Report on the Property of

FAB METAL MINES LIMITED

Claims S-53273 and S-53274
S-57704-57706 incl; S-57708-57710 incl.
S-57713-57716 incl; S-57721-57723 incl.

Parkin Township - Sudbury Mining Division - Ontario

by

P.C. Knight, B.Sc. P.Eng.

Toronto, Ontario

August 7, 1952.

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63.317

Report on the Property of

FAB METAL MINES LIMITED

SUMMARY

The property of Fab Metal Mines Limited comprises fifteen claims in the Concessions III and IV in the west central part of Parkin Township in the Sudbury Mining Division of Ontario. It is easily accessible from the towns of Sudbury and Capreol by road and a short trail.

The rediscovery of large sulphide deposits on the claims in 1951 instigated the exploration program which commenced in September 1951 and terminated in June 1952. Initial work, consisting of surface trenching along the mineralized zone, indicated lengths of as much as 2700 feet and widths of upwards of 60 feet in places, of the sulphide bodies. Small amounts of sphalerite and chalcopyrite were observed in almost all of the surface exposures. Additional investigations consisting of geological mapping, a geophysical survey of the claims and 6,165 feet of diamond drilling in 17 drill holes completed the program.

Four anomalies were disclosed by the geophysical survey. Examination of two of these showed them to be caused by disseminated magnetite and they were not investigated further. The remaining two anomalies, previously explored by surface trenching, were further investigated by seventeen diamond drill holes. These mineralized zones were tested at a vertical interval of from 200 feet to 350 feet below surface. Although short sections containing fair sphalerite mineralization and wider sections of upward of twenty feet, assaying less than one half of one percent zinc, were intersected; no ore sections were located along the drilled length of these zones.

CONCLUSIONS AND RECOMMENDATIONS

Results of recent work on the property show that ore bodies are not present in the sulphide zones tested, between surface and a 350 foot depth. While minor amounts of sphalerite and chalcopyrite are present throughout, there were no structural features or otherwise noted in the drill cores or on surface to indicate that additional concentrations of these minerals would be found at a somewhat deeper horizon although this possibility has not been eliminated.

The numerous surface outcrops in the greenstone area did not expose other favorable structures on the property. Only a few outcrops were located in the quartzite-greywacke series to the north and the possibilities of this portion of the property have not been eliminated. However, these formations are not the most favorable host rock in the area.

Sufficient work has been completed on the property for assessment work purposes to retain the claims for several years, and to apply for patent. It is recommended that this application should be made on the company's claims in the near future at which time the overlapping claims should be cancelled. These are numbered S-57704, S-57708, S-57714, S-57715, S-57716 and S-57721.

Respectfully submitted

STIMAR and KNIGHT

F. C. Knight, B.Sc., P.Eng.

INTRODUCTION

The property of Fab Metal Mines Limited consists of fifteen unsurveyed and unpatented mining claims as follows:

S-53273 and S-53274
S-57704 S-57706 inclusive
S-57708-S-57710 inclusive
S-57713-S-57716 inclusive
S-57721-S57723 inclusive

Of these, Claim S-57705 is situated in Lot 11, Concession III; Claims S-53273, 53274 and 57706 in Lot 12, Concession III and the remainder were assumed to adjoin to the north in Concession IV in Parkin Township in the Sudbury Mining Division in the Province of Ontario. Due to very poor judgement or for other reasons at the time of staking, at least eight of the claims numbered S-53273, 53274, 57704, 57705, 57706, 57708, 57714 and 57716 have been crowded into the surveyed portion of the township where only four claims should be located. The remaining seven claims may be considered smaller than normal. The claims, therefore, form a compact group of some 325 acres.

The claim group is located in the west central part of the township about one mile east of Milnet station on the Canadian National Railway transcontinental line. The town of Capreol is some ten miles to the south and Sudbury, about twenty-seven miles by highway to the southwest.

The property is readily accessible from Capreol by a well kept gravel road to within one and one-half miles to the southwest and thence by a rough road, at present unsuitable for automobile transportation, which crosses claims S-53273 and 74. This route could be put in excellent condition for movement of equipment for a relatively small expenditure.

Hydro electric power lines extend from Sudbury to Capreol. A second line connecting the towns of Sudbury and Timmins passes some ten miles to the west. It is understood that transmission lines to supply

electric power to the property of Milnet Mines, some three miles to the east, are to be constructed.

Mowat Creek passes near the northeast corner of the property. A small lake is located approximately 1000 feet north of its north boundary. The Vermillion River, an assured year-round water supply for substantial mining or concentrating operations, passes about one mile to the west of the property.

The only permanent building established on the property is the core house where all core recovered from the diamond drilling program of 1951 and 1952 has been stored.

GENERAL STATEMENT

The outline of the south, east and west property boundaries indicated on the plans accompanying this report are only approximate. Claims S-53273, 53274, 57705 and 57706 are located in a surveyed section of the township and will include 40 acres each. However, the land survey conducted in 1898 and 1899 has been all but obscured on the ground by bush fires, timber operations and new growth in the interval. As a consequence the outline of these claims would have to be established by a new land survey to assure any measure of exactness. The original lines were located in relatively few places, but where located they were used as guides in establishing the approximate outline of the southern portion of the property.

It is obvious that during the staking of the claims, later acquired by the company, gross misjudgement was used in locating the claim posts and in measuring their size. As a consequence, some eight claims have been included in the 160 acre surveyed portion of Concession III where only four claims will eventually result. The remaining four claims will of necessity be cancelled. A fifth claim S-57715 has been crowded into the surveyed location reserved for claim S-57838. This too will subsequently

be cancelled with a resulting acreage loss to the company.

In the course of the geological and geophysical surveys on the claim group the work was extended, at the direction of the company, to cover the F.A. Boylen claims adjoining to the west. Resulting information and plans of this area are included with this report.

GEOLOGY

The general geology of the area has been indicated on the Moose Mountain - Wanapitei Area map No. 41-E (Ontario Department of Mines - 1932). A general statement is included in the accompanying report Volume 41, Part 4, 1932 of the Ontario Department of Mines.

In the course of the field work accompanying the geological survey it became apparent that our findings would not conform too closely with the pre-existing geological plan. The many changes indicated must be considered normal since the survey in 1932 was carried out on a more general scale, with traverses spaced at much larger intervals. Much more detail has been mapped in this program.

That part of the property situated in lots 11 and 12, Concession III of the township are underlain by Keewatin andesite, rhyolite and acid tuff. These formations are interbedded and generally strike N-20°-W. This series is bordered to the north by the Temiskaming-Bruce series, composed largely of thick beds of fine grained quartzite, interbedded with greywack, where observed.

The Keewatin series has been intruded by an easterly to north-easterly trending dyke of diabase or quartz gabbro. This dyke, which attains a thickness of upwards of 200 feet in places, has been followed across both claim groups. The irregular strike of this dyke is somewhat suggestive of the Sudbury Keweenawan quartz diorite offset intrusives. The dyke appears to dip steeply to the south and southeast.

STRUCTURAL FEATURES

The rock formations on the property have been offset to some extent by two faults. The apparent strike of the easterly of these is slightly west of south, while that of the westerly is some ten degrees east of south. The two faults appear to converge in the vicinity of the southwest corner of claim S-63273, the intervening area forming a wedge. Horizontal movement along these structures is clearly shown by the offsetting of the diabase dyke and the rhyolite and acid tuff bodies. Vertical movement is also indicated with the central or wedge shaped portion moving downward with respect to the formations to the east and west of the faulted area.

No major shear zones were observed. However, the rhyolite flows in the vicinity of the diabase dyke and faults are somewhat fractured and slightly sheared.

MAGNETIC ANOMALIES

Four fairly intense magnetic anomalies have been outlined on the two properties. All of these are located in the Keewatin greenstone series in lots 11 and 12, Concession III.

The most westerly of the anomalies is situated in the western portion of the Boylen Group. Its northern terminus is located some 2600 feet west on line 2700 North. The anomaly follows a southwesterly strike to its termination with the diabase dyke in the vicinity of 1500 feet west on line 1200 North. The few scattered outcrops observed within the confines of this anomaly indicate its high magnetic intensity to be caused by the presence of a few scattered grains of magnetite. The anomaly occurs in andesite. A small amount of pyrite is also present.

A second anomaly has been followed from approximately 100 feet east on line 00, in a northerly direction to 500 feet west on line 2700 Nor

This represents the longest and most magnetically intense area on the property. The width of the body averages some 60 feet. The anomaly is located within a rhyolitic or acid tuff flow. This has been fractured, slightly sheared, and mineralized with considerable pyrrhotite and lesser magnetite. The body crosses the common boundary between the property of Fab Metal Mines and the F.A. Boylen claims at 1800 feet north on the base line. Thus some 1800 feet of its length are on the Fab Metal claims and the remaining 900 feet of length on the Boylen group.

Another anomaly has been located paralleling this some 200 feet to the east. It is similar in most respects to the anomaly first described except that the pyrite is fairly massive. The magnetism is due to disseminated magnetite throughout.

A fourth anomaly striking in a parallel direction is located some 1700 feet east of the base line and has been traced from line 1500 North to line 2700 North, a distance of 1200 feet. It is composed of disseminated magnetite in andesite and appears to have no further economic significance.

The northern extremities of all anomalies outlined terminate at the volcanic-sedimentary contact in the vicinity of line 2800 North. No magnetic anomalies were located within the sedimentary formations.

ECONOMIC GEOLOGY

Sulphide mineralization comprising pyrrhotite and pyrite is present in most of the areas outlined by magnetic anomalies. The second anomaly described above appears to be the most important mineralized zone located on the property. This zone is composed of rhyolite or acid tuff and has been traced for some 2700 feet of length and is upwards of sixty feet wide in places.

The rocks here are fractured and somewhat sheared. Pyrrhotite is abundant throughout approximating some ten percent of the mass by weight.

Pyrite, sphalerite and chalcopyrite are present to a lesser extent.

The zone has been tested over a length of 2200 feet by twelve diamond drill holes. While short sections, containing fair sphalerite mineralization, and wider sections of upwards of twenty feet assaying less than one-half percent zinc, were intersected, no ore sections were located along the drilled length. Massive mineralization, mainly pyrrhotite with minor chalcopyrite, was observed over greater than five foot widths in the zone in the vicinity of line 1500 North. This section forms the north contact of the diabase dyke where it intersects the mineralized zone.

The paralleling anomaly, immediately to the east of the above, is composed of massive pyrite with lesser scattered magnetite. This zone was tested by three diamond drill holes.

Other mineralization located on the property comprised principally pyrite and appears to carry nothing of value.

DIAMOND DRILLING

Seventeen diamond drill holes totalling some 6,165 feet, were drilled on the mineralized zones on the property during the winter of 1951-52. Of these, twelve were located to test the main pyrrhotite sphalerite zone; three to test the pyrite zone paralleling it to the east and the remaining two holes were collared to test other mineralization near the southern extremity of the property on claim S-53273.

The mineralized zones were tested in a depth range of from 200 feet to 350 feet.

The majority of the drill cores intersected the mineralization and showed the continued presence of sphalerite and chalcopyrite in small amounts. However, at no place along any of the mineralized bodies, at the

horizon tested, was a commercial grade shown, nor were conditions present to indicate that deeper drilling might show an increased content of the important minerals.

Respectfully submitted,

SIMARD and KNIGHT

F. C. Knight, B.Sc., P.Eng.

Toronto, Ontario
August 7, 1952.

APPENDIX

Technical Details of the Geological and Geophysical Surveys

The distance cut and chained for the surveys is as follows:

Fab Metal Mines Limited	54,300 feet
F. A. Boylen Claims	41,000 feet
Total	95,300 feet

The main base line was cut in a direction of north (magnetic) from approximately east-west centre of claim S-53273. Picket lines were turned off at right angles to the base line at intervals of 300 feet and cut to the assumed property boundaries. Chainage pickets were placed at 100 foot intervals on all lines.

MAGNETOMETER SURVEY

The magnetometer field work was carried out between January 5 and April 5, 1952. Approximately 1000 survey stations were established on the base line and picket lines. The survey was conducted using a Sharpe type magnetometer Model B-1, Serial No. 501, whose scale constant was 31.7 gammas per scale division. Readings were recorded at base stations at regular intervals in order to correct for errors introduced by diurnal magnetic variations, and a daily correction was applied from readings taken at five control stations on each day of the survey.

The interpretation of the magnetic results was done by use of magnetic profiles, plotted at a scale of 1000 gammas equals 1 inch, on a plan of a scale of 1 inch equals 200 feet.

GEOLOGICAL SURVEY

The geological field work was conducted at intervals between October 25, 1951 and June 25, 1952. Traverses were made between picket lines at approximately 50 foot intervals. Outcrops, claim posts, drill hole

collars and topographical features were located with respect to the picket lines by pace and compass methods. All information has been plotted on a plan of a scale of 1 inch equals 200 feet.

SUMMARY OF ASSESSMENT WORK

Claim No.	Equiv. 8 hr. man days Geological Survey	Equiv. 8 hr. man days Geophysical Survey	Equiv. 8 hr. man days Total
S-53273	22.9	21.4	44.3
S-53274	22.9	21.4	44.3
S-57704	22.9	21.4	44.3
S-57705	22.9	21.4	44.3
S-57706	22.9	21.4	44.3
S-57708	22.9	21.4	44.3
S-57709	22.9	21.4	44.3
S-57710	22.9	21.4	44.3
S-57713	22.9	21.4	44.3
S-57714	22.9	21.4	44.3
S-57715	22.9	21.4	44.3
S-57716	22.9	21.4	44.3
S-57721	22.9	21.4	44.3
S-57722	22.9	21.4	44.3
S-57723	22.9	21.4	44.3
S-57834	22.9	21.4	44.3
S-57835	22.9	21.4	44.3
S-57836	22.9	21.4	44.3
S-57837	22.9	21.4	44.3
S-57838	22.9	21.4	44.3
S-57839	22.9	21.4	44.3
S-57840	22.9	21.4	44.3
S-57841	22.9	21.4	44.3
S-57842	22.9	21.4	44.3

Work completed by:

Line Cutting and Chaining

L. Gervais - Milnet, Ontario
Mr. Custonger - Milnet, Ontario
Period - Dec. 1st, 1951 - May 28, 1952

Geophysical (Magnetometer) Survey (Field Work)

A. Skreeky - 1406 - 330 Bay St., Toronto, Ontario
Period - Jan. 8 - April 8, inclusive, 1952

Geological Survey (Field Work)

A. Skrecky - 1405 - 330 Bay St., Toronto, Ontario

Period - Oct. 25-Nov. 20, 1951
April 19-May 6 incl., 1952
May 19 - 30, inclusive, 1952
June 12 - 25, inclusive, 1952

Supervision - Simard & Knight, 1405 - 330 Bay St., Toronto, Ontario

Draughting, Reports, Etc. - F.C.Knight, 1405 - 330 Bay St., Toronto

BREAKDOWN

Line Cutting & Chaining

Man Days	Hrs./day	Total Hrs.	x Factor	Total Hrs. x Factor	Equiv. 8 Hr. days
61.5	10	615	x 4	2460	307.5

Geological Survey (Field Work)

71	10	710	x 4	2840	355

Geophysical Survey (Field Work)

70	8	560	x 4	2240	280

Geophysical Survey (Calculations)

		(70) 80?	x 4	280	40

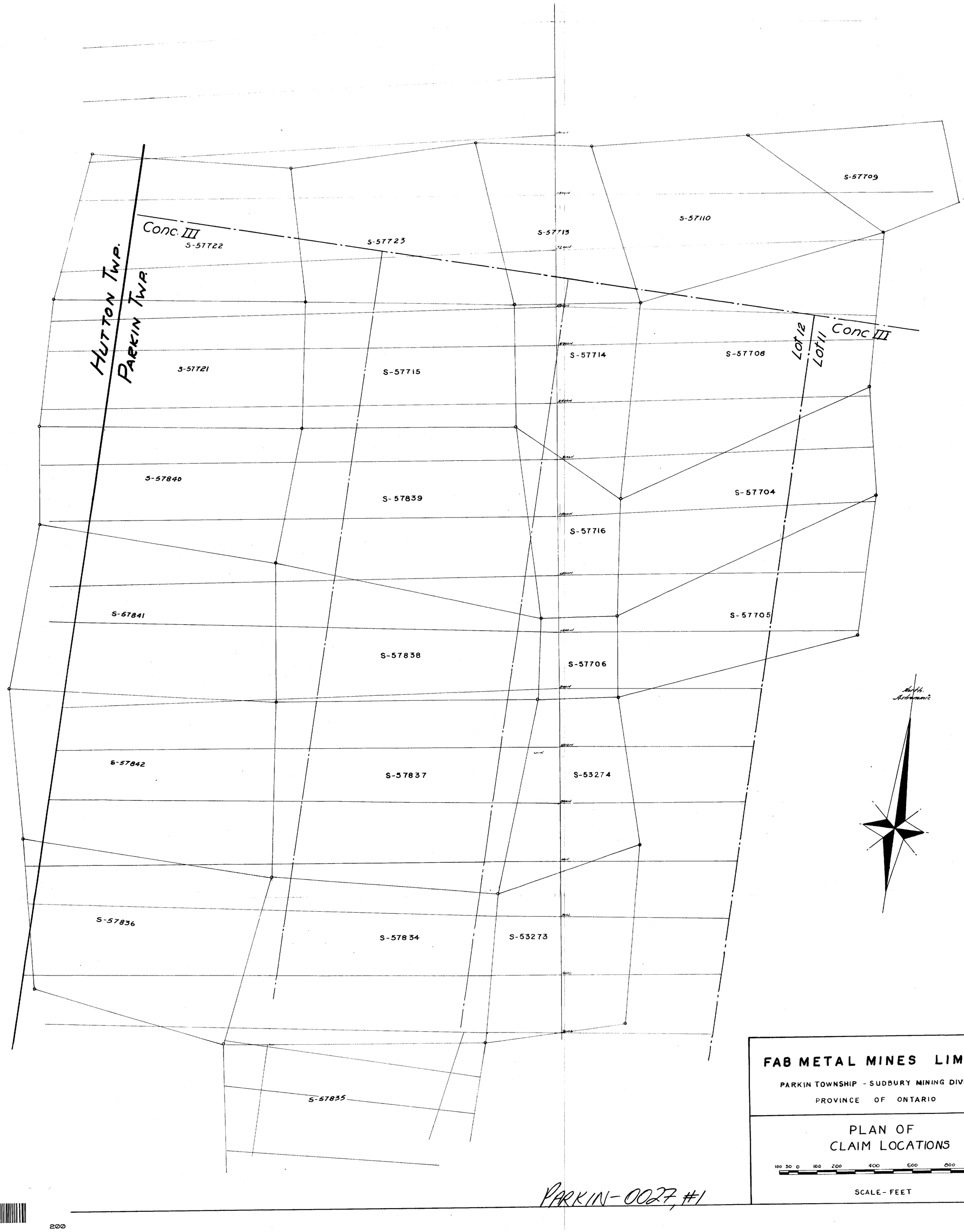
Draughting, Reports, etc.

20	8	160	x 4	640	80
				Total	1062.5

This work has been apportioned as follows:

	Geological Survey	Geophysical Survey	Total
Line Cutting	153.5	154	307.5
Geological Field Work	355		355
Geophysical Field Work		280	280
Geophysical Calculations		40	40
Draughting, Reports, etc.	40	40	80
Totals	548.5	514	1062.5
Total per claim	22.9	21.4	

On a per claim basis - Geological Survey 22.9
Geophysical Survey 21.4
Total per claim 44.3



FAB METAL MINES LIMITED

PARKIN TOWNSHIP - SUDBURY MINING DIVISION

PROVINCE OF ONTARIO

PLAN OF CLAIM LOCATIONS

100 50 0 100 200 400 600 800 1000

SCALE - FEET

SEP 17 1952

PARKIN-0027, #1

HUTTON TWP

PARKIN TWP

CONC III

LOT 12 LOT 11

S-57709

S-57110

S-57713

S-57723

S-57722

S-57714

S-57715

S-57721

S-57708

S-57704

S-57716

S-57705

S-57706

S-53274

S-53273

approximate property boundary according to Township survey

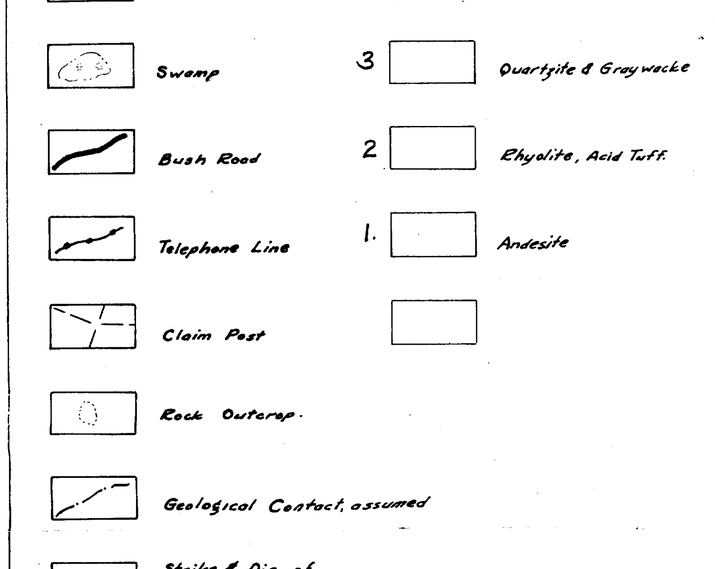
North Astronomic

LOT 12 LOT 11

LEGEND

- Hill
- Swamp
- Bush Road
- Telephone Line
- Claim Post
- Rock Outcrop.
- Geological Contact, assumed
- Strike & Dip of Formation
- Schistocity Strike & Dip
- Fault assumed.
- Glacial Striae

- 4 Diabase,
- 3 Quartzite & Graywacke
- 2 Rhyolite, Acid Tuff.
- 1. Andesite



FAB METAL MINES LIMITED

Parkin Township - Sudbury Mining Division

Ontario

REGISTERED PROFESSIONAL ENGINEER F. C. KNIGHT ONTARIO

SURFACE PLAN

200 100 0 200 400 600 800 1000

Scale-Feet.

1" = 200'

PARKIN-0027,#2

File No 63.317
Ont. Dept. Mines.

HUTTON TWP

PARKIN TWP

S-57841

S-57838

S-57842

S-57837

S-57836

S-57834

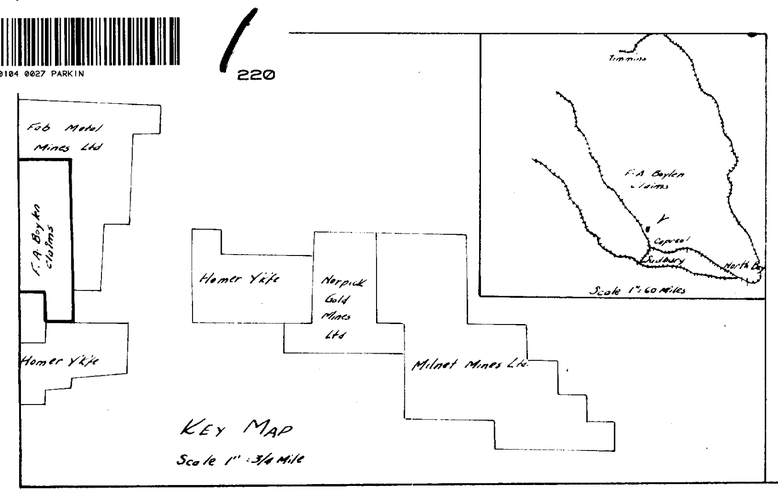
S-57835

LEGEND

- 5 Diabase
- 4 Granite
- 3 Quartzite & Graywacke
- 2 Rhyolite; Acid Tuff
- 1. Andesite
- Hill
- Swamp
- Bush Road
- Telephone Line
- Claim Post
- Rock Outcrop
- Geological Contact, assumed
- Strike & Dip of Formation
- Schistocity Strike & Dip
- Fault assumed.

North
Astronomic

1
220



for correct claim reference see geophysical map

F.A. BOYLEN CLAIMS

Parkin Township - Sudbury Mining Division

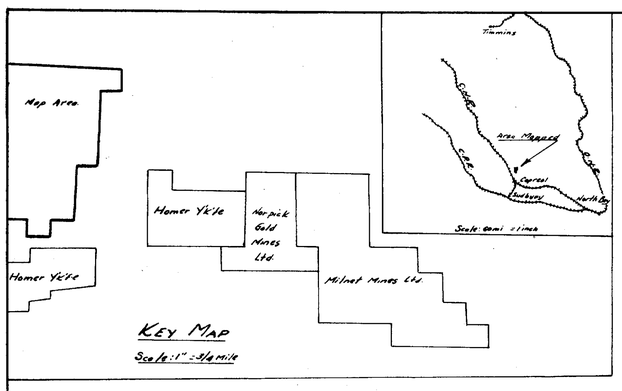
Ontario

SURFACE PLAN

200 100 0 200 400 600 800 1000

Scale-Feet

PARKIN-0027, #3



North Astronomic

HUTTON TWP

PARKIN TWP

S-57722 S-57723 S-57713 S-57709 S-57110 S-57708 S-57841 S-57721 S-57715 S-57714 S-57838 S-57706 S-57840 S-57839 S-57705 S-57704 S-57842 S-57841 S-57716 S-57837 S-57838 S-57706 S-53274 S-57836 S-57834 S-53273 S-57835

LEGEND

magnetic base station

magnetic profile - 1000 gammas = 1 inch

F. C. KNIGHT

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

FAB METAL MINES LIMITED

Parkin Township Sudbury Mining Division Ontario

MAGNETIC PROFILE PLAN

Scale - Feet.

63-317

PARKIN-0027, #4

1

230