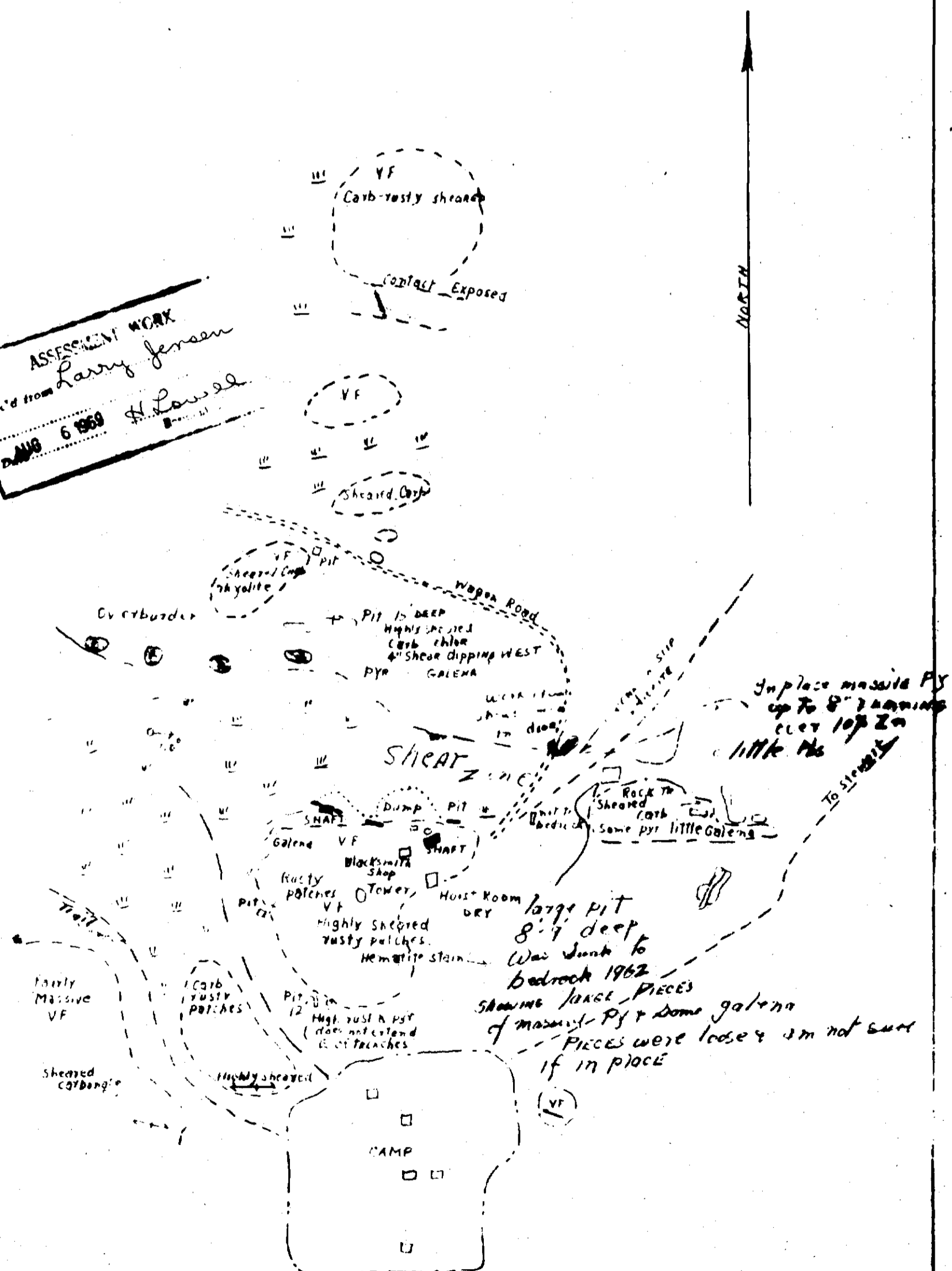


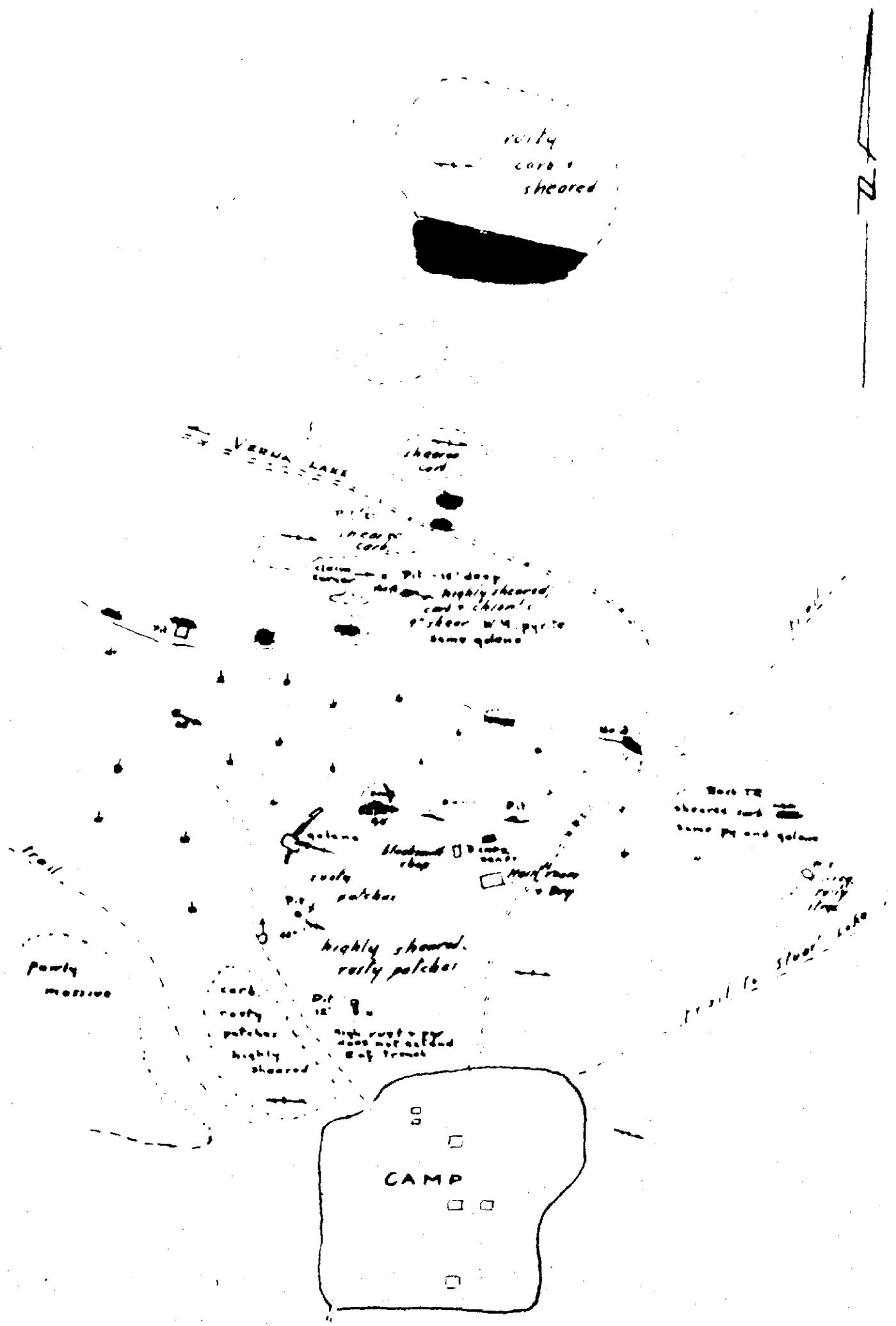
ASSESSMENT WORK  
 Rec'd from Larry Jensen  
 D.AUG 6 1960 H. Lowell



- LEGEND
- Galena Mineralization
  - Quartz Diorite (basic)
  - White weathering fragments (Rhyolite or Uelite)
  - VF Volcanic Fragments
  - (---) Geological Boundaries - Approximate

GEOLOGICAL MAP  
 (SHAFT AREA)  
 CANAGAU MINES  
 BEN NEVIS TOWNSHIP  
 ONTARIO  
 Scale 1" = 400'  
 G.E.M. 1960  
 (Done by Hollinger)



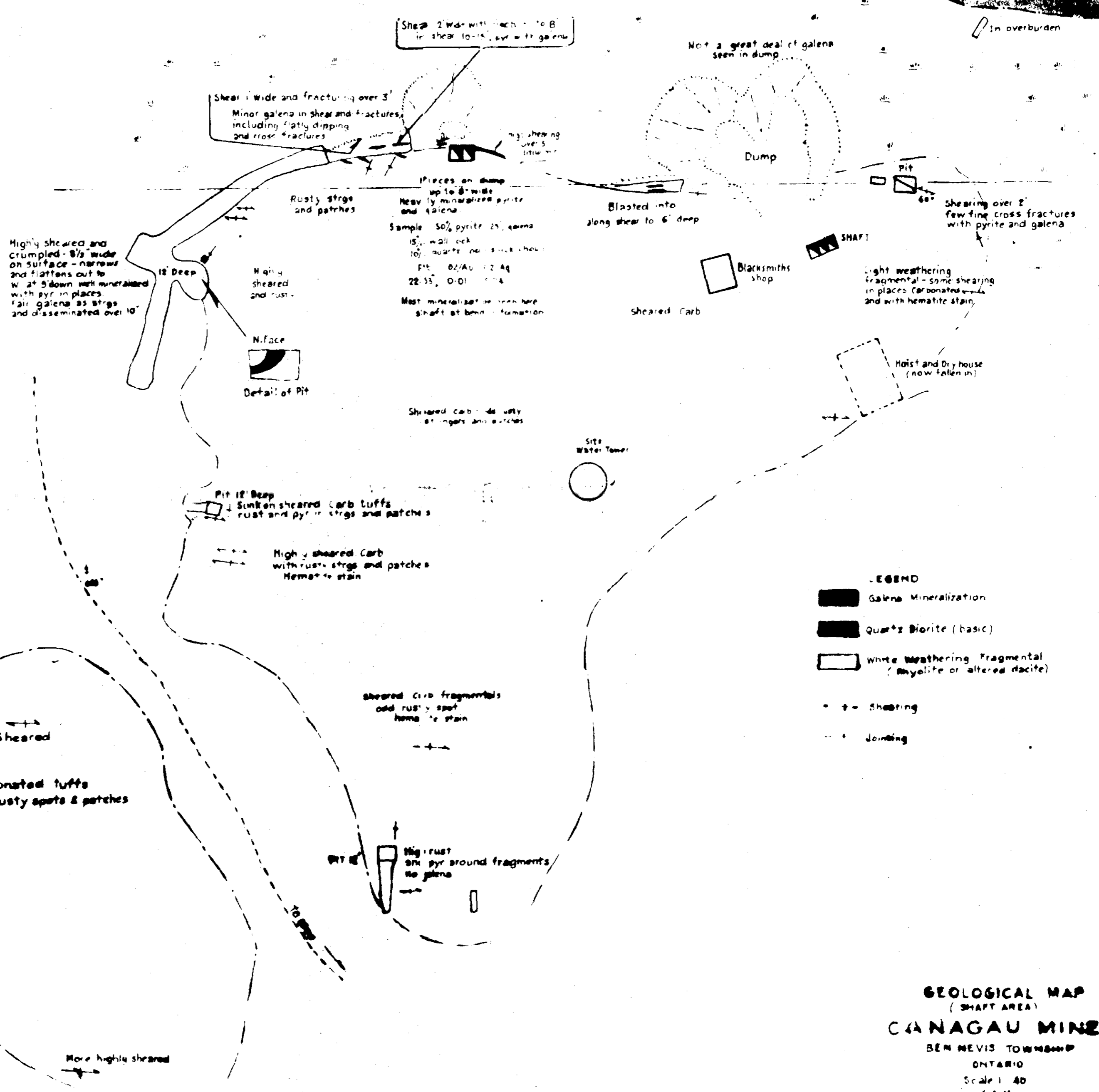


- Legend
- Galena mineralization
  - quartziferous
  - white weathering fragments (Rhyolite or dacite)
  - Direction & Dip of Shearing

GEOLOGICAL MAP - CAMP AREA  
 CANAGAU MINES  
 Bon Nevis Township, Ontario  
 1"=200' G.S.M. 20/10/69



32055E0055 63.3901 BEN NEVIS

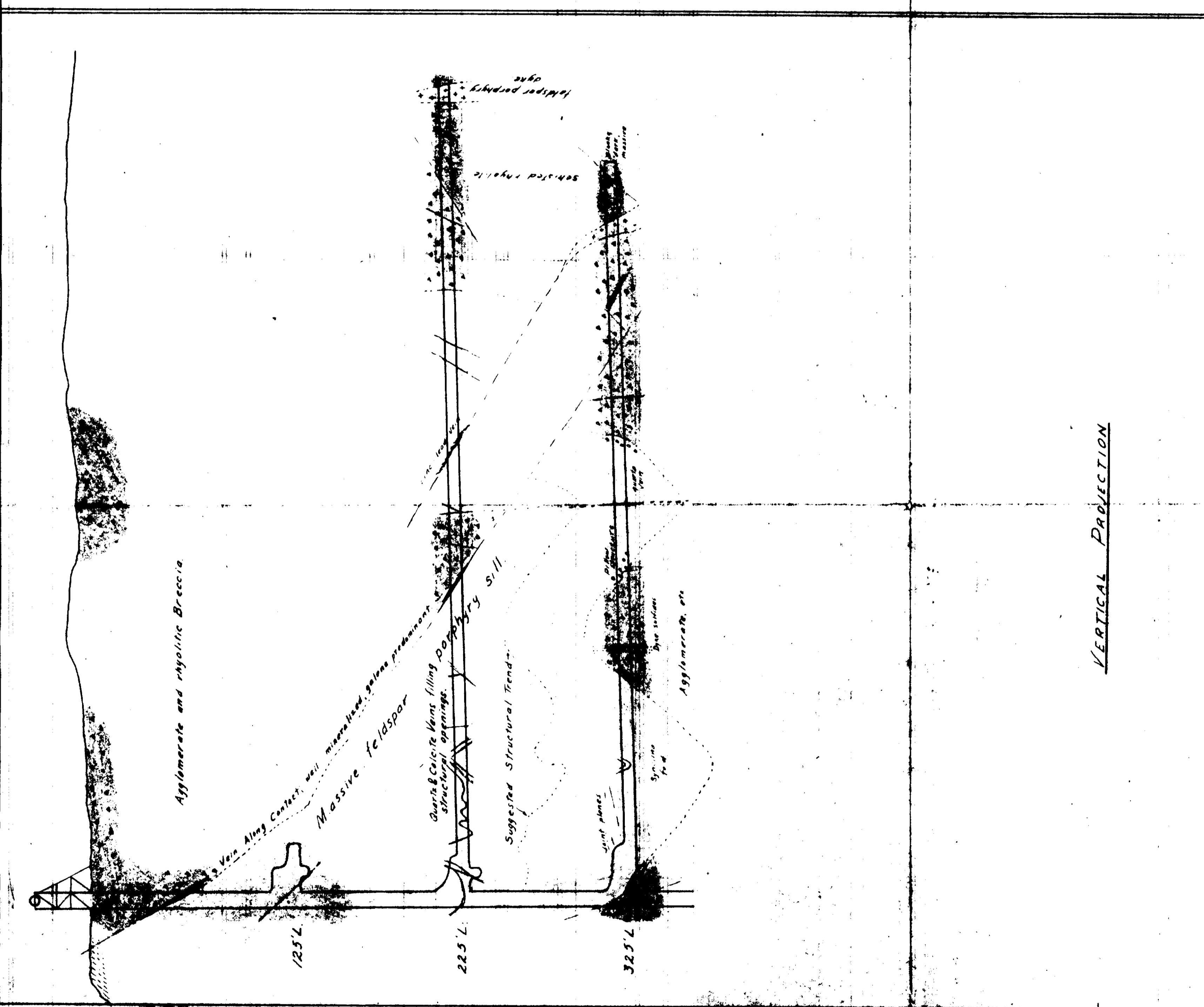


- LEGEND**
- Galena Mineralization
  - Quartz Diorite (basic)
  - White weathering fragmental (hyalite or altered dacite)
  - Shearing
  - Jointing

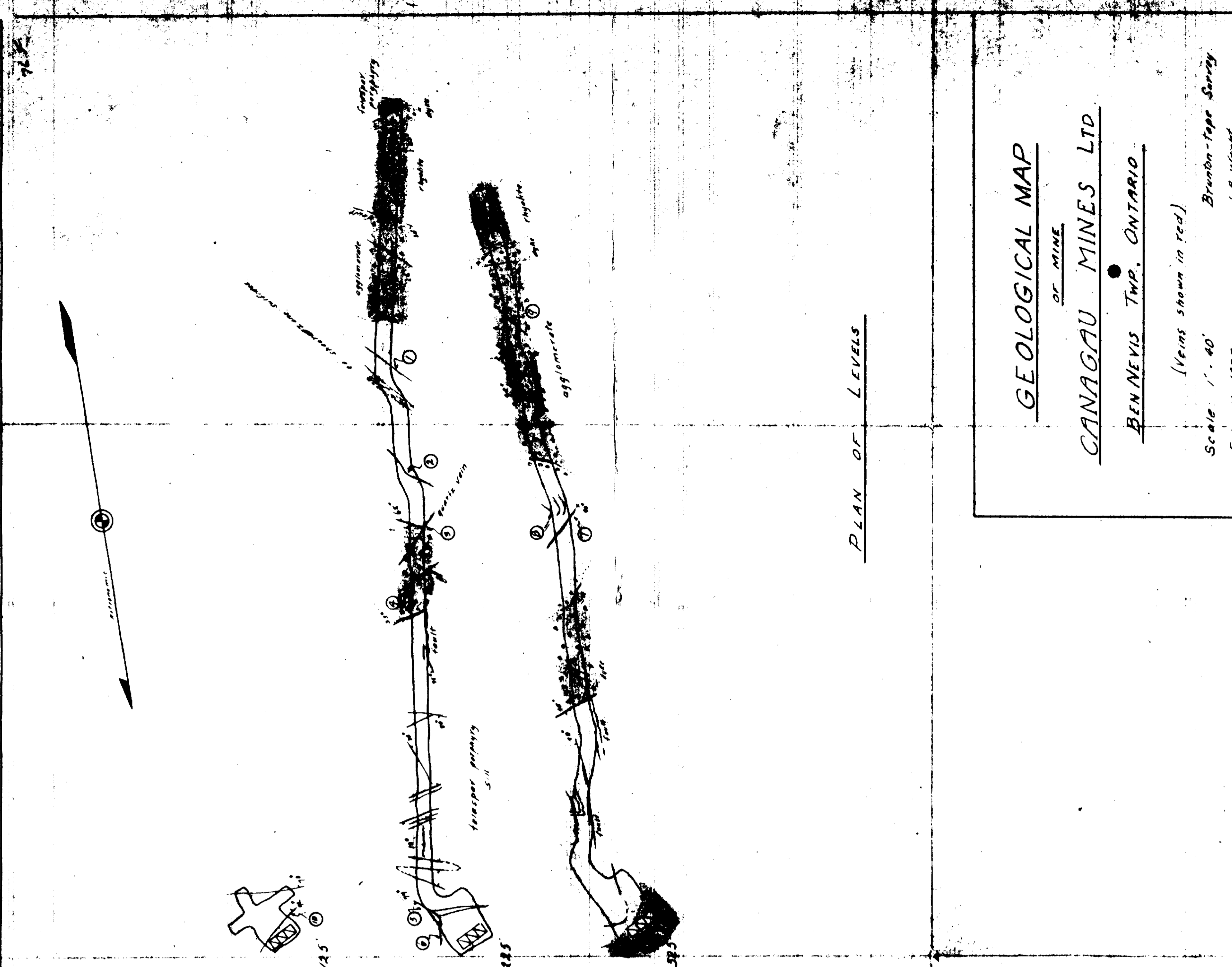
**GEOLOGICAL MAP**  
(SHAFT AREA)  
**CANAGAU MINES**  
BEN NEVIS TOWNSHIP  
ONTARIO  
Scale 1:40  
*[Signature]*

F1





VERTICAL PROJECTION



PLAN OF LEVELS

GEOLOGICAL MAP

OF MINE

CANAGAU MINES LTD.

BENNEVIS TWP., ONTARIO

(Veins shown in red)

Scale 1" = 40'

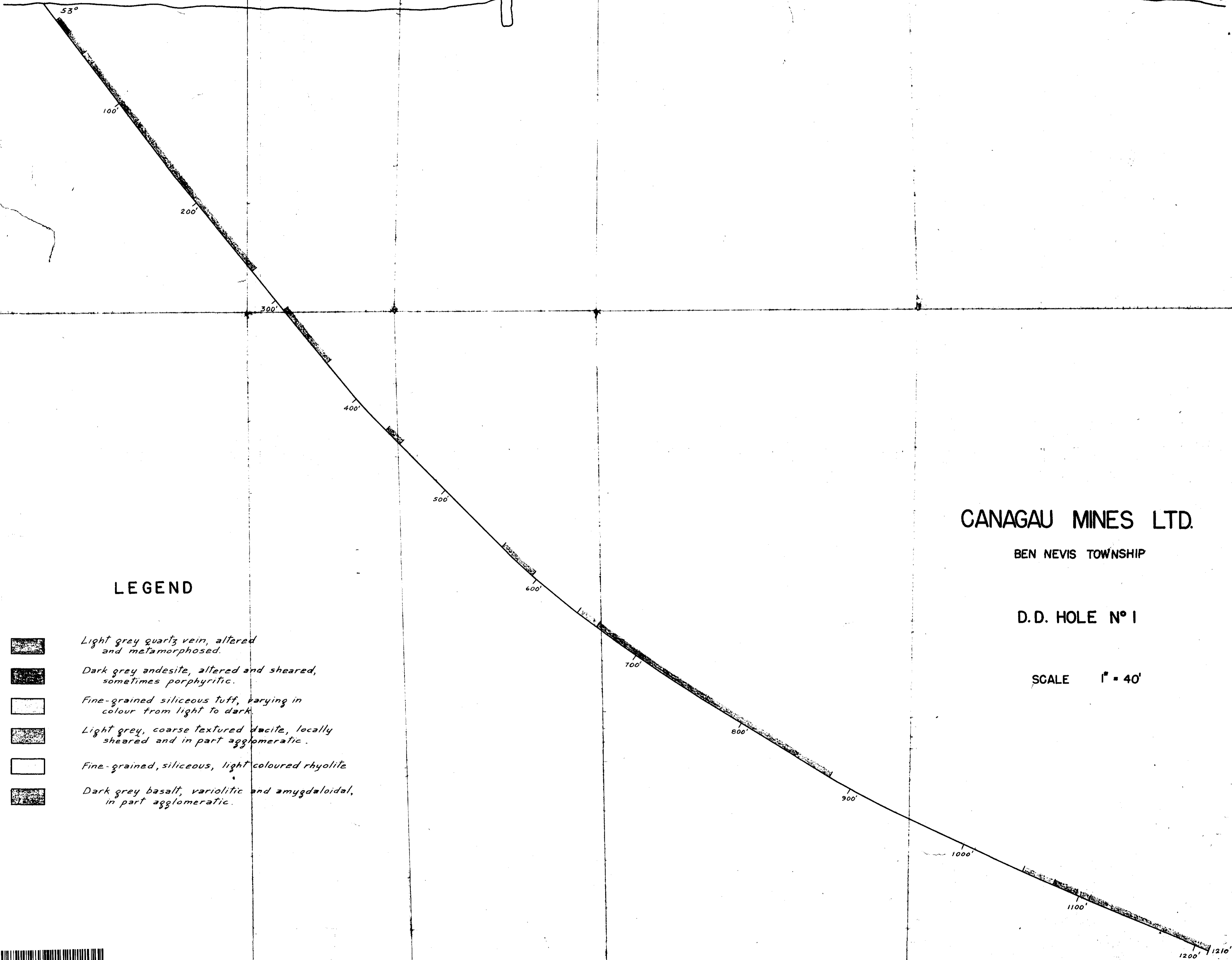
Feb. 10, 1937

Brandon-Tape Survey


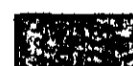
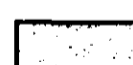

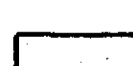

L. B. Wright



77



### LEGEND

-  *Light grey quartz vein, altered and metamorphosed.*
-  *Dark grey andesite, altered and sheared, sometimes porphyritic.*
-  *Fine-grained siliceous tuff, varying in colour from light to dark.*
-  *Light grey, coarse textured dacite, locally sheared and in part agglomeratic.*
-  *Fine-grained, siliceous, light coloured rhyolite*
-  *Dark grey basalt, variolitic and amygdaloidal, in part agglomeratic.*

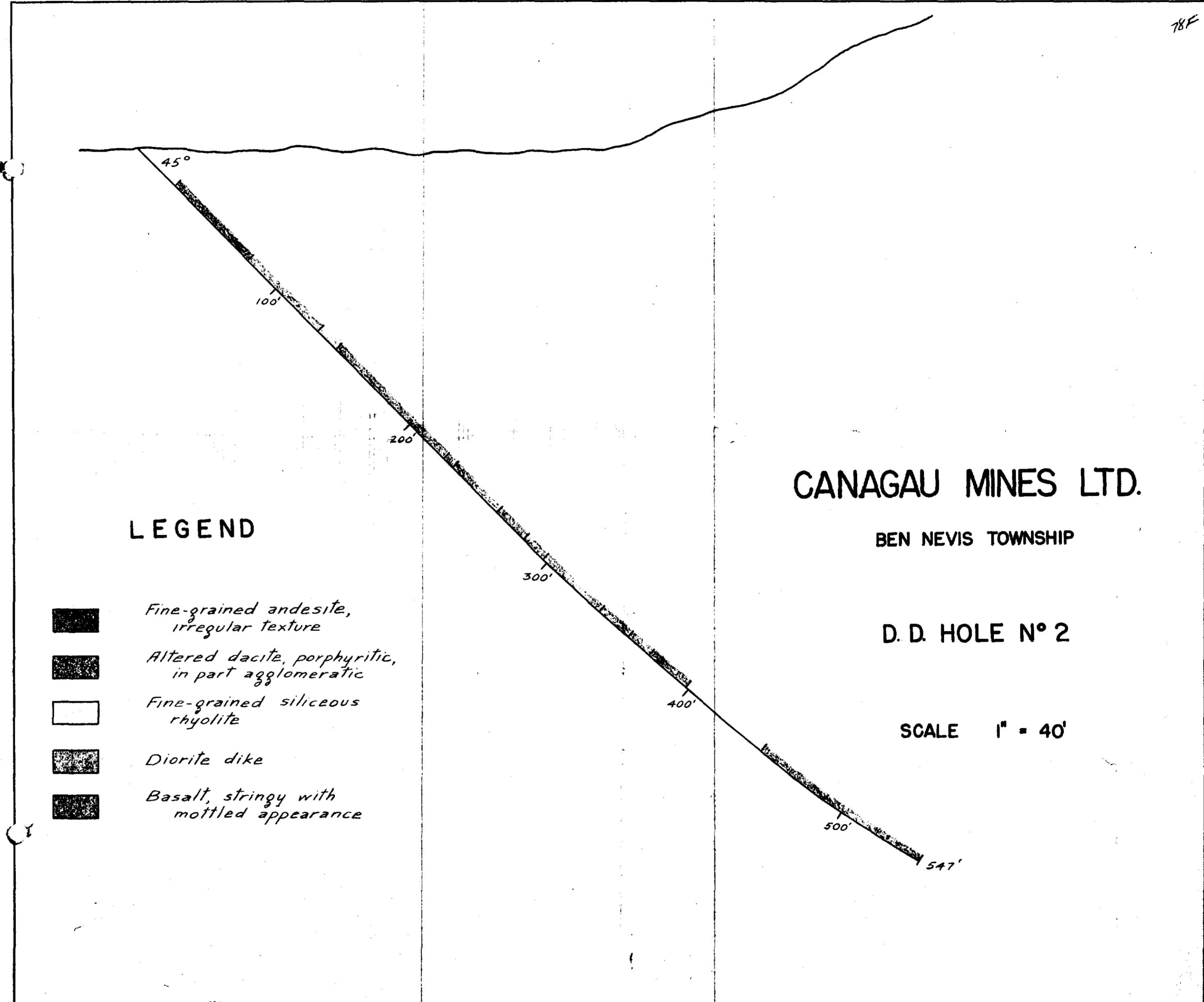
## CANAGAU MINES LTD.

BEN NEVIS TOWNSHIP






D.D. HOLE N° 1

SCALE 1" = 40'





### LEGEND

-  *Fine-grained andesite, irregular texture*
-  *Altered dacite, porphyritic, in part agglomeratic*
-  *Fine-grained siliceous rhyolite*
-  *Diorite dike*
-  *Basalt, stringy with mottled appearance*

## CANAGAU MINES LTD.

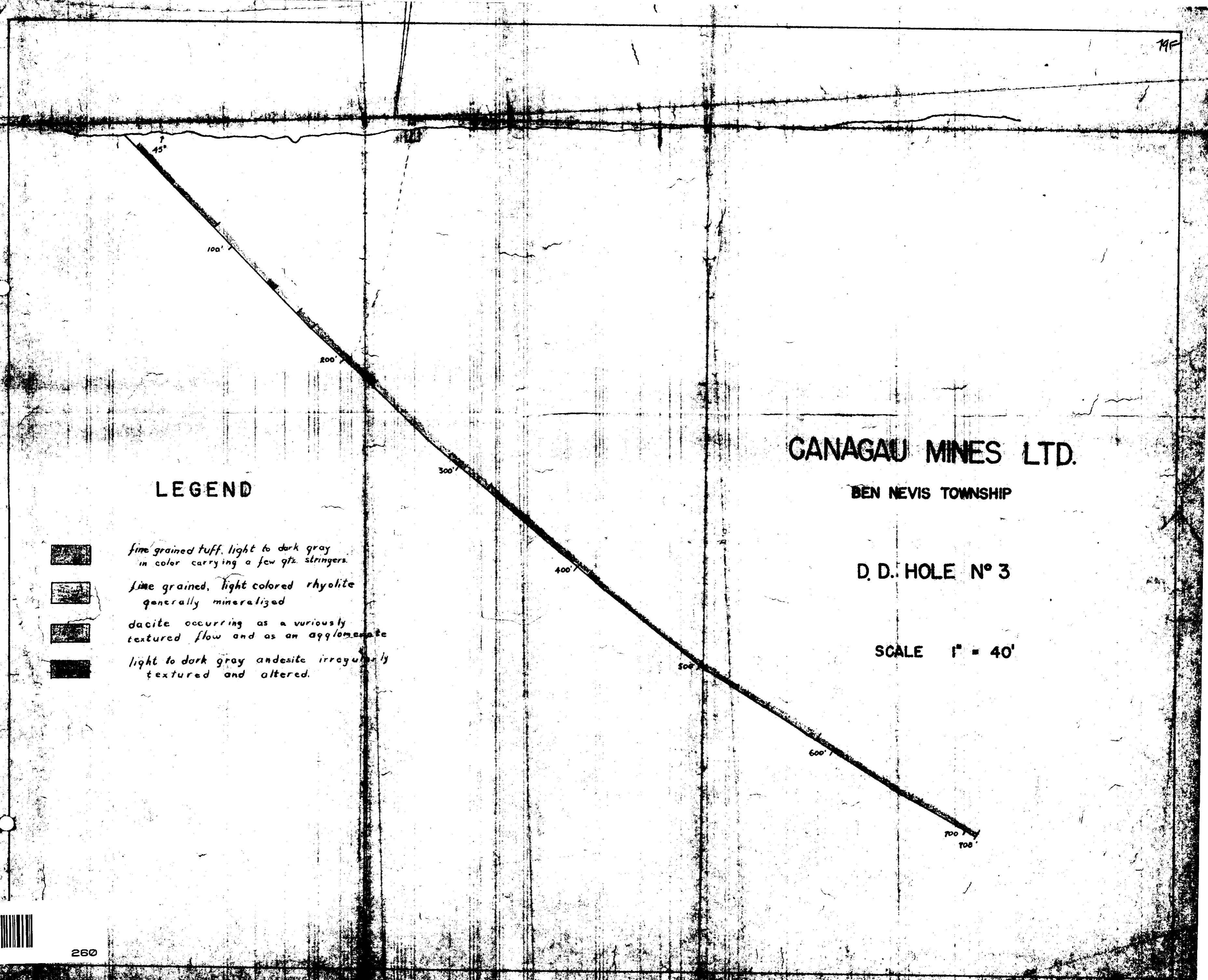
BEN NEVIS TOWNSHIP

D. D. HOLE N° 2

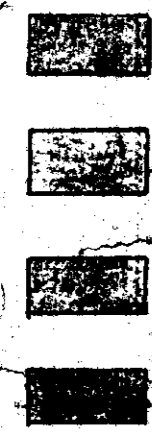
SCALE 1" = 40'



MP



### LEGEND



*fine grained tuff, light to dark gray  
in color carrying a few qtz stringers.*

*fine grained, light colored rhyolite  
generally mineralized*

*dacite occurring as a variously  
textured flow and as an agglomerate*

*light to dark gray andesite irregularly  
textured and altered.*

## CANAGAU MINES LTD.

BEN NEVIS TOWNSHIP

D. D. HOLE N° 3

SCALE 1" = 40'

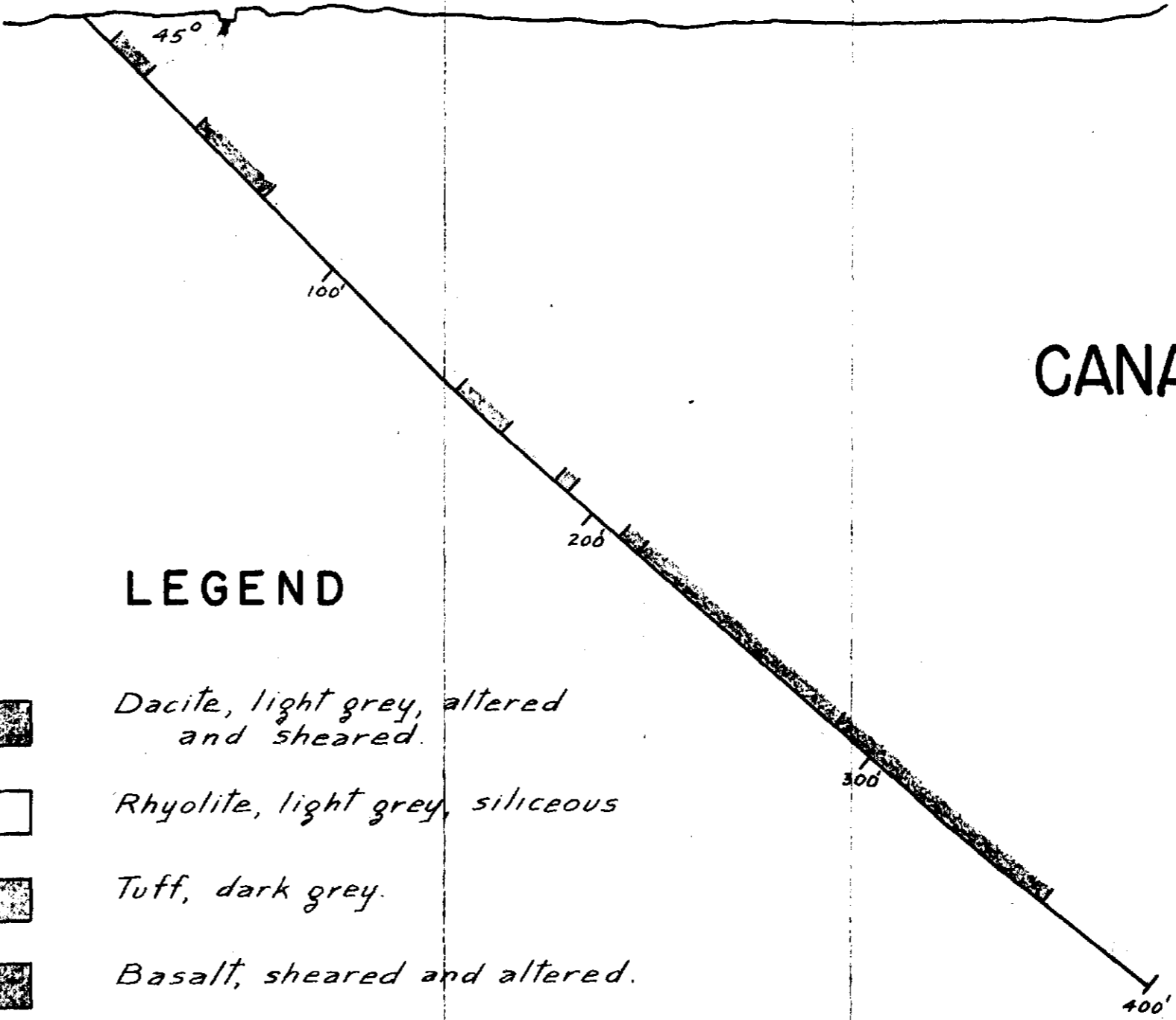


# CANAGAU MINES LTD.


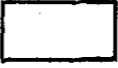



BEN NEVIS TOWNSHIP

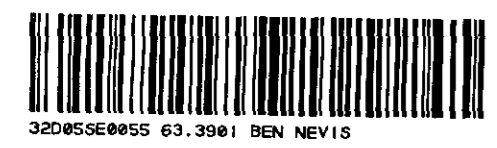
D. D. HOLE N° 4

SCALE 1" = 40'



## LEGEND

-  *Dacite, light grey, altered and sheared.*
-  *Rhyolite, light grey, siliceous*
-  *Tuff, dark grey.*
-  *Basalt, sheared and altered.*
-  *Andesite, dark grey, in part porphyritic.*








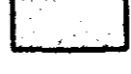

# CANAGAU MINES LTD.

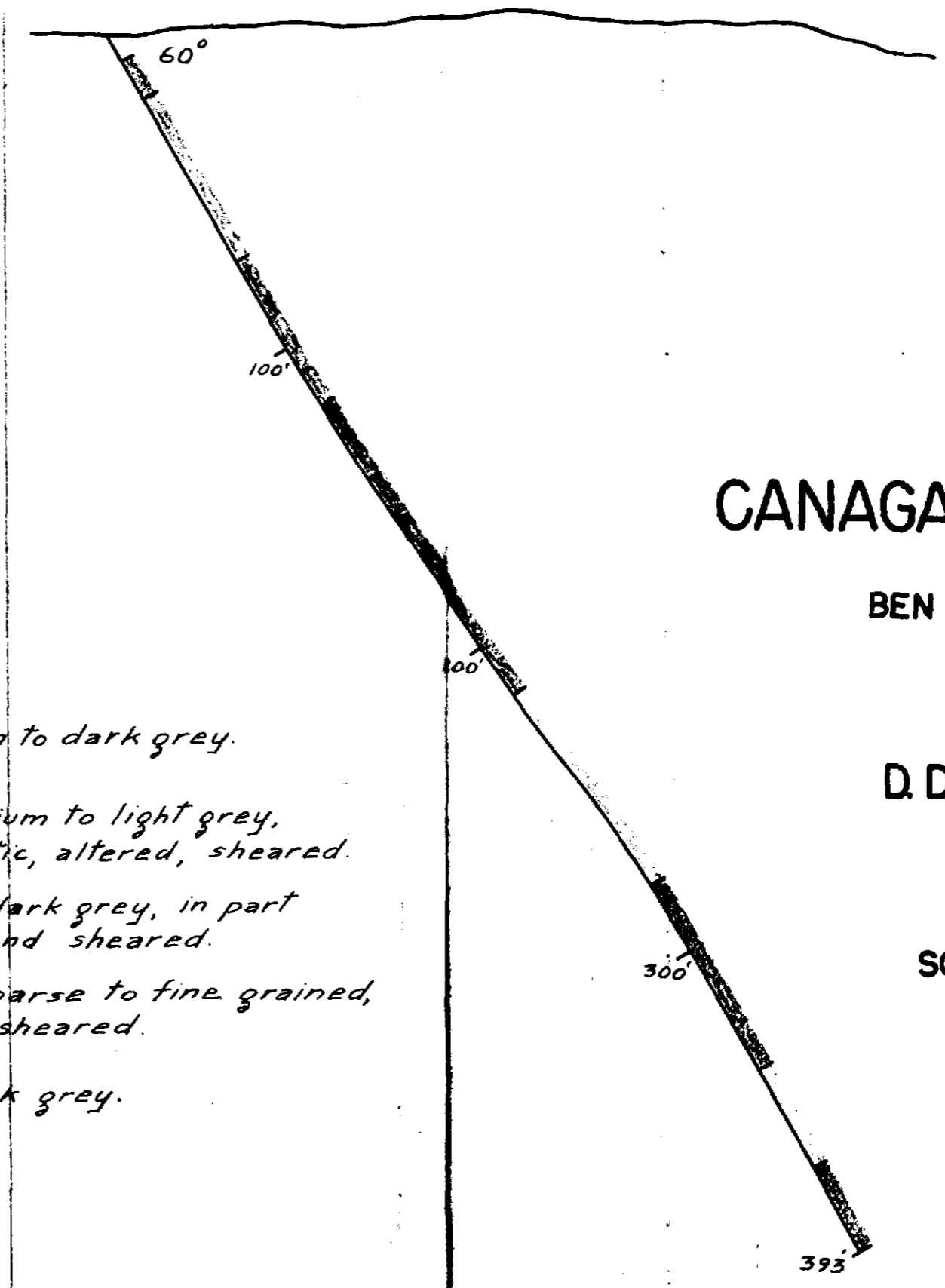
BEN NEVIS TOWNSHIP

D.D. HOLE N° 5

SCALE 1" = 40'

## LEGEND

-  Tuff, medium to dark grey.
-  Dacite, medium to light grey, porphyritic, altered, sheared.
-  Andesite, dark grey, in part altered and sheared.
-  Rhyolite, coarse to fine grained, in part sheared.
-  Basalt, dark grey.



63.3901



32005SE0055 63.3901 BEN NEVIS

010

Report on  
P. J. Roche Property  
Ben Nevis Township

Ontario

Sept. 19, 1927

SUMMARY

My detailed report on the P. J. Roche claims, located in Ben Nevis Township, District of Timiskaming, Ontario, may be summarized as follows:-

Recent interest in this area is due to encouraging explorations and developments being carried on in Montbray township of Quebec, just easterly from Ben Nevis township.

The geological formations exposed by the prospectors at the present time in Ben Nevis show no intrusive porphyry and I observed no schistosity due to intrusives. The formations have been faulted and mineralization has taken place along the faults. The most important mineralization which I examined consisted of lead, zinc, and copper sulphides containing some silver and a small amount of gold. This mineralization occurs in a fault on Claim 16200 and is worthy of further exploration.

The assays indicate that if an ore body of economic value is developed, it will contain lead, zinc, and copper sulphides carrying some silver and possibly gold.

Louis D. Huntoon

RECOMMENDATIONS

It is my opinion that the P. J. Roche claims in Ben Nevis township of Ontario are worthy of exploration and I so recommend.

I recommend that for the time being practically all of the exploration work be confined to the lead-zinc-copper fault on Claims 16200 and 16197.

At a later date, or when convenient, I recommend sinking of a shallow test pit on what appears to be an east-west vein exposed by stripping in the south-west corner of Claim 16198.

Louis D. Huntoon



32D055E0055 63.3901 BEN NEVIS

010C

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DETAILED REPORT

on Claims of

PETER J. ROCHE

BEN NEVIS TOWNSHIP. - ONTARIO

LOCATION: - The attached maps show the location of the claims to be: - North of North Bay, East of Kirkland Lake gold area, and about midway between Larder and Abitibi Lakes. The claims are in the District of Timiskaming, Province of Ontario, Canada, and about eight miles west of the Quebec boundary.

ACCESS:- The claims may be reached from Montreal or Toronto by rail, via North Bay and Swastika to Argonaut station on the Nipissing Central R. R. From here by stage a distance of six miles to the Argonaut mine and from the Argonaut mine by canoe thru Beaverhouse Lake and a chain of lakes to the north-east end of Verna Lake. A trail about five miles in length connects Verna Lake with the property. Map is attached showing best way of reaching the property at present.

TITLE AND EXTENT: - The group comprises seventeen unpatented

claims staked and recorded in the names of Peter J. Roche and his associates. It is my understanding that title to each claim now stands in the name of Peter J. Roche. The group is approximately one and one-half miles in a north-south direction and varies from one-half to one mile in an east-west direction. The total surface approximates 640 acres. Map is attached showing the Roche group of claims.

HISTORY OF AREA: Early gold discoveries were made just south of Ben Nevis, in the Larder Lake area, in 1906.

In 1919 the district again attracted attention and prospectors advanced north into Katrini and Ossian townships. The Argonaut gold mining company was incorporated to acquire property in the north-east area of Gauthier township. This mine has reached considerable depth and is producing gold and copper ore. Considerable work was also done in the south-east corner of Katrini township and also in Ossian Township.

The Quebec boom drew all of the prospectors from this area and it was not until about two years ago, after the favorable discoveries in Montbray township in Quebec, that the prospectors again entered the Ben Nevis area; Montbray is a short distance easterly from Ben Nevis township.

Whether deposits of economic value will be developed in Ben Nevis township is a question which can only be answered by exploratory work. Present exposures on the Roche group of

claims are sufficiently attractive to warrant further exploration and I so recommend.

**TOPOGRAPHY:** - The "height of land" between Hudson Bay and the St. Lawrence River crosses Ben Nevis township, as shown on one of the attached maps. There is a rugged range of mountains on the south known as the Pushkin Mountains, which have an elevation of 500 feet above Verna Lake; at the north end of the township is another prominent range of mountains in which Mount Lawson is located, also having an elevation of 500 feet above Verna Lake. It is between these ranges and in the north-east area of the township that the Roche group of claims is located; the claims cover a rolling and swampy country.

**GEOLOGICAL FORMATIONS:** - The rocks are of Keewatin age and vary greatly in composition and hardness. Some flows are very silicious whereas others appear to be serpentine or possibly alterations from a diabase. The lava flows have an amygdaloidal structure which is very common across the entire group of claims. This amygdaloidal structure can be described as a lave formation consisting of small amygdules (averaging one to two inches in size) cemented together by lava. On surface weathering the individual amygdules are liberated as small stones.

I saw no indications of schisting; the amygdaloidal



structure might be mistaken for schisting.

In crossing the claims in a north-south direction we find exposed basalt, diabase, and a very silicious formation which I have classified as a rhyolite. I saw no porphyry intrusions exposed on the surface.

The formations as a whole are fine grained, compact, and sparingly mineralized with pyrite (iron sulphide).

Faults or breaks in the formation have been exposed by the prospectors. These breaks have been mineralized. On Claim 16200 the fault or break has been heavily mineralized with lead, zinc and some copper and silver, and very little gold.

As stated above the general structure of the rock is fine grained, compact, and shows no schisting. We must therefore look for our economic minerals along the faults and breaks.

In the amygdaloidal basalt mineralization by pyrite (iron sulphide) with small amount of chalcopyrite (copper-iron sulphide) has taken place in the cementing material around the amygdules but has not replaced the individual amygdules or penetrated them to any extent. Present developments indicate no economic value to this particular type of mineralization.

Conditions at present indicate that the mineralization most favorable for an ore body is that which occurs along fault

or movement zones and that the most favorable fault zone for exploring is the one located across the boundary of Claims 16197 and 16200. This particular fault has been explored by a shallow shaft (eight feet) and surface stripping. The ore is but 12 to 18 inches in width where exposed but is highly mineralized with galena and sphalerite (lead and zinc sulphide) together with pyrite and some chalcopyrite (copper-iron sulphide). It is upon this showing that I recommend most of the present exploratory work to be done.

**MINERALIZATION:** - The several Keewating formations exposed in Ben Nevis Township are mineralized to a greater or less extent with pyrite (iron sulphide) and where movement or faulting has taken place the mineralization is intensified. Apparently a small percentage of chalcopyrite (copper mineral) occurs with the pyrite. The sequence of mineralization or the genesis can only be determined with the microscope. I am of the opinion that the galena or lead ore was deposited at a different period from the zinc, due to the fact that it occurs as segregated masses and veinlets of apparently pure galena in the vein. The sphalerite or zinc mineral appears to occur as very fine grains associated with a fine grained quartz. The assay certificates also show some silver and a very small amount of gold.

The economic mineralization as exposed in the shallow shaft occurs only in the vein proper. The mineralization

does extend into the cracks and joint planes of the enclosing wall rock, but I saw no indication of replacement.

Based on present exposures the economic value of the property appears to depend on the zinc, lead, copper, silver, and possibly gold contents and the size and extent of the deposit, which can only be determined by exploration work.

SAMPLES AND ASSAYS: - The property must be considered as a prospect and samples taken at present are not representative as to value, but give information only as to metallic contents and the character of the ore which may be looked for with development.

No. 1395: - From north-west area of Claim 17315. Fine grained rock; highly silicious; contains very fine grains of disseminated cube pyrite. It will be noted that this sample contained gold whereas samples from other sections and similar in appearance contained no gold.

Gold, 0.11 oz. - \$2.20 per ton

Copper, trace.

No. 1396: - From north-east area of Claim 17315. The formation is an amygdaloidal basalt; cementing material between the amygdules is highly mineralized with pyrite; surface highly oxidized; considerable prospecting has been done.

Gold , none.

Copper, none.

No. 1397: - From cross-cut trench along west boundary of Claim 16200; just north of present cabin. Formation is amygdaloidal basalt with more or less mineralization in the cementing material beneath the amygdules. The sample was selected from the more highly mineralized material.

Gold,	none
Copper,	0.67%

No. 1398: - From shaft on lead-zinc vein, Claim 16200. The formation is a fine grained dark basalt. The vein contains cube galena (lead sulphide) and finely disseminated sphalerite or "black jack" (zinc sulphide). This sample was taken primarily to determine silver contents and its relationship to the lead contents.

Gold	none
Lead	0.52%
Silver	5.6 oz
Copper	0.84%
Zinc	10.38%

No. 1398-B: Sample broken from large specimen (portion in Montreal office):

Gold	none
Silver	5.0 oz.
Lead	0.16%
Zinc	not determined.

No. 1398-C: - Sample broken from large specimen (portion in Montreal office):

Gold	0.02 oz. - \$0.41 per ton
Silver	3.32 oz.
Lead	9.37%
Zinc	13.82%

P. J. Roche Sample: - Assay certificate of Thomas Heys & Sons, dated August 16, 1927:

Gold	0.02 oz. - \$0.41 per ton.
Silver	0.34 oz.
Copper	0.15%
Lead	30.29%
Zinc	9.57%

The above samples indicate that if an ore body of economic value is developed it will contain lead, zinc, copper silver, and gold.

DEVELOPMENT: - The work to date comprises trails, surface stripping, test pitting, the sinking of an eight foot shaft. Most of the work has been confined to Claims 16197 and 16200, the two most southerly claims of the group; and to claim 17134, the most northerly claim of the group.

The exploratory work on Claims 16197 and 16200 consists of a long trench in the solid rock across the formation; and stripping, trenching, and sinking of a shallow shaft on the lead-zinc-copper fault or break. It is upon this latter showing that I recommend consideration of the property and further recommend that practically all of the exploratory work be confined to this immediate area for the next few months.

Just north of the lead-zinc-copper fault, about 500 feet, south-west corner of Claim 16198, the formation has been stripped and exposes the amygdaloidal basalt slightly mineralized with pyrite, and what appears to be a fault paralleling the zinc-lead fault on claims 16197 and 16200. This should be

investigated later, or when convenient, by sinking a shallow test pit.

Just south of the north-west corner post of Claim 17315 an exposure of highly silicified rock, slightly mineralized with pyrite, gave an assay \$2.20 in gold (sample No. 1395). This I cannot account for as all other pyritic samples of the same character gave no gold contents. Further sampling should be done here.

Near the south-east corner of Claim 17314 considerable work has been done on what appears to be a possible fault. The formation is the amygdaloidal basalt. The cementing material has been highly mineralized with pyrite (iron sulphide). Sample No. 1396 from the highly mineralized rock gave no gold and 0.6 copper; the sample was not assayed for zinc or lead, as I saw no indications of these minerals. For the present I cannot recommend further work at this point.

EQUIPMENT: - The property has one small log cabin and a tent capable of sleeping from eight to ten men during favorable weather. For winter work it will be necessary to build bunk and mess houses and equip the same to accommodate 15 to 18 men. It will also be necessary to purchase a prospecting equipment and canoes for transportation of men and supplies from Beaverhouse Lake (Argonaut Mine) to the north-east end of Verna Lake.

Louis D. Huntoon

New York, N.Y.,  
Sept. 19th, 1927.

Toronto, Ontario,  
November 12, 1927.

Interprovincial Exploration Company Limited,  
263 St. James St.,  
Montreal, P. Q.

Dear Sirs:

Under date of September 19th I submitted to you a detailed report on the Roche group of claims located in Ben Nevis Township of Ontario. I recommended consideration of the property.

Under date of October 31st, 1927, I submitted to you a petrographic report together with my interpretation of same. This report is favorable.

I am submitting you herewith report on progress which has been made since my original report. The progress made has been most satisfactory and the developments are encouraging.

Respectfully submitted.

Louis D. Huntoon.

### SUMMARY

The present indications are that "Amygdaloidal hill" is the result of heavy shearing of the formation over a considerable width and that it contains many shear zones highly mineralized with lead, zinc, pyrite, and some copper. Conditions at present are most favorable.

The shaft has been sunk from 8 feet to 20 feet and follows the vein on its dip. The vein at the bottom of the shaft is about 18 inches thick and highly mineralized with lead, zinc, and some copper and pyrite. The shaft vein has been traced on the surface for approximately 400 feet.

Two new shear zones or veins containing lead, zinc, and pyrite have been developed. These parallel the main or shaft vein (vein No. 1).

The property has been equipped with bunk houses, tools, etc. There are 18 men at work on the property.

I was most favorably impressed with the work accomplished in so short a time and the ores being developed.

Louis D. Huntoon.



## RECOMMENDATIONS

SHAFT EQUIPMENT: I think it advisable to continue the shaft to a depth of 150 to 300 feet. To do so it will be necessary to install a small steam plant, hoist, compressor, drills and pump. I so recommend, (see "Equipment".)

BUNK HOUSE & STABLE: I consider it advisable to rush the exploratory work as rapidly as possible. To do so it will be necessary to employ more men, erect another bunk house and stable. I so recommend.

WINTER ROAD: It will be advisable to cut a winter road from the Argonaut Mine to the Roche property for the transportation of supplies. I recommend cutting this road as soon as possible.

SURFACE TRENCHING: The following areas should be explored by trenching:

Vein No. 1 Easterly

The eastern area north of vein No. 1.

The low ground north-east or north-west of our present shaft by one trench providing the over-burden is not too deep.

Vein No. 1 westerly from Amygdaloidal hill. If the over-burden is not too deep in the swamp (just west of the present workings) we should explore this area by one or two trenches. The area west of the swamp and on the hill side should be explored by trenching.

Further exploratory work should be done on vein No. 3.

Louis D. Huntton.

DETAILED PROGRESS REPORT

on Claims of

PETER J. ROCHE

BEN NEVIS TOWNSHIP - ONTARIO

November 12, 1927

For location, geology, character of ore, etc. I refer you to my original report and petrographic analysis submitted to you.

SURFACE SHOWING SEPTEMBER 1927: Although a large amount of time had been given by Mr. Peter J. Roche in prospecting this group of claims and a general study of the entire township, there was but one surface showing on which he finally concentrated his work. It was on the showing located on claim No. 16200, that I recommended the property to you. Briefly, the showing comprised a "break" or fault plane on which a shaft had been sunk to a depth of eight feet. The break was highly mineralized with lead, zinc, and pyrite, and contained some copper. For want of a better term I classified the rock in which the break occurred as an amygdaloidal basalt; petrographic analysis indicates that the classification was correct (a metamorphosed or highly altered basalt).

SURFACE SHOWING NOVEMBER 1927: - The prospect or exploratory shaft has been sunk to a depth of 20 feet, and follows the vein on its dip. The vein is a shear zone showing very pronounced movement; this is especially true at the bottom of the shaft. The vein at the bottom of the shaft is about 18 inches wide and very highly mineralized with lead, together with some zinc and copper.

A most interesting condition at the bottom of the shaft was exposed; - about 18 inches south of the main vein and in the amygdaloidal hanging wall a second shear zone is making its appearance. There is but one interpretation to place on this at the present time and that is: we have indications of the amygdaloidal hill being closely sheared and that with depth these shear zones should be mineralized with lead-zinc.

The shaft vein which we will designate as vein No. 1, has been traced easterly for about 300 feet. It shows decided shearing thruout. Beyond this point easterly there is more or less over-burden and timber; the timber is being cleared.

I recommend that this area both easterly and northerly of the present showings be explored by trenching when conditions warrant.

Vein No. 1 has been traced westerly from the shaft a distance of 80 feet to a swamp, beyond which point trenching cannot be done at present. If the over-burden in the swamp is not too great and it is possible at not too great an expense I recommend that the area westerly from the west trench be explored when conditions warrant. I further recommend that the higher ground west of the swamp be explored by trenching.

CROSS TRENCH: - On the west slope of "Amygdaloidal hill" and adjacent to the swamp a trench has been dug south-westerly across the formation. Vein No. 1 has been exposed. It is quite narrow (12 inches more or less) on the surface but is highly sheared and mineralized with lead, zinc and oxidized pyrite (iron ore). Conditions are favorable.

A second vein which I did not see, or at least recognize, on my first trip has been exposed in the cross-trench about 20 feet south of vein No. 1. It is highly sheared and mineralized over a width of 2 feet. Most of the mineralization is oxidized pyrite (iron ore) but it contains bands of lead-zinc ore similar to vein No. 1. This will be known as vein No. 2. Conditions are favorable.

A third vein, not recognized on my first trip, and now known as vein No. 3 has been exposed in the cross-trench about 50 feet south of vein No. 1 (shaft vein); vein No. 3 is located in the amygdaloidal formation. The mineralization extends over a width of approximately 10 feet. The mineralization comprises heavy oxidation of pyrite (rusty iron ore) together with quite heavy lead mineralization in the centre covering a width of about 2 feet. Further work should be done at this point and I so recommend. Easterly from here, an amygdaloidal hill, a distance of about 50 feet this same shear zone was exposed just before I left the property. Conditions are most favorable.

SUMMARY OF VEINS EXPOSED: The petrographic analysis has given me no clue as to the interpretation of amygdaloidal hill. The original rock minerals are completely destroyed. The indications are that it is a metamorphosed basalt. Vein No. 1, just north of and adjacent to amygdaloidal hill, is in a harder rock but the petrographic indications of this rock are the same;- that is, a metamorphosed basalt; the structure of the two are quite different.

We have the shear zone on which vein No. 1 is located; the bottom of the shaft has exposed a second shear zone within

about 18 inches of the vein. The westerly trench has exposed two more shear zones mineralized with lead-zinc-pyrite. It is entirely too early to draw any definite opinion with respect to the interpretation of amygdaloidal hill but the present indications are that the area is highly sheared; that more shear zones will be developed; that such shear zone as are developed will be mineralized and that the origin of the amygduleus is from shearing over a wide area. All of the exploratory work to date is of a most favorable character.

**EQUIPMENT:-** When I first visited the area there was no equipment other than a small trapper's cabin and a tent. Today as shown by photographs attached, buildings have been erected, equipped, and considerable trenching done. Sufficient supplies have been carried in to feed the men until winter transportation is feasible.

The developments within the past six weeks are such that I recommend the erection of another bunk house and the employment of 8 to 12 more men to complete the trenching as soon as possible; the preliminary trenching must be completed before diamond drilling and the diamond drill must go in before the spring break up.

It will be necessary to cut a winter road from the Argonaut Mine and to erect a stable at the mine for winter transport of supplies, and furthermore for winter transport of supplies for next summer in case we decide to go ahead with the development.

There has been no provision made for sinking the prospect shaft to beyond about 40 feet in depth. I think it is advisable to equip the shaft with steam boilers, small hoist, compressor, drills and pump of sufficient capacity to go to a depth of 200 to 300 feet. Valuable information with reference to the next

structure and mineralization may be obtained from a shaft which might be overlooked in examining the drill core, and then again important sections of the drill core (especially high grade crystallized mineral) might be lost. I therefore recommend equipping the shaft with necessary but inexpensive machinery to sink to a depth of 200 feet (to 300 feet if cost not excessive).

DIAMOND DRILLING:- The trenching should be followed up by diamond drilling. It is impossible to estimate the amount of diamond drilling which will be necessary. This will depend on results obtained as drilling proceeds. The preliminary drilling will probably cost between \$10,000 and \$25,000.

Respectfully submitted.

Louis D. Huntoon.



32005SE0055 63.3901 BEN NEVIS

020

REPORT ON THE PROPERTY  
OF THE  
INTERPROVINCIAL EXPLORATION CO. LIMITED

Submitted by  
Andrew Walz,  
Mining Engineer  
Toronto, Ont.,  
Sept. 26, 1928.



32D055E0055 63.3901 BEN NEVIS

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REPORT ON THE PROPERTY  
OF THE  
INTERPROVINCIAL EXPLORATION CO. LIMITED

ACCESSIBILITY AND LOCATION

The company owns a group of forty-three mining claims of which twenty-six are situated in Ben Nevis township and twelve in McVittie and McGarry Townships. There are five scattered claims located elsewhere. These claims embrace an area of about two thousand acres. The Ben Nevis claims are all contiguous and are situated in the east central part of this township. The property is reached from Argonaut, a station on the Nipissing Central Railroad, which runs from Swastika, Ontario, to Rouyn, Quebec. From Argonaut it is five miles to the foot of Beaver House Lake from which the property is reached in about five hours. In winter the claims are about seventeen miles north of Dalby, also a station on the Nipissing Central Railroad. The area is easily accessible through either of these transportation channels, but a plan is now under consideration to co-operate with the Ontario Government and other operations in this district, to construct a road to Kirkland Lake. This road will be about thirty-six miles long and will tap all mineral developments in this area. It is anticipated that this proposed road will eventually be made into a good motor road.

The Ben Nevis claims are close to the summits of the height of land and the general topography of the area is rough and quite different to the prevailing topography elsewhere in Northern Ontario. The Rouyn district is about forty-five miles east of Argonaut.

The McVittie and McGarry claims of the company occupy an area on either side of the east and west boundary of these townships respectively and are accessible to the Nipissing Central Railway to the south.

#### HISTORY

The property owned by the company in Ben Nevis township was staked in 1926 on the strength of the lead showing on claim No. L16200. The original area was extended to protect extensions on the strike wherever possible, as well as extensions on the dip of the vein. The present company was organized in 1927 and has been active ever since.

The group of claims in the McGarry and McVittie townships was staked somewhat earlier and the area here is sufficiently large to protect extensions of any discoveries or developments which are apt to take place. The claims in McVittie and McGarry were the original holdings of the Interprovincial Exploration Company.

#### GEOLOGY

The general geology in and about the area under consideration is Keewatin Volcanics, consisting of rhyolites, andesites and greenstones. These lava beds are dipping at an angle of seventy-five degrees to the south and the contacts have an approximate east and west strike. In the immediate vicinity of the property of the Interprovincial Exploration Company no intrusives were observed, but in an area five miles to the northeast, grano-diorites outcrop. The district in general is well mineralized in the rhyolite and andesite breccias. Two of these brecciated zones were examined in this district, namely the zone

on the Brett-Trethewey property to the south-west, where a low grade copper ore body carrying erratic values in gold is being developed and the one on the property of the Interprovincial Exploration Company, where there is an andesite breccia with a series of fault-fractures making high grade lead ore in the fractures and disseminated lead in the area between.

The brecciated zone on the Interprovincial starts in the rhyolite and extends past a contact into the underlying andesite. A gradational brecciated zone exists close to the contact, where the fragments are composed of rhyolite and andesite. A short distance away from the contact, the andesite becomes mineralized with galena, sphalerite and varying amounts of chalcopryrite with erratic silver values. In a general way, the ore body is basic and it appears that the calcite is a favourable condition in the gangue. These brecciated zones impress one as being formed as a result of some crushing movement. The mineral is found in the fractures of the breccia as well as disseminated in the rock itself.

On the property of the Interprovincial Exploration Company, the andesite brecciated zone is at least one hundred feet wide, in which three and perhaps four prominent fault fractures have been opened up and otherwise extensively explored on the surface. These fractures are about two feet wide and each are separated from each other by an interval of about thirty-five feet. The intervening material, where exposed on the surface, is heavily oxidized and fractured, making it impossible to determine the character of the original mineralization. However, on the 225 foot level in the shaft, these fractures show lead,

zinc and copper sulphide with lead predominating and in addition, there is a series of new fractures exposed which were not visible on the surface. These veins are heavily mineralized with lead and zinc and contain appreciable amounts of calcite and quartz. They vary in width from a few inches to a foot and occur at frequent intervals.

As previously stated, a grano-diorite rock is exposed along the fringes of the mineralized area from four to six miles to the north. This is the same intrusive rock which is exposed to the north of the Brett-Trethewey property. The contact of the grano-diorite and volcanic lavas is roughly parallel to the strikes of the mineralized areas on both properties. It appears that this intrusive accounts for the brecciation and intense longitudinal fractures which are associated with the ore on both properties. Fault fractures on the Interprovincial Exploration Company and the Brett-Trethewey line up fairly well and undoubtedly are the result of the same crushing action of the intrusives. This fracturing would be at least six miles long, which is roughly the airline distance between the showings on the Interprovincial and the Brett-Trethewey. The fracturing gives every evidence of reaching depth and covering a large lateral distance.

#### SURFACE EXPLORATION

A large amount of surface exploration work has been done on the claims in Ben Nevis Township. This work has exposed a large andesite brecciated zone in which three strong and prominent fault fractures have been found. These fractures are designated as numbers 1, 2, and 3. A cross-cut trench gives an excellent

section of the mineralized area and the fractures themselves. On vein number three, a wide trench has been opened up along the strike for a distance of about three hundred feet. A small forty-foot incline shaft has been sunk and has exposed the vein on both sides of the shaft for this distance. A good showing of lead and zinc sulphide can be seen in the shaft. In addition to this work, considerable surface exploration has been done to the east of the shaft, where presumably the same ore-zone has been found. About four hundred feet to the south, surface work is now in progress in the rhyolite breccia to explore outcrops containing a considerable amount of copper staining. At the time of my visit these trenches had already disclosed chalcopyrite in association with a silicified rhyolite breccia. The high hill immediately south of the shaft has been thoroughly prospected and extensions of several of the original lead veins have been found.

A large area remains yet to be explored and it appears to me that the recent copper discloses in the rhyolite to the south justify an extensive prospecting programme here. These outcrops impressed me favourably and resemble those on the neighbouring Brett-Trethewey.

The zone about five hundred feet to the east of the shaft has only had a small amount of surface work done. The extensions of the series of veins around the shaft were looked for in this direction. Up to the present time, however, the vein system has not been definitely located, but a very interesting disseminated lead ore showing is exposed in these trenches. There is a width of at least ten feet of this kind of material of which several samples gave from one to two percent lead with several ounces of silver. There are topographic hinderances in this direction.

area. The ground is low and only those places which rise above the swamp can be properly prospected. My observation of the conditions existing at this point have left me with the impression that the showings are quite likely to be eastern extensions of the mineralization around the shaft and that the exposures there represent material between the fault fractures previously described. The galena is well disseminated throughout the brecciated andesite and there are concentrations of it along the cracks in the breccia. Enrichments will probably be found closer to the fault fractures previously described. The galena is well disseminated throughout the brecciated andesite and there are concentrations of it along the cracks in the breccia. Enrichments will probably be found closer to the fault fractures.

#### UNDERGROUND EXPLORATIONS

As previously stated, the mineralized showings on the property consist of three fault fractures about two feet wide and perhaps another, which is outcropping in a swamp but not visible on the surface. Reference is made to the maps covering this report, whereon the position of these veins is shown with respect to the shaft and other workings. The shaft is located between veins No. 1 and No. 2 and is in excellent place to supply information to guide the future development of the property. The shaft is vertical and is now 225 feet deep. At the 125 foot level, vein No. 1 was intersected. It showed the fracture to contain commercial percentages of zinc and lead with zinc predominating. The ore was found to extend for commercial widths outside of the fracture. No lateral work has yet been done at this point, except to cut out a small station. The vein is well exposed where cut.

At the 225 foot level in the shaft, the fourth fracture was intersected which was not exposed on the surface due to the heavy over-burden. Lead is the predominating mineral and varying amounts of this mineralization is exposed over a width of six feet. The showing still is visible in the bottom of the shaft and it appears that the full width is not yet uncovered. At the 225 foot level, a station has been cut from which it is proposed to cross-cut to the south to pick up the downward extensions of veins numbers two and three. In the face of the station there is some evidence of number two coming in, but the work at the time of my visit was not sufficiently advanced to definitely whether this was the number two vein. The underground program of the company calls for a south cross-cut from this point to intersect these veins and then drift in both directions. The cross-cut will supply excellent information regarding the value of the material between fractures numbers two and three. A north cross-cut from the horizon also seems advisable in order to explore at depth ground which is heavily covered on the surface. This area is in the mineralized zone and has possibilities. It was stated that the shaft from the surface to the 125 foot level was well mineralized with zinc and lead, but due to the timbering, I was unable to make any observations at this point. Judging from the exposures in the veins on the surface, it appears to me that the most interesting ground is that between fractures Nos. 2 and 3, where there is a width of about thirty-five feet of well mineralized material and it is quite likely to show commercial mineralization in the cross-cut at the 225 foot level. There are indications on the surface and in the shaft that this should be realized. Fracture number

three on the surface contains massive galena for a width of about twenty inches with intensive fracturing and oxidized mineralization in the area between it and number two. Vein number one showed galena and zinc on the surface for about the same width, with similar fracturing and oxidation in the area between it and number two. The surface work did not expose any ground to the west which would give one some idea of the conditions between vein number one and what is now known as number four. Briefly, the situation appears to me to be one in which there is a zone which is opened by three or four strong longitudinal fractures with an area in between offering good possibilities for commercial lead and zinc ore. The brecciated mass, in my opinion, is a favourable condition for disseminated ore deposition. This is already borne out on the surface exposures to the east of the shaft, where a commercial width of disseminated lead is exposed.

On the property of the Brett-Trethewey, about six miles to the south-west, copper ore with erratic gold values varying from \$1.00 to \$6.00 has been exposed over widths of from twenty to sixty feet in the rhyolite breccia. They have similar fault fractures and breccias and the inferences to be derived from the study of their geology and ore deposition leads one to draw favourable comparisons with the situation on the Interprovincial. In fact on the latter very little, up to the present, has been done on the copper outcrops in the rhyolite. As previously stated, these showings are impressive and offer encouragement to continue with the surface work.

#### EQUIPMENT AND SOURCES OF POWER

The underground work at this time is being performed by



a very efficient plant, consisting of a hoist, air compressor, two boilers, compressed air operated blacksmith shop and the necessary accessories, including electric lights, etc. Wood is being used for fuel and the surrounding bush will furnish ample material of this kind for a long time.

There is a power line already constructed to the Argonaut mine which is located about ten miles to the south. Current is available here as soon as the requirements of the property demand this source of energy.

There are camps, and other equipment of this nature on the property which are adequate for the present scale of operation. Additional sleeping accommodation will have to be provided for as the work expands. The road in from Verna Lake is five miles long and is considered to be a fairly good road under the existing conditions. The road is passable at all times and there are no serious hinderances in it which would interrupt operations at the property.

#### ORE TREATMENT

The character of the ore exposed on the property at this time, both on the surface and underground does not indicate that there will be any serious metallurgical problems presented in the treatment of the ore. The zinc seems to be quite free from the lead but what little copper there is is closely associated with the lead. The various sulphide minerals are well formed and crystallized. There are no appreciable amounts of pyrite or pyrrhotite at present in the ore. Where the mineral occurs it is usually found fairly clean and there appears to be a segregation of the lead and zinc. Ordinary selective flotation methods

would undoubtedly yield a high grade lead concentrate and make a zinc product which would be acceptable to the smelters. It is difficult to say without tests, just what the chalcopyrite would do but I am of the opinion it could be recovered in a merchantable concentrate. The copper and zinc contained of the ore, I believe, would yield to the same methods of flotation which have guided some of the operators at Rouyn for their designs of mills to make these separations.

### CONCLUSIONS

The work up to the present time does not give any positive information on which a definite value can be placed on the property on the basis of developed ore. However, many interesting inferences can be derived from the geological conditions and character of ore deposition. These give a favourable impression for a successful outcome of the enterprise. The hope lies in being able to demonstrate that the brecciated zones between the fault fractures which cover a width of about ninety feet, carry a disseminated lead ore. There is a considerable likelihood that this will be fulfilled as stated in the body of this report. The area east of the shaft already shows a disseminated lead ore of almost commercial grade. The geology is favourable for a deposit of this character. The fracturing is intense and all evidence indicates that it is deep seated. A source of lead-silver mineralization appears to have been reached and the rock and fracturings already show that they have a favourable influence on the deposition.

The underground development of the mine is proceeding at a rapid rate and the program, in my opinion, has been skillfully

arranged. Important information will be disclosed by the proposed south cross-cut from the 225 foot level. This work will supply excellent data regarding the economical value of the outcrops. It appears to me that enrichments in the brecciated zone may be looked for in those places where the fracturing is more intense, due to transverse fracturing and also at the intersection of the basic dikes of which many outcrop in the area. It is presumed that the underground work will be extended along the best mineralized fractures and cross-cuts driven on either side to determine the grade of the intervening material. A north cross-cut from the 225 foot level is warranted in view of the good possibilities presented.

The copper-gold ores exposed in the rhyolite breccia on the neighbouring Brett-Trethewey property appear to me to be very important and indicate a large tonnage of ore running in the neighborhood of  $1\frac{1}{2}\%$  with gold values somewhere between \$1.00 and \$4.00. On the property of the Interprovincial Exploration Company there is a similar zone of rhyolite breccia south of the shaft which is now being prospected. The outcrops here compare favourably with those on the Brett-Trethewey. The geological conditions on the property of both companies are identical and it is my opinion that considerable encouragement is offered in the copper showings already found on the Interprovincial. Both companies are within easy access to the Noranda smelter in the Rouyn district. Favourable copper developments in this section would be of very great importance to the company.

Sufficient stress has not been given in the body of my report to the gold values in the lead ores which have recently been opened up on the 225 foot level of the mine. Appreciable

values in gold have been obtained from two samples which were taken from the ore exposures on the 225 foot level. The following results were obtained from these samples:

<u>% Lead</u>	<u>% Zinc</u>	<u>% Copper</u>	<u>Oz Silver</u>	<u>Gold</u>
7.84	11.48	0.52	4.70	\$3.50
8.10	2.44	0.20	3.60	\$4.60

The disseminated ore showing to the east of the shaft gave the following results.

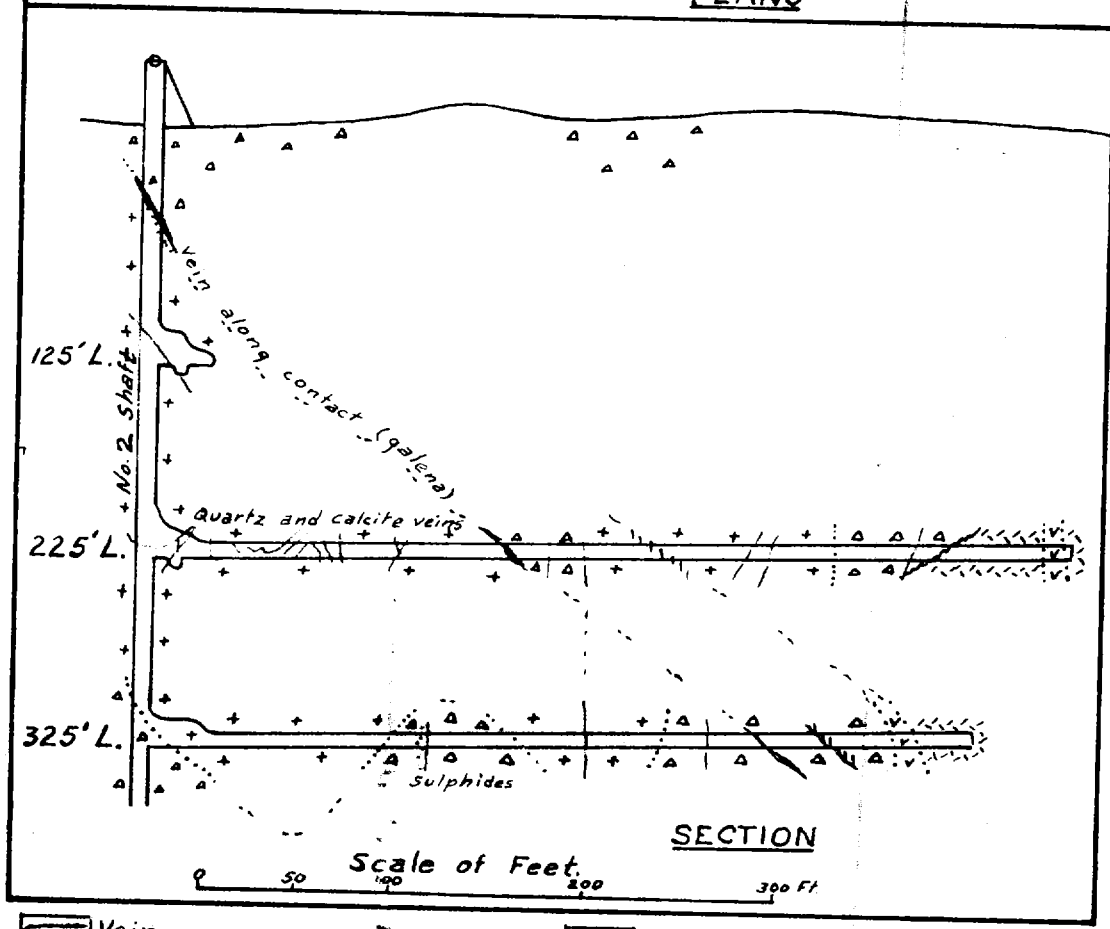
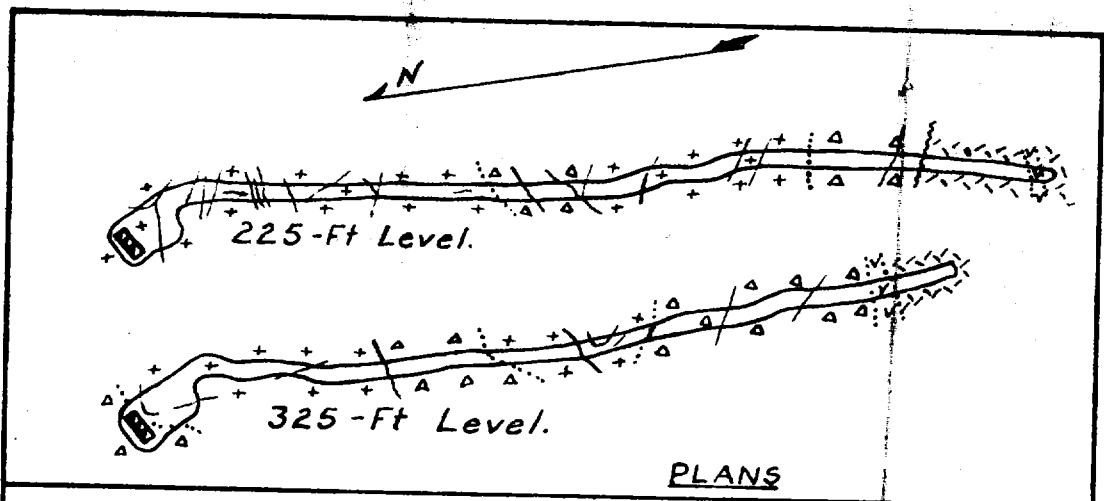
<u>% Lead</u>	<u>% Zinc</u>	<u>% Copper</u>	<u>Oz. Silver</u>	<u>Gold</u>
1.60	0.71	0.04	2.40	\$0.10

Respectfully submitted,

Andrew **W**alz,

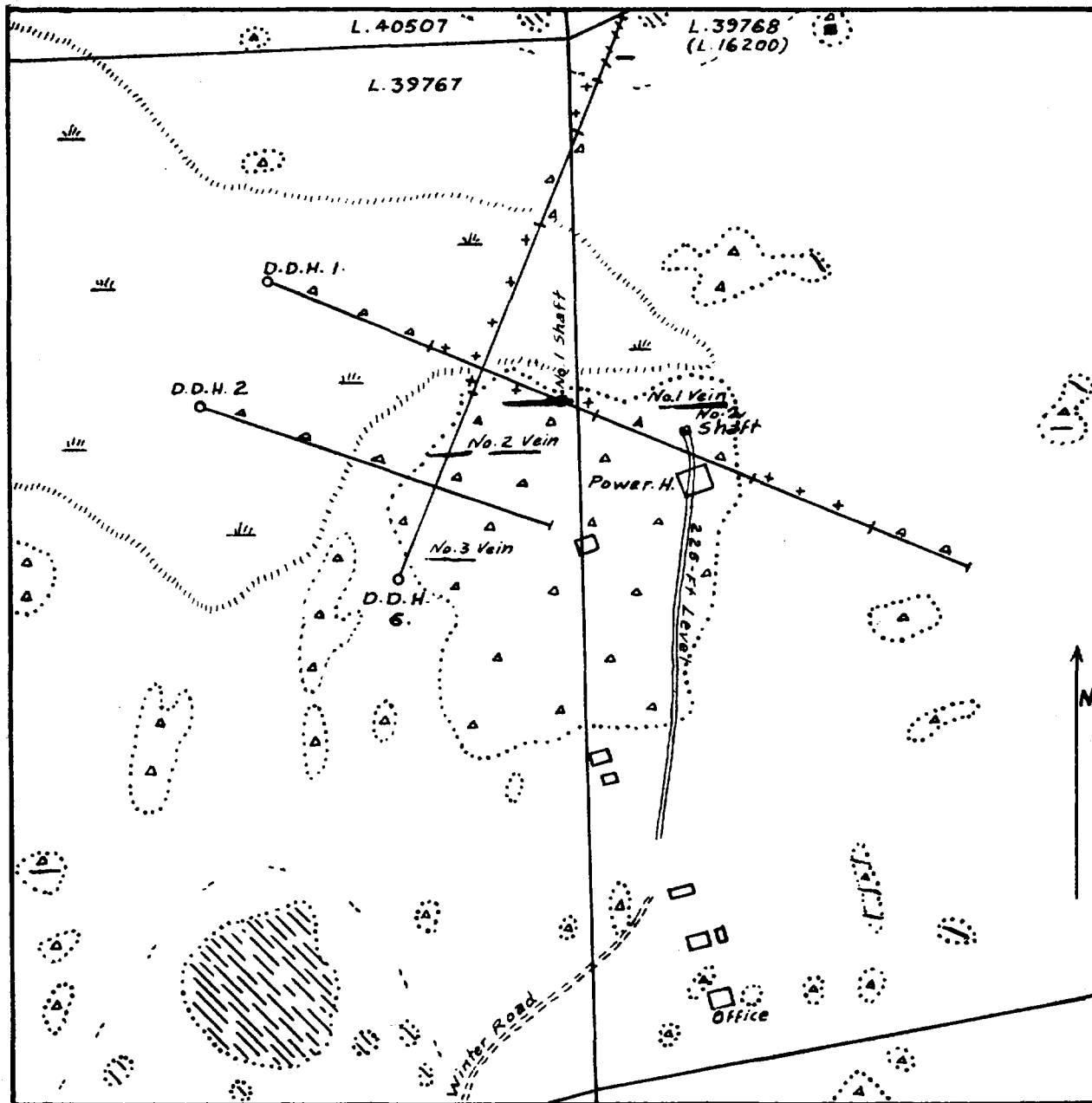
Mining Engineer.





Toronto, Ontario,  
September 26, 1928.



- |                         |                                 |
|-------------------------|---------------------------------|
| Vein.                   | Agglomerate and dacite breccia. |
| Feldspar porphyry dike. | Rhyolite.                       |
| Feldspar porphyry sill. | Fault.                          |

Geological plans and section showing underground development at Interprovincial mine of Canaqau Mines, Ltd, Ben Nevis township. (Modified after mine plans by L. B. Wright, 1937)



-  Vein
-  Rhyolite (Feldspar porphyry?)
-  Agglomerate and dacite
-  Andesite

Scale of Feet  
 0 100 200 400

Sketch map of surface geology at Interprovincial mine of Canagau Mines, Ltd, Ben Nevis township. (Modified after Company plans).



A Report on the Property of

CANAGAU MINES LIMITED

in

Ben Nevis Township, Ontario.

*Geo. Moody*

PROPERTY:-

The property consists of 16 contiguous patented mining claims situated in the east-central part of Ben Nevis Township, in the Harder Lake Mining Division of Ontario.

The claims encompass approximately 640 acres and are more specifically described as patented mining claims:-

- |                   |                                  |
|-------------------|----------------------------------|
| L - 12781 & 82    | L - 16532 & 35                   |
| L - 16280 & 21    | L - 16455 & 53                   |
| L - 16485 & 16472 | L - 39767 (16107), 39768 (16200) |
| L - 70646         | & 39769 (16198)                  |
| L - 70665 & 68    |                                  |

HISTORY:

Galena was found in 1923 on claim L-16200, now L-39768.

The Interprovincial Exploration Company took over the claims in 1927 and carried out a large amount of surface exploration. This was followed in 1928 by the sinking of a three compartment shaft to 347 feet with stations cut on the 125, 225 and 325 foot levels. Inital work consisted of crosscuts run south on the 225 and 325 foot levels for 450 and 420 feet respectively.

At various times since then surface exploration, diamond drilling, geological mapping and some geophysical work has been carried out.

The latest work consisted of stripping, trenching and rock cutting on a mineralized shear angling off the east-west draw and the sinking of a large pit in the draw. On Sept. 30th, 1962 the pit was 8x8x8 feet in size and was to be further enlarged.

ACCESS & POWER:-

Float planes based at Rouyn, Quebec, 52 miles to the east can land at Stuart Lake 1 1/2 miles east of the shaft area or at Verna Lake 4 miles to the west.

A good bush road extends to within 7 miles of the property and the old winter road from the property to Cheminis could be used for part of the intervening distance without too much work.

GEOLOGY:-

The claims are underlain by a series of andesitic to rhyolitic flows and their pyroclastic equivalents. The strike is roughly in an east-west direction.

The andesitic rocks are usually massive and often pillowed. The dacitic and rhyolitic rocks are largely represented by their fragmental phases.

Intruding the above is a quartzdiorite or diorite, which intrudes as a large mass centred in the northeastern part of the claims. Dykes thought to be offshoots of this mass extend much further west, especially in the vicinity of the prominent east-west draw that lies just north of the shaft area.

A major fault is believed to underlie the draw which crosses the property and extends for several miles to the east. The formations on the sides of the draw are highly sheared and much altered.

Kennedy Lake, Verna Lake and some tributaries of the Magasi River in Pontiac and Dokis Township are believed to be the topographical expression of a major regional fault. This fault strikes northeasterly and lies about 1 mile north of the shaft area on the Canaganu property. What are thought to be parallel, subsidiary faults show up on the aerial photos, and according to old reports some of the strongest veins underground struck in this direction.

Shears roughly at right angles to the assumed regional shear traverse the Erhardt showing. The valley alongside this showing and the long narrow lake to the east also follow this trend.

The prominent hill south of the shaft is highly fractured in an east-west direction and the mineralization appears to follow shears in the same direction.

MINERALIZATION:-

The mineralization consists of pyrite with an associated zinc mineral and galena carrying silver values.

PREVIOUS WORK:-

A prospect shaft was sunk to 40' on the original discovery, which lay on the south side of the prominent east-west draw. It consisted of pyrite and galena mineralization occurring in a strong east-west shear with a width of 2 feet. Galena was also noted in fractures off the shear.



A grab sample taken by the writer in 1960 from an 8" width of heavy pyrite and galena mineralization ran 22.53% Pb and 5.74 ounces of silver. It was not run for zinc.

To explore further this zone and others found to the south a three compartment shaft was sunk to 347 feet, stations were cut at 125, 225 and 325 feet, with crosscuts on the two lower levels for 450 and 420 feet respectively beyond the stations.

In the Company's records samples from underground included:

60 lb sample-3.40 oz Ag, 6.46% Zn, 3.76% Pb.  
Massive sulfides-1.10 oz Ag, 17.00% Zn, 0.33% Pb.

Prospecting and trenching showed up a galena vein occurring in a highly sheared, carbonated and chloritic rhyolitic fragmental. Work about 500 feet east of the shaft on the north side of the draw disclosed pyrite and galena occurring in sheared dacite or rhyolite.

About one half mile south of the shaft area on the boundary of claims 12781 and 12782 a pit 6x8 was sunk on sheared volcanics. The mineralization showed pyrite and disseminated galena over two feet with heavy mineralization over widths of up to 12 inches. The shearing strikes N60°W. This occurs on what was the Ehrhardt Group. Clodhill in his report mentions mineralized shear zones on this group with an east-west strike, showing pyrite, sphalerite, galena and arsenopyrite over widths as much as two feet.

Eight diamond drill holes were drilled in 1946 and part of the property geologically mapped. Only one hole was drilled across the east-west draw and it showed the draw to be underlain by rhyolitic rocks.

In 1960 galena was noted in fractured diorite where the wagon road leaves the north side of the swamp.

#### PRESENT WORK:-

This past season a programme of prospecting, trenching and pitting was carried out under the supervision of Mr. Peter Roche. The work was carried out largely in the vicinity of the prominent east-west draw.

The galena showing, noticed in 1960 (No. 2 vein), was investigated and led to the finding of a strong N45°W striking shear zone cutting through a diorite dyke and rhyolitic fragmental. The shear showed heavy pyrite with some galena occurring in widths up to 18". The galena in places favoured cross-fractures.

Two samples were taken by the writer from trenches put down on this shear.

No.	Description	%Zn	% Pb	Ozs/Ag.
3301	Grab of 4" piece of massive pyrite	10.39		
3302	Not taken here			
3303	Grab of pieces of better mineralization with galena		13.35	5.00

The shear angles out of the east-west draw and a large pit 8x6x8 was put down through overburden roughly on strike of the No. 2 vein and in the centre of the draw.

The pit was taken to eight feet and large pieces of what was thought to be bedrock showed heavy pyrite with some galena in places. The pieces were all highly carbonated chloritic dioritic greenstone, much fractured and in places sheared. Some pieces were highly brecciated with irregular quartz stringers.

SUMMARY:-

1. A number of mineralized shear zones with galena carrying silver values and pyrite with important zinc values have been found on the property.
2. No mention is made in the early work or in Gledhill's report of the large diorite mass and associated dykes occurring in the northeast part of the property.
3. Little significance appears to have been paid to the prominent east-west draw lying just north of the shaft area. The shaft crosscuts were headed to the south.
4. It is close to the draw that most of the lead-zinc showings have been found and to the writer this possible major fault zone along with the large diorite mass have much to do with the source and emplacement of the mineralization.

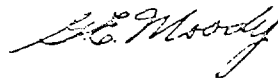
RECOMMENDATIONS:-

1. That a self-potential and possibly a magnetometer survey be made of a strip of ground 1000 feet wide across the property centering on the east-west draw. Particular attention being paid to where the shear from the Ehrhardt showing and parallel draws would intersect the main draw.
2. A minimum of three thousand feet of diamond drilling to follow up the results of the above survey. If geophysics fails to react to the known mineralized zones, drilling of the draw at selected places should be carried out.

3. Prospecting of the rest of the claim group and examination of any old work should also be carried out. Possible gold occurrences should be kept in mind as an assay of 0.10 czs gold is noted in an old company report as coming from a porphyry dyke on a claim just north of the present claim group.

4. To carry out the above programme it is estimated it would cost approximately \$18,000 to \$20,000.00.

Respectfully submitted,



G. E. Moody, P.Eng.

Noranda, Quebec,  
30th October 1962.

C E R T I F I C A T E

Mr. P. J. Roche,  
President, Canagau Mines Limited,  
71 Chatsworth Dr.,  
Toronto 12, Ontario.

I, GEORGE E. MOODY, of the City of Noranda, in the  
Province of Quebec, do certify that:

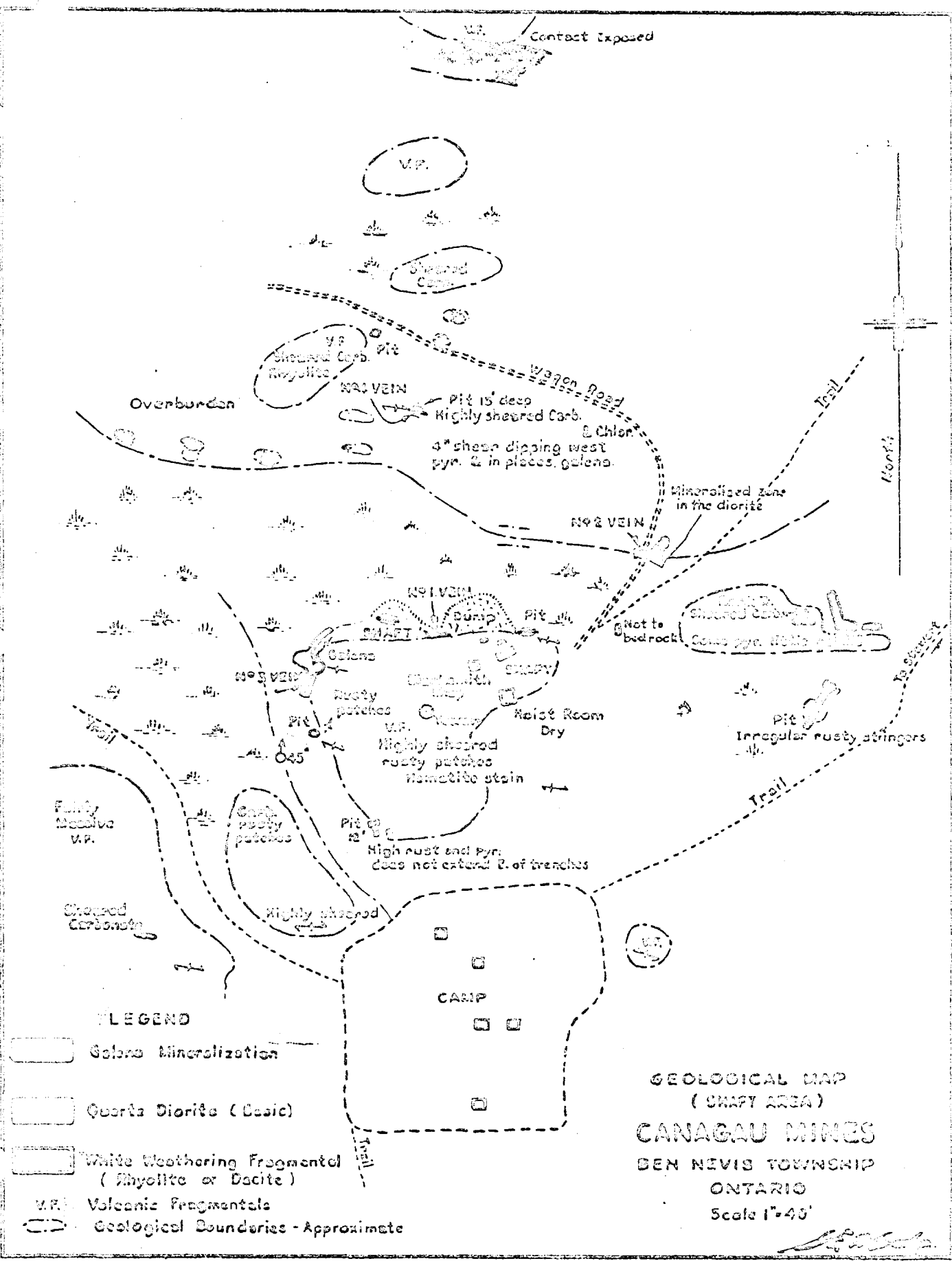
1. I am a mining engineer with an office situated at  
181 Murdoch Ave., Noranda, Quebec.
2. I am a graduate of the University of Alberta (1931)  
in mining engineering and have practiced my profession  
for 29 years.
3. I am a registered Professional Engineer of the  
Province of Quebec and a Fellow of the Geological  
Association of Canada.
4. I have no direct or indirect interest nor do I  
expect to receive any direct or indirect interest  
in the properties or securities of Canagau Mines  
Limited.
5. My report dated October 30th, 1962, is based on  
supervision of a party of prospectors in the Ben  
Nevis area and a visit to the property in 1954.  
Personally mapping of adjoining Pontiac Township  
and the Canagau Mines property as shown during  
September and October 1960. An examination on  
September 30th, 1962 of some of the work done  
during 1962. Reports and maps on file with  
Canagau Mines and report of the Ontario Department  
of Mines, Volume XXXVII, Part III, 1928, written  
by T.L. Gledhill.

DATED this 30th day of October, 1962.

NORANDA, QUEBEC.

*George E. Moody*

George E. Moody,  
Professional Engineer,  
Province of Quebec.



**LEGEND**

- Galena Mineralization
- Quartz Diorite (Basic)
- White Weathering Fragmental (Rhyolite or Dacite)
- V.P. Volcanic Fragmentals
- Geological Boundaries - Approximate

**GEOLOGICAL MAP**  
 (SHAFT AREA)  
**CANAGAU MINES**  
 BEN NEVIS TOWNSHIP  
 ONTARIO  
 Scale 1"=40'

*[Handwritten Signature]*





6' deep & wide  
strong N.W. trending  
vein, here & there  
elsewhere

See the way they put  
a SW corner of horizontal section  
1-14 (No. 8 Vein)

strong nearly  
vertical strike-slip formation

Sample	Description	Loc. No.	Obs.
E301	Massive white	10.09	
E302	Not taken here		
E303	Pieces of better material	11.09 5.00	

Legend

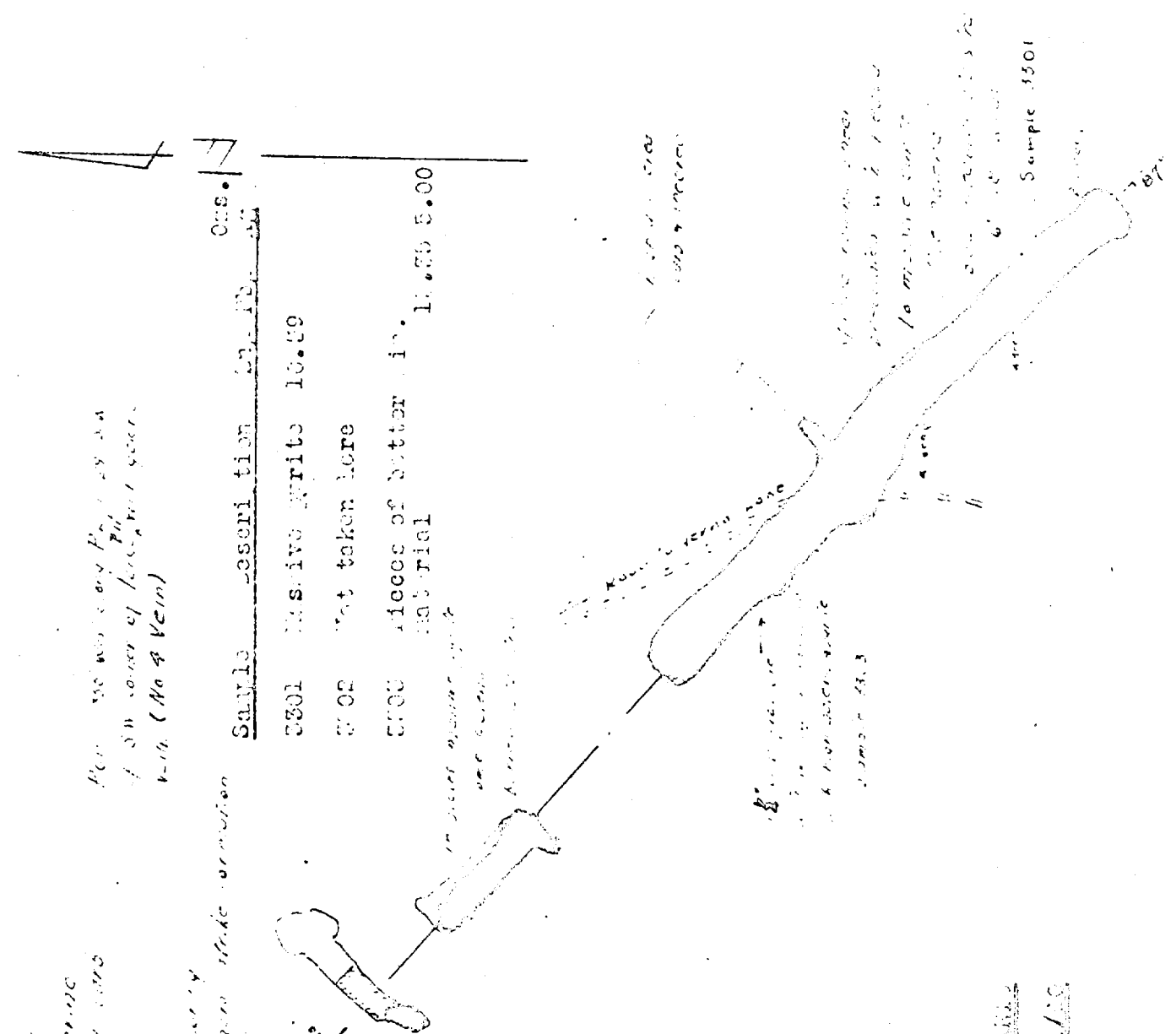
-  - Vein
-  - Barite
-  - Amphibole-porphyrific
-  - Rock trench

No. 8 VEIN

SAMSON MILES L.L.P.

BEN LEVY TO MATH. J. J. J.

11-00' 6-00' 20' / S.



Sample 1501





32055E0055 63.3901 BEN NEVIS

# CANAGAU MINES LIMITED

## Prospectus

For Filing with the Ontario Securities Commission under the provisions of Part VII of The Securities Act, being Chapter 363 of the Revised Statutes of Ontario, 1960.

- A. Canagau Mines Limited, hereinafter referred to as "the Company", has its Head Office at Room 1500 — 372 Bay Street, Toronto 1, Ontario.
- B. The Company was incorporated under the authority of the Ontario Companies Act by Letters Patent dated September 30, 1936.
- C. (a)

<u>Officers and Directors</u>	<u>Names in Full and Occupations</u>	<u>Addresses in Full</u>
<i>President and Director</i> .....	PETER JOSEPH ROCHE Prospector	71 Chatsworth Drive, Toronto 12, Ontario.
<i>Secretary-Treasurer and Director</i> .....	GORDON McLAUGHLIN, Q.C. Solicitor	168 Valley Road, Willowdale, Ontario.
<i>Director</i> .....	MICHAEL PETER ROCHE B.Com. Customers' Man	29 Laureleaf Road, Thornhill, Ontario.
<i>Director</i> .....	THOMAS JOSEPH SHEA Real Estate Salesman	Apartment 407, 1057 Don Mills Road, Don Mills, Ontario.
<i>Director</i> .....	MARGARET FIELDING Bookkeeper	16 Chipping Road, Don Mills, Ontario.

(b) Peter Joseph Roche, 71 Chatsworth Drive, Toronto, Prospector, is the promoter of the Company.

- D. The Company's auditor is Floyd A. Stern, C.A., 825 Eglinton Avenue West, Toronto 10, Ontario.
- E. The Sterling Trusts Corporation, 372 Bay Street, Toronto, Ontario, is the Registrar and Transfer Agent of the Company.
- F. The Company has an authorized capital of \$3,000,000 divided into 3,000,000 shares of the par value of \$1.00 each, whereof 1,757,604 shares, fully-paid and non-assessable, have been issued and are outstanding.
- G. There are no bonds or debentures issued or outstanding nor does the Company contemplate issuing any.
- H. 1,125,000 shares are held in escrow by The Sterling Trusts Corporation, Toronto, subject to release pro rata with the consent of the Ontario Securities Commission, and further subject to alienation, hypothecation and/or transfer within the escrow on the written consent of the Ontario Securities Commission.
- I. 296,771 shares have been sold for cash to date as follows:—

5 shares at \$1.00 per share	—	\$ 5.00
13,500 shares at .05 per share	—	675.00
212,100 shares at .15 per share	—	31,815.00
67,166 shares at .30 per share	—	20,149.80
4,000 shares at .25 per share	—	1,000.00
<u>296,771 shares</u>		<u>\$53,644.80</u>

No commissions were paid upon the said shares.



NOTE: As set forth in paragraph L hereof, Peter Joseph Roche was allotted 1,500,000 fully-paid shares upon the organization of the Company in consideration of mining properties conveyed by him to the Company. Subsequently, he donated 250,000 of the said shares to the Company to be available to the Company for sale, the proceeds to be received into the treasury of the Company.

Of the 296,771 shares sold as set forth above, 255,604 were issued from the treasury. 41,167 of the donated shares were also issued and the treasury of the Company received the proceeds of the sale thereof in the amount of \$8,775.10. The balance of the donated shares, 208,833 in number, are held by The Sterling Trusts Corporation for the benefit of the Company.

150,000 fully-paid shares have been allotted to the said Peter Joseph Roche to discharge the Company's indebtedness to him of \$15,000. The said shares have not as yet been issued.

- J. No other securities have been sold for cash to date.
- K. No shares have been issued or are to be issued and no cash has been paid to any promoter.
- L. The Company is the owner of the following mining properties:—
  - (a) A group of 10 patented mining claims situate in the Township of Ben Nevis, in the Larder Lake Mining Division of Ontario and numbered L-16220-1, 16332-3, 16455-6, 16465, 16472, 12781-2. Title to the said mining claims is recorded in the Company's name in the office of the Local Master of Titles at Haileybury, Ontario, as parcels 3472, 3473, 3487, 3488, 3483, 3484, 3485, 3486, 2970 and 2971, all in the Register for Centre Section, Temiskaming. The claims were acquired December 17, 1945.
  - (b) A group of 3 patented mining claims situate in the said Township of Ben Nevis and numbered L-16197, 16198 and 16200. Title to the said mining claims is likewise recorded in the Company's name in the office of the Local Master of Titles at Haileybury, Ontario, as parcels 7997, 7998 and 7410, all in the Register for Centre Section, Temiskaming. Mining Claim L-16197 was patented to the Company on July 9, 1954. Mining Claim L-16198 was patented to the Company on July 12, 1954. Mining Claim L-16200 was patented to the Company on January 5, 1950.
  - (c) A group of 5 unpatented mining claims situate in the said Township of Ben Nevis numbered L-70664-5-6, 72701 and 76646. The said claims are in good standing. Title to them is recorded in the name of the Company's President in the office of the Mining Recorder at Kirkland Lake, Ontario, who has completed a declaration of trust in favour of the Company. The claims were acquired December 2, 1963.

NOTE 1:

By agreement dated January 26, 1937, the Company acquired from Peter Joseph Roche, 71 Chatsworth Drive, Toronto, 27 unpatented mining claims situate in the Larder Lake Mining Division of Ontario and numbered L-30509-14 inclusive; 30584; 30740-4 inclusive; 31368-76 inclusive; and 32028-33 inclusive. In addition, the Company acquired from one Harry Mills on March 30, 1946, an additional unpatented mining claim numbered L-40579.

In payment for the mining claims acquired from Peter Joseph Roche as aforesaid, the Company issued and allotted to him 1,500,000 vendor shares and paid to him the sum of \$5.00 in money and an additional 2,000 shares were issued and allotted to the said Harry Mills in payment for the mining claims acquired from him as aforesaid. These claims were later abandoned but 8 of them were restaked at no cost to the Company, of which 5 have been brought to patent at no cost to the Company. The said 8 claims are the claims presently held by the Company described in sub-paragraphs (b) and (c) of this paragraph L.

NOTE 2:

The said Peter Joseph Roche acquired the entire 3 groups of mining claims described in sub-paragraphs (a) and (b) and (c) without any expense to the Company, he having previously received the vendor consideration of 1,500,000 fully-paid shares from the Company.

NOTE 3:

In addition to the foregoing properties, the said Peter Joseph Roche acquired for the Company a group of 15 mining claims in the Manitouwadge area of the District of Algoma, Ontario, which were disposed of at a profit of \$7,944.06, as appears by the financial statement of the Company at October 31, 1963, which forms a part of this prospectus.

The said Peter Joseph Roche also acquired for the Company an option to purchase a group of mining claims in the Province of New Brunswick paying therefor the sum of \$167.00, which is a portion of the indebtedness owing by the Company to the said Peter Joseph Roche as set out in paragraph I. The option was not exercised.

The only persons receiving a greater than five per cent interest in the consideration paid to the vendors are John Paul Roche, 90 Chudleigh Avenue, Toronto 12, Ontario, Michael Peter Roche, 29 Laureleaf Road, Thornhill, Ontario, and Anne Marie Doyle, 2951 Lawrence Avenue East, Scarborough, Ontario; and Edmund O. Ehrhart, of the City of Johnsonburg, in the State of Pennsylvania, U.S.A., who received 250,000 of the vendor shares allotted to Peter Joseph Roche as aforesaid.

- M. (i) The 18 mining claims owned by the Company are contiguous and are situate in the East Central part of Ben Nevis Township. Access to the said mining claims can be obtained by float planes based at Rouyn, Quebec, or Chemenis, Ontario, to Stuart Lake, 1½ miles to the east of the property.
- In addition, a gravel road extends to within seven miles of the property and a winter road from the property to Chemenis could be used for part of the intervening distance. A bush road also connects with Verna Lake, 4½ miles to the west of the property.
- (ii) The character, extent and condition of the underground and surface exploration and development are clearly set forth in the report of George E. Moody, P.Eng., dated September 18, 1963, which accompanies and forms part of this prospectus.
- (iii) There is no surface or underground plant and equipment on the properties. There was formerly placed upon the property mining equipment acquired at a cost of \$1,580.60. This equipment has been removed from the property by persons unknown and the Company has no knowledge of its present whereabouts.
- (iv) The history of the properties is also set forth in the report of the said George E. Moody, P.Eng., hereinbefore referred to.
- (v) The present management has conducted surface exploration, diamond drilling, geological mapping and geophysical work as well as stripping, trenching and rock-cutting upon the Company's properties.
- N. By agreement dated January 16, 1964, the Company sold to Davidson Securities Limited acting solely on behalf of clients 250,000 fully-paid shares of its capital stock at the price of ten cents per share, the consideration therefor to be payable as follows:—
- (a) As to \$15,000 in payment for 150,000 of the said shares within three business days of the date of acceptance for filing of this prospectus by the Ontario Securities Commission and the issuance of a receipt therefor by the Registrar of the said Commission (such date of acceptance for filing being hereinafter referred to as 'the effective date'); and
- (b) The balance of \$10,000 shall be payable within sixty days of the effective date.

In consideration of the purchase of the said shares, the Company has granted to Davidson Securities Limited acting on behalf of clients the sole and exclusive option to purchase the whole or any part of an additional 750,000 shares in the capital stock of the Company exercisable at the prices and within the times noted below, namely:—

<u>Number of Shares, all or any part of:</u>	<u>Price per Share:</u>	<u>Period from Effective Date within which exercisable:</u>
250,000	15¢	six months
200,000	20¢	nine months
200,000	30¢	twelve months
100,000	50¢	fifteen months
<u>750,000</u>		

In the event of Davidson Securities Limited failing to take up stock in accordance with the provisions of the preceding paragraph, the option hereby granted shall cease and determine and the Company undertakes to file an amended prospectus within twenty days of the occurrence of such default.

There are no sub-option or sub-underwriting agreements outstanding or proposed to be given.

Alexander Bruce Davidson, 36 Forest Hill Road, Toronto 7, is the only person having a more than five per cent interest in Davidson Securities Limited, 25 Adelaide Street West, Toronto 1.

The underwriting and options hereby granted are entered into by Davidson Securities Limited in behalf of Cradock Holdings Limited, 25 Adelaide Street West, Toronto, and World Explorations Limited, 917 Vancouver Block, 736 Granville Street, Vancouver 2, British Columbia, in equal proportions.

The only persons having a more than five per cent interest in Cradock Holdings Limited are Eric Cradock, 6 Highbourne Road, Toronto, and Joseph Bernard Ryan, 6404 - 106 B. Avenue, Edmonton, Alberta.

The only person holding a more than five per cent interest in World Explorations Limited is Archie McGillivray, 917 Vancouver Block, 736 Granville Street, Vancouver 2, British Columbia.

Primary distribution to the public of the shares underwritten and optioned will only be effected through registered security dealers, who will be paid a commission not exceeding 25% of the selling price of shares or shares may be sold to registered security dealers acting as principals at a mark-up not exceeding one cent per share.

- O. The details of future development and the exploration plans of the management will be dictated by the Company's engineer, George E. Moody, P.Eng. It is intended to give effect to the recommendations contained in the report of the said George E. Moody previously referred to and to be guided by his opinion following the completion of the recommended program. The Company will expend the principal part of the moneys to be received from the sale of its shares in implementing the recommendations contained in the said report. Ordinary administration expenses will also be defrayed from the same source.
- P. No indebtedness is to be created or assumed other than in the ordinary course of business, which is not shown in the balance sheet of the Company prepared by the Company's auditor as of October 31, 1963, accompanying and forming part of this prospectus.
- Q. (i) The business in which each officer and director of the Company has been engaged during the past three years and over is as follows:—
- |                                 |  |
|---------------------------------|--|
| PETER JOSEPH ROCHE.....         | Engaged in prospecting and mining development during the past three years. He is a director of Laroma-Midlothian Mines Limited.                                  |
| GORDON McLAUGHLIN, Q.C.....     | Has practiced his profession as a Barrister and Solicitor during the past three years. He is also a director of Agnico Mines Limited and Evenlode Mines Limited. |
| MICHAEL PETER ROCHE, B.Com..... | During the past three years employed as a customers' man with T. A. Richardson & Company, 4 King Street West, Toronto.   |
| THOMAS JOSEPH SHEA.....         | Employed as a real estate salesman with Eastern & Chartered Trust Company during the past three years.   |
| MARGARET FIELDING.....          | Engaged as a bookkeeper on her own account during the past three years.  |
- (ii) None of the directors or officers of the Company, either directly or indirectly, has or ever had any interest in the properties referred to in this prospectus, other than Peter Joseph Roche, who was the vendor and transferor of the properties acquired by the Company described in paragraph L and Michael Peter Roche, who received more than a five per cent interest in the vendor consideration paid to the said Peter Joseph Roche.
- (iii) No amount has been paid to directors or officers since the date of incorporation of the Company. Gordon McLaughlin, Q.C., Secretary-Treasurer of the Company, is solicitor and counsel to the Company and in such capacities as solicitor and counsel will be paid his professional charges.
- R. The Company has paid no dividends.
- S. No agreements in writing or otherwise exist respecting election of directors. Peter Joseph Roche, 71 Chatsworth Drive, Toronto 12, Ontario, by reason of beneficial ownership of securities of the Company is in a position to elect a majority of the directors of the Company.
- T. (1) The Company has entered into an agreement dated January 15, 1964, with Continental Diamond Drilling Company Limited engaging the latter to sink a minimum of 2,500 feet of diamond drilling upon the Company's properties.
- (2) Peter Joseph Roche has agreed with the Company to accept 150,000 fully-paid and non-assessable shares of the Company in satisfaction of \$15,000 of a loan to the Company in the amount of \$15,333.46, which is shown in the financial statement of the Company above referred to. The Company has allotted the said shares.
- (3) By letter agreement dated January 16, 1964, the said Peter Joseph Roche has granted to Eric Cradock, 6 Highbourne Road, Toronto, an option to purchase all or any part of 75,000 of the shares

referred to in the immediately preceding sub-paragraph at a price of 10 cents per share, to be exercised during a period of ten days following advice to the optionee that the Company has expended the sum of \$25,000 on development upon the Company's properties.

(4) By letter agreement dated January 16, 1964, the said Peter Joseph Roche has granted to the said Eric Cradock and World Explorations Limited an option to purchase all or any part of 200,000 escrowed shares of the Company at the price of 10 cents per share, to be exercised during a period of one month following advice to the optionee that the Company has expended the sum of \$50,000 on development upon the Company's properties.

In the event that the foregoing option is duly exercised, an additional option is contained in the said letter agreement granting to the said Eric Cradock and World Explorations Limited the right to purchase all or any part of 75,000 additional escrowed shares at the price of 25 cents per share, exercisable during a period of six months after the option to purchase the said 200,000 shares has been fully exercised; and if the option to purchase the said 75,000 shares is duly exercised, the said Eric Cradock and World Explorations Limited are granted the option to purchase an additional 75,000 escrowed shares or any part thereof at the price of 25 cents per share, exercisable during a period of six months after the option to purchase the said 75,000 shares mentioned in this paragraph has been fully exercised.

The shares optioned under sub-paragraphs (3) and (4) must not be offered to the public on a greater ratio than one such share for every four treasury shares taken down.

U. There are no further material facts not disclosed in the foregoing.

DATED January 31, 1964.

The foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required by Section 38 of The Securities Act (Ontario) and there is no further material information applicable other than in the financial statements or reports where required.

DIRECTORS

P. J. ROCHE

MICHAEL P. ROCHE

GORDON McLAUGHLIN, Q.C.

THOMAS J. SHEA

MARGARET FEELDING  
by her agent  
P. J. ROCHE

PROMOTER

P. J. ROCHE

CERTIFICATE

To the best of our knowledge, information and belief, the foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required by Section 38 of The Securities Act (Ontario) and there is no further material information applicable other than in the financial statements or reports where required. In respect of matters which are not within our knowledge, we have relied upon the accuracy and adequacy of the foregoing.

DAVIDSON SECURITIES LIMITED

By A. B. DAVIDSON  
Underwriter and Optionee

# CANAGAU MINES LIMITED

(Incorporated under the laws of the Province of Ontario)

## *Balance Sheet as at October 31, 1963*

ASSETS		
Cash in bank .....		\$ 135.46
Mining equipment, at nominal valuation .....		1.00
MINING PROPERTIES:		
13 patented and 5 unpatented mining claims in the Township of Ben Nevis, Province of Ontario, at cost .....		1.00
DEFERRED EXPENDITURES, per statement attached:		
Exploration and development .....	\$ 6,042.53	
General and administrative .....	1,024.43	7,066.96
TOTAL ASSETS .....		<u>\$ 7,204.42</u>
LIABILITIES		
Accounts payable and accrued liabilities .....		\$ 600.00
Loan payable to a Director (Note 1) .....		15,333.46
TOTAL LIABILITIES .....		<u>15,933.46</u>
CAPITAL AND DEFICIT		
CAPITAL STOCK:		
AUTHORIZED — 3,000,000 shares, par value \$1.00 each .....		<u>\$ 3,000,000.00</u>
ISSUED AS FULLY PAID:		
FOR CASH:		
255,604 shares at April 1, 1957 .....	\$255,604.00	
Less: Discount thereon .....	210,734.30	\$ 44,869.70
FOR MINING PROPERTIES (now abandoned):		
1,502,000 shares at April 1, 1957 .....		1,502,000.00
		<u>1,546,869.70</u>
DONATED SURPLUS:		
Proceeds from sale of 41,167 donated shares for cash (208,833 remaining donated shares are held in trust for the Company) .....		8,775.10
		<u>1,555,644.80</u>
DEFICIT:		
Per statement attached .....	1,564,373.84	8,729.04
TOTAL LIABILITIES LESS CAPITAL AND DEFICIT .....		<u>\$ 7,204.42</u>

Approved on behalf of the Board of Directors:

P. J. ROCHE, Director.

GORDON McLAUGHLIN, Director.

### AUDITOR'S REPORT

I have examined the Balance Sheet of Canagau Mines Limited as at October 31, 1963, and related Statements of Deficit, and Deferred Expenditures from incorporation (September 13, 1936) to October 31, 1963. My examination was conducted from April 1, 1957, to October 31, 1963, and included a general review of accounting procedures and such tests of accounting records and other supporting evidence as I considered necessary in the circumstances. I have relied on the audited accounts as set out in the Company's Balance Sheet as at March 31, 1957, reported on by other Public Accountants.

The accompanying Balance Sheet, with notes appended thereto, and Statements of Deficit and Deferred Expenditures, are, in my opinion, properly drawn up in accordance with generally accepted accounting principles so as to present fairly the financial position of the Company as at October 31, 1963, according to the best of my information, the explanations given to me and as shown by the Company's books.

Toronto, Canada,  
January 17, 1964.

FLOYD A. STERN,  
Chartered Accountant.

# CANAGAU MINES LIMITED

## *Statement of Deficit*

FROM INCORPORATION (SEPTEMBER 13, 1936) TO OCTOBER 31, 1963

**MINING PROPERTIES ABANDONED:**

28 claims in Larder Lake, Province of Ontario, acquired for 1,502,000 shares of the Company's capital stock and \$5.00 cash .....	\$ 1,502,005.00	
26 claims in the Province of New Brunswick (staked) .....	—	
	1,502,005.00	

*Less:*

Profit on sale of 15 claims in Manitowadge, Province of Ontario ...	\$ 7,944.06	
Option payment on New Brunswick claims forfeited .....	167.00	8,111.06
	1,493,893.94	

**DEFERRED EXPENDITURES INCURRED TO DECEMBER 31, 1960, AND ATTRIBUTABLE TO THE ABOVE MINING PROPERTIES:**

**EXPLORATION AND DEVELOPMENT:**

Balance, April 1, 1957 .....	\$56,666.18	
From April 1, 1957 to December 31, 1960 —		
Transportation of personnel and supplies .....	1,161.58	
Food and accommodation .....	902.37	
Miscellaneous supplies and expenses .....	246.64	58,976.77
	58,976.77	

**GENERAL AND ADMINISTRATIVE:**

Balance, April 1, 1957 .....	9,538.60	
From April 1, 1957 to December 31, 1960 —		
Legal fees .....	300.00	
Transfer agents fees .....	50.83	
Taxes and general .....	34.10	9,923.53
	9,923.53	68,900.30

**WRITE-DOWN OF MINING EQUIPMENT:**

Cost .....	1,580.60	
<i>Less:</i> Nominal valuation, per Balance Sheet .....	1.00	1,579.60
	1,579.60	
<b>BALANCE, October 31, 1963 .....</b>		<b>\$ 1,564,373.84</b>

# CANAGAU MINES LIMITED

## *Statement of Deferred Expenditures*

FROM INCORPORATION (SEPTEMBER 13, 1936) TO OCTOBER 31, 1963

### EXPLORATION AND DEVELOPMENT:

Food and accommodation .....	\$2,008.17
Transportation of personnel and supplies .....	1,892.61
Wages .....	536.01
Equipment rental .....	522.85
Miscellaneous supplies and expenses .....	438.17
Government fees and taxes .....	428.02
Engineering fees and expenses .....	216.70
	<u>\$6,042.53</u>

### GENERAL AND ADMINISTRATIVE:

Legal and audit fees .....	\$ 900.00
Transfer agents fees .....	100.00
Miscellaneous .....	24.43
	<u>\$1,024.43</u>

*The above expenditures were incurred on mining properties now held by the Company.  
All other expenditures on abandoned properties have been written off to deficit.*

## *Notes to Financial Statements*

OCTOBER 31, 1963

NOTE 1: The Director has agreed to accept 150,000 shares in the Company's capital stock in full satisfaction of \$15,000 by his loan to the Company.

NOTE 2: By agreement dated January 16, 1964, the Company sold 250,000 shares of its capital stock @ 10¢ per share (\$25,000.00) payable:

\$15,000.00 within 3 days of "effective date"

\$10,000.00 within 60 days of "effective date";

and in addition, granted options on 750,000 shares exercisable as follows:

250,000 shares @ 15¢ within 6 months of "effective date"

200,000 shares @ 20¢ within 9 months of "effective date"

200,000 shares @ 30¢ within 12 months of "effective date"

100,000 shares @ 50¢ within 15 months of "effective date".

"Effective date" herein referred to is the date of acceptance for filing the Company's prospectus by the Ontario Securities Commission.

A REPORT ON THE PROPERTY OF  
**CANAGAU MINES LIMITED**

in Ben Nevis Township, Ontario

**PROPERTY:**

The property consists of 18 contiguous mining claims situated in the east-central part of Ben Nevis Township, in the Larder Lake Mining Division of Ontario. Of the 18 claims, thirteen are patented and five unpatented.

The claims encompass approximately 720 acres and are more specifically described as mining claims:—

**Patented:**

L-12781 and 82,	L-16220 and 21,
L-16332 and 33,	L-16455 and 56,
L-16465 and 16472,	L-39767 (16197), 39768 (16200),
	L-39769 (16198).

**Unpatented:**

L-70664, 65 and 66,	L-72701,
L-76646.	

**HISTORY:**

Galena was found in 1926 by Peter Roche on what is now claim L-39768 (16200).

The Interprovincial Exploration Company took over the Roche claims in 1927 and carried out a large amount of surface exploration. This was followed, in 1928, by the sinking of a three compartment shaft to 347 feet with stations cut on the 125, 225 and 325 foot levels. Lateral work consisted of crosscuts run on the 225 and 325 foot levels for 450 and 420 feet respectively. The crosscuts were run to the south, that is, away from the prominent east-west draw that lies just to the north of the shaft.

At various times since then surface exploration, diamond drilling, geological mapping and some geophysical work has been carried out.

Last year, stripping, trenching and rock-cutting on a mineralized shear, angling off the east-west draw, that passes just north of the shaft, was carried out.

This year a bulldozer was brought in and the area to the south of last year's work was cleared to the edge of the east-west draw and several pits blasted into the veins.

The lead-zinc showings on the original Ehrhart claims are also incorporated into the present property of Canagau Mines.

**ACCESS AND POWER:**

Float planes based at Rouyn, Quebec or Chemenis, Ontario land on the lake close to camp or on Stuart Lake 1½ miles to the east.

A gravel road extends to within 7 miles of the property and the old winter road from the property to Chemenis could be used for part of the intervening distance without too much work. A bush road also connects with Verna Lake 4½ miles to the west.

Hydro electric power is available at Chemenis, about 12 miles distant.

**GEOLOGY:**

The claims are underlain by a series of andesitic to rhyolitic flows and their pyroclastic equivalents. The strike of the formations is roughly in an east-west direction.

The andesitic rocks are usually massive and often show pillow structure. The dacitic and rhyolitic rocks are largely represented by their fragmental phases.

Intruding the above is a mass of quartz diorite or diorite centred in the northeastern part of the claims. Dykes thought to be offshoots of this mass extend much further west, especially in the vicinity of the prominent east-west draw that lies just north of the shaft area.



A major fault is believed to underlie the above draw and to extend across the property and for several miles to the east. The formations on the sides of the draw are highly sheared and altered.

It has been thought for some time that Kennedy Lake, Verna Lake, and on line in Quebec, Lake Despres and Despres Creek, were topographical expressions of a major regional fault. The recent Ontario Department of Mines Preliminary Map, P.178, of Arnold Township shows the Murdock Creek-Kennedy Lake fault to follow this strike. In Quebec the recent publication of the Department of Mines, P.R. 466, shows along the projected extension of the Murdock Creek-Kennedy Lake fault, a major fault following Lac Despres and Despres Creek. The fault would lie roughly one mile north of the Canagau shaft. What are thought to be subsidiary faults show up on aerial photos and according to old reports on the property some of the strongest veins underground strike in that direction. Shears roughly at right angles to the assumed regional fault traverse the Ehrhart lead-zinc showing. The valley alongside and the long, narrow lake to the east also follow this trend.

The prominent hill immediately south of the shaft is highly fractured in an east-west direction, parallel to the prominent east-west draw. The mineralization here tends to follow shearing in the same direction.

#### MINERALIZATION:

The mineralization consists of pyrite with galena, sphalerite and minor chalcopyrite. Some silver appears to be associated with the galena and low gold values occur. At the Ehrhart showing arsenopyrite also is found. Sphalerite and galena replace pyrite with galena also occurring as stringers by itself.

#### PREVIOUS WORK:

A prospect shaft was sunk to 40 feet on the original discovery, which lay on the south side of the prominent east-west draw. It consisted of pyrite and galena mineralization occurring in a strong east-west shear with a width of two feet. Galena was also noted in fractures off the shear.

A grab sample taken by the writer in 1960 from an 8 inch width of heavy pyrite and galena mineralization ran 22.53% Pb. and 5.74 ounces in silver. It was not run for zinc.

To explore further this zone and others found to the south, a three compartment shaft was sunk to 347 feet, with crosscuts driven to the south from the 225 and 325 foot levels.

In the Company's records samples from underground included:

80 lb. sample — 3.40 ozs. Ag., 6.46% Zn and 3.76% Pb.

Massive sulphides (no weight) — 1.10 oz. Ag., 17% Zn and 0.33% Pb.

Prospecting and trenching showed up a galena vein occurring in highly sheared acid fragmental about 400 feet north of the shaft (No. 4), another (No. 2) shows heavy pyrite with sphalerite and galena occurring in shears in a diorite, just north of the east-west draw. About 500 feet east of the shaft, and again just north of the east-west draw pyrite, sphalerite and galena were found.

About one half mile south of the shaft, on the boundary of claims 12781 and 82 a pit 6' x 8' was sunk on sheared volcanics striking N60°W. The mineralization showed pyrite and disseminated galena over two feet with heavy mineralization over widths up to 12 inches. This occurrence is known as the Ehrhart showing.

In 1946 part of the property was geologically mapped and 8 diamond drill holes bored. Only one hole to the west of the showings was drilled across the east-west draw.

In 1960 galena was noted in fractured diorite (No. 2 showing) and considerable stripping, trenching and rock pitting were carried out here in 1962.

#### PRESENT WORK:

Most of the work done this year was on the No. 2 showing. A bulldozer was brought in and the area extended south and southeast of the former work. The rock was cleared off nearly to the edge of the east-west draw. Several rock trenches and pits were put down on this new part.

#### RESULTS:

Last year's work showed a strong, brecciated rusty shear up to 15 inches wide occurring in an altered diorite. The shear was heavily mineralized with a fine pyrite and in some places galena occurs. On assaying, the pyrite was found to carry appreciable sphalerite, while the galena was found to have associated silver values.

This year's work showed several similar heavily mineralized shears to the south. The picture from all this work is that of a number of heavily mineralized, subsidiary shears coming out of the east-west draw.

In this regard the pit put down last year on the projected strike of the then known shear, in the middle of the draw, takes on more significance. The pit was taken down to a depth of over 8 feet and large, angular pieces of what was believed to be bedrock showed highly carbonated, chloritic diorite, much fractured and in places sheared. Some pieces showed strong brecciation. Heavy pyrite with sphalerite and galena was noted in many pieces.

Several character samples were taken and the results of these along with those taken in 1962 are given.

<u>Sample</u>	<u>Description</u>	<u>% Zn.</u>	<u>% Pb.</u>	<u>Oz. Ag.</u>	<u>Oz. Au.</u>
3301	Grab of 4" piece of massive fine grained pyrite	10.39			
3302	Not taken here.				
3303	Grab of pieces of better mineralization with galena .....		13.35	5.0	

**1963 Sampling:**

4	Grab. Heavy pyrite, good galena. S.W. pit ....		9.07	2.84	.02
5	Grab. Well mineralized pyrite, some galena and sphalerite. S.W. Pit .....	2.73	3.59	1.32	.13
6	Grab. Heavily rusted pyrite and galena piece pushed up by bulldozer from pit in draw (not bedrock) .....		1.91	1.00	
7	Oxidized, decomposed massive pyrite from B.M. pit near top .....	0.65	0.35	0.76	Tr.
9	Grab. Heavily mineralized pyrite, galena and sphalerite. S.W. pit .....	5.30	5.99	1.90	Tr.

**SUMMARY:**

1. A number of shears heavily mineralized with pyrite carrying important zinc values and with galena carrying silver values have been found on the property.
2. No mention is made in the early work or in Gledhill's report of the diorite mass and associated dykes occurring in the northeast part of the property.
3. Little significance appears to have been paid to the prominent east-west draw lying just north of the shaft area. The shaft crosscuts were headed to the south.
4. It is close to this draw that most of the lead-zinc showings have been found. To the writer this possible major fault zone along with the diorite mass had much to do with the source and emplacement of the mineralization.

**RECOMMENDATIONS:**

1. That a self-potential and possibly a magnetometer survey be made of a strip of ground, 600 feet either side of the prominent east-west draw, for the full width of the property. Particular attention being paid to where the shear from the Ehrhart showing and parallel valleys would intersect the main draw.
2. A minimum of three thousand feet of diamond drilling to explore the prominent east-west draw and to follow up the results of the geophysical survey.
3. Prospecting of the rest of the claim group and the examination of any old work found should be carried out. Possible gold occurrences should be kept in mind as an assay 0.10 oz. in gold is noted in an old company report as coming from a porphyry dyke on a claim just north of the present claim group.
4. It is estimated to carry out the above programme, a sum of \$20,000.00 would be required.

Respectfully submitted,

G. E. MOODY, P.Eng.

Noranda, Quebec,  
September 18, 1963.

## CERTIFICATE

Mr. P. J. Roche, President,  
Canagau Mines Limited,  
71 Chatsworth Dr.,  
Toronto 12, Ontario.

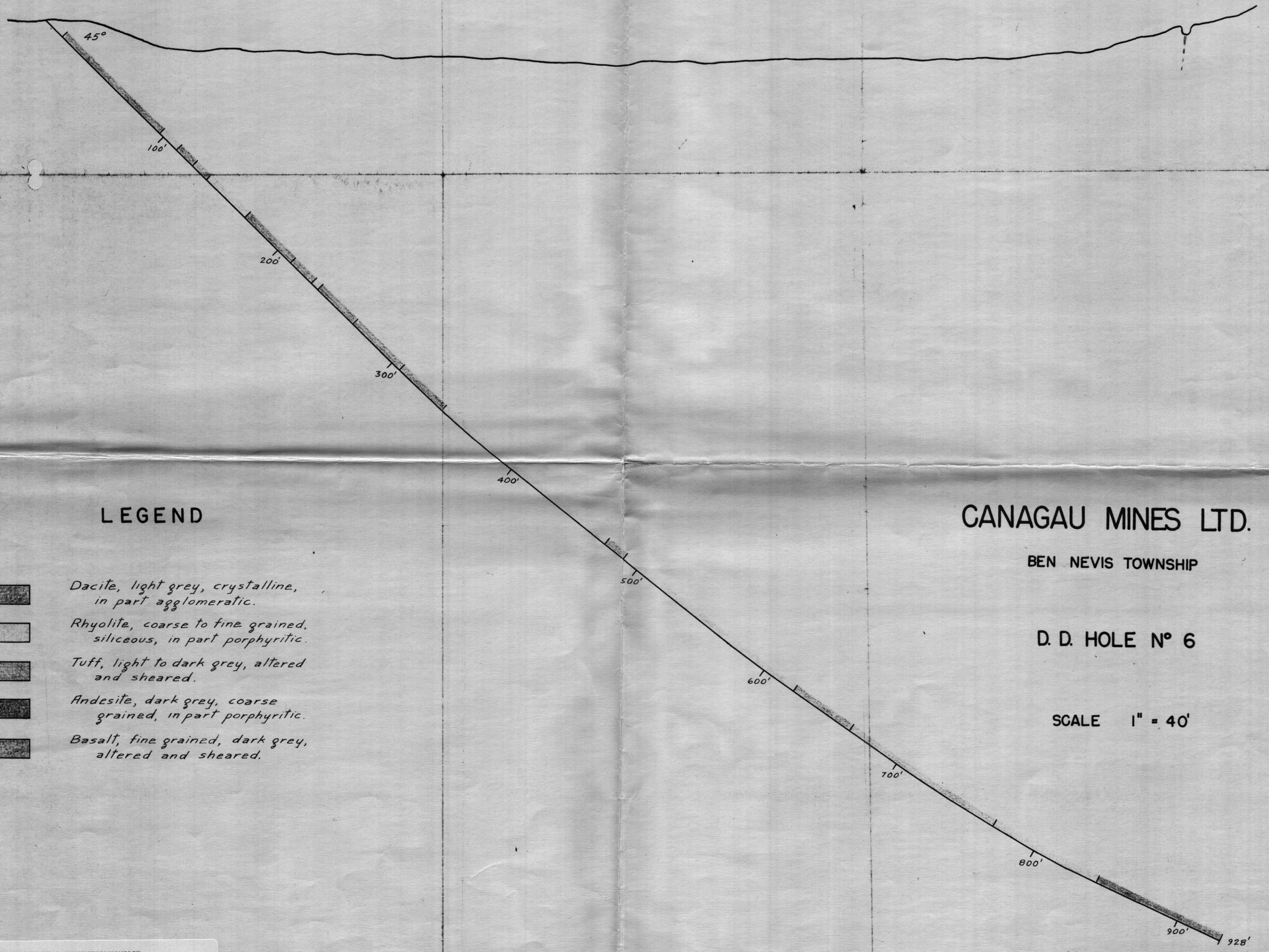
I, GEORGE E. MOODY, of the City of Noranda, in the Province of Quebec, do certify that:

1. I am a mining engineer with an office situated at 181 Murdoch Ave., Noranda, Quebec.
2. I am a graduate of the University of Alberta (1931) in mining engineering and have practiced my profession for 32 years.
3. I am a registered Professional Engineer of the Province of Quebec and a Fellow of the Geological Association of Canada.
4. I have no direct or indirect interest nor do I expect to receive any direct or indirect interest in the properties or securities of Canagau Mines Limited.
5. My report dated September 18th, 1963 is based on supervision of a party of prospectors in Ben Nevis Township and a visit to the property in 1954. Personally mapping of the adjoining Pontiac Township and the Canagau Mines property, as shown, during September and October, 1960. An examination of work done during 1962 and an examination on September 7th of this year. It is also based on reports and maps on file with Canagau Mines and report of the Ontario Department of Mines, Vol. xxxvii, Part III, 1928.






DATED this 18th day of September, 1963.

GEORGE E. MOODY,  
Professional Engineer,  
Province of Quebec.

Noranda, Quebec.



### LEGEND

-  *Dacite, light grey, crystalline, in part agglomeratic.*
-  *Rhyolite, coarse to fine grained, siliceous, in part porphyritic.*
-  *Tuff, light to dark grey, altered and sheared.*
-  *Andesite, dark grey, coarse grained, in part porphyritic.*
-  *Basalt, fine grained, dark grey, altered and sheared.*

## CANAGAU MINES LTD.

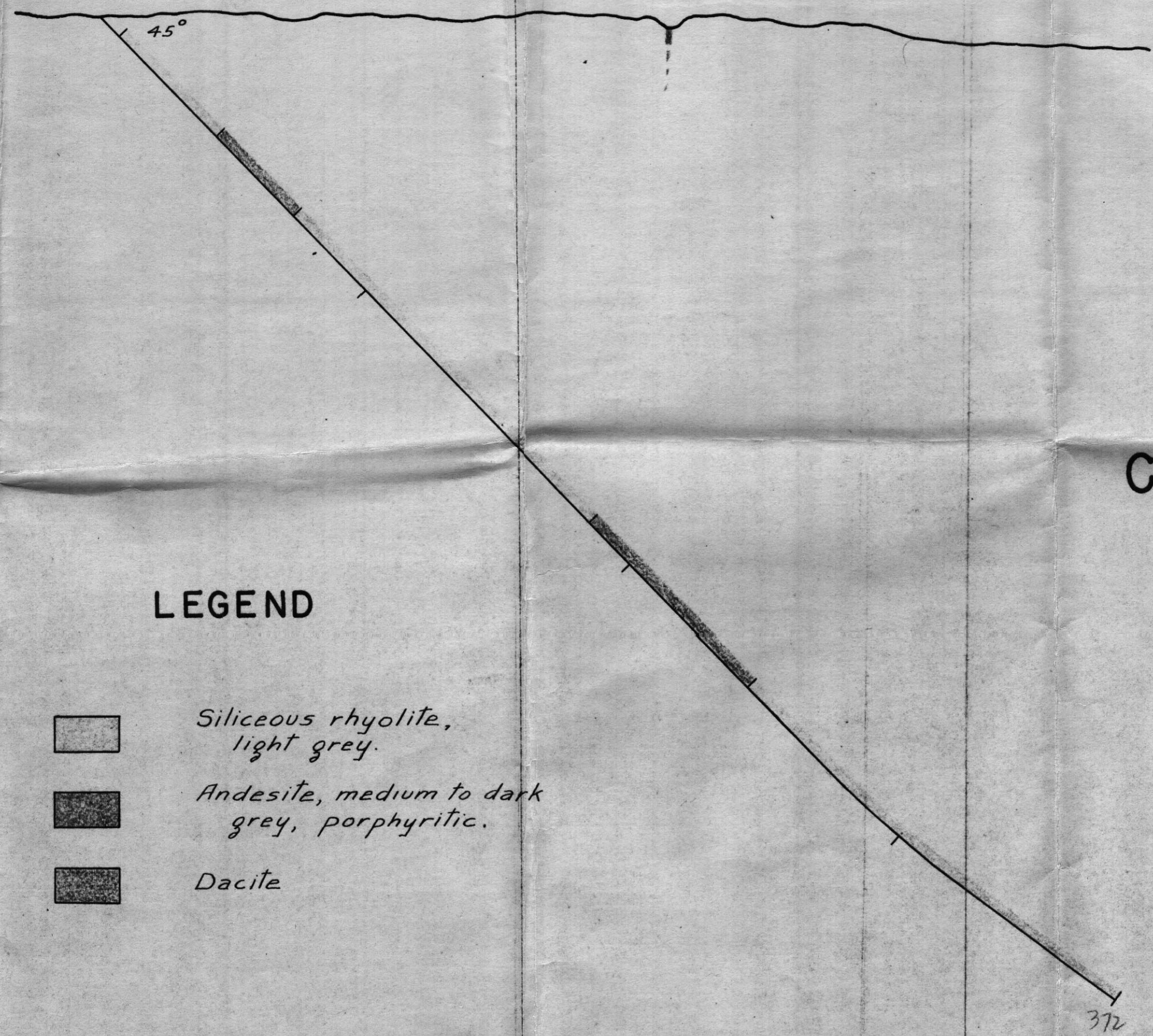
BEN NEVIS TOWNSHIP

D. D. HOLE N° 6




SCALE 1" = 40'



320055E0055 63.3901 BEN NEVIS



LEGEND

-  *Siliceous rhyolite, light grey.*
-  *Andesite, medium to dark grey, porphyritic.*
-  *Dacite*

CANAGAU MINES LTD.

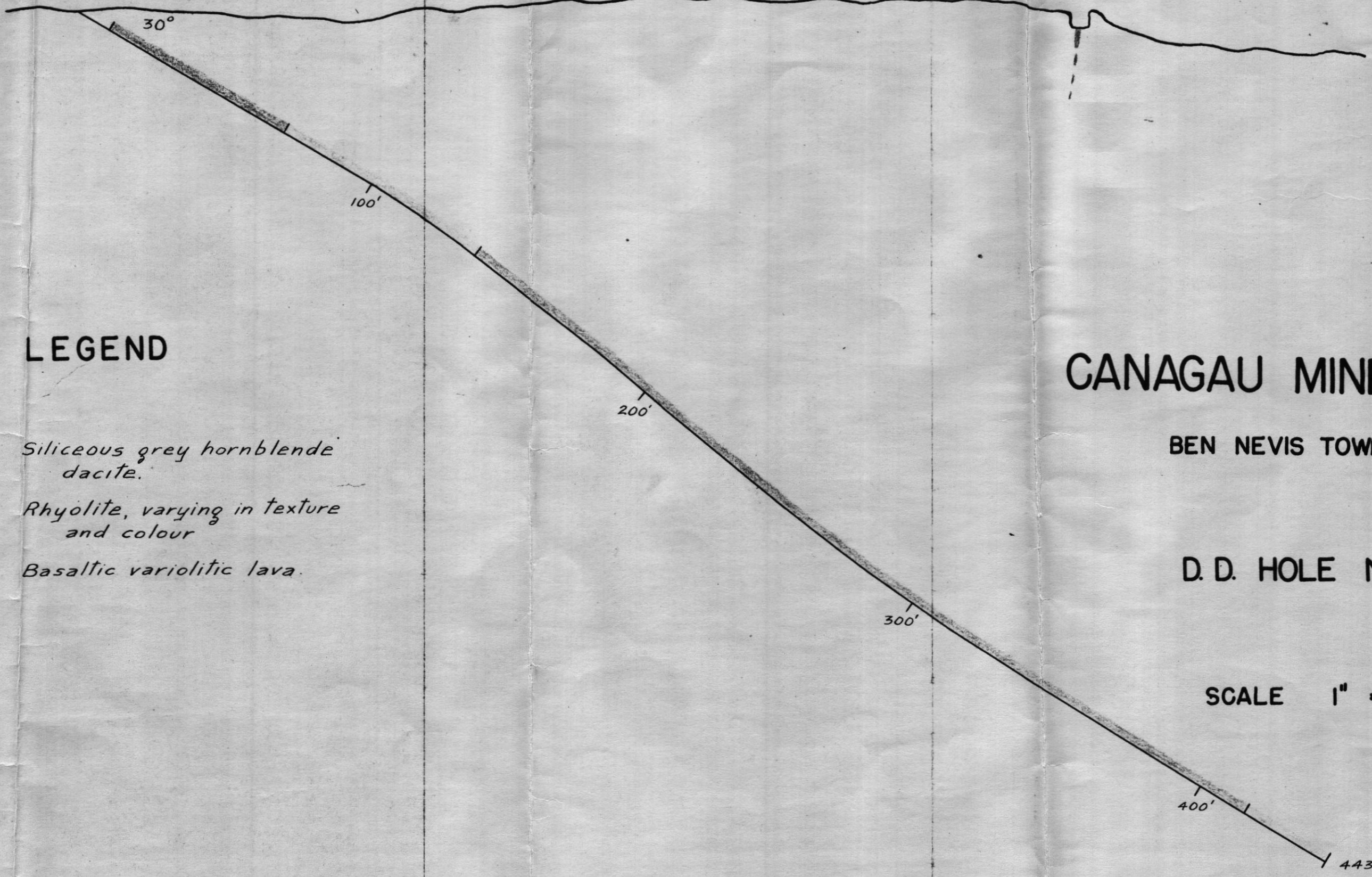
BEN NEVIS TOWNSHIP

D. D. HOLE N° 7

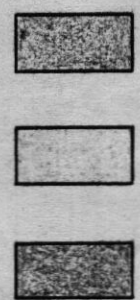
SCALE 1" = 30'

32D055E0055 63.3901 BEN NEVIS 300





### LEGEND



*Siliceous grey hornblende dacite.*

*Rhyolite, varying in texture and colour*

*Basaltic variolitic lava.*

## CANAGAU MINES LTD.

BEN NEVIS TOWNSHIP

D. D. HOLE N° 8

SCALE 1" = 30'

