



52K15NE0022 2.2973 SLATE LAKE

010

MAY 29 1979

MINING LANDS SECTION

GEOLOGICAL REPORT

GRID 7

SLATE LAKE AREA, N.W. ONTARIO

NTS 52K15

Toronto, Ontario.
April, 1979

N.W. Rayner
St. Joseph Explorations
Limited

SLATE LAKE AREA

SUMMARY

Geological mapping on "Grid 7" has indicated an area of felsic to intermediate metavolcanics overlying medium to coarse grained andesitic flows.

The airborne anomaly on this property is located near the contact of the mafic and intermediate metavolcanics.

INTRODUCTION

Four claims were staked by A. Jerome on August 17, 1977, to cover the airborne E.M. anomaly on the south shore of Panama Lake. This four claim group was named "Grid 7" property. Linecutting was done August 18-22, 1977. The property and Panama Lake area was mapped during July 10 and 11, 1978, by the following St. Joseph Explorations personnel.

| | | |
|----------------|---|--|
| W. Ng-See-Quan | } | St. Joseph Explorations Limited |
| A. Soever | | 90 Eglinton Ave. W., Suite 505, Toronto, Ontario. M4R 2E4 |

PROPERTY, DESCRIPTION and LOCATION

The "Grid 7" property consists of 4 - 40 acre claims numbered KRL 483663 to KRL 483666 inclusive. These four claims are located in the Slate Lake Area in the Red Lake Mining District. (see location map)

ACCESS

Access to the property is via ski or float equipped aircraft, a distance of 50 miles east of Red Lake. The grid is reached by a trail from Slate Lake to Panama Lake. (see location map)

HISTORY

To the best of the author's knowledge no previous work was done on the property. Some exploration has been carried out north of Panama Lake. During mapping an old drill camp was located on the north shore of Panama Lake, however, there is no record of the results or extent of work carried out in the area.

WORK DONE BY ST. JOSEPH EXPLORATIONS 1977-78

In May 1977 a section of the Slate Lake area was flown by Questor Surveys for St. Joseph Explorations Limited. Reconnaissance mapping at a scale of 1" = ¼ mile was carried out during July and August 1977 in the vicinity of A.E.M. conductors. During August claims were staked and lines cut on grids. Geophysical surveys were carried out during February 1978 on selected A.E.M. anomalies. Detailed geological mapping was done during July 1978 on the "Grid 7" property.

GEOLOGY

Outcrop exposure occurs in about 5% of the property. Approximately half the claim group is covered by Panama Lake. The rest of the area consists of sand and boulder plains with spruce, jackpine and poplar.

Because bedrock exposed is so sparse, the geological contacts can only be assumed. However, there appears to be a southwest-northeast contact between mafic flows to the southeast and felsic to intermediate tuffs to the northwest. Stratiform with the tuffs are quartz - feldspar porphyry dikes or porphyritic siliceous flows.

ROCK DESCRIPTIONSFelsic Intrusives (flows)

The felsic intrusives consist of quartz - feldspar porphyry. As mentioned above these rocks may actually be siliceous porphyritic flows. This unit is generally fine grained with 1-2mm quartz eyes and feldspar laths. Metamorphism and deformation has sheared both the porphyry and tuff to the same degree, resulting in schistose chloritic and sericitic rocks. Some disseminated pyrite is found in the quartz feldspar porphyry.

Felsic Metavolcanics

This unit consists of sheared rhyolite and rhyolite tuffs.

The rhyolite weathers a light beige color. In one outcrop on the north shore of Panama Lake the rhyolite tuff has highly contorted beds.

Intermediate Metavolcanics

The intermediate metavolcanics were mapped as rhyodacite and dacite tuffs. These rocks are sericitic and chloritic with disseminated pyrite. This unit weathers a buff-grey color and in most cases are highly sheared.

Mafic Metavolcanics

The mafic metavolcanics are medium to coarse grained flows, which appear to be andesitic in composition. They are massive grey-green rocks with visible feldspar laths and amphibole crystals.

STRUCTURE

The rocks strike generally east-west and dips are steeply to the south. The magnetic survey suggests either a fault along the center north-south claim line or an irregular step-shaped fold.

ALTERATION

Regional metamorphism has altered the volcanics to greenschist grade of metamorphism. Both sericitic and chloritic alteration is present in the rocks on "Grid 7" property.

MINERALIZATION

Disseminated pyrite mineralization was noted in the quartz feldspar porphyry and in the rhyodacite tuffs. The pyrite occurs as finely disseminated grains, probably less than 1% of the rock.

CONCLUSIONS and RECOMMENDATIONS

Geological mapping has indicated that the airborne anomaly occurs near the faulted or folded contact between intermediate to felsic tuffs and mafic flows.

The ground H.L.E.M. survey located the airborne anomaly on line O at 50N, with a weak to moderate E.M. response.

The author recommends that detailed H.L.E.M. surveying be done to define the anomaly better. Once the anomaly has been detailed it should be tested by diamond drilling.

Respectfully submitted,

N.W. Rayner

N.W. Rayner



52K15NE0022 2.2973 SLATE LAKE

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RECEIVED

MAY 29 1979

MINING LANDS SECTION

GEOLOGICAL REPORT

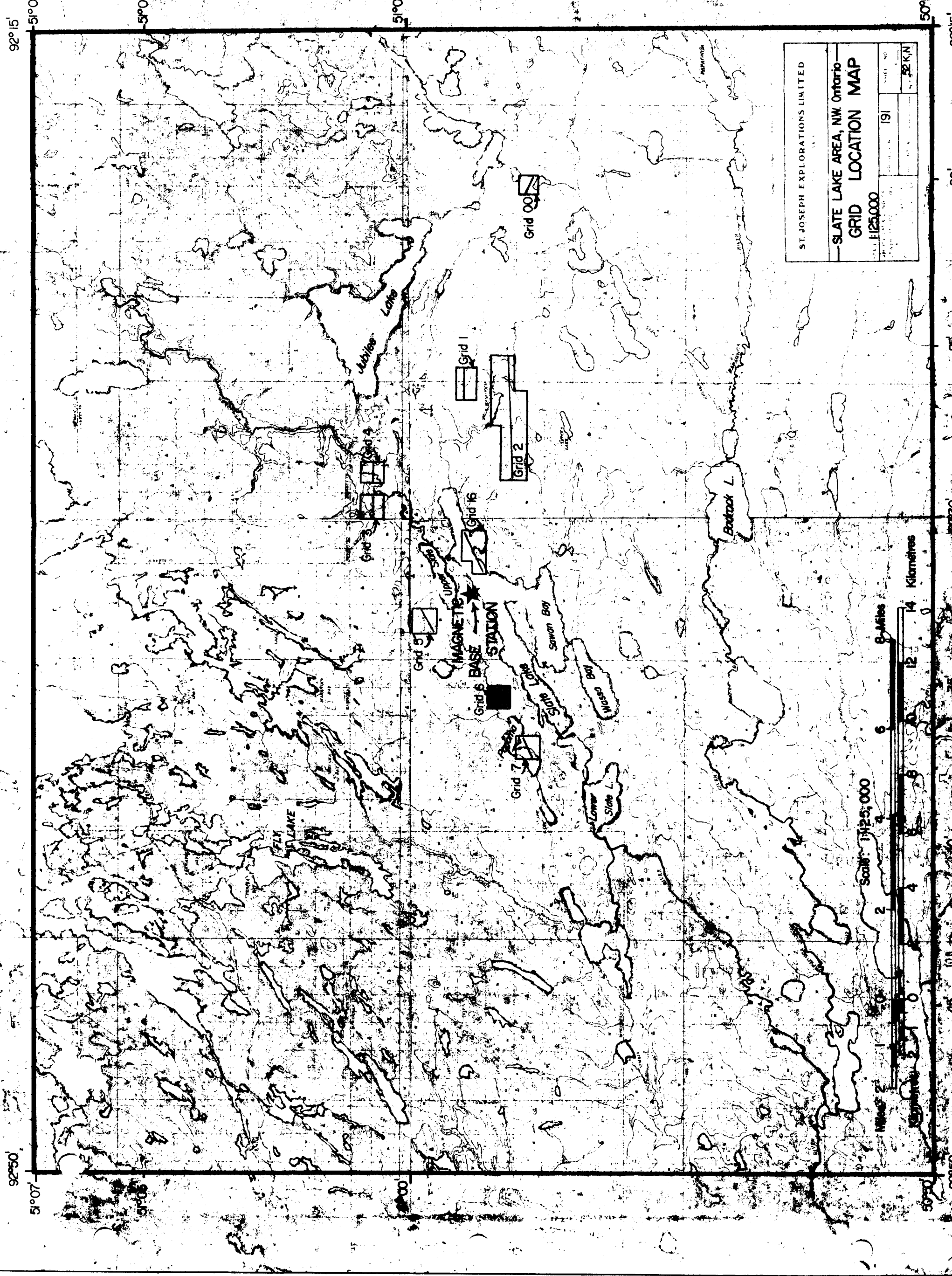
"GRID 6"

SLATE LAKE AREA

NTS 52K15

Toronto, Ontario.
April, 1979

N.W. Rayner
St. Joseph Explorations
Limited



ST. JOSEPH EXPLORATIONS LIMITED

—SLATE LAKE AREA, NW Ontario—

GRID LOCATION MAP

Scale: 1:25,000

| | | | |
|-------------|-----|-------|----------|
| DATE | 191 | BY | NC |
| PROJECT NO. | | SCALE | 1:25,000 |



SUMMARY

Geological mapping on "Grid 6" has indicated an area of intermediate to felsic metavolcanics. A few rusty weathering spots in outcrops on the property suggests disseminated sulphides in the metavolcanics. A single line airborne E.M. anomaly lies about 50 meters south of the outcrops in a large swampy area.

INTRODUCTION

Four claims were staked by A. Jerome on August 9, 1977, to cover the airborne anomaly. These claims were given the name "Grid 6". Linecutting was also done by A. Jerome from August 21 to August 25, 1977. Geological mapping was carried out on July 16-17, 1978 by St. Joseph Explorations Limited personnel. The names and addresses are listed below:

| | | |
|-----------|---|--|
| A. Soever | } | St. Joseph Explorations Limited |
| M. Marren | | 90 Eglinton Ave. West, Suite 505, Toronto, Ontario. M4R 2E4 |

PROPERTY, DESCRIPTION and LOCATION

The "Grid 6" property consists of 4 - 40acre claims numbered KRL 483667-483670 inclusive. These four claims are located in the Slate Lake Area of the Red Lake Mining District. (see location map)

ACCESS

Access to the property is via float or ski equipped aircraft, a distance of 50 miles east from Red Lake. Then by walking north from a point half way long the north shore of Slate Lake. (see location map)

HISTORY

To the best of the author's knowledge no previous work was done on this property.

WORK DONE by ST. JOSEPH EXPLORATIONS 1977-78

This property lies within a larger area covered by an Airborne Electromagnetic Survey carried out in May, 1977. Reconnaissance mapping was done in the area of "Grid 6" during August, 1977.

A horizontal loop electromagnetic and magnetometer surveys were done during February, 1978. The ground E.M. survey located the conductor on line 1W/100S.

The following summer detailed geological mapping was carried out on the "Grid 6" property.

GEOLOGY

Outcrop exposure is sparse within the claim group. Only two outcrop areas were located, one 25m to 50m south of the base lines between lines 1W and 1E and the other 200m north of the base line between lines 2E and 3E. The rest of the area consists of spruce and alder swamp.

Mapping both east and west of the "Grid 6" property indicates that it should be underlain by a thick sequence of intermediate to felsic tuffaceous metavolcanics of approximately 1000m minimum thickness.

ROCK TYPE DESCRIPTIONIntermediate Metavolcanics

Intermediate metavolcanics were mapped as dacite. This unit consists of fine grained tuff with interlayered thinly bedded light buff and grey-green layers. Within this unit there are zones of cherty rhyolitic lapilli tuff with rusty weathering spots.

Felsic Metavolcanics

The felsic metavolcanics were mapped as rhyolite. Only one outcrop of rhyolite occurs on the grid. This unit is a schistose light grey rhyolite tuff.

STRUCTURE

The rocks strike generally east-west and dips are steeply to the south.

ALTERATION

Very little significant alteration was noted in the outcrops on the "Grid 6" property. Some silicification was noted in the outcrops south of the base line, in the form of numerous quartz veinlets. Oxidation of sulphide mineral gave local rusty patches.

MINERALIZATION

No mineralization other than the rusty spots noted above was observed on the property.

CONCLUSIONS and RECOMMENDATIONS

Geological mapping suggests that the airborne anomaly lies within intermediate to felsic sequence of tuffaceous metavolcanics which is a minimum of 1000 meters thick.

Since the anomaly lies in a very large swamp the geological mapping has not aided in explaining the conductor. It is recommended that this anomaly be tested by diamond drilling.

Respectfully submitted,

N.W. Rayner

NWR*MS

N.W. Rayner

AREA OF
2,2973
SLATE LAKE

DISTRICT OF
KENORA
(PATRICIA PORTION)
RED LAKE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

DISPOSITION OF CROWN LANDS

- PATENT, SURFACE AND MINING RIGHTS ●
- " " SURFACE RIGHTS ONLY ○
- " " MINING RIGHTS ONLY ◐
- LEASE, SURFACE AND MINING RIGHTS ■
- " " SURFACE RIGHTS ONLY □
- " " MINING RIGHTS ONLY ▨
- LICENCE OF OCCUPATION ▼
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED

NOTES

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

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970)

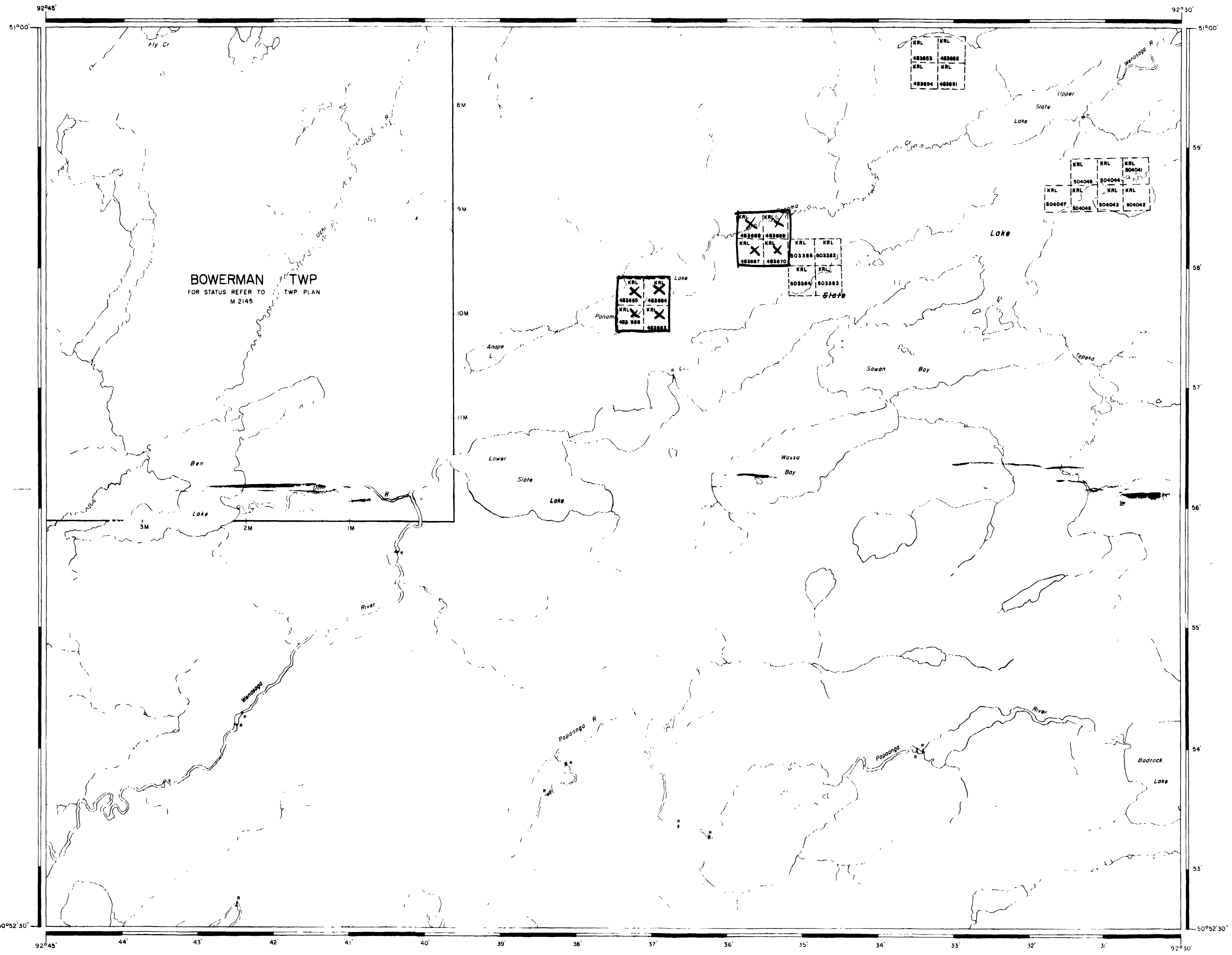
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DATE OF ISSUE
MAY 31 1979
SURVEYS AND MAPPING
BRANCH

NATIONAL TOPOGRAPHIC SERIES 52K

PLAN NO. **M-2412**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

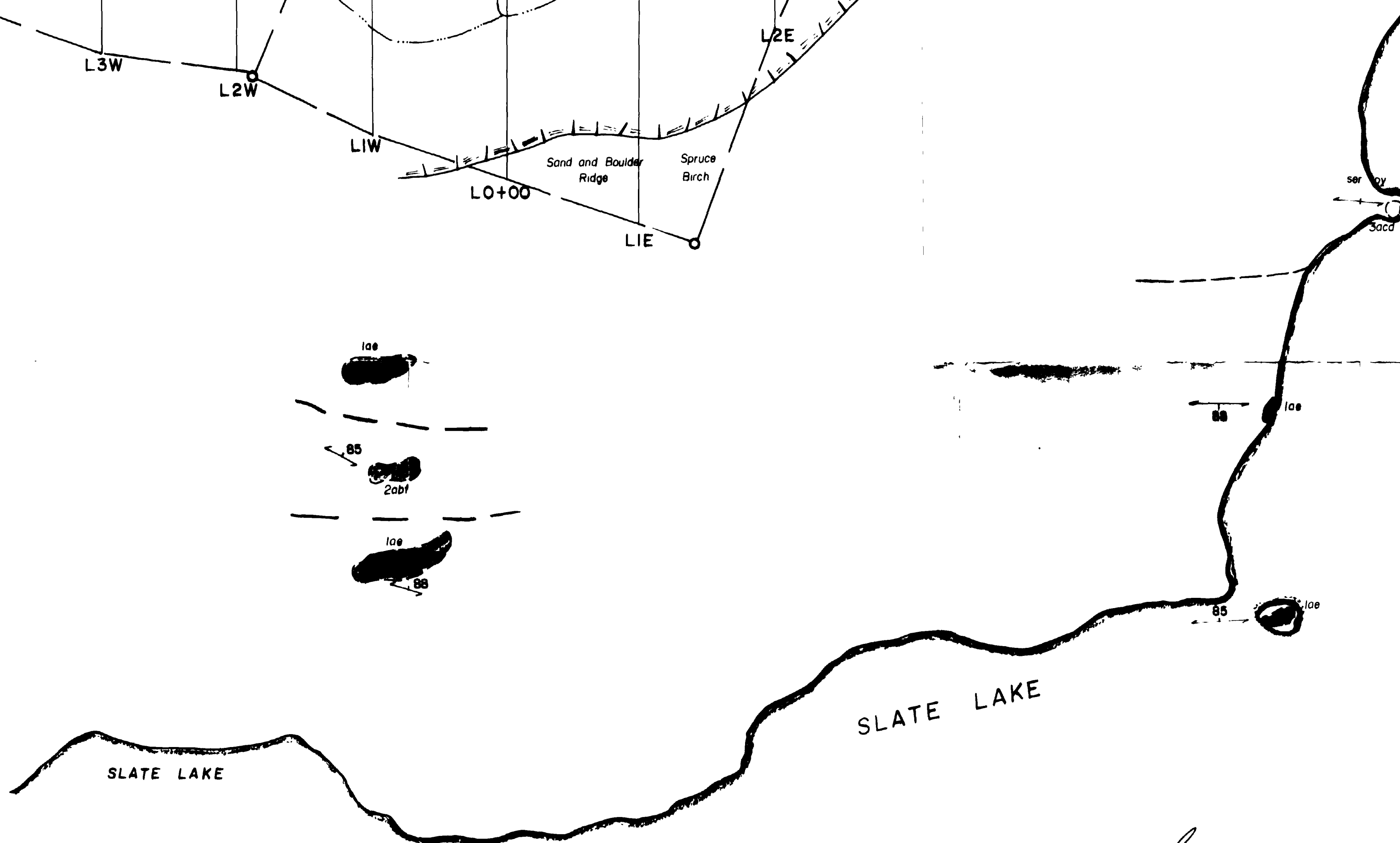
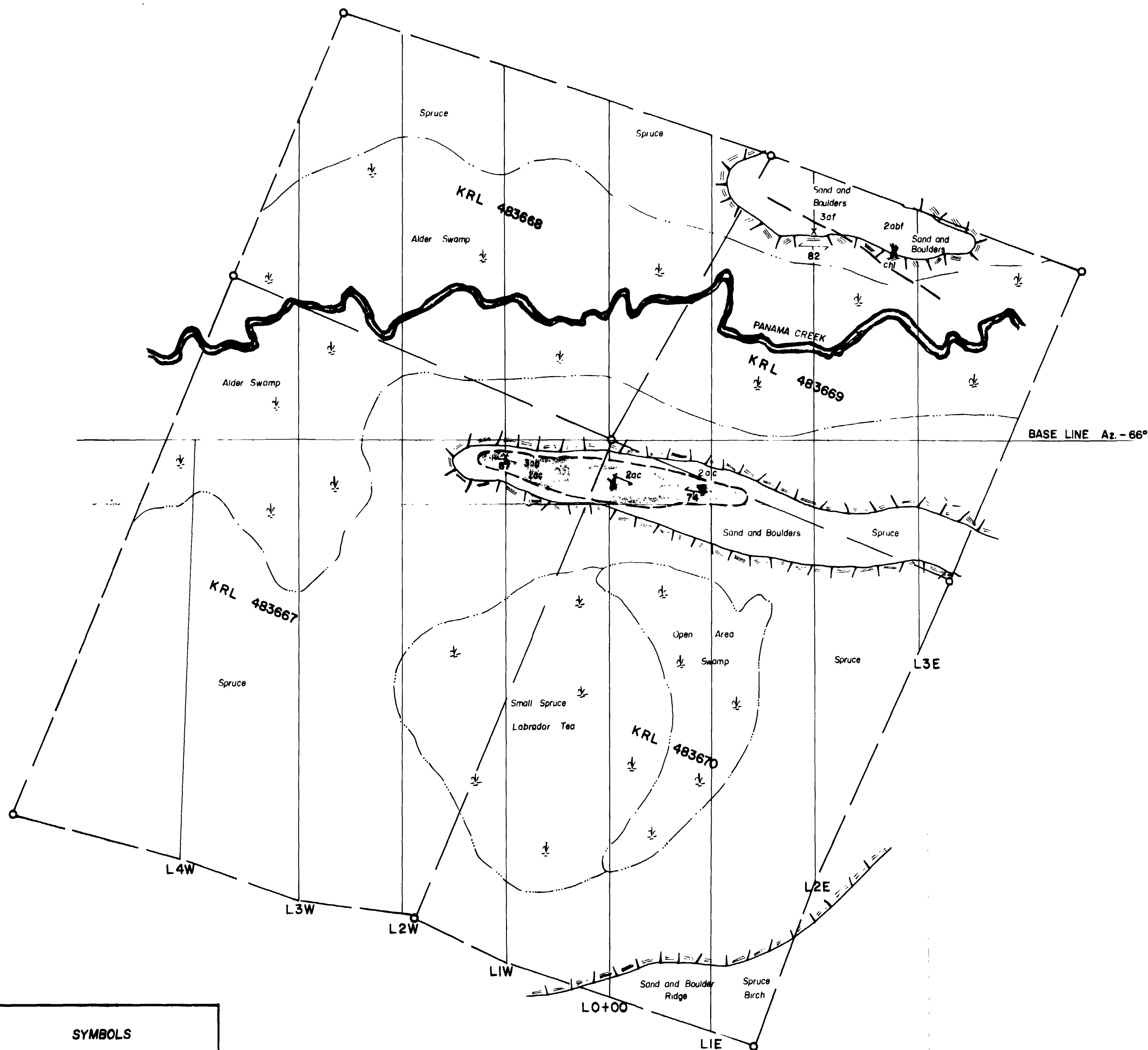


Whitemud Lake Area (M-2413)

Fredart Lake Area (M-2415)

Avis Lake Area (M-2410)





LEGEND

3 FELSIC METAVOLCANICS

- a Rhyolite
- b Tuff

- c Lapilli tuff
- d Agglomerate
- e Massive
- f Sheared

INTERMEDIATE METAVOLCANICS

- a Dacite
- b Tuff
- c Lapilli tuff
- d Agglomerate
- e Massive
- f Sheared

MAFIC METAVOLCANICS

- a Andesite-basalt
- b Flow
- c Pillowed
- d Massive
- e Sheared

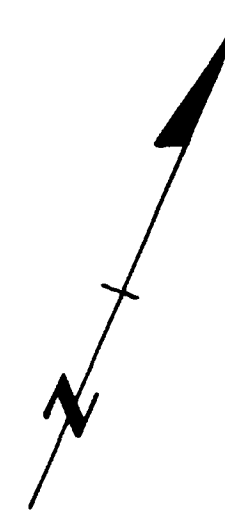
SYMBOLS

- Area of bedrock outcrop
- x Small bedrock outcrop
- - - Geological boundary
- 75 Foliation, inclined
- ⊕ Claim post
- ⊙ Swamp
- ▬ Ridge
- Creek, direction of flow
- chl Chlorite
- ser Sericite
- py Pyrite



210

MAPPED BY A SOEVER
M MARREN
SURVEY DATE JULY 16, 1978



M. W. Rayner

ST. JOSEPH EXPLORATIONS LIMITED

INCORPORATED IN CANADA

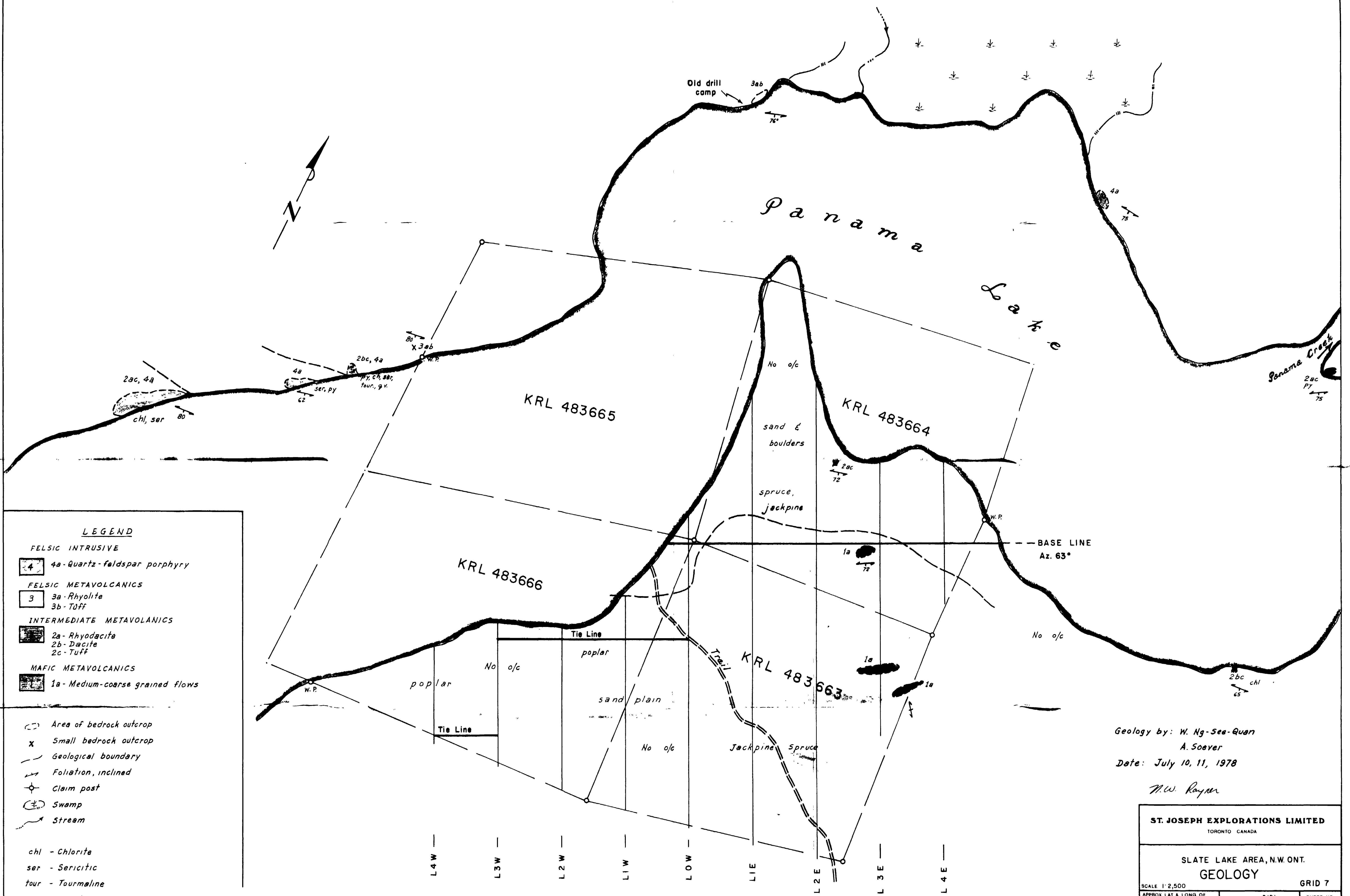
SLATE LAKE AREA N.W. ONTARIO

GEOLOGY

GRID 6

SCALE 1:2,500

| | | |
|---|-------|------------|
| APPROX. EST. AREA OF COVERED BY THIS CLAIM | ACRES | SQ. METERS |
| | | |
| DATE OF SURVEY | | |
| | | |



LEGEND

FELSIC INTRUSIVE
 4 4a-Quartz-feldspar porphyry

FELSIC METAVOLCANICS
 3 3a-Rhyolite
 3b-Tuff

INTERMEDIATE METAVOLCANICS
 2a-Rhyodacite
 2b-Dacite
 2c-Tuff

MAFIC METAVOLCANICS
 1a-Medium-coarse grained flows

○ Area of bedrock outcrop
 x Small bedrock outcrop
 — Geological boundary
 ↗ Foliation, inclined
 ⊕ Claim post
 ⊕ Swamp
 ~ Stream

chl - Chlorite
 ser - Sericitic
 tour - Tourmaline
 q.v. - Quartz veins
 py - Pyrite

Geology by: W. Ng-Sea-Quan
 A. Soever
 Date: July 10, 11, 1978
 M.W. Rayner

ST. JOSEPH EXPLORATIONS LIMITED
 TORONTO CANADA

SLATE LAKE AREA, N.W. ONT.
GEOLOGY

SCALE 1:2,500

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|--|-----------------|------------|
| APPROX LAT & LONG OF LOWER RT COR OF DWG | PROJECT NO 3191 | SHEET NO |
| — OF — | REPORT NO | NTS 52K/15 |
| — OF — | | |

GRID 7

