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REPORT ON GEOLOGICAL AND RADIOMETRIC SURVEYS
BLANCHETTE GROUPS NO's. 1 and 2
SHERATON, TIMMINS AND EGAN TOWNSHIPS
PORCUPINE AND LARDER LAKE MINING DIVISIONS
PROVINCE OF ONTARIO.

by

F.J. Evelegh

RECEIVED
DEC 07 1984
MINING LANDS SECTION

Manville Canada Inc.
Exploration Department

September 26th, 1984
Matheson, Ontario.



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List of Maps Accompanying this Report:

Geology - Topographic Plans and Radiometric Survey
Plans for the Blanchette and Blanchette Northeast
Extension Groups of claims - all on a scale of
1" = 200'.

Legend Sheet

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REPORT ON GEOLOGICAL AND RADIOMETRIC SURVEYS
BLANCHETTE GROUPS NO's. 1 and 2
SHERATON, TIMMINS AND EGAN TOWNSHIPS
PORCUPINE AND LARDER LAKE MINING DIVISIONS
PROVINCE OF ONTARIO.

Introduction:

The following report describes the geological and radiometric surveys which were conducted during August, 1984, on ten mining claims recorded in the name of Manville Canada Inc. and located in Sheraton, Timmins and Egan Townships, Porcupine and Larder Lake Mining Divisions.

Geological mapping was carried out by R.F. Kaltwasser, Senior Fieldman with the Company, and the writer, assisted by D. Brideau, Junior Fieldman, who stripped the moss from outcrops and traversed overburden-covered areas.

Radiometric surveying was carried out by K. Gray, Fieldman and geophysical operator, assisted by B. Haley, student. A Sharpe's GIS-2 Gamma Ray Integrating Spectrometer was used for this work. The grids established in 1981 and 1982 for the magnetic and electromagnetic surveys were used for the radiometric program.

Interpretation of the data and compilation of the report were the responsibility of the writer, Exploration Manager with Manville Canada Inc., based at Matheson, Ontario.

Property:

Blanchette Group No. 1 is comprised of seven claims and has a total acreage of approximately 280. Claims numbered P-579570-71-82 and P-618186 are situated in Timmins Township; claims P-579581 and P-579604-05 are in Sheraton Township. Six of the group were staked in early December, 1980 and recorded on the 12th. Claim P-618186 was staked on May 21st, 1981 and recorded on June 2nd. All claims were then transferred to Johns-Manville Canada Inc.

Blanchette Group No. 2 is comprised of three claims and has a total acreage of approximately 120. Claim P-636127 is located in Sheraton Township; claims L-636128 and 29 are in Egan Township. The claims were staked during the latter part of March, were recorded on April 1st, 1982 and were then transferred to Johns-Manville Canada Inc.

During mid-1983 the claims of both groups were transferred to Manville Canada Inc.

Note that both groups are contiguous.

Location and Accessibility:

The claims of Group No. 1 are situated along the east-west boundary between Sheraton and Timmins Townships with three located in the extreme southeast corner of the former and four in the northeast corner of the latter Township. The claims of Group No. 2 are situated along the common boundary between Sheraton and Egan Townships, immediately to the north of the Timmins Township line.

Note that Egan Township is located in the Larder Lake Mining Division; Sheraton and Timmins Townships are in Porcupine.

Access is provided by a gravel road (Gibson Lake) which branches off to the south from Highway No. 101 approximately eighteen miles west of Matheson. This secondary road leads to Lipsett Lake, a distance of about seventeen miles from the highway. The property is located four miles north of Lipsett Lake and is reached by a sand road.

The Egan Township claims are reached by an old logging road, grown over and now suitable only as a walking trail which branches off to the east from the sand road. Distance is approximately one mile.

Topography:

Generally low and swampy terrain with several northwesterly trending sand and outcrop ridges, which reach heights up to 50 feet above the elevations of the creeks, characterizes the claims of Group No. 1. Low-lying sections are timbered with alders, black spruce and balsam; the ridges with jackpine, birch and poplar. The extreme western part is sand-covered and forms a northerly trending esker having occasional low outcrops.

The claims of Group No. 2 are generally heavily drift-covered and swampy. Most of the area has been cut over during recent years. Outcrops of diabase and volcanics occur along a high, northerly-trending ridge in the east part of the claims. Low-lying exposures of bedrock were noted in the west part of claim L-636128.

Drainage throughout the property is poor and sluggish with a few narrow, run-off streams flowing into Kasba Creek.

Previous Work:

In 1911, the Ontario Bureau of Mines published a report with accompanying maps, compiled by A.G. Burrows, entitled "The Porcupine Gold Area". This was the Twentieth Annual Report, Part II.

The Twenty-third Annual Report, Part III, of the Ontario Dept. of Mines was published in 1924 and contained a section and map covering

Previous Work: (cont'd)

"The Night Hawk Lake Gold Area" as compiled by P.F. Hopkins.

In 1942 the Ontario Dept. of Mines published a report and map, compiled by L.G. Berry entitled "Geology of the Langmuir-Sheraton Area". This was the Forty-ninth Annual Report, Part IV.

More recently, 1971, Geological Report 96, entitled "Geology of the Night Hawk Lake Area, District of Cochrane", as compiled by E.J. Leahy was published by the O.D.M. Map No. 2222 accompanies this report.

Map No. 2205 - The Timmins-Kirkland Lake Sheet of the Geological Compilation Series on a scale of one inch equals four miles covers the property.

Sheraton Township is also shown on Ontario Geological Survey Preliminary Map P.2074 of the Timmins Data Series, issued in 1980.

Aeromagnetic Maps on scales of one inch equals four miles and one-half mile have been published jointly by the O.D.M. - G.S.C.

During May of 1984 maps covering airborne electromagnetic and total intensity magnetic surveys were issued jointly by the Ministries of Natural Resources and Northern Affairs. Sheraton and Egan Townships are shown on Maps No's. 80602 and 80603 on a scale of 1:20000.

All of the previously-listed reports and maps are on file in the Company library and have been used extensively during our exploration work in the Night Hawk Lake Area.

The following data on the Blanchette claims was obtained from the Resident Geologist's office at the Ministry of Natural Resources in Timmins -

- 1) Geological Report and Map for Blanchette Porcupine Gold Mines Ltd. - undated.
- 2) Larouche and Morin Group - Magnetic, Electromagnetic and Geological Plans - dated 1977.

During the early summer of 1981 power stripping, gasoline-powered plugger work and manual labour were used to explore gold showings on the claims of Blanchette Group No. 1. A picket line grid was established later in the year and magnetic and electromagnetic surveys were completed. The results of this work were compiled in a report which was submitted to the Ministry of Natural Resources for assessment purposes in November, 1981. Note that additional limited plugger work was carried

Previous Work: (cont'd)

on these claims in December, 1982 and May, 1983.

Establishment of a picket line grid, followed by magnetic and electromagnetic surveys, was completed during December, 1982 on the claims of Blanchette Group No. 2. The results of this work were compiled in a report which was submitted to the Ministry for assessment purposes in March, 1983.

During the field seasons of 1981 and 1982 reconnaissance-type geological mapping, prospecting and grab sampling were carried out on the claims of both groups.

Line Cutting and Chaining:

On the claims of Group No. 1 base line No. 1 was started from the steel pin at the No. 1 post of claim P-579582 on the Sheraton-Timmins Townships boundary and cut east and west to the outside claim corners. Right-angled offset lines, spaced at 400' intervals, were cut and chained to the north and south of this base line to cover the claims.

Base line No. 2 was started from the No. 1 post of claim P-618186 (being 1265' south of base line No. 1 on Line 0+00) and cut to the east for a length of 2,550 feet. Right-angled offset lines, spaced at 400' intervals, were cut and chained to the south of this base line to the claim boundary.

Marked pickets were established every 100' along all offset and base lines by chainage.

Note that the ends of the picket lines were tied in by chaining along the north and south claim boundaries to increase the accuracy of the grid,

Total miles of base (1.2) and picket lines (6.1) cut and chained on the claims of Blanchette Group No. 1 was 7.3.

As picket lines, heavily overgrown, had previously been established on the two claims in Egan Township these were brushed out, re-chained and used for the geophysical surveys on the Blanchette Group No. 2 block. The base line (No. 1) was also re-established and chaining commenced from this base line for the picket lines from 0+00 to 10+00E. Lines 2+00W and 4+00W were chained from the Sheraton-Egan Townships boundary. Bearing of the base line is S70°E with the right-angled picket lines bearing N20°E and spaced at 200' intervals. The ends of the picket lines were tied-in by chaining along the north and east claim boundaries.

Line Cutting and Chaining: (cont'd)

The No. 2 base line was started from a point 2640' north of the steel pin located at the south end of the boundary between Sheraton and Egan Townships. This base line was cut to the west for a length of 1320' and right-angled offset lines were established at 300' intervals and cut to the south to cover claim P-636127.

Note that marked pickets were established at 100' intervals along all base and picket lines.

Total miles of base (0.50) and picket lines (4.25) cut and chained during the course of this work was 4.75.

General Geology:

The following "Table of Formations" has been taken from Page 7 of the Report on the Geology of the Night Hawk Lake area compiled by E.J. Leahy: -

Table of Formations

Cenozoic:

Recent Lake, stream, and swamp deposits
Pleistocene: Till, sand and gravel, varved clay

Unconformity

PRECAMBRIAN:

Proterozoic:

Younger Mafic Intrusive Rocks (Keweenaw?)
Diabase
Intrusive Contact
Mafic Intrusive Rocks (Matachewan?)
Diabase, porphyritic diabase.
Intrusive Contact

Archean:

Extremely Altered Rocks
Chlorite-carbonate schist, talc-chlorite-carbonate
schist, chlorite-sericite-quartz schist, serpen-
tine schist, carbonate rock.

Gradational and Fault Contacts

Felsic Intrusive Rocks
Biotite granite, quartz-feldspar porphyry, feldspar
porphyry, syenitic, aplitic, and felsitic dikes.
Intrusive Contact

Younger Sedimentary Rocks
Greywacke, conglomerate, argillite, slate
Unconformable Contact

General Geology: (cont'd)

Mafic and Ultramafic Intrusive Rocks

Serpentinized peridotite and dunite, diorite, carbonatized ultramafic rocks

Intrusive Contact

Metasediments and Tuffaceous Metasediments

Graphitic metasediments, argillite, slate, greywacke, conglomerate, tuffaceous rocks.

Facies Change and Interfingering Contact

Intermediate to Felsic Metavolcanics

Rhyolite, rhyodacitic rocks, agglomerate, tuff, iron formation.

Conformable and Interfingering Contact

Mafic to Intermediate Metavolcanics

Massive and pillowed lava flows, spherulitic and amygdaloidal lavas, porphyritic lavas, volcanic breccia, tuffs and agglomerate, iron formation.

Rocks within the map area include intermediate to mafic metavolcanics - now altered mainly to chloritic schists - a sizeable body of coarse grained, magnetite-rich gabbro, northerly to northwesterly trending diabase dikes and scattered narrow quartz and feldspar porphyry dikes. These porphyries strike in a general northeasterly direction, are mineralized with pyrite, and occasionally have interesting gold values.

Geological Survey:

Detailed geological mapping, prospecting and sampling of mineralized porphyry and quartz-filled fracture zones were carried out during the 1984 field season. This work was a continuation of the reconnaissance-type programs conducted in 1981-82.

The results of these surveys are shown on the accompanying Geologic and Topographic Plans of the Blanchette and Blanchette Northeast Extension Groups on a scale of one inch equals 200 feet.

Rock types, structures and economic geology are discussed in the following paragraphs.

The Precambrian (Keewatin) intermediate to basic metavolcanics - andesites and basalts - have strikes ranging from slightly north of east in the southern part of the map area to northwesterly in the northern section. Dips vary from 70° to the northwest to 75° to the southwest respectively. These variations, in strike and dip, are due to the pronounced drag folding and shearing observed on all of the outcrops

Geological Survey: (cont'd)

of volcanics in the southern and central parts of the property where the rocks have been altered to chlorite and talc-carbonate schists. The regional trend of the formations appears to be northwesterly with near vertical dips.

On claim L-636129 the massive, brittle basaltic flows have poorly developed pillow structures and show weak to moderate hornblende and chlorite alteration. Magnetite was observed in several outcrops in the extreme northeastern part of the claim.

Several outcrops of a gabbroic intrusive have been mapped on claims P-579571 and 579582. This rock type has a rusty, mottled appearance on the weathered surface and is dark green to black when broken open. The gabbro is extremely coarse grained with radiating (sunbursts) crystals of hornblende - up to 25 mm in length - observed along the contact with the diabase. This rock is comprised of hornblende, plagioclase feldspar, widely scattered blue quartz "eyes", coarse magnetite and locally has pyrite and occasionally chalcopyrite mineralization along fracture planes. Contacts with the other formations (talc - chlorite schists and diabase dikes) are sharp but very irregular. Deep embayments of the basic metavolcanics were mapped on claims P-579581 and 579582.

This intrusive, which has been outlined by both aerial and ground magnetometer surveys, strikes in a general northwesterly direction (conformable with the regional trend) and has a maximum width of 1,800 feet in the west-central part of the property. A small magnetic anomaly of similar intensity has been delineated on claim L-636128. The approximate contacts of these intrusives are shown in dashed red pencil lines on the accompanying geology maps.

Several narrow quartz and feldspar porphyry dikes intrude the metavolcanics and gabbro on the Blanchette claims. The feldspar porphyry dikes in the northeast and southwest corners of claim P-579605 are cut by quartz-filled fractures and are mineralized with pyrite. A similar dike was mapped on the east boundary of claim P-579582 and occurs in a drag-folded section of the chloritic schists. This dike is sprinkled with fine, cubic pyrite and is weakly sheared. An oxidized zone mineralized with pyrite and galena was observed along the east contact of the porphyry.

Geological Survey: (cont'd)

Syenite porphyry dikes which have a fresh appearance and are a deep red in colour were mapped on the claims of the Northeast Extension Group.

Several northerly to steeply northwesterly trending Matachewan diabase dikes, ranging in width from a few feet to over 400, occur on the property. These dikes form low north-south ridges in Timmins Township and a high hill along the east boundary of the claims in Egan. Contacts with the metavolcanics and gabbro are sharp. Minor pyrite mineralization was noted at several locations along the fringes of the dikes.

Ground magnetometer surveying has delineated these intrusives which stand out sharply in the talc-chlorite schists, however, they are completely masked in the highly anomalous gabbro.

Structurally, the Blanchette claims groups are located approximately 14 miles south of the southwesterly striking Destor-Porcupine fault and immediately to the east of a strong northwesterly trending lineament which parallels the Montreal River fault. A few minor faults and shears displacing diabase dikes, and, in places characterized by gossan zones, were mapped over short distances on the property. The northerly striking diabase dikes which occur in some profusion throughout the map area have been intruded along fault structures. The schists are complexly folded and crumpled but due to the paucity of outcrops few details could be determined.

Economically, interesting gold values have been obtained from grab and chip sampling of quartz-filled fracture zones mineralized with fine cubic pyrite, in feldspar porphyry dikes. These zones have been drilled and blasted at several sites on the Blanchette claims. Values ranging up to 0.49 ozs were obtained from a trench in the northeast corner of claim P-579605 and up to 0.39 ozs from a showing along the east boundary of claim P-579582. The mineralization occurs over narrow widths and could only be traced for a few feet along strike due to the overburden conditions. Only low gold values were obtained from sampling other porphyry dikes on the property.

Radiometric Survey:

Radiometric surveying was conducted by K. Gray during the period August 9th to 17th, 1984. A Sharpe's GIS-2 Gamma Ray Integrating Spectrometer (Serial No. 710123) was used for this work.

Radiometric Survey: (cont'd)

Readings were recorded with the ratemeter set on the 10 scale range at an 8 second meter time constant. Counts per second were taken with the threshold control setting at 0.30 (0.30 MeV), 5.00 (1.7 MeV) and 7.65 (2.5 MeV). With the threshold control set to 0.30 nearly all the gamma rays are counted; if the control is set to 5.00 only those due almost entirely to Uranium and Thorium will be counted, and, finally, with the setting at 7.65 only those due to Thorium will be counted.

All three counts were recorded at each station and have been plotted on the accompanying Radiometric Plan on a scale of 1" = 200'. Note that all pertinent topographic data has been marked on this map.

Stations were spaced at 50' intervals along the picket lines and a total of 3,378 readings was recorded with the probe at ground level.

Contour lines have been drawn around readings having total counts of 15.0, 10.0 and 5.0 c.p.s. in an attempt to correlate with changes in overburden and rock types.

The results of the radiometric survey show total counts over the low swampy sections of the property to range from 4.0 to 8.0 c.p.s. The U + Th and Th are both lower than 1.0 c.p.s.

Over the outcrop areas, mainly diabase, there is a large increase over background with total counts varying from 9.0 to 19.0 c.p.s. The U + Th are generally higher than 2.0 and 1.5 c.p.s. respectively. The maximum count of 19.0 - 5.0 - 4.0 was recorded over an outcrop of Matachewan diabase in the northeast corner of claim P-579582. A series of moderate to high counts was recorded along picket line 8+00W over a northerly striking diabase dike.

Sand ridges, which have a general north-south trend, were slightly lower than the outcrop areas. Total counts range from 7.0 to 10.0 while U + Th and Th were each slightly above 1.0 c.p.s. These moderate values are probably due to shallow overburden or the mineral composition of the sand.

Conclusions and Recommendations:

The results of the exploration programs completed to date, which include establishment of picket line grids, magnetic, electro-magnetic, geologic and magnetic surveying, power stripping, prospecting, rock trenching, sampling and assaying, show interesting gold values occurring in quartz-filled fracture zones in feldspar porphyry dikes

Conclusions and Recommendations: (cont'd)

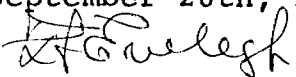
at two localities on the property. Assays from chip and grab sampling ranged from 0.005 to 0.49 ozs of gold over narrow widths.

Magnetometer surveying outlined two prominent anomalies interpreted as being underlain by a coarse-grained magnetic-rich gabbroic intrusive weakly mineralized with pyrite and occasionally chalcopyrite.

The results of the electromagnetic and radiometric surveys were negative.

It is therefore recommended that additional claims be acquired, either by staking or optioning, and diamond drilling be carried out to further explore the two main gold showings. The gabbro intrusive should be sampled and assayed for precious metals. In this respect a program of geochemical soil sampling may be warranted.

Submitted: September 26th, 1984


by: F.J. Evelegh
Exploration Manager

**SPECIFICATIONS OF
FLUXGATE MAGNETOMETER
MODEL MF-1**

Ranges:	Plus or minus — 1,000 gammas f. sc. 3,000 " 10,000 " 30,000 " 100,000 "
	Sensitivity 20 gammas/div. 50 " 200 " 500 " 2,000 "
Meter:	Taut-band suspension 1000 gammas scale 1 7/8" long — 50 div. 3000 gammas scale 1 11/16" long — 60 div.
Accuracy:	1000 to 10,000 gamma ranges ± 0.5% of full scale 30,000 and 100,000 gamma ranges ± 1% of full scale
Operating Temperature:	—40°C to +40°C —40°F to +100°F
Temperature Stability:	Less than 2 gammas per °C (1 gamma /°F)
Noise Level:	Total 1 gamma P-P
Long Term Stability:	± 1 gamma for 24 hours at constant temperature
Bucking Adjustments: (Latitude)	10,000 to 75,000 gammas by 9 steps of approximately 8,000 gammas and fine control by 10 turn potentiometer. Convertible for southern hemisphere or ± 30,000 gammas equatorial.
Recording Output:	1.7 ma per oersted for 1000 to 100,000 gamma ranges with maximum termination of 15,000 ohms.
Response:	DC to 5 cps (3db down)
Connector:	Amphenol 91-MC3F1
Batteries:	12 x 1.5V-flashlight batteries "C" cell type) (AC Power supply available).
Consumption:	50 milliamperes
Dimensions:	Instrument — 6 1/2" x 3 1/2" x 12 1/2" 165 x 90 x 320 mm Battery pack — 4" x 2" x 7" 100 x 50 x 180 mm Shipping Container — 10" dia x 16" 254 mm dia. x 410 mm
Weights:	Instrument — 5 lbs. 12 oz. 2.6 kg. Battery Pack — 2 lbs. 4 oz. 1.0 kg. Shipping — 13 lbs. 6.0 kg.



SCINTREX LIMITED

79 Martin Ross Avenue. Downsview, Ontario, Canada



SCINTREX



MF-1

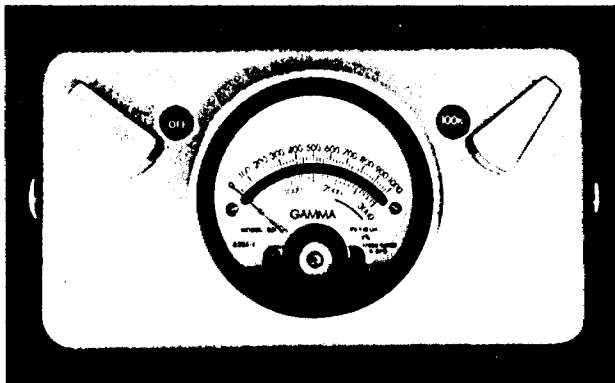
FLUXGATE MAGNETOMETER

The MF-1 Fluxgate Magnetometers and their extended sensitivity series, the MF-1-100's are designed primarily for the oil and mineral exploration industries. They incorporate advanced transistorized circuitry and extensive temperature compensation with light weight and a self-levelling mechanism. Although the basic MF-1 and MF-1-100 are intended primarily for accurate ground surveys in the mining industry, modifications are available for base station recording, for vertical gradient measurements, for measuring susceptibilities, determining remanence of rock samples and for storm monitoring on aeromagnetic surveys.

MF-1 SERIES

(a) MF-1

The MF-1 Fluxgate Magnetometer is a vertical component magnetometer designed for accurate ground surveys in



the mining industry. Advanced transistorized circuitry and extensive temperature compensation is the core of its accuracy, comparable to precision tripod mounted Schmidt type magnetometers. It is a hand held instrument and needs only coarse levelling and no orientation. Features such as direct reading of gamma values and the possibility of accurate zero settings at base stations ensure simplicity of operation and high field economy. The readability is 5 gammas on the 1000 gamma range.

(b) MF-1-G

The MF-1-G Fluxgate Magnetometer has the same electronics and specifications as the MF-1. The difference lies in that the sensor is detached and enclosed in a small cylindrical tube thus permitting the sensor (geoprobe) to be oriented and tilted in any desired direction. Since a 25 foot connecting cable joins the sensor to the instrument housing, the geoprobe may be placed away from local spurious magnetic disturbances in the vicinity of the electronics housing. Thus this magnetometer may be used for the study of the magnetic properties of rocks, remanence etc.

(c) MF-1-GS

The MF-1-GS Magnetometer again has the same electronics and specifications as the MF-1 but has two sensors, the attached self-levelling sensor of the MF-1 as well as the detached geoprobe of the MF-1-G. Thus this magnetometer may be employed on rapid ground magnetometer surveys and also used for vertical gradient measurements and to measure the magnetic properties of rocks.



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4408.525 Mi

Type of Survey(s) **Geological & Geophysical** Township or Area **Sheraton, Timmins, Egan**
 Claim Holder(s) **Manville Canada Inc.** Prospector's Licence No. **T-1330**
 Address **P.O. Box 610, Matheson, Ontario POK 1N0**
 Survey Company **same as above** Date of Survey (from & to) **9 8 84 26 9 84** Total Miles of line Cut **12.05**
Day Mo. Yr. Day Mo. Yr.
 Name and Address of Author (of Geo-Technical report)

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	579570		L	636128	
	579571			636129	
	579581				
	579582				
	579604				
	579605				
	618186				
	636127				

RECEIVED
DEC 19 1984
MINING LANDS SECTION

RECORDED
DEC 5 1984
Receipt No. *ef.*

RECEIVED
FORCUPINE MINING DIVISION
DEC 05 1984
A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

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.

Total number of mining claims covered by this report of work. **10**

Date **Dec 5/84** Recorded Holder or Agent (Signature) *F. J. Evelegh*

For Office Use Only
 Total Days Cr. Recorded **320** Date Recorded **Dec 5/84** Mining Recorder *[Signature]*
 Date Approved as Recorded **Dec 5/84** District Director *[Signature]*

Certification Verifying Report of Work
 I hereby certify that I have a 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 **F. J. Evelegh, Box 610, Matheson, Ontario POK 1N0**
 Date Certified **Dec 5/84** Certified by (Signature) *F. J. Evelegh*



Ministry of Natural Resources

File _____

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(s) Geological and Geophysical
Township or Area Sheraton, Timmins, Egan
Claim Holder(s) Manville Canada Inc.
Box 610, Matheson, Ontario POK 1N0
Survey Company same as above
Author of Report F.J. Evelegh
Address of Author same as above
Covering Dates of Survey Aug 9th to Sept 26th/84
(linecutting to office)
Total Miles of Line Cut 12.05

MINING CLAIMS TRAVERSED
List numerically

P	579570
(prefix)	(number)
	579571
	579581
	579582
	579604
	579605
	618186
	636127
L	636128
	636129

If space insufficient, attach list

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

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

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

DATE: Dec 5/84 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 63 1067

<u>Previous Surveys</u>			
File No.	Type	Date	Claim Holder

RECEIVED
DEC 07 1984
MINING LANDS SECTION

TOTAL CLAIMS 10

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 1,126 Number of Readings 3,378
Station interval 50' Line spacing 200', 300' & 400'
Profile scale --
Contour interval 5.0 c.p.s.

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

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument Sharpe's GIS-2 Gamma Ray Integrating Spectrometer

Values measured Total- Uranium +Thorium - Thorium, in counts per second

Energy windows (levels) 0.30 1.7 2.5 MeV

Height of instrument ground level Background Count 4.0 - 0.1 - 0.1

Size of detector 2" x 2" sodium iodide crystal

Overburden sand, boulders, till, swamp deposits

(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 _____










GEOLOGICAL LEGEND

-  Quartz diabase, diabase.
-  Granite 5a, Syenite 5b, Feldspar porphyry 5c, Quartz feldspar 5d, Felsite 5e, Lamprophyre 5f.
-  Diorite 4a, Gabbro diabase 4b, Breccia 4e
-  Peridotite & Dunite (Serpentinized) (Asb. - Asbestos recognized)
-  Pyroxenite 4d.
-  Rhyolite fragmental lava
-  Andesite basalt pillow lava 2a, Diabasic lava 2b, Spherulitic lava 2c, Fragmental lava 2d, Tuff & chert 2e, Talc-chlorite schist 2f.
-  Greywacke 1a, Arkose 1b, Quartzite 1c, Argillite or shale 1d, Conglomerate 1e, Iron formation 1f, Chlorite schist 1g.
-  Carbonate rock
-  Quartz veins

GEO-MAG SYMBOLS




-  Contour interval 500 gammas
 -  Magnetic Base Control Station
 -  Geological Contact
 -  Fault Zone
 -  Mag. Profile
- G- Geological
 M- Magnetic
 T- Topographic


TOPO-SYMBOLS

-  Outcrop
-  Higher ground
-  Scarp
-  Muskeg or Swamp
-  Creek
-  Drill hole
-  Bush road
-  Direction in which lava flows face, indicated by shape of pillows
-  Strike - Dip of Schistosity



ELECTRO-MAG SYMBOLS

GEONICS 15 UNIT


-  Conductive Zone (Red)
 -  Magnetic Conductor (Blue)
 -  Nil
- Scale - 20 units = 1 inch
 West & South - Pos. (Red)
 East & North - Neg. (Blue)

- Scale - 40 units = 1 inch
-  Conducting Zone - S - Strong, M - Medium, W - Weak

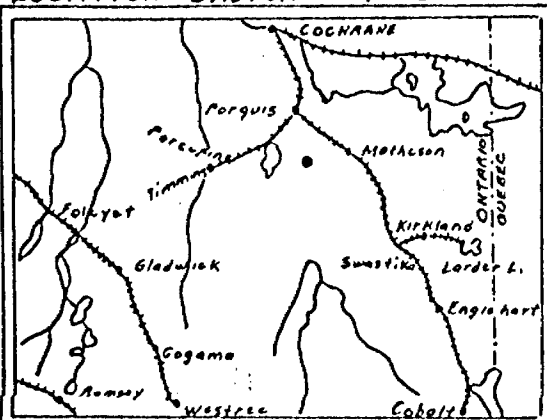
RONKA H.L. UNIT

-  In phase curve
 -  Out phase curve
- NPCS Not proper coil spacing
 East - Positive. West - Negative

M'PHAR V.L. UNIT

-  Dip angle profile
- North & East - Positive
 South & West - Negative

LOCATION SKETCH - 1" = 50 Miles



LEGEND SHEET
PROVINCE OF ONTARIO

1984 12 13

Your File:
Our File: 2.7535

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We received reports and maps on December 7, 1985 for a Geophysical (Radiometric) Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P 579570 et al in the Townships of Sheraton, Timmins and Egan.

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

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

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. Barr:sc

cc: Manville Canada Inc
P.O. Box 610
Matheson, Ontario
POK 1N0

Mining Lands Section

File No 27535

Control Sheet

TYPE OF SURVEY

- GEOPHYSICAL
 GEOLOGICAL
 GEOCHEMICAL
 EXPENDITURE

MINING LANDS COMMENTS:

Lgd. L.D.

Demick.
Signature of Assessor

Jan. 3/04.
Date

2.7535

Rad. Gen.

P-579570

✓ ✓

579571

✓

579581

✓

579582

✓

579604

✓

579605

✓

618186

✓

636127

✓

636128

✓

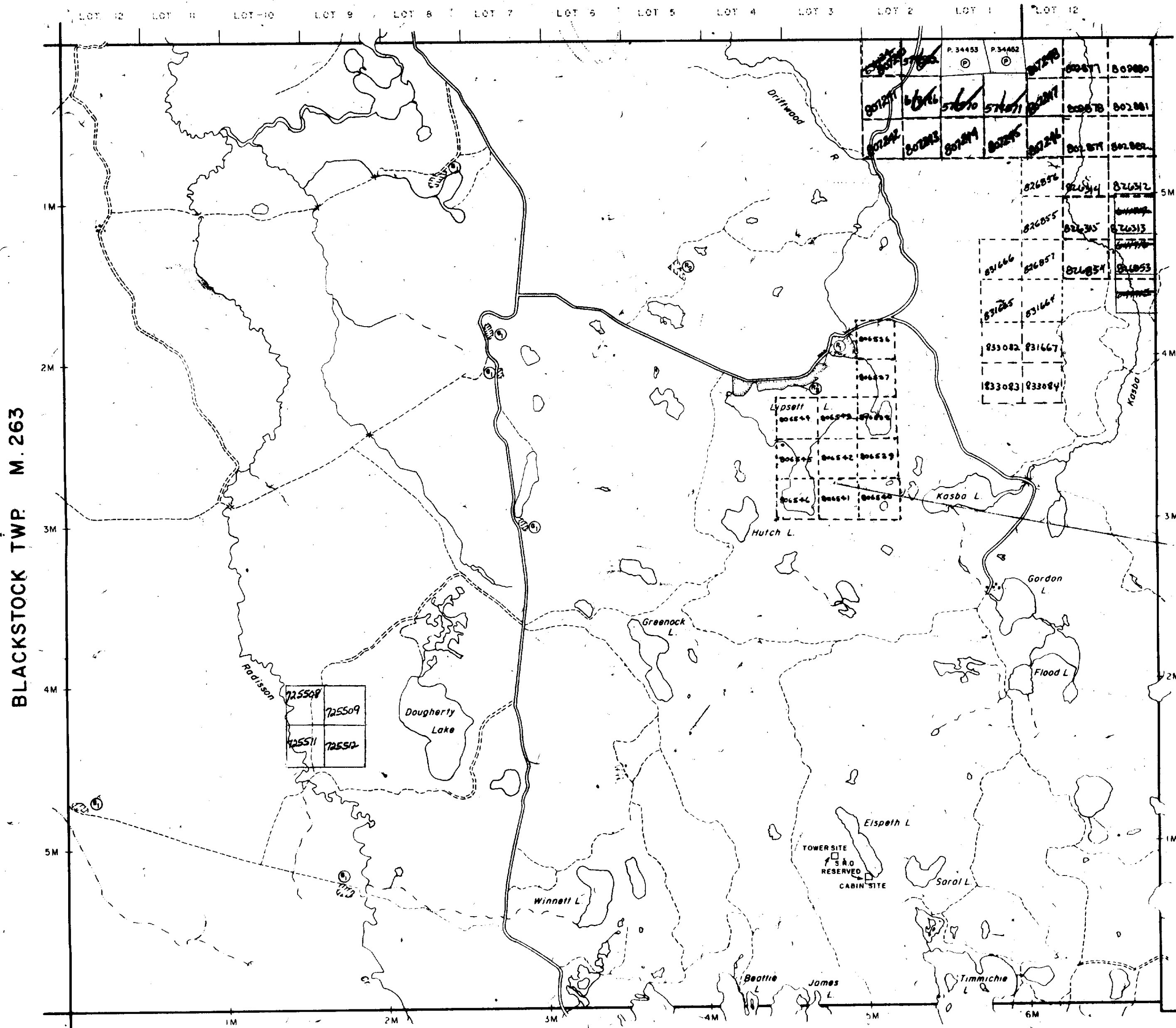
636129

✓ ✓

D.K.

SHERATON TWP. M. 386

EGAN TWP. M. 346



BLACKSTOCK TWP. M. 263

MCEVAY TWP. M. 367

MICHIE TWP. M. 301

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.

Order No.	File	Date	Disposition
① W. 67/77	192164	28/6/77	S.R.O.
② W. 68/77	188643	27/10/77	S.R.O.
③ W. 19/78	188643	10/10/78	S.R.O.

SAND and GRAVEL

④ Quarry Permit

LEGEND

- PATENTED LAND
- PATENTED FOR SURFACE RIGHTS ONLY
- LEASE
- LICENSE OF OCCUPATION
- CROWN LAND SALES
- LOCATED LAND
- CANCELLED
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- HIGHWAY & ROUTE NO.
- ROADS
- TRAILS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES

*used only with summer resort locations or when space is limited

TOWNSHIP OF
TIMMINS

DISTRICT OF
COCHRANE

PORCUPINE
MINING DIVISION

SCALE: 1 INCH = 40 CHAINS (1/2 MILE)

DIR: C.V.I. / PLAN NO. **M.314**

DATE: MARCH '78
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



Updated 02/11/84

SHERATON TOWNSHIP

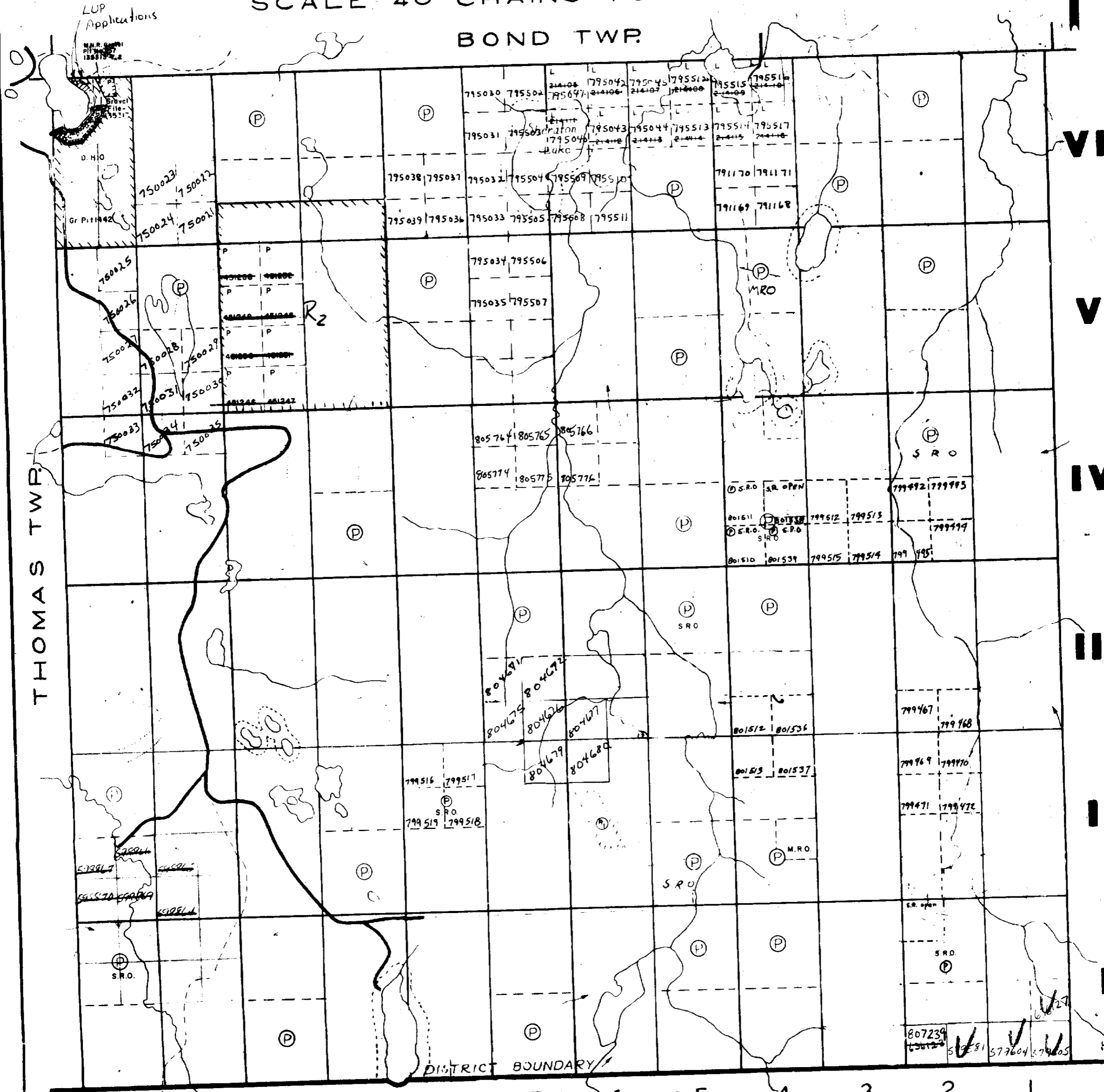
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

PORCUPINE MINING DIVISION

DISTRICT OF COCHRANE

M.386

SCALE 40 CHAINS TO ONE INCH
BOND TWP.



THOMAS TWP

VI

V

IV

III

II

I

EGAN TWP.

Areas with 1/4 section staking under Section

TIMMINS TWP.

400' Surface rights reservation around all lakes and rivers.
REGISTERED PLAN OF SUBDIVISION

LEGEND

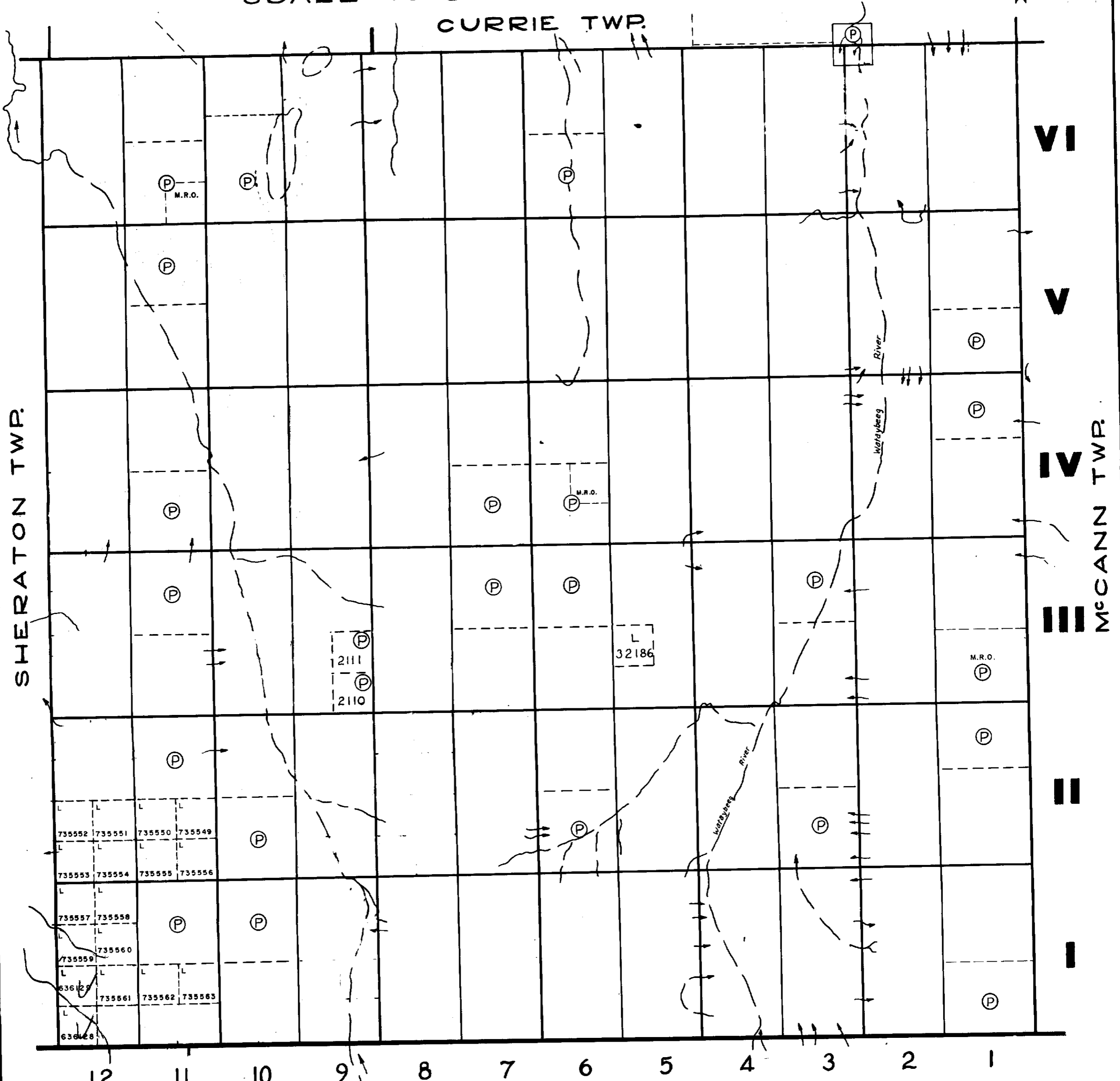
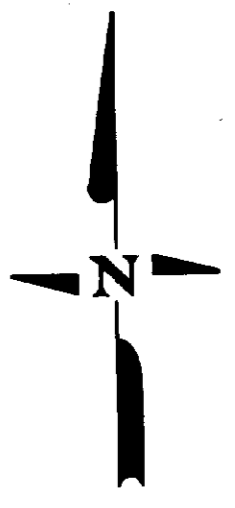
- PATENTED LANDS (P)
- CROWN LAND SALES (S)

Order No. 16/83
Order No. 14/82



EGAN TOWNSHIP

ONTARIO
 LARDER LAKE MINING DIVISION M.346
 MINISTRY OF NATURAL RESOURCES DISTRICT OF COCHRANE
 SURVEYS AND MAPPING BRANCH
 SCALE 40 CHAINS TO ONE INCH
 CURRIE TWP.



SHERATON TWP.

VI

V

IV

III

II

I

McCANN TWP.

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

LEASES
 MINING RIGHTS ONLY
 SURFACE RIGHTS ONLY
 CANCELLED
 IMPROVED ROADS
 TRAILS

Ⓟ
 M.R.O.
 S.R.O.
 C.

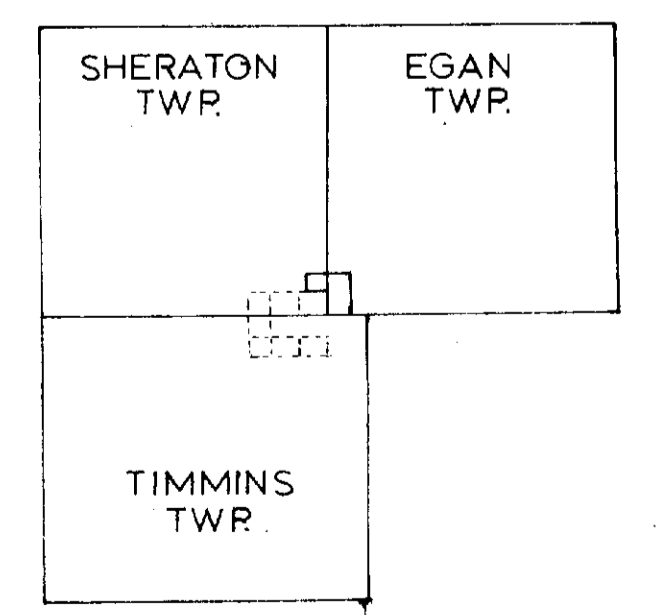
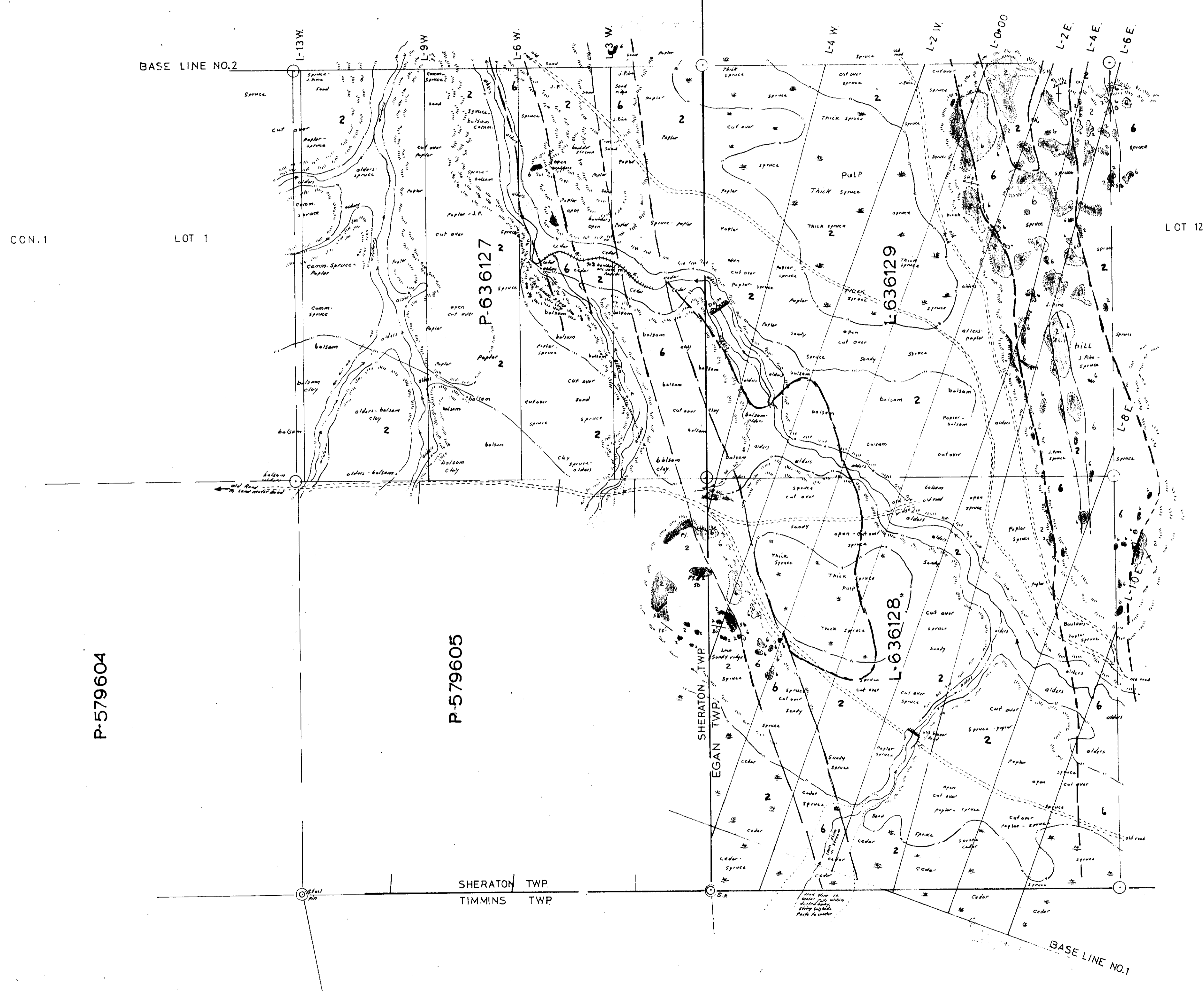
McEVAY TWP.
 LEGEND

PATENTED LANDS Ⓟ
 CROWN LAND SALES Ⓢ

400' Surface rights reservation around all lakes and rivers.

LICENSE OF OCCUPATION L.O.
 LOCATED LANDS Loc.





GEOLOGY & TOPOGRAPHIC PLAN

2 7535



LOT 2

LOT 1

P-636127

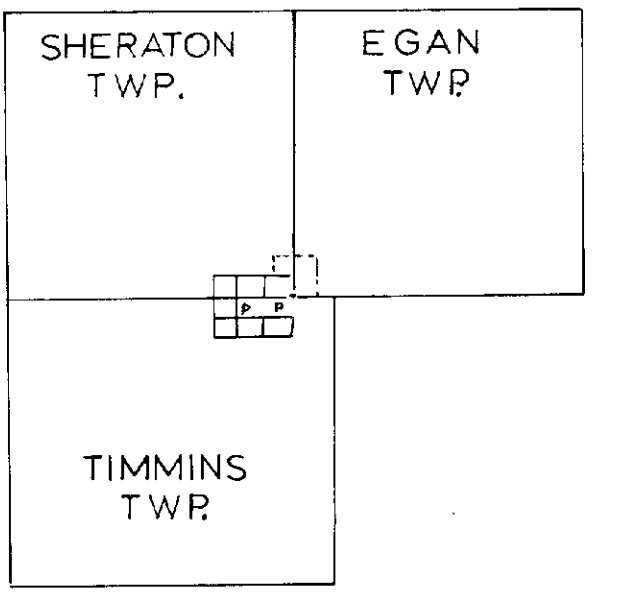
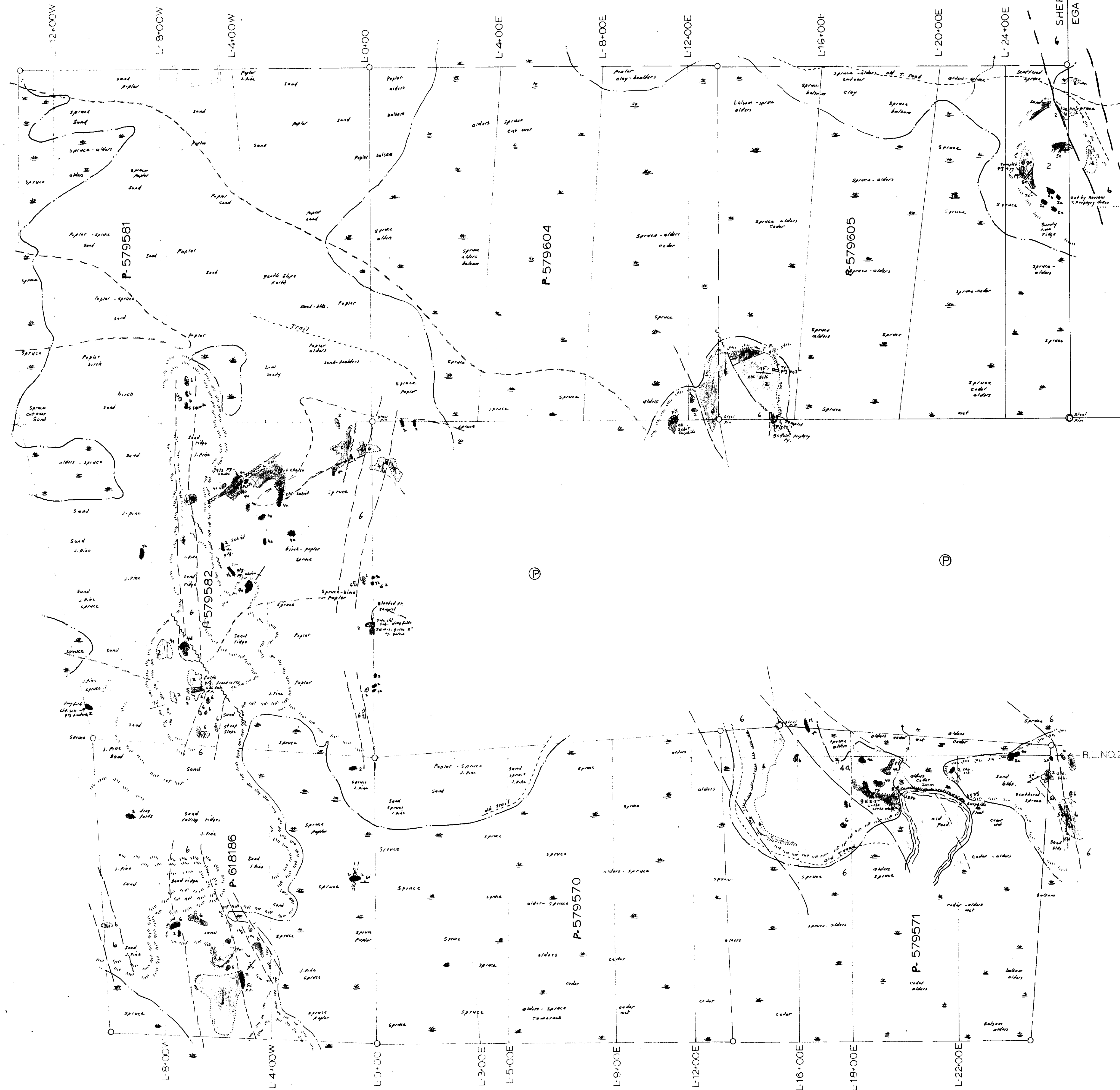
SHERATON TWP
EGAN TWP

CCN.1

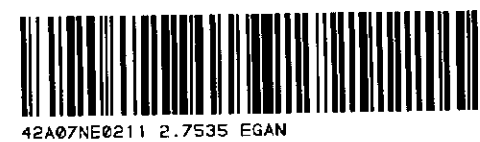
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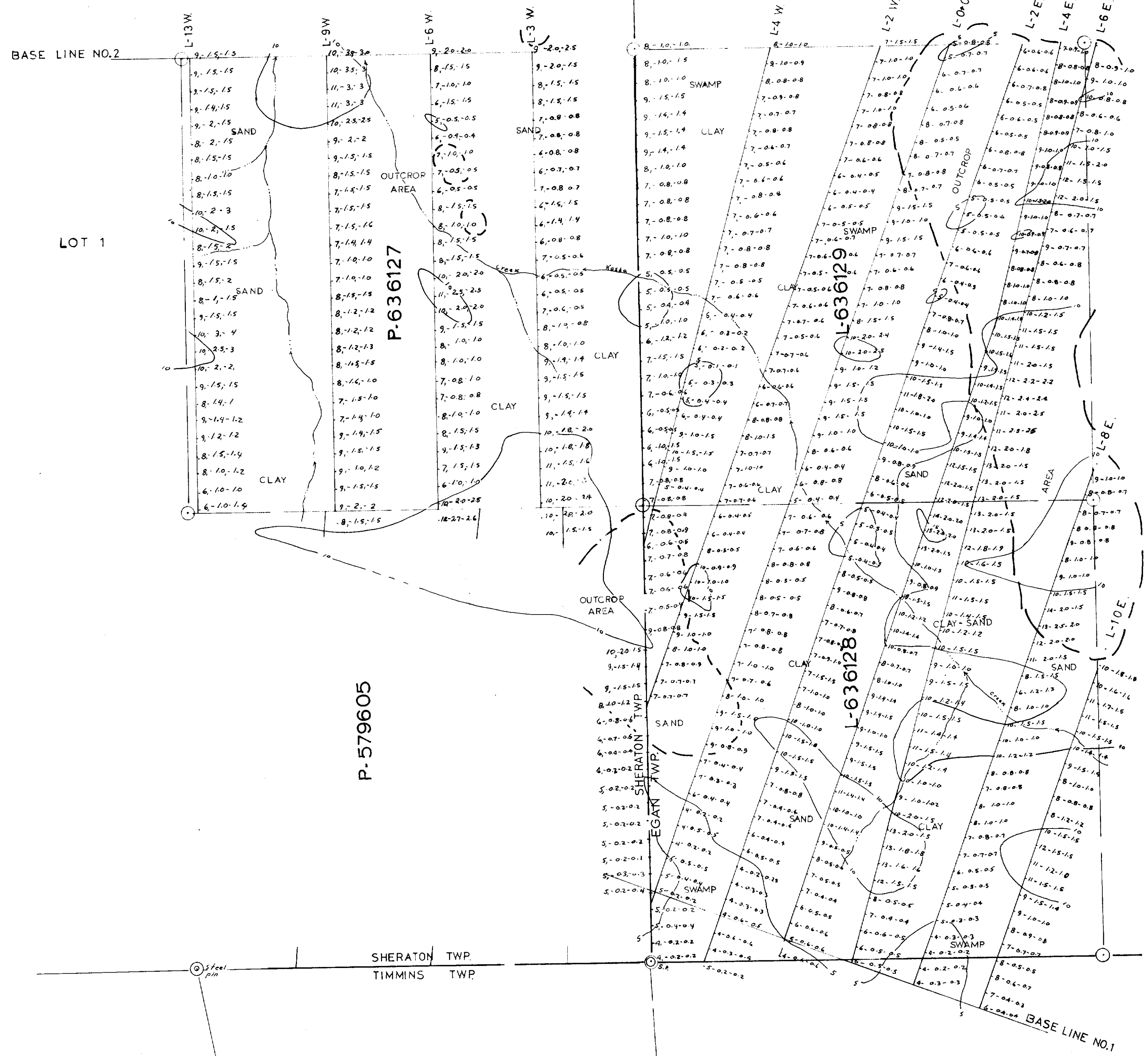
SHERATON TWP
TIMMINS TWP

EGAN TWP



27535





CON.1

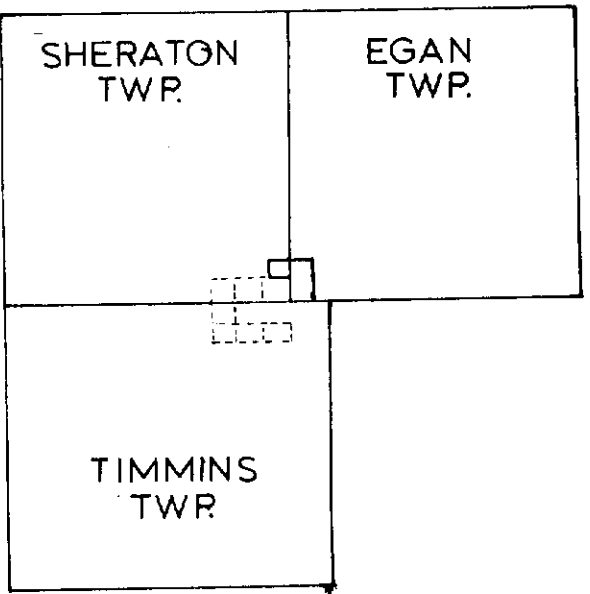
LOT 1

LOT 12

P-579604

P-579605

SHERATON TWP
TIMMINS TWP



RADIOMETRIC SURVEY PLAN

READINGS IN C.P.S.		
TOTAL	U-TH	TH
10	0.06	0.04

27535

MANVILLE CANADA INC.

INST. - G5-2 SHARPE SERIAL NO. 710123
OPERATOR K. GRAY

SEP 26 1984

BLANCHETTE N.E. EXT. GR.
ONT. 1"=200'

SHERATON & EGAN TWP.



LOT 2

LOT 1

P-636127

LOT 12

CON. 1

SHERATON TWP.
TIMMINS TWP.

B.L. NO. 1

EGAN TWP.

L-636128



RADIOMETRIC SURVEY PLAN

READINGS IN C.P.S.

TOTAL	U+TH	IH
10	0.06	0.04

27535

