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QUEENSTON MINING INC.  
Report on Diamond Drilling  
and Geological Investigation  
of the Strike Minerals Option  
Baden Township, Ontario

January 1991

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Queenston Mining Inc.

#63.6149

OMIP 90-150

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WORK REPORT #20 BAN W TWP - LOGS + SEIZURES FOR BAN 90-7 to BAN 90-13  
(W-9106-0069)

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1) Diamond drill logs and assays - 1990

Queenston Mining Inc.

## 1.0 Introduction

Queenston Mining Inc. is the holder of an option on a group of 62 unpatented and 4 leased mining claims from Strike Minerals Inc. in Baden Township, Larder Lake Mining Division. The option agreement was entered into on August 16, 1989 by HSK Minerals Ltd. which amalgamated with Queenston Gold Mines Ltd. in December 1989. Queenston may earn a 70% interest in the property with cash and share payments over 4 years as well as an aggregate exploration expenditure of \$1,000,000 over the same period. Strike and Queenston are exploring the property as manager and operator. The property was staked between 1985 and 1987 and contains several historic and one newly discovered gold showing.

During 1990 Queenston conducted exploratory and follow-up diamond drilling in the south central portion of the property, complimenting geological, geophysical and drilling work conducted in 1989.

Material used in the preparation of this report is derived from documents found in the Kirkland Lake resident geologist's office, from government sponsored maps and reports, from geological investigations by the author and geophysical and drilling work sponsored by Queenston.

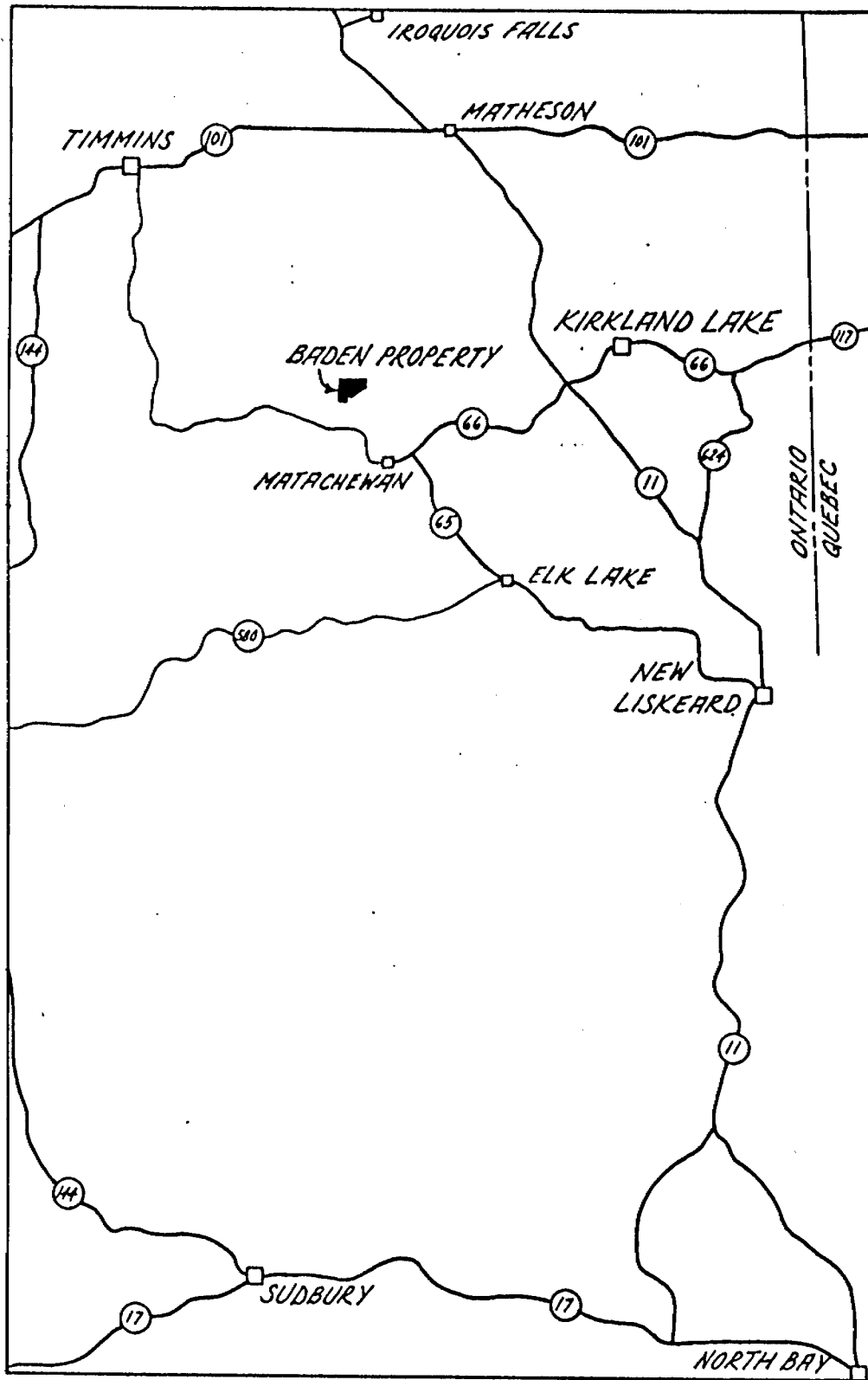
## 2.0 Property Location, Description and Access

The Baden property is located in Baden township, Larder Lake Mining Division, roughly 35 miles west southwest of Kirkland Lake, Ontario and 10 miles north northwest of

Matachewan (figure 1). The property consists of 62 unpatented mining claims and 4 leased mining claims (mining rights only) located in the northwest corner of Baden township and are shown on municipal plan M205. All unpatented claims are in good standing until 1991. Table 1 lists all claims with their recording dates and the current number of assessment days credited to them. Figure 2 shows the geographical distribution of the claims.

The property can be accessed from Kirkland Lake by Highway 66 west towards Matachewan for 30 miles to the Matachewan Native Reserve road, then north along the reserve road to the village, a distance of 8 miles. From the reserve village the property is located 5 miles northwest along the Radisson Lake road then 2 miles west along a newer tertiary road. Access can also be achieved by boat from Matachewan north along the Montreal river or by float plane.





QUEENSTON MINING INC.  
 PROPERTY LOCATION MAP  
 BADEN PROPERTY  
 BADEN TWP.

FIGURE 1

SCALE - 1" = 20 mi. AUG./89

Table 1

Claim List  
Baden Option

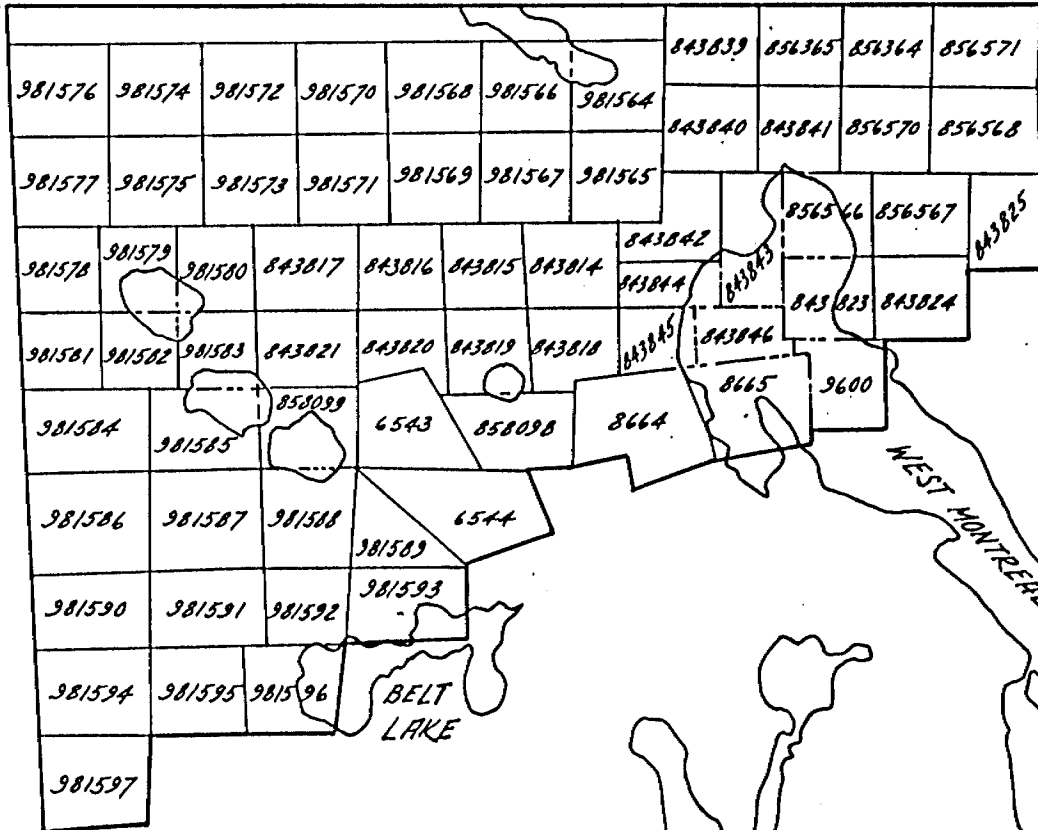
CLAIM_NO	TOWNSHIP	DATE RECD	ASSESSMENT DAYS RECORDED
L 843814	Baden	07/08/85	200.00
843815	Baden	07/08/85	200.00
843816	Baden	07/08/85	200.00
843817	Baden	07/08/85	200.00
843818	Baden	07/08/85	200.00
843819	Baden	07/08/85	200.00
843820	Baden	07/08/85	200.00
843821	Baden	07/08/85	200.00
843823	Baden	09/18/85	200.00
843824	Baden	09/18/85	200.00
843825	Baden	09/18/85	200.00
843839	Baden	07/08/85	200.00
843840	Baden	07/08/85	200.00
843841	Baden	07/08/85	200.00
843842	Baden	07/08/85	200.00
843843	Baden	07/08/85	200.00
843844	Baden	07/08/85	200.00
843845	Baden	07/08/85	200.00
843846	Baden	07/08/85	200.00
856364	Baden	10/16/85	200.00
856365	Baden	10/16/85	200.00
856566	Baden	09/17/85	200.00
856567	Baden	09/17/85	200.00
856568	Baden	09/17/85	200.00
856570	Baden	10/16/85	200.00
856571	Baden	10/16/85	200.00
858098	Baden	09/19/85	200.00
858099	Baden	09/18/85	200.00
981564	Baden	06/15/87	140.00
981565	Baden	06/15/87	140.00
981566	Baden	06/15/87	140.00
981567	Baden	06/15/87	140.00
981568	Baden	06/15/87	140.00
981569	Baden	06/15/87	140.00
981570	Baden	06/15/87	108.00
981571	Baden	06/15/87	108.00
981572	Baden	06/15/87	108.00
981573	Baden	06/15/87	108.00
981574	Baden	06/15/87	108.00
981575	Baden	06/15/87	108.00
981576	Baden	06/15/87	108.00
981577	Baden	06/15/87	108.00
981578	Baden	06/15/87	108.00
981579	Baden	06/15/87	108.00
981580	Baden	06/15/87	108.00

981581	Baden	06/15/87	108.00
981582	Baden	06/15/87	108.00
981583	Baden	06/15/87	108.00
981584	Baden	06/15/87	108.00
981585	Baden	06/15/87	109.00
981586	Baden	06/15/87	109.00
981587	Baden	06/15/87	109.00
981588	Baden	06/15/87	109.00
985589	Baden	06/15/87	108.00
981590	Baden	06/15/87	109.00
981591	Baden	06/15/87	109.00
981592	Baden	06/15/87	109.00
981593	Baden	06/15/87	109.00
981594	Baden	06/15/87	109.00
981595	Baden	06/15/87	109.00
981596	Baden	06/15/87	109.00
981597	Baden	06/15/87	109.00

ROBERTSON TWP.



ARGYLE TWP.



QUEENSTON MINING INC.  
PROPERTY MAP  
BADEN PROPERTY  
BADEN TWP.  
SCALE - 1" = 2640' AUG. 1989

FIGURE 2

### 3.0 Physiography

The topography of the area is hilly, with changes in relief as large as 150 feet on the east side of lake Matachewan and the Montreal river. Changes in relief appear to be due to the resistance of local granitic bodies to weathering. Overburden is predominantly sand with a locally high silt or gravel component. Drainage is relatively good.

On the west side of lake Matachewan topography is generally flat with only minor relief due to outcroppings of rock. Drainage is poor and small shallow lakes, open swamp and spruce bog are common. Most water drains into lake Matachewan from the east and west but a height of land at the north end of the lake forces drainage northward at that point. High, sandy areas are occupied mainly by pine and birch.

### 4.0 Work History

Work on portions of the Baden Property has occurred sporadically since 1917. Following is a chronology of exploration undertaken in the vicinity of the present claim group.

#### 1917 - 1936 Thesaurus Gold Mines Limited

The original claims were staked in 1917 by James Nelson at the head of lake Matachewan (see figure 3). This property included the Adit vein, Creek vein and Thesaurus Mine showings, all of which are currently within the Queenston option area.

Initial prospecting and trenching led to the driving of

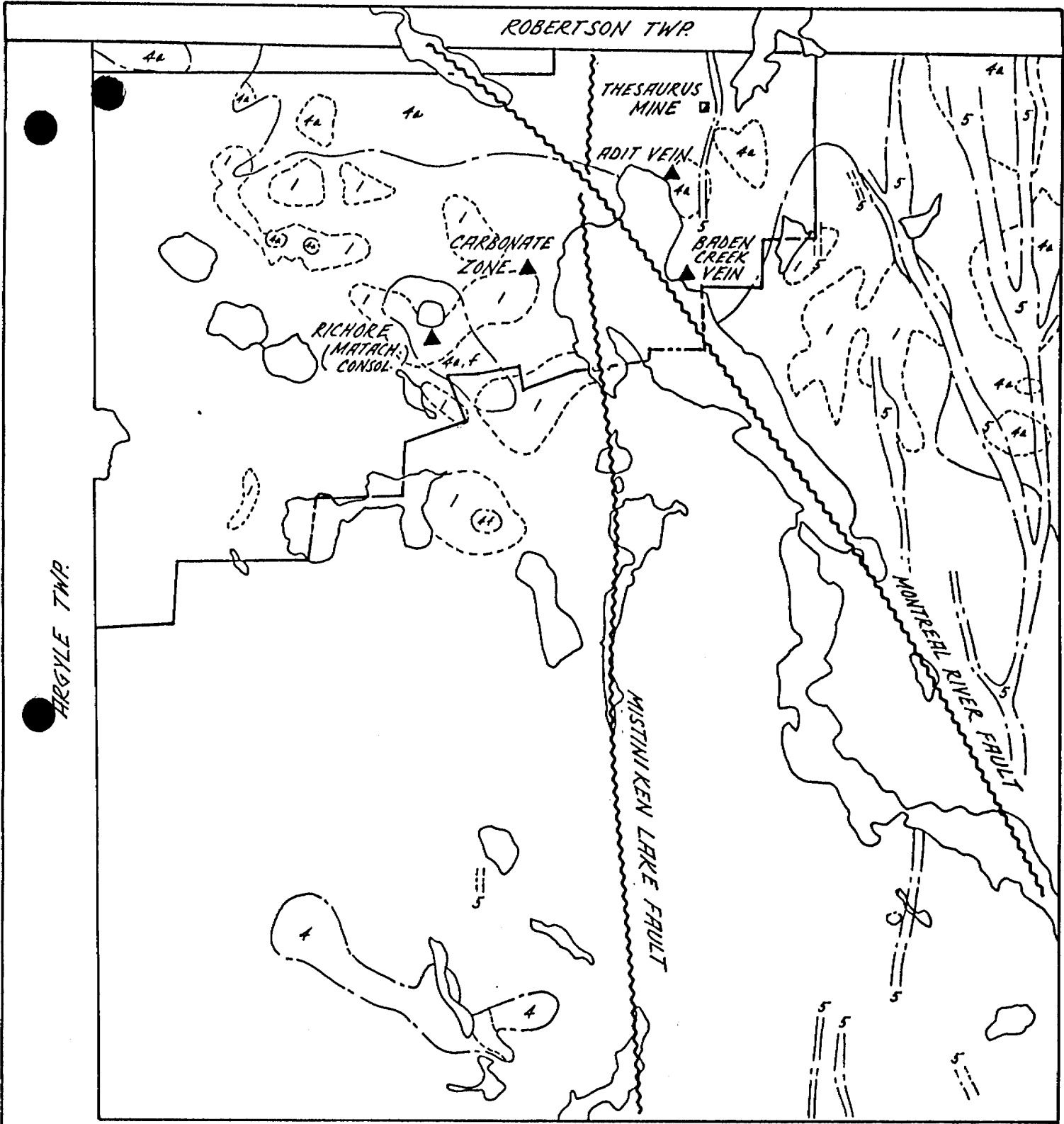
a 50 foot adit in 1919-1920 along the Discovery Vein (see Adit vein figure 3). Also in 1919, the No. 1 vein was explored by a shaft to a depth of 40 feet (Thesaurus shaft). Mr. Nelson then incorporated Thesaurus Gold Mines Ltd. and, from 1900-1924, deepened the shaft to 300 feet and established two levels, 100 and 300, with a total of 330 feet of lateral work. Work was suspended until 1925 when a small amount of additional lateral development was done on the 300 foot level to accommodate diamond drilling totalling 202 feet. This work ended in 1936. No geological mine plans or drill logs are available to the author.

1927 - 1935 Baden Syndicate (Baden Gold Mines Ltd.)

The Baden Syndicate controlled 10 claims near Belt Lake, 1/2 mile west of lake Matachewan. Several of the northern claims, including 6543 and 6544 are within the current Queenston property boundary. Nine quartz-tourmaline-pyrite-chalcopyrite veins were discovered on the property, all of similar character and hosted by andesitic volcanics. The No. 4, 6 and 7 veins appear to be most important, a 30 foot shaft having been sunk on the No. 6 vein. Assays in drill holes from the No. 6 vein returned 0.45 to 0.60 oz/ton over 2 feet in quartz veins and their sheared footwall contacts averaged 0.3 oz/ton over 4 feet.

1959 - Baden Creek vein

Two diamond drill holes were completed in June 1959 by Don Hurd and others on the Baden Creek vein. Both holes may have been drilled from one setup at 76 degrees NW and 45 degrees



- 5 DIABASE
- 4 4a - GRANITE  
4f - QUARTZ DIORITE
- 1 MAFIC VOLCANICS

QUEENSTON MINING INC.  
 GEOLOGY MAP  
 BADEN PROPERTY  
 BADEN TWP.

SCALE - 1" = 2640' AUG. 1989

FIGURE 3

SE. Some quartz veining with molybdenite-chalcopyrite mineralization and peripheral stringers with disseminated pyrite mineralization were encountered with values ranging to 0.03 to 0.06 oz/ton.

1934 - ? , 1966 Central Matachewan Mining Corporation  
- Richore Gold Mines Limited

Exploration of this property, located in the south central portion of the Queenston - Strike claim block included stripping, trenching and diamond drilling of a pronounced shear zone traversing a medium grained granite and surrounding andesite agglomerates. The structure strikes north easterly and dips vertically. Encouraging surface assays could not be traced downward by diamond drilling in 1966 and late horizontal displacement is believed to have offset the shear zone.

1972 - 1976 Canadian Johns Manville Ltd. - Thesaurus Mine area

Work by CJM involved exploration for porphyry type copper-molybdenum-gold associations and was later reviewed for gold only as the \$35.00 gold price ceiling was removed in the early seventies. Soil and rock sampling, reconnaissance and narrow detailed geophysics and geological mapping were performed on the property during this period. The property was allowed to lapse in 1976.

1985 - 1989 - Strike Minerals Inc.

The property currently under option to Queenston Mining Inc. was staked by Strike Minerals beginning in 1985, initially



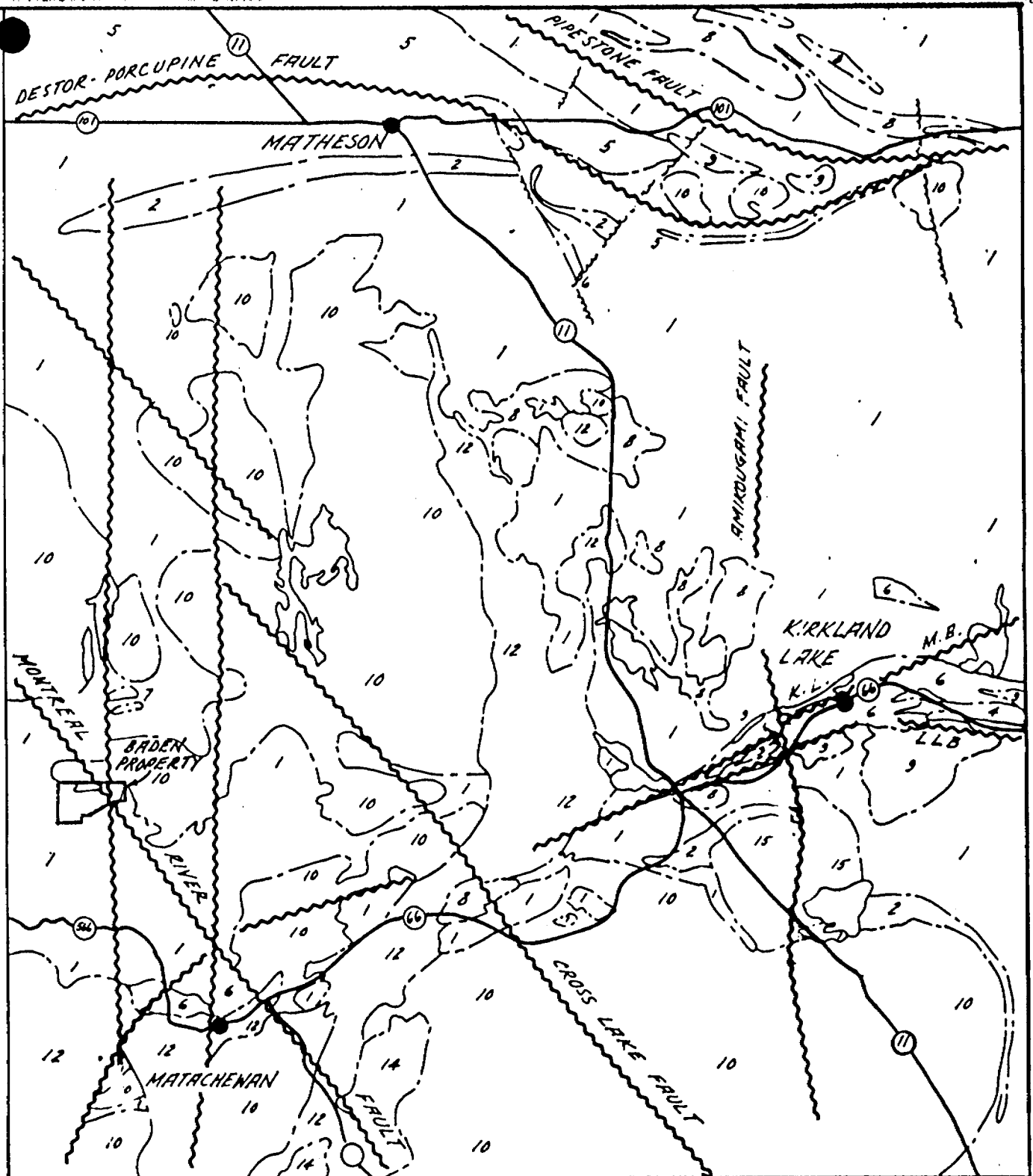
covering the Thesaurus and Richore showings. This was later enlarged to cover strike extensions and potential parallel structures in 1987. Strike Minerals conducted intensive power stripping programs on the Thesaurus shaft area, Adit vein, Richore shear and a new showing, the Carbonate Zone. Greater than 300 samples from the Richore, Carbonate and Thesaurus shaft areas were assayed, returning encouraging results from the three zones.

#### 5.0 Regional Geology

The Baden township area is located in the southwestern Abitibi sub-province. Volcanic strata underlying the township belongs to a suite of rocks correlating to the Blake River Group (Jensen) which hosts numerous gold and base metal deposits in the Noranda, Quebec area. Locally, the volcanics are folded into a broad synclinal structure which plunges easterly. The Baden strata is located on the northern limb of the fold. The volcanic series is subsequently intruded by medium grained granite bodies and both are cut by north trending diabase dykes of Matachewan age. Origin of the synclinorium maybe the result of diapirism of large external granitoid bodies, the nearest of these being roughly 6 to 8 miles south near the town of Matachewan. Rocks of Huronian age unconformably overlie all Archean rocks. These units occur predominantly to the south of Baden township.

Two periods of regional deformation are readily assessed

in the area. The earliest is deformation of the Blake River volcanics which includes regional folding, northeasterly trending foliation, shearing and faulting likely related to orogenic events in the Abitibi sub-province which also gave rise to the Cadillac, Larder Lake and Kirkland Lake Break structures. The second major event is represented by very broad northwesterly trending fault structures, including the Montreal River fault, which traverses the property. These faults cross and displace archean lithologies and structures. At least one period of activity along these faults post dates uplift of Huronian strata in this region.



— LEGEND —

- |    |                          |   |                         |
|----|--------------------------|---|-------------------------|
| 15 | SYENITE                  | 8 | GABBRO-DIORITE          |
| ●  | DIABASE                  | 6 | CONGLOMERATE, GREYWACKE |
| 2  | GOWGANDA FORMATION       | 4 | TRACHYTE                |
| 10 | QUARTZ-FELDSPAR PORPHYRY | 2 | FELSIC VOLCANICS        |
| 9  | SYENITE PORPHYRY         | 1 | MAFIC VOLCANICS         |

REGIONAL MAP  
 KIRKLAND LAKE -  
 MATACHEWAN AREA  
 SCALE 1" = 6 MI    AUG./89  
 FIGURE 4

## 6.0 Property Geology

### 6.1 Lithology

Volcanic strata seen on the Baden option consists predominantly of andesitic pyroclastics. The main lithology is a coarse fragmental or volcanic conglomerate. Clasts are monolithic, being andesitic and variably porphyritic in nature, some greyish clasts appear to be almost intrusive in texture. Groundmass consists of small chloritic fragments, small fragments similar in composition to grey clasts and an abundance of white euhedral to rounded feldspar crystals in a fine equigranular mass of feldspar and pyroxene. All clasts are sub-rounded to sub-angular in shape. It has been suggested that this rock may be an intrusive breccia although its widespread occurrence belies this interpretation.

One small locality of massive fine grained mafic tuff has been seen to date in the carbonate pit. This unit is well foliated and conforms with the orientation of the deformation zone uncovered here, roughly 045 degrees.

Volcanic rocks at the Richore and Carbonate zones have been intruded by thin lamprophyre dykes which are readily sheared and dislocated by the deformation events which occurred at these locations. These are carbonate rich, with abundant weakly porphyritic biotite, locally altered to chlorite. The dyke(s) seen at the Richore showing are parallel to the Richore shear at roughly 045 degrees while the dyke found in the Carbonate pit was originally crosscutting. It has been

partially transposed and broken.

Granitic bodies have intruded the volcanics on the property in the vicinity of the Richore showing and the Thesaurus mine. The Richore intrusive is a red to grey colored quartz-feldspar-hornblende-biotite granite which is fine grained, equigranular and massive with no macroscopic fabric. Quartz occupies roughly 30% of the mode and is easily discriminated on the weathered surface. Dark minerals are generally less than 5% of the mode but increase significantly near the contact with neighboring andesites where some assimilation and hornfels contact metamorphism has occurred. This granite is shown on a government map to be roughly oval in shape with a northwest trending long axis roughly 3000 feet long. Drill and geophysical information suggest that the actual form maybe sill-like trending northeasterly through the Richore then south of the Carbonate showing toward Lake Matachewan.

The largest intrusive body on the property occupies the northeastern quarter of the property. This is a medium to coarse grained equigranular leucogranite with minor to trace biotite and hornblende components. Contact with country rocks has not been seen. This granite is transected by both the Mistinikon Lake fault and the Montreal River fault which intersect each other at the head of Lake Matachewan. Other granite outcrops are found west of these faults and may represent a westward extension of the Thesaurus granite.

Offsets along the faults and determination of exact contact location is prevented by overburden in the area around Lake Matachewan and Nokomis Lake. The Thesaurus granite is cut by several granitoid dykes. At the Adit vein showing an one foot thick, sub-vertical, pink (hematitic), fine grained granite dyke cuts northeasterly through the stripped area sub-parallel to the mineralized structures. Colour change due to hematization is the only visible alteration associated to this dyke. In the Thesaurus shaft area at least one quartz porphyry dyke has been noted at surface. Quartz porphyry has also been noted in the mine workings (300 Level) south east of the surface outcropping. If the two occurrences are of a single dyke the apparent dip would be roughly 45 degrees SE. It is more likely that two such dykes exist. The dyke found underground consists of a yellow green to pale green fine grained sericite groundmass bearing 10 - 20% round quartz augen roughly 1/4 inch in diameter. The rock is well jointed, weakly foliated and trends roughly 030 degrees.

All lithologies are cut by late diabase dykes of Matachewan age. These can be seen in the stripped area near the Thesaurus shaft. A non-magnetic mafic dyke believed to be equivalent to the Matachewan dykes in age was found in hole BDN 89- 3.

No Huronian age sediments have been seen on the property to date although these have been observed by others at the south end of the township.

## 6.2 Structural Geology

Two major periods of structural deformation are identified to date as being of significance to this property. The earliest deformation period and most significant economically is a zone of shearing and faulting which trends north easterly across the property. On the west side of the Lake Matachewan this zone is expressed as a combination brittle/ductile deformation in which shearing predominates. The Richore and Carbonate showings represent two aspects of this zone, each with small zones of fault breccia and brittle failure expressed by jointing and fracturing associated to very strong shear deformation. Each has a central or main shear at the core of a zone of milder irregular compensatory faulting and/or strong foliation.

On the east side of Lake Matachewan this early deformation phase is expressed as a series of strong fracture or break type faults. The faults are generally expressed as tight fractures or breaks with evidence of minor "slipping" along these planes. Very little breccia or shear deformation is evident. Tension along these break features has allowed for the emplacement of fissure type veining. These veins have altered contact zones consisting mainly of sericitic alteration of the host rock with some fracture controlled hematization in fractures or joints parallel to vein contacts. Disseminated euhedral pyrite mineralization is also found.

The second major structural feature on the property is

the occurrence of the Montreal River (320 degrees) and Mistinikon Lake (000 degrees) regional faults. These two faults intersect at the head of Lake Matachewan. Both have apparent left hand motion which imparts an east side north movement overall. The intersection of these faults is obscured by deep overburden and a precise interrelationship cannot be determined. These faults are, however, contemporary and maybe considered as a single event at this time. The amount of offset along these faults has not been determined in the vicinity of Baden township.

Despite the presence of the regional faults west of the Thesaurus shaft, the linear relationship between the Richore and Carbonate structures appears to extend northeasterly to the Adit vein and the Thesaurus shaft area. All zones of potential economic mineralization fall within a corridor 1200 feet wide trending roughly 055 degrees. Structural elements from each showing support a common deformation history for all four mineralized zones.



## 7.0 Summary of 1990 Exploration

Exploration activity by Queenston concentrated on two showings in 1989. The first showing, discovered by Strike in 1988, is a broad alteration/deformation zone in andesite agglomerates. Alteration consists of quartz flooding, quartz veining, sulphide mineralization and strong Mg-carbonate alteration. Deformation occurred during and after alteration, consisting of shearing, pervasive schistose foliation and late faulting. Channel and grab sampling from this showing returned gold assays ranging to 2.2 ounces per ton gold.

Magnetometer and induced polarization surveys conducted in 1989 extend this zone and delineate a second sub-parallel zone for a composite length of 1200 feet on an azimuth of approximately 072 degrees. Four drill holes have tested these zones and intersected strong quartz-carbonate-sericite alteration over true widths from 60 to 105 feet. Gold mineralization in these zones is directly associated to strong expressions of shearing or faulting with attendant quartz veining within these zones. Alignment of high grade intersections in holes 1, 3 and 5 suggest the controlling structure trends on 090 degrees in this area.

The Richore showing occurs in a small granite plug 1.5 miles southwest of the Thesaurus mine and west of the Carbonate Zone. This showing consists of a strong dextral shear zone which strikes through the granite on a trend of 055/v and forms part of the northern contact between the host agglomerates and

the granite. The shear is currently exposed for a length of 600 feet and has been channel sampled over this distance. Significant gold assays up to 4.75 oz/ton are directly associated with the shear zone and most particularly with pods of quartz flooding and greenish sericite mineralization. The shear itself has a chloritic schist core and a generally anastomosing cleavage which persists into the flanking granites. Specularite, pyrite, sericite and minor quartz veining are also present in the shear zone. Only 1 drill hole tested this zone below surface and found shearing of much weaker intensity than at surface.

In November and December 1989, six diamond drill holes, totalling 2025 feet, were completed on the Baden property. Drilling was performed by R. Yost Drilling of Kirkland Lake. Holes were drilled to test zones of known mineralization, namely the Richore and Carbonate Zone and their extensions as defined by induced polarization anomalies. One hole, BDN90-2 targeted a poorly understood vein unrelated to the main showings. A summary of the diamond drilling is found on table 2.

Table 2

## Diamond Drilling Summary

## 1989 Drilling Program

Hole	Grid Location	Az./incl	Depth Feet	Target
BDN89-1	L3+77E 3+02S	000/-45	326	Down dip extension Carbonate zone mineralization in stripped area
BDN89-2	L6+00W 4+75S	265/-45	216	000-N10E qtz pyrite vein found in sub-crop in pond
BDN89-3	L3+89E 3+54S	330/-55	358	Carbonate zone I.P. inferred extension (east)
BDN89-4	L2+65W 2+87S	315/-45	317	Richore Shear/I.P. anomaly
BDN89-5	L4+39E 4+25S	330/-45	400	Carbonate zone I.P. inferred extension (east)
BDN89-6	L1+90E 3+10S	330/-45	<u>407</u> 2024 feet	Carbonate zone I.P. inferred extension (west)

Drill locations are presented on the compilation map (figure 5).

The Thesaurus mine and Adit vein have not been evaluated in detail to date. Evidence at surface and from rock in the waste dump at the Thesaurus suggests that mineralization may be the result of structurally controlled stockwork developed about a strongly altered quartz porphyry dyke. Prominent vein structures, some associated to shearing, are oriented between N30E and N61E. Underground exploration of the Thesaurus mine in the 1920's included a 308 foot shaft and 330 feet of lateral exploration on the 100 and 300 foot levels.

No. 1 vein material from the dump is reported to have returned assays in the 0.1 to 0.25 oz/ton range. Grab samples

taken by Strike Minerals from the No. 1 vein during stripping returned values as high as 0.545 oz/ton.

The Adit vein showing is a series of quartz veins keyed to tight faults trending at 045/v through the granite south of the Thesaurus shaft. Exposed veins, up to 2 feet in thickness returned values ranging to 0.254 oz/ton from surface chip sampling. Visible gold has been noted in these veins and minor chalcopryrite-pyrite-specularite mineralization is found in fault traces where quartz is absent.

#### 8.0 1990 Exploration Program

During July and August 1990, Queenston Mining Inc. undertook a surface mapping and diamond drilling program on the Stike Minerals property. A total of 3,527 feet of BQ drilling was completed during this time. 225 samples were cut from drill core and assayed for gold.

Exploration concentrated on two showings, the Carbonate zone, which was explored by drilling in 1989 and the Thesaurus mine area, whose mineralization had not been evaluated. Surface mapping was confined to the Thesaurus during this period while drilling was effected on both showings. A summary of 1990 drilling is found on table 3.

Table 3

## Diamond Drilling Summary

## 1990 Drilling Program

## Baden Township

Hole	Grid/Location	Az/Incl.	Depth	Target
BDN 90-7	134 ft. on Az 160 deg from Thesaurus Shaft	315/-45	496 ft	Thesaurus Shaft No. 1-No. 2 veins
BDN 90-8	2+25E 3+15S	000/-45	596 ft	Carbonate zone Down dip ext.
BDN 90-9	2+92E 3+75S	000/-45	596 ft	Carbonate zone Down dip ext.
BDN 90-10	3+46E 4+32S	000/-45	596 ft	Carbonate zone down dip ext.
BDN 90-11	4+80E 4+25S	000/-45	446 ft	Carbonate zone Strike ext.
BDN 90-12	3+20E 3+50S	000/-45	401 ft	Carbonate zone in fill
BDN 90-13	162 ft on Az 177 deg from Thesaurus Shaft	315/-45	396 ft	Thesaurus Shaft No.1-No.2 veins
TOTAL FOOTAGE			3527 feet	

NOTE: Grid and drill sections are presented using metric scales.  
Core was drilled and logged in feet.

Drill holes are plotted on figures 5, 6 and 7.

### 8.1 Carbonate Zone Exploration

Mapping of the Carbonate showing was conducted in October 1989. The host rock for the Carbonate zone is coarse andesite fragmental as described previously. Relatively unaltered sections can be seen in small peripheral trenches and outcrops to the northeast and southeast of the main excavation. No pervasive fabric is noted in unaltered rocks. In the main stripped area near line 3+00E 2+75S gradual alteration and foliation begins increasing northward to the core of the exposed zone near 2+60S. Alteration is predominantly carbonate and silica replacement varying in degree from partial carbonate replacement of host rock, leaving ghosted or differentially altered fragments with most of the volcanic texture intact to strong carbonate alteration with silica influx creating a pseudo-breccia texture with no remnant volcanic texture. Whole rock samples of altered rock from this showing indicate that a significant amount of silica migration existed within the carbonate zone during deformation. In comparison with a baseline unaltered fragmental, altered samples show marked Ca- Mg-Fe carbonate enrichment at the expense of silica or very strong silica flooding. All strongly altered, carbonate and/or silica enriched rocks show a marked pseudo-breccia texture as well as greasy sericite-carbonate slip planes.

Sulphide mineralization, mainly euhedral pyrite, is common in veins and on vein contacts and as disseminations in

altered fragmentals which have undergone only moderate carbonate and/or silica replacement. Very little sulphide persists in highly altered material. Quartz veins are generally coarse grained, white grey in colour ranging from a fraction of an inch to 2 feet in thickness. Quartz fill in fractures is fine grained, greyish in colour. Veins appear to follow foliation in the deformation zone, can be gently warped to boudinaged and locally rotated. They appear to have been present early in the deformation period possibly as brittle fracture fill preceding a more ductile shear event.

Numerous thin shear planes are traceable throughout the stripped area. The main shear zone can be traced for roughly 60 metres. Its strike is variable from 039 to 060 degrees with variable sub-vertical to 70 degree south dip. Subsidiary shears splay from the main shear. These also warp or curve and have overall trends ranging from 090 to 120 degrees. Numerous crosscutting relationships between these smaller shears indicate predominantly right hand offset. Dips are quite variable, from 45 degrees to vertical lending a scalloped appearance to numerous shear bounded blocks.

Sampling for gold performed on this showing indicates gold concentrates preferentially in sulphide enriched rocks including sulphide rich quartz veins and sheared moderately altered andesites with disseminated pyrite in thin fractures. The most significant assays from this showing are found on the south side (hanging wall?) of the main shear zone where the

greatest amount of quartz veining and subordinate splay shears occur. Alteration (carbonate-quartz) is moderate here. In the eastern exposure of the showing near 3+50E, 2+75S gold is affiliated to numerous veins with pyrite. No significant shear planes are in evidence. Values as high as 0.407 oz/ton in a 50 cm channel sample and 2.2 oz/ton in a grab sample from 2 separate quartz veins have been obtained in this eastern area. In the central area a 3 metre section of channel sampling returned an average value of 0.055 oz/ton including 0.125 oz/ton over 50 cm. Other 50 cm channels in this vicinity returned assays as high as 0.151 oz/ton.

1989 diamond drilling in the Carbonate zone targeted I. P. responses related to the exposed Carbonate Alteration Zone.

As at surface, a gradual transition from "fresh" andesitic agglomerate to carbonate altered rock is in evidence. Fragments appear to be altered preferentially, followed by the matrix. Colour varies from dark green in the matrix with dark to light coloured fragments to pale white green (ser+carb) or buff coloured (carb) as alteration increases. Highly altered sections of core exhibit pseudo-breccia texture with weak slip planes. When alteration reaches this stage all original textures are obliterated. Both upper and lower contacts of the Carbonate zone are gradational. At the core of the zone is a deformed zone of very altered agglomerate. Shear banding, drag folding and an anastomosing "fuchsitic schist" define this section of the alteration zone. Numerous quartz veins and



quartz-schist interbandings are also present. Pyrite is generally associated the interband contacts.

In cross section the zone appears to be essentially vertical measuring 23 metres in width. Veins and sulphide bands found at surface do not persist in their quality or dimension down dip, although the overall intensity of alteration is very similar.

Given the general success at defining alteration and mineralization in the Carbonate zone in 1989, drilling in 1990 focused on extending and refining the understanding of the zone. Five new holes totalling 2635 feet were drilled. Three holes, BDN 90 -8, 9 and 10 tested the down dip extension of the Carbonate zone. Hole BDN 90-11 tested the eastward strike extension while BDN 90-12 was as infill hole between two shallow 1989 holes. All holes in the Carbonate zone are plotted on figure 5 and figure 6.

Hole BDN 90-8 (figure 9) tested the westward extension and down dip extension of the Carbonate zone. The zone is roughly 21 metres thick (true width) at this point and located well south of the main zone defined by 1989 drilling. The intercept does follow the trace of the induced polarization anomaly defined in the 1989 geophysical survey. Information now points to a pronounced "roll" in the Carbonate zone of some 40 degrees from north easterly to easterly as the zone progresses to the east. The lower twenty feet of the zone is strongly sheared and veined, typical of the most strongly

mineralized portions of the Carbonate zone. The upper and lower contacts of the shear vein zone are both mineralized, having anomalous intersections of 0.044 oz/ton over 6 feet and 0.071 oz/ton over 2 feet respectively.

Hole 90-9 (figure 10) tested the down dip extension of the main Carbonate zone, 80 metres east of hole 8, at an approximate depth of 100 metres. Hole 90-12, (figure 10) located above hole 9 on the same section, tested the zone at a 75 metre depth. These holes both intersect an altered granite dyke, the first evidence of such a body in the vicinity of the main Carbonate zone. Fresh granite is fine grained and massive, resembling the main intrusive body at the Richore showing. The dyke is altered in several forms. The two most prominent of these are strong sericitization and strong brick red hematization. Both forms of alteration appear to have "desilicified" or remobilized the quartz component of the granite as the rock takes on a more amorphous texture punctuated by fewer identifiable quartz grains. Hematization appears to be caused by alteration upon emplacement of the dyke as this effect is restricted to the granite itself. Sericitization is associated with quartz veining, shearing and faulting which spans both granite and Carbonate zone rocks. Strong sericite quartz vein-shear zones occurring in the granite are believed to be the same age and type which also cut the Carbonate zone rocks. This implies the hydrothermal system responsible for this mineralization occurred after or at

least persisted beyond emplacement of the granite body. Anomalous gold mineralization ranging to 0.027 oz/ton are found across the lower granite-Carbonate zone contact in both holes.

Hole BDN 90-10 (figure 11) also intersected granite in the Carbonate zone 80 metres east of holes 90-9, 90-12. Alteration of a similar nature to that intersected in holes 9 and 12 though less intense is seen here. The Carbonate zone is limited to the lower contact of the granite at this point and weak gold values ranging to 418 ppb are found in both the granite and the Carbonate zone rock where some sericitization, weak shearing and quartz veining are present. The granite in hole 10 is also cut by a massive diabase dyke.

Hole BDN 90-11 (figure 12) collared in granite. It could not be ascertained whether the Carbonate zone existed to the south contact. Carbonate zone alteration is visible below the granite dyke to the north. Anomalous gold mineralization ranging to 0.04 oz/ton over 0.9 metres is found in sheared quartz-sericite vein zones at the granite-Carbonate zone contact.

Although the Carbonate zone alteration and the altered granite are found to be closely related in 1990 drilling the Carbonate zone is not considered to be a contact effect of intrusion. There are reasons to suggest the zones are separately formed. Firstly, the Carbonate zone does not persist as an alteration halo about the granite dyke but may or

may not occur on the hanging wall or footwall. Secondly, strong sericite alteration with or without shearing, quartz veining and minor sulphide mineralization cut both granite and Carbonate zone rocks.

Genesis of this mineral occurrence is believed to have proceeded in the manner described below:

- A) Formation of the Carbonate zone through regional hydrothermal activity controlled by north easterly trending fault structures. This hydrothermal, activity, caused moderate to intense carbonate replacement and silica migration. Heat source for this mineralization may be a deep seated intrusive (part of Richore granite).
- B) Stoping of Carbonate zone by large granite dyke undergoing hematization and some silica migration during emplacement. The granite dyke has intruded along the same structure(s) which controlled Carbonate zone alteration.
- C) Rotation of the Carbonate zone and introduction of late sericite alteration, shearing and quartz veining with pyrite into the Carbonate zone and, granite. Late shearing and rotation are in an east west direction implying a new regional strain orientation.

## 8.2 Thesaurus Mine and Adit vein

Surface geological mapping of the Thesaurus shaft area was undertaken by Queenston in 1990. An examination of the Adit vein and cursory sampling were performed in 1989. Both showings are quartz vein systems hosted by granite.

The Adit vein showing consists of tight "break" style faults trending 045 degrees in granite along which quartz veining occurs. Width of the main Adit vein varies along strike from 30 inches to nil. Thin rafts of host granite, freed by jointing can be found as inclusions. Quartz is coarse grained, white to clear in colour and mineralized with visible gold and cubic pyrite. Alteration of host rock and granite inclusions consists of sericitization, hematization and pyrite mineralization over variable widths of several inches to several feet.

Several parallel veins are exposed on the south east side of the Adit vein. These are similarly mineralized and haloed. Analysis for gold from this showing returned the following results:

- |                           |                 |            |
|---------------------------|-----------------|------------|
| 1) Main vein 15 inch chip | 5555 ppb (avg.) | 0.162 oz/t |
| 2) Main vein 12 inch chip | 2850 ppb        |            |
| 3) Main vein grab         | 8455 ppb (avg.) | 0.247 oz/t |
| 4) Main fault             |                 |            |
| (no quartz) grab          | 935 ppb (avg.)  |            |
| 5) Main fault (no quartz) | 80 ppb          |            |
| 6) Parallel vein 15 ft.   |                 |            |
| SE main vein              | 650 ppb         |            |

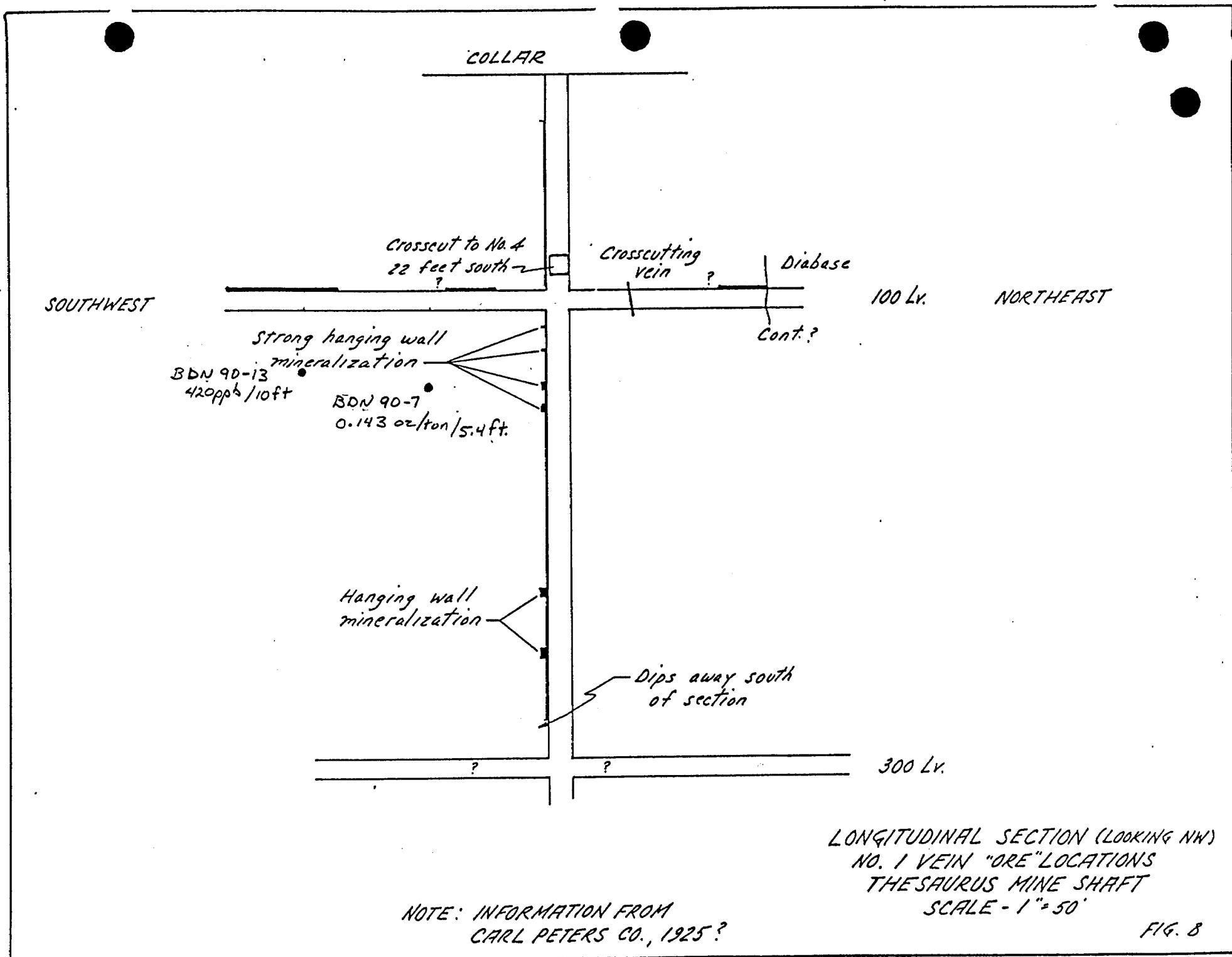
Assaying by Thesaurus Gold Mines in 1919-1920 returned similar values in the adit near the shore of Lake Matachewan. The fault vein system is known to be continuous over a strike length of 500 to 600 feet.

Data from old documents regarding the Thesaurus Mine provide some description of its vein system although reproduction of data from text description is not possible. No assay plan or geology plan has been found from the time the mine operated. Figure 8 is a longitudinal section of the Thesaurus Mine recreated from information in a ca. 1925 report by Carl Peters Co. and based largely on visual description of mineralization.

The area is underlain by the same granite which hosts the Adit vein. Two late intrusive events are known to occur in the vicinity of the mine. A quartz porphyry intrusion has been noted in both the underground workings (ca. 1925) and to the north in surface stripping, trending northeasterly. This rock,

seen in the mine dump is a strongly sericitized, fine grained green rock with 20% spherical quartz eyes up to 1/4 inch in diameter. From surface inspection by Queenston there would appear to be less alteration in the surface exposure of this type of dyke.

The mine is flanked by two Matachewan age diabase dykes. Carl Peters Co. reports increased disruption of the "ore" near these dykes but offers no discussion of their interrelations.





Drifting was suspended at the dyke on the east.

There are several veins recorded by Thesaurus Mines in the shaft area. The No. 1 vein was the target of underground development. The No. 3 vein is described as a parallel feature lying north of the No. 1 vein. The No. 2 may be a westward extension of the No. 3. The No. 4 vein apparently post dates the No. 3 and is discordant with the other three veins. The No. 1, 2 and 3 veins have North-northeasterly trends (020-030 degrees). The dip on the No. 1 vein is essentially vertical as reported from shaft sinking. Alteration in the form of sericite alteration, quartz flooding and pyrite-gold mineralization is found on the "hanging wall" (south side?) of the No. 1 vein. These zones as described by Peters Co. are discontinuous along the vein. Exploration of the Nos. 2 and 3 veins was not achieved from the Thesaurus mine. The No. 4 vein was encountered once and results did not warrant further work. Figure 8 shows the occurrence of the No. 1 vein in the Thesaurus Mine workings as well as the recorded areas of strong hanging wall alteration. Some parts of the vein are poorly described and as a result some gaps in the section may in fact contain vein material. Reconstruction of the section has not provided any information with respect to vein plunge or rake of mineralization within it. The reconstruction does show substantial continuity of the No. 1 vein within the workings.

Surface mapping of the Thesaurus shaft stripped area conducted by the author (figure 1) clarifies several aspects of the geology reported by Peters as well as providing some detail regarding the target vein structures. The No. 1 and No. 2/No. 3 vein structures are easily located in rock trenches dating from early Thesaurus exploration. Both veins are traceable beyond the trenches into the newly stripped areas. The No. 1 vein on surface is discontinuous and appears to be hosted in a gently warping weak shear zone trending 035 degrees and dipping vertically. Vein material consists of massive white quartz with minor pyrite. Vein width varies from 0 to 12 inches. Host rock in contact with the shear/vein does show sporadic, strongly sericitic zones with cubic pyrite over narrow intervals. Investigation of stripped area has shown these zones to be in fact xenoliths of altered rhyolite. These irregular shaped blocks are very common in the exposed granite south east of the Thesaurus shaft. Intersection of a number of blocks by the No. 1 shear/vein has created the sericitic "hanging wall alteration zones" reported by Peters. The occurrence of these xenoliths along the hanging wall (south side) and not on the footwall is likely the result of some degree of south side down movement along the No. 1 vein structure. It is believed these xenoliths represent high level stoping of the country rocks being intruded. A marked decrease in xenoliths north of the No. 1 vein may indicate this level of the granite body was not in proximity to the upper contact,

being later moved into juxtaposition with higher level granite. Although some normal movement is suspected along the No. 1 vein no lateral movement could be identified.

The No. 2/No. 3 vein system parallels the No. 1 80 feet to the northwest and also dips vertically. The trace of the vein is continuous along a narrow shear/fracture for roughly 150 feet although quartz thickness is variable from 0 to 12 inches. Shearing is slightly more intense along the No. 2/ No. 3 vein at surface than along the No. 1. Chloritic alteration and pyrite mineralization are also found locally.

Several other narrow shears are located in the vicinity of the No. 1 and No. 2/No. 2 veins. These are mainly subparallel to the veins with some broadly warping "dry" shears at oblique angles. Northwest of and parallel to the No. 2/No. 3 vein are a series of joint controlled diabase dykelets 1 to 5 inches wide. These joints are likely tension features compensating for shearing in the No. 1 - No. 2/No. 3 area.

East of the main diabase dyke and the Thesaurus shaft several veins, tight shears and shear hosted veins are also found and are not identified in old documentation. No direct strike extension of the No. 1 or No. 2/No. 3 veins are found in the map area, indicating possible offset along the plane occupied by the diabase dyke. Only one shear hosted vein is of comparable orientation to the No. 1 and No. 2 veins. This shear shows a dextral offset.

The most significant shear in this vicinity trends N85E

and hosts a strong vein with weak chloritic alteration. Several splay shears striking N60E trend off the north side of this main shear into the host granite. These also appear to have some dextral offset. Numerous samples taken by Strike Minerals Inc. in 1988 from these veins returned very low assays.

Only one porphyry dyke was identified in the area, cutting the granite on a trend of N40E roughly 250 feet north of the shaft. This dyke has quartz phenocrysts but is largely unaltered, unlike samples found in the mine dump.

Two drill holes BDN 90-7 (figure 13) and BDN 90-13 (figure 13) tested the No. 1 and No. 2/No. 3 veins east of the Thesaurus shaft. Both holes were drilled on a 315 degree azimuth and 45 degree inclination. These holes are plotted on figure 8. The holes intersected massive grey-white, medium grained hornblende granite with minor accessory biotite. 50% of the granite intersected is weakly to moderately altered by quartz flooding and sericitization over intervals as wide as 25 to 30 feet. In certain sections the granite appears to be brecciated into coarse angular blocks and recemented by white crystalline quartz. Sericitization is not necessarily related to these zones although some sericite zones appear brecciated. Chloritization is also found locally. Both holes intersect xenolithic material of altered rhyolitic and basaltic character.

In hole BDN 90-7 the No. 1 vein is located at a depth of

167.4 - 172.6. Quartz accounts for 50% of this interval with granite inclusions and 5-10% pyrite with trace amounts of chalcopyrite. Contacts are sharp on slip planes at 45 deg to the core axis. The No. 1 vein returned an assay of 0.143 oz/ton over 5.4 feet.

The No. 2 vein was intersected at 316 to 323 feet. The intersection is a quartz filled breccia zone with sericite cut by a pair of narrow cherty banded veins. This zone is weakly mineralized returning an assay of 0.016 oz/ton over 5 feet.

Three other anomalous intersections were found in hole 90-7 including 0.134 oz/ton over 2.4 feet, 0.011 oz/ton over 3 feet and 0.016 oz/ton over 5 feet. All samples show weak to moderately defined quartz veining, silicification, sericitization and minor pyrite mineralization.

Hole 90-13 intersected the No. 1 vein at 176 feet to 190 feet. The intersection has no strongly defined veining but is sericitized, silicified and cut by numerous veinlets with pyrite and chalcopyrite mineralization. Assays from this zone were anomalous, ranging to 510 ppb Au.

The No. 2 vein was intersected at a depth of 366 feet to 367 feet hosting a 6 inch banded cherty quartz vein with minor pyrite mineralization returning an assay of 0.029 oz/ton over 1 foot. One other anomalous intersection is found in hole 13. An assay of 0.025 oz/ton over 1.5 feet is found at 130.7 feet and is believed to relate to a similar zone in hole 90-7 (92.1 feet) defining a new subparallel vein east of the No. 1.

## 9.0 Conclusions and Recommendations

The 1990 exploration program on the Baden township option has provided useful new information regarding two of the known mineral occurrences. Most important of these aspects is the possibility that the Carbonate zone, which is part of a larger, northeasterly trending deformation zone has been rotated and cut by what appears to be a late shear of easterly trend. Anomalous mineralization of both granite and Carbonate zone rocks in the drill area now appear to be related to this structure. The zone is characterized by white quartz veins which have been strongly fractured and re-silicified by grey quartz and subsequently boundinaged or broken, in a sheared, strongly sericitized host of granite or carbonate altered agglomerate. The original alteration of Carbonate zone appears to be related to the earlier north easterly alteration. It is currently not understood whether the occurrence of gold mineralization has a source in the easterly shear event or is remobilized by this event from the north-easterly trending Carbonate zone and thereby restricted to the area of intersection of both structures.

Mapping and drilling in the Thesaurus mine area have added some precision to the understanding of the occurrence of gold mineralization here. The historical veins, the No. 1 and No. 2/No. 3 are shear hosted grey veins of variable width which are banded and weakly mineralized with pyrite and chalcopyrite. These shear/veins are usually associated with sericite

mineralization and quartz flooding in the host hornblende-mica granite. The No. 1 vein is essentially vertical in dip while the No. 2 vein has a steep north westerly dip. Several other veins or sericite altered zones with gold mineralization ranging to 0.134 oz/ton over 2.4 feet occur both east and west of the No. 1 and NO. 2 veins in parallel orientation. These veins are narrow structures and though some assays are significant no economic values were obtained in drilling.

It is recommended that drilling of both these anomalies be continued. In the Carbonate zone, drilling should concentrate on defining source and control of gold mineralization. Drilling to the southwest to test the strike extension of the Carbonate zone and to the west to test for the crosscutting late shear should be undertaken to identify the real potential of each zone separately. 3000 feet in 6 holes is recommended.

Exploration of the Thesaurus area should test the structures identified in the 1990 program at deeper levels to establish continuity of the veins and attempt to improve upon gold values obtained. Given the similarity of orientation and proximity of the Adit vein to the south, section drilling of the area from the Thesaurus to the Adit vein should also be undertaken. This program may entail 5000 feet of exploration drilling.

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Option, Baden Township, Ontario June 30, 1990.



CERTIFICATE OF QUALIFICATIONS

I, William John McGuinty of 63 Rand Ave., West, in the town of Kirkland Lake in the Province of Ontario,

Do hereby certify:

1. That I am a graduate of the University of Ottawa (1983) with a degree of Bachelor of Science (B Sc.) with Honours in Geology.
2. That I have been practicing my profession as a Geologist and been engaged in mineral exploration since 1981.
3. That this report is based on visits to the property and personal appraisal of acquired data and logging and supervision of core drilling.
4. That I have disclosed in this report all relevant material which to the best of my knowledge might have a bearing on the viability or recommendations to the project.
5. That I do not have, nor do I expect to receive, directly or indirectly any interest in the property reported on herein.
6. That I am exploration manager for Queenston Mining Inc.



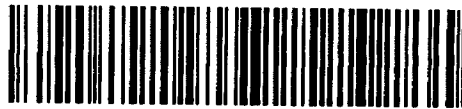
January 1991  
Kirkland Lake,  
Ontario

W. J. McGuinty,



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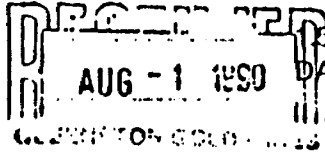
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10% LATE CHARGE OVER 30 DAYS (ANNUAL RATE 18%)

QUANTITÉ QUANTITY	DESCRIPTION	TERMS	SALES REP.
		NET 30 DAYS	MONTANT AMOUNT
18	Au assays <i>Lead</i>	\$ 8.75	\$ 157.50
18	Sample Handling	3.00	54.00
Cert.#OW-1030-RG1 July 25, 1990			
42	Au assays	8.75	367.50
42	Sample Handling	3.00	126.00
Cert.#OW-1014-RG1 July 23, 1990			
Sub-total....			705.00
-10%.....			70.50
TOTAL.....			\$ 634.50

Description	Acct.	Dept.	Dr.	Cr.
<i>Swastika Labs</i>	755	1	634.50	

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NO. D'EXEMPT. DE TAXE FÉD. FED. LICENCE NO.	NO. D'EXEMPT. DE TAXE PROV. PROV. LICENCE NO.	VOTRE NO. DE COMMANDE YOUR ORDER NO.	NOTRE NO DE COMMANDE OUR ORDER NO.	CONDITIONS NET 30 DAYS TERMS	REP. DES VENTES SALES REP.										
QUANTITÉ QUANTITY	DESCRIPTION			PRIX UNITAIRE UNIT PRICE	MONTANT AMOUNT										
19	Au assays <i>BON90-9</i>			\$ 8.75	\$ 166.25										
19	Sample Handling Cert.#OW-1056-RG1 July 26, 1990			3.00	57.00										
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Description	Acct.	Dept.	Dr.	Cr.											
<i>Swastika Labs</i>	<i>753</i>	<i>1</i>	<i>20092</i>												
TOTAL.....				\$	200.92										

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QUANTITE QUANTITY	DESCRIPTION	NET 30 DAYS	SALES REP. MONTANT AMOUNT			
31	Au assays	\$ 8.75	\$ 271.25			
31	Sample Handling Cert.#OW-1081-RG1 Aug. 2, 1990	3.00	93.00			
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		sub-total	810.75			
		10%.....	81.08			
		TOTAL.....	\$ 729.67			

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FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	NET 30 DAYS	SALES REP.
QUANTITE QUANTITY	DESCRIPTION			TERMS	SALES REP.
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52	Au assays			\$ 8.75	\$ 455.00
52	Sample Handling			3.00	156.00
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	755		548.20	Sub-total	611.00
	SWASTIKA LABS				
				-10%	61.10
				TOTAL	\$ 549.90

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QUANTITÉ QUANTITY	DESCRIPTION						PRIX UNITAIRE UNIT PRICE	MONTANT AMOUNT																																											
15	Au assays						\$ 8.75	\$ 131.25																																											
15	Sample Handling						3.00	45.00																																											
Cert. #OW-1164-R61 Aug. 17, 1990																																																			
<table border="1"> <thead> <tr> <th>Description</th> <th>Accr.</th> <th>Dept.</th> <th>Dr.</th> <th>Cr.</th> <th></th> </tr> </thead> <tbody> <tr> <td><i>Swastika Labs</i></td> <td>755</td> <td></td> <td>15862</td> <td></td> <td>Sub-total...</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Reader 90-13</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10%.....</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>17.63</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>TOTAL.....</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>\$ 158.62</td> </tr> </tbody> </table>										Description	Accr.	Dept.	Dr.	Cr.		<i>Swastika Labs</i>	755		15862		Sub-total...						Reader 90-13						10%.....						17.63						TOTAL.....						\$ 158.62
Description	Accr.	Dept.	Dr.	Cr.																																															
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Date: _____ Chq # _____ 																																																			

FACTURE/INVOICE ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS  
 ESTABLISHED 1928



22962

**SWASTIKA LABORATORIES**

(A DIVISION OF ASSAYERS CORPORATION LIMITED)

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0  
 TELEPHONE: (705) 642-3244 FAX (705) 642-3300

JOUR 24 DAY	DATE MOIS Aug MONTH	ANNÉE 1990 YEAR	TRANSPORTEUR SHIPPED VIA
-------------------	------------------------------	-----------------------	-----------------------------



VENDU A  
SOLD TO

Queenston Mining Inc  
 Box 193  
 Kirkland Lake, Ontario  
 P2N 3H7

1.5% LATE CHARGE OVER 30  
 DAYS (ANNUAL RATE 18%)

NO. D'EXEMPT. DE TAXE FÉD. FED. LICENCE NO.	NO. D'EXEMPT. DE TAXE PROV. PROV. LICENCE NO.	VOTRE NO. DE COMMANDE YOUR ORDER NO.	NOTRE NO DE COMMANDE OUR ORDER NO.	CONDITIONS NET 30 DAYS TERMS	REP. DES VENTES SALES REP.
--	--	---	---------------------------------------	------------------------------------	-------------------------------

QUANTITÉ QUANTITY	DESCRIPTION	PRIX UNITAIRE UNIT PRICE	MONTANT AMOUNT
35	Au assays	\$ 8.75	\$ 306.25
16	Ag Cu Zn	11.50	184.00
35	Sample Handling	3.00	105.00
Sub-total...			595.25
15% Tax			59.53
TOTAL.....			\$ 535.72

Imp. Cert. #OW-1212-RGI aug. 23, 1990

*Swastika Labs*

Acct. No.	Debit	16 v 8000	0.
755		334.22	
		201.00	

Date \_\_\_\_\_

Chq W \_\_\_\_\_

*[Signature]*

FACTURE/INVOICE ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS  
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**SWASTIKA LABORATORIES**

(A DIVISION OF ASSAYERS CORPORATION LIMITED)

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0  
 TELEPHONE: (705) 642-3244 FAX (705) 642-3300

JOUR 24 DAY	DATE MOIS Aug MONTH	ANNÉE 1990 YEAR	TRANSPORTEUR SHIPPED VIA
-------------------	------------------------------	-----------------------	-----------------------------

**VENDU A SOLD TO** Queenston Mining Inc  
 Box 193  
 Kirkland Lake, Ontario  
 P2N 3H7

**1.5% LATE CHARGE OVER 30 DAYS (ANNUAL RATE 18%)**

NO. D'EXEMPT. DE TAXE FÉD. FED. LICENCE NO.	NO. D'EXEMPT. DE TAXE PROV. PROV. LICENCE NO.	VOTRE NO. DE COMMANDE YOUR ORDER NO.	NOTRE NO DE COMMANDE OUR ORDER NO.	CONDITIONS NET 30 DAYS TERMS	REP. DES VENTES SALES REP. MONTANT AMOUNT															
QUANTITÉ QUANTITY	DESCRIPTION			PRIX UNITAIRE UNIT PRICE																
35	Au assays			\$ 8.75	\$ 306.25															
16	Ag Cu Zn			11.50	184.00															
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Cert. #OW-1212-RGI aug. 23, 1990																				
<i>Swastika Labs</i>																				
Sub-total...					595.25															
<table border="1"> <tr> <td>Accl.</td> <td>Plant</td> <td>16 v</td> <td>Br 000</td> <td></td> </tr> <tr> <td>No. 755</td> <td></td> <td></td> <td></td> <td>334.72</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>201.00</td> </tr> </table>				Accl.	Plant	16 v	Br 000		No. 755				334.72					201.00		
Accl.	Plant	16 v	Br 000																	
No. 755				334.72																
				201.00																
<table border="1"> <tr> <td>Date</td> <td>Chg #</td> <td>Chg</td> <td>Eng</td> <td>Comment</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Date	Chg #	Chg	Eng	Comment												
Date	Chg #	Chg	Eng	Comment																
TOTAL.....					\$ 535.72															

FACTURE/INVOICE

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

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**SWASTIKA LABORATORIES**

(A DIVISION OF ASSAYERS CORPORATION LIMITED)

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0  
 TELEPHONE: (705) 642-3244 FAX (705) 642-3300



VENDU A SOLD TO

Queenston Mining Inc  
 Box 193  
 Kirkland Lake, Ontario  
 P2N 3H7

1.5% LATE CHARGE OVER 30  
 DAYS (ANNUAL RATE 18%)

NO. D'EXEMPT. DE TAUX FED.		NO. D'EXEMPT. DE TAUX PROV.		VOTRE NO. DE COMMANDE		NOTRE NO. DE COMMANDE		CONDITIONS		REF. DES VENTES	
FED. LICENCE NO.		PROV. LICENCE NO.		YOUR ORDER NO.		OUR ORDER NO.		NET 30 DAYS		SALES REP.	
QUANTITE QUANTITY	DESCRIPTION							TERMS	PRIX UNITAIRE UNIT PRICE	MONTANT AMOUNT	
52	Au assays								\$ 8.75	\$ 455.00	
52	Sample Handling								3.00	156.00	
Cert. #OW-1108-RGI Aug 8, 1990											
Description		Acct.	Dept.	Dr.	Sub-total				611.00		
Swastika LABS		755		548.00							
					-10%				61.10		
Date					TOTAL				\$ 549.90		
Chq #											

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**SWASTIKA LABORATORIES**

(A DIVISION OF ASSAYERS CORPORATION LIMITED)

P.O. BOX 10, SWASTIKA, ONTARIO A1A 0K0  
 TELEPHONE: (705) 642-3244 FAX (705) 642-3300

PAID Aug 1990

YENDU A SOLD TO

Queenston Mining Inc  
 Box 193  
 Kirkland Lake, Ontario  
 P2N 3H7

KIRKLAND LAKE

1.5% LATE CHARGE OVER 30  
 DAYS (ANNUAL RATE 18%)

QUANTITE QUANTITY	DESCRIPTION	NET 30 DAYS	SALES REP. MONTANT AMOUNT				
31	Au assays	\$ 8.75	\$ 271.25				
31	Sample Handling Cert.#OW-1081-RG1 Aug. 2, 1990	3.00	93.00				
38	Au assays	8.75	332.50				
38	Sample Handling Cert.#OW-1060-RG1 Aug. 1, 1990	3.00	114.00				
<table border="1"> <tr> <td>Swastika LABS</td> <td>Acct. 755</td> <td>Dr. 7296.7</td> <td>Cr.</td> </tr> </table>		Swastika LABS	Acct. 755	Dr. 7296.7	Cr.		
Swastika LABS	Acct. 755	Dr. 7296.7	Cr.				
		Sub-total	810.75				
		10%.....	81.08				
		TOTAL.....	\$ 729.67				

*[Handwritten Signature]*

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# SWASTIKA LABORATORIES

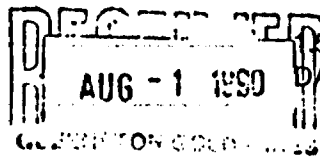
(A DIVISION OF ASSAYERS CORPORATION LIMITED)

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0  
TELEPHONE: (705) 642-3244 FAX (705) 642-3300

JOUR 25 DAY	DATE MOIS July MONTH	ANNÉE 1990 YEAR	TRANSPORTEUR SHIPPED VIA
-------------------	-------------------------------	-----------------------	-----------------------------

VENDU A  
SOLD TO

Queenston Mining Inc.  
Box 193  
Kirkland Lake, Ontario  
P2N 3H7



8% LATE CHARGE OVER 30  
DAYS (ANNUAL RATE 18%)

NO. D'EXEMPT. DE TAXE FÉD.	NO. D'EXEMPT. DE TAXE PROV.	VOTRE NO. DE COMMANDE	NOTRE NO DE COMMANDE	CONDITIONS NET 30 DAYS	REP. DES VENTES
FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	TERMS	SALES REP.
QUANTITÉ QUANTITY	DESCRIPTION			PRIX UNITAIRE UNIT PRICE	MONTANT AMOUNT
18	Au assays <i>Lead</i>			\$ 8.75	\$ 157.50
18	Sample Handling Cert.#OW-1030-RG1 July 25, 1990			3.00	54.00
42	Au assays			8.75	367.50
42	Sample Handling Cert.#OW-1014-RG1 July 23, 1990			3.00	126.00
Sub-total....					705.00
-10%.....					70.50
TOTAL.....					\$ 634.50

Description	Acct.	Dept.	Dr	Cr.
<i>Swastika Labs.</i>	755	1	634.50	

Date \_\_\_\_\_

Chq # \_\_\_\_\_

*[Signature]*

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# SWASTIKA LABORATORIES

(A DIVISION OF ASSAYERS CORPORATION LIMITED)

P.O. BOX 10, SWASTIKA, ONTARIO  
TELEPHONE: (705) 642-3244 FAX (705) 642-8300

DATE: JULY 1990  
 MOIS: JULY ANNEE: 1990  
 DAY: MONTH: YEAR: TRANSPORTEUR: SHIPPED VIA:

VENDU A / SOLD TO: Queenston Mining Inc.  
 Box 193  
 Kirkland Lake, Ontario  
 P2N 3H7

KIRKLAND LAKE  
 1.5% LATE CHARGE OVER 30  
 DAYS (ANNUAL RATE 18%)

QUANTITE QUANTITY	DESCRIPTION	PRIX UNITAIRE UNIT PRICE	MONTANT AMOUNT
19	Au assays	\$ 8.75	\$ 166.25
19	Sample Handling	3.00	57.00
Cert.#0W-1056-RG1 July 26, 1990			
Sub-total.....			223.25
-10%.....			22.33
TOTAL.....			\$ 200.92

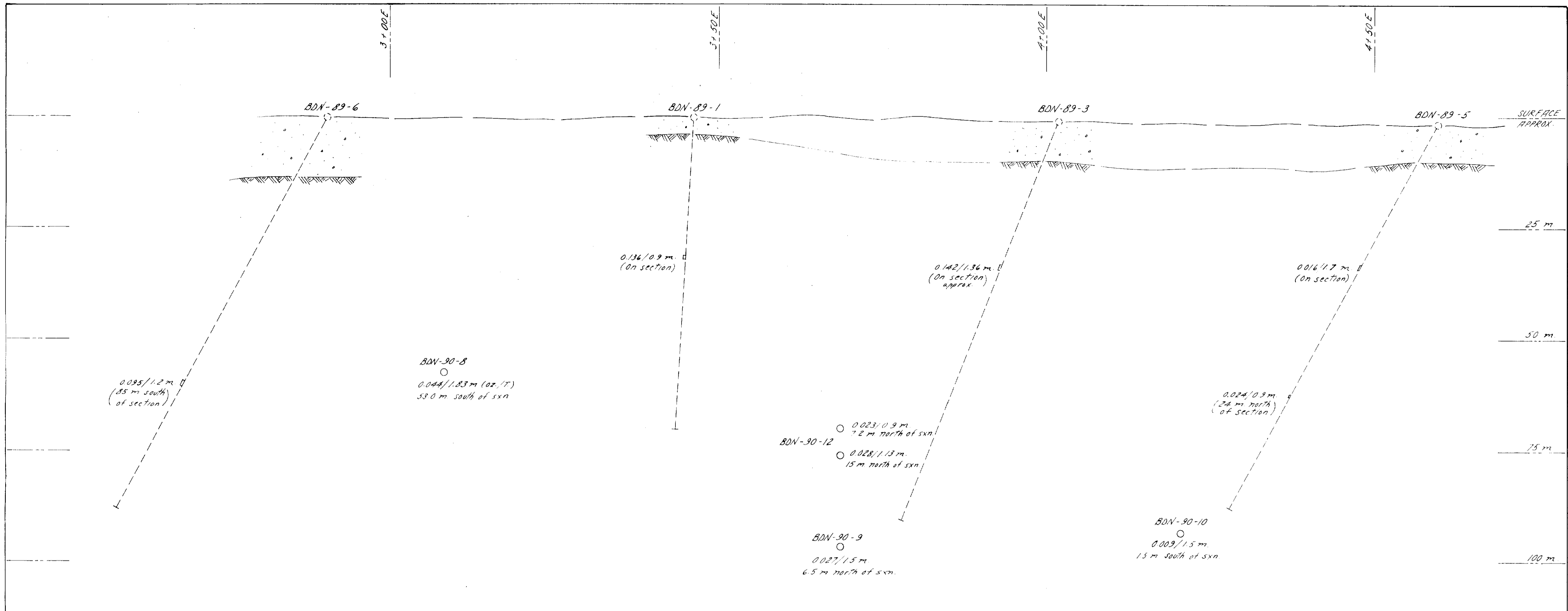
NO. D'EXEMPT. DE TAXE FÉD.	NO. D'EXEMPT. DE TAXE PROV.	VOTRE NO. DE COMMANDE	NOTRE NO DE COMMANDE	CONDITIONS	REP. DES VENTES
FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	NET 30 DAYS TERMS	SALES REP.

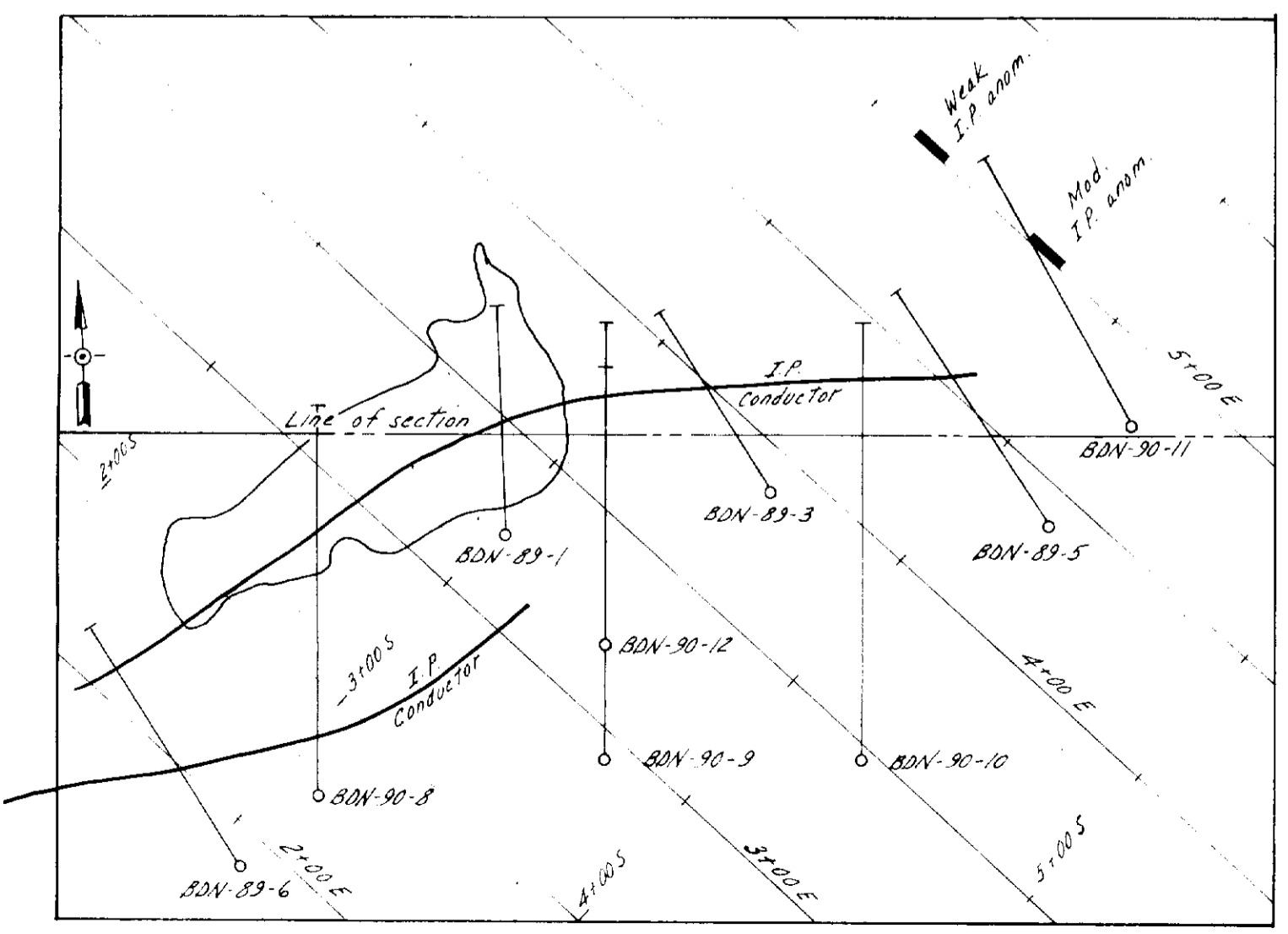
Description	Acct.	Dept.	Dr.	Cr.
Swastika Labs	753	1	20092	

Chq # \_\_\_\_\_

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200



PLAN - 1:2000

63.6149

PROV.	ONTARIO	QUEENSTON MINING INC. - JOINT VENTURE STRIKE MINERALS LTD.		
TWP.	BADEN			
NTS	4242			
REF.		LONGITUDINAL SECTION (LOOKING N 3°E) CARBONATE PIT AREA BADEN PROPERTY		
DWN. BY	R			
REVISIONS	DATE	BY		
			SCALE 1:500	DATE JUN/90
				PLATE FIG. 6

