

0781-60

0MEP01-8-P-60



42C08SW0233 FINAN26 FINAN

010

SUMMARY REPORT

MAGINO GOLD PROPERTY

GOUDREAU, ONTARIO

By

Donald A. Bourne, B.Sc., M.Sc., P.Eng.

November 16, 1981.

## SUMMARY REPORT

### MAGINO GOLD PROPERTY GOUDREAU, ONTARIO NOVEMBER 16, 1981

#### INTRODUCTION

Between May 1, 1981 and August 30, 1981, Rico Copper (1966) Limited completed a total of 7,415.0 feet of surface diamond drilling in 16 holes on its Magino Gold Property in Finan township, Sault Ste. Marie Mining Division, about 30 air miles northeast of Wawa, Ontario. The purpose of the drilling program was twofold:

- to evaluate the depth continuity below the 200 foot horizon of the previously mined ore zones, and
- to further test the lateral and depth continuity of the gold values intersected in previous surface drilling in the E zone east of the diabase dyke marking the east end of the mine workings.

The drilling was contracted to Amalgamated Drilling of Thunder Bay, Ontario using a diesel-driven BBS No. 2 wire line machine to recover BQ core of 1-7/16 inch diameter. The log and assay results of each hole are included with this report. The core was logged and split by the writer and all assaying was done by recognized laboratories in Ontario.

Core recovery was excellent probably averaging in excess of 98%. The core is presently being labelled and will be stored in a new core shed being built on the property adjacent to the former mine site on claim 2049.

The discovery of iron ore around the turn of the century in the Michipicoten area lying south of Goudreau led to an active search for similar deposits along the iron ranges further north. In places the iron formations near Goudreau were found to contain pyrite in sufficient quantity to form the basis of a mining industry at one time of considerable importance. Between 1916 and 1919, about 250,000 tons of pyrite were produced, but lack of markets for sulphuric acid at the close of World War I led to abandonment of the mines and dismantling of acid plants that had been erected 2 miles east of Goudreau to treat the pyrite. Meanwhile, gold was discovered in 1918 in the vicinity of Goudreau and prospecting and development work have continued ever since.

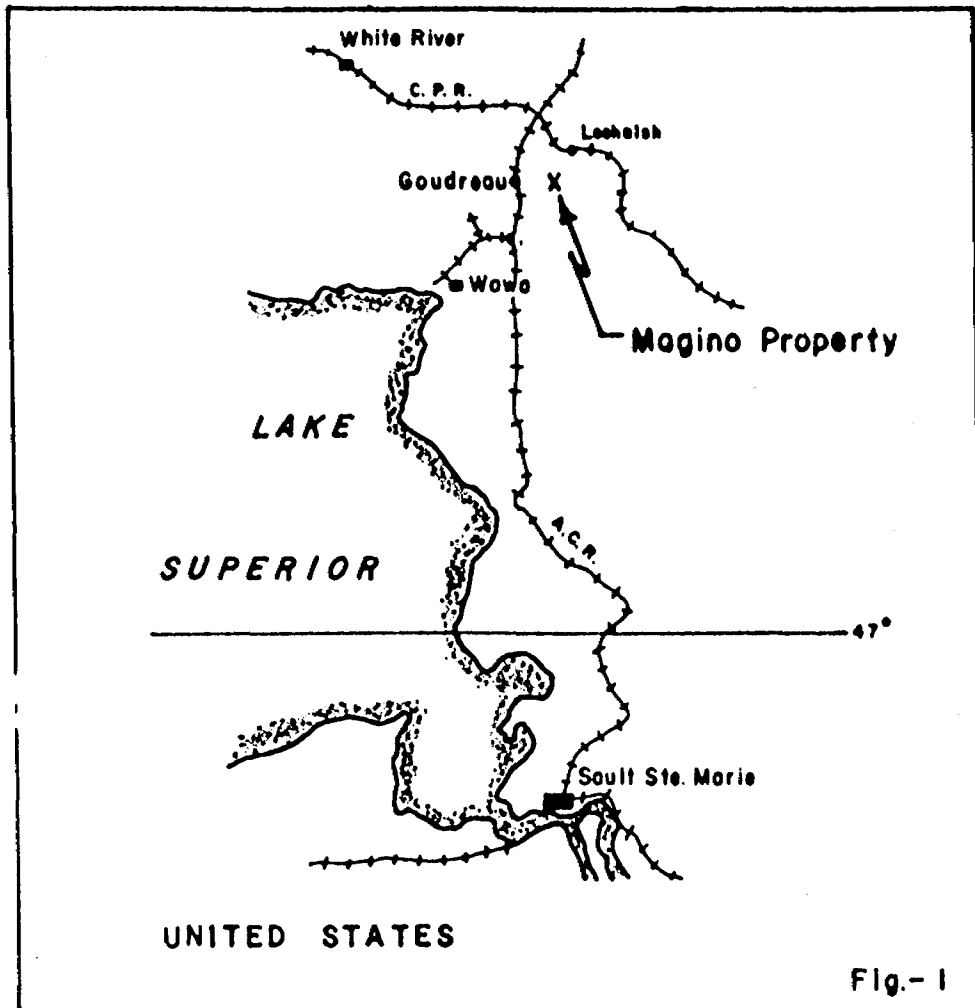
PROPERTY - DESCRIPTION AND LOCATION

The Magino property consists of a block of 7 patented mining claims and 1 unpatented mining claim covering approximately 368.0 acres located in the extreme south central part of Finan township in the Goudreau-Lochalsh area, Sault Ste. Marie Mining Division, Ontario. The claims are numbered as follows.

<u>Patented Claims</u>	<u>Land (Acres)</u>	<u>Water (Acres)</u>	<u>Total (Acres)</u>
2048	48.64	-	48.64
2049	46.37	2.12	48.49
2050	49.86	4.01	53.87
2051	42.87	-	42.87
2052	35.98	-	35.98
2053	66.53	3.97	70.50
2102	4.04	18.03	22.07
	<u>294.29</u>	<u>28.13</u>	<u>322.42</u>
<u>Unpatented Claim</u>			
575265	30.00	16.00	46.00
TOTALS	<u>324.29</u>	<u>44.13</u>	<u>368.42</u>

The acreage for unpatented claim 575265 is approximate only. The designating letters "SSM" have been omitted in this report and on the enclosed maps from the numbers marking the surveyed claims recorded at the office of the Sault Ste. Marie Mining Division.

The Magino property lies about 175 air miles north of Sault Ste. Marie and about 65 miles by road from Wawa. The mine was in production prior to World War II but was closed down at the end of 1940 as a result of wartime labour shortages rather than to the exhaustion of ore.



LOCATION MAP

1 inch = 40 miles



GEOLOGY AND GOLD DEPOSITS

Much of the Goudreau-Lochalsh area is underlain by basic and acidic lavas with considerable interbedded pyroclastic and sedimentary material, all of early Precambrian age. Intrusive into these formations are irregular stock like bodies of granodiorite and associated rock types.

Cutting across and later than these units are diabase dykes which are post-ore in age.

Native gold occurs in lenticular quartz veins and sheared zones into which quartz has been introduced. In general the mineralogy of the veins is relatively simple, pyrite being the main sulphide and tourmaline the principal silicate. Native gold occurs both in the quartz and finely disseminated with the pyrite, the better grade values occurring where the gangue is predominately quartz rather than carbonate. The veins may occur in any rock type although those previously mined at the Magino were entirely within the granodiorite. Gold production from the Goudreau-Lochalsh area has been as follows (gold valued at \$35.00 per ounce).

	<u>From</u>	<u>To</u>	<u>Tons Milled</u>	<u>Ounces Gold</u>	<u>Total Value</u>
Algold	1936	1940	23,211	2,450	\$ 84,576.
Cline	1938	1948	231,842	63,328	2,369,053.
Edwards	1937	1938	1,573	485	16,977.
Magino	1933	1939	116,627	8,776	308,334.
			<u>373,253</u>	<u>75,039</u>	<u>\$2,778,940.</u>

The Magino gold mine was in production from 1933 to 1939. Previous development and mining was concentrated on a granodiorite stock along a strike length of 1,000 feet and a width of 500 feet. Stoping was carried out only above the 200 foot horizon, the shaft bottom being at a vertical depth of 225 feet. In addition to the 3 compartment shaft sunk at -330 for an inclined length of 417 feet, a total of 5,941 feet of drifting, 1,702 feet of crosscutting and 399 feet of raising was completed on the property prior to the end of 1940 when all operations ceased.

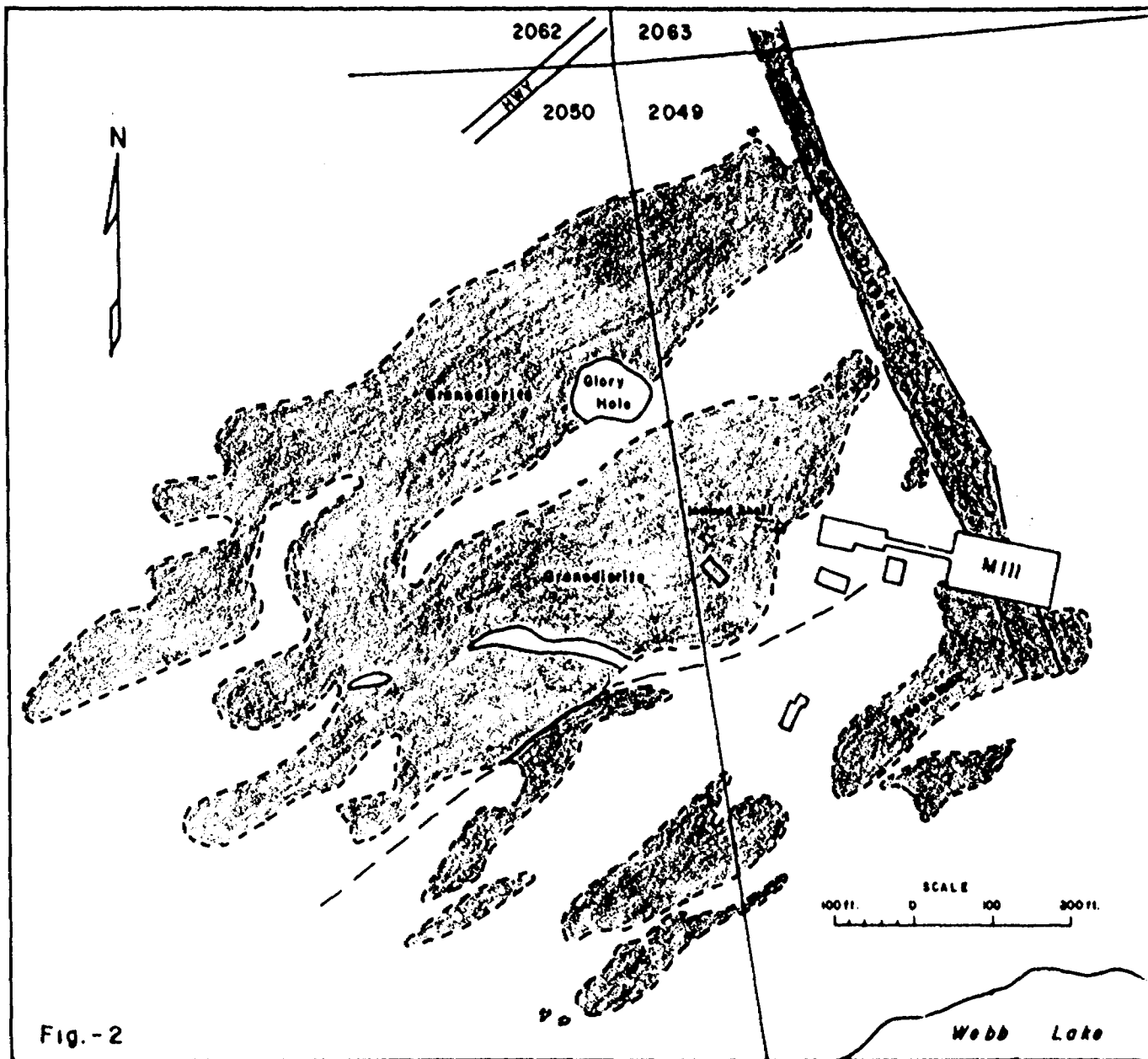


Fig.-2

SURFACE GEOLOGY MAGINO GOLD PROPERTY  
(modified from Bruce, 1940)

RICO COPPER (1966) LIMITED

DIAMOND DRILL HOLES

MAY - AUGUST 1981

<u>Hole No.</u>	<u>Bearing</u>	<u>Dip</u>	<u>Core Length</u>	<u>No. of Samples</u>	<u>Footage Sampled</u>
S-81-1	168 <sup>0</sup>	-50 <sup>0</sup>	653.0	24	51.0
S-81-2	168 <sup>0</sup>	-50 <sup>0</sup>	500.0	-	-
S-81-3	180 <sup>0</sup>	-50 <sup>0</sup>	653.0	17	23.6
S-81-4	180 <sup>0</sup>	-50 <sup>0</sup>	451.0	17	22.1
S-81-5	180 <sup>0</sup>	-63 <sup>0</sup>	554.0	9	15.4
S-81-6	180 <sup>0</sup>	-63 <sup>0</sup>	534.0	23	49.4
S-81-7	180 <sup>0</sup>	-63 <sup>0</sup>	586.0	9	18.6
S-81-8	180 <sup>0</sup>	-63 <sup>0</sup>	659.0	21	44.0
S-81-9	207 <sup>0</sup>	-57 <sup>0</sup>	504.0	21	39.6
S-81-10	180 <sup>0</sup>	-60 <sup>0</sup>	152.0	14	29.2
S-81-11	180 <sup>0</sup>	-60 <sup>0</sup>	301.0	14	30.0
S-81-12	180 <sup>0</sup>	-60 <sup>0</sup>	152.0	12	38.8
S-81-13	180 <sup>0</sup>	-60 <sup>0</sup>	313.0	19	48.0
S-81-14	180 <sup>0</sup>	-63 <sup>0</sup>	400.0	29	75.3
S-81-15	180 <sup>0</sup>	-55 <sup>0</sup>	351.0	21	52.6
S-81-16	180 <sup>0</sup>	-65 <sup>0</sup>	652.0	9	27.3
			<u>7,415.0</u>	<u>259</u>	<u>564.9</u>

## DISCUSSION OF RESULTS

Since 1940 when the mine closed down, 3 separate programs of surface diamond drilling totalling 14,234.5 feet in 35 holes have been carried out on the property.

<u>Year</u>	<u>Company</u>	<u>No. of Holes</u>	<u>Total Footage</u>
1942	O'Brien	13	4,816.0
1972	McNellen	6	2,003.5
1981	Rico Copper	16	7,415.0
		<u>35</u>	<u>14,234.5</u>

The major rock units intersected in the drilling were the granodiorite stock, andesite, iron formation and diabase. The granodiorite is medium to coarse in grain size, grey to greyish blue in colour, massive and equigranular in texture. Alteration is intense, the infrequent ferromagnesian minerals being completely altered to sericite. It is commonly cut by irregular milky white quartz stringers containing abundant black tourmaline but only occasionally mineralized with pyrite. The andesites are fine grained, strongly chloritized and dark green in colour, and may be either massive or show strong flow banding. They are commonly cut by irregular quartz-carbonate threads and stringers and contain scattered disseminated cubic pyrite. Generally speaking, the contact between the granodiorite and the andesite is sharp and distinct. A narrow band of iron formation was intersected in holes S-81-6 and S-81-7 between the granodiorite stock and the andesites underneath the mine workings. In hole S-81-6 the iron formation is 16.8 feet in core length, fine grained and black in colour and shows well marked although somewhat contorted bedding. It is mineralized with medium cubic pyrite and weak pyrrhotite but returned only low values in gold. It appears to be discontinuous along strike but is probably related stratigraphically to the more prominent bands of iron formation further west near Goudreau.

A diabase dyke was intersected in holes S-81-2 and S-81-9. It is fine to medium grained, dark brown, massive and micaceous with sharp frozen contacts. Drilling indicates that the granodiorite-andesite contact has been displaced about 150 feet along the diabase dyke, the west side having moved south relative to the east side. The writer concludes that the diabase was intruded along a pre-existing fault zone, the direction of movement along the fault being part of the regional pattern.



Several values in excess of 0.10 ounces of gold per ton were obtained in the granodiorite stock west of the diabase dyke. The following intersections appear to form a continuous zone over a strike length of 150 feet and may represent the downward extension of either the A or C zones previously developed or mined above the 200 foot level.

<u>Hole No.</u>	<u>From</u> (feet)	<u>To</u> (feet)	<u>Core</u> <u>Length</u> (feet)	<u>Vertical</u> <u>Depth</u> (feet)	<u>Remarks</u>
S-81-5	389.1	392.6	3.5	350.0	Strong, well-defined quartz vein, 7.78 oz./0.8 feet with considerable V.G.
S-81-6	324.7	326.4	1.7	290.0	Strong gray quartz vein assayed 0.56 oz./1.7 feet.
S-81-7	325.0	329.8	4.8	290.0	Strong silicification and quartz, best value 0.08 oz./3.5 feet

The intersection in hole S-81-5 was a well defined distinct and finely fractured quartz vein, weakly mineralized with pyrite but containing a 9 inch section with considerable coarse visible gold. The intersection in hole S-81-7, particularly between 328.5 and 329.8 feet, represents a zone of strong silicification with associated bluish grey quartz, patches of carbonate, thin crenulated laminae of black tourmaline and weakly mineralized with pyrite. Its location suggests it is part of the same zone as intersected in the other two holes even though the gold assay is low. The recent drilling does indicate, however, that gold values do continue well below the 200 foot level within the granodiorite stock.

In marked contrast to the vein systems previously mined on the Magino property, most of the gold values intersected in drilling to date on the E zone east of the diabase dyke occur in quartz veins or zones of silicification in the andesite immediately adjacent to the granodiorite contact. However, this may be more a factor of the density of drilling than to any change in the geological environment. No underground development has been carried out east of the dyke.

The vertical projections of all the gold values obtained from drilling on the E zone are shown on the enclosed plan. Of particular importance are the following gold values obtained in the 1981 drilling program by Rico Copper.

<u>Hole No.</u>	<u>From (feet)</u>	<u>To (feet)</u>	<u>Core Length (feet)</u>	<u>Vertical Depth (feet)</u>	<u>Gold Assay (oz.)</u>	<u>Remarks</u>
S-81-1	512.3	515.6	3.3	395.0	0.11	Considerable quartz veining with pyrite
	515.6	517.4	1.8		2.15	
S-81-11	290.3	291.0	0.7	255.0	2.30	Very strong bluish grey quartz zone with pyrite-pyrrhotite and considerable V.G.
	291.0	291.9	0.9		0.03	
	291.9	292.6	0.7		8.51	
S-81-12	123.6	127.2	3.6	110.0	0.36	Considerable quartz veining with pyrite-pyrrhotite

Together with gold values intersected in the previous diamond drilling programs on the E zone, these intersections appear to form a fairly continuous zone having a general east-west strike length of about 300 feet. Preliminary evidence suggests that these values may represent the faulted extension of the C zone, the faulted parts of the A and B zones being as yet unexplored east of the diabase dyke. The intersection in hole S-81-1 at a vertical depth of 395.0 feet is one of the deepest obtained on the property. Continuity of a lens of this length over a minimum mining width of 6.0 feet would indicate a mineral inventory of about 70,000 tons to a vertical depth of 400 feet.

There are no records from the previous Magino operations regarding the treatment of high "erratic" gold values. By arbitrarily cutting all the high assays to 2.00 ounces of gold per ton, the writer calculates that the above gold-bearing lens would have a diluted grade of between 0.35 and 0.40 ounces of gold per ton, dilution being taken at zero grade. This should be considered as directional only pending further diamond drilling or underground development at which time the other mineralized zones to the north can also be followed up.

SUMMARY

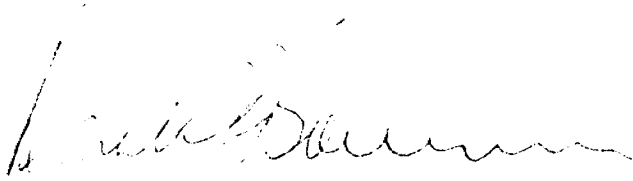
The surface diamond drilling program carried out by Rico Copper (1966) Limited in 1981 on its Magino property near Goudreau, Ontario successfully achieved its twofold purpose.

- gold values were obtained beneath the former mine workings at a vertical depth of 350 feet indicating downward continuity below the bottom or 200 foot level.
- not only was the main gold-bearing zone on the E zone substantially increased in strike length, but the weighted value of 0.80 ounces of gold over a core length of 5.1 feet obtained in hole S-81-1 at a vertical depth of 395 feet is one of the deepest intersections obtained on the Magino property.

In addition, the granodiorite-andesite contact was traced out 300 feet east of the diabase and the structural significance of the dyke itself was determined.

By an agreement dated September 30, 1981 the Cavendish Investing Group entered into a joint agreement with McNellen Resources, Inc. (formerly Rico Copper (1966) Ltd.), whereby Cavendish has agreed to spend \$900,000. on an exploration and development program on the Magino property. This program is to be carried out over a period of 18 months and will consist of dewatering, rehabilitating the shaft and mine workings, underground geological mapping, sampling, diamond drilling and drifting to confirm the grade and tonnage of the gold-bearing mineral inventory.

Respectfully submitted.



Donald A. Bourne, P.Eng.

81-60



42C08SW0233 FINAN26 FINAN

020

AN EVALUATION  
OF  
THE MAGINO MINE PROPERTY

By

Donald A. Bourne, B.Sc., M.Sc., P.Eng.



42C08SW0233 FINAN26 FINAN

020C

I N D E X

	Page
INTRODUCTION . . . . .	1
PROPERTY - DESCRIPTION AND HISTORY . . . . .	3
ACCESSIBILITY AND TOPOGRAPHY . . . . .	6
GEOLOGY OF THE GOUDREAU-LOCHALSH AREA . . . . .	8
ECONOMIC GEOLOGY OF THE GOUDREAU-LOCHALSH AREA . . . . .	11
DESCRIPTION OF MAGINO VEIN SYSTEMS . . . . .	15
DISCUSSION OF PREVIOUS RESULTS . . . . .	19
SUMMARY OF POST-PRODUCTION DIAMOND DRILLING . . . . .	22
SUMMARY OF POTENTIAL TONNAGE AND GRADE . . . . .	24
RECOMMENDATIONS . . . . .	27
ONTARIO MINERAL EXPLORATION PROGRAM . . . . .	29
BIBLIOGRAPHY . . . . .	30
CERTIFICATE . . . . .	31

(11)

E X H I B I T S

FIGURE 1: LOCATION MAP

FIGURE 2: SURFACE GEOLOGY MAGINO PROPERTY

MAP 1: COMPOSITE PLAN

MAP 2: SECOND LEVEL

MAP 3: SURFACE DIAMOND DRILLING

"E" ZONE

## INTRODUCTION

The Magino gold property, previously operated by McCarthy-Webb Goudreau Miner Limited and Algoma Summit Gold Mines Limited, was in production immediately prior to World War II. It consists of 7 contiguous mining claims and one unpatented mining claim covering approximately 368.00 acres located in Township 49, Range 27 in the Goudreau-Lochalsh area, Sault Ste. Marie Mining Division, Ontario. The property lies about 175 miles north of Sault Ste. Marie and immediately south of the road connecting the towns of Goudreau and Lochalsh, about 4 miles north-east of Goudreau. The mine was closed down at the end of 1940 as a result of wartime labour shortages rather than to the exhaustion of ore.

Parts of the country in the vicinity of these towns have been prospected for many years. The discovery of iron ore around the turn of the century in the Michipicoten area lying south of Goudreau led to an active search for similar deposits along the iron ranges further north. In places the iron formations near Goudreau were found to contain pyrite in sufficient quantity to form the basis of a mining industry at one time of considerable importance. Between 1916 and 1919, about 250,000 tons of pyrite were produced, but lack of markets for sulphuric acid at the close of World War I led to abandonment of the mines and dismantling of acid plants that had been erected 2 miles east of Goudreau to treat the pyrite.

Meanwhile, gold was discovered in 1918 in the vicinity of Goudreau and prospecting and development work has continued ever since. From the records available, gold production from the Goudreau area has been as follows (gold valued at \$35.00 per ounce).

	<u>From</u>	<u>To</u>	<u>Tons</u> <u>Milled</u>	<u>Ounces</u> <u>Gold</u>	<u>Total</u> <u>Value</u>
Algold	1936	1940	23,211	2,450	\$ 84,576
Cline	1938	1948	231,842	63,328	2,369,053
Edwards	1937	1938	1,573	485	16,977
Magino	1933	1939	116,627	8,776	308,334
			<u>373,253</u>	<u>75,039</u>	<u>\$2,778,940</u>

The property is well-located with respect to transportation lying just south of a good road connecting Goudreau about 4 miles to the southwest and Lochalsh about 11 miles to the northeast, stations on the Algoma Central and Canadian Pacific railways respectively. Hydroelectric power is available in the area and water for mining and milling purposes is plentiful. At the present time there is no plant or equipment on the property. The location of the Magino claim group is shown on Figure 1.



PROPERTY - DESCRIPTION AND HISTORY

The Magino property consists of a block of 7 Patented Mining Claims and 1 Unpatented Mining Claim covering approximately 368.00 acres located in the extreme south central part of Township 49, Range 27, in the Goudreau-Lochlash area, Sault Ste. Marie Mining Division, Ontario. The Claims are numbered as follows;

<u>Patented Claims</u>	<u>Land (acres)</u>	<u>Water (acres)</u>	<u>Total (acres)</u>
2048	48.64	-	48.64
2049	46.37	2.12	48.49
2050	49.86	4.01	53.87
2051	42.87	-	42.87
2052	35.98	-	35.98
2053	66.53	3.97	70.50
2102	<u>4.04</u>	<u>18.03</u>	<u>22.07</u>
	294.29	28.13	322.42
<u>Unpatented Claim</u>			
575265	<u>30.50</u>	<u>15.64</u>	<u>46.14</u>
TOTALS	<u>324.79</u>	<u>43.74</u>	<u>368.53</u>

The acreage for Unpatented Claim 575265 is approximate only. It was staked in September, 1980 to conform as closely as possible to former Patented Claim 2290 which covered the acreage tabulated above and it is assumed that the two acreages are closely comparable. The water acreage on Claims 2049 and 2050 is part of Webb Lake, a small lake one-half mile long by one-eighth mile wide lying mostly off the property to the south, while that on Claims 2053, 2102 and 575265 covers part of Goudreau Lake, one of the major bodies of water in the immediate area.

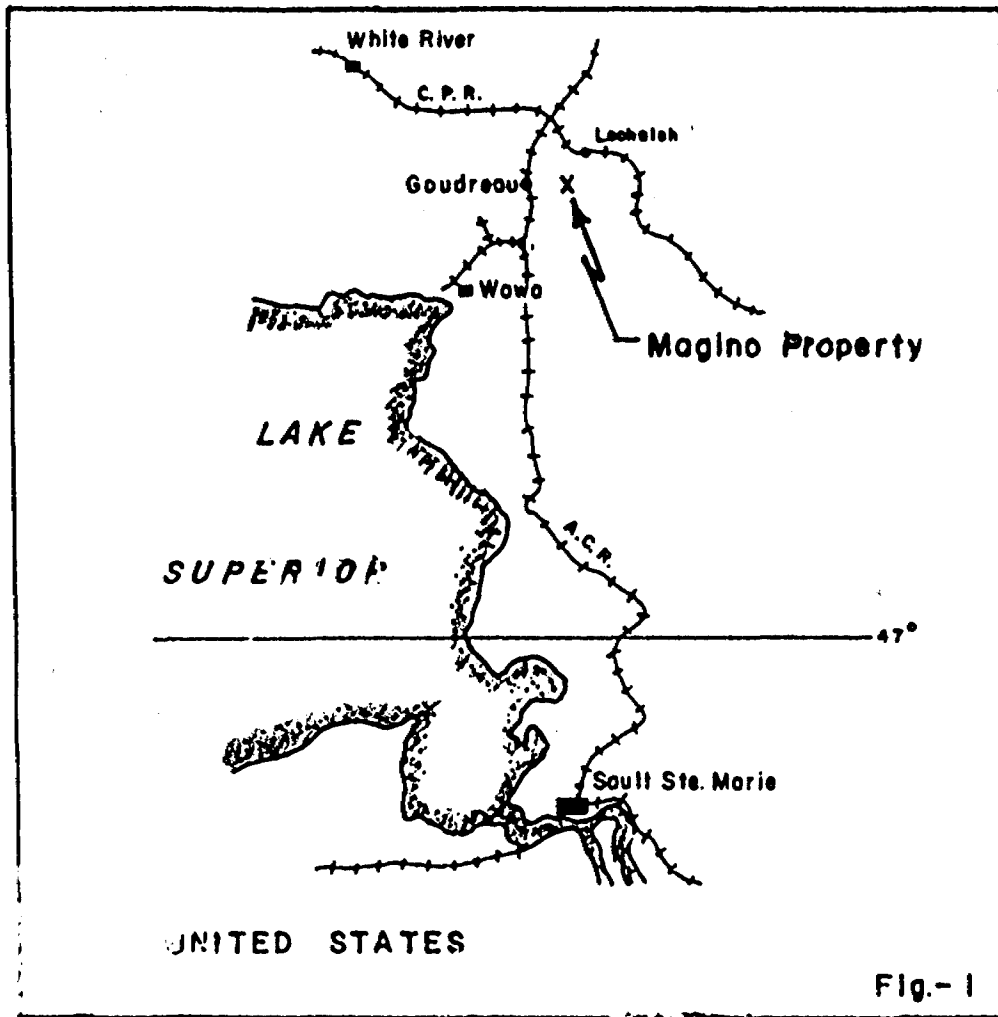


Fig.- 1

LOCATION MAP

1 inch = 40 miles



The designating letters "SSM" have been omitted from this report and on the enclosed maps from the numbers marking the surveyed claims recorded at the office of the Sault Ste. Marie Mining Division.

The Magino property was originally staked in 1917 for pyrite by Messrs. D.J. McCarthy and W.J. Webb following the commencement of operations in the district by Rand Consolidated and Nichols Chemical Company. Gold was discovered in the Goudreau area in early 1918 near Webb Lake probably on what is now Claim 2050 of the Magino property. Between then and 1925 when McCarthy-Webb Goudreau Mines Limited was formed to take over and develop the claim group, 2 shallow shafts or pits had been sunk and some stripping and 1,100 feet of diamond drilling done. The following summarizes work done on the property from 1933 to the present.

- 1933     A test mill was constructed and several test runs were made.
- 1934     Algoma Summit Gold Mines Limited was incorporated to take over the old company and the mill and enlarge it to 25 tons per day. The mill operated at intervals throughout the year and treated a total of 421 tons of ore from which 144 ounces of gold were obtained indicating a recovered grade of 0.342 ounces of gold per ton.
- 1935     Sinking of the inclined shaft at -33 degrees was completed for a slope length of 417 feet (vertical depth of 225 feet) and levels established at the 176 feet and 374 feet corresponding to vertical depths of 100 feet and 200 feet respectively.

- ' -
- 1936 A 50 ton amalgamation mill began operating early in the year. Construction of a permanent mining plant and a 500 ton per day amalgamation-flotation mill was begun later in the year.
- 1937 The larger sized mill began operations. Initial feed was obtained from an open cut but was later taken from underground.
- 1938 Operations continued although the 500 ton mill never approached its rated capacity, the average throughout being only 183 tons per day.
- 1939 The property was acquired by Magino Gold Mines Limited. Operations were suspended after the treatment of 116,627 tons of ore and the recovery of 8,776 ounces of gold and 856 ounces of silver for a recorded gross value of \$308,334.00 (gold at \$35.00 an ounce).
- 1940 Some development work was carried out by Magino but due to the outbreak of World War II and the difficulty of obtaining labour, all work ceased at the mine at the end of the year.
- 1942 The property was optioned by M.J. O'Brien Limited who completed a total of 4,816 feet of surface diamond drilling in 13 holes east of the underground workings. (Results of the O'Brien drilling program are discussed fully in a later part of this report).
- 1972 C.H. McNellen of Toronto, Ontario personally financed a program of surface diamond drilling totalling 2,003.5 feet in 6 holes.

### ACCESSIBILITY AND TOPOGRAPHY

The Canadian Pacific Railway crosses the northeastern part of the area. The Algoma Central Railway crosses the area in a north-south direction about 4 miles east of the Magino property. The Trans-Canada highway runs from Sault Ste. Marie to Wawa with a good paved road branching off and running north paralleling the Algoma Central to Goudreau, a town on the Algoma Central, thence to Lochalsh, a station on the Canadian Pacific, a distance of about 15 miles. As mentioned previously, the property lies just south of this road about 4 miles northeast of Goudreau.

The Goudrea-Lochalsh area consists of an uplifted peneplain typical of the Precambrian shield. The uniformity of this upland is modified by the north-south trench that marks the McVeigh Creek fault and along which the Algoma Central Railway runs. The elevation of Goudreau is 1216 feet above sea level. Probably nowhere in the area is there more than 100 feet difference in elevation except near the McVeigh Creek trench.

The trend of rock ridges is east-west to slightly north of east reflecting the general trend of the lavas and sedimentary bedding. These low ridges are continuous for considerable distances and are separated by the valleys occupied by the streams, elongated lakes or swamps. In places, glacial deposits are thick and there are extensive sand plains. Near the town of Lochalsh, thick deposits of sand and gravel cover much of the consolidated rocks. This area extends westward along the north side of the road to Strobilus Lake about 2½ miles east of the Magino property. Other sand plains occur throughout the area including one which occupies the McVeigh Creek

Timber has been cut from most of the area although some areas of spruce are still available for pulpwood. None of the land is suitable for farming. Where it is level the soil is very sandy.

GEOLOGY OF THE GOUDREAU-LOCHALSH AREA

All the consolidated rocks in the Goudreau area are Precambrian in age. The oldest rocks, generally considered to be Keewatin in age, are of volcanic origin and make up the greater part of these Precambrian formations. They consist of acidic and basic lava flows with considerable amounts of intercalated pyroclastic material. The lower part of the volcanic assemblage is composed largely of acidic lavas while those of the upper part are mainly basic. There is some interbanding, however, with thin basic flows interbanded with the dominantly acidic lower group and acid flows with the dominantly basic lavas of the upper part of the series. Bands of iron formation and tuffaceous material are interbedded with both types of lavas and serve as local horizon markers. The overall strike of the lavas is north-east with steep or vertical dips to the south.

Unconformably overlying the above Keewatin-type volcanic flows is a band of Temiskaming-type sediments ranging from  $\frac{1}{2}$  mile to 1 mile in width striking in a general east-west direction across the northern part of Township 49, about 5 miles north of the Magino property. Well banded greywacke appears to make up the bulk of this sedimentary series with local beds of conglomerate and quartzitic material. The southern limit of this series, in Township 49, cannot be fixed with certainty due to the difficulty in differentiating the tuffaceous rocks in the volcanic series from the true Temiskaming-type sediments. The northern edge of this sedimentary horizon has been intruded by a granite batholith and hence its true width is unknown. The continuity of the sediments is interrupted by several north-south striking faults of which the McVeigh Creek fault is the most prominent.

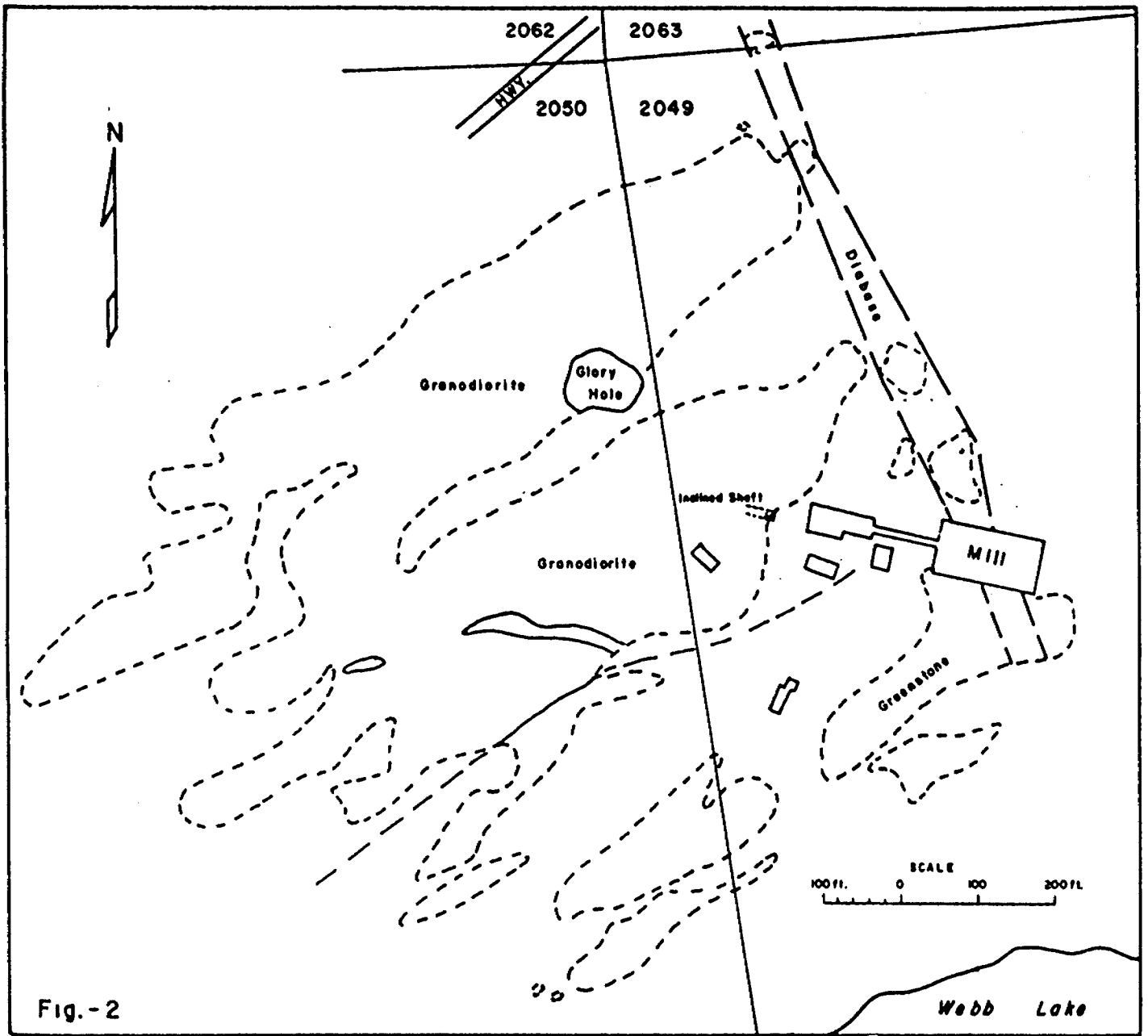


Fig.-2

SURFACE GEOLOGY MAGINO GOLD PROPERTY  
 (modified from Bruce, 1940)



Structurally, these sediments form a synclinal trough developed independently of the folding in the volcanics. That they are later than the volcanics is evidenced by the presence in the conglomeratic horizons of fragments of the rock identical in character with those of the lava complex.

Intrusive rocks of several ages are present in the general area and cut both the volcanics and the sedimentary assemblages described before. These range in composition from amphibolite through to granite and probably represent several ages of intrusive activity. The darker coloured rocks such as amphibolite and diorite present considerable difficulty in mapping as they are very similar to the coarser grained phases of the basic lavas. Some bands of basic lavas may have been mapped as intrusives as even in the areas of acid lavas there are some interbanded basic flows difficult to distinguish from diorite sills.

Granodiorite intrusives occur at both the Cline Lake Mine and Magino properties as well as elsewhere in Township 49. It is generally light greenish-grey in colour and shows considerable variation in texture. The granodiorite stock at the Magino Mine is a greyish looking rock containing abundant quartz. Alteration has been intense, the infrequent ferromagnesian minerals being completely altered to chlorite and the feldspars now altered to aggregates of sericite. At both the Cline Lake Mine and the Magino Mine properties, the granodiorite is intrusive in the greenstones.

Diabase dykes of late Precambrian age cut across the general trend of the other rock formations in the area.

They are generally less than 100 feet in width and strike in a northerly to northwesterly direction. Two of these dykes occur on the Magino property, one immediately east of the underground workings and the other further east on Claim 2053. Both strike northwesterly and dip vertically.

Structurally, the Magino Mine property lies along the north limb of an overturned anticline whose axis strikes northeasterly and plunges to the northeast. The older acidic lavas form the core of this anticlinal structure with basic lavas forming each limb. Unfortunately very little detailed structural data can be obtained from the regional maps available. In this regard however, the writer would suggest the distinct possibility of a fold pattern outlined by Goudreau Lake immediately east of the Magino claims. This sinuous almost W-shaped configuration of the lake is strongly suggestive of drag-folding within the lavas. Compressive forces responsible for this suggested folding could also have influenced the emplacement of the granodiorite stock on the Magino Mines property along one of the fold axes and probably contributed to the shearing and vein formation within the stock.

ECONOMIC GEOLOGY OF THE GOUDREAU-LOCHALSH AREA

At the present time gold is the only mineral of economic importance in the Goudreau-Lochalsh area. As mentioned previously, pyrite was formerly mined in some quantity and a large plant for the manufacture of sulphuric acid was build 2 miles east of Goudreau but was dismantled a good many years ago. Sand and gravel are plentiful within the district and are available for mine backfill and road construction.

The gold deposits in the Goudreau-Lochalsh area from which production has been recorded or on which a substantial amount of exploration and development work have been carried out, occur within a belt 2 miles wide extending from the Algold (former Amherst) property in township 28, range 26 about  $3\frac{1}{2}$  miles south-west of Goudreau, through the Magino and Kremzar properties in Township 49, about  $9\frac{1}{2}$  miles north-east of Goudreau, a total distance of about 13 miles. The gold deposits differ somewhat in type and structural setting. Gold occurs in lenticular quartz veins and in sheared zones into which quartz has been introduced. These veins may occur in any rock type although most of those that have been exploited are in the granodiorite. In general the mineralogy of the veins is relatively simple, pyrite being the main sulphide and tourmaline the principal silicate. Pyrrhotite, chalcopyrite and specular hematite have also been noted although in minor quantities. From the records available, gold production from the Goudreau area has been as follows;

PRODUCTION TABLE

	<u>From</u>	<u>To</u>	<u>Tons Milled</u>	<u>Ounces Gold</u>	<u>Recovered Grade</u>
Algold	1936	1940	23,211	2,450	0.106
Cline	1938	1948	231,842	63,328	0.273
Edwards	1937	1938	1,573	485	0.308
Magino	1933	1939	<u>116,627</u>	<u>8,776</u>	<u>0.075</u>
TOTAL			<u>373,253</u>	<u>75,039</u>	<u>0.201</u>

At the Magino property, the gold-bearing bodies consist of narrow quartz veins and zones of schistose material impregnated with sulphides, tourmaline, carbonate and chlorite. Some of the bodies represent true fissure veins with distinct walls while others grade into the granodiorite by replacement of the walls with quartz and carbonate for several feet on either side of the vein. The general strike of the individual veins and schistosity planes is east-west with dips of about  $70^{\circ}$  to the north. Native gold occurs both in the quartz and finely disseminated with the pyrite, with the better grade values occurring where the gangue is predominately quartz rather than carbonate.

At the Cline mine located about 8 miles to the north-east of the Magino group, a similar type of gold bearing zone was mined between 1938 and 1948. Here a granodiorite stock is the host rock for most of the ore-bodies. A shear zone strikes east and dips  $75^{\circ}$  north with the auriferous quartz veins lying adjacent to the shear. The veins may be simple in character or may consist of a more complex lode of quartz lenses and stringers. The main vein was 500 feet in length and was most productive from the surface to the 500-foot level. The mineralogy was similar to that at the Magino. Quartz was the most abundant vein mineral with smaller amounts of chlorite, sericite, carbonates and tourmaline. Sulphides formed less than 10% of the ore and consisted mainly of pyrite with lesser amounts of arsenopyrite, sphalerite, chalcopyrite, galena and molybdenite.

Geological conditions at the Edwards property are similar to those on the adjacent claims of the Cline mine, the granodiorite stock extending across the property boundary. On surface the No. 1 vein is 2.5 feet wide and is exposed for a length of 100 feet.

It strikes north  $67^{\circ}$  west and dips  $75^{\circ}$  north. Other veins strike more westerly and range from 0.5 to 2.5 feet in width. Sections of the veins occur within porphyry dikes and sections within andesitic lavas or along dike contacts. The vein mineralogy was similar to that of the Cline mine. Quartz was the predominant vein filling with minor amounts of pyrite and gold.

On the Algold property 4 miles south-west of Goudreau, the main vein has been traced on surface for a distance of more than 2,000 feet. It strikes from west to north  $65^{\circ}$  west, dips from  $70^{\circ}$  to  $80^{\circ}$  south and varies in width from 6 inches to 11 feet. The vein filling consists mainly of quartz and carbonate in varying proportions with chlorite and tourmaline occurring sparingly. Metallic minerals form a very small part of the vein filling but a fairly large number of varieties have been recognized including pyrite, pyrrhotite, chalcopyrite, sphalerite, bornite and gold. In addition several of the cobalt and nickel arsenides and antimonides have been reported. A small amount of stoping was carried out, the recovery averaging 0.106 ounces of gold per ton of ore milled.

### DESCRIPTION OF MAGINO VEIN SYSTEMS

The several lengths of vein material and mineralized shearing developed and mined on the Magino property by previous operators have been arbitrarily classified as separate zones and are discussed individually below. Geologically however, they probably represent branches of 2 or perhaps 3 main structures and are certainly part of an overall fracture pattern associated with the granodiorite intrusive. The general strike of each of these vein zones is east with steep dips to the north.

Zone "A" or the Grey Vein is one of the strongest mineralized zones on the property. It has been developed over a strike length of 250 feet and to a vertical depth of 200 feet. Its continuity to the 400-foot level at least is indicated by the only diamond drill hole so far put down to that depth in this section of the mine. Although stope production records are not available, mention has been made by previous engineering consultants that a large part of the good ore mined at the property was from this zone and that a further substantial amount of ore is presently tied up in shaft and stope pillars between boxholes.

The "B" Zone is likewise one of the stronger zones on the property and appears to be a split off the footwall of the Grey Vein. On surface it extends from the shaft eastward to the greenstone contact, a distance of 300 feet. On the first level from the shaft eastward, 120 feet of ore is tied up by the shaft. Eastward from this point to the greenstone contact the zone has been stoped to 70 or 80 feet above the level. Towards the east end of this stoping length the backs have not been carried as high due to the fact the crusher house is situated directly overhead.

Only the eastern end of this zone has been developed for stoping on the second level. This shoot has a developed length of 100 feet, is open at both ends, and has a width of 6 feet. Uncut assays indicate an average grade of 0.580 ounces of gold over this width. Because of the strong character of the "B" zone on the second level, there is every reason to indicate it will extend to depth.

Previous operators referred to the "C" zone as that area south and west of the Grey Vein and its branches. From the records available, at least 4 stopes were mined in this area above the first level and in places have broken through to surface. Mention is made that 400 tons of stope muck from this zone on the first level ran 0.368 ounces of gold per ton. However, it is readily apparent from an examination of the geological plans that these stopes were mined well in excess of the vein limits and the grade suffered accordingly. The downward extension of this zone on the second level was at least partially developed and stoped but individual records are not available.

The "D" zone refers to that area lying north and west of the Grey Vein and includes the Glory Hole or open pit. This zone has been stoped on both the first and second levels but because of blocky ground conditions and consequent dilution from over-breaking, the grade is said to have been low.

The "E" zone comprises that part of the Magino property east of the diabase dyke crossing the western part of Claim 2049. The dyke itself is 55 feet wide, strikes north 20 west, and dips vertically to 85 west. It was intersected at the extreme east end of 38-2AE and 32-2AE drifts in the second level and is post-vein in age. No underground development was carried out east of this dyke.



The surface diamond drilling programs by O'Brien and by private interests explored the "E" zone to a shallow depth in 1942 and 1972 respectively and the results are discussed in the following section of this report.

GOLD PRODUCTION  
MAGINO PROPERTY

1934-1942

	<u>Tons Hoisted</u>	<u>Tons Discarded</u>	<u>Tons Milled</u>	<u>Ounces Gold</u>	<u>Recovered Grade</u>
1934	421	-	421	144	0.342
1935	205	-	205	86	0.417
1936	2,711	-	2,711	243	0.089
1937	62,813	5,438	44,869	1,945	0.043
1938	67,121	451	66,670	5,821	0.089
1939	1,768	17	1,751	228	0.175
1942	<u>Clean-Up</u>	<u>-</u>	<u>-</u>	<u>309</u>	<u>-</u>
	<u>135,039</u>	<u>5,906</u>	<u>116,627</u>	<u>8,776</u>	<u>0.075</u>

DISCUSSION OF PREVIOUS RESULTS

On the Magino property, previous development work and mining was concentrated on a granodiorite intrusive exposed for a length of 1,000 feet and a width of 500 feet. Work was confined to the southern contact of this intrusive stock with the volcanics, the contact striking north 60 east and dipping vertically to 70 north. Stopping was carried out only above the 200 foot level, the shaft bottom being at a vertical depth of 225 feet. There is no evidence to indicate that gold values should not persist below the 200 foot horizon and one drill hole is reported to have intersected gold values at a vertical depth of 400 feet. In addition to the 3 compartment shaft sunk for an inclined length of 413 feet (a vertical depth of 225 feet), the following development work was completed on the property prior to the end of 1940 when all operations ceased.

<u>Level</u>	<u>Drifts (feet)</u>	<u>Crosscuts (feet)</u>	<u>Raises (feet)</u>
Sublevel (100 ft. on incline)	80	-	-
1st level (176 ft. on incline)	3,613	945	179
2nd level (374 ft. on incline)	2,248	757	220
TOTAL	<u>5,941</u>	<u>1,702</u>	<u>399</u>

From the available records, the writer estimates a total of between 9,000 and 10,000 feet of diamond drilling (surface and underground) was completed on the Magino property by the previous owners in addition to the 4,816 feet carried out by O'Brien in 1942 and 2,003.5 feet by private interests in 1972.

From reports made available to the present writer by other geologists and engineering consultants particularly those who examined the property when it was in operation the following comments seem self-evident.

1. The present inclined shaft is poorly located with respect to the several vein systems as it ties up too much mineable material.
2. The lack of a waste pass system underground or waste handling facilities on surface, resulted in a substantial reduction in the grade.
3. Enough development work was not done to establish an ore reserve position sufficient to warrant the construction of a 500 ton per day mill.
4. The decision to supply the mill from an open pit proved ill-conceived and the attempt to hand cob the stope and development muck in order to improve the grade was only partially successful as indicated by the following mill production figures for 1937.

MILL PRODUCTION FIGURES

1937

<u>Month</u>	<u>Tons Milled</u>	<u>Tons per Day</u>	<u>Mill Heads</u>	<u>Comments</u>
April	4,178	148	0.024	Start-Up
May	5,687	180	0.030	
June	7,813	260	0.028	
July	4,997	160	0.070	Open Pit Abandoned
August	4,126	133	0.071	
September	4,054	135	0.100	
October	4,469	144	0.110	
November	3,348	112	0.128	





SUMMARY OF POST-PRODUCTION DIAMOND DRILLING

In 1942 the Magino property was optioned by M. J. O'Brien Limited who completed a total of 4,816 feet of diamond drilling in 13 holes all of which were drilled to test for gold values on strike of the underground workings east of the diabase dyke on the northern part of claim 2049. Plans on a scale of 1" to 20' and 1" to 50' showing the location of the drill holes and the values intersected have been examined. A plan showing the location of these drill holes with respect to the diabase dyke and the extreme east end of the second level is included with this report. The following table summarizes the gold values intersected in this drilling.

<u>Hole No.</u>	<u>Distance East Of Diabase Dyke</u>	<u>Vertical Depth</u>	<u>Core Length</u>	<u>Ounces Gold</u>
"A"	310'	472'	1.7'	0.31
		491	0.8	0.34
"B"	320	75	3.4	0.67
		175	0.5	3.47
"D"	175	40	12.0	0.24
		75	1.1	0.34
"F"	425	230	3.4	0.10
"J"	230	20	3.3	0.71
		44	1.3	0.11
"K"	120	65	5.0	0.10

In 1972, a privately financed program of surface diamond drilling on the Magino property totalling 2,003.5 feet in 6 holes was carried out. The logs and assay results of these holes are available, 4 of which were drilled to check the results of the O'Brien drilling discussed above. Of particular interest is the following intersection in hole AS-72-5.



<u>From</u>	<u>To</u>	<u>Core Length</u>	<u>Ounces Gold</u>	<u>Description</u>
94.5'	96.5'	2.0'	1.81	Heavily silicified with 1% pyrite.
96.5'	101.5'	5.0'	0.35	Quartz stringers in andesite.

This gives a weighted value of 0.767 ounces of gold over a core length of 7.0 feet and occurs at a vertical depth of 75 feet. After analyzing the results of the above two drilling programs both in plan and section, the writer considers the following intersections form a new gold-bearing zone.

<u>Hole No.</u>	<u>From</u>	<u>To</u>	<u>Core Length</u>	<u>Ounces Gold</u>
O'Brien "D"	51.0'	63.0'	12.0'	0.24
O'Brien "J"	38.0	41.3	3.3	0.71
AS-72-5	94.5	101.5	7.0	0.767
O'Brien "B"	99.0	102.4	3.4	0.67
O'Brien "F"	315.0	318.4	3.4	0.10

The above intersections give a weighted average of 0.454 ounces of gold over a core length of 5.8 feet for a strike length of 300 feet. The zone strikes N 60° E and from the data available occurs well within the andesites lying about 150 feet south of the assumed granodiorite contact. There is a possibility that holes AS-72-1 and AS-72-2 stopped short of intersecting the south-western projection of this zone along strike and that the downward extension of these values to hole AS-72-6 has been interrupted by a quartz porphyry dyke intersected in both AS-72-5 and AS-72-6. The average gold values indicated could be profitably mined with some additional drilling designed to delineate sufficient tonnage of similar grade to support a 100 ton per day operation.

SUMMARY OF POTENTIAL TONNAGE AND GRADE

Previous operators of the Magino property demonstrated the presence of several gold-bearing zones in an area 850 feet in an east-west direction by 500 feet north-south which were developed and partially mined to a vertical depth of 200 feet. In a report dated August 15, 1972 on the property, General Mining Consultants who had directed the last development work at the mine, stated that:

" . . . development during 1940 has opened up considerable ore and there is now approximately 40,000 tons in sight . . . While samples of much of this ore has given average values in excess of \$20.00 per ton, the average values of tonnage available are placed conservatively at \$10.00 per ton . . ."

With gold at \$35.00 per ounce, these values would be equivalent to 0.571 and 0.286 ounces of gold per ton respectively. In addition, reference is made in the same report to a total of 7,200 tons of broken material which is readily available.

After reviewing all the available data including the geological and assay plans of both the first and second levels, the present writer agrees with this tonnage estimate and recommends that access to it be through a new decline ramp collared well away from the mine area, the present inclined shaft to be used for ventilation purposes only. This would make available for mining the vein material currently tied up in the shaft pillar, adding to the known inventory. Tonnage estimates for the several areas on the property are as follows:

1. A potential 50,000 tons within the mine workings above the 200-foot level. The grade is not known but as pointed out elsewhere in this report, some of the previous stope muck ran between 0.342 and 0.368 ounces of gold per ton.

2. Downward continuity of the Grey Vein and "B" zone to the 400-foot level could add an additional 70,000 tons. The writer would expect the grade to be comparable with the grade on the upper levels.
3. Diamond drilling on the newer "E" zone has outlined a gold-bearing lens 300 feet long averaging 0.454 ounces of gold per ton over a core length of 5.8 feet. Continuity of a lens of this length and width to a vertical depth of 400 feet would add a further 70,000 tons to the mineral inventory. After 15% dilution at zero grade, this would indicate a stoping grade of 0.395 ounces per ton which in the writer's opinion could be profitably mined.
4. Archer (1975, p.4) states there are approximately 700 tons of tailings averaging 0.477 ounces of gold per ton behind the former mill which could be retreated in a cyanide mill.

Confirmation of the above would indicate a mineral inventory of almost 200,000 tons. That the mine was capable of producing a mineable grade of muck is evident from the following:







1. In 1934 the 25 ton mill treated a total of 421 tons from which 144 ounces were obtained indicating a recovered grade of 0.342 ounces of gold per ton.
2. In October 1937 sampling indicated 400 tons of stope muck from the "B" zone 120 feet south of the Grey Vein averaged 0.368 ounces of gold per ton.

3. From an examination of the tailings around the former mill, Archer (1975, p.4) suggested the grade of mill feed was over 0.4 ounces of gold per ton.



MAGINO GOLD PROPERTY  
GOUDREAU, ONTARIO  
SURFACE DIAMOND DRILLING  
"E" ZONE

1 inch = 50 feet

- A  ANDESITE.
- B  GRANODIORITE
- C  DIABASE
- D  QUARTZ PORPHYRY
-  2nd. LEVEL WORKINGS
-  Ozs. Au./feet
- "J" O'BRIEN DRILLING 1942



AS-72-5 McNELLEN DRILLING 1972

TO ACCOMPANY REPORT BY,  
Donald A. Bourne, P. Eng.

MARCH 1981.

RECOMMENDATIONS

The writer considers the Magino property to have considerable merit and that its full potential both laterally and to depth presents excellent opportunities for the establishment of additional tonnage. The main thrust of future work should be the development at lower horizons of the known veins and mineralized shear zones (which were only partially stoped on the first and second levels) and further definition drilling of other veins such as the promising "E" zone known to occur on the claim group and not previously mined. Basically the proposed work program will be to establish a mineral inventory of gold to a vertical depth of 400 feet sufficient to feed a 100 ton per day mill. The capital investment required to develop a gold mine on the property would be favourably influenced by several factors including good access, availability of hydroelectric power and no apparent factors that would complicate underground mining. The writer recommends the following program.

1. Re-establish the former survey grid on surface to accurately tie-in the proposed diamond drilling, with the shaft collar and mine workings, the O'Brien drilling in 1942 and the McNellen drilling in 1972.

Estimated Cost: \$ 2,000.

2. Diamond drill under the former mine area between sections 3000 E and 3800 E to intersect the down dip extension of the previously stoped zones at vertical depths of 300 feet and 400 feet respectively, 8,500 feet.

Estimated Cost: \$170,000.

3. Diamond drilling on the "E" zone east of the diabase dyke to test the down dip continuity of the one gold-bearing lens 300 feet in length averaging 0.454 ounces of gold over a core length of 5.8 feet. Holes to be drilled at 100-foot intervals between sections 3900 E and 4300 E to test the down dip extension of the zone at vertical depths of 125, 275, and 400 feet respectively, 6000 feet.

Estimated Cost: \$120,000.

4. Carry out the assessment work requirements for one year on unpatented claim 575265.

Estimated Cost: \$ 1,000.

Contingency: \$ 27,000.

TOTAL: \$320,000.



ONTARIO MINERAL EXPLORATION PROGRAM

The Ontario government has recently passed an Act to provide incentives for the exploration of mineral resources in Ontario. This incentive program (OMEP) is designed to encourage mineral exploration activities in the Province by:

- providing part of the risk capital to the prospector or the non-producing company; and
- encouraging individual investors and corporations not directly engaged in mining activities, to become involved in financing mineral exploration.

In effect, eligible exploration companies will receive a grant equal to 25% of the amounts spent on eligible exploration in Ontario. It is recommended that the Company apply for this assistance at its earliest convenience.

Respectfully submitted,

Donald A. Bourne, B.Sc., M.Sc., P.Eng.

Dated this        day of        1981, at SCARBOROUGH, Ontario.

BIBLIOGRAPHY

- Archer, T.E.  
1975 Report on the Possible Recovery of Gold From the Tailings at the Former Algoma Summit Mines, Goudreau, Ontario. Private Report.
- Bruce, E.L.  
1940 Geology of the Goudreau-Lochalsh Area, Ontario Department of Mines, Vol.49, pt.3, 50 p. (published 1942). Accompanied by Map 49, scale, 1 inch to  $\frac{1}{2}$  mile.
- Clarke, T.R.  
1973 Report on the Former Magino Gold Mines Property, Twp. 49, District of Algoma, Ontario. Private Report.
- 1973 Addendum Updating Financial Estimates for the Magino Mines Project.
- Ferguson, S.A.; Groen, H.A.; Haynes, R.  
1971 Gold Deposits of Ontario, Part 1; Districts of Algoma, Cochrane, Kenora, Rainy River and Thunder Bay; Ontario Department of Mines and Northern Affairs, Mineral Resources Circular No. 13, 315 p.
- General Mine Consultants  
1972 Review of the Mine and Property of the Magino Gold Mines Limited. Private Report.
- Gledhill, T.L.  
1927 Goudreau-Lochalsh Gold Area, Ontario Department of Mines, Vol.36, pt.2, pp.51-85, (published 1928). Accompanied by Map 36b, scale, 1 inch to 1 mile.
- Little, M.C.H.  
1937 Report on Algoma Summit Gold Mines Limited, Goudreau District, Province of Ontario. Private Report.

CERTIFICATE TO ACCOMPANY REPORT DATED MARCH 1981, ON THE  
MAGINO MINE PROPERTY, TOWNSHIP 49, RANGE 27, SAULT STE.  
MARIE MINING DIVISION, ONTARIO

---

I, Donald A. Bourne of SCARBOROUGH, Ontario certify:

1. That I am a Professional Engineer and Consulting Geologist and reside at 16 Oakworth Crescent in the Borough of Scarborough, in the Province of Ontario.
2. That I am a graduate of McMaster University and hold the degrees B.Sc., and M.Sc. in Honours Geology received in 1950 and 1951 respectively.
3. That I am a member of The Association of Professional Engineers of the Province of Ontario.
4. That I have practised my profession as a geologist since 1951.
5. That I have no interest directly or indirectly in the property nor do I expect to receive any.
6. That the accompanying report is based on data made available to the writer by the present property owners. No examination has been made of the property.
7. This certificate covers claim numbers:

Patented Claims

Unpatented Claim

2048  
2049  
2050  
2051  
2052  
2053  
2102

575265

all inclusive, being all the claims referred to in the accompanying report.

SCARBOROUGH, Ontario  
March, 1981

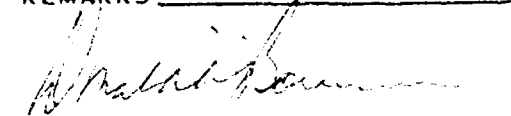
Donald A. Bourne, P.Eng. (Ont.)

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-1 LENGTH 653.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 168° DIP -50°  
 STARTED May 1, 1981 FINISHED May 6, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
300	-49°				
600	-48°				

HOLE NO. S-81-1 SHEET NO. 1  
 REMARKS General Exploration

  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO				
0.0	21.5	Overburden							Au	Ag
21.5	43.9	Granodiorite								
		21.5-26.0 As above with specks pyrite	8101		21.5	26.0	4.5		0.001	
		26.0-27.0 Strong vitreous quartz veining with streaks black material possibly tourmaline, weak pyrite.	8102		26.0	27.0	1.0		0.030	
		27.0-30.0 Coarse granodiorite, patches weak indefinite silicification with specks pyrite.	8103		27.0	30.0	3.0		NIL	
		30.0-33.0 As 27.0-30.0	8104		30.0	33.0	3.0		0.016	
		42.0-43.9 Limonite staining	8105		42.0	43.9	1.9		0.007	
43.9	117.5	Granodiorite								
		Coarse grained granodiorite, suggestion of flow structure or banding @ 60° to 70° to core, occasional milky white quartz stringer to 1/2 inch @ 90° to core, no mineralization.								

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-1 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON	
					FROM	TO	TOTAL					
		114.8-117.5 Weak quartz veining with fine disseminated pyrite	8106		114.8	117.5	2.5			Au 0.220 0.135	Ag 0.16 Check	Assay
117.5	123.0	Feldspar Porphyry Porphyritic phase of granodiorite intrusive or dyke. Numerous pale buff coloured sub-hedral (potash) feldspar crystals to 1/8 inch in fine grained dark coloured ground-mass. Suggestion of lineation of feldspar crystals @ 80° to core. No mineralization.										
123.0	487.5	Granodiorite Generally coarse to very coarse grained, grayish to grayish blue, hard, massive, featurless equigranular granitic texture, only occasional speck pyrite.										
		123.0-124.0 Sinuous streaky dark gray silicification with streaks pyrite. Possible contact @ 124.0 feet @ 80° to core.	4514		123.0	124.0	1.0			0.001		
		139.8-140.9 Considerable milky white quartz veining with weak pyrite.	8107		139.8	140.9	1.1			0.006		
		160.0-160.5 Strong milky white quartz and silicification @ 90° to core with few specks pyrite.	4515		160.0	160.5	0.5			0.034		

GRIDDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

HOLE NO. S-81-1 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		192.3-197.3 Rather weak diffuse silicification and quartz veining with weak pyrite.	B108		192.3	197.3	5.0			Au	Ag
		197.3-202.3 As 192.3-197.3	B109		197.3	202.3	5.0			TR	
		260.5-261.0 Minor silicification and weak pyrite.	4516		260.5	261.0	0.5			0.021	
		261.0-263.0 Strong gray and milky white quartz veining, streaks black material possibly tourmaline weak to medium pyrite.	B110		261.0	263.0	2.0			0.008	
		280.1-282.1 Minor gray to milky white quartz veining in coarse grained granodiorite with weak pyrite.	B111		280.1	282.1	2.0			0.120	TR
		329.8-330.5 Vague silicification with considerable black material possibly tourmaline. Weak pyrite.	B112		329.8	330.5	0.7			0.25	Check Assay
		377.0-378.0 Vague gray silicification with considerable black material possibly tourmaline and weak pyrite.	B113		377.0	378.0	1.0			0.006	
										TR.	

# DIAMOND DRILL RECORD

NAME OF PROPERTY MAGINO  
 HOLE NO. S-81-1 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON	
					FROM	TO					
487.5	653.0	Andesite							Au	Ag	
		Probably some granitization. Sharp contact @ 487.5 feet @ 30° to core. Blackish green, fine grained, hard, vague structure @ 45° to core, possible amygdules from 614.0 to 619.0, scattered quartz threads, occasional speck pyrite.									
		494.9-498.9 Zone of parallel quartz veinlets and silicification @ 30° to core with weak pyrite.	B114		494.9	498.9	4.0		0.024		
		510.8-512.3 Weak quartz veining with weak pyrite.	4517		510.8	512.3	1.5		0.025		
		512.3-515.6 Considerable quartz veining with medium pyrite.	B115		512.3	515.6	3.3		0.110	0.11	Assay
								0.08	Check		
		515.6-517.4 Irregular quartz veining with weak pyrite.	B116		515.6	517.4	1.8		2.15	1.10	Assay
								3.50	Check		
		517.4-520.0 Weak to medium irregular quartz-carbonate veining with weak pyrite.	4518		517.4	520.0	2.6		0.013		

ANGRIGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Mag110  
 HOLE NO. S-81-1 SHEET NO. 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON	
					FROM	TO					TOTAL
		539.0-539.5 Strong quartz veining. Weak pyrite.	B117		539.0	539.5	0.5			Au	Ag
		555.3-556.5 Irregular milky white quartz veining, weak pyrite.	B118		555.3	556.5	1.2			0.015	
		594.8-596.2 Weak irregular quartz veining with weak pyrite.	B119		594.8	596.2	1.4			0.039	
		596.2-653.0 No mineralization.								TR	
		End of hole 653.0 feet									



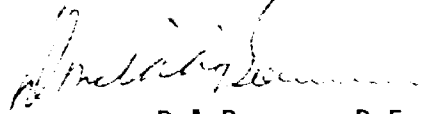
# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-2 LENGTH 500.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 168° DIP -50°  
 STARTED May 8, 1981 FINISHED May 12, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
250	-49				
500	-48				

HOLE NO. S-81-2 SHEET NO. 1

REMARKS General Exploration

  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON		
					FROM	TO	TOTAL						
0.0	10.0	Overburden											
10.0	160.4	Granodiorite											
		150.0-160.4 Pale creamy coloured bleached zone adjacent to contact.											
160.4	484.0	Diabase Dyke											
		Distinct contacts on both dry and wet surface. Both contacts sharp and frozen @ 30° to core, 4 inches brecciation in diabase along contact @ 160.4 and similar brecciation from 470.5 to 484.0 feet, no mineralization. Fine grained to medium grained, dark brown to dark greenish brown, massive and blocky, probably micaceous, very occasional carbonate thread, no mineralization.											

# DIAMOND DRILL RECORD

NAME OF PROPERTY HAGIRO

HOLE NO. S-81-2 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
484.0	500.0	Andesite  Probably some granitization. Fine grained, dark green, hard and massive, chloritized, occasional quartz and quartz-carbonate thread, no mineralization.  484.0-487.5 Bleached zone as 150.0-160.4 adjacent to contact with diabase dyke.  End of hole 500.0 feet.								Au	Ag

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-3 LENGTH 653.0 Feet  
 LOCATION See attached plan  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -50°  
 STARTED May 14, 1981 FINISHED May 18, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-3 SHEET NO. 1

REMARKS To test beneath mine workings.

LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO.	SULPHIDES	FOOTAGE FROM TO TOTAL	%	%	OZ/TON	OZ/TON
0.0	20.0	Overburden						Au	Ag
20.0	213.0	Granodiorite							
		93.1-93.6 Milky white quartz vein @ 60° to core, streaky bright green chlorite, specks pyrite.	4519		93.1 93.6 0.5			0.004	
		100.9-101.5 Quartz veining and silicification @ 45° to core, vuggy with limonite staining, specks pyrite.	4520		100.9 101.5 0.6			0.047	
		152.8-153.3 Milky white quartz veining @ 90° to core, weak pyrite.	4521		152.8 153.3 0.5			0.005	
		189.0-190.2 Weak silicification, quartz veining @ 90° to core, specks pyrite.	4522		189.0 190.2 1.2			0.005	
		190.2-191.2 Strong massive gray quartz veining probably @ 90° to core, light green chlorite, medium coarse pyrite.	4523		190.2 191.2 1.0			NIL	
		191.2-193.5 Few quartz threads	4524		191.2 193.5 2.3			NIL	



FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON
					FROM	TO				
256.4	653.0	Granodiorite							Au	Ag
		Coarse grained, light grey in colour, equigranular granitic texture as before, hard and massive, no mineralization.								
		332.5 - 334.0 Weak silicification with milky white quartz, few specks pyrite.	4530		332.5	334.0	1.5		0.006	
		370.1 - 371.4 Strong milky white quartz zone probably @ 60° to core. Weak pyrite.	4531		370.1	371.4	1.3		0.002	
		384.0 - 387.0 Diffuse weak silicification with irregular milky white quartz veining, minor carbonate, weak pyrite.	4532		384.0	387.0	3.0		0.006	
		387.0 - 390.0 As 384.0 - 387.0	4533		387.0	390.0	3.0		0.004	
		440.9 - 442.5 Bleached zone @ 30° to core with silicification and specks pyrite.	4534		440.9	442.5	1.6		0.043	
		442.5 - 464.0 Medium grained, dioritic, reasonable banding @ 40° to core, no mineralization.	4534		440.9	442.5	1.6		0.043	
		464.0 - 506.0 Coarser grained than preceding section, massive .								
		506.0 - 550.0 Coarse grained, faint banding from 40° to 60° to core, pink (potash) feldspar, very occasional quartz thread, no mineralization.								
		550.0 - 552.5 Lost Core								

# DIAMOND DRILL RECORD

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. S-81-3 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ. TON	OZ. TON
					FROM	TO				
		552.5 - 574.0 Generally coarse grained, massive, typical granodiorite intrusive, occasional quartz thread, no mineralization.							Au	Ag
		574.0 - 574.5 Strong gray quartz, medium pyrite.	4535		574.0	574.5	0.5		0.035	
		574.5 - 653.0 Typical coarse grained granodiorite, no mineralization.								
		End of Hole 653.0 feet.								

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-4 LENGTH 451.0 Feet  
 LOCATION See attached plan  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -50°  
 STARTED May 20, 1981 FINISHED May 23, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-4 SHEET NO. 1  
 REMARKS To test beneath mine workings.

LOGGED BY D.A. Bourne, P. Eng.

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	S.P.H. IDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO				
0.0	2.0	Casing							Au	Ag
2.0	369.5	Granodiorite								
		Coarse grained, medium gray in colour, hard, equigranular granitic texture, massive and featureless, occasional quartz thread, no mineralization								
		36.8 - 38.6 Strong grayish quartz @ 70° to core, streaky chlorite, medium pyrite.	4536		36.8	38.6	1.8		0.003	
		81.4 - 83.0 Weak streaky silicification, medium pyrite.	4539		81.4	83.0	1.6		0.006	
		83.0 - 84.0 Strong white to grayish quartz vein @ 70° to core, streaks chlorite, weak pyrite.	4537		83.0	84.0	1.0		0.015	
		84.0 - 85.6 Grayish silicification, medium pyrite	4538		84.0	85.6	1.6		0.30	
		107.0 - 108.0 Strong milky white quartz, patches chlorite, medium pyrite.	4540		107.0	108.0	1.0		0.006	
		108.0 - 179.0 Coarse grained massive granodiorite, no mineralization.								
		179.0 - 181.0 Few specks pyrite	4504		179.0	181.0	2.0		0.014	
		181.0 - 181.7 Minor silicification with weak pyrite	4505		181.0	181.7	0.7		0.045	
		181.7 - 182.7 Quartz vein or zone of very strong silicification, grayish and very hard, some seritization, rather weak pyrite	4506		181.7	182.7	1.0		0.039	

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-4 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		182.7 - 184.0 Granodiorite with few specks pyrite	4507		182.7	184.0	1.3			Au	Ag
		184.0 - 186.3 Quartz veining or strong silicification, weak sericite, generally weak pyrite, contact @ 186.3 feet @ 70° to core and sharp.	4508		184.0	186.3	2.3			0.032	
		186.3 - 187.3 Medium silicification with weak pyrite.	4509		186.3	187.3	1.0			0.015	
		187.3 - 189.5 Granodiorite with few quartz threads from 40° to 60° to core, few specks pyrite.	4510		187.3	189.5	2.2			0.035	
		189.5 - 190.4 Medium silicification, weak pyrite	4511		189.5	190.4	0.9			0.001	
		190.4 - 191.4 Strong silicification or quartz veining, weak to medium pyrite	4512		190.4	191.4	1.0			0.008	
		191.4 - 192.4 Unaltered granodiorite	4513		191.4	192.4	1.0			0.037	
		192.4 - 240.0 Coarse grained, massive, equigranular granodiorite, generally featureless, very occasional speck pyrite.								0.066	
		240.0 - 247.8 No core. Possibly drift on 200 foot or second level.									
		247.8 - 287.9 Medium grained to coarse grained granodiorite as before, occasional quartz-carbonate thread @ 80° to core, very occasional speck pyrite									
		287.9 - 288.8 Strong milky white quartz-carbonate vein @ 30° to core with weak pyrite	4541		287.9	288.8	0.9			0.007	
		288.8 - 306.8 Coarse grained granodiorite with very occasional speck pyrite.									

LANGRIDGES - TORONTO - 366-1168



# DIAMOND DRILL RECORD

NAME OF PROPERTY Mad110

HOLE NO. S-81-4

SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
										Au	Ag
		306.8 - 307.6									
		307.6 - 369.5									
369.5	451.0	Andesite	4542		306.8	307.6	0.8			0.005	
		End of Hole 451.0 feet.									

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-5 LENGTH 554.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -63°  
 STARTED May 24, 1981 FINISHED May 30, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

MOLE NO. S-81-5 SHEET NO. 1  
 REMARKS To test beneath mine workings  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON			
					FROM	TO					TOTAL		
0.0	5.0	Overburden											
5.0	389.1	Granodiorite											
		197.1 - 199.1 Typical coarse grained granodiorite with medium disseminated pyrite.	4551		197.1	199.1	2.0					TR	
		384.0 - 386.8 Bleached and brecciated zone with quartz stringers	4548		384.0	386.8	2.8					TR	
		386.8 - 389.1 As above	4549		386.8	389.1	2.3					TR	
389.1	392.6	High Grade Quartz Vein	4545		389.1	391.3	2.2					0.072	
		Well defined and distinct quartz vein with V.G. @ 50° to core in coarse grained granodiorite. Well fractured greyish quartz with generally weak pyrite. Strong V.G. over 9 inch section from 391.3 - 392.1 feet.	-		391.3	392.1	0.8					7.78	
			4546		392.1	392.6	0.5					0.028	
392.6	520.7	Granodiorite	4547		392.6	394.0	1.4					0.01	
		Continuing coarse grained, massive granodiorite, hard and equigranular, occasional quartz stringers, scattered specks pyrite.											
		515.8 - 517.1 Considerable grey quartz with streaky green chlorite, patches black tourmaline, disseminated and streaky pyrite-pyrrhotite, no obvious contacts.	4552		515.8	517.1	1.3					TR	

ANGRIDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY 1091110

HOLE NO. S-81-5 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON	
					FROM	TO					TOTAL
520.7	554.0	Andesite	4550		529.2	531.3	2.1			Au	Ag
		<p>529.2 - 531.3 Considerable parallel quartz veining @ 50° to core with generally weak pyrite-pyrrhotite</p> <p>Contact @ 520.7 feet @ 60° to core. Possibly some granitization to 522.6 feet. Dark green, massive, probably chloritized, few quartz threads, specks pyrite.</p> <p>End of Hole 554.0 feet</p>								TR	

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-6 LENGTH 534.0 Feet  
 LOCATION See attached plan  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -63°  
 STARTED June 21, 1981 FINISHED June 27, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-6 SHEET NO. 1  
 REMARKS To test beneath mine workings.  
 LOGGED BY D.A. Bourne, P. Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO				
0.0	2.0	Casing								
2.0	102.0	Granodiorite								
		Generally medium grained with sections typical coarse grained, equigranular granodiorite, hard, generally massive with occasional suggestion of structure @ 45° to core. Occasional milky white quartz stringer to ½ inch, no mineralization.								
		29.0 - 34.0 Weak to medium cubic pyrite	4553		29.0	34.0	5.0			0.01
		34.0 - 35.0 Weak silicification	4554		34.0	35.0	1.0			NIL
		54.0 - 55.0 Considerable milky white quartz veining with patches carbonate, streaks black tourmaline, specks pyrite, structure @ 90° to core.	4555		54.0	55.0	1.0			0.004
		85.0 - 85.5 Strong well-defined grey quartz veining @ 45° to core. Patches carbonate, weak pyrite.	4556		85.0	85.5	0.5			0.04
102.0	194.0	Granodiorite								
		Typical coarse grained granodiorite intrusive, Greyish blue in colour, equigranular, hard and massive, scattered specks pyrite.								
		181.6 - 182.3 Quartz-carbonate cemented breccia with black tourmaline and coarse cubic pyrite.	4557		181.6	182.3	0.7			0.003
		190.9 - 191.7 Strong grey to milky white quartz veining, streaky pale green chlorite, weak pyrite	4558		190.9	191.7	0.8			0.005

LANGRIDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Mag 110

HOLE NO. S-81-6 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS								
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON			
					FROM	TO	TOTAL							
194.0	355.0	Granodiorite												
		Generally fine to medium grained with patches typical coarse grained intrusive, hard and massive, quartz threads and veinlets, specks pyrite.												
		209.0 - 210.8 Considerable light buff coloured carbonate with quartz, streaky green chlorite, medium pyrite-pyrrhotite.	4559		209.0	210.8	1.8						0.006	
		241.8 - 243.0 Vague grey silicification, streaks black tourmaline, weak pyrite.	4560		241.8	243.0	1.2						0.004	
		310.9 - 312.8 Grey quartz veining @ 50° to core, weak pyrite	4561		310.9	312.8	1.9						0.002	
		319.0 - 320.6 Grey quartz veining with patches carbonate, structure between 40° and 50° to core, streaks black tourmaline, streaky green chlorite, medium cubic pyrite.	4562		319.0	320.6	1.6						0.008	
		320.6 - 324.7 Occasional glassy quartz veinlet with weak pyrite.	4563		320.6	324.7	4.1						0.007	
		324.7 - 326.4 Strong grey quartz with patches carbonate and considerable black tourmaline, weak pyrite-pyrrhotite, structure @ 30° to core.	4564		324.7	326.4	1.7						0.56	
		326.4 - 329.7 Few quartz threads, specks pyrite	4565		326.4	329.7	3.3						0.002	
		337.7 - 338.5 Strong well-fractured grey quartz with patches carbonate @ 30° to core, streaky green chlorite, medium pyrite-pyrrhotite	4566		337.7	338.5	0.8						0.003	
		348.5 - 350.3 Diffuse grey silicification, streaky black tourmaline, weak pyrite-pyrrhotite, structure @ 30° to core.	4567		348.5	350.3	1.8						0.027	

ANGRIGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-6 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
355.0	503.0	Granodiorite								Au	Ag
		Typical coarse grained, massive and equigranular granodiorite, specks pyrite.									
		391.5 - 392.9 Possible bleached alteration zone with patches quartz-carbonate and green chlorite, streaks black tourmaline, medium pyrite.	4568		391.5	392.9	1.4			0.021	
		464.0 - 464.9 Milky white quartz with black tourmaline @ 40° to core, occasional speck pale pyrite.	4569		464.0	464.9	0.9			TR	
503.0	504.0	Dioritic Dyke (?)									
		Sharp contact @ 503.0 @ 45° to core. Possibly fine grained phase of the granodiorite intrusive, flow (?) banding @ 65° to core, fine to medium grained, occasional quartz thread to 1/2 inch, no mineralization.									
504.0	520.8	Iron Formation									
		Generally well marked horizon. Generally black in colour, well banded @ 75° to core with some contorting, patches irregular quartz, medium cubic pyrite, weak pyrrhotite.									
		504.0 - 508.0 As above, fairly typical iron formation.	4570		504.0	508.0	4.0			0.002	
		508.0 - 511.0 More gritty section and less obvious iron formation	4571		508.0	511.0	3.0			TR	
		511.0 - 514.0 Fairly typical iron formation. Generally weak pyrite-pyrrhotite	4572		511.0	514.0	3.0			0.004	
		514.0 - 516.7 As above	4573		514.0	516.7	2.7			0.016	
		516.7 - 520.8 As above	4574		516.7	520.8	4.1			0.007	

# DIAMOND DRILL RECORD

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. S-81-6 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON
					FROM	TO				
520.8	523.9	Andesite							Au	Ag
			4575		520.8	523.9	3.1		TR	
523.9	524.5	Aplite Dyke								
524.5	534.0	Andesite								
		Dark green, fine grained, massive, chloritized, occasional quartz thread, no mineralization.								
		End of Hole 534.0								

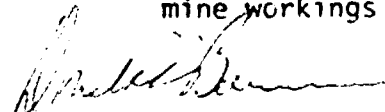
# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-7 LENGTH 586.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -63°  
 STARTED June 28, 1981 FINISHED June 31, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-7 SHEET NO. 1

REMARKS To test beneath mine workings

  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO.	FOOTAGE		%	%	OZ/TON	OZ/TON
				FROM	TO				
0.0	20.0	Overburden						Au	Ag
20.0	375.0	Granodiorite							
		Hole collared in typical coarse grained granodiorite but by 24.0 feet is fine to medium grained, hard, grey to light bluish grey in colour, considerable banding probably averaging 70° to core, occasional patch coarse grained material, few quartz threads, no mineralization.							
		154.0 - 155.0 Considerable grey quartz structure @ 70° to core, wavy streaks black tourmaline forming a pseudo ladder structure, weak pyrite.	4576	154.0	155.0	1.0		0.005	
		155.0 - 183.0 Generally coarser grained							
		183.0 - 185.4 Medium silicification and quartz veining @ 30° to core, medium pyrite-pyrrhotite	4577	183.0	185.4	2.4		0.32	
		227.0 - 228.5 Poorly defined greyish silicification with patches bluish grey quartz, medium pyrite.	4578	227.0	228.5	1.5		0.33	
		228.5 - 245.7 Continuing fine to medium grained granodiorite.							
		245.7 - 247.9 Poorly defined greyish silicification with patches bluish grey quartz, medium pyrite	4579	245.7	247.9	2.2		0.079	
		247.9 - 306.2 Patches coarser grained typical granodiorite							

LANDMORPHS - 1981/10 - 108 1168



# DIAMOND DRILL RECORD

NAME OF PROPERTY FRUJ1110

HOLE NO. S-81-7 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		306.2 - 308.0 Considerable white quartz with patches carbonate, sericitic, weak pyrite.	4580		306.2	308.0	1.8			Au	Ag
		321.4 - 325.0 Zone of weak silicification @ 30° to core, streaks black tourmaline, specks pyrite.	4581		321.4	325.0	3.6			0.023	
		325.0 - 328.5 Weak silicification, specks pyrite.	4582		325.0	328.5	3.5			0.004	
		328.5 - 329.8 Zone of strong silicification with strong bluish grey quartz @ 40° to core, patches carbonate, thin crenulated laminae black tourmaline, minor micro-faulting, weak pyrite.	4583		328.5	329.8	1.3			0.078	
		329.8 - 375.0 Continuing fine to medium grained intrusive.									
375.0	552.7	Granodiorite Much coarse grained, massive, typical granodiorite, hard, featureless, specks pyrite.									
		423.7 - 425.0 Vague zone of bluish grey silicification with weak pyrite.	4584		423.7	425.0	1.3			0.027	
		425.0 - 552.7 Continuing coarse grained typical granodiorite intrusive.									
552.7	555.0	Andesite (?) Sharp contact @ 552.7 feet @ 60° to core. Somewhat similar to iron formation with strong somewhat contorted banding @ 60° to core, possibly feldspathized due to overall slight orange tinge, no mineralization.									
555.0	568.0	Andesite (?) Probably granitized andesite. Fine to medium grained, poorly defined banding @ 60° to core, dark grey to dark green, occasional quartz thread, no mineralization. Gradational contact @ 568.0 feet over 1 foot.									

LANGRIDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. S-81-7

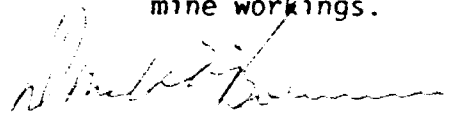
SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
568.0	586.0	Andesite  Fine grained, dark green, massive, occasional quartz veinlets to 1 inch @ 30° to core, specks disseminated cubic pyrite, specks streaks pyrrhotite.  End of hole 586.0 feet.								Au	Ag

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-8 LENGTH 659.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -63°  
 STARTED July 4, 1981 FINISHED July 9, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-8 SHEET NO. 1  
 REMARKS To test beneath mine workings.  
  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO				
0.0	3.0	Overburden							Au	Ag
3.0	641.0	Granodiorite								
		60.5 - 61.0 Strong milky white quartz with patches cream coloured carbonate, patches black tourmaline occasional speck pyrite.	7275		60.5	61.0	0.5		0.003	
		61.0 - 63.3 Massive granodiorite with few milky white quartz veinlets. occasional speck pyrite	7276		61.0	63.3	2.3		0.002	
		63.3 - 66.0 Strong milky white quartz and carbonate zone, streaks patches black tourmaline, medium disseminated pyrite.	7277		63.3	66.0	2.7		0.004	
		66.0 - 68.7 Generally massive granodiorite with few irregular threads milky white quartz, specks pyrite	7278		66.0	68.7	2.7		0.06	
		68.7 - 155.3 Continuing coarse grained massive granodiorite, patches showing "flow" lineation @ 40° to core.								
		155.3 - 156.1 Considerable milky white quartz veining with patches carbonate @ 40° to core, specks pyrite	7279		155.3	156.1	0.8		0.08	
		156.1 - 157.6 Bleached zone, few specks pyrite	7280		156.1	157.6	1.5		0.007	

ANGRIDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Mag 110  
 HOLE NO. S-81-8 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		157.6 - 158.5 Considerable streaky gray quartz with sericite (?) @ 90° to core, medium disseminated pyrite.	7281		157.6	158.5	0.9			Au	Ag
		158.5 - 253.0 Continuing medium to coarse grained granodiorite.								0.008	
		253.0 - 255.3 Strong sericitic lineation @ 40° to core with parallel quartz veinlets to 1/2 inch, specks pyrite.	7282		253.0	255.3	2.3			0.02	
		255.3 - 256.2 Strong massive grey quartz and silicification, disseminated pyrite	7283		255.3	256.2	0.9			0.03	
		256.2 - 257.2 Occasional milky white quartz threads, specks pyrite.	7284		256.2	257.2	1.0			0.04	
		257.2 - 275.0 Continuing medium grained granodiorite, no mineralization.									
		275.0 - 338.0 Typical coarse grained, massive granodiorite, few milky white quartz veinlets, no mineralization.									
		338.0 - 340.0 Few specks pyrite.	4585		338.0	340.0	2.0			0.01	
		340.0 - 343.5 String siliceous zone @ 45° to core, patches carbonate, few streaks black tourmaline, weak pyrite-pyrrhotite.	4586		340.0	343.5	3.5			0.01	
		343.5 - 345.0 Few specks pyrite.	4587		343.5	345.0	1.5			0.02	
		345.0 - 440.2 Continuing coarse grained, massive granodiorite.									

# DIAMOND DRILL RECORD

NAME OF PROPERTY Ray Hill

HOLE NO. S-81-8 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON	
					FROM	TO					TOTAL
		440.2 - 445.2 Strong feldspathized-silicified zone with well-defined contacts @ 30° to core, massive and hard, occasional speck pyrite, dyke?	7285		440.2	445.2	5.0			Au	Ag
		445.2 - 473.5 Continuing coarse grained granodiorite									
		473.5 - 483.5 Well-defined zone @ 60° to core, fine grained, massive possibly feldspathized due to overall orange to brown colour, few quartz threads, few specks pyrite. Similar to 440.2 feet to 445.2 feet and may be a dyke.	7286		473.5	478.5	5.0			0.002	
			7287		478.5	483.5	5.0			0.01	
		483.5 - 498.5 Medium grained granodiorite, no mineralization									
		498.5 - 500.0 Strong quartz-carbonate zone with patches black tourmaline, weak pyrite, contact @ 498.5 feet @ 20° to core, contact @ 500.0 feet @ 40° to core.	7288		498.5	500.0	1.5			0.02	
		500.0 - 555.9 Continuing medium to coarse grained granodiorite									
		555.9 - 557.7 Poorly defined brecciated zone, minor quartz, specks pyrite	7289		555.9	557.7	1.8			0.005	
		557.7 - 574.4 Coarse grained granodiorite									
		574.4 - 575.3 Strong milky quartz @ 30° to core, specks pyrite	7290		574.4	575.3	0.9			0.007	
		575.3 - 576.7 Few quartz threads to ½ inch, specks and streaks pyrite	7291		575.3	576.7	1.4			0.006	

# DIAMOND DRILL RECORD

NAME OF PROPERTY LAUREL  
 HOLE NO. S-81-8 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		576.7 - 577.5 Strong milky white quartz with patches and streaks black tourmaline, specks pyrite	7292		576.7	577.5	0.8			A	Ag
		577.5 - 641.0 Continuing coarse grained granodiorite, few quartz stringers to 1/2 inch, occasional speck pyrite								0.002	
641.0	659.0	Andesite Contact @ 641.0 feet probably @ 60° to core. Fine grained, dark green, massive, occasional quartz thread to 1/2 inch from 50° to 70° to core, occasional speck pyrite. End of Hole 659.0 feet.									

LANGRIDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-9 LENGTH 504.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 196° DIP -57°  
 STARTED July 26, 1981 FINISHED July 31, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-9 SHEET NO. 1  
 REMARKS To test beneath mine workings  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	FOOTAGE		%	%	OZ/TON	OZ/TON	
				FROM	TO					
0.0	3.0	Overburden						Au	Ag	
3.0	67.0	Granodiorite								
		Medium grained to coarse grained, generally massive with weak lineation @ 60° to core, dark grey few threads quartz, occasional speck pyrite								
		37.0 - 41.0 Fairly distinct zone of brecciation, irregular quartz and bluish silicification, medium pyrite.	7201	37.0	41.0	4.0		0.02		
		41.0 - 42.7 Stronger brecciation, considerable greenish to olive coloured waxy material, considerable very fine grained black material, specks pyrite.	7202	41.0	42.7	1.7		0.004		
		42.7 - 44.0 As 41.0 - 42.7 Specks pyrite.	7203	42.7	44.0	1.3		0.002		
		60.0 - 67.0 Considerable fracturing and brecciation with bleaching, granodiorite background, network of fine pale olive coloured streaks, no mineralization.								

# DIAMOND DRILL RECORD

NAME OF PROPERTY \_\_\_\_\_  
 HOLE NO. S-81-9 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SWL Pcs 10ES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
67.0	226.5	Diabase Dyke								Au	Ag
		Contact @ 67.0 feet sharp @ 20° to core, typical, fine to medium grained, dark brownish black in colour, massive. Bleached zone from 225.0 to 226.5 and contact indistinct.									
226.5	504.0	Granodiorite									
		Typical, coarse grained, massive, equigranular, overall dark grey in colour, threads quartz to ½ inch, occasional speck pyrite.									
		226.5 - 228.0 Weak waxy alteration, few specks pyrite	7204		226.5	228.0	1.5			0.002	
		228.0 - 229.0 Considerable waxy alteration with brecciation, specks pyrite	7205		228.0	229.0	1.0			0.002	
		229.0 - 230.1 Considerable irregular white to grey quartz patches and veining, patches carbonate, specks pyrite.	7206		229.0	230.1	1.1			0.002	
		274.0 - 275.0 Bleached zone, very occasional speck pyrite	7207		274.0	275.0	1.0			0.002	
		307.0 - 308.0 Considerable grey quartz veining with carbonate @ 20° to core, very weak pyrite	7208		307.0	308.0	1.0			0.002	
		308.0 - 322.0 Continuing granodiorite but much finer grained, massive.									
		322.0 - 324.0 Few milky white quartz veinlets to ½ inch with streaks black tourmaline along edges in massive granodiorite, medium fine disseminated and coarse cubic pyrite.	4589		322.0	324.0	2.0			0.022	

LANGRISH - TORONTO - 366-1168



# DIAMOND DRILL RECORD

NAME OF PROPERTY \_\_\_\_\_  
 HOLE NO. S-81-9 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON		
					FROM	TO					TOTAL	
		324.0 - 327.0 Strong well fractured grey quartz vein structure, streaks black tourmaline and green chlorite, fine disseminated and coarse cubic pyrite, one 1/2 inch streak fine V.G.	4588		324.0	327.0	3.0			Au	Ag	
		327.0 - 328.5 Massive granodiorite with specks pyrite.	4590		327.0	328.5	1.5			0.19		
		328.5 - 352.0 Continuing medium grained granodiorite.										
		352.0 - 354.0 Grey quartz veining in granodiorite irregular patches black tourmaline, specks pyrite.	4593		352.0	354.0	2.0			0.016		
		354.0 - 356.0 Strong glassy quartz with prominent bright green chlorite, weak pyrite.	4591		354.0	356.0	2.0			0.11		
		356.0 - 358.0 Gray quartz veining in granodiorite with streaks black tourmaline, streaks pale green chlorite, weak pyrite.	4592		356.0	358.0	2.0			0.052		
		358.0 - 361.0 Patches greyish quartz with white to milky quartz veining @ 45° to core, minor carbonate, streaks black tourmaline, patches fine pyrite.	7209		358.0	361.0	3.0			0.006		
		361.0 - 400.5 Continuing medium to fine grained granodiorite.										
		400.5 - 402.0 Milky quartz veining with greyish silicification @ 45° to core, medium pyrite.	7210		400.5	402.0	1.5			0.06		
		402.0 - 404.0 Medium greyish silicification, weak pyrite.	7211		402.0	404.0	2.0			0.13		
										0.105	Check	Assay
										0.06		

RIDGES -- TORONTO -- 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-9 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		404.0 - 406.2 Irregular grey quartz veining with carbonate, weak pyrite.	7212		404.0	406.2	2.2			Au	Ag
		406.2 - 414.2 Continuing fine to medium grained granodiorite.								0.04	
		414.2 - 416.0 Strong structure @ 45° to core, grey to milky white quartz, seams black tourmaline, medium pyrite.	7213		414.2	416.0	1.8			0.06	
		416.0 - 450.0 Very coarse grained granodiorite intrusive, massive and equigranular.									
		450.0 - 452.5 Structure @ 20° to core outlined by streaks black tourmaline, grey quartz lenses with possibly sericite or chlorite, medium pyrite.	7214		450.0	452.5	2.5			0.04	
		452.5 - 489.5 Continuing coarse grained granodiorite.									
		489.5 - 491.0 Bleached zone with patches grey glassy quartz and prominent black tourmaline patches carbonate, occasional speck pyrite.	7215		489.5	491.0	1.5			0.01	
		491.0 - 504.0 Continuing coarse grained granodiorite.									
		End of hole 504.0 feet.									

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-10 LENGTH 152.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -60°  
 STARTED August 2, 1981 FINISHED August 4, 1981

FOOTAGE	DIP	AZMUTH	FOOTAGE	DIP	AZMUTH

HOLE NO. S-81-10 SHEET NO. 1

REMARKS "E" zone

LOGGED W. Bourne, P. Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	oz/ton	oz/ton	
					FROM	TO	TOTAL				
0.0	10.0	Overburden								Au	Ag
10.0	93.1	Granodiorite									
		15.5 - 17.0 Considerable milky white quartz few streaks black tourmaline, occasional speck pyrite.	7216		15.5	17.0	1.5			0.002	
		17.0 - 19.0 Less quartz veining, considerable limonite staining.	7217		17.0	19.0	2.0			0.01	
		Continuing coarse grained granodiorite. 3 inch milky white quartz veinlet @ 43.5 feet.									
		58.9 - 60.5 Few parallel milky white to grey quartz stringers each to 3 inches, patches fine grained black material possibly tourmaline, minor carbonate, specks pyrite.	7218		58.9	60.5	1.6			0.002	
		66.0 - 68.0 Weak quartz veining with weak silicification, minor carbonate, very weak pyrite.	7219		66.0	68.0	2.0			0.002	
		72.9 - 74.0 Minor quartz veining, occasional speck pyrite.	7220		72.9	74.0	1.1			0.11	
		87.1 - 88.1 Streaky quartz veining, occasional speck pyrite.	7221		87.1	88.1	1.0			0.01	

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magno  
 HOLE NO. S-81-10 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		88.1 - 90.1	7222		88.1	90.1	2.0			Au	Ag
		90.1 - 93.1	7223		90.1	93.1	3.0			0.01	0.009
93.1	152.0	Andesite Dark green to blackish green, fine grained, apparent structure about 30° to core, quartz threads, occasional cubic pyrite, sharp contact @ 93.1 feet @ 30° to core.									
		93.1 - 97.0	7224		93.1	97.0	3.9			0.03	
		97.0 - 117.7									
		117.7 - 118.5	7225		117.7	118.5	0.8			0.002	
		118.5 - 134.7									
		134.7 - 136.5	7226		134.7	136.5	1.8			0.10	0.08
		136.5 - 140.0	7227		136.5	140.0	3.5			0.10	Check Assay
		140.0 - 142.6	7228		140.0	142.6	2.6			0.05	

# DIAMOND DRILL RECORD

NAME OF PROPERTY Hay Hill  
 HOLE NO. S-81-10 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
				FROM	TO	TOTAL					
		142.6 - 145.0 Streaky quartz threads along structure @ 30° to core, cubic pyrite	7229		142.6	145.0	2.4			Au	Ag
		145.0 - 152.0 Continuing fine grained dark greenish black andesite, scattered cubic pyrite								0.008	
		End of Hole 152.0 feet									

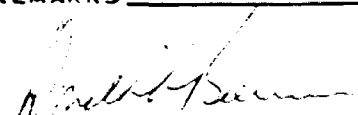
# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-11 LENGTH 301.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -60°  
 STARTED August 5, 1981 FINISHED August 7, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-11 SHEET NO. 1

REMARKS "E" zone

  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL				
0.0	13.0	Overburden									
13.0	259.1	Granodiorite								Au	Ag
		Fine to medium grained, massive and equigranular, greyish blue in colour, quartz threads, no mineralization									
		30.1 - 30.8 Milky white quartz veining @ 90° to core, patches carbonate, very occasional speck pyrite.	7230		30.1	30.8	0.7			0.006	
		77.8 - 78.5 Heavy black tourmaline with milky quartz, weak pyrite	7231		77.8	78.5	0.7			0.03	
		107.4 - 108.1 Strong milky quartz veining, patches carbonate, very occasional speck pyrite.	7232		107.4	108.1	0.7			0.006	
		146.7 - 147.3 Strong milky white quartz, occasional speck pyrite	7233		146.7	147.3	0.6			0.004	
		147.3 - 259.1 Becomes much coarser grained									
259.1	268.5	Andesite									
		Fine grained, dark greenish black in colour, massive, few quartz threads, medium scattered coarse cubic pyrite									
		259.1 - 262.0 As above	7234		259.1	262.0	2.9			0.006	
		262.0 - 267.0 As above	7235		262.0	267.0	5.0			0.004	
		267.0 - 268.5 As above	7236		267.0	268.5	1.5			0.01	

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino

HOLE NO. S-81-11 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
268.5	283.1	Granodiorite								Au	Ag
		As in upper part of hole. Coarse grained, massive and equigranular, medium to dark bluish grey in colour, few quartz threads to ½ inch, occasional speck pyrite.									
283.1	301.0	Andesite									
		As before. Fine grained, dark greenish black, banding @ 45° to core outlined by quartz threads and cubes pyrite. Contact @ 283.1 feet probably @ 30° to core.									
		283.1 - 288.1 As above. Irregular glassy quartz veinlets	7237		283.1	288.1	5.0			0.01	
		288.1 - 290.3 As above	7238		288.1	290.3	2.2			0.01	
		290.3 - 291.0 Medium bluish grey silicification, specks pyrite	7239		290.3	291.0	0.7			2.30 2.38	Check Assay
		291.0 - 291.9 Dark greenish black andesite with occasional quartz thread and scattered cubic pyrite	7240		291.0	291.9	0.9			0.03	
		291.9 - 292.6 Very strong 8 inches grey to bluish grey quartz, medium pyrite-pyrrhotite, considerable V.G.	7241		291.9	292.6	0.7			1.20 8.51	Check Assay
		292.6 - 296.6 Numerous quartz threads to ½ inch, cubic pyrite to ½ inch	7242		292.6	296.6	4.0			0.03	
		296.6 - 301.0 Numerous quartz threads to ½ inch, scattered cubic pyrite	7243		296.6	301.0	4.4			0.02	
		End of hole 301.0 feet									

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-12 LENGTH 152.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -60°  
 STARTED August 8, 1981 FINISHED August 10, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-12 SHEET NO. 1

REMARKS "E" zone

LOGGED BY D.A. Bourne, P. Eng.

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0.0	15.5	Overburden										
15.5	28.7	Granodiorite										
		15.5 - 20.5 As above	7244		15.5	20.5	5.0				0.008	
		20.5 - 25.5 As above	7245		20.5	25.5	5.0				0.01	
		25.5 - 28.7 As above . Stringer milky white quartz and creamy carbonate. Specks pyrite	7246		25.5	28.7	3.2				0.006	
28.7	33.0	Andesite										
		Fine grained, dark green to greenish black, massive, few specks cubic pyrite. Both contacts sharp @ 70° to core.	7247		28.7	33.0	4.3				0.002	
33.0	34.2	Granodiorite										
		Narrow dyke of typical granodiorite, sharp contacts @ 50° to core.										
34.2	152.0	Andesite										
		Fine grained, dark green to greenish black, general structure about 30° - 40° to core, few quartz threads, scattered cubic pyrite.										
		76.8 - 77.4 Well defined quartz vein @ 60° to core with associated silicification @ 60° to core, streaks black material probably tourmaline, scattered pyrite	7248		76.8	77.4	0.6				0.002	



# DIAMOND DRILL RECORD

NAME OF PROPERTY \_\_\_\_\_ FIGY 1110  
 HOLE NO. S-81-12 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ TON	OZ TON	
					FROM	TO					
		77.4 - 122.0 Continuing fine grained, dark green, scattered irregular quartz threads, scattered cubic pyrite							Au	Ag	
		122.0 - 123.6 Few irregular quartz threads outlining flow structure @ 60° to core, scattered cubic pyrite	7249		122.0	123.6	1.6		0.01		
		123.6 - 127.2 Considerably more irregular quartz veining with patches carbonate, medium scattered cubic pyrite to 3/8 inch, minor pyrrhotite	7250		123.6	127.2	3.6		0.36		
		127.2 - 130.2 Irregular quartz veining, weak scattered pyrite	7251		127.2	130.2	3.0		0.27	Check	Assay
		130.2 - 140.0 Continuing fine grained dark green, massive, scattered cubic pyrite							0.01		
		140.0 - 141.0 Medium irregular quartz veining, scattered cubic pyrite	7252		140.0	141.0	1.0		0.002		
		141.0 - 145.0 Few quartz threads, specks pyrite	7253		141.0	145.0	4.0		0.002		
		145.0 - 148.0 Considerable quartz threads and veinlets @ 60° to core, weak pyrite	7254		145.0	148.0	3.0		0.04		
		148.0 - 152.0 Quartz threads from 30° to 60° to core, weak pyrite	7255		148.0	152.0	4.0		0.02		
		End of hole 152.0 feet									

# DIAMOND DRILL RECORD

NAME OF PROPERTY Maqino  
 HOLE NO. S-81-13 LENGTH 313.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -60°  
 STARTED August 11, 1981 FINISHED August 12, 1981

FOOTAGE	DIP	AZMUTH	FOOTAGE	DIP	AZMUTH

HOLE NO. S-81-13 SHEET NO. 1

REMARKS "E" zone

LOGGED BY D.A. Bourne, P. Eng.

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO				
0.0	13.0	Overburden							Au	Ag
13.0	170.5	Granodiorite Typical coarse grained, massive, equigranular, light grey in colour, few quartz threads, no mineralization.  22.0 - 24.5 Several milky white quartz veinlets to 3 inches @ 90° to core with carbonate, very occasional speck pyrite  55.0 - 55.9 Fairly well defined milky white and gray quartz veining, disseminated pyrite  71.0 - 72.0 Minor irregular quartz veinlets, occasional speck pyrite  72.0 - 74.0 Very strong milky white quartz vein with prominent patches and streaks black tourmaline, scattered patches pyrite  74.0 - 170.5 Continuing coarse grained, massive granodiorite, occasional quartz veinlets to 1 inch, occasional speck pyrite	7256		22.0	24.5	2.5		0.006	
			7257		55.0	55.9	0.9		0.02	
			7258		71.0	72.0	1.0		0.006	
			7259		72.0	74.0	2.0		0.09	
170.5	175.5	Andesite Fine grained, dark green massive, irregular quartz threads, prominent scattered cubic pyrite to 1/4 inch. Sharp contact @ 175.5 feet @ 45° to core.	7260		170.5	175.5	5.0		0.03	
175.5	179.5	Granodiorite Similar to main intrusive body, coarse grained, contact @ 179.5 feet @ 30° to core.								

1000 - 10000 - 100110

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-13 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON
				FROM	TO	TOTAL				
179.5	194.7	Andesite							Au	Ag
194.7	195.4	Granodiorite (?)								
195.4	313.0	Andesite								
		As before. Fine grained, greenish black massive, quartz threads, scattered cubic pyrite.								
		212.0 - 217.0 Considerable irregular glassy quartz veining, medium disseminated cubic pyrite.	7261		212.0	217.0	5.0		0.002	
		217.0 - 222.0 As above.	7262		217.0	222.0	5.0		0.002	
		222.0 - 223.0 As above.	7263		222.0	223.0	1.0		0.002	
		223.0-244.5 Continuing fine grained andesite.								
		244.5 - 246.0 Irregular glassy quartz veinlets at shallow angle to core, medium cubic pyrite.	7264		244.5	246.0	1.5		0.004	
		246.0 - 252.9 Continuing fine grained, massive, few quartz threads to 1/4 inch, weak disseminated cubic pyrite.								
		252.9 - 253.4 Considerable quartz, medium disseminated pyrite.	7265		252.9	253.4	0.5		0.01	
		253.4 - 256.4 Occasional quartz thread to 1/4 inch, weak pyrite.	7266		253.4	256.4	3.0		0.002	

LANGRIDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magno  
 HOLE NO. S-81-13 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON	
					FROM	TO	TOTAL					
		256.4 - 258.9 Considerable grey to glassy quartz veining, medium disseminated cubic pyrite	7267		256.4	258.9	2.5			Au	Ag	
		258.9 - 260.5 Few quartz threads, specks pyrite	7268		258.9	260.5	1.6			0.006		
		260.5 - 278.0 Continuing fine grained, massive, occasional cubic pyrite								0.01		
		278.0 - 279.0 Considerable greyish quartz with minor carbonate, streaks cubic pyrite	7269		278.0	279.0	1.0			0.01		
		279.0 - 287.2 Continuing fine grained, massive, dark green, occasional cubic pyrite										
		287.2 - 291.2 Few irregular quartz threads, weak streaky and cubic pyrite	7270		287.2	291.2	4.0			0.002		
		291.2 - 293.0 Few irregular quartz threads, medium streaky and cubic pyrite	7271		291.2	293.0	1.8			0.08	Check	Assay
		293.0 - 297.3 Few irregular quartz threads generally to 1/2 inch, medium to strong disseminated cubic pyrite	7272		293.0	297.3	4.0			0.003		
		297.3 - 298.2 Strong well defined grey quartz and silicification @ 50' to core, medium disseminated pyrite	7273		297.3	298.2	0.9			0.007		
		298.2 - 303.0 Massive light grey bleached zone, few quartz threads to 1/8 inch, weak to medium disseminated pyrite	7274		298.2	303.0	4.8			0.12	Check	Assay
										0.11		
										0.105	Check	Assay
										0.07		

LANGRIDGES - TORONTO - 368-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY 1491110

HOLE NO. S-81-13 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		<p>303.0 - 313.0 Strong lination @ 40° to core, numerous quartz threads to 1/8 inch, bleached from 306.2 feet to 309.5 feet, occasional speck pyrite.</p> <p>End of hole 313.0 feet</p>								Au	Ag

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-14 LENGTH 400.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -63°  
 STARTED August 14, 1981 FINISHED August 19, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-14 SHEET NO. 1  
 REMARKS "E" zone

LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0.0	20.0	Overburden										
20.0	103.7	Granodiorite										
		Typical. Variable in grain size from medium to coarse, generally massive, grey in colour, occasional quartz veinlets to 1 inch, very occasional speck pyrite.										
		22.0 - 25.0 Considerable milky white quartz with associated silicification and patches carbonate, streaks black tourmaline, possibly specks molybdenite weak pyrite.	4594		22.0	25.0	3.0			0.04		
		25.0 - 27.0 Weak silicification, weak pyrite.	4595		25.0	27.0	2.0			TR		
		27.0 - 32.0 Weak silicification, weak pyrite.	4596		27.0	32.0	5.0			0.005		
		32.0 - 34.5 Strong milky white quartz with associated silicification, patches carbonate, considerable black tourmaline, specks pyrite.	4597		32.0	34.5	2.5			0.005		
		34.5 - 38.0 Medium silicification, few quartz-carbonate threads to 1/2 inch @ 70° to core, weak pyrite cleavage @ 45° to core.	4598		34.5	38.0	3.5			TR		
		38.0 - 42.0 Weak to medium silicification, few milky quartz-carbonate threads, structure appears to be @ 90° to core, streaks black tourmaline, scattered coarse pyrite. Cleavage @ 45° to core.	4599		38.0	42.0	4.0			0.01		

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-14 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON		
					FROM	TO					TOTAL	
		48.3 - 50.0 Strong brecciated greyish quartz vein @ 30° to core, streaks black tourmaline, patches carbonate, fine disseminated pyrite, several specks fine V.G. within 2 inches of contact @ 50.0 feet.	4600		48.3	50.0	1.7			Au	Ag	
		50.0 - 52.0 Weak silicification, specks pyrite	7293		50.0	52.0	2.0			1.10 1.30	Check Assay	
		52.0 - 62.0 Continuing coarse grained massive granodiorite								0.01		
		62.0 - 65.0 Medium silicification, occasional quartz-carbonate threads with black tourmaline, specks pyrite.	7294		62.0	65.0	3.0			0.03		
		65.0-67.0 Medium to strong silicification with increasing quartz-carbonate stringers, weak pyrite	7295		65.0	67.0	2.0			0.01		
		67.0 - 72.0 Very strong milky quartz zone with patches carbonate, streaks black tourmaline, weak pyrite.	7296		67.0	72.0	5.0			0.015		
		72.0 - 77.0 Continuing coarse grained massive granodiorite										
		77.0 - 79.0 Numerous milky quartz stringers with black tourmaline, patches carbonate, weak pyrite	7297		77.0	79.0	2.0			0.01		
		79.0 - 82.0 Stringers milky quartz, black tourmaline streaks, patches carbonate, weak pyrite	7298		79.0	82.0	3.0			0.005		
		82.0 - 87.0 Strong silicification, quartz threads with carbonate, medium pyrite, possible specks fine V.G.	7299		82.0	87.0	5.0			0.005 0.01	Check Assay	

LANGRIDGES - TORONTO - 366-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-14 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON	
					FROM	TO	TOTAL					
		87.0 - 97.0 Continuing coarse grained, massive granodiorite								Au	Ag	
		97.0 - 102.0 Considerable milky quartz with patches carbonate, strong greyish silicification, weak pyrite, possible specks fine V.G.	7300		97.0	102.0	5.0			0.01		
		102.0 - 103.7 Strong grey silicification with patches milky quartz and carbonate, weak pyrite	7301		102.0	103.7	1.7			0.01	Check	Assay
103.7	107.0	Andesite Fine grained, greenish black, fairly massive, irregular bluish quartz venlets to 1/2 inch, medium pyrite-pyrrhotite. Sharp contact @ 103.7 feet @ 40° to core.	7302		103.7	107.0	3.3			0.01	Check	Assay
107.0	108.9	Granodiorite Typical coarse grained granodiorite, contacts marked by quartz-carbonate veining over 1 inch										
108.9	314.0	Andesite Fine grained, dark green to greenish black, structure appears to be @ 40° to core. Irregular quartz threads to 1/2 inch some parallel to long axis of core, scattered cubic pyrite										
		144.9 - 146.9 Strong grey quartz vein @ 30° to core, with patches carbonate, medium pyrite	7303		144.9	146.9	2.0			0.45		
		146.9 - 206.2 Continuing fine grained, greenish black, irregular quartz threads, massive, scattered pyrite-pyrrhotite										



# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-14 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ TON	OZ TON	
					FROM	TO	TOTAL					
		206.2 - 206.7 Well defined 6 inch milky quartz vein, specks pyrite	7304		206.2	206.7	0.5			Au 0.005	Ag	
		206.7 - 217.0 Continuing fine grained, greenish black, scattered pyrite-pyrrhotite										
		217.0 - 219.2 Numerous bluish grey quartz veinlets @ 90° to core, medium pyrite-pyrrhotite	7305		217.0	219.2	2.2			0.005		
		219.2-248.7 Continuing fine grained, massive greenish black, scattered pyrite-pyrrhotite										
		248.7 - 250.5 Considerable milky quartz, patches black material probably tourmaline, scattered pyrite-pyrrhotite	7306		248.7	250.5	1.8			TR		
		250.5 - 255.9 Continuing fine grained, generally massive, greenish black, few quartz threads, scattered pyrite-pyrrhotite										
		255.9 - 256.8 Well defined 10 inch grey to milky quartz probably @ 30° to core, patches black material probably tourmaline, medium pyrite-pyrrhotite, probably specks fine V.G. Patches molybdenite.	7307		255.9	256.8	0.9			TR		
		256.8 - 258.0 Weak to medium silicification, scattered pyrite-pyrrhotite	7308		256.8	258.0	1.2			0.08 0.08 0.015	Check Check	Assay Assay
		258.0 - 314.0 Continuing fine grained massive, dark green to greenish black, few quartz threads, scattered cubic pyrite and pyrrhotite										

LANGRIDGES - TORONTO - 366.1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-14 SHEET NO. 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ TON	OZ TON
					FROM	TO				
314.0	400.0	Andesite							Au	Ag
		As before but considerably more quartz threads outlining structure between 50° and 70° to core, fine grained, greenish black, scattered cubic pyrite and pyrrhotite.								
		327.7 - 328.3 Massive 7 inch milky quartz vein @ 40° to core, only one or two specks pyrite	7309		327.7	328.3	0.6			TR
		328.3 - 356.5 Continuing fine grained, dark green andesite as before								
		356.5 - 359.0 Very strong well defined milky quartz vein with patches black material probably tourmaline, weak pyrite-pyrrhotite	7310		356.5	359.0	2.5			TR
		359.0 - 380.9 Continuing fine grained dark green andesite, cleavage @ 40° to core.								
		380.9 - 381.9 Strong well defined grey silicification @ 45° to core with bluish quartz veinlets to 1/2 inch, medium pyrite-pyrrhotite-chalcopyrite	7311		380.9	381.9	1.0			0.01
		381.9 - 385.4 Few quartz threads to 1/8 inch @ 45° to core, scattered pyrite-pyrrhotite	7312		381.9	385.4	3.5			0.005
		385.4 - 388.0 Very occasional quartz thread, scattered pyrite-pyrrhotite	7313		385.4	388.0	2.6			0.005
		388.0 - 390.8 Very strong well brecciated quartz vein with silicification, sharp contact @ 390.8 feet @ 30° to core, medium pyrite-pyrrhotite, splashes chalcopyrite, possible specks V.G.	7314		388.0	390.8	2.8			0.025
		390.8 - 400.0 Continuing fine grained, greenish black, patches white specks giving mottled appearance, scattered quartz threads, scattered pyrite-pyrrhotite								
		End of hole 400.0								

LANGRIDGES - TORONTO - 368-1168

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-15 LENGTH 351.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -55°  
 STARTED August 20, 1981 FINISHED August 22, 1981

FOOTAGE	DIP	AZMUTH	FOOTAGE	DIP	AZMUTH

HOLE NO. S-81-15 SHEET NO. 1

REMARKS "E" zone

LOGGED BY D.A. Bourne, P. Eng.

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TOTAL	%	%	OZ/TON	OZ/TON	
0.0	28.5	Overburden										
28.5	63.2	Granodiorite									Au	Ag
		Typical coarse grained, massive, light bluish grey, occasional milky quartz veinlet to 1 inch, very occasional pyrite.										
		40.4 - 43.0 Milky quartz veinlets to 4 inches, occasional pyrite	7315		40.4	43.0	2.6				TR	
		43.0 - 45.3 Occasional speck pyrite	7316		43.0	45.3	2.3				0.005	
		45.3 - 46.5 Strong milky quartz, probably tourmaline, specks pyrite	7317		45.3	46.5	1.2				TR	
		46.5 - 63.2 No mineralization										
63.2	117.5	Andesite										
		Sharp contact @ 63.2 feet @ 75° to core. Fine grained dark green, well banded @ 75° to core, occasionally @ 40° to core numerous quartz carbonate threads to 1/2 inch parallel banding, scattered cubic pyrite.										
		68.9 - 71.2 Numerous quartz-carbonate threads and veinlets, streaky and disseminated pyrite-pyrrhotite	7318		68.9	71.2	2.3				0.01	
		71.2 - 72.4 Strong quartz-carbonate veining, medium pyrite-pyrrhotite	7319		71.2	72.4	1.2				0.04	

FOR ADDITIONAL

INFORMATION

SEE MAPS:

FINAN - 0026 #1

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino

HOLE NO. S-81-15 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		72.4 - 74.4 Considerable quartz carbonate threads @ 75° to core, medium disseminated and cubic pyrite medium pyrrhotite.	7320		72.4	74.4	2.0			Au	Ag
		74.4 - 117.5 Continuing fine grained, dark green, strongly chloritized andesite, quartz-carbonate threads, scattered cubic pyrite.								TR	
117.5	118.5	Granodiorite Contacts probably @ 45° to core. Coarse grained, massive and equigranular, considerable milky quartz veining and patches with carbonate, streaks black tourmaline, weak pyrite.	7321		117.5	118.5	1.0			0.005	
118.5	264.0	Andesite Continuing fine grained, dark green to greenish black, chloritized andesite, perhaps more massive than before with fewer quartz veinlets and threads scattered cubic pyrite									
		150.2 - 153.9 Considerable irregular quartz-carbonate threads to 1/2 inch, medium disseminated pyrite	7322		150.2	153.9	3.7			TR	
		153.9 - 241.0 Continuing fine grained, dark green andesite, fairly massive with scattered quartz-carbonate threads, scattered cubic pyrite									
		241.0 - 244.5 Considerably wavy quartz-carbonate threads averaging 45° to core, scattered cubic pyrite	7323		241.0	244.5	3.5			0.055	
		262.0 - 264.0 Patches greyish silicification with quartz-carbonate veining, medium disseminated pyrite.	7324		262.0	264.0	2.0			0.065	

LANSING, ILLINOIS

# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino

HOLE NO. S-81-15 SHEET NO. 3

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
264.0	280.2	Silicified Zone? Vague contact @ 264.0 feet but sharp contact Felsic Intrusive @ 280.2 feet @ 30° to core apparently conformable (?) with structure in the andesite, fine grained, light bluish grey in colour, faint lineation @ 30° to core, probably silicified, hard, very occasional quartz thread, fine disseminated pyrite.	7325		264.0	268.0	4.0			Au .01	Ag
			7326		268.0	273.0	5.0			0.015	
			7327		273.0	278.0	5.0			0.005	
			7328		278.0	280.2	2.2			0.005	
280.2	323.2	Andesite  As before, Fine grained, dark green lineation @ 40° to core, quartz-carbonate threads, scattered cubic pyrite  291.3 - 293.1 Considerable bluish silicification, and quartz-carbonate veining @ 60° to core, medium pyrite-pyrrhotite.  293.1 - 294.5 Parallel quartz threads @ 60° to core, weak pyrite-pyrrhotite  294.5 - 305.8 Continuing fine grained andesite , scattered cubic pyrite  305.8 - 307.6 Considerable quartz-carbonate @ 40° to core, patches pyrite-pyrrhotite.  307.6 - 323.2 Andesite becoming coarser grained numerous white spots to ½ inch giving mottled effect, brownish shade, scattered pyrite. "Spotted" alteration much more prominent towards contact @ 323.2 feet.									
			7329		291.3	293.1	1.8			0.035	
			7330		293.1	294.5	1.4			0.005	
			7331		305.8	307.6	1.8			TR	

# DIAMOND DRILL RECORD

NAME OF PROPERTY Nagino  
 HOLE NO. S-81-15 SHEET NO. 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
323.2	341.4	Dyke (Diorite?)								Au	Ag
341.4	351.0	Andesite									
		341.4 - 342.8 Few quartz threads, scattered pyrite	7332		341.4	342.8	1.4			TR	
		342.8 - 345.0 Very strong grey to white quartz vein and silicification @ 40° to core, medium pyrite-pyrrhotite and splashes chalcopyrite.	7333		342.8	345.0	2.2			0.02	
		345.0 - 346.0 Weak silicification with quartz threads @ roughly 40° to core, weak pyrite-pyrrhotite.	7334		345.0	346.0	1.0			TR	
		346.0 - 351.0 Few quartz threads, scattered pyrite	7335		346.0	351.0	5.0			TR	
		End of hole 351.0 feet									

ANGRIDGES -- TORONTO -- 366-1168

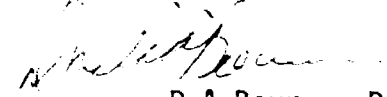
# DIAMOND DRILL RECORD

NAME OF PROPERTY Magino  
 HOLE NO. S-81-16 LENGTH 652.0 Feet  
 LOCATION See attached plan.  
 LATITUDE \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 ELEVATION Surface AZIMUTH 180° DIP -65°  
 STARTED August 23, 1981 FINISHED August 30, 1981

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. S-81-16 SHEET NO. 1

REMARKS "E" Zone

  
 LOGGED BY D.A. Bourne, P.Eng.

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0.0	34.0	Overburden										
		Boudery Sand										
34.0	136.0	Granodiorite										
		Typical as before. Generally coarse grained, massive and equigranular, occasional lineation @ 50° to core, quartz threads, very occasional speck pyrite.										
		48.3 - 52.0 Irregular patchy milky quartz stringers, patches carbonate, occasional speck pyrite.	7338		48.3	52.0	3.7			TR		
		52.0 - 55.7 Few milky quartz stringers, specks pyrite	7339		52.0	55.7	3.7			0.005		
		55.7 - 60.0 Very strong milky quartz zone, streaks black tourmaline, specks pyrite	7340		55.7	60.0	4.3			0.005		
		60.0 - 136.0 Continuing typical massive, coarse grained granodiorite, occasional quartz veinlet with black tourmaline, occasional speck pyrite										
136.0	193.2	Andesite										
		Fine grained, dark green massive chloritized, few quartz threads, scattered cubic pyrite, strongly chloritized.										
193.2	196.8	Granodiorite										
		Sharp contacts @ 40° to core, coarse grained, massive occasional glassy quartz veinlet, very occasional speck pyrite.	7341		193.2	196.8	3.6			0.005		
196.8	236.6	Andesite										
		Fine grained, dark green, massive, occasional quartz threads, scattered cubic pyrite. strongly chloritized.										

CRIDGES - TORONTO - 366-1168



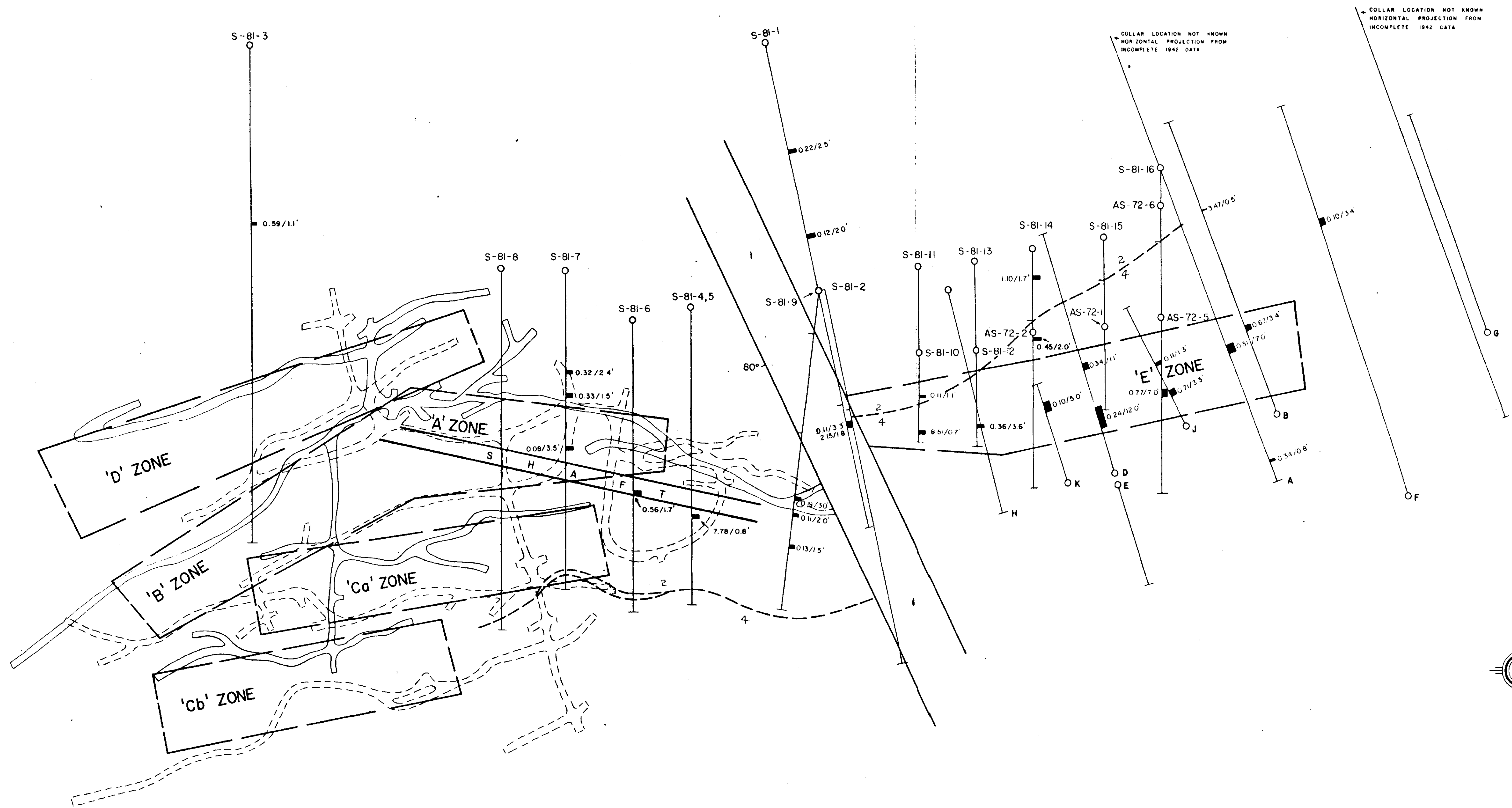
# DIAMOND DRILL RECORD

NAME OF PROPERTY Indy IIIU  
 HOLE NO. S-81-16 SHEET NO. 2

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO	SULPHIDES	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
236.6	237.6	Granodiorite								Au	Ag
		Contacts @ 75° to core. Coarse grained, massive, no mineralization									
237.6	246.0	Andesite									
		Fine grained as before, dark green massive									
246.0	277.0	Andesite (?)									
		Much coarser grained, dark green, strongly chloritized, massive, few quartz threads to ½ inch, scattered coarse cubic pyrite. May be intrusive.									
277.0	424.0	Andesite									
		Generally fine grained, dark green, strongly chloritized, massive, specks and streaks pyrite-pyrrhotite.									
		342.0 - 343.6 Few specks pyrite-pyrrhotite in chloritized andesite, occasional speck chalcopyrite	7342		342.0	343.6	1.6			0.005	
		343.6 - 344.6 Strong milky quartz vein @ 70° to core, weak pyrite-pyrrhotite but strong patches chalcopyrite.	7343		343.6	344.6	1.0			0.025	
		344.6 - 349.0 Scattered pyrite-pyrrhotite in fine grained andesite.	7344		344.6	349.0	4.4			0.005	
		349.0 - 352.7 Scattered pyrite-pyrrhotite in fine grained andesite	7345		349.0	352.7	3.7			0.015	
		352.7 - 354.0 Considerable milky quartz veining, weak pyrite-pyrrhotite, specks molybdenite, streaks chalcopyrite.	7346		352.7	354.0	1.3			0.015	







L E G E N D

G E O L O G Y

- 1 DIABASE
- 2 GRANODIORITE
- 3 IRON FORMATION
- 4 ANDESITE

S Y M B O L S

- DIAMOND DRILL HOLE
- 0.56/1.7 GOLD IN OUNCES / FOOTAGE
- 1st OR 100' LEVEL
- - - 2nd OR 200' LEVEL
- J O'BRIEN DRILLING, 1942
- AS-72- MCNELLEN DRILLING, 1972
- S-81- HICO COPPER DRILLING, 1981



TO ACCOMPANY REPORT BY DONALD A. BOURNE, P.Eng NOV 16/81

MAGINO GOLD PROPERTY	
FINAN TOWNSHIP GOUDREAU, ONTARIO	
COMPOSITE PLAN OF DIAMOND DRILLING AND UNDERGROUND WORKINGS	
SCALE 1"=50'	DATE NOVEMBER 16, 1981

FINAN-0026 #1



OMEP 81-7-P 60