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THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED  
Geological Division

CUNNINGHAM Twp. CLAIMS (AMERICAN METAL CO.)

ELECTROMAGNETIC SURVEY

It is requested that 40 days' assessment work credit be granted on the following claims: S-58594; -95; -96; -97; -98; S-62502; -3; -04; -05; and S-62653; -54; -56; -57.

This report and map (in duplicate) is hereby submitted for recording as assessment work.

PROPERTY

The property consists of thirteen located claims. No's S-58594; -95; -96; -97; -98; S-62502; -03; -04; -05; S-62653; -54; -56; -57.

OWNERSHIP, Etc.

American Metal Company Limited, Toronto, Ontario own an option to purchase said claims which option was recorded April 7, 1954.

The survey was conducted on The American Metal Company's behalf and this company is submitting the survey as assessment work.

LOCATION AND ACCESS

The property is located in the central part of Cunningham Township, Sudbury Mining Division, Ontario. Latitude is 47°38'N, Longitude is 82°40' W.

Access to the property is by means of an unimproved road for a distance of 14 miles north from the community of Sultan, a station on the C. P. R., to the Cunningham Forestry Station, thence two miles southeasterly by trail.

SURVEY PERSONNEL

The electromagnetic survey was conducted by J. Richardson and D. W. Heddle, both of Trail, B. C., Exploration Geologists.

SUMMARY

An electromagnetic survey, for the purpose of testing the proximity of assumed faults for the presence of sulphide bodies, was conducted over selected areas of the claim group from February 20, 1954 to March 11, 1954. The large-coil model McPhar clinometer with a frequency of 1,000 c.p.s. was used in the survey. This apparatus indicates sub-surface electrical conductors, such as sulphide and magnetite bodies and graphitic zones, by inducing currents in them.

A total of 38,000' of picket lines was set out and 340 readings were taken from 5 set-ups of the transmitting coil.

Readings were taken at 100' intervals on traverse lines spaced 400' apart along three separate base lines. The base lines were located as follows:

- No. 1 - along the surface trace of the assumed fault through claims S-58594; -96 and -97.
- No. 2 - along an assumed fault through the southeast portion of the property.
- No. 3 - along the surface trace of an assumed fault in the west portion of the property.

The base lines were laid out on these assumed faults because well mineralized float was found along the surface trace of the central fault near the north boundary of claim S-58594. Also, sub-marginal mineralization occurs locally where faults cross bands of iron formation. Elsewhere the faults are generally covered with light overburden and it

was assumed that better grade mineralization might occur in the vicinity of the intersection of these faults with the more favorable Keewatin volcanics.

Certain claims were excluded from the survey for the following reasons:

1. A study of the air photographs did not indicate the possibility of any faults in these areas. As stated above, the vicinities of the faults in greenstone areas are considered to be favorable zones for sulphide mineralization.
2. The excluded areas are largely underlain by iron formation. This rock type was not considered favorable for the localization of sizable sulphide bodies. Also, the survey in other areas of iron formation on the property showed that this rock type was indicated by the apparatus to such an extent as to mask any responses from sulphide bodies that might be contained within it.

#### OBSERVATIONS

High readings were obtained in areas underlain by iron formation. For the most part they extended over broad areas and, in most cases, no "crossovers" were obtained because the traverse lines were approximately parallel to the strike of the iron formation bands. It is quite probable that the high readings are due to the magnetite layers in this rock and in part, also, to disseminated pyrite which is locally prevalent in the iron formation.

Prominent "crossovers" associated with high readings (these are indicative of sub-surface conductors) were obtained on all except No. 3 base line. They are probably due to faults which are well indicated for any of the following reasons:

1. The presence of graphite in the fault zones,
2. The presence of sulphide minerals in the fault zones,
3. For the most part, the surface traces of the fault zones lie in low ground in which considerable water-soaked peat has developed. This material is a fair conductor and may be indicated by this electromagnetic apparatus.

Graphite in the fault zones appears to be the most likely reason for the prominent "crossovers" in these areas, although it may well be that they are due, in part, to the local development of sulphides in these structures.

#### CONCLUSIONS

Several sub-surface conductors are indicated by the electromagnetic readings and the positions of most of them are approximately located. The anomalies in the northwest part of the property are undoubtedly due to iron formation and as such cannot be interpreted as being due, in part, to sulphide bodies, although the disseminated pyrite locally present in this rock may exert some influence.

A sub-surface conductor is clearly indicated near the northeast corner of claim No. S-58594. This is in an area where well mineralized blocks of float have been found. The conductor continues northwesterly onto the adjoining Cominco claims.

Two strong anomalies, which are probably on the same structure, occur in the southeast portion of the property. They extend in a southeasterly direction through claims S-62503 and S-62505 along an assumed fault zone.

Report by:

*J. Richardson*  
J. Richardson, Geologist.

#### Appendices:

1. Statement of Time and Personnel Engaged
2. Credentials of Technical Personnel

Attachments: Electromagnetic Plan - Scale 1" = 400'



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**GEOLOGICAL REPORT**

OR

**CENTRAL GROUP OF FAYOLLE PROPERTY**

**(Claims B-58794-8)**

**CUNNINGHAM TOWNSHIP, SUDBURY MINING DIVISION**

**under option to**

**THE AMERICAN METAL COMPANY, LIMITED**

**25 ADELAIDE STREET WEST**

**TORONTO, ONTARIO**

**Submitted for Assessment Work Credit**

## SUMMARY

The Central Group of the Fayolle property in Cunningham township is underlain by a north-northwest trending band of sediments of Precambrian age. The sediments include chloritic schists, greywackes, conglomerate and "iron formation" (chert), and are thought to occupy a synclinal structure plunging south. The sediments are enclosed between massifs of "diorite" (metadiabase, metagabbro) which intrude them, and have also been invaded and more or less replaced by porphyries, some of which, at least, appear to be genetically related to the "diorite". One major fault has been discovered, near the south boundary of the group. Others are suspected from topographic linears visible in aerial photographs of the area.

The only mineralization, other than pyrite, known in the area is found associated with fractured "iron formation" (chert). The most interesting mineralization, seams and pockets of chalcopyrite, with a little sphalerite, occurs in large boulders near the north boundary of S-58594.

## GEOLOGICAL REPORT

on

CENTRAL GROUP OF FAYOLLE PROPERTY  
(Claims S-58594-8)  
CUNNINGHAM TOWNSHIP, SUDBURY MINING DIVISION  
under option to  
THE AMERICAN METAL COMPANY, LIMITED

### INTRODUCTION:

This geological report and the accompanying coloured geological map of mining claims S-58594-8 are hereby submitted as evidence of geological assessment work performed on the said claims between July 8 and September 5, 1954, to apply to the 1953-54 period.

### Property and Ownership:

The Central Group of the Fayolle property comprises five claims (S-58594, S-58595, S-58596, S-58597 and S-58598). These claims are held by Antoine Fayolle, of Noranda, Quebec, and are at present under option to the American Metal Company, Limited, 25 Adelaide St. West, Toronto 1, Ontario.

### Previous Work:

Considerable trenching (as shown on the accompanying map), has been done in the northeast corner of claim S-58594, in an attempt to determine the source of iron formation boulders mineralized with chalcopyrite and sphalerite. Some trenching has also been done in the central part of S-58594 and in the vicinity of the south boundary of S-58595.

A geophysical survey of the group was performed between February 20 and March 11, 1954, by the Consolidated Mining and Smelting Company of Canada Limited, on behalf of the American

### Previous Work: (continued)

Metal Company, Limited and has been recorded as assessment work for these claims.

### Location and Access:

The central group, here described, is located in the central part of Cunningham Township in the Sudbury Mining Division. The group is located approximately  $1\frac{1}{2}$  miles southeast of the Forestry Observation Tower, known as the Cunningham Tower. The tower is situated approximately 13 miles north of the settlement of Sultan on the Canadian Pacific Railway.

Access may be had to the tower by an unimproved road which is passable by jeep or light tractor. From the tower a trail and diamond drill road lead to the central group of claims. The property is also accessible by light planes, which may land at Santinaw or Peter Lakes,  $2\frac{1}{2}$  and 3 miles respectively by road from the Forestry Tower. Heavier planes (e.g. Norseman) may land at Ransom Lake, from which the Sultan-Swayze road may be reached by a swampy, poorly-marked trail. Ransom Lake is about five miles from the tower.

### Method of Survey:

Mapping of the Central Group of claims was carried out by surveying claim lines, picket lines, trails and road, using a Brunton compass and a hundred-foot tape. Tape and compass



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traverse lines were carried through portions of the claims not otherwise covered. Except where covered by open drift or muskeg, the claims have been systematically traversed in this way every 200 feet.

As noted on page 2, this mapping was carried out between July 8 and September 5, 1954, inclusive. The mapping was performed by W.W. Moorhouse, M.A., Ph. D., assisted by J.L. Talbot, B.A. (Cantab.) and H.T. Meredith.

#### Acknowledgments:

The work of the writer and his assistants has been greatly facilitated by generous cooperation of Mr. Keith Cameron, Forest Ranger at Sultan, and Mr. Lorne O. Sawyer, tower observer at the Cunningham Tower.

#### General History of the Area:

The interest of prospectors was first aroused in the area by the discovery of iron formation about the beginning of the present century. No iron deposits of economic value were discovered, but in the twenties lead, zinc and copper mineralization was discovered associated with the iron formation. No ore bodies were developed as a result of this work, and the area remained more or less dormant until after World War II when inflated metal prices resulted in renewed interest and activity. The finding of well-mineralized copper-bearing float on the Fayolle group and the location of certain geophysical anomalies on the Fayolle and Paul groups are responsible for the present work.

GEOLOGY:

The consolidated rocks of the area are all of Precambrian age. In general they are rather badly obscured by glacial drift, forest and swamp deposits. Major contacts are rarely exposed, and certain rock types are particularly subject to weathering and erosion, so that they rarely outcrop. Major structures are also commonly buried in drift, so that only rarely may their existence be satisfactorily demonstrated. Due to this situation, the table of formations which follows is necessarily incomplete. Also, the sequence given is subject to modification, and is not presented as representing accurately the time relationship between the various rock types.

Table of FormationsQUATERNARY

Recent: Swamp deposits, peat.  
Pleistocene: Boulder clay, sand, gravel.

PRECAMBRIAN

Keweenaw: Diabase dikes

Pre-Algonan(?): "Diorite", including metadiabase, metagabbro, quartz "diorite", porphyritic "diorite".  
Peridotite, amphibolite, ultrabasic phases of "diorite".  
Porphyry, including quartz porphyry, feldspar porphyry, quartz feldspar porphyry, brecciated quartz porphyry, sheared quartz porphyry, granophyric porphyry and porphyry with relicts of sedimentary banding.  
Hornblende syenite, lamprophyre.

Sediments: Iron formation  
Greywacke, thinly bedded greywacke, porphyritized greywacke.  
Conglomerate.  
Schist, chloritic and pyritic; argillite.

Keewatin: Greenstone; variolitic lava.

### Description of Principal Rock Types:

#### **Keewatin:**

In the Central Group of claims, herein described, the Keewatin lavas are of limited distribution. The principal outcrop is located in the northern part of S-58594. It is made up of variolitic lava, which towards the western end of the exposure appears to grade into a coarse grained "diorite" or metagabbro. Similar greenstone is also exposed in three of the trenches just to the north of the outcrop. Small exposures were also mapped in S-58596 and S-58597, but as they are isolated and litter-covered, their relationships could not be determined. They may be fine grained phases of the "diorite" or inclusions in it.

#### **Sediments:**

Two, possibly three, distinct bands of sediments have been mapped in the Central Group. These sediments are rather varied in character and some of them have been locally much modified by porphyritization. The thickness of the sedimentary bands is not known with certainty, but in this area it probably does not exceed 300 feet, true width, at least on the limbs of fold structures. The stratigraphic succession is not known, but the scanty evidence so far obtained suggests that the succession given in the Table of Formations prevails.

If the succession proposed is correct, then the oldest member of the sedimentary series is a characteristic, pyritic, chloritic, brown-weathering schist. In many places this schist appears to enclose small elliptical fragments. It

may therefore be tuffaceous in character. Thin layers of the schist occur interbedded with other members of the sedimentary series.

The conglomerate is a characteristic member of the sediments, and shows close affinities with the schist just described, in that the matrix of the conglomerate is lithologically very similar to the schist. The pebbles in the conglomerate are chiefly of greenstone and porphyritic lava, but occasionally include felsite and porphyry. In some outcrops they are rather angular, in others they are very well rounded. The size of the pebbles varies considerably from outcrop to outcrop. Sometimes the pebbles are only an inch or two in their longest dimension, sometimes they attain a length of a foot or more. In one outcrop, in the southwest corner of S-58598, the conglomerate appears to have been almost completely "porphyritized"; only the presence of indistinct pebbles distinguishes it from the porphyry. The conglomerate is known only from one band of sediments and the faulted continuation of the same band. It has not been recognized in the eastern band of sediments.

The sediments classified as greywacke on the map are rather a heterogeneous group and present a number of problems. Perhaps the most characteristic is a very fine grained, delicately bedded rock, in which the individual beds range from 1/10 inch to 1/2 inch in width. A suggestion of grain size gradation may sometimes be observed in this rock. It is on this rather slender evidence that the suggested succession is based. It is pro-

bable that these sediments are fine grained tuffs. Associated with these well-bedded sediments are chloritic schists like those already described and coarser grained greywackes. Among the latter are very feldspathic rocks with small black quartz eyes in them, which have a porphyritic aspect. They may possibly be arkosic greywackes, but it is considered more probable that they are "porphyritized" greywackes. This interpretation is supported by the occurrence of characteristic porphyries which contain vague but recognizable traces of bedding and by the presence of seams and strings of porphyritic material in some outcrops of the thin-bedded tuffs or greywackes described above.

Fine grained, dark grey argillites are also found in the sedimentary series. Due, perhaps, to their fine grain and chemical composition, they appear to have resisted "porphyritization", since they are most abundantly found as inclusions in, or selvages on, outcrops of typical massive quartz porphyry. They are also exposed in trenches in the eastern band of sediments, associated with the thin bedded greywacke and iron formation.

In the Central Group of claims, the iron formation is principally represented by large boulders and small mounds of angular fragments probably derived from the weathering of such boulders. Where large boulders are deeply buried in drift it is impossible to tell whether they are outcrop or not. Iron formation is known to occur in both the main sedimentary bands, and in both cases it appears to be situated

on the east side of the band. However, the eastern band outcrops so inadequately, that this relationship is not significant. The distribution of boulders and possible outcrops in the northern part of S-58594 suggests that here the iron formation has a roughly east-west trend; it may thus occupy the crest or trough of a fold at this place. The width of the iron formation is not known. The iron formation is composed almost exclusively of fractured, black to grey chert. It is much seamed with coarse quartz and carbonate. Pyrite and pyrrhotite frequently occur as fine seams, and locally seams and pockets of chalcopyrite and sphalerite are present.

Boulders and float of iron formation were encountered in the southwest corner of S-58597. No definite outcrop was found, and if this iron formation is approximately in place, it must occur as inclusions in the "diorite". No evidence of other sediments was found associated with these boulders.

The porphyries occur in two main bands, of variable width, one running from the northwest corner of S-58594 through S-58596 to the southeast corner of S-58597, the other beginning just north of the south boundary of S-58595 and continuing through S-58597 into the western edge of S-58598. The porphyries have been grouped by Meen (1942, p. 15) and Macpherson (1954, p. 10) with the Algoman. It is quite possible that some of the porphyries here described are of this age, but certain relationships and structures have been observed in the present mapping which indicate that some at least are older than some of the "diorite". Thus, in the south-central part of

S-58594, brecciated porphyry is in contact with "diorite" which is fine grained at the contact. On the other hand, in the southern part of S-58598, granophyric porphyry appears to grade into "diorite" through quartz dioritic phases. The same relationship between the two is found in S-58594. Therefore, it seems that in part the porphyry is older than the "diorite", in part it may be a differentiation product of the "diorite" and, as already noted, it may in part be younger than the "diorite". Another peculiar feature of the porphyry is the local occurrence in it of a fragmental or tuffaceous structure, in which fine grained elliptical fragments occur in a matrix of essentially the same material. This may be due to the "porphyritization" of a fragmental rock, or it may be that some of the rocks mapped as porphyry are surface flows of acid composition.

Lithologically, the porphyries are generally fine grained, white weathering, with phenocrysts of quartz and/or feldspar. In some cases ferromagnesian minerals are fairly abundant, in which case the porphyries have been mapped as "dioritic porphyry". In a number of outcrops, as noted previously, traces of bedding may be found in the porphyry. In some cases this bedding is quite vague, and only apparent on the weathered surface; in other cases distinct, small scale bedding like that of the thin-bedded greywackes is clearly visible. It is unlikely that all the porphyries have been produced in this way, but there is ample evidence to show that it has been

an important factor in the metamorphism of the sediments.

Linked with the porphyries in the table of formations, but probably of much younger age are the hornblende syenite and lamprophyres. The hornblende syenite is a medium grained grey to dark grey rock with abundant short crystals and needles of hornblende distributed through it. It is most commonly associated with the sediments, and has been observed cutting thinly bedded greywackes and enclosing inclusions of iron formation. It has also been found cutting variolitic greenstone and "diorite" into which the greenstone grades.

Lamprophyres are not abundant in the Central Group, and they are chiefly represented by fine grained greenstone dikes. They cut all rocks except the Keweenawan diabase.

The "diorites" are the most abundant rocks in the Central Group of claims. They appear to form more or less continuous intrusive masses between which the trough of sediments and porphyries is gripped, as in a vise. The term "diorite" has been used to describe these rocks, as it is rather generally used for this purpose in Precambrian areas. In point of fact, these rocks are actually altered diabases and gabbros, and the terms metadiabase and metagabbro would describe them more accurately. These rocks are invariably massive and unshered, where exposed, although they are on occasions rather strongly jointed. Associated with the western area of "diorite" is a persistent band of serpentinitic, amphibolitic rock, which presumably represents an ultrabasic phase of the intrusive. No serpentine asbestos or chremite



deposits were observed associated with this rock. It is invariably strongly magnetic, and causes compass deflections considerably larger than those produced by the iron formation, in general. Mention has already been made of the siliceous porphyritic differentiates which have been mapped in two of the claims of the Central Group. These appear to grade into the "diorite" through quartz-bearing metadiabases which are generally somewhat finer grained than the quartz-free types. No distinct compositional banding is observable in the "diorite". Consequently no sound conclusions can be drawn as to the form of these intrusions. It is quite possible in fact that the "diorites" are a complex of sills and dikes rather than a single intrusive body. This possibility is enhanced by the presence, locally, of outcrops of porphyritic "diorite" ("leopard rock" of Meen (1942, p. 9)), containing feldspar phenocrysts up to 1-2" in diameter. It seems likely that this rock is a separate intrusion from the more normal "diorites", as it is also found cutting greenstones outside the group of claims now under discussion.

In other parts of the area, "diorites" or metadiabases occur intimately associated with greenstones. These may in part be sills or dikes of the intrusive type described above, but some, probably most, of them are simply coarse, diabasic parts of the lava flows. The only "diorite" which seems to be of this type in the central group is located near the north boundary of S-58594. As described on a previous page, it appears to

grade into spherulitic lava.

Three small exposures which are believed to be Keweenawan diabase have been mapped. Since in all cases only a few feet of rock were visible, the size and strike of these dikes are not known.

Pleistocene deposits, as far as is known at present, consist almost exclusively of stony glacial till. This till covers most of the surface of the area, but is generally quite shallow, a few feet at the most. In valley bottoms, however, it may reach substantial thicknesses. Trenching near the north boundary of S-58594 has locally attained a depth of six or more feet without reaching bedrock.

Recent deposits consist largely of peat and other swamp accumulations. Locally gravel and sand have accumulated in creek bottoms.

#### Structural Geology:

The general pattern of distribution of the various lithologic units is readily visible from the map. However, the details of the structural geology are far from clear. This is due to several factors, of which the most important are: poor exposures; complete absence of outcrop in certain critical zones; absence of really reliable indications of tops. Therefore, the interpretation here presented can only be regarded as tentative. It is possible that after diamond drilling has been completed on these claims, a more satisfactory picture may be evolved.

### Folding:

The sedimentary rocks in the Central Group of claims are tightly folded into isoclinal folds which are overturned towards the east. The repetition of the iron formation suggests that there is at least one major fold, although the possibility must be kept in mind that the repetition may be due to faulting. Evidence of the nature of this fold is meagre; questionable top determinations in the west band of sediments indicate that the beds are overturned, dipping southwest and facing east; the possible closure of the iron formation bands at the north boundary of S-58594 together with some evidence of a southeasterly pitch implies the same attitude, and suggests a synclinal structure.

### Faulting:

Faulting is probably much more prevalent than is indicated on the accompanying map. One major fault appears to be definitely established by the displacement of the peridotite band in the "diorite" body in the southern part of the Central Group. This fault follows a slightly curving course, from west to west-southwest and has a displacement of about 500 feet. It is clearly marked by a narrow swampy tract to the west, but to the east its extension is not well marked and is not definitely known.

A minor fault forms the contact between iron formation and spherulitic lava in a small pit in the north part of S-58594. It strikes south-southwest and roughly parallels

a fault indicated by Meen on the Cunningham-Garnet map. The projection of the latter fault should lie in the north-west corner of S-58594, but extensive drift in this area precludes its recognition.

Several strong topographic linears are visible in areal photographs of the area and may represent faults. One of these, having an east-west trend, lies about 100 feet south of the #1 post of S-58594 and marks the north side of a beaver meadow, which appears on the aerial photograph as a lake (now drained). This linear is bounded on the east and west by prominent north-northwest and northwest-trending linears, respectively. Southeastward they continue through the lake in S-58598 and beyond. They also may represent shear zones or faults.

#### Shearing:

As may be seen from the map, the bedding in the sediments generally follows a northwesterly or north-northwesterly trend. Shearing, as mapped in sediments and porphyries, on the other hand, has generally a northwest to west-northwest strike. It appears likely that the shearing is independent of and later than the folding.

#### Mineralization:

Apart from disseminated pyrite and pyrrhotite in sediments and porphyries, mineralization is not abundant. The most interesting mineralization has been found in trenching in S-58594, near the

north boundary of the claim. The mineralization occurs in fractured chert ("iron formation") which is cut by veinlets of carbonate and coarse quartz. With the possible exception of one small area of stripping, the mineralization is all in boulders. The mineralization includes pyrite, pyrrhotite, chalcopyrite and sphalerite. In a few of the boulders, the chalcopyrite is quite abundant, occurring in massive veinlets and pockets in the chert. In other cases it is found only in scattered grains and thin seams. It is not certain how far these boulders may have travelled; it is possible that their source lies north of the claim boundary.

#### CONCLUSIONS:

Mapping in the Central Group of the Fayolle property, Cunningham Township has demonstrated the existence of a north-northwest trending belt of sediments and porphyry, bounded on the northeast and southwest by massifs of "diorite". The sediments include schist, argillite, greywacke, conglomerate, and cherty iron formation. The sediments are isoclinally folded into a structure, overturned to the east, which is tentatively interpreted as a syncline. These rocks are cut by a west-southwest trending fault with a 500 foot displacement. Other faults and shear zones are suspected but cannot be demonstrated in the field, due to drift cover.

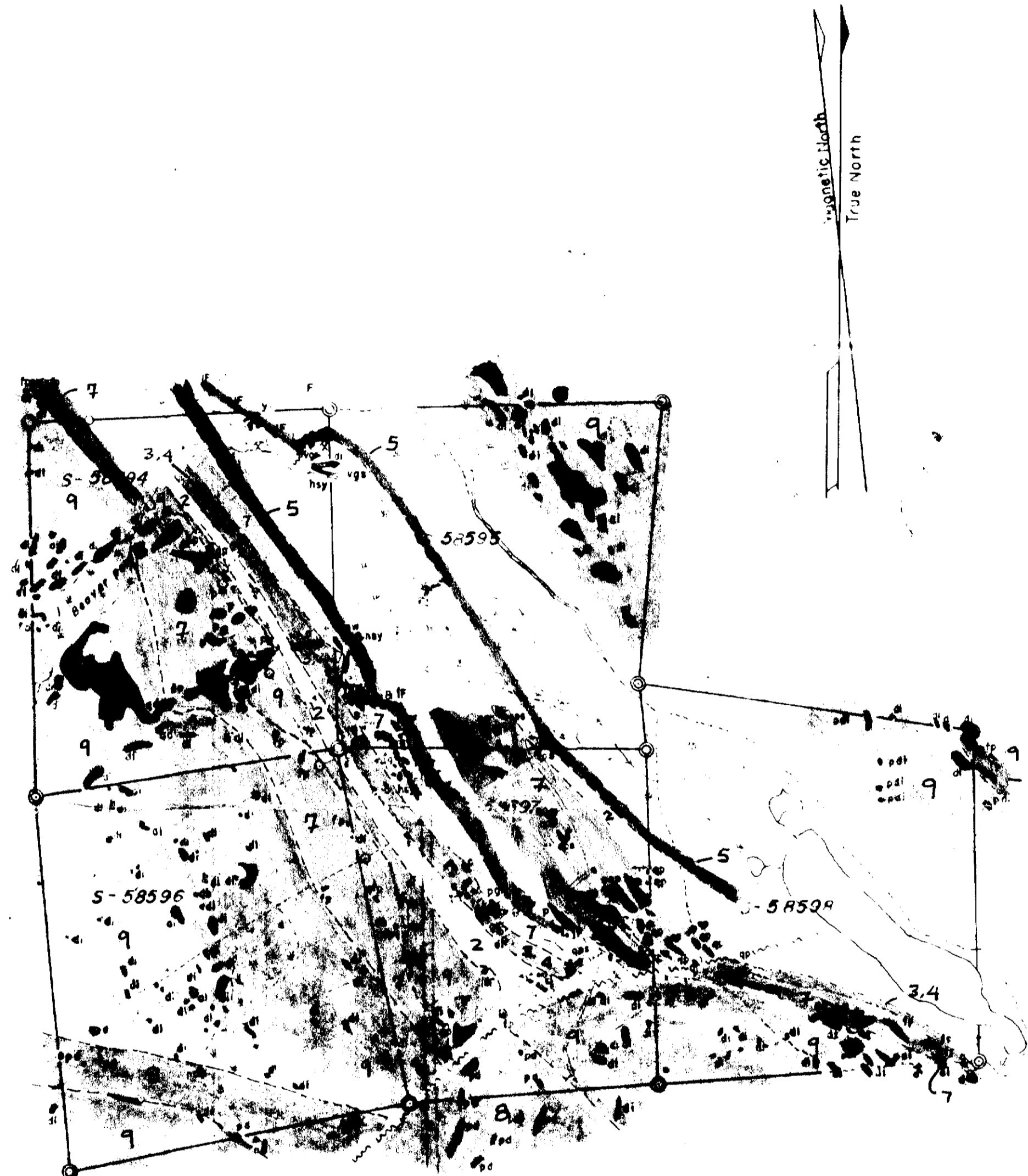
The only mineralization of possible interest has been found in boulders of chert ("iron formation"). These mineralized boulders

occur near the trough of the supposed syncline, where it is intersected by an east-west linear. This seems to be the most likely place in this claim group for further exploration.

Correlation of electromagnetic anomalies with the geological map show a close coincidence of the anomalies and the bands of sediments. This suggests that the anomalies are due to the presence of graphitic argillites in the sedimentary series. No graphitic rocks were, however, observed to outcrop in this claim group.

#### BIBLIOGRAPHY:

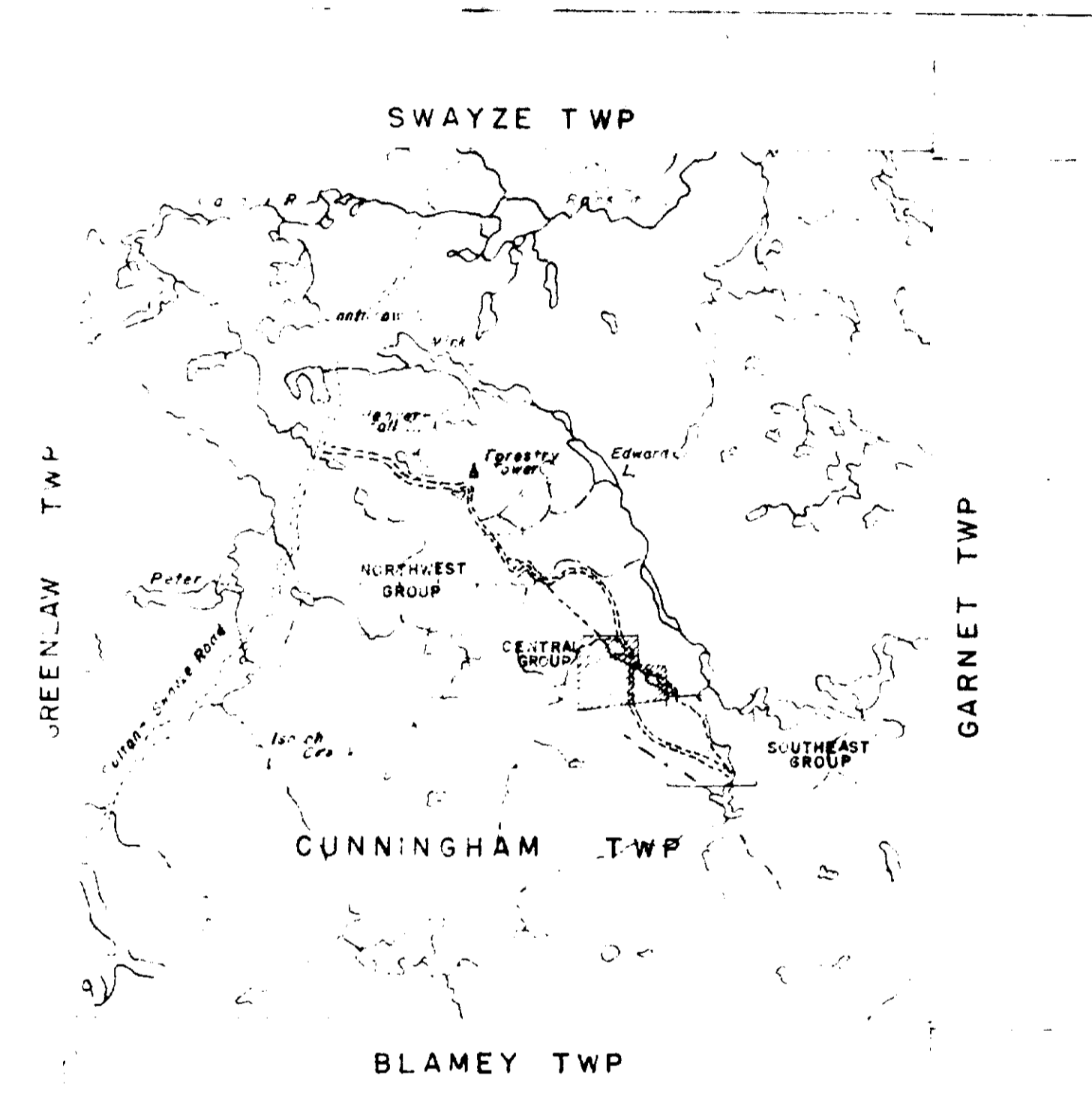
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- 1954 The Consolidated Mining & Smelting Company of Canada, Limited - Electromagnetic Survey, Cunningham Township Claims.
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- L E G E N D
- QUATERNARY**  
 Recent: swamp deposits, peat  
 Pleistocene: boulder clay, sand, gravel
- KEEWENAUK**  
 10 db Diabase dike
- PRE-ALGOMAN**  
 9 di "Diorite" metadiabase, metagabbro, quartzdiorite; pdi porphyritic diorite  
 8 pd Peridotite, amphibolite, ultrabasic phase of diorite  
 7 P Porphyry; qp quartz porphyry; fp feldspar porphyry; dp dioritic porphyry; pb brecciated porphyry; sqp sheared quartz porphyry; aps porphyry with remnants of sedimentary banding; gp granophyre porphyry  
 6 H Hornblende syenite L Lamprophyre
- SEDIMENTS**  
 5 Iron formation  
 4 gw Greywacke, vgw thinly bedded greywacke; pgw porphyryitized greywacke  
 3 c Conglomerate  
 2 Schist, chloritic, pyritic; argillite
- KEEWATIN**  
 1 Greenstone; vgs varicillitic greenstone

- S Y M B O L S
- Picket line
  - Picket
  - Traverse line
  - Strike and dip of bedding
  - Strike and dip of schistosity
  - Direction and plunge of lineation
  - Fault, inferred
  - Geological boundary, inferred
  - Outcrop boundary
  - Traill, surveyed
  - Road, surveyed
  - Road, unsurveyed
  - Claim boundary
  - Storm boundary
  - Trenching
  - Abundant iron formation loose, may be outcrop

Scale 1" = 400'



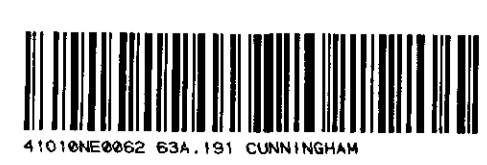
L O C A T I O N M A P  
 Scale 1" = 1 mile

GEOLOGICAL MAP OF CENTRAL GROUP OF CLAIMS (CLAIMS S - 58594 - 8)  
 CUNNINGHAM TOWNSHIP  
 FAYOLLE PROPERTY  
 UNDER OPTION TO  
 THE AMERICAN METAL COMPANY, LIMITED  
 25 ADELAIDE ST. W., TORONTO 1, ONTARIO

Geology by: W.W. Moorhouse  
 Assisted by: J.L. Enicot  
 H.T. Meredith

September 3, 1954  
 W.W. Moorhouse

File 63A-191



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