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32D04SE0386 2.2855 SKEAD

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REPORT ON
GEOLOGICAL SURVEY
Lots 5 to 8 Concessions 5 and 6
SKEAD TOWNSHIP, ONTARIO

by

R. A. MACGREGOR, P. Eng.

November 23, 1978

RECEIVED
611110
MINING DEPARTMENT

I. INTRODUCTION

A geological survey was run over lines cut on some 24 claims in Skead township at various times from June to November, 1978.

II. LOCATION, ACCESS AND OWNERSHIP

The property is located in lots 5 to 8, Concessions 5 and 6 Skead Township, Larder Lake Mining Division, District of Temiskaming, Ontario. The claims are numbered L396274 to 396277 inclusive; L396281; L396283 to 396287; L442035 to 442038; L442040 to 442043 all inclusive; L442058; L442060 to 442063 inclusive and 512137. They are recorded in the name of R.A. MacGregor, 134 Palace Drive, Sault Ste. Marie, Ontario.

Highway 624, a paved secondary highway passes through the claims about 8 miles south of the town of Larder Lake, Ontario. Bush roads passable to trucks or 4-wheel drive vehicles extend to other parts of the claims.

III. PREVIOUS EXPLORATION

Gold was discovered during or before the 1920's and exploration carried out at that time and into the 1930's. A large number of old pits, trenches, and drill casing is still in evidence from this work. A shaft was sunk on claim L341838 to a reported depth of 500 feet with lateral work on the 215 and 475 foot levels. Little information is now available on this work, although there is reference to some spectacular gold showings in Ontario Department of Mines reports from that period.

II. PREVIOUS EXPLORATION (continued)

More recently the claims have been surveyed by magnetometer, VLF-EM and soil sampling surveys. Some surface trenching has also been carried out.

IV. TOPOGRAPHY

The major part of the property is covered by Pleistocene drift, gravel and swamp. Rocky hills up to 20 feet above the surrounding area with fair to good rock exposure occur in a few areas of basalt and ultramafic outcrop. A large part of the claims are covered with drift, swamp or beaver ponds with scattered very small outcrops in some of the higher areas. The property is covered with a dense second growth of poplar, birch, alder and wild cherry with black spruce in the more swampy parts. With this is a thick growth of underbrush which makes the location of small outcrops difficult. A number of beaver ponds, or now dry beaver meadows cover many of the stream courses.

V. MAPPING PROCEDURE

A grid of picket lines were cut for the geological survey. Base lines and tie lines were cut east-west at approximately 2 claim intervals. Cross lines were run north-south at 400 foot intervals. The lines follow approximately old lines which were cut some years ago but were too overgrown to be usable. The picket lines were chained and picketed every 100 feet. The pickets were marked with fluorescent red paint for easier observation. Trial lines were run east and west from the picket lines by pace and compass in search of

V. MAPPING PROCEDURE (Continued)

poorly exposed outcrop. All outcrops found were noted in a field book as to rock type and distance from picket lines. This information was then plotted on a 1" = 400' scale plan.

VI. GENERAL GEOLOGY

The general geology of norther Skead Township has been described by D.F. Hewitt ⁽¹⁾. The area is underlain by early Precambrian volcanics, sedimentary rocks and intrusives.

Hewitt used a classification and nomenclature to conform with that used by J.E. Thomson ⁽²⁾ in Hearst Township to the north. All the volcanics were classified as Keewatin; with the sediments classified as Temiskaming. Both these rocks were cut by later Algomian intrusives. A group of diorite, gabbros and serpentized peridotites are classified as Post Keewatin intrusives. The geological succession of the area as proposed by Hewitt is given in the following table:

Table of Formations

QUATERNARY

Recent and Pleistocene:	Clay, sand gravel. Great unconformity
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PRECAMBRIAN

Keweenawan or Matachewan:	Diabase.
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Intrusive contact

Huronian (Cobalt Series)	Conglomerate, grewache, arkose, slate, quartzite.
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Great unconformity

Algomian:	Syenite; syenite porphyry; granite; granite porphyry; felsite; aplite; lamprophyre; basic syenite;
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Table of Formations (Continued)

Algoman: (Cont'd)	hornblende syenite; hornblende diorite; amphibolite, hornblendite. Intrusive contact
Timiskaming:	Fine-grained sediments; greywacke, arkose, slate, iron formation. Conglomerate with interbedded greywacke. Great unconformity
Post-Keewatin:	Diorite, diabase, gabbro, serpentinized peridotite. Intrusive contact
Keewatin:	<u>Early Intrusives:</u> Quartz porphyry, feldspar porphyry, dacite porphyry. <u>Basic and Intermediate Volcanics:</u> Greenstone, pillow lava; diabasic, dioritic, and gabbroic lava, fragmental lava, agglomerate, pyroclastics, dacite, talc-chlorite schists, andsite, tuff, sheared basic lava. <u>Acid Volcanics:</u> Rhyolite, cherty tuff, rhyolite tuff, tuff agglomerate, fragmental lavas, trachyte.

From the mapping, the sediments appear to be related to the volcanics and are probably the same relative age. If this is correct, they should not be correlated with the Temiskaming series.

- (1) O.D.M. Report Vol. 58 part 6, 1949
(2) O.D.M. Report Vol. 56 part 8, 1947

VII. PROPERTY GEOLOGY

Rocks occurring on the property consist mainly of volcanic flows ranging from Komatiitic ultramafics overlain by basalts, andesites and rhyolites followed by a very coarse agglomerate. The agglomerate are in turn overlain by fine grained sedimentary rocks.

The flows trend north-west; south-east. Spinifex texture was noted in a number of locations in gabbroic to diabasic textured flows along the western part of the claims. The mafic to felsic volcanics are believed to include both the Calc-Alkaline Field and the Tholeiitic Field, however chemical analysis is not yet available to confirm this or to allow the types to be separated from the field work. Some of the volcanics particularly in the south part adjacent to the known Komatiitic ultramafics may also belong to the Komatiitic Field. Chemical analysis to be carried out at a later date may resolve this problem.

The basaltic rocks are greenish grey to dark green in colour. The more massive basalt contains pyrite up to 1-2%. The basalt is sheared in many places and contains carbonate, quartz-carbonate and quartz veinlets.

The rhyolite ranges in colour from white to light greenish. It ranges from a massive very siliceous looking rock with a conchoidal fracture to a porphyritic appearing rock with quartz and feldspar phenocrysts. An outcrop in the south-west corner of the group has been sericitized and carbonatized.

VII. PROPERTY GEOLOGY (Continued)

Rocks mapped as andesite range in composition from massive to a coarse pyroclastic beccia and overlie the basalts. A rock mapped as dacite is similar to the rhyolites excepting for being a reddish-grey to greyish brown colour. It contains clear quartz phenocrysts and appears to be partially carbonated. The rock may be a Tholeiitic rhyolite.

Overlying the felsic rocks is an exotic agglomerate. The clasts range in composition from rhyolite porphyry to ultramafic volcanics and in size from less than an inch to over 15 feet in diameter within an ultramafic flow matrix. It has previously been mapped as felsic agglomerate. Because of the large size of the clasts and generally poor exposure in the area this unit may have been mismapped as its clasts in places. The unit is probably an avalanche deposit; the clast material can be seen in place usually within a thousand or a few thousand feet.

The agglomerate is overlain by a fine grained clastic sediment mapped as greywacke. The greywackes are well bedded with good grain gradation. Cross-bedding and festooning are fairly common.

Algomian intrusive rocks consist of dark basic syenite and light pink quartz-feldspar porphyry. The basic syenite consists of hornblende, biotite and plagioclase feldspar. The pink quartz-feldspar porphyrys usually occur as narrow dykes. They often contain 1-2% pyrite and in a few places particularly in the north part of lot 7 Concession 5 have been sericitized and carbonated. Narrow dykes of lamprophyre are fairly common,

VII. PROPERTY GEOLOGY (Continued)

but often too small to map. They consist of black biotite phenocrysts up to 1/8" in a soft black fine grained matrix. Amydaloidal mafic dykes were found cutting all the rocks present. The dykes are up to 3' wide, are basaltic in composition and contain amydules up to 1/8" filled with epidote.

Gold showings occur at a number of places associated with quartz veining and pyrite mineralization. These have been explored by trenching and test-pitting in the past. The pits and trenches are now filled with debris, so that the bedrock is not now exposed. The gold showings found to date are of three types.

(1) Quartz veins cross-cutting the basalt as on claim L442035 and in a vein seen underwater in a trench south-east of the Manor shaft.

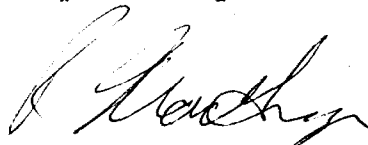
(2) Quartz-carbonate zones with pyritized syenite dykes as in the north parts of lots 7 and 8 Concession 5.

(3) Syenite dykes mineralized with pyrite. These are also found in the north part of lots 7 and 8 Concession 5 and seem to be associated with the quartz carbonate zones.

VIII. CONCLUSIONS

The property has a number of old gold showings which have been trenched and test-pitted in the past. The overall geology is similar to that of the "Larder Lake Break" suggesting that similar gold mineralization may be found. Outcrops are very sparse over most of the claims, or covered by moss and overburden. Further prospecting is warranted.

Respectfully submitted



Robert A. MacGregor, P. Eng.

November 23, 1978



Ministry

GEOPHYSICAL - GEOTECHNICAL



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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(s) Geological
Township or Area Skead
Claim Holder(s) R.A. MacGregor
134 Palace Dr. Sault Ste. Marie
Survey Company ---
Author of Report R.A. MacGregor
Address of Author Box 1110, Sault Ste. Marie
Covering Dates of Survey June - November 1978
Total Miles of Line Cut 21.0

MINING CLAIMS TRAVERSED
List numerically

- L 396274
L 396275
L 396276
L 396277
L 396281
L 396283
L 396284
L 396285
L 396286
L 396287
L442035
L442036
L442037
L442038
L442040
L442041
L442042
L442043
L442058
L442060
L442061
L442062
L442063
L512137

SPECIAL PROVISIONS CREDITS REQUESTED
Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other
Geological 40
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer Electromagnetic Radiometric
DATE: Nov. 23/78 SIGNATURE: [Signature]

Table with columns: File No., Type, Date, Claim Holder. Includes handwritten 'L.D.' and '2.1102 on this file'.

TOTAL CLAIMS 24

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____
Station interval _____ Line spacing _____
Profile scale _____
Contour interval _____

MAGNETIC

Instrument _____
Accuracy - Scale constant _____
Diurnal correction method _____
Base Station check-in interval (hours) _____
Base Station location and value _____

ELECTROMAGNETIC

Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency _____
(specify V.L.F. station)
Parameters measured _____

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____
Method Time Domain Frequency Domain
Parameters - On time _____ Frequency _____
- Off time _____ Range _____
- Delay time _____
- Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

NOTES

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

All unpatented mining claims accepted subject to survey, Section 118 of the Mining Act (R.S.O. 1970).

SAND and GRAVEL

M.T.C PIT No. 1230

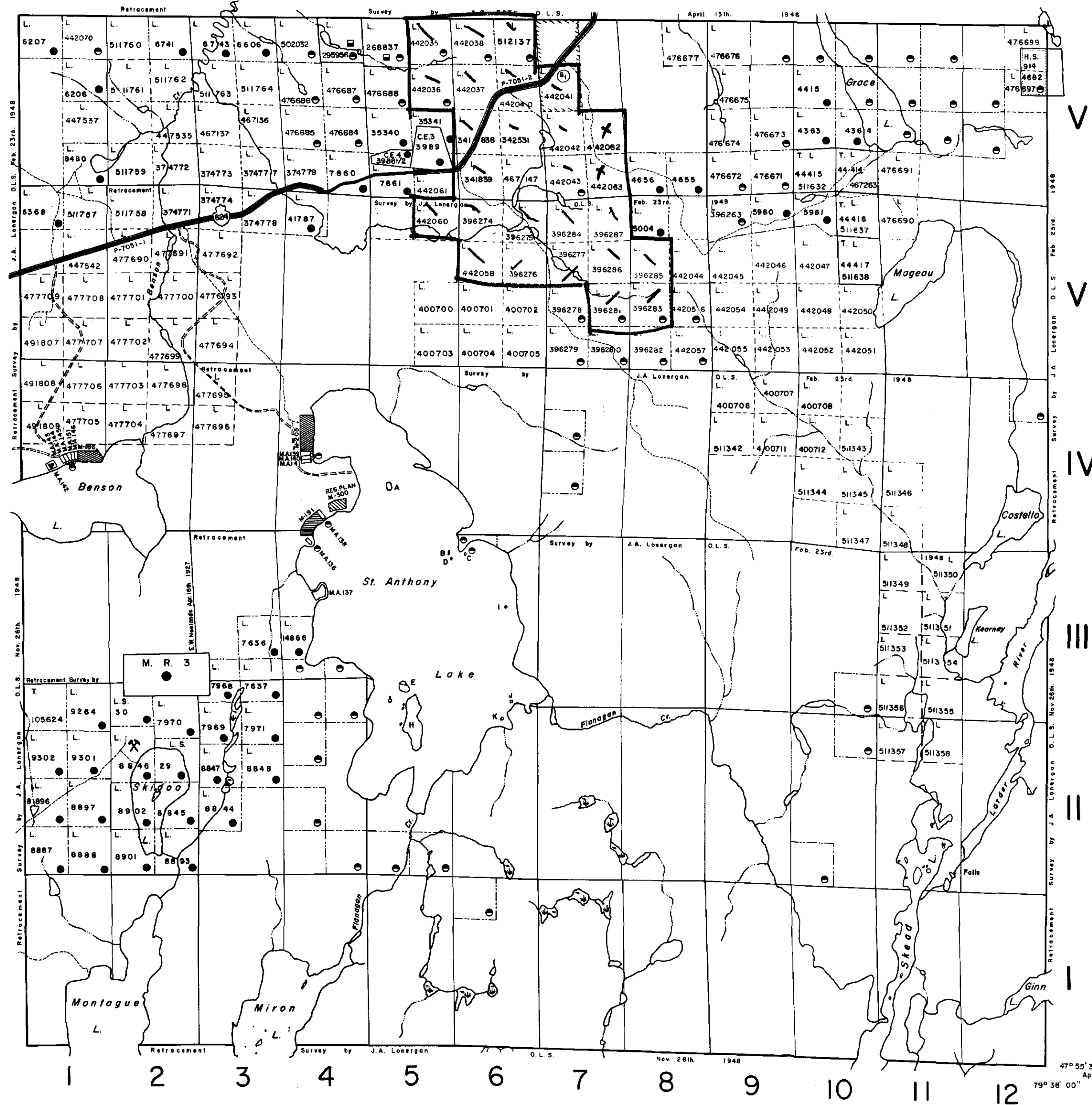
DATE OF ISSUE
DEC - 5 1978
SURVEYS AND MAPPING
BRANCH

HEARST TP. M.354

CATHARINE TP. M.336

RATTRAY TP. M.384

BAYLY TP. M.323

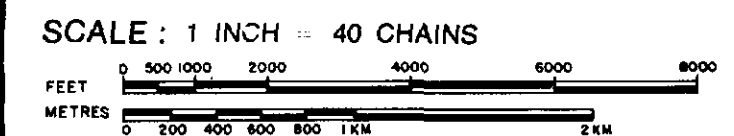


LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- 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	
LICENCE OF OCCUPATION	
CROWN LAND SALE	C.S.
ORDER-IN-COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	

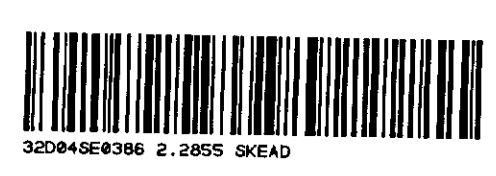
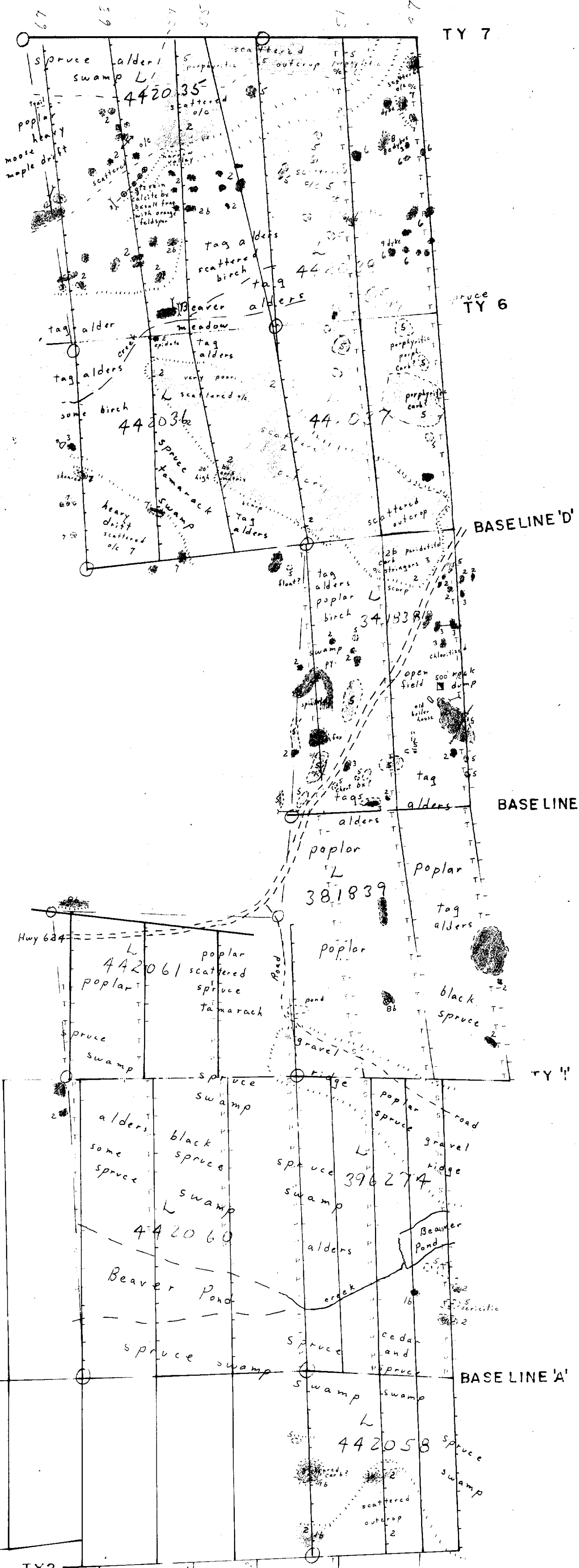
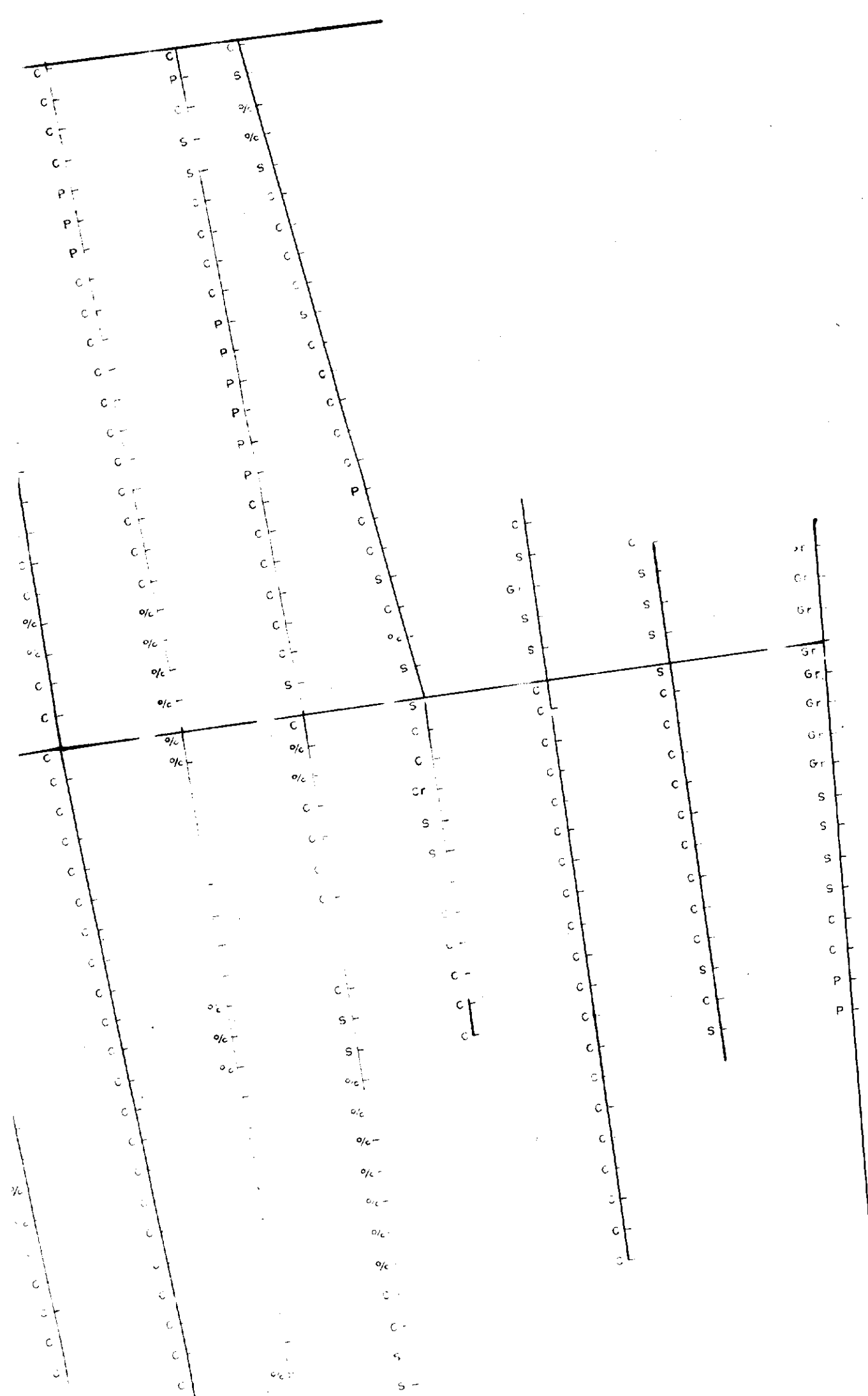


ACRES	HECTARES
40	16

TOWNSHIP 2.2855
SKEAD
 DISTRICT
 TIMISKAMING
 MINING DIVISION
 LARDER LAKE

Ministry of Natural Resources
 Ontario Surveys and Mapping Branch
 Date 10/4/74 Plan No. M.387
 Whitney Block Queen's Park, Toronto





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LINCOLN-NIPISSING PROJECT
GEOLOGICAL SURVEY

CENTRAL SHEET
SCALE: 1" = 400'

- LEGEND**
- T TILL
 - S SAND
 - P PEAT, BLACK MUCK
 - C CLAY
 - GR GRAVEL
 - B BOULDERS
 - W WATER
 - % OUTCROP

- LEGEND**
- 10 L AMPHOPHYRE
 - 9 MAFIC AMYDALOIDAL DYKES
 - QUARTZ-FELDSPAR PORPHYRY
 - (b) FELDSPAR PORPHYRY
 - (c) BASIC SYENITE
 - CREYWACKE
 - AGGLOMERATE
 - RHYOLITE
 - DACITE
 - ANDESITE, ANDESITE BRECCIA
 - BASALT, MASSIVE
 - (b) SHEARED
 - ULTRAMAFIC
 - (b) SERPENTINIZED PERIDOTITE
 - (c) SERPENTINITE
 - (d) PYROXENITE
 - STRIKE AND DIP OF BEDS
 - STRIKE AND DIP OF SCHISTOSITY
 - STRIKE OF LAVA FLOWS
 - TRENCH
 - PIT
 - SHAFT
 - DIAMOND DRILL HOLE

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LINCOLN-NIPISSING PROJECT
GEOLOGICAL SURVEY

EAST SHEET

SCALE: 1" = 400'

LEGEND

- T TILL
- S SAND
- P PEAT, BLACKMUCK
- C CLAY
- GR GRAVEL
- B BOULDERS
- W WATER
- % OUTCROP

LEGEND

- 10 LAMPROPHYRE
- 9 MAFIC AMYDALOIDAL DYKES
- QUARTZ-FELDSPAR PORPHYRY
- (b) FELDSPAR PORPHYRY
- (c) BASIC SNIENITE
- GREYWACKE
- AGGLOMERATE
- RHYOLITE
- DACITE
- ANDESITE, ANDESITE BRECCIA
- BASALT, MASSIVE
- (b) SHEARED
- ULTRAMAFIC
- (b) SERPENTINIZED PERIDOTITE
- (c) SERPENTINITE
- (d) PYROXENITE
- STRIKE AND DIP OF BEDS
- STRIKE AND DIP OF SCHISTOSITY
- TRENCH
- PIT
- SHAFT
- DIAMOND DRILL HOLE



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