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**REPORT ON
GEOLOGICAL EXAMINATION
EAST PART OF PROPERTY**

MACKENZIE HILL MINES LIMITED

FALCONBRIDGE TOWNSHIP

SUDBURY MINING DIVISION

ONTARIO

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**Plan Geophysical Survey Data On
East Part of Property
MacKenzie Hill Mines Ltd.,
Falconbridge Township,
Sudbury Mining Division, Ontario.
(Revised August, 1966 with geological data)
Scale: 1" = 200'**

Plan Geophysical Survey Data on
East part of Property
MacKenzie Hill Mines Ltd.
Falconbridge Township
Sudbury Mining Division, Ontario
(Revised, August, 1966 with geological data)
Scale 1" = 200'

The President and Directors
Mackenzie Hill Mines Limited
Suite 305, 100 Adelaide St. West
Toronto 1, Ontario.

**DUPLICATE COP.
POOR QUALITY ORIGINAL
TO FOLLOW**

Gentlemen :

A program of geological examination on your East Block of claims located in Falconbridge Township has been completed. The examination has successfully found indications of gold, nickel, and copper on this block of claims and a program of test exploration diamond drilling is recommended and described in this report. Trenches examined and observed geology, are added on the geophysical plan accompanying this report. You are referred to my reports dated January 13, 1966 and February 11, 1966, for the property and the geophysical survey data. The purpose of the geological examination is to check the many trenches located on the property and possible outcrop areas with geophysical anomalies.

AREA EXAMINED

The geological examination practically covered all the outcrop areas of these claims which are listed as follows :

S-129310 to S-129317, inclusive
S-129224 to S-129233, inclusive,
S-131299, S-131300 and S-131301

All in Falconbridge Township, Sudbury Mining Division, Ontario.

OBSERVED GEOLOGY

Outcrop geology observed by Mr. R. Shields, Geologist, assisted by Mr. John Ferguson, Fieldman, are described as follows :

"The geology of the MacKenzie Mines property claims examined consists of a series of sediments intruded by the gabbroic variants of the Sudbury Irruptive and is described in detail in the O.D.M. publication "Geology of Falconbridge Township" by J.E. Thompson, 1959, based on geological mapping at a scale of 1000'-1".

In addition to the geological data about the Mackenzie Mines property contained in J. E. Thomson's report, examination of the property has revealed the additional writers's observations and interpretations.

At 28+00 on Line 36+00 W at the location of a magnetic and E.M. anomaly, a well developed gossan occurs capping a basic hybrid intrusive rock with minor chalcopyrite and which gives a positive test with dimethyl glyoxime.

Weaker gossams occur in the schistose greywacke-conglomerate just south of the quartzite contact in the north central part of the area notably on Line 36 + 00W and 40 + 00 W., and also in soil on the diabase dyke in the northeast corner of the property south of the beaver pond.

Some of the quartz inliers in greywacke near quartzite contacts have been broken down by boudinage development into rounded to sub-rounded boulders.

Schistosity is usually well developed in these areas.

A basic schistose zone perhaps amphibolitized and containing in places pockets of segregated quartz has been noted at

14 + 30 W & 2 + 20 S

16 + 50 W & 2 + 00 S

where previous trenching has been done; and at

24 + 00 W & 16 + 30 N

32 + 00 W & 17 + 00N, also trenched

and possibly a correlatable form at

36 + 00 W & 20 + 00N.

A quartz amphibole schist, fault or injection dyke, with possible economic sulphide content is suggested as a preliminary field identification.

The topographic relief of up to 200 feet mentioned in Thomson's O.D.M. report on the Geology of Falconbridge Township is present in the form of several sub-denritic valley systems containing numerous beaver dams.

In addition to the faults observed and inferred in Thomson's report, more many occur perhaps occupying some of the valleys as may some hybrid rock units with higher than average prospects for economic mineralization content and lower than average resistance of glacial erosion."

Trenches examined by Shields and Ferguson and rock samples obtained are described below. Also, the more interesting rock samples were sent out for assay by Technical Service Laboratory of Toronto and the results are given :

Trench No. 1 -11+10W, 1+30S

No Gossan

Trench runs N.S. and is 30-40' long and 5-8' wide.

Filled 2-3' water-bottom mud covered.

Trench runs across central stream bed in dried out beaver pond.

Sample #20001 from gabbro outcrops at north and south ends.

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Trench No. 2 - at 1430W+220S

No Gossan

Trench is in quartz material
Now contains 2' water
Quartz much pile 4-5 cu.yds. across
10' S.E or N.S.running trench.

Quartz outcrops on west side of trench
striking approx. N.W. dip N.E. and
overlies gabbro with a schisted contact
and some calc-dolomitic(?) lenses and
gabbro at south end.

Sample #20002 (assayed 0.18oz.Au/ton)

Traces of Gossan

Dry earth-filled at bottom-in gabbroic
and possibly some silicified gabbroic
rock types.

Sample #20003 (assayed 0.002%Cu, 0.005%Ni)

Strong Gossan

5' wide, 20' long, Sulphides in Gabbro

Sample Nos. 20004, 2005, 2006 (assayed
0.01% cu, 0.002% Ni, composite)

Faint Gossan

Trench 5 x 5' in Gabbro

Sample # 20007

Only minor Gossan

Trenching is N.W. and N.E. over an area
75' long N.S and 50' wide E.W.

Sample Nos. 20008,
" " 20009 (assayed 0.26 oz.Au/ton)
" " 20010 (assayed 0.16 oz.Au/ton)

Trench in boulders and mud-earth covered
No samples

Intermediate Gossan

Both water filled

Intermediate Gossan occurs west of
diabase at W. end of beaver pond in
Gabbro.

Sample No. 20012-N.W.corner, N. of N.W.pit
" No.20013-between two pits about
halfway.
" No.20014-S.E.corner
(assayed 0.005% Cu, 0.001% Ni, Composite)

One of the gabbroic variants of the Sudb-
bury irruptive near the contact with the
grey-wacke conglomerate unit sampled at
1+25N and 1+25W.

Part of Quartzite boulder in greywacke;
note traces of sulphide.

Trench No. 3 - at 1400W, 360S

Trench No. 4 - at 1450W, 3+30 S

Trench No. 5- at 1480W, 3+00S

Trench No. 6 at 1650W, 2+00W

Trench No. 7 - at 20W, 200 S

2 Trenches - at 2000W, 675 S and
2075W, 600 S

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TO FOLLOW**

LOCATION OF ROCK SAMPLES

0 + 00 N

N 1 + 25, W 1 + 25 A

N 1 + 25, W 1 + 25 (contd)	B	Greywacke groundness of greywacke conglomerate, schistose laminations mildly developed.
8+40W, 1+20S		One of the gabbroic variants of the Sudbury irruptive, very coarse grained.
2200 W 0 + 50N, 0+57N	A	Diabase specimen at chilled contact.
	B	Diabase specimen 57' from contact chill zone of sample A with minor sulphides.
	0+80N C	Diabase specimen 80' from contact chill zone of sample A. Contains minor chalcopyrite.
24 W 14 + 00N		Diabasic or gabbroic rock type one of several variants of the "Sudbury irruptive" basic intrusive.
24 W+ 16 + 30 N		Quartz specimen occurs segregated in a quartz and amphibole schistose zone. Contains traces of sulphides, pyrite and perhaps pyrrhotite and chalcopyrite.
36 W 28 + 00S		Hybrid gabbroic rock type from gossan showing with sulphides that give positive nickel test with dimethyl glyoxime. Also some specks of chalcopyrite. (Assayed 0.14% Cu, 0.05% Ni).

CONCLUSIONS AND RECOMMENDATIONS -

The geological examination has successfully found nickel - copper mineralization on the property. One surface rock sample, assayed 0.14% Cu, 0.05% Ni, is located in the vicinity of an isolated but strong magnetic anomaly which is associated with a weak electromagnetic conductor. It follows that these geophysical indications should definitely be test drilled. A 425' long diamond drill hole to be located at L 36W, 2,000 ft. south, to be drilled north at -45° is proposed to test these indications.

The geological examination found several gossan zones which were tested by trenches. Sample of basic rocks from these trenches assayed only traces of nickel and copper but associated quartz materials 0.16 to 0.26 oz. Au per ton. A diamond rill hole is proposed to drill one of these gold showings (Trench No. 2) and also to explore at depth the weak to strong gossan zones exposed by two other trenches (Trench Nos. 3 and 4) This hole is to be locate at 13+50W, 200S, of the north base line, and is to be drilled at -45° toward the north-west end of Trench No. 3 to a core length of 300 ft.

It may also be necessary to test one other quartz zone which carries an interesting value in gold (0.26 oz/Au/ton) by two short diamond drill holes. However, these short holes can best be spotted in the field by ageologist.

The writer therefore recommends to conduct an initial program of test-exploration diamond drilling which involves approximately one thousand feet of diamond drilling before the winter. The estimated cost at \$6.00 per foot, is six thousand dollars. However, the total footage could easily be doubled if encouraging results were obtained from any of the recommended test-exploration diamond drill holes.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LIMITED

S. S. Szetu, Ph. D
Consulting Geologist

Toronto, Ontario

August 17, 1966.

**DUPLICATE COPY
POOR QUALITY ORIGINAL
TO FOLLOW**

**The President and Directors,
MacKenzie Hill Mines Limited,
Suite 305,
100 Adelaide Street West,
Toronto 1, Ontario.**

Gentlemen:

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**All in Falconbridge Township, Sudbury Mining
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Weaker gossans occur in the schistose graywacke-conglomerate just south of the quartzite contact in the north central part of the area notably on Lines 36 + 00 W and 40 + 00 W., and also in soil on the diabase dyke in the northeast corner of the property

south of the beaver pond.

Some of the quartz inliers in greywacke near quartzite contacts have been broken down by bedding development into rounded to sub-rounded boulders.

Schistosity is usually well developed in these areas.

A basic schistose zone perhaps amphibolitized and containing in places pockets of segregated quartz has been noted at

14 + 30 W & 1 + 20 S

15 + 50 W & 2 + 00 S

where previous trenching has been done; and at

24 + 00 W & 16 + 30 N

22 + 00 W & 17 + 00 N, also trenched

and possibly a correlatable form at

26 + 00 W & 20 + 00 N.

A quartz amphibole schist, fault or injection dyke, with possible economic sulphide content is suggested as a preliminary field identification.

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In addition to the faults observed and inferred in Thompson's report, more may occur perhaps occupying some of the valleys as may some hybrid rock units with higher than average prospects for economic mineralization content and lower than average resistance to glacial erosion."

Trenches examined by Shields and Ferguson and rock samples obtained are described below. Also, the more interesting rock samples were sent out for assay by Technical Service Laboratory of Toronto and the results are given.

Trench No. 1: 11 + 10 W
& 1 + 30 S

No Gossan

Trench runs N. S. and is 30-40' long and 3-8' wide.

Filled 2-3' water - bottom mud covered

Trench runs across central stream bed in dried out beaver pond.

Sample #20001 from gabbro outcrops at north & south ends.

Trench No. 2: at 1430 W
& 220 S

No Gossan

Trench is in quartz material

Now contains 2' water

Quartz much pile 4-5 cu. yds. across 10' S. E. of N. S. running trench

Trench No. 2: cont'd.

Quartz outcrops on west side of trench striking approx. N. W. dip N. E. and overlies gabbro with a schisted contact and some calc-doleritic (?) lenses and gabbro at south end.

Sample #20002 (Assayed 0.18 oz. Au/Ton)

Trench No. 3: at 1400 W
360 S

Traces of Gossan

Trench N. S. 10', E. W. 5'

Dry earth-filled at bottom - in gabbroic and possibly some silicified gabbroic rock types.

Sample #20003 (Assayed 0.002% Cu,
0.005% Ni.)

Trench No. 4: at 1450 W
3 + 30 S

Strong Gossan

5' wide, 20' long. Sulphides in Gabbro

Samples Nos. 20004, 20005, 20006
(Assayed 0.01% Cu, 2.002% Ni, Composite)

Trench No. 5: at 1480 W
3 + 00 S

Faint Gossan

Trench 5 x 5' in Gabbro

Sample #20007

Trench No. 6: at 1650 W
& 2 + 00 S

Only minor Gossan

Trenching is N. W. & N. E. over an area 75' long N. S. and 50' wide E. W.

Samples No. 20008,
" 20009 (Assayed 0.28 oz. Au/Ton)
" 20010 (Assayed 0.18 oz. Au/Ton)

6.

Trench No. 1: at 30 W
200 S

Trench in boulders and mud - earth covered

No samples

2 Trenches : at 3000 W)
& 875 S)
and
at 3075 W)
& 800 S)

Intermediate Gossan

Both water filled

Intermediate Gossan occurs west of diabase
at W. end of beaver pond in Gabbro.

Samples No. 20013 - N. W. corner; N. of
N. W. pit

" 20013 - between two pits about
halfway

" 20014 - S. E. corner

(Assayed 0.008% Cu, 0.001% Ni, Composite)

LOCATION OF
ROCK SAMPLES:

0 + 00 N
0 + 00 W

One of the gabbroic variants of the Sudbury
irruptive near the contact with the grey-
wacke conglomerate unit sampled at 1 + 25 N
and 1 + 25 W.

N 1 + 25 A
W 1 + 25

Part of quartzite boulder in greywacke;
note traces of sulphide.

B

Greywacke groundmass of greywacke
conglomerate, schistose laminations mildly
developed.

8 + 40 W
1 + 20 S

One of the gabbroic variants of the Sudbury
irruptive, very coarse grained.

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CONCLUSIONS AND RECOMMENDATIONS -

The geological examination has successfully found nickel - copper mineralization on the property. One surface rock sample, assayed 0.14% Cu, 0.08% Ni, is located in the vicinity of an isolated but strong magnetic anomaly which is associated with a weak electromagnetic conductor. It follows that these geophysical indications should definitely be test drilled. A 425' long diamond

drill hole to be located at L 35 W, 2,000 ft. south, to be drilled north at -45°, is proposed to test these indications.

The geological examination found several gossan zones which were tested by trenches. Samples of basic rocks from these trenches assayed only traces of nickel and copper but associated quartz materials assayed 0.18 to 0.28 oz. Au per ton. A diamond drill hole is proposed to drill one of these gold showings (Trench No. 2) and also to explore at depth the weak to strong gossan zones exposed by two other trenches (Trench Nos. 3 and 4). This hole is to be located at 13 + 50 W, 200 S, of the north base line, and is to be drilled at -45° toward the north-west end of Trench No. 3 to a core length of 300 ft.

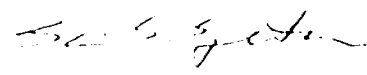
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The writer therefore recommends to conduct an initial program of test-exploration diamond drilling which involves approximately one thousand feet of diamond drilling before the

winter. The estimated cost, at \$6.00 per foot, is six thousand dollars. However, the total footage could easily be doubled if encouraging results were obtained from any of the recommended test-exploration diamond drill holes.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LIMITED



S. S. Szeu, Ph. D.
Consulting Geologist

SSS:pl
Encl.

Toronto, Ontario.

August 17, 1966.



41110SE0006 0028 FALCONBRIDGE

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REPORT ON
MAGNETOMETER SURVEY
MCKENZIE HILL MINES LTD.
FALCONBRIDGE TOWNSHIP
SUDBURY MINING DIVISION
ONTARIO

CANA EXPLORATION CONSULTANTS LIMITED



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* * * * *

Plans: Geophysical Survey Data on
 East and West Block Properties of
 MCKENZIE HILL MINES LTD.
 Falconbridge Township
 Sudbury Mining Division
 Ontario

Scale: 1 inch = 200 feet.

January 1966

The President and Directors
McKenzie Hill Mines Ltd.
Suite 305, Concourse Building
100 Adelaide Street, West
Toronto 1, Ontario

Gentlemen:

This report describes the results of a magnetometer survey conducted by Cana Exploration Consultants Limited on your two blocks of properties located in Falconbridge Township, Sudbury Mining Division, Ontario. The results are depicted on the two plans accompanying this report, plotted to a scale 1 inch equals 200 feet.

PROPERTY, LOCATION AND ACCESS -

The two blocks of claims totalling 36, are listed as follows:

West Group - S-129216 to S-129223, inclusive;
and
S-129131 to S-129137, inclusive;

fifteen (15) 40-acre claims totalling 600 acres.

These claims occupy the N. 1/2 of Lots 10, 11 and 12, Concession I, the S. W. 1/4 of the S. 1/2 of Lot 11; the S. E. 1/4 of the S. 1/2 of Lot 12; the S. W. 1/4 of the S. 1/2 of Lot 12, Concession II, Falconbridge Township, Sudbury District, Sudbury Mining Division, Ontario.

East Group - S-129310 to S-129317, inclusive;
S-129224 to S-129233, inclusive;
S-131299, S-131300 and S-131301;

twenty-one (21) mining claims of about 40 acres each, non-patented and un-surveyed, totalling about 840 acres.

These claims occupy the S. W. & S. E. 1/4 of the S. 1/2 of Lot 4, Concession IV; all of Lot 4, Concession III; the N. W. 1/4 and the N. E. 1/4 of the N. 1/2 of 4, Concession II; the N. W. 1/4 of the N. 1/2 of Lot 3, Concession II; the S. W. 1/4 of the S. 1/2 of Lot 3, Concession III; the N. W. 1/4 of the S. 1/2 of Lot 3, Concession III; the S. W. 1/4 of the N. 1/2 of Lot 3, Concession III; the N. W. 1/4 of the N. 1/2 and the N. E. 1/4 of the N. 1/2 of Lot 3, Concession III; the S. W. 1/4 and the S. E. 1/4 of the S. 1/2 of Lot 3, Concession IV; the S. W. 1/4 of the S. 1/2 of Lot 2, Concession IV. These are all in Falconbridge Township.

It should be noted here that according to topographic features and geological information the east block is apparently located more to the south than recorded on Government claim map, Plan No. M-799. This irregularity will be discussed further below and should be corrected in due course.

The West Group is 8-1/2 miles east-northeast of the City of Sudbury, and the East Group is 12-1/2 miles east-northeast of Sudbury.

The groups are accessible by gravel road from Garson, and partly by truck through lumber roads.

GEOLOGY -

Geology of Falconbridge Township is on Map No. 1957-5, accompanying the 86th Annual Report of the Ontario Department of Mines, 1959.

The West Block is located in an area of quartzite with quartz breccia zones along northeasterly faults. The largest breccia zone is located in Lots 11 and 12, Concession I, with indicated widths of up to about 500 feet and associated with quartz stocks. The formation of quartzite and quartzite breccia are cut by three northwest-southeast olivine diabase dikes at the north half of the claim group.

The East Block is tied on to the east of the property of Falcon gold mine where there is a quartz vein and gold is reported to occur, but there is no record of any production from the property. There are two tension quartz veins and one occurrence of quartz stock located at the south-west part of the property, south part of Lot 4, Concession III, within a distorted zone of greywacke. The greywacke and associated sediments of conglomerate, quartzite and limestone, are intruded by a northeasterly band of gabbro-diorite.

Two northwesterly olivine diabase dikes cut across the northeast part of the property, more or less parallel to several northwesterly cross faults.

SURVEY DATA -

The magnetometer survey was carried out along picket lines cut by you (contracted to Jack Haynes of Toronto), at 400 foot intervals, north-south to cover all the claims. A Sharpe Fluxgate MF-1 magnetometer was used throughout the survey with stations established at 100 foot intervals.

SURVEY RESULTS AND INTERPRETATION -

On the West Block of claims, the magnetometer survey outlined two outstanding magnetic zones which strike northwest-southeast diagonally across the West Block of claims. The high readings are in the order of 1500 to 2200 gammas against background readings in the order of 500 to 600 gammas. These magnetic zones are apparently outlined over the south two olivine diabase dikes shown on Map No. 1957-5, O. D. M.

At about 1000 feet to the northeast of these dikes, in claims S-129133 and the north part of claim S-129131, there is a series of northwest-southeast striking small magnetic anomalies

with high readings in the order of 1500 to 1700 gammas. These small anomalies are apparently outlined over the third small dike which is indicated on the above-said geological map.

There are a few other weak isolated magnetic readings of from 700 to 1100 gammas located at different parts of the property, mostly over high ground. These readings are not considered significant and can be easily checked by a field geological examination.

At the East Block of claims the magnetic picture is more interesting but does not correspond with what would be expected from the known geology published by O. D. M. However, judging from the topography outlined by the magnetometer operator and the few geological indications observed by Jack Haynes, the claim group is apparently too far south and east. When the claim group is moved to approximately the right place, the correlation between the magnetic data and geology is good. The interpretation is described as follows:

- (a) The magnetic grains, with readings in the order of 1700-2000 gammas, outlined across Claim S-131299 are apparently outlined over an olivine diabase dike located at the north half of Lot 3, Concession III.

Four rock samples were collected by Jack Haynes from two pits in Claim S-131299, within a zone of gabbro and close to the northeast and southwest contacts of the inferred diabase dike. Visible disseminated chalcopyrite was observed on samples F-1 and F-3, and indications of nickel were observed on samples F-1 and F-4 by using Dimethyl-Glyoxime tests.

- (b) An isolated magnetic anomaly, with a high reading of 2720 gammas, located at the north part of Claim S-131301, is apparently not due to diabase dikes and probably associated with a large gossan zone observed by Haynes near the north end of line 4.
- (c) A strong magnetic low of minus 9020 gammas is encountered at the northeast part of Claim 129314. Haynes observed a vein of blue quartz with sulphides cutting a large body of gabbro at the east end of this anomaly.

- (d) A series of magnetic grains with highs in the order of 1000 to 2700 gammas, arranged in a east-northeast direction across Claims S-129315, S-129316, S-129224 at the north part of the property. According to the Government geological map, this area is underlain by quartzite. The occurrence of magnetic anomalies over quartzite is considered interesting. Haynes observed three gossan zones associated with magnetic highs in Claims S-129315 and S-129316.
- (e) Several inferred faults are given on the plan accompanying this report. The northeasterly inferred fault is partly observed by Haynes in Claim S-129232. This fault coincides closely with the well known Falcon fault zone which is a breccia zone up to several hundred feet in width at places and bounded by greywacke to the northwest, quartzite to the southeast. An isolated magnetic high of 4434 gammas is encountered along this fault zone.

Because of the fact that small isolated occurrences of gabbro are known to occur along this part of the Falcon fault zone, this isolated anomaly is considered interesting.

CONCLUSIONS AND RECOMMENDATIONS -

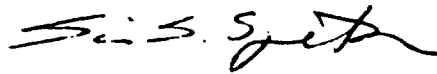
The results obtained on the East Block of claims are interesting with several anomalous zones and anomalies which are either associated with strong inferred structure or gossan zones observed by Prospector Jack Haynes prior to the magnetometer survey. Copper and nickel mineralizations have been noted by the writer on samples collected from this group of claims by said prospector. This claim group is, however, apparently not staked to cover the lots and concessions as recorded. The writer recommends to check all the interesting indications described in this report by a program of electromagnetic survey prior to applying for permission from the Mining Recorder to correct or restake this claim group.

The results obtained on the West Block could mostly be accounted for by known geological features. A limited program of geological prospecting may be required to further check a few isolated weak indications.

The electromagnetic check survey recommended to be carried out at the East Block is estimated to cost in the order of \$1500.00.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LIMITED



S. S. Szetu, Ph. D.
Consulting Geologist

SSS:rk
Encl.

Toronto, Ontario

January 13, 1966.



1. Technical

<u>Type of Work</u>	<u>Name & Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Geological	Ross Shields, Geologist	July 18-29, 1966	96	12
Mapping and Prospecting	John Ferguson, Prospector	July 18-28, 1966	88	11
both of Suite 427, 12 Richmond St. E., Toronto, Ont.				
Totals			184	23

Consultants

<u>Name & Address</u>	<u>Dates Worked (specify in field or office)</u>	<u>Hours</u>	<u>Days</u>
S. S. Szetu, Ph. D., Consulting Geologist (Office)	August 15, 17, 1966	16	2
Totals		16	2

Draughtsman, Typing, others (specify)

<u>Name & Address</u>	<u>Type of Work</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Mrs. P. Lundstedt	Typing	August 17, 1966	8	1
L. Wagy	Drafting	August 5, 6, 1966	8	1
Totals			16	2

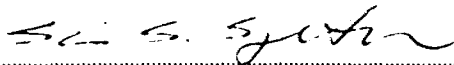
2. Line-Cutting

<u>Name</u>	<u>Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Totals				

Use for one type of survey only

Submit in duplicate

Assessment Work Breakdown

1. Type of Survey **Geological**
2. Township or Area **Falconbridge Township**
3. Mining claim numbers **S-129310 to S-129317, inclusive (8 claims)**
S-129224 to S-129233, inclusive (10 claims)
S-131299, S-131300 and S-131301 (3 claims)
(21 claims)
4. Number of miles of line cut **Lines were cut by previous geophysical survey**
- * 5. Type of instrument used
- * 6. Scale constant or sensitivity
- * 7. Number of stations established
8. Summary of days worked (details on reverse side)
Total technical (include consultants, draughting etc.) **27 x 7 = 189**
Total line-cutting
Total man-days (technical plus line-cutting) **189**
Assessment days credit per claim **9**
9. Dated **August 18, 1968** Signed 

* Complete only if applicable

Complete list of names, addresses and dates on reverse side

Assessment Work Breakdown

1. Type of Survey **Prospecting (Geology)**

2. Township or Area **Falconbridge Township**

3. Mining claim numbers **S-129216 to S-129219, inclusive;**
S-129131 to S-129137, inclusive;
S-129210 to S-129217, inclusive;
S-129224 to S-129233, inclusive;
S-131299, S-131300, S-131301

4. Number of miles of line cut

* 5. Type of instrument used

* 6. Scale constant or sensitivity

* 7. Number of stations established

8. Summary of days worked (details on reverse side)

Total technical (include consultants, draughting etc.) **52 x 7 = 364**

Total line-cutting

Total man-days (technical plus line-cutting)

Assessment days credit per claim **10**

9. Dated **February 22, 1966**

Signed *[Handwritten Signature]*

* Complete only if applicable

Complete list of names, addresses and dates on reverse side

Use for one type of survey only

Assessment Work Breakdown

1. Technical

<u>Type of Work</u>	<u>Name & Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Prospecting	Jack Haynes	Oct. 23 to Nov. 27		
	(Mining Field Services, 252 Torrens Ave., Toronto, Ont.)	and Dec. 1 to Dec. 13, 1965	384	48
	Period -	Jan. 7-18		3
Totals			408	51

Consultants

<u>Name & Address</u>	<u>Dates Worked (specify in field or office)</u>	<u>Hours</u>	<u>Days</u>
B. S. Szetu	Consulting Geologist Dec. 18, 1965	8	1
Totals		8	1

Draughtsman, Typing, others (specify)

<u>Name & Address</u>	<u>Type of Work</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Totals				

2. Line-Cutting

<u>Name</u>	<u>Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Totals				

Use for one type of survey only

Submit in duplicate

Assessment Work Breakdown

1. Type of Survey **Magnetometer survey**
2. Township or Area **Falconbridge Township**
3. Mining claim numbers **West Group: S-129216 to S-129223, inclusive;**
and S-129131 to S-129137, inclusive.
East Group: S-129310 to S-129317, inclusive ;
S-129224 to S-129233, inclusive ;
S-131299, S-131300, S-131301,
4. Number of miles of line cut **33.55**
- * 5. Type of instrument used **Sharpe Fluxgate M. F. -1 magnetometer.**
- * 6. Scale constant or sensitivity **20 Gammas per scale division.**
- * 7. Number of stations established
8. Summary of days worked (details on reverse side)

Total technical (include consultants, draughting etc.)	44 x 7 = 308
Total line-cutting	58
Total man-days (technical plus line-cutting)	366
Assessment days credit per claim	10

9. Dated **February 22, 1966.** Signed _____

* Complete only if applicable

Complete list of names, addresses and dates on reverse side

Use for one type of survey only

Assessment Work Breakdown

1. Technical

<u>Type of Work</u>	<u>Name & Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Magnetometer Survey	Gaston Heyerdahl(Operator)	Dec. 7-23/65	136	17
	E. M. Hall 427-12 Richmond St. E. Toronto, Ont.	Dec. 7, 8, 22, 28/65	32	4
	Bill Hallikinen(Helper) Wanapitae, Ont.	Dec. 9-18/65	80	10
Totals			248	31

Consultants

<u>Name & Address</u>	<u>Dates Worked (specify in field or office)</u>	<u>Hours</u>	<u>Days</u>
S. S. Szetu, Ph. D., Consulting Geologist 427-12 Richmond St. E., Toronto	Jan. 7, 12, 13/66	24	3
Totals		24	3

Draughtsman, Typing, others (specify)

<u>Name & Address</u>	<u>Type of Work</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
R. Knox	Typing & colouring	Jan. 11, 12, 13, 14/66	32	4
L. Nagy 21 Tichester Rd., Toronto	Drafting	Period - Jan. 3 to 7, 1966	24	3
R. Guenther 419 Roselawn Ave., Toronto	Drafting	Period - Dec. 25-30/65	24	3
Totals			80	10

2. Line-Cutting

<u>Name</u>	<u>Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Adolph Wasitis	R. R. #1, Wabnapitae, Ont.	Nov. 3 to 27/65 & Dec. 1-12, 1965	296	37
Aaron Peer	(same as above)	Nov. 14 to 27/1965	112	14
Jas. Caverley	279 Whittaker St. Bedbury, Ont.	Oct. 24	8	1
Kerry Lafave	Markstay, Ont.	Dec. 7 to 12, 1965	48	6
Totals			464	58



ONTARIO
DEPARTMENT OF MINES
Mining Lands Branch

File: 63.1918

PARLIAMENT BUILDINGS
TORONTO 2, ONTARIO

December 2nd, 1968

Dear Sir:

Subject: Geophysical and Geological Surveys

The assessment work credits as shown on the attached list have been approved as of the above date. Please inform the recorded holder and so indicate on your records.

Yours truly,

R. V. Scott,
Director.

FWM:sms

cc Dr. J. F. Donovan
Resident Geologist

Mackenzie
Mill Mines Limited

Mr. K. N. Mallock
Mining Recorder
Sudbury, Ontario



ONTARIO
DEPARTMENT OF MINES
Mining Lands Branch

PARLIAMENT BUILDINGS
TORONTO 2, ONTARIO

File 68.1918

THE MINING ACT

Assessment Work Credits

Name: MACKENZIE HILL MINES LIMITED

Township or Area: FALCONBRIDGE TOWNSHIP

Number of Assessment work days per claim

Geophysical N11

Geological 9

Mining Claims: S 129310 to 129317 inclusive
S 129224 to 129233 inclusive
S 131299 to 131301 inclusive

63.1918

THE MINING ACT

Assessment Work Credits

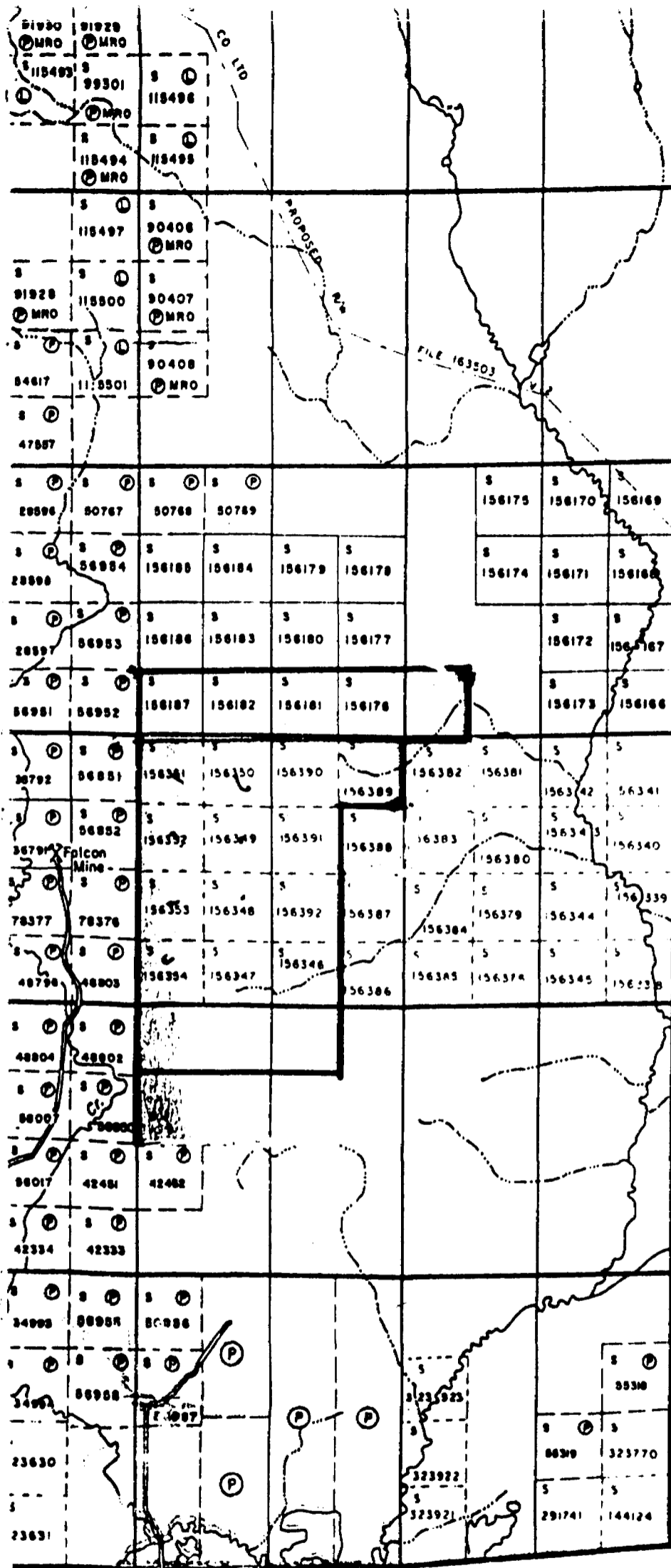
Name: MCKENZIE HILL MINES LTD

Township or Area: FALCONBRIDGE TOWNSHIP

Number of Assessment work days per claim

Geophysical 20 Magnetometer Geological NIL

Mining Claims: S 129216 to 129223 inclusive
S 129131 to 129137 inclusive
S 129310 to 129317 inclusive
S 129224 to 129233 inclusive
S 131299 to 131301 inclusive



VI

V

IV

III

II

I

STREET TWP. M. 1145

DIS
MINI
SCALE: 1-

PATENTED LAND
CROWN LAND
LEASES
LOCATED LAND
LICENSE OF
MINING RIGHTS
SURFACE RIGHTS
ROADS
IMPROVED ROAD
KING'S HIGHWAY
RAILWAYS
POWER LINES
MARSH OR MUS
MINES
CANCELLED
PATENTED FOR

400' Surface R
shores of all l
Sand & Gr
covering are

Tract 103 E

PLAN

MINISTRY OF
SURVEYS

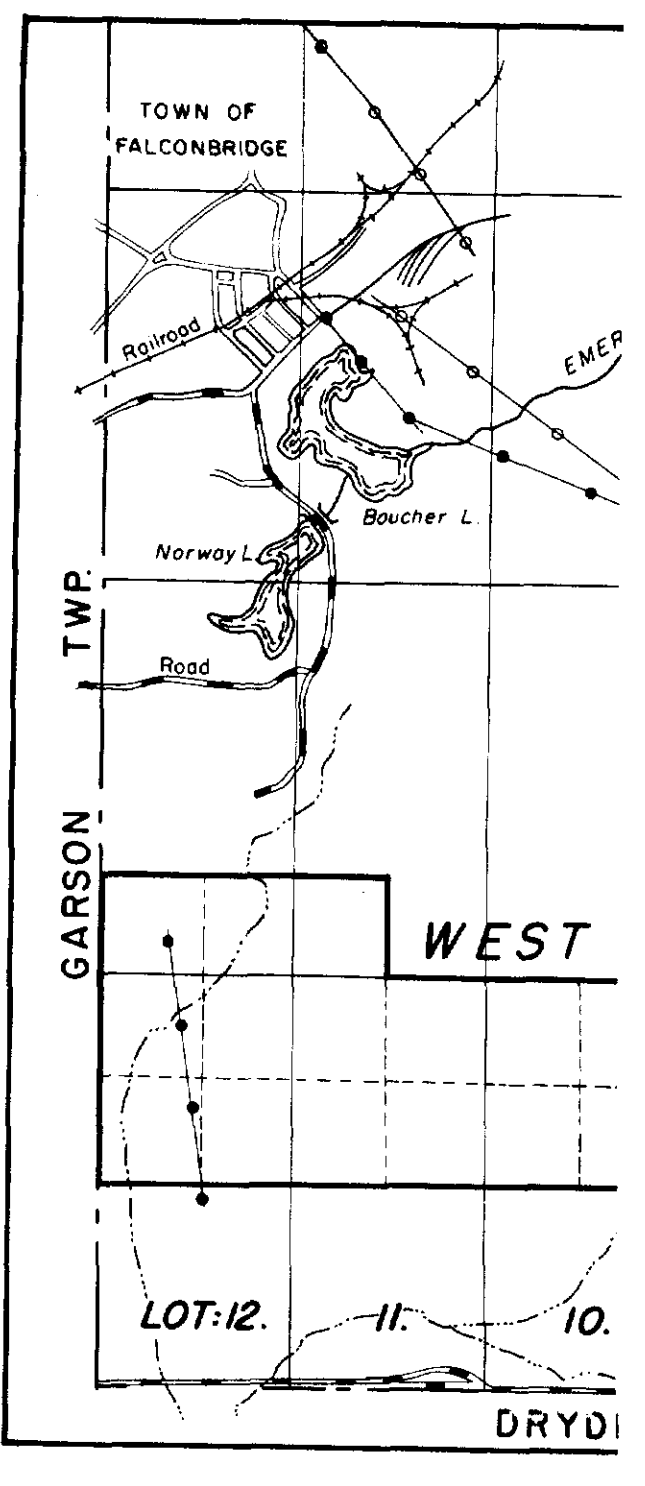
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FWP. M. 766

FOR ADDITIONAL
INFORMATION

SEE MAPS:

FALCONBRIDGE-0028 #= 1-3

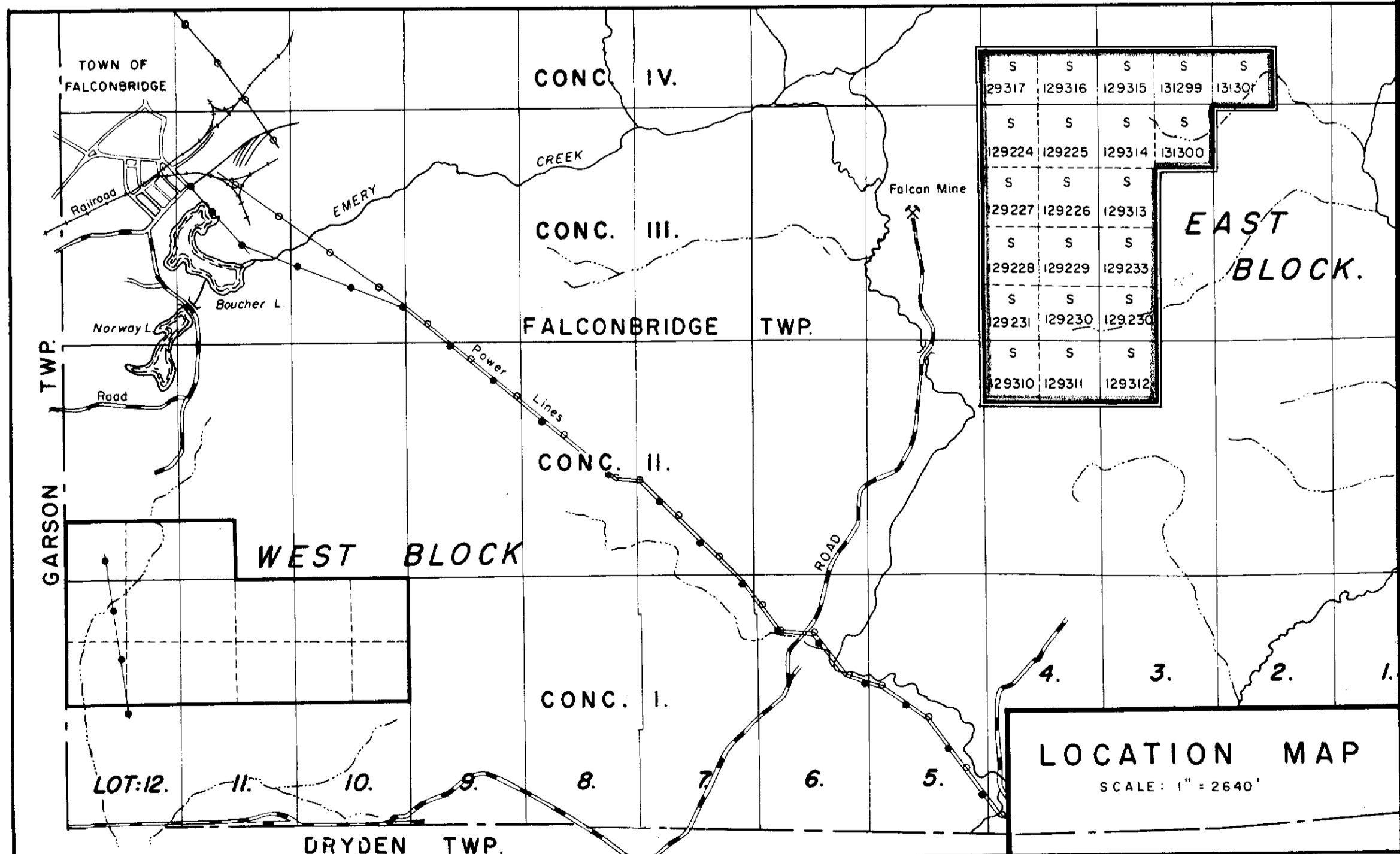


FALCONBRIDGE-0028-#3



LEGEND

- Claim post and claim boundary.
- ~ Higher ground.
- ▬ Cliff.
- ☼ Swamp.
- ⚡ Creek.
- Magnetic control station.
- Picket lines cut and chained.
- Magnetic readings obtained and plotted to the East of picket line.
- Magnetic contour.
- Below 2000 gammas.
- 2000 - 0 "
- 0 - 500 "
- 500 - 1000 "
- 1000 - 1500 "
- 1500 - 2000 "
- Above 2000 "
- ~ Inferred fault.
- F1-F5 Rock samples.



GEOPHYSICAL SURVEY DATA ON
 EAST BLOCK PROPERTY OF
MACKENZIE HILL MINES LIMITED
 FALCONBRIDGE TOWNSHIP
 SUDBURY MINING DIVISION, ONTARIO
 SCALE: 1" = 200' JANUARY 1966
 CANA EXPLORATION CONSULTANTS LIMITED