



31M13SE0006 2.14224 PENSE

010

GEOLOGICAL SURVEY
PENSE TOWNSHIP (MAP-566)
LARDER LAKE MINING DIVISION
NTS 31 M/13

JUL 12 1991

PROPERTY

2.14224 MINING LANDS SECTION

The property consists of 17 unpatented mining claims registered in the name of G.J. Gereghty and one leased claim owned by T & H Resources Limited of Toronto, Ontario. Claim numbers, and their respective description of land parcel coverage by lot and concession are listed:-

Pense Twp.	L 1076182	-	SE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 8,	Con. V
" "	L 1076183	-	NE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 8,	Con. V
" "	L 1076184	-	NW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V
" "	L 1076185	-	NE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 8,	Con. IV
" "	L 1076186	-	NW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. IV
" "	L 1076187	-	NE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. IV
" "	L 1076188	-	SE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V
" "	L 1076189	-	NE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V
" "	L 1076190	-	NW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
" "	L 1076191	-	SW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
" "	L 1076192	-	NW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 10,	Con. IV
" "	L 1076195	-	SE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
" "	L 1076196	-	NE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
" "	L 1076197	-	SW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 10,	Con. V
" "	L 1076198	-	SE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. V
" "	L 1076199	-	SW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. V
" "	L 1117786	-	SE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 10,	Con. V
" "	L 104660 (leased)	-	SW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V

Magnetometer survey coverage was filed for assessment work credits in January 1990 on 11 claims numbered L 1076182 to 1076192 inclusive and for leased claim L 104660. In December 1990 a magnetic survey was filed on the remaining six claims L 1076195 to L 1076199 inclusive and L 1117786.

A VLF electromagnetic survey was filed for assessment credits on all above numbered (18) claims also in December 1990.

LOCATION AND ACCESS

The center of the claim group is at 47° 49' latitude and 79° 32' 30" longitude. The property is fifteen miles due east of Englehart, Ontario. Summer access is as follows: Two miles north of Hilliardton on Highway #569 then eastward along the common borders of Ingram- Hilliard and Pense-Brethour Townships for a distance of 4 miles on gravelled road. Then north for one mile along Pense Lot 2 - Lot 3 line, and one mile eastward along Concession 1 - Con. 2 line to Broderick's abandoned farm house. A tractor road leads from Broderick's northeastward into the center of the claim group a distance of 3½ miles.

.....2 LOCATION AND ACCESS (continued)

Winter access to the subject claims is also via highway #569 for 2 3/4 miles due east of Tomstown then continuing eastward for 4 3/4 miles along the common boundary of Concessions III and IV to the Otterskin Creek in Pense Township. Snow machine access is then necessary following old logging roads in a northeasterly direction for approximately 1 1/4 miles then due eastward across a vast marsh a distance of 1 1/4 miles to the west boundary of the claim block. Once into the claim group several branching roads lead: east, north and south, and most of these were brushed out to permit more rapid access.

A grid location map, drawn on a scale of 1" = 1000 feet with 1" - 4 mile topographic inset, accompanies this report (Fig. 1)

TERRAIN

Except for a high ridge along the west side of the claim group striking NNE - SSW the north half of claim block is generally quite flat. The south half of the property is gently rolling with steep sided ravines some with associated creeks trending northeast or southeast flowing eastward into the Pontleroy river. New claims in the north part of the property have a sort of central division where drainage in the east half drains east while the western claims have a westerly drainage into the vast marsh along the western claim boundary.

PREVIOUS WORK

Highlights of all recorded assessment work done in Pense Township are summarized in "Geology of the Englehart - Earlton Area" by H.L. Lovell- 1977 see Pense Township pages 12 & 13.

Reconnaissance geophysical survey work and prospecting were carried out by the writer within the subject claim area in 1969-71 and six drill holes were cored.

GRID LINE CUTTING

Norman McBride of Notre Dame du Nord, Quebec cut and chained 1.89 miles of base line and 14.6 miles of grid line in December 1989.

Glen McBride of New Liskeard, Ontario cut and chained 0.3 miles of base line and 4.41 miles of grid line in mid-November 1990. Total base line cut and chained 2.19 miles. Total grid line cut and chained 16.79 miles.

GEOLOGICAL MAPPING

Mapping was carried out by the writer during the periods October 14 - 23, 1990 (inclusive) and on November 21, 26, and 28, 1990. Geregthy stayed at the Eldon Hotel in Englehart and travelled daily by truck and on foot in October, however, during November a truck and snow machine were used. Since the large floating bog west of the claim group would not freeze sufficiently to allow trouble-free snow machine crossing, snow shoes were used even during periods when the snow completely melted.

GEOLOGICAL MAPPING (continued)

Travel time was 2½ hours per day.

Because of the scarcity of exposed bedrock the writer recorded tree types and soil types at each 100 foot station on all lines. In drafting tree and soil types some small gaps are left where these types are repetitious. From data available, bore hole geology has been projected to surface with reasonable accuracy.

No petrographic work was done on any of the newly acquired samples taken, however, all obvious sulphide bearing samples were assayed for gold.

Geological survey results and tree and soil types, are all plotted on Fig. 5 at a scale of 1" = 200 feet (1:2400)

Sparse rock exposures in the mapped claim area fall into four age groups. Archean metasediments (Pontiac), Archean metavolcanics (Keewatin), Archean mafic to ultramafic intrusive/extrusives (Haileyburian), and Huronian conglomerate (Coleman).

The metasediment and metavolcanic rocks mapped occur as small rounded or "hogback" knolls, mostly moss covered and 5 to 20 feet in height. Other less conspicuous bedrock areas are only 1 to 3 feet higher than their surroundings and heavily moss covered, but recognizable because of the subtle elevation difference combined with distinctive shading and texture of the overlying moss. Stripping was done to find areas which could be sampled providing relatively unweathered representative rock specimens.

Exposures of conglomerate occur randomly along a high prominent ridge striking NNE - SSW throughout the entire west side of the claim group. In the south half of the property sizeable areas of exposed conglomerate are evident while in the north half most of the near surface bedrock is lightly moss covered and of small dimension.

METASEDIMENT (PONTIAC)

Exposures of metasediment along the eastern claim boundary all have a general northwest strike and -45° southwesterly dip. The least metamorphosed metasediment occurs in the northeast part of the claim group with increasing metamorphic grade as you go southward and then westward into the central part of the claim group where the metasediments and metavolcanics are in contact. In general the weathered sediments are mid brown to dark brown at surface. Freshly broken unaltered sediments are light grey to light brown depending on the prevalence of quartz or biotite. Under the hand lens this rock is medium grained, loosely compacted, a mottled mixture of poorly aligned quartz grains intermingled with biotite and minor sericite, weakly gneissic.

Differential weathering of the softer minerals at surface creates a corrugated surface making strike and dip determinations easy. This particular metasediment would be called quart-biotite gneiss.

METASEDIMENT (PONTIAC) continued

In the south part of the claim group where the more metamorphosed metasediments are weakly foliated along bedding planes and grade from medium grained quartzose - feldspathic greywacke to quartz-feldspar - biotite amphibole schist. Rock colouration varies from dark grey or rusty brown, to a multi-coloured variety pinkish white and blackish brown depending on the quartz, feldspar or amphibole content. Chlorite is sometimes present imparting a greenish tint.

Metasediment at 30+70W-94N in the central part of the property are in contact with metavolcanics causing thin interfingering or layering of black amphibolite rich rock sometimes mineralized with magnetite, pyrrhotite and pyrite. Dips of these gneissic rocks are difficult to ascertain, however, foliation shows the development of elongated quartz and feldspar grains paralleling biotite and/or sericitic which is probably indicative of the original bedding plane thus indicating a near vertical dip. Narrow quartz-calcite, veining $\frac{1}{4}$ " to $\frac{3}{4}$ " occurs along the contact zones and thus these too are more commonly vertical. Rock texture is medium grained to very coarse especially in the massive amphibolite and calcite rich portions of quartz-calcite veining. Rock colouration is extremely variable especially where iron sulphides oxidize discolouring the light coloured minerals. Shearing is prevalent at and near the contact zone and these angles vary from -55° westerly to vertical.

Mineralized metasediment occurs in an opening blasted on a sheared zone on the east side of the largest volcanic outcrop at 112+80N - 10+95W. Water in the bottom of the opening prevents taking measurements of the mineralization which is probably two to three feet in width and at least 10 feet in length. Wall rock metasediments here are essentially a repeat of the previously described exposure. Weak pyrite, pyrrhotite and chalcopryrite mineralization occurs as disseminations in the sediment but is more concentrated (10-12% sulphide) in massive amphibolite/hornblendite. Shearing here is vertical striking northeast-southwest.

METAVOLCANIC (KEEWATIN)

Two felsic angular pieces of float (erratics) align with the shear zone striking northeast - southwest through the property. This rock is fine grained, quite hard, light grey-green in colour, and has light coloured amydules $\frac{1}{8}$ " to $\frac{3}{8}$ " filled with quartz, calcite, pyrite, and chalcopryrite.

Mafic volcanic rocks, namely basaltic pillow flows, occurring in the east-central part of the claim group are less carbonatized and thus considerably harder than flows in the central map area. Weathered pillow surfaces in the east are dark green to black in colour. Pillows in general are small 4" to 12", oval in shape, and have distinct light grey selvage rims $\frac{1}{4}$ " to $\frac{3}{8}$ " in thickness.

Interiors of these pillows are massive, medium to coarse grained basalt, mid grey to dark grey in colour. Pillow tops are to the north. An east-west striking shear zone roughly four feet in width cuts through the flows at 2+40W - 94+50N. Dip of this shearing is south at -85° .

METAVOLCANIC (KEEWATIN) continued

Blebs of pyrite occur in the sheared volcanic and where oxidized causes brown blotches, often vuggy, while nearby shear planes are stained rusty brown. Mafic volcanic flow rock in the central claim area grade from andesitic to basaltic and small occurrences of ultramafics are noted at two locations. Further complicating the gradational changes in the volcanics is the presence of the metasedimentary contact rocks where there is an intermingling of altered rocks.

Most surface exposures of volcanic flows are either dark brown or various shades of green. Broken carbonatized flow rock is generally soft, micaceous, sometimes chloritic and biotite rich, occasionally serpentinized. Colour of these medium to coarse grained rocks varies from silver grey where micaceous, to light green where chloritic, to dark green where serpentinized. Pillows range from 8" to 30" in length, are oblong to oval in shape with tops to the north. Shearing occurs at 24+30W- 95+85N and stronger shearing is noted in the opening at 10+95W - 112+80N where a grey-green coloured tremolite schist, very fibrous, has developed at the volcanic - sediment contact.

MAFIC TO ULTRAMAFICS, INTRUSIVE/EXTRUSIVE (HAILEYBURIAN)

Black ultramafic rocks occur near Drill Hole #12 at 30+70W - 94N and in the blasted opening at 10+95W - 112+80N. These rocks have variable grain texture and when fine grained look like amphibolite but when massive coarse grained appear more like hornblendite. Both occurrences are weakly mineralized with pyrite being the principal sulphide mineral. It is not known if this amphibolite/hornblendite is a contact metamorphic mineral or an intrusive? No specific dip determinations have been attempted for the metavolcanic rocks.

CONGLOMERATE (COLEMAN)

Within the mapped area of conglomerate there is no observable contact with the underlying basement rock however, one such contact was examined by the writer in 1969 near the south border of the property and the apparent dip was between -7° and -10° westerly.

The largest and certainly the highest exposures of boulder conglomerate occur in the southwestern corner of the claim group and again in the west-central claims directly along the north-northeast strike direction. Largest boulders observed range from 12" to 18" in diameter and are generally oval to elliptical in shape. These boulders are commonly comprised of granite, syenite, quartzite, greywacke, or mixed volcanic rocks. Numerous types, sizes and shapes of cobbles and pebbles are tightly packed around the larger boulders and all are cemented in a variably grained matrix ranging from ultra course to fine. Colour of the matrix is also quite variable but commonly shades of pink believed caused by a predominance of feldspar. Various shades of grey to green matrix were observed and areas of no specific colour.

CONCLUSION AND FUTURE WORK

Geological mapping has defined two directions of shearing at the contact of metasedimentary and metavolcanic rocks. One shear zone strikes east-west while a second strikes northeast-southwest.

A diamond drilling program is planned and will test favourable anomalies in close proximity to the above mentioned shearing.

Gerald J. Geregthy
Gerald J Geregthy

July 12, 1991

63.2370



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900

Ministry of Northern Development and Mines

June 14
July 13

WORK

W9108-212

Report of Work
(Geophysical, Geological and Geochemical Surveys)

The maximum credits allowed per survey type.
The number of mining claims traversed exceeds space on this form.
Attach a list.
Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Mining Act

Type of Survey(s) <i>Geological Survey</i>	Mining Division <i>Larder Lake</i>	Township or Area <i>Peace Township</i>
Recorded Holder(s) <i>Gerald J. Geregaty</i>	Prospector's Licence No. <i>B23925</i>	
Address <i>P.O. Box 19, 10 Gaudreault Drive Copper Cliff, Ontario</i>	Telephone No. <i>POM 1 NO 705-682-4704</i>	
Survey Company <i>Gerald J. Geregaty</i>	Date of Survey (from & to) <i>May 12, 91 to July 13, 91</i>	
Name and Address of Author (of Geo-Technical Report) <i>Gerald J. Geregaty (address given)</i>		

Credits Requested per Each Claim in Columns at Right			Mining Claims Traversed (List in numerical sequence)					
Special Provisions	Geophysical	Days per Claim	Mining Claim		Mining Claim		Mining Claim	
			Prefix	Number	Prefix	Number	Prefix	Number
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic - Magnetometer - Other		L	1076182	L	1076195		
			L	1076183	L	1076196		
			L	1076184	L	1076197		
For each additional survey: using the same grid: Enter 20 days (for each)	Geological Geochemical	20	L	1076185	L	1076198		
			L	1076186	L	1076199		
			L	1076187				
Man Days Complete reverse side and enter total(s) here	Geophysical - Electromagnetic - Magnetometer - Other Geological Geochemical		L	1076198	L	111786		
			L	1076189				
			L	1076190				
			L	1076191				
			L	1076192				
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic Magnetometer Other							

Total miles flown over claim(s):

Date: *May 12/91* Recorded Holder or Agent (Signature): *Audh J. Geregaty*

Total number of mining claims covered by this report of work: **17**

Certification Verifying Report of Work

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

Name and Address of Person Certifying:
Gerald J. Geregaty (address given above)

Telephone No.: *705-682-4704* Date: *May 12/91* Certified By (Signature): *A.J. Geregaty*

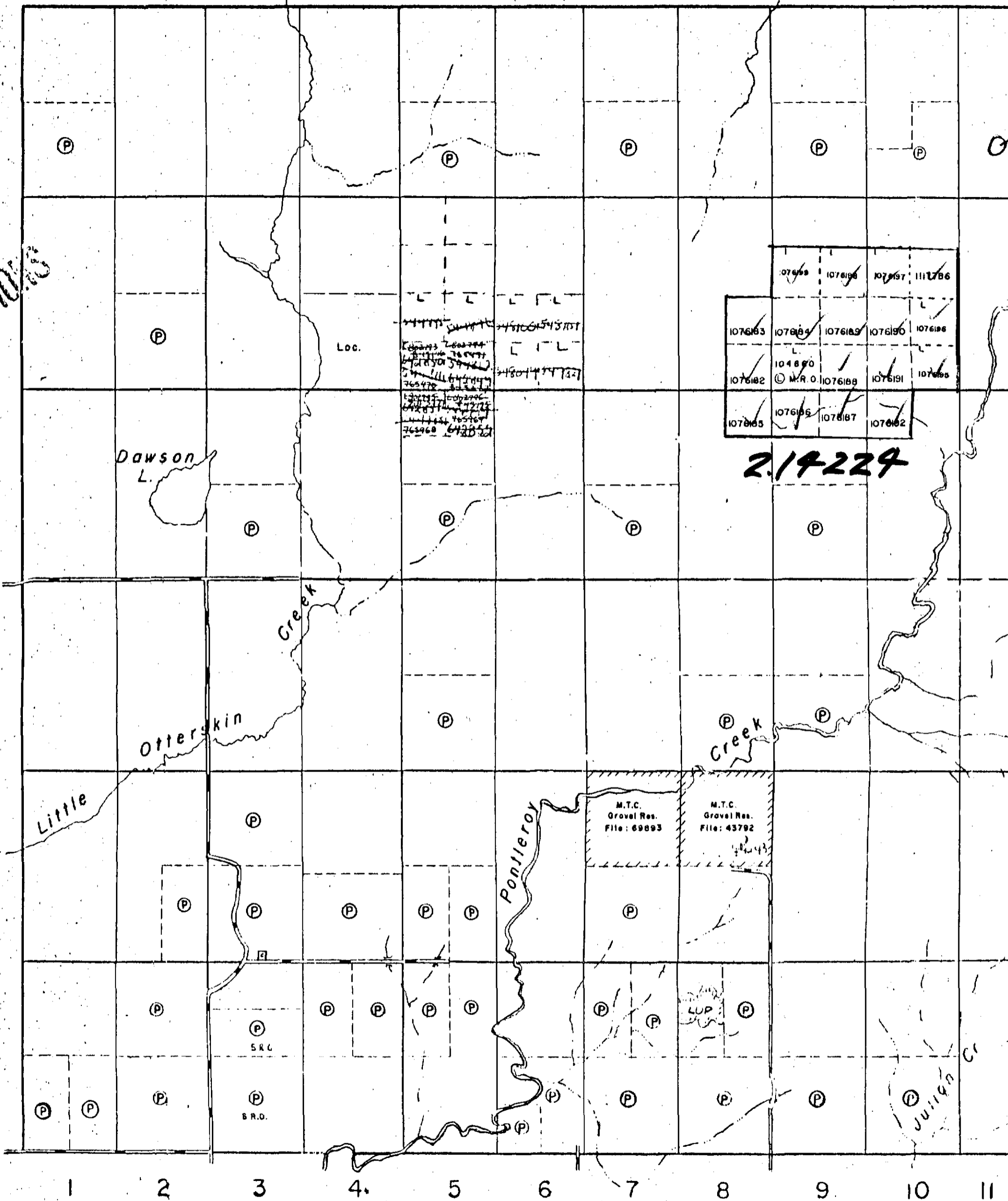
For Office Use Only

RECEIVED LARDER LAKE MINING DIVISION
MAY 14 1991
TIME 10:21am

Total Days Cr. Recorded 340	Date Recorded <i>May 14</i>	Mining Recorder <i>[Signature]</i>
	Date Approved as Required <i>July 15/91</i>	Principal Manager, Mining Lands <i>[Signature]</i>

SUBJECT OPERATIONS

Ingram Twp.



VI
V
IV
III
II
I

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	CS or Ⓞ
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
ROADS	---
IMPROVED ROADS	—+—+—+—+—
RAILWAYS	—+—+—+—+—
POWER LINES	—+—+—+—+—
MARSH OR MUSKEG	Ⓜ
MINING RIGHTS ONLY	M.T.O.
SURFACE RIGHTS ONLY	S.R.O.
CANCELLED	C.

NOTES

LAND RESERVED FOR GRAVEL PURPOSES SHOWN THUS:

400' Surface Rights Reservation around all Lakes and Rivers.

DATE OF ISSUE
OCT 1983
LARDER LAKE
MINING DIVISION

NOTICE OF FORESTRY ACTIVITY
THIS TOWNSHIP / AREA FALLS WITHIN THE _____
TIMISKAMING MANAGEMENT UNIT
AND MAY BE SUBJECT TO FORESTRY OPERATIONS.
THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129
SWASTIKA, ONT.
POK ITO
705-642-3222

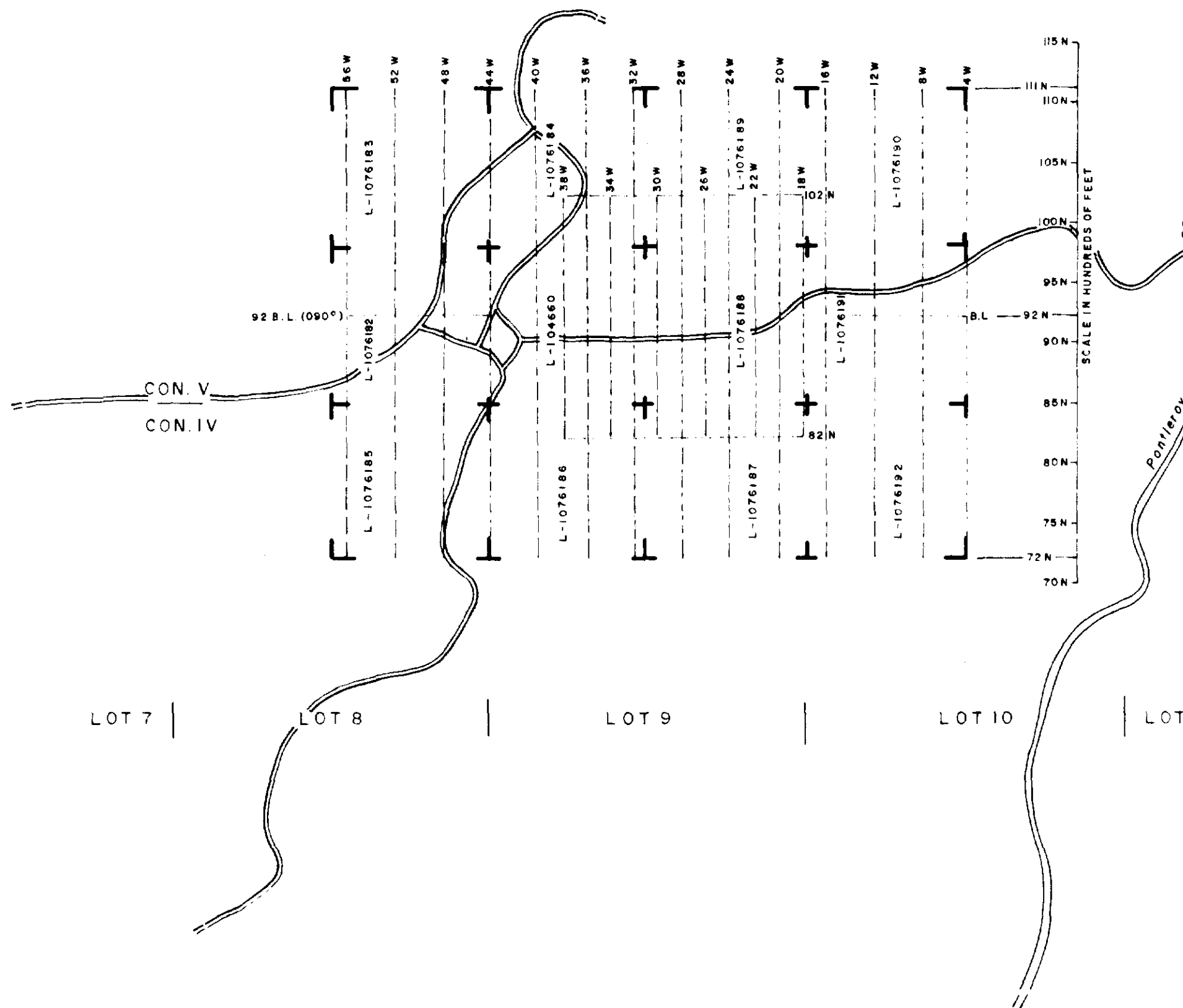
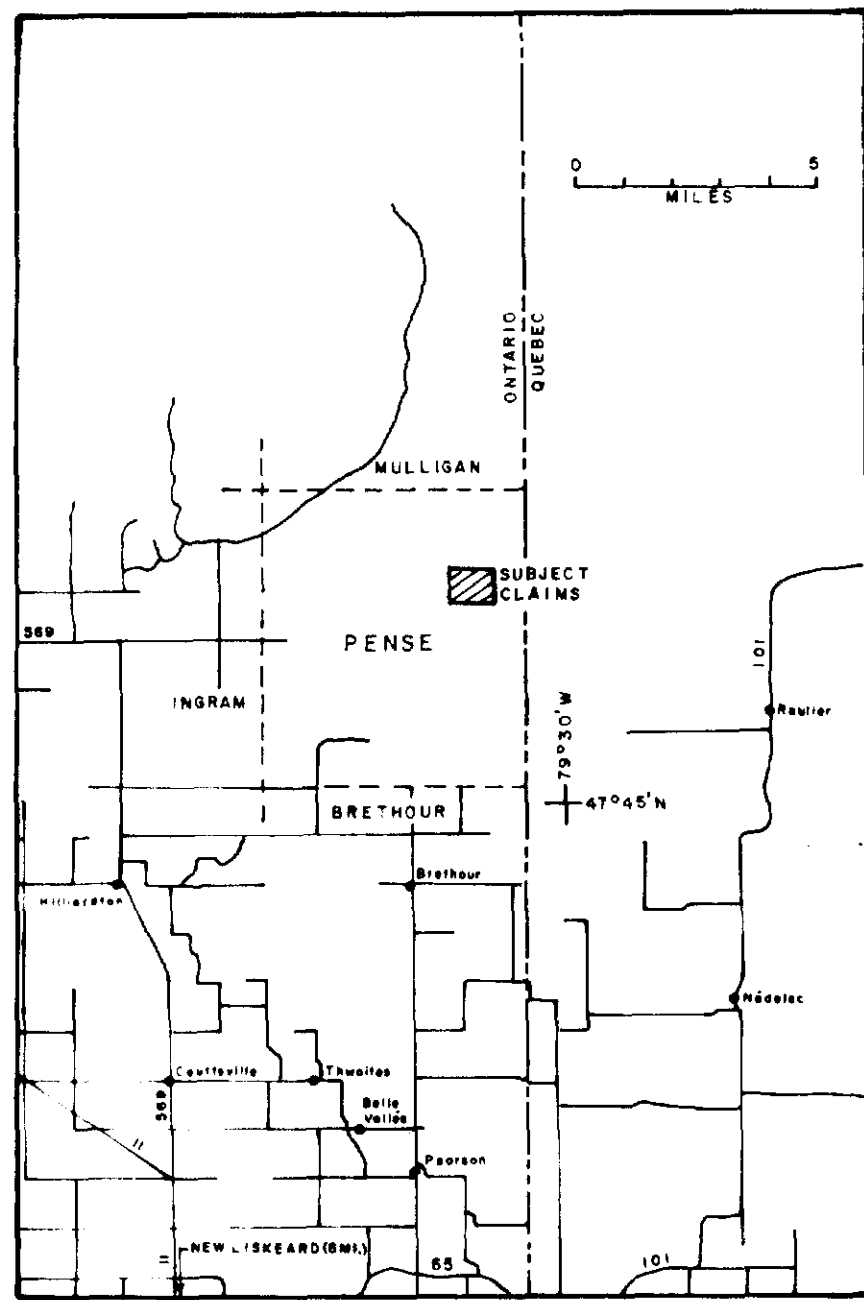
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

PLAN NO - M-566

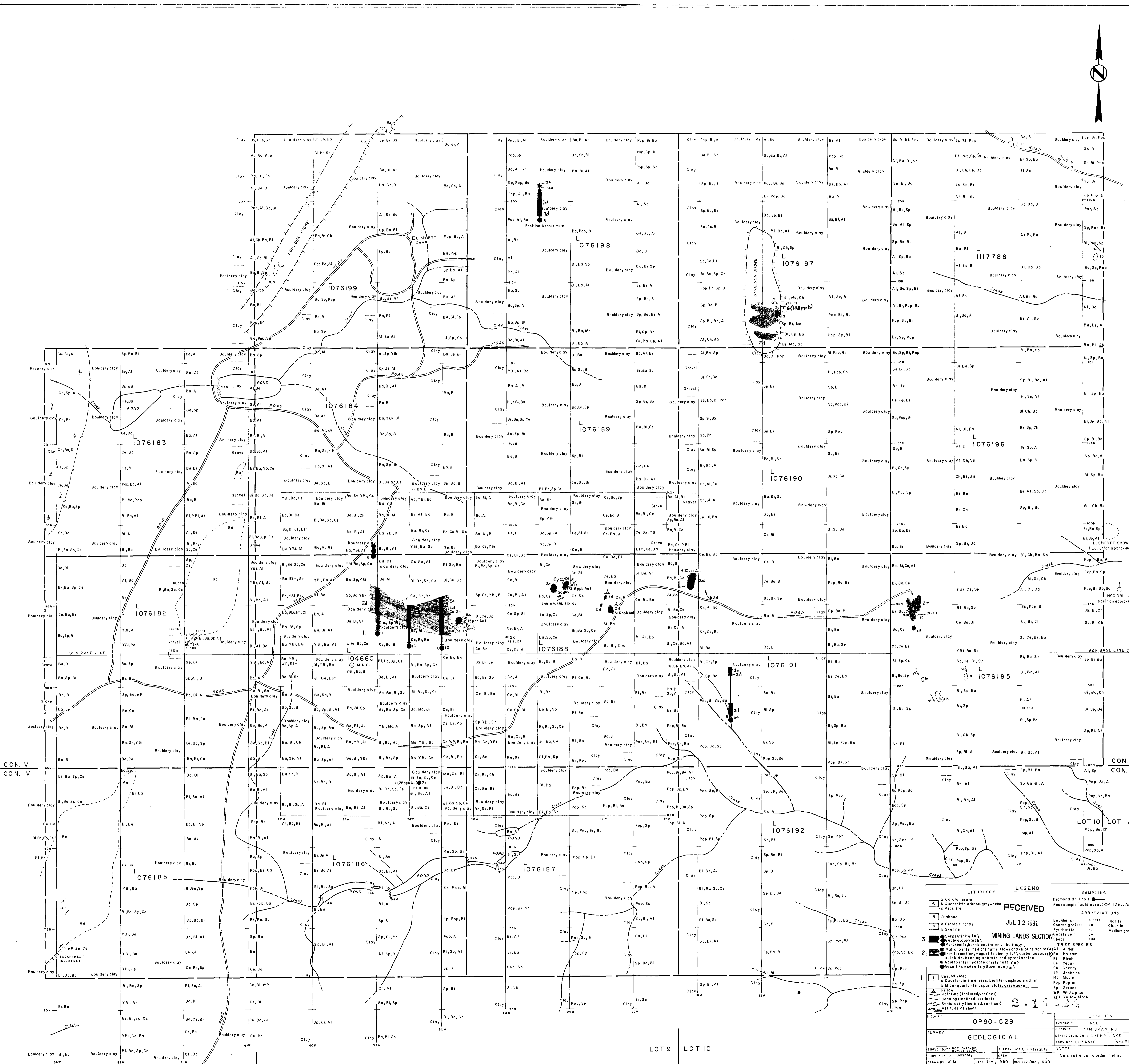
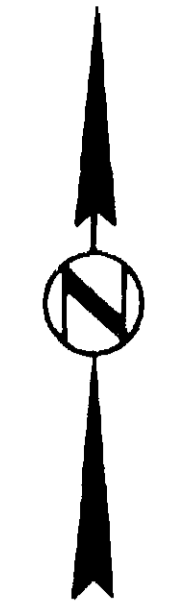
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



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RECEIVED
JUL 12 1991

MINING LANDS SECTION

2.1

LITHOLOGY		LEGEND		SAMPLING	
6	Comglomerate	1	Unconsolidated	□	Diamond drill hole
7	Quartzitic arkose, greywacke	2	Quartz-biotite gneiss, biotite-amphibole schist	○	Rock sample (gold assay) 0.410 ppb Au
8	Dibabase	3	Pyroxene hornfelsite, amphibolite	●	Rock sample (gold assay) 0.410 ppb Au
9	Granitic rocks	4	Mafic to intermediate tuffs, flows and chertite schists	○	Boulder(s)
10	Syenite	5	Acid to intermediate cherty tuff (carbonaceous)	○	Coarse grained
11	Serpentine (s)	6	Schistosity (inclined, vertical)	○	Pyrrhotite
12	Schistosity (inclined, vertical)	7	Bedding (inclined, vertical)	○	Chert
13	Bedding (inclined, vertical)	8	Attitude of shear	○	Quartz vein
14	Attitude of shear	9	Jointing (inclined, vertical)	○	Shear
15	Jointing (inclined, vertical)	10	Jointing (vertical)	○	Poplar
16	Jointing (vertical)	11	Jointing (horizontal)	○	Maple
17	Jointing (horizontal)	12	Jointing (oblique)	○	Poplar
18	Jointing (oblique)	13	Jointing (diagonal)	○	Spruce
19	Jointing (diagonal)	14	Jointing (horizontal)	○	White pine
20	Jointing (horizontal)	15	Jointing (vertical)	○	Yellow birch
21	Jointing (vertical)	16	Jointing (diagonal)	○	Yellow birch
22	Jointing (diagonal)	17	Jointing (horizontal)	○	Yellow birch
23	Jointing (horizontal)	18	Jointing (vertical)	○	Yellow birch
24	Jointing (vertical)	19	Jointing (diagonal)	○	Yellow birch
25	Jointing (diagonal)	20	Jointing (horizontal)	○	Yellow birch
26	Jointing (horizontal)	21	Jointing (vertical)	○	Yellow birch
27	Jointing (vertical)	22	Jointing (diagonal)	○	Yellow birch
28	Jointing (diagonal)	23	Jointing (horizontal)	○	Yellow birch
29	Jointing (horizontal)	24	Jointing (vertical)	○	Yellow birch
30	Jointing (vertical)	25	Jointing (diagonal)	○	Yellow birch
31	Jointing (diagonal)	26	Jointing (horizontal)	○	Yellow birch
32	Jointing (horizontal)	27	Jointing (vertical)	○	Yellow birch
33	Jointing (vertical)	28	Jointing (diagonal)	○	Yellow birch
34	Jointing (diagonal)	29	Jointing (horizontal)	○	Yellow birch
35	Jointing (horizontal)	30	Jointing (vertical)	○	Yellow birch
36	Jointing (vertical)	31	Jointing (diagonal)	○	Yellow birch
37	Jointing (diagonal)	32	Jointing (horizontal)	○	Yellow birch
38	Jointing (horizontal)	33	Jointing (vertical)	○	Yellow birch
39	Jointing (vertical)	34	Jointing (diagonal)	○	Yellow birch
40	Jointing (diagonal)	35	Jointing (horizontal)	○	Yellow birch

PROJECT: OP90-529

SURVEY: G. J. Geoghegan

DATE: Nov. 1990

REVISION: Dec. 1990

SCALE: 1:2400

SHEET: 5

FIGURE: 5

