Geological Report

for Assessment Work Credits

on

the

Langmuir West Grid

Langmuir and Fallon Townships

Porcupine Mining Division

District of Timiskaming, Ontario

NTS 42A/6
Latitude 48° 16.5'N
Longitude 81° 03'W

July 4, 1985

By: P. Miller

TABLE OF CONTENTS

FIGURES

MAPS

INTRODUCTION AND SUMMARY OF RESULTS

This report describes the results of a geological survey which was performed on the Langmuir West grid by a crew of six Lac Minerals, Exploration Division, personnel from May 21 to 26, 1985, inclusive. The Langmuir West grid is covered by twenty-five contiguous unpatented mining claims in the Langmuir southwest and Fallon northwest Township quadrants. Lac Minerals has optioned the Langmuir West property from its owner, Mr. David J. Meunier of South Porcupine, Ontario.

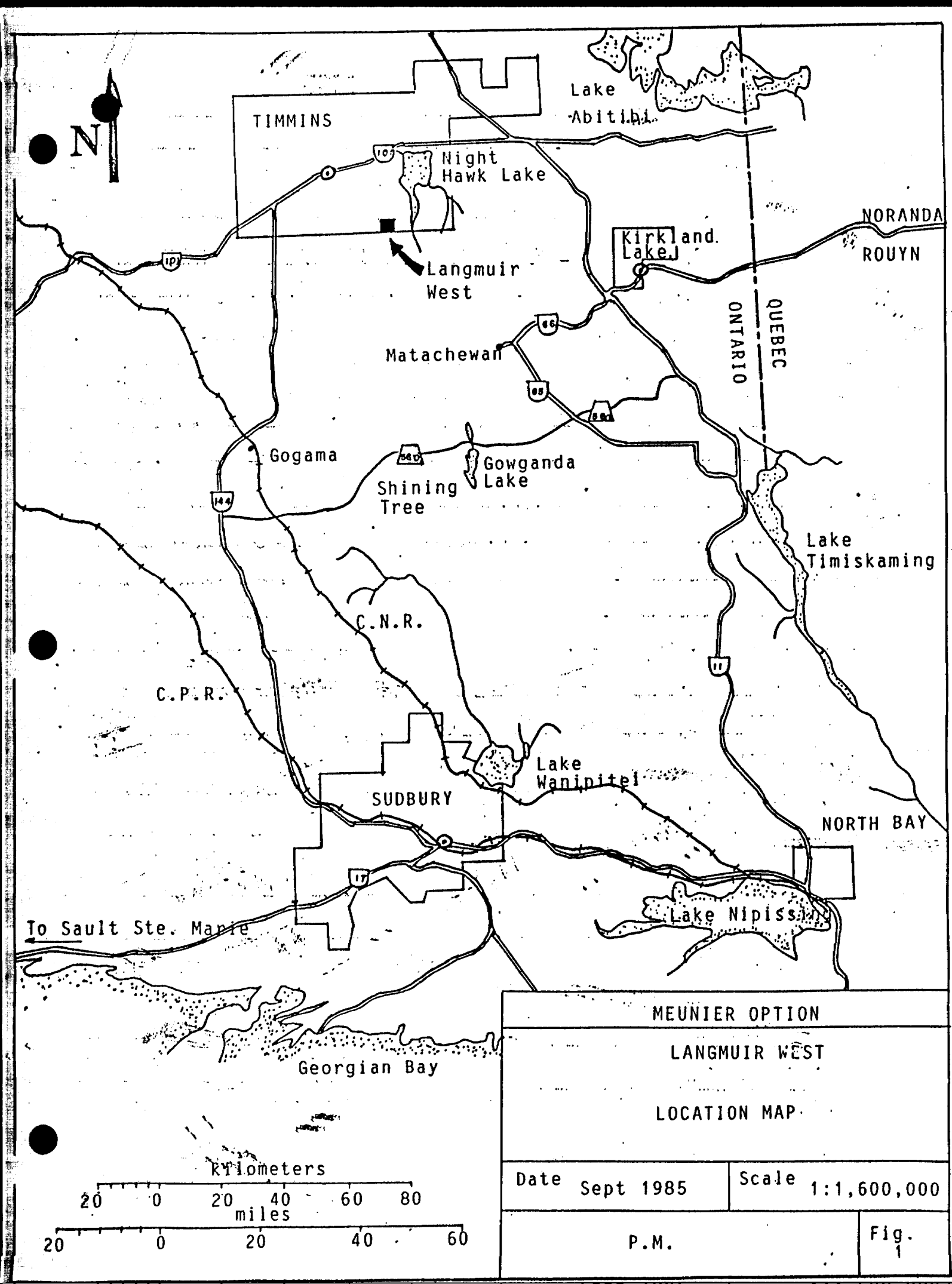
Geological mapping was done by three geologists with the aid of three assistants, at a 1:5000 scale. In total, forty kilometers of grid line was surveyed. Lines are 100 meters apart with stations being established at 25 meter intervals.

Outcrop exposure on the grid is less than 5%, being mainly confined to the north-central section, where a thick sequence of Archean ultramafic komatiite flows is exposed. Intruding the komatiite flows are several thin east-west trending porphyritic felsic dikes and a thick north-south trending Archean diabase dike. On the extreme east of the grid, a sequence of mafic-intermediate flows and minor tuffs stratigraphically overlie the ultramafics. A north-south trending diabase dike transects the mafic-intermediate volcanics. Two steep-sided erosional remnants of Proterozoic Cobalt Group sediments are exposed near the baseline, on the east and west portions of the grid.

Faults trending in north-south and NNW directions are the region's prominent structural features. The felsic porphyry dikes, across the north central portion of the property, host up to 20%, north-south trending pyritic quartz ± carbonate veins over widths of up to 3 meters. Ultramafic flows adjacent to the dikes, over a 150 by 300 meter area, have undergone varying degrees of carbonate, talc, serpentine and pyrite alteration. Between 1912-1915, Porcupine Miracle Mining Co. Ltd. tested these quartz vein zones for gold but were unable to obtain any significant values. Elsewhere on the property, indications of economic mineralization are absent.

LOCATION AND ACCESS

The property is centered 30 kilometers southeast of Timmins, Ontario at latitude 48° 16.5' north and longitude 81° 03' west, NTS 42A/6. Figures 1 and 2 illustrate the property's location at 1:1,600,000 and 1:250,000 scales respectively. Gravel road access is available into the centre of the property commencing at Connaught Hill, south of South Porcupine. From Connaught Hill, the Langmuir Mine Road is followed in a southwesterly direction for 15.2 kilometers until it's junction with Night Hawk Timber Co. Ltd.'s private access road is met. The access road is then followed for 15.0 kilometers, in a southerly direction, until the grid is reached. A walking trail accesses the northeast portion of the grid.

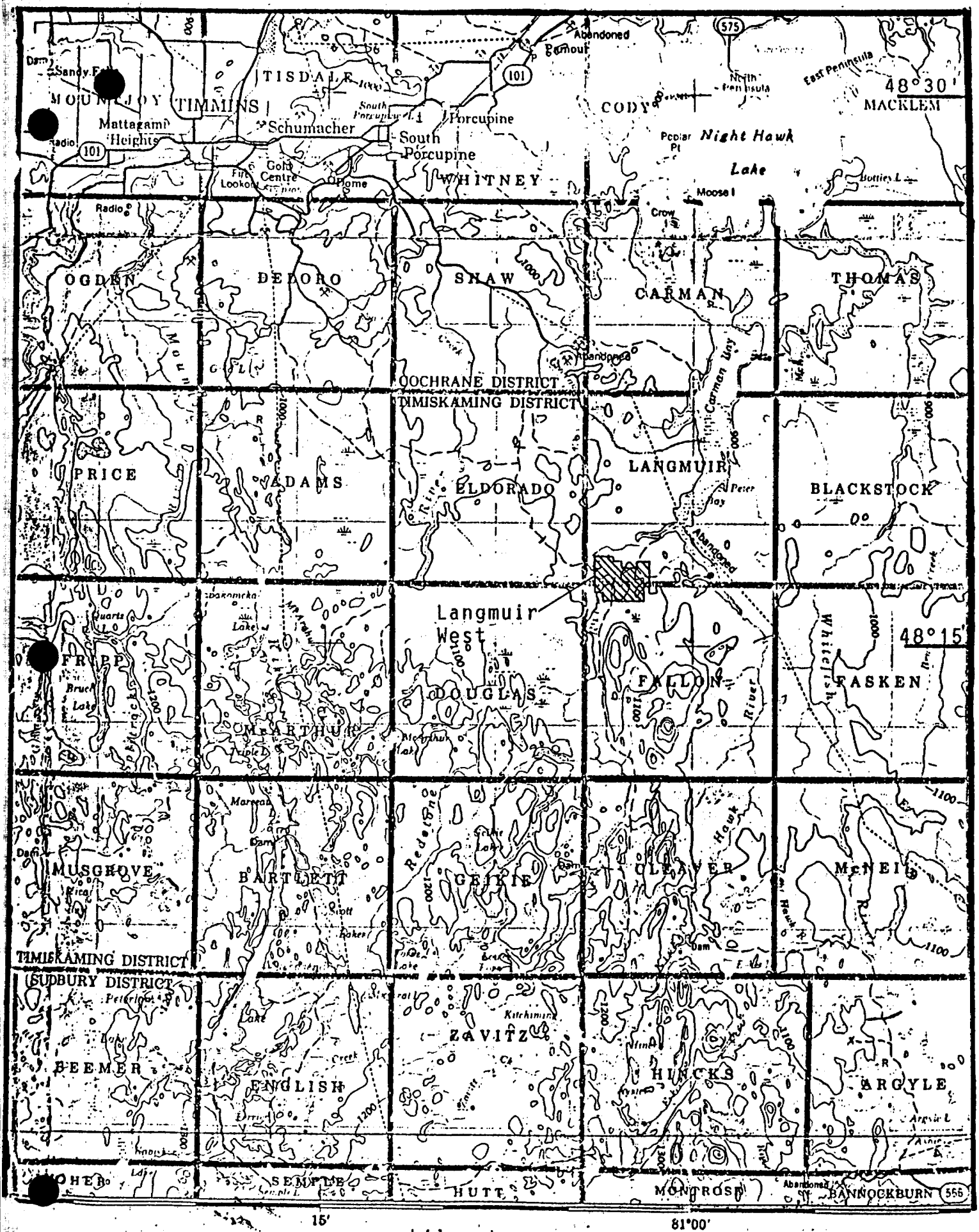


MEUNIER OPTION

LANGMUIR WEST

LOCATION MAP

Date	Scale
Sept 1985	1:1,600,000
P.M.	Fig. 1



LOCATION MAP
LANGMUIR WEST PROPERY

PROPERTY DESCRIPTION

The Langmuir West property is centered around the one mile post on Langmuir and Fallon Townships' common boundary, Porcupine Mining Division, District of Timiskaming, Ontario. Twenty-five contiguous unpatented mining claims cover the grid and are described below:

Claim Number	Number of Claims
P-758882-887	6
P-779600	1
P-780007	1
P-781331-332	2
P-825712-717	6
P-826277, 280,281	3
P-826398-401	4
P-826416	1
P-831635	1
TOTAL	25

PHYSIOGRAPHY AND VEGETATION

The grid area is low lying with variances in elevation being less than 20 meters. Steep-sided erosional remnants of Cobalt Group sediments form the region's prominent topographical features.

Spruce, balsam and minor poplar forest covers most of the grid's northern portion with the exception of a 200 meter wide, north-south trending area, coincident with the north ends of lines 2W and 3W. This region is covered by muskeg - alder swamp surrounding a beaver pond and it's northerly draining creek. The southwest sector of the grid is logged with much of it having been replanted in the spring of 1985. Most of the southeast of the property is covered by spruce-balsam-alder-muskeg swamp.

Drainages flow north and include the Forks River which abutts the western boundary of the property. A small creek runs in a northerly direction through the southeast of the grid.

Pleistocene glacial drift and recent cover overlies approximately 95% of the surveyed area. An esker trends in a north-south direction coincident with lines 6E, 7E and 8E.

SURVEY PROCEDURE

Geological mapping was initially carried out over the entire grid at a scale of 1:5000, along lines with a 100 meter spacing. Subsequently, more detailed mapping was done at a scale of 1:2500 over a 300 by 300 meter area on the north-central portion of the grid. The grid baseline runs east-west being coincident with the Langmuir-Fallon Township line.

PREVIOUS WORK

Evidence of previous work in the form of pits and trenches, is restricted to the north central portion of the grid, surrounding the site of Porcupine Miracle Mining Co. Ltd.'s old workings. Immediately north of the property between lines 4E and 5E, two shafts and several prospect shafts were sunk by Porcupine Miracle Mining Co. Ltd. between 1912-1915. The company's efforts were directed towards pyritic quartz veins hosted in several thin east-west trending porphyritic felsic dikes. It is reported that no gold was recovered from the exploratory workings.

RESULTS OF GEOLOGICAL SURVEY

Regional Geology

Regionally the property lies on the southeast flank of the Shaw Dome, straddling a contact between Archean Tisdale Group komatiitic ultramafic flows to the north and tholeiitic mafic-intermediate volcanics to the south (Pyke 1982). These units have been intruded by the monzonite Fallon stock south-east of the property and by a number of north-south trending Archean diabase dikes. Erosional remnants of Proterozoic Cobalt Group sediments unconformably overlie the Archean rocks. Major fault structures have N.N.W. and north-south trends which display a left lateral displacement.

Property Geology

Approximately 5% outcrop is exposed on the property, being mainly confined to the area between lines 3E to 10E, north of 1+00N. With the exception of the Proterozoic Cobalt Group sediments, all lithological units are Archean in age.

Komatiite ultramafic flows comprise the majority of outcrop over the north central grid area. A 15 to 20 meter thick pillowed basaltic komatiite occurs as a flow unit within the komatiite flow sequence. Several thin east-west trending quartz-feldspar and feldspar porphyry dikes and a thick north-south trending diabase dike have sequentially intruded the ultramafic flows. Exposed, south of the baseline on line 12E, mafic to intermediate volcanic flows with a thin intercalated tuff horizon

stratigraphically overlie the komatiite flows. An east-west trending gabbro sill and a north-south trending diabase dike intrude the volcanics.

Ultramafic komatiite flows are fine grained, magnetic, brown weathering, variably altered units with individual flows, have thickness' ranging from less than one meter up to several tens of meters. Fresh, they are black to green-grey in colour displaying spinifex, polygonal jointing and less commonly, knobby peridotite and flow top breccia textures. On the north end of lines 3E to 6E the ultramafic flows have undergone varying degrees of carbonate, serpentine, talc and pyrite alteration, adjacent to the porphyry dikes. Elsewhere, the flows are weakly to moderately serpentinized. The basaltic komatiite pillow flow weathers green, is light grey-green in colour when fresh, and has pillows varying from 30 to 70 centimeters in diameter.

Mafic to intermediate flows occur as massive to pillowed, light green to green-grey weathering fine-grained units. Fresh, they are green to dark green-grey in colour. Commonly, they are chloritically altered and occasionally they contain minor quartz-carbonate veinlets and trace to one percent pyrite. A thin 10 meter thick banded tuff unit is exposed on line 12E at 4+50S. The gabbro intrusive is medium to coarse-grained, weathers brown, has a knobby texture and has been subjected to serpentine and chlorite alteration. Fresh, it is black-green in colour containing 70-80% pyroxene and amphibole with 20-30% interstitial plagioclase.

Trending at 100° to 110° with subvertical dips, several 2-10 meter thick quartz-feldspar and feldspar porphyry dikes have intruded the ultramafic flows over the very north of the grid between lines 3E and 6E. The dikes pinch and swell irregularly along their lengths. Typically weathering pink or white and being grey or pink when fresh, the feldspar porphyry dikes contain 20-30%, 2-5mm diameter, euhedral K-spar phenocrysts in a fine-grained matrix hosting 10-15% biotite and/or amphibole and up to 2% disseminated pyrite. Quartz-feldspar porphyry dikes are descriptively similar to the feldspar porphyry variety with the exception that they host up to 20%, 2-4mm diameter, quartz eyes.

The porphyry dikes are variably silica, chlorite, carbonate, pyrite and hematite altered. Alteration is concentrated along the selvages of a large number of north-south trending, 1-3cm thick quartz$^{\pm}$ carbonate veins which cross-cut the porphyry dikes before abruptly terminating in the adjacent ultramafic flow units. Vein zones are typically 1-3 meters thick, containing 10-30% vein material. Up to 5% disseminated pyrite and minor amounts of fuschite are hosted in the veins. The best exposures of veining were located at 3+30E-6+10N and 4+30E-6+15N.

The diabase is primarily exposed as a north-south trending 35-100 metre thick dike coincident with line 6E. A faulted off portion of this dike was located between lines 4E and 5E. Diabase also outcrops 60 meters east of line 12E at the baseline. It is a brown weathering massive, moderately magnetic

unit that is green-black in colour when fresh. Normally, medium grained, the diabase is composed of 40% subhedral pyroxene ± hornblende, 60% euhedral plagioclase grains and trace amounts of disseminated pyrite. Locally, it is epidote altered along fractures.

Centered on line 5W at the baseline and line 8E at 1+50N, Cobalt Group sediments occur as interbedded conglomerates, argillites and siltstones. Argillites are distinguished from the siltstones by their fissile nature. Conglomerates are polymictic containing up to 70%, but more commonly, 40-50% subrounded to rounded granitic, mafic volcanic and felsic volcanic clasts in a silty dark grey matrix.

Structural Geology

Ultramafic units consistently strike a 040°-050° with dips of 070°-085° to the south. The mafic to intermediate volcanics on line 12E have strike directions of 110-180° with dips of 060-070° to the south. A well developed schistosity of 020-040°/80°E crosscuts the intermediate-mafic volcanics. Top directions for both the mafic-intermediate and ultramafic volcanics is to the south. The ultramafic volcanics located at 3+80E and 4+20S are sheared at 100-130°/075°N across a 5 meter wide zone. Basaltic komatiites at line 5E-3+00N have had a schistosity developed in them subparallel to their flow direction of 045°/070°S.

Displacement of the diabase dikes, in the north central grid area, by a N.N.W. trending fault, is in a right lateral sense. Elsewhere, north-south faulting is suspected

between lines 4E and 5E, where the east-west trending porphyry dikes abruptly terminate. Additionally, north-south trending fractures and topographical depressions are found over the north-central part of the grid. North-south structures would seem to be extensional features that have recorded movement in an undetermined direction.

Cobalt sediments, located at line 8E-2+00N have beds striking W.N.W. with dips of 50° to the north. A well developed N.W. striking, steeply north dipping cleavage overprints the bedding. The sediments centered on line 5W at the baseline have southeast striking beds with dips of 030-045° to the south.

Economic Geology

The north-south trending quartz veins, hosted in the felsic porphyry dikes, contain up to several percent pyrite. Surrounding the feldspar porphyry dikes, over a 150 by 300 meter area, is a well developed carbonate-talc-serpentine alteration halo. Vein zones are typically less than 2 meters wide and 10 meters long. Although the quartz vein zones are interesting, the large amount of work done on them by Porcupine Miracle Mining Co. Ltd. and their subsequent negative results, indicate that gold mineralization is absent. No indications of economic mineralization were observed elsewhere on the property.

BIBLIOGRAPHY

Madill, B.H. (1985), "Geophysical Survey Report on the Meunier Project, Langmuir East Grid/ North Extensions and Langmuir West Grid"; for David J. Meunier, 21 p.

Pyke, D.R. (1982), "Geology of the Timmins Area, District of Cochrane, Ontario Geological Survey Report 219" 141 p.

Pyke, D.R. (1972), "Geology of Fallon and Fasken Townships, District of Timiskaming" Ontario, Division of Mines, Geology Report 104 , 32 p.

Pyke, D.R. (1970), "Geology of Langmuir and Blackstock Townships" Ontario Division of Mines, Geology Report 86, 56 p.

CERTIFICATION

I, PAUL D. MILLER, certify:

1. That I reside at 448 Eglinton Ave. West, Toronto, Ontario.

2. That I graduated from the University of Toronto in 1980 with a B.A.Sc. in Geological Engineering.

3. That I have been continuously employed as an exploration geologist since 1980.

Paul Miller

P. Miller
Geologist

APPENDICES

Ontario

File _____

900

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 Langmuir and Fallon

Claim Holder(s) Mr. David J. Meunier

Survey Company Lac Minerals

Author of Report Paul David Miller

Address of Author 448 Eglinton Ave. W., Toronto, Ont

Covering Dates of Survey May 21-26, 1985 (linecutting to office)

Total Miles of Line Cut 24

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim.

Geophysical
—Electromagnetic _____
—Magnetometer _____
—Radiometric _____
—Other _____
Geological 20
Geochemical _____

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

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

DATE: Sept 24/85 SIGNATURE: Paul Miller
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

P 758882
P 758883
P 758884
P 758885
P 758886
P 758887
P 779600
P 780007
P 781331
P 781332
P 825712
P 825713
P 825714
P 825715
P 825716
P 825717
P 826277
P 826280
P 826281
P 826398
P 826399
P 826400
P 826401
P 826416
P 831635

TOTAL CLAIMS 25

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 1525 Number of Readings _____

Station interval 25 meters Line spacing 100 meters

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

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

RESISTIVITY

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

Ontario — Ministry of Natural Resources

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

#207/87
2r 10365

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
GEOLOGICAL	LANGMUIR AND FALLON

Claim Holder(s)	Prospector's Licence No.
MR. DAVID J. MEUNIER	M-17157

Address: P.O BOX 1624, 403 DOME STREET, SOUTH PORCUPINE, ONT., P0N 1H0

Survey Company	Date of Survey (from & to) Day / Mo. / Yr.	Total Miles of line Cut
LAC MINERALS	21 05 85 — 26 05 85	24.0

Name and Address of Author (of Geo-Technical report)
PAUL D. MILLER, 448 EGLINTON AVE W. TORONTO, ONTARIO.

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

ONTARIO GEOSCIENCE ASSESSMENT OFFICE — DEC 30 1987 — RECEIVED

Expenditures (exclude power stripping)

Type of Work Performed	
Performed on Claim(s)	

RECEIVED AUG 28 1987

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.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	758882	~~20~~
	758883	~~20~~
	758884	~~20~~
	758885	~~20~~
	758886	~~20~~
	758887	~~20~~
	779600	~~20~~
	780007	~~20~~
	781331	~~20~~
	781332	~~20~~
	825712	~~20~~
	825713	~~20~~
	825714	~~20~~
	825715	~~20~~
	825716	~~20~~
	825717	~~20~~
	826277	~~20~~
	826280	~~20~~
	826281	~~20~~
	826398	~~20~~
	826399	~~20~~
	826400	~~20~~
	826401	~~20~~

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	826416	~~20~~
	831635	~~20~~

RECEIVED SEP 21 1987 MINING LANDS SECTION

RECORDED AUG 28 1987

Total number of mining claims covered by this report of work. 25

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
500	Aug 28/87	
	Date Approved as Recorded	Branch Director
	22 Dec 87 RM	

Date: Sept 12 85 — Recorded Holder or Agent (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
PAUL D. MILLER, 448 EGLINTON AVE W. TORONTO, ONTARIO M5N

Date Certified	Certified by (Signature)
SEPT 12/85	

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
(R1) ~~SEC. 36/80~~	~~W-37/83~~	~~12/5/83~~	~~M+S.~~	~~18851~~

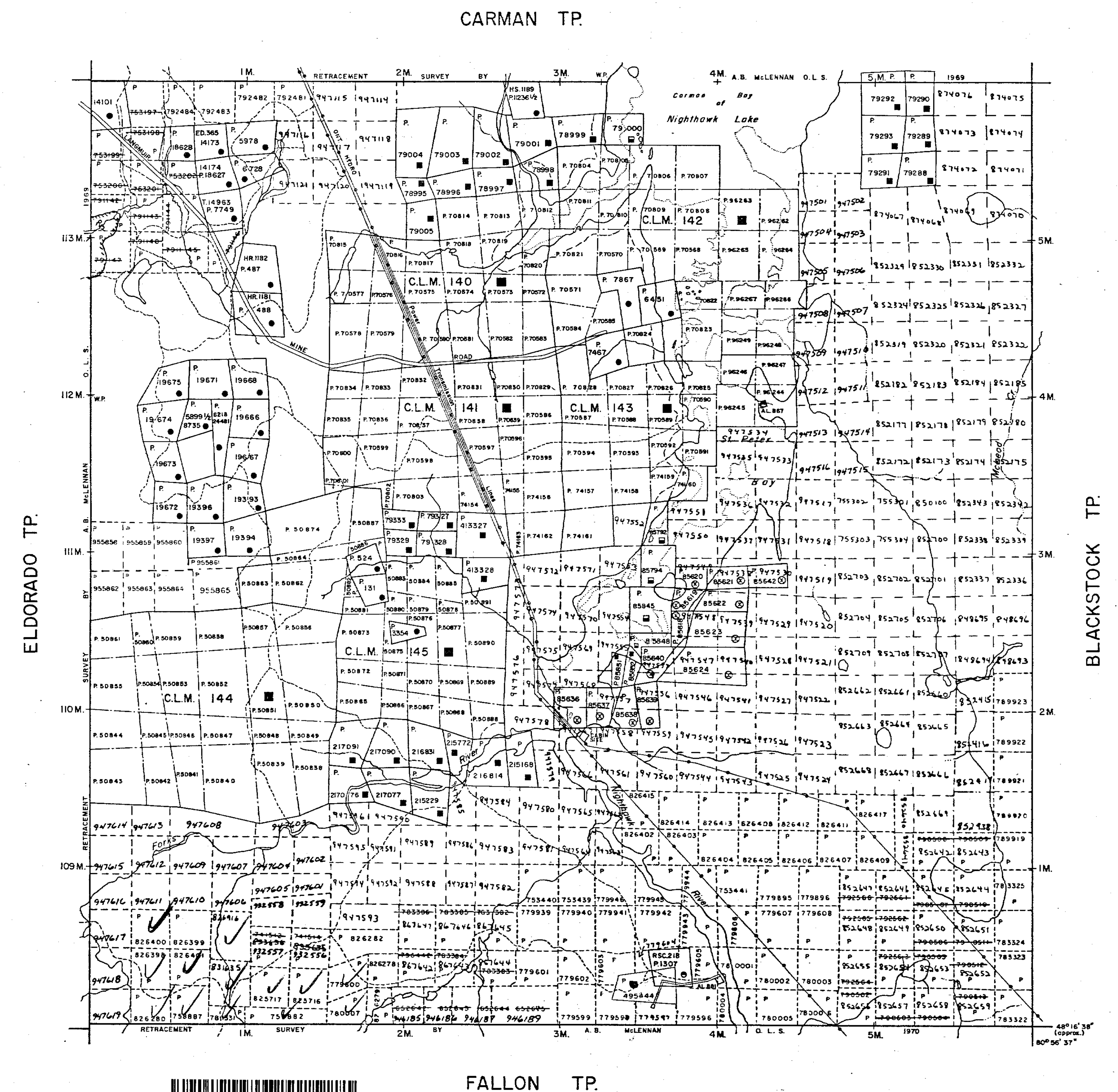
Re-opened NRO 36/85

R2 Application pending under P.L.A. - surface rights withdrawn

NOTES

THIS TOWNSHIP LIES WITHIN THE MUNICIPALITY OF THE CITY OF TIMMINS.

FLOODING RIGHTS ON NIGHTHAWK LAKE TO THE CONTOUR ELEVATION 903.5' RESERVED TO ONT. HYDRO.



A.T.V.

42A06SE0045 2.10365 LANGMUIR

200

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 OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	Ⓡ
CANCELLED	⊗
SAND & GRAVEL	Ⓢ

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

LANGMUIR

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

COCHRANE

RECEIVED APR 15 1987

Ontario Ministry of Natural Resources — Land Management Branch

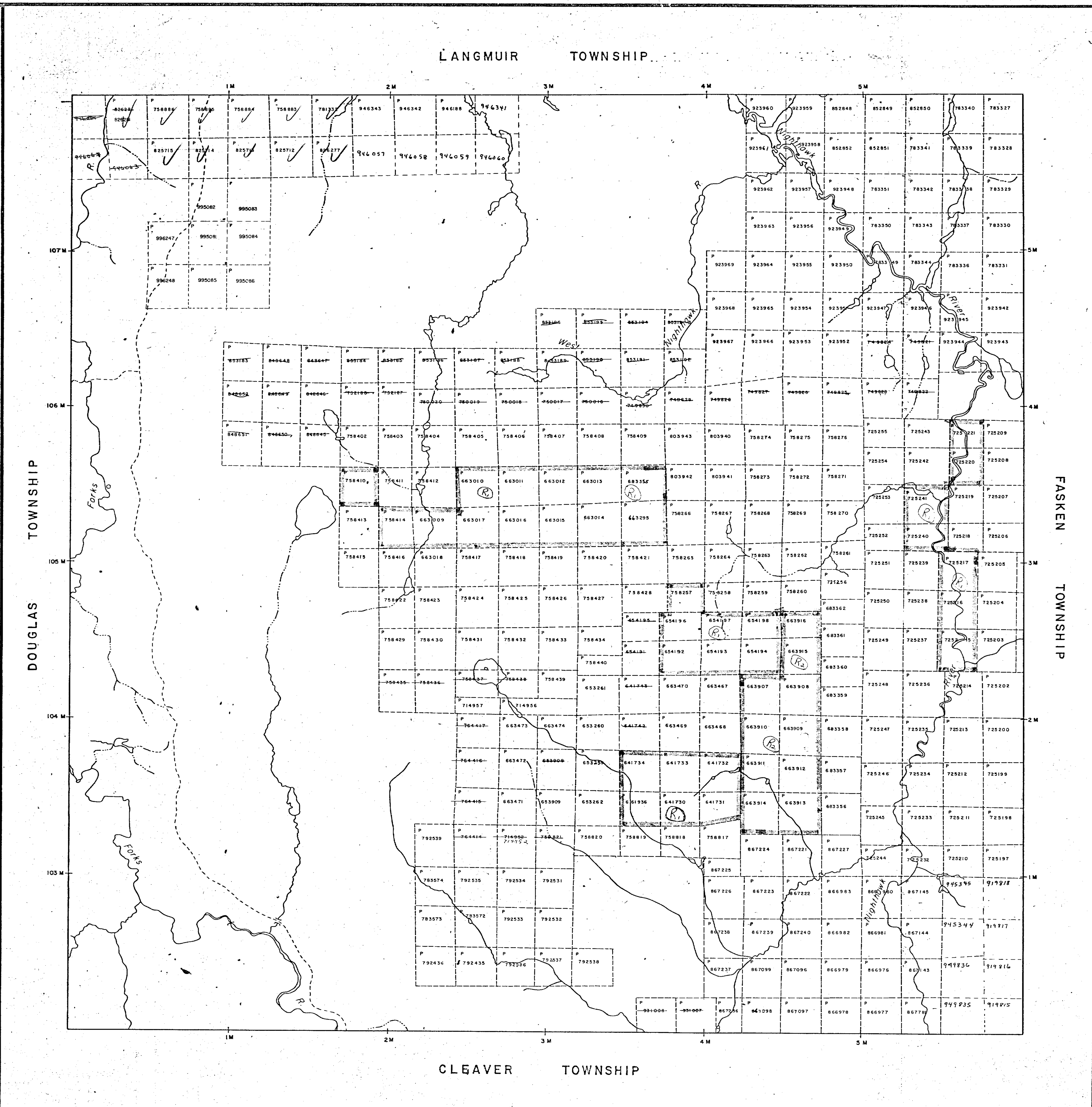
Date MARCH, 1985

Number G-3226

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File



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 OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	®
CANCELLED	⊗
SAND & GRAVEL	Ⓢ

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

Metres 500 0 1000 Metres
Chains 10 0 10 20 30 40 50 60 70 Chains
Feet 500 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000

(R1) The Mining and Surface Rights of the former Mining Claims P-641730 et al are withdrawn from staking by ORDER NRW-50/87

(R2) The Mining and Surface Rights of the former Mining Claims P-663907 et al are withdrawn from staking by ORDER NRW-62/87

PORCUPINE MINING DIVISION RECEIVED OCT 21 1987

Received Sept. 23/86 L.M.

TOWNSHIP

FALLON

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

TIMISKAMING

Ontario Ministry of Natural Resources | Ministry of Northern Development and Mines

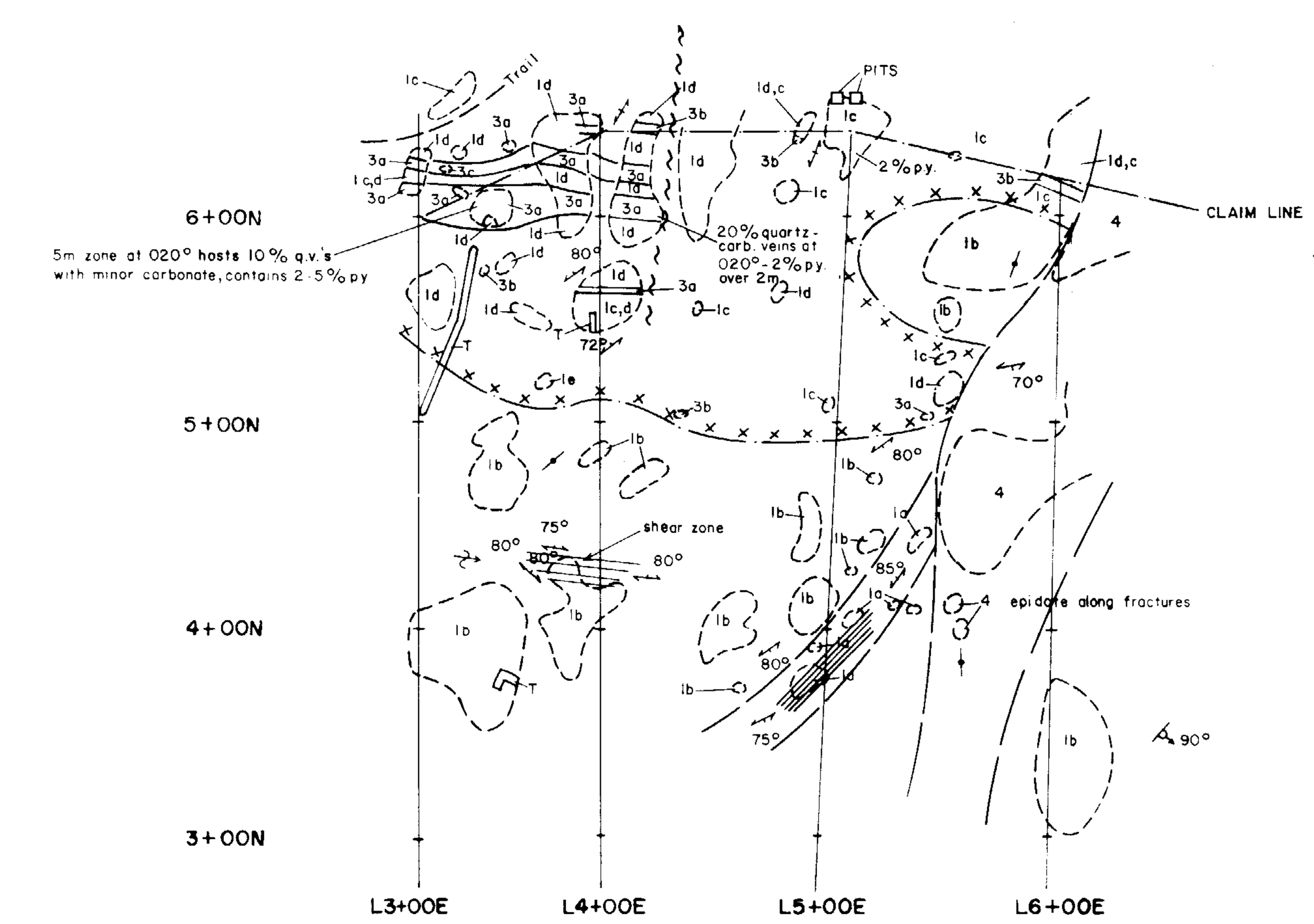
Date SEPTEMBER, 1986 | Number G-3941

checked L.M.

42A06SE0045 2.10385 LANGMUIR 210

SYMBOLS

⊥	Strike and Dip		Swamp, forest boundary
	Foliation		Swamp, muskeg
	Lineation with plunge		Open swamp
	Lava flow, tops		Forest
	Bedrock outcrop	■	Building
	Contact observed	SOC	Scattered Outcrop
	Contact assumed	Asb	Asbestos
	Fault	ba	Barrite
	Diamond drill hole	q	Quartz
	Shaft	qc	Quartz - carbonate
	Adit	gra	Graphite
□	Pit	S	Sulphide mineralization
	Trench	spx	Spinifex textures
	Trail	pj	Polygonal joints
	Rail road tracks	△	Float
	Cliff	■	Claim Post
	Ridge or slope		Sample Location
	SM-5 traverse	sil	Silicified
	Fold, plunge of axis indicated	carb	Carbonatized
	Boundary of timbered area	hem	Hematite
	Shear zone - sense of displacement indicated	epd	Epidote
	Limit of alteration		Fracturing (Dip indicated, vertical)
q.v.	Quartz vein		



LANGMUIR WEST GRID
DETAILED GEOLOGY

0 50 100 150 200
METERS

LEGEND

ARCHEAN

4 DIABASE

3 FELSIC INTRUSIVES

3a - Quartz - Feldspar Porphyry Dike
3b - Feldspar Porphyry Dike

1 ULTRAMAFIC KOMATIITE FLOWS

1a - Pillowed Basaltic Komatiite
1b - Weakly - Moderately Serpentinized Peridotite
1c - Talc - Serpentine Altered Ultramafic
1d - Carbonatized Ultramafic
1e - Intensely Serpentinized Ultramafic

LEGEND

PROTEROZOIC

5 HURONIAN SUPERGROUP
COBALT GROUP
Argillite, Siltstone, Conglomerate

ARCHEAN

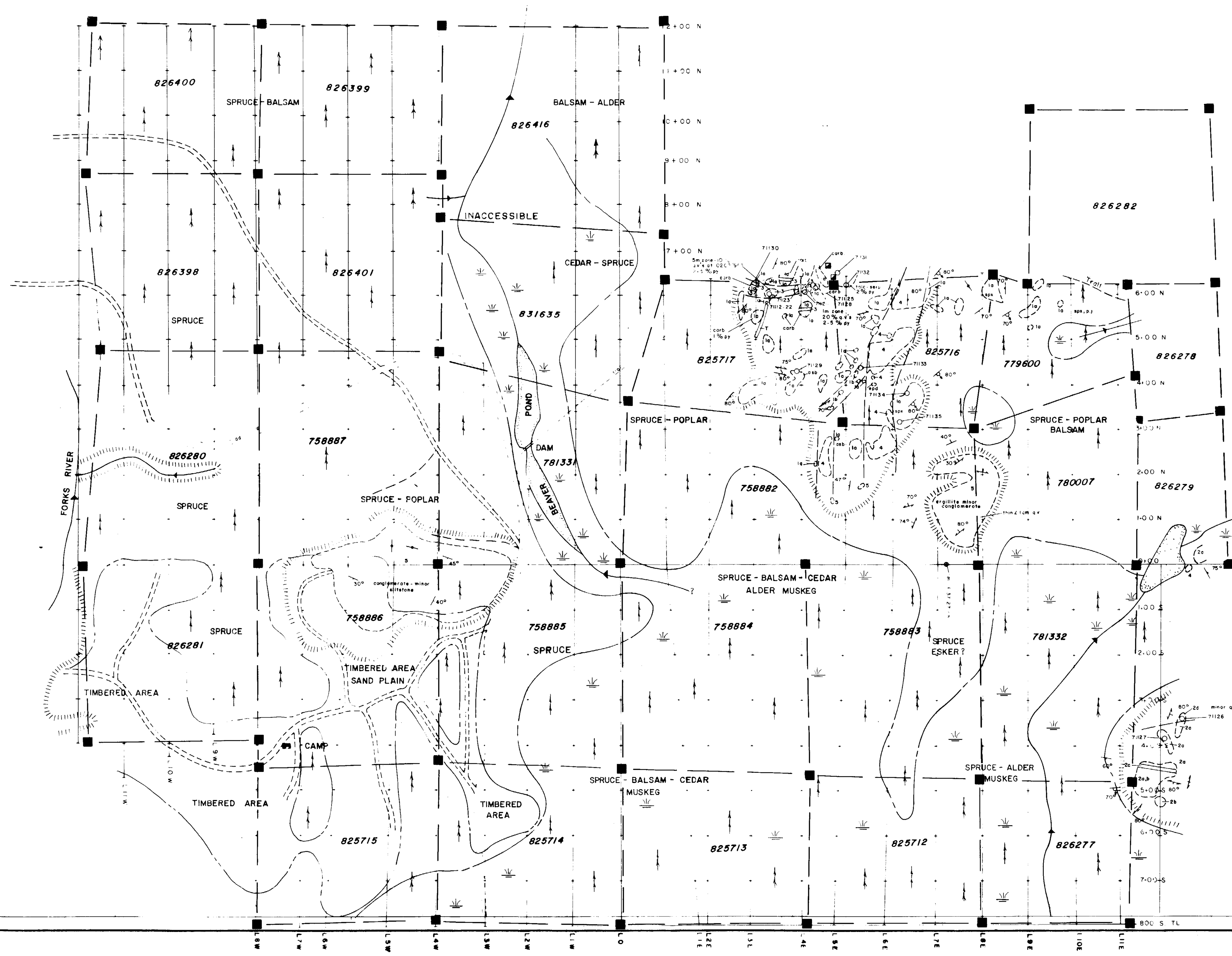
4 DIABASE

3 FELSIC INTRUSIVE ROCKS
Quartz - Feldspar Porphyry and Feldspar Porphyry

2 MAFIC - INTERMEDIATE METAVOLCANICS
2a - Undifferentiated Flows
2b - Pillowed Flows
2c - Tuff
2d - Gabbro

1 ULTRAMAFIC KOMATIITIC METAVOLCANICS
1a - Serpentinized Peridotite - Pyroxenite Flow
1b - Basaltic Komatiite, Pillow Flow

Langmuir Twp.
Fallon Twp.



Langmuir Twp.
Fallon Twp.

LANGMUIR WEST GRID

	DATE
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GEOLOGY BY J. Kovala, T. Hughes, P. Miller	(May 1985)
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DRAWING Nº	

REMARKS

0 50 100 150 200 250 300 METERS
SCALE 1 : 5,000

2.10365

220