



41P16SW0002 63A.430 FARR

REPORT ON A GEOLOGICAL
SURVEY OF THE TORMONT
MINES PROPERTY IN FARR
TOWNSHIP, ELK LAKE SIL-
VER AREA, ONTARIO

FOR
THE DIRECTORS

January 8th, 1964.
Haileybury, Ontario

E.L. MacVeigh B.A., M.S.

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CONTENTS

- 1. Summary
- 2. Property & Access
- 3. History
- 4. Geology
- 5. Mineral Deposits
- 6. Conclusion & Recommendations.

Maps & Diagrams:

- a. Geological Plan of Tormont Property
Scale 200' to 1"
- b. Generalized East-West Geological Section
Scale 400' to 1"
- c. Neighboring Property Locations
Scale 1/2 mile to 1"
- d. "Little Otisse" Shaft Workings
Scale 20' to 1"
- e. "Roy Silver" Surface Veins and Plant
Scale 20' to 1"
- f. "Roy Silver" Shaft Workings -Longitudinal
Stope Sections & Level Plan
Scale 20' to 1"
- g. "Tiara Mines" Section Showing Underground
Diamond Drilling. Scale 100' to 1".

SUMMARY

Tormont Mines Limited hold a group of 25 mining claims in the Elk Lake Silver Area. The claims are located in Farr Township near Hubert Lake approximately 7 miles northwest of the town of Elk Lake.

During the Summer and Fall of 1963 the writer conducted a geological mapping of the Tormont property with a program of prospecting, surface work, and a dewatering of the 100' deep Little Otisse shaft location. No significant silver occurrences were found though numerous low silver values were found associated with cobalt mineralization in calcite veins in the diabase sill.

The geological mapping shows the presence of the Nipissing diabase sill in the central part of the property where it strikes north-south and dips flatly west about -10° to -15° . The outcrop area of diabase is upwards of $\frac{1}{2}$ of a mile wide and is shown to be overlain by Cobalt sediments to the west and underlain by Cobalt sediments and Algonian granite to the east. A deep erosional valley traverses the Tormont property from north to south, a distance of a mile and a half, in the diabase area. This feature is traceable at least three miles further south. Along its length from north to south are located silver and cobalt occurrences. In Farr Township these are the shaft locations of "Roy Silver" and "Little Otisse" on the Tormont property. In Mickle Township silver occurrences in the proximity of the depression are; the Boland Lake silver location on the Norvalle

property, the Alsof shaft (formerly Mapes-Johnson), and the Candore (formerly Majortrans). The lineal depression possibly marks a fault location near which silver deposits have been localized.

On the Tormont property the Nipissing diabase is divided into a coarse and medium grained phase. The coarse phase is a thickness of 200' or more on the hanging wall of the diabase. The only known silver high grade obtained from the Tormont ground was that of the Little Otisse shaft on present claim MR. 12900 close to the contact of the coarse and medium diabase. It is not known whether there is an intrusive contact between the two phases or a gradational change. The contact location might have structural importance for silver occurrence.

In spite of the lack of success in finding silver during the recent work program it is recommended that the property be retained by Tormont Mines. In the writer's opinion it is quite possible that further work on the diabase in Mickle and Farr Townships could give successful direction to the search for silver deposits.

PROPERTY & ACCESS:

The property of Tormont Mines Limited in Farr Township, Ontario, is a silver and cobalt prospect composed of 25 claims, approximately 1,000 acres. The claims are recorded in the Montreal River Mining Division as follows:

Claims held under Lease:	MR.12898-99
	MR.12900
	MR.14960

Unpatented claims: MR. 35348-49-50-51-53-54
MR. 35452-53-55-56
MR. 35862-63-65-66-67-68
MR. 36300-01-02-03
MR. 37240

The leased claims were acquired by Tormont Mines when they took over the property holdings of Tiara Mines Limited. The unpatented claims were staked for the Tormont Company in 1962 and 1963.

Access to the ground is by way of Elk Lake, Ontario. From Elk Lake the route is via the Matachewan Highway, No. 65, to Mileage 7 and thence 3 miles west along the north side of Hubert Lake to the site of the "Roy Silver" shaft and former mill site. This location is at the north end of the Tormont property, and a car may be driven this far. Further access may be gained by following a bush road south through the Tormont claims. This road leads 8 miles south to the Gowganda Highway, No. 560, where it joins in Mickle Township about mileage 4 west of Elk Lake.

HISTORY:

The leased claims held by Tormont Mines Limited in Farr Township are developed by two vertical shafts and a short adit working. The 100' vertical shaft in the central part of the property on leased claim MR. 12900, and probably the adit working on the claim to the south, MR. 14960, are developments by Sterling Mines Limited. This company was incorporated in 1909 and the mining work was probably done shortly

afterwards. The Sterling shaft on MR. 12900 is referred to locally as the Little Otisse shaft.

Some small scale interim work was possibly carried on between the early days and 1950 when Roy Silver Mines Limited commenced operating for cobalt at a north shaft location on leased claim MR. 12898. This shaft was carried to a depth of 305' by Roy Silver and approximately 750' of lateral mining work done on levels established at 66' -135' -205' and 305'. The mining was done at the time of a high cobalt metal price and some stoping supplied cobalt ore to a mill constructed on the property. A small shipment of concentrates was made to the smelter at Cobalt, Ontario. A sample by the writer of a bag of concentrates left at the property assayed 3.70 ozs. per ton of silver, 6.50% cobalt and 5.39% copper. Apparently silver values in the ore were very low and stoping section assays of the Roy Silver operation show a very marginal operation at the best of prices for cobalt.

In 1955 Roy Silver Mines Limited was renamed Tiara Mines Limited and under the latter company some diamond drilling was carried out from the 305' level of the shaft on Claim MR. 12898 in 1956.

In 1961 Tiara Mines Limited was renamed Tormont Mines Limited. In 1963 Tormont Mines undertook a program of staking, field exploration and geological mapping to investigate the silver chances in Farr Township.

GEOLOGY

The country or basement rock of Farr Township is composed of granite in the eastern half and Cobalt sediments in the western half. Along the general north-south boundary of these two rock formations is an exposure of the Nipissing diabase sill which can be traced continuously from Elk Lake through James and Mickle Townships and north into Farr Township. This diabase exposure is part of an undulating sheet forming basins and domes and important as a source of native silver between Cobalt and Gowganda, Ontario. In Farr Township the diabase sill and the Cobalt sediments composed of conglomerate, arkose and greywacke, are observed to dip west at -10° to -15° . Five to ten miles west of the diabase exposure in Farr Township, outcrops of the sill are found in Chown, Shillington and Haultain Townships. At the east side of the latter township the diabase sill dips at about 25° being the eastern flank of the productive Miller Lake Basin of Gowganda. A large basin area can be assumed to exist in the diabase underlying parts of Chown, Shillington, Mickle and Farr. It is not known whether the diabase east of Farr Township intrudes the granite or has been eroded from this area. While the Tormont geological plan and section suggest the latter, it is reported that the diabase sill dips east at the Candore property in Mickle Township 3 miles to the south of Tormont. This could mean a roll in the diabase along a north-south axis and its continuation east as a subsurface feature.

The diabase sill occurrence on the Tormont property is shown on the accompanying map on a scale of 200' to 1".

The flat dipping sill is overlain to the west by sediments, chiefly quartzite and arkose which are Upper Cobalt formation or possibly Lorrain. To the east the diabase is underlain by Cobalt sediments and Algonian granite as indicated by deep diamond drill holes which penetrated the bottom of the diabase sill from the Roy Silver shaft workings. Surface outcrops of the Cobalt conglomerate to the east of the diabase show pebbles ranging in size up to 2" but not the large boulder basal horizon of the Cobalt formation.

The diabase sill shows a projected thickness of over 1000' which might have been affected by faulting. On the hanging wall or west side of the diabase outcrop area is a 200' thickness of a very coarse diabase phase which was not observed in contact with the medium to fine grained phase in the middle and lower parts of the sill. A possible fault location marks the boundary of the two phases and the possibility of an intrusive contact should not be precluded.

On the Tormont property there probably exists a fault or zone of faults marked by the deep north-south depression which is followed closely by the bush road. Near this possible fault location old shaft dumps show some coarse brecciation and shearing. The south part of the Tormont property indicates that the diabase may be in fault contact with the sediments to the west. It is not known whether the fault is low angle or steep but displacement is indicated and this seems to be the only map location where it could exist.

MINERAL DEPOSITS

On the Tormont property in Farr Township native silver occurrence was found in the original work at the Sterling shaft in claim MR. 12900. This shaft was dewatered by Tormont during the 1963 work program. The shaft is a vertical two compartment opening sunk to a depth of 100' on a 4" calcite vein striking N 60° E and dipping 80° to the southeast. The shaft vein at surface has been deeply rock blasted at the collar but visible silver may be found in the diabase wall rock and a sample of 5" of this material taken by the writer assayed over 100 ounces of silver per ton. Between surface and the 45' level approximately 100 tons of rock have been open stoped from the shaft at both ends and this section is now tight lagged and rock filled and could not be examined. Presumably sufficient silver was found to carry out this mining. At a depth of 45' a level was established and 50' of drifting carried out northeast from the shaft on a branching vein system. The strong shaft vein was left in the southeast wall 25' back from the face. The veins on the 45' level contain some massive hematite with pyrite and a little chalcopryite but no cobalt mineralization. On the 100' level 35' of drifting was carried northeast from the shaft on a narrow calcite vein which appears to be the shaft vein with a flatter dip of 65° to the southeast. Small cross-veins striking northwest-southeast on this level show massive hematite. A short 20' cross-cut was driven northwest from the 100' level station intersecting three small ½" calcite veins showing chalcopryite. In all eighteen samples were taken of the veins underground all showing values of less than one ounce of silver per ton.

One hundred and fifty feet south of the Little Otisse shaft a second shaft has been sunk to a shallow depth on a north-south sheared and brecciated zone in the diabase. Considerable cobalt mineralization occurs in the dump with one massive piece showing 4" of smaltite. Grab samples from this dump showed the best assay to be 2 ounces of silver per ton. This zone may be followed 600' south as exposed in old trenching.

Considerable surface work during the summer and Fall of 1963 was done near the Little Otisse shaft in the northeast part of claim MR.12900. This location is attractive because of the record of silver occurrence, the abundance of cross-fracturing and the development of concentric jointing in the diabase. Although the trenching exposed considerable calcite vein material with cobalt mineralization, no significant silver finds were made.

A second location where considerable surface work was done by Torront in 1963 is on claim MR. 37240 where an area of highly fractured and jointed medium grained diabase occurs in the coarse diabase area. Numerous calcite veins are present, a few with cobalt mineralization, but only very low silver values were found.

CONCLUSION & RECOMMENDATIONS

The field work on the Torront silver property in Farr Township in 1963 did not reveal significant silver occurrence in surface work or in the dewatering of the old Sterling shaft.

The underground development at the Sterling shaft (or Little Otisse shaft) showed values of less than one ounce per ton in narrow calcite veins though high grade silver was undoubtedly found near surface in the old work. The Tormont geological mapping indicates that structurally the underground drifting might better have been directed southwest from the shaft towards junctions with the known north-south shear and assumed fault zones. All lateral development was carried out to the northeast and north.

A regional possibility for silver ore occurrence on Tormont and the neighbouring companies in Mickle Township to the south, is the possibility that the indicated north-south fault zone and parallel shear zones will make ore where junctions are formed with cross-fracturing. Similar favourable structure might be provided by the contact horizon between the coarse and fine grained phases of the diabase.

Considering the demand for silver a good deal of ore search will no doubt be done in the Elk Lake Area. A successful development on the Nipissing diabase sill in Mickle or Farr Townships may give good direction to future exploration on Tormont ground. It is recommended that at least a nucleus of claims be retained by Tormont covering the indicated location of the fault zone from the north to the south end of the Tormont property, a distance of 9,200'.

The known native silver deposits of the Elk Lake Area are similar to those of Gowanda in that they occur almost entirely within a host rock of Nipissing diabase sill. Also, most discoveries are near the top of the sill though the attitude

and thickness of the remnant portions of the sill in the Elk Lake Area are imperfectly known

The two dominant patterns of the silver bearing calcite filled fracture systems in the Nipissing diabase basin areas are tangential and normal to the basin rim. These are assumed to be subsidence cracks. Usually where silver is found faults are present and appear to have exerted a complicated control of the silver distribution by channeling and damming solutions and creating further fracturing. In the Gowganda Camp low angle faults seem to have particularly influenced silver distribution. The resulting combination of the above is usually a repetition of favourable structure down the dip of the diabase.

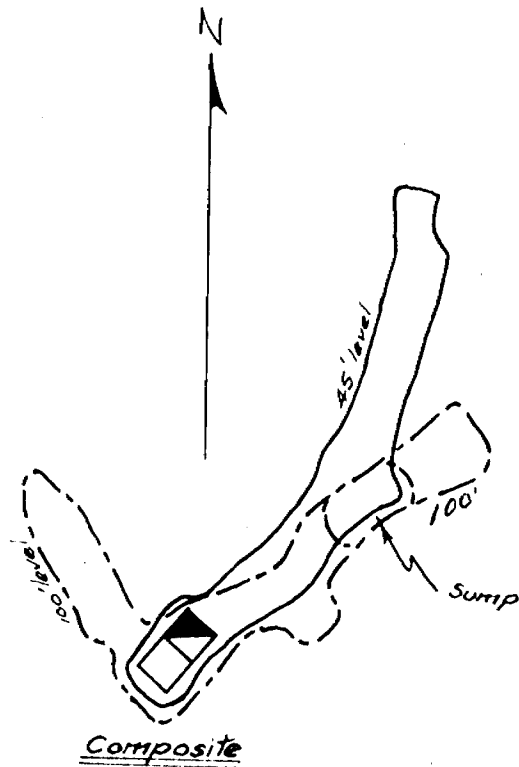
Silver exploration in the Nipissing diabase sill is handicapped by the low incidence of discoveries which might be expected at surface of an ore system which is usually plunging to depth. Though much investigation has been carried out there are few practical guides to ore search and yet the probability exists that undiscovered silver ore deposits occur and with persistence will be proven up by mining.

Respectfully submitted by



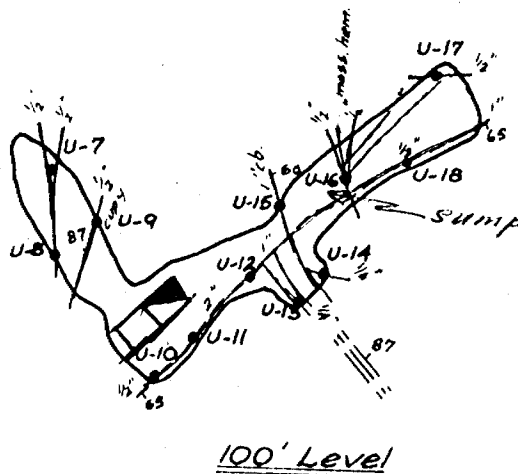
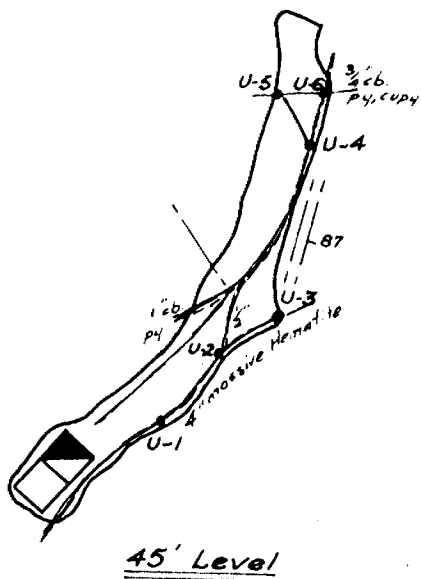
January 8th, 1964,
Halleybury, Ontario.

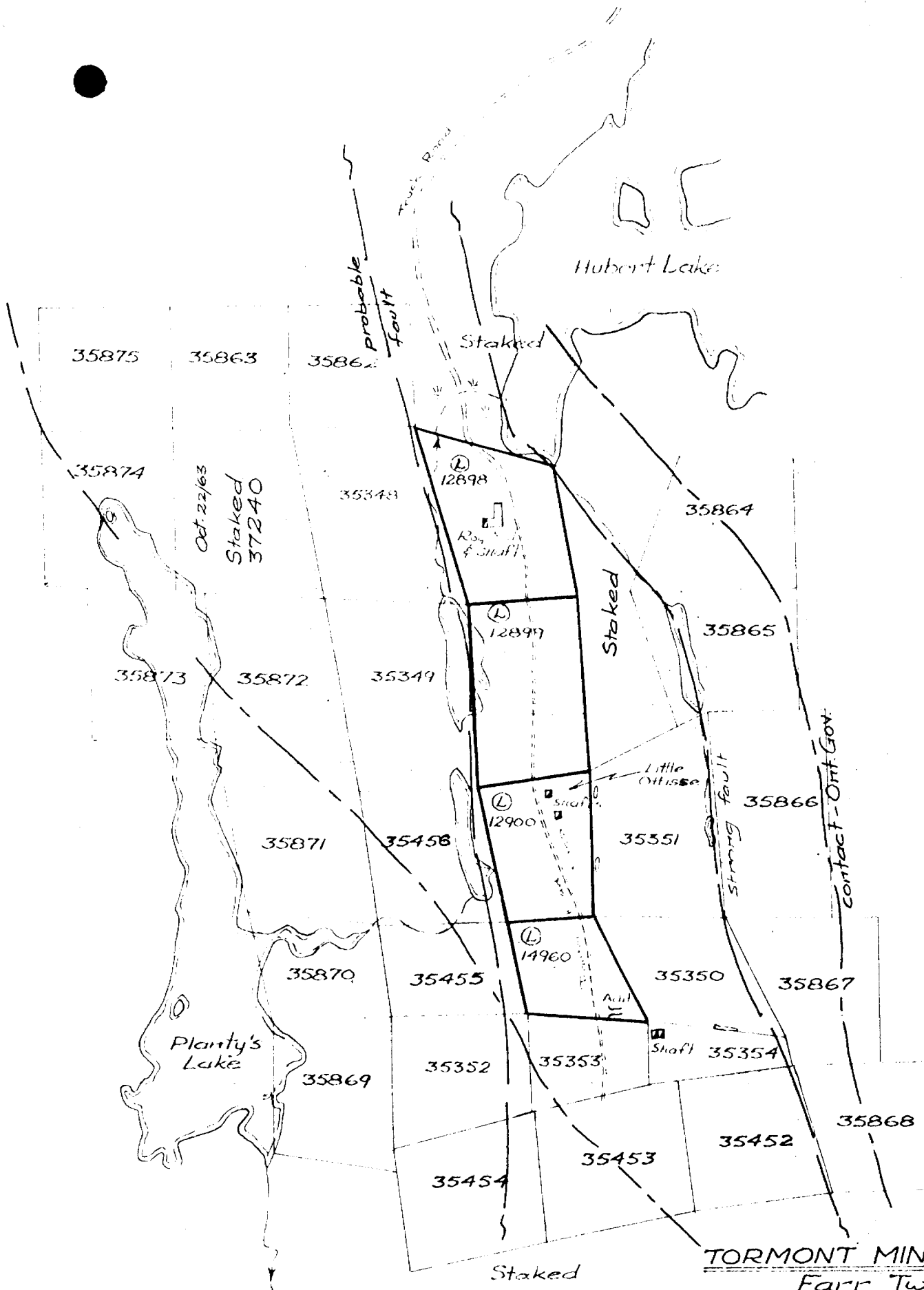
E.L. MacVeigh B.A., M.S.



LITTLE OTTISSE SHAFT
 TORMONT MINES LTD.
 FARR TWP.
 Scale: 1" = 20' Aug. 26/63 RAG

Chockley B.R., M.S.



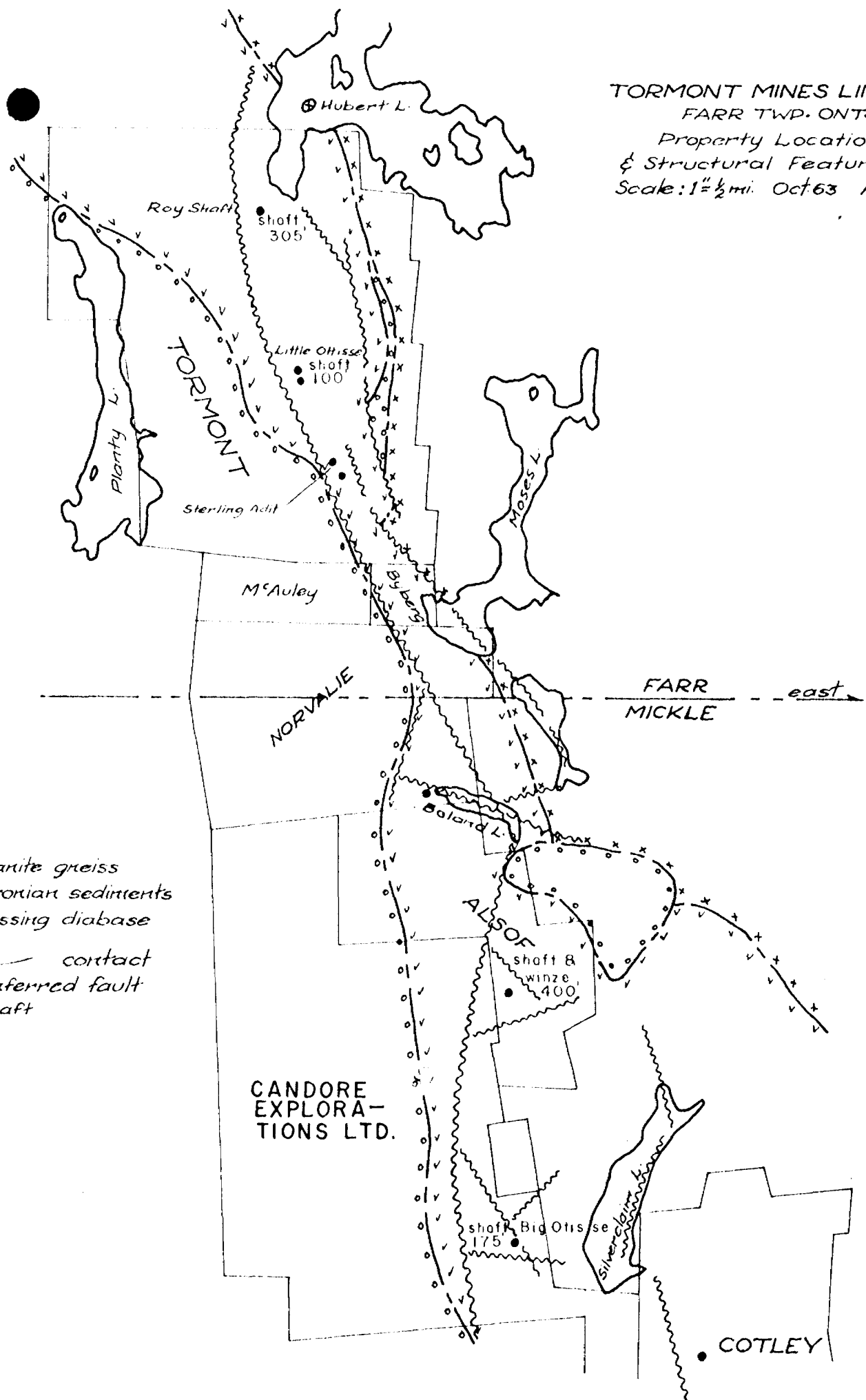


TORMONT MINES LTD.

Farr Twp.
Scale 1" = 2000' RRG

J. Macdonald B.A., M.S.

TORMONT MINES LIMITED
 FARR TWP. ONT.
 Property Locations
 & Structural Features
 Scale: 1" = 1/2 mi. Oct. 63 RAG.

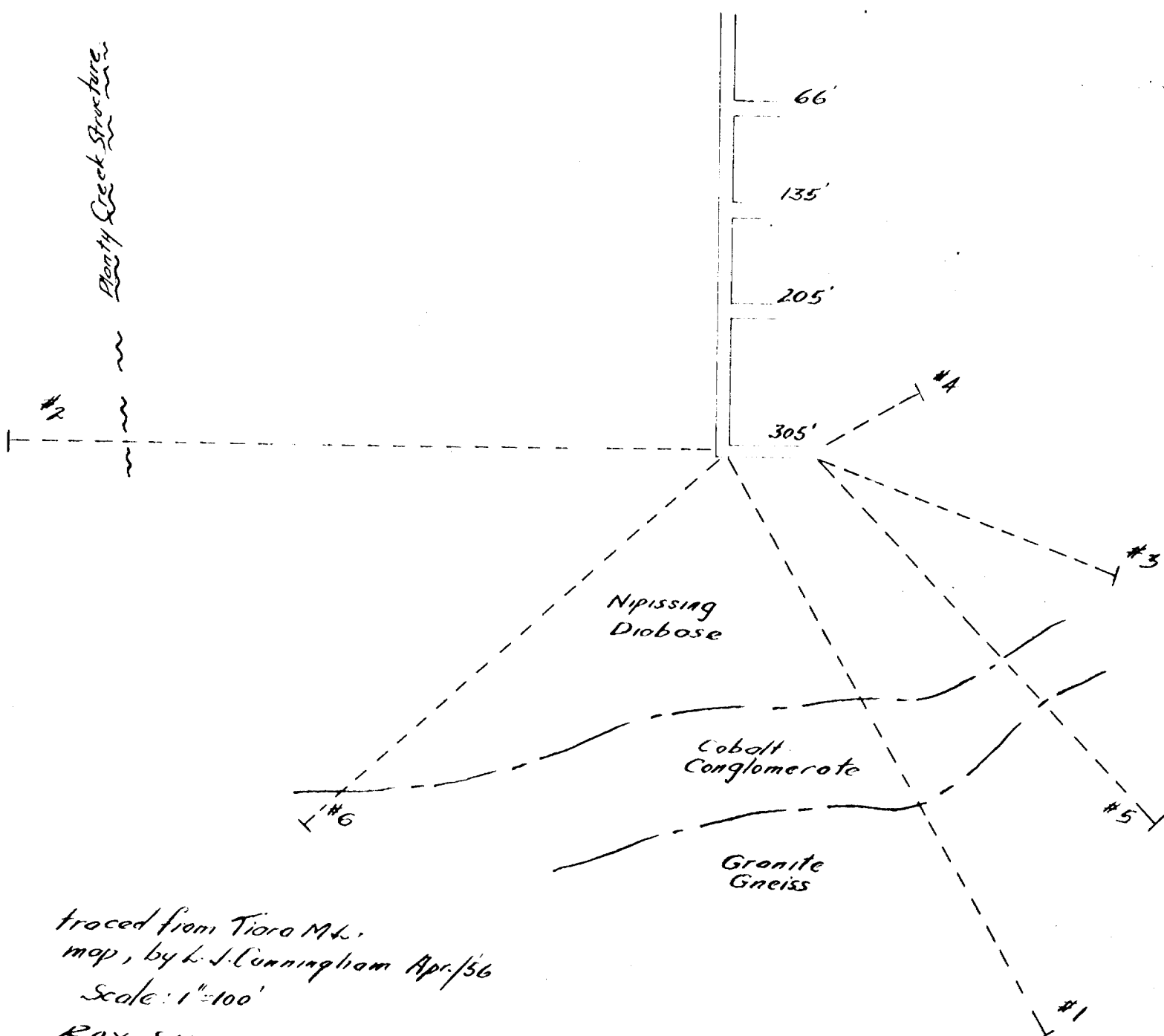


- xx ~ granite greiss
- oo ~ Huronian sediments
- vw ~ Nipissing diabase
- contact
- ~~~~~ inferred fault
- shaft

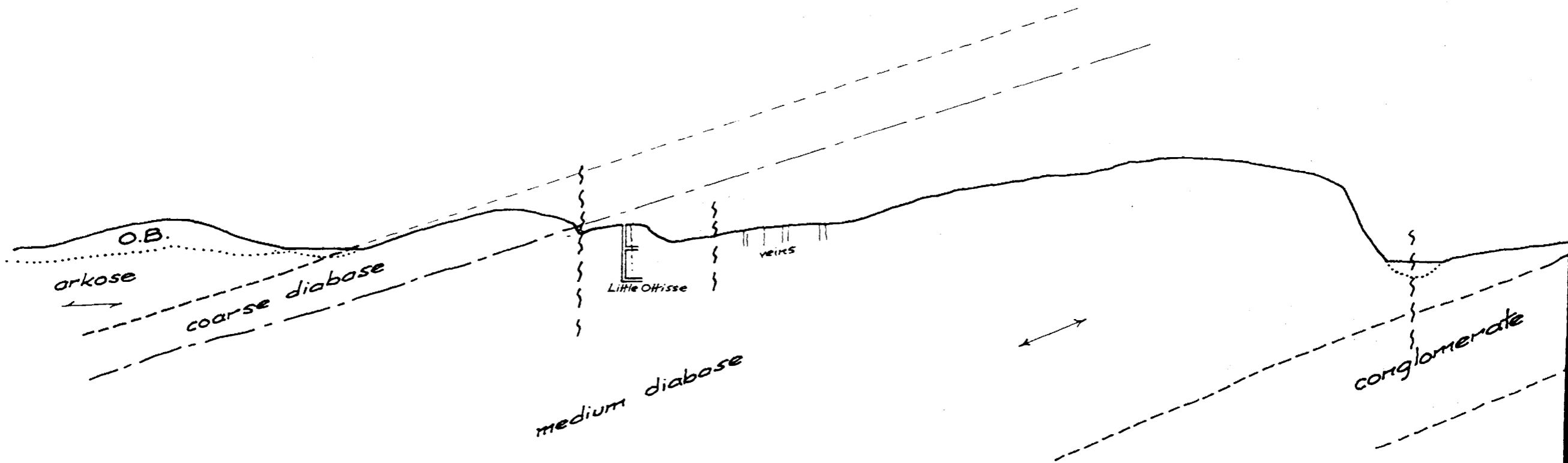
CANDORE
 EXPLORA-
 TIONS LTD.

Macneil B.A., M.S.

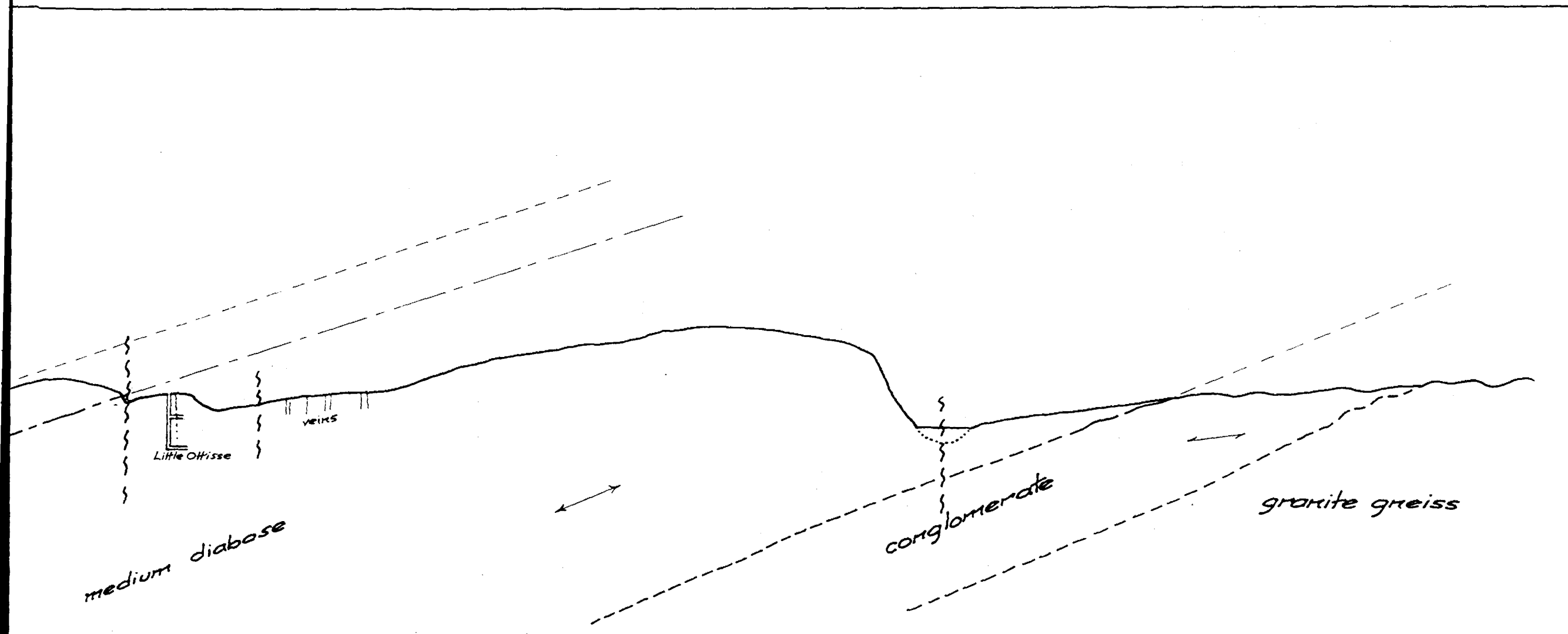
East →



traced from Tiora M.L.
map, by L.J. Cunningham Apr./56
Scale: 1"=100'
ROY SILVER-FARR TWP., ONT
TORVANT MINES LTD
C. Mackay R.R., M.S.

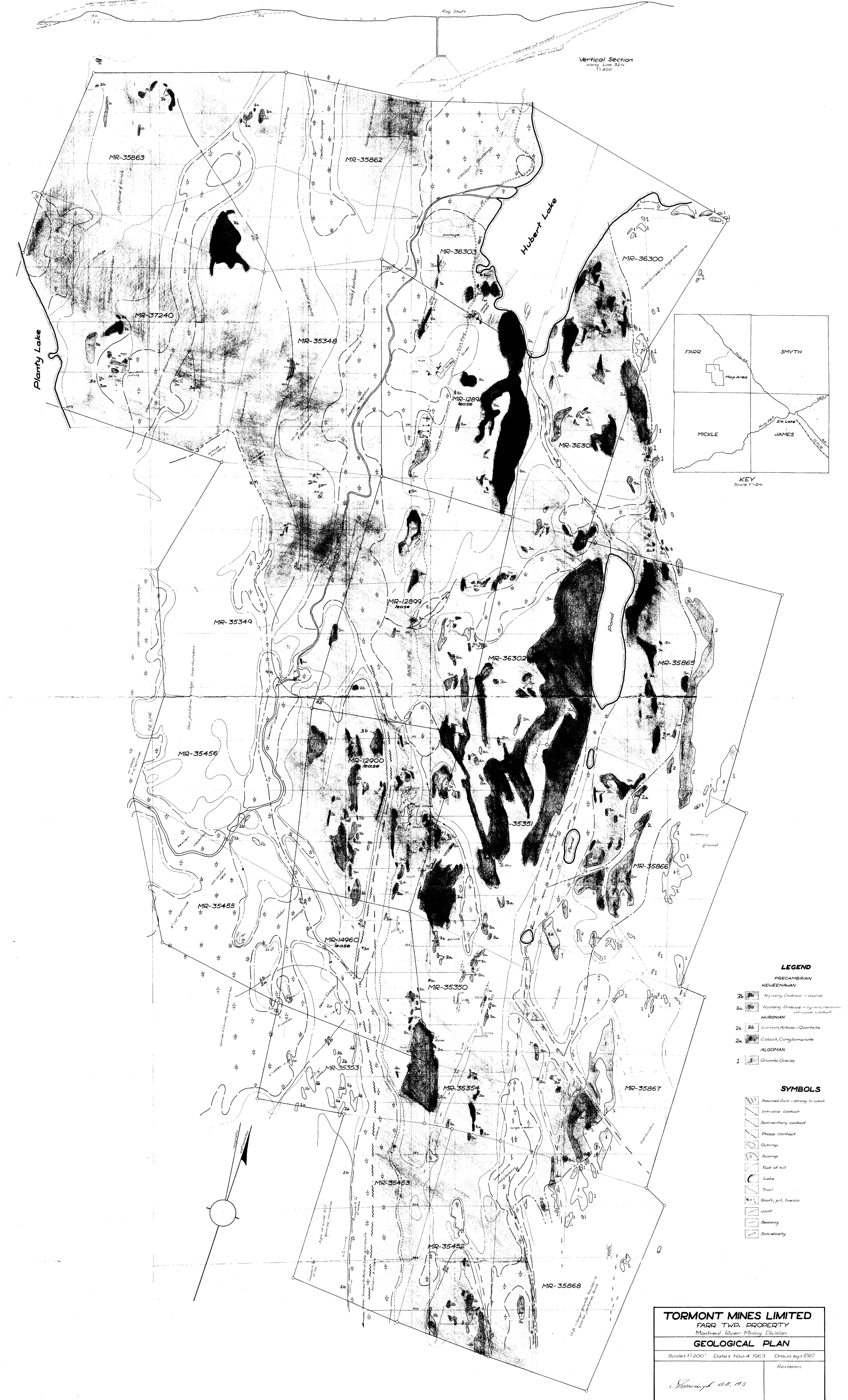


TORMONT
General W-E S
Scale: 1"=400'

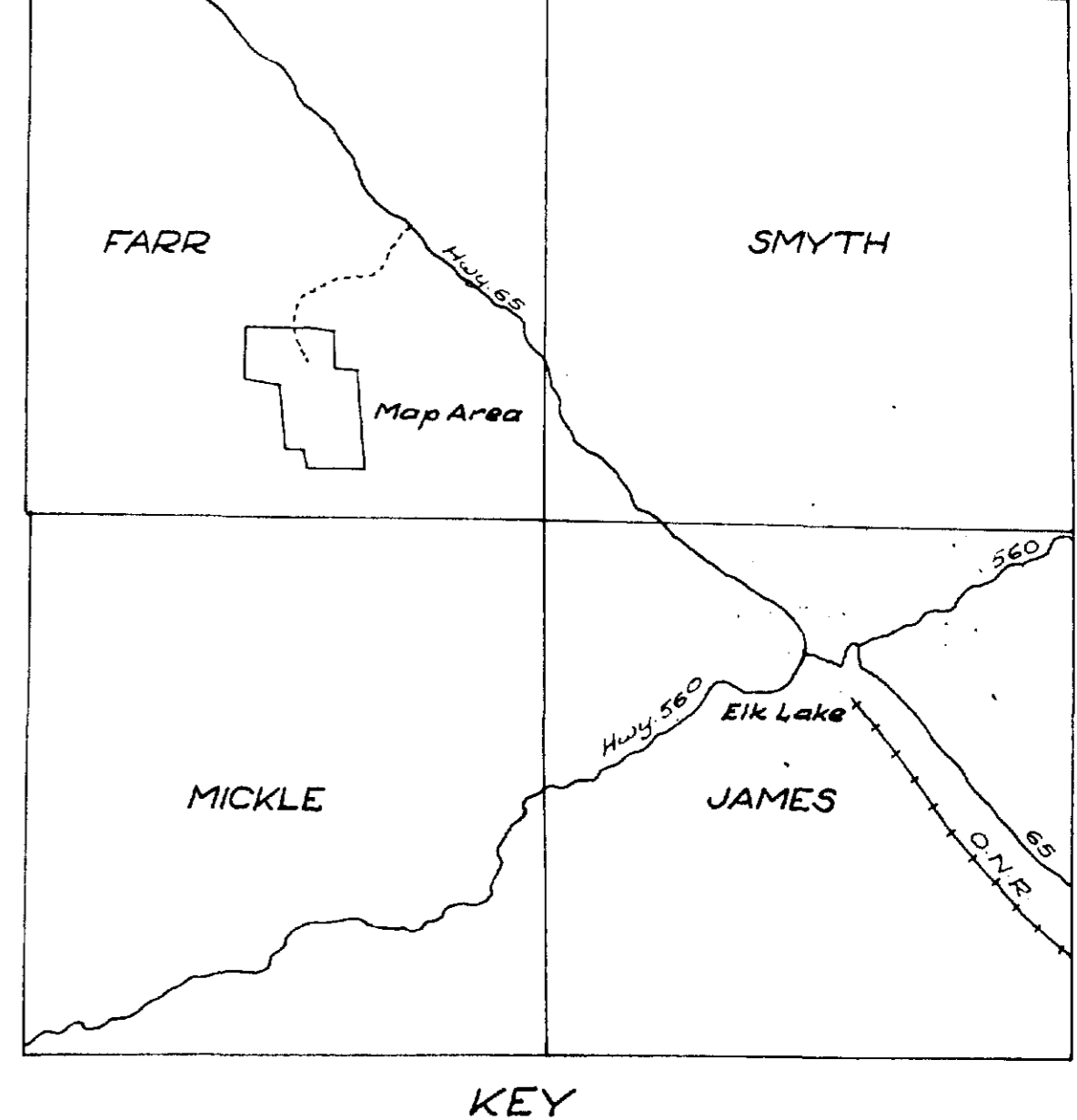


TORMONT MINES LTD.
General W-E Structure - Farr Top
Scale: 1"=400' Nov. 29/63 R.H.G.

Starkish B.A., M.S.



Vertical Section
along Line 32N
1:200



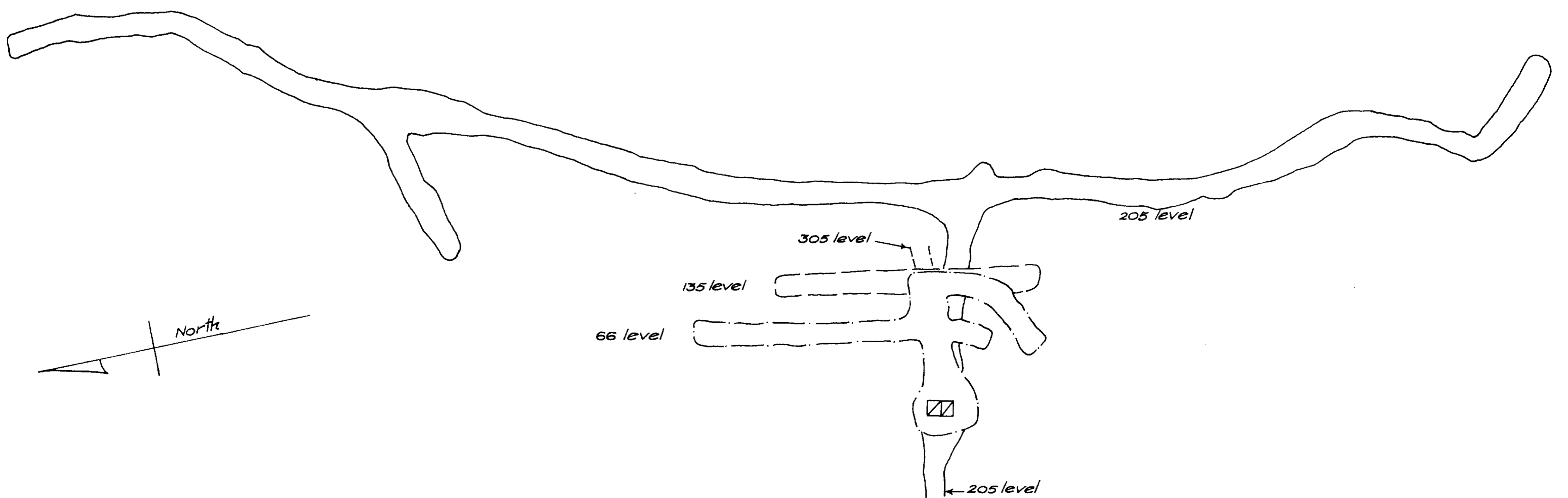
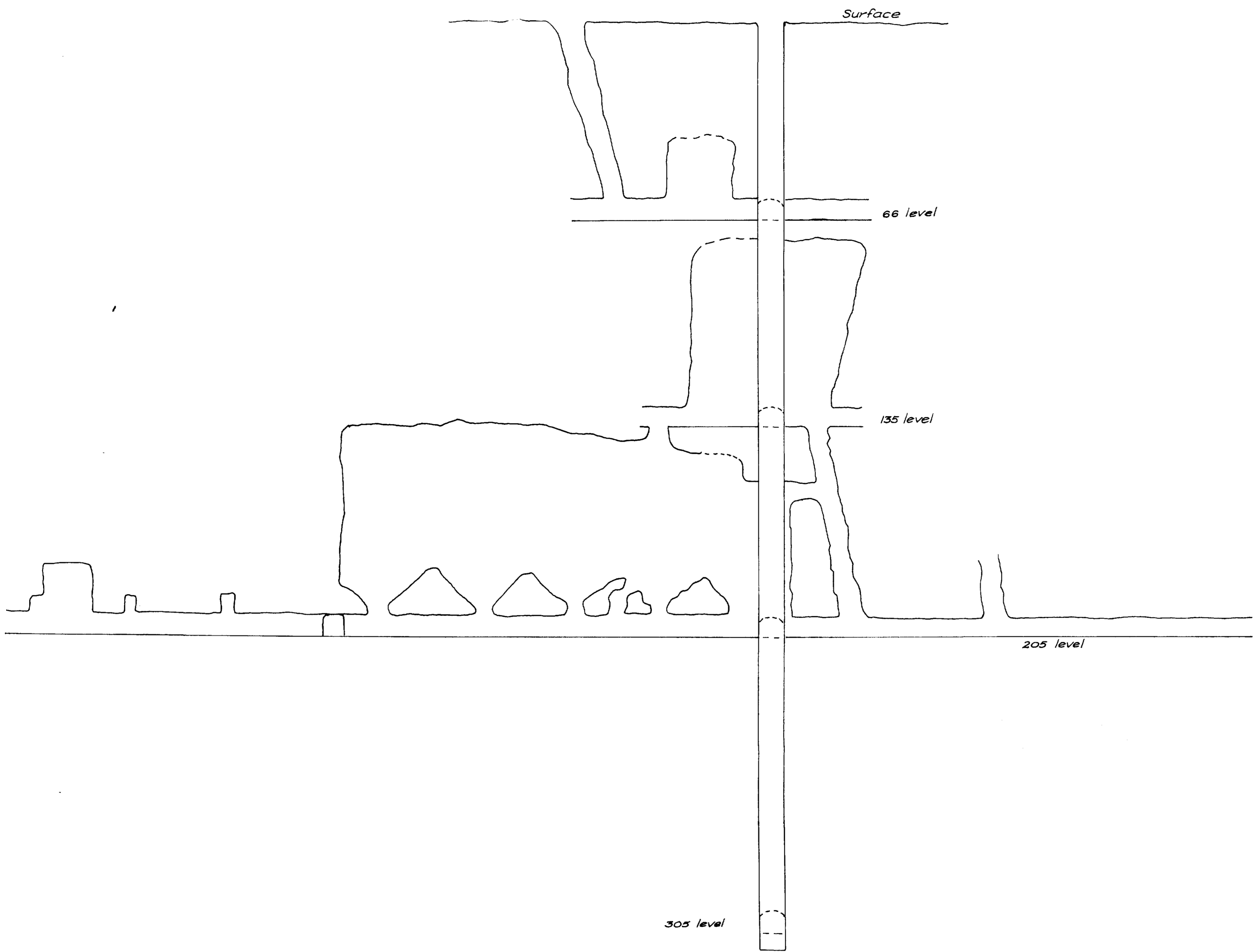
LEGEND

- PRECAMBRIAN**
- KEWENAWAN**
- 3b Nipissing Diabase - coarse
 - 3a Nipissing Diabase - fine, medium, with some contact
- HURONIAN**
- 2b Laramie, Arkose - Quartzite
 - 2a Cobalt, Conglomerate
- ALGOMAN**
- 1 Granite Gneiss

SYMBOLS

- Assumed fault - strong to weak
- Intrusive contact
- Sedimentary contact
- Phase contact
- Outcrop
- Swampy ground
- Foot of hill
- Lake
- Trail
- Shaft, pit, trench
- Joint
- Bedding
- Schistosity

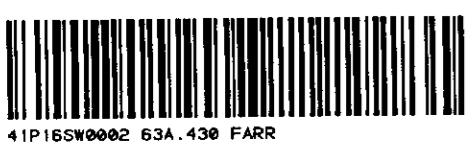
TORMONT MINES LIMITED
 FARR TWP. PROPERTY
 Montreal River Mining Division
GEOLOGICAL PLAN
 Scale 1:200 Date 1 Nov 4 1963 Drawn by R.M.
 Revisions
Simons 10, 11, 12



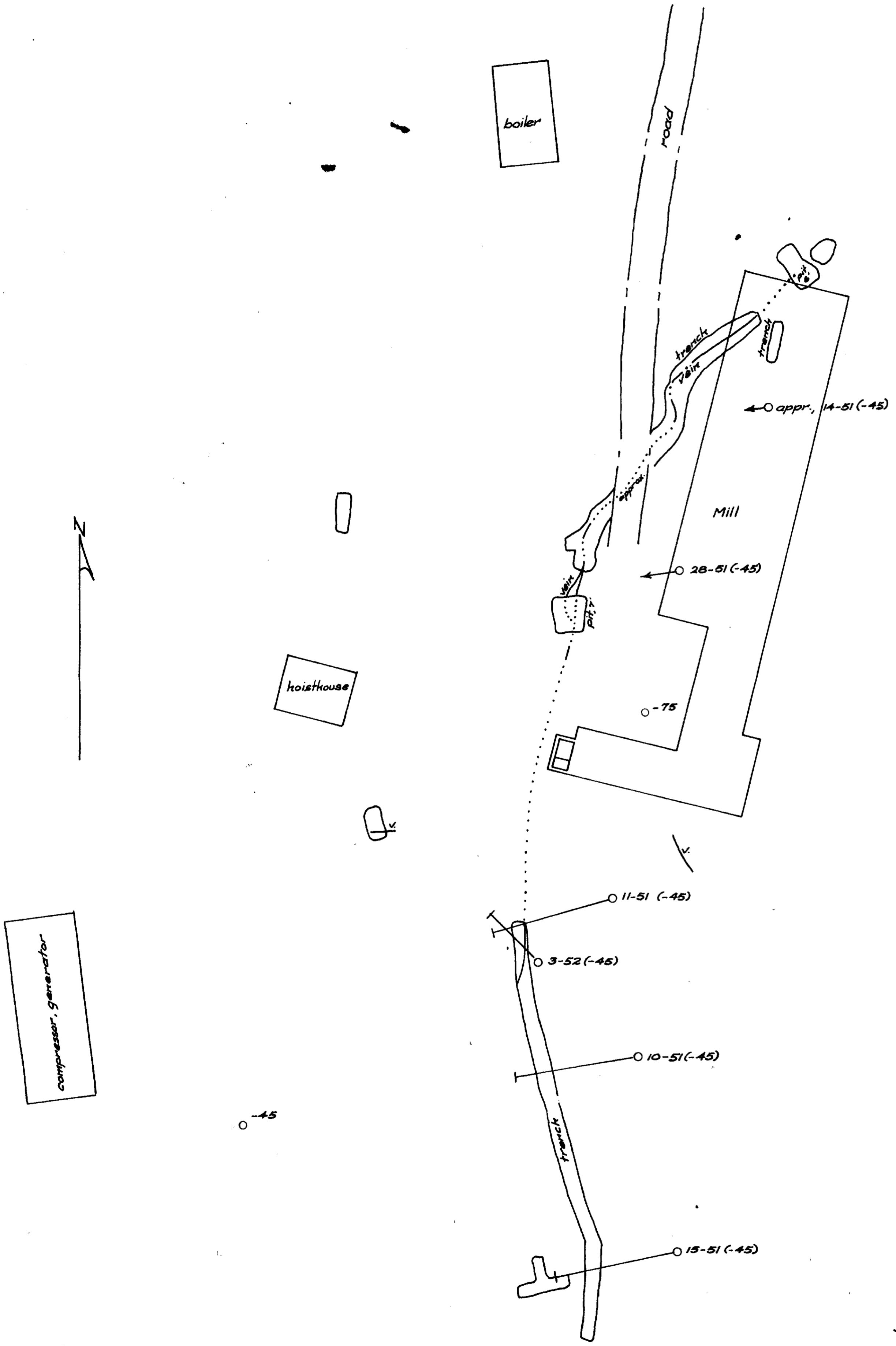
ROY SILVER
Shaft and Workings
Scale: 1"=20' approx. 1952

Free Inv. Out
Traced - 1963
TORRANT MINES LTD.

Shanklin, B.A., M.S.



41P1629982 63A 438 FARR



ROY SILVER
 Surface Veins & Plant
 Scale: 1"=20' 1952 & 53
 PARK TWP., ONT
 Traced 1963
 FOREMONT MINES LTD
 Mackay L. B. A., M.S.

