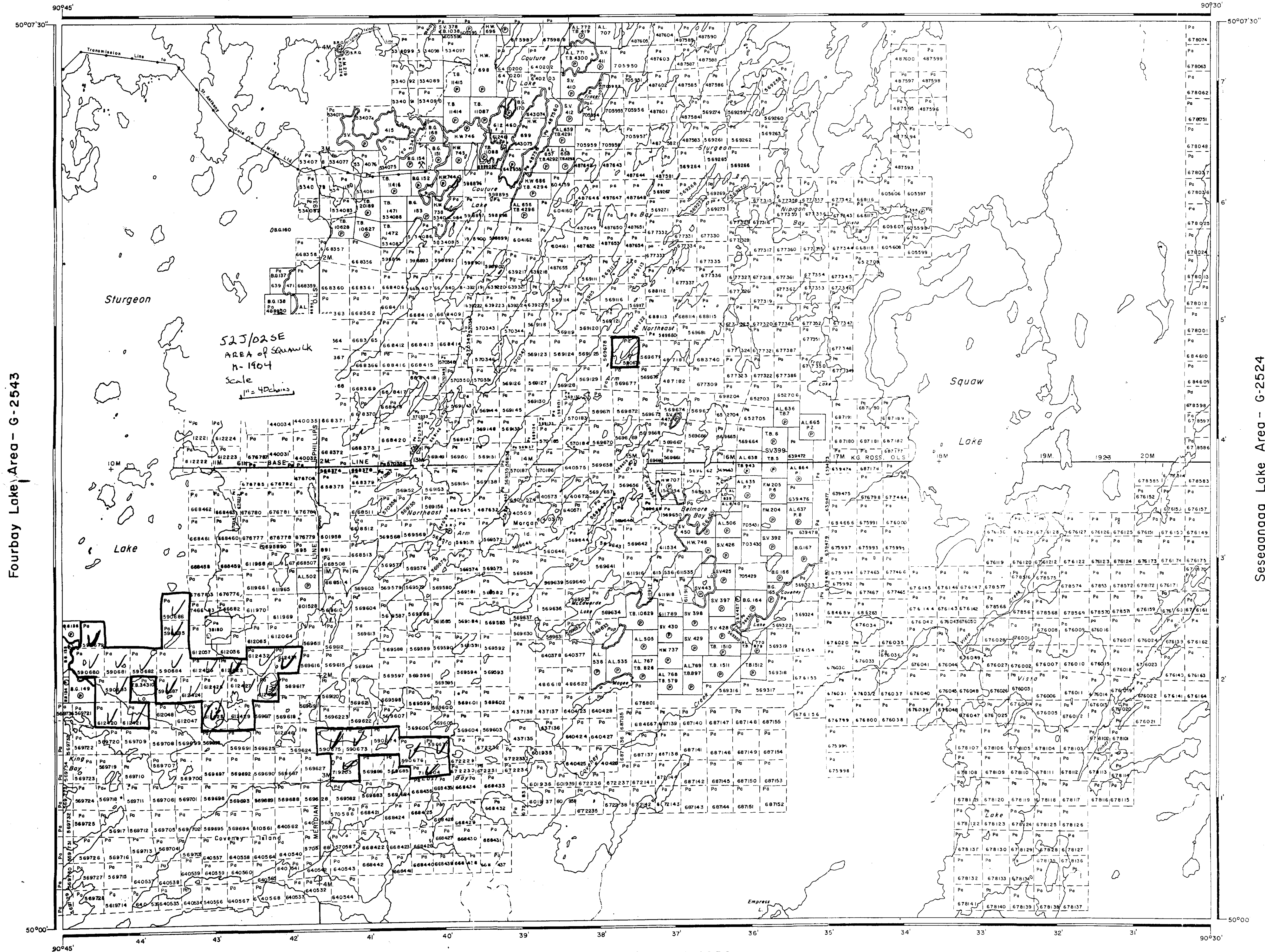
FOR ADDITIONAL

INFORMATION

SEE MAPS:

52J/02SE-0083 # 1-5

Beckington Lake Area G-2532



Fourbay Lake Area - G-2543

Sesegonaga Lake Area - G-2524

Quest Lake Area - G-2556

LEGEND

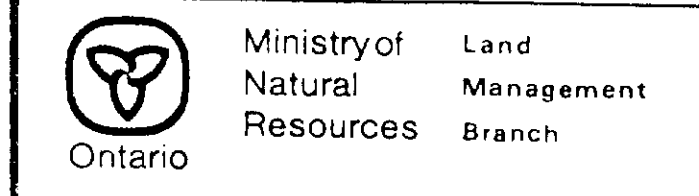
- PATENTED LAND ⊙
- CROWN LAND SALE ⊙
- LEASES ⊙
- LOCATED LAND Loc
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED C.

REFERENCES

- AREAS WITHDRAWN FROM DISPOSITION
- M.R.O. - MINING RIGHTS ONLY
 - S.R.O. - SURFACE RIGHTS ONLY
 - M.F.S. MINING AND SURFACE RIGHTS
- | Description | Order No. | Date | Disposition | File |
|-------------|-----------|------|-------------|------|
| | | | | |

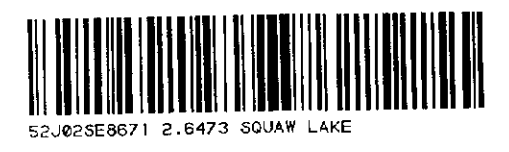
DATE OF ISSUE
 FEB 21 1984
 Ministry of Natural Resources
 TORONTO

AREA
SQUAW LAKE
 M.N.R. ADMINISTRATIVE DISTRICT
IGNACE
 MINING DIVISION
PATRICIA
 LAND TITLES / REGISTRY DIVISION
THUNDER BAY



Date: FEBRUARY, 1984
 Number: **G-3140**

525/02SE-0083, #1



STURGEON LAKE

LEGEND

- (-) - 600 GAMMAS
- 600 - 800 "
- 800 - 1000 "
- 1000 - 1200 "
- 1200 - 1600 "
- 1600 - 2000 "
- 2000 - (+)

NOTE: FOR TOTAL MAGNETIC FIELD ADD 59,000 GAMMAS

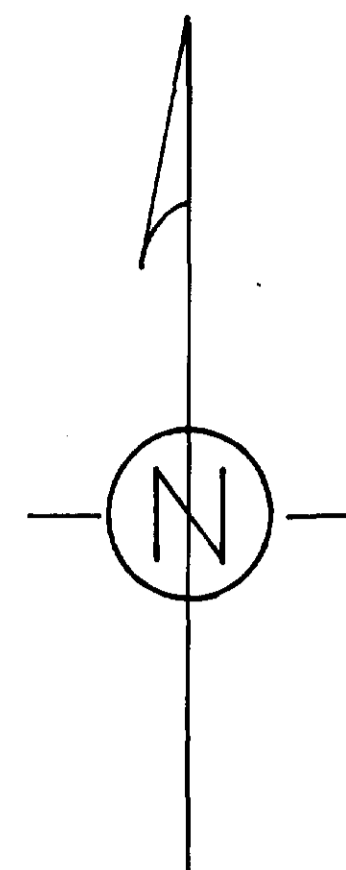
INSTRUMENT: SCINTREX PRECISION MAGNETOMETER MP-2
SENSITIVITY: (±) 1-GAMMA

GRADIENT TOLERANCE: 150 GAMMAS PER FOOT

READINGS: CORRECTED AND PLOTTED WITH 59,000 GAMMAS SUBTRACTED

CONTOUR INTERVAL: 200 GAMMAS

BASE STATION at 00-N, 4E is 59,250 GAMMAS



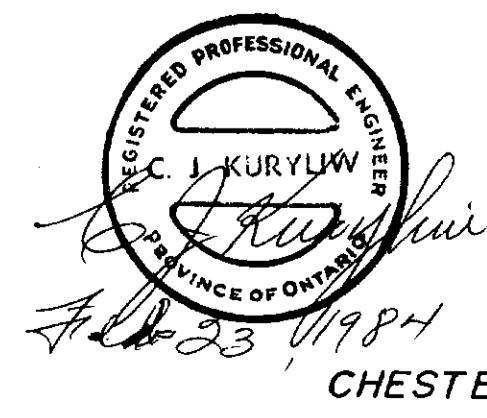
KURLIOW 'RAINBOW ISLAND' CLAIM BLOCK

STURGEON LAKE
DISTRICT OF PATRICIA, NORTHWESTERN ONTARIO

PLAN of MAGNETIC SURVEY

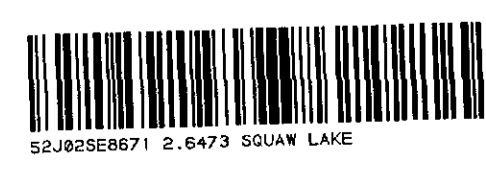
SCALE: 1" = 200'

JANUARY, 1984.



CHESTER J. KURLIOW


KING BAY

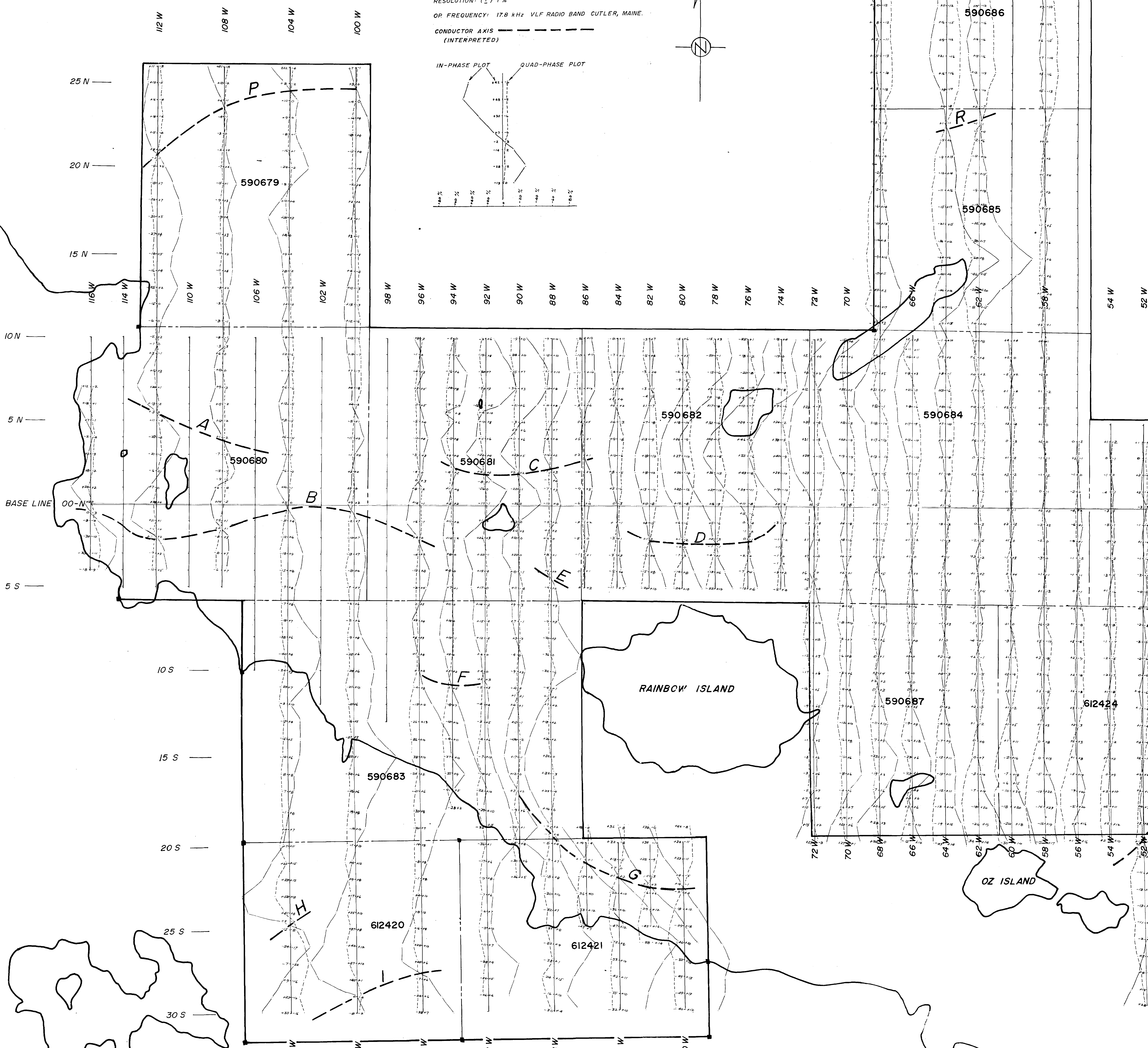
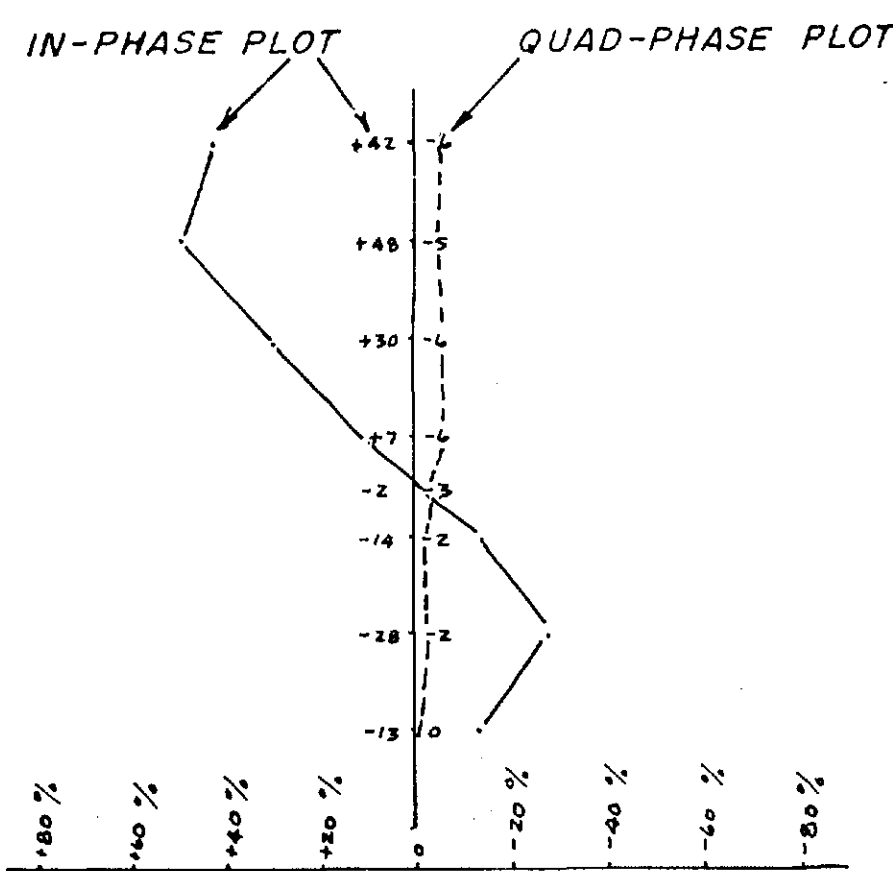
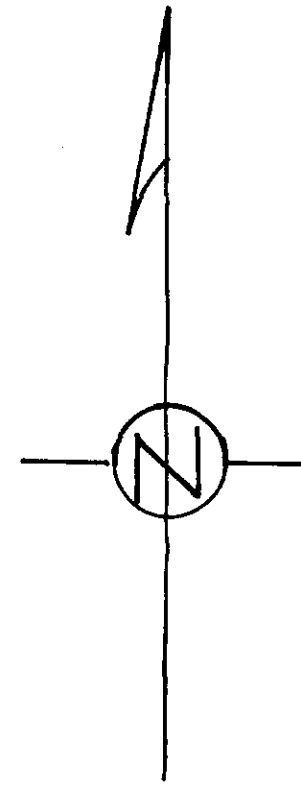


525/02SE-0083, #2

STURGEON LAKE

LEGEND

INSTRUMENT: E.M-16 VLF-E.M
 MEASUREMENT: IN-PHASE AND QUAD-PHASE COMPONENTS OF VERTICAL
 MAGNETIC FIELD AS A % OF HORIZONTAL PRIMARY FIELD
 SENSITIVITY: IN-PHASE: (±) 150 %
 QUAD-PHASE: (±) 40 %
 RESOLUTION: (±) 1 %
 OP. FREQUENCY: 17.8 kHz VLF RADIO BAND CUTLER, MAINE.
 CONDUCTOR AXIS  (INTERPRETED)



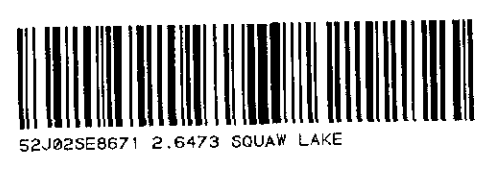
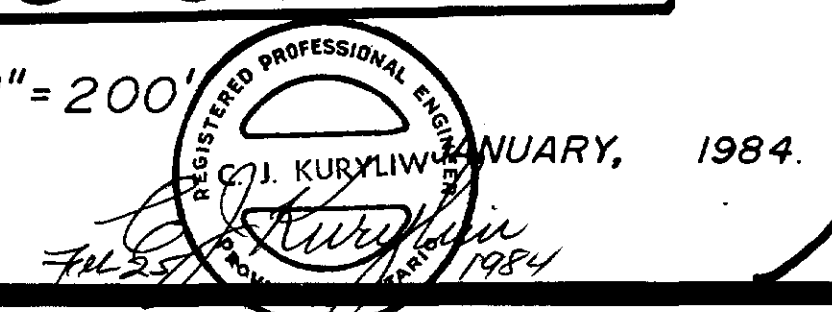
KURLIOW 'RAINBOW ISLAND' CLAIM BLOCK

STURGEON LAKE
 DISTRICT OF PATRICIA, NORTHWESTERN ONTARIO

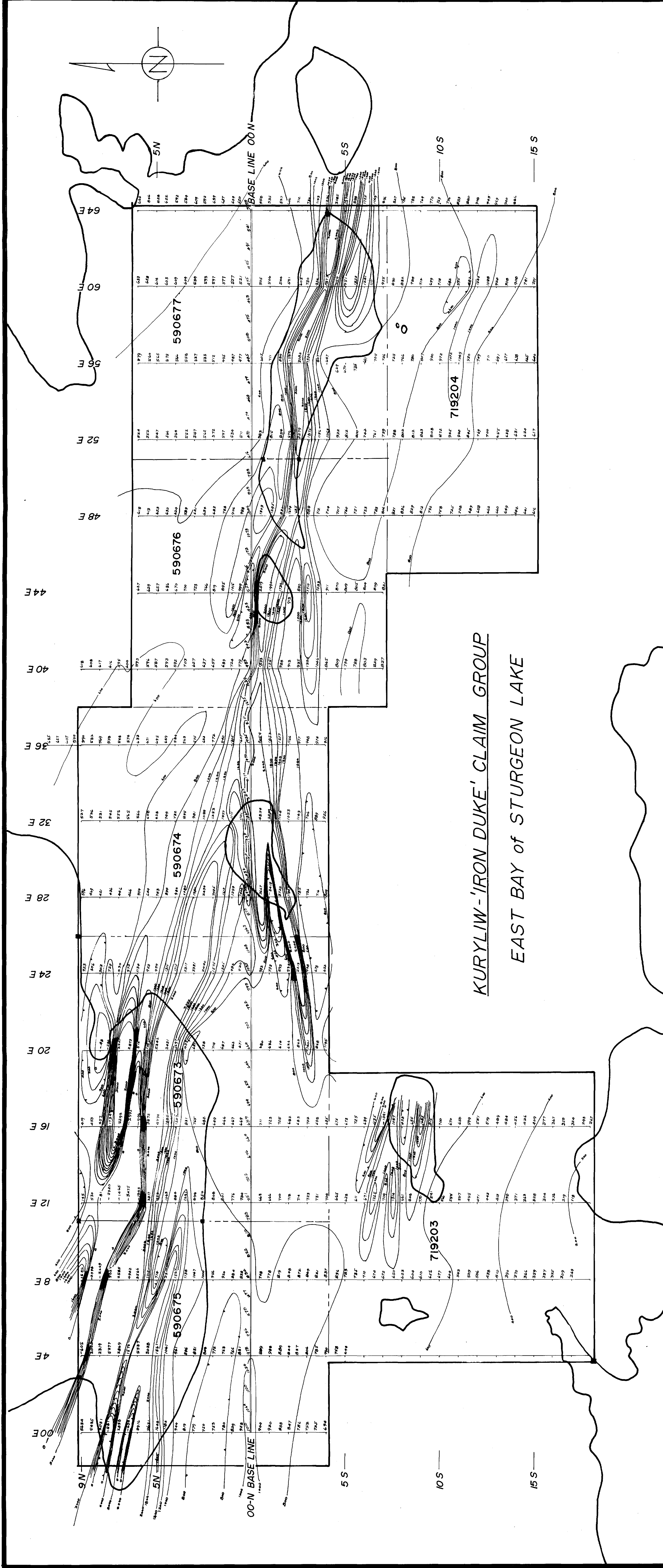
PLAN of VLF E-M 16 SURVEY

SCALE: 1" = 200'

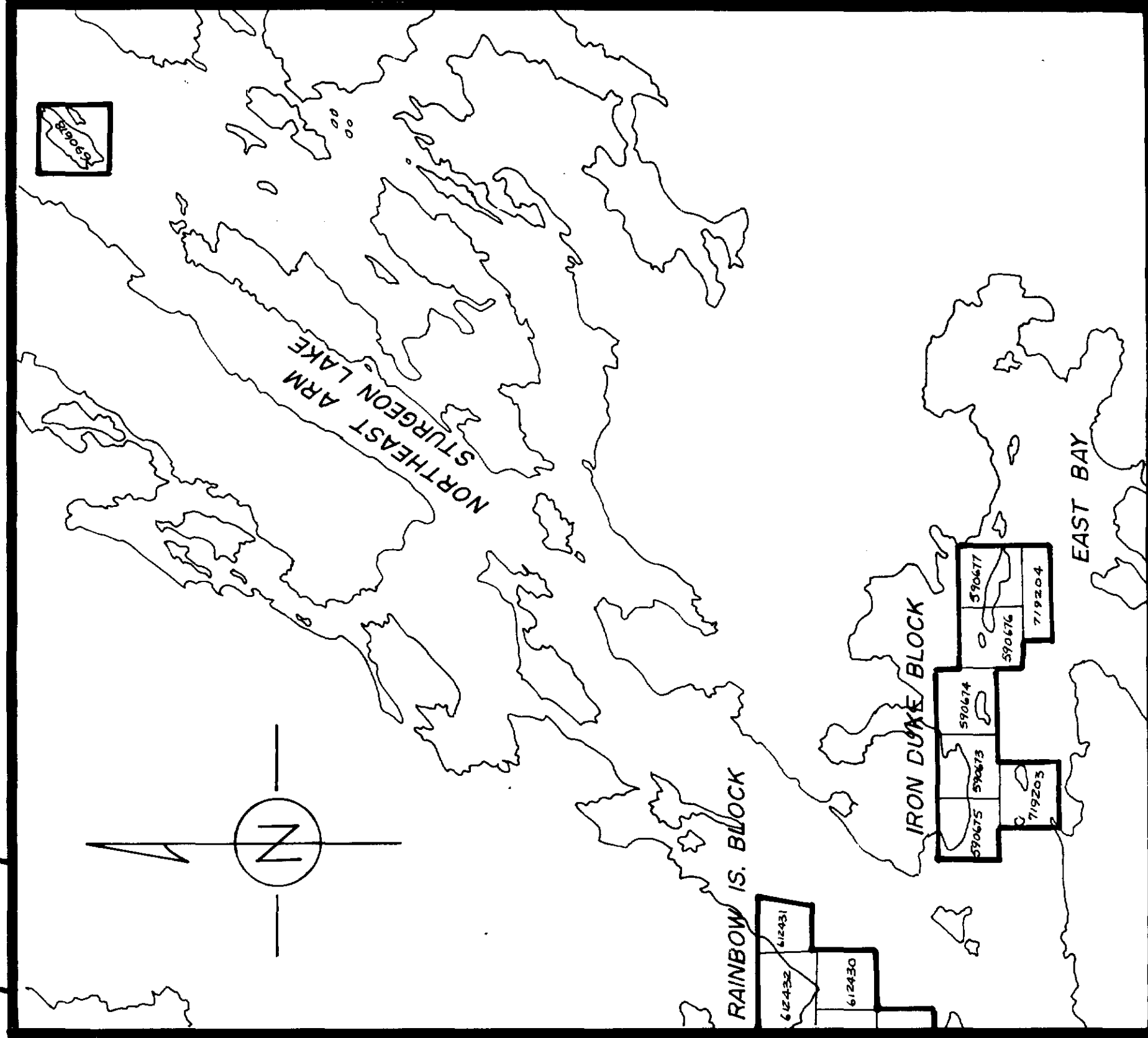
CHESTER J. KURLIOW



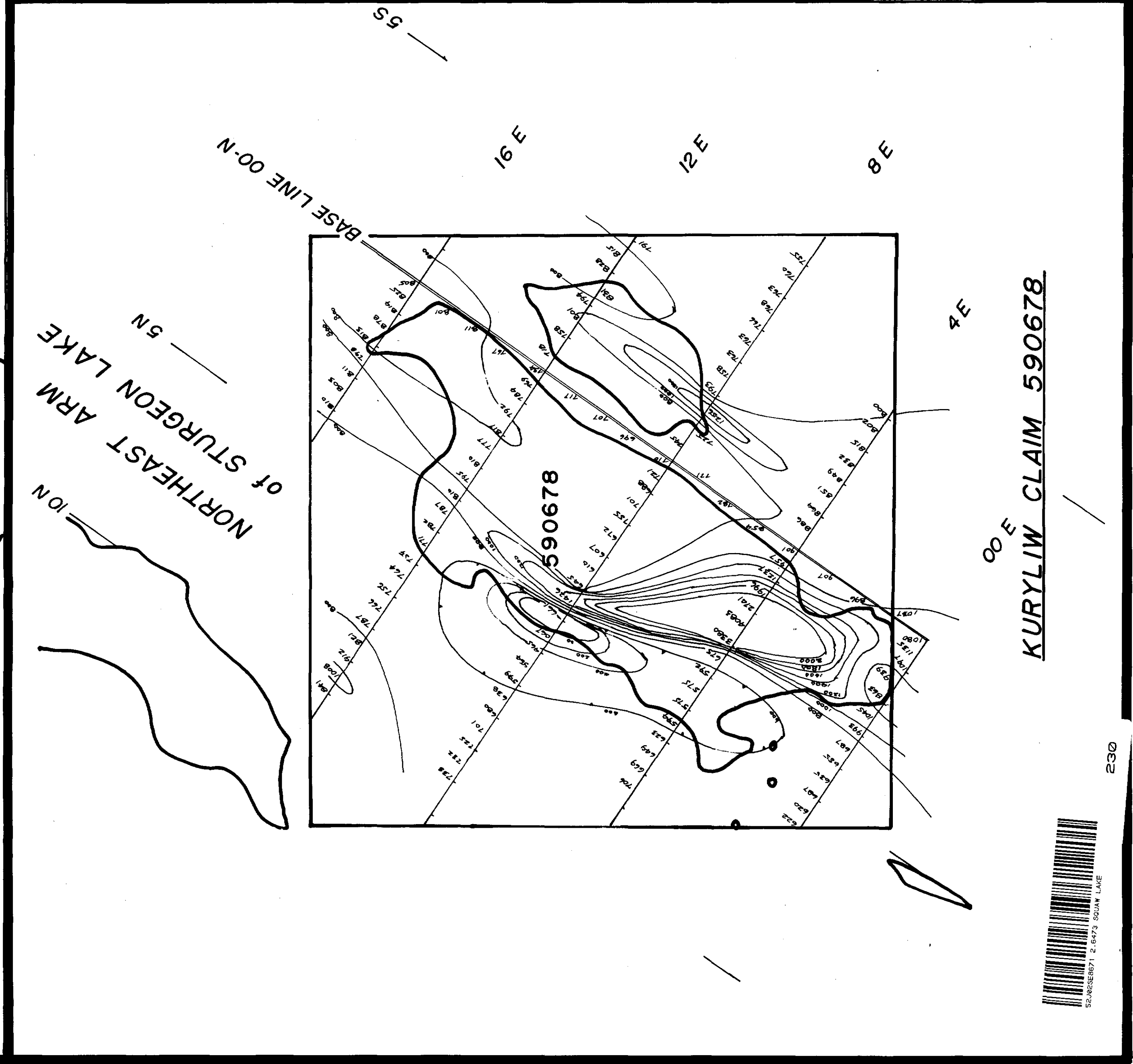
525/02SE-0083, #4



KURLIWI - 'IRON DUKE' CLAIM GROUP
EAST BAY OF STURGEON LAKE



KEY MAP
SCALE: 1" = 1/2 Mile



KURLIWI CLAIM 590678

LEGEND

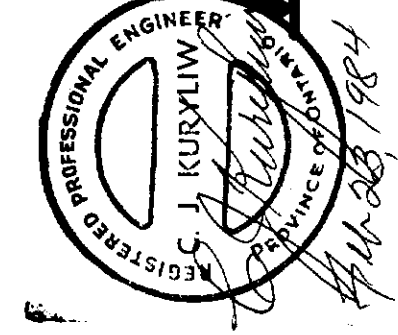
□	(-) - 600 GAMMAS
□	600 - 800 "
□	800 - 1000 "
□	1000 - 1200 "
□	1200 - 1600 "
□	1600 - 2000 "
□	2 000 - (+) "

NOTE: FOR TOTAL MAGNETIC FIELD ADD 55,000 GAMMAS

INSTRUMENT: SCINTREX PRECISION MAGNETOMETER MP-2
 SENSITIVITY: (±) 1-GAMMA
 GRADIENT TOLERANCE: 150 GAMMAS PER FOOT
 READINGS: CORRECTED AND PLOTTED WITH 55,000 GAMMAS SUBTRACTED
 CONTOUR INTERVAL: 200 GAMMAS
 BASE STATION at 00-N, 4-E is 55,550 GAMMAS

26473

KURLIWI 'IRON DUKE' CLAIM BLOCK
STURGEON LAKE
DISTRICT OF PATRICIA, NORTHWESTERN ONTARIO



PLAN of
MAGNETIC SURVEY

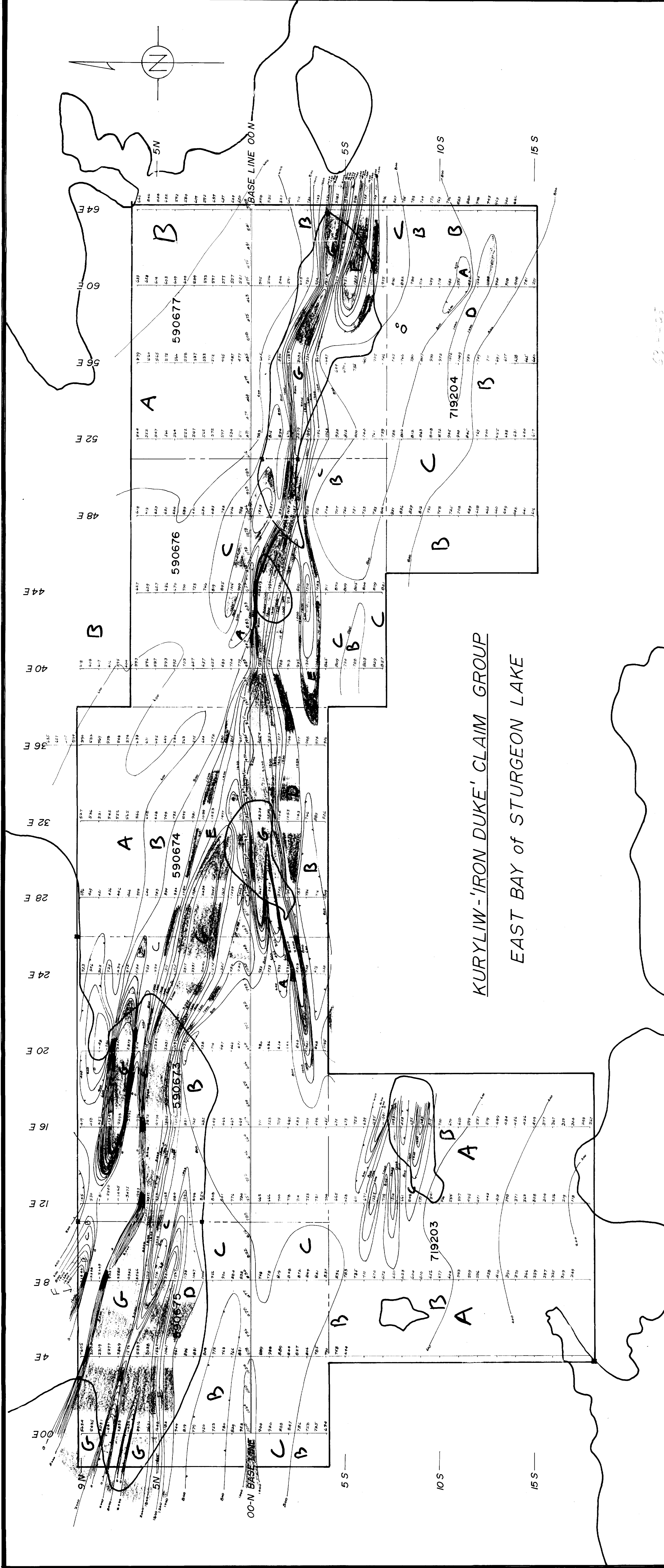
SCALE: 1" = 200'

CHESTER J. KURLIWI

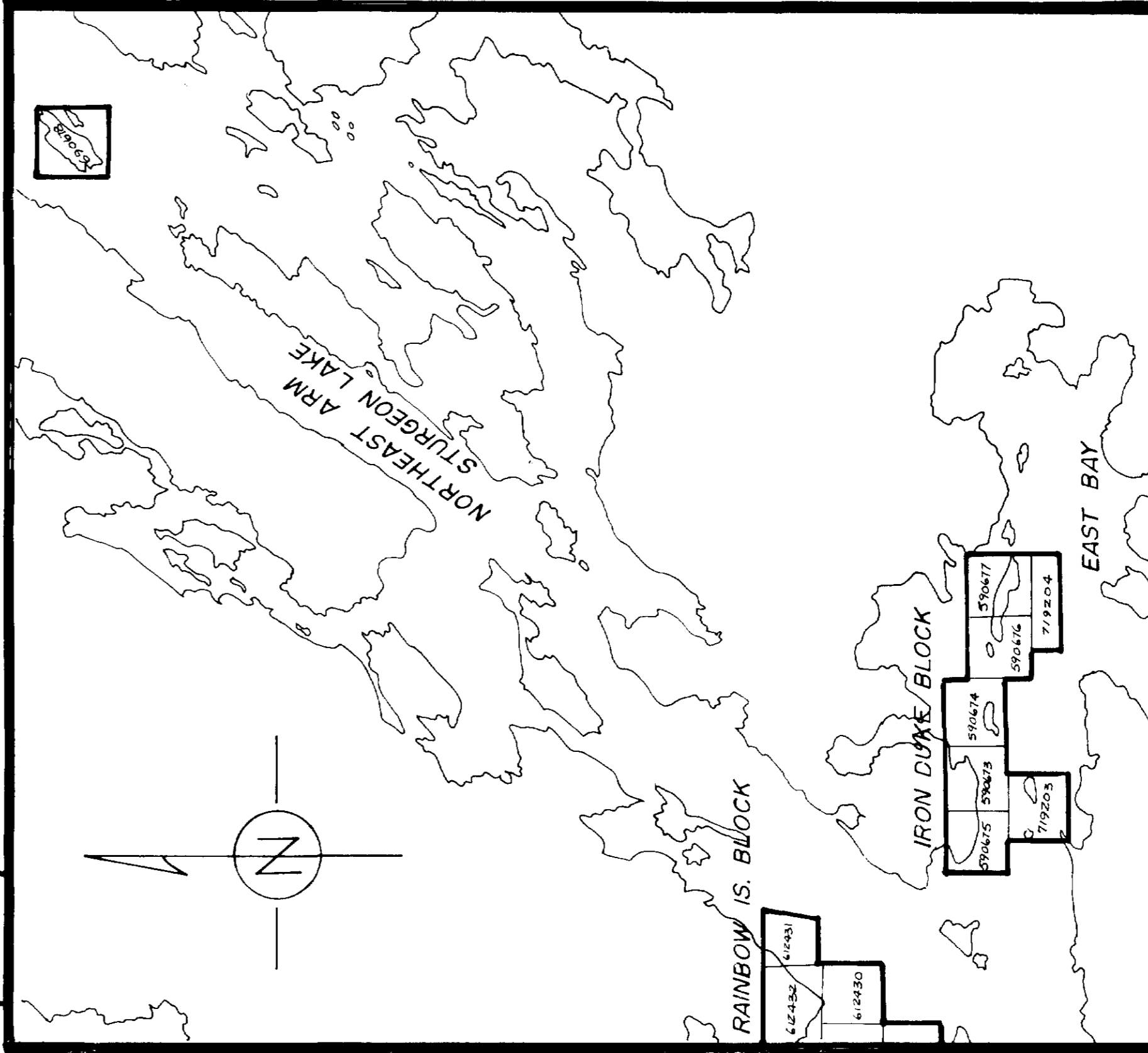
JANUARY, 1984.

525/02SE-0083 #3

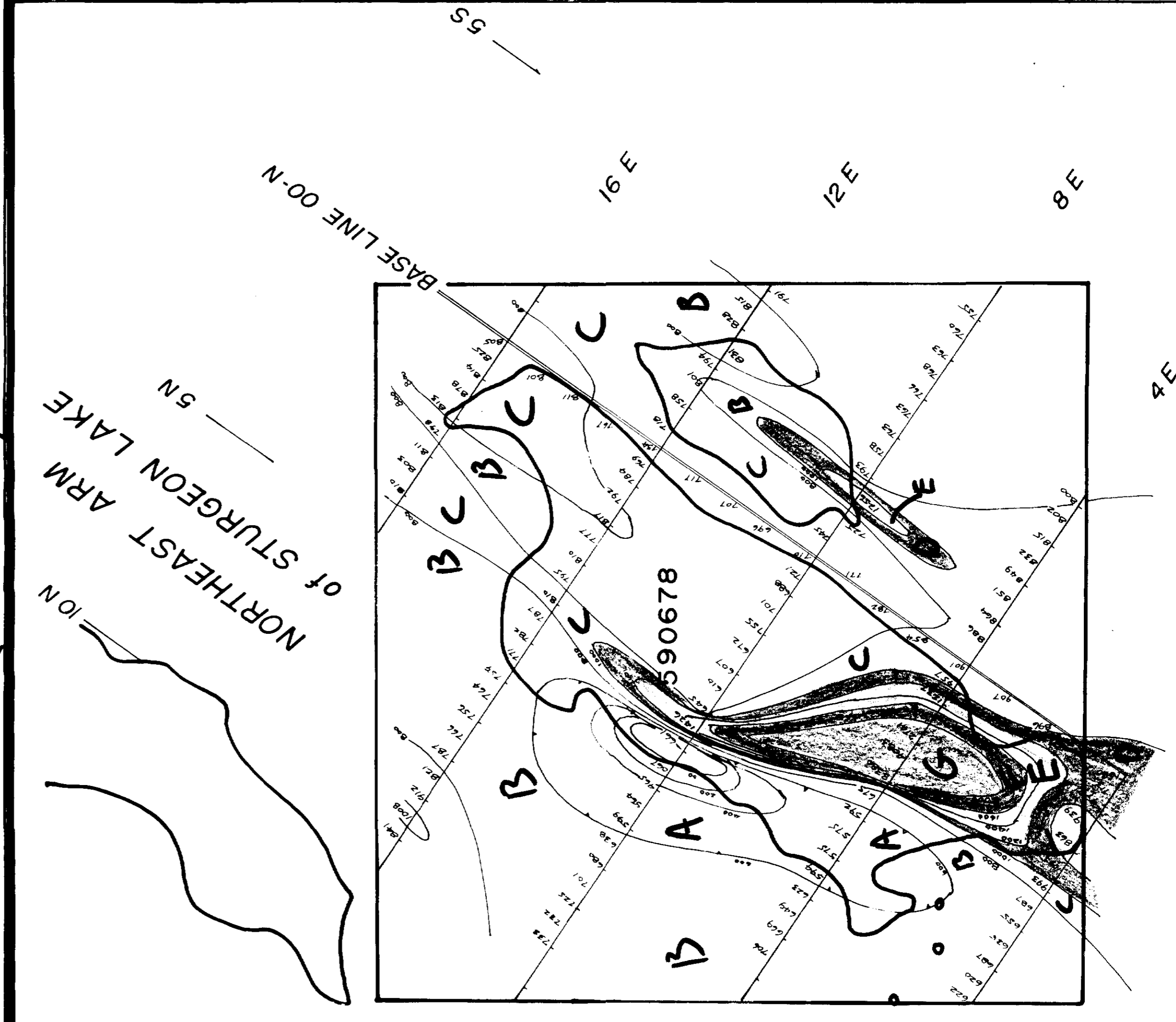




KURYLIW-'IRON DUKE' CLAIM GROUP
EAST BAY of STURGEON LAKE



KEY MAP
SCALE: 1" = 1/2 Mile



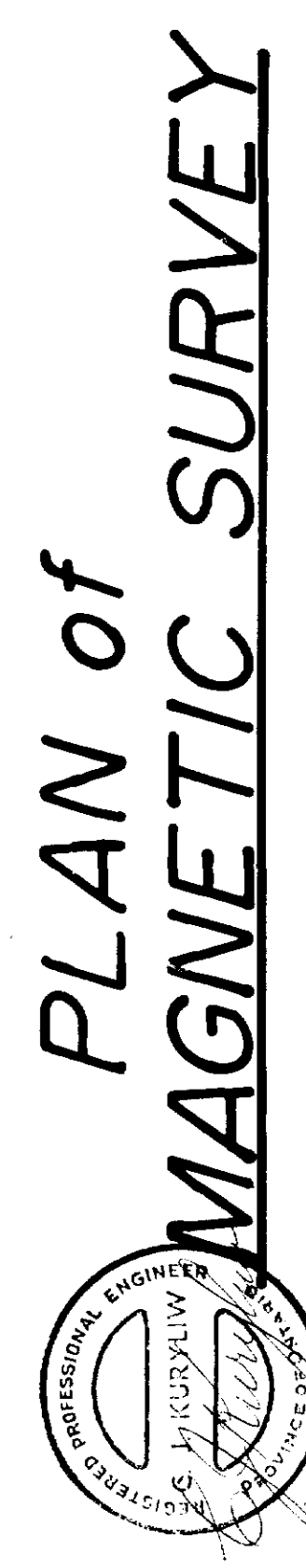
KURYLIW CLAIM 590678

LEGEND

A	(-)- 600 GAMMAS
B	600 - 800 "
C	800 - 1000 "
D	1000 - 1200 "
E	1200 - 1600 "
F	1600 - 2000 "
G	2 000 - (+) "

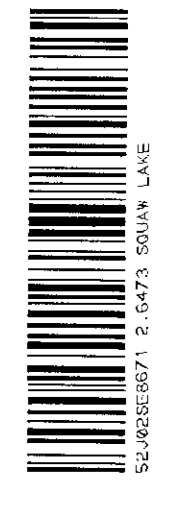
NOTE: FOR TOTAL MAGNETIC FIELD ADD 59,000 GAMMAS
INSTRUMENT: SCINTREX PRECESSION MAGNETOMETER MP-2
SENSITIVITY: (±) 1-GAMMA
GRADIENT TOLERANCE: 150 GAMMAS PER FOOT
READINGS: CORRECTED AND PLOTTED WITH 59,000 GAMMAS SUBTRACTED
CONTOUR INTERVAL: 200 GAMMAS
BASE STATION 01 00-N, 4 E is 59,952 GAMMAS

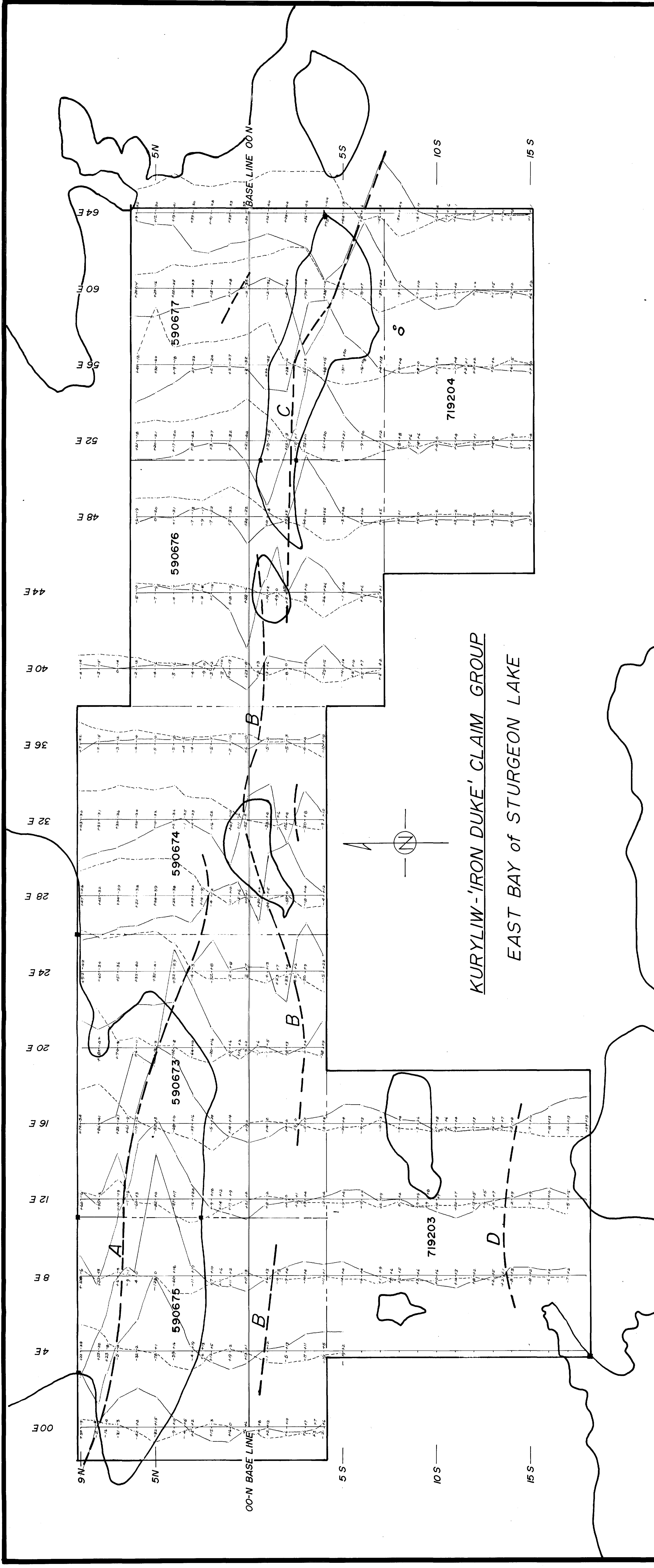
KURYLIW 'IRON DUKE' CLAIM BLOCK
STURGEON LAKE
DISTRICT OF PATRICIA, NORTHWESTERN ONTARIO



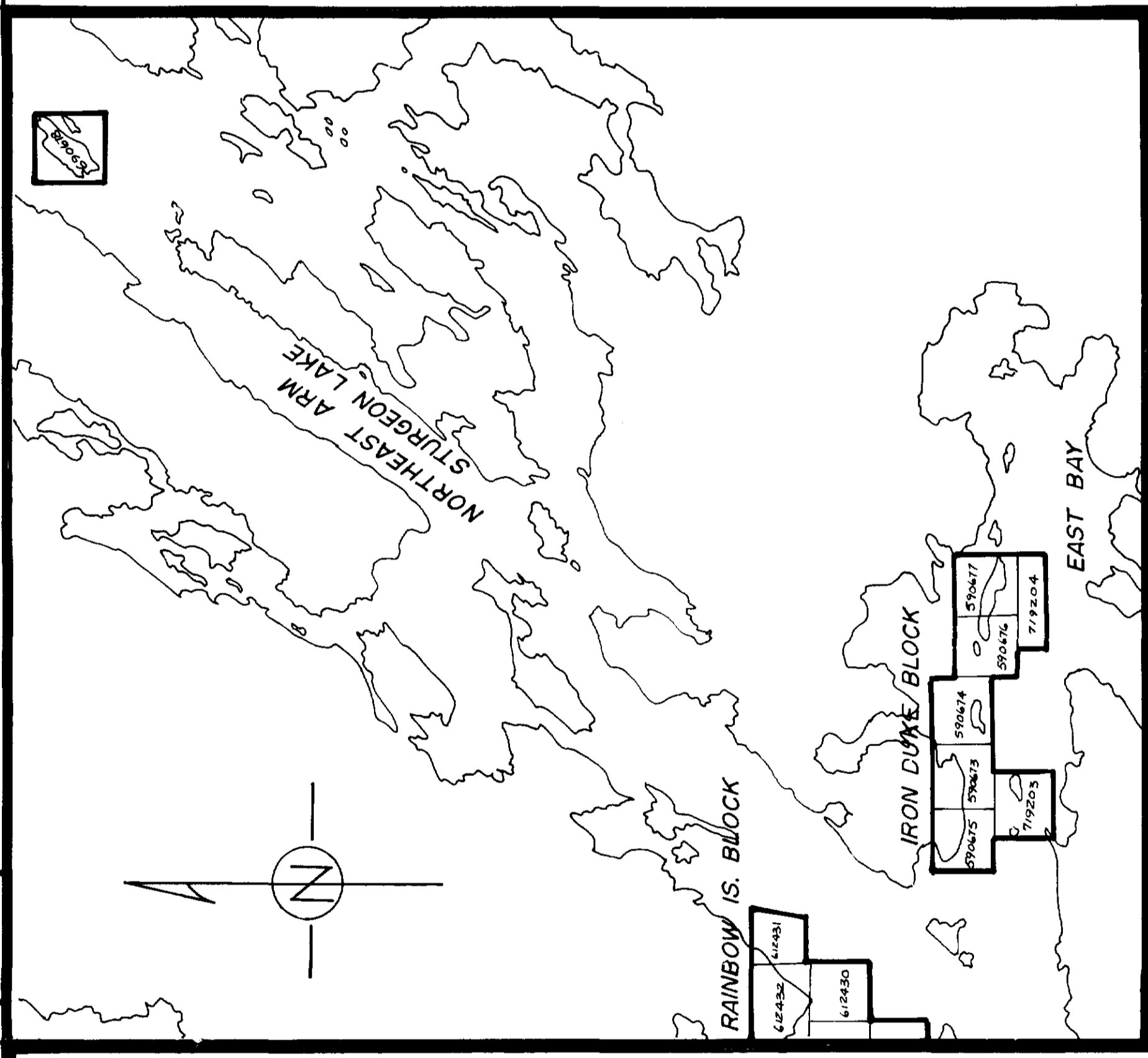
PLAN of
MAGNETIC SURVEY

CHESTER J. KURYLIW
SCALE: 1" = 200'
JANUARY, 1984
525/02SE-0083, #3

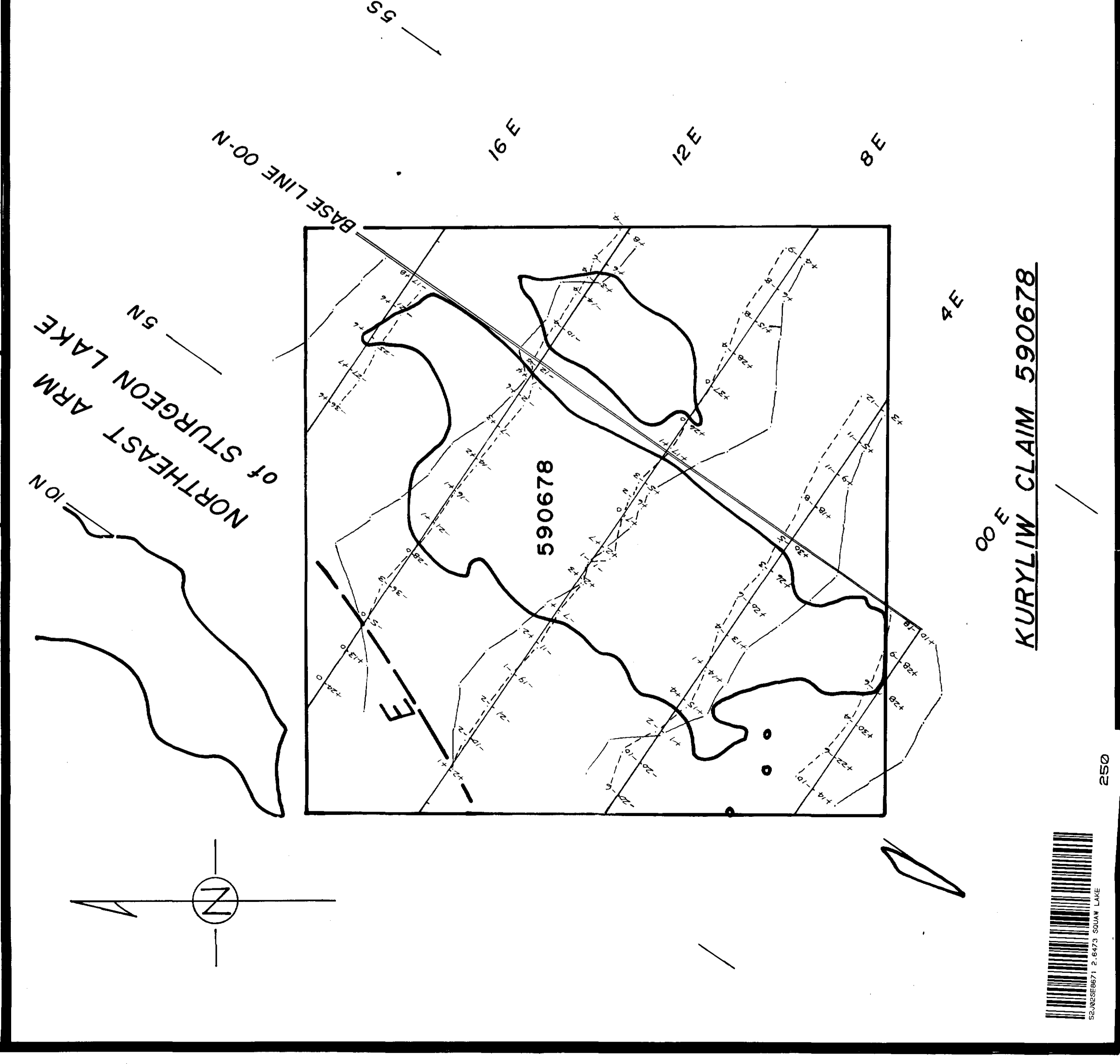




KURLIOW - 'IRON DUKE' CLAIM GROUP
EAST BAY of STURGEON LAKE



KEY MAP
 SCALE: 1" = 1/2 Mile



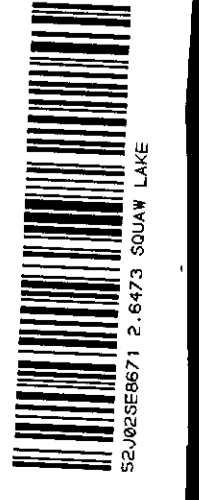
KURLIOW CLAIM 590678

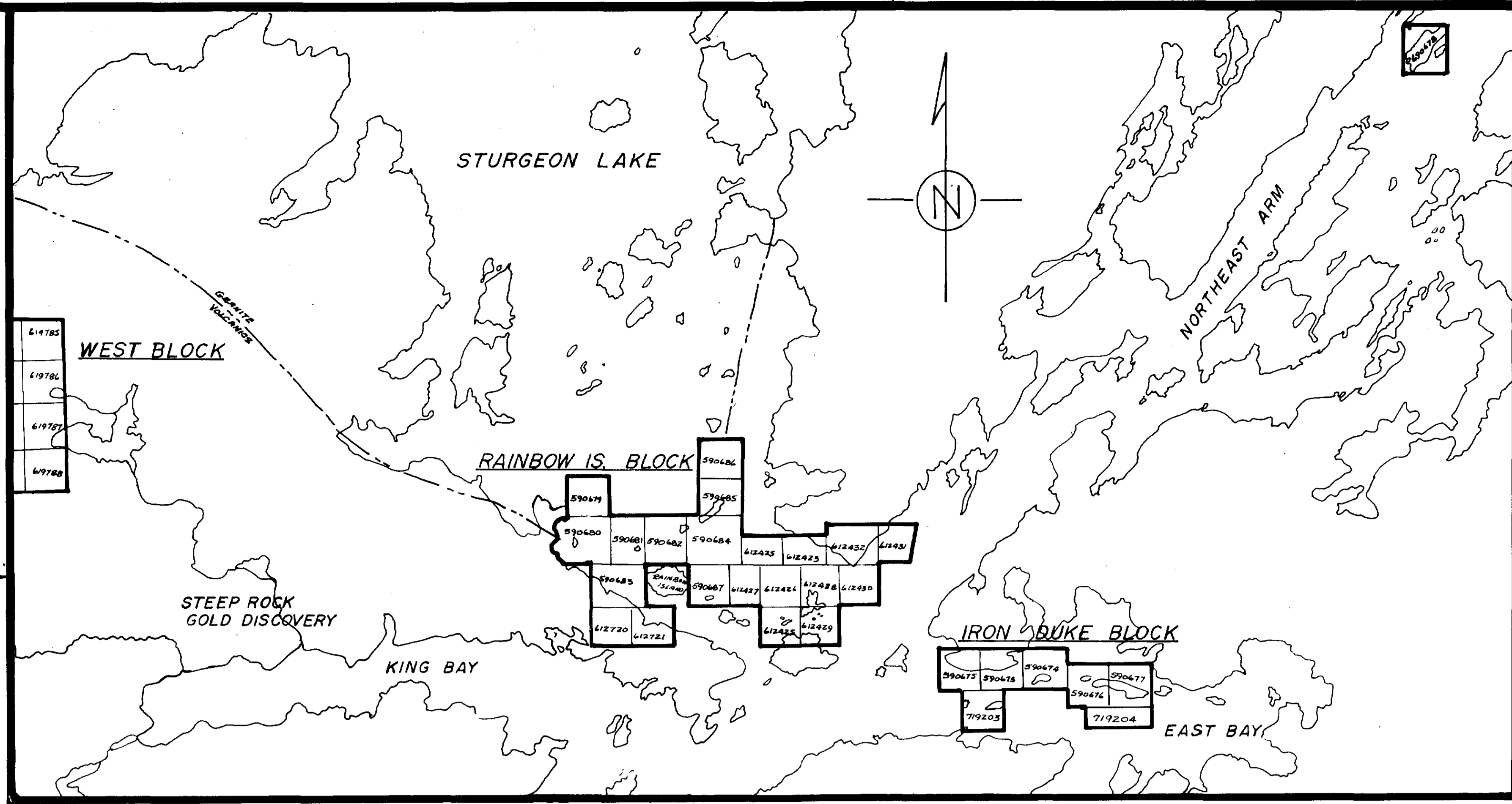
LEGEND

INSTRUMENT: EM-16 VLF-E-M
 MEASUREMENT: IN-PHASE AND QUAD-PHASE COMPONENTS OF VERTICAL MAGNETIC FIELD AS A % OF HORIZONTAL PRIMARY FIELD
 SENSITIVITY: IN-PHASE: (±) 150 %
 QUAD-PHASE: (±) 40 %
 RESOLUTION: (±) 1 %
 OP FREQUENCY: 178 kHz VLF RADIO BAND CUTLER, MAINE
 CONDUCTOR AXIS (INTERPRETED)

KURLIOW 'IRON DUKE' CLAIM BLOCK
 STURGEON LAKE
 DISTRICT OF PATRICIA, NORTHWESTERN ONTARIO
PLAN of 525/02SE-0083, #5
V.L.F. E-M 16 SURVEY

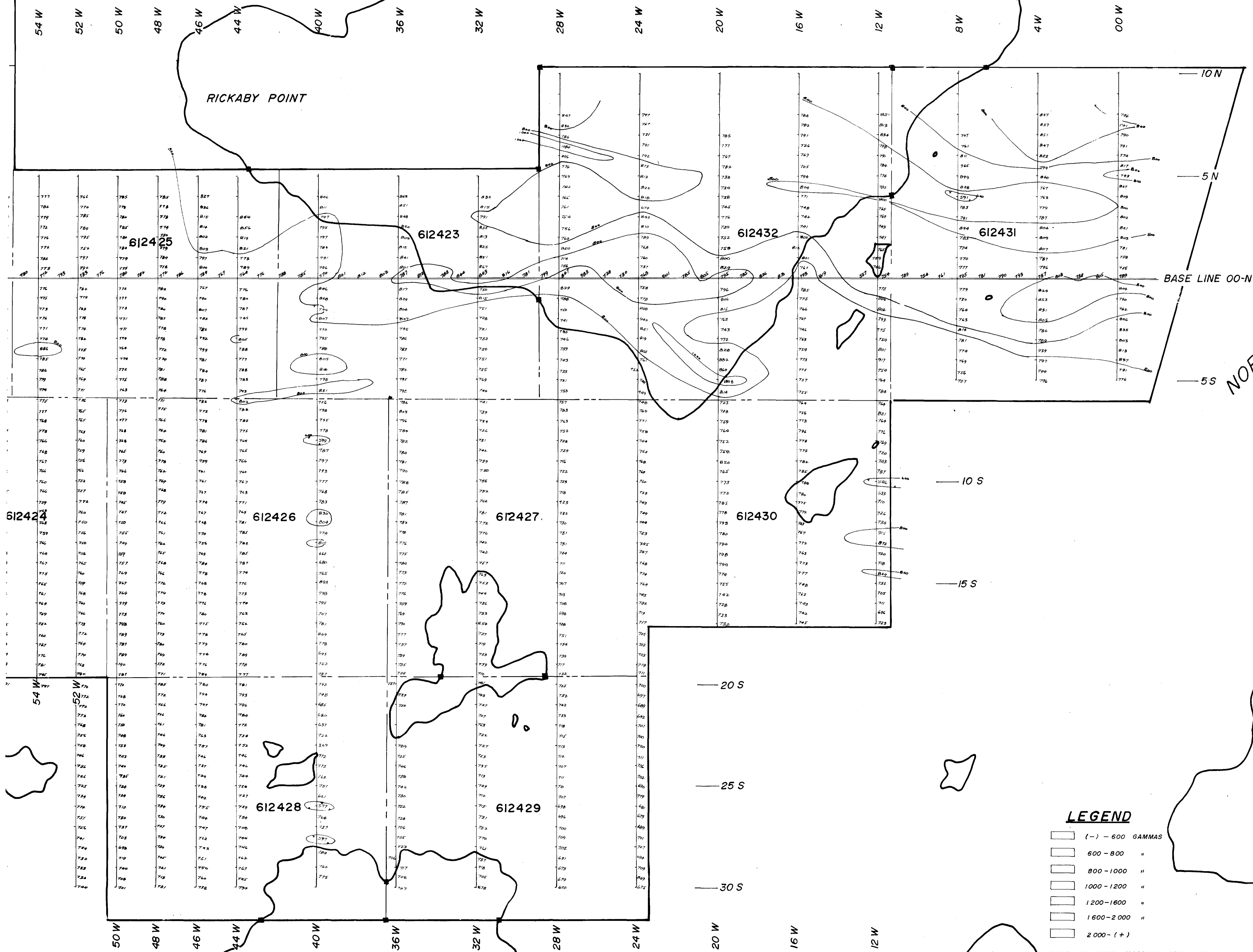
CHESTER J. KURLIOW
 SCALE: 1" = 200'
 JANUARY, 1984.





KEY MAP

SCALE: 1" = 1/2 Mile



NORTHEAST ARM

LEGEND

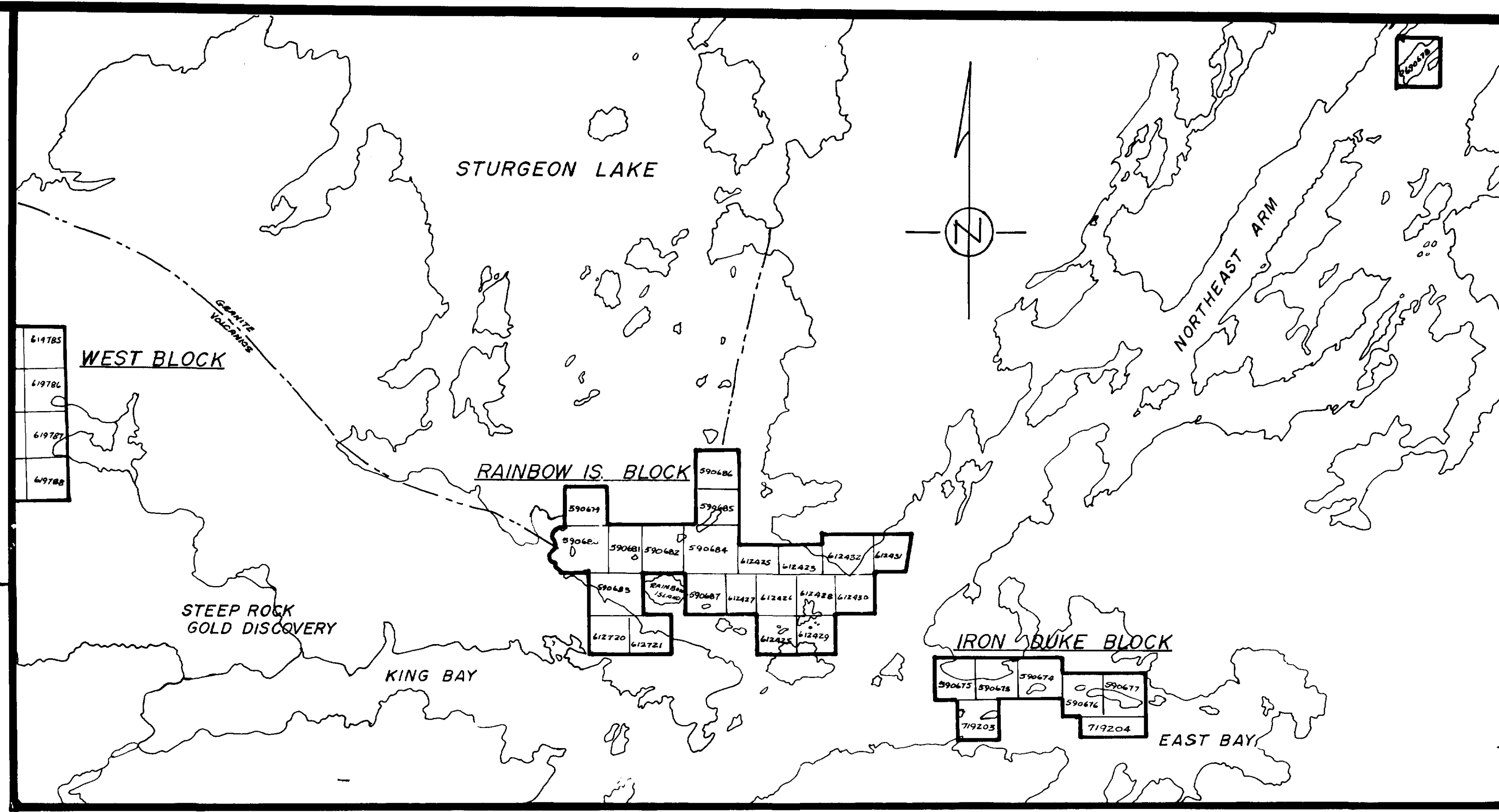
- (-) - 600 GAMMAS
- 600 - 800 "
- 800 - 1000 "
- 1000 - 1200 "
- 1200 - 1600 "
- 1600 - 2000 "
- 2000 - (+)

NOTE: FOR TOTAL MAGNETIC FIELD ADD 59,000 GAMMAS

INSTRUMENT: SCINTREX PRESSION MAGNETOMETER MP-2
 SENSITIVITY: (±) 1 - GAMMA
 GRADIENT TOLERANCE: 150 GAMMAS PER FOOT
 READINGS: CORRECTED AND PLOTTED WITH 59,000 GAMMAS SUBTRACTED
 CONTOUR INTERVAL: 200 GAMMAS
 BASE STATION 00-N, 4E IS 59,250 GAMMAS

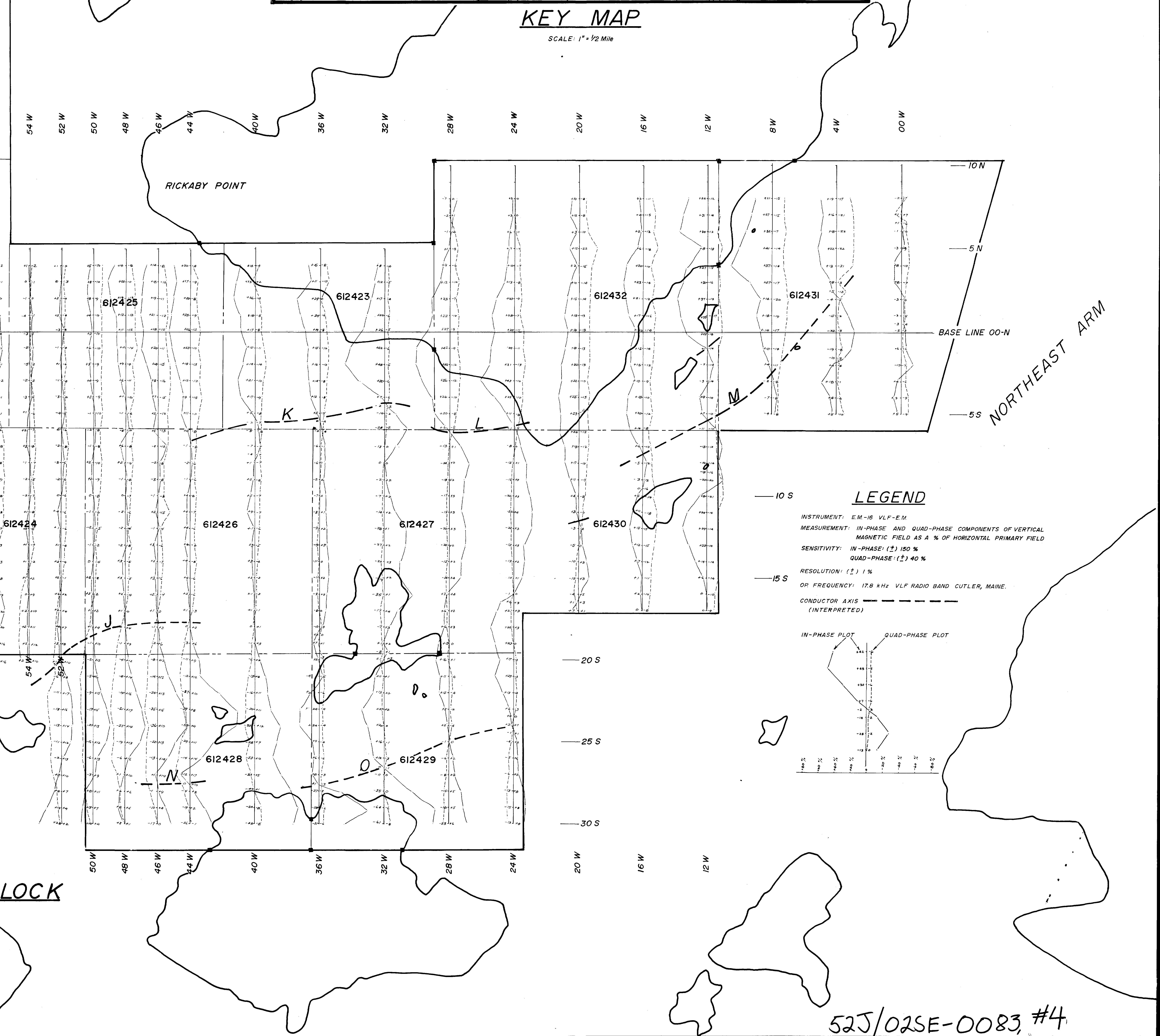
LOCK

52J/02SE-0083, #2



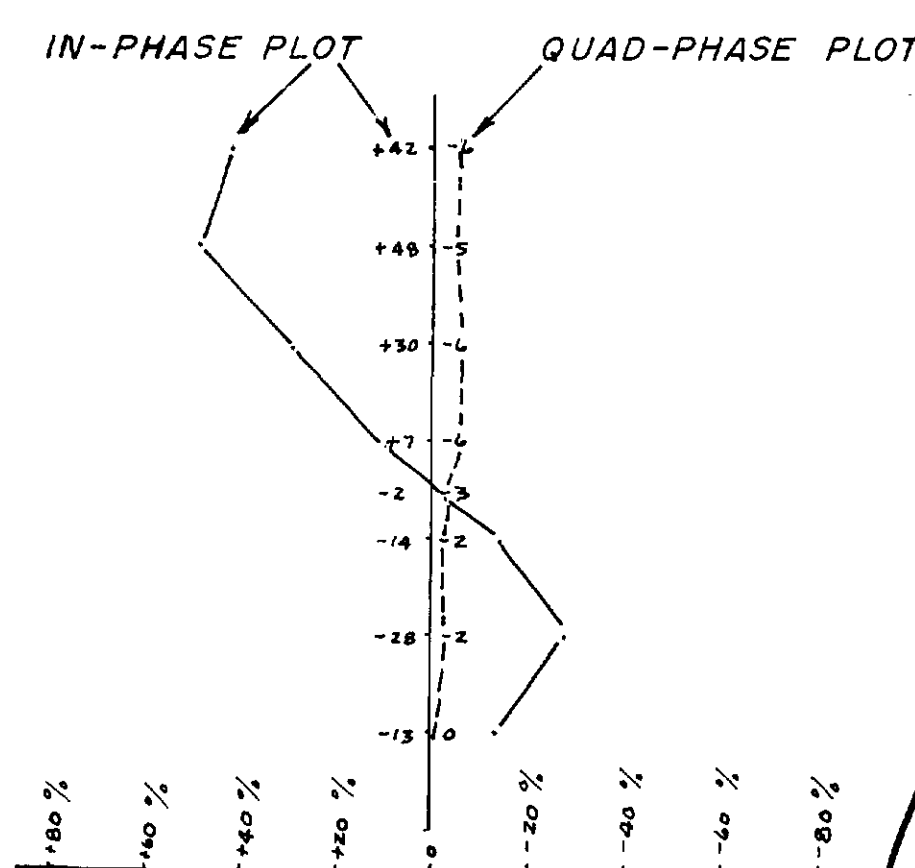
KEY MAP

SCALE: 1" = 1/2 Mile



LEGEND

INSTRUMENT: E.M.-16 VLF-E.M.
 MEASUREMENT: IN-PHASE AND QUAD-PHASE COMPONENTS OF VERTICAL MAGNETIC FIELD AS A % OF HORIZONTAL PRIMARY FIELD
 SENSITIVITY: IN-PHASE: (↑) 150 %
 QUAD-PHASE: (↓) 40 %
 RESOLUTION: (↑) 1 %
 OP. FREQUENCY: 17.8 kHz VLF RADIO BAND CUTLER, MAINE.
 CONDUCTOR AXIS (INTERPRETED)



52J/02SE-0083, #4