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## FORWARD

This program was based on a comprehensive geological, geophysical and geochemical investigation, and closely followed the recommendations submitted by writer to Company earlier this year.

On May 21, 1963, the Company proceeded to carry out a minimum of 1200 feet of AXT drilling in 6 holes at several prodetermined locations. This work was supplemented by closeup magnetic checks of immediate drill areas and a magnetic - soil survey of the western area of the claims, specifically Claim 117815.

The drill contract was completed and field work terminated June  $2^{1}$ +, 1963.

#### PROGRAM SCHEDULE

Drill and writer's field crew arrived on property May 21, 1963 and left June 24, 1963.

### Drilling:

A total of 1236 feet of AXT (1 5/8") drilling was completed as follows:

Hole	1	2021
	2	217'
	3	2071
	4	2091
	5	2001
	á	2011

Location, and other logistical features of this work are noted on respective drill logs.

# Magnetic Survey - Soil Sampling

The following days were directly concerned with magneticsoil work by writer's personnel:

May 28: May 29: May 31:	Grid preparation - West end - 117815. Mag work on line 2400 E. detail environs. Establishment of base stations along road to west end.
June 1:	Mag on claim 117815 - soil chemistry.
June 2:	West boundary 117815 going north.
June 3:	Grid preparation - west end.
June 4:	West end - mag area 5-17 to 24 etc.
June 51	Electrical disturbance - diurmal no good, mag work washed out.
June 6:	Post 4 claim 117557 area
June 8	
το Τους <b>Ι</b> Ο.	
June 101	Weathers Compliation mag results.
June 13:	(1/2 day) Continuance base stations from

(1/2 day) Mag along claim line south from P 4 118794. Mag recheck line 1800 E and detail of June 14: June 15: Note compilation. Grid preparation. Mag south from 4400 W on BL - Sample S-31 to 38, etc. area.

- June 16: June 22: June 23:

#### SUMMARY OF RESULTS

#### Drill

No ore intersections were obtained. Some copper and silver was intersected in Nole 3 associated with the sulphide iron formation but were minor constituents and of an indicative nature only. (see logs)

The EM - magnetic indications, which mainly indicated the location of the holes, were, except in the case of Hole 3, caused by contact features; either granitic or basic intrusive dykes in contact with altered basic flows, the contact areas of which were altered to electrolyte-supporting chlorite schist. The volcanics and basic intrusives were generally magnetic, locally strongly so, but rarely was free magnetite noted in the cores.

#### Magnetic - Soil Survey

Several intense magnetic values were obtained on Claim 117815, as noted on West Sheet. These are undoubtedly faulted extensions of the North Limb sulphide iron formation noted in old trenches near the SW corner of the claim.

Soil values, see West Sheet, over these anomaly areas indicated a certain copper, zinc association but not of ore intensity.

Immediately south of the north limit of Claim 117556 and just NW of No. 4 Post 117550 on Patented ground sulphide values were obtained magnetically. Soil values were not indicative

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of underlying mineralization. The feature is probably the westward extension of the persistent basic dyke outcropping at No. 1 Post of 117550.

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Other sporadic magnetic values of sulphide intensity were noted but in each instance soil values did not indicate an economic mineral concentration.

#### RECOMMENDATION

The nature of the drill program was indicational only, to test at minimum expense the cause of the several anomalies located in a favourable geologic setting. While undoubtedly additional values could be intersected by cross-sectional follow-up along the iron formation limb to the northeast of Hole 3, low values in this hole and geochemical indications do not justify.

Holes 5 and 6 did not indicate hoped-for structural conditions along the tuff-granite contact. It seems certain that the favourably considered volcanic embayment area has been cut by many segregated outlier intrusive dykes (some of the favourable feldspathic type), but that the mineralizing solutions were minimized and did not concentrate in this environment, but in association with the earlier sulphide iron formation to the north.

In the writer's opinion, on the foregoing basis, an additional expenditure is not justified.

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# ASSESSMENT STATUS

Including accepted earlier credits a total of 1747 mandays is applicable to 33 contiguous claims of the main group. Grouping this work to obtain the required 40 mandays for the most promising claims necessitates not applying work to claims 117559 and 117553 (which are under extension in any case to May, 1964).

The five separate claims 117811-117815 off the NW corner of the main group are short of credits for renewal. It is possible that sufficient magnetic-soil work may be applicable to the Key Claim 117815 to renew but at time of writing exact credit forthcoming is not known. It is suggested that 117814 and 117815 be extended. The writer has filed the pertinent form with the Company for processing.

Copies of assessment reports are attached.

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#### PROGRAM

Please refer to drill logs and sections following for results.

#### <u>prill</u>

- Hole 1: Designed to cross-section a narrow zone of coincident magnetics and EM conductivity on Claim 117541 in an area proximate to a suggested control structure for Pb-Zn-Cu mineralization 1200 feet to north on Patented ground. No important mineralization. Contact between sericite schist and basic chloritized andesite responsible for geophysics.
- Nole 2: Designed to cross-section zone of coincident magnetics and conductivity supporting intermittent soil response on Claim 117531. Very minor mineralization in basic chloritic environment.

See Centre Sheet for above holes.

Hole 3: Designed to cross-section an intense (off-scale) zone of magnetics assumed to be the south limb of iron formation at a point of flexure in the formation where coincident EM and sould response was obtained. This hole cut narrow sections of heavy to massive sulphides but was low grade in Cu, Pb, Zn and Ag. Claim 117819.

- Hole 4: Designed to explore the apparent nose of the iron formation band in an area of high magnetics and well zoned geochemical values. Claim 117819. Log was chiefly granodiorite outlier material with narrow sections of chlorite schist and minor mineralization.
- Hole 5: Claim 117524. Designed to cross-section zone of off-scale magnetics and EM in embayment area. Hole was mostly an altered symmittee phase of granite. Nagnetic response was off-scale where hole spotted, but decreased rapidly suggesting remnant of iron formation overlying intrusive. Volcanic sections of core were only moderately magnetic. Negligible mineralization.
- Hole 6: Claim 117524. Cut a repetitious sequence of volcanic and basic intrusive dykes the contacts of which provided conductivity and magnetic response. Some late pyritization with odd splash of chalcopyrite but no degree of metallization associated with structure.

<u>Magnetic Work - Soil Chemistry</u> (See East Sheet) (354 magnetic observations not including base establishments)

(46 soil samples - checks on magnetic anomalies)

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Results of the Magnetic - Soil Chemistry work is embodied on the West Sheet and is largely self-explanatory. As earlier mentioned, in no instance did the soil analyses indicate the magnetic values to be associated with concentrations of economic mineralization.

During the course of the survey on Claim 117815 much rusting and schisting of the outcropping formations was noted. These where, favourably, chlorite and sericite schists, alteration products of the basic volcanics and quartz porphyry horizons respectively.

Islands of iron formation, apparently step faulted SW from the main belt are manifosted on Claim 117815 by the off-scale magnetic readings. These are located within the schisted quartz porphyry-sericite horizon noted above. Much of the area is swamp covered obscuring outcrop definition of structural trends.

Respectfully submitted,

J.R. Mowat Geologist

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KEY MAP. Tiops of GENON & MARION . DETRICT OF SUDBURY. Scale : 1:500.000



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