010

ASSESSMENT REPORT
ON
GEOLOGICAL WORK
FOSTUNG PROPERTY
FOSTER TOWNSHIP, DISTRICT OF SUDBURY

PROJECT #3115
ST. JOSEPH EXPLORATIONS LIMITED

Douglas Robinson
Cobalt, Ontario

December 20, 1979

2.3201

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41104NE0018 0018 FOSTER

Ø10C

PROPERTY STANDING

The Fostung property consists of twenty-eight claims controlled by Union Carbide Explorations Corporation, Suite 930 - 800 West Pender Street, Vancouver, British Columbia, V6C 2V6.

All twenty-eight (28) claims are presently under option by St.Joseph Explorations Limited, 90 Eglinton Ave. West, Suite 505, Toronto, Ontario, M4R 2E4. The aforementioned claims are numbers as follows:

S398131 - S398153 inclusive
S471202 - S471204 inclusive
S471438 - S471439 inclusive

All claims are in good standing through the date of this report.

LOCATION and ACCESS

The Fostung property of twenty-eight claims is located on lots 6, 7, 8 and 9 of Concessions III and IV of Foster Township.

* "Foster Township is located some 40 miles to the west of the city of Sudbury, Ontario.

The property is about 7 road miles (10 km) east of the Town of Espanola over excellent gravel road. The claim group straddles this east-west road and is bounded by Elizabeth Lake on the north, and St.Leonard Lake on the south. A branch road to Hannah and Stratton Lakes departs the main gravel road near the west end of the property and proceeds south. It, too, is an excellent gravel road.

The potential of a mineral occurrence at this location is enhanced by the local infrastructure. The Town of Espanola is a source of competent labour and a supply centre. A hydro transmission line passes a mile and a half south of the property and the Canadian Pacific Railway branch line to Manitoulin Island passes within the 2 miles (3 km) of the claim group. The Great Lakes shipping port of Little Current is about 30 miles (45 km) south of Espanola on paved highway No.68.

Numerous mining and milling facilities in the centres of Elliot Lake, Agnew Lake, and Sudbury are within trucking distance."

* M.L.Halladay's 1978 Assessment Work Report

HISTORY

* "The existence of chalcopyrite - molybdenite with pyrite and pyrrhotite was known at this location for some years prior to 1966. At that time claims held by Messrs. Piispanen and Tamminen were optioned by Texas Gulf after R.M.Ginn examined the property, recognized the occurrence as skarn and discovered the presence of scheelite.

Texas Gulf then did a geological survey, partial magnetometer survey and 3073 feet of drilling in 6 holes. Results were encouraging but no ore intersections were obtained and the option was dropped.

In 1970 Cerro Corporation optioned the property and did trenching and surface sampling, together with further analyses on cores of the T.G.S. drilling. They dropped their option when Cerro suspended Canadian exploration.

In 1971 Vangulf, managed by R.M.Ginn, optioned the property and conducted surface surveys. Vangulf's option was taken over by St.Joseph Exploration and an additional 6 drill holes (4,629 feet) were completed without ore intersections.

In the summer of 1978 Union Carbide Exploration optioned 5 claims of the original property and staked a further 23 claims."

* M.L.Halladay's 1978 Assessment Work Report

Union Carbide then recut the original Texas Gulf grid on 400' centres and M.L.Halladay did considerable night lamping to determine the scheelite content of the showings. Union Carbide and St.Joseph Explorations formed a joint venture to explore for tungsten mineralization.

In 1979 St.Joseph Explorations extended the existing Union Carbide grid on 400' centres west of 0+00E, on 400' centres east of 79E and cut fill in lines between 0+00E and 79+00E on 200' centres. The base line azimuth is 53°.

During 1979 St.Joseph Explorations did a magnetometer survey on all twenty-eight (28) claims and a VLF survey on claims

S471202 - S471204 inclusive
S471438 - S471439 inclusive

This geophysics work report dated December 7, 1979, was filed with the Mining Recorder of the Sudbury District.

GEOLOGICAL WORK - 1979

Geological mapping on a scale of 1" = 200' was done by C. Harrison, 94 Davenport Road, Apt. #210, Toronto, Ontario, on the dates May 15 to 31 inclusive, 1979 and September 4 to 14 inclusive, 1979, and D.R. Robinson, Box 664, Cobalt, Ontario, POJ 1CO on the dates September 4 to 14 inclusive, 1979; October 3 to 12 inclusive, 1979; and November 2 to 4 inclusive, 1979.

Representative rock samples were collected during mapping and lamped by short wave fluorescent light in the evenings to determine the scheelite content of the rock.

The following claims were mapped:

S398131 - S398133 inclusive
S398137 - S398153 inclusive
S471202 - S471204 inclusive
S471438 - S471439 inclusive

A total of 525 days were claimed as work credits. This was 21 days for each of the claims listed above.

GENERAL GEOLOGY

* "Foster Township lies within the Precambrian Shield approximately half way between the Sudbury Basin and the Elliot Lake uranium camp. Foster Township is underlain by the sediments of the Huronian Supergroup of Aphebian, (Proterozoic) age. The area has been mapped in some detail by the O.D.M. and is subject of a report (GR 131 Espanola-Whitefish Falls Area) by Dr. K.D. Card, and also Report 166 concerning the Sudbury-Manitoulin area, also by the same author. The rocks of the area are the Mississagi Formation of the Hough Lake Groups and the formations of the Quirke Lake Group (see Table of Formations). These are cut by diabasedyke intrusions. There are no known granitic intrusions in the immediate area.

The Grenville Front lies 20 miles to the southeast.

On the property, the sedimentary formations are the northern limb of a southwest plunging anticline. This structure is cut by two important faults.

The regional grade of metamorphism within Foster Township is greenschist with the exception of the present Union Carbide property which contains rocks altered to almandine amphibolite facies.

Previous offical maps (O.D.M.) ascribed rocks south of the base line on the Union Carbide property to the Mississagi formation but recent studies (including some 30,000 feet of section measuring) have lead to the conclusion that the area is in fact part of the Serpent Formation -

TABLE 1 - TABLE OF FORMATIONS FOR THE ESPANOLA-WHITEFISH FALLS AREA

CENOZOIC
QUATERNARY
Pleistocene and Recent
Sand, gravel, clay

Unconformity

8 PRECAMBRIAN
LATE PRECAMBRIAN
(Proterozoic)
LATE DIABASE INTRUSIONS
Diabase, olivine diabase

Intrusive Contact

MIDDLE PRECAMBRIAN
(Proterozoic)
MONGOWIN PLUTON
Metaperidotite, diorite, granodiorite, trondhjemite

Intrusive Contact

AMPHIBOLITE INTRUSIONS
Amphibolite, porphyritic amphibolite

Intrusive Contact

7 NIPISSING DIABASE
Gabbro, metagabbro

Intrusive Contact

HURONIAN SUPERGROUP
COBALT GROUP
GORDON LAKE FORMATION
Argillite, sandstone
LORRAIN FORMATION
Sandstone, minor conglomerate and argillite
GOWGANDA FORMATION
Conglomerate, argillite, sandstone

Disconformable Contact

QUIRKE LAKE GROUP
6 SERPENT FORMATION
Sandsone, minor conglomerate, argillite and calcareous metasediments
4 ESPANOLA FORMATION
Limestone,calcareous siltstone, argillite, breccia, sandstone hornfels, amphibolite and skarn
BRUCE FORMATION
Conglomerate, minor argillite, sandstone

Conformable Contact?

cont'd/.....

cont'd/.....

HOUGH LAKE GROUP
MISSISSAGI FORMATION
Sandstone, minor argillite and conglomerate
PECORS FORMATION
Argillite, sandstone
RAMSAY LAKE FORMATION
Conglomerate, sandstone

Conformable Contact

ELLIOT LAKE GROUP
MCKIM FORMATION
Argillite, siltstone, sandstone

GEOSCIENCE REPORT 131

Geology of the Espanola-Whitefish Falls Area
District of Sudbury, Ontario

by: K.D. Card (1976)

TABLE OF FORMATIONS BY LITHOLOGY

8 OLIVINE DIABASE (KEWEENAWAN)

7 QUARTZ DIABASE (NIPISSING)

6 SERPENT FORMATION

- 6a MASSIVE TO MEDIUM BEDDED ORTHOQUARTZITE-ARKOSE
- 6b AS 6a BUT PYRITIC

5 SERPENT ESPANOLA TRANSITION

- 5a SILTSTONE AND ORTHOQUARTZITE
- 5b INTERBEDDED SILTSTONE-GREYWACKE WITH ORTHOQUARTZITE-ARKOSE (ORTHOQUARTZITE-ARKOSE greater than 80% of formation) THIS CORRELATES WITH THE SERPENT FORMATION

4 ESPANOLA FORMATION

- 4a PALE GREEN CALC-SILICATE
- 4b DARK GREEN CALC-SILICATE
- 4c GROSSULAR CALC-SILICATE (SKARN)
- 4d WHITE CALC-SILICATE (NONE MAPPED)
- 4e BANDED PALE AND DARK GREEN CALC-SILICATE BANDING GREATER THAN ONE CENTIMETER

3 INTERFORMATIONAL CONGLOMERATES (MOST ARE SERPENT FORMATION)

- 3a CONGLOMERATE
- 3b SANDSTONE AND PEBBLE SANDSTONE

REVISED TABLE OF FORMATIONS BY LITHOLOGY RECOMMENDED FOR FUTURE MAPPING

8 OLIVINE DIABASE (KEWEENAWAN)

7 QUARTZ DIABASE (NIPISSING)

6 SERPENT FORMATION

- 6a MASSIVE TO MEDIUM BEDDED ORTHOQUARTZITE-ARKOSE
- 6b INTERBEDDED SILTSTONE-GREYWACKE WITH ORTHOQUARTZITE-ARKOSE (ORTHOQUARTZITE-ARKOSE GREATER THAN 80% OF FORMATION)

5 SERPENT ESPANOLA TRANSITION

- 5a SILTSTONE AND FINE QUARTZITE (WHITE)
- 5b SILTSTONE AND FINE QUARTZITE (MED. TO DARK GREY)

4 ESPONOLA FORMATION

- 4a PALE GREEN CALC-SILICATE
- 4b DARK GREEN CALC-SILICATE
- 4c GROSSULAR CALC-SILICATE (SKARN)
- 4d WHITE CALC-SILICATE (NONE MAPPED)
- 4e BANDED PALE AND DARK GREEN CALC-SILICATE BANDING GREATER THAN ONE CENTIMETER

3 INTERFORMATIONAL CONGLOMERATES (MOST ARE SERPENT FORMATION)

- 3a CONGLOMERATE
- 3b SANDSTONE AND PEBBLE SANDSTONE

REVISED TABLE OF FORMATIONS BY LITHOLOGY RECOMMENDED FOR FUTURE MAPPING

8		OLIVINE DIABASE (KEWEENAWAN)
7		QUARTZ DIABASE (NIPISSING)
6		SERPENT FORMATION
	6a	Massive to medium bedded Orthoquartzite-arkose
	6b	Interbedded siltstone-greywacke with Orthoquartzite-arkose (orthoquartzite-arkose greater than 80% of formation)
	6c	Conglomerate
	6d	Sandstone and pebble sandstone
5		SERPENT ESPANOLA TRANSITION
	5a	Siltstone and fine quartzite (white)
	5b	Siltstone and fine quartzite (med. to dark grey)
	5c	Conglomerate
	5d	Sandstone and pebble sandstone
4		ESPANOLA FORMATION
	4a	Pale green calc-silicate
	4b	Dark green calc-silicate
	4c	Grossular calc-silicate (Skarn)
	4d	White calc-silicate (none mapped)
	4e	Banded pale and dark green calc-silicate banding greater than one centimeter

indicating changes must be made to the previous interpretation of the structure."

* M.L.Halladay's 1978 Assessment Work Report

GENERAL GEOLOGY OF CLAIM GROUP

Two major sediment formations, the Espanola and Serpent Formations and two ages of diabase dykes comprise most of the bedrock on the claim group.

The youngest formation is the Espanola limestones and siltstones which are metamorphosed and metasomatized to diopside and amphibole hornfels with local grossular skarn zones. It is the Esponola Formation which is the host of the scheelite $\pm$ base metal mineralization.

The Espanola is bounded on the south by the base line fault. South of the base line fault is Serpent Formation.

The north contact of the Espanola is a gradational contact with the Serpent. Both north and south of the base line fault the Serpent Formation is orthoquartzite and arkose with interbeds of silt and greywacke being common.

The Serpent Formation north of the base line fault is cut by a Nipissing diabase dyke which is subparallel to the bedding in the Serpent and both dip north.

Keweenawan diabase dykes cut all the above rock types. These dykes tend to be narrow 1 - 50' wide.

DESCRIPTIONS - PRINCIPAL ROCK TYPES

Espanola Formation

The Espanola Formation within the claim group is metamorphosed and metasomatized to the calc-silicate minerals tremolite, diopside and actinolite. The field units are:

4a - pale green calc-silicates in which pale colour is due to a high tremolite, diopside content.

4b - dark green calc-silicates in which dark green colour is due to a high actinolite content

4c - grossular calc-silicate unit recognized by brownish grossular garnets.

4e - banded pale and dark green calc-silicates with banding greater than one centimeter. If banding is finer than 1cm this Esponola is grouped in 4a or 4b, according to its dominent colour.

The Esponola grades into Serpent Formation Quartzite.

Transition Zone - Espanola to Serpent

This zone has been mapped as units:

5a - interbedded siltstone and orthoquartzites.

5b - calc-silicates in orthoquartzite

Unit 5a directly north of the Espanola formation tends to be dominently silts to fine quartzites that range from white to dark grey. This is considered a transition zone from Espanola to Serpent and is several hundred feet thick. This was not differentiated from orthoquartzites with siltstone and greywacke interbeds which is considered true Serpent Formation. In the opinion of the author this change from the transition Espanola, Serpent silts and orthoquartzites to Serpent orthoquartzites occurs at the following points:

Line 2E ~14N
Line 22E between 9N and 12N
Line 51E south shore of Elizabeth Lake (~15N), and
Line 83E 12N

The unit 5b is identical to unit 6a but has up to 5% calc-silicate disseminated between the sand grains.

Serpent Formation

The Serpent Formation was initially defined as unit 6a which is a massive to medium bedded orthoquartzite.

Mapping south of the base line, in particular east of line 75+00E, indicates the distinction between 5a and 6a is in part arbitrary and much of 5a should be included as a sub unit in the Serpent.

In the area east of 75+00E unit 5a is orthoquartzite identical to unit 6a but it has 1-20% siltstone and greywacke interbeds. The siltstone beds weather in low relief compared to quartzites thus siltstone beds were not always recognized in some areas mapped as 6a.

Between 45E and 55E and 1+00S and 8+00S much of the unit 5a is dominently white to med. grey silts similar to the transition zone described under the previous heading.

In the Serpent south of the base line there is a distinctive series of paraconglomerate beds (unit 3a and 3b) that can locally be traced up to 400' of strike length. These could possibly form marker horizons in the Serpent formation.

At line 4e on the base line, is an outcrop of conglomerate of uncertain age. It may be:

* "a Bruce Formation
b Intraformational conglomerates
c Gowganda Formation"

* C.Harrison June 1979 Company Report

It is considered by C.Harrison and myself to be interformational conglomerate within the Serpent.

North of the base line the Espanola graded into siltstones mapped as 5a. These in turn graded into orthoquartzites with siltstone interbeds, which should be included as a subunit of the Serpent. These are similar to the unit 5a south of the base line in which the orthoquartzites were dominent. The approximate points of this transition into Serpent Formation are:

Line 2E ~14N
Line 22E between 9N and 12N
Line 51E south shore of Elizabeth Lake (~15N)
Line 83E 12N

(Refer to text under heading "Transition Zone - Espanola to Serpent)

Nipissing Diabase

The Nipissing diabase is cross cutting and subparallel the bedding of the sediments. The only chilled contacts observed are east of 93E where the diabase dips steeply north. Diabase contacts are observed to dip north at 50E 8+80N and 92E 9+30N as well but the chill zone was not observed.

A deep hole, F-33-7, collared at 19E, 11+00N indicates a south dipping fault contact on the south side of the diabase in this area.

An area at 12E and 3N appears to be a metasomatized Nipissing diabase within a breccia zone. The core of some fragments appear to be Nipissing diabase with the majority of the fragments altered to white feldspar.

Keweenawan Diabase

A swarm of east trending Keweenawan diabase dikes cut all the rock types.

These have local concentrations of pyrrhotite (up to 5% po) which result in pronounced narrow magnetic anomalies. The diabase dikes range from one to fifty feet thick. Locally coarse plagioclase phenocrysts are present up to one inch long.

Breccia Hill

Between 4+00E and 21+00E and 1+00S and 5+50N a stockwork of quartz veins is extensively developed. Quartz veins are in part, axial planar and in part, of random orientation. This hill was prospected by M.Halladay using the night lamping technique, but no scheelite was found. C.Harrison found minor scheelite in strongly altered Espanola Formation at 13+00E and 2+00N.

Axial planar quartz veining, similar to Breccia Hill, was located between 87+00E and 100+00E along the base line fault. This is associated with the base line fault.

STRUCTURE

* "The entire Fostung grid is found on the northern limb of the upright southwest trending steeply plunging St.Leonard Anticline. Older Serpent formation in the core of the anticline is in fault contact to the north with younger Espanola Formation (K.D.Card 1976).

Detailed mapping suggests that the Breccia Hill is the axial zone of a shallow (37^{o}) plunging, upright southwest trending anticline. The southern limb dips to the south but has been faulted out. This fault is marked by the highest proportions of vein quartz on the Breccia Hill and separates the Serpent Formation on the south from Espanola on the north. This quartz-healed fault-breccia zone and the oriented steeply dipping vein quartz elsewhere on the hill are roughly axial planar to the breccia hill fold.

Structural work along the base line (L24E to 31E) deomonstrates these relationships beautifully. Microshears indicate sinistral motion. By line 31E the fault has died out in banded Espanola Formation to the point where pre-existing faults are only marked by a kinking of beds.

The tendency for the fault to die out into the Espanola Formation reflects the tendency for calcareous rocks to deform plastically while siliceous rocks will fracture and brecciate. Vein quartz, faulting and folding must have been roughly coeval since barren quartz veins are axial planar and appear healing microfaults but are also displaced by microfaults.

Prominent linears have been defined that are not parallel to the axial planar set. Faults such as the one crossing L55E (110^{o}-130^{o}) or the linears bounding the upper Serpent Formation between lines 59E and 71E south of the base line are good examples. Others may be present in the vicinity of the Breccia Hill. While the Prominent base line

fault separating Espanola from the Serpent Formation appears to be a significant sinistral strike slip fault, the other linears are probably conjugate, normal faults. Most of the latter appear not to extend across the base line fault and are therefore fairly early structures. These same gravity faults appear to localize base metal mineralization and scheelite. For example, sulphide bearing quartz veins and dykes in the vicinity of the trenches between L24E 5N and L28E 6N have orientations that are roughly parallel to regional linears and, gravity faults.

During the course of mapping on line 55E, a prominent fault bearing 130° was found displacing Nipissing diabase. It was fractured and rich in pyrrhotites. It was then predicted that mineralization would be richest in the Espanola adjacent to the fault further down the lines. Two new showings were subsequently found on the linear using this theory.

Elsewhere it is possible to demonstrate the close relationship between mineralization and gravity faults, striking 110° to 180°. It might be expected that the intersection of two such faults with a favourable skarn linear in the Espanola Formation might yield the greatest concentration of mineralization.

Furthermore, the intersection of two such faults near the centre of the existing mineralized area might be the nearest points of the associated intrusive to the present weathering surface."

* C. Harrison June 1979 Company Report

MINERALIZATION

Mineralization includes scheelite, powellite, moly-scheelite, molybdenite, pyrrhotite, chalcopyrite and sphalerite. The best grade tungsten occurs in the skarn zones and pale green calc-silicate rocks of the Espanola Formation. All of these showings are north of the base line fault (north of 2S). The best of these showings are at:

24E 5+20N
26E 5+20N
27E 6+00N
75E 1+00S

These are local pods of mineralization with the exception of 75E which has a strike length of 175'.

Minor scheelite is associated with rusty gossan zones along and within Keweenawan diabase dikes south of the base line. These zones occur between 35E and 74E.

Minor scheelite was noted in trenches within the Nipissing diabase between lines 47E and 45E at 11+00N.

Grades of Mineralized Showings

24+00E	5+10N	0.30% WO_3	over 19.0 ft.
25+70E	5+30N	0.15% WO_3	over 7.0 ft.
27+90E	6+10N	0.30% WO_3	over 8.3 ft.
73+17E	0+85S	0.38% WO_3	over 8.2 ft.
74+00E	1+00S	0.45% WO_3	over 12.3 ft.
74+24E	1+00S	0.36% WO_3	over 6.4 ft.
74+58E	1+00S	3.67% WO_3	over 5.7 ft.
74+92E	1+00S	0.69% WO_3	over 13.0 ft.
75+30E	1+00S	0.04% WO_3	over 14.5 ft.
75+70E	1+01S	0.14% WO_3	over 3.0 ft. sludge
76+39E	1+05S	0.03% WO_3	over 6.8 ft.
77+18E	1+10S	0.05% WO_3	over 17.3 ft.

CONCLUSIONS and RECOMMENDATIONS

The best tungsten mineralization is found within the Espanola Formation. The showing at 75+00E, 1+00S is of ore potential as a small tonnage or lens. Most of the other showings are local discontinuous zones but have potential if mined from surface cuts. There is potential for a large low grade tungsten deposit within the Espanola Formation between lines 24+00E and 75+00E. The possibility of a large tonnage deposit could be best determined by compiling previous diamond drill information and then drilling fill in holes if there is indication of ore zones. The mineralized lens between lines 73E and 75E at 1+00S should be tested by drilling, both to depth and to the west. The grades east of line 75 are low but one hole east of line 75+00E should be drilled to test for a possible rake to the east by this mineralized zone.

Respectfully submitted,

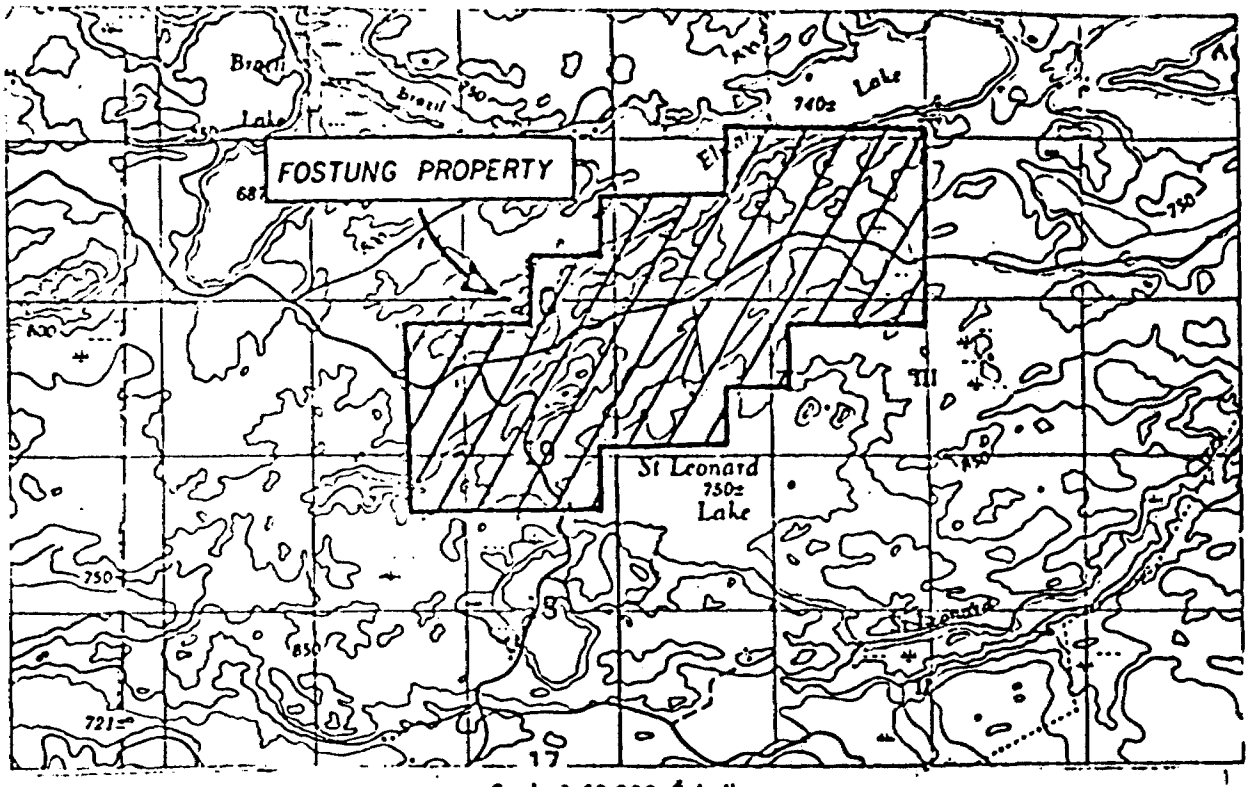
Douglas Robinson

DR*MS

Douglas Robinson, P.Eng.

December, 1979
Cobalt, Ontario.

Douglas Robinson

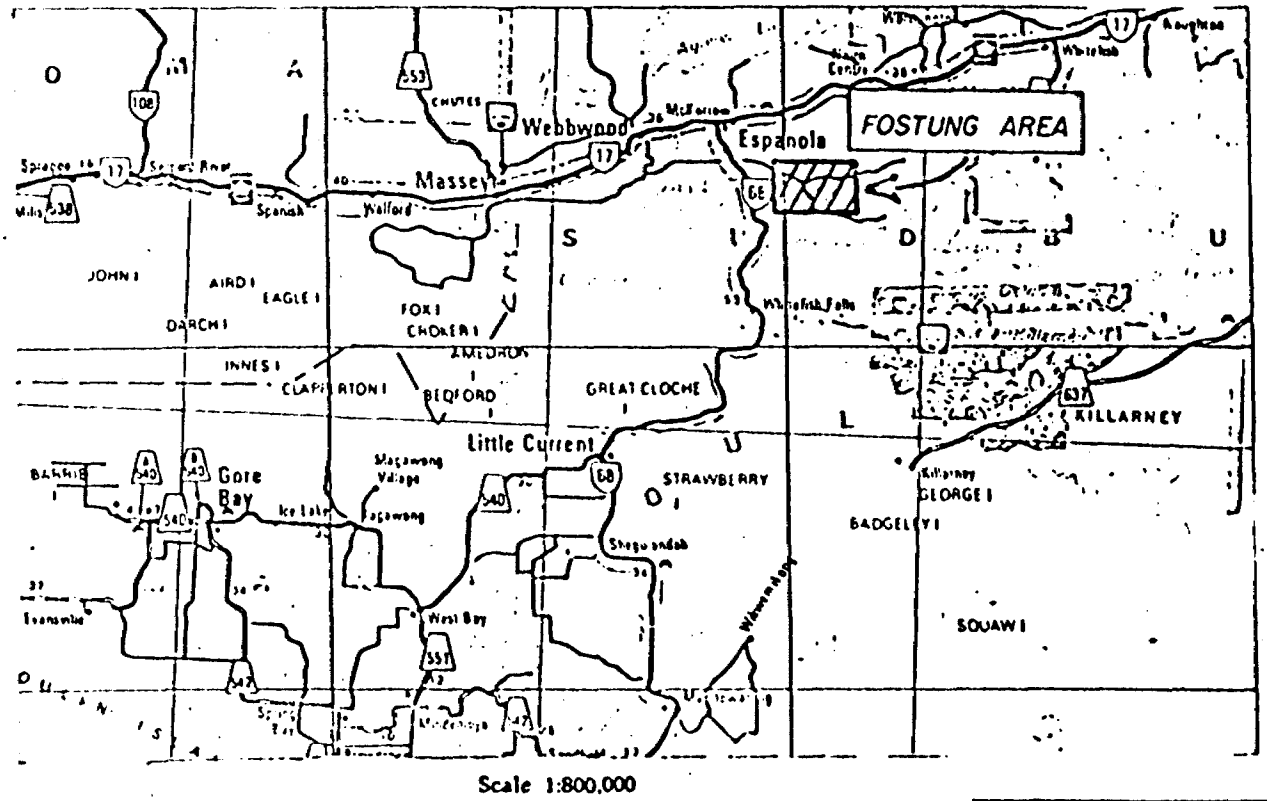


Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Miles

Metres 1000 0 1000 2000 3000 4000 Mètres

Yards 1000 0 1000 2000 3000 4000 Verges



Scale 1:800,000

kilometres 10 0 10 20 30 40 kilometres

Miles 10 0 10 20 30 Miles

ST. JOSEPH EXPLORATIONS LIMITED

TORONTO, CANADA

FOSTUNG

LOCATION MAP

PROJECT NO 315

CERTIFICATE

I DOUGLAS ROBINSON, OF COBALT ONT.,IN THE PROVINCE OF ONTARIO, IN THE DISTRICT OF TEMISKAMING OF THE PROVINCE OF ONT., HEREBY CERTIFY AS FOLLOWS:

1. THAT I AM A GEOLOGIST AND RESIDE AT 58½ SILVER ST.,COBALT, ONT.

2. THAT I GRADUATED IN 1970 FROM HAILEYBURY SCHOOL OF MINES, HAILEYBURY ONT., WITH A TWO YEAR DIPLOMA IN MINING TECHNOLOGY

3. THAT I GRADUATED IN1975 FROM QUEEN'S UNIVERSITY, KINGSTON, ONT. WITH AN HONOURS B.Sc.DEGREE IN GEOLOGIAL SCIENCES. (FACULTY OF APPLIED SCIENCE)

4. THAT I AM A MEMBER OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF ONTARIO.

Douglas Robinson

DOUGLAS R. ROBINSON

SCHEDULE OF ADDRESSES

UNION CARBIDE EXPLORATION CORPORATION
SUITE 930- 800WEST PENDER STREET, VANCOUVER,B.C.

ST. JOSEPH EXPLORATIONS LIMITED
90 EGLINTON AVENUE WEST,SUITE 505,TORONTO,ONTARIO

ALSO BOX 350 COBALT,ONTARIO,POJ 1C0

CHRISTOPHER HARRISON (GEOLOGIST)
94 DAVENPORT ROAD, APT.210,TORONTO,ONTARIO

DOUGLAS R. ROBINSON (GEOLOGIST)
BOX 664, COBALT,ONTARIO,POJ 1CO

Ontario

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

Township or Area FOSTER TWP.

Claim Holder(s) UNION CARBIDE EXPLORATION CORP.
SUITE 930- 800 WEST PENDER ST.VANCOUVER B.C.

Survey Company ST.JOSEPH EXPLORATIONS LIMITED

Author of Report 90 EGLINTON AVE. WEST,TORONTO,ONT. (SUITE 505)

Address of Author BOX 664,COBALT,ONT.,POJ1C0

Covering Dates of Survey MAY 15,1979 toNOV.4,1979
(linecutting to office)

Total Miles of Line Cut 48.0 LINE KM.OR 29.8 LINE MILES

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	
Geochemical	

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

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

DATE: Dec 18/1979 SIGNATURE: Douglas Robinson
Author of Report or Agent

Res. Geol. L.D.L.D. Qualifications 2. 2146
2 2146 ✓ on this File

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

SEE SCHEDULE
ATTACHED

41104NE0018 0018 FOSTER

900

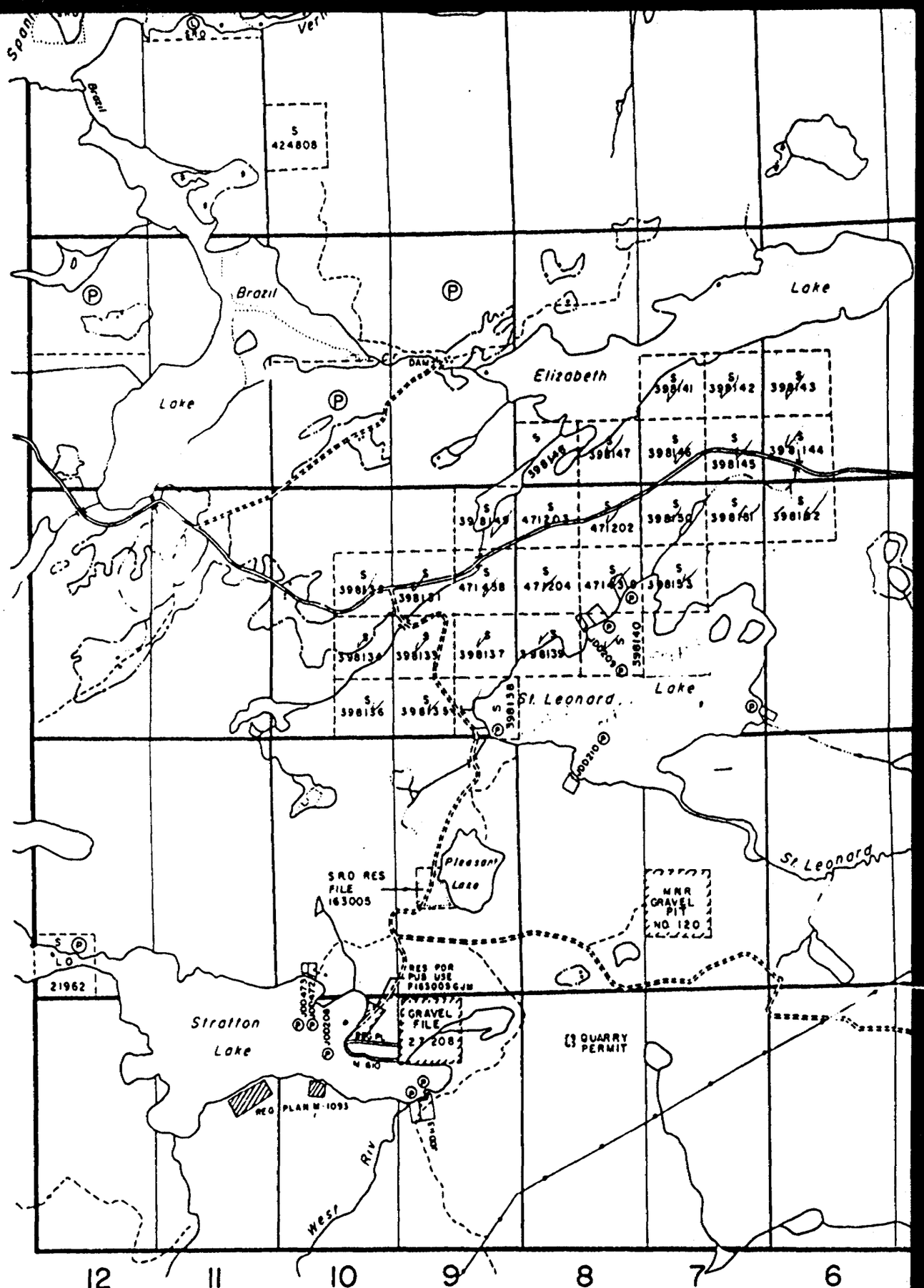
If space insufficient, attach list

TOTAL CLAIMS 25

OFFICE USE ONLY

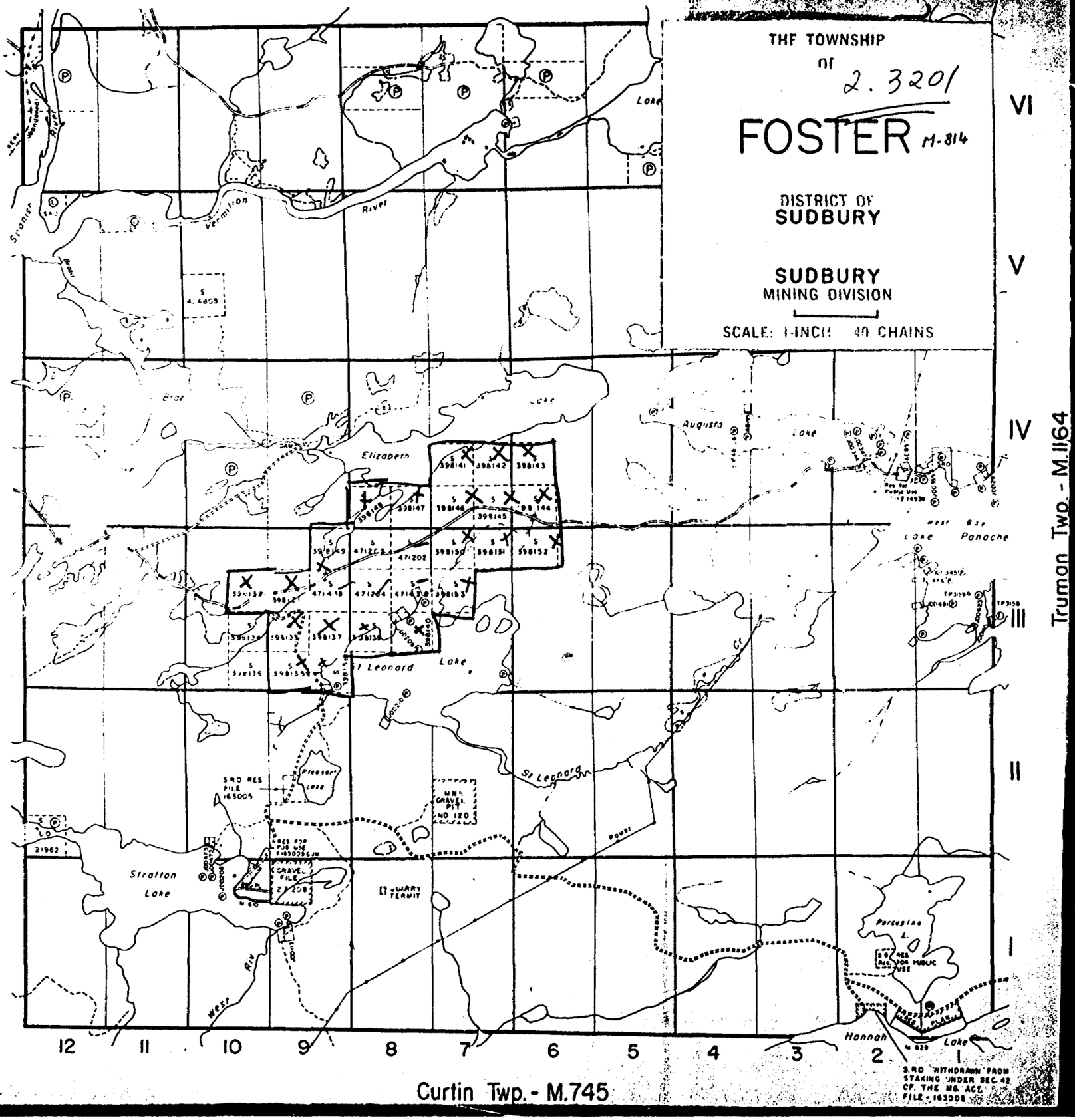
SCHEDULE FOR WORK REPORT IN SUDBURY MINING DIVISION FOR FOSTER TWP.

CLAIM #	DAYS
398131	21
398132	21
398133 1/3 (1/3)	21
398137	21
398138 1/4 (1/4)	21
398139	21
398140	21
398141	21
398142	21
398143	21
398144	21
398145	21
398146	21
398147	21
398148 1/3 (1/3)	21
398149	21
398150	21
398151	21
398152	21
398153 3/4 (3/4)	21
471202	21
471203	21
471204	21
471438	21
471439	21
total	525



Union Carbide & Opl. Corp.
Foster Tp.
Dec 20/79 Gl. rept. & maps

Nairn Twp. - M.883



Truman Twp. - M.1164

Curtin Twp. - M.745

L 22 W. L 20 W. L 18 W. L 16 W. L 12 W. L 8 W. L 4 W. L 2 W. L 0+00 L 2 E. L 4 E. L 6 E. L 8 E. L 10 E.

L 0+00

BASE LINE

398136 398135 398134 398133 398132 398131 398138

Reforested Field Reforested Field Deep Till Shallow Till. Till Till Till Road Culvert

ST. LEONARD LAKE

LEGEND

8 Olivine diabase (Nipissing diabase)

7 Quartz' diabase

6 Serpent Formation;
- 6a - massive to medium bedded orthoquartzite
- 6b - pyritic
- 6c - conglomerate
- 6d - sandstone and pebble sandstone

5 Serpent and Espanola Formation interbedded
- 5a - Siltstone and orthoquartzite
- 5b - calcsilicate and orthoquartzite
- 5c - conglomerate
- 5d - sandstone and pebble sandstone

4 Espanola Formation
- 4a - pale green calcsilicate
- 4b - dark green calcsilicate
- 4c - grossular calcsilicate
- 4d - white calcsilicate
- 4e - banded actinolite calcsilicate

6a Geological unit

'6a' Geological unit in Breccia Hill (Dominant)

Swamp, stream

Road

37 Lineation

32 Minor fold

Grid lines

Geological contact; approximate, defined

Lake edge

Quartz stockwork

Claim post

MINERALIZATION

W - Tungsten
Cu - Copper
po - Pyrrhotite
Zn - Zinc
Carb - Carbonate vein
Mo - Molybdenum
Mal - Malachite
py - Pyrite
q - Quartz vein
- Trench

Veins (Inclined, Vertical)

Strike and dip of beading or layering (Inclined, Vertical)

Jointing (Inclined, Vertical)

Crossbeds (Upright, Overturned)

Sulphide zone

Outcrop

15 Percent Quartz in Breccia Hill (Dominant)

Fault, possible

Fault, probable

Fault, defined

70 Minor shear with strike and dip

SHEET INDEX

3	2	1

REGISTERED PROFESSIONAL ENGINEER D. ROBINSON PROVINCE OF ONTARIO

ST. JOSEPH EXPLORATIONS LIMITED

FOSTUNS PROJECT
FOSTER TOWNSHIP, ONT.
GEOLOGY

SCALE 1" = 200'

3115

3 3

FOSTER 0018, #1

41104NE0018 0018 FOSTER

200

2.3201

L 10E. L 12E. L 14E. L 16E. L 18E. L 20E. L 22E. L 24E. L 27E. L 28E. L 29+50E. L 31E. L 33E. L 35E. L 37E. L 39E. L 41E. L 43E. L 45E. L 47E. L 49E. L 51E. L 53E. L 55E. L 57E. L 59E. L 61E.

ELIZABETH LAKE

398131 398149 398148 398147 398137 398138 398139 398140 398150 398153

471438 471204 471202 471439 471203

BASE LINE

Open Field

Cabin

Swampy

ST. LEONARD LAKE

LEGEND

FOR LEGEND SEE SHEET 3

Road and trail

Claim post; located, unlocated

Lake

Swamp

Clearing

SHEET INDEX

3 | 2 | 1

REGISTERED PROFESSIONAL ENGINEER R. D. ROBINSON PROVINCE OF ONTARIO

ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA

FOSTUNG PROJECT
FOSTER TOWNSHIP, ONT.
GEOLOGY

SCALE 1" = 200'

APPROX. LAT. & LONG. OF LOWER RIGHT COR. OF DWG. LATITUDE LONGITUDE

PROJECT NO. 315

REPORT NO.

SHEET NO. 2 OF 3

NTS 41 I/5

FOSTER 0018, #2

41I04NE0018 0018 FOSTER

1

210

2.3201

L61E L63E L65E L67E L69E L71E L73E L75E L77E L79E L81E L83E L85E L87E L89E L91E L93E L95E L97E L99E L101E L103E L105E L107E L109E

ELIZABETH LAKE

398141 398147 398146 398142 398145 398143 398150 398144 398153 398151 398152

Till Shallow Till Maple Till. Maple deep Till.

Cliff Base Line

Sed dyke Sed dyke

locally 5% Qtz

5a 3' massive qtz float

FOR LEGEND SEE SHEET 3

SHEET INDEX

3	2	1

ST. JOSEPH EXPLORATIONS LIMITED

FOSTUNG PROJECT
FOSTER TOWNSHIP, ONT.
GEOLOGY

200'

3115

1 3

41P75

FOSTER 0018, #3

41104NE0018 0018 FOSTER

220