

2.4628



42A14SE0013 2.4628 LUCAS

010

REPORT
ON
MAXMIN 11 ELECTROMAGNETIC AND MAGNETOMETER SURVEYS
GROUP 13
CRAWFORD TOWNSHIP
PORCUPINE MINING DIVISION
NORTHEASTERN ONTARIO

RECEIVED

MAR 17 1982

MINING LANDS SECTION

FOR
HOME OIL COMPANY LIMITED

Timmins, Ontario
June, 1981



John C. Grant
Exsics Exploration Ltd.



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INTRODUCTION

This report deals with the results of a MaxMin 11 electro-magnetic survey on Group 13 in Lucas Township conducted by Exsics Exploration Limited for Home Oil Company Limited.

Complete survey coverage was done of the claims, as listed below, in Lucas Township.

P609767
P609768
P609769
P609770

P609771
P609774
P609775
P609776

P611251
P611252
P611253
P611254

P611255
P611256
P611257
P611258

The grid plans show 1777(high) frequency, 444 low frequency and the contoured magnetometer results. These are presented with this report, as maps, in the back pocket.

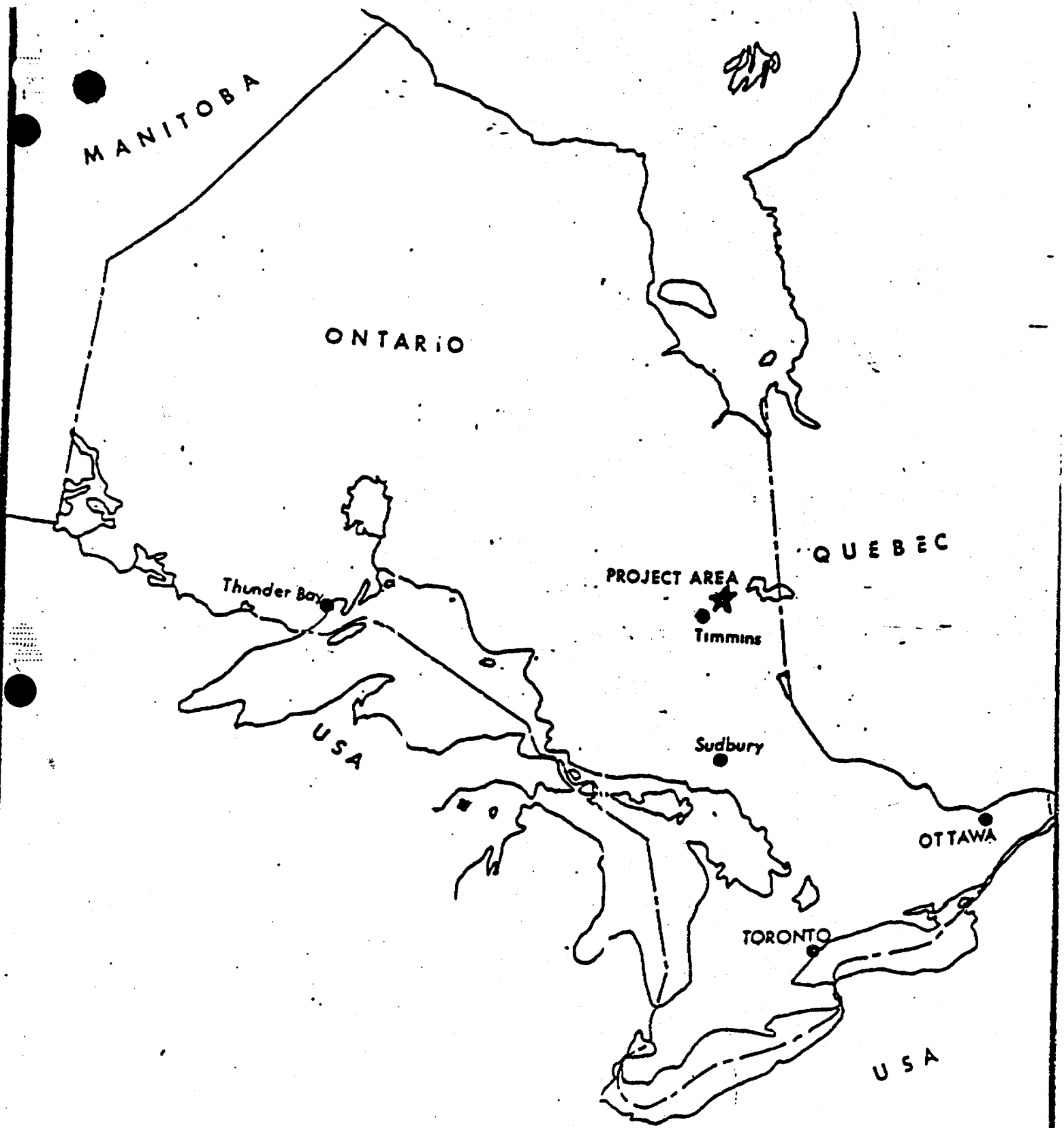
LOCATION AND ACCESS

Group 13 is located in Lot 6, Concessions 10, 11 and 12 of Lucas Township. The West Buskegou River flows through the centre of the grid as it leaves Lucas Township.

Access to the property was by truck along Highway 655 to a dirt road, at the south-west corner of Wark Township, that followed an old power line which parallels Hwy. 655 1/2 to 3/4 of a mile to the east. Camps were established on the power line as it crosses the group. (see figure 1 and 2)

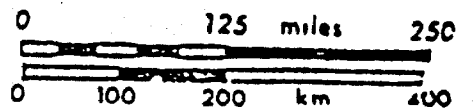
LINECUTTING

A total of 29.0 km of grid lines and baselines were cut. Baseline (1) was cut at azimuth 090 degrees from L 0+00 to L 1200 ME with cross lines cut at 100 m intervals in a north - south direction from 500 MS to 300 MN for lines 0+00 to 700 ME and 300 MN to 825 MS for lines 8-12E. Baseline (2) was cut from L 1300 ME to L 2300 ME at azimuth 090 degrees with cross lines cut at 100 m intervals in a north - south direction from 800 MS to 750 MN. All cross lines were chained at 25 m intervals.



Home Oil

FIGURE 1
LOCATION MAP



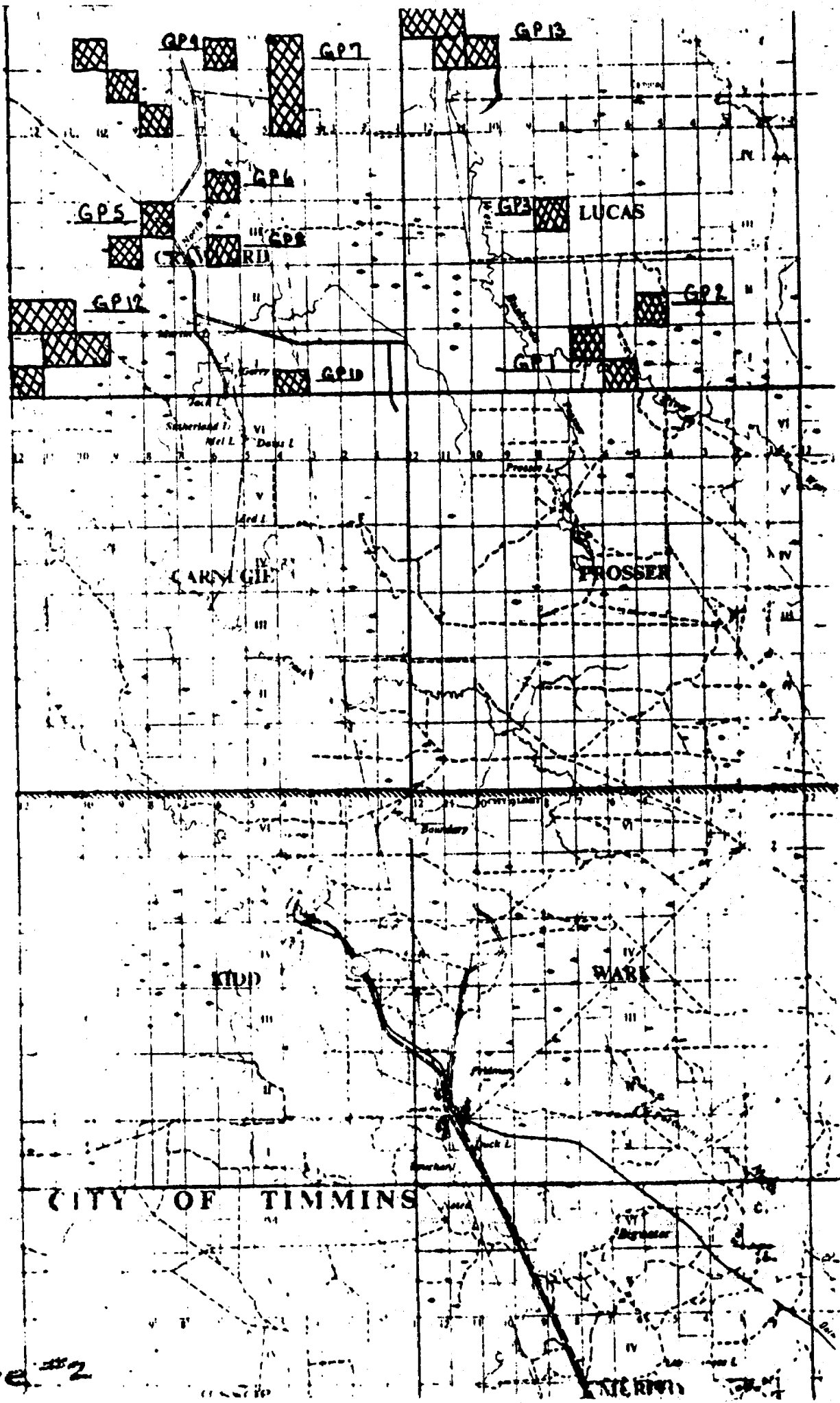


Figure #2

GEOPHYSICAL SURVEYS

1. Electromagnetic Survey

This survey was completed using an Apex Parametrics Ltd. MaxMin 11 unit. A 150 meter reference cable was used, with operating frequencies of 1777 and 444hz throughout the survey. Technical and operating specifications of the MaxMin 11 unit are included in Appendix A of this report.

The results of the EM survey are presented as Map 1 (showing the 1777hz) Map 2 (showing the 444hz) in the back pocket of this report. The results are summarized below.

2. Magnetometer Survey

A geometrics G-816 proton precession mag was used throughout the survey. Corrections for diurnal variations was by reference to a Recording Base Station Magnetometer G-826A manufactured by Exploranium Geometrics Ltd.

3. Survey Results

The MaxMin survey noted 3 major zones called A, B and B'. The survey also showed 2 weaker zones called A' and C. These zones will be discussed seperately below.

4. Conductor Characteristics

Zone A

General Characteristics:

The zone strikes at azimuth 125° for 1500 M+ across - line 800ME to Line 2300ME. It is located under highly conductive overburden which makes interpretation on the 1777hz very difficult. The dip of the zone is slightly south to near vertical. The depth to source ranges from 55 to 35 m east to west and 25 to 80 MHOS east to west.

L 1000ME

444hz

-Depth to source of 55m

-Conductivity value of

22MHOS

L 1100 ME	444hz	-depth of source of 61m -conductivity value of 52MHOS (?)
L 1300 ME	444hz	-depth to source of 57m -conductivity value of 60 MHOS
L 1500 ME	444hz	-depth to source of 46m -conductivity value of 90 MHOS (?)
L 1600 ME	444hz	-depth to source of 34m -conductivity value of 100 MHOS (?)
L 2000 ME	444hz	-depth to source of 34m -conductivity value of 48 MHOS
L 2100 ME	444hz	-depth to source of 33m -conductivity value of 58 MHOS
	1777hz	-depth to source of 20m -conductivity value of 7 MHOS
L 2200 ME	444hz	-depth to source of 34m -conductivity value of 61 MHOS
L 2300 ME	1777hz	-depth to source of 20m -conductivity value of 10 MHOS
	444hz	-depth to source of 34m -conductivity value of 62 MHOS

Zone B

General Characteristics:

This zone strikes at AZ 120° across lines 1300 ME to L 2300 ME. The survey shows some minor shifting of the conductor axis which may be due to different thicknesses of the source. The depth to source ranges from 37m on the west end to 14m at the centre and 25m on the east end. The MHO value also varies from 30 MHOS to 60 MHOS to 40 MHOS, west to east. The general dip of the zone is also slightly south.

L 1400 ME	1777hz	-depth to source of 12m -conductivity value of 20 MHOS
	444hz	-depth to source 22m -conductivity value of 55 MHOS
L 1500 ME	444hz	-depth to source of 23m -conductivity value of 30 MHOS
L 1600 ME	444hz	-depth to source of 37m -conductivity value of 21 MHOS
L 1800 ME	444hz	-depth to source 23m -conductivity value of 60 MHOS
L 1900 ME	444hz	-depth to source of 23m -conductivity value of

L 2000 ME	1777hz	-depth to source of 12m
	444hz	-conductivity value of 21 MHOS
		-depth to source of 14m
		-conductivity value of 40 MHOS
L 2100 ME	444hz	-depth to source of 18m
		-conductivity value of 42 MHOS
L 2200 ME	444hz	-depth to source of 25m
		-conductivity value of 42 MHOS

Zone B'

General Characteristics:

This zone strikes at AZ 115° across lines 900 ME to 1500 ME. It may be part of zone B which has been faulted north. It ranges in depths of 50m on the west end to 20m in the middle and 40m on the east end. The conductivity value also varies from 25 MHOS to 50 MHOS to 25 MHOS west to east. The dip of the zone is near vertical to south.

L 900 ME	444hz	-depth to source of 50m
		-conductivity value of 20 MHOS
L 1000 ME	1777hz	-depth to source of 27m
		-conductivity value of 15 MHOS
	444hz	-depth to source of 40m
		-conductivity value of 25 MHOS
L 1100 ME	444hz	-depth to source of 21m
		-conductivity value of 55 MHOS
L 1500 ME	444hz	-depth to source of 40m
		-conductivity value of 22 MHOS

Zone A'

General Characteristics:

This zone strikes at AZ 115° across lines 1400 ME to 1600 ME with a depth range of 35 to 40m and a conductivity value range of 50-16 MHOS. The dip of the zone is south to vertical.

L 1500ME	444hz	-depth to source of 40m -conductivity value of 50 MHOS
L 1600ME	444hz	-depth to source of 33m -conductivity value of 16 MHOS

Zone C

General Characteristics:

This zone strikes AZ 095° across lines 0+00 to 400ME showing depths of 20-25 meters and 1 to 1.5 MHOS. The zone is slightly dipping.

L 0+00	1777hz	-depth to source of 24m -conductivity value of 1 MHOS
L 300ME	1777hz	-depth to source of 24m -conductivity value of 1 MHOS
L 400ME	1777hz	-depth to source of 18m -conductivity value of 1.5 MHOS

Magnetics

There is no distinct Mag trends throughout the grid. There is however several Mag highs paralleling and following zones B and B'. These highs consist of bullseye type responses with strike lengths of 220 to 250 meters. Conductive zone B has three of these Mag highs associated with it and the positions of these highs and the highs of zone B' suggest that they may be the same zone. All other zones have no definite Mag correlation.

CONCLUSIONS

Two to three lines of MaxMin or Pulse should be done to intersect the zones at a better angle for interpretation. There does not appear to be any Diamond Drill Hole on these zones. The absence of Mag may suggest a graphitic zone.

PREVIOUS WORK

INCO (1965)

One Diamond Drill Hole of 424' in length. The hole is located on their claim, which is located in the NE 1/4, N 1/2, Lot 10, Concession 6 of Lucas Township.
(See attached photocopy of drill log.)

SHELL OIL (1977)

Geoex did a proton Mag survey on the area. They located a strong east west trending Mag striking for 200m. Also, a second mag high on strike, 300m to the east.

CERTIFICATE

I, John Grant, hereby certify that:

- 1) I am a 1975 graduate of the three year program in Geological Technology at the Cambrian College of Applied Arts and Technology and I have worked subsequently as Chief Geophysicist for Teck Exploration (5 years) and Exsics Exploration Ltd.
- 2) The field work described in the attached report was carried out under my supervision and the interpretation and conclusions contained therein are based on my training and professional experience.

John Grant
John Grant,
Exsics Exploration Ltd.



Ministry of
Natural
Resources

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

74



42A145E0013 2.4628 LUCAS

Lucas Twp. The Mining Act

900

Type of Survey(s) **ELECTROMAGNETIC, PROTON MAG.** Township or Area **LUCAS TWP.**

Claim Holder(s) **HOME OIL COMPANY LIMITED** Prospector's Licence No. **T. 1014**

Address **2300 HOME OIL TOWER, 334 - 5th Ave S.W. CALGARY ALBERTA**

Survey Company **EXSIS EXP. LTD.** Date of Survey (from & to) **15 09 81** Total Miles of line Cut **29.0 Km.**

Name and Address of Author (of Geo-Technical report) **JOHN C. CRANT Box 1880 Tumbago, Ont.**

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	30
	- Magnetometer	40
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
	Geophysical	
	Days	
Man Days Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geological	
	Geochemical	
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
7	609 767	
	609 768	
	609 769	
	609 770	
	609 771	
	609 774	
	609 775	
	609 776	
	611 251	
	611 252	
	611 253	
	611 254	
	611 255	
	611 256	
	611 257	
	611 258	

RECEIVED
APR 7 1982
MINING LANDS SECTION

RECORDED
MAR 17 1982
Receipt No. _____

FORCUPINE MINING DIVISION
RECEIVED
MAR 15 1982
AM 7,8,9,10,11,12,12,1,4,5,8 PM

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.

For Office Use Only

Total Days Cr. Recorded **960** Date Recorded **Mar 17/82** Mining Recorder **[Signature]**

Date Approved as Recorded **960** Branch **Regional Mining Recorder**

Date **20 March 82** Recorded Holder or Agent (Signature) **[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 **JOHN C. CRANT Box 1880 Tumbago, Ont.**

Date Certified **Mar 15 82** Certified by (Signature) **[Signature]**



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) Electromagnetic, Magnetometer
Township or Area Lucas Twp.
Claim Holder(s) Home Oil Company Limited
2300 Home Oil Tower, 324-8th Ave. S.W. Calgary, Alberta.
Survey Company Exsics Exploration Ltd.
Author of Report John Grant
Address of Author P.O. Box 1880 Timmins, Ont P4N-7X1
Covering Dates of Survey Aug + Sept/81 Line Cutting
(linecutting to office) done in April/May 81
Total Miles of Line Cut 29.0 Km.

Group 13

MINING CLAIMS TRAVERSED
List numerically

P	609 767
(prefix)	(number)
P	609 768
P	609 769
P	609 770
P	609 771
P	609 772
P	609 773
P	609 774
P	609 775
P	609 776
P	611 251
P	611 252
P	611 253
P	611 254
P	611 255
P	611 256
P	611 257
P	611 258
TOTAL CLAIMS <u>18</u>	

If space insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED	DAYS per claim
Geophysical	
-Electromagnetic	<u>20</u>
-Magnetometer	<u>40</u>
-Radiometric	_____
-Other	_____
Geological	_____
Geochemical	_____

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

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

DATE: Sept 30/81 SIGNATURE: John Grant
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys	File No.	Type	Date	Claim Holder

RECEIVED

MINING LANDS SECTION
RECEIVED

MAR 17 1982

MINING LANDS SECTION

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations Mag. 1338 M Min 985 Number of Readings Mag 1338 M Min 18
 Station interval 25 Miles Line spacing 100 M. 165
 Profile scale Max Min 1 CM = ± 10 % 370
 Contour interval Mag 50 gammas.

MAGNETIC

Instrument GEOMETRICS G-816 PROTON PRECESSION Magnetometer and
 Accuracy - Scale constant ± 1 gamma G-826A RECORDING BASE STATION
 Diurnal correction method RECORDING BASE STATION
 Base Station check-in interval (hours) CONTINUOUS MONITOR DURING SURVEY
 Base Station location and value Lot 11, Con 2. Mount Joy Twp.
59,000 gammas.

ELECTROMAGNETIC

Instrument Apex Parametric Max Min II.
 Coil configuration Horizontal
 Coil separation 150 M
 Accuracy ± 1 %
 Method: Fixed transmitter Shoot back In line Parallel line
 Frequency 444 Hz and 1777 Hz
(specify V.L.F. station)
 Parameters measured Horizontal in phase and Quadrature
Component of Secondary field

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 300 DIGIM
 Type of electrode _____

50 IP
2 of
TOTAL

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 _____

2.4628

1983 09 06

2.4628

Resident Geologist
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 3W2

Dear Sir:

RE: Geophysical (Magnetometer and Electromagnetic) Survey
on Mining Claims P 609767 et al in Lucas Township

Additional information was requested from the claim holder on
the above-mentioned survey and not submitted. This data has
therefore, not been assessed.

Enclosed is a copy of report for your information.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

S. Hurst:mc

cc: Mining Recorder
Timmins, Ontario

7561.1V2

1983 09 06

2.4628

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Home Oil Company Limited recorded 20 days Electromagnetic and 40 days Magnetometer assessment work credits on each of Mining Claims P 611251 to 258 inclusive; P 609767 to 771 inclusive; P 609774 to 776 inclusive on March 17, 1982.

Additional information has been requested from the claim holder and has not been submitted.

You are hereby authorized to delete the work credits recorded on March 17, 1982 from each of the claim record sheets. Please inform the recorded holder accordingly.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

S. Hurst:mc

cc: Home Oil Company Limited
2300 Home Oil Tower
324-8th Avenue South West
Calgary, Alberta
T2P 2Z5

MNR CC TOR

HOME OIL CGY

NR 00003 830721 1426
C6174 NU6164

RECEIVED	
Land Management Branch	
CIRCULATE	<input type="checkbox"/>
COMMENTS PLEASE	<input type="checkbox"/>
BY	
JUL 22 1983	
E. E. ANDERSON	
D. R. MORTON	
D. C. SMITH	
G. SHERMAN	
D. M. SMALL	
RETURN TO R. 6450	

RECEIVED

JUL 23 1983

MINING LANDS SECTION

TO: ARTHUR BAR

ONTARIO MINISTRY OF NATURAL RESOURCES
WHITNEY BLOCK, ROOM 6450
QUEEN'S PARK
TORONTO, ONTARIO
M7A-1W3

FURTHER TO OUR TELEPHONE DISCUSSION OF JULY 20, THIS IS OUR
FORMAL REQUEST FOR AN EXTENSION UNTIL AUGUST 22, 1983 TO FILE
HOME OIL'S ADDITIONAL INFORMATION FOR WORK CREDITS.

YOUR FILE NO'S 2.4666, 2.4462, 2.9664, 2.4627, 2.4663, 2.4670,
2.4669, 2.4629, 2.4628, 2.4667, 2.4665

S.J. STEFANOWSKI

MNR CC TOR

HOME OIL CGY

*Called July 10, 1983
Sampling requested
Robert - on hand to take
[Signature]*

REGISTERED

July 11, 1983

2.4628

Home Oil Company Limited
2300 Home Oil Tower
324-8th Avenue South West
Calgary, Alberta
T2P 2Z5

Dear Sir:

RE: Geophysical (Electromagnetic and Magnetometer) Survey
submitted on Mining Claims #609767 et al in the
Township of Lucas

Enclosed is a copy of our letter dated January 11, 1983,
requesting additional information for the above-mentioned
survey.

Unless you can provide the required data by July 22, 1983,
the mining recorder will be directed to cancel the work
credits recorded on March 17, 1982.

For further information, please contact Mr. F.W. Matthews
at (416)965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone(416)965-1380

S. Hurst:mc

Encl.

cc: Mining Recorder
Timmins, Ontario

cc: John Grant
Timmins, Ontario

1983 01 11

2.4628

Home Oil Company Limited
2300 Home Oil Tower
324 - 8th Avenue S.W.
Calgary, Alberta
T2P 1C8

Dear Sirs:

RE: Geophysical (Electromagnetic & Magnetometer) Survey
submitted on Mining Claims P 609767 et al in the
Township of Lucas.

Enclosed are the plans, in duplicate, for the above mentioned
survey. Please show all claim lines and numbers on these and
return them to this office.

For further information, please contact Mr. F.W. Matthews at
416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone 416/965-1380

A. Barr:sc

Encls:

cc: Mining Recorder
Timmins, Ontario



Mining Lands Comments

- need claim lines + numbers

To: Geophysics

Mr Barlow

Comments

Comments section for Geophysics

Approved

Wish to see again with corrections

Date

Oct 30 / 82

Signature

[Signature]

To: Geology - Expenditures

Comments

Comments section for Geology - Expenditures

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

Comments section for Geochemistry

Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1360)

1982 03 19

2.4628

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

Dear Sir:

We have received reports and maps for a Geophysical (Electro-magnetic and Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P.609767 et al in the Township of Lucas.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

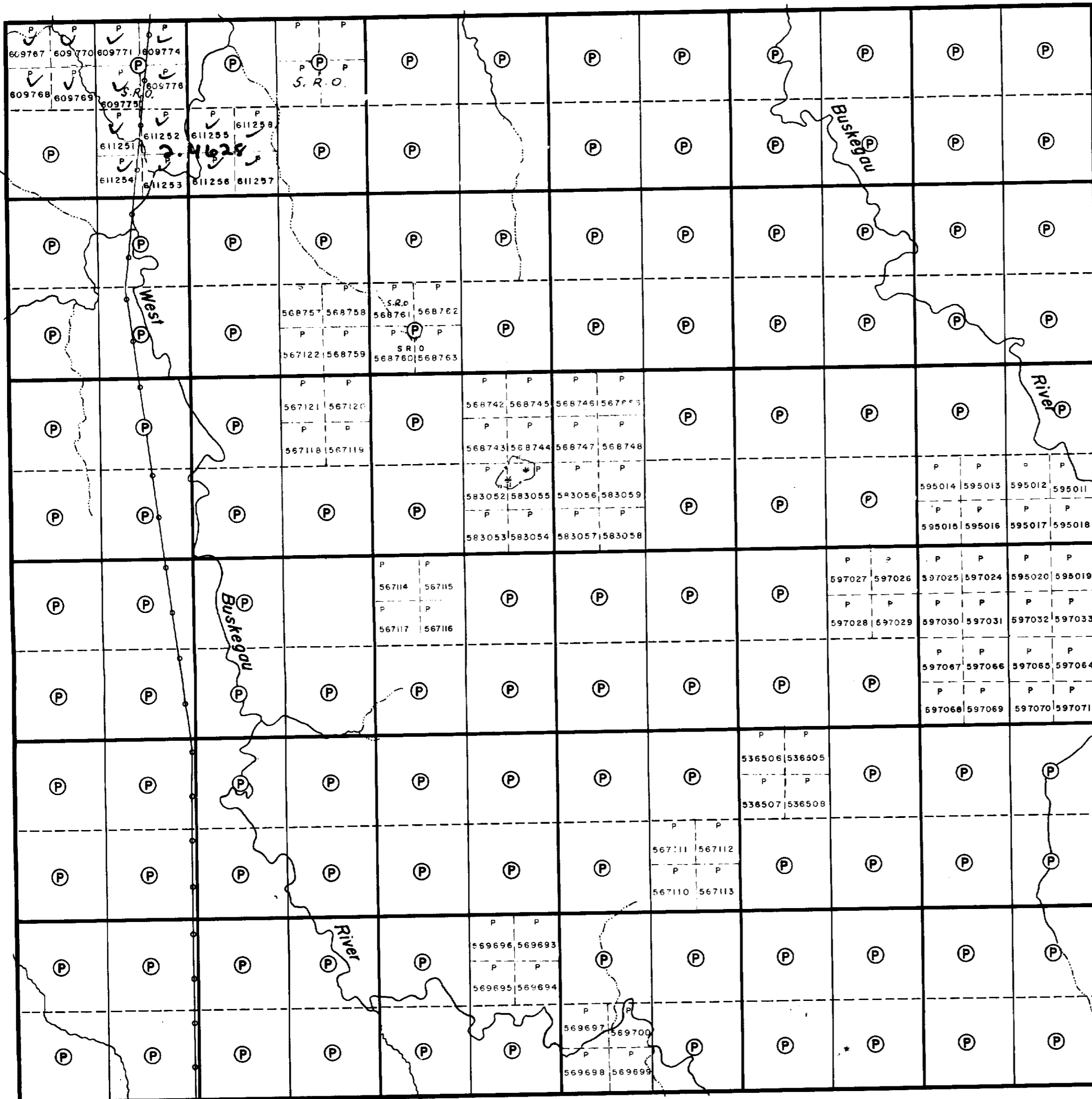
Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura/amc

cc: Home Oil Company Limited
Calgary, Alberta

cc: Mr. John Grant
Timmins, Ontario

Beck Twp.



Crawford Twp.

VI

V

IV

III

II

I

Duff Twp.

Prosser Twp.

THE TOWNSHIP OF

LUCAS

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
ROADS	
IMPROVED ROADS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	

NOTES

400' Surface Rights Reservation around all Lakes and Rivers.

Areas withdrawn from staking under Section of the Mining Act

File	Date	Disposition

DATE OF ISSUE
DEC 10 1932
Ministry of Natural Resources
TORONTO

PLAN NO. - M-537

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

