



41P16SE0003 2.13683 ROBILLARD

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**2.13683**

MORRIS-SWANSON PROPERTY

REPORT ON GEOLOGICAL SURVEY

ROBILLARD TOWNSHIP

Larder Lake Mining Division

Frederick Swanson

*Qual 2.10668*

November 1990

**RECEIVED**

NOV 21 1990

**MINING LANDS SECTION**

*Postmarked  
Nov. 16/90*

*LJ.*



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## 1.0 INTRODUCTION

The Hills Lake area is well known for possessing numerous, significant gold occurrences.

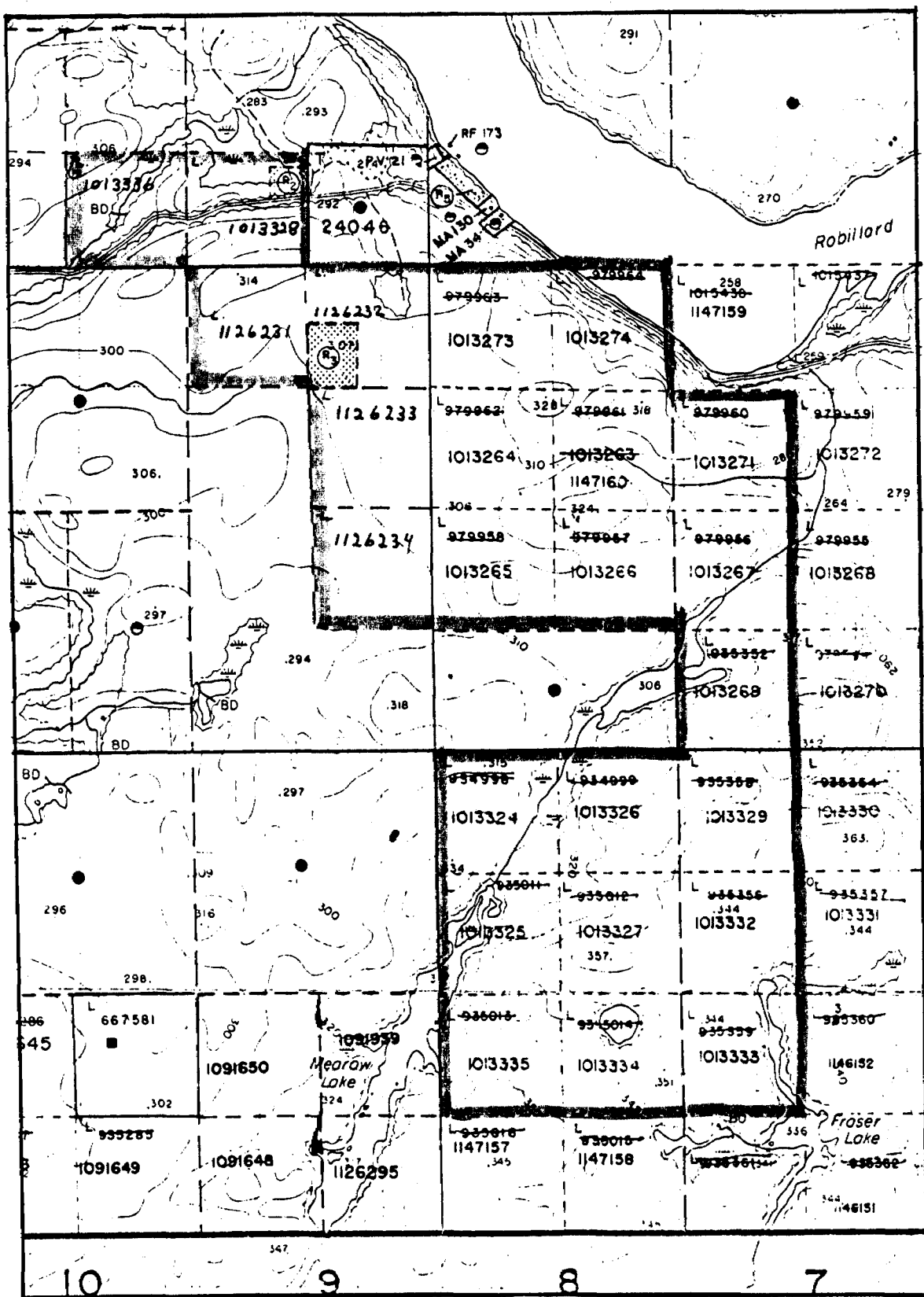
A programme of geological mapping was performed in an effort to locate and evaluate possible gold bearing zones on the Morris - Swanson property, located in the Hills lake Area.

## 2.0 PROPERTY

The property is jointly held by: J. Morris of Englehart, Ontario and F. Swanson of Grimsby, Ontario.

The property, presently consists of 24, contiguous, unpatented mining claims. ( see fig. 1 )

Numbered:	Date of Recording	
L- 1013264	August 8, 1989	(SW 1/4, N 1/2, LOT 8, CON. II)
1013265	"	(NW 1/4, S 1/2, LOT 8, CON. II)
1013266	"	(NE 1/4, S 1/2, LOT 8, CON. II)
1013267	"	(SW 1/4, S 1/2, LOT 7, CON. II)
1013269	"	(NW 1/4, S 1/2, LOT 7, CON. II)
1013271	"	(SW 1/4, N 1/2, LOT 7, CON. II)
1013273	"	(NW 1/4, N 1/2, LOT 8, CON. II)
1013274	"	(NE 1/4, N 1/2, LOT 8, CON. II)
1013324	"	(NW 1/4, N 1/2, LOT 8, CON. I)
1013325	"	(SW 1/4, N 1/2, LOT 8, CON. I)
1013326	"	(NE 1/4, N 1/2, LOT 8, CON. I)
1013327	"	(SE 1/4, N 1/2, LOT 8, CON. I)
1013329	September 18, 1989	(NW 1/4, N 1/2, LOT 7, CON. I)
1013332	"	(SW 1/4, N 1/2, LOT 7, CON. I)
1013333	"	(NW 1/4, S 1/2, LOT 7, CON. I)
1013334	"	(NE 1/4, S 1/2, LOT 8, CON. I)
1013335	"	(NW 1/4, S 1/2, LOT 8, CON. I)
1013336	October 13, 1989	(SE 1/4, S 1/2, LOT 10, CON. III)
1126231	"	(NW 1/4, N 1/2, LOT 9, CON. II)
1126232	"	(NE 1/4, N 1/2, LOT 9, CON. II)
1126233	"	(SE 1/4, N 1/2, LOT 9, CON. II)
1126234	"	(NE 1/4, S 1/2, LOT 9, CON. II)
1147160	September 17, 1990	(SE 1/4, N 1/2, LOT 8, CON. II)



CLAIM LOCATION MAP  
ROBILLARD TOWNSHIP

fig. 1

### 3.0 LOCATION AND ACCESS

The property is located in: lots 7, 8, 9 & 10; concessions I, II & III, Robillard Township, District of Timiskaming. (41 P/16 NTS.) (see fig. 2)

The claims fall under the jurisdiction of the Larder Lake Mining Division.

Excellent access is gained by Highway 560, an all weather, paved road that crosses the northern extremity of the property. A logging road and a set of old trails provide access to the southern portion of the claim group.

### 4.0 TOPOGRAPHY

Rugged, steep terrain is common on the northern and eastern extremities of the property, with frequent outcrop exposures present.

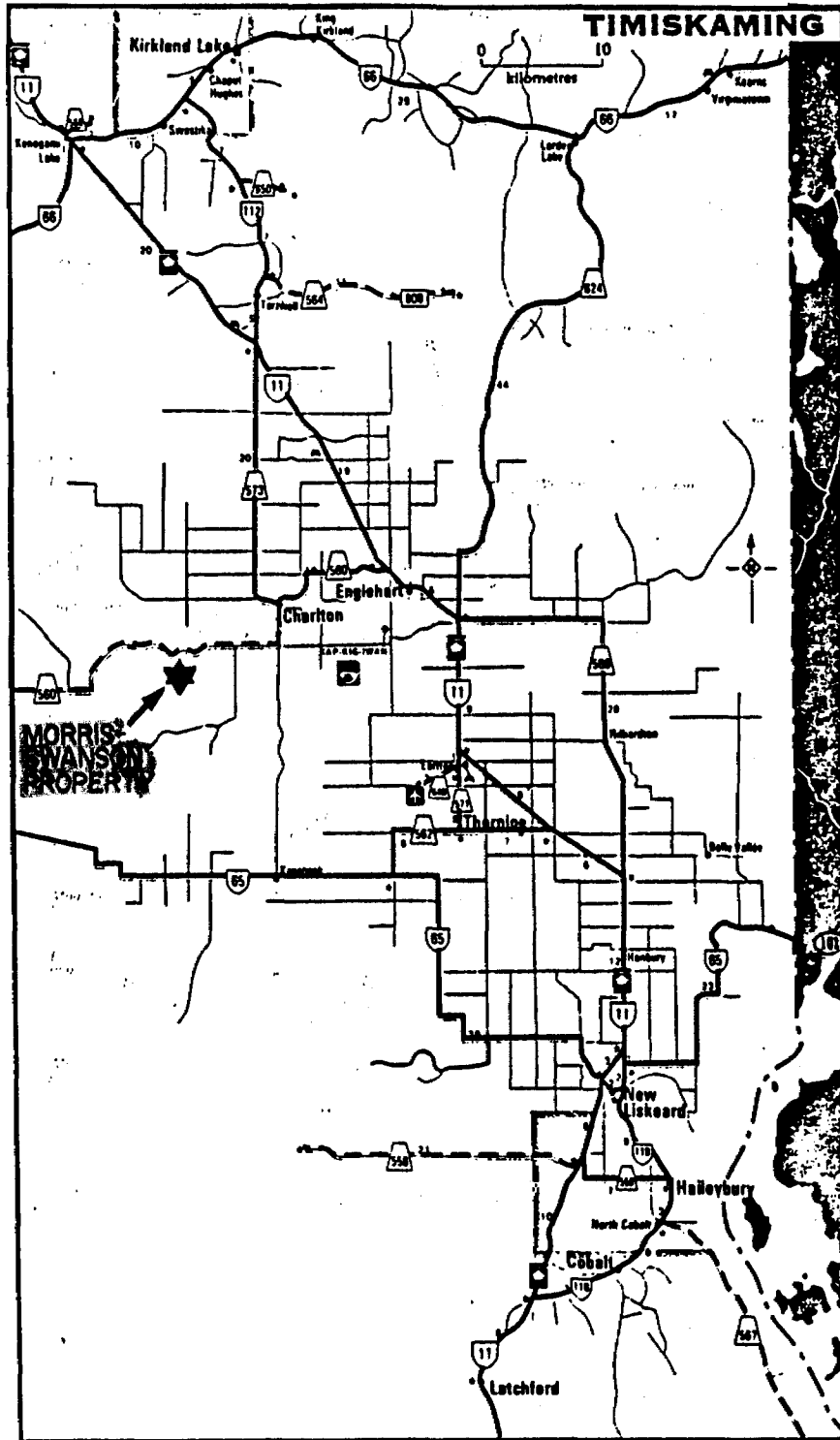
The majority of the property is hummocky, with shallow drift covering the bedrock, glacial outwash sand deposits overlies areas of the western claims.

### 5.0 PREVIOUS WORK

The area first received prospecting activity after the discovery of silver at Cobalt in 1903. This original work was of a modest nature, and more intensive prospecting did not occur until the late 1920's and early 1930's, particularly, with the discovery of gold on the Estival property in 1934.

Numerous gold occurrences were discovered in the Bryce - Robillard area during this period, several of the more significant discoveries are the: Briscoe-Bryce Deposit, the Britanna Deposit, and the Palmer-Vaughan property all located in Bryce Township; the Karp and Taylor properties located in Tudhope Township.

There are two gold occurrences of particular interest, the MacDonald occurrence, (located adjacent to the northwest corner of the property) and the Long Lake Occurrence (located on the property).



PROPERTY LOCATION MAP

1910 - Kushaug Syndicate and Long lake Gold Mining Company Limited: - work done on narrow quartz veins (max. width 2 feet) with pyrite mineralization, assays reported from trace to 3.6 Oz./ton, Au. Approximately 100 feet of shafting and test pitting were performed, along with 45 feet of tunnelling.

MacDonald Property. (NW 1/4, N 1/2, Lot 10, Con.II)  
1935 - Trenching and surface sampling, on a shear zone striking 35-65 degrees east of north, with narrow irregular quartz-veins, for a length of approximately 500 feet. Best assay from surface sampling was 0.88 oz/ton Au. over 4.3 feet.

1935 - Sylvanite Gold Mines Ltd: 8 diamond drill holes for a total of 956 feet, the best section assayed 4.8 pennyweights Au./ton (0.24 oz/ton) over 4.9 feet.

1989-90 - Linecutting, VLF and magnetometer surveys performed by F.Swanson.

## 6.0 GENERAL GEOLOGY

The area geology is described in the Ontario Geological survey report 250; "Geology of the Hill Lake Area District of Timiskaming", (1986). The area geology is described as follows:

The area is located along the southern boundary of the exposed Abitibi Greenstone Belt, the meta-volcanic rocks are divided into three groups; the Wabewawa Group, the Catherine Group and the Skead Group. The oldest rocks are found in the Wabewawa Group, and consist of interbedded high magnesium tholeiitic basalt, high iron tholeiitic basalt, komatiitic basalt and ultra mafic flows. The group ranges in thickness from 1800 to 3000 metres. The Catherine Group, consists of high iron tholeiitic basalt, is 4400 metres thick, and conformably overlies the Wabewawa Group. The Skead Group, is the youngest of the three groups, and conformably overlies the Catherine Group, it is 4480 metres thick, and is composed of interdigitated to graded calc-alkalic andesite to dacite, quartz-feldspar porphyry, pyroclastic breccia tuff-breccia, lapilli tuff, lapillistone and tuff.

The Wabewawa Group has been intruded by localized gabbros, and a layered ultramafic sill. The Skead Group, has been intruded by intermediate and felsic porphyries, the largest being the Britcanna Porphyry situated between the Catherine and Skead Groups, in Bryce Township.

The Round Lake Batholith, composed of foliated, hornblende tonalite, trondhjemite and granodiorite, has intruded the entire meta-volcanic package.

Fine grained lamprophyre dykes and early precambrian diabase dykes, intrude the granitic batholith, as well as the meta-volcanic rocks.

Middle precambrian Cobalt Group sediments, unconformably overlie the meta-volcanic and intrusive rocks. The basal Gowganda Formation, consists of: conglomerate, argillite, arenite, and wacke. These units, are overlain by feldspathic arenite containing lenses of pebble conglomerate.

Both, the early precambrian meta-volcanics, and the middle precambrian sediments, have been intruded by Nippissing Diabase sills.

There are at least, two different ages of faults, in the Hill Lake Area.

Compressive forces, created during the intrusion of the early precambrian Hope Lake Stock, may have produced major north-east trending pyritiferous shear zones and faults, like the "Palmer - Vaughan - Estival Break."

The most predominant structural feature in the area, is the north-west trending, Cross Lake Fault. This structure is middle precambrian in age, and is associated with the Timiskaming Rift Valley. (see figs. 3, 4a & 4b )

## 7.0 PROPERTY GEOLOGY

A geological survey was conducted by the author between the dates of July 7, 1990 and September 16, 1990. The survey, was carried out along existing 200 metre spaced grid lines, intermediate pace and compass lines were run in order to tighten line spacings to 100 metre intervals.

The northern part of the property is predominantly underlain by the granitic, Round Lake Batholith. A tongue of platy, hornblende schist, and granitized volcanic rock extends westward (south of Highway 560) into the batholith. The hornblende schist, strikes from 060-080 degrees; dips were recorded, ranging from 55-80 degrees north. The granitic rocks along the northern contact of this tongue, were observed to have a foliation, striking approximately 070 degrees.



TABLE 1. TABLE OF LITHOLOGIC UNITS FOR THE HILL LAKE AREA.

PHANEROZOIC

CENOZOIC

QUATERNARY

PLEISTOCENE AND RECENT

Glacial, glaciofluvial, swamp, lake and stream deposits.

*Unconformity*

PRECAMBRIAN

MIDDLE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS

NIPissing DIABASE

Diabase, diabase-chilled margins, aplite, and granophyre.

*Intrusive Contact*

HURONIAN SUPERGROUP

COBALT GROUP

LORRAIN FORMATION

Feldspathic arenite, grit to pebble conglomerate, and breccia dike.

*Conformable Contact*

GOWGANDA FORMATION

Matrix-supported conglomerate, clast-supported conglomerate, mudstone and wacke, green-grey argillite, feldspathic lithic arenite, wacke.

*Unconformity*

EARLY PRECAMBRIAN

UNMETAMORPHOSED MAFIC INTRUSIVE ROCKS

Diabase, porphyritic diabase.

*Intrusive Contact*

MAFIC ALKALIC INTRUSIVE ROCKS

Lamprophyre, pebble-bearing lamprophyre.

*Intrusive Contact*

FELSIC TO INTERMEDIATE INTRUSIVE ROCKS

Tonalite, iron-hornblende, granodiorite, aplite, cataclastic tonalite, contaminated tonalite to diorite, tonalite with mafic xenoliths, mylonite.

*Intrusive Contact*

METAMORPHOSED FELSIC TO INTERMEDIATE INTRUSIVE ROCKS

Quartz porphyry, feldspar porphyry, quartz-feldspar porphyry, felsite.

*Intrusive Contact*

METAMORPHOSED MAFIC INTRUSIVE ROCKS

Hypersthene diorite, gabbro, porphyritic gabbro, hornblende gabbro, diabase.

*Intrusive Contact*

CHARLTON ULTRAMAFIC INTRUSION

Wehrilite, pyroxenite, leucocratic gabbronorite, variolitic mafic dike.

*Intrusive Contact*

METASEDIMENTS

CHEMICAL METASEDIMENTS:

Chert, very fine grained felsic tuff.

METAVOLCANICS

ULTRAMAFIC METAVOLCANICS

Peridotite, talc-carbonate schist, chlorite schist.

INTERMEDIATE TO FELSIC METAVOLCANICS

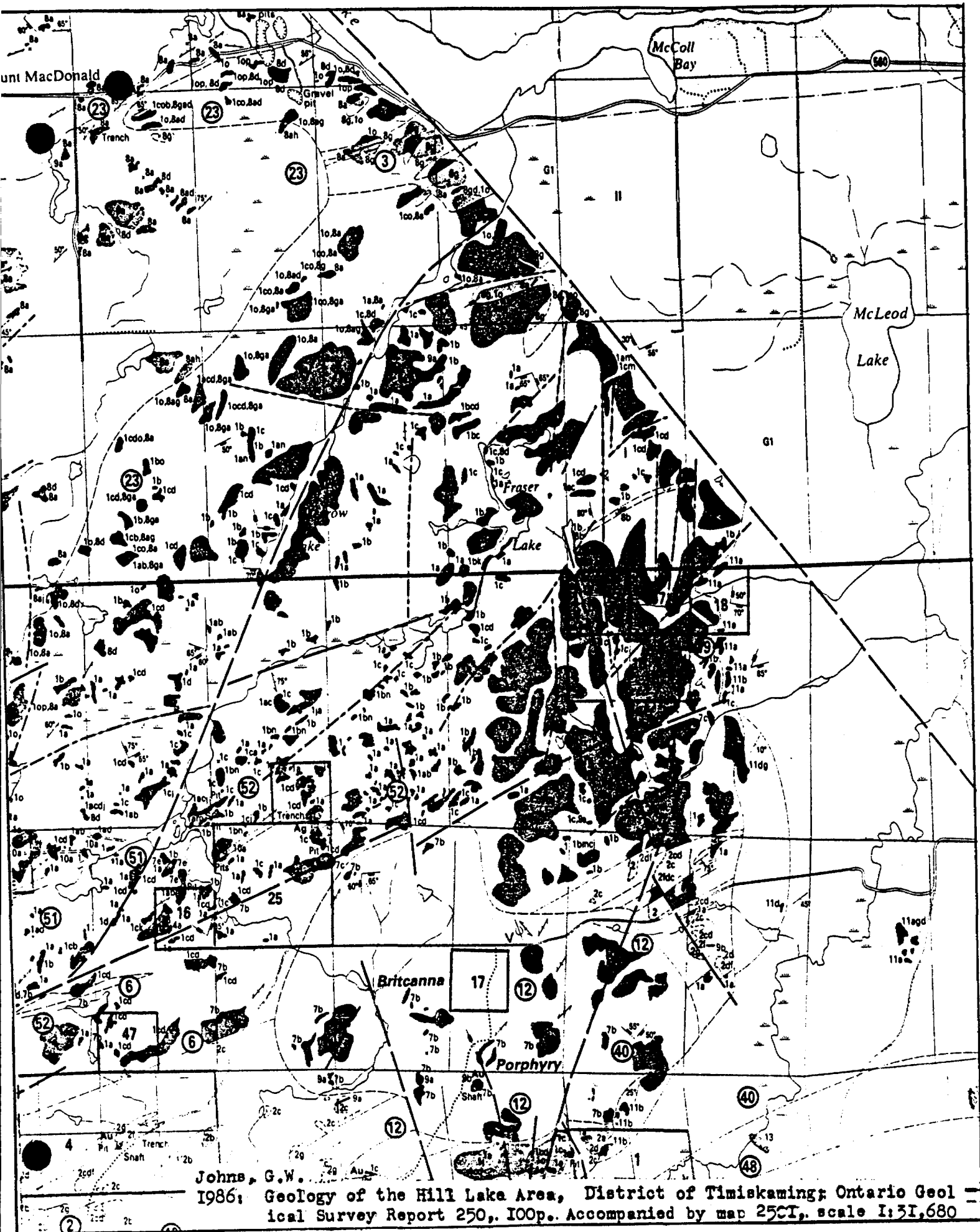
Flows, quartz-feldspar porphyry, tuff, lapilli-tuff, lapillistone, tuff-breccia, pyroclastic breccia.

MAFIC METAVOLCANICS

Flows, pillowed flows, amygdaloidal flows, variolitic flows, black high iron flows, broken pillow breccia, isolated pillow breccia, flow breccia, porphyritic flows, amphibolite.

from Johns, G.W. (1986)

fig. 3



Johns, G.W.  
 1986; Geology of the Hill Lake Area, District of Timiskaming; Ontario Geological Survey Report 250, 100p. Accompanied by map 25CI, scale 1:31,680

fig. 4a

**LEGEND**

**PHANEROZOIC**

**CENOZOIC**

**QUATERNARY**

**PLEISTOCENE AND RECENT**

Glacial, glaciofluvial, swamp, lake and stream deposits.

**UNCONFORMITY**

**PRECAMBRIAN**

**MIDDLE PRECAMBRIAN**

**MAFIC INTRUSIVE ROCKS**

**NIPISSING DIABASE**



- 13 Unsubdivided.
- 13a Diabase.
- 13c Diabase chilled margins.
- 13d Aplite, granophyre.

**INTRUSIVE CONTACT**

**HURONIAN SUPERGROUP**

**COBALT GROUP**

**LORRAIN FORMATION**



- 12a Feldspathic arenite.
- 12b Grit to pebble conglomerate.
- 12c Breccia dike.

**CONFORMABLE CONTACT**

**GOWGANDA FORMATION**



- 11 Unsubdivided.
- 11a Conglomerate, matrix supported.
- 11b Conglomerate, clast supported.
- 11c Thickly laminated mudstone and wacke.
- 11d Thickly laminated green-gray mudstone and shale.
- 11e Feldspathic lithic arenite.
- 11g Wacke.

**UNCONFORMITY**

**EARLY PRECAMBRIAN**

**UNMETAMORPHOSED MAFIC INTRUSIVE ROCKS**



- 10a Diabase.
- 10b Porphyritic diabase (feldspar phenocrysts).

**INTRUSIVE CONTACT**

**MAFIC ALKALIC INTRUSIVE ROCKS**



- 9a Lamprophyre.
- 9b Pebble-bearing lamprophyre.

**INTRUSIVE CONTACT**

**FELSIC TO INTERMEDIATE INTRUSIVE ROCKS**



- 8 Unsubdivided.
- 8a Tonalite, trondhjemite.
- 8b Granodiorite.
- 8d Aplite
- 8f Cataclastic tonalite
- 8g Contaminated tonalite, diorite.
- 8h Tonalite with mafic metavolcanic xenoliths.
- 8j Mylonite.

**INTRUSIVE CONTACTS**

**METAMORPHOSED FELSIC TO INTERMEDIATE INTRUSIVE ROCKS**



- 7 Unsubdivided.
- 7a Quartz porphyry.
- 7b Feldspar porphyry.
- 7c Quartz-feldspar porphyry
- 7e Felsite.
- 7i Carbonatized.

**INTRUSIVE CONTACT**

**METAMORPHOSED MAFIC INTRUSIVE ROCKS**



- 6 Unsubdivided.
- 6a Hypersthene diorite.
- 6b Gabbro.
- 6c Porphyritic gabbro (feldspar phenocrysts).
- 6d Hornblende diorite.
- 6e Diabase.

**INTRUSIVE CONTACT**

**CHARLTON ULTRAMAFIC INTRUSION**



- 5a Wehrlite.
- 5c Pyroxenite.
- 5d Leucocratic gabbro-norite.
- 5e Carbonatized
- 5f Serpentinized.
- 5g Variolitic mafic dike.

**INTRUSIVE CONTACT**

**METASEDIMENTS**

**CHEMICAL METASEDIMENTS**



- 4a Chert and very fine grained felsic tuff.

**METAVOLCANICS**

**ULTRAMAFIC METAVOLCANICS**



- 3 Unsubdivided.
- 3a Massive peridotite.
- 3c Spinifex texture.
- 3d Talc-carbonate schist.
- 3e Chlorite schist.
- 3f Tremolite.
- 3g Carbonatized.

**INTERMEDIATE TO FELSIC METAVOLCANICS**



- 2 Unsubdivided.
- 2a Massive lava.
- 2b Porphyritic lava (feldspar and quartz phenocrysts).
- 2c Tuff.
- 2d Lapilli-tuff
- 2e Lapillistone
- 2f Tuff breccia.
- 2g Pyroclastic breccia.
- 2h Carbonatized.
- 2j Amphibolitized, hybridized.

**MAFIC METAVOLCANICS**



- 1 Unsubdivided.
- 1a Massive fine-grained lava.
- 1b Massive medium-grained lava.
- 1c Pillowed lava.
- 1d Amygdaloidal lava.
- 1e Varolitic lava.
- 1g Black high iron mafic lava.
- 1h Spinifex texture.
- 1j Broken pillow breccia.
- 1k Isolated pillow breccia.
- 1m Flow breccia.
- 1n Porphyritic flow (amphibole phenocrysts)
- 1o Amphibolite.
- 1p Metamorphic layering.
- 1q Carbonatized.
- 1r Xenoliths of intermediate tuffaceous material.
- 1s Epidotized mafic flows.



Breccia

- Ag Silver.
- Au Gold.
- cp Chalcopyrite
- Cu Copper.
- fu Fuchsite.
- hem Hematite.

**SYMBOLS**



Glacial striae. Glacial fluting or drumlin.



Esker.



Bedrock; (small outcrop, area of outcrop).



Bedding, horizontal.



Bedding, top unknown; (inclined, vertical).



Bedding, top indicated by arrow; (inclined, vertical, overturned).



Bedding, top (arrow) from grain gradation; (inclined, vertical, overturned).



Bedding, top (arrow) from cross bedding; (inclined, vertical, overturned).



Bedding, top (arrow) from relationship of cleavage and bedding; (inclined, overturned).



Lava flow: top (arrow) from pillows shape and packing. Lava flow; top in direction of arrow.



Schistosity; (horizontal, inclined, vertical).



Gneissosity; (horizontal, inclined, vertical).



Foliation; (horizontal, inclined, vertical).



Banding; (horizontal, inclined, vertical).



Lineation with plunge.



Geological boundary; (observed, position interpreted, deduced from geophysics).



Magnetic contour value in gammas. Magnetic attraction.



Fault; (observed, assumed). Spot indicates down throw side, arrows indicate horizontal movement.



Lineament.



Jointing; (horizontal, inclined, vertical).



Drag folds with plunge.



Anticline, syncline, with plunge.



Drill hole; (vertical, inclined, projected vertically, projected up dip). Overburden shown.



Vein, vein network. Width in inches, feet or metres.



Radioactivity.



Swamp.



Motor road. Provincial highway number encircled where applicable.



Other road. Trail, portage, winter road.

Johns, G.W.

1986: Geology of the Hill Lake Area, District of Timiskaming; Ontario Geological Survey Report 250, 100p. Accompanied by map 250I, scale 1 : 31 680

fig. 4b

The geology of the north central portion of the claim group, is composed of, hornblende schist, and recrystallized pillow lava, that have been intruded by many complex, irregular, intrusive bodies of contaminated granitic rocks, and hybrid type diorites.

The southern portions of the property are chiefly underlain by mafic metavolcanics of the Catharine Group. These rocks are fine to medium grained, massive flows and pillowed flows. A north-south trending foliation, was noted at several outcrop exposures along line 4+00 W. Field observations of pillow lava exposures, indicate, that flow tops are facing south.

The metavolcanics are intruded in several locations by mafic intrusive bodies, these coarse grained "gabbroic" rocks are a dark green-black colour on fresh surfaces, and weather to a distinctive green-brown colour, with black (augite?) crystals forming a knobby surface. It is not known by the author, whether, these rocks are of a true intrusive nature, or if they are a product of the recrystallization of the mafic volcanic rocks.

The largest of these bodies is located at the northern end of Mearow Lake, straddling claims, 1013324, 1013325, and 1013327. The second exposure, is located in the centre of claim 1013332, a third body is located in claim 1013329, and the smallest body is located in the northeast corner of claim 1013335. A fifth "gabbroic" body is located north of the baseline on claim 1013269.

The northeast corner of the property is cut by the north-west trending, middle precambrian aged, Cross Lake Fault. This feature, is part of the western boundary of the Timiskaming Rift Valley.

A splay off of the "Palmer-Vaughan-Estival Break" runs northeast through Mearow Lake, and splays again in the unnamed lake on claim 1013269 terminating at the Cross Lake Fault.

A total of 19 grab samples, were taken at various mineral showings, and old workings on the property. All 19 samples were assayed for gold, and 8 of the samples were also assayed for copper. The samples returned low assay values ranging from trace to 0.004 oz/ton Au. and from 18 to 740 ppm. Cu.

The two cribbed shafts or test pits (believed to be the old Kushaug Syndicate workings) located in claim 1013271, were water filled, and could not be properly evaluated. Grab samples of quartz vein with heavy pyrite, chalcopyrite and bornite taken from a pile of rubble adjacent to the pits, returned only poor values. (see fig. 5a & 5b )

## 8.0 CONCLUSIONS AND RECOMENDATIONS

The geological survey was successful in in establishing; the rock types, the distribution of these rock types, the structural features and the topographic features of the property.

Grab samples taken, returned generally low assay values, however, they do indicate that gold and copper enrichment has taken place to a minor extent.

The fault-lineament that runs through Mearow Lake and crosses the claim group (was not substantiated, but is a consistant, strong topographic feature) is a splay off of the gold-bearing, Palmer - Vaughan - Estival Break. This splay, may also have acted as a conduit for gold bearing fluids.

The area has in past recieved thorough surface prospecting, and the majority of mineralized zones discovered, were probably only found after exhaustive, hand stripping and trenching. Many areas, particularly, bedrock depressions covered by overburden and swamp provide attractive exploration targets, however, surficial deposits make prospecting a very difficult task.

It is recomended that a programme of geochemical soil sampling be performed. Fences of soil samples should be taken down ice of any persistant north-east trending, overburden filled depression.

9.0 CERTIFICATE OF QUALIFICATIONS

I, Frederick J. Swanson of 351 Book Road Grimsby, Ontario,  
do hereby certify that:

- I. I am a graduate of Brock University and hold a B.Sc.  
degree in geological sciences (1984).
  
- II. I personally conducted the fieldwork herein.

*Nov. 14. 1990*

*Fred Swanson.*

## 10.0 REFERENCES

Johns, G.W.

1986: Geology of the Hill Lake Area, District of Timiskaming; Ontario Geological Survey Report 250, 100p. Accompanied by map 2501, scale 1:31680

Johns, G.w., Hoyle, Warren, and Good, David

1981: Precambrian Geology of the Hill Lake Area, Bryce and Robillard Townships, Timiskaming District; Ontario Geological Survey Preliminary Map P.2415, Geological Series, Scale 1:15840 or 1 inch to 1/4 mile. Geology 1980.

Moorhouse, W.W.

1944: Geology of The Bryce-Robillard Area; Ontario Department of Mines Vol. L, Part IV, 1941. Accompanied by map 50j, scale 1 inch to 1/2 mile.

Sylvanite Gold Mines.

1936: MacDonald Property; Drillcore logs and assay sheets, Resident Geologist Files, Cobalt.

Wray, O.R.,

1934: Notes on the property of the Long Lake Gold Mining Company Ltd. Resident Geologist Files, Cobalt.

Longmore, E.k.

1910: Report on Kushaug Syndicate and Long Lake Gold Mining Company Limited; Resident Geologist Files, Cobalt.

APPENDIX





# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187,  
POJ 1KO

HAILEYBURY, ONTARIO

TEL: 672-3107  
FAX: (705) 672-5843

## Certificate of Analysis

NO. 0806

DATE: October 3, 1990

SAMPLE(S) OF: Rock (19)

RECEIVED: October 1990

SAMPLE(S) FROM: Mr. Fred Swanson, Grimsby

Sample #	Oz. Gold	Cu ppm
RB-1	0.002	340
2	Trace	20
3	0.002	
4	Trace	
5	Trace	
6	0.002	
7	0.002	
8	Trace	
9	Trace	
10	0.004	
11	0.002	
12	Trace	
13	Trace	
14	Trace	20
15	0.004	18
16	Trace	140
17	Trace	40
18	Trace	740
19	0.004	620

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

PER \_\_\_\_\_





Ministry of Northern Development and Mines

*m.l.*  
*W 9008270*

DOCUMENT  
N 9008  
**2.13**



41P16SE0003 2.13683 ROBILLARD

900

**Mining Act** (Geophysical, Geological and Geochemic)

Type of Survey(s) <i>Geological</i>	Mining Division <i>LARDER LAKE</i>	Township or Area <i>Robillard Township</i>
Recorded Holder(s) <i>Frederick John Swanson</i>	Prospector's Licence No. <i>636389</i>	
Address <i>351 Book Rd. Grimsby, Ont. L3M-2M5</i>	Telephone No. <i>(416)-945-4320</i>	
Survey Company <i>F. Swanson Geological Contracting</i>		
Name and Address of Author (of Geo-Technical Report) <i>FREDERICK JOHN SWANSON (Above ADDRESS)</i>		Date of Survey (from & to) <i>07 07 90 to 16 09 90</i>

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)	- Other	
	Geological	<i>20</i>
	Geochemical	

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

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
<i>L-</i>	<i>1013264</i>	<i>L-</i>	<i>1013335</i>		
	<i>1013265</i>		<i>1013336</i>		
	<i>1013266</i>		<i>1126231</i>		
	<i>1013267</i>		<i>1126232</i>		
	<i>1013269</i>		<i>1126233</i>		
	<i>1013271</i>		<i>1126234</i>		
	<i>1013273</i>				
	<i>1013274</i>				
	<i>1013324</i>				
	<i>1013325</i>				
	<i>1013326</i>				
	<i>1013327</i>				
	<i>1013328</i>				
	<i>1013329</i>				
	<i>1013332</i>				
	<i>1013333</i>				
	<i>1013334</i>				

**RECEIVED**  
SEP 24 1990

MINING LANDS SECTION

Total number of mining claims covered by this report of work. *23*

Total miles flown over claim(s) \_\_\_\_\_

Date *Sept 17 90* Recorded Holder or Agent (Signature) *Frederick Swanson*

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  
*FREDERICK JOHN SWANSON 351 Book Rd. GRIMSBY, ONT.*

Telephone No. *(416)-945-4320* Date *Sept 17, 90* Certified By (Signature) *Frederick Swanson*

For Office Use Only

Total Days Cr. Recorded <i>460</i>	Date Recorded <i>Sept 17/90</i>	Mining Recorder <i>[Signature]</i>
	Date Approved as Recorded <i>Feb 25, 1991</i>	Provincial Manager, Mining Lands <i>[Signature]</i>

**LARDER LAKE MINING DIVISION**

'90 SEP 17 AM 10 16

**RECEIVED**

\*SEE REVISED WORK STATEMENT\*



W91 08 23

DOCUMENT No. W 9108.00023

Instructions: Please type or print. Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type. If 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.

Report of Work (Geophysical, Geological and Geochemical Surveys)

Form with fields: Type of Survey(s) Geological, Mining Division Larder Lake, Township or Area Robillard, Recorded Holder(s) Frederick John Swanson, Address 351 Book Rd, Telephone No. (416)-945-4320, Survey Company F. Swanson Geological Contracting, Name and Address of Author (of Geo-Technical Report) F. Swanson 351 Book Rd. Grimsby, ont., Date of Survey (from & to) 15 09 90 to 17 09 90

Credits Requested per Each Claim in Columns at right

Table with 3 columns: Special Provisions, Geophysical, Days per Claim. Rows include: For first survey (40 days), For each additional survey (20 days), Man Days (Complete reverse side), Airborne Credits (Note: Special provisions credits do not apply to Airborne Surveys).

Mining Claims Traversed (List in numerical sequence)

Table with 6 columns: Mining Claim Prefix, Mining Claim Number, Mining Claim Prefix, Mining Claim Number, Mining Claim Prefix, Mining Claim Number. Contains entry L 1147160 and handwritten notes: Received Nov 21/90 Mining Lands Section, Postmarked Nov. 16/90.

RECEIVED FEB 14 1991 MINING LANDS SECTION

Total number of mining claims covered by this report of work. 1

Total miles flown over claim(s). Date Nov. 14, 90. Recorded Holder of Agent (Signature) Fred Swanson.

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: Frederick J. Swanson 351 Book Rd. Grimsby, ont. L3M 2M5. Telephone No. (416)-945-4320. Date Nov. 14, 90. Certified By (Signature) Fred Swanson.

For Office Use Only

Form with fields: Total Days Cr. Recorded (20), Date Recorded (Jan 22 1991), Mining Recorder (Signature), Date Approved as Recorded (March 05/91), Provincial Manager, Mining Lands (Signature).

RECEIVED LARDER LAKE MINING DIVISION JAN 22 1991 TIME 9:22am



Ministry of  
Northern Development  
and Mines

Technical Assessment  
Work Credits

File

2,13683

Date  
March 5/91Mining Recorder's Report of  
Work No.  
W. 9008, 270

Recorded Holder <b>Frederick John Swanson</b>
Township or Area <b>Robillard Township</b>

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b>	L 1013264 to 267' inclusive 1013269; 1013271; 1013273-274 1013324; 1013326 to 329' inclusive 1013332 to 334 inclusive; 1013336; 1126231 to 234 inclusive
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological <u>20</u> days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input checked="" type="checkbox"/> Ground <input type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (18) for the following mining claims

15 day Geological L 1013325; 1013335

No credits have been allowed for the following mining claims

- not sufficiently covered by the survey       insufficient technical data filed



Ontario

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Mining Lands Section  
4th Floor, 159 Cedar Street  
Sudbury, Ontario  
P3E 6A5

Telephone: (705) 670-7264  
Fax: (705) 670-7262

Your File: W. 9008.270  
Our File: 2.13683

April 5, 1991

Mining Recorder  
Ministry of Northern Development  
and Mines  
4 Government Road East  
KIRKLAND LAKE, Ontario  
P2N 1A2

Dear Sir/Madam:

RE: Notice of Intent dated March 5, 1991 for Geological Survey  
on mining claims L. 1013264 et al. in Robillard Township.

-----

The assessment work credits, as listed with the above-mentioned  
Notice of Intent have been approved as of the above date.

Please inform the recorded holder of these mining claims and so  
indicate on your records.

Yours sincerely,

Ron. C. Gashinski,  
Provincial Manager, Mining Lands  
Mines & Minerals Division

DM/jl  
Encl:

cc: Mr. Frederick John Swanson  
Grimsby, Ontario

Resident Geologist  
Cobalt, Ontario



Ministry of Northern Development and Mines  
Ontario

DOCUMENT NO.

9008-270

2.13683

- Instructions
- Please type or print.
  - Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
  - If 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**

**Report of Work**  
(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) <i>Geological</i>	Mining Division <i>LARDER LAKE</i>	Township or Area <i>Robillard Township</i>
Recorded Holder(s) <i>Frederick John Swanson</i>	Prospector's Licence No. <i>636389</i>	
Address <i>351 Book Rd. Grimsby, ONT. L3M-2M5</i>	Telephone No. <i>(416)-945-4320</i>	
Survey Company <i>F. SWANSON Geological Contracting</i>		
Name and Address of Author (of Geo-Technical Report) <i>FREDERICK JOHN SWANSON (Above ADDRESS)</i>	Date of Survey (from & to) Day   Mo.   Yr. <i>07 07 90</i>   Day   Mo.   Yr. <i>16 09 90</i>	

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	-
	- Magnetometer	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	20
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Other	
Total miles flown over claim(s)		
Date <i>Sept 17 90</i>	Recorded Holder or Agent (Signature) <i>Frederick Swanson</i>	

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
L-✓	1013264	L#	1013335		
✓	1013265	✓	1013336		
✓	1013266	✓	1126231		
✓	1013267	✓	1126232		
✓	1013269	✓	1126233		
✓	1013271	✓	1126234		
✓	1013273				
✓	1013274				
✓	1013324				
#	1013325				
✓	1013326				
✓	1013327				
✓	1013328				
✓	1013329				
✓	1013332				
✓	1013333				
✓	1013334				

**RECEIVED**  
SEP 24 1990  
MINING LANDS SECTION

Total number of mining claims covered by this report of work. 23

**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  
*FREDERICK JOHN SWANSON 351 Book Rd. GRIMSBY, ONT.*

Telephone No. *(416)-945-4320* Date *Sept 17, 90* Certified By (Signature) *Frederick Swanson*

**For Office Use Only**

Total Days Cr. Recorded <i>460</i>	Date Recorded <i>Sept 17/90</i>	Mining Recorder <i>[Signature]</i>
	Date Approved as Recorded	Provincial Manager, Mining Lands <i>[Signature]</i>

**LARDER LAKE MINING DIVISION**

'90 SEP 17 AM 10 16

**RECEIVED**



**DOCUMENT No.**  
W 9108.0003

Instructions  
Please type or print.  
Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.  
If 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:

**Report of Work**  
(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) <b>Geological</b>	Mining Division <b>Larder Lake</b>	Township or Area <b>Robillard</b>
Recorded Holder(s) <b>Frederick John Swanson</b>	Prospector's Licence No. <b>C-36389</b>	
Address <b>351 Book Rd</b>	Telephone No. <b>(416)-945-4320</b>	
Survey Company <b>F. Swanson Geological Contracting</b>		
Name and Address of Author (of Geo-Technical Report) <b>F. Swanson 351 Book Rd. Grimsby, ont.</b>		Date of Survey (from & to) <b>15 09 90 17 09 90</b> Day Mo. Yr. Day Mo. Yr.

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

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)	- Other Geological Geochemical	<b>20</b>
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic - Magnetometer - Other Geological Geochemical	
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	- Electromagnetic - Magnetometer - Other	

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
L	7160				
<i>Received Nov 21/90 Mining Lands Section</i>					
<i>Postmarked Nov. 16/90</i>					
<i>[Signature]</i>					

**RECEIVED**  
**FEB 14 1991**  
**MINING LANDS SECTION**

Total miles flown over claim(s). \_\_\_\_\_

Date **Nov. 14, 90** Recorded Holder or Agent (Signature) *Frederick Swanson*

Total number of mining claims covered by this report of work. **1**

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  
**Frederick J. Swanson 351 Book Rd. Grimsby, ont. L3M 2M5**

Telephone No. **(416)-945-4320** Date **Nov. 14, 90**

Certified By (Signature) *[Signature]*

For Office Use Only

Total Days Cr. Recorded <b>20</b>	Date Recorded <b>Jan 22 1991</b>	Mining Recorder <i>[Signature]</i>
Date Approved as Recorded	Provincial Manager, Mining Lands <i>[Signature]</i>	

**RECEIVED**  
**LARDER LAKE**  
**MINING DIVISION**  
**JAN 22 1991**  
**TIME 9:22am**



CANADA 62



RAILWAY STATION / GARE FERROVIAIRE  
MCADAM

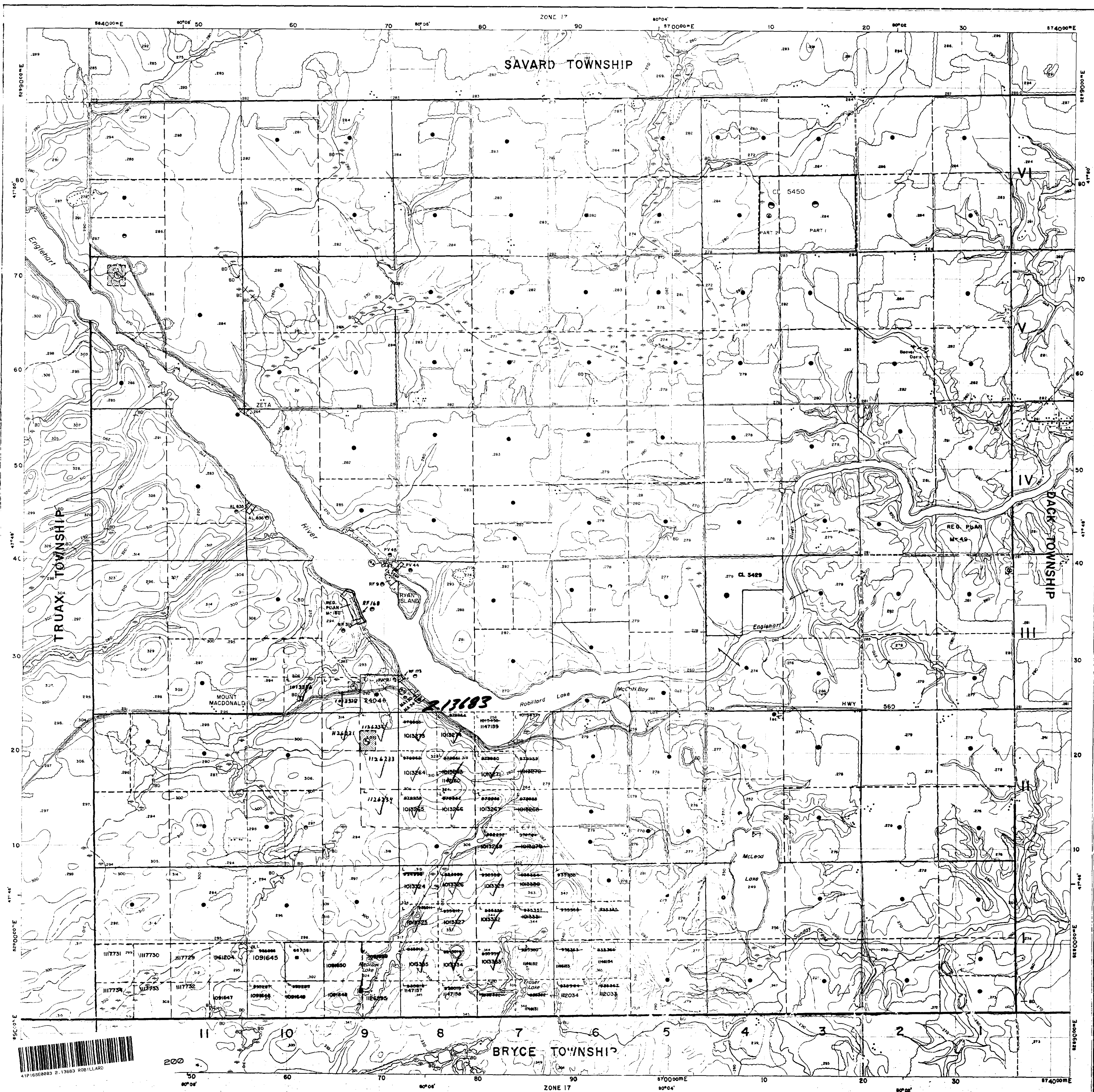
CANADA



RAILWAY STATION / GARE FERROVIAIRE  
MCADAM

5 70770  
16 NOV 1990  
MONTREAL





Ministry of Natural Resources  
Ministry of Northern Development and Mines

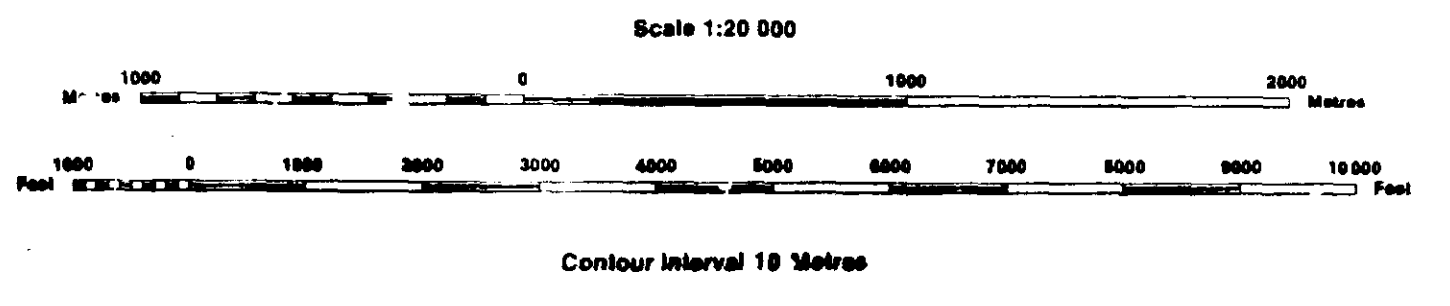
**geology reference-COBALT**  
R 510 N 14 W

**INDEX TO LAND DISPOSITION**

PLAN  
G-3709  
TOWNSHIP

**ROBILLARD**

M.N.R. ADMINISTRATIVE DISTRICT  
**KIRKLAND LAKE**  
MINING DIVISION  
**LARDER LAKE**  
LAND TITLES/REGISTRY DIVISION  
**TIMISKAMING**



**SYMBOLS**

Boundary	—
Township, Meridian, Baseline	—
Road allowance; surveyed	—
shoreline	—
Lot/Concession; surveyed	—
unsurveyed	—
Parcel; surveyed	—
unsurveyed	—
Right-of-way; road	—
railway	—
utility	—
Reservation	—
Cliff, Pit, Pile	—
Contour	—
Interpolated	—
Approximate	—
Depression	—
Control point (horizontal)	—
Flooded land	—
Mine head frame	—
Pipeline (above ground)	—
Railway; single track	—
double track	—
abandoned	—
Road; highway, county, township	—
access	—
trail, bus	—
Shoreline (original)	—
Transmission line	—
Wooded area	—

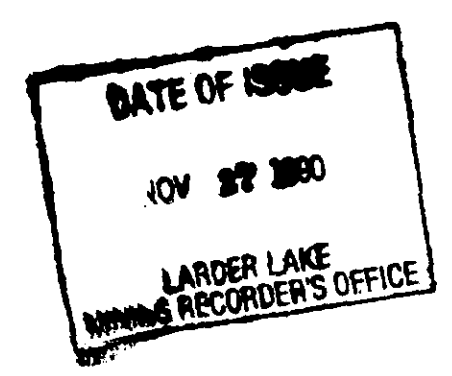
**AREAS WITHDRAWN FROM DISPOSITION**

Description	Order No.	Date	Disposition	File
MR0 - Mining Rights Only				
SRO - Surface Rights Only				
M + S - Mining and Surface Rights				
① E.C. 42 (R.S.O. 401)	W 53/74	10/10/74	S.R.O.	17943
② Sec. 36 (R.S.O. 401)			S.R.O.	3128
③ PUBL. ACCESS		26/03/82	M + S	
④ PUBLIC ACCESS				

**NOTES**  
FLOODING RIGHTS RESERVED TO LONDON ON ALONG SHORES OF ROBILARD LAKE AND ENGLEHART RIVER

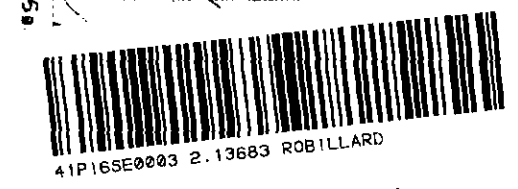
**DISPOSITION OF CROWN LANDS**

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	—
Cancelled	—
Reservation	—
Sand & Gravel	—



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.

CIRCULATED MAY 4/88



LOT 10

LOT 9

L-18+00W

L-16+00W

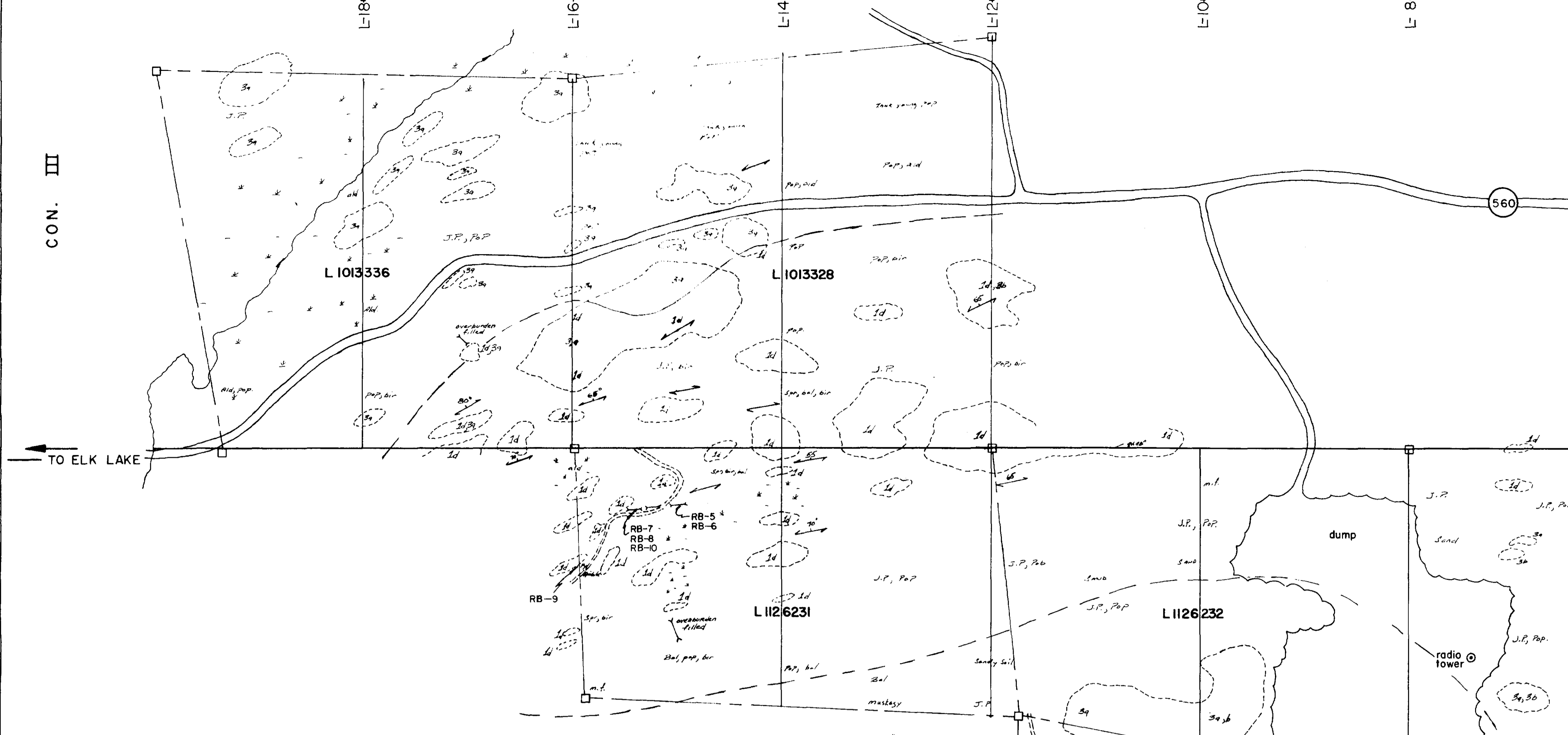
L-14+00W

L-12+00W

L-10+00W

L-8+00W

CON. III



**GRAB SAMPLE ASSAY VALUES**

SAMPLE #	Au. oz/ton	Cu ppm
RB-1	0.002	340
RB-2	trace	20
RB-3	0.002	
RB-4	trace	
RB-5	trace	
RB-6	0.002	
RB-7	0.002	
RB-8	trace	
RB-9	trace	
RB-10	0.004	
RB-11	0.002	
RB-12	trace	
RB-13	trace	
RB-14	20	
RB-15	18	
RB-16	140	
RB-17	40	
RB-18	740	
RB-19	0.004	620

**LEGEND**

- EARLY PRECAMBRIAN**
- FELSIC TO INTERMEDIATE INTRUSIVE ROCKS
- 3a GRANITIC ROCKS
  - 3b CONTAMINATED GRANITIC, DIORITIC ROCKS
- MAFIC INTRUSIVE ROCKS
- 2 GABBRO
- MAFIC METAVOLCANICS
- 1d HORNBLLENDE SCHIST
  - 1c PILLOWED LAVA
  - 1b MASSIVE MEDIUM-GRAINED LAVA
  - 1a MASSIVE FINE-GRAINED LAVA

**SYMBOLS**

- geological boundary (observed, interpreted)
- foliation
- shearing
- jointing, (inclined, vertical)
- fault; (observed, assumed)
- area of outcrop
- exploration trenches
- test pit
- topographic ridge
- forest
- shoreline
- swamp
- claim post

**ABBREVIATIONS**

- |     |              |
|-----|--------------|
| bor | bornite      |
| cpy | chalcopyrite |
| py  | pyrite       |
| qv  | quartz vein  |
| ald | alder        |
| bal | balsam       |
| ced | cedar        |
| j.p | jack pine    |
| m.f | mixed forest |
| pop | poplar       |
| spr | spruce       |

CON. II

CON. I

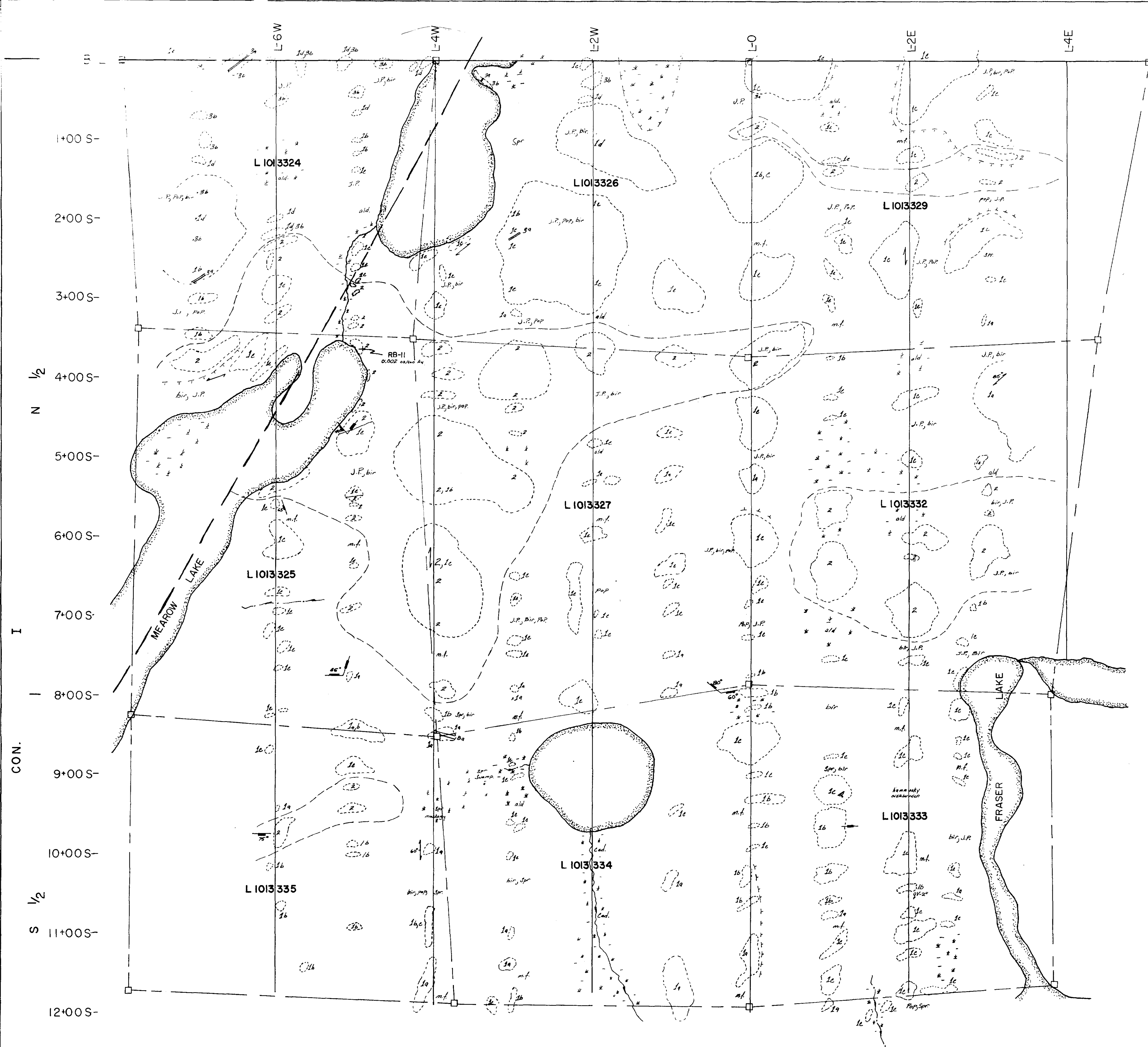






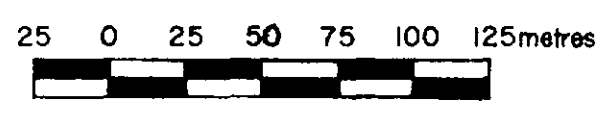
### LEGEND

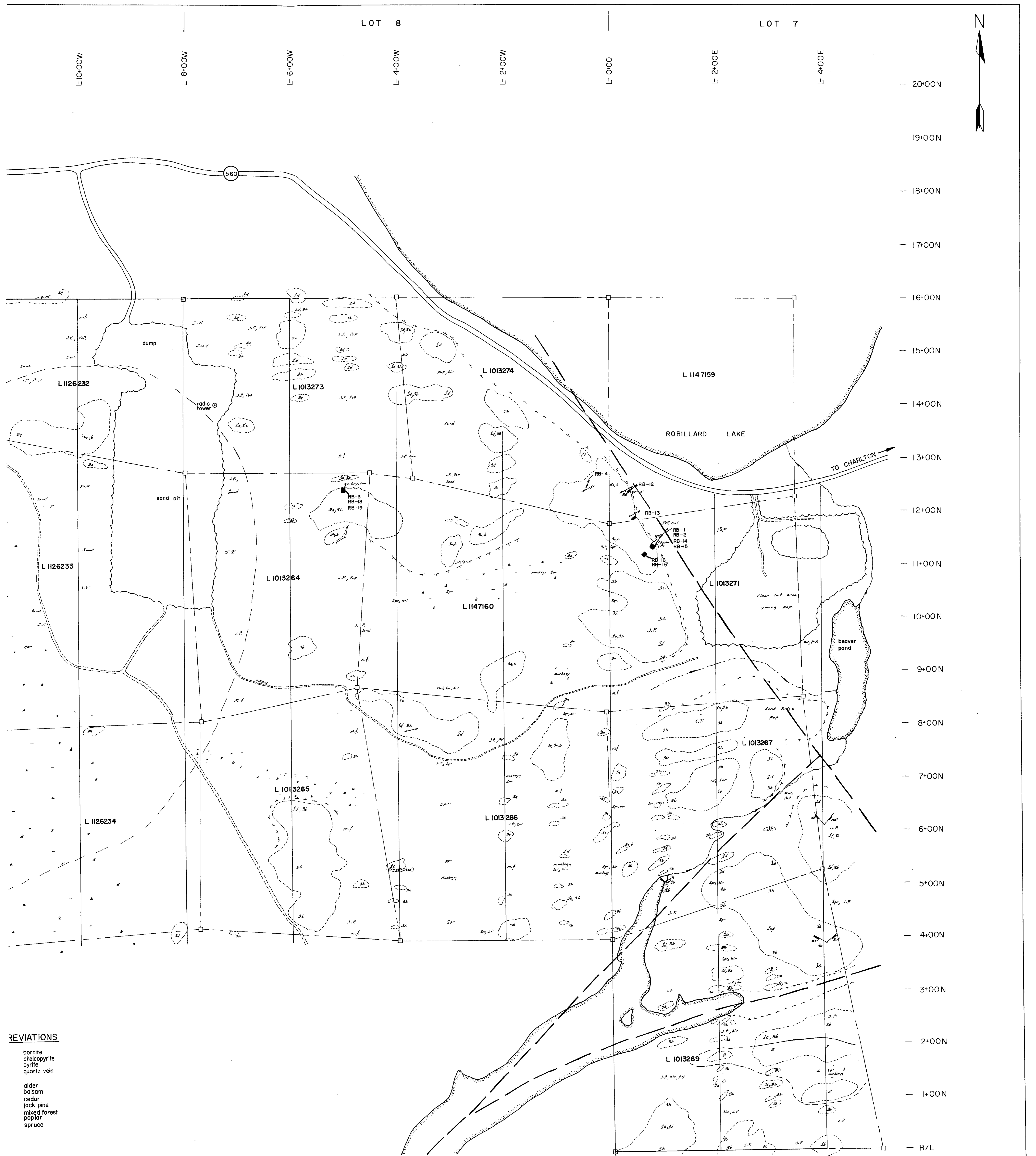
- EARLY PRECAMBRIAN  
FELSIC TO INTERMEDIATE INTRUSIVE ROCKS
- 3a GRANITIC ROCKS
  - 3b CONTAMINATED GRANITIC AND DIORITIC ROCKS
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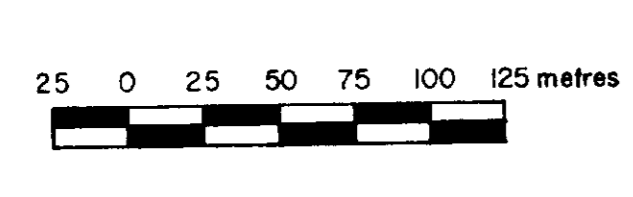
2.13683

GEOLOGY	
MORRIS-SWANSON PROPERTY (SOUTHERN SHEET)	
ROBILLARD TOWNSHIP	
SCALE - 1 : 2500	DATE - OCTOBER, 1990
DRAWN BY - F. SWANSON	FIGURE - 5b





- REVIATIONS**
- barnite
  - chalcopyrite
  - pyrite
  - quartz vein
  - alder
  - balsam
  - cedar
  - jack pine
  - mixed forest
  - poplar
  - spruce



2.13683

GEOLOGY	
MORRIS-SWANSON PROPERTY (NORTHERN SHEET)	
ROBILLARD TOWNSHIP	
SCALE - 1 : 2500	DATE - OCTOBER, 1990
DRAWN BY - FSWANSON	FIGURE - 5a