CASSELS - STRATHY CLAIM BLOCK

GEOLOGICAL REPORT

INTRODUCTION

This report presents the results of a detailed geological program on 45 claims in southeastern Strathy and southwestern to central Cassels townships, Sudbury Mining Division. An average of four employees of the Canadian Nickel Company were employed under the direction of R. A. Bennett MSc. whose permanent address is Canadian Nickel Company Limited, Copper Cliff, Ontario. A summary of the exploration work completed to date is tabulated below:

Oct. 16, 1973	- Mining claims recorded.
Mar. 12 to Apr. 5, 1974	- Line cutting & partial geophysical survey.
May 13 to July 14, 1974	- Line cutting & geological mapping.
Aug. 23 to Sept. 30, 1974	- Line cutting & geological mapping.

The claims covered by this report are listed below and are owned by the Canadian Nickel Company Limited.

L 374141 - 374160 inclusive
L 374865 & 866
L 374869 - 872 inclusive
L 374876 - 374891 inclusive
L 374893 - 374895 inclusive

The purpose of this survey was to outline the location of favourable geological environments for volcanogenic copper-zinc sulphides. The claims were traversed at a maximum of 400 feet intervals using cut grid lines for control. The geological, topographical and cultural data were plotted on a 1 inch to 200 feet scale map (in pocket).

LOCATION & ACCESS

The claims lie approximately 1 mile through 5 miles northeast from the town of Temagami (see Location Map). Access to the claims in summer is by bush road from Temagami, and in winter is by snowmobile from Goward, southeast across Net Lake.

R.A. BENNETT
OCTOBER 1974

GEOLOGY

General

Bedrock exposures represent approximately 25 percent of the surface area of the claim block and consist mainly of a complex accumulation of Precambrian metavolcanics that are unconformably overlain by younger clastic sediments and intruded by lesser mafic dykes and a large diabasic sheet. The volcanic units strike approximately east-north-east and are near vertically dipping with tops indicated to the south. Syndepositional and later tectonism have riddled the area with faults, shears, and joints, further complicating the stratigraphy. The geologic column as observed on the claim block is summarized overleaf.

Nipissing Diabase Sheet

Nipissing diabase (1) is exposed only in the western portions of the claim block. This large diabase sheet, which in places becomes gabbroic to dioritic is medium to coarse grained, relatively unaltered, contains plagioclase, amphibole, chlorite and minor quartz and generally exhibits ophitic texture. Minor pyrite specks were noted in the diabase.

Huronian Sediments

The Cobalt group (Gowganda fm) (2) sediments lie unconformably over the Archean metavolcanics in the southern, western and far northern portions of the claim block. The basal member is generally a feldspathic quartzite to greywacke that grades upward into a coarse polymictic conglomerate. Boulders up to 5 feet in diameter were noted.

In claim 374891, a thick sequence of finely laminated and contorted varved argillaceous siltstone is exposed. Minor disseminated chalcopyrite and sphalerite were observed in this unit.

TABLE OF FORMATIONS

CENOZOIC

Pleistocene and Recent

Till, sand and gravel

PRECAMBRIAN

PROTEROZOIC

1 KEWEENAWAN

Nipissing - qtz. bearing diorite-gabbro-diabase

2 HURONIAN

Cobalt Group (Gowganda fm)

a) greywacke b) siltstone c) conglomerate

ARCHEAN

3 MINOR MAFIC DYKES - andesite to diabase

METAVOLCANICS

4 BASALT - massive to pillowed

5 DACITIC LAPILLI-TUFF - BRECCIA

6 ANDESITE - massive to sheared, pillowed

7 RHYODACITIC FLOW BRECCIA - AGGLOMERATE

8 ANDESITE - sheared to massive

9 QUARTZ - FELDSPAR CRYSTAL TUFF

10 ANDESITE - massive and sheared

11 RHYODACITE to DACITE - amydular flow

12 RHYODACITE LAPILLI TUFF - breccia

13 RHYOLITE - massive, amydular

14 ANDESITE & BASALT - massive to pillowed

The paleoslope of the Cobalt sediments was observed to be dipping gently to the south.

Minor Mafic Dykes (Archean?)

Several narrow, vertically dipping diabasic to andesitic dykes (3) were noted in the map area. These fine grained to medium grained dykes cut the volcanic units in a north-northwesterly direction. The dykes terminate at the Cobalt Group contact, thus pre-dating the Huronian. Minor pyrite mineralization occur close to the contact between these dykes and the volcanics.

Archean Metavolcanics

The volcanics range from mafic basalt through rhyolite and are characteristically highly calcic, chloritic and variably sheared.

Felsic Volcanics

The felsic volcanics and volcaniclastics show a great variety of types and are characterized by rapid lithologic changes over relatively short stratigraphic intervals. The lower most unit is a massive, aphanitic, amydular quartz-eye rhyolite flow (13) that in places becomes quite chloritic and calcic. Overlying this unit is a lapilli tuff-breccia of rhyodacite composition (12), that contains small white to pink pyroclasts (0.02 to 3.0 cm) in a light grey, aphanitic matrix. These units are terminated on the west by faulting. Minor disseminated chalcopyrite and sphalerite with pyrite were observed in several localities within the tuff-breccia.

A light grey to medium grey massive amydular quartz-eye rhyodacite to dacite flow (11) overlies the tuff-breccia unit (12). This flow is variably chloritic, sericitic and calcic and contains isolated specks of pyrite and pyrrhotite.

Fine to medium grained quartz-feldspar (plagioclase) crystal tuff (9) is exposed in the mid-central to western portions of the map area. This unit, along with an overlying massive andesite flow fall within a zone of intense east-west

shearing and thus have developed a high degree of schistosity. Minor sulphides (pyrite) were seen in this unit as well.

The last two felsic pyroclastic units (7 and 5) show extreme variability both vertically and along strike. From east to west these units vary from rhyodacite agglomerate (white to pink rhyolite pyroclasts to 9 inches in diameter in an altered chloritic matrix) to dacitic agglomerate-breccia (rhyodacitic gragments to 6" in diameter in a chloritic matrix) to a mixture of andesite-dacite-rhyodacite pyroclasts in a chloritic matrix with the introduction of some silt to greywacke units. Areas of mixing and rapid thickness and compositional changes are evident and likely due to syn-depositional tectonism such as slumping. Near Outlet Bay, these units contained minor pyrite-rich fragments. Elsewhere, only minor disseminated pyrite and pyrrhotite was seen.

Mafic Volcanics

The mafic volcanic units have been separated into two groups: Andesites (14, 10, 8, 6) and Basalts (4).

The andesites are generally massive, medium green, variably pillowed, amydular flows. Locally, they are highly sheared and quite calcic and chloritic. Minor sulphides (pyrite, pyrrhotite, chalcopyrite) were observed along several shear and joint planes. Many of the flows exhibited flow top breccias.

The basalts are typically dark green, chloritic, fine to medium grained, massive to pillowed flows, variably amydular. Only disseminated grains of pyrrhotite and pyrite were found to occur in the basalts.

Several of the mafic volcanics units appeared dioritic to diabasic due to their increased grain size. Invariably, these units became pillowed to the west. In places, even the pillows themselves were relatively coarse grained.

STRUCTURAL GEOLOGY

Initial airphoto interpretation and later field observations have indicated the claim area to be strongly faulted and sheared. Some of the faulting and shearing is likely due to the intrusion of the Strathy-Chambers granitic batholith immediately north of the claims, while the slumping, jointing and other shearing has been caused by syn-deposition tectonism associated with the volcanic center.

The schistosity, which in places is well developed, parallels the strike of the volcanic units. Where cross-cutting faults occur, narrow schistose zones parallel the faults.

The most pronounced structural break occurs along the N.E. shore of Outlet Bay. All the volcanic units along this fault are either off-set or terminated. Normal (vertical) with minor strike slip displacement is interpreted for this break. Several of the other cross-cutting faults are believed normal as well.

An extremely strong shear zone occurs through units 8 and 9 along Johnny Creek. It's displacement is unknown. Several lesser contact faults were observed and are believed to be associated with the volcanic activity. Slumping in the pyroclastic units evidenced by contorted bedding, rapid thickness changes and lithologic mixing was associated with the volcanic tectonism as well.

All topping criteria (pillows, graded bedding) in the map area indicate tops to the south. Pyroclastic size and compositional changes and pillow build-up suggest that the source of the volcanics lies to the east-north-east.

MINERALIZATION

Every unit mapped on the claim block contains minor disseminated pyrite and/or pyrrhotite. A few units as already mentioned contain chalcopyrite and sphalerite. The best mineralization occurs along the contact between units 13 (massive rhyolite) and 12 (tuff) at 46E, 49 + 50N. An old pit on the mineralized zone exposes weakly to heavily disseminated pyrite with minor pyrrhotite, chalcopyrite and sphalerite. The zone is quite discontinuous and has a maximum width of 2 feet. Two other pits along this zone (200' to the east) contain similar, but

lesser mineralization. Another old pit at 98E, 35 + 20N exposes heavily disseminated pyrite along a shear zone. Several other pits were investigated throughout the claims, but no significant mineralization was found.

CONCLUSIONS

This geological survey has outlined a favourable environment for the occurrence of volcanogenic copper-zinc sulphides. The results of the program have aided in determining what further work is necessary to test for Cu-Zn mineralization.

RAB/mm

Kanichee Lake

STRATHY TWP.

Arsenic L.

Net Lake

SHEET BOUNDARY

Boot Bay

Leroy L.

Link L.

Snake Island

TIMAGAMI Townsite

ONT. HYDRO

CASSELS TWP.

STRATHCONA TWP.

RIDDELL TWP.

Timagami Lake

Cassels Lake

N

2 3 4 5 6 7 8 9 10 11 12 13

374895 374894 374893 374891 374872 374885 374884 374871 374881 374882 374883

377142 377141 377151 377143 377146 377152 377156 377157 377158 377144 377155 377160 377159 377145 377153 377154

377148 377149 377150 374876 374865 374870 374890 374886 374880 374877 374889 374888 374887 374879 374878

CLAIM LOCATION MAP

STRATHY & CASSELS TOWNSHIP

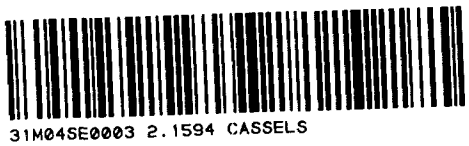
SUDBURY MINING DIVISION

DISTRICT OF NIPISSING

Scale: 1 = 1/2 mile

File 2.1594

GEOPHYSICAL – GEOLOGICAL TECHNICAL DATA



900

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

Type of Survey Geological

Township or Area Strathy-Cassels Twps.

Claim holder(s) Canadian Nickel Company Limited
Copper Cliff, Ontario

Author of Report R. A. Bennett

Address c/o Canico, Copper Cliff, Ontario

Covering Dates of Survey March 12, 1974 to October 10, 1974
(linecutting to office)

Total Miles of Line cut 34.0 miles

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

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

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

DATE: October 10/74 SIGNATURE: P. A. Bennett
Author of Report or Agent

MINING CLAIMS TRAVERSED
List numerically

See attached schedule 'A'
(prefix) (number)

If space insufficient, attach list

TOTAL CLAIMS 45

OFFICE USE ONLY

PROJECTS SECTION

Res. Geol. _____ Qualifications ~~NIL~~

Previous Surveys 2.343 (EM) done in 1970-71 on this file (New)
63G.8 Geochemical

Checked by 63.1764 Air date _____
63.719 Geophysical

GEOLOGICAL BRANCH
63A.427 Geological done in 1964 (covers only a few mining claims on present survey)

Approved by _____ date _____

GEOLOGICAL BRANCH 63.185 Geophysical

Approved by LD date _____

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations _____ Number of Readings _____

Station interval _____

Line spacing _____

Profile scale or Contour intervals _____

(specify for each type of survey)

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base station location _____

_____

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 _____

Time domain _____ Frequency domain _____

Frequency _____ Range _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

SCHEDULE 'A'

L 374865	L 374885	L 377146
L 374866	L 374886	L 377147
L 374869	L 374887	L 377148
L 374870	L 374888	L 377149
L 374871	L 374889	L 377150
L 374872	L 374890	L 377151
L 374876	L 374891	L 377152
L 374877	L 374893	L 377153
L 374878	L 374894	L 377154
L 374879	L 374895	L 377155
L 374880	L 377141	L 377156
L 374881	L 377142	L 377157
L 374882	L 377143	L 377158
L 374883	L 377144	L 377159
L 374884	L 377145	L 377160

Total Claims : 45

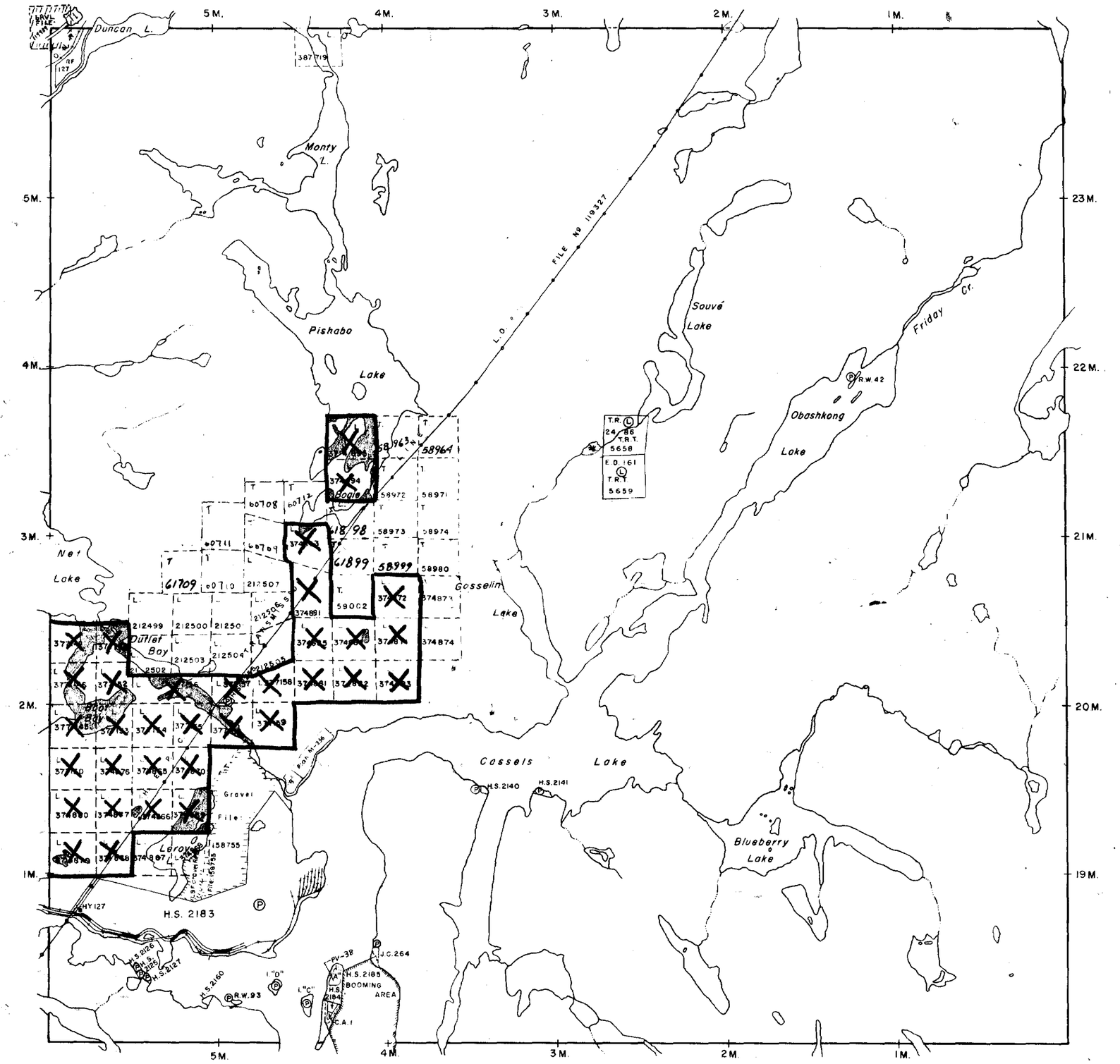
October 10, 1974

Best Twp.M.417

Strathy Twp.M.596

South Lorrain Twp.M.591

Riddell Twp.M.578



THE TOWNSHIP OF CASSELS

2.1594

DISTRICT OF NIPISSING

SUDBURY MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	● or (P)
CROWN LAND SALE	C.S.
LEASES	(L)
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.

NOTES

400' Surface rights reservation around all lakes and rivers.

PLAN NO.- M-444

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

200

BEST TP. M.417

CHAMBERS TWPS. TP. M.447

CASSELS TWPS. TP. M.444

STRATHCONA TP. M.595

NOTES

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

This Township lies within THE CORPORATION OF THE IMPROVEMENT DISTRICT OF TEMAGAMI. File 176049.

AREAS WITHDRAWN FROM STAKING

S.R. – SURFACE RIGHTS M.R.–MINING RIGHTS

(R1) S.R. within stippled portion east of Hwy. 11 and north of the south shore of Net Lake reserved for TIMAGAMI TOWNSITE subject to Sec. 36(a) of Mining Act R.S.O. 1960. OC 2022/66 File 3996

	Section	Order No.	Date	Disposition	File
(R2)	42 (R.S.O.1960)		MAY 13/65	S.R.&M.R.	119939
(R3)	42 (R.S.O.1960)		JUNE 26/69	M.R.	3996

Islands in Lake Timagami NOT OPENED FOR STAKING.

SAND and GRAVEL

(S1) area shown thus ▬▬▬ the establishment of pits and quarries prohibited by Order of the Minister of Municipal Affairs (M.T.E.I.G.A.) O.Reg.20/68. File 3996

(S2) M.T.C. PIT 192
(S3) " " 1197
(S4) " "
(S5) " " 1743
(S6) Gravel File 12796
(S7) " " 113783
(S8) "
(S9) " " 99683
(S10) " " 119939
(S11) " " 132830
(S12) Gravel File 83958,98379
(S13) Gravel " 119939

MINING LANDS
DATE OF ISSUE
OCT 17 1974
MINISTRY OF NATURAL RESOURCES

31M04SE0003 2.1594 CASSELS

210

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	S

SCALE : 1 INCH 40 CHAINS

FEET 0 500 1000 2000 4000 6000 8000
METRES 0 200 400 600 1 KM 2 KM

ACRES	HECTARES
40	16

2.1594

TOWNSHIP

STRATHY

DISTRICT
NIPISSING

MINING DIVISION
SUDBURY

Ministry of Natural Resources
Ontario Surveys and Mapping Branch

Date MARCH 1974
Whitney Block, Queen's Park, Toronto

Plan No. M.596

STRATHY - CASSELS GEOL. 2

2000N

1000 N

O.H.R.

To Stevenson

OO BASE LINE 90°

1000 W

2000 W

3000 W

4000 W

5000 W

6000 W

7000 W

8000 W

L 374805

Power Line

STRATHY CASSELS
Scale 1"=200'

GEOLOGICAL LEGEND

Cover
Pleistocene and Recent
Sand, silt, clay and gravel

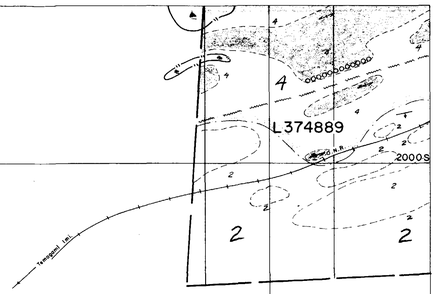
PRECAMBRIAN
Sedimentary and metamorphic rocks
Intrusive rocks
Grenville Province (Metasedimentary rocks)
Lower Mesozoic dykes
Diabase
Paleozoic rocks
Devonian
Ordovician
Middle Ordovician
Trenton Group
Black River Group
Chazy Group
Beekmantown Group
Ordovician and Cambrian undifferentiated
Cambrian
Potsdam Group
Upper Cambrian
Middle Cambrian
Lower Cambrian
Cambrian and Precambrian undifferentiated

Outcrop
Contact, defined, inferred
Fault, defined, inferred
Anticline
Syncline
Strike and dip of beds
Horizontal beds
Vertical beds
Dip of beds
Strike and dip of foliation
Dip of foliation
Vertical foliation
Bore hole
Bore hole with cover gravel

1 2 3 4 5 6 7 8 9 10 11 12 13 14

12 13
8 9 10 11
4 5 6 7
1 2 3

220



STRATHY CASSELS

Scale 1" = 200'

GEOLOGICAL LEGEND

Cenozoic

Pleistocene and Recent
Till, sand and gravel

PRECAMBRIAN

Ramsayland

1 — Ramsay - grit bearing chert - pebble - diabase

Porcelain

2 — Cobalt Group (Sequence No. 1)
1 (+) greywacke 1 (+) siltstone 1 (+) conglomerate

Antilleon

3 — Main Shelly Dykes - andesite to diabase

Metavolcanics

4 — Basalt - massive to pillowed

5 — Rhyolite (dacite)-tuff - breccia

6 — Andesite - massive to altered, pillowed

7 — Rhyodacite/ Flow Breccia - agglomerate

8 — Andesite - absent/ to massive

9 — Quartz - Feldspar Crystal Tuff

10 — Andesite - mapillini and amygdaloidal

11 — Rhyodacite to Dacite - amygdaloidal flow

12 — Rhyodacite Lapilli Tuff - breccia

13 — Rhyolite - massive, amygdaloidal

14 — Andesite to Basalt - massive to pillowed

Outcrop boundary

Contacts defined, assumed

Faulting, shearing, fault contacts

Foliation

Bedding

Fold axis (anticline, syncline)

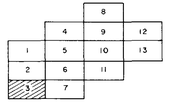
Fold axis (overturned anticline, syncline)

Swamp area

Steam line / adit, shaft, pond

Road

Trail

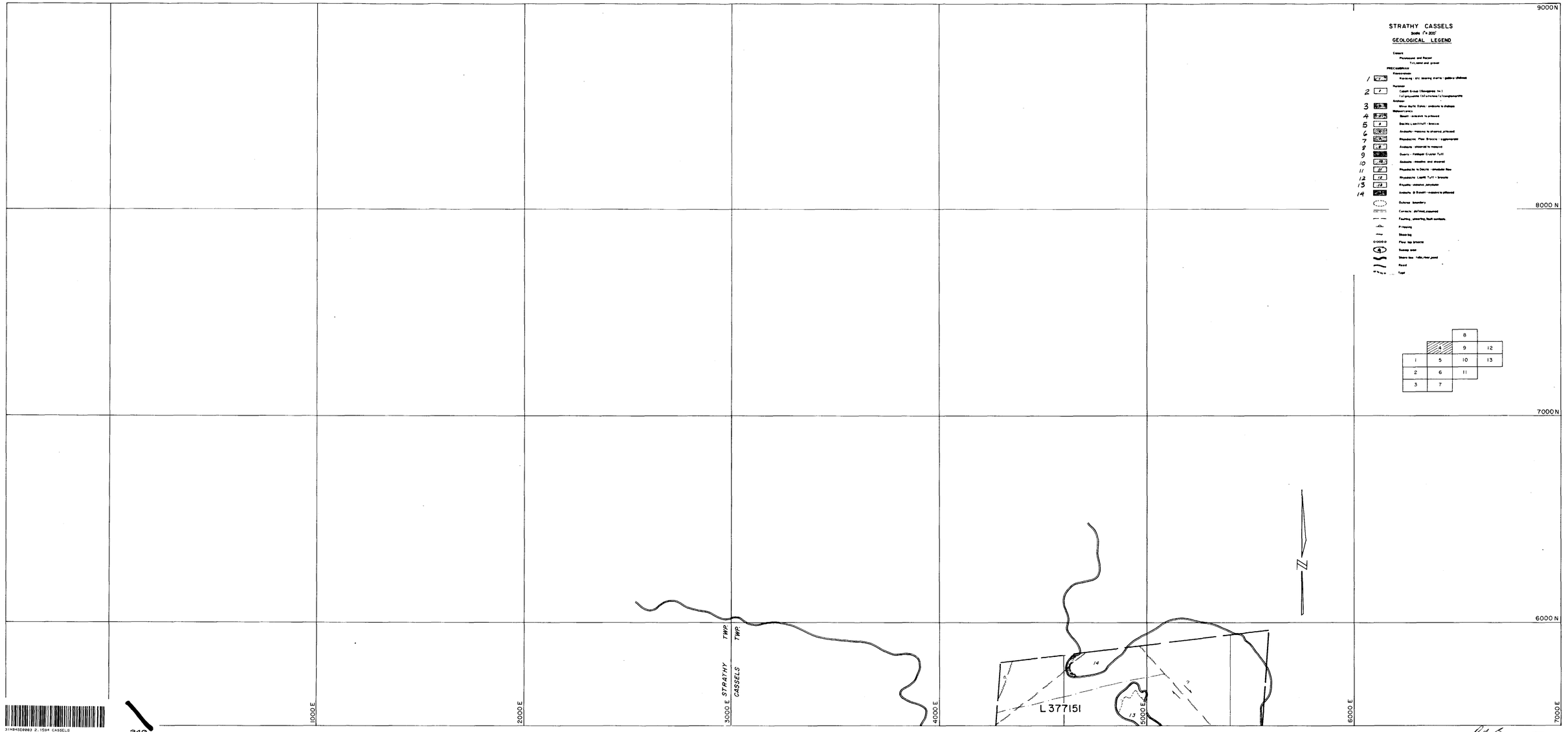


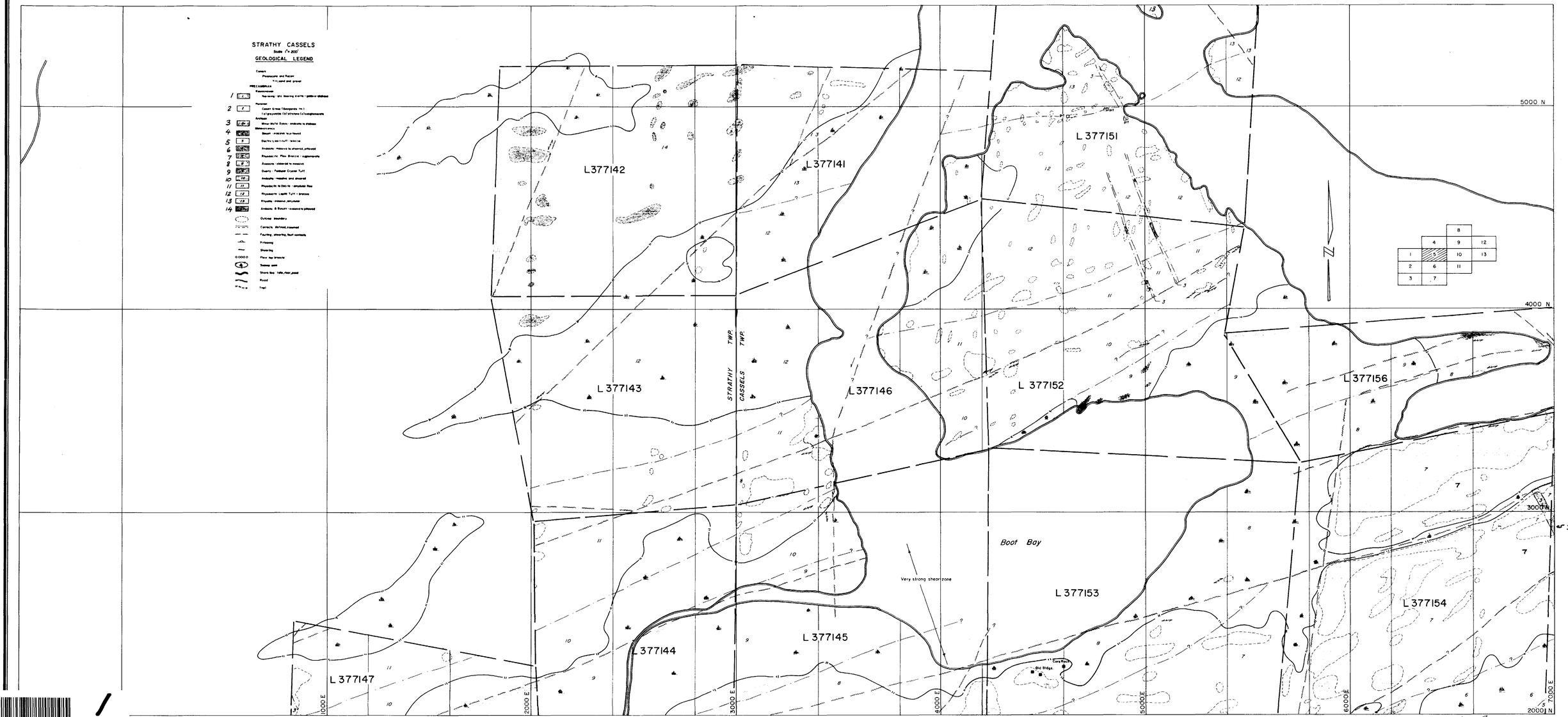
230

8000 W | 7000 W | 6000 W | 5000 W | 4000 W | 3000 W | 2000 W | 1000 W

5000 S

STRATHY-CASSELS GEOL. 3


STRATHY CASSELS
Scale 1"= 200'
GEOLOGICAL LEGEND
Cenozoic
Pleistocene and Recent
Till, sand and gravel
PRECAMBRIAN
Keewatinian
1 Hashuring etc. bearing diorite - gabbro - diabase
Huronian
2 Cobalt Group (Nipissing ?)
Feldspar porphyry (Matachewan) ? Granophyre
Keweenawan
3 Minor Mafic Dykes - andesite to diabase
Mesoproterozoic
4 Basalt - massive to pillowed
5 Basalt, Lapilli tuff - breccia
6 Andesite - massive to sheared, pillowed
7 Rhyodacite, Flow Breccia - agglomerate
8 Andesite - sheared to massive
9 Quartz - Feldspar Crystal Tuff
10 Andesite, massive and sheared
11 Rhyodacite to Dacite - amygdular flow
12 Rhyodacite, Lapilli Tuff - breccia
13 Rhyolite, massive, amygdular
14 Andesite & Basalt - massive to pillowed
Outcrop boundary
Contacts, defined, presumed
Faulting, shearing, fault contacts
Bearing
Strike log
Flow top bearing
Sweep axis
Steam line, rails, river, pond
Road
Type
8
4
9
12
1
5
10
13
2
6
11
3
7
9000N
8000 N
7000N
6000 N
1000 E
2000 E
3000 E
4000 E
5000 E
6000 E
7000 E
STRATHY
CASSELS
TWP.
TWP.
L 377151
N
240



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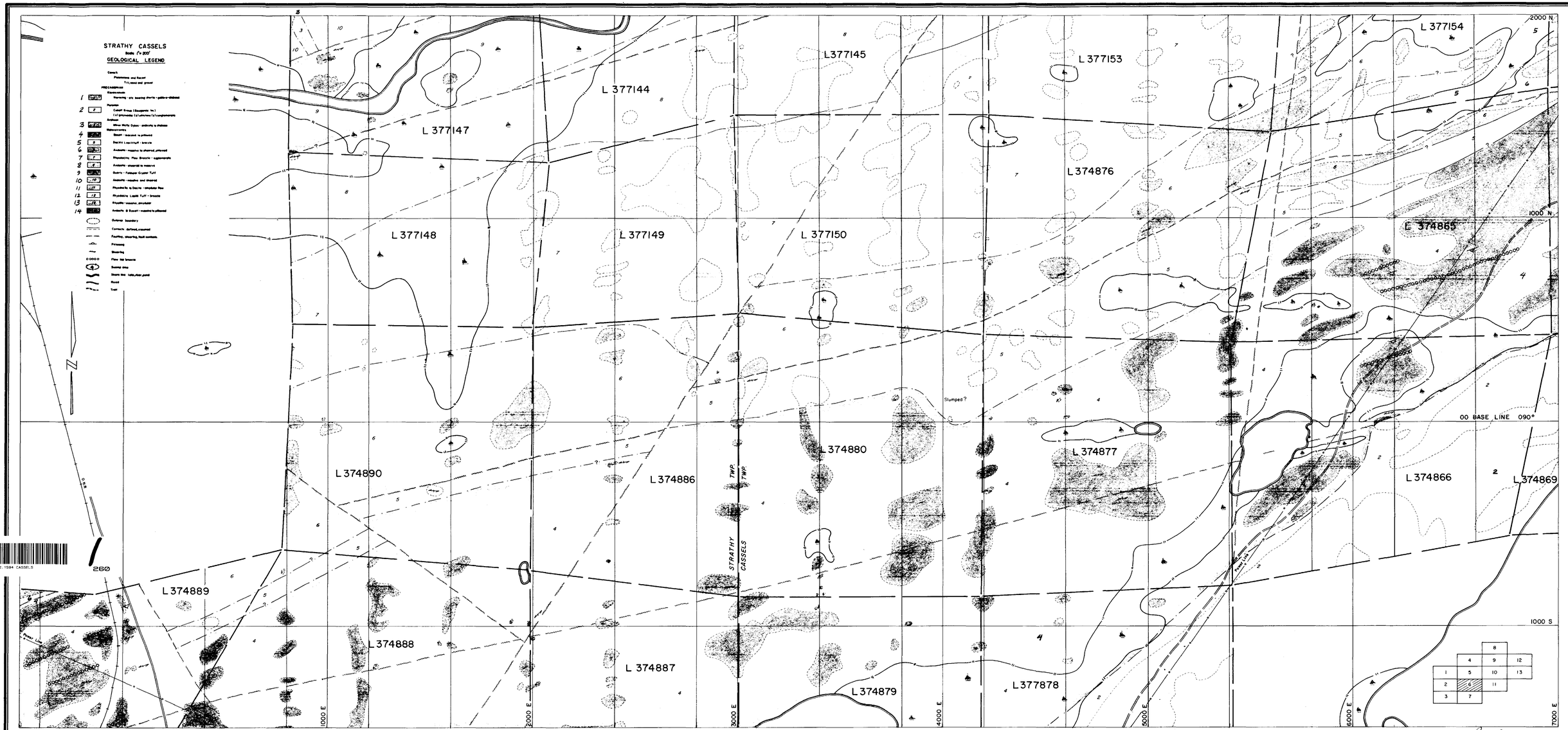
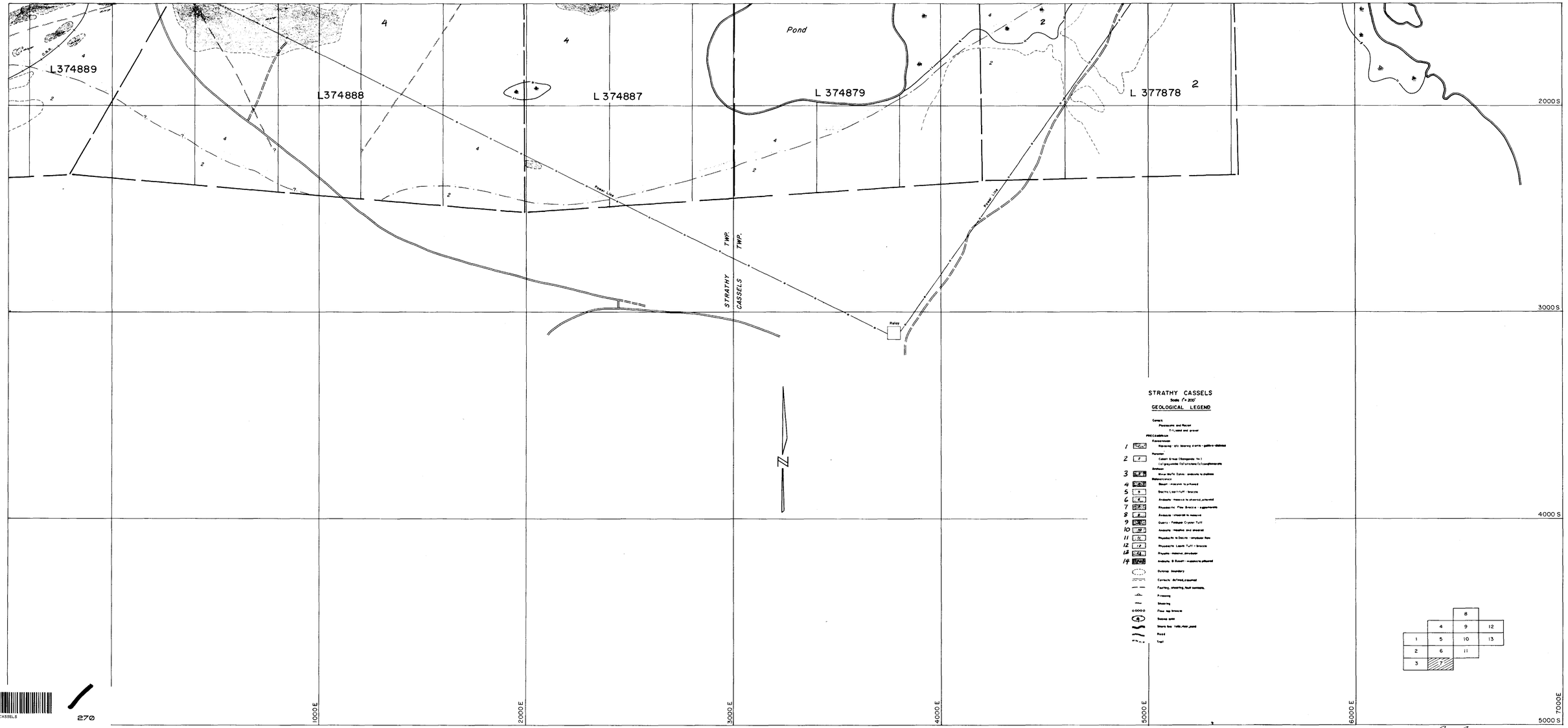
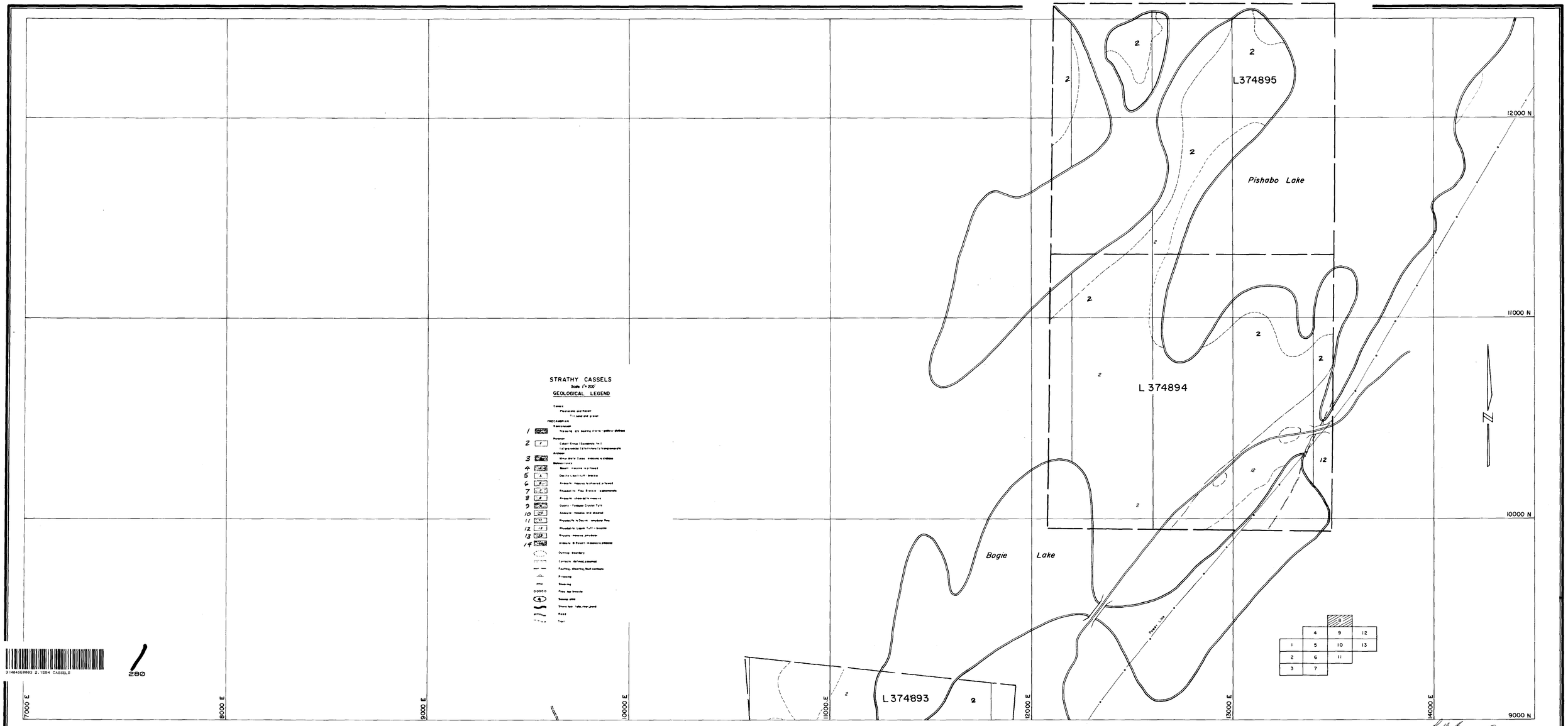
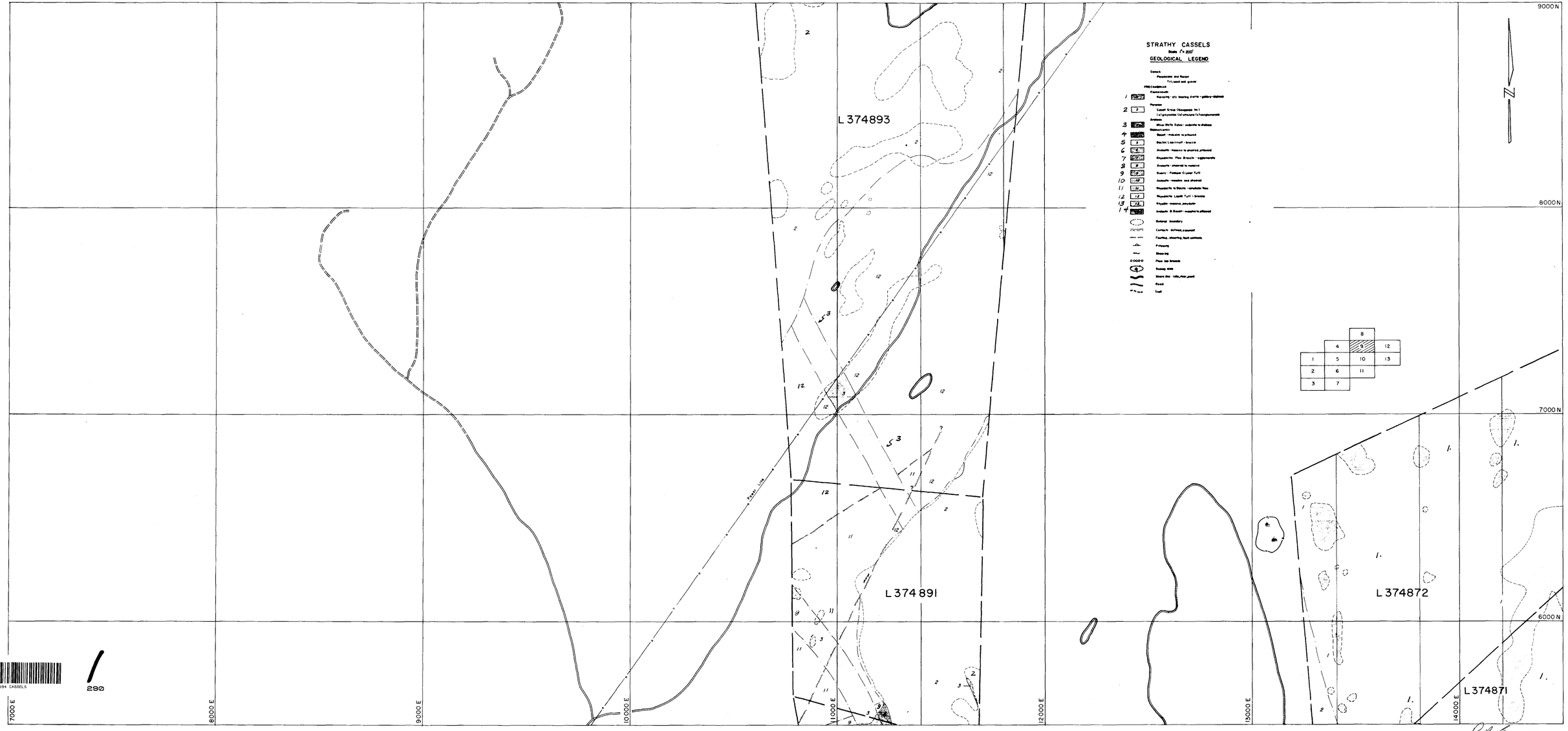
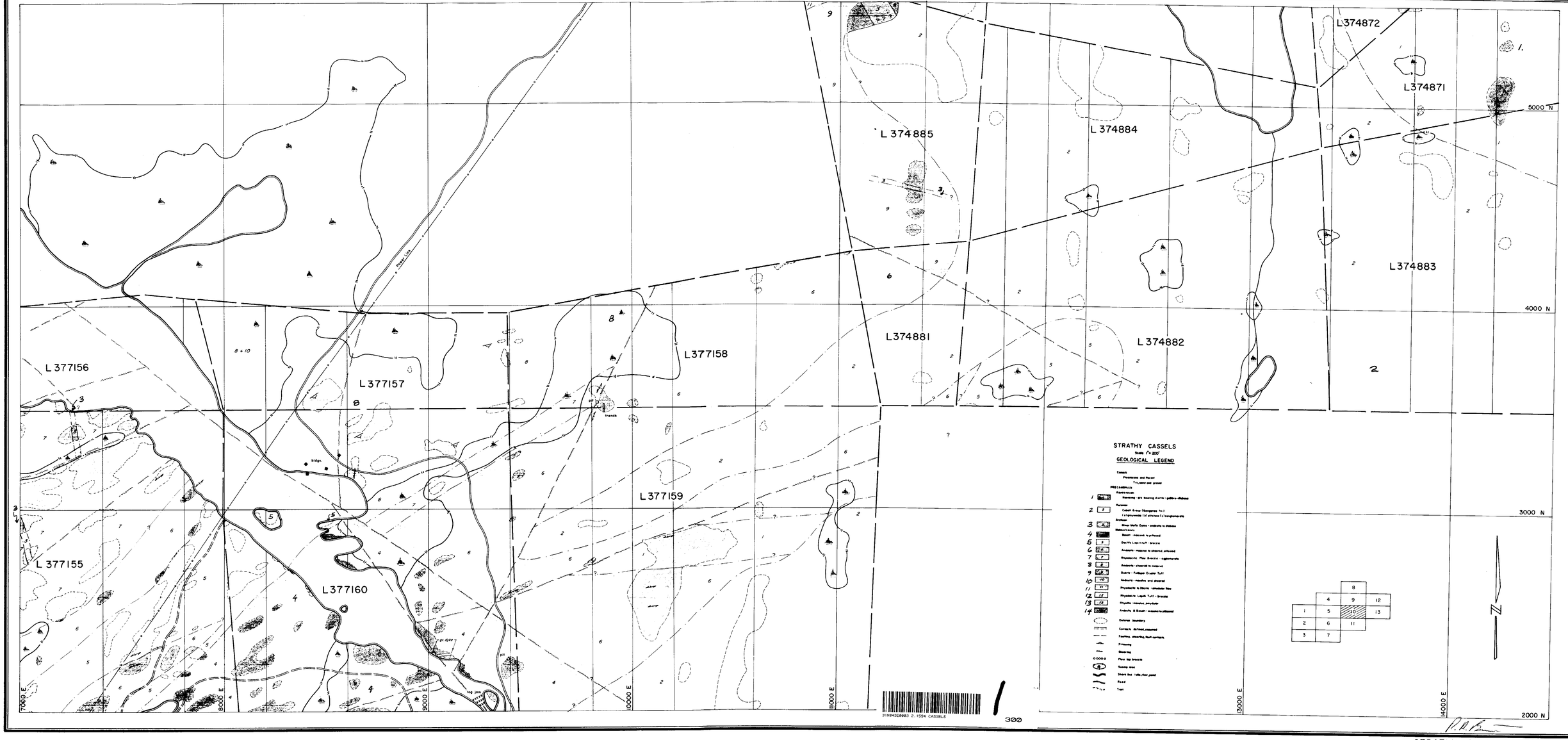

STRATHY CASSELS
Scale 1"= 200'
GEOLOGICAL LEGEND
Cenozoic
Pleistocene and Recent
Till, clays and gravel
PRECAMBRIAN
Keweenawan
Intrusive
Diabase Group (Gabbroperidotite, lherzolite)
Diorite - syenite to granite
Diabase - gabbro
Ultramafic Dykes - peridotite to chromitite
Archean
Granite - syenite to granodiorite
Metamorphosed
Gneiss - migmatite to gneiss
Basic to ultrabasic - breccia
Andesite - massive to pillowed, pillowed
Rhyodacite, Flow breccia - agglomerate
Andesite - sheared to massive
Quartz - Feldspar Crystal Tuff
Andesite - massive and sheared
Rhyodacite to Dacite - amygdular flow
Rhyodacite Lapilli Tuff - breccia
Rhyolite - massive, amygdular
Andesite to Basalt - massive to pillowed
Outcrop boundary
Contacts defined, assumed
Faulting, shearing, fault contacts
Fold axis
Bedding
Flow top features
Sample sites
Claim line, initial post
Roads
Trail
L 377154
L377145
L 377153
L 377144
L 377147
L 374876
2000 N
1000 N
L 374865
L 377148
L 377149
L 377150
Slumped?
00 BASE LINE 090°
L 374880
L 374877
L 374890
L 374886
L 374866
L 374869
TWP.
TWP.
STRATHY
CASSELS
L 374889
1000 S
L 374888
L 374887
L 374879
L377878
1000 E
2000 E
3000 E
4000 E
5000 E
6000 E
7000 E
260
8
4
9
12
1
5
10
13
2
6
11
3
7

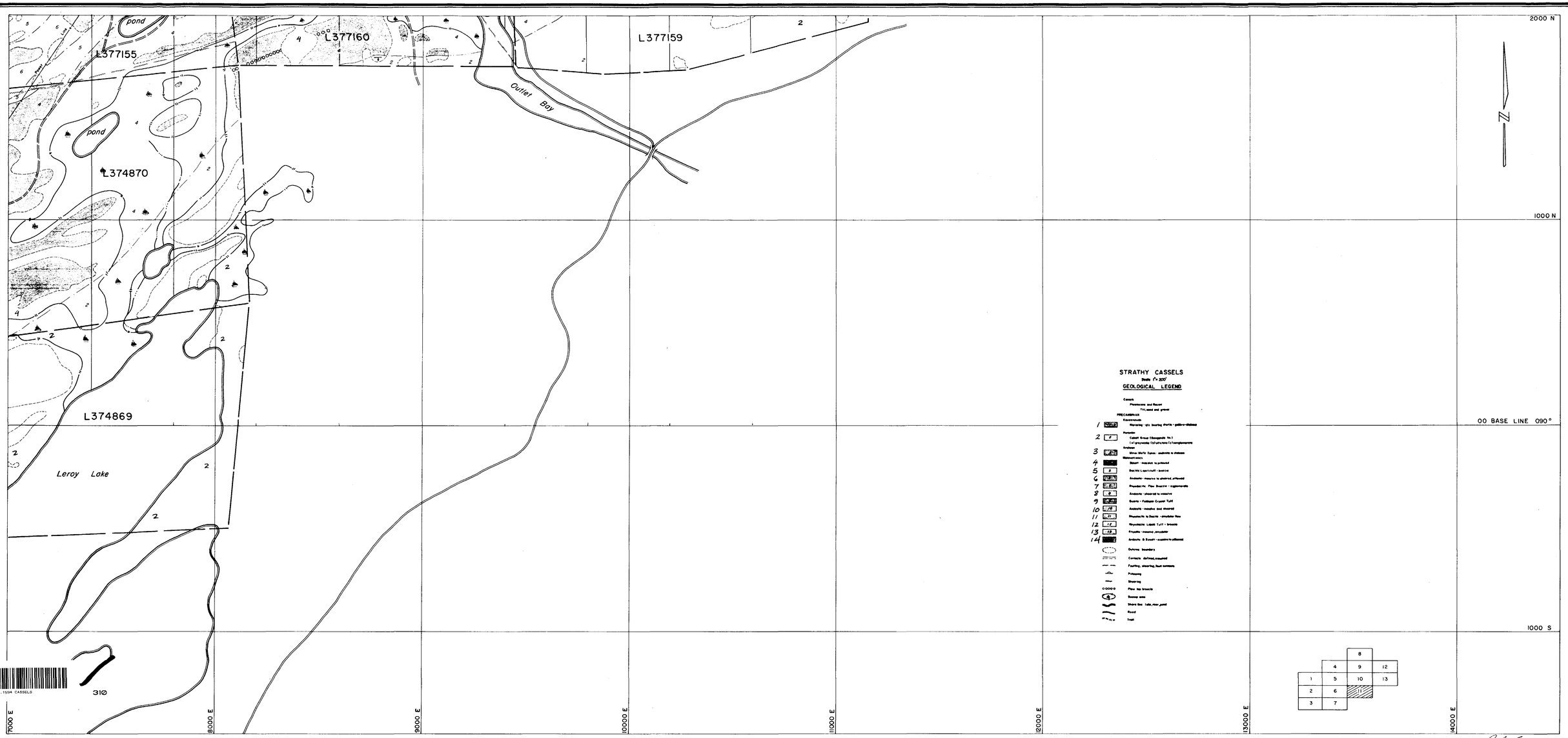


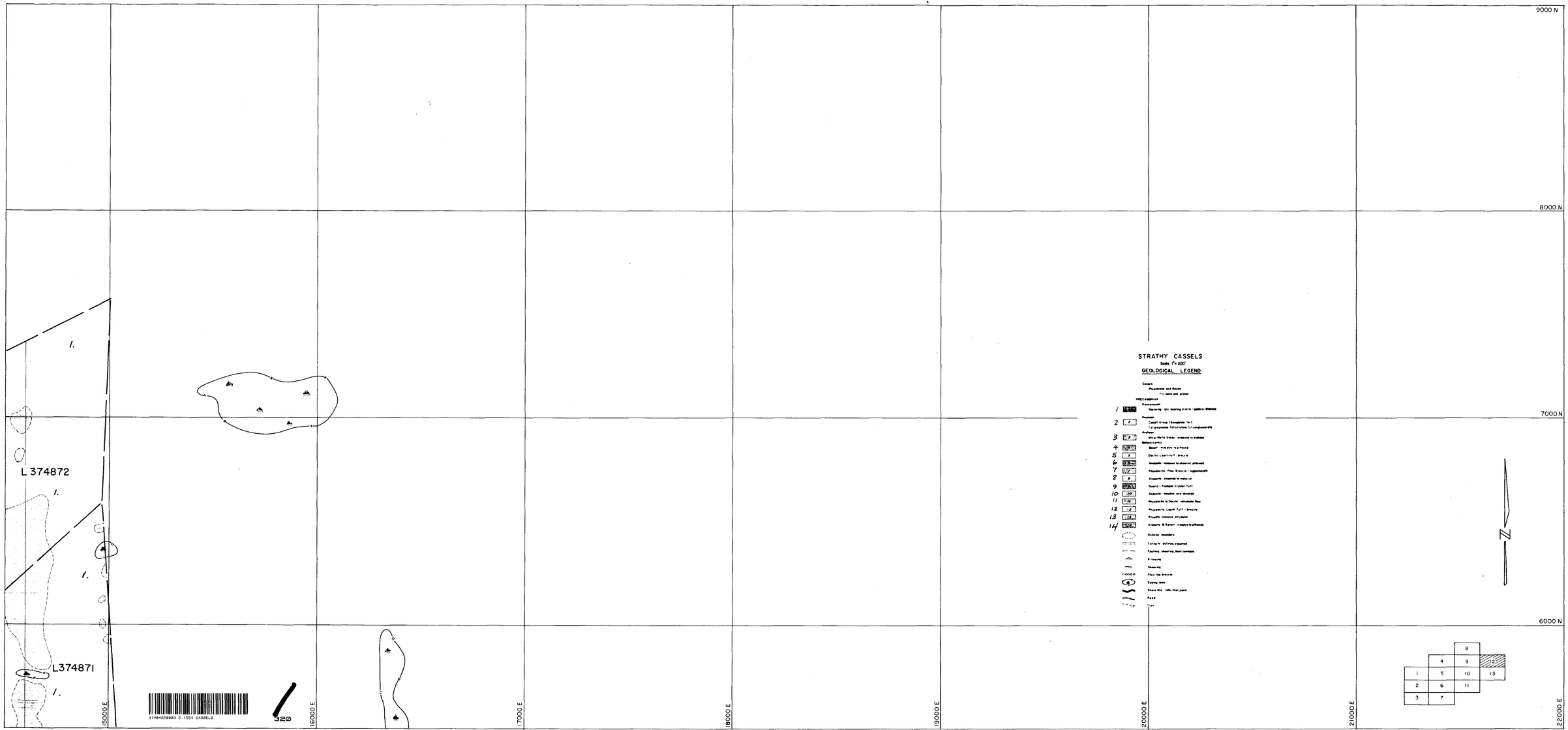

STRATHY CASSELS
Scale 1"= 200'
GEOLOGICAL LEGEND
Cenozoic
Pleistocene and Recent
Till, sand and gravel
MISSISSIPPIAN
Kennycauseway
Migmatite, gneiss bearing diorite, gabbro or diabase
Huronian
Cobalt Group (Gowganda Fm.)
Conglomerate (stratified), Greywacke
Archean
Minor dioritic bodies, endogenic to diabase
Metasediments
Basalt - massive to sheared
Dacitic to rhyolitic breccia
Andesitic tuff, massive to sheared, sheared
Rhyolitic Flow Breccia - agglomeratic
Argillite, chlorargillite massive
Quartz - Feldspar Crystal Tuff
Andesitic massive and sheared
Rhyolitic to Dacitic - amygdular flow
Rhyolitic Lapilli Tuff - breccia
Rhyolitic massive, porphyritic
Andesitic & Basalt - massive to sheared
Outcrop boundary
Contacts: defined, assumed
Faulting, observed, fault contacts
Fracturing
Shearing
Flow top breccia
Swamp area
Shore line, lake, river, pond
Road
Trail
L374895
L374894
L374893
Pishabo Lake
Bogie Lake
Power Line
7000 E
8000 E
9000 E
10000 E
11000 E
12000 E
13000 E
14000 E
12000 N
11000 N
10000 N
9000 N
N
280
STRATHY-CASSELS GEOL. 8

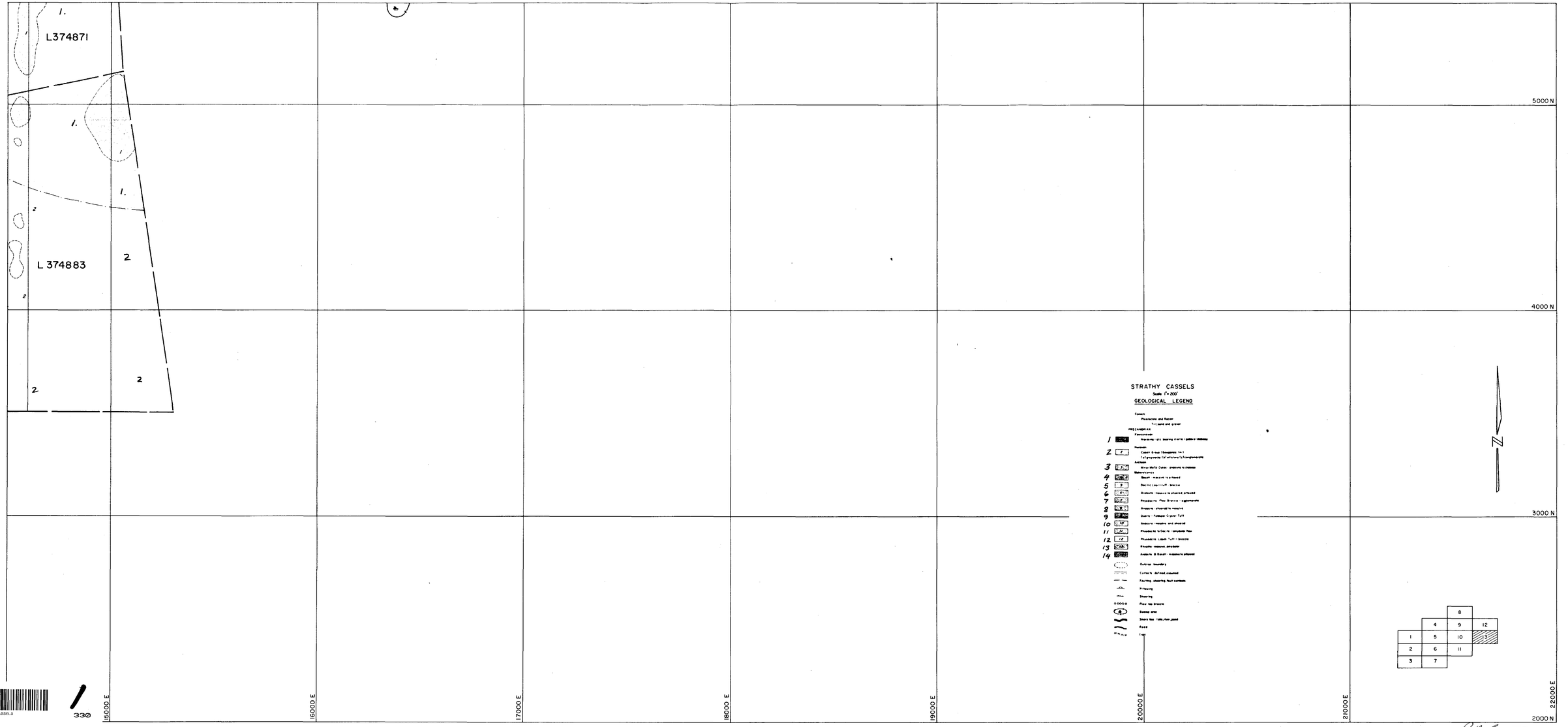




STRATHY - CASSELS GEOL. 10




9000 N
8000 N
7000 N
6000 N
L 374872
L 374871
15000 E
16000 E
17000 E
18000 E
19000 E
20000 E
21000 E
22000 E
STRATHY CASSELS
Scale 1" = 200'
GEOLOGICAL LEGEND
Cenozoic
Pleistocene and Recent
Till, sand and gravel
PRECAMBRIAN
Proterozoic
Nipissing: gtz. bearing diorite - gabbro dikes(?)
Huronian
Cobalt Group (Gowganda Fm.)
Conglomerate, lithic wacke, arkose, greywacke
Archean
Nipissing diabase: endocontact to endodase
Metasediments
Biotite - muscovite psammite
Dacitic Lapilli tuff - breccia
Andesitic - mesocratic to phaneritic pillowed
Rhyodacite to Rhyolite - aphanitic flow breccia + agglomerate
Andesitic - chloritic to massive
Quartz - Feldspar Crystal Tuff
Andesitic - hornblende and chloritic
Rhyodacite to Dacite - amygdular flow
Rhyodacite to Lapilli Tuff - breccia
Rhyolite - massive, amygdular
Andesitic & Basaltic - mesocratic to phaneritic
Outcrop boundary
Contacts - defined, assumed
Faulting, shearing, fault contacts
Fracturing
Shearing
Flow top breccia
Sample area
Claim line - with mining post
Road
Trail
N
8
4
9
12
1
5
10
13
2
6
11
3
7


L374871
L 374883
1.
2
5000 N
4000 N
3000 N
2000 N
15000 E
16000 E
17000 E
18000 E
19000 E
20000 E
21000 E
22000 E
N
STRATHY CASSELS
Scale 1"= 200'
GEOLOGICAL LEGEND
Cenozoic
Pleistocene and Recent
Till, sand and gravel
PRECAMBRIAN
Kewenawan
Hanbing - grit bearing diorite - gabbro - diabase
Helikian
Coast Group (Bougainville Fm.)
Tuff, greywacke, siltstone, conglomerate
Archean
White Wolf Dykes - andesite to diabase
Metamorphics
Basalt - massive to schistose
Dacitic / acid tuff - breccia
Andesite - massive to sheared, schistose
Rhyodacite - Flow Breccia - agglomerate
Andesite - sheared to massive
Quartz - Feldspar Crystal Tuff
Andesite - massive and sheared
Rhyodacite to Dacite - amygdular flow
Rhyodacite / acid Tuff - breccia
Rhyolite - massive, amygdular
Andesite & Basalt - massive to sheared
Outcrop boundary
Contacts: defined, assumed
Faulting, shearing, fault numbers
Foliation
Shearing
Flow line breccia
Sampling area
Shears, fault, fold, vein, gossan
Road
Trail
8
4
9
12
1
5
10
13
2
6
11
3
7
330
STRATHY-CASSELS GEOL.
13