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SURFACE GEOLOGY OF THE CAMFLO MINES PROPERTY
HARKER AND HOLLOWAY TOWNSHIPS, NORTHEASTERN ONTARIO

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B.Sc. Geology
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Surface Geology of the Camflo Mines Property
Harker and Holloway Townships, Northeastern Ontario

INTRODUCTION

A mapping project in the central portion of Harker and Holloway Townships, northeastern Ontario, was carried out during the period of June to October, 1983 by the writer and Sean Trueland for Camflo Mines Limited (Toronto). Mapping was carried out at a scale of 1:2500 (metric) on a grid utilizing 50 meter line separation picketed every 25 meters. 100 meter grid line separation was used on the Canamax Option and the South Camflo claim group. Additional detailed mapping at a scale of 1:250 metric was carried out on the Hennessy Option and Canamax trench area.

For the sake of simplicity, this report has been subdivided into six sub-reports including the Camflo East and Cahill properties; the Hennessy Option; Lenora and Lost Treasure Options; the Newmex Option; Canamax Option and Camflo South claims; moving from east to west. The total length of the mapped properties is approximately eight kilometers separated by the McDermott, Demers and Mining Corp. properties which were not mapped. Because this report deals solely with the geology of the properties, previous history including previous work done on the individual properties has been omitted. At the end of this report the writer has attempted to briefly correlate all the properties in a regional sense.

(1) Cahill and Camflo East Claims

This area comprises two Camflo Mines claims (L 616488, L616489) and the Cahill patented claim (optioned in 1983). Mapping was carried out at a scale of 1:2500 metric using a grid cut in 1981 with 50 metre separation between lines. Many of the lines have grown over and pickets were missing making outcrop control difficult. Surface exposure is only about 5%, confined to small ridges.

Geology

Only a few outcrops were found on these claims. The rock types include dark to light green coloured, fine grained, sheared, brecciated basalts and sediments ranging from dark magnetic to grey cherty rocks and argillites.

The basalts are strongly sheared and brecciated, the breccia probably being tectonic in origin as the fragments are angular to subangular with the matrix being filled by quartz. Shearing is strong enough to obscure all primary volcanic features although possible relic pillow selvages are found on the Cahill property. The selvages may indicate flow tops to the south. All of the volcanics are cut by small pink and white carbonate and quartz-carbonate stringers.

The sediments range from black to grey locally magnetic cherts to finely laminated argillic sediments. Bedding of the argillites strike roughly east-west and dip steeply to the south or are vertical.

Structure

The intense shearing of the volcanics would indicate that a fault probably runs north of the baseline. This would be a strike fault oriented east-west and may be a continuation of the Consular-Ben Arch-McDermott Fault, thought to run north of the McDermott property (Satterly, 1953). Shearing of the sediments on the east claim vary from a north-south direction to an east-west direction. Folding, probably drag folding of these rocks may have been caused by cross faulting. The shearing in this area has obscured the primary bedding making further structural information a matter of conjecture.

Mineralization

Little mineralization of any consequence was found on these properties. The volcanics carry trace amount of sulphides and quartz veining in the brecciated volcanics revealed no sulphides. Up to 5% finely disseminated sulphides were found in the laminated argillites, however, no assay data is available on these rocks.

(2) Hennessey Property

The Hennessey property consists of five patented claims optioned by Camflo Mines Limited in 1981. Mapping was carried out at a scale of 1:250 using grid lines picketed every 25 meters separated by 50 meters. In addition, a detailed map (1:100) and chip sampling over one meter intervals was made of trench #7 (on line 5+00 E).

Geology

Rock types on the property consist of intensely sheared basaltic to andesitic volcanics which have been both silicified and brecciated. A syenite dyke (feldspar porphyry) cuts across the north part of the property. The dyke is a fine grained purple rock averaging two meters in width pinching out to 0.5 meters wide at the west end of the property. The contact zone of the syenite-volcanic is silicified and brecciated for a distance of one meter on the south side of the dyke. In addition to this zone a more extensive zone of silicification and brecciation was found in trench #8 which does not appear to be related to the dyke.

Structure

All of the mapped volcanic rocks on the property are intensely sheared and filled with white to pink carbonate stringers with lesser amounts of quartz. The shearing is intense enough to obscure all primary volcanic features although possible relic pillow sutures may be found in many of the trenches. The sutures indicate that flow tops are to the south and dip steeply to the south. The shearing is thought to be caused by the Consular-Ben Arch-McDermott Fault, an east-west trending strike fault. Numerous cross faults striking north, of both left and right hand lateral motion were found. Offsetting on these cross faults is limited to a maximum of five meters with an average offset of a meter or less. The cross faults post-date the mineralization.

Mineralization

There appears to be two zones of mineralization on the property. The first is a narrow zone (one meter) of silicification and brecciation on the hanging wall side of the syenite dyke, and may be due to the intrusion of the dyke itself. In the past, this zone has been the one in which previous trenching and pitting had been confined to. Values of up to 0.18 oz/ton Au have been reported from this zone. Mineralization consists for the most part of finely disseminated pyrite (up to 8% total rock composition) in the silicified and brecciated zones. The syenite itself contains trace sulphides with the exception of sporadic zones of which the writer terms a syenite pegmatite. A sample of this rock contained 10% pyrite and ran 0.16 oz/ton Au. These zones are never more than 20 centimeters wide with a strike length of only a few meters.

A second zone appears to exist at least five meters south of the contact zone of the syenite. Due to cross faulting, the zone is exposed only in trench #8. This zone appears to be much more extensive than the one associated with the syenite dyke. This zone consists of a much more intensely brecciated and silicified rock with numerous quartz veins and pods. Mineralization is similar to that of the zone contacting the syenite, with finely disseminated pyrite with a maximum of 10% of the total rock composition. A grab sample from this zone ran 0.11 oz/ton Au.

In trench #6, a small (20 centimeter wide) zone of pyritiferous cherty rock was found, persisting for at least 10 meters along strike. A grab sample of this rock gave only trace values of gold.

(3) Lenora and Lost Treasure Properties

The Lost Treasure and Lenora Options (optioned by Camflo 1982) were mapped at a scale of 1:2500 metric on a grid with line spacing at 50 meter intervals. The map area lies roughly from the Harker-Holloway Township Line to 22+00 W. Exposure on this section is probably the best over the entire property, such that individual basaltic flows may be traced over a distance as great as 200 meters.

Geology

Rock types in this area are for the most part fine to medium grained basaltic flows, often showing well developed pillows and flow breccia. The coarser grained basalt takes on a diabasic texture and may be sills, however, the grain size is the only criteria on which to base this. It is more likely that the diabasic texture is due to a slower cooling rate in the interior of the flow, the crystallized flow top providing a thermal blanket. The pillows indicate that the flow tops are to the south and that the volcanics dip steeply to the south. Within the flows narrow cherty pyritiferous sediments occur, generally striking east-west, dipping an average of 80° to the south.

A large mass of magnetic, coarse grained "gabbro" was found in the vicinity of the baseline between 4+50 W and 9+00 W extending up to 250 meters south of the baseline. The mass varies from medium grained ophitic to coarse grained amphibole-rich "gabbro" cut by lamprophyre and syenitic dykes. The mass may be interpreted by two means, the first being that the mass may be an intrusive (supported by intense

shearing around the perimeter of the mass) on a "baked" and secondly as a recrystallized flow with a large syenitic body lying at depth (supported by the syenite dykes). Smaller offshoot dykes of this mass vary from dioritic to granodioritic in composition, and may be found in the vicinity of the pit at 9+50 W.

Structure

As previously stated, both the volcanics and sediments generally strike east-west and dip steeply to the south. The entire area has undergone shearing and faulting. Topographic depressions between large outcrops have been interpreted to be caused by localized faulting. Individual flows have been offset by cross faulting with a maximum offset of ten meters. This appears to conform to the general cross faulting of the area (as seen on properties both to the east and the west). The Consular-Ben Arch-McDermott Fault is thought to pass through the property though its exact location is difficult to ascertain. It may lie along the contact of the magnetic "gabbro" or north of the outcrop at 9+50 W, 2+00 N in a topographic low. Because it is a strike-slip fault, measureable offsets could not be found.

Mineralization

Pits and trenches on the property have been confined to three areas:

- (1) Flow breccias in which sulphide mineralization has occurred between the breccia fragments.
- (2) Quartz veining in the volcanics.
- (3) Over silicified sulphide-bearing cherty sediments.

Grab samples taken by the writer over the flow breccia zones showed only trace to 0.01 oz/ton Au. Grab samples taken by Sean Trueland over the cherty sediments gave trace values of gold. Quartz vein samples with up to 5% chalcopyrite taken from the pit at 9+50 W gave 0.01 oz/ton Au.

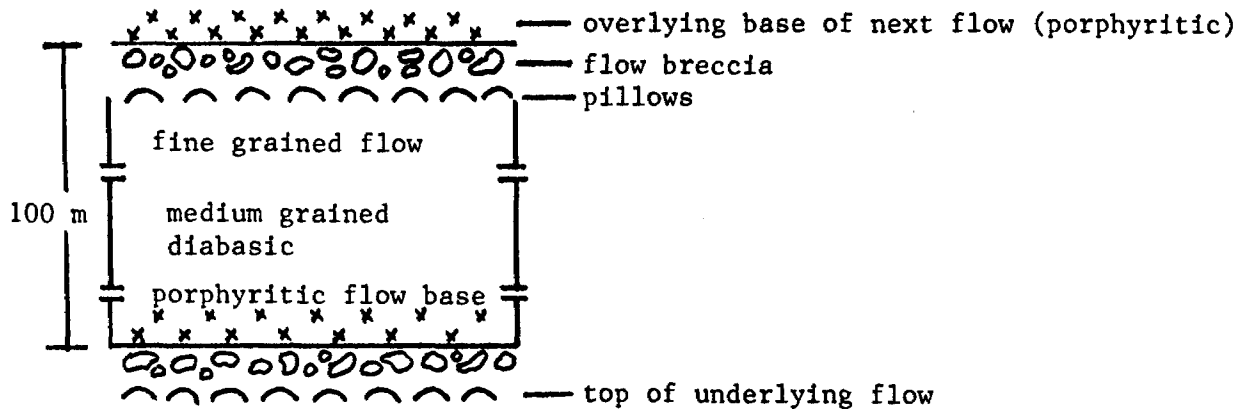
(4) Newmex Option

The Newmex Option comprises ten patented claims optioned by Camflo Mines in 1983. Much of the area is overlain by a sand plan limiting exposures for the most part to the east portion of the property near the Teddy Bear Creek. The area was mapped at a scale of 1:2500 metric using lines spaced at 50 meter intervals, picketed every 25 meters. Mapping at this time is only 80% complete and bedrock exposures west of line 35+00 W should be mapped at a later date. Rock types in this area include dark to light green coloured basaltic flows varying from fine to medium grained size; syenitic and diabasic dykes; sulphide-rich silicified and brecciated sediments; argillic sediments and possible carbonates.

Geology

The volcanics on the property are dark to light green basalt (possibly andesitic) flows, often pillowed, flow brecciated and porphyritic. The porphyritic texture generally occurs at the base of the flow showing well developed euhedral to subhedral phenocrysts of plagioclase feldspar set in a fine grained matrix of plagioclase and pyroxene. The porphyritic texture then grades into a medium grained

diabasic texture and finally a fine grained flow top, occasionally showing well developed pillow sutures and flow breccia. The pillows and flow breccia do not necessarily accompany each flow due to lack of exposure. Individual flows may be traced over a strike length up to 150 meters and may attain a width of 100 meters or more.



Two diabase dykes were found cutting a fine grained brecciated flow in the northeast part of the property. The dykes generally strike north-south and are of medium to coarse grained texture consisting of lath-like plagioclase phenocrysts set in a fine grained plagioclase/pyroxene matrix. The centre of these dykes is often coarse grained. On surface, these dykes outcrop as narrow linear ridges roughly convex in nature.

Two narrow syenite dykes strike across the north part of the property, roughly east-west in orientation dipping steeply south. The dykes are parallel to each other and are separated by a narrow 20 centimeter wide zone of meta-sediments. The dykes themselves are roughly one meter wide and may be traced for up to 300 meters. To the east and west, only one dyke was found but is probably a continuation of the same intrusive. The dykes are purple to dark red in colour, fine grained with small phenocrysts of feldspar throughout, they have previously been termed a feldspar porphyry. The dykes appear to have

been intruded along a plane of weakness separating the volcanics to the south and sediments to the north. The dykes are not mineralized with sulphides.

Three types of sediments were found on the property. The first type is a carbonate-looking rock found on the extreme north part of the Demers property. They vary from pyritic cherts to a dark purple rock closely resembling a carbonate, they do not however, react with acid. Some argillic sediments were found interbedded with the cherts. In this area, the sedimentary/volcanic contact is characterized by a narrow zone of black, possibly tuffaceous volcanics containing up to 15% sulphide stringers. The bedding of the sediments varies from an east-west strike dipping steeply south to a northeast-southwest strike indicating that the sediments have probably been drag folded.

The second sedimentary type rock is a poorly exposed schistose rock found in contact with the syenite dykes. The schistosity may represent primary bedding striking east-west dipping vertically to steeply south. This zone of sediments may be traced only 150 meters in strike length.

The third type of sediment is a dark purple silicified, partially brecciated rock containing up to 15% sulphide, normally finely disseminated throughout. The sulphides appear as bands within the rock and may conform to the original bedding of the rock. It is thought by this writer that the rock may have originally been a dirty sandstone in lithology. At this point it may be noted that the colour and in places the texture, are similar to those found on the McDermott zone and they may be related to each other.

Structure

Rocks on the northeast part of the property are strongly sheared in an east-west direction indicating that a major east-west striking fault exists north of the property. The Imperial Fault is thought to run north of the property (Satterly, 1953) but the rock types found in this area are similar in lithology to those found further to the east. It may be possible therefore to continue the Consular-Ben Arch-McDermott Fault through this area. Another strike fault is thought to pass through the Demers property separating the north contact of the sediments from the volcanics (Satterly, 1953), however, this writer found no indication of this fault.

Cross faulting has occurred throughout the entire property though offsetting of both right and left hand lateral motion is confined to an average of a few meters. One larger left hand lateral fault was found offsetting the Demers sediments by 50 meters and causing the sediments to be drag folded.

Mineralization

Sulphide mineralization was found in the Demers sediments, sediments adjacent to the syenite dykes and in the silicified brecciated sediments further to the west. The syenite dykes themselves do not carry any sulphides. The Demers sediments gave no gold values as did the volcanics in contact with the sediments. Three grab samples from the syenite/sedimentary contact zone (lines 29+60 W, 4+30 N) gave two values of; 0.01 oz/ton Au and 0.03 oz/ton Au. These samples were taken from Canamax trenches over the contact zone. Samples of the pyritiferous silicified brecciated sediments on line 33+50 W, T.L.North

gave only trace values of gold. Samples of mineralized pillow sutures showing epidote alteration and quartz veining with up to 5% sulphides gave only trace gold values.

(5) Canamax Option

The Canamax Option consists of eight patented claims optioned by Camflo Mines Limited in 1983. Surface bedrock exposure is generally limited to the south portion of the property west of Imperial Lake where extensive logging and subsequent erosion of the overburden has exposed the bedrock. A large area of swamp lies north of this area along the baseline. Mapping was done at a scale of 1:2500 metric along lines spaced at 100 meters and picketed every 25 meters. Trenched areas in the southwest corner were mapped at a scale of 1:250 metric and then transferred to the 1:2500 scale map. Rock types in this area include dark green massive basalt flows, often brecciated, small syenite dykes and sediments ranging from argillites and greywackes to carbonaceous pyritic sediments and cherts. Small zones of silicified tuff(?) were found overlaying these sediments.

Geology

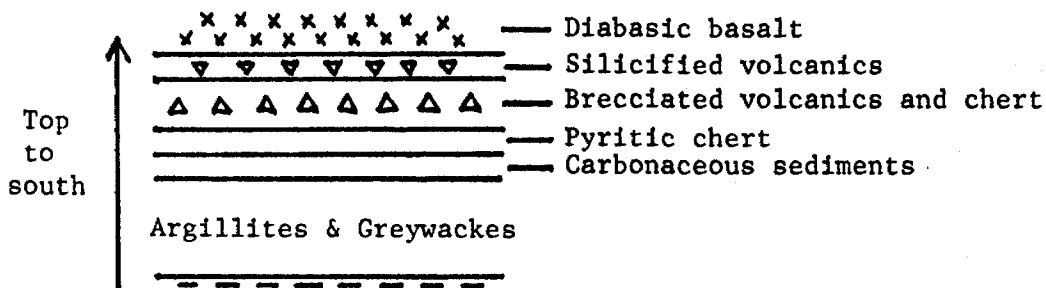
The volcanics of the map area consist for the most part of dark to light green, fine to medium grained basalts, often flow brecciated and porphyritic. Some rock resembling agglomerate rock was encountered but it is probably a flow breccia with hyaloclastite fragments giving the rock an appearance of containing fragments of different compositions.

The flow sequences are typical of those found to the east and north in the Newmex Option; consisting of a porphyritic basal flow member grading into a medium grained diabasic texture and finally a pillowed top with extensive flow breccia. The pillows indicate that the flow tops are to the south. Individual flows may be mapped along a strike distance of up to 200 meters with a thickness of up to 200 meters, including the flow breccias which may obtain a thickness of up to 50-75 meters.

The sediments consist of a sequence of laminated argillites and greywackes with individual bed thicknesses of a few centimeters. The greywacke beds are generally wider than the argillic beds with the overall sequence probably representing a turbidite-type of deposit. The bedding of the argillites and greywackes is roughly east-west dipping steeply to the north. The bedding dips close to vertical as one moves south towards the sedimentary/volcanic contact, a distance of roughly 15 meters. Tops of the individual beds are to the south as determined by numerous measurements of graded beds. Initially it was thought by the writer that the sediments may have been overturned, however, the north dipping sediments are probably a localized feature, perhaps caused by rotation of the sediments along a strike fault (Al Workman, p.communication).

The argillites and greywackes then grade from bottom to top into a narrow 20 centimeter wide zone of pyritic carbonaceous to graphitic sediments dipping vertically. These in turn grade into a narrow zone (15 centimeters wide) of cherty sediments which are overlain unconformably by brecciated cherty volcanics with a quartz matrix

carrying magnetite, pyrite, galena and chalcopyrite. Overlaying the brecciated chert is a narrow zone of silicified volcanics possibly tuffaceous followed by massive diabasic basalt.



Small syenite dykes up to one meter wide were found in the southwest part of the property. They strike roughly east-west, their mappable length is limited due to lack of exposure. These dykes may be offshoots of a large syenite body located to the east in Garrison Township.

Structure

No major strike faults were found in the area although brecciation in the volcanics and cherts would suggest that a strike fault exists at the sediment/volcanic contact. This fault may also have caused rotation of the sediments giving them a north dip of the bedding. One cross fault was found offsetting the sediments, the fault is a left hand lateral type striking roughly north-south with an offset of only a few meters.

Mineralization

The basaltic flows carry only trace amounts of sulphides and were not assayed. The carbonaceous sediments, cherty sediments and brecciated cherts and silicified volcanics gave values of 0.02 oz/ton Au, 0.01 oz/ton Au and 0.01 oz/ton Au respectively. No samples were run for lead or copper.

(6) Camflo South Claims

The Camflo South claims consist of 16 unpatented claims staked in 1982. The far east claims were mapped on the same base sheet as the Lenora and Lost Treasure Options at a scale of 1:2500 using lines spaced at 50 meter intervals with 25 meter pickets. The eight claims to the west were mapped at a scale of 1:2500 using lines spaced at 100 meter intervals picketed every 25 meters. 90% of the area lies in swampy lowlands with a few expsures along the south tie line and south-south tie line. Rock types include diabasic basalt, locally variolitic, pillowed and sheared, and cherty sediments which may be rhyolitic volcanics.

Geology

The volcanics are for the most part dark green, fine to medium grained basalt. One outcrop of variolitic pillows gave the flow tops to the south and dipping 60° south. South of the south-south tie line, an outcrop of sheared variolitic basalt was found with a shear orientation roughly northeast-southwest with a vertical dip.

One outcrop of cherty sediments or flow banded rhyolite was found at L 31+00 W, south tie line. No significant mineralization was found on this map area.

REGIONAL GEOLOGY

A linear ridge striking roughly east-west was found to be more or less continuous from the far east claims to the Newmex Option. The volcanic geology along this ridge varies little with the north face of this ridge being consistently sheared. The writer would place the Consular-Ben Arch-McDermott Fault along the north part of this ridge at least as far as the Newmex Option. Cross faulting is generally of the left hand lateral type and appears to displace blocks to the south as one moves east to west. This cross faulting probably postdates major strike faults. The writer has noted that the joint pattern on the McDermott mineralized zone and the Hennessy zone are very similar as are the rock types associated with the two zones. The two zones are probably part of the same rock sequence. Laminated chloritic/carbonate rocks found in the bottom of drill core on the Lenora/Lost Treasure properties are identical to those found on the footwall side of the McDermott zone and are probably of the same sequence.

REFERENCES

Satterly, J., Geology of Harker Township, Ontario Department of Mines,
Volume LX, Part VII, 1953

Satterly, J., Geology of the North Half of Holloway Township, Ontario
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McDERMOTT PROJECT GEOLOGY AND GOLD MINERALIZATION
WESTERN HOLLOWAY TOWNSHIP

A.W. Workman

October 4, 1983

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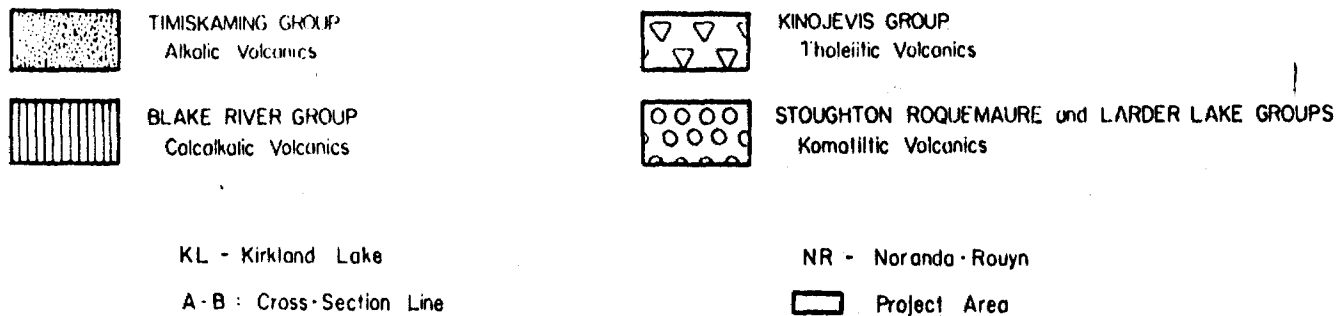
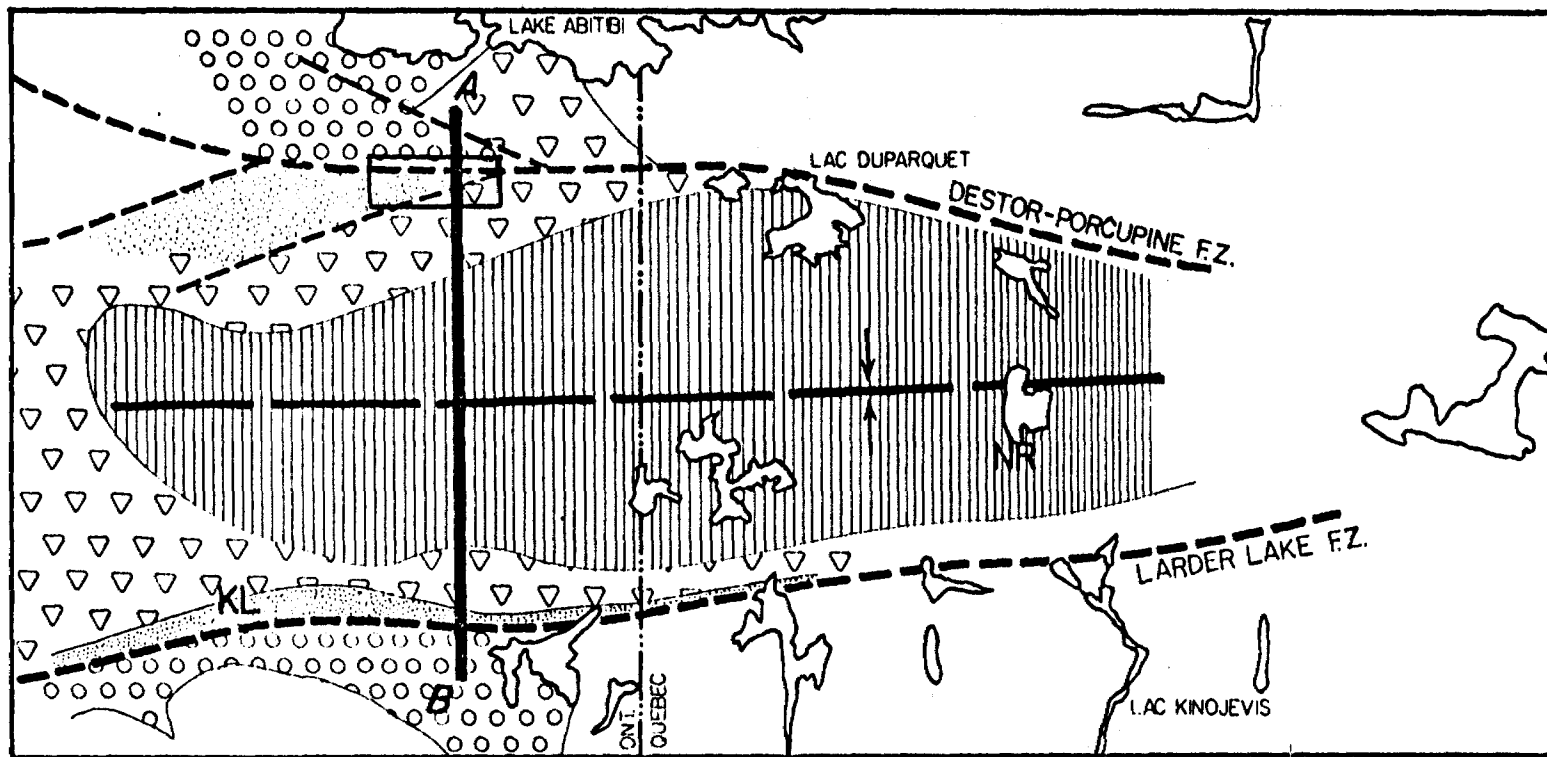
1.0 INTRODUCTION

1.1 Location

The area of interest on the McDermott Project is a block of ten patented claims in Holloway Township - the McDermott Block. The adjoining four claims of the Hennessy Property are of secondary interest. The project area, as a whole, extends east-west approximately 11,000 meters over various additional blocks of Camflo-staked and optioned ground. A block of land optioned from Lenora Exploration Limited is considered to be promising. The project area is located in Figure 1.

1.2 General Geology

The study area is underlain by Archean rocks of the Kinojevis Group. These rocks are dominantly tholeiitic basalts with lesser amounts of argillite, cherty chemical sediments, and wacke. Tuff, carbonaceous sediments and iron formation are noted on a limited basis. These rocks strike approximately 080° and dip 50-90° south. Steeper dips are favoured. The Destor-Porcupine Fault Zone strikes east-northeasterly across the sequence on the northern edge of the area of interest. A number of hinge faults strike south to southwesterly from the Destor. One of these, the McDermott Fault, traverses the northern part of the McDermott-Hennessy Properties. Gold mineralization has been found in rocks to the south of this fault.



Schematic of Geology in McDermott Project Area (after Jensen et al.)

FIGURE 1

1.3 Project Status

As this report is written, 38 drill holes totalling 4,070.73 meters (1981-1983), have been drilled by Camflo on the McDermott-Hennessy Properties. The Company has also drilled four holes totalling 608.28 meters on the Lenora Property. A breakdown in drill hole data is given in Table 1. On the McDermott patented claims, approximately 275,000 tons of drill-indicated mineralized rock grading 0.095 oz/ton have been outlined to a depth of 50 meters (164 feet). Despite mixed drilling success to date, the zone remains open at depth and along strike. Five additional holes totalling 570 meters (1,837 feet), are planned to evaluate various orientations of the gold-bearing zone within the sedimentary sequence.

The geological mapping has complemented the diamond drilling programme by confirming that the McDermott sedimentary horizon is continuous through to the Lenora Property and indeed, onto the Canamax Option. A second sequence on the Newmex Option bears a striking visual resemblance to the McDermott style lithology, alteration and pyrite mineralization. The originally suggested strike length of 10,000 feet for the potential gold bearing strata has been increased to being in excess of 15,000 feet; from roughly 13+00 E to at least 32+00 W. The same horizon can be traced, if lower potential(?) is considered, for well over 25,000 feet. It extends from the western edge of the Amax Option, across the McDermott Property, and onto the Ghostmount Property.

Geophysical data is not as yet totally compiled.

TABLE 1 : DIAMOND DRILL HOLE DATA

D.H.	LONGITUDE	LATITUDE	BEARING (AZ.°)	DIP	LENGTH		COMMENTS
					METERS	(FEET)	
Mc 81-1	10+00 E	0+50 S	350	-55°	137.77	(452.0)	
81-2	8+50 E	1+00 S	350	50	188.67	(619.0)	
81-3	11+50 E	1+00 S	350	50	152.40	(500.0)	
81-4	10+00 E	0+75 S		60	121.92	(400.0)	
81-5	10+50 E	0+75 S	350	55	137.16	(450.0)	
81-6	11+00 E	0+75 S	350	50	124.05	(407.0)	
81-7	12+00 E	0+75 S	350	50	216.10	(709.0)	
81-8	13+00 E	0+60 S	350	50	155.45	(510.0)	
81-9	9+50 E	0+60 S	350	50	107.29	(352.0)	
81-10	7+50 E	0+60 S	350	45	122.83	(403.0)	
81-11	7+00 E	0+60 S	350	45	107.59	(353.0)	
81-12	8+00 E	0+60 S	350	45	107.90	(354.0)	
82-13	6+50 E	0+60 S	350	45	107.59	(353.0)	
82-14	6+00 E	0+60 S	350	45	123.44	(405.0)	HENNESSY OPTION
82-15	5+00 E	1+00 S	350	45	137.77	(452.0)	HENNESSY OPTION
82-16	4+00 E	0+60 S	350	45	109.73	(360.0)	HENNESSY OPTION
83-17 ✓	10+12.5E ✓	0+38 S	344	50	60.05	(197.0)	
83-18 ✓	9+87.5E	0+38 S	344	50	60.05	(197.0)	
83-19 ✓	9+75 E	0+35 S	344	45	52.43	(172.0)	
83-20 ✓	9+75 E	0+46 S	344	65	72.24	(237.0)	
83-21 ✓	9+62.5E	0+33 S	344	50	60.05	(197.0)	
83-22 ✓	9+50 E	0+36 S	344	45	61.26	(201.0)	
3-23 ✓	9+37.5E	0+30 S	344	45	60.05	(197.0)	
83-24 ✓	9+25 E	0+50 S	344	55	92.66	(304.0)	
83-25 ✓	9+25 E	0+37 S	344	45	60.96	(200.0)	
83-26 ✓	7+75 E	0+40 S	344	60	91.65	(300.7)	
83-27 ✓	7+75 E	0+30 S	344	45	61.26	(201.0)	
83-28 ✓	7+62.5E	0+28 S	344	45	61.26	(201.0)	
83-29 ✓	7+50 E	0+26 S	344	45	61.26	(201.0)	
83-30 ✓	7+37.5E	0+24 S	344	50	69.22	(227.0)	
83-31 ✓	7+25 E	0+36 S	344	60	96.62	(317.0)	
83-32 ✓	7+25 E	0+24 S	344	50	66.14	(217.0)	
83-33 ✓	7+87.5E	0+40 S	344	50	63.09	(207.0)	
83-34 ✓	8+12.5E	0+50 S	344	50	62.80	(206.0)	
83-35 ✓	8+00 E	0+60 S	344	60	91.74	(301.0)	
83-36 ✓	10+25 W	1+30 S	344	65	175.87	(577.0)	LENORA OPTION
83-37 ✓	10+00 W	0+69 S	344	65	137.46	(451.0)	LENORA OPTION
83-38 ✓	14+00 W	0+35 S	344	45	106.98	(351.0)	LENORA OPTION
83-39 ✓	12+75 W	0+25 S	344	45	91.74	(301.0)	LENORA OPTION
83-40 ✓	10+00 E	1+30 S	344	70	218.87	(718.0)	
83-41 ✓	9+50 E	1+15 S	344	70	203.29	(667.0)	
83-42 ✓	7+50 E	0+75 S	351	70	186.12	(610.6)	
83-43 ✓	9+50 E	0+72 S	344	70			
83-44 ✓	10+25 E	0+70 S	344	65			
83-45 ✓	8+87.5E	0+64 S	344	65			
83-46 ✓	7+75 E	0+65 S	344	65			
83-47 ✓	7+25 E	0+62 S	344	65			

2.0 GEOLOGY

2.1 Regional Geology - A History

The Archean stratigraphy⁽¹⁾ for Holloway Township is as follows:

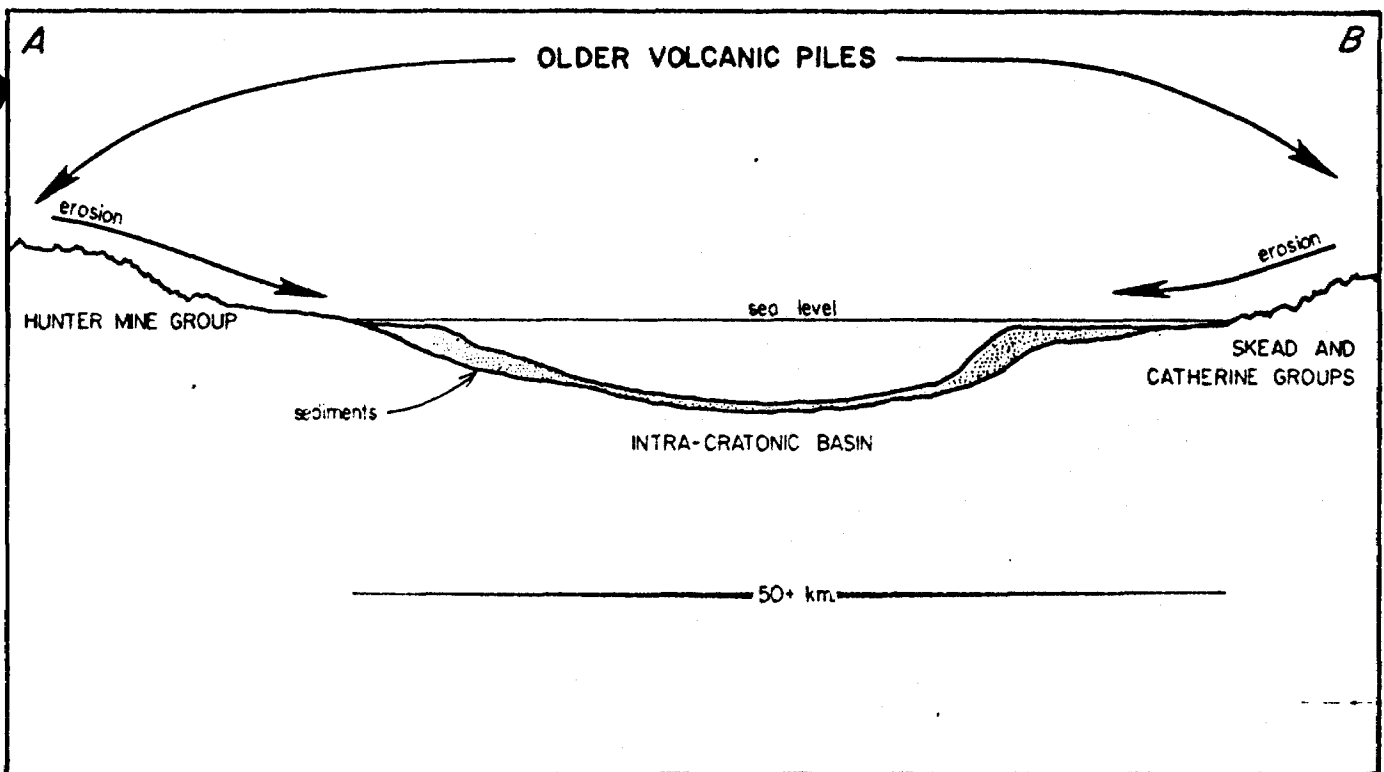
UPPER SUPERGROUP	Timiskaming Group Blake River Group Kinojevis Group Stoughton Roquemaure Group
LOWER SUPERGROUP	Porcupine Group Hunter Mine Group Wakewada Group

A simplified schematic diagram (Figure 1) locates the project area within the regional geology. The two supergroups represent successive volcanic cycles from ultrabasic komatiitic volcanism to acid calcalkaline volcanism. Each cycle is topped by a sedimentary sequence. The gold mineralization of interest in Holloway and Harker Townships is hosted by Kinojevis rocks. Specifically, the host is a sedimentary sequence within the tholeiitic volcanics. As such, the sediments reflect a major hiatus in volcanic activity.

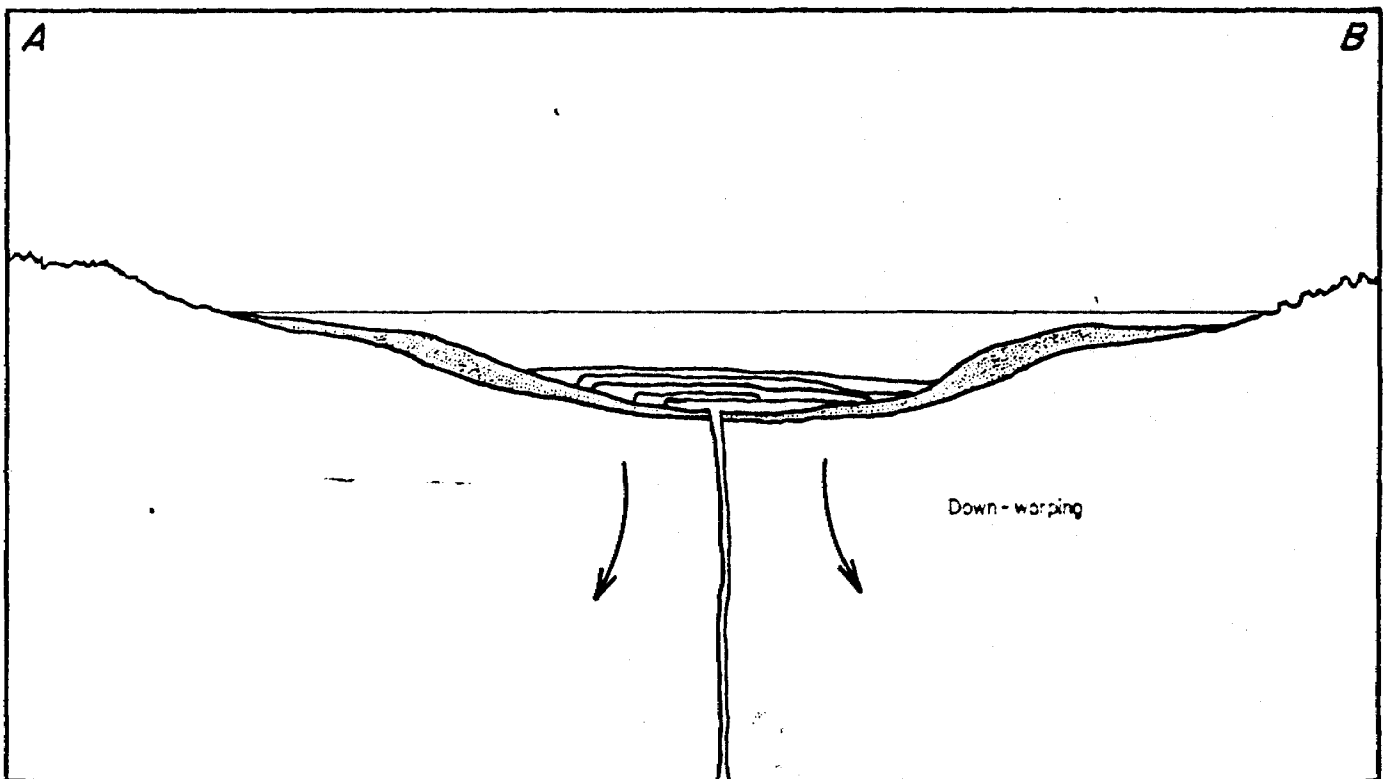
(1) After L.S. Jensen, 1980.

The upper supergroup represents a series of rocks which were deposited in an east-west trending basin. The sequence of events is depicted graphically in six stages in Figures 2-1 to 2-3. This progression is based upon L.S. Jensen's model which has been modified by this author to fit the scenario envisioned for the McDermott project area.

In the beginning, a deep crustal rift must have developed to allow mantle derived magma to come to the surface. The weight of these komatiitic volcanic flows depressed the crust to such a degree that boundary faults developed on the north and south flanks of the basin. Ultrabasic volcanism gave way to tholeiitic volcanism, more from eruptive centres than from a mid-basin rift. With further depression, much of the downwarp was taken up in the faults and the basin became a rapidly subsiding graben. As a result of this movement, the Destor-Porcupine Fault on the north flank, and the Kirkland Lake-Larder Lake Fault on the south flank proliferated into wider fault zones. At some point, the rate of extrusion must have greatly diminished (Stage IV), and sedimentation took over. A layer of sediments, probably in the form of deltaic, channel and shelf deposits were formed. A sizeable tuffaceous component is known to exist in some of these rocks. Siliceous chemical sediments were deposited as thin crusts, perhaps capping individual sedimentary cycles. They may have been precipitated from silica-saturated waters evolved during compaction from the sediments themselves. Gold was

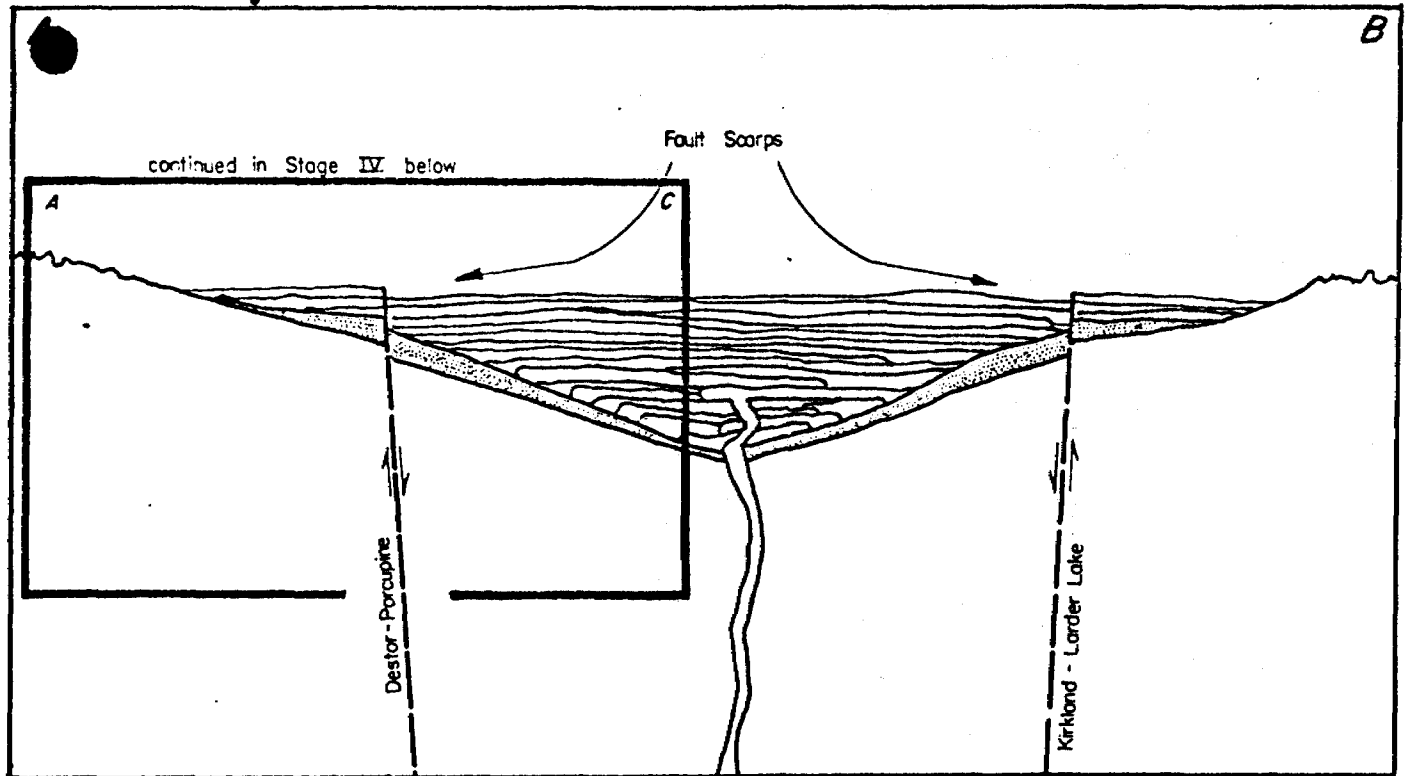


STAGE I: Deposition of Porcupine Group Sediments Within an Intra-cratonic Basin

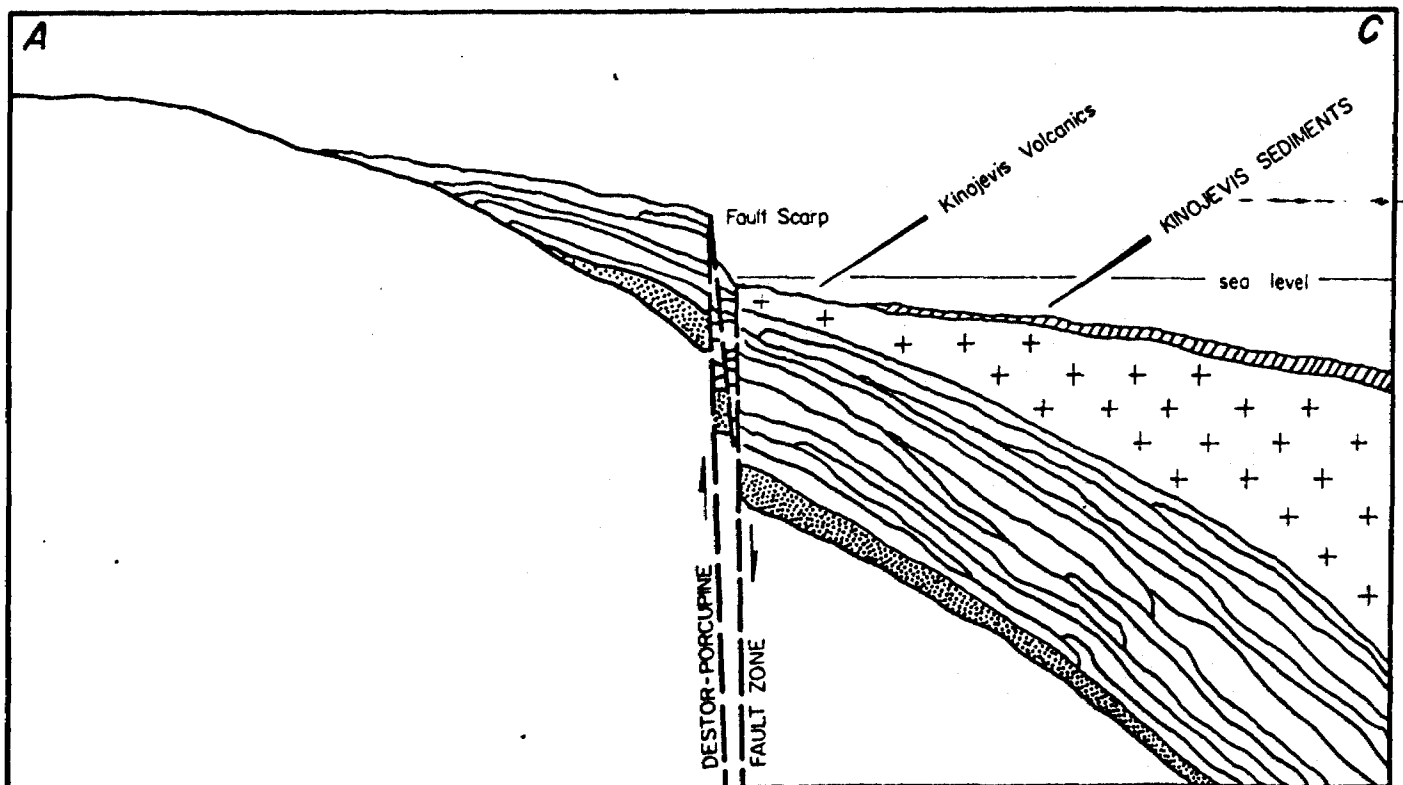


STAGE II: Extrusion of Stoughton-Roquemaure Komatiitic Volcanics From Deep Crustal Fractures, initiation of Basinal Subsidence.

FIGURE 2-1

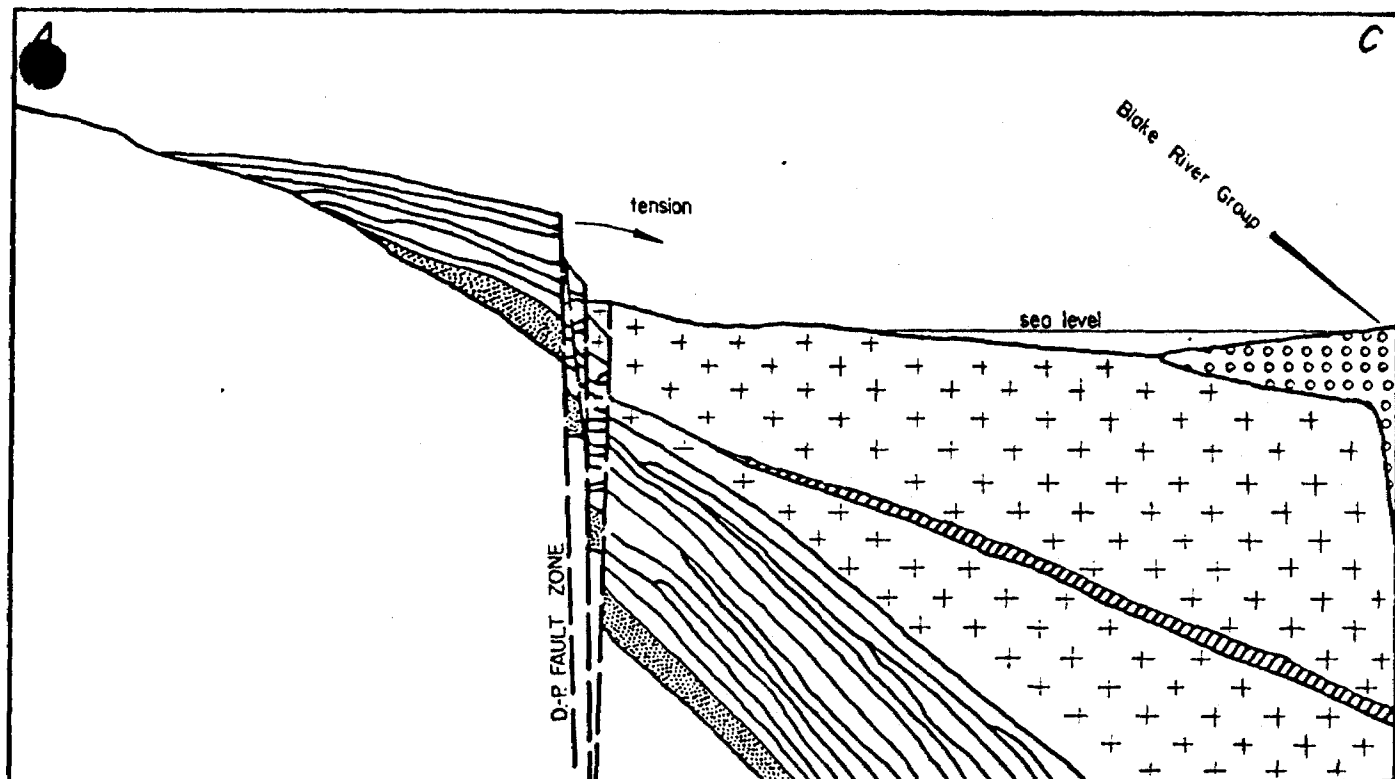


STAGE III : Continuing Komatiitic Volcanism and Crustal Depression Creates A Rapidly Subsiding Graben. The flanks of the 'Synclinorium' (Jenson, 1980), Are Bounded on the North and South by the Destor-Porcupine and the Kirkland Lake-Larder Lake Fault Zones, Respectively.

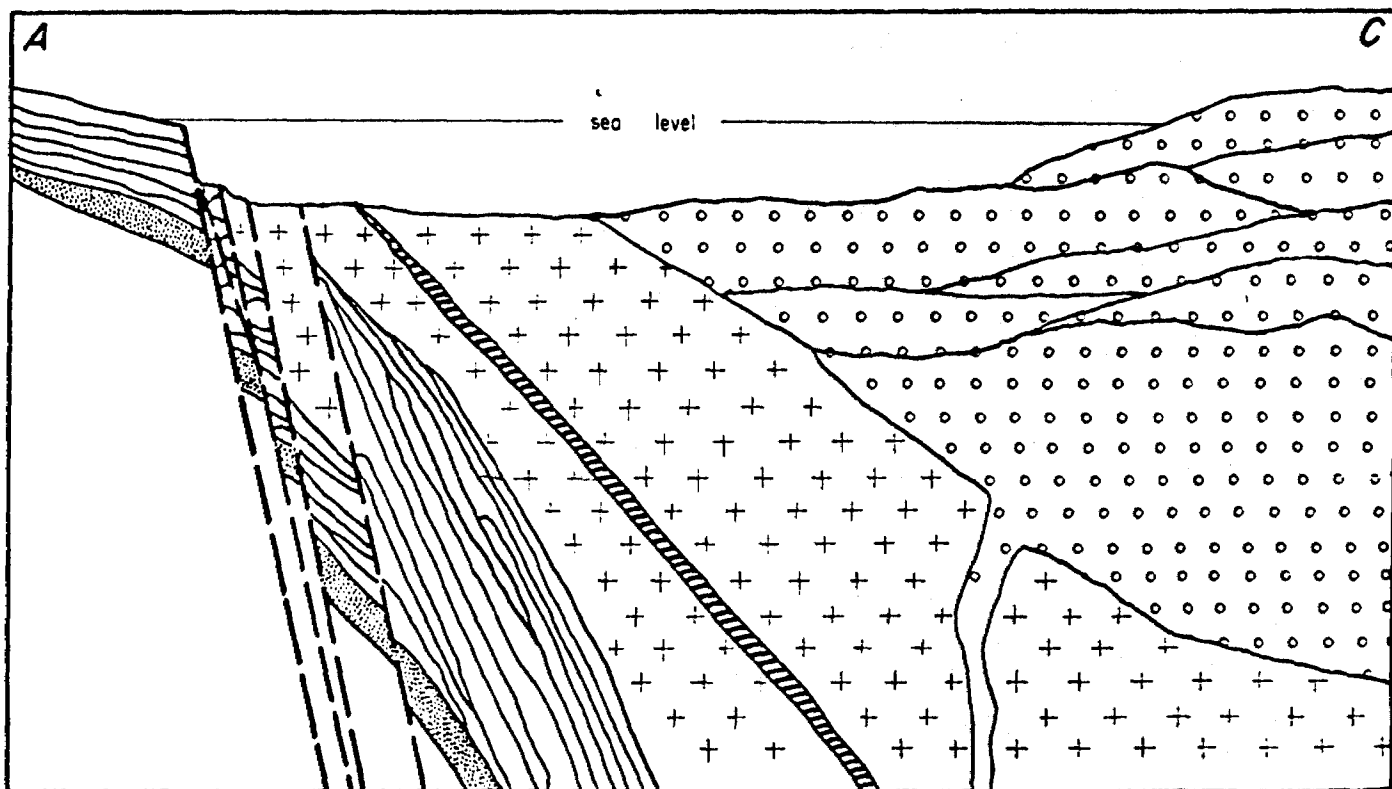


STAGE IV : Transition From Komatiitic to Tholeiitic Volcanism - Deposition of the Kinojevis Group. Thick (100m.), Sequences of Sediments Are Deposited During Breaks in Eruptive Activity. With Constant Reworking of Sediments, Gold is Concentrated in Fluvial and Deltaic Environments, and Eventually, in Local Basins. Graben Subsidence Continues.

FIGURE 2-2



STAGE V : Accelerating Subsidence Applies Tension to the Destor - Porcupine Fault Zone. Burial of the Kinojevis Sediments by Kinojevis Volcanics and High Crustal Heat Flow Produces Local Carbonatization and Silicification. Gold Undergoes Limited Redistribution Under Locally Produced Hydrothermal Conditions. 'Offshore', Island-arc Calc-Alkaline Volcanism (Blake River Group), Begins From a Rising Magma Chamber.



STAGE VI : With Continued Extrusion of the Blake River Group, Inward Collapse of the Graben Produces Dilation of the Destor - Porcupine Fault Zone. A Second Basin Forms to the North of the Growing Island-arc Volcanic Pile. Timiskaming Sediments Are Deposited. The Collapse is a Time of Hydrothermal and Granitic Intrusive Activity.

FIGURE 2-3

concentrated in detrital form in lower parts of the sedimentary basin or basins. The eventual burial of these sediments in a region of high heat flow, would have subjected them to localized hydrothermal conditions as pore fluids were evolved. This led to general silicification, pyritization, feldspathization and limited re-distribution of gold. With continued volcanism and subsidence, the rock sequence tilted more and more into the graben. Melting at depth of lower stratigraphic sequences produced magmas of "granitic" composition which erupted on surface as island-arc type calc-alkaline volcanism. Depletion of the magma chambers and the weight of the 20-30 km of collected volcanics caused the graben to collapse inwards. Dilation of the boundary faults, such as the Destor-Porcupine, allowed Timiskaming rocks to collect in a second generation graben. Within the fault zones, much hydrothermal activity altered the Timiskaming assemblage and introduced gold locally in vein systems (eg. Teddy Bear Property).

2.2 Genesis of Gold Mineralization

A number of authors have expounded hypotheses about gold mineralization which emphasize the importance of magmatically derived hydrothermal fluids in the leaching of gold from source rocks, with subsequent transportation and re-deposition as ore. These authors include Pyke, Karvinen, Jensen and Fyon. Their gold sources range from volcanic rocks to carbonaceous sedimentary sequences. Gold is released due to carbonatization or remelting and concentrated later.

In the wake of Hemlo, a number of individuals have noted the importance of fossil placers as a gold concentrating mechanism. The Hemlo deposit is hosted by a sandstone or wacke type sequence. Although hydrothermal effects are noted in part of the stratigraphic sequence, along with large quantities of diagenetic(?) pyrite, the gold is not spatially related to these features. Furthermore, the alteration could be explained solely by diagenetic processes. Economic gold concentrations are confined to saucer-like depressions interconnected down-dip along the host formation. Gold was concentrated in hollows and channelways on a shelf. Much lower gold values are found atop the shelf itself although these sediments are texturally very similar.

2.3 The McDermott Concept

The concept of gold genesis has undergone a transformation during the past six months. Quite independent from Hemlo, the new model bears a similarity not appreciated until the author was recently shown Hemlo data by Noranda staff.

The original McDermott concept was that of a brecciated basalt, proximal to the Destor-Porcupine Fault Zone, having undergone hydrothermal alteration (silicification etc.), and mineralization (gold-pyrite). Hydrothermal fluids would have evolved at depth from a magmatic source and presumably ascended to surface along channelways provided by the Destor-Porcupine Fault Zone and numerous suspected cross-faults. This model has been favoured by many other workers to explain a host of Abitibi Belt deposits.

With the McDermott Property geology now better understood, a new model incorporating aspects of the old mechanism is proposed. As with all concepts, the new theory builds upon the foundations laid by Gilles Tousignant and Claude Durocher.

The author believes that the McDermott, Hennessy and Lenora mineralization is confined to several cycles within a single sedimentary sequence. These strata were not previously defined within Holloway Township although a diamond drill hole on the Ghostmount Property southwest of Holloway Lake may have intersected the assemblage. The build-up of at least 100 meters of sediment reflects a major cessation in basaltic volcanism.

Gold is found in concentrations up to 0.71 oz/ton but, more normally, up to 0.30-0.35 oz/ton. The host rock is usually, but not always, intensely silicified. Good gold values (0.101/4.85 meters) were found in chloritized, weakly silicified, laminated sediments on the Lenora Property in D.D.H. 83-39. Highest grades are normally associated with "feldspathized" rock. The host may or may not be brecciated. Within brecciated rock, silicification is usually penetrative into very angular fragments and proportional in strength to the degree of brecciation. Intense silicification is frequently noted in non-brecciated sequences. Pyrite content partly reflects the degree of silicification with highest concentrations approaching 20% in feldspathized rock. Best gold values to date are 0.123/12.00 meters; 0.141/9.00 meters and 0.074/27.5 meters, true widths.

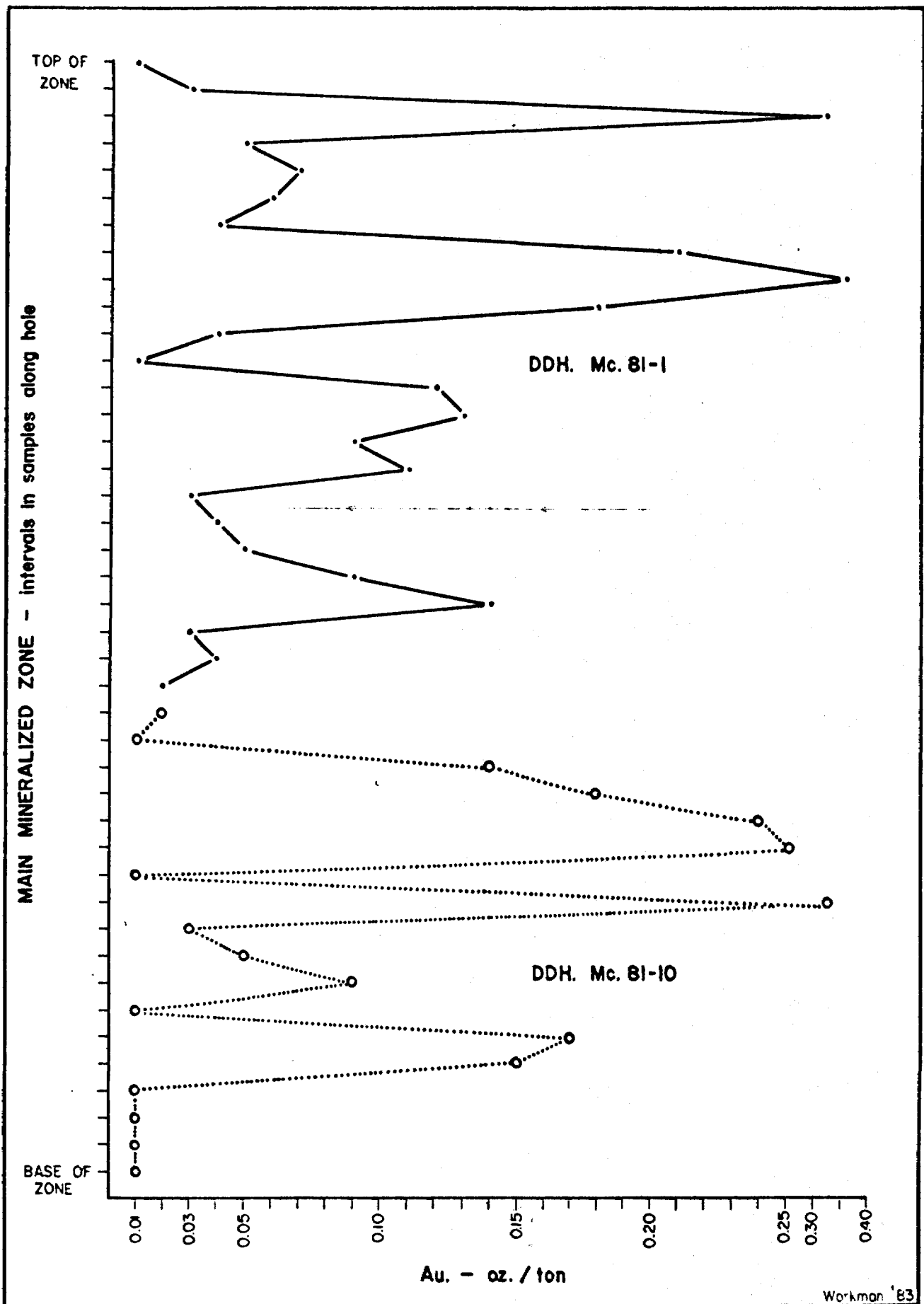


Figure 3

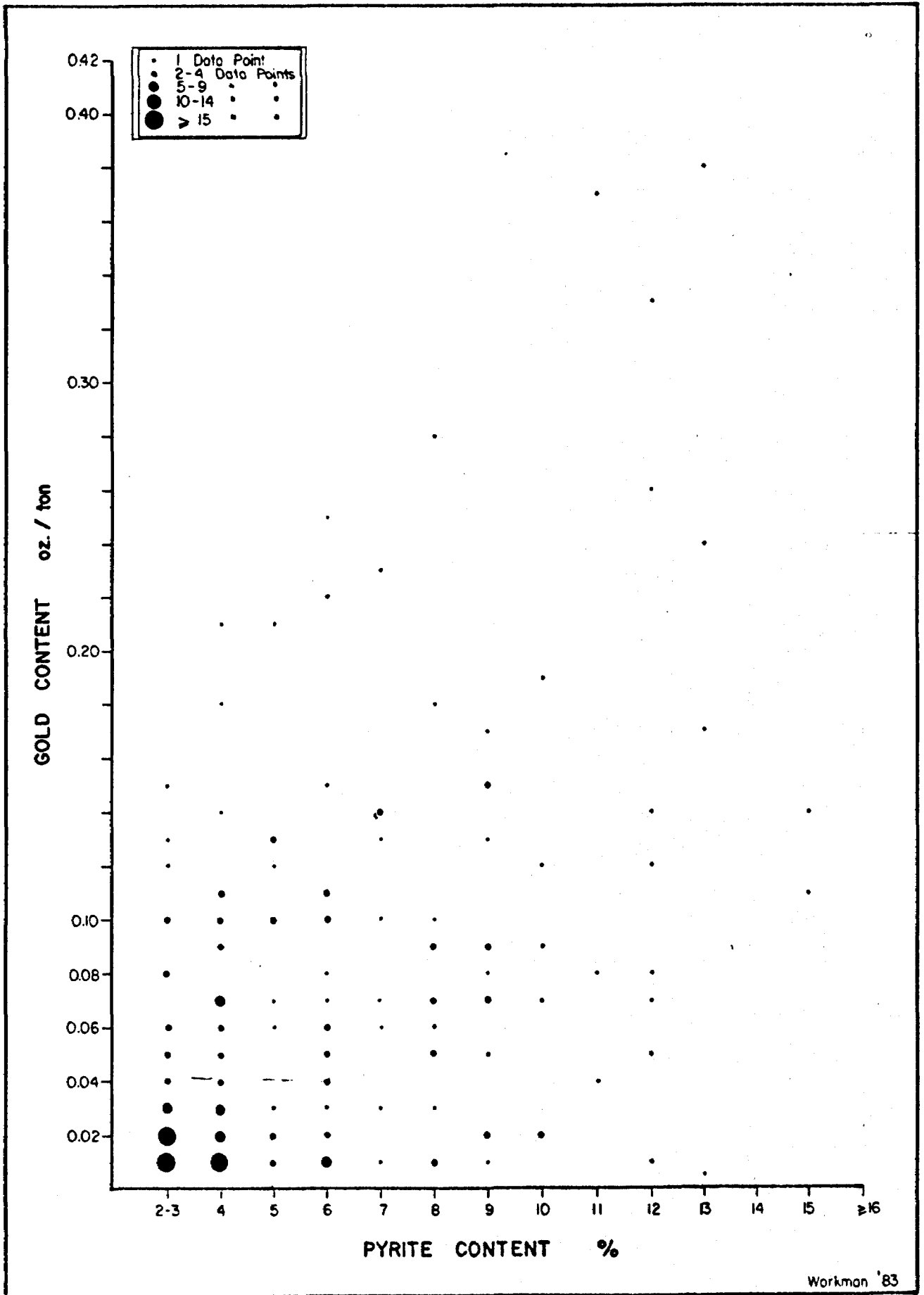
CYCLIC GOLD DEPOSITION

A plot of gold content along a drill hole indicates that gold content is cyclical with peaks in the 0.13-0.30 oz/ton range (see Figure 3). This feature is thought to represent individual depositional cycles, perhaps within a distal deltaic complex. The presence within the bedding, of thin cherty bands, often brecciated prior to overall silicification, indicates that the depositional environment is somewhat distal from the source of detrital material while remaining within the shelf regime.

A broad correlation is noted between estimated pyrite content and gold concentration. Much of the pyrite is thought to be diagenetic - formed during compaction and lithification from evolved pore fluids. Some of the gold has, no doubt, been locally re-distributed by these heated fluids. It may be contained within the pyrite crystal lattice. However, from personal observation, it is known that some of the mineralization is in the form of free gold. The pyrite-gold relationship is suggested in Figure 4.

Evidence of non-magmatic hydrothermal activity is provided by:

- (1) extensive, often extreme silicification of fracture boundaries, dilatant breccia zones and laminated, non-brecciated sediments;
- (2) the presence of coarse clots of pyrite (up to 1.5 cm) in rock with abundant very finely (0.1 mm) disseminated pyrite;



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FIGURE 4

GOLD vs. PYRITE CONTENT

Scatter Diagram Based On 210 Data Points From DDH's
Mc. 83-23 to 83-35 inclusive.

- (3) aphanitic, hematite-rich silicified sediments with little pyrite; probably reflecting a lack of sulphur bearing fluids to reduce iron; and,
- (4) sericite alteration of feldspar (from thin section).

Lack of a well developed vein system suggests that hydrothermal activity was limited, and, probably consisted of slow fluid migration through the sedimentary pile. Fluid temperatures were probably less than 200° C.

3.0 CONCLUSIONS

Much data is yet to be fully evaluated in light of a relatively new concept of gold mineralization and regional geology. The following statements are made with, at this time, a relative degree of certainty.

- (1) Gold mineralization is stratabound within a sedimentary sequence belonging to the Kinojevis Group.
- (2) The sediments are at least 100 meters in thickness and have a strike length in excess of 15,000 feet, extending past the Lenora Property.
- (3) The sediments are composed of argillites, wackes and cherty chemical sediment. Tuffaceous content is probably significant.
- (4) Gold was probably deposited in a cyclic pattern during normal sedimentary pulses.

- (5) A hydrothermal overprint is imposed on much of this sequence of sediments - probably a combined result of high crustal heat flow and dewatering of the sedimentary pile.
- (6) There is a general association between high pyrite contents and high gold values but regional variation is noted.
- (7) The Lenora Property sediments seem to be less affected by hydrothermal alteration while still having significant gold values.
- (8) The sedimentary sequence is in an environment very similar to the Hemlo Deposit.

4.0

RECOMMENDATIONS

The following recommendations are made based upon gaps in data or understanding as of October 1983.

- (1) All 1981-1982 drill core should be re-logged to put the stratigraphy and subjective descriptions into a common framework. This should also include a cursory re-examination of holes which were logged by the author prior to definitive labelling of the sedimentary sequence.
- (2) Examination of all mineralized sequences to determine that no potential mineralization has been missed.
- (3) Extensive fill-in sampling should be carried out on available Lenora core from 1958 and 1983 drilling.

- (4) Level plans should be prepared for the Lenora mineralized zone.
- (5) A series of samples taken from drill core across the McDermott zone should be thin sectioned to provide detailed geological and geochemical data. This should also be carried out on the Lenora rocks for comparison purposes (much of this sampling has been done).

For the project as a whole, there is an obvious lack of fault data. Many displacements are guessed at but are not even defined at the most rudimentary level. This is in part due to the position of the V.L.F. transmitter stations which do not allow coupling with NE-SW structures. To augment existing data, two further recommendations are made.

- (6) Landsat imagery at a scale of 1:250,000 utilizing bands 5 (green), 7 (red) and 8 (near infra-red), should be used to determine lineament directions and positions.
- (7) Define areas of primary structural interest and locate a portable V.L.F. transmitter to couple with suspected conductors. This might also be used to trace the mineralized sedimentary sequence.

A.W. WORKMAN

October 4, 1983



TO : Dit Holt - Gilles Tousignant

FROM: Al Workman

DATE: November 7, 1983

RE : Addendum to the report:
McDERMOTT PROJECT GEOLOGY AND GOLD MINERALIZATION
WESTERN HOLLOWAY TOWNSHIP
October 4, 1983

Fine diamond drill holes have been completed since the writing of my October report. These holes were drilled as follows in Table 1.

<u>Hole</u>	<u>Line</u>	<u>Departure</u>	<u>Bearing</u>	<u>Dip</u>	<u>Length</u>
43	9 + 50 E.	0 + 72 S.	344°	-70°	118.14 m (387.6')
44	10 + 25 E.	0 + 70 S.	344°	-65°	118.67 m (389.3')
45	8 + 87.5 E.	0 + 64 S.	344°	-65°	111.86 m (367.0')
46	7 + 75 E.	0 + 65 S.	344°	-65°	111.86 m (367.0')
47	7 + 25 E.	0 + 62 S.	344°	-65°	120.30 m (394.7')

A total of 580.83 meters (1,905.6') were drilled in these holes. With the exception of hole Mc. 83-45, all holes intersected good gold values over appreciable widths. These values are given in Table II. The third hole was drilled in an area where little previous drilling has been done. It is within the realm of possibility that it may have intersected better values in the "zone" should it have been placed so as to ensure a deeper intersection.

<u>Hole</u>	<u>Gold Mineralization (oz./ton)</u>
Mc. 83-43	0.137/10.71m (35.1') or 0.098/24.27m (79.6')
Mc. 83-44	0.193/6.88m (22.6') or 0.107/15.70m (51.5')
Mc. 83-45	0.075/2.17m (7.1')
Mc. 83-46	0.115/4.33m (14.2') and 0.102/3.17m (10.4')
Mc. 83-47	0.172/7.13m (23.4') or 0.104/14.22m (46.7')

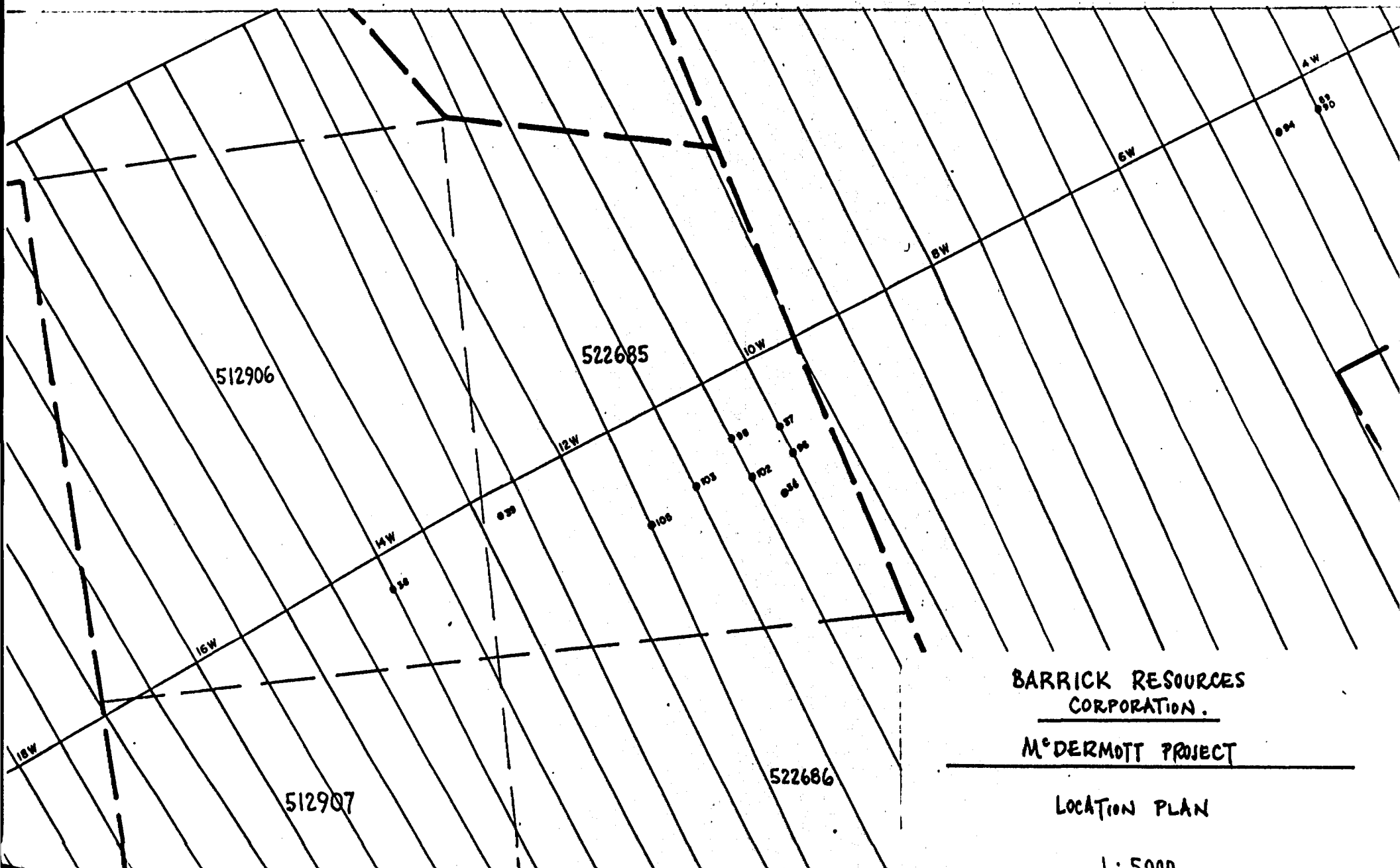
These holes have confirmed that economic gold mineralization is continuous within the plane of the Main Mineralized Zone (ie. the silicified and transitional zones) inasmuch as it has been explored. Mineralization pitches across the plane of the zone. From the higher grades found near surface, there appears to be both easterly and westerly rakes. This is true for "zone I" in the region of 7 + 50 E., and "zone II" in the area near 9 + 50 E. The westerly plunge seems to produce better mineralization, but this observation may be due to biased hole distribution. The most attractive areas for additional drilling are between lines 6 + 50 E. and 7 + 00 E. and between lines 8 + 75 E. and 9 + 50.

Drilling should attempt to intersect the favourable sequence at approximately 125 - 150 meters down the plane of the zone.

At the present, the zones are open with regards to all pitch possibilities. Grades appear to be sustaining themselves, and perhaps improving locally. Six additional holes are now being drilled on "Zone I" to test the various attitudes of the zone. No assay data is available for comment at the time of writing.

A.W. Workman

7-11-83



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BARRICK RESOURCES
CORPORATION.

M^cDERMOTT PROJECT

LOCATION PLAN

1:5000

#63-4297



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PROJECT #135

HARKER AND HOLLOWAY TOWNSHIPS, ONTARIO

Camflo Mines Limited

December 5, 1983

Al Workman
Gilles Tousignant
Meredyth Holt

OM 83-6-C-34

INTRODUCTION:

Recent diamond drill results in conjunction with the geological mapping and geophysical surveys carried out during the field season have prompted a preliminary investigation of the "ore potential".

Rather than generalize, and accepting the fact that the grade and tonnage determinations in themselves are inconclusive at this early stage of development, it was decided that detailed measurements and calculations were warranted with regard to further work programs and property option commitments for 1983 and 1984.

SUMMARY AND CONCLUSIONS:

Beginning in October 1981, Camflo Mines Limited have now drilled a total of 53 diamond drill holes; 45 of which were drilled on the McDermott property, four on the Hennessy property and four on the Lenora property.

The 1983 diamond drill program was mainly confined to a continuous strike length of approximately 1050 feet (325 meters), of which, shallow but fairly detailed drilling covered the east and west sections (combined strike length of approximately 600 feet (183 meters). The mineralized sediments (zone) are known to continue along strike for a minimum distance of at least 10,000 feet (3048 meters) as indicated by very limited shallow drilling and surface mapping.

GEOLOGY AND GOLD MINERALIZATION:

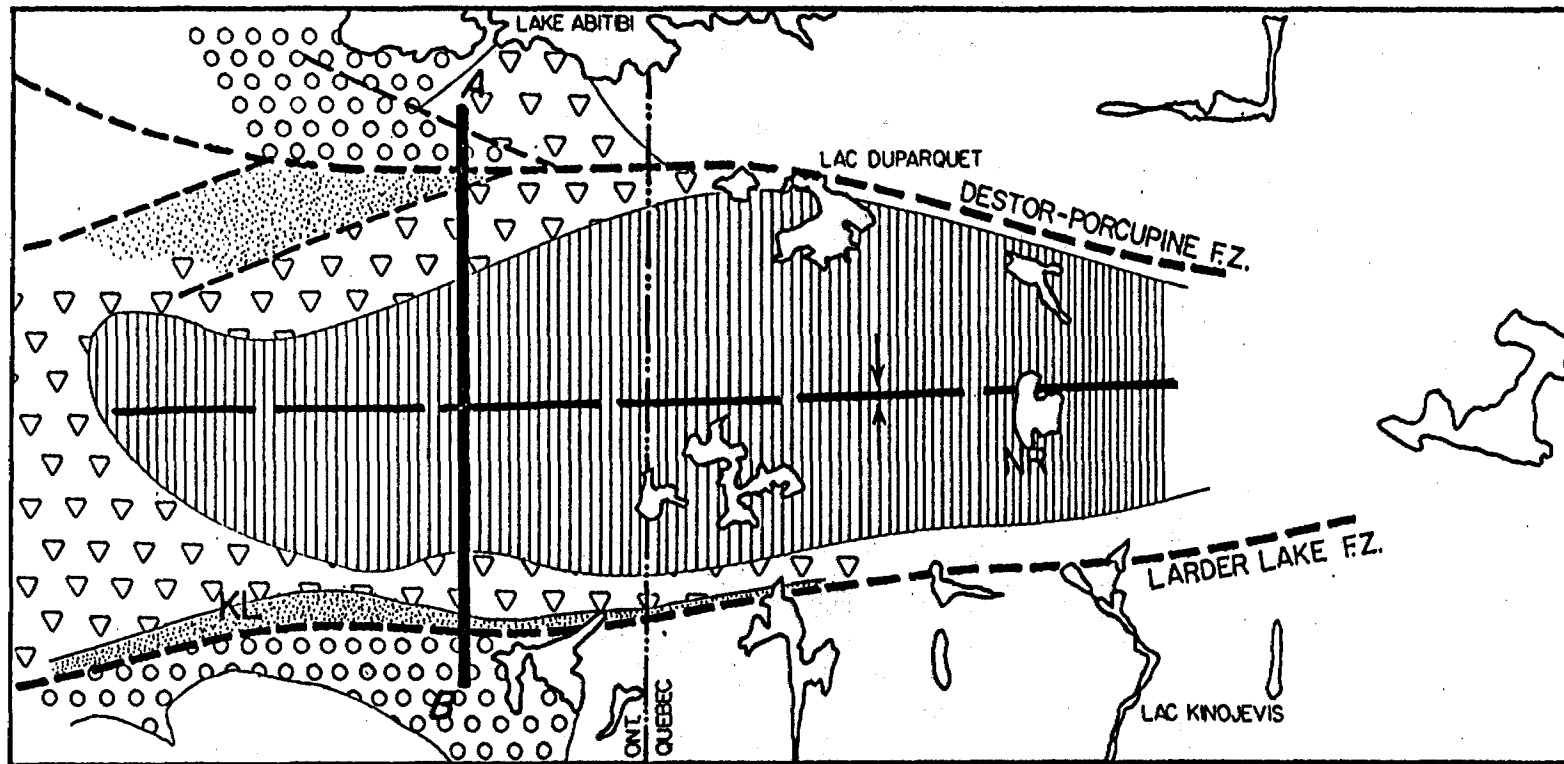
(By A. Workman)

Property

The main area of interest on the McDermott Project at the present time is a block of ten patented claims in Holloway Township referred to as the McDermott Property. The adjoining four claims of the Hennessy Property are of secondary interest. The project area as a whole, extends both to the east and west for approximately 11,000 meters (36,080 feet) over various additional blocks of Camflo-staked and optioned ground. A block of land optioned from Lenora Exploration Limited is considered to be promising. The project area is located in Figure 1.

General Geology

The study area is underlain by Archean rocks of the Kinojevis Group. These rocks are dominantly tholeiitic basalts with lesser amounts of argillite, cherty chemical sediments, and wacke. Tuff, carbonaceous sediments and iron formation are noted on a limited basis. These rocks strike approximately 080° and dip $60-90^{\circ}$ south. Steeper dips are favoured. The Destor-Porcupine Fault Zone strikes east-northeasterly across the sequence on the northern edge of the area of interest. A number of hinge faults strike south to southwesterly from the Destor. One of these, the McDermott Fault, traverses the northern part of the McDermott-Hennessy Properties. Gold mineralization has been found in rocks to the south of this fault.



20 km.



TIMISKAMING GROUP
Alkalic Volcanics



BLAKE RIVER GROUP
Calcalkalic Volcanics



KINOJEVIS GROUP
Tholeiitic Volcanics



STOUGHTON ROQUEMAURE and LARDER LAKE GROUPS
Komatiitic Volcanics

KL - Kirkland Lake

NR - Noranda-Rouyn

A-B : Cross-Section Line

Project Area

Schematic of Geology in McDermott Project Area (after Jensen et al.)

FIGURE 1

The geological mapping has complemented the diamond drilling programme by confirming that the McDermott sedimentary horizon is continuous through to the Lenora Property and indeed, onto the Canamax Option. A second sequence on the Newmex Option bears a striking visual resemblance to the McDermott style lithology, alteration and pyrite mineralization. The originally suggested strike length of 3048 meters (10,000 feet) for the potential gold bearing strata has been increased to being in excess of 15,000 feet; from roughly 13+00 E to at least 32+00 W. The same horizon can be traced, if lower potential(?) is considered, for well over 25,000 feet (7620 meters). It extends from the western edge of the Amax Option, across the McDermott Property, and onto the Ghostmount Property.

Geophysical data is not as yet totally compiled.

Regional Geology

The Archean stratigraphy⁽¹⁾ for Holloway Township is as follows:

UPPER SUPERGROUP	Timiskaming Group Blake River Group Kinojevis Group Stoughton Roquemaure Group
LOWER SUPERGROUP	Porcupine Group Hunter Mine Group Wakewada Group

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A simplified schematic diagram (Figure 1) locates the project area within the regional geology. The two supergroups represent successive volcanic cycles from ultrabasic komatiitic volcanism to acid calcalkaline volcanism. Each cycle is topped by a sedimentary sequence. The gold mineralization of interest in Holloway and Harker Townships is hosted by Kinojevis rocks. Specifically, the host is a sedimentary sequence within the tholeiitic volcanics. As such, the sediments reflect a major hiatus in volcanic activity.

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sedimentary basin or basins. The eventual burial of these sediments in a region of high heat flow would have subjected them to localized hydrothermal conditions as pore fluids were evolved. This led to general silicification, pyritization, feldspathization and limited re-distribution of gold. With continued volcanism and subsidence, the rock sequence tilted more and more into the graben. Melting at depth of lower stratigraphic sequences produced magmas of "granitic" composition which erupted on surface as island-arc type calc-alkaline volcanism. Depletion of the magma chambers and the weight of the 20-30 km of collected volcanics caused the graben to collapse inwards. Dilation of the boundary faults, such as the Destor-Porcupine, allowed Timiskaming rocks to collect in a second generation graben. Within the fault zones, much hydrothermal activity altered the Timiskaming assemblage and introduced gold locally in vein systems (eg. Teddy Bear Property).

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related to these features. Furthermore, the alteration could be explained solely by diagenetic processes. Economic gold concentrations are confined to saucer or basin like depressions interconnected down-dip along the host formation. Gold was concentrated in hollows and channelways on a shelf. Much lower gold values are found atop the shelf itself although these sediments are texturally very similar.

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A plot of gold content along a drill hole indicates that gold content is cyclical with peaks in the 0.13-0.30 oz/ton range (see Figure 3). This feature is thought to represent individual depositional cycles, perhaps within a distal deltaic complex. The presence within the bedding, of thin cherty bands, often brecciated prior to overall silicification, indicates that the depositional environment is somewhat distal from the source of detrital material while remaining within the shelf regime.

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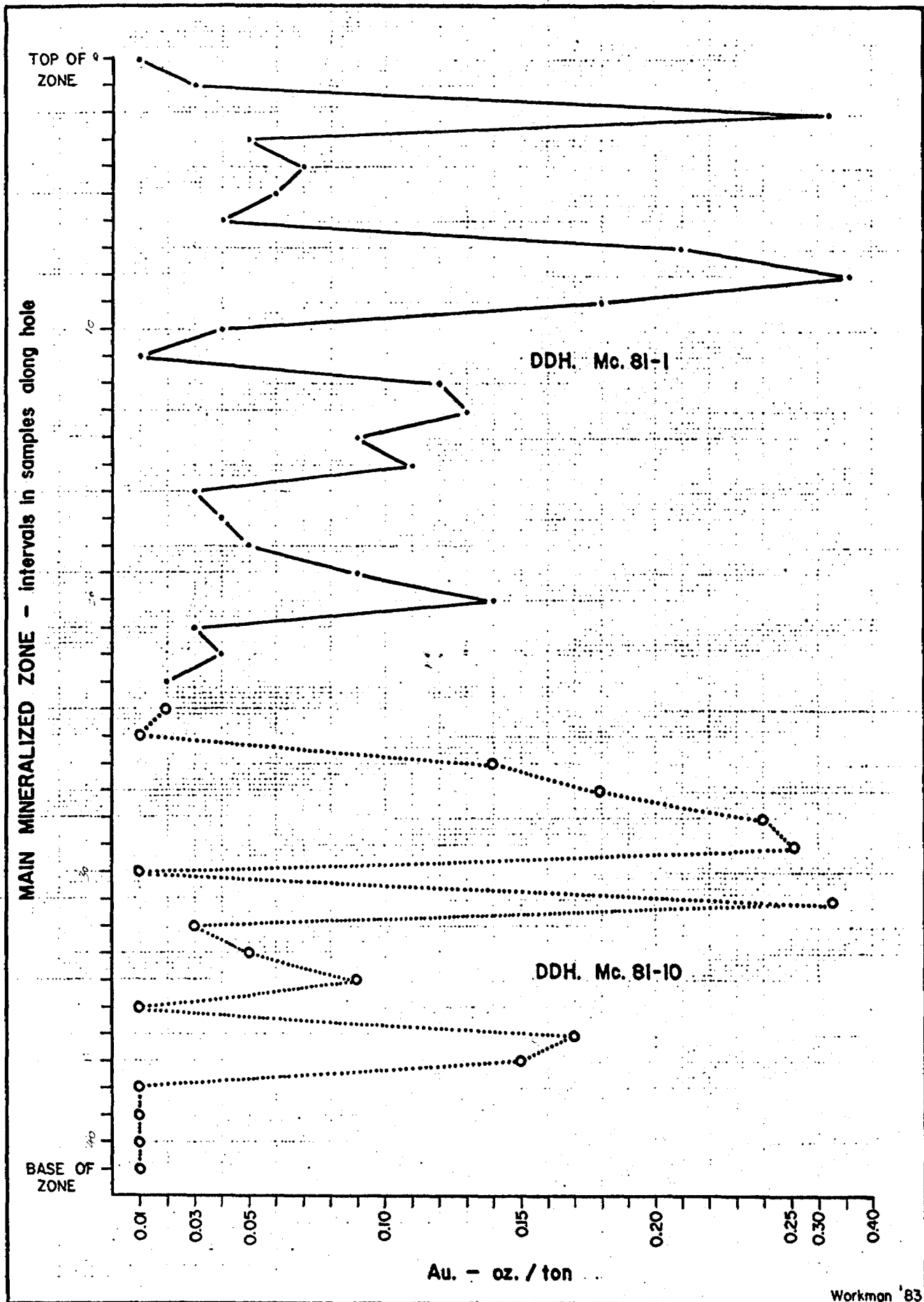
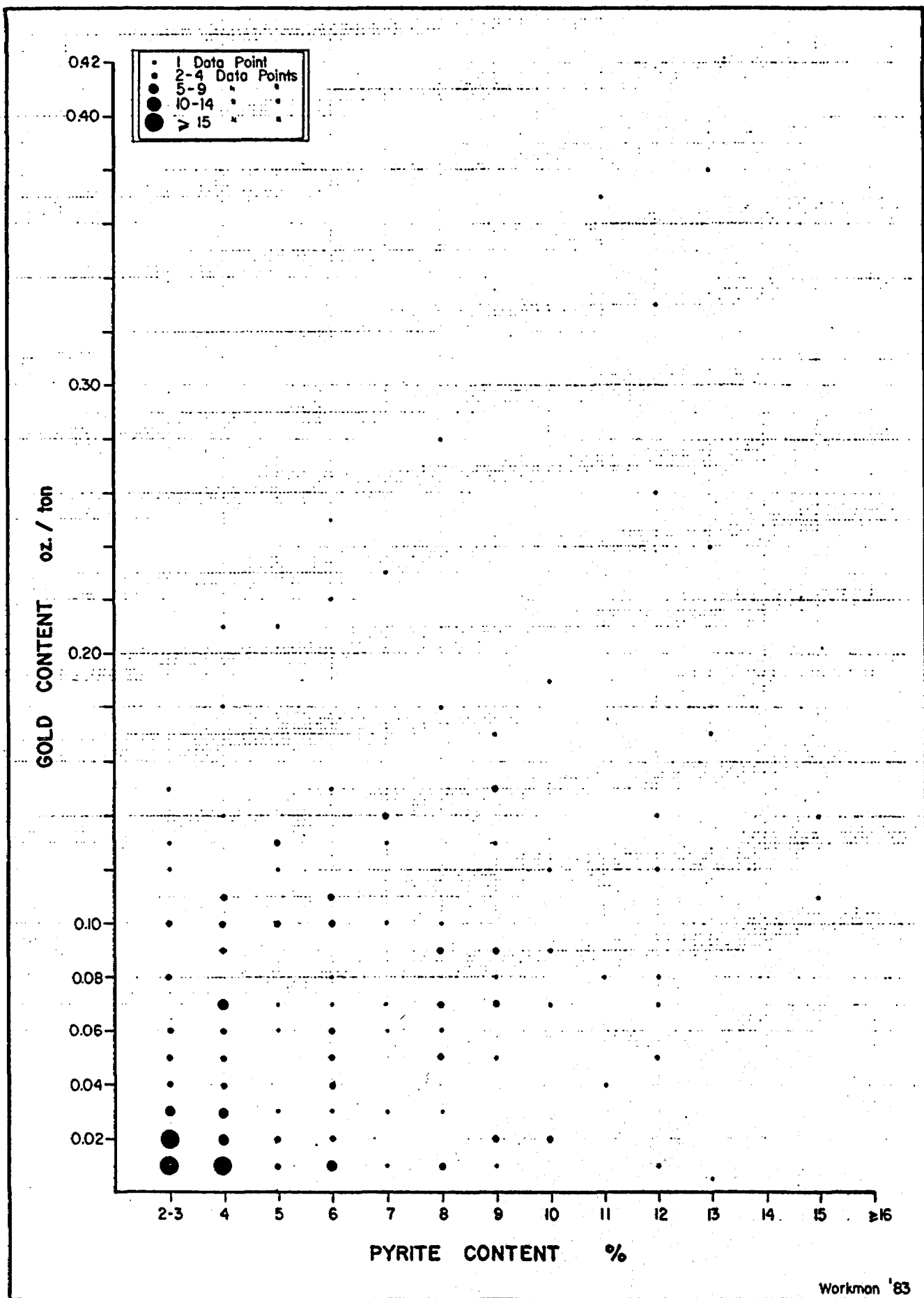


Figure 3

CYCLIC GOLD DEPOSITION



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FIGURE 4

GOLD vs. PYRITE CONTENT

Scatter Diagram Based On 210 Data Points From DDH's
Mc. 83-23 to 83-35 inclusive.

Evidence of non-magmatic hydrothermal activity is provided by:

- (1) extensive, often extreme silicification of fracture boundaries, dilatant breccia zones and laminated, non-brecciated sediments;
- (2) the presence of coarse clots of pyrite (up to 1.5 cm) in rock with abundant very finely (0.1 mm) disseminated pyrite;
- (3) aphanitic, hematite-rich silicified sediments with little pyrite; probably reflecting a lack of sulphur bearing fluids to reduce iron; and,
- (4) sericite alteration of feldspar (from thin section).

Lack of a well developed vein system suggests that hydrothermal activity was limited, and, probably consisted of slow fluid migration through the sedimentary pile. Fluid temperatures were probably less than 200° C.

Paleo Basin

An isopach map was produced to illustrate the relationship between the thickness of the sedimentary sequence and the gold content of the 'Main Mineralized Zone' within this section. The zone is geologically defined as an altered sequence (principally silicified), of sedimentary rocks. This zone carries highly anomalous and remarkably continuous gold values. The sediments are contained within the Kinojevis Group volcanics.

Most diamond drill holes were collared into basaltic volcanic rocks in the hanging wall of the zone. Somewhat fewer of the holes actually transected the entire sedimentary sequence to terminate in footwall volcanics. Where data allows, projections of the contacts were made and the thickness of the sediments was measured. These thicknesses were measured by section and by level and plotted on a longitudinal section in the plane of the ore zone. The contoured values were then compared to a previously drafted longitudinal of grade x width values.

It is readily evident from the sedimentary isopach, that the sediments are thickening to the south. The deduction follows that an ancient shoreline existed to the north, and that the sediments developed as a clastic wedge in a generally southerly direction. Local irregularity is attributable to local highs (perhaps offshore islands), in the volcanic basement. The development of this paleobasin is in keeping with general geological models advocated for this region by Jensen, Hinse and, with some modifications, by this author.

A comparison of the thickness isopach to the grade x width contours indicates that the bulk of the "potential ore" is found where the sediments are relatively thick. In fact, drill holes which did not intersect good mineralization, can be seen to have hit local highs in the volcanic basement where the sedimentary rocks are attenuated over 50% thickness; for example, Hole 83-42.

These findings do much to prove the existence of a basin lying to the south, southwest and southeast (down-dip), from present drilling. As strata are probed deeper in the basin, gold values should become more regular in grade and in width.

Discussion

Much data is yet to be fully evaluated in light of a relatively new concept of gold mineralization and regional geology. The following statements are made with, at this time, a relative degree of certainty.

- (1) Gold mineralization is stratabound within a sedimentary sequence belonging to the Kinojevis Group.
- (2) The sediments vary in thickness up to at least 100 meters and have a strike length in excess of 15,000 feet, extending past the Lenora Property to the southwest.
- (3) The sediments are composed of argillites, greywackes and cherty chemical sediment. Tuffaceous content is probably significant.
- (4) Gold was probably deposited in a cyclic pattern during normal sedimentary pulses.
- (5) A hydrothermal overprint is imposed on much of this sequence of sediments. This is probably a combined result of high crustal heat flow and dewatering of the sedimentary pile.
- (6) There is a general association between high pyrite contents and high gold values but regional variation is noted.
- (7) The Lenora Property sediments seem to be less affected by hydrothermal alteration while still having significant gold values.

TABLE 1 : DIAMOND DRILL HOLE DATA

D.D.H.	LONGITUDE	LATITUDE	BEARING (AZ.°)	DIP	LENGTH METERS (FEET)		COMMENTS
Mc 81-1	10+00 E	0+50 S	350	-55°	137.77	(452.0)	
81-2	8+50 E	1+00 S	350	50	188.67	(619.0)	
81-3	11+50 E	1+00 S	350	50	152.40	(500.0)	
81-4	10+00 E	0+75 S		60	121.92	(400.0)	
81-5	10+50 E	0+75 S	350	55	137.16	(450.0)	
81-6	11+00 E	0+75 S	350	50	124.05	(407.0)	
81-7	12+00 E	0+75 S	350	50	216.10	(709.0)	
81-8	13+00 E	0+60 S	350	50	155.45	(510.0)	
81-9	9+50 E	0+60 S	350	50	107.29	(352.0)	
81-10	7+50 E	0+60 S	350	45	122.83	(403.0)	
81-11	7+00 E	0+60 S	350	45	107.59	(353.0)	
81-12	8+00 E	0+60 S	350	45	107.90	(354.0)	
82-13	6+50 E	0+60 S	350	45	107.59	(353.0)	HENNESSY OPT
82-14	6+00 E	0+60 S	350	45	123.44	(405.0)	HENNESSY OPT
82-15	5+00 E	1+00 S	350	45	137.77	(452.0)	HENNESSY OPT
82-16	4+00 E	0+60 S	350	45	109.73	(360.0)	HENNESSY OPT
83-17	10+12.5E	0+38 S	344	50	60.05	(197.0)	
83-18	9+87.5E	0+38 S	344	50	60.05	(197.0)	
83-19	9+75 E	0+35 S	344	45	52.43	(172.0)	
83-20	9+75 E	0+46 S	344	65	72.24	(237.0)	
83-21	9+62.5E	0+33 S	344	50	60.05	(197.0)	
83-22	9+50 E	0+36 S	344	45	61.26	(201.0)	
83-23	9+37.5E	0+30 S	344	45	60.05	(197.0)	
83-24	9+25 E	0+50 S	344	55	92.66	(304.0)	
83-25	9+25 E	0+37 S	344	45	60.96	(200.0)	
83-26	7+75 E	0+40 S	344	60	91.65	(300.7)	
83-27	7+75 E	0+30 S	344	45	61.26	(201.0)	
83-28	7+62.5E	0+28 S	344	45	61.26	(201.0)	
83-29	7+50 E	0+26 S	344	45	61.26	(201.0)	
83-30	7+37.5E	0+24 S	344	50	69.22	(227.0)	
83-31	7+25 E	0+36 S	344	60	96.62	(317.0)	
83-32	7+25 E	0+24 S	344	50	66.14	(217.0)	
83-33	7+87.5E	0+40 S	344	50	63.09	(207.0)	
83-34	8+12.5E	0+50 S	344	50	62.80	(206.0)	
83-35	8+00 E	0+60 S	344	60	91.74	(301.0)	
83-36	10+25 W	1+30 S	344	65	175.87	(577.0)	LENORA OPTIC
83-37	10+00 W	0+69 S	344	65	137.46	(451.0)	LENORA OPTIC
83-38	14+00 W	0+35 S	344	45	106.98	(351.0)	LENORA OPTIC
83-39	12+75 W	0+25 S	344	45	91.74	(301.0)	LENORA OPTIC
83-40	10+00 E	1+30 S	344	70	218.87	(718.0)	
83-41	9+50 E	1+15 S	344	70	203.29	(667.0)	
83-42	7+50 E	0+75 S	351	70	186.12	(610.6)	
83-43	9+50 E	0+72 S	344	70	118.14	(387.5)	
83-44	10+25 E	0+70 S	344	65	118.67	(389.2)	
83-45	8+87.5E	0+64 S	344	65	111.86	(366.9)	
83-46	7+75 E	0+65 S	344	65	111.86	(366.9)	
83-47	7+25 E	0+62 S	344	65	120.30	(394.6)	
83-48	10+25 E	0+100S	344	65	145.08	(475.9)	
83-49	10+00 E	0+93 S	344	60	139.46	(457.4)	
83-50	9+75 E	0+75 S	344	65	109.27	(358.4)	
83-51	9+75 E	0+94 S	344	65	140.51	(460.9)	
83-52	9+25 E	0+70 S	344	65	182.88	(599.8)	
83-53	9+25 E	0+95 S	344	70	131.37	(430.9)	

DISCUSSION

- (1) With reference to the longitudinal section it can readily be observed that for a limited strike length of 1060 feet (323 meters), from 7+12.5 m to 10+37.5 m and to a maximum vertical depth of only 150 meters (492 feet) that 40 holes have tested only about 40% of this part of the zone to an average depth of approximately 55 meters (180 feet).
- (2) With the gold bearing sedimentary zone having a known strike length of greater than 15,000 feet (4572 meters) it is highly likely that it will extend to a depth of at least 4-5,000 feet (1219-1524 meters).
- (3) The tonnage potential is becoming increasingly attractive in light of the second and third stage drilling results. It becomes mainly a question of grades, from which our preliminary "ore" calculations are most encouraging.
- (4) Along strike to the east and west of the holes that have been used for the calculations, earlier shallow reconnaissance drilling for a distance of about 1,000 feet (305 meters) in both directions intersected the mineralized zones. Although the values were generally low, it is now known that these areas warrant considerably more drilling, particularly at depth. Re-logging of the older reconnaissance holes will give us a much better understanding of the down-dip potential.

CONCLUSIONS AND RECOMMENDATIONS:

- (1) As stated earlier in placing the emphasis on the fact that we are dealing with a sedimentary stratabound deposit, the property has unusually good potential within the present boundaries of the properties either held under option or staked by Camflo Mines.
- (2) Quite obviously the location is ideal from a standpoint of infrastructure and possible early custom milling.
- (3) It is strongly recommended that a major diamond drilling program commence in February or March 1984, pending the availability of funds.
- (4) With the geophysical, geochemical and geological mapping now completed for all practical purposes systematic drilling is the only means of determining the overall size and grade of the gold deposit(s).
- (5) Program Costing:
 - (A) A Major Diamond Drill Program excluding the drilling already completed and covering a strike length of 3,000 feet (914 meters) to a depth of 1,000 feet (305 meters) would cost approximately \$933,000. With OMEP funding the cost would be reduced to approximately \$700,000.
 - (B) A Minimal Diamond Drill Program excluding the drilling already completed and covering a strike length of 1,200 feet (366 meters) to a depth of 1,000 feet (305 meters) would cost approximately \$484,000. With OMEP funding the cost would be reduced to approximately \$363,000. Included in the Minimal Program the cost to drill to a depth of 750 feet (230 meters) is estimated to be \$328,000. With OMEP funding this would be reduced to \$246,000.

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REPORT ON A
MAGNETOMETER SURVEY
IN
HARKER TOWNSHIP
LARDER LAKE MINING DIVISION

By: Gilles Tousignant, Ing.

March 26, 1984

DM83-6-C-34

I. INTRODUCTION

The nine mining claims numbered L598857 to L598859 inclusive, and L598871 to L598873 inclusive, L610804, L610805 and L610953, located in Harker Township, Larder Lake Mining Division, were optioned by Camflo Mines Limited from Johns Manville Co. Ltd.

The center of this claim group is located 32 miles east of Matheson, 1.5 miles south of Highway 101, and 6000 feet west of the Harker - Holloway Township line. It covers part of the former Toronto Harker and Consular Harker properties. It is accessible from the north by a trail leading from Highway 101 to the adjoining Lenora property, or from the west by a bush road that leads to the Harker Gold Mine property, and passes .5 miles west of the west boundary.

II. GEOLOGY

The area is underlain by Keewatin sediments and volcanics, cut by Pre-Algoman basic and ultrabasic intrusives.

The volcanic rocks are basic to intermediate in composition, and are found as massive, fine to coarse grained flows, as pillow lavas, or as pillow or flow breccias with thin bands of associated pyroclastics. The formations are striking from 70° to 90° east, with a steep south dip, and the tops are facing south.

The intrusive rocks are usually diabasic in composition, and are often found as sills; however, the coarse grained center of flows have often been mistaken for diabasic intrusives, both the lavas and the sills being similar in composition. Minor syenitic dikes are also present, but they are usually of limited width and length. One major syenitic dike is interpreted in the central - western part of the Harker Township.

The few outcrops found on the property have been classified as basic to intermediate volcanics, sometimes pillowed, tops facing south, and with a steep south dip. Two strike faults, the Imperial fault to the north and the Ghostmount fault to the south have been inferred by the previous workers.

The major Porcupine - Destor fault lies one mile north of the property.

III. MAGNETOMETER SURVEY

17.7 miles of lines were cut and chained on the property, and a detailed ground magnetometer survey was completed, with readings taken at 25 meter intervals, and at 12.5 meters where anomalous, along lines 50 meters apart.

The instrument used was a scintrex M.P.-2 proton magnetometer, in conjunction with a compatible base station. Combined operator, instrument and recorder errors give a reliability of ± 10 gammas on individual readings.

The contoured residual values (total field minus 58,000 gammas) are shown on the accompanying map.

The major feature in the area, as shown by the survey, is the strong magnetic axis outlined in the south part of the property. This axis is oriented N.70°E., parallel to the interpreted and mapped lava flows, and is thought to reflect the presence of magnetic flows.

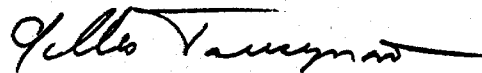
The strike of this strong axis is the same as the weaker axes to the north, which are due to less magnetic andesitic or basaltic flows, with the weaker zones possibly showing interbedded sediments or tuffs.

From the continuity of the magnetic axis, we assume that there are no major structures cross-cutting the property. The weakening of certain strong

axes as we go from west to east is coincidental with the outcropping area, and is probably due to the deepening of the overburden.

IV. CONCLUSION

The magnetic survey on this property confirms the general trend of the geological formation in this area, as outlined by Satterly in his report, and shows the presence of magnetic flows to the south.


Gilles Tousignant, Ing.

CERTIFICATE OF QUALIFICATION

I, GILLES TOUSIGNANT, of 245 rue Canadienne, Val d'Or, Quebec, do hereby certify that:

- 1.- I am a graduate of l'Ecole Polytechnique de Montreal, having received the degree of Bachelor in Applied Science, major in geology, in 1973.
- 2.- I have, since graduation, practised in the fields of mineral exploration, development and mining.
- 3.- I am a member of 'L'Ordre des ingénieurs du Québec'.
- 4.- I am employed by Camflo Mines Limited, and I have a personal knowledge of the work performed and described in this report.

Dated this 26th day of March 1984.

Gilles Tousignant
Gilles Tousignant, ing.

#68.4297



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060

A PROGRESS REPORT ON

LENORA OPTION GOLD MINERALIZATION,

GEOLOGY AND GEOPHYSICS

by A.W. Workman

May 22, 1984

OM83-6-C-34

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1. 1958 Diamond Drilling - Assay Results
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1.0 INTRODUCTION

1.1 Purpose:

The intent of this report is to update the reader as to the status of the Lenora Option in terms of expenditures, and the current geological thinking as regards to the property. Past and present work have been summarized and recommendations for future work have been made.

1.2 Summary:

The Lenora Property is located in Harker Township, Ontario, approximately 30 miles east of Matheson. It can be reached via a winter road extending about 0.5 miles south of Hwy.#101. It consists of six unpatented claims registered to Mr. R.J. Kasner of Lenora Explorations Limited.

1.3 General Geology:

The property is underlain for the most part by rocks of the Kinojevis Group. These rocks are dominantly basaltic volcanics and are Keewatin in age. They are cut, if not actually bounded, to the north by the Destor-Porcupine Fault Zone. The strata strike approximately 070° Az. and dip steeply south. Within the volcanics, a sedimentary horizon has been defined. It is conformable to the volcanics and is about 50-100 meters in thickness. The formation is composed of siltstones and argillites with varying amounts of tuffaceous input. Gold mineralization has been detected within this sequence.

The Kinojevis rocks are intruded by younger dykes and sills of mafic composition. Hornblende-biotite lamprophyres and pyroxenites have been mapped in the field. These rocks are highly magnetic and correlate well to a regional magnetometer survey carried out by Camflo Mines Limited personnel. A few narrow syenitic dykes have been noted locally within some diamond drill holes.

1.4 Previous Work:

During the 1940's and 50's, exploration work in the form of prospecting, trenching and diamond drilling was carried out on the property. In part due to a general lack of outcrop, the work concentrated on the north-central part of the property. Gold values in the 0.10 oz/ton range were detected in trenches. Diamond drilling was carried out in the late 1950's. Pack-sack (x-ray), drill core and AQ core was recovered. Values up to 0.21 were reported by D.F. Hurd from a section average of 0.077 oz/ton over 48.0' (resampling in 1973). A summary of the initial assay results from "silicified volcanics" is given in Table #1 (G.M. Hogg, Consulting Report to Lenora Explorations, 1981).

In his 1981 consulting report, G.M. Hogg concluded that "one, and possibly two linear gold-bearing zones have been shown to exist on the Lenora Exploration Harker Township Property". He went on to state that the strata "exhibit the characteristics of a weakly disturbed gold concentration of paleobasinal origin", and further that "an auriferous zone of substantial thickness extends over a distance of a least 1,300' in the Lenora baseline area, but it's character and grade are uncertain".

TABLE #1

1958 Diamond Drilling - Assay Results

<u>D.D.H.</u>	<u>Sampled Length</u>	<u>Au (oz/ton)</u>
Pack-sack #1	45.1' (including 28.2' of 0.131)	0.101
Pack-sack #2	35.0' (including 25.0' of 0.134)	0.103
Hole #5	14.0'	0.058
Hole #8	3.0'	0.090
Hole #9	3.0'	0.250
Hole #10	17.0' (including 6.0' of 0.240)	0.101

1.5 Current Status:

During 1983, the Lenora Property was geologically mapped and was surveyed by proton magnetometer and by Geonics E.M.16. During late July and throughout most of August, four diamond drill holes were completed by Camflo Mines for a total of 512.05 meters (1,680 feet).

Total expenditures on the Lenora claims are broken down as follows:

Geophysics	\$14,500.00
Geological Mapping	1,700.00
(20 man-days @ \$20.00/day)	
(20 man-days @ \$65.00/day)	
Diamond Drilling	13,566.10
Supervisory, Drafting	1,200.00
(40 man-days @ \$30.00/day)	<hr/>
Total Expenditures (May 15, 1984)	\$30,966.10

2.0 GEOLOGICAL MAPPING

2.1 Introduction:

The Lenora Property was mapped at a scale of 1:2500 by Camflo crews. Their work was an extension of work initiated on properties lying east of the Lenora claim block. Partial coverage was given the western part of the claim block due to a general scarcity of outcrop. Work was centred on the area known through drilling to have gold-bearing strata.

2.2 Lithologies:

No natural exposures of the gold-bearing sediments are exposed. Two trenches near the baseline at 12+50 W and 13+00 W were excavated prior to Camflo's work. The trench at 0+20 N, 12+50 W contains fine grained, possibly sheared sediments resting upon basaltic volcanic rocks. The sediments strike 062° Az. and dip 78° south. A second trench in the same area on line 13 W, contains purple-grey silicified sediments which have no apparent structure aside from brecciation. They carry low but anomalous pyrite contents of 2-5%.

The remainder of outcrops on the Lenora property consist of fine to medium grained massive basalts. In general, they are dark green in colour, are non-magnetic, non-carbonatized and are not silicified. Flow contacts are marked by strong epidotization. Thin (less than 10 meters thick), tuffaceous horizons have been interpreted as inter-flow sediments. These are often silicified. They conform

roughly to northeasterly strikes and dip steeply south. No evidence has been found either on surface, or indeed, in drill holes to indicate overturning.

The volcano-sedimentary sequence is cut by intrusive bodies of mafic to ultramafic composition. Observed and thin-sectioned lithologies include biotite lamprophyre, phases of hornblende gabbro and (clino) pyroxenite. These bodies may be measured in tens and hundreds of meters in size. On a smaller scale, narrow syenitic dykes less than 1 meter in width, have been noted locally.

The Destor-Porcupine Fault Zone strikes approximately 075° Az. across the north part of the property in the vicinity of the trenches and drilling. Shearing noted within volcanic and possibly within sedimentary rocks, is a likely consequence of this fault zone. A few smaller faults striking more north-southerly are expected to cross the baseline in the vicinity of the trenches. The most noteworthy of these crosses the baseline near the eastern property boundary. Another fault, defined by drilling, crosses the baseline at about $10+25$ W. It also strikes nearly grid-north (344° Az.).

To summarize the geology, surface work has indicated a volcano-sedimentary sequence, striking east-northeasterly with steep southerly dips and south tops. This data is in keeping with the general concept of a rapidly subsiding paleobasin to the south and a boundary fault (dilatant hinge-type) zone just to the north of the Lenora Property. The gold-bearing sedimentary sequence, although seldom seen on surface, represents a considerable hiatus in volcanic extrusive activity. Even

at relatively high sedimentation rates of 25 cm/1,000 yrs (eg. Ouchita Basin), this period would be 400,000 years; more than ample time to form considerable detrital type (placer) gold deposits as ore in themselves or as a source bed for epigenetic deposits. At a rate of 5.6 cm/1,000 years, (Witwatersrand) this period would be approximately 1.8 M.

3.0 GEOPHYSICS

3.1 Introduction:

During the summer of 1983, 11 line miles of grid were cut and then surveyed with both proton magnetometer and Geonics E.M.16. The grid--north orientation was 344° Az. with a baseline at 074° Az. Control on magnetometer data was provided through a base station in Rouyn, Quebec. The V.L.F. survey was conducted using the Cutler, Maine (NAA) transmitter station. All data was plotted on 1:2500 base maps.

3.2 Magnetometer Survey:

Magnetometer data indicates a broad zone of relatively flat (400-600 gammas) magnetic relief lying north of the baseline. This is interpreted to reflect the magnetically uniform and altered rocks of the Destor-Porcupine Fault Zone. South of the baseline, a magnetic high up to 3,225 gammas reflects a pyroxenitic to dioritic intrusive body. The anomaly is elongated at 070° Az. The intrusive is an extension of a much larger body located on the Lost Treasure property. Farther south, in the vicinity of 4+00 S, a zone of high magnetic relief (700-4600 gammas), is found. This is interpreted to represent

a particularly magnetic suite of Kinojevis volcanic rocks. The anomalous zone has a regional trend of 075° Az. and conforms to a known volcanic stratigraphic orientation.

3.3 V.L.F. Survey:

The E.M.16 survey has revealed several strong conductive zones striking approximately 110° Az. across the Lenora property. One of the best of these is located on line 16+00 W at 1+60 S. Locally, the conductors exhibit left handed displacement of up to 50 meters. The conductors are of an orientation which is difficult to interpret, because they neither conform to stratigraphic orientation nor do they parallel any known fault orientation.

3.4 Conclusions:

Magnetic surveys have proven useful in the delineation of intrusive bodies. A magnetic low was expected over the targeted sedimentary horizon, but, due to the high magnetics of the pyroxenites, the sediments are probably being obscured. The V.L.F. (E.M.16) survey has indicated the presence of east-southeasterly trending conductors of unknown affiliation. These are similar to conductors discovered on other properties and Camflo options in the area and remain an enigma. However, the offset noted on these conductors conforms to regional norms measured in outcrop and in drilling.

4.0 DIAMOND DRILLING

4.1 Previous Drilling:

Ten AQ diamond drill holes in addition to several pack-sack holes were completed on the Lenora Property during the late 1950's. Of these, six AQ diamond drill holes were available for re-examination by Camflo personnel. Although some drill core was missing, probably reflecting previous sampling, the core was generally complete enough to be log-able. Sufficient depth markers were readable to allow for reliable litho-stratigraphic evaluation.

Examination and re-assaying of core revealed that gold mineralization is hosted by a sedimentary horizon. This formation is visually identical to the McDermott formation and is (likewise) probably tuffaceous in origin. The sediments are underlain and overlain by basaltic volcanic rocks. The volcanics are thought to belong to the Kinojevis Group.

The best intersections in the 1958 drilling, insofar as can be supported by Camflo's resampling are listed in Table #2. It should be remembered that missing core may in part have contained gold values.

4.2 Present Drilling:

Four diamond drill holes totalling 511.05 meters (1,676.7'), were completed during late July and August 1983. The intent of this drilling was to prove up the grades previously reported from the early

TABLE #2

Gold Bearing Intersections From 1958 Drilling

D.D.H.	Interval (m)	Width (m)	Au (oz/ton)
58-1	76.20 - 79.25	3.05	0.055
	83.21 - 87.48	4.27	0.047
58-2	88.39 - 91.44	3.05	0.020
58-3	trace levels only		
58-4	0.01 - 0.02 levels only		
58-5	72.24 - 73.46	1.22	0.040
58-6	18.29 - 24.08	5.79	0.041

drilling. Furthermore, Camflo intended to test the down-dip continuity of the gold mineralization although the exact host formation was unclear at the time. The holes are summarized in Table #3.

The most interesting and continuous gold mineralization was found in weakly altered (brecciated, silicified, carbonatized) pyrite-bearing sedimentary rocks. These rocks are often laminated but always have some degree of preferred parting due to a foliation. Pyrite contents, while generally low in the 1-5% range, do seem to have a bearing on gold concentration in the same manner as evidenced on the McDermott Property.

4.3 Compilation of Lenora Drill Data:

All past and present drill log data was plotted on 1:250 (metric) scale sections. Few sections have more than one drill hole. Down-dip projections were made using regional norms and known bedding attitudes. The geology was compiled on a -50 meter level plan. The stratabound relationship of mineralization to bedding is known from our experience within the confines of the Hennessy-McDermott properties. Using available dip information, mineralized sections were also transferred to the -50 meter level plan.

On the -50 level, the sedimentary formation strikes approximately 085° Az. and crosses the baseline between the 14+00 W and 10+00 W sections (Camflo Grid). It dips steeply south at 75-85° and ranges in thickness from 17 to well over 50 meters. The thickness is poorly defined since many holes were terminated before intersecting footwall

TABLE #3 - SUMMARY OF CAMFLO MINES PRESENT DRILLING

Mc. 83-36 (line 10+25 W 1+30 S -65° N)

0.00 - 10.36	Overburden
10.36 - 33.25	Basalt - silicified, minor sub-lapilli tuff
33.25 - 64.93	Basalt - massive flow
64.93 - 111.44	Mafic Intrusive - hornblende rich
111.44 - 113.14	Basalt - variably brecciated, later silicified
113.14 - 124.65	Basalt - highly silicified breccia
124.65 - 138.65	Basalt - massive flow
138.65 - 170.40	Diorite - often porphyritic
170.40 - 175.87	Andesite - possibly basalt, massive
175.87 meters	End of Hole

Gold Mineralization 111.44 - 115.69 (4.25 m) 0.037 oz/ton
 124.20 - 124.63 (0.43 m) 0.120 oz/ton

Mc. 83-37 (line 10+00 W 0+69 S -65° N)

0.00 - 15.85	Overburden
15.85 - 32.65	Basalt - massive, locally silicified breccia
32.65 - 67.25	Diorite - medium to coarse grained
67.25 - 125.50	Basalt - massive, flow brecciated, locally silicified
125.50 - 127.10	Fault Zone - sheared core, minor clay
127.10 - 137.46	Sediments - moderately to strongly silicified breccia locally
137.46 meters	End of Hole

Gold Mineralization 137.00 - 137.46 (0.46 m) 0.080 oz/ton

Mc. 83-38 (line 14+00 W 0+35 S -45° N)

0.00 - 25.87	Overburden
25.87 - 68.00	Basalt - pillowed flow
68.00 - 86.96	Diorite - porphyritic locally
86.96 - 106.98	Sediments - laminated, irregularly silicified and brecciated
106.98 meters	End of Hole

Gold Mineralization 90.00 - 91.05 (1.05 m) 0.115 oz/ton
 95.04 - 96.50 (1.46 m) 0.130 oz/ton
 99.84 - 101.05 (1.21 m) 0.121 oz/ton

Mc. 83-39 (line 12+75 W 0+25 S -45° N)

0.00 - 1.55	Overburden
1.55 - 40.85	Basalt - pillowed flows
40.85 - 55.09	Diorite - porphyritic centre core
55.09 - 59.45	Basalt - pillowed, brecciated locally
59.45 - 91.74	Sediments - variably silicified and brecciated with up to 10% pyrite
91.74 meters	End of Hole

Gold Mineralization 66.10 - 73.18 (7.08 m) 0.080 oz/ton
 (includes 4.11 m @ 0.107)
 74.65 - 79.35 (4.70 m) 0.071 oz/ton
 (includes 1.00 m @ 0.190)
 84.83 - 90.83 (6.00 m) 0.060 oz/ton
 (includes 1.00 m @ 0.120)

volcanics. The formation has probably undergone offset along a cross-fault near the baseline at 10+25 W. Displacement is left-handed and totals about 30 meters.

The best continuity of gold mineralization as well as the highest overall grades are found between the 14+00 W and 12+00 W sections. However, much core was missing from the 10+00 W - 10+50 W area where high grade intersections were previously reported. Camflo drilling in this area failed to intersect the favourable horizons, in part due to uncertainty surrounding the original hole locations.

The gold is hosted by variably silicified rocks which seem to be enriched in pyrite. The silicification is penetrative into formerly carbonatized beds and breccia zones. The original degree of carbonatization, while localized, may have been quite high. The silicifying agent was also responsible for the addition of pyrite, and probably, gold. With ongoing alteration, sericite developed. It is in sericitized and silicified rock that the highest gold and pyrite contents are noted.

5.0 CONCLUSIONS

Although a limited amount of work (petrographic) is ongoing at the moment of writing, our present understanding of the Lenora option geology and mineralization can be summarized as follows:

- (i) The gold is hosted within an altered (chloritized, carbonatized and silicified) sedimentary sequence. It is located within the dominantly volcanic regime of the Kinojevis Group.

- (ii) The degree of alteration, while lower than that observed in McDermott rocks, is essentially of the same character. Silicification has invaded formerly carbonatized breccia zones and lamination sets. Sericitization developed with on-going alteration - probably with higher temperatures (greater than 175°C). Pyrite and gold were likely added throughout the cycle but increased with increasing temperatures (therefore being highest in sericitized rock).
- (iii) Average pyrite content in the 2-4% range is much lower than in McDermott mineralization. The relationship of gold to pyrite content may be somewhat looser reflecting lower (overall) alteration levels.
- (iv) The McDermott-Hennessy-Lenora sedimentary formation is one and the same. It is highly tuffaceous on the former properties and there is presently no reason to suspect a difference on the Lenora.
- (v) Although the gold was probably syngenetic initially, sufficient alteration and ground preparation exists to suggest epigenetic activity to be the major mineralizing process.
- (vi) The best gold values were encountered west of line 12+50 W and east of line 10+50 W. These are areas where the sedimentary formation undergoes thickening.

6.0 RECOMMENDATIONS

In light of what has been learned from the more exhaustive work on the McDermott Property, and taking into account our current understanding of the Lenora Property, the following recommendations are made.

- (i) Two diamond drill holes should be cored on each 50 meter section, where one or more presently exist. A 300-400' hole should be complemented with a 500-600' hole. The area from 9+00 W to 15+00 W should be investigated to a vertical depth of 400-500' with a total of 3,265 meters (10,712') of drilling. A shortened programme covering 9+50 W to 14+50 W is also possible. This would total 2,420 meters (7,940'). The drilling proposal is outlined in Table #4.
- (ii) A longitudinal section should be produced as drilling evolves. This will enable the orientation of the zone to be ascertained within the plane of the sedimentary formation.
- (iii) An isopach longitudinal should be prepared to investigate the thickness of the sediments. Gold intersections should be compared to this isopach to determine if any correlation exists.

A.W. Workman

May 20, 1984

TABLE #4 - RECOMMENDED DRILLING FOR LENORA OPTION

D.D.H.	Section	Location	Dip	Length(m)
1 *	9+00 W	0+75 S	-55°	170
2 *		0+40 S	-45°	110
3	9+50 W	0+75 S	-55°	170
4		0+40 S	-45°	110
5	10+00 W	1+00 S	-60°	185
6	10+37.5 W	1+00 S	-60°	185
7	11+00 W	1+00 S	-60°	165
8		0+50 S	-45°	100
9 *	11+50 W	1+00 S	-60°	165
10 *		0+50 S	-45°	100
11	12+00 W	0+60 S	-60°	135
12	12+50 W	0+25 S	-45°	110
13		0+60 S	-60°	180
14	13+00 W	0+25 S	-45°	110
15		0+60 S	-60°	180
16	13+50 W	0+20 S	-45°	110
17		0+55 S	-60°	180
18	14+00 W	0+50 S	-60°	200
19	14+50 W	0+45 S	-60°	190
20		0+20 S	-45°	110
21 *	15+00 W	0+45 S	-60°	190
22 *		0+20 S	-45°	110
				<u>3,265 m</u>
				(10,712 ft)

* denotes deleted holes in shortened programme

63.4297



070

CAMFLO MINES LIMITED
GEOPHYSICAL SURVEY
ON THE
'WEST BLOCK' PROPERTY
HARKER TOWNSHIP, ONTARIO
LARKER LAKE MINING DIVISION

June 1984

Gilles Tousignant, ing. geol.

DM83-6-C-34



32D12SE0044 63.4297 HOLLOWAY

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I. Introduction

The 'West Block' property of Camflo is located in the central-western part of Harker Township, Northeastern Ontario, Larder Lake Mining Division.

This area is 32 miles east of Matheson, via highway 101, and 2 miles south of the main road. It is easily accessible by secondary timber roads that border it in the east, south and west.

It includes 30 contiguous, unpatented mining claims, numbered from L641387 to L641416, staked for Camflo Mines Limited in February 1982.

II. Regional Geology

Most of the area is underlain by Kewatin volcanics and sediments, cut by basic and ultra basic intrusives, and by an algonian(?) syenite intrusive in the central-western part of the township.

The volcanic rocks are basic to intermediate in composition, and are found as fine to coarse grained flows, as pillow lavas, or as flow and pillow breccias, with thin bands of associated pyroclastics.

Sediments, ranging from argillites to greywackes, sometimes silicified, carbonated and sericitized, and cherty horizons are sometimes intercalated between the different flows. They vary in thickness from a few meters to a few hundred meters. The strike of the different formations goes from N85°E to N60°E, with the tops facing south and a steep south dip.

North of the township, and not outcropping, is a sedimentary unit in contact with the volcanics. along the inferred location of the major Porcupine-Destor fault zone. These sediments, based on the observations made in the adjoining townships, are greywacke, slate, conglomerate and iron formations.

The intrusives are usually diabasic and are often found as sills. Sometimes, however, the coarse grained center of flows can be mistaken for diabasic or dioritic sills, both the lavas and the intrusives being very close in composition. Some north-south, quartz-diabasic dykes were reported by Satterly.

North of the township and of the sediments lies a rhyolitic band, and the Ghostmount ultramafic complex, which is thought by many to be the possible source for the gold found south of the Porcupine-Destor fault.

The main structural feature of the area is the east-west trending Porcupine-Destor fault zone, which is presumed to cross the north part of the township, along the sediments - volcanic contact. The exact location of the break is unknown, due to the lack of exposure, but it has probably been intersected in some diamond drill holes. Many subsidiary strike faults, trending N75°E, are reported and are probably related to the main break.

III. Geology of the Property

Very little is known about the geology of the property, because it is almost completely drift covered. From the geology of the adjoining properties and from the geophysical interpretation, it can be assumed that it is for the most part underlain by basic volcanics. A sedimentary horizon, composed of greywacke and arkose, crosses the south part of the property, but is not outcropping.

Finally, the north-eastern part of the property is underlain by a syenitic intrusive, pink to red in color, from fine to coarse grained, and sometimes quite magnetic. It is locally mineralized with finely disseminated pyrite, but no gold values were reported up to now in this particular intrusive. It could be related to the major intrusive in Garrison Township, around which a few, small ore bodies were mined.

IV. Work Done by Camflo Mines Limited

The following work was completed on the property in 1983:

1 - Line Cutting

30 km. of lines were cut on the property, as lines 100 meters apart, with a station every 25 meters along the lines; a 2.4 km. east-west base line was cut south of the block, and a tie line north of the block.

2 - VLF Survey

A VLF survey was conducted along these lines, using a Geonics EM-16 instrument. The transmitter was the Cutler Station, (NAA) with a 17.8 KHz frequency. All the readings were taken facing north-east, with the positive reading indicating the instrument was pointing north-east and a negative reading when it was pointing south-west. The readings were taken as percentage (i.e. slopes) and used as such for the profiles, but were converted to degrees to calculate the Fraser filter values.

There are 30 VLF anomalies, whose axes have been shown on the accompanying map, and are numbered from 1 to 30. There are also some low response areas, where conductive overburden prevented any penetration to the bedrock.

The anomalies are mostly poor conductors, reflecting the overburden-bedrock effect much more than any real bedrock conductor. They might, indirectly, show geological contacts between two different units, or be the expression of shear zones. The general attitude of the anomalies, (south-east to north-west) shows a series of north-north-east trending cross faults, which are confirmed by the magnetic survey.

The following is a description of the individual anomalies:

Anomaly #	Comments	Priority
1	Weak conductor, 400 m. long; east-west trending, showing a strong but wide cross over. Part of it is out of the property. Check boundaries.	3
2	Very weak anomaly, 800 m.+long, wide cross over with // quadrature response. Parallel but not coincident with a low magnetic axis 50 m. to the north. To be checked.	2
3	Strong, generally wide cross over, with inverse quadrature, showing a good conductor and coincides with a low mag axis. Should be checked further, especially on line 1+00W. Possibly outside of the property.	2
4	Weak, very wide cross over: overburden	4
5	Very weak, 250 m. long anomaly, very wide cross over, with reversed quadrature. The anomaly axis is doubtful. Check in the field.	3
6	Weak and sometimes very wide cross over, with parallel quadrature cross over. Overburden.	4
7	300 m.+ long, best on line 6+00W, more or less coincident with a low mag. axis. Check in the field.	3
8	Wide, weak to very weak anomaly, 1500 m.+ long, crosses most of the property; even if the east part of the anomaly is almost coincident with a low mag. axis, it is probably due to overburden. (Valley?)	4
9	700 m. long anomaly, parallel to #8. Weak wide cross over, with parallel quadrature cross over, except on line 13+00W, where it looks better. It is striking across the magnetic trend.	3
10	Weak and very wide cross over, often with parallel quadrature response. 1400+ m. long parallel to anomaly #8, east part coincident with a low mag axis. Overburden effect? Check in the field.	3

Anomaly #	Comments	Priority
11	Wide cross over, but with reversed quadrature cross over. Best on lines 5W and 8W. 350 m.+ long. Check in the field.	2
12	Could be the continuation of #11, 150m. long. Very wide cross over, multiple conductors. To be checked.	3
13	Weak anomaly, 150 m. long, no coincident quadrature variation, probably overburden.	4
14	Weak, very wide cross over, with weak sometimes parallel quadrature response; 500 m. long. Central part is almost coincident with a magnetic axis. Could be geological contact.	3
15	Very poor anomaly 400 m. long, wide and/or weak cross over, often with parallel quadrature response. Almost parallel to #14 anomaly.	4
16	Fair to weak anomaly, 300 m. + long, wide cross overs; conductive overburden.	4
17	100 m. + anomaly, parallel to magnetic trend weak quadrature response, possible outcrop area. Check in the field.	3
18	Very weak, 500 m. + long anomaly, wide cross over, with frequent parallel quadrature response.	4
19	200 m. long, good cross overs, but with parallel quadrature, corresponds to a low mag. Possibly geological contact. Check.	2
20	400 m. long, weak to fairly strong, but wide cross over, with inverse quadrature, the west part coincides with a high mag anomaly. To be checked in the field.	2
21	200 m. long, fair to weak cross over, possibly joins #20, best on line 14+00W, where it is coincident with a low mag axis. Check in the field.	2
22	300 m. long, parallel to #23 and partly masked by it; parallel quadrature response. Overburden effect.	4

Anomaly #	Comments	Priority
23	400 m. long, weak and usually wide to very wide cross over, no magnetic coincident. Overburden.	4
24	300 m. long, weak and wide cross over.	4
25	100 m. +, strong in phase and weak quadrature response, corresponding to a higher mag axis. To be checked.	2
26	200 m. long, weak and wide cross over, with parallel quadrature cross over. Coincident with a weak mag axis. Possible geological contact.	3
27	400 m.+ long, strong but wide cross over, trends across the mag axis.	3
28	400 m.+, strong but wide cross over, parallel quadrature response; overburden.	4
29	300 m.+, weak and wide cross over, parallel quadrature. Poor conductor. Overburden.	4
30	300 m.+, weak to strong, but wide cross over. Shear zone?	3

As can be seen, no anomaly is classified as being a first priority anomaly. None of these would justify diamond drilling based on the EM-16 survey only.

The second priority anomalies are worth being checked in the field, and could justify the use of a more sophisticated method.

The third and fourth priority anomalies do not present too much interest, even if a check in the field can be useful in some cases.

3 - Magnetic Survey

A magnetic survey was conducted along the same grid, with readings taken every 25 m. along the lines, and at 12.5 m. intervals where anomalous values were encountered.

The instrument used was a MP-2 proton magnetometer from Scintrex, and the diurnal corrections were made by comparing with a compatible base station. The total field was measured, and the values, minus 58,000 were plotted on the accompanying map. Total instrument and operator's error is less than 10 gammas.

The highly magnetic horizon shown on the contoured map, south of the property, is interpreted as being the continuation of the magnetic flows found south of the McDermott Property. The lower values north of the horizon represent the sedimentary horizon that is the continuation of those found on the old Imperial Reserve (Canamax) and Demers properties. North of the sediments, more or less magnetic volcanic flows are present, with the syenite intrusion, which is reported to be magnetic, showing in the north-east corner of the property.

The magnetic axis also shows a series of north - north-east cross faults, with a left hand movement. Even if individually these displacements are small, the overall result is not negligible.

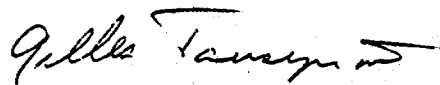
V. Conclusion

The geophysical surveys, and particularly the mag survey, are a big help in understanding the geology of this area, and confirm the geology as shown on Satterly's map.

The VLF survey, on the other hand has to be used with care, as the conductive overburden can give surface anomalies, and mask the real conductor. However, it can still be useful for structural and geological interpretation.

Any diamond drilling in this area should be based mostly on the magnetic and geological interpretation, unless a more sophisticated geophysical survey gives more reliable anomalies.

Respectfully submitted,


Gilles Tousignant, ing. geol.
June 14, 1984

CERTIFICATE OF QUALIFICATION

I, Gilles Tousignant, of the city of Val d'Or, province of Quebec, do hereby certify that:

- I graduated from l'Ecole Polytechnique de Montréal, in 1973, with a B.A.Sc in geology.
- I am a member of the Quebec Order of Engineers.
- Since 1973, I have been involved in mineral exploration, development and production with various companies.
- I am employed by Camflo Mines Limited as Project Manager.
- I supervised and I had personal knowledge of the various surveys conducted in 1983 on the company's property in Harker Township, North-eastern Ontario.


Gilles Tousignant, ing. geol.

June 11, 1984

HARKER-HOLLOWAY

Exploration, mainly for gold, in the Black River — Matheson area of Ontario indicates more potential just below the surface.

By Patrick Whiteway

From the air it's just a flat, swampy plain with just a few outcrops here and there. But like a giant magnet, it's attracting considerable attention from junior and major mining companies alike because of the high potential for finding gold. But since the last glaciers, which receded about 20,000 years ago, left behind a heavy blanket of largely clay overburden which can be up to 100 m thick in places, these companies are starving for information due to a lack of adequate geological maps. Therefore, what lies just below the surface has barely been glimpsed.

The area is the southern part of the Abitibi Greenstone Belt — a roughly linear package of volcanic and sedimentary rocks that most geologists believe was a break in one of the original sialic protocontinents that emerged from the Earth's supple crust 2.5 billion years ago during the Archean Era in Precambrian times — that comprises the Black River-Matheson (BRIM) area of northeastern Ontario, south of Lake Abitibi.

In the thinly covered eastern part where about 25% of the bedrock is exposed, compared to just 5% in the western half, Barrick Resources and Canamax Resources have discovered three potentially minable zones of gold mineralization, setting off a rush of staking along strike in Harker and Elliott twps. to the southwest and down dip in Holloway Twp. Barrick has successfully blocked out indicated reserves of 1.3 million tons

grading 0.18 oz gold per ton in three zones from drilling that was done on the company's McDermott property in Harker and Holloway twps early last year.

Canamax Resources on the other hand has drilled its Mattawasaga and East Zones from surface in nearby Holloway Twp and also intends to go underground to open up the zone to determine if it is minable and for a metallurgical sample prior to a feasibility study.

Closer to Timmins, but in the same BRIM area, St Andrew Goldfields has been carrying out underground exploration of a gold deposit in Stock Twp (just off the accompanying map to the west) for some time and a private company, Maude Lake Gold Mines has opened up a zone of mineralization in Beatty Twp to the east.

But despite these exploration successes, it's an ongoing survey by Ontario Geological Survey (OGS) geologists, funded jointly by the Ontario Ministry of Northern Affairs and Mines and the Ministry of Natural Resources, that has the greatest potential for lifting the veil on this emerging exploration area. They are providing the comprehensive data base needed to get more companies involved in the area.

As a result of four years of work so far, which has included airborne magnetic and electromagnetic surveys and extensive drilling and trenching, 20-odd companies are actively exploring and/or drilling anomalous bedrock conductors in the search for gold in the huge BRIM area. Major

companies include Placer Developments, Cominco, Inco Ltd. (through subsidiary Canico), Noranda, Sherritt Gordon, Lacana and Pamour Porcupine. Exploration is currently at such a feverish pitch that some programs have been forced to go on hold because of a shortage of available drills.

OGS geologists have been using a rotasonic drill, which uses vibration and rotation to advance the bit, operated by Midwest Drilling to investigate bedrock geology. Since the drill uses no drilling fluid, relatively undisturbed samples of both overburden and bedrock can be recovered. The drilling, scattered over the entire 40-township area, will result this year in detailed maps of the Precambrian geology of three townships — Beatty, Munro and McCool and a map compiling the Precambrian geology of the entire area, straddling highway 101 from Timmins, east to the Ontario/Quebec border, is expected later in the year.

At the office of the resident geologist in Kirkland Lake, recently appointed economic geologist A.C. Bath is compiling a locally accessible computerized data base of assessment files, core and rock samples, mineral showings and reference literature as another part of the government program. The program is expected to last another five years.

Much of this work, the results of which are anxiously awaited by prospectors and junior mining companies in particular, is concentrated on backhoe and drill samples of the gla-



cial deposits of till that blanket the area. Because of the heavy overburden, government geologists are attempting to develop new and effective exploration strategies. One is to compile data on the stratigraphy, distribution, thickness, structure, mineralogy and geochemistry of the till deposits — looking for traces of mineralization that has been smudged across the ground by the last great glaciers.

Since the direction those glaciers moved in is fairly well known, trace amounts in the till may lead geologists back to the original deposit. One junior company, Bay Resources & Services, has identified several areas on their 104-claim property in Warren and Milligan twps where free gold occurs in significant concentrations in the Munro Esker, a glacial feature that bisects the BRIM area by a line from the western shore of Lake Abitibi, south into Thackeray Twp. The company hopes to find enough gold in the linear, bell-shaped ridge to justify a placer gold mining operation, according to president Camille Lamer. One such operation was running intermittently for two years near Fade Lake, 16 km south, according to OGS engineering geologist C. L. Baker.

Another hopeful exploration technique is using improved magnetometer surveys to detect pods of intensely carbonatized ultramafic rocks known to host economic gold deposits in the area.

The center of attraction in the bedrock below the overburden is two major structural breaks known to be associated with mineralization in the Timmins mining camp, namely the Destor-Porcupine and Pipestone Fault Zones — two planar zones of brittle deformation which snake their way across the area from east to west. Veins of quartz-carbonate within various carbonate-, sericite-, chlorite-, talc- and serpentine-bearing shists — rocks that have been pressed and baked at various temperatures and pressures over geological time — have been found to contain native gold and gold associated with pyrite in the immediate vicinity of these fault zones.

The gold mineralization on the Barrick property, however, is a whole new ball game. Hosted in the dark black tholeiitic basalts in what is known as the Kinojevis Group, the gold there occurs in the native state and on pyrite confined to what project geologist A. W. Workman, calls "pods occurring within pale purple hematitic, pyritic, carbonatized, and silicic rocks of controversial origin."

With the Kinojevis Group rocks and interbedded sediments apparently occurring both north and south of the Porcupine-Destor Fault zone and its associated splays, much of the exploration work in the area has concentrated on confirming the apparent continuity of this tholeiitic unit. If successful, this would indicate that gold mineralization analo-

gous to the Barrick discovery could occur for a distance of 50 km, according to OGS economic geologist Bath.

Metallogenetic studies of the high grade Croesus gold deposit, a former producer, located north of the Porcupine-Destor Fault in Munro Twp. show that free gold in economic concentrations occurs in strongly foliated and metamorphosed, pyritic pillow basalts — of a kind analogous to those found at modern day ocean floor spreading centres. Here, basalts are fractured when they cool from the molten state in seawater and are sheared and altered by subsequent tectonic movements, providing passageways for gold bearing, silicate-rich hydrothermal solutions, possibly derived from huge volumes of ocean water circulating through the fractured basaltic flows, to travel and subsequently solidify. The volcanic units are eventually buried and compressed by sediment derived from the more quartzofeldspathic rocks on the continents. During Archean times, this type of activity may have taken place in intracontinental oceanic basins over plumes or hot spots in the underlying mantle, like those postulated by Precambrian geologists studying the Abitibi greenstone belt.

At the St Andrew Goldfields deposit in Stock Twp, 50 km east of the city of Timmins, gold occurs in a 100-m wide massive and pillowed mafic metavolcanic unit that can be traced to the Porcupine-Destor Fault

located to the north of the deposit, according to OGS geologist John Mal... The mineralization is associated with a system of parallel quartz veins in the highly sericitized rock unit. Gold reserves in this developing mine are about 1.5 million tons grading 0.13-0.15 oz gold per ton, yet the company, 66%-held by Quebec Sturgeon River Mines, has held off on a production decision for some time now.

The fourth known gold deposit in the area and the largest producer so far, is the 400-ton-per-day Ross mine in Hislop Twp. Held by Hollinger Consolidated Gold Mines from 1935 to 1976, the mine has subsequently been taken over by today's operator Pamour Porcupine Mines. While considerable controversy exists over the relationship of this deposit to the local lithology, most geologists agree that the rocks in the area have suffered considerable metasomatic alteration. Nine different types of chemical alteration have been confirmed in the vicinity of the mine. Ore mined so far has averaged 0.17 oz gold and 0.28 oz silver per ton.

Another, smaller deposit in the BRIM area that has already yielded gold is the Murphy Pit in Garrison Twp. Kerr Addison Mines mined 65,000 tons of ore from the pit grading 0.13 oz gold per ton in 1981 and the company is currently investigating other gold showings in the immediate area.

With the success of these activities prospectors and mining company geologists eagerly await the pending publication of drill and trenching results from the government's BRIM program. As these results become available, one can expect the BRIM area to become an even more attractive exploration Meca in the years ahead. Under that blanket, there's a mining camp somewhere. ♦

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TIMMINS AND POINTS EAST

This famous old camp keeps coming up with new mines.

By Kerry Knoll

It has been called the granddaddy of Canadian gold camps. And historically it has been one of the best places to look for gold, having had some 30 mines over the years. While most of these were found before the Second World War, new deposits continue to be outlined by those who believe that the old gold camps are the best places to look.

So far in the 1980s Kidd Creek Mines has come up with the Hoyle Pond and Owl Creek mines, out behind its smelter complex. Both of these have made money for their owner, but the two other tries at mines didn't make it. Asarco's little mine at Nighthawk Lake didn't work out because of the falling gold price when it began production in 1984. The Carshaw project southeast of town, failed because of the lack of ore, though they are still trying there.

Now there are five other underground projects under way in the camp, two of them by St Andrew Goldfields just east of town. The Stock project has been an on-and-off situation since the early 1970s, but it finally looks as though they are close to a mine. Back in town, the Bell Creek operation of Canamax is just about ready to go ahead and start mining. The nearby Tisdale project looks as though there is lots of work to do before a decision can be made. Vedron is finally getting its shot at going underground.

Timmins, Ont., is known for having lots of custom milling capacity available for any small producer that might want to get started without a



Bell Creek high grade.

mill of its own. Pamour has been the main facility in past years, but in recent times four new mills have been constructed in town — oddly enough, there are more mills than new mines. Pamour opened up its 250-ton-per-day custom mill; Asarco put up a 300-tpd mill on its Nighthawk property which is now milling Owl Creek ore; one of the Pat Sheridan companies, Diepdaume Mines, put up a 600-tpd mill; and the privately-owned Gail Resources put together a 500-tpd mill on

its Carshaw property. On top of that, Kidd put a 300-tpd gold circuit into its smelter. While this situation is an obvious ringer for the cliché about putting the cart before the horse, it is reasonable to assume that some of the underground projects will be making mines and that some of the mills may be needed. Or will they? Canamax has indicated a preference for building yet another mill and Vedron plans to ship all the way to Belmoral at Val d'Or. All of this represents a

Andrew has always been interested in developing other deposits in the area. Recently acquired a large block of ground from Labrador Mining and Exploration which covers about 12 miles of the Porcupine-Destor Fault and includes two promising gold showings. One, known as the Porphyry zone, is the subject of a second underground project initiated this summer by the company in a 50% joint venture with Esso. J. S. Redpath was just completing the surface installations and shaft collar on the project at the time of my visit while Ross Finlay will be handling the underground on both projects. The \$4.5-million project will see a 3-compartment shaft go down to 565 ft with three level stations cut at 125-ft intervals. Underground work will consist of 1,000 ft of crosscutting and drifting on the first and third levels, with another 300 ft of raising and 5,000 ft of underground drilling.

This is one of those cases where a company has made the decision to go underground without having blocked out any reserves in the approved fashion — a typical 1980s gold exploration

program. Not that it is a grassroots program, either. Previous operators have drilled about 60,000 ft on the property, coming up with a large number of high grade intersections. The problem is putting the structure together from surface drilling, which is why the underground program is necessary.

Harker-Holloway

It isn't very often that somebody comes up with a new camp. In the last while there has been the Doyon-Bousquet developed by Lac Minerals, and, of course, the Hemlo and Casa Berardi plays. But there is every indication that a new camp is in the making in the now-famous Harker-Holloway twps. north of Kirkland Lake. The property is about an hour drive east of the Timmins city limits, and though not a part of that camp, it is located on the Porcupine-Destor Fault. While operator American Barrick Resources has to be given credit for the discovery, the guys on site like to credit the old prospectors who first discovered a gold showing there in 1919. McDermott Mines was

incorporated to examine the prospect in 1937 and the company eventually found its way into the Camflo group. There it sat with its property for 30 long years before Camflo finally started drilling, leaving the old company with a 15% net profit interest. Every discovery has a story behind it and the story of this one has to be the persistence of Camflo back in 1982 when the company was falling apart under a heavy debt load. Somehow the exploration crew was able to convince management to keep going on the McDermott and the faith paid off. After two years of quiet work the company finally announced what it thought to be a major discovery in late 1983. Although work never really stopped, news of the discovery was buried for the next year in the tangle of the company's merger with American Barrick. Finally reserves were announced — 1.3 million tons grading 0.18 oz. These have since been increased to 2.84 million tons grading 0.197 oz and the company is talking production, starting in 1988, of up to 100,000 oz per year. The production rate has not yet been set, but it will

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likely be 1,000-1,500 tons per day to start.

The deposit isn't exactly a part of the Porcupine-Destor Fault. Rather, it seems to be a splay off the fault, located about 700 m south. Gold mineralization is hosted within a zone of deformation and is 5-100 m thick. Within that are a number of highly brecciated, silicified, and carbonitized zones. This makes about half of the deformation zone. The gold is closely associated with pyrite. Both the footwall and hangingwall are comprised of iron-rich tholeiitic basalts. The structure is sheet-like in nature and has been traced across a 4,000-ft strike. It remains open at a depth of 1,500 ft.

Taking its time like a good major, the decision to go underground wasn't made until last year, with the shaft being collared in November. It was sunk to 400 m with two crossouts being driven on the 150-m and 350-m levels, for total lateral development of 2,000 m.

Although the company likes to remain conservative by saying it is not yet committed to building a mine there, a project is almost certain to go ahead and be producing by 1988. The company just wants to have a look at the orebody first. But it has a pretty good idea what it is going to find, having drilled 283 holes so far. The first look will come from the crossover on the 150-m level. As General Manager Michelle Sirois puts it: "If we prove it up on that level we can go into production." Sirois was mine manager on the Camflo in Val d'Or but is now devoting most of his time to this project. He says about 300 m of drifting along with underground drilling should do the trick. That is scheduled to be completed by the end of October (the company was not yet in ore at the time of my visit). "We would then start building the surface installations," he adds. He says the reserve figures are very conservative and that he expects they will be increased by the work on the 350-m level.

When I referred earlier to the Har-ker-Holloway area as a camp, I had some justification. Another deposit, which may be the eastern extension of the McDermott, is being drilled off by Canamax and partner Procan Exploration. Known as the Matheson project, it has published reserves of 578,000 tons grading 0.246 oz. An

underground program is being considered for next year.

And to the west of the McDermott deposit, Barrick is drilling the Worvest property it has under option from

Lenora Explorations. A number of drill holes have been completed extending the zone to a depth of about 1,000 ft and across a 600-ft strike length, open to the west. □



St. Andrew's chief geologist, Otto Zavesiczky, showing off some high grade core on the Stock project.



American Barrick's regional exploration manager, Gilles Tousignant (right) with senior geologist Al Workman on the McKenna Fault, which acts as the hangingwall.



900

OM83-6-C-34

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

THE FOLLOWING WAS PREVIOUSLY SUBMITTED:

1. GEOPHYSICAL REPORT ON THE ———→ SEE: 2.6826
'EAST BLOCK', GILLES MINING RECORDER,
TOUSIGNANT, JUNE/84 REPORT OF WORK #84-181
2. DDH MC83-36 ———→ SEE: DDR .30, HARKER TWP.

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc83-17 LENGTH 60.05 m
 LOCATION _____
 LATITUDE 10 + 12.5 E DEPARTURE 0 + 38 S
 ELEVATION _____ AZIMUTH 344° DIP -50°
 STARTED 4-5-83 FINISHED 6-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	50°				
20.5m	49°				
60.05	48°				

HOLE NO. Mc83-17 SHEET NO. 1 of 5

REMARKS Units in metric
 whole core sent to assay
 B.Q. Core

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
0	15.39	<u>CASING</u>									
15.39	23.13	<u>ANDESITE</u>									
		Yellow green to dark green, aphanitic to very fine grained. Thin flow laminations at 60°-70° to the core axis. Moderately well fractured with quartz and relatively minor carbonate in stringers. Carbonate (calcite) is confined to narrow fractures which cross-cut the earliest fracturing. Zone is variably silicified. Lighter green areas are more strongly altered. Abundant very finely disseminated pyrite throughout.									
		15.39 - 16.92 - highly fractured, broken core	C 001		21.58	23.10	1.52			0.08)
		16.92 - 17.53 - moderately silicified, weakly chloritized 7-8% pyrite.	002		23.10	24.38	1.28			0.01)
		17.53 - 19.35 - less silicified, moderately chloritized 15% quartz stringers, displaced across micro fractures, 2-4% pyrite.	003		24.38	25.91	1.53			0.04	
		19.35 - 21.55 - moderately silicified, weakly chloritized up to 10% pyrite, average 5-7% flow foliation at 21.18 m. at 50°.	004		25.91	27.43	1.52			0.01	
		21.55 - 23.13 - similar to 17.53 - 19.35 - strongly silicified locally, 23 m. flow foliation at 45°-50°.	005		27.43	27.95	0.52			0.02	
			006		27.95	29.47	1.52			0.02	
			007		29.47	30.02	0.55			0.02	
			008		30.02	31.36	1.34			0.01	
			009		31.36	32.89	1.53			0.02	
23.13	24.38	<u>BASALT</u>	010		32.89	34.17	1.28			trace	
		Dark green, fine grained, weakly to strongly fractured moderately chloritized. Abundant pyrite along fractures. Trace amounts disseminated finely in rock. Fractures filled with quartz and carbonate. Massive flow.									

RIDGE LIMITED - TORONTO - 366-1168

) 0.045
) 14.2

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDERMOTT

 HOLE NO. Mc83-17 SHEET NO. 2 of 5

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
24.38	34.17	<p><u>MAIN MINERALIZED ZONE</u></p> <p>The rock is variably silicified. The zone is composed of a strongly silicified upper member which is intensely brecciated with high pyrite contents. This member may extend up into the overlying basalt. The lower member is a more irregularly brecciated and weakly silicified basalt. Alteration remains high in zones of intense brecciation. Overall pyrite contents are lower in this member.</p>	C 011	34.17	35.27	1.10 (3.6')			0.01		
24.38	31.36	<p><u>SILICIFIED ZONE</u></p> <p>Dark grey to greenish grey, aphanitic with minor ash-fall tuff in bands up to 2 cm. thickness. Silicification is variable - moderate to intense, and is proportional to the degree of brecciation and mylonite development. The most highly silicified zones resemble quartz veins. Pyrite content is 3-8% both as clots in and along fractures and as a fine dissemination. Abundant quartz stringers cut breccia zones and carbonate common in micro-fractures.</p> <p>24.38 - 25.91 - grey to green-grey, strongly silicified. 25.91 - 27.95 - grey-green to grey, weakly silicified, tuff band at 26.21 m. cutting at 45°. 27.95 - 30.02 - grey, strongly silicified, 3-5% pyrite. 30.02 - 31.36 - pale green to grey-green, moderately to weakly silicified. Minor amounts of tectonic breccia, strongly fractured. Possible flow contact at 31.36 m. Flow foliation at 60°-70° to core axis.</p>	012	35.27	35.63	0.36 (1.2')			0.01		
			013	35.63	36.09	0.46 (1.5')			0.01		
			014	36.09	36.76	0.67 (2.2')			0.01		
			015	36.76	38.22	1.46 (4.8')			trace		
			016	38.22	39.47	1.25 (4.1')			0.03)		
			017	39.47	41.00	1.53 (5.0')			0.03)		
			018	41.00	42.21	1.21 (4.0')			0.02)		
			019	42.21	42.98	0.77 (2.5')			0.04)		
			020	42.98	43.89	0.91 (3.0')			0.05)		
			021	43.89	45.42	1.53 (5.0')			0.02)		
			022	45.42	46.94	1.52			0.03)	.032	
			023	46.94	48.46	1.52			0.02)	49.9'	
			024	48.46	49.98	1.52			0.03)		
			025	49.98	50.90	0.92 (3.0')			0.03)		
			026	50.90	52.67	1.77 (5.8')			0.04)		
31.36	34.17	<p><u>BASALT</u></p> <p>Grey-green, grey locally, fine grained, moderately chloritized and weakly to strongly silicified. Silicification is strongest in grey mylonitic zones near</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc83-17 SHEET NO. 3 of 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ. TON	
				FROM	TO	TOTAL					
		major fracture systems. The breccia pre-dates later fractures which are quartz and carbonate filled. Some zones of strong silicification are located at 31.59 - 31.65, 31.97 - 32.00, 32.28 - 32.64, 32.77 - 32.80, and 33.83 - 34.17. Pyrite content averages 5-7%. A flow foliation at 33.83 dips 60° to the core axis.	C 027		52.67	53.43	0.76 (2.5')			0.07	
			028		53.43	54.96	1.53			0.01	
			029		54.96	56.48	1.52			0.01	
34.17	36.09	<u>BASALT</u>									
		Grey-green to dark green, fine grained, weakly silicified and weakly to moderately fractured. Magnetic. A 3 cm. quartz vein is located at 35.36 which has invaded the basalt over a 50 cm. interval. The flow is massive and moderately chloritized. Pyrite is found as fine disseminations and as 1-2 mm. cubes - 2-3% content.									
36.09	39.47	<u>SILICIFIED ZONE</u>									
		Dark grey to greenish grey, pale green towards base. Silicification marked by a 3 cm. grey band cutting sharply across core. Zone is variably silicified - includes several weakly silicified basalt zones (e.g. 37.89 - 38.19), degree of silicification is proportional to mylonite development. Fractures often rimmed with grey silicified bands. All fractures quartz-filled with minor carbonate in micro-fractures. Weakly silicified rock is weakly magnetic - remainder is not.									
		36.09 - 36.76 - strongly silicified, 3-5% py.									
		36.76 - 38.22 - weakly silicified, 1-3% py.									
		38.22 - 39.47 - strongly silicified, 3-5% py, tr. cpy.									
39.47	43.89	<u>BASALT</u>									
		Dark green, fine grained, med. grained locally, moderately fractured and moderately chloritized. Strongly silicified locally around fractures. White and pink quartz in fractures - minor carbonate.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC83-17 SHEET NO. 4 of 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ TON
					FROM	TO					TOTAL
		39.47 - 42.21 - moderately fractured, chloritized, weakly magnetic.								
		42.21 - 42.98 - strongly silicified, up to 10% py., trace cpy. minor hematite, flow foliation at 50° to the core axis, flattened vesicles at 42.89.								
		42.98 - 43.89 - moderately chloritized, weakly silicified 3-4% pyrite.								
43.89	50.90	<u>ANDESITE</u> Medium green to dark green, fine to coarse grained, moderately chloritized - may be altered basalt. Evenly textured for short intervals. Moderately fractured throughout - mostly quartz in fractures. Fractures are late stage - very angular - may be due to shrinkage. Lowermost 1.5 - 2.0 metres is coarser grained with dark needle - like xls. (pyroxene?). 1% very finely disseminated pyrite. Zone ends at top of underlying flow marked by hyaloclastite.								
50.90	52.67	<u>SILICIFIED FLOW - LOWER MINERALIZED ZONE</u> Light green to dark green with grey zones, fine grained to aphanitic. Flow is marked by hyaloclastite top and vesicles up to 7 mm. Rock is chloritized and subsequently silicified. Flow may have been pillowed. If so, rims are strongly chloritized. Some fragments are epidotized. Rock is moderately silicified but not brecciated. It is strongly fractured with quartz in fractures. 3-5% pyrite very finely disseminated through zone.								
52.67	60.05	<u>ANDESITE</u> A medium green extension of the overlying silicified flow.								

LANGRIDGE LIMITED - TORONTO - 366-1168

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc83-18 LENGTH 60.05 m
 LOCATION _____
 LATITUDE 9 + 87.5 E DEPARTURE 38 m S
 ELEVATION _____ AZIMUTH 344° DIP -50°
 STARTED 9-5-83 FINISHED 11-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
30. m	-48°				
60.05	-48°				

REMARKS Units in meters
 whole core sent for assay
 B.Q. Core
 LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
0	10.36	<u>CASING</u>	C 030		14.11	15.64	1.53			trace	
10.36	33.07	<u>MAIN MINERALIZED ZONE</u> This zone consists of a central highly silicified member flanked by more variably silicified and chloritized volcanic rocks. Silicification is proportional to the degree of brecciation and mylonite formation.	031		15.64	17.16	1.52			0.01	
			032		17.16	17.59	0.43			0.01	
			033		17.59	19.11	1.52	5		0.08)
			034		19.11	19.66	0.55	18		0.02)
			035		19.66	21.18	1.52	5		0.06)
10.36	17.16	<u>BASALT</u> Dark green, fine grained, massive flow, moderately to strongly chloritized. Highest alteration along narrow shear planes, (e.g. 17.04 m.). Zone is strongly fractured with quartz and pink carbonate veining in breakages. Some fractures contain rust - weathering of pyrite. Flow banding at 12.47 dips 70° to the core axis. Pyrite content is variable up to 5% averaging 2%. Rock becomes weakly silicified towards the base.	036		21.18	22.71	1.53	5		0.07)
			037		22.71	24.23	1.52	5		0.09)
			038		24.23	25.76	1.53	5		0.15)
			039		25.76	27.28	1.52	5		0.09)
			040		27.28	28.50	1.22	4		0.01)
			041		28.50	30.02	1.52	5		0.01)
			042		30.02	31.55	1.53	5		0.10)
			043		31.55	33.07	1.52	5		0.07)
		15.94 - 17.16 - weakly silicified, well developed schistosity due to shearing?	044		33.07	34.59	1.52			0.01	
			045		34.59	36.12	1.53			0.01	
17.16	28.50	<u>SILICIFIED ZONE</u> Yellow-green to grey-green becoming grey where most strongly silicified-Aphanitic. Generally unstructured and intensely brecciated. Very fine mylonite development common in silicified rock. Fragments are angular and average less than 2 mm. in size locally. Average size is 2-5 mm. Flow foliation is noted locally in areas of weaker brecciation. Locally alteration is so intense the rock resembles a quartz vein. Visible gold may (?) be present as 0.5 mm. blebs at 25.76 and 26.67 m.									
		17.16 - 17.59 - dark grey-green, well foliated and sheared - possible fault at 17.59 m.,									

INGRIDGE LIMITED - TORONTO - 366-1168

0.086
31.81

0.072
50.8

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc83-18 SHEET NO. 2 of 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		weakly to moderately silicified, clay on fault plane, 2-5% Py.									
		17.59 - 19.66 - pale green, highly silicified and brecciated 10-15% Py. Possible fault at 18.53 m									
		19.66 - 22.71 - grey, intensely silicified and brecciated, flow foliation was well developed at 45° to the core axis. Minor chlorite along foliation. Abundant 5 mm. thick underformed quartz stringers 5-7% pyrite.									
		22.71 - 27.28 - very intensely silicified - 10% Py. tr. Cpy. minor visible gold?									
		27.28 - 28.50 - green-grey, intensely silicified, becoming variable and medium grained; 3-5% Py.									
28.50	33.07	<u>BASALT</u> Dark green to grey, aphanitic to fine grained and variably silicified. Numerous highly fractured zones of micro-breccia cut the core at sharp angles (50°-80°). These zones are grey and intensely silicified. Fragments are firm less than 1 mm. to 1 cm. in size, very angular, fine grained matrix (gouge) around fragments contains up to 50% Py. locally. Unsilicified basalt is moderately chloritized and contains abundant altered glass shards. Weakly to moderately fractured - filled with white and pink carbonate. Quartz also present but not as common. Average 3-5% Py. Non-silicified rock is weakly to moderately magnetic. Strongly brecciated and silicified zones are located at: 29.11-29.26, 30.05-30.11, 31.06-31.18 31.30-31.49, 32.13-32.22, and 32.40-32.77. In total the zone is 20% intensely silicified. A 15% pyrite content is noted at 32.16 m.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc83-18 SHEET NO. 3 of 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ. TON
					FROM	TO					TOTAL
33.07	43.53	<p><u>BASALT</u></p> <p>Dark green, fine grained becoming medium grained locally. Moderately chloritized. Some weak silicification locally near margins of zone. Unstructured and massive. Moderately fractured with white and pink carbonate on surfaces. Little carbonate in matrix of the rock. Weakly to moderately magnetic. Weakly silicified zones have increased pyrite content - up to 5% locally whereas zone averages 1-2%.</p>								
43.53	50.29	<p><u>BASALT</u></p> <p>Dark green, fine to very fine grained. Rock is becoming weakly silicified locally. Moderately chloritized. Thin sections of strong brecciation are grey and intensely silicified (e.g. 43.53-44.07). Rock is moderately magnetic. Zone is moderately fractured with infilling by pink calcite and minor quartz. A crude flow foliation is developed locally at approximately 45° to the core axis - very indistinct.</p>								
50.29	53.95	<p><u>ANDESITE</u></p> <p>Zone is marked by a 1.3 m. hyaloclastite top. The rock is medium open and fine grained with strongly chloritized parting surfaces - shears. Light colouration may be due to underlying silicified zone. The base of this zone may be a flow bottom. It is highly fractured with abundant quartz incorporating 50% of the rock volume. Except for the base of this zone, carbonate fills fracture openings. An irregular flow (?) foliation in the hyaloclastite cuts core at 40° to the core axis.</p>								
53.95	57.09	<p><u>LOWER MINERALIZED - SILICIFIED ZONE</u></p> <p>Dominantly grey with greenish-grey zones, aphanitic, highly silicified rock. Intensely brecciated on a very</p>								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc83-19 LENGTH 52.43 m
 LOCATION _____
 LATITUDE 9 + 75 E DEPARTURE 0 + 35 m S
 ELEVATION _____ AZIMUTH 344° DIP - 45°
 STARTED 11-5-83 FINISHED 13-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
-	-45°				
52.4	-46				

HOLE NO. Mc83-19 SHEET NO. 1 of 4

REMARKS Units in meters
whole core sent for assay
BQ Core

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0	10.52	<u>CASING</u>										
10.52	31.03	<u>MAIN MINERALIZED ZONE</u> This section is composed of a variably silicified upper member (Basalt) and an intensely silicified lower member. Alteration is usually directly proportional to the degree of brecciation. Non-silicified rock is generally moderately chloritized. Pyrite content increases in silicified rock.										
10.52	13.69	<u>BASALT</u> Dark green, fine grained, moderately chloritized, moderately fractured. Almost all fractures filled with white and pink carbonate. Minor quartz stringers up to 2 mm. width. A crude foliation (flow?) has developed throughout zone at 60° to the core axis - rock parts easily along chloritized surfaces. Few zones of intense brecciation are grey and intensely silicified - largest at 13.5 - 13.65. Average pyrite content in the basalt is 1%. In silicified zones this level rises to 2-3% with a trace of cpy.	C 051		10.64	12.16	1.52			0.01		
			052		12.16	13.69	1.53			trace		
13.69	31.03	<u>MAIN SILICIFIED ZONE</u> Grey to dark greenish-grey, aphanitic, intensely brecciated and mylonitized, and strongly silicified. Locally breccia fragments 0.5 - 1 mm. are set in a	053		13.69	15.21	1.52	0.02				
			054		15.21	16.73	1.52	0.04	)	0.063		
			055		16.73	18.26	1.53	0.08	)	4.570		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc83-19 SHEET NO. 2 of 4

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		chloritized foliated matrix - possible fault zones. C This is most apparent in the uppermost 1.5 meters where silicification tends to be lower. Cream coloured silica fills voids locally in breccia zones. Fracturing is moderately developed. Quartz commonly fills the main fractures with carbonate in a separate set of (later?) microfractures. Several dark pink, aphanitic, massive syenitic dykes are located at 14.2 - 14.3 and 14.5 - 14.55. It carries no appreciable sulphide above trace amounts although the margins of the silicified rock carry higher amounts than normal - about 15%. The dyke is offset by minor microfractures.	056		18.26	19.54	1.52	0.07				
			057		19.54	21.06	1.52	0.02		0.063		
			058		21.06	22.59	1.53	0.04		4.570		
			059		22.59	24.11	1.52	0.03				
			060		24.11	24.63	0.52	0.01				
			061		24.63	26.15	1.52	0.03				
			062		26.15	27.68	1.53	0.02				
			063		27.68	29.20	1.52	0.01				
			064		29.20	30.72	1.52	0.08				
			065		30.72	31.03	0.76	0.08	*			
									*	NOTE		
		13.69 - 15.21: moderately silicified, contains some green chloritized zones which are weakly silicified - 2-3% Py.								Correction in footage applied - Sample was 0.76 m. in length		
		15.21 - 16.73: grey, intensely brecciated and strongly silicified, mylonitic at 16.55, fine chlorite between silicified angular 0.5 - 1.0 mm. fragments - fault? 6-8% average pyrite content.								102' marker is 6.5' from 95' marker.		
		16.73 - 18.26: grey strongly brecciated and silicified weakly silicified locally with numerous 1-3 cm. chloritized seams - well foliated at 17.5 m. at 60° to core axis.										
		18.26 - 19.54: moderately silicified and brecciated, abundant chloritized partings, 2-4% Pyrite.										
		19.54 - 24.63: intensely brecciated and strongly silicified, minor bands of green chloritized basalt locally, accounting for 20% of zone. Major fracture cuts along core at 19.8 - 20.1 m. Silicified zones carry 5-7% Py. with up to 10% locally.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc83-19 SHEET NO. 3 of 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ.TON
					FROM	TO	TOTAL				
		24.63 - 31.03: moderately to strongly silicified - angular breccia fragments are set in a white to pink siliceous matrix. Minor zones of green unaltered rock. Brecciation is on a coarser scale than is normal. 5-7% Pyrite - some fragments are magnetic.									
31.03	40.11	<u>BASALT</u>									
		Dark green, fine grained, massive flow - moderately to weakly chloritized with localized silicification in brecciated rock in the upper 1 - 1.5 meters. Pink and white carbonate fills moderately developed fractures. The zone is vespicular at a number of levels possibly reflecting numerous 3-4 m. thick flows. Abundant 1-2 mm. black glass shards are observed. Less than 1% pyrite as blebs up to 1 mm. Below 39.6 m. the flow is weakly silicified.	066		31.03	32.06	1.03				
			067		32.06	33.59	1.53				
40.11	46.06	<u>LOWER MINERALIZED ZONE</u>									
		This zone is composed of an upper strongly silicified unit and a lower more variably silicified member. Silicification and pyrite content are highest in strongly brecciated rock.									
40.11	41.48	<u>SILICIFIED ZONE</u>									
		Grey to greenish grey, intensely brecciated and strongly silicified, aphanitic, with 1-3% pyrite. Minor greenish weakly silicified and moderately chloritized zones. A 10 cm. zone contains vesicles at 41.15 m. - rock originally a basalt (?). The zone is strongly fractured with quartz and minor carbonate in fractures.	068		37.06	38.58	1.52				
			069		38.58	40.11	1.53				
			070		40.11	41.48	1.39				
			071		41.48	43.01	1.53				
			072		43.01	44.53	1.52				
			073		44.53	46.06	1.53				

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc83-19 SHEET NO. 4 of 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
41.48	46.06	<p><u>BASALT</u></p> <p>Dark green, fine grained with 10% grey brecciated silicified zones. Medium grained with depth, weakly to moderately chloritized overall. Flow breccia developed locally, non-silicified, with round to sub-round fragments of basalt up to 2.0 cm. Minor flow foliation developed locally at 60° - 65° to the core axis, (e.g. 44.5 m).</p> <p>42.00: chloritized shear with 30% pyrite over 2 cm. section - cuts core axis at 40°</p> <p>Major silicified zones located at 42.18 - 42.25, 44.78 - 44.87, 45.02 - 45.26 and 45.60 - 45.75 m.</p>									
46.06	51.18	<p><u>BASALT</u></p> <p>Dark green, fine grained moderately chloritized and moderately to strongly fractured. Carbonate fracture filling with minor quartz stringers locally associated with narrow silicified breccia zones. Zones of tectonic brecciation are less than 10 cm. in thickness with 3-5% pyrite vs. 1-2% for non-silicified basalt. Flow foliation is weakly developed locally : 60° at 50.4 and 40° at 51.05 m. The basalt is weakly magnetic.</p> <p>50.53 m : clay seam - fault</p>	C 074	46.06	47.58	1.52					
51.18	52.43	<p><u>ANDESITE</u></p> <p>Light to medium green, fine grained with a weakly developed flow foliation at 51.5 m. of 45° to the core axis. The rock is weakly fractured with carbonate in the fractures, non-magnetic, moderately chloritized and non-silicified. Up to 1% finely disseminated pyrite is found locally.</p> <p>52.43 END OF HOLE - CASING PULLED</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc. 83-20 LENGTH 72.24 m
 LOCATION _____
 LATITUDE 9 + 75 E DEPARTURE 0 + 46 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED 13-5-83 FINISHED 17-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
66.14	-62°				

HOLE NO. Mc.83-20 SHEET NO. 1 OF 7

REMARKS core split

BQ core
 NOTE: From 66' marker to 74'
 marker is 7.3' of core

LOGGED BY A.W. WORKMAN

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
				FROM	TO	TOTAL				
0	12.93	CASING - OVERBURDEN								
12.93	27.89	BASALT								
		Dark green to grey-green, fine grained, needle texture locally (1-3 mm amphiboles), and with well developed foliation at 45-50° to the core axis. Abundant (10%) quartz stringers which are lensitic and pinch and swell along the foliation. The rock is weakly to moderately fractured with mostly white carbonate as fracture filling - remainder is quartz and minor hematite. Rock is moderately chloritized and very weakly magnetic locally. Grey silicified bands are noted locally and carry up to 1% pyrite. They are 2-5 cm in thickness and related to zones of microbreccia. The rock becomes increasingly fractured and vuggy with depth - particularly below 23.5 m.	c075		12.93	14.43	1.50			0.01
			076		14.43	15.93	1.50			Trace
			077		15.93	17.53	1.60			Trace
			078		17.53	19.03	1.50			Trace
			079		19.03	20.53	1.50			Trace
			080		20.53	22.35	1.50	(actually)		0.01
			081		22.35	23.67	1.32			0.01
			082		23.67	25.17	1.50			0.01
			083		25.17	26.62	1.45			0.01
			084		26.62	27.89	1.27			0.02
			085		27.89	28.35	0.46			0.01
		14.26, 16.06 and 17.64 m: narrow silicified zones								
		13.56: ground core - possible minor fault								
		23.62 - 24.17: strongly sheared and intensely chloritized - probable fault at 23.77 m; bordering rocks are more strongly chloritized								

EM. 6-1168

LANGRIDGE LIMITED.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc.83.20 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
28.47	44.26	38.50 - 44.26: green, chloritized, non-silicified zones become more abundant - minor carbonate in micro-fractures, slightly higher pyrite content - up to 7%. Major chloritized zones at 38.62-38.71, 39.41-39.87, 40.90-41.18 and 41.54-41.57.								
44.26	52.43	<u>BASALT</u> Grey-green to dark green to grey locally, fine grained and moderately chloritized. Moderately magnetic. Silicification has occurred along fractures and is best developed in breccia zones. Fractures are rimmed with 1-3 mm grey silicified halos. Dilatant zones in fracture systems are most strongly altered. Angular fragments in silicified breccia zones are up to 5 cm in size - major zones at 45.66-45.84 and 46.42-46.60 m. Up to 50% of the rock volume in this unit is silicified. Pyrite averages 2-3% but ranges 1-7%. An 8 mm tuff band at 51.60 cuts the core axis at 35°.	099		44.26	45.76	1.50			0.07
			100		45.76	47.26	1.50			0.01
			101		47.26	48.76	1.50			0.01
			102		48.76	50.20	1.24			0.01
			103		50.20	51.31	1.11			0.02
			104		51.31	52.43	1.12			0.01
52.43	54.21	<u>BASALT</u> The upper contact is gradational into the overlying C. silicified basalt. This unit is dark green, fine grained, weakly to moderately chloritized, and moderately magnetic. This is a zone where the percentage silicified rock rapidly decreases to 0% from about 20% above.	105		52.43	53.32	0.89			Trace
			106		53.32	54.21	0.89			Trace
54.21	60.59	<u>LOWER MINERALIZED ZONE</u> The rock is grey, often with a purple tint, aphanitic, moderately to strongly fractured and intensely brecciated. Breccia is intensely silicified and averages 5-7% pyrite. Up to 15% pyrite is found	107		54.21	55.71	1.50			Trace
			108		55.71	57.21	1.50			0.01
			109		57.21	58.71	1.50			0.01
			110		58.71	59.71	1.00			0.01

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. Mc. 83.20 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
54.21	60.59	locally. The zone contains 3% dark green, chloritized bands of basalt - non-silicified. Quartz is the dominant fracture filling with carbonate in micro-fractures. 58.00 - 60.59: zone contains 6% chloritized green basalt 59.89 - 60.62: 7-8% pyrite as fine dissemination and as 1-2 mm cubes - 15% pyrite locally. 60.11 - 60.16: narrow silicified mylonite seams at 50° to core axis - faults? 60.44: chloritized shear at 25° to core axis	C 111		59.71	60.16	0.45			0.05	) 0.084
			112		60.16	60.59	0.43			0.14	) 0.980
60.59	60.90	<u>INTRUSIVE</u> Pale green, aphanitic with abundant angular chloritized fragments of silicified volcanic. Chlorite developed in weak to moderate fracturing. Resembles a chilled flow margin. Carries trace of pyrite.	C 113		60.59	60.90	0.31			0.01	
60.90	63.09	<u>BASALT</u> Dark green, fine to medium grained, moderately chloritized with a weak flow foliation developed throughout. Some zonation of grain size along a weak foliation at 30°-35° to the core axis. Unit carries 1-2% pyrite, and is weakly to moderately fractured with quartz and minor carbonate in fractures. Foliation is highlighted locally by 1-5 mm quartz stringers and lensitic bodies along the mineral alignment. These areas, relatively rich in quartz, carry higher pyrite contents - 3-5%.	C 114		60.90	62.00	1.10			0.01	
			115		62.00	63.09	1.09			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc.83.20 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
63.09	63.79	<p><u>SILICIFIED ZONE</u></p> <p>Grey to blue-grey, aphanitic, moderately to strongly C. silicified and moderately brecciated. Some relic flow banding is observed at 63.55 m which cuts at 35° to the core axis. Fracturing increase towards the base of the zone, and chlorite begins to appear in fractures at 63.0 m.</p>	116		63.09	63.79	0.70			0.08	
63.79	65.78	<p><u>PORPHYRITIC INTRUSIVE</u></p> <p>The overlying zone is cut off sharply by a pale green, medium to coarse grained intrusive. It carries round to sub-round quartz crystals up to 3 mm. in size. Some dark needle-like crystals are noted locally (hornblende?). The groundmass is moderately chloritized. A trace of pyrite is found locally.</p>	117 118		63.79 64.78	64.78 65.78	0.99 1.00			0.01 0.01	
65.78	66.54	<p><u>BASALT</u></p> <p>Dark green, fine grained, strongly chloritized, moderately to strongly fractured. Patches of grey silicified rock, 1-2 cm in thickness, are found locally - especially near the overlying intrusive. Foliation, may be shearing, at 30° to core axis.</p>	C. 119		65.78	66.54	0.76			0.01	
66.54	67.09	<p><u>SILICIFIED ZONE</u></p> <p>Dark grey with purple tint, aphanitic, moderately brecciated with 5-7% pyrite, mostly filling dilatant zones between fragments or in fracture systems. A foliation, perhaps due to shearing is observed at 66.9 m at 35° to the core axis. This rock is not normally observed at this depth.</p>	C. 120		66.54	67.09	0.55			0.12	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc.83.20 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
67.09	72.24	<p><u>ANDESITE</u></p> <p>Medium green, fine to medium grained, moderately chloritized, massive flow. Minor zones of grey silicified rock (eg. 68.7-68.8) locally. Silicified rock is confined to an upper, more strongly fractured part of this zone - that is, above 69 m. Below this point the andesite is weakly fractured and weakly to moderately foliated. The rock parts easily at 35°-40° to the core axis.</p> <p>72.24 END OF HOLE CASING PULLED</p>	121		67.09	68.59	1.50			0.01	
			122		68.59	70.09	1.50			0.04	
			123		70.09	71.17	1.08			0.01	
			124		71.17	72.24	1.07			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc. 83-21 LENGTH 60.05 m
 LOCATION _____
 LATITUDE 38.5 ? DEPARTURE 9 + 62.5 E ?
 ELEVATION _____ AZIMUTH 344° DIP -50°
 STARTED 17-5-83 FINISHED 19-3-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	50°				
60.05	48°				

HOLE NO. Mc. 83.21 SHEET NO. 1 OF 5
 REMARKS whole core sent
for assay
all units in metric
BQ CORE
 LOGGED BY A.W. WORKMAN

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	9.81	<u>CASING - OVERBURDEN</u>								
9.81	15.97	<u>BASALT</u> Dark green, fine to medium grained, moderately to strongly fractured with carbonate and quartz in openings. Veining and stringers resemble splattered white paint - 30% of rock volume. Minor 1-2 cm grey, moderately silicified zones parallel to flow foliation. Pyrite increases in these zones from average 1% to 3-5%. The basalt is weakly to very weakly magnetic. Lower contact is gradational as silicified zones increase - lower 1.0 m is moderately silicified. 12:50 m: flow (?) lamination at 40°-50° to core axis	c.125		9.82	10.82	1.00			Trace
			126		10.82	11.82	1.00			Trace
			127		11.82	12.83	1.00	actually		0.005
			128		12.83	13.83	1.00			Trace
			129		13.83	14.97	1.14			Trace
			130		14.97	15.97	1.00			Trace
15.97	37.49	<u>MAIN MINERALIZED ZONE</u> The zone is composed of an upper variably silicified member which grades down into a strongly silicified breccia. The breccia comprises the main member of the zone. It is characterized by up to 10% pyrite in a very hard glassy rock. It is underlain by a second variably silicified member.	131		15.97	16.97	1.00			Trace
			132		16.97	17.97	1.00			0.02

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc. 83-21 SHEET NO. 2 OF 5

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
15.97	20.60	<p><u>SILICIFIED BASALT</u></p> <p>The zone begins as a dark green, fine grained very weakly magnetic rock with up to 50% green-grey, aphanitic, strongly silicified and brecciated rock. The grey zones increase in number and degree of alteration down-hole.</p> <p>16.37 : chloritized fault with chlorite developed along fractures penetrating silicified zones - movement at 70° to core axis</p> <p>17.47 - 17.77: pinkish-red aphanitic intrusive - siliceous, cataclastic near contacts, may cut at 60° to core axis-SYENITE?</p>	133		17.97	18.99	1.02			0.04	
			134		18.99	19.99	1.00			0.03	
			135		19.99	21.00	1.01			0.03	
20.60	34.11	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Grey, aphanitic, intensely brecciated and strongly silicified. Breccia consists of angular, 0.5 mm to 1.5 cm fragments which may be outlined by narrow cream coloured reaction halos. An average 1-3% pyrite is observed with up to 10% locally. Weakly to moderately fractured with quartz in major fractures and carbonate in micro-fractures. Non-magnetic.</p> <p>20.60 - 26.09: 1-3% pyrite, relic flow banding at 45° to core axis at 23.6 m</p> <p>25.66 - 26.15: zone of intense fracturing and mylonitization of silicified rock with chlorite in fractures - most likely a fault in chloritized seam at 26.09 m - movement at 45° to core axis - possible bedding fault</p>	136		21.00	22.01	1.01			0.01	
			137		22.01	22.10	0.09			0.02	
			138		22.10	23.10	1.00			0.10	
			139		23.10	24.11	1.01			0.09	
			140		24.11	25.12	1.01			0.075	
			141		25.12	26.12	1.00			0.04	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc. 83-21 SHEET NO. 3 OF 5

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
		26.09 - 30.88:								
		more highly silicified zone with 5-7% pyrite	142		26.12	27.13	1.01			0.34
			143		27.13	27.98	0.85			0.10
			144		27.98	28.99	1.01			Trace
		30.88 - 31.49:	145		28.99	29.99	1.00			0.01
		some green, chloritized and weakly silicified rock in 2-4 cm bands - zone is at least 50% silicified. Possible flow foliation at 60° to core axis. Up to 3% pyrite.	146		29.99	30.88	0.89			0.01
			147		30.88	31.49	0.61			0.04
			148		31.49	32.43	0.94			0.04
		31.49 - 32.43:								
		FAULT ZONE - highly fractured with 30% dark green chloritized non-silicified rock. Chloritized mylonite at 32.03 - 32.35. Grey silicified rock in this zone is strongly fractured with chlorite in fractures.								
		32.43 - 34.11:								
		grey with purple tint, very highly brecciated and intensely silicified with average 7-9% pyrite and up to 10% locally. The lower 20 cm is strongly fractured with mylonite and chlorite in fractures.	149		32.43	33.27	0.84			0.03
			150		33.27	34.11	0.84			0.01
		34.11 : FAULT - chloritized plane cuts at 30° to core axis								
34.11	37.49	<u>SILICIFIED BASALT</u>								
		Grey to grey-green, aphanitic to fine grained, moderately to strongly brecciated and variably silicified. This is a variably altered zone between the overlying breccia and non-brecciated rock beneath. The zone becomes pale green at 35.66 m. Silicified zones are found at 35.02-35.11, 35.33-35.72, 36.12-36.20, 36.58-36.79, 36.91-37.12, 37.22-37.25 and 37.37-37.46; totalling 57% of the unit. In these zones, sub-angular medium to dark green 1-3 cm breccia fragments are set in a grey strongly silicified	c. 151		34.11	35.11	1.00			0.02
			152		35.11	36.11	1.00			0.03
			153		36.11	36.80	0.69			0.20
			154		36.80	37.49	0.69			0.01

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC. 83-21 SHEET NO. 4 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
37.59	48.10	<p>mylonitic matrix. Fragments are only very weakly silicified. Rock is moderately fractured with pink quartz in main fractures and carbonate in micro-fractures. Pyrite contents average 3-5% as a very fine dissemination and, locally, as 1-2 mm cubes. Flow banding is observed locally; 37.19 m: 50° to core axis.</p> <p><u>ANDESITE</u></p> <p>Medium green, fine to medium grained, weakly to moderately fractured, non-magnetic, massive flow. Quartz fills fractures above 38.25 m. Carbonate filling is dominant below 39.6 m. Fractures are very angular and no evidence of slippage is observed - may be due to shrinkage. The flow is non-silicified generally, but becomes weakly and increasingly silicified below 45.42 m. Pyrite content averages less than 1%.</p> <p>37.49 - 45.42: weakly to moderately chloritized</p> <p>45.42 - 48.10: narrow grey silicified breccia zones at 45.63-45.77, 46.66-46.74 and 47.46-47.58 m.</p>	c 155		37.49	38.50	1.00	(actually)	0.05	
			156		38.50	39.50	1.00		0.01	
			157		39.50	40.50	1.00		0.12	
			158		40.50	41.50	1.00		0.01	
			159		41.50	42.50	1.00		0.01	
			160		42.50	43.50	1.00		0.01	
			161		43.50	44.50	1.00		0.01	
			162		44.50	45.50	1.00		Trace	
			163		45.50	46.50	1.00		0.02	
			164		46.50	47.50	1.00		0.02	
			165		47.50	48.10	0.60		0.01	
48.10	49.53	<p><u>LOWER MINERALIZED ZONE</u></p> <p>The unit is composed of dark grey to grey-green, aphanitic moderately to very strongly silicified with minor zones of green, weakly silicified rock. Degree of silicification is proportional to the extent of brecciation. Breccia fragments are extremely angular, frequently mylonitic and are set in a silica matrix. The moderately developed fractures were later developed and are generally quartz-filled with pink carbonate in narrow micro-fractures. Pyrite content averages 3-5%. This zone is more</p>	c 166		48.10	48.81	0.71		0.14	
			167		48.81	49.53	0.72		0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc. 83-21 SHEET NO. 5 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
49.53	60.05	<p>weakly silicified than would be expected judging by what was encountered in other holes.</p> <p><u>ANDESITE</u></p> <p>Medium green, fine to medium grained becoming coarser down-hole. The uppermost 1.5 m is strongly silicified locally over 2-5 cm zones. These zones are grey, and brecciated similar to the overlying unit. The flow is non-magnetic. Up to 1% very finely disseminated pyrite is found throughout the zone. The rock is moderately fractured with dominantly white and pink carbonate filling. Flow banding is observed locally : 45° at 51.5 m and 40° at 54.6 m.</p> <p>60.05 m. END OF HOLE</p> <p>CASING PULLED</p>									
			c168		49.53	50.53	1.00			0.02	
			169		50.53	51.54	1.00	(actually)		Trace	
			170		51.54	52.54	1.00			0.01	
			171		52.54	53.54	1.00			0.01	
			172		53.54	54.54	1.00			0.01	
			173		54.54	55.54	1.00			0.01	
			174		55.54	56.54	1.00			Trace	
			175		56.54	57.54	1.00			Trace	
			176		57.54	58.54	1.00			0.04	
			177		58.54	59.54	1.00			0.01	
			178		59.54	60.05	0.51			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-22 LENGTH 61.26 meters
 LOCATION _____
 LATITUDE 0+36S DEPARTURE 9+50E
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED 20-5-83 FINISHED 24-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
61.26	-44°				

HOLE NO. MC-83-22 SHEET NO. 1 OF 7

REMARKS _____

LOGGED BY S.M. Trueland

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TOTAL	%	%	OZ/TON	OZ/TON
0	9.54	CASING									
9.54	12.92	<u>BASALT:</u> Dark green fine grained, moderately fractured, slightly brecciated rock. Slightly to moderately chloritized and carbonatized. Dominantly white carbonates (10-15%), with some areas of pink, filling fractures 1-10 mm in size with the majority making an angle of 50-70° to the core axis. Pyrite - zero to trace. 11.58 - 11.83: Core fragmented and broken, possible fault.	C201		9.54	10.3	0.76				Trace
			202		10.30	11.13	1.00				Trace
			203		11.13	12.07	0.94				Trace
			204		12.07	12.92	0.85				Trace
				TR.							
12.92	30.33	<u>MAIN SILICIFIED ZONE:</u> Medium to dark grey rock with purple hue, fine grained, moderately to severely brecciated - brecciated fragments range from less than 1 mm to 2-3 cm. Infilling material is white silica with no carbonate. Infrequent isolated areas of green chloritized rock (possibly fragments) which have not been affected by silicification - these zones make up no more than 10% of main zone. Less silicification in these zones could be due to minor brecciation in these areas where the larger fragments have resisted silica infiltration. Pyrite content ranges from less than 1% (chloritized zones) up to 10-15% (intensely silicified and brecciated zones). Pyrite appears mainly disseminated with minor amounts of larger (0.5-1mm) euhedral crystals. In areas of high concentration finer subhedral crystals join together forming blebs on the order of 5-10mm in size.									

EM. 6-1168

LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-22 SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		12.92 - 14.78: <u>YELLOWISH-GREEN SILICIFIED ZONE (2% Py.)</u>									
		<p>Pale yellowish-green, fine grained, moderately brecciated and silicified rock - this marks the beginning of the main silicified zone. It is distinctly harder than the chloritized/carbonitized zone above. The brecciated fragments are angular to subangular ranging from less than 1mm to 2cm in size and are infilled with siliceous material. The silicified zone seems to have a gradational contact, starting as a light yellowish green rock and gradually becoming the characteristic dark grey with purple hue rock. The pyrite is disseminated with some areas of quartz veining control. Pyrite content increases with depth from less than 1% to 5% with an average of 2%.</p>	205		12.92	13.72	0.79			0.01	
			206	2%	13.72	14.78	1.07			Trace	
		14.78 - 15.09: <u>FELSIC DIKE</u>									
		<p>Silicified zone abruptly interrupted by light pink aphanitic to fine grained, very hard rock. Moderately fractured and slightly brecciated. Fractures mainly filled with clear siliceous material while brecciated fragments are surrounded by white siliceous material. 2mm wide quartz-filled fractures @15° to core axis, other fracturing is more random and variable. Minor disseminated pyrite, less than 1%.</p>	207		14.78	15.09	0.30			0.03	
			less than 1%								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc-83-22 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
	23.26 - 23.71:	<u>LIGHT GREEN ROCK - POSSIBLE FAULT</u> Light green, fine grained rock. Brec- ciated fragments are more well developed. Core is fragmented and broken at 23.53m which could possibly be a fault. Lower pyrite content in this interval - 1-2%.	219	1-2%	23.26	23.71	0.46			0.01	
	23.71 - 24.02:	<u>SILICIFIED BASALT WITH PURPLE HUE</u> Same as interval 22.19-23.26m with disseminated pyrite with local concen- trations or blebs. - 3-5%.	220	3-5%	23.71	24.02	0.30			0.09	
	24.02 - 27.43:	<u>SILICIFIED BASALT WITH CHLORITE-RICH ZONES (20%)</u> Silicified zone, more distinctly brec- ciated with good angular fragments being visible. White siliceous material randomly infills without well-developed foliation. In some locations silici- fication is not as intense indicated by the medium to dark green chloritized zones which comprise approximately 20% of the interval. These zones range from 1-2cm up to 10-15cm and are softer than the silicified zone. The presence of these chloritized zones indicates that the main silicified zone is nearing the end. Pyrite content; less than 1% up to 15% with an average throughout of 5-7%.	221 222 223 224	5-7%	24.02 24.93 25.85 26.76	24.93 25.85 26.76 27.43	0.91 0.91 0.91 0.67			0.05 0.04 0.11 0.23	
	27.43 - 28.04:	<u>TUFF? OR FAULT?</u> Interval with larger grain size. Frag- ments are more well rounded and consist of quartz, feldspar and mafic minerals - area of slight magnetism - more abundant white silica - fault or tuff(?)	225		27.43	28.04	0.61			0.04	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-22 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		28.04 - 30.33: <u>SILICIFIED BASALT WITH CHLORITE ZONES</u> Same rock type as interval 24.02-27.43m. Pyrite content increases from 28.65-28.96m to 10% with average over the interval of 5%.	226		28.04	28.96	0.91			0.10	
			227		28.96	29.87	0.91			0.09	
			228	5%	29.87	30.33	0.46			0.02	
30.33	30.66	<u>TUFF? OR FAULT?</u> Light green, medium grained rock with well-rounded fragments of quartz and feldspar.	229		30.33	30.66	0.33			Trace	
30.66	57.00	<u>BASALT</u> Medium green, aphanitic to fine grained rock. Carbonate present as stringers up to 5-10%. The zone has small bands of brecciated and silicified material characteristic of the main zone, 2-10cm wide and comprising no more than 10% of the interval. Pyrite is less than 1%.									
		30.66 - 35.91: <u>BASALT</u> Carbonate - 5-10%. Pyrite - less than 1%.	230		30.66	31.58	0.91			0.005	
			231		31.58	32.49	0.91			0.005	
			232		32.49	33.41	0.91			0.07	
			233		33.41	34.32	0.91			0.01	
			234		34.32	35.23	0.91			0.005	
			235		35.23	35.91	0.67			Trace	
				less than 1%							
		35.91 - 36.70: <u>DIABASE?</u> Medium grained, medium green rock. Prismatic amphibole crystals. Pyrite 0-0.5%.	236		35.91	36.70	0.79			0.04	
				less than 1%							

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-22 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
	36.70 - 37.28:	Moderately silicified and brecciated. 2-5% carbonates. Up to 1% pyrite.	C 237		36.70	37.28	0.58			0.04	
	38.19 - 38.37:	Strongly brecciated and silicified. 2-5% pyrite.	C 238		37.28	38.37	1.10			Trace	
			239		38.37	39.20	0.82				
	39.20:	Core broken and fragmented, possible fault.									
	39.20 - 47.03:	Carbonate stringers and veining more abundant, 15-25%.	C 240		39.20	40.11	0.91			0.005	
			241		40.11	41.03	0.91			0.005	
			242		41.03	41.18	0.15			0.15	
			243		41.18	42.09	0.91			0.02	
			244		42.09	43.01	0.91			Trace	
			245		43.01	43.92	0.91			0.005	
			246		43.92	44.84	0.91			0.005	
			247		44.84	45.75	0.91			0.005	
			248		45.75	46.36	0.61			0.02	
			249		46.36	47.03	0.67			0.005	
	47.03 - 47.85:	Carbonate stringers almost absent, 2-5%.	250		47.03	47.85	0.82			Trace	
	47.85 - 49.77:	Carbonate stringers 5-10%. Tuffaceous bands 1-10cm in size comprise 5-10% of core.	251		47.85	48.77	0.91			0.01	
			252		48.77	49.77	1.00			0.02	
	49.77 - 57.00:	Bands of carbonates wider with zones of carbonate-free basalt at 50.22-50.38m and 51.22-51.66m.	253		49.77	51.00	0.91			0.005	
			254		51.00	51.91	0.91			Trace	
			255		51.91	52.82	0.91			Trace	
			256		52.82	53.74	0.91			Trace	
			257		53.74	54.65	0.91			Trace	
			258		54.65	55.56	0.91			Trace	
			259		55.56	56.47	0.91			Trace	
			260		56.47	57.00	0.53			Trace	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-22 SHEET NO. 7 of 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
57.00	59.65	<u>INTRUSIVE -- DIABASE(?)</u> Light to medium green, medium grained rock with prismatic amphibole crystals. Carbonate stringers 1-3%.	261		57.00	57.91	0.91			Trace	
			262		57.91	58.83	0.91			Trace	
			263		58.83	59.65	0.82			Trace	
59.65	61.26	<u>BASALT</u> Carbonate stringers less than 1%.	C 264		59.65	60.56	0.91			Trace	
			265		60.56	61.26	0.70			Trace	
		61.26 meters END OF HOLE CASING PULLED WHOLE BQ CORE SENT FOR ASSAY									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-23 LENGTH 60.05 meters
 LOCATION _____
 LATITUDE 9+37.5E DEPARTURE 30S
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED 24-5-83 FINISHED 26-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°	344°			
60.05	-45°				

HOLE NO. MC-83-23 SHEET NO. 1 OF 9

REMARKS Second hole logged by S.M.T.

LOGGED BY S.M. Trueland

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	6.70	CASING									
6.70	27.28	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Fine grained, dark grey with purple hue, moderately to intensely brecciated rock. Brecciated fragments range from less than 1mm to 2-3cm and are angular to rounded. Rock is carbonatized from 6.70-18.81m decreasing in content with depth. Carbonates are absent from the highly silicified zone beginning at 18.81m. Chloritization of narrow zones (also from 6.70-18.81m) indicates the beginning of the silicified zone. Chlorite content also decreases with depth. Infiltration of siliceous material is in a random fashion throughout the silicified zone. Quartz veinlets range in size from less than 1mm to 1cm and have been introduced in more than one event as some veinlets cross-cut older brecciation and veinlets. The core is <u>magnetic</u> from 21.59-24.38m within the most highly silicified zone. Pyrite content ranges from less than 1% in chlorite-rich zones up to 10-15% in intensely brecciated and silicified zones. In areas of low concentration the pyrite usually appears finely disseminated while larger euhedral grains appear more frequently as concentration rises. In areas of intense brecciation a slight foliation appears at 55-65° to the core axis.</p> <p>6.70 - 11.54: <u>SILICIFIED ZONE WITH CARBONATE CHLORITE ZONES (10-20%)</u></p> <p>Medium grey with yellow hue to dark green with purple hue. Fine grained rock with alternating chlorite-carbonate</p>									
			C 266		6.70	7.70	1.00				
			267		7.70	8.72	1.00				
			268		8.72	9.70	1.00				

EM. 6-1168

LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc-83-23 SHEET NO. 2 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		and brecciated-silicified zones with the chlorite-carbonate zones making up approximately 10-20% of the total zone. Carbonate values increase to 10-15% in the chloritized values and is absent from the intensely brecciated and silicified zones. In some zones of brecciation the fragments are large, 3-10mm with no apparent foliation while in other areas the fragments are not quite as large, less than 1 to 3mm and there is a slight foliation. These foliated zones indicate a compressive shear force versus a tensile force in the areas of large brecciated fragments. The siliceous material infills around the brecciated fragments through micro-fractures and narrow (1-3mm) veinlets. The pyrite content ranges from less than 1% to 3-5% with an average value of 2%. There is a possible fault at 11.46 m.	269		9.70	10.70	1.00			0.005	
			270		10.70	11.54	0.84			0.005	
				2%							
		11.54 - 13.93: Rock becomes a dark grey with purple hue. Carbonate veinlets become wider, 5mm, but are less abundant, making up 5-10% of total zone. Brecciation is not as intense. Pyrite is finely disseminated, trace to 1%.	271		11.54	12.53	1.00			0.02	
			272		12.53	13.53	1.00			0.03	
			273		13.53	13.93	0.40			0.02	
				less than 1%							
		13.93 - 18.30: <u>SILICIFIED ZONE WITH CHLORITE ZONES (10%)</u>									
		Rock still dark grey with purple hue. Micro-fractures and stringers more abundant with a slight foliation at 50-70° to core axis. Still small zones of non-silicified rock comprising up to 10% of zone. Carbonate content decreased with an overall abundance of approximately 1%. Pyrite content is less than 1%.	274		13.93	14.90	1.00			0.01	
			275		14.90	15.88	1.00			0.01	
			276		15.88	16.88	1.00			0.01	
			277		16.88	17.88	1.00			0.01	
			278		17.88	18.30	0.42			0.005	
				less than 1%							

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-23 SHEET NO. 3 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
		18.30 - 18.80: <u>TUFF OR FAULT</u> Light to medium green, medium grained rock composed of less than 1mm to 3mm well-rounded grains or fragments at the top and bottom of the zone with larger 3-6mm angular fragments in the middle of the zone - TUFF OR FAULT - pyrite is not visible. SAMPLE TAKEN 18.62-18.68m (angular fragments)	279	0%	18.30	18.80	0.53			0.02	
		18.80 - 19.05: <u>GREY-BROWN YELLOW HUE SILICIFIED ZONE</u> Light grey-brown with yellow hue. Fine grained, intensely brecciated and silicified. Slight foliation at 50-65° to core axis. Pyrite content significantly increases in this interval to 10-15%. The same zone appears in hole Mc-83-22 at 20.73-21.12m. SAMPLE TAKEN 18.80-18.90m.	280	10-15%	18.80	19.05	0.24			0.33	
		19.05 - 19.51: Core becomes medium grey with brecciated fragments still light grey-brown with yellow hue. These fragments constitute approximately 40-50% of the interval. Very distinct contact with above interval. Pyrite content 5-7%.	281	5-7%	19.05	19.51	0.46			0.05	
		19.51 - 19.81: <u>TUFF OR FAULT</u> Band of tuff (or fault). Fragments are less than 1mm to 10mm with small fragments dominating. No visible pyrite.	282	0%	19.51	19.81	0.30			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-23 SHEET NO. 4 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		19.81 - 21.59: <u>TYPICAL SILICIFIED ZONE (PURPLE HUE)</u>									
		Typical dark grey, purple hue rock. Brecciation light to moderate. Fractures less abundant with more regular quartz veins 1-5mm wide. Within quartz veins brecciated fragments are more abundant. Light brown alteration halos associated with some quartz veins while some veinlets infilled with light brown siliceous material. Finer micro-fractures, random throughout interval. Veinlets cut core axis at 30-45° with some clean white quartz veinlets running parallel to the core axis. Pyrite content ranges from less than 1% to 15% with an average concentration of approximately 7%. SAMPLE TAKEN 20.57-20.65m.	283		19.81	20.80	1.00			0.10	
			284	7%	20.80	21.59	0.79			0.03	
		21.59 - 24.38: <u>SILICIFIED ZONE: MAGNETIC</u>									
		Dark grey, purple hue rock. Fracturing becomes more abundant and larger. Alteration halos not visible. Core is <u>magnetic</u> throughout entire interval. Pyrite content is 2-4%.	285		21.59	22.57	1.00			0.03	
			286		22.57	23.57	1.00			0.02	
			287		23.57	24.38	0.81			0.08	
				2-4%							
		24.38 - 26.91: <u>SILICIFIED ZONE: NON-MAGNETIC</u>									
		Dark grey rock with purple hue, non-magnetic over this interval. Small chlorite-rich zones appear and comprise 5% of interval with greater abundance down hole. Some areas of intense brecciation and silicification. Pyrite content 1-2%.	288		24.38	25.38	1.00			0.06	
			289		25.38	26.38	1.00			0.02	
			290	1-2%	26.38	26.91	0.53			0.18	

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc-83-23 SHEET NO. 5 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
		26.91 - 27.28: <u>GREY-BROWN YELLOW HUE SILICIFIED ZONE</u> Rock grey-brown with yellow hue, similar to interval 18.80-19.05m. Pyrite content 7-8%. End of main silicified zone.	291	7-8%	26.91	27.28	0.36			0.21	
27.28	60.05	<u>BASALT WITH SILICIFIED ZONES (1-2%)</u> Light to dark green, aphanitic to medium grained rock. Intervals of silicification and brecciation from 1-2cm up to 1 metre. These intervals constitute 1-2% of the entire basalt interval. Carbonatization becomes present directly below 27.28m and throughout the interval averages approximately 10%. Pyrite content varies from 0 in some carbonatized-chloritized zones to 5-10% in silicified and brecciated zones.									
		27.28 - 28.13: <u>TUFF OR FAULT</u> Light to medium green, fine to medium grained rock with larger fragments at 27.86m. Foliation present (measurement not taken). Pyrite absent.	292	0%	27.28	28.13	0.85			0.02	
		28.13 - 29.57: <u>BASALT WITH SILICIFIED ZONES (5%)</u> Medium green, fine grained basalt with zones of brecciation and silicification comprising 5% of the interval. Carbonate stringers throughout core in random pattern and constitute approximately 5% of the interval. 5cm zone of medium grained rock cuts across basalt at 29.11. Pyrite averages less than 1% throughout, but is 0.5-1% in brecciated and silicified areas.	293 294	less than 1%	28.13 28.83	28.83 29.57	0.67 0.70			0.02 0.005	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. Mc-83-23 SHEET NO. 6 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
	29.57 - 33.10:	<u>BASALT ABSENT OF SILICIFIED ZONES</u> Medium to dark green, fine to medium grained rock. Possibly the centre of a flow where crystals were able to form due to slow cooling. Carbonate content 5%. Magnetic band at 31.70m making an angle of 30° to core axis. 0 to trace pyrite.	295		29.57	30.57	1.00				Trace
			296		30.57	31.57	1.00				Trace
			297		31.57	32.77	1.20				Trace
			298		32.77	33.10	0.32				Trace
											Trace
	33.10 - 37.50:	<u>BASALT ABSENT OF SILICIFIED ZONES</u> Fine to medium grained basalt with greater amounts of carbonate stringers - approximately 10% - stringers 1mm to 1cm wide and are emplaced in irregular pattern with the majority making an angle of 80-90° to core axis. Slight foliation over 20cm making an angle of 40° to core axis (36.05-36.27). Pyrite content up to 1-2% averaging less than 1%.	299		33.10	34.13	1.00				0.005
			300		34.13	35.13	1.00				Trace
			301		35.13	36.13	1.00				Trace
			302		36.13	36.85	0.70				0.005
			303		36.85	37.50	0.62				Trace
											less than 1%
	37.50 - 37.89:	<u>TUFF??</u> Medium grained, brownish-green rock. Moderately brecciated with fragments no larger than 2-3mm. Some grains are well rounded - possibly tuffaceous. Carbonate stringers absent from this zone. Pyrite content slightly increased 1-2%. SAMPLE TAKEN 37.72 - 37.78.	304		37.50	37.89	0.39				0.005
											1-2%
	37.89 - 38.77:	<u>DIABASE??</u> Medium grained, medium green rock. Carbonate content 10%. Core similar to interval 33.10-37.50m, but grain size is considerably coarser. Prismatic amphiboles - could be considered to be	305		37.89	38.77	0.88				Trace
											less than 1%

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-23 SHEET NO. 7 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		37.89 - 38.77:									
		38.77 - 39.24: <u>BASALT</u> Medium green, fine to medium grained rock. Less carbonates in this interval, which gives the division. Grain size smaller than above interval, but there is a gradational decrease in grain size. Carbonates less than 5%. Pyrite less than 1%.	306		38.77	39.24	0.46			Trace	
		39.24 - 39.64: <u>SHEARED BASALT</u> Well foliated and moderately sheared basalt. Grain size not distinguishable. Foliation makes an angle of 45° to core axis. More intensely sheared at top of interval (39.24m). Moderately sheared at bottom of zone. Pyrite absent from this interval.	307	0%	39.24	39.64	0.37			0.005	
		39.64 - 40.97: <u>LIGHTLY SHEARED BASALT</u> Basalt slightly foliated (not as intensely as zone above). Foliation makes an angle of 40° with core axis. Pyrite absent. Clay material in fracture 40° to core axis at 40.23m, possible fault.	308 323	0%	39.64 40.33	40.33 40.97	0.69 0.67			Trace	
		40.97 - 42.06: <u>BASALT</u> Medium green, fine to medium grained rock, no foliation. Carbonate stringers comprise 5% of interval. Grain size becomes finer with depth. Pyrite content up to 5%, averages 1%.	309	1%	40.97	42.06	1.10			Trace	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. Mc-83-23 SHEET NO. 8 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
				FROM	TO	TOTAL					
	42.06 - 44.90:	<u>BASALT WITH SILICIFIED ZONES (5%)</u> Fine grained, medium to dark green rock. Silicified zones 2-10cm wide comprising not more than 5% of zone. Wider zones have light brownish-yellow colour, moderately to severely brecciated. Pyrite up to 2% in silicified-brecciated zones and 0 to trace in chlorite zones. Carbonate content 3-5% as 1mm-15mm wide stringers in chlorite zones.	310 311 312		42.06 43.06 44.06	43.06 44.06 44.90	1.00 1.00 0.84			Trace 0.005 Trace	
	44.90 - 45.48:	<u>TUFF??</u> Fine to medium grained with grains 1-3mm in size within a finer matrix. Carbonate stringers less abundant making up less than 1% of interval. Quartz vein cuts across zone at 45.20m at 90° to core axis. Pyrite 0 to trace.	313		44.90	45.48	0.58			0.005	
	45.48 - 46.36:	<u>BASALT (BLACK VEINLETS)</u> Fine grained, light green basalt fractured in regular pattern at an angle of 60-70° to core axis. Fractures are less than 1mm wide and are filled with black material. Minor veins containing pyrite - trace throughout.	314		45.48	46.36	0.88			0.005	
	46.36 - 47.06:	<u>SILICIFIED ZONE (BROWNISH-YELLOW FRAGS.)</u> Brecciated and silicified zone. Carbonate within rock up to 3-5%. Brecciated fragments, 1-4mm, have brownish-yellow colour. Pyrite content increases greatly in this interval, 5-10%.	315	5-10%	46.36	47.06	0.67			0.02	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. Mc-83-23 SHEET NO. 9 OF 9

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
				FROM	TO	TOTAL					
47.06	55.40	<u>BASALT WITH SILICIFIED ZONE (1%)</u> Basalt with 5% carbonates as stringers. Narrow 1-3cm silcified zones not comprising more than 1% of interval. At 50.93m hematite (specular) vein containing chalcopyrite which makes angle of 30° with core axis. Minor pyrite in silcified zones, trace in basalt.	316	47.06	48.01	1.00				Trace	
			317	48.01	49.09	1.00				Trace	
			318	49.09	50.09	1.00				Trace	
			319	50.09	51.00	1.00				Trace	
			320	51.00	52.00	1.00				Trace	
			321	52.00	53.00	1.00				Trace	
			322	53.00	54.00	1.00				Trace	
			324	54.00	54.74	0.74				Trace	
			325	54.74	55.40	0.67				Trace	
				Trace							
55.40	56.11	<u>LOWER MINERALIZED ZONE (SILICIFIED ZONE WITH BROWNISH-YELLOW FRAGMENTS)</u> Brecciated silicified zone with brownish yellow fragments similar to interval 46.36-47.06m. Pyrite content increases dramatically to 10-15%.	326	55.40	56.11	0.76				0.075	
				10-15%							
56.11	60.05	<u>BASALT</u> Basalt with 1-3cm wide zones of darker rock. In these zones pyrite content increases to 1-2% from 0 to trace throughout the rest of the rock. In the last 0.46m of the interval the rock becomes coarser grained gradually and a lighter green in colour. Possibly gradational contact with new rock type but since it constituted such a small amount of the core it was not noted. Carbonate stringers up to 2-3% of core.	327	56.11	57.11	1.00				Trace	
			328	57.11	58.11	1.00				Trace	
			329	58.11	59.11	1.00				Trace	
			330	59.11	60.05	0.91				Nil	
				Trace							
60.05		<u>END OF HOLE CASING PULLED</u> Whole BQ core sent in for assay.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-24 LENGTH 92.66 meters
 LOCATION _____
 LATITUDE 0+50 S DEPARTURE 9+25 E
 ELEVATION _____ AZIMUTH 344° DIP -55°
 STARTED May 27, 1983 FINISHED June 2, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-55°				
91.44	-52°				

HOLE NO. Mc-83-24 SHEET NO. 1 OF 7

REMARKS BQ Core

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	8.90	<u>OVERBURDEN</u>									
8.90	14.30	<u>BRECCIATED BASALT</u> Medium green, fine grained to aphanitic, moderately to strongly brecciated and very weakly silicified locally. Breccia fragments are 0.1-5.0mm in size and are concentrated in zones with a fabric at 40° to the core axis. Intense brecciation is often accompanied by silicification and 3-5% pyrite contents; average content is 1-2%. Silicification increases in the lower part of the section. The zone is moderately fractured with hematite and white carbonate in fractures. These fractures, at least in part, post-date brecciation. Micro-fractures at 11.30-12.50 meters are faults with 1-2cm displacement. 12.00 - 14.30: increased brecciation and silicification, up to 20% pyrite in 2-3cm seams of breccia - some 1cm aggregates of fine pyrite crystals. Breccia foliation at 25-30° to the core axis at 13.20 m.	331		8.90	9.90	1.00			0.01	
			332		9.90	10.90	1.00			tr.	
			333		10.90	11.90	1.00			tr.	
			334		11.90	12.90	1.00			tr.	
			335		12.90	13.90	1.00			0.01	
			336		13.90	14.30	0.40			0.01	
14.30	24.56	<u>SEDIMENTS</u> Medium to dark green, fine to very fine grained with 1-5cm zones of grey brecciated and silicified rock. The zone is generally weakly to moderately chloritized. Silicification seems to be penetrative and is imposed upon chlorite alteration along narrow fractures. The strongest silicification is closest to these fractures. Bedding laminations are well developed locally (eg. 45° at 14.90 meters). Pale green silicified rock is often found within the laminations - this colouration may reflect sericitization and carries 8-10% pyrite. The rock is generally moderately fractured with quartz and	337		14.30	15.30	1.00			tr.	
			338		15.30	16.30	1.00			tr.	
			339		16.30	17.30	1.00			tr.	
			340		17.30	17.70	0.40			tr.	
			341		17.70	18.70	1.00			tr.	
			342		18.70	19.70	1.00			tr.	
			343		19.70	20.42	0.72			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-24 SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ. TON
					FROM	TO					TOTAL
		carbonate filling. Carbonate is dominant in non-silicified rock.								
	14.65 - 14.92:	yellow-green silicification with 8-10% pyrite; intensely brecciated.								
	14.92 - 15.03:	reddish-brown, aphanitic, siliceous zone - carries 5-7% pyrite as 1-2mm cubes. Rock near the contacts of this zone is strongly laminated at 55° to the core axis.								
	15.03 - 17.70:	poorly brecciated but well laminated and chloritized. Minor silicification locally along 1-3cm bands and lenses - about 25% silicified breccia in section. Laminations are developed at 45° to the core axis.								
	17.70 - 24.56:	possible intrusive(?) or chloritized sediments - weakly brecciated but strong locally along some fracture systems. Some pale green breccia is supported in a green chloritic matrix. Minor grey silicified zones are noted. Unaltered rock is characterized by 1-3mm black blebs - altered glass shards? Numerous micro-faults cut the core axis at 30° with up to 2cm of displacement. If this section is intrusive, a sedimentary xenolith is noted at 20.42-20.93 meters. Bedding in this fragment is carbonatized, locally silicified and tends to be chaotic. A second possible xenolith is noted at 22.48-23.25 meters. It is possible that this section is actually interflow sediment rather than intrusive.	344		20.42	21.42	1.00			tr.
			345		21.42	22.42	1.00			0.01
			346		22.42	23.42	1.00			0.01
			347		23.42	23.99	0.57			0.01
			348		23.99	24.56	0.57			0.02
24.56	25.24	<u>SEDIMENTS</u> Grey to greenish-grey, fine grained to aphanitic and strongly brecciated. Angular fragments, 0.5mm to 3cm, are grey and intensely silicified. The larger fragments are greenish indicating less effective silicification (silica penetration). The breccia matrix is very siliceous - essentially quartz. The rock is moderately fractured with quartz and carbonate filling. Silica is dominant in zones of silicification. Pyrite, finely disseminated, averages 1%.	349		24.56	25.24	0.68			0.01

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-24 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
25.24	28.24	<p><u>SEDIMENTS</u></p> <p>Light to dark green, fine grained and moderately chloritized, non-brecciated becoming moderately brecciated towards the base. Brecciation is gradational into the underlying zone. Dilatant zones along fractures up to 2cm in width are carbonate filled. Silicification is relatively rare but may be found in fractured zones up to 3cm in width. The rock is well laminated locally - 65-70° at 27.95 meters. The zone averages 0-1% pyrite.</p>	350		25.24	26.24	1.00			0.01	
			351		26.24	27.24	1.00			0.01	
			352		27.24	28.24	1.00			0.01	
28.24	31.24	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine to very fine grained with patchy grey silicified zones. Alteration is very strong but limited to narrow breccia seams. The rock is strongly laminated at 45-50° to the core axis (eg. 28.40 meters). Brecciation increases below 30.24 m and the degree of silicification increases similarly. The zone averages 1% pyrite and is very similar to the rock at 14.30-20.42 m. Bedding at 30.35 meters is at 60-70° to the core axis. A clay filled fault plane is located in ground core at approximately 31.00 meters.</p>	353		28.24	29.24	1.00			tr.	
			354		29.24	30.24	1.00			0.02	
			355		30.24	31.24	1.00			tr.	
31.24	58.58	<p><u>MAIN MINERALIZED ZONE</u></p> <p>The zone is composed of several highly silicified sections separated by similar but less completely silicified rock. Pyrite content probably averages about 3% but ranges from 1-10% with up to 1% chalcopyrite locally. Silicification is best developed in intensely brecciated rock. Because of the breccia developed above this zone, and the spotty silicification associated with it, the upper contact of this unit may extend higher than is indicated herein.</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-24 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
31.24	32.60	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>This zone is a combination of green, fine grained and locally silicified sediments, and, reddish, aphanitic syenite(?). The sediments are silicified in response to localized carbonatization. Some increase in pyrite is associated with silicification. Minor honey coloured alteration is noted locally. Some cherty fragments are supported in non-silicified rock locally - rip-up clasts. The syenite is located at 32.34-32.60 meters. It is strongly brecciated at the contacts and is highly fractured internally. The rock is very siliceous, perhaps silicified, and carries a trace of pyrite.</p>	356		31.24	32.34	1.10			0.05	
			357		32.34	32.60	0.26			0.04	
32.60	42.84	<p><u>MAIN SILICIFIED ZONE - UPPER PART</u></p> <p>The rock is grey to yellow-grey, aphanitic and intensely silicified and brecciated. Breccia fragments are 0.1mm to 1.0cm in size and are highly angular. The matrix tends to be cream coloured and is essentially quartz. Bedding laminations are present in the uppermost 0.75m of the zone, and although strongly brecciated, is still readable. Breccia fragments can often be reassembled into larger fragments of the original rock - very little rotation has accompanied dilatant-type movement. Pyrite is present as a very fine dissemination and as cubes up to 1mm in size. Yellowish colouration may be due to feldspathization or sericitization. Maximum pyrite content is 10%.</p> <p>32.60 - 33.60: grey breccia, highly silicified with 3-5% pyrite and up to 1% chalcopyrite.</p> <p>33.60 - 34.07: yellow-grey, 5-7% pyrite - up to 9% locally.</p> <p>34.07 - 35.60: alternating grey and yellowish bands account for 30% of the zone; 5% average pyrite with up to 7% in pale coloured rock.</p> <p>35.31: 3-5mm band of ashfall tuff cuts the core axis at 65°.</p> <p>35.60 - 36.70: 1-3% pyrite.</p> <p>36.70 - 39.90: probable shear zone located in generally chloritized rock at 39.20-39.50 m developed at 45° to the core axis. Section averages 3-5% pyrite in sil. rock.</p>	358	3-5	32.60	33.60	1.00			0.21	
			359	6-8	33.60	34.60	1.00			0.23	
			360	7	34.60	35.60	1.00			0.14	
			361	1-3	35.60	36.60	1.00			0.10	
			362	3-5	36.60	37.60	1.00			0.06	
			363	3-5	37.60	38.60	1.00			tr.	
			364	3-5	38.60	39.60	1.00			tr.	
			365		39.60	40.60	1.00			tr.	
			366		40.60	41.60	1.00			0.02	
			367		41.60	42.22	0.62			0.01	
			368		42.22	42.84	0.62			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-24 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ./TON
					FROM	TO					TOTAL
		39.90 - 40.65: abundant cream and yellowish silicified matrix to breccia fragments - frequently mylonitic. Yellowish zones carry up to 10% pyrite. A chloritized shear is located at 39.90 meters.								
		40.65 - 41.84: 2-4% pyrite. A 2cm pink carbonate vein is located at 40.90-40.95 meters.								
		41.00 - 41.08: 3cm chloritized mylonitic seam at 45° to the core axis - fault.								
		41.84 - 42.84: rock is 50% chloritized sections, remainder is moderately to strongly brecciated and silicified. A minor fault at 70° to the core axis is noted at 41.23 meters.								
42.84	46.69	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>								
		Dark green to grey-green, weakly to moderately chloritized and variably silicified. Silicification is controlled by brecciation. Some carbonatization is noted. Pyrite content ranges from 1-3%.	369	1	42.84	43.35	0.51			0.01
		42.84 - 43.35: very weakly brecciated, 1% pyrite.	370	2-3	43.35	44.35	1.00			0.01
		43.35 - 46.69: alternating grey silicified rock and green non-silicified rock, reflecting variable degrees of brecciation. The zone carries 40% highly silicified rock with up to 3% pyrite locally. A dark green, chloritized intrusive(?) with 1% pyrite and traces of chalcopyrite is noted at 44.57-44.88 meters.	371	2-3	44.35	44.57	0.22			0.07
			372	2-3	44.57	44.88	0.31			0.02
			373	2-3	44.88	45.88	1.00			0.01
			374	2-3	45.88	46.69	0.81			0.03
46.69	58.58	<u>MAIN SILICIFIED ZONE - LOWER PART</u>								
		Purple-grey, aphanitic, intensely silicified breccia accounts for 80-90% of this section. Green chloritized seams make up the remainder. Within silicified rock, cream to yellow coloured zones are common and reflect higher degrees of brecciation and silicification (also sericitization). Fragments are 1mm to 2cm in size and are highly angular. The zone averages 3-5% pyrite and a central zone from 48.00-51.00 meters averages 5-7% pyrite. Sulphide is generally confined to the matrix of the breccia and is much less abundant within fragments. Well developed laminations are noted								

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. MC-83-24 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		locally, (65° to core axis at 51.20 meters).	375	1-3	46.69	47.79	1.10			0.02	
		50.25: breccia fabric developed at 30° to the core axis.	376	3-5	47.79	48.79	1.00			0.02	
		50.94 - 51.30: 50% chloritized seams at 45-50° to the core axis.	377	5-7	48.79	49.79	1.00			0.22	
		53.20 - 53.52: cataclastic intrusive? - dark green, fine grained, chloritized with occasional 1cm pink quartz stringers.	378	5-7	49.79	50.79	1.00			0.15	
		53.95 - 58.58: the content of chloritized, non-silicified rock increases to 25-30% of the unit. The degree of silicification and intensely brecciated rock remains extremely high. Pyrite averages 3-5% and a trace of chalcopyrite. Pyrite crystals exhibit brecciation. The zone from 57.70-58.58 meters averages 7-9% pyrite.	379	3-5	50.79	51.79	1.00			0.01	
			380	1-3	51.79	52.79	1.00			0.01	
			381	1-3	52.79	53.79	1.00			0.02	
			382	3-5	53.79	54.79	1.00			0.01	
			383	3-5	54.79	55.79	1.00			0.01	
			384	3-5	55.79	56.79	1.00			0.01	
			385	3-5	56.79	57.79	1.00			0.02	
			401	7-9	57.79	58.58	0.79			0.03	
58.58	62.86	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		The zone begins at a chloritized seam (fault?), at 80° to the core axis - very minor movement, if any, is noted. The rock is dark green becoming medium green locally and is fine to very fine grained. The section is locally brecciated and greyish silicification is found in brecciated sections. Silicified breccia averages 5-7% pyrite whereas non-silicified rock carries 1-3%. The degree and the amount of silicification decreases down-hole into the underlying unit. The rock is non-magnetic. It is well laminated locally - (eg. 45° at 61.70 meters).	402		58.58	59.58	1.00			0.04	
			403		59.58	60.58	1.00			0.03	
			404		60.58	61.58	1.00			0.01	
			405		61.58	62.22	0.64			0.04	
			406		62.22	62.86	0.64			0.01	
62.86	77.06	<u>SEDIMENTS</u>									
		Medium green, occasionally light green, fine grained and weakly to moderately fractured. Lighter colouration is due to weak to moderate carbonatization. Most fracture filling is quartz with carbonate dominant in the micro-fractures. A well developed set of bedding laminations at 45° to the core axis is noted throughout. Pyrite content averages 1% with up to 2% locally. At one point of major white and pink carbonate veining (68.38-38.55 meters), 10% pyrite was noted as a fine dissemination, as fracture filling, and as 3mm aggregates of finer crystals. The rock is non-magnetic.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-24 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		The section is generally non-brecciated and non-silicified although narrow seams of silicified breccia are noted locally.	407		62.86	63.86	1.00			0.01	
		68.66 - 69.17: major breccia zone - strongly silicified from 68.66-69.02 meters with 1-3% pyrite and a trace of chalcopyrite.	408		63.86	64.86	1.00			0.01	
			409		64.86	65.86	1.00			tr.	
			410		65.86	66.86	1.00			tr.	
			411		66.86	67.86	1.00			tr.	
		69.58 - 71.58: minor pale green breccia zones up to 2cm in width are weakly to moderately silicified.	412		67.86	68.66	0.80			tr.	
			413		68.66	69.17	0.51			tr.	
		76.02 - 77.06: deep reddish tone - tuffaceous? Laminations are noted locally - 70° at 76.65 meters.	414		69.17	70.17	1.00			tr.	
			415		70.17	71.17	1.00			tr.	
			416		71.17	72.17	1.00			tr.	
77.06	83.20	<u>BASALT</u>	417		72.17	73.17	1.00			tr.	
			418		73.17	74.17	1.00			tr.	
		Dark green, fine grained massive flow. Minor hyaloclastite and some vesicles are noted near the upper contact. The rock is non-magnetic.	419		74.17	75.17	1.00			tr.	
			420		75.17	76.17	1.00			0.08	
83.20	86.25	<u>SEDIMENTS</u>	421		76.17	77.17	1.00			0.01	
			422		77.17	78.17	1.00			tr.	
			423		79.17	80.17	1.00			tr.	
		Dark green, fine to very fine grained and well laminated. The section becomes more poorly laminated down-section but retains a sense of parting parallel to bedding with depth.	424		81.17	82.17	1.00			0.01	
		84.40: laminated at 45-50° to the core axis.	425		83.17	84.17	1.00			0.01	
86.25	92.66	<u>BASALT</u>	426		85.17	86.17	1.00			0.01	
			427		87.17	88.17	1.00			0.01	
		Medium to dark green, very fine grained with locally developed aphanitic silicified breccia in 5cm seams. The uppermost part is massive with pillows developing below 91.17 meters.	428		89.17	90.17	1.00			0.01	
			429		91.17	92.66	1.49			0.01	
		92.66 meters END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-25 LENGTH 60.96 m
 LOCATION _____
 LATITUDE 925 E DEPARTURE 0+37 S
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED 07-06-83 FINISHED 09-06-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
60	-39°				

HOLE NO. 83-25 SHEET NO. 1 OF 5

REMARKS Whole core sent for assay.
BQ CORE.

LOGGED BY A.W. WORKMAN

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	7.92	<u>OVERBURDEN</u>									
7.92	10.80	<u>BASALT</u> Dark green, fine grained, moderately to highly fractured with white and pink carbonate in fractures - tensional not shearing induced. Carries 1-2% very finely disseminated pyrite.	457		7.92	8.92	1.00			0.01	
			458		8.92	9.92	1.00			0.01	
			459		9.92	10.80	0.88			tr.	
10.80	14.60	<u>FOLIATED BASALT</u> Dark green, fine grained, well foliated basalt - 40-45° to the core axis throughout. The zone contains an increasing number of 3-5 cm silicified patches - grey, harder than chloritized basalt. Silicification may be micro-breccia related - difficult to distinguish fragments due to colouration. Zones carry up to 5% pyrite over the 1-2% average. Micro-faults often cut off silicification along narrow fractures. Rock generally is moderately to highly fractured - dominantly carbonate filled in non-silicified rock - quartz in remainder. 12.73 - 12.95: Mafic intrusive (?) - very fine grained, chloritized strongly and only weakly fractured.	460		10.80	11.80	1.00			0.01	
			461		11.80	12.73	0.97			0.01	
			462		12.73	12.95	0.22			tr.	
			463		12.95	13.95	1.00			0.01	
			464		13.95	14.60	0.65			0.01	
14.60	18.00	<u>BRECCIATED BASALT</u> Grey to greenish grey, frequently green, fine grained lava. This unit has been fractured by a syenitic intrusive. However, the brecciation and silicification in this zone probably is not genetically related to the in-	465		14.60	15.50	0.90			0.01	
			466		15.50	15.65	0.15			0.01	
			467		15.65	16.65	1.00			0.01	
			468		16.65	17.65	1.00			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-25 SHEET NO. 2 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		trusive. The breccia is strongly sheared with chlorite developed in the fractures. A shear foliation has developed locally at 45-50° to the core axis - eg. 16.20m. A 2cm clay seam at 16.05 designates a major fault plane at 70° to the core axis. Average pyrite content is 4-5% with up to 7% locally, mostly near the intrusive.	469		17.65	18.00	0.35			0.06	
		15.50 - 15.65: SYENITE - reddish, strongly silicified intrusive, barren of pyrite, also at 17.86-17.93 and 17.42-17.46 m.									
18.00	42.12	<u>MAIN MINERALIZED ZONE</u> The zone is composed of an upper strongly silicified breccia member, a middle variably silicified but non-brecciated member and a lower silicified breccia zone. In general, pyrite contents average 5-7%, but, contents above 10% are noted, particularly in yellowish feldspathized (?) breccia.									
18.00	31.55	<u>MAIN SILICIFIED ZONE - UPPER PART</u> Dark grey, aphanitic brecciated lava. Fragment size is 1-10mm - very angular and often can be re-assembled. Breccia is strongly silicified and contains an average of 5-7% pyrite. The breccia is frequently feldspathized to a yellow-cream colour - these zones carry 10-15% pyrite and up to 20% locally. Yellowish alteration is penetrative into breccia fragments as evidenced by rim alteration locally. The zone contains abundant chloritized seams below 24.00 metres. It is moderately to strongly fractured with quartz as a fracture filling. Micro-fractures are carbonated.	470	10-12	18.00	19.00	1.00			0.08	
			471	5-7	19.00	20.00	1.00			0.05	
			472	3-5	20.00	21.00	1.00			0.03	
			473	1-3	21.00	22.00	1.00			0.01	
			474	1-3	22.00	23.00	1.00			0.01	
			475	1-3	23.00	24.00	1.00			0.02	
			476	1-3	24.00	25.00	1.00			0.01	
			477		25.00	26.00	1.00			0.02	
			478		26.00	27.00	1.00			0.01	
			479	6-8	27.00	28.00	1.00			0.01	
		18.45 - 18.65: yellowish altered silicified breccia - 15-20% pyrite decreasing rapidly out of zone to 5-7% level.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-25 SHEET NO. 3 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		20.00 - 21.00:									
		21.00 - 21.35:									
		24.00 - 27.00:									
		25.85-26.15:									
		26.33:									
		27.00 - 28.00:									
		27.50:									
		28.00 - 29.09:	480		28.00	29.00	1.00			0.01	
			481		29.00	30.00	1.00			0.01	
			482		30.00	31.00	1.00			0.01	
			483		31.00	31.55	0.55			0.02	
		29.09 - 31.55:									
31.55	37.55	<u>SILICIFIED BASALT</u>									
		Grey to greenish-grey, moderately brecciated, intensely silicified well-foliated rock. The grey silicified rock alternates with 1-3mm cream colour feldspathized(?)	484		31.55	32.55	1.00			0.05	
			485		32.55	33.55	1.00			0.04	
			486		33.55	34.55	1.00			0.06	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-25 SHEET NO. 4 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		bands. The zone carries 25-40% chloritized rock. The banding is concordant to the foliation. The foliation is likely a primary structural feature at 75° to the core axis. Chloritized rock carries 3-5% pyrite whereas silicified rock carries 5-9%.	487		34.55	35.55	1.00			0.13	
			488		35.55	36.55	1.00			0.07	
			489		36.55	37.15	0.60			0.03	
			490		37.15	37.75	0.60			0.01	
		34.55 - 34.70: strongly chloritized shear zone at 75° to the core axis; mylonitic silicified fragments in strongly chloritized fault gouge.									
		37.05 - 37.55: 50% chloritized zones.									
37.55	42.12	<u>MAIN SILICIFIED ZONE - LOWER PART</u>									
		The zone is composed of grey intensely brecciated and strongly silicified rock with minor green-grey, fine grained weakly brecciated and chloritized rock. The zones are irregular and do not have a consistent relationship in terms of thickness or apparent orientation to the core axis. The chloritized zones are found in zones up to 10cm thickness accounting for 20-30% of the section. Parting is well developed.	491		37.75	38.75	1.00			0.02	
			492		38.75	39.75	1.00			0.01	
			493		39.75	40.75	1.00			0.01	
			494		40.75	41.44	0.69			0.03	
			495		41.44	42.12	0.68			0.03	
42.12	45.20	<u>BASALT</u>									
		Dark green, fine grained, moderately to strongly fractured. Fracturing is tensional and is carbonate filled. Zone contains minor grey silicified breccia - less than 5% of section.	496		42.12	43.12	1.00			0.01	
			497		43.12	44.12	1.00			0.01	
			498		44.12	45.20	1.08			0.01	
45.20	46.16	<u>LOWER MINERALIZED (SILICIFIED) ZONE</u>									
		Dark greenish-grey, aphanitic and intensely silicified in highly brecciated zones. Fragments are extremely angular. The zone also contains appreciable (30-50%) chloritized and silicified, weakly brecciated rock. The degree of silicification is not as high as in this zone	499		45.20	46.16	0.96			0.03	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC-83-26 LENGTH 91.65 meters
 LOCATION _____
 LATITUDE 7+75 E DEPARTURE 0+40 S
 ELEVATION _____ AZIMUTH 344° DIP -60°
 STARTED 07-07-83 FINISHED 10-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-60°				
91.44	-54°				

HOLE NO. MC-83-26 SHEET NO. 1 OF 8

REMARKS BQ CORE
Core split for assay.

LOGGED BY A.W. WORKMAN

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	12.06	<u>OVERBURDEN</u>									
12.06	19.28	<u>BASALT</u> Dark green, fine to medium grained, gabbroic textured rock - not ophitic. Pyroxenes and other mafics comprise 70-80% of the rock volume; feldspar and quartz 20-30%. Mafics are fresh with minor epidotization locally. Generally unstructured with fine grained phases irregularly distributed. Minor silicification locally - texture becomes hazy; perhaps related to weak brecciation. Carries up to 1% pyrite as a fine dissemination. Below 15.80 m, rock contains 1-3mm black chloritized blebs, may be chloritized micro-xenoliths of wall rock. Moderately fractured with carbonate in fractures. A trace of chalcopyrite is noted locally in these fractures, along with quartz and hematite. The lower contact is highly debatable. A moderately silicified, vaguely textured zone at 19.20-19.28 seems appropriate.	510		12.06	13.06	1.00			0.01	
			511		13.06	14.06	1.00			0.01	
			512		14.06	15.06	1.00			0.01	
			513		15.06	16.06	1.00			Trace	
			514		16.06	17.06	1.00			Trace	
			515		17.06	18.06	1.00			Trace	
			516		18.06	19.28	1.22			Trace	
19.28	22.25	<u>BASALT</u> Dark green, fine to very fine grained with an aphanitic, chloritized glassy top. The upper 0.5 m is amygdaloidal with vesicles squashed along a plane at 40° to the core axis (±5°). The rock contains minor grey, silicified breccia zones up to 3cm in width containing 1-2% pyrite. The unit is highly fractured and 20-30% of the rock volume is carbonate and relatively minor quartz veining. Quartz is evidently controlled by a well developed foliation; eg. 45° at 19.58.	517		19.28	20.28	1.00			Trace	
			518		20.28	21.28	1.00			Trace	
			519		21.28	22.28	1.00			0.01	
			520		22.28	23.28	1.00			0.01	
			521		23.28	24.28	1.00			Trace	
			522		24.28	25.28	1.00			Trace	
			523		25.28	26.28	1.00			Trace	
			524		26.28	27.28	1.00			Trace	
			525		27.28	28.28	1.00			0.01	
			526		28.28	29.28	1.00			0.01	
			527		29.28	30.30	1.02			0.01	

EM. 6-1168

LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDERMOTT

 HOLE NO. Mc-83-26 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ. TON	OZ. TON
					FROM	TO	TOTAL				
		21.09 - 21.12: green clay seam - FAULT at 45-50° to the core axis.									
22.25	30.30	<u>SEDIMENTS</u> Dark green, fine to very fine grained and well foliated/laminated (45° to the core axis at 26.00 m; 50-60° at 28.25 meters). Minor seams of silicified breccia locally. 24.00 - 25.61: abundant pale yellow to cream coloured feldspathized(?) zones; 1-2% pyrite, pale grey 'speckles' - altered crystals. 26.74 - 26.81: intensely silicified breccia zones, 5-7% pyrite, 1% chalcopyrite.									
30.30	49.02	<u>MAIN SILICIFIED ZONE</u> Grey-green to purplish-grey, fine grained to aphanitic. The zone appears to be very finely laminated throughout on a 0.1-0.5mm scale. However, the laminations are only apparent where the sediments are chloritized or feldspathized. Alteration highlights the bedding. The uppermost part is grey-green and weakly to moderately silicified or alternately, moderately chloritized. Alteration has preferentially affected alternating laminations. Quartz veins cutting this rock are bounded by yellowish reaction halos. Pyrite contents up to 20% are noted. Average content may be 5-7%. <u>NOTE:</u> The upper zone of "Transitionally Silicified Sediments" is approximately 1cm in thickness. It is composed of cherty and chloritized laminations. 30.30 - 30.70: pale grey-green zone with a strongly brecciated yellow-cream coloured base - laminated at 55° to core axis.	528		30.30	30.70	0.40			0.04	
			529		30.70	31.70	1.00			0.01	
			530		31.70	32.70	1.00			0.01	
			531		32.70	33.70	1.00			0.01	
			532		33.70	34.70	1.00			0.01	
			601		34.70	35.50	0.80			0.26	
			602		35.50	35.75	0.25			0.04	
			603		35.75	36.75	1.00			0.05	
			604		36.75	37.75	1.00			0.10	
			605		37.75	38.75	1.00			0.17	
			606		38.75	39.75	1.00			0.12	
			607		39.75	40.75	1.00			0.01	
			608		40.75	41.75	1.00			0.02	
			609		41.75	42.75	1.00			tr.	
			610		42.75	43.75	1.00			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-26 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
	30.70 - 31.60:	purple-grey with yellowish reaction zones around quartz veins at 31.00, 31.10-31.20 and 31.30. Laminations at 40° to core axis. 3-5% pyrite.	611		43.75	44.75	1.00			Trace	
			612		44.75	45.75	1.00			0.01	
			613		45.75	46.75	1.00			Trace	
			614		46.75	47.75	1.00			0.005	
	31.60 - 32.15:	weakly silicified, weakly chloritized.									
	32.15 - 36.25:	intensely silicified and moderate to strong brecciation; may average 8% pyrite but ranges from 10-15% in the upper part to 1-3% at 35.00-36.30 increasing to 5-7% at 36.30-36.95 and 10-15% at 36.95.									
	33.15 - 33.22:	quartz vein appears to mark a tectonic event - rock is broken into 2-5cm semi-rounded fractured fragments. Above this zone and below, the rock is intensely brecciated and more strongly silicified.									
	34.25 - 34.35:	same as 33.15-33.22 m.									
	35.50 - 35.72:	FAULT ZONE - large scale (2-5cm) fragmentation of breccia with surrounding chloritized mylonitic gouge. At least 5cm of clay at 35.66 m - ground core makes interval uncertain.									
	35.95:	minor chloritized fault.									
	36.25 - 40.00:	sed. lamination becoming apparent, brecciation lowering to weak locally, silicification remains very strong. 36.30 - laminated at 45-50° to core zone from 36.95 to 38.20 carries 10-15% pyrite.									
	38.20 - 40.00:	1-3% pyrite.									
	40.00 - 40.50:	5-7% pyrite.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDERMOTT

 HOLE NO. MC-83-26

 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		40.50 - 41.35:									
		40.59 - 41.20:									
		41.35 - 41.77:									
		41.77 - 43.00:									
		43.00 - 43.65:									
		43.65 - 44.73:									
		44.73 - 47.84:	615		47.75	48.50	0.75			0.005	
			616		48.50	49.02	0.52			0.71	
		47.84:									
		47.92 - 47.96:									
		47.96 - 48.75:									
		48.75 - 49.02:									
49.02	57.56	<u>VARIABLY SILICIFIED SEDIMENTS</u>									
		This zone is composed of rocks that are essentially the same as the overlying section. Degree of silicification									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-26 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
49.02	57.56	<p>is much lower and, in general, this is mirrored in lower pyrite contents. The rock is dark to medium green becoming grey in silicified zones. Silicification is variable but generally related directly to degree of brecciation. The zone is cut by many green chloritized 'patches' which probably reflect areas not penetrated by silicifying fluids. Non-magnetic.</p> <p>49.02 - 50.42: medium to coarse grained, non-laminated; zone above 50.00 contains 30% pink silicified fragments (clasts) - 50-60% below 50.00 m. The lower contact is sharp at 65° to the core axis.</p> <p>50.42 - 54.18: 50% chloritized seams, strongly fractured with carbonate cement. Quartz in micro-fractures within carbonate; 1-3% pyrite as a very fine grained dissemination or as 1-2mm striated cubes. 53.20 - laminations at 40° to core axis.</p> <p>54.18 - 57.56: 10-15% chloritized seams which appear to cut off small felsic stringers in core - seams may be along minor faults. 55.95 - laminations (?) at 40-50°.</p> <p>55.95 - 56.00: 10% pyrite.</p> <p>56.20 - 56.25: dark green 'bed' of sediment (?) contains sub-rounded fragments up to 2mm - matrix is very fine grained, strongly chloritized with 1-3mm black chloritized glass shards; dips 60° to the core axis.</p>	617		49.02	50.00	0.98			0.005	
(Continued)			618		50.00	50.42	0.42			0.005	
			619		50.42	51.42	1.00			0.005	
			620		51.42	52.42	1.00			Trace	
			621		52.42	53.30	0.88			0.02	
			622		53.30	54.18	0.88			0.005	
			623		54.18	55.18	1.00			0.005	
			624		55.18	55.87	0.69			0.03	
			625		55.87	56.56	0.69			0.04	
			626		56.56	57.56	1.00			Trace	
57.56	66.86	<p><u>SEDIMENT</u></p> <p>Dark to medium green, fine to very fine grained, strongly chloritized with very fine, often indistinct laminations. The rock is generally well parted along a</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-26 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ. TON	
					FROM	TO					TOTAL
		cleavage parallel to the laminations. Minor moderately silicified breccia is noted locally - generally above 59.70 meters. The rock is strongly carbonated along narrow fractures parallel to and cross-cutting the laminations.	627		57.56	58.56	1.00			0.005	
			628		58.56	59.56	1.00			0.005	
			629		59.56	60.56	1.00			Trace	
			630		60.56	61.56	1.00			Trace	
			631		61.56	62.56	1.00			Trace	
			632		62.56	63.56	1.00			Trace	
		60.75: wispy laminations at 40-45° to core axis	633		63.56	64.56	1.00			Trace	
		62.85: wispy laminations at 45° to core axis.	634		64.56	65.56	1.00			0.005	
			635		65.56	66.86	1.30			0.02	
		63.25 - 63.63: medium grained with up to 3% pyrite.									
		63.63 - 63.89: moderately to strongly silicified.									
		63.89 - 64.85: well laminated, brecciated locally, 1% pyrite throughout.									
		64.85 - 65.28: several 2-3cm pink quartz veins with minor carbonate - no pyrite.									
66.86	68.14	<u>SILICIFIED SEDIMENT</u>									
		Green-grey, very fine grained, moderately to strongly silicified, moderately brecciated locally - generally weak brecciation as indicated by a generally well laminated fabric. Silicification is best developed in alternating laminations - reflection of original composition. 3-5% pyrite. Up to 8% locally in strongest silicified zones.	636		66.86	67.50	0.64			0.02	
			637		67.50	68.14	0.64			0.01	
68.14	86.90	<u>SEDIMENTS</u>									
		Light to medium green, fine to medium grained; very thin (0.5-1.0mm) laminations are indistinct but sharp locally. Rock is partially carbonatized with carbonate patches feathering out along the laminations. Numerous pink silicified zones up to 8cm thickness are irregularly distributed throughout zone - cherty sediments ?	638		68.14	69.14	1.00			Trace	
			639		69.14	70.14	1.00			Trace	
			640		70.14	71.14	1.00			0.01	
			641		71.14	72.14	1.00			Trace	
			642		72.14	73.14	1.00			Trace	
			643		73.14	74.14	1.00			Trace	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-26 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
68.14 (Continued)	86.90	Most are brecciated, and may contain higher pyrite contents than average; eg. 3% versus 1% average.	644		74.14	75.14	1.00			Trace		
			645		75.14	76.14	1.00			Trace		
			646		77.14	78.14	1.00			Trace		
		73.47: laminations at 50° to core axis.	647		79.14	80.14	1.00			Trace		
			648		81.14	82.14	1.00			0.01		
		83.85: laminations at 50° to core axis.	649		83.14	84.14	1.00			0.01		
		83.91 - 85.91: possible basalt flow - brecciated, sil. and epid.	650		85.14	86.14	1.00			0.01		
		86.45: laminations at 45° to core axis. loc.	651		86.14	86.90	0.76			0.01		
		73.80: fracture surfaces strongly hematized.										
		86.80 - 86.90: very angular fragments in a carbonate cement.										
		86.90	87.90	<u>BASALT</u> Dark green, fine grained with a 10cm brecciated upper contact zone. Fragments are very angular, 1-8mm in size. Matrix to fragments is essentially quartz. Upper contact cuts the core axis at 20-25°. Up to 1% very finely disseminated pyrite. Interior of flow is strongly brecciated without rotation of fragments. Chlorite and epidote found in tight fractures of breccia. Non-magnetic.	652		86.90	87.90	1.00			0.01
87.90	89.25	<u>SEDIMENTS</u> Medium green, fine grained, thinly laminated locally, well parted parallel to laminations. Angle of laminations is highly variable from 40-70° to the core axis.	653		87.90	89.25	1.35			0.01		
89.25	91.65	<u>BASALT</u> Medium green, fine grained to aphanitic, chloritized. Narrow 5cm flow top breccia marks top of unit. Flow is possibly vesicular from 89.40 to 89.60 m. Interior of flow is finely brecciated. A second flow-top is noted by breccia at 90.54-90.62. Matrix to breccia is quartz. Zone 91.00-91.30 is vesicular, and possibly pillowed.	654		89.25	90.25	1.00			0.01		
			655		90.25	90.95	0.70			0.01		
			656		90.95	91.65	0.70			0.01		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-26 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
		91.65								
		END OF HOLE								
		CASING PULLED								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDERMOTT

 HOLE NO. Mc. 83 - 27 SHEET NO. 2 of 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
18.75	20.29	<p align="center"><u>SILICIFIED SEDIMENT</u></p> <p>The rock is pinkish-green to grey-green, fine grained with 40 - 50% grey silicified zones up to 10 cm. in thickness. Silicification occurs in localized breccia zones. The remainder of the section is moderately chloritized. Some pink feldspathization is associated with silicified rock.</p> <p>20.00 - 20.29 : strongly chloritized. The rock is well laminated throughout at 30 - 50° to the core axis. Pyrite averages less than 1% with 1 - 2% in silicified zones.</p>	539		18.75	19.52	0.77			0.02	
			540		19.52	20.29	0.77			0.01	
20.29	39.64	<p align="center"><u>MAIN SILICIFIED ZONE</u></p> <p>Zone begins at a very sharp contact - probably a fault at 85° to the core axis. Displacement likely minor. Dark grey to bluish-grey, aphanitic to very fine grained, intensely brecciated with fragments 0.1 mm. to 3 mm. in size. Very strongly silicified with sedimentary laminations visible only locally, (eg. 20.40 - 20.50 : 45 - 50° to core axis). A syenite dike intrudes the sequence at 21.77 - 22.01 but narrow syenitic veinlets cut at 21.23 - 21.25, 21.70 - 21.75 and 22.72 - 22.77. It is dark red, aphanitic, strongly brecciated and highly siliceous.</p> <p>20.75 - 20.96: FAULT ZONE- 1 cm. clay and mylonite seam - surrounding rock is strongly fractured with chlorite in openings</p> <p>22.29 - 23.10: 10% cream coloured feldspathized rock with 5 - 7% Pyrite locally; av.=2-3%</p> <p>23.10 - 26.00: dark grey silicified rock</p> <p>26.00 - 27.46: Brecciated feldspathized rock</p>	541	1-2	20.29	21.29	1.00			0.01	
			542	1-2	21.29	22.29	1.00			0.01	
			543	2-3	22.29	23.29	1.00			0.01	
			544	1	23.29	24.29	1.00			0.01	
			545	1	24.29	25.15	0.86			0.01	
			546	1	25.15	26.00	0.85			0.01	
			547	1-3	26.00	26.73	0.73			0.08	
			548	3-5	26.73	27.46	0.73			0.14	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-27 SHEET NO. 3 of 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
				FROM	TO	TOTAL					
27.46	29.85	variable feldspathization - mostly along fracture systems, laminated at 50-60°	549	3-5	27.46	28.46	1.00			0.09	
29.85	30.30	strongly fractured fault zone - chloritized planes at 30.25 m.	550	3-5	28.46	29.46	1.00			0.04	
30.30	30.75	INTRUSIVE - light grey matrix to 1-2 mm. dark green, foliated chloritized mafic minerals at 60° to the core axis	551	3-5	29.46	30.30	0.84			0.01	
30.75	34.77	coarsely brecciated with angular .5-15 mm. fragments, local feldspathization, intensely silicified 3-5% pyrite, 7% locally. Lower 10 cm. is magnetic.	552	3-5	30.30	30.75	0.45			0.01	
34.77	36.13	dark green, medium to coarse grained intrusive. Carries 20-30% pink angular to sub-angular, fragments of syenitic (?) wall rock. Moderately magnetic. Corresponds to 49.3-50.5 in hole 83-26. Carries 1% pyrite, trace of chalcopyrite locally. Lower contact sharp at 65° to core axis.	553	1-3	30.75	31.75	1.00			Trace	
36.13	38.03	same as 30.75-34.77 - 3-5% pyrite, irregularly feldspathized	554	3-5	31.75	32.75	1.00			Trace	
38.03	38.54	INTRUSIVE - probably same as 34.77-36.13, fragments are dark green, groundmass is pinkish-green biotite? - now chloritized	555	3-5	32.75	33.75	1.00			Trace	
38.54	39.64	same as 30.75-34.77 - coarsely brecciated with mylonitic phases. local feldspathization, 1-3% pyrite	556	3-5	33.75	34.77	1.02			0.03	
			557	1	34.77	35.45	0.68			0.01	
			558	1	35.45	36.13	0.68			0.01	
			559	3-5	36.13	37.13	1.00			0.03	
			560	3-5	37.13	38.03	0.90			0.01	
			561	1	38.03	38.54	0.51			0.01	
			562	1-3	38.54	39.64	1.10			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC-83-27 SHEET NO. 4 of 6

FOOTAGE		DESCRIPTION	SAMPLE					ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
39.64	45.30	<p align="center"><u>SILICIFIED SEDIMENT</u></p> <p>The zone is composed of a varying amount of chloritized rock cutting brecciated and strongly silicified rock. The dark green chloritized zones seem to have penetrated into dilatant zones after the breccia was later re-brecciated - probably a result of faulting. In this case, the silicification and brecciation appears to pre-date the dark green rock. This is best observed above 41.63 metres. The silicified rock is highly brecciated and often mylonitic.</p> <p>39.64 - 41.63 : 50% chloritized zones, 1-2% pyrite 41.63 - 42.57 : minor pink feldspathization at 41.76-41.86; zone carries an average of 20% chloritized seams 42.57 - 45.30 : dark grey to greyish-green often green, variably silicified transition to non-silicified, non-brecciated rock. Silicified breccia at 43.28 - 43.63, 44.71 - 45.30. Some irregular laminations at 43.58 m.</p>	563	1-2	39.64	40.63	0.99				Trace	
			564	1-2	40.63	41.63	1.00				Trace	
			565	1-2	41.63	42.57	0.94				Trace	
			566	1	42.57	43.28	0.71				Trace	
			567	1-2	43.28	43.63	0.35				0.11	
			568	1	43.63	44.71	1.08				0.01	
			569	1-3	44.71	45.30	0.59				Trace	
			570	1	45.30	46.07	0.77				Trace	
			571	1	46.07	46.85	0.78				Trace	
45.30	46.85	<p align="center"><u>SEDIMENTS</u></p> <p>Medium to dark green, fine to very fine grained, vague, wispy laminations (.1 - .5 mm. scale), locally. Parting is very well developed parallel to laminations. Moderately carbonatized. Moderately fractured - dominantly quartz filled. Carbonate in micro-fractures. 45.80 : laminations at 65° to core axis</p>	572	1	46.85	47.85	1.00				Trace	
			573	1	47.85	48.85	1.00				Trace	
			574	1	48.85	49.85	1.00				Trace	
			575	1	49.85	50.85	1.00				Trace	
			576	1	50.85	51.85	1.00				Trace	
			577	1	51.85	52.85	1.00				Trace	
			578	1	52.85	53.85	1.00				0.01	
			579	1	54.85	55.85	1.00				0.01	
			580	1	56.85	57.85	1.00				0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Md-83-27 SHEET NO. 5 of 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
46.85	48.38	<p><u>SILICIFIED SEDIMENTS</u></p> <p>Green to greenish-grey, variably brecciated and silicified. Some moderate to strong silicification locally: 46.90-46.95; 47.39-47.48; 47.59-47.62; 47.70-47.75 and 48.30-48.33. Total silicified content is 16%.</p>									
48.38	57.85	<p><u>SEDIMENTS</u></p> <p>Medium to dark green fine to medium grained, laminated and locally graded bedding. Coarser grained sections may be greywacke. Finer sections are argillitic. Below 50.00 m, the rock becomes better laminated. Some soft sediment deformation is noted locally. Silicification has occurred locally along preferred laminations.</p> <p>48.59: 3cm pink quartz vein - barren of pyrite.</p> <p>48.38-48.65: medium to coarse grained, graded bedding - tops up. Average grain size at 48.38 is 0.2mm, vs 1.0mm at 48.65; grain size ranges from 0.1 to 3mm.</p> <p>50.00-57.85: well laminated but irregularly developed brecciation makes orientation indistinct - 70° to core axis at 50.50m. Below 51.00 the zone is very well laminated and well parted parallel to the laminations: 70° to core at 51.20m. Some tensional fracturing across laminations. Weakly silicified at 52.05-52.70. Moderately carbonatized locally. 1% pyrite.</p>									
57.85	58.75	<p><u>SILICIFIED SEDIMENT</u></p> <p>Grey, well silicified, brecciated locally, well laminated at 45° to core axis. Carries 1-3% pyrite, up to 5% locally in association with quartz veining - eg. 58.05-58.10 m.</p>	581	1-3	57.85	58.75	0.90			0.06	
			582	1	58.75	59.75	1.00			0.01	
			583	1	59.75	60.97	1.22			0.01	
			584	Trace	60.97	61.26	0.29			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC-83-27 SHEET NO. 6 of 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
58.75	60.97	<p><u>SEDIMENT</u></p> <p>Medium green, fine grained, thinly laminated. Well parted. Moderately carbonatized. 59.80 - laminations at 60° to core axis 60.97 - laminations at 60° to core axis</p>									
60.97	61.26	<p><u>BASALT ?</u></p> <p>Dark green, fine to very fine grained, non-laminated, weakly to moderately fractured with carbonate cement. Moderately chloritized. Rock type questionable.</p>									
	61.26	END OF HOLE - CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC-83-28 LENGTH 61.26 m
 LOCATION _____
 LATITUDE 7+62.5 E DEPARTURE 0+28 m S
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED 13-06-83 FINISHED 15-06-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
61.26	-42°				

HOLE NO. MC-83-28 SHEET NO. 1 OF 5

REMARKS BQ CORE
Whole core sent for assay.

LOGGED BY A.W. WORKMAN

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0	14.04	<u>OVERBURDEN</u>										
14.04	19.25	<u>SEDIMENT</u>										
		Dark to medium green, fine to medium grained and generally well laminated. Above 16.00 m rock is non-laminated, very highly chloritized and medium grained. Sediments carry 1% pyrite with 2% locally.	585	Tr.	14.04	15.04	1.00			0.01		
		17.00: laminations at 70° to core axis.	586	Tr.	15.04	16.04	1.00			0.01		
		17.75 - 18.00: very convolute laminations at 45-50° - soft sediment deformation.	587	1	16.04	17.04	1.00			0.02		
		19.00: laminations at 40° to core axis.	588	1	17.04	18.04	1.00			0.01		
			589	1	18.04	19.04	1.00			Trace		
			590	1	19.04	20.04	1.00			0.01		
19.25	51.80	<u>MAIN MINERALIZED ZONE</u>										
		The zone is composed of a variably silicified upper member. Silicification is preferentially located along certain sets of laminations. This member is coarsely brecciated. The main central member is strongly brecciated and intensely silicified. A lower member, below 48.85 meters, is composed of alternating silicified and chloritized zones.										
19.25	21.70	<u>SILICIFIED SEDIMENTS</u>										
		The rock is yellow-green to cream coloured, often grey and fine grained to aphanitic. It is well laminated but individual beds or sets of laminations have been brecciated - rip up clasts? Material filling voids is	591	1	20.04	21.04	1.00			0.005		
			592	1	21.04	21.70	0.66			0.01		

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LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-28 SHEET NO. 2 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		strongly chloritized. The zone, with the exception of the breccia matrix, is strongly silicified. A sense of the laminations is lost at 21.20 meters, where the rock becomes strongly brecciated and very highly silicified, but with 50% chloritized seams.									
		20.80: laminations at 30° to core axis.									
21.70		<u>MAIN SILICIFIED ZONE</u>									
		Dark grey to purple-grey with minor yellow-grey feldspathized(?) zones. Aphanitic, intensely brecciated. No sense of laminations except vaguely at 24.4 m (60° to core axis). Very strongly silicified. Breccia fragments are less than 1mm to 3mm in size. Larger fragments can often be re-assembled - some up to several cm. Fracturing is moderate to strong. Some fractures in fragments, not matrix, pre-dates brecciation. Several stages of fracturing is noted after brecciation. Fractures are silica filled and often have cream coloured reaction halos. Pyrite content averages 5% but contents up to 15% are noted - usually associated with feldspathized zones.	593	1-2	21.70	22.70	1.00			0.005	
			594	1-3	22.70	23.70	1.00			0.005	
			595	5-7	23.70	24.70	1.00			0.005	
			596	8-10	24.70	25.70	1.00			0.02	
			597	5-7	25.70	26.70	1.00			0.02	
			598	8-10	26.70	27.70	1.00			0.08)
			599	7-9	27.70	28.70	1.00			0.18	) 0.13
			600	3	28.70	29.70	1.00			0.01	) 2.00
			657	1-3	29.70	30.70	1.00			0.04	
			658	1-3	30.70	31.70	1.00			0.02	
			659	1-3	31.70	32.70	1.00			0.03	
			660	5	32.70	33.70	1.00			0.02	
			661	3-5	33.70	34.70	1.00			0.02	
			662	1	34.70	35.70	1.00			0.04	) 0.075
			663	3	35.70	36.70	1.00			0.13	) 2.75
			664	3-5	36.70	37.45	0.75			0.05)
			665	3-5	37.45	38.30	0.75			0.02	
		22.60 - 22.65: fault zone - intense fracturing and chloritization - minor movement.									
		22.90: 3cm syenitic zone identical to dykes in other DDH.									
		24.00 - 24.97: feldspathized - yellowish, averaging 8-10% pyrite with 15% maximum.									
		24.97 - 26.82: purple-grey, 5% pyrite.									
		24.50 - 31.30: brecciation diminishes and a sense of laminations returns: 60° to core axis at 26.25 m.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDERMOTT

 HOLE NO. MC-83-28 SHEET NO. 3 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		26.82 - 27.75:									
		as at 24.00-24.97 m - average 10% pyrite, up to 15% locally. Trace of <u>visible gold</u> in a 3mm accumulation of pyrite grains.									
		28.00:									
		possible laminations at 50° to core axis.									
		28.53:									
		pyrite content drops sharply to 1-3%.									
		31.30 - 31.90:									
		FAULT ZONE - green chloritized seam at 31.32 m is surrounded by strongly fractured and brecciated rock. Fractures strongly chloritized.									
		34.85 - 35.62:									
		INTRUSIVE - medium grained, dark green, chloritized - carries pink fragments - possibly a mylonite zone?									
		35.62 - 38.30:									
		irregular feldspathization along fracture systems - strongly brecciated and silicified.									
		38.30 - 39.38:									
		40% dark green chloritized seams 1-2% pyrite, trace chalcopyrite.	666	1-2	38.30	39.38	1.08			0.02	
			667	3-5	39.38	40.38	1.00			0.07	
			668	3-5	40.38	41.38	1.00			0.06	
		39.38 - 44.75:									
		as at 35.62-38.30 m; minor 1-5mm quartz veining with carbonate in micro-fractures	669	2	41.38	42.38	1.00			0.01	
		1-5% pyrite (av. 2%) with up to 1% chalcopyrite locally.	670	2	42.38	43.38	1.00			0.02	
			671	2	43.38	44.06	0.68			0.03	
			672	2	44.06	44.75	0.69			0.02	
			673	Tr.	44.75	45.54	0.79			0.01	
		44.75 - 45.54:									
		INTRUSIVE - dark green, fine to medium grained, carries pink angular fragments up to 8mm in size - correlates to similar zone in DDH #26 and #27. Magnetic.	674	1-2	45.54	46.52	0.98			0.01	
			675	1-2	46.52	47.50	0.98			0.005	
			676	1	47.50	47.98	0.48			0.005	
			677	1-2	47.98	48.85	0.87			0.10	
		45.54 - 47.50:									
		irregular feldspathization along fracture systems - strongly brecciated and silicified; possible laminations at 47.54 m at 65° to core axis.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc-83-28 SHEET NO. 4 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		47.50 - 47.98: dark green chloritized zone, coarse grained sediment or mylonite? Grain size 1-4mm (av. 1-2 mm). Black chloritized grains may have been biotite -- INTRUSIVE? Non-magnetic.									
		47.98 - 48.85: strongly silicified and brecciated.									
48.85	51.80	<u>SILICIFIED SEDIMENTS</u> The zone is composed of an alternating sequence of dark green chloritized rock and grey, silicified and brecciated rock. Chloritized rock is often sheared. Silicified rock carries 2-5% pyrite.									
		48.85 - 49.28: chloritized, very weakly silicified.	678		48.85	49.85	1.00			0.01	
		49.28 - 50.18: variably silicified, 70% chloritized and weakly sheared.	679		49.85	50.80	0.95			0.01	
		50.18 - 50.60: strongly silicified.	680		50.80	51.80	1.00			0.01	
		50.60 - 51.30: chloritized zone.									
		51.30 - 51.80: moderately silicified, weakly brecciated.									
51.80	61.26	<u>SEDIMENTS</u> Medium green to grey-green, fine to very fine grained and generally well laminated throughout. Moderately chloritized. Carries 1-3% pyrite as a very fine dissemination and as 1-2mm cubes. Some localized silicification along preferred laminations above 60.0 m in the hole.	681	1-3	51.80	52.80	1.00			0.01	
			682	1-3	52.80	53.80	1.00			0.01	
			683	1-3	53.80	54.80	1.00			0.01	
			684	1-3	54.80	55.42	0.62			0.01	
			685	3-5	55.42	56.14	0.72			0.01	
			686	1-3	56.14	57.14	1.00			0.01	
			687	1-3	57.14	58.14	1.00			0.01	
		54.80 - 56.14: zone of pink and white carbonate veining - minor silicified zone at 55.09 -	688		58.14	59.14	1.00			0.01	
			689		59.14	60.14	1.00			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. Mc-83-28 SHEET NO. 5 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		55.20 and widespread silicification between 55.42 and 56.14 with up to 10% pyrite. Contains 50% carbonate veining.	690		60.14	60.71	0.57			Trace	
			691		60.71	61.26	0.55			Trace	
		56.59 - 56.72: ground core - strongly chloritized possibly a fault zone.									
		59.90: laminations at 55° to core axis.									
		61.26 END OF HOLE CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. Mc-83-29 LENGTH 61.26 meters
 LOCATION _____
 LATITUDE 7+50 E DEPARTURE 0+26 S
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED _____ FINISHED 17-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
61.26	-39°				

HOLE NO. Mc-83-29 SHEET NO. 1 OF 6

REMARKS BQ CORE
Whole core sent for assay.

LOGGED BY A.W. WORKMAN

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	19.00	<u>OVERBURDEN</u>									
19.00	20.15	<u>SEDIMENT</u> Dark to medium green, fine grained with minor siliceous sub-angular fragments up to 2cm in size. Well laminated with individual laminations slightly deformed around clasts. Original composition probably alternating quartzitic and argillitic beds. Weakly to moderately fractured - quartz and minor carbonate in-filling. Weakly silicified along certain laminations. Moderately to strongly chloritized. 19.30: laminations at 60° to the core axis.	C692	1-2	19.00	20.15	1.15			tr.	
20.15	46.23	<u>MAIN MINERALIZED ZONE</u> The zone is composed of a thin upper member which marks the change from very weakly silicified, non-brecciated rock to a more highly silicified, and highly brecciated rock which forms the central member. It is underlain by a basal member which is characterized by alternating horizons of chloritized and silicified rock. The rocks in this zone were originally sediments.	693		20.15	21.30	1.15			tr.	
20.15	21.30	<u>SILICIFIED SEDIMENT</u> The rock is greenish-grey to grey, fine grained and thinly laminated. Laminations are 1-3mm in thickness and are strongly broken. The resulting fragments are highly silicified and set in a green chloritic matrix. Fragments up to 5cm are noted. Below 20.70, the rock									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-29 SHEET NO. 2 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
21.30	42.58	<p>becomes intensely brecciated and the percentage of chloritized groundmass diminishes. The laminations fade as silicification increases.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Dark grey to bluish-grey, cream to honey coloured locally - perhaps as a result of local feldspathization. Very fine grained to aphanitic, moderately brecciated becoming better brecciated with depth. Very strongly silicified throughout. A vague sense of lamination is present locally. Feldspathization seems to be fracture controlled. Tight fracture systems often have 5-10mm honey coloured halos. Pyrite content averages 2-4%, feldspathized zones usually contain more pyrite - 5-7%. Pyrite occurs as a very fine dissemination, as 1-2mm cubes and as 5mm aggregates of grains. Occasionally it fills small fractures - often associated with chlorite and minor chalcopyrite.</p> <p>21.30 - 24.10: brecciated weakly. Some sense of lamination at 50-65° to core axis; 2-4% pyrite.</p> <p>24.75 - 25.10: more strongly fractured, chlorite in very tight fracture systems with halos of feldspathization penetrating into rock.</p> <p>25.10 - 27.75: rock becoming moderately brecciated; some vague laminations at 60-70° to the core axis.</p> <p>27.75 - 28.30: rock is 50% feldspathized to a cream or honey colour - 5-7% pyrite locally.</p> <p>28.30 - 30.50: light grey fragments up to 1cm in a dark grey matrix - strongly brecciated, strongly silicified; 3-5% pyrite.</p>	C								
			694	2-4	21.30	22.30	1.00				0.02
			695	2-4	22.30	23.30	1.00				0.03
			696	2-4	23.30	24.30	1.00				0.06
			697	3-5	24.30	25.10	0.80				0.01
			698	1-2	25.10	26.10	1.00				0.01
			699	1-2	26.10	27.10	1.00				0.01
			700	3-5	27.10	27.75	0.65				0.18
			701	5	27.75	28.30	0.55				0.12
			702	3-5	28.30	28.80	0.50				0.06
			703	5-7	28.80	29.65	0.85				0.07
			704	3-5	29.65	30.50	0.85				0.07
			705	5-7	30.50	31.42	0.92				0.04
			706	1-3	31.42	32.23	0.81				0.01
			707	1-2	32.23	32.93	0.70				0.01
			708	5-7	32.93	33.73	0.80				0.10
			709	5-7	33.73	34.53	0.80				0.11
			710	4-6	34.53	35.53	1.00				0.07
			711	3-5	35.53	36.53	1.00				0.05
			712	3-5	36.53	37.53	1.00				0.07
			713	1-3	37.53	38.53	1.00				0.06
			714	1-3	38.53	39.53	1.00				0.02
			715	1-2	39.53	40.53	1.00				0.02
			716	1-2	40.53	41.53	1.00				0.01
			717	3-4	41.53	42.58	1.05				0.10

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-29

SHEET NO. 3 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		30.50 - 31.42:									
		brecciation decreases to moderate, rock is well laminated, highly silicified, 5-7% pyrite; laminations at 75-85° to core axis at 30.60 m - individual laminations are brecciated along bedding to produce blocky 1-2mm x 5-6mm clasts.									
		31.26:									
		very well laminated at 60-65° to core axis.									
		31.42 - 31.85:									
		highly brecciated, intensely silicified; 1-3% pyrite.									
		31.85 - 32.23:									
		breccia is very finely re-brecciated on a 1-5mm scale and enclosed in a dark green chloritized groundmass, the zone is 70-80% clasts and may be an INTRUSIVE - upper contact is sharp at 80°; the lower contact is sharp at 40°: a 7cm fragment of sheared chloritized breccia is noted at 31.92-31.99 m - sheared at 70-80° to core axis.									
		32.23 - 32.93:									
		breccia; same as 31.42-31.85 m.									
		32.93 - 34.53:									
		cream coloured feldspathized; moderately brecciated in upper 30cm becoming laminated at 33.23 m - 65-75° to core axis at 33.40 m; 30-40° at 34.35 m. Pyrite content 5-7%, up to 2% chalcopyrite.									
		34.53 - 36.43:									
		well laminated, dark grey, very highly silicified, bedding at 55° to 65° throughout, 1-3% pyrite, 1% chalcopyrite									
		36.43 - 38.00:									
		moderately to highly brecciated, possibly feldspathized weakly, highly silicified, 3-5% pyrite.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDERMOTT

 HOLE NO. MC-83-29

 SHEET NO. 4 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		38.00 - 39.63:									
		laminated with highly brecciated sections - 60-65° to core axis at 38.50 m.									
		39.63 - 41.43:									
		same as 36.43-38.00 m.									
		41.43 - 41.98:									
		weakly to moderately feldspathized, up to 6% pyrite.									
		41.98 - 42.58:									
		grey, strongly brecciated and highly silicified - breccia is re-brecciated into 1-2cm fragments less than 1mm, silica stringers in fractures. Fractures have feldspathized halos.									
42.58	45.11	<u>INTRUSIVE ZONE</u>									
		The zone is characterized by red to pinkish-red, syenitic(?) intrusive cutting moderately to strongly chloritized green sediment. The intrusive has incorporated a large volume of wall rock. The magma is strongly brecciated and has a cataclastic texture. It is very siliceous as opposed to the sediment xenoliths (50-60% of rock volume). The syenite carries 5-7% pyrite which was probably acquired from the sediments. The upper contact is strongly broken but a contact at 44.17 m is at 50° to the core axis.	718		42.58	43.37	0.79			0.08	
			719		43.37	44.17	0.80			0.06	
			720		44.17	44.81	0.64			0.01	
			721		44.81	45.11	0.30			0.18	
		42.58 - 43.45:									
		chloritized xenoliths.									
		43.45 - 44.17:									
		intensely silicified xenoliths.									
		44.17 - 44.41:									
		dark green, laminated sediments.									
		44.41 - 44.81:									
		mylonitic, strongly chloritized zone, several barren quartz stringers FAULT?									
		44.81 - 45.11:									
		pinkish-red brecciated syenitic dyke - similar to 42.58-44.17 m except only 5% fragments.									

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DIAMOND DRILL RECORD

 NAME OF PROPERTY McDERMOTT

 HOLE NO. Mc-83-29 SHEET NO. 5 OF 6

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
45.11	50.65	<p><u>SILICIFIED SEDIMENTS</u></p> <p>Medium to dark green, fine to medium grained, occasionally coarse grained, locally silicified sediments. Moderately chloritized. Silicified zones are usually intervals of less than 15cm which are moderately to strongly brecciated. These zones are grey in colour and contain 1-3% pyrite above the average of less than 1%.</p> <p>45.11 - 45.55: 1-3mm syenitic stringers.</p> <p>45.55 - 46.23: begins at a sharp 45° contact - possible fault, rock is strongly brecciated and weakly to strongly silicified.</p> <p>46.23 - 50.65: generally chloritized but contains 13.5% silicified breccia bands; eg. 46.52-47.00; 47.14-47.24; 49.00-49.25; 49.55-49.85; and 50.60-50.65. Laminated below 47.60. (75° at 49.15 and 75-80° at 50.80 m).</p>	722	<1	45.11	45.55	0.44			0.01	
			723	<1	45.55	46.23	0.68			0.09	
			724	1	46.23	47.23	1.00			0.01	
			725	<1	47.23	48.23	1.00			0.01	
			726	<1	48.23	49.23	1.00			0.01	
			727	2	49.23	50.23	1.00			0.02	
			728	1	50.23	51.23	1.00			0.01	
			729	1	51.23	52.23	1.00			0.01	
52.23	53.63	<p><u>LOWER MINERALIZED ZONE</u></p> <p>Dark greenish-grey, often blue-grey, moderately to strongly brecciated, very highly silicified in 60% of section, especially 52.35-52.78 m. Laminated at 65-75° to core axis (eg. 53.50 m.). Below 52.78 m, silicification has penetrated selected laminations perhaps because of original composition. Carries 2-3% pyrite.</p>	730	2-3	52.23	52.93	0.70			0.01	
			731	2-3	52.93	53.63	0.70			0.01	
53.63	61.26	<p><u>SEDIMENTS</u></p> <p>Dark to light green, fine to medium grained, well parted. Weakly to moderately well laminated. Moderately carbonatized locally. An 8cm pink carbonate vein is found at 55.67-55.75 m dipping 60° to core axis - carries 1% chalcopyrite.</p>	732		53.63	54.63	1.00			0.01	
			733		54.63	55.63	1.00			0.01	
			734		56.63	57.63	1.00			0.01	
			735		58.63	59.63	1.00			0.01	
			736		60.63	61.26	0.63			0.01	

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-29 SHEET NO. 6 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ. TON
					FROM	TO	TOTAL				
		56.02:									
		laminated at 60° to core axis.									
		58.90:									
		laminated at 85-90° to core axis.									
		60.37 - 60.41:									
		quartz vein, 1% pyrite.									
		60.66 - 61.26:									
		beginning at a strongly chloritized seam, texture is different, non-laminated, possibly coarser non-structured sediment - clasts up to 3mm.									
		61.26									
		END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC-83-30 LENGTH 69.22 meters
 LOCATION _____
 LATITUDE 7+37.5 E DEPARTURE 0+24 S
 ELEVATION _____ AZIMUTH 344° DIP -50°
 STARTED 21-06-83 FINISHED 23-06-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
69.22	-49°				

HOLE NO. MC-83-30 SHEET NO. 1 OF 8

REMARKS BQ Core

Whole core sent for assay.

LOGGED BY A.W. Workman, S. Trueland

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	17.42	<u>OVERBURDEN</u>								
17.42	19.65	<u>SEDIMENTS</u> Dark green, fine to medium grained, well laminated with selective carbonatization along certain laminations. This highlights the fine 0.5mm scale bedding. Moderately to strongly chloritized and well parted on chloritized planes parallel to laminations. Some 1-2cm flexures in laminations indicate soft sediment deformation. Contact with underlying silicified sediments is gradational. Occasional pink carbonate veins up to 1cm cross-cut laminations. Zone contains up to 1% pyrite. 18.00: laminations at 50-60° to core axis. 19.15: rippled laminations at 45° to core axis.	C737	1	17.42	18.42	1.00			0.01
			738	1	18.42	19.42	1.00			Trace
			739	1	19.42	20.55	1.13			Trace
19.65	20.55	<u>SILICIFIED SEDIMENTS</u> Greenish-grey to grey locally. Aphanitic to fine grained with preferential silicification of selected laminations. Silicification is found as 0.5-1.0cm bands initially but increases with depth. 20.48 - 20.53: yellow limonitic banding. 20.40: laminations at 45° to core axis.								

EM. 6-1168

LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-30 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
20.55	49.65	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Grey to purple-grey, aphanitic to very fine grained; generally laminated but intense brecciation often masks structure. Local zones of yellow to cream coloured feldspathization. Pyrite content is variable (2-15%) but is always higher in feldspathized rock. Very strongly silicified throughout regardless of degree of brecciation.</p>									
		20.55 - 21.25: grey, very highly silicified, locally feldspathized, coarsely brecciated with 2-4cm angular fragments; some very tight chloritized fractures. 2-3% pyrite throughout.	C740	1-3	20.55	21.50	0.95				Trace
			7418	10	21.50	22.32	0.82				Trace
				Tr. cpy							
		21.25 - 21.67: mylonitic fault zone - green strongly chloritized and foliated at 45-50° to the core axis.	742	3-5	22.32	23.32	1.00				Trace
				Tr. cpy							
		21.67 - 22.32: cream coloured feldspathized rock, feldspathization introduced along fractures. Pyrite content is 8-10% with up to 12% locally. Well laminated at 45° to the core axis.	743	3-5	23.32	24.32	1.00				Trace
			744	7-9	24.32	25.32	1.00				Trace
		22.32 - 25.32: purple-grey, very finely brecciated with 1-2% hematite in very narrow (less than 0.1mm) parallel seams. 3-5% pyrite as very fine dissemination and as 2-4mm clots of crystals.									
		23.00: laminations at 40-45° to core axis.									
		24.00: increasing feldspathization.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. MC-83-30 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
	25.32 - 28.22:	zone of greater than 50% feldspathization along fracture systems which post-date the brecciation event. Well laminated locally (eg. 25.50:laminations at 60-70° to core axis). Laminations can usually be distinguished even in breccia due to coarseness of brecciation. 10-15% pyrite up to 20% locally.	745	10-15	25.32	26.32	1.00			Trace	
			746	10-15	26.32	27.32	1.00			0.17	
			747	8-10	27.32	28.32	1.00			0.02	
	25.85 - 26.03:	brecciated intrusive(?), strongly chloritized microfracturing, pinkish-green colour, 1% pyrite.									
	28.22 - 29.22:	grey with 10% cream coloured patches, moderately to strongly laminated (40-50° to core axis at 28.50). Light coloured feldspathized(?) patches contain up to 20% pyrite - zone averages 8-10%.	748	8-10	28.32	29.32	1.00			0.15	
	29.22 - 30.54:	cream to honey coloured feldspathized(?) zone, very siliceous. Pyrite averages 10-15% with up to 20% locally occurring as a very fine grained dissemination, as 2-5mm clots of grains and as lensitic stringers along sedimentary laminations (1-2mm x 5-10mm). Trace of chalcopyrite.	749	10-15	29.32	30.04	0.72			0.38	
			750	8-10	30.04	30.87	0.83			0.09	
	28.82 - 28.90:	chloritized mylonitic seam at 75-80° to core axis - small fault.									
	30.54 - 33.57:	strongly laminated locally and weakly brecciated - individual laminations are broken with little subsequent rotation. Bedding measured at 30.55 and 31.55 at 40° to core axis. Carries 1-2% pyrite, up to 4% locally. Chloritized fault plane at 35-40° to core axis at 31.87-31.90. Some laminations are chloritized	751	1-2	30.87	31.87	1.00			0.01	
			752	3-5	31.87	32.87	1.00			0.01	
			753	1-2	32.87	33.57	0.70			0.02	

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-30 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		and hematitic - probably originally argillitic (3-5% of section). Below 32.00 m, rock is very pink almost appearing syenitic.									
33.00	33.57	1% chalcopyrite in chloritized fractures.									
33.57	34.52	dark green, medium to coarse grained INTRUSIVE, moderately chloritized, carries red siliceous fragments up to 1.5cm - 25% of rock volume. Weakly magnetic, weakly foliated at 55° to core axis.	754	1	33.57	34.52	0.95			0.04	
34.52	35.55	creamy yellow intensely brecciated and silicified rock. Hematite fragments are present in top 20cm. Fault or break within top 20cm of interval parallel to core axis. 34.84-35.05 - gap in core - possible fault zone. Contact with purple hue rock at 35.55 is at 18° to core axis. 15% pyrite content.	755	15%	34.52	35.55	1.03			0.14	
35.55	37.15	interval of alternating creamy yellow silicified rock within intensely brecciated and silicified purple hue rock. Creamy yellow zones make up 30% of interval. Purple hue rock is brecciated with cream coloured infill. No lamination. Pyrite content 15% within cream zones and 5% within purple hue rock. Average amount is approximately 7-10%. Zone ends at 3cm quartz vein.	756	7-10	35.55	36.35	0.80			0.13	
			757	7-10	36.35	37.15	0.80			0.07	
37.15	42.45	purple hue slightly brecciated and intensely silicified rock with laminations at 55° to core axis. Within the interval there are zones of cream coloured	758		37.15	38.15	1.00			0.08	
			759		38.15	39.15	1.00			0.12	

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-30 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		rock, comprising 5% of interval, which is more intensely brecciated than purple hue rock.	760		39.15	40.15	1.00			0.05	
			761		40.15	41.15	1.00			0.06	
		37.40 - 37.65: interval of brecciated silicified pink (feldspathic?) material.	762		41.15	42.45	1.30			0.04	
		42.45 - 43.15: mylonitic fault zone. Medium to light green, fine to medium grained rock with larger 2-4mm pink silicified fragments. Foliation at 45° to core axis. No pyrite.	763	0	42.45	43.15	0.70			0.02	
		43.15 - 44.22: dark grey purple hue rock, moderately brecciated and highly silicified. Lamination at 45° to core axis. Pyrite content ranges from 1-2% up to 8-10% with average throughout interval of 5%.	764	5%	43.15	44.22	1.07 measured → 1.30			0.01	
		44.22 - 44.80: creamy yellow brecciated and silicified rock. No distinct laminations within interval. 3 quartz veinlets 2-4mm wide at 30° to core axis. Pyrite content 5%.	765		44.22	44.80	0.58			0.06	
		44.80 - 48.70: dark grey, purple hue rock, moderately brecciated and highly silicified. Localized laminations at 60° to core axis with laminations absent in other localities.	766	3-5	44.80	45.80	1.00			0.02	
			767	3-5	45.80	46.80	1.00			0.01	
			768	3-5	46.80	47.80	1.00			0.01	
		45.75: 1cm carbonate filled fracture followed by a 5cm chloritized zone.	769	3-5	47.80	48.70	0.90			0.11	
		47.25 - 47.35: 10cm wide zone of creamy yellow brecciated rock. Pyrite content varies									

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-30 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		from 2-10% with an average throughout the interval of 3-5% with trace chalcopyrite.									
		48.70 - 49.65: interval composed of creamy yellow and dark grey purple hue brecciated and silicified rock. Laminations absent from interval. Fractures in purple hue zones infilled with cream coloured material or what appears to be alteration haloes. Pyrite present as localized highs in areas of cream coloured rock, 5% average. End of main silicified zone.	770	5%	48.70	49.65	0.95			0.13	
49.65	56.68	<u>SILICIFIED SEDIMENTS: TRANSITION ZONE</u> Transition zone from main silicified zone to chloritized sediments. At the top of this interval silicification is dominant while chloritized sediments become more abundant lower down in the interval. Silicified zone characterized by intense brecciation and silicification with pinkish fragments within the rock. Chloritized zones softer and have a well defined lamination at 40-60° to core axis. Pyrite content throughout zone averages 5% with lows in chlorite zones of 1% and highs in silicified zones of 10%.									
		49.65 - 51.10: <u>Silicified and Brecciated Rock (65% of interval)</u> Silicified and brecciated rock makes up 65% of interval. Chloritized zone (35%) have laminations 60° to core axis. Pyrite content 3-5% with trace chalcopyrite.	771	3-5	49.65	50.45	0.80			0.09	
			772	3-5	50.45	51.10	0.65			0.01	
		51.10 - 51.60: <u>Intrusive?/Fault Zone?</u> light green-grey, medium grained rock composed of quartz, feldspar, biotite									

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-30 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ TON	
					FROM	TO					TOTAL
		51.10 - 51.60: within a finer light grey groundmass. (Continued) Could this be a fault zone or an intrusive? Laminations at 60° to core axis with contact at bottom of the interval, with the sediments at 70° to core axis. Pyrite nil within this zone.	773	nil	51.10	51.60	0.50			0.01	
		51.60 - 56.68: <u>50% Silicified Zone</u> silicified zones comprise 50% of interval and are more dominant towards the top of the zone. Chloritized rock more dominant towards the bottom of the zone. Pyrite content is finely disseminated within the sediments and consistent throughout. Pyrite averages 5% throughout. Laminations at 50-60° to core axis. Laminations: C774 60° to core axis C775 45° to core axis C776 50° to core axis C777 60° to core axis C778 55° to core axis	774		51.60	52.60	1.00			0.01	
			775		52.60	53.60	1.00			0.14	
			776		53.60	54.60	1.00			0.10	
			777		54.60	55.60	1.00			0.01	
			778		55.60	56.68	1.08			0.01	
56.68	69.22	<u>SEDIMENTS</u> Non-silicified rock assumed to be sediments. Carbonate filled fractures become more abundant with depth. Laminations vary from 40-60° to core axis and are more well developed locally. Lower silicified zone not present in this hole. Lamination at bottom of the hole not as apparent. Could be basalt? Carbonate veins: -59.45m at 15° to core axis, 1-1.5cm wide with xenoliths. -60.44m 1cm wide at 15° to core axis. -69.30m 2cm wide at 80° to core axis. 7cm wide silicified, brecciated zone at 68.70.	779	<1%	56.68	57.68	1.00			0.01	
			780	Tr.	57.68	58.68	1.00			Trace	
			781	Tr.	58.68	59.60	1.00	measured		Trace	
			782	Tr.	59.60	60.60	1.00			Trace	
			783	Tr.	60.60	61.60	1.00			Trace	
			784	Tr.	61.60	62.50	1.00	measured		Trace	
			785	Tr.	62.50	63.50	1.00			Trace	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-30 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ. TON	OZ. TON
					FROM	TO	TOTAL				
56.68	69.22	cont.	C 786	up to 1%	63.50	64.50	1.00			Trace	
			787	Tr.	64.50	65.50	1.00			Trace	
			788	Tr.	65.50	66.50	1.00			Trace	
			789	Tr.	66.50	67.50	1.00			Trace	
			790	< 1%	67.50	68.50	1.00			Trace	
			791	Tr.	68.50	69.22	0.72			0.08	
	69.22	END OF HOLE									
		BQ CORE - WHOLE CORE SENT FOR ASSAY									
		REPORTED HOLE TERMINATION AT 70.12 MEASURED END AT 69.22									
		<u>INTERVAL</u> 0 - 34.52: logged by A.W. Workman									
		34.52 - 69.22: logged by S. Trueland									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-31 LENGTH 96.62 meters
 LOCATION _____
 LATITUDE 7+25 E DEPARTURE 0+36 S
 ELEVATION _____ AZIMUTH 344° DIP -50°
 STARTED 06-23-83 FINISHED 06-27-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
96.6	-56°				

HOLE NO. MC-83-31 SHEET NO. 1 OF 8

REMARKS BQ CORE

Whole core sent for assay.
Casing pulled.

LOGGED BY A. Workman, S. Trueland

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	18.29	<u>OVERBURDEN</u>									
18.29	24.39	core badly ground with some continuous sections - assumed to be bedrock.									
18.29	27.22	<u>GABBRO</u> Medium green, fine to medium grained rock composed of 30% felsic minerals - principally quartz and feldspar; and 70% mafics, chiefly pyroxene. Numerous light green siliceous bands, 2-4mm wide cut core at 45°. Grain size increases down-hole to lower contact at 45° to core axis. Hematite coating on fractures between 21.04 and 24.55 m. Pyrite contents up to 2% are noted locally but average less than 1%.	C 792		18.29	19.29	1.00			0.01	
			793		19.29	20.29	1.00			0.01	
			794		20.29	21.29	1.00			0.01	
			795		21.29	22.29	1.00			0.01	
			796		22.29	23.29	1.00			Trace	
			797		23.29	24.29	1.00			Trace	
			798		24.29	25.29	1.00			Trace	
			799		25.29	26.29	1.00			Trace	
			800		26.29	27.22	0.93			Trace	
27.22	42.60	<u>SEDIMENTS</u> Medium to light green, fine to medium grained well-laminated locally; grains tend to be well-rounded. Abundant carbonate stringers along laminations - occasionally cross-cutting. Moderately brecciated locally with angular fragments up to 1cm. Generally non-silicified but weak to moderate silicification noted locally in the base of the unit. Pyrite content ranges from nil to 1%.	*NOTE: CHANGE OF PREFIX LETTER SERIES.								
			A801		27.22	28.22	1.00			Trace	
			802		28.22	29.44	1.22			Trace	
			803		29.44	30.44	1.00			Trace	
			804		30.44	31.44	1.00			Trace	
			805		31.44	32.44	1.00			Trace	
			806		32.44	33.44	1.00			Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-31 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		27.22 - 31.07:	A807		33.44	34.44	1.00			Trace	
		at 28.22-28.55 m.	808		34.44	35.44	1.00			Trace	
		28.44 - 28.76:	809		35.44	36.44	1.00			Trace	
		fault zone(?) - rubble for core - abundant carbonate fracture filling below; 1-5mm breaks at angles of 10-20° and 80° to core.	810		36.44	37.44	1.00			0.01	
			811		37.44	38.44	1.00			0.01	
		31.07 - 36.53:	812		38.44	39.44	1.00			0.01	
		weakly laminated locally, carbonate stringers at 70-80° to core axis; pyrite content averages less than 1% (local highs of 2%).	813		39.44	40.44	1.00			0.01	
			814		40.44	41.44	1.00			0.01	
			815		41.44	42.44	1.00			0.01	
		36.53 - 42.60:									
		well laminated at 30-60° to core axis, weakly brecciated locally. Laminations 1-5mm thick with minor preferential silicification of individual bands.									
42.60	64.66	<u>MAIN MINERALIZED ZONE</u>									
		The zone is composed of a narrow upper transition zone between non-silicified sediments and highly silicified rock. The latter zone is intensely brecciated locally with pyrite contents up to 15%. A few chloritized fault zones are observed locally to intersect the silicified member. The lower part is a gradual transition back to non-silicified sediments. Some high pyrite contents are observed in association with strong silicification.									
42.60	42.87	<u>SILICIFIED SEDIMENT</u>									
		Dark green to greenish grey, moderately to strongly laminated with increasing silicification of individual laminations then broader 1-5cm zones. Up to 2% pyrite.	816		42.44	42.87	0.43			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-31 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
42.87	57.90	<u>MAIN SILICIFIED ZONE</u> Grey with purple hue, yellow to cream locally, aphanitic to fine grained, very intensely silicified rock. Brecciation is not ubiquitous throughout zone but is well developed locally. Laminations at 35-55° are developed throughout zone but are frequently masked by brecciation. Purple hued and cream coloured rock is highest in pyrite content with many zones of 10-15%. Average content is probably 6-8% for the entire silicified zone.									
		42.87 - 45.74: moderately brecciated cream coloured rock, well laminated at 45-50° to the core axis with purple coloured rock as inter-lamination highlight. Cream colour tends to infiltrate around dark fragments in breccia zones - lighter colour may be due to feldspathization.	A-817		42.87	43.87	1.00			0.01	
			818		43.87	44.87	1.00			0.14	
			819		44.87	45.74	0.87			0.10	
		45.74 - 46.44: medium green, medium to coarse grained, mylonitic zone with sub-round to round fragments, 1-4mm in size with a few in the cm range. Foliated at 40° to the core axis. No sulphide present.	820	0	45.74	46.44	0.70			0.01	
		46.44 - 49.47: intensely brecciated, generally cream coloured with some grey-purple fragments up to 2cm in size. Laminations are masked and not well exhibited but make an angle of 45-50° to the core axis. Pyrite averages 1-2% and ranges as high as 5%.	821		46.44	47.44	1.00			0.01	
			822		47.44	48.44	1.00			0.01	
		49.47 - 49.82: mylonitic fault zone - chloritized zone with 2-6mm brecciated fragments - minor hematite staining.	823		48.44	49.82	1.38			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-31 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ./TON
				FROM	TO	TOTAL				
	49.82 - 52.07:	dark grey, purple hued, strongly brecciated individual laminations oriented at 50° to core axis. 5% pyrite.	A-							
	52.07 - 53.96:	greenish pink, medium grained with laminations at 35-40° to the core axis. Composed of quartz, feldspar and altered, chloritized, mafic minerals. Intensely silicified. Average 10-15% pyrite. Laminations are frequently convoluted.	824	5	49.82	50.82	1.00			0.01
			825	5	50.82	51.82	1.00			0.10
			826	5	51.82	52.07	0.25			0.13
	53.96 - 55.13:	green, medium to coarse grained, 60-70% mafic minerals, with 1-4mm pink grains, <u>probably intrusive</u> . No apparent pyrite. Weakly foliated.	827	10-15	52.07	53.07	1.00			0.01
			828	10-15	53.07	53.96	0.89			0.08
			829	0	53.96	55.13	1.17			0.01
	55.13 - 55.78:	same as 52.07-53.96 well-laminated with 10% pyrite, very finely disseminated and concentrated along laminations at 50° to core axis.	830	10	55.13	55.78	0.65			0.12
	55.78 - 55.84:	chloritized mylonite - fault.								
	55.84 - 57.90:	cream-brown rock becoming grey to purple-grey with depth. Not well laminated - locally at 50-60° to core axis. Average 10% pyrite - up to 15% locally concentrated along laminations.	831	10	55.78	56.78	1.00			0.19
			832	10	56.78	57.90	1.12			0.02
57.90	64.66	<u>SILICIFIED SEDIMENT</u>								
		Grey to dark greenish-grey, aphanitic to fine grained, well laminated but intensely brecciated locally. The rock is essentially a continuation of the overlying silicified zone but with increasing non-silicified and strongly chloritized rock. Chloritized laminations make up 20-25% of the zone, often as 10-15cm sections. An average pyrite content of 5-6% is noted with a range of								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-31 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ./TON	OZ./TON
				FROM	TO	TOTAL				
57.90	64.66	3-15%. Pyrite is present as a very fine dissemination, as 1-3mm cubes in carbonate filled fractures, and as clots of grains and crystals up to 1cm in size.								
		58.05: laminations at 45° to the core axis. C	901	8-10	57.90	58.90	1.00			0.05
		58.98 - 59.20: ground core - strongly chloritized and apparently sheared at 50-55° to the core axis; 1-3% pyrite.	902	3-5	58.90	59.90	1.00			0.11
			903	5-7	59.90	60.90	1.00			0.06
			904	7-9	60.90	61.90	1.00			0.07
		60.50: laminated at 30° to core axis.	905	7-9	61.90	62.90	1.00			0.03
		62.10 - 62.17: red siliceous zones - syenitic(?) with 20% pyrite in a 2cm zone along each contact.	906	10-15	62.90	63.90	1.00			0.14
		62.90 - 63.66: very strongly silicified - resembles main silicified zone; very finely brecciated with 1-3mm fragments in a cream coloured feldspathized(?) rock. Pyrite content is 10-15% - mostly in the matrix between fragments - minor graphitic partings.								
		63.52 - 63.60: syenite - red, aphanitic, 5% pyrite, conchoidal fracture. Siliceous sediment?								
64.66	78.74	<u>SEDIMENT</u>								
		Dark green, fine grained, moderately chloritized rock, with selective grey silicification of less than 30% of laminations. Amount of silicification rapidly decreases with depth. Generally well laminated but brecciation is widespread and destroys or masks structure. Silicified zones up to 15cm are noted locally - seem to be concordant to laminations. Weakly to moderately fractured with quartz in dilatant zones and carbonate in micro-fractures. Several 1-2cm carbonate veins are noted locally. Below 70.0 m, carbonate fracture filling becomes dominant.	907	15-20	63.90	64.66	0.76			0.12
			908	1-3	64.66	65.66	1.00			0.01
			909	3-5	65.66	66.66	1.00			0.01
			910	1-3	66.66	67.66	1.00			0.01
			911	1-3	67.66	68.66	1.00			0.01
			912	1-3	68.66	69.66	1.00			0.01
			913	1-3	69.66	70.40	0.74			Trace

*NOTE: C-SERIES SAMPLES

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-31 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
		64.80:										
		brecciated laminations at 30° to core axis	914	1-3	71.40	72.40	1.00					Trace
		69.10:										
		laminations at 60-65° to core axis.	915	1-3	73.40	74.40	1.00					Trace
		66.39 - 66.53:										
		moderately silicified - 5-7% pyrite.										
		67.22 - 67.31:										
		strongly silicified - 1-3% pyrite.										
		67.22 - 69.13:										
		strongly brecciated and weakly silicified.										
		69.72 - 69.92:										
		chloritized interval with 50% pinkish-red and green 1-2mm xenoliths - intrusive?										
		69.92 - 70.40:										
		80% lost core.										
		72.60:										
		weakly laminated at 45-50° to core axis.										
		74.22 - 74.35:										
		strongly silicified.										
		74.35 - 78.74:										
		minor 5cm grey-green silicified zones; several 5mm thick beds of ash-fall tuff, with clasts less than 0.1mm in size - well laminated at 40° to core axis. Becoming well parted below 76.00 m.	916	1-2	75.40	76.40	1.00					Trace
			917	1-2	77.40	78.40	1.00					Trace
			918	1-2	78.40	78.74	0.34					0.18
		76.23:										
		laminations at 40° to core axis.										
		78.00 - 78.37:										
		DIORITE(?) - pinkish green, with well foliated mafic minerals, about 15-20% pink felsic minerals - similar zone at 77.73-77.81; all are weakly magnetic.										
78.74	79.42	<u>SILICIFIED ZONE</u>										
		Greyish-green, aphanitic to very fine grained, well laminated, and non-brecciated except for lowermost 10cm. Moderately to strongly silicified with selective silicification of individual laminae locally.	919		78.74	79.42	0.68					0.01

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-31 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
79.42	96.62	<u>SEDIMENTS</u>									
		Medium green, fine grained, well laminated with minor selective silicification of individual laminations. Minor silicified sections up to 30cm are noted locally (eg. 85.58-85.90). These sections are associated with brecciation of individual sets of laminations and are characterized by moderate to weak carbonatization. Little movement of fragments has followed brecciation. Bedding cuts the core axis at 45-65°.	C 920		79.42	80.42	1.00			Trace	
			921		80.42	82.42	1.00			Trace	
			922		83.42	84.42	1.00			0.01	
			923		85.82	86.42	0.60			0.03	
			924		87.42	88.13	0.71			0.01	
			925		88.13	89.04	0.91			0.02	
		80.00: laminations at 45° to the core axis.	926		89.04	89.98	0.94			0.01	
		81.62 - 81.70: minor silicified breccia zone.	927		90.98	91.98	1.00			0.01	
		82.67: laminations at 60-65° to the core axis.	928		92.45	93.45	1.00			0.01	
		84.25: laminations at 60-65° to the core axis.									
		87.62 - 87.73: moderately silicified breccia zone.									
		88.13 - 89.06: brecciated silicified laminations at 45-55° to core axis with alternate laminations or sets of laminations or dilatant zones are strongly chloritized.									
		90.28: vaguely laminated at 45-50° to core axis.									
		94.00: laminated at 45-50° to core axis.									
		94.75: laminations become highly convolute for 20-25cm then laminations are lost between 95.0-95.2 m. Rock is well parted to approximately 95.80 m. and more massive below.									
					<p>*NOTE: FOOTAGE MARKERS IN CORE BOX BETWEEN 287' and 307' (87.48 - 93.57 m) ARE MISPLACED - THE FIGURES IN LOG ARE CORRECTED MEASUREMENTS.</p>						

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-31 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
	95.00	below this point, rock begins to resemble a volcanic with abundant carbonate filled tensional fractures. Minor non-silicified, coarse brecciation locally. Non-laminated. Poorly parted.									
	96.62	END OF HOLE CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC-83-32 LENGTH 66.14 meters
 LOCATION _____
 LATITUDE 7+25 E DEPARTURE 0+24 S
 ELEVATION _____ AZIMUTH 344° DIP -50°
 STARTED 30-06-83 FINISHED 06-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
63.09	-48°				

HOLE NO. MC-83-32 SHEET NO. 1 OF 7

REMARKS BQ CORE
 Core split for assay.

LOGGED BY A.W. WORKMAN

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	16.76	<u>OVERBURDEN</u>									
16.76	21.96	<u>SEDIMENT</u>									
		Dark green, fine to very fine grained, poorly to moderately well laminated. Uppermost 2.2m is non-laminated. Weakly carbonatized, some localized silicification with 1-2mm pyrite cubes. Pyrite content ranges from trace to 1%.	C801	1	16.76	17.76	1.00			0.01	
		19.15: poorly laminated at 35-40° to core axis.	802	1	17.76	18.76	1.00			0.01	
		21.06: well developed laminations at 65-75° to core axis.	803	1	18.76	19.76	1.00			0.01	
		21.50: laminations at 60-70° to core axis.	804	1	19.76	20.76	1.00			0.01	
			805	1	20.76	21.36	0.60			0.01	
			806	1	21.36	21.96	0.60			0.01	
21.96	54.63	<u>MAIN MINERALIZED ZONE</u>									
		The section is composed of an upper variably silicified zone underlain by a 22.69 m thick zone of intense silicification. This zone carries up to 15% pyrite locally, averaging 5-6%. The zone is brecciated irregularly throughout. It is underlain by a 9 m thick zone of variably altered sediments - a transition zone from strongly silicified to non-silicified rocks.									
21.96	22.92	<u>SILICIFIED SEDIMENTS</u>									
		Dark grey to greenish-grey, well silicified locally, with abundant chloritized seams and fractures. Well laminated with some preferential silicification along	807	1-2	21.96	22.92	0.96			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-32

SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	G2/TON	G2/TON
					FROM	TO	TOTAL				
		certain laminations. Contains 1-2% pyrite.									
		22.23: laminations at 60° to the core axis.									
		22.80 - 22.92: limonite filled fracture zone - core badly ground - possible fault. Minor green clay in ground core at 22.86 m.									
22.92	45.61	<u>MAIN SILICIFIED ZONE</u>									
		Purple-grey to grey, with 60% cream coloured zones, aphanitic to very fine grained, highly silicified and weakly to moderately well laminated on a mm scale. Contains high pyrite contents, up to 20% locally. This zone is less competent and contains more chloritized fractures than is normally expected. Fracturing, particularly the chloritized set, is post-brecciation and post-silicification.	C 808	3-5	22.92	23.92	1.00			0.07	
			809	3-5	23.92	24.92	1.00			0.02	
			810	5-7	24.92	25.92	1.00			0.01	
			811	5-7	25.92	26.92	1.00			0.01	
			812	5-7	26.92	27.92	1.00			0.01	
			813	3-5	27.92	28.92	1.00			0.01	
		22.92 - 24.50: non-brecciated, cream feldspathized zones along laminations.	814	3-5	28.92	29.92	1.00			0.01	
			815	3-5	29.92	30.92	1.00			0.01	
		24.50 - 26.45: brecciated - cream coloured zones along laminations and breccia fractures. 5-7% pyrite.	816	3-5	30.92	31.92	1.00			0.04	
			817	3-5	31.92	32.92	1.00			0.03	
		23.75: laminations at 60-70° to core axis.	818	2-3	32.92	33.72	0.80			0.04	
		26.45 - 29.92: weakly brecciated, sense of laminations returns.									
		29.92 - 33.72: weak to moderate brecciation.									
		27.90: laminations are variable 30-50° to axis.									
		29.30: laminations at 40° to core axis.									
		29.92 - 30.92: sample spans an 80cm breccia zone feldspathized with up to 10% pyrite.									

GRIDGE LIMITED TORONTO-366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-32 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		33.20 - 33.30:										
		chloritized shear.	C	819	1-3	33.72	34.82	1.10			0.01	
		33.75 - 33.85:		820	3-5	34.82	35.60	0.78			0.01	
		chloritized shear.		821	1-2	35.60	36.25	0.65			0.01	
		33.85 - 34.32:		822	1-2	36.25	36.90	0.65			0.01	
		abundant chloritized fractures.										
		33.72 - 34.82:										
		INTRUSIVE - dark green, fine grained, moderately chloritized, weakly magnetic with abundant (3-5%) pink silicified xenoliths up to 5mm in size.										
		34.82 - 35.60:										
		purple grey silicified zone, abundant white carbonate stringers, 3-5% pyrite.										
		35.60 - 36.90:										
		abundant chloritized patches and fracture zones along laminations.										
		36.37:										
		laminations at 65° to core axis.										
		36.90 - 39.45:										
		moderately brecciated with 1.5cm frag- ments, strongly silicified with few chloritized patches. Numerous 2-3mm quartz stringers cut core axis at 20-25° - post-date breccia. Occasional 5-10cm zones of extreme silicification - rock resembles quartz veins - zones carry 10-15% pyrite.	C	823	5-7	36.90	37.90	1.00			0.01	
				824	5-7	37.90	38.90	1.00			0.01	
				825	5-7	38.90	39.90	1.00			0.08	
							(30cm lost core)					
		39.45 - 39.75:										
		lost core.										
		39.90 - 40.85:										
		intensely silicified with strong feld- spathization from 40.37-40.85 containing 15% pyrite laminated at 50-60° to core axis.	C	826	8-10	39.90	40.85	0.95			0.07	
		40.85 - 41.00:										
		INTRUSIVE - dark green, moderately chloritized, non-magnetic, very similar to 33.72-34.82 m.		827	5-7	40.85	41.83	0.98			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-32 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ./TON	OZ./TON	
				FROM	TO	TOTAL					
		41.00 - 41.83:	strongly silicified with abundant pink carbonate stringers and veins up to 1.5cm in thickness. Pyrite content is 5-7% but up to 15% near carbonate veins. Also chalcopyrite blebs up to 1.5cm in carbonate veins.								
		41.83 - 42.94:	INTRUSIVE - dark green, fine to medium grained, biotite bearing very similar to 33.72-34.82 m. Carries 20% pink and green angular fragments of wall rock - fragments have a tuffaceous texture locally, particularly lower in zone. Pyrite content is 1%.		828	1	41.83	42.94	1.11		0.02
		42.94 - 45.61:	purple-grey to cream coloured, intensely silicified, strongly feldspathized(?) from 43.20-44.56 m. with 10-15% pyrite. Average pyrite content is 8-10% mostly concentrated along laminations. Laminations well developed. Zone is not brecciated.		829	10-15	42.94	43.94	1.00		0.07
					830	10	43.94	44.94	1.00		0.02
					831	7-9	44.94	45.61	0.67		0.01
		43.40:	laminations developed at 60° to core axis.								
45.61	54.63	<u>SILICIFIED SEDIMENTS</u>									
		Well laminated with alternating purple-grey and dark green 1-3mm bands; fine to very fine grained. Moderately to strongly brecciated locally with angular 0.5-1.5cm fragments in a cream coloured, possibly feldspathized rock. Fractures have cream coloured halos. Zone is mostly silicified rock. Chloritized sections are limited to less than 15cm thickness at any one point. Combined, they may total 20-25% of the unit. Pyrite content averages 3-5% with up to 15% locally.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-32 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		45.61 - 47.13:									
		well laminated at 55-60° to core axis.	832	3-5	45.61	46.61	1.00			0.01	
		47.13 - 48.28:	833	3-5	46.61	47.61	1.00			0.01	
		moderately to strongly brecciated.									
		47.60:	834	3-5	47.61	48.61	1.00			0.01	
		laminations at 60-70° to core axis.									
		48.28 - 48.43:									
		<u>INTRUSIVE(?)</u> - dark green, chloritized mylonitic zone.									
		48.43 - 48.49:									
		90% pink carbonate veins carrying 1% chalcopryrite blebs, 1-2mm in size and single grains up to 1.5cm in vugs - grain is triangular with sub-angular corners.									
		48.49 - 48.61:									
		dark green-grey, weakly chloritized.									
		48.61 - 49.85:									
		intensely silicified, often reddish colour particularly near chloritized seam at 49.05-49.17 m. Some sections resemble quartz veins and carry 5-7% pyrite, (eg. 48.75-48.94 m). Up to 20% pyrite in lower half of zone - clots of crystals up to 1.5cm.	C 835	5-7	48.61	49.23	0.62			0.01	
			836	15	49.23	49.85	0.62			0.11	
		49.85 - 50.30:									
		very coarsely brecciated with 1-2cm grey intensely silicified fragments in a dark green, weakly chloritized matrix - section is 70-75% silicified. Carries 3-5% pyrite. Laminations are present but un-readable.	837	3-5	49.85	50.85	1.00			0.10	
		50.30 - 51.53:									
		as above at 49.85-50.30 but without chloritized zones - matrix to silicified fragments is cream coloured due to feldspathization(?). Up to 15% pyrite locally.	838	5-7	50.85	51.80	0.95			0.25	
			839	10-12	51.80	52.45	0.65			0.37	
			840	3-5	52.45	53.30	0.85			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-32 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
59.33	60.31	is not as strongly silicified or as uniformly silicified as might be expected from other drill holes. Numerous chloritized partings. Lower contact may be a fault plane at 80° to core axis. 59.43: laminations at 45° to core axis.									
60.31	66.14	<u>SEDIMENTS</u> Dark green, fine to very fine grained, becoming well laminated with depth. Minor narrow silicified bands locally. Pyrite content averages 1% with up to 2% locally. A pale pink quartz vein is located at 61.21-61.41 m - contacts at 45° and 55° to core axis. 60.31 - 62.25: minor moderate brecciation locally. 62.35: laminations at 65-70° to core axis. 63.09: laminations at 55° to core axis. 62.25 - 63.95: well laminated - laminations fade over 5cm sections. 64.00 - 66.14: green, fine to medium grained, non-laminated, with abundant tensional fractures - foliation (laminations?) evident at 66.00 at 25° to core axis. 64.16 - 64.22: quartz-carbonate vein. 65.75 - 66.14: fractures strongly hematitized. 66.14 END OF HOLE CASING PULLED	C 849	1-2	60.31	61.21	0.90			Trace	
			850	1-2	61.21	61.41	0.20			Trace	
			851	1-2	61.41	62.41	1.00			0.01	
			C 899	1	63.41	64.41	1.00			0.01	
			900	1	65.41	66.14	0.73			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-33 LENGTH 63.09 meters
 LOCATION _____
 LATITUDE 7+87.5 E DEPARTURE 0+40 S
 ELEVATION _____ AZIMUTH 344° DIP -50°
 STARTED 07-07-83 FINISHED 11-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
63.00	-49°				

HOLE NO. Mc-83-33 SHEET NO. 1 OF 7

REMARKS BQ CORE
Whole core sent for assay.

LOGGED BY A.W. WORKMAN

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	14.21	<u>OVERBURDEN</u>									
14.21	22.83	<u>BASALT</u>									
		Dark green, fine to very fine grained, moderately to strongly brecciated with angular to rounded fragments up to 4cm in size. Brecciation is probably flow breccia. The flow was generally massive; abundant tensional fractures are noted below 17.8 m. Relic vesicles are found at 18.74-18.79 as 3-7mm well rounded chloritized amygdules. Some strong silicification is observed locally (eg. 15.03-15.32 m) to carry slightly higher pyrite contents - up to 1%. Flow averages less than 1% pyrite. Below 19.70 m, the rock becomes fine to medium grained and gabbroic textured - probably central flow. The rock does not appreciably fine towards the lower contact. Rock may be weakly sericitized locally.	852	0-1	15.00	16.00	1.00			0.01	
			853	0-1	16.00	17.96	0.96			0.01	
			854	5-10	17.96	18.11	0.15			0.01	
			855	1	18.11	19.11	1.00			0.02	
			856	1	20.11	21.11	1.00			0.02	
			857	1	22.11	22.83	0.72			0.01	
		18.59 - 18.74: 1-3mm elongated black chloritized specks possibly small vesicles.									
		17.96 - 18.11: breccia zone, silicified, 5-10% pyrite, 3-5% chalcopryrite - brecciation extends to 18.30 m.									
		22.35 - 22.41: highly pyritized sediment xenolith carries 20% pyrite, mostly as cubes; sediments are well laminated.									
22.83	27.90	<u>SEDIMENTS</u>									
		Dark green, fine grained, strongly chloritized and well laminated locally. Uppermost 10cm contains anomalous									

EM. 6-1168

LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-33 SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
22.83	27.90	pyrite (5%) along laminations at 40° to the core axis. Most pyrite as 1-2mm cubes. Locally, the laminations are strongly carbonatized but still contain 50% silica. Carbonate stringers, 1-2mm in width cut the core at varying angles. The rock is easily parted along planes parallel to the laminations. Cleavages have a waxy green colour - possible sericite alteration. Pyrite content averages 1% and ranges from nil to 2%. A trace of chalcopyrite is noted locally on fracture surfaces (eg. 25.85 m).									
		22.83 - 24.20: well laminated locally, some massive non-laminated fine grained sections.	C 858	1	22.83	23.83	1.00			0.01	
			859	1	23.83	24.83	1.00			Trace	
		24.20 - 26.45: brecciated - angular fragments up to 3cm with carbonate filling large dilatant zones - micro-fractures in carbonate are silica filled. Laminated locally - eg. 40-45° to core axis at 25.00 m.	860	1	24.83	25.83	1.00			Trace	
			861	1	25.83	26.83	1.00			Trace	
		26.45 - 27.50: well laminated, non-brecciated, a 1cm clot of chalcopyrite grains at 27.05m.	862	1	26.83	27.37	0.54			Trace	
			863	2-3	27.37	27.90	0.53			0.01	
		26.52: laminations at 50-55° to axis.									
		26.73: laminations at 70-75° to axis.									
		27.50 - 27.90: coarse brecciation similar to 24.20 - 26.45 m, some partings are slickensided - lower 10cm of zone is badly ground core with 30% recovery.									
		27.80 - 27.90: <u>FAULT ZONE</u>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-33 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
				FROM	TO	TOTAL					
27.90		<p><u>MAIN MINERALIZED ZONE</u></p> <p>The mineralized section lies in fault contact with overlying non-silicified sediments. It is composed of a highly silicified, usually brecciated sedimentary formation overlying a variably silicified and chloritized lower member.</p>									
27.90	44.81	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Purple-grey with minor green chloritized zones related to localized fault movement. Aphanitic, strongly to intensely silicified, and was originally well laminated. Bedding is marked by brecciation which is nearly ubiquitous. Breccia is well developed becoming weak locally. Fragments are angular, up to 2cm in size - can often be re-assembled. Silicification in this zone is independent of brecciation and is strongest below 31.0 m Pyrite content variable; 2-20%, averaging 5%. It is found as a very fine dissemination, as small clots of grains up to 1cm and as small cubes. Pyrite seems to replace some laminations locally or has moved into fractures along laminations.</p>									
		27.90 - 28.16: intensely fractured with thin chlorite plates on surfaces; carries 10-12% pyrite.	C 864	3-5	27.90	28.90	1.00			0.04	
		28.16 - 29.96: intensely brecciated, some laminations locally at 45° to core axis.	865	7-9	28.90	29.90	1.00			0.09	
		29.96 - 30.60: FAULT ZONE - green chloritized fracture systems dips at 25-30° to core axis - mylonitic locally with purple-grey, rounded silicified fragments up to 1.5cm. Fragments have honey coloured reaction rims, and carry 5-7% pyrite.	866	2-3	29.90	30.65	0.75			0.03	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-33 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
	30.60 - 31.12:	intensely silicified and brecciated purple-grey sediments, some suggestion of laminations locally, 5-7% pyrite.	C 867	5	30.65	31.12	0.47			0.02	
	31.12 - 31.88:	as at 29.96-30.60 - FAULT ZONE - fracturing at 45° to core axis, silicified fragments carry 7-9% pyrite.	868	5	31.12	31.88	0.76			0.10	
	31.88 - 34.70:	dark purple-grey, intensely silicified, pyrite content variable 3-7%. Contains several minor chloritized fracture systems at 32.25-32.48 and 33.55-33.75. Laminated locally - 45° to core axis at 33.75 m. Carbonate veining in chloritized fracture zone.	869	5	31.88	32.88	1.00			0.21	
			870	3-5	32.88	33.88	1.00			0.21	
			871	2-3	33.88	34.88	1.00			0.08	
	34.70 - 37.21:	abundant chloritized fractures with red siliceous stringers at 35.50-35.60 m - section has abundant ground core similar to zone at 29.96-30.60. Moderately fractured with carbonate in dilatant zones. Well laminated locally - 45° at 35.00 m. Core loss is probably 20%. Zone carries 3-5% pyrite; trace chalcopyrite locally, possibly associated with carbonate stringers.	872	1-3	34.88	35.88	1.00			0.05	
			873	1-3	35.88	36.88	1.00			0.02	
			874	3-5	36.88	37.88	1.00			0.06	
	37.21 - 38.71:	increasing feldspathization(?) of rock to a cream colour, fewer chloritized fractures, pink carbonate veins at 37.88.	C 875	3-5	37.88	38.71	0.83			0.07	
	38.71 - 40.15:	cream coloured, feldspathized rock, well laminated in upper half and strongly brecciated below 39.4 m. Contains 8-15% pyrite concentrated along laminations as very fine (less than 0.1mm) dissemination. Up to 20% pyrite is noted locally in the lower brecciated section. Carries several 5mm pink carbonate veins at 60° to core axis.	876	8-10	38.71	39.43	0.72			0.15	
			877	10-15	39.43	40.15	0.72			0.24	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-33 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH, IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		40.15 - 41.05: strongly brecciated, minor chloritized fractures with up to 1% chalcopyrite, variably feldspathized in matrix to breccia fragments - pyrite ranges 5-10%, averaging 6-8%.	878	6-8	40.15	41.05	0.90			0.13	
		41.05 - 42.03: strongly brecciated, abundant chloritized fractures with white carbonate in-filling. 1-3% pyrite, up to 10% locally as lcm clots in chloritized dilatant zones.	879	2-4	41.05	42.03	0.98			0.02	
		42.03 - 42.67: purple-grey breccia, few chloritized fractures.	880	1-3	42.03	42.67	0.64			0.02	
		42.67 - 43.46: <u>INTRUSIVE</u> - dark green, fine to medium grained, well foliated (45-50° to core), mafic minerals (biotite?). Non-magnetic. carries 50% xenoliths of silicified sediment. Fragments are 1-8mm in size and are well rounded. Carries 1% pyrite locally. Upper contact at 60° to core axis. Lower contact at 65° to core axis.	881	1-2	42.67	43.46	0.79			0.01	
		43.46 - 43.97: purple-grey, silicified breccia same as 42.03-42.67 m.	882	2-3	43.46	44.46	1.00			0.01	
		43.97 - 44.30: chloritized fracture zone.									
		44.30 - 44.81: silicified breccia becoming less silicified with depth.	883	2-3	44.46	44.81	0.35			0.02	
44.81	51.30	<u>SILICIFIED SEDIMENTS</u> Purple-grey to green-grey, becoming green locally in chloritized sections. Very fine grained to aphanitic with variable pyrite contents - 1% in chloritized rock, up to 5% in silicified rock. Generally moderately to strongly brecciated with angular fragments up to several									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-33 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
44.81	51.30	cm. Silicified strongly except in green chloritized zones. These zones of chlorite alteration total 19% of the section and are located at: 45.23-45.30; 45.70 - 45.80; 46.15-46.44; 47.30-47.38; 47.86-47.95; 47.99 - 48.17; 48.42-48.62; 50.80-50.94; 51.14-51.21. Laminations are well developed locally.	884	1-2	44.81	45.81	1.00			0.01	
			885	1-2	45.81	46.81	1.00			0.01	
			886	3-5	46.81	47.81	1.00			0.01	
			887	1-2	47.81	48.81	1.00			0.03	
			888	1-2	48.81	49.57	0.76			0.01	
		48.53: brecciated laminations at 45° to axis.									
		49.57: contact between silicified brecciated sediments and intrusive - sediments become more strongly silicified 15cm from contact. Little fining of intrusive near contact at 60° to axis.									
		49.57 - 50.64: <u>INTRUSIVE</u> - same as 42.67-43.46; weakly magnetic.	889	1	49.57	50.64	1.07			0.01	
		50.64 - 51.30: silicified breccia with 32% green chloritized rock.	890	1-2	50.64	51.30	0.76			0.01	
51.30	63.09	<u>SEDIMENTS</u>									
		Medium to dark green, fine to very fine grained, well laminated but structure is locally obliterated by moderately developed brecciation. Weakly carbonatized along certain preferred laminations and sets of bands. Minor silicification locally, weakly to moderately developed, in association with breccia zones. Average of 1% pyrite, up to 3% with silicification. Trace of chalcopyrite on partings which are well developed parallel to laminations.	891	1-2	51.30	52.30	1.00			0.01	
			892	1-2	53.30	54.30	1.00			Trace	
			893	1	54.30	55.25	0.95			Trace	
		55.25 - 56.22: several zones of silicification, locally brecciated.	894	2-3	55.25	56.22	0.97			0.05	
		56.76 - 57.00: <u>INTRUSIVE</u> - similar to 49.57-50.64 m, very weakly magnetic.	895	2-3	56.22	57.22	1.00			0.02	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-33 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		58.00 - 63.09:									
		parting is very well developed parallel to laminations.	896	0-1	58.22	59.22	1.00			0.01	
		58.40: laminations at 60° to core axis.	897	1	60.22	61.22	1.00			0.04	
		60.10: laminations at 60° to core axis.		Trace							
		61.35: laminations at 50° to core axis.		cpy							
		62.22: laminations at 55° to core axis.	898	1	62.22	63.09	0.87			0.01	
		63.05: laminations at 60° to core axis.									
		63.09 meters									
		END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-34 SHEET NO. 2 of 7

FOOTAGE		DESCRIPTION	SAMPLE					ASSAYS			
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
31.32	53.57	moderately to strongly brecciated. It contains up to 15% pyrite - rarely 20%, and traces of chalcopyrite. It is underlain by a transitional zone of irregularly silicified and brecciated rocks.	C 942	1-3	31.32	32.32	1.00			Trace	
			943	1-3	32.32	33.32	1.00			Trace	
			944	2-3	33.32	33.97	0.65			Trace	
31.32	34.62	<u>SILICIFIED SEDIMENT</u> Dark green to greenish-grey, fine to very fine grained, well laminated but frequently brecciated rock. Breccia zones tend to be grey in colour and moderately to strongly silicified. Some selective silicification of individual laminations is noted. Laminations are 0.5-2.0mm in thickness. In weakly silicified rock, tuff(?) clasts up to 4mm are greenish grey in a green argillitic(?) matrix. Clasts have indistinct boundaries. The section averages 3% pyrite, ranging 2-4%; very finely disseminated, and as 1-2mm crystals often in 1-1.5cm clusters. Trace of chalcopyrite locally. 32.05: laminations at 40-45° to core axis - grey elongated, 2-3cm zones (clasts?) are strongly carbonatized. 32.80: 1.5cm syenitic vein. 33.97 - 34.43: INTRUSIVE - dark green, very strongly chloritized, very weakly magnetic, red brecciated siliceous xenoliths are 50% of rock volume. Highly pyritized contacts (20%) averaging 3-4% very finely disseminated pyrite.	945	2-4	33.97	34.62	0.65			0.03	
34.62	50.98	<u>MAIN SILICIFIED ZONE</u> Purple-grey locally, greenish-grey, aphanitic to very fine grained, strongly to intensely silicified. The rock is moderately to strongly brecciated. Dilatant zones in the breccia are filled with cream to light grey, occasionally white coloured silica. Fragments									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-34 SHEET NO. 3 of 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
34.62	50.98	are angular and 2-5mm in size often with less than 0.5mm grit. Some tensional fracturing which post-dates the breccia is noted - quartz filled. Pyrite contents are highest in very finely brecciated, or mylonitic rock - up to 20%. The zone averages 5-7%. A highly pyritized mylonitic seam at 35.02 is displaced 6cm by a fault cutting core axis at 40°. Single clots of pyrite grains up to 5x10mm are noted.									
		34.62 - 34.75: resembles a brecciated quartz vein.	C 946	5-7	34.62	35.62	1.00				0.11
		36.23 - 36.98: variably feldspathized yellow-grey patches, and halos around fractures. 7-9% pyrite, up to 12% locally. Tensional fractures at 60-75° to core axis are cut by chloritized fractures at 10-20° to core axis with 1cm displacement.	947	5-7	35.62	36.23	0.61				0.05
			948	7-9	36.23	36.98	0.75				0.07
		36.98 - 37.50: dark grey to purple-grey, intensely brecciated, 1-2% pyrite rapidly increasing down-hole to 5-7%; very finely disseminated. Pink carbonate vein with fine quartz particules at 37.30-37.31 at 15° to core axis.	949	2-4	36.98	37.50	0.52				0.02
		37.50 - 38.50: same as 36.23-36.98 - more abundant quartz veining along tension fractures.	950	5-7	37.50	38.50	1.00				0.03
		38.50 - 39.85: as above - abundant chloritized fractures - average 1 per 10cm of core.	951	5-7	38.50	39.85	1.35				0.06
		39.85 - 41.87: variably feldspathized, intensely silicified breccia; 7-9% pyrite, up to 15% locally, trace chalcopyrite. Pyrite fills fractures up to 4mm wide in 10-15mm long stringers. Also clots up to 1.5cm of smaller grains. Abundant chloritized fractures.	952	7-9	39.85	40.85	1.00				0.05
			953	10-12	40.85	41.85	1.00				0.04
			954	10-15	41.85	42.83	0.98				0.05

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-34 SHEET NO. 4 of 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
		41.87 - 42.83:								
		42.11 - 42.33:								
		42.83 - 42.85:	955	5-7	42.83	43.80	0.97		0.02	
		42.85 - 43.80:								
		43.80 - 44.81:	956	1	43.80	44.81	1.01		0.02	
		44.81 - 45.19:	957	10	44.81	45.19	0.38		0.07	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-34 SHEET NO. 5 of 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
		45.19 - 49.91:	variably feldspathized, strong locally C in 10cm sections, appears tuffaceous locally, 3-4% pyrite, trace chalcopyrite weakly sheared at 60-75° to core axis. Chloritized planes cross-cut vague sedimentary fabric at 10-20° angle. Weakly fractured - quartz filled.	958	3	45.19	46.19	1.00			0.02	
				959	3	46.19	47.19	1.00			0.01	
				960	5	47.19	48.19	1.00			0.02	
				961	5	48.19	49.19	1.00			0.03	
				962	5-7	49.19	49.91	0.72			0.02	
		49.91 - 50.47:	moderately silicified, weakly chloritized greenish-grey in colour. Chloritized plane at 50.24 m is a fault at 80° to the core axis. Pyrite content is 3-5% with a trace of chalcopyrite on chloritized planes.	963	3-5	49.91	50.47	0.56			0.01	
		50.47 - 50.98:	as above at 45.19-49.91, few chloritized fractures; 2-4% pyrite.	964	2-4	50.47	50.98	0.51			0.01	
50.98	53.57	<u>SILICIFIED SEDIMENTS</u>										
			Dark purple-grey, green grey and dark green, aphanitic to fine grained rock. Grey areas are strongly brecciated and moderately to intensely silicified. Green zones are brecciated weakly, non-silicified but moderately to strongly chloritized. Carries 2-4% pyrite, mostly in silicified rock. Occasional quartz stringers with 1-2 mm. blebs of chalcopyrite. Lamminations are noted locally, often rippled and/or brecciated. Abundant white carbonate in veins, vugs and small fractures. Acid etch indicates pink quartz occupies 50% of fracture volume. Carbonate occurs as clasts in quartz. Lower contact of zone is gradational. Silicified rock is located at: 51.05-51.10; 51.30-51.33;	965	2-4	50.98	52.00	1.02			0.01	
				966	2-4	52.00	53.00	1.00			0.01	
				967	2-4	53.00	54.00	1.00			0.02	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-34 SHEET NO. 6 of 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		51.53-51.77; 52.00-52.02; 52.35-52.38; 53.38-53.57, totalling 21.5% of section.									
		51.98: laminations at 60° to core axis.									
		54.68: rippled laminations at 60° to core axis									
		55.25: vague laminations at steep angle to core axis, at least 60'.									
53.57	60.23	<u>SEDIMENTS</u>									
		Medium to dark green, fine grained, vaguely developed C laminations becoming better with depth. Silicified only locally (eg. 56.38-56.51m.), in response to localized brecciation. May be tuffaceous. Pyrite 1-3%.	968	1-3	54.00	55.00	1.00			0.02	
			969	1-3	55.00	56.00	1.00			0.01	
			970	1-3	56.00	57.00	1.00			0.01	
		55.40: laminations at 55' to core axis.	971	1-3	57.00	57.70	0.70			Trace	
		57.70 - 58.65: <u>INTRUSIVE</u> - medium green, fine to medium with greater than 25% of rock volume composed of siliceous reddish-pink fragments up to several centimeters. Micaceous, possibly biotitic. Well foliated at 45° to the core axis. Weakly magnetic, 1% pyrite.	972	1	57.70	58.65	0.95			Trace	
			973	1-3	58.65	59.18	0.53			0.01	
			974	1-3	59.18	60.23	1.05			Trace	
		58.65 - 59.18: moderately silicified breccia, 2-3% pyrite, trace chalcopyrite on chloritized fractures. Intrusives at 58.99-59.03. Same as intrusive at 58.0 m.									
		59.75: becomes well parted at 60-65° to core axis along what may be a vague bedding lamination.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-34 SHEET NO. 7 of 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
60.23	61.02	<u>LOWER SILICIFIED ZONE</u> Purple-grey to greenish-grey, with medium green sections. Aphanitic to fine grained, and strongly brecciated. Moderately to strongly silicified. Pyrite content averages 2-3%, as a very fine dissemination. Green sections are moderately chloritized. Weaker silicification reflects weaker brecciation.	975	2-3	60.23	61.02	0.79			0.01	
61.02	61.30	<u>INTRUSIVE</u> Medium green, fine to medium grained. Possibly contains biotite - well developed foliation at 60-65° to core axis. Weakly magnetic. Same as zone at 57.70-58.65 m.	976	0-1	61.02	61.30	0.28			1.10	
61.30	62.80	<u>SEDIMENTS</u> Medium to dark green, fine to medium grained, coarsening down-hole. Well laminated locally. Many carbonated filled tension fractures throughout. 62.28: laminations at 45' to core axis. 62.46: coarses to medium grained, unstructured, tensional fractures, occasional 1-1.5 mm. black chloritized specks - possibly devitrified shards of volcanic glass. 62.80 END OF HOLE , CASING PULLED	977	1-2	61.30	62.05	0.75			0.01	
			978	1-2	62.05	62.80	0.75			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-35 SHEET NO. 2 of 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		33.10 - 34.10:									
		flow breccia- rounded, vaguely defined fragments up to 7 cm. some remelting.									
		34.25 - 34.40:									
		as above									
		34.65 - 35.00:									
		flow top breccia, same as 33.10-34.10.									
		36.20 - 36.53:									
		angular breccia, fragments up to 2.5 cm.									
		37.38 - 37.57:									
		breccia - probably flow bottom; fragments of varying lithologies are well rounded and up to 4 cm. in size.									
		37.57:									
		<u>FAULT</u> - mylonitic shear plane at 40° to core axis.									
		37.57 - 38.20:									
		flow breccia - vaguely outlined fragments up to 6 cm., well rounded, andesitic composition.									
		38.20 - 38.70:									
		angular fragments, often mylonitic.									
		38.70 - 38.83:									
		ground core - some massive; some brecciated.									
		39.05 - 39.81:									
		flow top breccia - sharply defined, angular fragments up to 5 cm. which are much harder than enclosing rock. Below 39.20 m., fragments are larger, less distinct and show evidence of re-melting. Minor fault plane at 39.38.									
		40.32 - 40.75:									
		small silicified zone bordering intensely silicified fracture zone at 40.53-40.58m. Resembles a pale green quartz vein at 45-50° to core axis.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-35 SHEET NO. 3 of 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		40.98 - 42.50: tectonically brecciated locally; lower contact is highly fractured.									
42.50	51.28	<u>SEDIMENTS</u> Medium green, fine to very fine grained, well laminated and moderately to strongly chloritized. Generally non-silicified. Many non-laminated, generally coarser grained zones, (1.0-1.5 mm. clasts). Uppermost zone is weakly brecciated and sheared to a depth of 44.1 m. Most of sediments are probably tuffaceous. 44.45: laminations at 40° to core axis. 45.50: laminations at 45° to core axis. 44.83 - 45.17: strongly brecciated, laminations disrupted. 45.17 - 45.50: numerous black, well laminated cherty bands - tuffaceous? 45° to core axis, carry 1% very finely disseminated pyrite. 44.80 - 44.90: dark red, well foliated dike (?) SYENITIC (?). Contacts at 40-50° to core axis - possibly a sharply defined zone of hematized chemical sediments. Also pinkish green sediments at 44.46-44.52. 45.50 - 49.60: weakly laminated locally, medium grained, brecciated locally on a 1-2 mm. scale. Laminations at 46.60 m. dip 50° to the core axis. 49.60 - 51.28: well laminated at 35° to the core axis steepening to 45° at 51.08. Moderate carbonatization of selected sets of laminations.									
			C	979	1	45.17	45.50	0.33			0.02
				980	0-1	45.50	46.50	1.00			0.01
				981	0-1	46.50	47.50	1.00			0.02
				982	0-1	47.50	48.50	1.00			0.01
				983	0-1	48.50	49.50	1.00			0.01
				984	0-1	49.50	50.50	1.00			0.01
				985	0-1	50.50	51.21	0.71			0.01
51.28	75.76	<u>MAIN MINERALIZED ZONE</u> This zone is composed of an upper variably silicified									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC-83-35 SHEET NO. 4 of 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		member overlying the main silicified zone. Both are C sedimentary in origin although the main zone does not always exhibit recognizable sedimentary structures or textures. Pyrite contents increase to a maximum of 12% in the main zone. It is underlain by a section of alternating silicified and chloritized rock.	986	1-3	51.21	52.06	0.85			0.01	
			987	1-3	52.06	52.91	0.85			0.01	
			988	1-3	52.91	53.76	0.85			0.01	
51.28	53.76	<u>SILICIFIED SEDIMENTS</u> Dark green, aphanitic to very fine grained, moderately chloritized with abundant purple-grey strongly silicified sections. The zone is well laminated with a few medium grained, non-laminated sections. Silicification is initially confined to small zones of brecciation then expands to cover sections of non-brecciated rock. Minor pink quartz - carbonate veins up to 1 cm. thickness are noted in this unit. 51.28 - 51.53: very strongly silicified. 52.01 - 52.66: Massive to very weakly laminated, same reddish silicified clasts up to 15 mm. - tuffaceous. 52.66 - 53.60: well laminated at 50° to core axis, 40-50% silicified. 53.60 - 53.76: <u>FAULT ZONE</u> - post silicification brecciation, chloritized fractures; silicified fragments up to 2 cm. in size in a fractures chloritized matrix.									
53.76	68.12	<u>MAIN SILICIFIED ZONE</u> Dark purple-grey, aphanitic to fine grained, generally well laminated but brecciation often destroys sedimentary textures and structures. Numerous cream coloured feldspathized (?) zones are superimposed on	989	3-4	53.76	54.76	1.00			0.03	
			990	8-10	54.76	55.76	1.00			0.09	
			991	6-10	55.76	56.76	1.00			0.09	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-35 SHEET NO. 5 of 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		on the generally high degree of silicification. Feldspathized rock contains higher (10-12%) pyrite contents, than the purple-grey rock (5-7% pyrite). Several dark green chloritized fault zones are noted. They are characterized by increased fracturing, local mylonitization and the development of clay seams.	C	992	5-7	56.76	57.76	1.00			0.04	
		53.76: faulted contact		993	7-9	57.76	58.36	0.60			0.05	
		53.76 = 54.89: very finely brecciated, abundant slickensided, chloritized fractures carries 3% pyrite.		994	7-9	58.36	58.96	0.60			0.06	
		54.89 - 55.23: feldspathized, occasional chloritized fractures, carries 10-12% pyrite.										
		55.50 - 56.76: becoming well laminated locally, purple-grey, spotty feldspathization locally, occasional chloritized fractures with slickensides pitching at 20° to 60°. Some individual darts up to 2 mm. - tuffaceous. Averages 7-9% pyrite as a very fine dissemination and as clots of crystals up to 4 mm. across.	C	995	10	58.96	59.66	0.70			0.09	
		56.76 - 58.96: banded cream coloured and purple-grey rock, well laminated, extremely convoluted with very tight folding - soft sediment slumping, particularly at 57.96-58.16 (recumbant folds).		996	8-10	59.66	60.36	0.70			0.10	
		55.55: laminations at 30° to core axis.										
		58.16: laminations at 45° to core axis.										
		58.96 - 60.36: cream coloured, well laminated <u>FAULT ZONE</u> - 80% of core is badly ground - many chloritized partings at 59.80-60.05 m.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-35 SHEET NO. 6 of 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		60.36 - 61.25: dark grey, well laminated, locally brecciated, abundant 3mm. pink carbonate veins carrying quartz grit.	C 997	1-3	60.36	61.25	0.89			0.02	
		60.60: <u>FAULT</u> - 5 mm. green clay seam at 60-70° to core axis.									
		61.25 - 62.31: <u>INTRUSIVE</u> - medium green fine to medium grained with 2-4 mm. dark green crystals - possibly chloritized biotite - carries 10% angular fragments of silicified sediments - very weakly magnetic.	998	NIL	61.25	62.31	1.006			0.01	
		62.31 - 64.49: brecciated with angular moderately feldspathized fragments in a dark purple-grey matrix. Breccia can often be re-assembled into whole rock. Relic laminations locally - eg. 45° to core axis at 63.80 m.	999	4-6	62.31	63.31	1.00			0.01	
			1000	3-5	63.31	64.31	1.00			0.01	
			1201	3-5	64.31	65.31	1.00			0.01	
		64.49 - 66.60: <u>FAULT ZONE</u> - strongly fractured and chloritized.	1202	3-5	65.31	66.31	1.00			0.02	
		66.60 - 68.12: as at 62.31-64.49 - more abundant chloritized fractures and pink carbonate veining. Trace chalcopyrite in carbonate.	1203	2-4	66.31	67.31	1.00			0.01	
			1204	1-3	67.31	68.12	0.81			0.01	
68.12	75.76	<u>SILICIFIED SEDIMENT</u>									
		Dark purple-grey to green, fine to very fine grained variably brecciated zone of transition from intensely silicified rock to non-silicified rock. Degree of silicification and amount decrease with depth. Silicification is generally related to zones of brecciation. Average 1% pyrite increases to 3% in sil. rock. Major silicified zones are located at 69.09-69.67, 69.91-70.72 (2 cm. chloritized mylonite plane at 70.15), 71.90-72.81, 74.92-75.12 and 75.29-75.76. Many smaller zones are observed and total	1205	1-2	68.12	69.09	0.97			0.01	
			1206	1-2	69.09	69.91	0.82			0.01	
			1207	2-3	69.91	70.72	0.81			Trace	
			1208	1	70.72	71.55	0.83			0.01	
			1209	2-3	71.55	72.81	1.26			0.01	
			1210	1-2	72.81	73.90	1.09			Trace	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-35 SHEET NO. 7 of 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		silicified rock accounts for 51% of the section.	1211	1-2	73.90	74.92	1.02			0.01	
			1212	1-2	74.92	75.76	0.84			0.02	
75.76	91.74	<u>SEDIMENT</u>									
		Dark to medium green, fine grained, moderately chloritized, non-silicified and moderately brecciated. Becomes well parted at about 76.5 meters - parting is likely parallel to bedding although lamination are not well developed above 80 meters. Irregular bedding noted at 78.35 m. Some pink quartz veins locally (eg, 81.03-81.08) developed parallel to laminations. Pyrite average 1-2% with up to 3% locally.	1213	0-1	75.76	76.59	0.83			0.01	
			1214	0-1	76.59	77.42	0.83			0.01	
			1215	0-1	77.42	78.32	0.90			Trace	
			1216	1	78.32	79.32	1.00			Trace	
			1217	0-1	79.32	80.32	1.00			0.01	
		77.42 - 78.32: <u>INTRUSIVE</u> - Medium to dark green, fine to medium grained with well developed chills at contacts. Carries 5-10% siliceous xenoliths; weakly magnetic.									
		81.09: laminations at 45° to core axis.									
		84.00: fault plane at 40° to core axis separates moderately laminated rock above from medium grained non-laminated rock below.	1218	0-1	82.00	83.00	1.00			0.01	
		85.93 - 89.50: gradually becomes well laminated, very well parted throughout, moderately carbonatized, carbonate appears to replace selected lamination sets.									
		86.50: parting at 65° to core axis.									
		87.90: carbonate altered laminations at 70° to core axis.	1219	0-1	87.60	88.55	0.95			0.04	
		87.60 - 88.55: moderately brecciated, weakly silicified, 3-4% pyrite									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-35 SHEET NO. 8 of 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
		89.50 - 90.25: medium grained, massive, weakly brecciated.								
		91.00 - 91.74: shearing (?) at 65° to core axis - planes of very dark green mylonite; breccia fragments increase in size away from mylonitized planes. Graded beds (??) locally.								
		91.74: END OF HOLE CASING PULLED								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-37 LENGTH 137.46 meters
 LOCATION _____
 LATITUDE 10 + 00 W DEPARTURE 0 + 69 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED August 5, 1983 FINISHED August 11, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
137.46	-57°				

HOLE NO. Mc-83-37 SHEET NO. 1 OF 5

REMARKS BQ Core

Split for assay.

LOGGED BY A.W. WORKMAN

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	15.85	<u>OVERBURDEN</u>								
15.85	32.65	<u>BASALT</u>								
		Dark green, fine to medium grained, locally coarse grained, locally silicified, often associated with brecciation. Weakly to moderately tectonically brecciated locally. Weakly to moderately fractured - breaks are strongly chloritized and often hematized. Pyrite content averages 0-1% and does not seem to increase with brecciation or silicification. Up to 1% chalcopyrite is associated with quartz-carbonate veining locally (eg. 24.85-24.89 m). These veins may carry high pyrite contents - up to 40%. 18.02 - 20.40: weakly to moderately silicified. 22.82 - 23.93: weakly brecciated, moderately silicified. 23.82 - 26.20: weakly to moderately silicified; quartz-carbonate vein at 24.85-24.89 m carries 40% pyrite, 1% chalcopyrite. 28.90: carbonated shear at 40-45° to core axis carries 1% chalcopyrite. 30.20 - 30.35: weakly brecciated, moderately silicified.	C							
			1329	0-1	18.02	19.21	1.19			0.01
			1330	0-1	19.21	20.40	1.19			tr.
			1331	0-1	22.82	23.80	0.98			tr.
			1332	0-1	23.80	24.80	1.00			tr.
			1333	2-3	24.80	25.45	0.65			tr.
			1334	0-1	25.45	26.20	0.75			tr.
32.65	67.25	<u>DIORITE</u>								
		Medium to dark green, generally medium to coarse grained with occasional fine grained phases. A zone of ground core at upper contact is thought to be the chilled margin. Some variation in texture is noted below 59 meters which may reflect proximity to the lower contact.								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora

HOLE NO. Mc-83-37 SHEET NO. 2 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		32.65 - 42.20: fine to medium grained with several zones carrying pink feldspar phenocrysts up to 3mm - often sausaunitized.									
		42.20 - 45.20: medium to coarse grained, occasionally very coarse grained in 10cm sections with crystals up to 5mm. A few quartz veins are noted at 60-70° to core axis - adjoining rock may be highly pyritized over 5cm border zones.									
		44.55 - 45.05: zone averages 2-3% pyrite.									
		45.20 - 46.15: medium grained.									
		46.15 - 49.20: medium to coarse grained; amphibole crystals up to 1.1cm at 47.10 m.									
		49.20 - 58.70: medium grained, occasional coarse grained phases; fracture surfaces are well plated with thin foils of pyrite - rock carries an average 0-1%.									
		58.70 - 59.10: fine, locally medium grained.									
		59.10 - 59.68: carbonate filled breccia zone, no pyrite observed; fractures in lower half are strongly hematized.									
		59.68 - 66.90: fine to medium grained; rapid gradational textural changes.									
		64.07 - 64.18; 65.01 - 65.08: fine grained, dark green <u>intrusives</u> - well chilled contacts at 40° to core axis.									
		66.90 - 67.25: sheared, silicified, epidotized zone at edge of intrusive; carries 5% pyrite, contact may be at 80-85° to core axis.	1336	5	66.95	67.30	0.35			0.02	
67.25	125.50	<u>BASALT</u>									
		Dark green, locally grey-green, fine grained to aphanitic, often flow brecciated with angular to sub-rounded fragments up to 3cm. Moderately to weakly chloritized. Fragments are usually harder than the matrix but of the same composition. The uppermost 1 m carries occasional highly lenticular fragments up to 1cm in size - tuff?									
		67.25 - 72.50: flow-top breccia.	1337	0-1	71.50	72.50	1.00			tr.	
		73.15 - 74.50: strongly fractured due to shrinkage - quartz-epidote filling; very fine grained flow; rare fragments are strongly epidotized.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY Lenora

 HOLE NO. Mc-83-37 SHEET NO. 3 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
	74.50 - 79.62:	occasional flow breccia fragments; 1-2% pyrite in fractures and rarely rimming fragments; moderately silicified at 75.60-76.00 m.	C 1338	0-1	75.60	76.00	0.40			0.02	
	79.62 - 80.35:	carries fine, 1-3mm clasts of varying lithologies - possible base of flow - strongly chloritized fragments.									
	81.65 - 82.03:	weakly brecciated, moderately silicified.	1339	0-1	81.65	82.03	0.38			0.02	
	82.03 - 82.63:	chloritized, moderately brecciated locally.	1340	0-1	82.03	82.63	0.60			tr.	
	82.63 - 83.25:	moderately to strongly silicified; weakly to moderately brecciated - fragments exhibit lmm reaction rims.	1341	0-1	82.63	83.25	0.62			tr.	
	83.25 - 83.30:	hyaloclastite? - flow top?									
	83.30 - 84.90:	moderately to strongly brecciated, fragments are larger and less distinct (remelting) with depth and possibly more rounded. Sub-rounded fragments up to 10cm are noted at 84.50 m - flow breccia.									
	84.90 - 85.85:	sub-angular fragments up to 2cm - well defined - lower temperature flow.									
	85.85 - 86.95:	three narrow zones of fine grained dark green rock incorporated into flow - possibly sediments.									
	88.93 - 89.55:	strongly brecciated - pale green angular fragments in dark green matrix - weak silicification locally (eg. 89.30-89.55 m).	1342	0-1	88.80	89.30	0.50			0.01	
	89.55 - 91.34:	dark green, abundant tensional fractures at top - weakly brecciated, locally silicified (eg. 89.55 - 90.10 m). Strongly silicified at 90.80-91.34 m.	1343	0-1	89.30	90.10	0.80			0.01	
	91.34 - 91.94:	irregularly silicified - nil to strong locally; well brecciated throughout - carries 5-6% pyrite mostly concentrated in fractures - average concentration 3-5%.	1344	0-1	90.10	90.80	0.70			0.01	
	91.94 - 92.54:	moderately to strongly brecciated, irregularly silicified; abundant carbonate veining with up to 6% associated pyrite.	1345	0-1	90.80	91.34	0.54			0.01	
	92.54 - 93.60:	fine to medium grained, very weakly brecciated massive flow, 1-3% pyrite.	1346	3-5	91.34	91.94	0.60			tr.	
	93.60:	flow top.	1347	3-5	91.94	92.54	0.60			tr.	
			1348	1-3	92.54	93.60	1.06			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-37 SHEET NO. 4 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		93.60 - 93.83:									
		strongly amygdaloidal - relic vesicles up to 1cm are well rounded becoming smaller with depth - TOPS UP.									
		93.83 -107.05:									
		locally tectonically brecciated, weakly to moderately fractured, fine grained becoming medium with depth. Carbonate vein at 100.54-100.80 m - no sulphide.									
		107.05-108.30:									
		moderately brecciated (locally strong), non-silicified; carries increased pyrite from 107.10-107.65 m at 2-3%, brecciation is tectonic.	C	1349	2-3	107.05	107.65	0.60			0.01
		108.30-109.65:									
		moderately to strongly brecciated tectonically, non-silicified, becoming very dark grey-green.									
		111.30-111.50:									
		white carbonate vein.		1350	3-5	112.00	112.80	0.80			tr.
		111.77-119.92:									
		flow breccia - fragments angular to well rounded. Largest fragments are well rounded and up to 4cm in size. Non-silicified; up to 7% pyrite concentrated around fragments but overall average is 3-5%. Most pyrite at 112.00-112.80 m. Some dilatant zones strongly epidotized. Possible sediments (tuff?) at 114.30-114.48 m.		1423		112.80	113.58	0.78			tr.
				1424		113.58	114.43	0.85			0.01
				1425		114.43	115.59	1.16			0.01
				1426		115.59	116.62	1.03			0.01
				1427		116.62	117.43	0.81			0.01
				1428		117.43	118.43	1.00			0.01
				1429		118.43	119.45	1.02			0.01
		119.92-120.50:		1430		119.45	120.50	1.05			0.01
		massive, medium green, non-brecciated zone - strongly fractured.		1351	1-3	120.50	121.50	1.00			tr.
		120.50-122.63:		1352	1-3	121.50	122.10	0.60			tr.
		strongly brecciated, weakly silicified locally, 1-3% pyrite, very finely disseminated.		1353	1-3	122.10	122.63	0.53			tr.
		125.43-125.50:		1431		122.63	123.44	0.81			0.01
		green clay filled shear at 45° to core axis - FAULT.		1432		123.44	124.18	0.74			0.01
125.50	127.10	<u>FAULT ZONE</u>									
		Strongly sheared, strongly chloritized zone. Rock type indefinite - may be sediments.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY Lenora

 HOLE NO. Mc-83-37 SHEET NO. 5 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ./TON	
					FROM	TO					TOTAL
127.10	137.46	<p><u>SEDIMENTS</u></p> <p>Dark green with white bands and lensitic laminations; fine to very fine grained. Sheared parallel to bedding at upper contact. Zone near top of unit is brecciated moderately and the matrix to the breccia fragments is moderately to strongly silicified. No pervasive silicification is noted. Selective silicification of certain laminations highlights the bedding. Individual sets of laminations are strongly brecciated below 136.49 m and set in a strongly chloritized sedimentary matrix.</p> <p>127.10-132.20: brecciated, silicified matrix with very little carbonate, 0-1% pyrite.</p> <p>132.20-137.46: moderately well laminated, weakly sheared - laminations at 135.40 m are at 45-50° to core axis.</p> <p>137.46 meters END OF HOLE</p> <p>CASING PULLED</p>	C								
			1563	0-1	127.10	127.95	0.85			tr.	
			1564	0-1	127.95	128.95	1.00			tr.	
			1565	0-1	128.95	129.95	1.00			tr.	
			1566	0-1	129.95	130.95	1.00			tr.	
			1567	0-1	130.95	131.95	1.00			tr.	
			1568	0-1	131.95	132.95	1.00			tr.	
			1569	0-1	132.95	133.95	1.00			tr.	
			1570	0-1	133.95	134.30	0.35			tr.	
			1354	1-2	134.30	135.30	1.00			0.03	
			1571	0-1	135.30	136.25	0.95			tr.	
			1572	0-1	136.25	137.00	0.75			tr.	
			1573	0-1	137.00	137.46	0.46			0.08	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY LENORA
 HOLE NO. Mc-83-38 LENGTH 106.98 meters
 LOCATION _____
 LATITUDE 14+00 W DEPARTURE 0+35 S
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED August 11, 1983 FINISHED August 23, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
106.90	-45°				

HOLE NO. Mc-83-38 SHEET NO. 1 OF 5

REMARKS BQ CORE
Core split for analysis.

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	25.87	<u>OVERBURDEN</u> Very bouldery - silicified volcanics similar to parts of bedrock.								
25.87	68.00	<u>PILLOWED BASALT</u> Dark green to grey-green, fine to very fine grained, moderately fractured, with abundant 1-3cm thick pillow selvages. Pillow rims are darker green in colour and are siliceous, containing 10-20% free quartz. They are strongly epidotized. Rims and inter-pillow material carry higher pyrite contents - up to 20% locally, mostly as aggregates of crystals in clots up to 1cm. Pillow interiors carry 1% pyrite in 1mm blebs. Pillows are often separated by zones of semi-massive flow. Carbonate is found as calcite only in microfractures and occasionally in inter-pillow debris.								
		27.32 - 27.88: concentration of selvages from 4-6 pillows; 2-3% pyrite.	C 1501	2-3	27.32	27.88	0.56			0.01
		27.88 - 30.96: dominantly massive flow.								
		30.50 - 30.60: 20% pyrite along a seam cutting core axis at 40-45° to core axis, actual increased pyrite is carried in a pod-like zone - may be part of flow-top.	1502	5	30.50	30.60	0.10			0.02
		30.96 - 33.40: pillowed zone - some hyaloclastite between pillow rims.	1503	2-3	30.60	31.55	0.95			0.06
		33.40 - 33.80: tectonic breccia, spotty silicification, 0-1% pyrite.	1504	1-2	31.55	32.31	0.76			0.01
		35.02 - 35.12: flow-top breccia - pale to medium green; relic vesicles up to 1mm - angular breccia fragments up to 1.5cm can be reassembled - 20-30% pyrite along some chloritized seams as 1-3mm cubes.								
		36.04 - 37.00: breccia - penetrative alteration (silicification and chloritization) rims fragments - possible flow-top breccia.								
		37.00 - 38.60: weakly silicified massive flow.								
		38.60 - 41.00: pillowed sequence - selvages cut off at 39.17 by an upper part of same flow.								

EM. 6-1168

LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY LENORA
 HOLE NO. Mc-83-38 SHEET NO. 2 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		41.00 - 42.64:									
		generally massive flow - minor small breccia zones locally - radiating from fracture systems - minor related silicification locally - no pyrite association.									
		42.64 - 44.93:	1505	0-2	42.64	43.64	1.00			0.01	
		pillowed sequence - moderately to strongly silicified with 1-2mm variolites locally (eg. 43.10) anomalous number of pillow selvages between 44.50-44.90 with 5-10% pyrite in selvages.	1506	0-2	43.64	44.27	0.63			0.01	
			1507	3-5	44.27	44.90	0.63			0.01	
			44.93 - 45.98:								
		generally non-silicified to very weakly silicified; non-brecciated massive flow.									
		45.98 - 47.39:									
		pillowed, weakly silicified locally.									
		47.39 - 50.90:									
		massive - minor penetrative silicification locally on a cm scale - associated with narrow fracture zones.									
		50.90 - 57.38:	1508	2-3	51.20	51.30	0.10			0.01	
		pillowed - sample of inter-pillow epidotized and pyritized material removed for assay (51.20-51.30). Coarsely crystalline calcite in voids. Pillows have spotty silicification locally associated with 5-10cm breccia zones - no apparent increased pyrite except in selvages (3-5% above 1% average). Rock is strongly fractured and locally sheared - possible basal flow, lower 1.0 m is less pillowed.									
		57.38 - 58.98:									
		brecciated - strongly epidotized, moderately to strongly silicified.									
		59.88 - 60.03:	1509	0-1	59.55	60.55	1.00			tr.	
		massive, weakly brecciated flow, fine grained to very fine grained.	1510	2-3	60.55	61.45	0.90			tr.	
		60.03 - 62.83:	1511	1-2	61.45	62.14	0.69			tr.	
		pillowed - similar to 50.90-57.38 m - pillow centres are weakly brecciated, silicification is irregular.	1512	1-2	62.14	62.83	0.69			tr.	
		62.83 - 66.70:									
		massive, moderately brecciated locally, minor moderate silicification locally - white calcite locally in dilatant zones.									
		66.70 - 67.20:	1513	1-2	66.70	67.20	0.50			tr.	
		brecciated - strongly chloritized - near flow margin (base)?									
		67.20 - 68.00:	1514	1-2	67.20	67.70	0.50			tr.	
		epidotized, brecciated, strongly hematized fractures - basal flow?	1515	2	67.70	68.70	1.00			tr.	
			1516	1-2	68.70	69.70	1.00			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY LENORA

HOLE NO. MC-83-38 SHEET NO. 3 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
68.00	86.96	<p><u>DIORITE</u></p> <p>Dark green, fine to medium grained, mostly carrying 5% strongly hematized, weakly pyritized xenoliths of moderately silicified volcanic rock. Xenoliths are usually rounded. Hematite seems to be bladed in the fragments. Fragments average 1cm in size but 2cm size is common. Intrusive is weakly to moderately fractured. Breaks are chloritized and hematized with minor epidote. Feldspar crystals are weakly saussuritized. Prismatic hornblende crystals up to 1cm are noted locally. A central zone (73.18-73.70 m), is porphyritic with 1-5cm fractured feldspar phenocrysts - probably were euhedral and zoned. Abundant carbonate stringers cut core at varying angles and carry a trace of chalcopyrite. Pyrite content averages 1%.</p> <p>68.00 - 69.00: fine to medium grained, up to 2% pyrite.</p> <p>69.00 - 73.18: several well foliated (chloritized mica), bands up to 10cm - up to 5% pyrite locally in less than 10cm zones; abundant xenoliths.</p> <p>73.18 - 73.70: porphyritic zone - 1cm hornblende crystals.</p> <p>73.70 - 74.95: medium grained.</p> <p>74.95 - 77.10: fine grained, abundant carbonate stringers, trace chalcopyrite.</p> <p>77.10 - 77.52: mylonitic, intensely chloritized, and brecciated fault zone - carbonate in dilatant zones. Green clay seam at 77.44 - 77.48 m.</p> <p>79.12 - 79.50: carbonate("vein")-filled dilatant zone, carries 5-10% green breccia fragments of local origin.</p> <p>81.70 - 86.60: massive, weakly fractured, medium grained; mm scale mottling - texture due to segregation of mafic and felsic components(?). Moderately chloritized. Major fractures are strongly hematized.</p> <p>86.60 - 86.76: moderate to strongly fractured - white carbonate filling.</p> <p>86.76 - 86.96: weak to moderate brecciation - rock is finer grained - fragments up to 2cm, no subsequent movement to tension (pull-apart) - shrinkage fractures.</p>									
			C								
			1517	0-1	86.46	86.96	0.50			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY LENORA

HOLE NO. Mc-83-38 SHEET NO. 4 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
86.96	106.98	<u>SEDIMENTS</u>									
		Dark green to medium green, fine to very fine grained, strongly fractured with quartz and carbonate in fractures. Strongly hematized locally, especially 86.96-87.40 m carrying 5-10% hematite. Near upper contact, network fracturing and brecciation is strong but decreases with depth. Some dilatant zones are white carbonate "vein" filled. Carbonate supports abundant angular fragments of which some are volcanic. Approximately 5% are of silicified blue-grey micro-breccia. Silicification of the sediments is variable and does not appear to be entirely breccia related. Pyrite contents are up to 7% - associated with strong hematization. Sulphide present as a very fine grained dissemination.	C								
		88.60 - 89.19: white carbonate filled breccia zone - some fragments are well laminated.	1518	0-1	86.96	87.43	0.47			0.01	
		89.00 - 91.05: strongly fractured, brecciated at top, silicification is limited to breccia fragments; zone carries 3-5% pyrite, up to 7% locally with trace of chalcopyrite. Non-silicified rock is strongly chloritized. Pink "syenitic" zone at 89.42-89.52 m - cherty sediment?	1519	0-1	87.43	88.43	1.00			0.01	
				5-10% Hem.							
			1520	0-1	88.43	89.00	0.57			0.01	
			1521	3-5	89.00	89.50	0.50			0.02	
			1522	3-5	89.50	90.00	0.50			0.02	
			1523	3-5	90.00	90.53	0.53			0.08	0.115
			1524	3-5	90.53	91.05	0.52			0.15	1.05 (3.4')
		91.05 - 91.83: FAULT ZONE - chloritized breccia, mylonitic.	1525	0-1	91.05	91.83	0.78			0.01	
		91.83 - 92.40: breccia - minor silicification locally restricted to fragments; 2-4% pyrite.	1526	2-4	91.83	92.40	0.57			0.01	
		92.40 - 92.80: weakly brecciated - several quartz-carbonate stringers sub-parallel to core axis.	1901		92.40	93.40	1.00			tr.	
		92.80 - 93.45: moderately to strongly brecciated, non-silicified, strongly fractured, moderately chloritized; strongly laminated locally (93.22 - 45° to core axis), with tuffaceous appearance.	1902		93.40	94.40	1.00			tr.	
			1903		94.40	95.04	0.64			0.01	
		93.45 - 93.52: mylonitic seam - small bedding fault.									
		93.52 - 95.04: well laminated - contains several zones of what appears to be chloritized vitric tuff - fragments up to 1mm. Zone from 93.97-94.06 may contain 1-5mm pumice shards in an intensely chloritized groundmass.									
		95.04 - 96.50: well brecciated, moderate silicification of certain laminations, very minor carbonatization. Below 95.61, silicification of breccia is more pervasive although strongly fractured rock is chloritized.	1527	2-4	95.04	95.61	0.57			0.05	0.130
			1528	2-3	95.61	96.10	0.49			0.11	1.46 (4.8')
			1529	2-3	96.10	96.50	0.40			0.27	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY LENORA

HOLE NO. Mc-83-38 SHEET NO. 5 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	GZ/TON
					FROM	TO	TOTAL				
		Zone carries 2-4% pyrite and greater than 10% hematite. Some 1mm laminations appear to be up to 50% hematite. (95.10 m laminations at 45-50° to core axis).	C								
96.50	98.15:	moderately to strongly brecciated, abundant hematite, 10-20%, with 1-2% pyrite.	1530	0-1	96.50	97.50	1.00			0.01	
98.15	99.28:	weak to moderate brecciation.	1531	0-1	97.50	98.44	0.94			0.01	
99.28	100.40:	weak to moderate brecciation, on a very fine mm scale; strong selective silicification of particular laminations. Brecciation is along the laminations and the original bedding is often preserved. Hematite content is up to 10-20%, which produces a purple-grey colour. Contains higher pyrite contents, 5-7%.	1532	1	98.44	99.28	0.84			0.01	
		100.00: laminations at 60-65° to core axis.	1533	5-7	99.28	99.84	0.56			0.02	
		100.40 - 106.98: weakly brecciated, well laminated, and parted parallel to bedding. Weakly hematized. Below 106.45, major fractures are strongly hematized. Rock is less well laminated below 105.30. Carbonate fills most fracture systems. Zone carries up to 2% pyrite. Minor silicification is related to individual sets of laminations. Laminations are highly convoluted locally (103.00 m) possibly due to soft sediment deformation.	1534	5-7	99.84	100.40	0.56			0.10	
		102.65: laminations at 65-70° to core axis.									0.121
		104.60: laminations at 60° to core axis.									1.21 (4.0')
		104.20 - 104.50: weak to moderate hematization.	1535	3-5	100.40	101.05	0.65			0.14	
			1536	2-4	101.05	101.70	0.65			0.02	
			1537	1-3	101.70	102.71	1.01			0.04	
			1538	1-2	102.71	103.71	1.00			0.01	
			1539	1-2	103.71	104.71	1.00			0.01	
			1540	1-2	104.71	105.71	1.00			0.01	
			1541	1-2	105.71	106.50	0.79			0.01	
			1542	1-2	106.50	106.98	0.48			0.01	
		106.98 meters: END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-39 LENGTH 91.74 meters
 LOCATION _____
 LATITUDE 12 + 75 W DEPARTURE 0 + 25 S
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED August 26, 1983 FINISHED August 29, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
91.44	-49°				

HOLE NO. Mc-83-39 SHEET NO. 1 OF 6

REMARKS BQ Core
Split for analysis.

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	1.55	<u>OVERBURDEN</u>								
1.55	40.85	<u>BASALT (Andesite?)</u> Medium to dark green, fine to very fine grained, pillowed locally. Some pillowed sections are moderately silicified - possibly due to late stage circulating fluids. Selvages are filled with quartz and carbonate where voids existed. Some narrow zones are finely brecciated - late stage tectonic event. Pyrite content averages 0-1% but increases in selvages - up to 5%. Chalcopyrite is often found in carbonate filled dilatant zones. 4.90 - 6.15: abundant pillow selvages - quartz and epidote with minor carbonate in selvages, 2-3% pyrite, trace chalcopyrite. 6.36 - 7.00: strongly fractured, hematite coating of surfaces - zone is mixed flow top breccia and hyaloclastite. Zone is intensely chloritized as a result of glass devitrification. 7.00 - 8.68: massive flow. 8.68 - 10.98: pillowed zone - same as 4.90-6.15 m. 10.98 - 11.62: fine to medium grained, carries rare sub-angular fragments of lava up to 2cm - no visible reaction rim or alteration of fragment. 11.62 - 13.75: fine grained, weakly brecciated; minor weak silicification in brecciated rock. Zone carries 1% pyrite. 13.75 - 14.12: strongly brecciated with white carbonate filling. Highly angular fragments up to 2cm in size, weakly chloritized. Dilatant zone at 13.75-13.83 m is 95% carbonate filled with 1-2% chalcopyrite. 14.12 - 15.98: moderately brecciated, possibly pillowed.								
			C 1469	1	13.75	14.12	0.37			0.01

EM. 6-1168

LANGRISH LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-39 SHEET NO. 2 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		15.98 - 16.51:									
		16.51 - 23.68:	C								
		23.68 - 24.78:	1470	1	18.00	19.00	1.00			0.01	
		24.78 - 31.26:	1471	2	26.95	27.38	0.43			tr.	
		31.26 - 31.42:	1472	2	28.25	28.80	0.55			0.01	
		31.42 - 31.95:									
		31.95 - 40.35:	1473	1	34.90	35.09	0.19			tr.	
		40.35 - 40.85:	1474		40.35	40.85	0.50			tr.	
40.85	55.09	<u>DIORITE</u>									
		Dark green, fine to medium grained, strongly fractured with abundant pink quartz and carbonate filled fracture zones above 43.20 m. Zone also carries a few fractured silicified xenoliths of volcanic rock (presumably). These are rounded and up to 2cm in size. Margins are fine grained with a porphyritic central zone.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora

HOLE NO. Mc-83-39 SHEET NO. 3 OF 6

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		40.85 - 43.20: fractured contact zone, strongly chloritized, weakly epidotized; fractures are strongly hematized - carries volcanic xenoliths.	C 1475		40.85	41.85	1.00			0.01	
		43.20 - 48.16: fine to medium grained, weakly fractured, less altered.									
		48.16 - 53.80: porphyritic, little increase in grain size of groundmass but carries fractured, previously euhedral pale green feldspars up to 1.5cm - weakly uralitized; zone is weakly fractured.	1476	0-1	53.00	54.00	1.00			0.01	
		53.80 - 55.09: finer grained, abundant silicified reddish-pink, fractured xenoliths of volcanic(?) rock. Zone below a shear at 55.05 m carries larger xenoliths in 10cm+ range. Xenoliths are pinkish, silicified and weakly pyritized.									
55.09	59.45	<u>BASALT</u> Medium to dark green, fine to very fine grained, strongly brecciated - cross network of fractures - epidotized. No fragment rotation is noted post-dating brecciation. Pillow selvages are noted locally (26.50-28.00). The rock is non-magnetic and weakly silicified locally.									
		55.09 - 56.50: massive, strongly brecciated.	1477	1-2	55.09	56.09	1.00			0.01	
		56.50 - 58.00: pillowed zone, some increased pyrite in space between pillows.	1478	1-2	56.09	57.10	1.01			tr.	
			1479	1-2	57.10	58.10	1.00			tr.	
		58.00 - 58.80: possible xenoliths of sediment - reddish-green, up to 5cm in size - others are blue-grey and up to 2cm. Fragments are moderately to strongly silicified.	1480	1-2	58.10	58.80	0.70			0.01	
		58.80 - 59.45: reddish-pink, fine grained and highly silicified. Carries abundant intensely chloritized, green fragments up to 2mm in size.	1481	2	58.80	59.45	0.65			tr.	
59.45	91.74	<u>SEDIMENTS</u> Dark green, fine to very fine grained, becoming purple-grey in brecciated or strongly silicified sections. The uppermost part is very poorly laminated to non-laminated. Well laminated sections are									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY Lenora

 HOLE NO. Mc-83-39 SHEET NO. 4 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL				
		noted deeper. Chloritization is strong at the upper contact, possibly due to the overlying lavas, but decreases with depth. Several zones of moderate to strong silicification are noted, and increases in pyrite content, up to 10%, are observed. The section averages 1-3% pyrite. Purple colouration is due to varying degrees of hematization.									
	59.45 - 60.00:	strongly chloritized, weakly sheared, non-laminated; shear at 60.00 cuts core at 20°.	1482	0-1	59.45	60.00	0.55			0.01	
	60.00 - 61.40:	purple-grey with honey coloured feldspathized filling in dilatant zones and along fractures developed in breccia. Fragments are up to 1cm - openings are filled with micro-breccia. Feldspathized rock carries increased pyrite - 7-9% versus an average 3-7%. Below 60.65, chloritized seams and fractures increase, degree of silicification decreases from strong to moderate and pyrite content falls to 3-5%. Purple colouration due to moderate hematization, also hematite seams up to 5mm.	1483	7-10	60.00	60.65	0.65			0.01	
			1484	3-5	60.65	61.40	0.75			0.01	
	61.40 - 62.22:	FAULT ZONE - intensely chloritized and strongly sheared - mylonitic from 61.68-61.88 m. Lower 34cm is strongly fractured with carbonate filling; 0-1% pyrite.	1485	0-1	61.40	62.22	0.82			0.02	
	62.22 - 62.98:	pinkish-green, weakly chloritized and weakly to moderately silicified; moderately to strongly brecciated - fragments are very angular with no subsequent rotation. Silicification is penetrative into fragments but alteration is incomplete. Zone 62.54-62.64 m is non-silicified.	1486	2-3	62.22	62.98	0.76			0.01	
	62.98 - 65.34:	moderately chloritized, weakly silicified locally and moderately brecciated; laminations visible locally at 45° to core axis (eg. 63.22 m). 0-1% pyrite.	1487	0-1	62.98	63.98	1.00			tr.	
			1488	0-1	63.98	64.66	0.68			tr.	
			1489	0-1	64.66	65.34	0.68			tr.	
	65.34 - 66.10:	spotty silicification; moderate in strength, with weak to moderate hematization; 1% pyrite.	1490	1	65.34	66.10	0.76			0.01	
	66.10 - 66.84:	dark grey-green to grey, well laminated and weakly silicified; very minor brecciation. Carries 8-10% pyrite concentrated as a fine grained dissemination	1491	8-10	66.10	66.84	0.74			0.07	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora

HOLE NO. Mc-83-39 SHEET NO. 5 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		parallel to the laminations in narrow seams. Bedding is at 60-70° to core axis. A fault at 66.50 m cuts core at 40° and slickensides pitch 60° across plane.									
66.84	72.06	moderately laminated, non-brecciated, moderately chloritized with minor 10cm weakly silicified sections - pyrite averages 1-3% with minor increases in silicified rock. Laminations at 45-50° to core axis at 70.80 m. The zone 71.46-71.54 is intensely chloritized fault zone - surrounding rock strongly brecciated and sheared.	C								
			1492	1-3	66.84	67.84	1.00			0.07	
			1493	1-3	67.84	68.95	1.11			0.08	
			1494	1-3	68.95	69.95	1.00			0.16	
			1495	1-2	69.95	70.95	1.00			0.12	
			1496	1-2	70.95	72.06	1.11			0.01	
72.06	72.46	well laminated, chloritized zone; 3-5% pyrite - very finely disseminated between laminations - alternating siliceous and argillitic.	1497	3-5	72.06	72.46	0.40			0.02	
72.46	73.90	chloritized, moderately well laminated (73.16 at 45° to core), same as 66.84-72.06, trace chalcopryite in fractures.	1498	1-2	72.46	73.18	0.72			0.08	
			1499	1-2	73.18	73.90	0.72			0.01	
73.90	74.11	intensely silicified, then brecciated - highly angular fragments up to lcm in a strongly chloritized groundmass; 5-7% pyrite.	1500	5-7	73.90	74.11	0.21			0.01	
74.11	74.65	same as 72.46-73.90 - laminations at 65° to core axis (eg. 74.63 m).	1543	1-3	74.11	74.65	0.54			0.03	
74.65	75.15	zone of soft sediment deformation - bedding tightly folded, often open folds along core axis.	1544	1	74.65	75.15	0.50			0.09	
75.15	78.35	poorly laminated, fine to medium grained, moderately fractured, moderately silicified locally.	1545	1	75.15	76.15	1.00			0.07	
			1546	0-1	76.15	77.15	1.00			tr.	
78.35	79.35	weakly to moderately foliated, non-laminated, possibly tuffaceous - fine to medium grained.	1547	0-1	77.15	77.75	0.60			0.01	
			1548	0-1	77.75	78.35	0.60			0.03	
79.35	80.70	moderately laminated, similar to overlying section compositionally; bedding at 79.40 m is at 50-55° to core axis. A 3cm quartz vein cuts at 50° at 80.23 m.	1549	0-1	78.35	79.35	1.00			0.19	
			1550	0-1	79.35	80.00	0.65			0.01	
			1551	0-1	80.00	80.82	0.82			0.01	
80.70	80.82	laminated and strongly brecciated, 1-3% pyrite.									
80.82	81.82	generally non-laminated.	1552	1-2	80.82	81.82	1.00			0.02	
81.82	82.18	strongly laminated at 20-30° to core axis - soft sediment slumping.	1553	0-1	81.82	82.83	1.01			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-39 SHEET NO. 6 OF 6

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		82.18 - 91.74:	C								
		massive, non-laminated, some weak foliation of chloritized clasts at 30-40° to core axis.	1554	0-1	82.83	83.83	1.00			0.01	
		Fractures strongly hematized from 82.18-82.90. A gradual increase in epidotization is noted, becoming pronounced below 87.50 m. Rock is medium grained and less fractured at base of hole. A 6cm sample was removed for thin sectioning.	1555	0-1	83.83	84.83	1.00			0.01	
			1556	0-1	84.83	85.83	1.00			0.05	
			1557	0-1	85.83	86.83	1.00			0.05	
			1558	0-1	86.83	87.83	1.00			0.03	
			1559	0-1	87.83	88.83	1.00			0.05	
			1560	0-1	88.83	89.83	1.00			0.12	
			1561	0-1	89.83	90.83	1.00			0.06	
			1562	0-1	90.83	91.74	0.91			0.02	
		91.74 meters									
		END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-40 LENGTH 218.87 meters
 LOCATION _____
 LATITUDE 10 +00 E DEPARTURE 1 + 30 S
 ELEVATION _____ AZIMUTH 351° DIP -70°
 STARTED August 31, 1983 FINISHED September 14, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°		182.88	-59°	
45.72	-69°		218.54	-57°	
91.44	-65°				
137.16	-67°				

HOLE NO. Mc-83-40 SHEET NO. 1 OF 10

REMARKS BQ Core
Split for analysis
Hole drilled 7° off section.
 LOGGED BY A.W. Workman

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0	39.93	<u>OVERBURDEN</u>										
39.93	41.45	<u>LOST CORE</u>										
		Casing over-drilled.										
41.45	87.82	<u>BASALT</u>										
		Dark green, fine to very fine grained, generally pillowed flow with some massive zones. Lava is vesicular locally - vesicles now filled with carbonate and occasionally chlorite. Fracturing is variable - usually carbonate with hematite. Some textural changes are noted across narrow breccia or shear zones. Pyrite content averages 1% with traces of chalcopyrite. The zone is non-magnetic.										
		46.90 - 46.95: hematized fractures at 20° to core axis.	C									
		48.35 - 48.45: carbonate filled, coarsely brecciated zone sheared at 30° to core axis.	1574	0-1	46.00	47.00	1.00			0.01		
		48.45 - 48.56: finely brecciated fault gouge; strongly chloritized.										
		50.35 - 51.85: strongly fractured; strongly chloritized, often sheared (20° at 51.0 m). Abundant white carbonate filled fractures.										
		52.30 - 57.00: relic vesicles throughout zone - carbonate filled; 10-15% 1-2cm carbonate filled fractures.										
		55.35 - 55.45: carbonated, brecciated shear zone.	1575	0-1	57.06	58.06	1.00			0.01		
		58.06 - 58.40: carbonated, breccia zone.	1576	0-1	58.06	58.40	0.36			0.01		
		61.35 - 63.00: 80-90% white crystalline carbonate, with 10-20% green angular breccia fragments up to 1cm in size.	1577	0-1	58.40	59.40	1.00			0.01		
		63.00 - 87.30: medium green, pillowed section, fine grained, with locally developed vesicles up to 1cm., mostly developed near selvages; single pillow selvages cut up to 60cm along core axis. Some inter-pillow breccia - strongly chloritized with 1-3% pyrite, and white carbonate in voids. Moderately silicified	1578	0-1	61.35	62.20	0.85			tr.		
			1579	0-1	62.20	63.00	0.80			tr.		
			1580	1-3	75.00	75.50	0.50			tr.		
			1581	1	79.95	80.54	0.59			tr.		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-40 SHEET NO. 2 OF 10

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		from 71.30-71.71 between two fractures. Minor epidotization and occasional silicification of pillow interiors is noted. Occasional lmm hematized seams following contours of pillow selvages.									
		87.30 - 87.65: moderately to strongly sheared - pyrite crystals up to 8mm.	C 1582	3-5	87.30	87.82	0.52			tr.	
87.82	90.04	<u>QUARTZ VEIN</u>									
		White bull quartz, barren of sulphide; lower 28cm carries abundant 'streaks' of green sediments - preserving bedding orientation as evidenced below. Lower 'dirty' section carries 1-3% pyrite.	1583	0	87.82	88.79	0.97			0.01	
			1584	0	88.79	89.76	0.97			0.01	
			1585	1-3	89.76	90.04	0.28			0.01	
90.04	91.93	<u>SEDIMENTS</u>									
		Dark green, fine grained, very well laminated, possibly tuffaceous. Moderately to strongly chloritized with 3-5% pyrite throughout. Several quartz stringers cut core parallel to laminations. Non-magnetic.	1586	3-5	90.04	90.97	0.93			0.01	
		90.20: laminated at 55-60° to core axis.	1587	3-5	90.97	91.93	0.96			0.01	
		90.95: laminated at 65° to core axis.									
		91.73 - 91.93: non-laminated, fine to medium grained.									
91.93	109.77	<u>BASALT.</u>									
		Medium to dark green, fine to very fine grained, very finely tectonically auto-brecciated. No subsequent rotation of highly angular 1-7mm fragments. Lower part is well pillowed. Some sections are medium grained and felsic - almost dioritic. Non-magnetic. Similar to flow(s) in top of hole.	1588	0-1	91.93	92.65	0.72			tr.	
		92.65 - 93.70: relic vesicles, chlorite and carbonate filled - up to lmm in size. Very weak flow foliation locally - rock may be weakly flow brecciated. Also relic pillow selvages locally. Carries 1% pyrite and 1-3% quartz stringers up to 2cm width.	1589	0-1	92.65	93.70	1.05			tr.	
		93.70 - 96.72: possibly pillowed, alternating aphanitic seams with fine grained epidotized rock.									
		96.72 - 97.53: fine to medium grained - dioritic.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-40 SHEET NO. 3 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
				FROM	TO	TOTAL					
		97.53 -106.25: pillowed section - selvages well defined and average 55cm apart. Up to 5% pyrite between pillow selvages. Pillow centres often brecciated and epidotized with minor silicification. Some increase in pyrite towards lower contact.									
		106.25-107.10: Zone of 40-60% clear quartz with remainder composed of epidotized volcanic rock. Quartz may have filled large dilatant zone or void between pillows then later brecciated.	C	1590	1-2	106.25	107.10	0.85			0.01
		107.10-107.25: several pillow selvages with 5% pyrite.		1591	5	107.10	107.25	0.15			0.01
		107.25-109.77: variably brecciated and epidotized; locally silicified with minor epidote. Several small shears noted at 40-45° to core axis - quartz filled with 3-5% pyrite. Shears are parallel to laminations in underlying sediments. Lowermost 12cm may actually be hematized silicified sediment.		1592	1-2	108.77	109.77	1.00			tr.
109.77	111.73	<u>SEDIMENTS</u>									
		Alternating dark green and pale green laminations; fine to very fine grained and well laminated at 45-50° to core axis at 109.85 m. Small micro-faults offset banding at right angles on a mm scale. Some 'silty' zones are weakly carbonatized. Most carbonate in the zone is fracture rather than texturally controlled. Small, locally developed, breccia zones up to 20cm in width cut across laminations. Zone is non-silicified, non-magnetic. Abundant 0.1-5.0mm carbonate stringers carry 30-50% bladed hematite crystals. Stringers are often parallel to bedding. Zone carries 0-1% pyrite.		1593	0-1	109.77	110.57	0.80			tr.
				1594	0-1	110.57	111.33	0.76			tr.
				1595	0-1	111.33	111.73	0.40			tr.
111.73	129.58	<u>BASALT</u>									
		Medium to dark green, fine grained, moderately brecciated locally. Epidote and carbonate in fractures of breccia - fragments have undergone no subsequent movement. Zone is not pillowed but does contain some flow breccia. Section averages 0-1% pyrite in clots up to 8mm.									
		111.73-114.02: weakly to moderately brecciated, non-silicified.		1596	0-1	113.52	114.02	0.50			tr.
		114.02-115.45: greenish-pink, chloritic zone; fine to medium grained with a 1-2cm very fine grained upper contact		1597	0-1	114.02	114.72	0.70			tr.
				1598	0-1	114.72	115.45	0.73			tr.

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc.83-40 SHEET NO. 4 OF 10

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
		at 80° to core axis. zone does not fine towards lower 45° contact - possibly sedimentary rather than intrusive. Carries abundant chloritized specks - 2-3mm in size.	C							
	115.45-115.67:	flow-top breccia, weakly to moderately silicified, carries 3-5% pyrite.	1599	3-5	115.45	115.67	0.22			tr.
	118.10-120.26:	lava has incorporated numerous xenoliths of sediment - well rounded with alteration rims and vaguely preserved laminations. Fragments are tectonically brecciated with quartz and carbonate in tight fractures which cut both fragments and lava matrix. Both are strongly chloritized. Weakly to moderately silicified locally (eg. 119.41-120.26).	1600	1	118.66	119.41	0.75			tr.
			1601	1	119.41	120.26	0.85			tr.
	120.26-121.30:	medium grained matrix surrounds sub-angular to sub-rounded fragments up to 5cm in width and probably 5-10cm in length; 2-4mm reaction rims. Matrix is strongly chloritized. Zone is likely a flow breccia.	1602	0-1	120.26	121.30	1.04			tr.
	121.30-122.07:	tectonically brecciated.	1603	0-1	121.30	122.07	0.77			tr.
	122.07-123.32:	greenish-red, fine to medium grained <u>INTRUSIVE</u> - massive, weakly fractured, weakly magnetic, carries 1-3% pyrite but up to 10% at contacts. No chill developed at upper contact at 35° to core axis. Lower contact exhibits a well developed 25cm chill zone. The lower 40cm carries several rounded to sub-angular mafic xenoliths up to 2cm in size.	1604	2-3	122.07	123.32	1.25			tr.
	123.32-129.58:	weakly auto-brecciated - tectonic stresses; weakly sheared locally over sections of 30-40cm at 35° to core axis. Fractures are dominantly carbonate and hematite filled. Probable base of volcanic rocks.	1605	0-1	123.32	124.43	1.11			tr.
			1606	0-1	124.43	125.43	1.00			0.01
			1607	0-1	125.43	126.43	1.00			0.01
			1608	0-1	126.43	127.43	1.00			tr.
			1609	0-1	127.43	128.43	1.00			tr.
			1610	0-1	128.43	129.58	1.15			tr.
129.58	146.45	<u>SEDIMENTS</u> Dark green to medium grey-green, fine to very fine grained and weakly to moderately chloritized. Bedding laminations are well exhibited becoming moderately developed locally. Parting is well developed parallel to the laminations. The rock is fine to medium grained locally in grey coloured zones up to 15cm in thickness. Bedding is less well developed in these 'sandy' zones. White								

LANGRIDD TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-40 SHEET NO. 5 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		carbonate is found as a replacement feathering out along the laminations. Rock is weakly carbonatized. Abundant quartz-carbonate stringers cross-cut the laminations at varying angles, make up 1-5% of the section. Small shear planes parallel to the laminations are often weakly hematized.	C									
		129.58-134.32: weakly hematized, abundant semi-massive rock. Hematite fracture fillings and stringers up to 8mm at 132.80-133.20 m. Pyrite, 3-5% in locally developed breccia at 138.75-133.85 m.	1611	0-1	129.58	130.50	0.92			tr.		
			1612	0-1	130.50	131.50	1.00			tr.		
			1613	0-1	131.50	132.50	1.00			tr.		
			1614	0-1	132.50	133.50	1.00			tr.		
			1615	0-1	133.50	134.32	0.82			tr.		
			1616	5-6	134.32	134.85	0.53			tr.		
		134.32-134.85: greyish, fine to medium grained, crudely laminated at 45° to core axis. Pyrite in concentrations up to 5-6% in chloritized seams along laminations. Selective brecciation of sets of laminations locally alternates with non-brecciated beds - possibly due to soft sediment deformation - some weak to moderate silicification in breccia.	1617	0-1	134.85	135.85	1.00			tr.		
			1618	0-1	135.85	136.85	1.00			tr.		
			1619	0-1	137.85	138.85	1.00			tr.		
			1620	0-1	139.85	140.64	0.79			tr.		
			1621	3-5	140.64	141.38	0.74			tr.		
		134.85-140.64: moderately to well laminated, chloritized, non-brecciated, non-silicified.										
		140.64-141.38: laminations are better developed, often coarser and possibly tuffaceous (eg. 140.64-141.15 m). Locally silicified, especially 141.15-141.26 m., with increased pyrite up to 5% as very finely disseminated blebs and crystals up to 1mm. Laminations at 40-45° to core axis at 141.10 m. Zone averages 3-5% pyrite.										
		141.38-146.45: coarsely laminated, possibly due to original texture; medium to coarse grained towards base. Rock contains 20-30% dark green intensely chloritized clasts up to 3mm in size. Clasts are moderately well foliated.	1622	0-1	141.38	142.40	1.02			tr.		
			1623	1	143.40	144.40	1.00			tr.		
			1624	1	145.39	146.39	1.00			tr.		
			1625	1-2	146.39	147.42	1.03			tr.		
146.45	165.33	<u>MAIN MINERALIZED ZONE</u>										
		The zone consists of a gradual increase in silicification and brecciation with local peaks, then a gradual decline in brecciation and with it, silicification. Pyrite contents are highest where the rock is strongly brecciated and silicified. The rocks through this section are sediments although sedimentary structure is not always visible.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc. 83-40 SHEET NO. 6 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
146.45	148.42	<p><u>TRANSITIONALLY SILICIFIED SEDIMENTS</u></p> <p>Dark green to grey-green, fine to locally medium grained, well laminated but brecciation often masks structure. Brecciation is confined to single laminations and sets of laminations. Silicification is confined to breccia zones, and fractures.</p> <p>146.45-147.30: fractures have flesh coloured halos which are strongly silicified. Fractures themselves are chlorite filled.</p> <p>147.30-148.42: selective brecciation and silicification of certain laminations or sets of laminations up to 1cm thickness. Bedding at 45° to core axis.</p>	C 1626	1-2	147.42	148.42	1.00			tr.	
148.42	160.45	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Grey to purple-grey, occasionally honey coloured due to feldspathization, moderately to intensely silicified and about 95% brecciated. Breccia fragments are most highly silicified and are often set in a strongly chloritized clastic matrix. In this case, silicification has preceded brecciation. Brecciation may have been due to a sedimentary process and siliceous clasts enveloped in later sediment. Fragments are extremely angular. Some zones, which may be the most highly silicified, are well laminated, and non-brecciated. Pyrite content is proportional to degree of silicification and increases from an average of 3-4% to peaks of 10%.</p> <p>148.42-148.72: intensely silicified fragments up to 5cm in strongly chloritized matrix.</p> <p>148.72-148.95: upper contact is a green clay filled fault plane - underlying rock is very well laminated at 45° to core axis, very highly silicified; feldspathized, up to 10% pyrite.</p> <p>148.95-150.85: same as 148.42-148.72 m. Content of silicified fragments increases from 50% to 80%. Well laminated locally at 45° to core axis (eg. 150.25 m).</p>	C 1627 1628 1629 1630 1631 1632	3-4 8-10 3-4 3-5 5-7 8-10	148.42 148.72 148.95 150.00 150.85 151.85	148.72 148.95 150.00 150.85 151.85 152.60	0.30 0.23 1.05 0.85 1.00 0.75			tr. 0.18 0.02 0.06 0.06 0.07	

LANGRIDGES - TORONTO - 366-1188

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc. 83-40 SHEET NO. 7 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
		150.85-152.60: weakly brecciated, intensely silicified with 10-20% chloritized rock. Some fragments below 151.95 m are feldspathized. Zone carries 5-7% pyrite, up to 10% locally in feldspathized sections. A reddish-purple alteration or hematization is noted locally, becoming stronger with depth.									
		152.60-153.65: moderately to strongly brecciated, intensely silicified fragments; carries 10-20% chloritized beds; pyrite content 5-7%, well laminated locally; eg. 40° at 152.65 m.	C 1633	5-7	152.60	153.65	1.05			0.06	
		153.65-154.65: fragments increasingly feldspathized, content of silicified fragments decreasing slightly.	1634	5-7	153.65	154.15	0.50			0.04	
		154.65-156.48: 25-50% silicified breccia fragments with brecciated horizons up to 10cm. Flanking horizons are non-brecciated, chloritized and very weakly silicified. Silicified breccia carries 3-5% pyrite above a 1-3% average.	1635	5-7	154.15	154.65	0.50			0.07	
			1636	2-4	154.65	155.65	1.00				0.16
		156.48-158.50: dark green, weakly to moderately brecciated throughout with white carbonate in tensional type fractures separating angular fragments up to 2cm. Generally non-laminated. Minor silicified breccia locally (eg. 157.30-157.40).	1637	2-4	155.65	156.48	0.83			0.10	
			1638	0-1	156.48	157.50	1.02				0.02
		158.50-160.45: essentially same as above section but carries better laminations with more widespread brecciation and silicification. Weak to moderate hematization produces a purple-grey colour locally.	1639	1-2	157.50	158.50	1.00			0.01	
			1640	3-5	158.50	159.50	1.00				tr.
		160.45-162.97: massive, non-silicified, very locally brecciated along certain laminations. Bedding well developed locally eg. 30° to core axis at 160.50 m. Zone carries 2-3% pyrite - mostly as lmm cubes.	1641	3-5	159.50	160.45	0.95				tr.
			1642	2-3	160.45	161.45	1.00				tr.
		160.45-165.33 <u>TRANSITIONALLY SILICIFIED SEDIMENTS</u> This zone is a dark green to grey green, fine grained locally brecciated and silicified transition zone from mostly silicified rock to non-silicified rock. Brecciation resembles shrinkage type fracturing (tensional). Sedimentary laminations are well developed but locally, brecciation masks structure. Pyrite content averages 1-3%, higher in silicified breccia.	1643	2-3	161.45	162.45	1.00				tr.
			1644	2-3	162.45	162.97	0.52				tr.
160.45	165.33										

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-40 SHEET NO. 8 OF 10

FOOTAGE		DESCRIPTION	SAMPLE					ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
		162.97-164.45: reddish-pink, intensely silicified, syenitic(?) appearing zone - carries angular red breccia clasts up to 3cm in a strongly chloritized dark green matrix - 60-70% fragments; carries 2-3% very finely disseminated pyrite. Zone may be sediment.	1645	2-3	162.97	163.68	0.71			tr.		
			1646	2-3	163.68	164.45	0.77			tr.		
		164.45-165.33: zone is composed of silicified breccia beds up to 3cm in a dark green chloritized, laminated sequence. Silicification is very strong to intense - abundant reddish-pink silicified beds cut core axis at 40° - very similar to overlying zone. Silicified beds are micro-brecciated with 1-3mm fragments.	1647	2-4	164.45	165.33	0.88			tr.		
165.33	184.60	<u>LOCALLY SILICIFIED SEDIMENTS</u>										
		Dark green, fine to very fine grained, non-laminated to weakly laminated. Abundant white carbonate replacement feathers out along sedimentary foliation and highlights probable bedding. Weakly developed breccia zones up to 10cm locally are weakly silicified (eg. 166.00-166.05 m), greyish in colour and carry 1-3% pyrite versus an average of 0-1%. Carbonate veins and stringers were introduced later and often cut core axis at 0-5°.	C									
		165.33-167.45: chloritized, dark green rock.	1648	0-1	165.33	166.35	1.02			tr.		
		167.45-169.34: carries purple-grey breccia pods and lenses - intensely silicified with 8-10% pyrite - possibly developed where bedding is brecciated due to soft sediment deformation.	1649	0-1	166.35	167.35	1.00			tr.		
			1650	1-2	167.35	167.87	0.52			tr.		
			1651	1	167.87	168.87	1.00			tr.		
			1652	1-2	168.87	169.34	0.47			tr.		
		169.34-175.06: weakly laminated becoming stronger with depth; non-brecciated and generally non-silicified to very weak silicification locally.	1653	0-1	169.34	170.53	1.19			tr.		
			1654	0-1	170.53	171.43	0.90			tr.		
			1655	0-1	171.43	173.00	1.57			tr.		
		175.06-176.93: greyish, weakly to moderately magnetic, well laminated, sandy appearance, weakly silicified, increased pyrite with silicification (3-5% at 175.06-175.80).	1656	0-1	173.00	174.00	1.00			tr.		
			1657	0-1	174.00	175.06	1.06			tr.		
			1658	2-4	175.06	175.80	0.74			0.07		
		175.80-176.52: <u>INTUSIVE</u> - green, abundant pinkish-red silicified fragments, non-foliated, magnetic.	1659	1-2	175.80	176.52	0.72			0.01		
		176.52-176.93: strongly silicified breccia, up to 7% pyrite averaging 4-5%.	1660	4-5	176.52	176.93	0.41			0.07		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc.83-40 SHEET NO. 9 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		176.93-178.44:	1661	1-3	176.93	178.00	1.07			0.01	
		selective silicification of particular brecciated sets of laminations - totalling 5-10% of section. Laminated at 25° to core; averages 1-3% pyrite.	1662	1-3	178.00	178.44	0.44			0.01	
		178.44-179.02:	1663	4-5	178.44	179.02	0.58			0.74	
		moderately to strongly silicified and brecciated; up to 5% pyrite, averaging 4-5%.	1664	2-3	179.02	179.70	0.68			tr.	
		179.02-180.38:	1665	2-3	179.70	180.38	0.68			tr.	
		dark green with 10-20% purple-grey silicified brecciated laminations; contains average 2-3% pyrite, up to 4% locally. Weakly magnetic.	1666	1-3	180.38	181.21	0.83			tr.	
		180.38-181.21:	1667	5	181.21	181.84	0.63			0.08	
		occasional silicified brecciated laminations.									
		181.21-181.84:									
		abundant strongly silicified brecciated zones up to 5cm thickness with clots of pyrite up to 1cm. Remaining chloritized rock is moderately hematized. Weakly magnetic.									
		181.84-183.00:	1668	2-3	181.84	183.00	1.16			0.03	
		same as 176.93-178.44 m. Up to 10% very finely disseminated pyrite locally. Laminated at 40° to core at 182.15 m. Weakly magnetic.									
		183.00-184.60:	1669	1-2	183.00	184.00	1.00			0.01	
		percentage silicification decreases - some grouping of locally silicified breccia. Carries 60% silicified breccia between 184.20-184.55 with 2-4% pyrite.	1670	2-3	184.00	184.60	0.60			0.11	
184.60	218.87	<u>SEDIMENTS</u>									
		Dark green, often sandy textured, and fine grained; moderately to well laminated at 35-50° to the core axis and weakly chloritized. Up to 4% pyrite is observed locally. Averages 0-2% pyrite. Sandy texture may reflect a tuffaceous component. Below 185.00 m the zone is weakly magnetic often becoming moderately magnetic. The lower part of this zone is composed of alternating fine and fine to medium grained sediments. Bedding becomes variably developed. Generally, the rock is non-brecciated and non-silicified.									
		184.60-188.06: sandy, non-silicified, laminated at 35-40°.	1671	1-2	184.60	185.60	1.00			0.01	
		188.06-188.80: brecciated bedding, moderately to strongly silicified, up to 5% pyrite, well laminated at 30° to core at 188.80 m.	1672	2-3	187.80	188.80	1.00			0.01	

LANGRIDGES - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc.83-40 SHEET NO. 10 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ./TON	OZ./TON	
					FROM	TO					TOTAL
	188.80-190.70:	fine grained, moderately laminated becoming less laminated and fine to medium grained with depth. Appears tuffaceous from 190.20-190.70 m.	1673	1-3	189.70	190.20	0.50			0.01	
	190.70-190.90:	fine grained, weakly laminated.	1674	1-3	190.20	190.70	0.50			0.01	
	190.90-191.80:	fine to medium grained.									
	191.80-200.60:	alternating fine to very fine with fine to medium grained; below 197.50 is generally fine to medium grained, weakly chloritized; speckled with white 0.5mm clasts - possibly tuffaceous. Minor silicification associated with lcm breccia zones surrounding narrow fractures.	1675	1	194.00	195.00	1.00			0.01	
	200.60-201.00:	minor weak silicification with associated brecciation of individual laminations; weakly laminated; 2-4% pyrite.	1676	1	198.50	199.20	0.70			0.01	
	201.00-201.15:	same as 191.80-200.60 m.									
	201.15-202.15:	strongly laminated, lower 10cm becomes somewhat chaotic and moderately laminated; non-silicified; 202.20 m laminated at 30-35° to core axis.	1677	2-4	200.60	201.00	0.40			0.01	
	202.15-204.20:	same as 201.00-201.15 m.									
	204.20-212.65:	vaguely laminated, fine to medium grained carrying 0-1% pyrite as blebs up to 1mm. Abundant barren white carbonate stringers and veins up to lcm. A dark grey zone at 207.42-207.95 m is strongly brecciated but not silicified and no increased pyrite.	1678	1-2	201.95	202.45	0.50			tr.	
	212.65-213.50:	fine grained, well laminated at 45-50° to core axis.									
	213.50-214.80:	fine to medium grained, poorly bedded.									
	214.80-217.45:	well laminated locally at 45-50°.									
	217.45-218.30:	well laminated at 45-50° to core axis.									
	218.30-218.87:	fine to medium grained, weakly foliated but not laminated.	1679	0-1	207.42	207.95	0.53			tr.	
	218.87 meters	END OF HOLE									
		CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-41 LENGTH 203.30 meters
 LOCATION _____
 LATITUDE 9 + 50 E DEPARTURE 1 + 15 S
 ELEVATION _____ AZIMUTH 344° DIP -70°
 STARTED September 14, 1983 FINISHED September 16, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
45.72	-70°				
91.44	-68°				
137.16	-64°				

HOLE NO. Mc-83-41 SHEET NO. 1 OF 7

REMARKS _____

LOGGED BY S. Trueland

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
				FROM	TO	TOTAL				
0	5.00	<u>OVERBURDEN</u>								
5.00	16.87	<u>BASALT</u> Medium to dark green with medium grain size (2-4mm) consisting of 70% mafics and 30% felsics. The rock is massive with minor fractures infilled with carbonate. These fractures are 3-10mm wide and are oriented at 30° and 90° to the core axis. Sulphides can be found throughout in trace amounts.								
16.87	52.50	<u>PILLOWED BASALT</u> The contact with the above flow is gradational over about 20-25cm at which point the rock becomes very fine grained and light to medium green in colour. This is a sequence of pillowed volcanics with well developed selvages which are infilled with carbonate. Amygdules are found within the volcanics in close proximity to the pillow selvages (2-10cm) and are infilled with carbonates. Hairline fractures throughout pillows have no regular orientation. Pillow breccia may be found, but is not abundant. Sulphides may be found associated with carbonates within pillow selvages.								
52.50	85.84	<u>BASALT</u> Rock is medium to dark green and medium green. It is the same texturally as from 5.00-16.87 m. The contact with the above volcanics is abrupt and makes an angle of 10° with the core axis. Fracturing is minor and at random orientations.								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-41 SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		57.00:										
		69.64:										
		72.24:										
		74.79:										
		75.50:										
		77.15:										
		78.23:										
		80.65:										
		81.88 - 82.18:	C									
			1680		80.88	81.88	1.00					0.01
			1681		81.88	82.18	0.30					0.01
			1682		82.18	83.18	1.00					0.01
		82.68 - 85.84:										
			1683		84.84	85.84	1.00					0.01
85.84	88.78	<u>QUARTZ VEIN</u>										
		Milky white massive non-mineralized bull quartz. Within the quartz there are mafic fragmetns which were probably broken off from the wallrock upon intrusion of the quartz. These fragments have a slight foliation to them (possibly sediments) and range in size from 1-2mm up to 5-10cm. Sulphides (pyrite, chalcopyrite) are associated with these fragments as well as fractures containing darker material (possibly reworked wallrock). The quartz makes an angle of 75-80° to core axis on both upper and lower contact.	1684	1-2	85.84	86.35	0.50					tr.
			1685	tr	86.35	86.85	0.50					tr.
			1686	tr	86.85	87.35	0.50					tr.
			1687	nil	87.35	87.85	0.50					tr.
			1688	nil	87.85	88.35	0.50					tr.
			1689	nil	88.35	88.78	0.48					tr.
							(measures 0.70)					

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-41 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
88.78	89.48	<u>SEDIMENTS</u> Medium to dark green laminated rock; locally is intensely brecciated. Brecciated fragments (2-10mm) are cream coloured as well as purple and white in colour. Purple coloured material scratches red - hematite. Euhedral pyrite crystals found within the brecciated rock as well as being finely disseminated along sedimentary lamellae. Average amount throughout is 1-2%.	C 1690	1-2	88.78	89.48	0.70			0.01	
89.48	89.93	<u>QUARTZ VEIN</u> As from 85.84-88.78 meters.	1691	tr	89.48	89.93	0.45			0.01	
89.93	94.63	<u>SEDIMENTS</u> Medium to dark green, fine grained, well laminated rock oriented between 40° and 60° to the core axis. The rock is locally brecciated with fragments up to 2cm in size. Sulphides are not confined to the brecciated zones, but are found throughout the interval as euhedral crystals, as well as being finely disseminated along lamellae. Hematite (purple) is found locally within some brecciated zones. 89.93 - 90.10: brecciated - fragments up to 5mm. 90.23 - 90.37: brecciated - hematite, 2cm quartz vein, cream coloured fragments (ankerite?). 90.53 - 90.60: quartz - no sulphides. 90.73 - 90.76: brecciated hematized zone. 90.97 - 91.23: quartz vein with cream coloured fragments (ankerite?) 2-5cm in size, and hematized fragments 2-4cm in size. Pyrite, localized, averages 1%. 92.37 - 92.44: quartz vein) pyrite is concentrated within 92.77 - 92.79: brecciated) the sediments close to the 93.12 - 93.14: brecciated) brecciation	1692 1693 1694 1695 1696		89.93 90.82 91.82 92.82 93.82	90.82 91.82 92.82 93.82 94.64	0.89 1.00 1.00 1.00 0.82	(actual 1.00)	tr. tr. 0.05 0.01 tr.		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-41 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
94.64	96.44	<u>QUARTZ VEIN</u>									
		Bull white quartz with no sulphides. Pyrite concentrated at contact between quartz and sediments. Quartz contact is at 10-15° to core axis. This contact cuts across sedimentary lamellae which makes an angle of 60° with the core axis.	C								
			1697		94.64	95.64	1.00				tr.
			1698		95.64	96.44	0.80				tr.
96.44	123.30	<u>SEDIMENTS</u>									
		Dark green, poorly to well laminated sediments. Narrow bands of brecciation up to 15cm wide found within the sediments. These bands represent less than 1% of the zone. Carbonates fill hairline fractures as well as fractures up to 1cm wide. The fractures are randomly oriented making up less than 1% of interval. Sulphides finely disseminated throughout amount to less than 1%.									
		112.33-112.91: sediments become more coarse grained with less carbonate veining. Laminations at 55° to core axis.									
		117.96: lamination at 45° to core axis.									
		121.00: lamination at 45° to core axis.									
		122.00: lamination at 40° to core axis.									
			1699		96.44	97.44	1.00				tr.
			1700		97.44	98.44	1.00				tr.
			1701		99.44	100.44	1.00				tr.
			1702		100.94	101.94	1.00				tr.
			1703		102.94	103.94	1.00				tr.
			1704		104.94	105.94	1.00	(actual	0.78)		tr.
			1705		106.94	107.94	1.00				tr.
			1706		108.94	109.94	1.00				tr.
			1707		110.94	111.94	1.00				tr.
			1708		112.94	113.94	1.00				tr.
			1709		121.30	122.30	1.00				tr.
			1710		122.30	123.30	1.00				tr.
123.30	147.19	<u>MAIN SILICIFIED ZONE</u>									
		The main silicified zone is defined by the presence of highly silicified rock, possibly tuffaceous sediments. At the top of the zone there is alternating silicified and relic chloritized intervals. Chloritized rock is medium green with 40% white sub-rounded to									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-41 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		rounded fragments. The silicified intervals are brecciated and highly silicified and are either creamy in colour (ankerite?) or dark grey with a purple hue (hematite). Brecciation is intense throughout the silicified zone. Pyrite is finely disseminated throughout, but the chloritized zone averages less than 1% while the silicified zones have up to 10% and average 5%.	C								
	123.30-123.53:	chloritized interval with laminations at 30° to core axis.	1711	3-5	123.30	123.82	0.52				0.13
	123.53-123.80:	cream coloured silicified zone, pyrite 3-5%.	1712	tr	123.82	124.46	0.64				0.01
	123.80-124.47:	chloritized interval, 40° to the core axis.	1713	2-4	124.46	125.46	1.00				0.19
	124.47-125.25:	cream and purple hue silicified zone.	1714	3-5	125.46	126.46	1.00				0.11
	125.25-125.63:	chloritized interval, 40° to the core axis.	1715	2-3	126.46	127.46	1.00				0.07
	125.63-126.18:	purple hue silicified zone.	1716	tr	127.46	127.87	0.41				0.02
	126.18-126.46:	interlayered chloritized and silicified zones.	1717	tr	127.87	128.64	0.77				0.05
	126.46-127.87:	purple hue silicified zone.	1718	tr	128.64	129.05	0.41				0.01
	127.87-129.05:	chloritized interval, 35° to the core axis.	1719	6-8	129.05	130.05	1.00				0.24
	129.05-134.05:	purple hue silicified rock.	1720	3-5	130.05	131.05	1.00				0.10
		129.05-131.00: magnetic	1721	5-6	131.05	132.05	1.00	(actual	0.80)		0.06
		133.00-133.10: reddish brown fragments (hematized?) sulphides increase in close proximity.	1722	2-3	132.05	133.05	1.00				0.01
	134.05-134.42:	interval of non-silicified rock with medium-coarse grains at top of interval with sub-rounded to rounded fragments at the bottom of the interval. Why are these chloritized zones not vulnerable to mineralization? Pyrite trace.	1723	8-10	133.05	134.05	1.00				0.11
			1724	tr	134.05	134.42	0.37				0.08
			1725	5	134.42	135.42	1.00				0.02
			1726	1	135.42	136.42	1.00				0.01
			1727	2-3	136.42	137.42	1.00				0.01
			1728	1-2	137.42	138.42	1.00				tr.
			1729	1	138.42	139.42	1.00				tr.
			1730	1	139.42	140.42	1.00				tr.
			1731	1	140.42	141.42	1.00				tr.
			1732	1-2	141.42	142.42	1.00				0.01
			1733	1	142.42	143.42	1.00				0.01
			1734	1	143.42	144.42	1.00				0.05
			1735	1	144.42	145.42	1.00				0.05
	134.42-147.19:	silicified rock.	1736	1	145.42	146.42	1.00				0.07
		135.42-135.80: purple hue, magnetic.	1737	1	146.42	147.19	0.77				0.06
		139.42-147.19: small fragments of non-silicified rock begin to appear - less than 1% of interval.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc 83-41 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
147.19	156.88	<u>TRANSITION ZONE</u> The rock alternates silicified and chloritized within this interval. The rock is still moderately to intensely brecciated. The chloritized zones are dark green with a medium-fine to coarse-fine grained appearance. The silicified zones are purple in hue to creamy in hue. The silicification represents 75-80% from 147.19-150.72 while the chloritized zones dominate 85-90% from 150.72-156.88 m. Within the upper part of the transition zone the brecciation is moderate to intense. Sulphides are more abundant in the silicified zones, up to 2%, while in the chloritized zone sulphides only reach trace amounts. Brecciation in the lower transition zone is less abundant and the presence of carbonate veining becomes dominant. Lamination within the upper zone is masked by brecciation, but in the lower zone lamellae are oriented at between 40-50° to the core axis.	C								
			1738	1	147.19	148.19	1.00			0.03	
			1739		148.19	149.19	1.00			0.02	
			1740		149.19	150.19	1.00			0.23	
			1741		150.19	150.72	0.53			0.12	
			1742		150.72	151.72	1.00			tr.	
			1743		151.72	152.72	1.00			tr.	
			1744		152.72	153.72	1.00			tr.	
			1745		153.72	154.72	1.00			tr.	
			1746		154.72	155.72	1.00			tr.	
			1747		155.72	156.88	1.16			tr.	
156.88	193.72	<u>SEDIMENTS</u> Medium to light green, fine to coarse grained, well laminated to massive rock with carbonate veining comprising approximately 1% of interval. The carbonates lie along laminations in the well laminated rock but in a random orientation in a massive rock. Sulphides (pyrite and chalcopyrite) are trace throughout and appear very finely disseminated. 160.00: 45° to core axis, less than 1% CO ₂ 161.00: massive, less than 1% CO ₂ 162.00: massive, less than 1% CO ₂ 163.00: 50° to core axis.) 164.00: 35° to core axis.) 165.00: 30° to core axis.) Laminations 166.00: 30° to core axis.) 167.90: carbonate vein 4cm wide at 25° to core axis. 168.00-169.77: massive, less than 1% carbonate veining. 169.77-170.67: very well laminated at 30° to core axis. Carbonates absent. 172.98-173.08: 10cm wide brecciated band at 45° to core axis.									
			1748		156.88	157.88	1.00			tr.	
			1749		157.88	158.88	1.00			tr.	
			1750		158.88	159.88	1.00			tr.	
			1751		159.88	160.88	1.00			0.01	
			1752		160.88	161.88	1.00			0.01	
			1753		161.88	162.88	1.00	(actual 0.77)		0.01	WHOLE CORE
			1754		162.88	163.88	1.00			0.01	SAMPLES
			1755		163.88	164.88	1.00			tr.	TO BASE
			1756		164.88	165.88	1.00			tr.	OF HOLE
			1757		165.88	166.88	1.00			tr.	
			1758		166.88	167.88	1.00			tr.	
			1759		167.88	168.88	1.00			tr.	
			1760		168.88	169.88	1.00			tr.	
			1761		169.88	170.88	1.00			tr.	
			1762		170.88	171.88	1.00			tr.	
			1763		171.88	172.88	1.00			tr.	
			1764		172.88	173.90	1.02	(actual 0.91)		tr.	
			1765		173.90	174.73	0.83	(actual 0.90)		0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-41 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ. TON	OZ. TON	
					FROM	TO	TOTAL				
		increases up to 5%, but averaging 1-2%. Laminations at 55° to core axis.	C 1766		174.73	175.53	0.80				0.08
		178.72: 5cm wide brecciated zone, bedding at 55° to axis.	1767		175.53	176.53	1.00				0.02
		179.25: 5cm wide brecciated zone, bedding at 50° to axis.									
		181.44-181.73: brecciated zone, 2% pyrite.	1768		178.72	179.72	1.00				tr.
		182.92-184.87: brecciated zone - brecciated rock comprises 90-95% of the zone, pyrite up to 1%, averaging trace, 55° to core axis.	1769		182.91	183.86	0.95				0.03
			1770		183.86	184.87	0.96				0.02
			1771		184.87	185.62	0.75				0.30
		185.62-186.64: brecciated zone, 70% brecciated.	1772		185.62	186.64	1.02				0.01
		189.00-189.71: brecciated zone, 65-70% brecciated up to 3% pyrite, averaging 1%, bedding at 50° to core axis.	1773		189.00	189.71	0.71				0.01
		191.00: laminations at 50-55° to core axis.									
193.72	203.30	<u>SEDIMENT?</u>									
		The rock becomes massive and absent of lamination. The rock is medium green in colour with a medium grain size with very little carbonate veining and trace pyrite. This rock should be thin sectioned for positive identification.									
		203.30 meters END OF HOLE									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 LENGTH 186.12 metres
 LOCATION _____
 LATITUDE 7 + 50 E DEPARTURE 0 + 75 S
 ELEVATION _____ AZIMUTH 344° DIP -70°
 STARTED September 16/83 FINISHED September 21/83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°		185.93	-60°	
45.72	-69°				
91.44	-67°				
137.16	-62°				

HOLE NO. Mc-83-42 SHEET NO. 1 OF 10

REMARKS BQ Core
Split for analysis

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0	13.11	<u>OVERBURDEN</u>									
13.11	39.42	<u>BASALT</u>									
<p>Light to dark green, often grey-green; very fine grained becoming medium grained locally, probably near flow centres. Lava is frequently vesicular with relic vesicles up to 1cm now chlorite filled. Rock is weakly to moderately fractured with quartz filling and traces of chalcopyrite (up to 5% locally). Fractures are often hematized, mostly in coarser grained sections. Pyroxene crystals are fresh to weakly chloritized; feldspars are moderately epidotized or sausalitized. Localized strong silicification is noted which does not seem to have a textural or structural association.</p>											
		13.11 - 19.17: very strongly silicified, non-brecciated, to weakly brecciated locally; very fine grained; possibly pillowed from 17.35-19.35 m.	C 1779	0-1	14.18	15.18	1.00			0.01	
		19.17 - 22.95: moderately brecciated locally in 10cm sections; dilatant zones are silica filled with 1-2% chalcopyrite. Minor local silicification (eg 20.95-21.05 m).	1780	1-2	20.88	21.62	0.74			0.01	
		22.95 - 36.20: fine to medium grained, weakly silicified locally, weakly to moderately fractured becoming strongly fractured below 35.60 m. Rock is locally brecciated and epidotized.									
		36.20 - 39.42: fine to medium grained, strongly fractured with quartz-epidote filling. Zone is strongly brecciated locally with moderate to strong silicification. Brecciation tends to increase with depth - lower 10cm carries sub-rounded highly silicified xenoliths of the underlying zone. Fractures are weakly carbonated and moderately hematized.	1781	0-1	38.42	39.42	1.00			tr.	

EM. 6-1168

LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-42 SHEET NO. 2 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
39.42	41.57	<p><u>SEDIMENTS</u></p> <p>Light to dark green, fine to very fine grained and well laminated inter-flow sediment. Bedding is at 45° to the core axis, but is locally cross-laminated and rarely exhibits signs of soft sediment slumping. Locally, the rock is strongly brecciated and moderately to strongly silicified with up to 15% very finely disseminated pyrite and 1-2mm cubes. Zone averages 2-4% pyrite. Sediments are epidotized and feldspathized in and proximal to breccia zones best developed above 39.96 m. Pyrite content is proportional to brecciation and alteration.</p> <p>39.42 - 39.96: variably brecciated; 5-7% pyrite - up to 15% locally.</p> <p>39.96 - 40.46: non-brecciated; 5-7% pyrite - mostly as a very fine dissemination.</p> <p>40.46 - 41.57: well laminated, moderately chloritized. Rock has a 'sandy' appearance - possibly tuffaceous. Minor silicification in 1-3cm zones and feldspathized breccia zones. Pyrite is mostly fracture controlled.</p>	C								
			1782	5-7	39.42	39.96	0.54			tr.	
			1783	5-7	39.96	40.46	0.50			0.01	
			1784	2-4	40.46	41.57	1.11			0.01	
41.57	74.68	<p><u>BASALT</u></p> <p>Dark green, very fine to medium grained, often ophitic textured particularly in coarser zones, and generally massive flow. The upper 15-20cm contains chloritized flattened vesicles up to 1.5mm. The axis of elongation is at 30-35° to the core axis. Largest percentage of flow is medium grained, with coarse grained phases, and very weakly magnetic. Carries abundant (3-5%) pyrite to a depth of 42.75 m. Flow averages 1%.</p> <p>41.57 - 43.85: brecciated, carries 5-10cm sediment at top of flow - (infilling from above); averages 3-5% pyrite. Vesicular flow top.</p> <p>43.85 - 57.00: medium grained, coarse locally - ophitic.</p> <p>57.00 - 72.36: strongly fractured with hematite and white carbonate in fractures. Rock is locally brecciated. Zone carries 2-3% hematized soft, sub-rounded fragments</p>									
			1785	3-5	41.57	42.27	0.70			tr.	
			1786	3-5	42.27	42.75	0.48			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-42 SHEET NO. 3 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		(sediment?), below 66.85 m. Below this point, rock is more strongly brecciated with moderate epidotization.									
		72.36 - 72.74: strongly brecciated, moderately epidotized, non-silicified.									
		72.74 - 74.68: fine grained, often tuffaceous in appearance, very similar to 57.00-72.36 m - assumed to be flow.	C								
74.68	82.48	<u>SEDIMENTS</u>	1787	0-2	74.05	74.68	0.63				tr.
		Dark green, fine grained with clasts up to 1mm - usually angular, non-laminated becoming weakly bedded at 80.0 m (40° to core axis). Bedding is on a 0.1-0.5 mm scale, with zones of white to grey carbonate replacement up to 5mm parallel to laminations. This reflects weak to moderate carbonatization. Zone also carries 1-5%, 1-4mm carbonate stringers parallel to laminations. Section averages 1% pyrite with up to 3% locally.	1788	0-2	74.68	75.68	1.00				tr.
		74.68 - 74.83: pinkish alteration, strongly brecciated, moderately silicified.	1789	0-2	75.68	76.68	1.00				tr.
		74.83 - 80.00: non-laminated to very weakly laminated.	1790	0-2	76.68	77.68	1.00				tr.
		80.00 - 81.00: weakly laminated at 40° to core axis.	1791	0-2	77.68	78.68	1.00				tr.
		81.00 - 82.48: well laminated at 45° to core axis.	1792	0-2	78.68	79.68	1.00				tr.
			1793	0-2	79.68	80.68	1.00				tr.
			1794	0-2	80.68	81.68	1.00				tr.
			1795	1-3	81.68	82.48	0.80				tr.
82.48	111.61	<u>MAIN MINERALIZED ZONE</u>									
		The rocks in this zone are sediments which have undergone variable brecciation and silicification. The main silicified zone is overlain by a thin transition zone containing approximately 50% silicified rock; and is underlain by a wider transition zone carrying about 30-40% silicified rock. The central zone contains up to 15% pyrite associated with intensely silicified and strongly feldspathized non-brecciated rock.									
82.48	84.43	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Dark green, fine grained and chloritized with increasing purple-grey intensely silicified, weakly to strongly brecciated bands. These									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-42 SHEET NO. 4 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ. TON	
					FROM	TO					TOTAL
		bands are concordant to the laminations. The bedding is well developed (35° at 82.78 m and 40-45° at 83.70 m), throughout but often disrupted by brecciation. Purple hue is due to moderate hematization and is strongest in strongly brecciated rock. Breccia fragments are highly angular and often laminated. They may be rip-up clasts. 82.48 - 83.65: rock is less than 40% silicified. 83.65 - 84.43: rock is 60-65% silicified.	C							Rech.	
84.43	106.77	<u>MAIN SILICIFIED ZONE</u> Purple-grey, aphanitic to fine grained, intensely silicified with abundant honey coloured sections reflecting feldspathization, (?). Degree of alteration does not appear to be dependent upon brecciation. Purple hue is best developed in intensely brecciated rock, and is attributable to moderate hematization. Brecciation is absent in some sections. Pyrite content averages 5-6% and ranges from 2-15%. Bedding laminations are well displayed in non-brecciated, often feldspathized zones. The zone is non-magnetic. 84.43 - 85.07: highly tuffaceous, clasts up to 2mm, laminated matrix wraps around some fragments. Clasts are strongly foliated along laminations at 40° to core axis. Carries 3-4% very finely disseminated pyrite. 85.07 - 86.33: strongly brecciated; honey coloured angular fragments in purple-grey matrix. 86.33 - 86.86: relic laminations are visible through breccia at 40-45° to core axis. Zone carries abundant reddish breccia clasts up to 1cm at 86.65-86.80 m. Abundant chloritized shear planes at 86.80-86.86 m - minor fault. 86.86 - 87.66: strongly brecciated - fragments up to 2cm. 87.66 - 89.53: strongly tuffaceous as at 84.43-85.07 m; laminated at 45° to core axis at 88.35 m. 89.53 - 89.86: abundant chloritized fractures due to minor fault movement - rock strongly feldspathized. Minor green clay associated with faulting.	1796	2-3	82.48	83.38	0.90			tr.	
			1797	3-4	83.38	84.43	1.05			tr.	
			1798	3-4	84.43	85.43	1.00			0.01	
			1799	3-5	85.43	86.43	1.00			0.01	
			1800	2-4	86.43	87.05	0.62			0.03	
			1920	3-4	87.05	87.66	0.61			0.01	0.01
			1921	3-5	87.66	88.66	1.00			0.02	0.01
			1922	3-5	88.66	89.52	0.87			0.01	0.02
			1923	2-3	89.53	89.86	0.33			0.03	0.005

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-42 SHEET NO. 5 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		89.86 - 91.95:	C									
		dark purple-grey; chloritized fractures, core highly broken, carries 5-6% pyrite well laminated at 40° to core axis.	1924	5-6	89.86	91.03	1.17			0.08	0.07	Rech.
			1925	5-6	91.03	91.95	0.92			0.02	0.08	
		91.95 - 92.89:	1926	1-2	91.95	92.89	0.94			0.01	0.01	
		pale green, with dark green chloritized fractures - often mylonitic, probable <u>intrusive</u> carries abundant silicified breccia fragments of wall rock - possibly biotitic. (NOTE: Zone is same as weakly magnetic intrusive in other holes).										
		92.89 - 94.35:	1927	4-5	92.89	93.57	0.68			0.02	0.02	
		dark purple-grey with 20-30% honey to cream coloured feldspathized laminations at 40° to core axis - very well laminated at base.	1928	4-5	93.57	94.35	0.78			0.05	0.01	
		94.35 - 95.22:	1929	5-6	94.35	95.22	0.87			0.12	0.03	
		rock becoming increasingly feldspathized along certain sets of laminations. Bedding at 35-40° to core throughout.										
		95.22 - 97.42:	1930	10-12	95.22	96.20	0.98			0.07	0.03	
		intense feldspathization (90-100%) of rock; generally well laminated with up to 15% pyrite concentrated along laminations. Some blue-grey quartz infilling of voids near base with little contained pyrite.	1931	8-10	96.20	96.62	0.42			0.09	0.04	
			1932	9-10	96.62	97.42	0.80			0.05	0.05	
		97.42 - 97.60:	1933	0-1	97.42	97.60	0.18			0.01	0.02	
		strongly chloritized, medium grained possibly mylonitic (fault?) zone. Well foliated at 40-45° to core axis, parallel to lamination in silicified sediment.										
		97.60 - 97.88:	1934	8-10	97.60	97.88	0.28			0.01	0.04	
		strongly feldspathized; 8-10% pyrite.	1935	1-2	97.88	98.75	0.87			0.02	0.02	
		97.88 - 100.50:	1936	2-4	98.75	99.75	1.00			0.01	0.005	
		spotty feldspathization along fractures - 10-20% of rock volume; remainder is purple-grey, well laminated locally (50-60° at 98.78-99.04 m). Degree of feldspathization decreases with depth.	1937	2-4	99.75	100.50	0.75			0.01	0.005	
		100.50-100.98:	1938	0-1	100.50	100.98	0.48			0.01	0.01	
		laminations at 45° to core axis are highly convoluted locally - non-silicified.										
		100.98-101.98:	1939	4-6	100.98	101.98	1.00			0.01	0.02	
		purple-grey, with spotty honey coloured feldspathization containing 7-9% pyrite above average of 4-6%. Moderately laminated at 40-50° to core axis. Pyrite found in lcm clusters of 1mm cubes and as a very fine dissemination.										
		101.98-103.16:	1940	6-8	101.98	102.62	0.64			0.01	0.04	
		strongly feldspathized locally containing up to 10% pyrite in clots and very finely disseminated.	1941	3-5	102.62	103.16	0.54			0.01	0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-42 SHEET NO. 6 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ./TON	OZ./TON	
					FROM	TO					TOTAL
		Initially feldspathization is ubiquitous then becomes irregular and fracture controlled below 102.62 m.								Rech.	
	103.16-105.74:	strongly silicified but weakly brecciated, spotty strong feldspathization associated with fractures. Contains a few chloritized seams locally which are non-silicified (eg. 103.18-103.21, 103.45-103.48, 103.68-103.71, 104.01-104.08 m). Zone is 95% silicified, weakly laminated: 45° at 104.60 and 35° at 104.96 m.	C 1942	3-5	103.16	104.13	0.97			tr.	0.005
			1943	2-3	104.13	105.13	1.00			tr.	0.01
			1944	2-3	105.13	105.95	0.82			tr.	0.005
	105.74-106.15:	well laminated, strongly silicified, non-brecciated; strong localized feldspathization along laminations at 40° to core axis (eg. 105.95 m).	1945	1-3	105.95	106.77	0.82			tr.	0.01
	106.15-106.57:	spotty chloritization, weakly laminated, moderate to strong silicification, weakly brecciated.									
	106.57-106.77:	well laminated at 40° to core axis, intensely silicified, non-chloritized, non-brecciated, non-feldspathized.									
106.77	111.61	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Dark purple-grey with abundant dark green chloritized seams and zones up to 25cm. Zone is about 25% chloritized. Purple hue in silicified rock is due to hematization. Silicification is due to intense brecciation usually associated with fracture systems. Quartz is found infilling voids and fractures up to 1cm wide. Rock is well laminated locally (eg. 45° at 105.87 m). Zone carries 2-3% pyrite, up to 5% locally associated with local feldspathization.	1774	2-3	106.77	107.77	1.00			tr.	
			1775	2-3	107.77	108.93	1.16			tr.	
	108.93-109.43:	pinkish-green, fine to medium grained <u>INTRUSIVE</u> - carries abundant (10%), green chloritized sub-angular xenoliths up to 2cm, weakly magnetic, biotitic? Zone carries 30% pink fragments in 0.5-1.0mm range - feldspar?	1776	1-2	108.93	109.43	0.50			tr.	
	109.43-111.61:	well laminated - 40-45° at 109.85 m. Lower 1.0 m is 70-80% chloritized as silicification decreases with depth.	1777	1-3	109.43	110.43	1.00			tr.	
			1778	1-2	110.43	111.61	1.18			?	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-42 SHEET NO. 7 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
111.61	124.17	<u>SEDIMENTS</u>									
<p>Medium to dark green, fine grained and finely laminated on a mm scale. Contains a few 1-5cm sections of brecciation which are moderately to strongly silicified. Laminations are distinguishable locally at 45-50° to core in the upper half of the section, and at 40-45° in the lower part. Rock is weakly to moderately fractured with infilling by carbonate containing quartz debris and 5-10% hematite. Sediments are weakly chloritized and moderately carbonatized. Parting is well developed parallel to laminations. Zone averages 1-2% pyrite, with 3-7% in silicified rock. Silicified rock comprises 5% of the section, the largest zone being at 115.71-116.17 m (moderately to strongly brecciated). Pyrite is noted as a very fine dissemination and as clots of grains up to 3mm.</p>											
		111.61-115.12: well laminated at 40-50° to core axis.	C								
		115.12-115.30: fine to medium grained, chaotic, non-laminated.	1946	1	111.61	112.61	1.00				tr.
		115.30-115.71: moderately well laminated at 40°.	1947	1	112.61	113.61	1.00				tr.
		115.71-116.17: weakly to moderately brecciated in 80-90% of section. Strong silicification of lamination sets up to 5mm. Bedded at 40° to core axis.	1948	1	113.61	114.66	1.05				tr.
		116.17-118.03: well laminated, moderately carbonatized locally.	1949	3-4	114.66	114.91	0.25				0.01
		118.03-118.72: strongly brecciated, weakly silicified. Brecciation is confined to ripping apart of individual cherty laminations in chloritized groundmass. Relic bedding at 40° to core axis.	1950	1	114.91	115.71	0.80				tr.
		118.72-122.35: well laminated at 45° to core; locally silicified, minor brecciation. Moderately carbonatized - carbonate replacement feathering out along laminations increasing below 120.75 m.	1951	2-3	115.71	116.17	0.46				tr.
		122.35-122.80: weakly laminated.	1952	0-1	116.17	117.16	0.99				tr.
		122.80-124.17: well laminated, weakly brecciated with associated silicification; carbonatized at 123.65-123.82 m. Zone carries 3-5% very finely disseminated pyrite. Up to 5% locally along laminations near breccia. Fractures below 123.85 m are strongly hematized.	1953	0-1	117.16	118.03	0.87				tr.
			1954	2-3	118.03	118.72	0.69				0.05
			1955	0-1	118.72	119.75	1.03				0.01
			1956	0-1	119.75	120.75	1.00				0.01
			1957	0-1	120.75	121.75	1.00				0.01
			1958	0-1	121.75	122.75	1.00				tr.
			1959	1-3	122.75	123.50	0.75				tr.
			1960	3-5	123.50	123.92	0.42				0.03
			1961	1-2	123.92	124.17	0.25				0.01

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DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-42 SHEET NO. 8 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
				FROM	TO	TOTAL					
124.17	132.98	<p><u>BASALT</u> (with sediments)</p> <p>Dark green, aphanitic to fine grained, weakly pillowed flow with moderate brecciation throughout. Localized silicification is noted along 1-2cm epidotized, bands of breccia, probably pillow selvages. Fractures are strongly hematized, dilatant zones are carbonated. Pyrite content averages 1% with 2% in selvages. Section contains 1.33 m of sediment below 129.36 m. Probably deposited during a hiatus in extrusion. The lower contact of the sediments is uncertain.</p> <p>124.17-129.36: <u>Basalt</u> - as described.</p> <p>129.36-130.69: <u>Sediment</u> - dark green, fine to very fine grained, well laminated at 40-45° to core axis, crudely bedded at base, 1-2% pyrite, weakly silicified locally.</p> <p>130.69-132.98: <u>Basalt</u> - probably not pillowed, flow base designated at a 1.5cm quartz vein.</p>									
			C								
			1962	1-3	129.36	130.01	0.65				0.02
			1963	1	130.01	130.67	0.66				tr.
132.98	140.45	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine to very fine grained, non-silicified but moderately brecciated locally (eg. 133.92-134.11 and 134.38-134.44). Minor increased pyrite is noted in association with brecciation. The rock is crudely foliated in the uppermost 35cm becoming well laminated at 134.10 m. Zone averages 0-1% pyrite with up to 3% in brecciated rock.</p> <p>132.98-136.50: generally well laminted; 55-60° at 134.10 and 60° to core axis at 135.50 m.</p> <p>136.50-137.50: weakly to moderately brecciated along single laminations.</p> <p>137.50-137.93: moderately laminated at 65° to core, very weakly brecciated locally.</p> <p>137.93-138.23: weakly to moderately brecciated, minor silicification.</p> <p>138.23-139.29: weakly laminated, abundant carbonatization.</p> <p>139.29-139.61: dark grey to purple-grey, strongly silicified, brecciated locally with 3-5% pyrite. Laminated at 60-65° at 139.40 m.</p> <p>139.61-140.45: well laminated at 55-60°; lower 15cm is strongly carbonatized.</p>									
			1964	0-1	133.50	134.50	1.00				tr.
			1965	1-2	135.50	136.50	1.00				tr.
			1966	0-1	136.50	137.25	0.75				0.01
			1967	1	137.25	137.60	0.35				0.01
			1968	1-2	137.60	137.93	0.33				0.01
			1969	0-1	137.93	138.50	0.57				0.01
			1970	0-1	138.50	139.29	0.79				0.01
			1971	3-5	139.29	139.61	0.32				0.01
			1972	1-2	139.61	140.45	0.84				tr.

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DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-42 SHEET NO. 9 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ/TON	OZ. TON
					FROM	TO					TOTAL
140.45	160.87	<u>BASALT</u> Medium to dark green, often pale green, fine to medium grained, locally aphanitic especially near upper contact. Flow is pillowed with 1cm selvages marking pillows which must be about 1 m in size. Selvages carry up to 5% pyrite. Several samples taken at points of intersection of three selvages. Pillow centres are strongly silicified and often epidotized, and may be brecciated locally (eg. 143.10-143.65). Rock is moderately fractured throughout. Flow is non-magnetic.								
		140.45-141.20: chloritized vesicles up to 2mm.	C							
		141.20-143.75: pillowed, generally silicified, minor breccia.	1973	5	142.01	142.11	0.10			tr.
		143.75-145.25: massive, minor breccia, hematized fractures.	1974	5	142.66	142.76	0.10			tr.
		145.25-145.51: vesicular flow top.	1975	1-2	143.10	143.65	0.55			0.01
		145.51-145.71: very glassy, locally vesicular, brecciated with epidotized hyaloclastite, zone ends at a pillow selvage.	1976	3-5	145.51	145.71	0.20			0.01
		145.71-146.48: pillowed.	1977	3-5	146.48	146.71	0.23			0.01
		146.48-146.71: <u>SEDIMENT</u> - dark green, fine grained, well laminated at 50-55° to core axis, chloritized, local strong silicification.								
		146.71-148.83: possibly pillowed, strongly sheared at 35° to core at 148.75-148.83 m possibly marking flow base. Zone above is fine to medium grained.								
		148.83-150.20: very fine grained.								
		150.20-153.35: weakly to very strongly vesicular.								
		153.45-155.20: weak to moderate brecciation with black chlorite in dilatant zones up to 1cm in width. Auto-breccia fragments are very angular, have undergone very little rotation movement, and are weakly vesicular.								
		155.75-156.57: <u>Sediment(?)</u> , weakly laminated, moderately foliated and well parted.	1978	1-3	155.75	156.57	0.82			0.01
		156.57-157.58: lava is unstructured.								
		157.58-158.98: <u>SEDIMENT</u> - well laminated becoming somewhat chaotic at base; minor grey intense silicification with up to 10% pyrite over 1-2cm. Zone averages 1-3% pyrite. Bedding at 40-45° to core axis.	1979	3-5	157.58	158.29	0.71			tr.
			1980	1-3	158.29	158.98	0.69			tr.

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 10 OF 10

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		158.98-160.87: lava is massive and vesicular above 160.40 m. Lower 15cm is strongly epidotized, silicified breccia.									
160.87	162.00	<u>SEDIMENTS</u> Dark green, fine grained, well laminated locally at 50-60° to core axis. Upper 30-40cm is weakly to moderately silicified. Carries 1-3% pyrite, 5% where silicified.	C 1981	1-3	160.87	162.00	1.13			tr.	
162.00	186.12	<u>ANDESITE</u> Light to medium green, aphanitic to fine grained, and often vesicular, non-silicified to moderately silicified. Strongly brecciated locally. Non-magnetic. Section is probably altered basalt in original composition. Zone averages 1-3% pyrite as blebs up to 1mm. Rock fines below 169.25 and a flow contact is noted at 169.33 m. 162.00-162.20: vesicular, massive flow. 162.20-162.75: fine, locally medium grained. 162.75-163.00: brecciated, carbonate filling dilatant zones; pyrite cubes up to 5mm. 169.33: flow contact. 169.33-172.30: vesicular massive flow. 172.30-186.12: pillowed flow - coarsely brecciated locally, weak to locally strong silicification throughout. Pillows contain poorly formed variolites.									
		186.12 meters END OF HOLE CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-43 LENGTH 118.14 meters
 LOCATION _____
 LATITUDE 9 + 50 W DEPARTURE 0 + 72 S
 ELEVATION _____ AZIMUTH 344° DIP -70°
 STARTED October 3, 1983 FINISHED October 7, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
87.48	-66°				
118.10	-64°				

HOLE NO. Mc-83-43 SHEET NO. 1 OF 7

REMARKS BQ Core
Split for assay.
Casing pulled.
 LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0	12.80	<u>OVERBURDEN</u>										
12.80	32.71	<u>BASALT</u> Grey-green, fine to medium grained, ophitic to sub-ophitic textured. Generally weakly fractured, uniformly textured and massive. White carbonate veins are observed locally with 10% quartz debris (eg. 24.22-24.42 m). Lava tends to be finer grained below 29.70 m, brecciated and locally silicified. Silicification is generally accompanied by epidotization. A chilled lower contact is observed at 32.50-32.71 m. Zone carries an average 0-1% pyrite.	C 1984	0-1	31.71	32.71	1.00			tr.		
32.71	34.46	<u>SEDIMENTS</u> Dark green, fine to very fine grained, often aphanitic and moderately epidotized, especially near upper contact. Well laminated with many strongly brecciated zones. 32.90: laminations at 30° to core axis. 33.06 - 33.31: 7-9% pyrite as very fine dissemination and 1-2mm cubes. Rock also moderately hematized along laminations. 33.45 - 34.46: weakly laminated, abundant breccia.	1985	5	32.71	33.45	0.74			tr.		
34.46	42.97	<u>BASALT</u> Dark green, fine grained to aphanitic, pillowed with abundant selvages up to 1 m apart. Pillow rims are enriched in pyrite, and may be silicified locally. Basalt averages 1-2% pyrite. 39.30 - 40.30: <u>Intrusive</u> 7 pinkish-green, fine grained to aphanitic with a central porphyritic zone from 39.55-39.85 m. Carries euhedral pink feldspar phenocrysts up to 2mm. Rock is very weakly magnetic, and carries basalt xenoliths up to 5cm. Contacts are sharp at 30° to core axis.	1986	1-3	33.45	34.46	1.01			tr.		

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LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-43 SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ./TON
				FROM	TO	TOTAL				
42.97	47.30	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine grained to aphanitic, well laminated, but very strongly brecciated sections make measurement of bedding angles difficult. Breccia is usually moderately to strongly silicified (eg. 43.33-43.67 and 43.93-44.11 m). Abundant mm-scale lenses of clear quartz along laminations. Individual laminations are carbonatized locally. Averages 1-3% pyrite.</p> <p>42.97 - 44.60: well laminated at 35-40° to core axis.</p> <p>44.60 - 44.85: very weakly laminated.</p> <p>44.85 - 47.30: well laminated, often on a 0.1mm scale. Thinnest laminations carry increased pyrite - up to 5-7% finely disseminated.</p>								
			C							
			1987	1-3	42.97	43.90	0.93			tr.
			1988	1-3	43.90	44.90	1.00			tr.
			1989	1-3	44.90	45.90	1.00			tr.
			1990	2-4	45.90	46.61	0.71			tr.
			1991	2-4	46.61	47.30	0.69			tr.
47.30	58.98	<p><u>BASALT</u></p> <p>Medium green, fine to very fine grained, moderately to strongly brecciated with moderate silicification of breccia locally. Breccia may be due to flowage rather than tectonism. Rounded, epidotized fragments up to 5cm are observed.</p> <p>58.71 - 58.98: strongly silicified and brecciated with pyrite cubes up to 6mm. Pyrite content averages 7-9%.</p> <p>51.67: sample taken for thin section.</p>								
			1992	1-2	47.30	48.30	1.00			tr.
			1993	1-2	49.30	50.30	1.00			tr.
			1994	1-2	51.20	51.60	0.40			tr.
			1995	1-2	54.20	55.20	1.00			tr.
			1996	1-2	58.21	58.71	0.50			tr.
			1997	7-9	58.71	58.98	0.27			tr.
58.98	59.48	<p><u>QUARTZ VEIN</u></p> <p>White to pinkish-white, with abundant dark green seams in lower half and carries 3-5% pyrite along seams locally.</p>								
			1998	2-3	58.98	59.48	0.50			tr.
59.48	63.86	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine to very fine grained; moderately to strongly silicified and weakly to moderately brecciated locally. Well laminated locally. Zone averages 2% pyrite as a very fine dissemination and as cubes up to 5mm in size.</p>								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-43 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		59.48 - 60.31: moderate to strong silicification in local breccia zones. Abundant pink quartz veins up to 10cm. Up to 10% pyrite cubes. Strongly chloritized and epidotized. Sheared locally. Laminated at 40° to core axis.	C 1999	5-7	59.48	60.31	0.83			0.01	
		60.31 - 60.81: white to pinkish-white quartz vein with abundant dark green debris from wallrock.	2000	1-2	60.31	60.81	0.50			0.01	
		60.81 - 63.86: abundant silicification near pinkish quartz veins up to 7cm. Rock is well laminated locally below 61.30 but structure is often masked by brecciation. Bedding often incorporates cherty fragments up to 1cm in an argillitic matrix.	* CHANGE TO #2200 SERIES								
		61.35: laminated at 45° to core axis.	2201	2-3	60.81	61.76	0.95			0.01	
		63.50: laminated at 45-50° to core axis.	2202	1-3	61.76	62.76	1.00			tr.	
			2203	1-3	62.76	63.31	0.55			0.01	
			2204	1-3	63.31	63.86	0.55			0.01	
63.86	100.03	<u>MAIN MINERALIZED ZONE</u>									
		This section is composed of three members; an upper variably silicified zone, a central strongly silicified and locally feldspathized member, and a broad lower zone of irregular breccia-controlled silicification. Pyrite contents are highest in feldspathized sections of the central member.									
63.86	65.34	<u>SILICIFIED SEDIMENTS</u>									
		Dark green, fine grained, generally well laminated and chloritized with abundant moderately to strongly silicified zones. Silicification begins as halos surrounding microfractures. As fracturing increases with depth to form a network silicification is more highly penetrative into formerly chloritized rock. Some intense feldspathization in lower half of interval. Zone carries 25-50% silicified rock and 1-3% pyrite. The lower 10cm is a fault zone carrying 5-7% pyrite. Shearing is noted at 45° to core axis along a 1cm clay plane.	2205	1-3	63.86	64.60	0.74			0.01	
			2206	2-4	64.60	65.34	0.74			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-43 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
65.34	80.56	<u>MAIN SILICIFIED ZONE</u>									
		Honey coloured to purple-grey, very fine grained to aphanitic, well laminated but vague due to strong brecciation. Zone is strongly to intensely silicified. Honey coloured zones are feldspathized and carry up to 20% pyrite locally. Darker rock is weakly to moderately hematized, and carries up to 10% pyrite - usually as a very fine dissemination. Zone averages 5% pyrite.	C								
		65.34 - 65.63: strongly brecciated with chloritized fractures, strongly feldspathized but only 1-3% pyrite.	2207	1-3	65.34	65.63	0.29			0.02	
		65.63 - 66.14: weakly brecciated, strongly silicified and feldspathized with 10-15% pyrite.	2208	10-15	65.63	66.14	0.51			0.18	
		66.14 - 66.76: strongly brecciated and feldspathized.	2209	2-4	66.14	66.76	0.62			0.08	
		66.76 - 68.56: purple-grey, moderately to strongly brecciated intensely silicified, up to 5% fine pyrite.	2210	3-5	66.76	67.66	0.90			0.06	
		68.56 - 69.50: carries 10% dark green, chloritized seams, zone becoming moderately feldspathized.	2211	2-4	67.66	68.56	0.90			0.14	
		69.50 - 70.07: honey coloured with abundant chloritized and hematized fractures.	2212	2-3	68.56	69.50	0.94			0.09	
		70.07 - 71.93: purple-grey, honey coloured locally; intensely silicified and moderately to strongly brecciated. Up to 7% pyrite locally.	2213	1-3	69.50	70.07	0.57			0.18	
		71.93 - 72.55: dark green, fine grained, with abundant pink silicified clasts up to 3mm. Non-magnetic. Lower 30cm is poorly bedded with cherty fragments in chloritized matrix oriented at 45-50° to core axis. Lower contact consists of siliceous angular fragments being ripped up and 'rafted' into this interval.	2214	4-5	70.07	70.67	0.60			0.04	
		72.55 - 73.26: honey coloured to pale purple-grey, aphanitic strongly brecciated, intensely silicified. Up to 20% pyrite (with 1% chalcopyrite associated with pink carbonate stringers). More strongly brecciated below 73.01 m.	2215	3-4	70.67	71.29	0.62			0.13	
		73.26 - 73.93: intensely silicified breccia with angular purple fragments in a cream-grey matrix.	2216	3-5	71.29	71.93	0.64			0.06	
			2217	0-1	71.93	72.55	0.62			0.01	
			2218	15	72.55	73.01	0.46			0.28	
			2219	10-15	73.01	73.26	0.25			0.89	
			2220	7-9	73.26	73.93	0.67			0.17	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-43 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		73.93 - 74.24: moderately well laminated, weakly brecciated intensely silicified; 5-10% chloritized laminations.	C 2221	2-4	73.93	74.24	0.31			0.11	
		74.24 - 74.92: intensely silicified throughout, well laminated at 45-50° to core axis. Cream to white coloured feldspathization.	2222	8-10	74.24	74.92	0.68			0.23	
		74.92 - 75.40: weakly brecciated, well laminated at 60-70° to core axis locally.	2223	4-6	74.92	75.40	0.48			0.11	
		75.40 - 75.80: intensely silicified, feldspathized.	2224	4-6	75.40	75.80	0.50			0.08	
		75.80 - 76.34: as above, less pyrite.	2225	1-3	75.80	76.34	0.54			0.11	
		76.34 - 76.62: slight greenish tint due to chloritization pervades the zone. Zone is moderately to strongly silicified.	2226	1-2	76.34	76.62	0.28			0.03	
		76.62 - 77.07: well laminated at 45° to core axis, weakly brecciated, strongly silicified.	2227	4-6	76.62	77.07	0.45			0.10	
		77.07 - 78.17: strongly silicified but carries 10-15% chloritized seams.	2228	2-4	77.07	78.07	1.00			0.06	
		78.17 - 80.56: strongly silicified, moderately to strongly brecciated with 5-6% pyrite. Silicification is penetrative from openings in breccia into fragments. Zone carries minor chloritized rock (eg. 78.90 - 79.03 m), totalling 5-10% of section.	2229	5-6	78.07	78.85	0.78			0.04	
			2230	2-4	78.85	79.20	0.35			0.11	
			2231	4-6	79.20	79.86	0.66			0.01	
			2232	4-6	79.86	80.56	0.70			0.21	
80.56	100.03	<u>SILICIFIED SEDIMENTS</u> Alternating medium to pale green, and honey coloured to grey-green (minor purple-grey) rock. Green rock is chloritized. Grey to purple-grey colouration is due to variably developed silicification. Lighter colours reflect feldspathization. Rock is fine to very fine grained. Silicification is related to brecciation and is penetrative outwards from fracture networks. In general, the thickness of silicified sections and percentage silicified rock decrease with depth. Pyrite content is higher in silicified rock - up to 10% locally, over the average 2-3%. Pyrite occurs as a very fine dissemination and as cubes up to 2mm in size.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-43 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		80.56 - 81.61:	C								
		20% chloritized seams.	2233	2-4	80.56	81.61	1.05			0.01	
		81.61 - 83.37:	2234	3-5	81.61	82.45	0.84			0.03	
		strongly brecciated and strongly chloritized with 50% silicified, honey coloured to white seams - resemble quartz veins.	2235	1-3	82.45	83.09	0.64			0.04	
			2236	5-7	83.09	83.37	0.28			0.13	
		83.37 - 84.43:	2237	2-3	83.37	84.43	1.06			0.05	
		pale green with 50% intensely silicified breccia. Silicified fragments are purple-grey in honey coloured matrix. Percentage silicification decreases with depth.	2238	0-1	84.43	85.05	0.62			0.01	
			2239	2-3	85.05	85.35	0.30			0.02	
		84.43:	2240	0-2	85.35	86.35	1.00			0.10)
		rock above is 40% silicified whereas zone below is 30% silicified.	2241	1-2	86.35	87.15	0.80			0.04	)0.095
			2242	3-5	87.15	87.75	0.60			0.16	) 4.4
		84.43 - 85.05:	2243	1-2	87.75	88.75	1.00			0.07	) (14.4')
		chloritized, non-structured.	2244	1-3	88.75	89.75	1.00			0.12)
		85.05 - 87.75:	2245	1-2	89.75	90.65	0.90			0.01	
		section is 50% silicified with major silicified breccia zones at 85.05-85.35, and 87.15-87.75 m.	2246	1-2	90.65	91.65	1.00			0.01	
		87.75 - 90.65:	2247	1-2	91.65	92.65	1.00			0.01	
		section is less (10%) silicified with some increased pyrite in altered rock.	2248	1-2	92.65	93.25	0.60			0.01	
		90.65 - 97.37:	2249	1-2	93.25	93.85	0.60			0.01	
		weakly foliated but non-laminated, weakly to moderately fractured, with white carbonate filling tensional breaks. Local silicified breccia totals 10% of section. Fractures commonly have 1cm thick grey silicified halos. Where fractures are very close, rock has a brownish tint. Major silicified zones are noted at 93.85-94.39, 96.18-96.50 and 96.94-97.08 m.	2250	4-6	93.85	94.39	0.54			0.13	
			2251	1-2	94.39	95.27	0.88			0.01	
			2252	1-2	95.27	96.18	0.91			0.01	
			2253	2-3	96.18	96.50	0.32			0.01	
			2254	1-2	96.50	97.37	0.87			0.01	
			2255	2-3	97.37	98.27	0.90			0.04	
		97.37 - 100.03:	2256	1-2	98.27	98.97	0.70			0.02	
		as above but with several wider silicified zones at 97.37-98.27 and 99.67-100.03 m. Below 98.27 m, percentage of silicification decreases markedly. Rock becomes well laminated on a 0.1-0.5mm scale, at 45° to core axis.	2257	1-2	98.97	99.67	0.70			0.01	
			2258	2-3	99.67	100.03	0.36			0.15	
100.03	118.14	<u>SEDIMENTS</u>									
		Medium to dark green, fine to very fine grained, locally laminated becoming better bedded with depth. Well parted parallel to laminations or foliation. Abundant (10-20%), white carbonate filled tensional fractures. Occasional pink carbonate and quartz filled veins up to 1cm wide. Rare greyish silicified breccia zones are noted locally up to 2cm in width. Zone averages 1-2% pyrite. Section at 106.87-107.73 m is weakly brecciated, moderately silicified locally with 3-5% pyrite. May be equivalent to the "lower mineralized zone".									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-43 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ./TON	OZ./TON
					FROM	TO					TOTAL
			C							
	101.90:	laminations at 45° to core axis.	2259	1-2	100.03	101.03	1.00			0.01
	107.75:	laminations at 35-40° to core axis.	2260	1-2	101.03	101.85	0.82			0.01
	108.25:	laminations at 25-30° to core axis.	2261	1-2	101.85	102.85	1.00			0.01
	108.80:	bedding laminations at 55-60° to core axis.	2262	1-2	103.85	104.85	1.00			tr.
	106.87-107.73:	moderate local silicification in breccia zone with 3-5% pyrite.	2263	1-2	106.12	106.87	0.75			0.01
			2264	3-5	106.87	107.73	0.86			0.06
	110.20:	laminations at 40° to core axis.	2265	1-2	107.73	108.73	1.00			0.01
	111.35:	laminations at 45° to core axis.	2266	1-2	109.85	110.80	0.95			tr.
	111.55-111.80:	moderately to strongly silicified.	2267	2-3	110.80	111.55	0.75			tr.
	111.95:	laminations at 25-40° to core axis.	2268	3-5	111.55	111.80	0.25			0.08
	112.50:	non-laminated but well foliated.	2269	1-2	111.80	112.40	0.60			0.01
	115.00:	laminations at 45° to core axis.	2270	1-2	113.50	114.25	0.75			0.02
	117.50:	foliation at 45° to core axis.	2271	1-2	115.36	116.04	0.68			0.01
	118.05-118.14:	weakly brecciated, weakly silicified with 2-3% pyrite.	2272	2	117.38	118.14	0.76			0.01
	118.14 meters	END OF HOLE								
		CASING PULLED								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-44 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
34.18	52.98	<u>SEDIMENTS</u>									
		Dark green, fine to very fine grained, crudely laminated becoming well laminated locally with alternating grey cherty seams and green chloritized argillitic rock. The uppermost 25cm carries abundant magnetite between laminations. The rock is weakly carbonatized. A series of quartz veins cut the zone between 45.13-47.05 m. Below this vein, the sediments are strongly tensionally fractured with abundant white to pink quartz stringers in openings. Zone averages 1-2% pyrite. The rock carries some cherty breccia fragments which seem to have been dumped into green argillitic sediments - probably rip-up clasts.	C								
		34.18 - 37.60: dark green, abundant cherty rip-up fragments.	1106	1-2	34.18	34.93	0.75			0.01	
		37.60 - 38.55: 40-60% of the laminations are cherty, zone may be graded on a micro-scale, laminations at 45-50° to core axis.	1107	1-2	37.90	38.55	0.65			0.15	
		38.55 - 38.90: same as 34.18-37.60 m.	1108	1-2	38.55	38.90	0.35			0.01	
		38.90 - 39.50: 20-30% cherty laminations at 45° to core axis.	1109	1-2	38.90	39.50	0.60			tr.	
		39.50 - 41.40: zone becomes crudely laminated and fine to medium grained. Bedding at 40-45° to core. White quartz vein at 41.77-41.83 m.	1110	1-2	41.09	42.09	1.00			tr.	
		41.40 - 41.96: finely laminated (no cherty material), at 65° to core axis.									
		41.96 - 45.13: crudely laminated, fine grained, moderately chloritized.	1111	1-2	43.09	44.09	1.00			tr.	
		45.13 - 47.05: quartz vein system carries sediment xenoliths at 45.43-45.61 and 46.06-46.26 m which carry 2-3% pyrite cubes up to 1cm.	1112	1-2	45.13	46.17	1.04			tr.	
			1113	2-3	46.17	47.05	0.88			0.08	
		47.05 - 52.98: crudely laminated to non-laminated, strongly tensionally fractured with pink quartz filling. Abundant white to pink quartz veins and stringers up to 7cm width. Silicified sediment near vein margins carries increased pyrite contents (3-4% locally). Veins carry rare 1-3mm chalcopyrite blebs.	1114	1-3	47.05	47.85	0.80			0.01	
			1115	1-3	50.15	50.90	0.75			tr.	
			1116	1-2	51.68	52.33	0.65			tr.	
			1117	1-2	52.33	52.98	0.65			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-44 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
52.98	57.47	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Pale green to dark green, becoming light grey where silicified, fine to very fine grained, often aphanitic, well laminated locally. Silicification is controlled by selected beds or sets of laminations initially. With increasing brecciation in the lower half, silicification is more widespread. Strongly silicified sections are noted at 53.86-53.94, 55.92-56.10 and 56.16-56.48 m. The last two intervals carry 3-5% pyrite versus a zone average of 1-3%.</p> <p>53.75: laminations at 45-50° to core axis. 55.10: laminations at 45° to core axis. 56.53 - 56.55: mylonitic fault zone at 65° to core axis. 56.55 - 57.47: moderately to strongly brecciated and moderately to intensely silicified - fractures are chloritized.</p>	C								
			2273	2-4	52.98	53.75	0.77			tr.	
			2274	1-3	53.75	54.50	0.75			tr.	
			2275	1-3	54.50	55.30	0.80			tr.	
			2276	1-3	55.30	56.01	0.71			tr.	
			2277	2-4	56.01	56.76	0.75			0.01	
			2278	2-4	56.76	57.47	0.71			0.01	
57.47	61.23	<p><u>SILICIFIED ZONE</u></p> <p>Honey coloured to grey and dark purple-grey, aphanitic and originally laminated (sediments). Strong brecciation masks the structure. Pyrite concentrations along fractures possibly indicate original bedding attitude. Up to 15% pyrite is noted as a very fine dissemination and as lmm blebs. Some pyrite fills voids in breccia as lcm x 2cm clots.</p> <p>57.47 - 59.75: intensely silicified, moderately to strongly brecciated, glassy (chemical sediment?). 59.75 - 60.29: carries chloritized fractures but zone intensely silicified; 20cm ground core at 59.85-60.05 m. 60.29 - 61.23: reddish-pink to pinkish-grey, aphanitic, strongly fractured - chemical sediment? would have been called syenitic previously, carries 10-20% pyrite.</p>									
			2279	10-12	57.47	58.45	0.98			0.15	
			2280	10	58.45	59.20	0.75			0.12	
			2281	7-9	59.20	59.75	0.55			0.01	
			2282	5-7	59.75	60.29	0.54			0.01	
			2283	15	60.29	61.23	0.94			0.03	
61.23	65.93	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green, fine grained chloritized rock with many grey-green, aphanitic, silicified sections. These sections account for 35-40% of the zone. Major examples are found at 61.95-62.15, 62.31-62.44, 64.44-64.54 and 65.54-65.70 m. Pyrite content is variable, averaging 2-3% and highest in silicified rock. Non-magnetic.</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
65.93	73.17	61.23 - 61.95: pervasive moderate silicification.	C									
		61.95 - 62.15: reddish-pink, intensely silicified - resembles 60.29-61.23 m section.	2284	2-3	61.23	61.95	0.72			0.02		
		62.15 - 64.44: same as 61.23-61.95 m.	2285	2-4	61.95	62.90	0.95			0.01		
		64.44 - 64.54: moderately brecciated, strongly silicified, 3-5% pyrite.	2286	3-5	62.90	63.80	0.90			0.02		
		64.54 - 65.54: same as 61.23-61.95 m.	2287	1-3	63.80	64.55	0.75			0.02		
		65.54 - 65.70: weakly brecciated, intensely silicified, 7-9% pyrite; fault plane at 30° to core axis at 65.54 m slickensides pitch 30°.	2288	1-3	64.55	65.25	0.70			0.01		
		65.70 - 65.93: strongly brecciated, intensely silicified, silica infilling of voids is emanating up from underlying zone.	2289	5	65.25	65.93	0.68			tr.		
		<u>MAIN SILICIFIED ZONE</u>										
		Dark purple-grey to honey coloured and aphanitic, with several dark greyish-green, very fine grained chloritized zones. Rock is generally intensely silicified and is locally feldspathized in lighter coloured sections. The zone is strongly brecciated with some weakly developed breccia locally. Bedding laminations are rarely visible as fragmented relics. Pyrite content averages 4-6% as a very fine dissemination and as clots up to 5mm. The zone is non-magnetic.										
		65.93 - 66.29: reddish-pink zone, similar to 60.29-61.23 with 7-9% pyrite mostly as fracture filling, resembles a quartz vein - lower contact is gradational.	2290	7-9	65.93	66.29	0.36			tr.		
		66.29 - 67.11: strongly brecciated, may originally have been laminated (relics visible locally); carries 5-7% pyrite as fine dissemination and as clots up to 3mm in matrix to very angular fragments, feldspathization appears to radiate into rock from post-breccia, silica filled fractures.	2291	5-7	66.29	67.11	0.82			0.04		
		67.11 - 67.72: honey coloured, assumed feldspathized, possibly micro-brecciated(?)	2292	10-15	67.11	67.72	0.61			0.81		
		67.72 - 68.16: purple-grey breccia, intensely silicified, 3-5% pyrite - some as fracture filling.	2293	3-5	67.72	68.16	0.44			0.24		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-44 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE					ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON		
					FROM	TO	TOTAL						
		68.16 - 69.60:											
		purple-grey breccia fragments are penetrated by feldspathization - dilatant zones are also honey coloured - up to 7% pyrite.	2294	4-6	68.16	68.90	0.74				0.12		
		69.60 - 70.20:	2295	5-7	68.90	69.60	0.70				0.05		
		as above - increased feldspathization and up to 10% pyrite locally.	2296	6-8	69.60	70.20	0.60				0.10		
		70.20 - 70.88:	2297	3-5	70.20	70.88	0.68				0.01		
		pinkish-grey to purple-grey, intensely silicified and strongly brecciated - some fragments seem to carry relic vesicule-like openings.	2298	10-15	70.88	71.33	0.45				0.01		
		70.88 - 71.79:	2299	8-10	71.33	71.79	0.46				0.01		
		honey coloured, reddish-pink locally (71.28-71.50) similar to other reddish zones. Relic laminations visible locally, zone carries 10-12% pyrite and 10-20% white free quartz filling voids - silica dumping(?).	2300	1-2	71.79	72.03	0.24				0.01		
		71.79 - 72.03:	1101	10-15	72.03	72.62	0.59				0.69		
		weakly silicified breccia, moderately chloritized carries 1-2mm pyrite cubes; sheared.	1102	5-6	72.62	73.17	0.55				0.16		
		72.03 - 72.62:											
		dark purple-grey breccia fragments; intensely silicified with up to 20% pyrite locally, never less than 10%; no coarse clots, mostly very finely disseminated and 1-2mm blebs.											
		72.62 - 73.17:											
		dark purple-grey breccia with abundant chloritized fractures; strongly silicified, carries up to 10% pyrite locally. Lower contact is a very short transition over 1-2cm.											
73.17	80.18	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>											
		Dark green to dark grey-green, fine to very fine grained and weakly to moderately chloritized. Many intensely silicified sections are noted locally in seams up to 5cm parallel to a crudely developed bedding lamination. Pyrite content is 3-5%. Some general decrease is observed with depth. The rock is locally brecciated, and these sections may be more strongly silicified than is generally the rule. The uppermost 2m of the zone are 40% silicified sections with no single section greater than 5cm in length. Pyrite content is generally evenly distributed in this section, with local increases up to 5% in narrow silicified zones.	1103	4-6	73.17	73.67	0.50				0.01		
			1104	4-6	73.67	74.17	0.50				0.01		
			1105	4-6	74.17	74.72	0.55				tr.		
			1118	2-4	74.72	75.05	0.33				tr.		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-44 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		75.05 - 75.80: moderately chloritized, possibly weakly laminated, 2-4% pyrite in silicified sections - as clots up to 1cm.	C 1160	2-4	75.05	75.80	0.75			tr.	
		75.80 - 77.08: strongly silicified breccia, less than 10% chloritized.	1161	3-5	75.80	76.44	0.64			tr.	
		77.08 - 78.40: mixed silicified and chloritized rock.	1162	3-5	76.44	77.08	0.64			tr.	
		78.40 - 78.87: moderately silicified and brecciated, abundant chloritized seams.	1163	2-4	77.08	77.73	0.65			0.01	
		79.71 - 80.18: 70% purple-grey intensely silicified breccia with up to 7% pyrite.	1164	2-4	77.73	78.40	0.67			0.06	
			1165	3-5	78.40	78.87	0.47			tr.	
			1166	2-3	78.87	79.71	0.84			tr.	
			1167	4-5	79.71	80.18	0.37			tr.	
80.18	94.67	<u>LOCALLY SILICIFIED SEDIMENTS</u>									
		Dark green, fine grained with 16% purple-grey to grey-green brecciated and silicified sections. Strongest silicification is reflected in purple tinted rock. Rock has a poorly developed foliation or crude bedding lamination locally. Narrow silicified breccia seams may be parallel to the original bedding (eg. 40-45° at 82.75 m). The largest silicified zones are located at 83.88 - 84.01; 85.79-86.02; 86.22-86.50; 86.85-86.96; 88.38-88.73; and 90.67-90.84 m. The section from 85.79-88.73 m is 38.5% silicified zones. The rock averages 1-2% pyrite but silicified rock may carry up to 5% pyrite locally. Lack of well developed bedding may point to rapid deposition of this unit.	1168	1-3	80.18	80.93	0.75			tr.	
			1119	1-2	80.93	81.84	0.91			tr.	
			1120	1-2	81.84	82.84	1.00			tr.	
			1121	1-2	82.84	83.84	1.00			tr.	
			1122	1-2	83.84	84.84	1.00			tr.	
			1123	1-2	84.84	85.79	0.95			tr.	
			1124	2-3	85.79	86.50	0.71			tr.	
			1125	1-2	86.50	87.48	0.98			tr.	
			1126	1-2	87.48	88.38	0.90			tr.	
			1127	2-3	88.38	88.73	0.35			tr.	
			1128	1-2	88.73	89.73	1.00			tr.	
			1129	1-2	89.73	90.67	0.94			tr.	
			1130	1-2	90.67	91.20	0.53			tr.	
			1131	1-2	91.20	92.20	1.00			tr.	
			1132	1-2	92.20	92.97	0.77			tr.	
			1133	1-2	92.97	93.97	1.00			tr.	
			1134	1-2	93.97	94.67	0.70			tr.	
94.67	97.20	<u>LOWER SILICIFIED ZONE</u>									
		The rock is purple-grey with minor cream coloured intervals; and several dark green chloritized intervals (eg. 94.88-95.00 and 96.62-97.18 m). The zone is strongly brecciated and, except for chloritized zones, is intensely silicified. Lighter hued rock may be due to feldspathization. Chloritized intervals total 40% of the zone.	1135	2-3	94.67	95.67	1.00			tr.	
			1136	2-3	95.67	96.40	0.73			tr.	
			1137	1-2	96.40	97.20	0.80			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-44 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
97.20	111.55	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine grained, generally non-laminated but well parted locally. Locally brecciated sections are the sites of subsequent moderate silicification. The rock is weakly fractured. Fractures often have 1-2mm silicified halos and are quartz filled. White carbonate content in fractures may increase with depth. Pyrite content averages 0-1% with up to 5% in silicified breccia (eg. 100.18-100.38; 100.91-100.94 m).</p> <p>97.20 -104.37: chloritized with rare silicified sections.</p> <p>104.37-105.06: purple-grey to cream coloured, strongly brecciated cherty fragments set in a medium green argillitic(?) matrix. Purple tint in uppermost 25cm may be due to subsequent silicification. Carries 3-5% pyrite.</p> <p>105.06-107.04: weakly to moderately laminated (eg. 55° to core axis at 105.15 m).</p> <p>107.04-107.36: 50-60% cherty laminations at 35-40° to core axis.</p> <p>107.36-111.55: moderately to well laminated with 10% cherty laminations: 55° to core axis at 107.90 m and 40-45° to core axis at 110.40 m.</p>	C									
			1138	1-2	97.20	98.22	1.02				tr.	
			1139	1-2	98.22	99.23	1.01				tr.	
			1140	1-2	99.23	99.97	0.74				0.01	
			1141	3-4	99.97	100.60	0.63				0.15	
			1142	1-2	100.60	101.42	0.82				0.01	
			1143	1-3	102.42	102.92	0.50				0.01	
			1144	1-3	103.87	104.37	0.50				tr.	
			1145	2-4	104.37	105.06	0.69				tr.	
			1146	0-1	105.06	105.86	0.80				tr.	
			1147	1	107.04	107.36	0.32				tr.	
			1148	1	109.30	110.25	0.95				tr.	
111.55	118.67	<p><u>CHERTY AND ARGILLITIC SEDIMENTS</u></p> <p>The zone is composed of grey to purple-grey angular cherty fragments which are set in a medium green, fine grained chloritized matrix. These sections alternate with well laminated zones composed of intercalated grey cherty laminations and green chloritized laminations. The fragmental zones have probably been brecciated through rip-up action by high energy sediment flow (turbidite?). Localized subsequent silicification is noted, often with elevated pyrite contents (3-5%). Average pyrite content is 1-3%. Laminations are well preserved except where the rock is strongly brecciated.</p> <p>111.55-112.10: brecciated cherty beds, chloritized matrix.</p> <p>112.10-112.85: well laminated at 60° to core axis.</p> <p>112.85-113.22: brecciated, weakly to moderately silicified.</p>										
			1149	3-4	111.55	112.10	0.55				tr.	
			1150	2-3	112.10	112.85	0.75				tr.	
			1151	3-4	112.85	113.22	0.37				tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-44 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
		113.22-113.72: mostly green chloritized rock, few cherty laminations.	C 1152	0-1	113.22	113.72	0.50			tr.	
		113.72-114.60: strongly brecciated, moderately silicified.	1153	3-4	113.72	114.60	0.88			0.01	
		114.60-115.18: moderately brecciated, very weakly silicified.	1154	2-3	114.60	115.18	0.58			0.01	
		115.18-115.85: well laminated at 50° to core axis, strongly brecciated locally.	1155	1-2	115.18	115.85	0.67			0.01	
		115.85-116.31: well laminated, few brecciated zones, 30% cherty laminations.	1156	1-2	115.85	116.31	0.46			tr.	
		116.31-116.82: strongly brecciated, cherty laminated zone; 4-6% pyrite locally.	1157	2-3	116.31	116.82	0.51			tr.	
		116.82-117.74: weakly laminated, well parted, few cherty laminations, bedding at 40-45° at 116.85 m.	1158	1-2	116.82	117.74	0.92			tr.	
		117.74-117.92: cherty beds up to 1cm, argillitic chloritized rock is very weakly laminated.	1159	1-2	117.74	118.67	0.93			tr.	
		117.92-118.67: medium green, chloritized rock, weakly laminated becoming better laminated with depth - 40° to the core axis.									
		118.67 meters END OF HOLE CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 LENGTH 111.86 meters
 LOCATION _____
 LATITUDE 8 + 87.5 E DEPARTURE 64 + 00 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED October 13, 1983 FINISHED October 17, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-65°				
111.86	-61°				

HOLE NO. Mc-83-45 SHEET NO. 1 OF 8

REMARKS BQ Core
Split for assay
Casing pulled

LOGGED BY A.W. Workman

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	11.30	<u>OVERBURDEN</u>								
11.30	27.57	<u>ANDESITE (BASALT ?)</u> Medium to light grey-green, fine grained to aphanitic and non-magnetic. The section is a series of flows which are generally flow brecciated with rounded fragments up to 5cm. These fragments are mostly etched with reaction rims and are of slightly varying colour (composition?). Flow bottoms are well chilled. Flow tops are denoted by angular breccia zones where fragments are set in a strongly chloritized glassy matrix. 11.30 - 16.03: flow brecciated. 16.03 - 20.70: aphanitic, tectonically brecciated, minor flow breccia locally - irregularly epidotized below 20.00 m. 20.70 - 21.18: flow top breccia, angular fragments up to 3cm. 21.18 - 24.50: flow brecciated - some massive flow locally. 24.50 - 26.50: may be pillowed - vague selvages. 26.50 - 27.57: massive flow - flow brecciated locally; lower contact at 40-45° to core axis.								
27.57	28.81	<u>SEDIMENTS</u> Dark green, fine to very fine grained and thinly laminated with grey siliceous lenses and seams up to 5mm. Uppermost 10cm is weakly silicified and locally hematized. Bedding is at 50° to the core axis. Rock carries up to 5% very finely disseminated pyrite locally, usually associated with silicified seams in the upper half of the section.	C							
			1169	2-3	27.57	28.18	0.61			0.01
			1170	1-2	28.18	28.81	0.63			0.01

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
28.81	52.15	<p><u>BASALT</u></p> <p>Dark to medium green, fine to very fine grained, weakly to moderately flow brecciated throughout - possibly pillowed below 32.0 meters with abundant chloritized inter-pillow sediment. Flows carry 3-4% very finely disseminated pyrite locally in association with narrow silicified breccia seams, but in general average 0-1%.</p> <p>28.81 - 30.90: mostly flow brecciated</p> <p>30.90 - 31.57: <u>Intrusive</u> - pinkish-green, fine grained with well developed chills. Central part is more felsic in composition and carries numerous thin magnetite-filled fractures. Consequently, the rock is moderately to strongly magnetic. Contacts dip in opposing directions; top at 70° and basal at 50° to the core axis.</p> <p>32.20 - 37.85: vague pillow selvages locally</p> <p>37.85 - 38.25: <u>Sediments</u> - thinly laminated, probably tuffaceous.</p> <p>39.80 - 40.05: strongly flow brecciated with rounded fragments up to 2 cm. occupying 20% of rock volume.</p> <p>40.05 - 40.45: strongly shrinkage fractured - epidotized.</p> <p>40.45 - 41.25: fine to medium grained, moderately chloritized.</p> <p>41.25 - 41.37: several 5 cm. quartz veins.</p> <p>41.37 - 42.95: fine to very fine grained.</p> <p>42.95 - 43.55: strongly fractured, lower 15 cm. is moderately to strongly silicified.</p> <p>43.55 - 44.25: flow top breccia - epidotized</p> <p>44.25 - 47.70: flow breccia - wide variety of rounded to sub-angular fragments up to 2 cm.</p> <p>47.70 - 50.70: generally massive, fine grained, tectonically fractured - shrinkage fractures.</p> <p>50.70 - 52.15: crude pillowed appearance - possibly pillow-breccia (?).</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-45 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
52.15	59.55	<p><u>SEDIMENTS</u></p> <p>Dark green, fine to medium grained, variably laminated - from poor to excellent. Bedding locally exhibits signs of soft sediment deformation. Carbonatization is weakly developed locally and feathers out along the laminations. The zone averages 0-1% pyrite as a very fine dissemination and as occasional blebs up to 1 cm. elongated along laminations.</p> <p>52.15 - 52.30: abundant quartz (replacement?) filling voids up to 3 cm. roughly parallel to bedding.</p> <p>52.30 - 52.70: well laminated at 30° to core axis: moderately chloritized.</p> <p>52.70 - 55.53: poorly laminated with minor carbonatization along a well developed foliation at 45° to core axis. Rare laminated sections up to 10 cm. (53.95-54.05), at 55° to core. Section of ground and lost core at 53.95-54.10 meters.</p> <p>55.53 - 57.90: moderately well laminated becoming better laminated with depth. Bedding is highlighted by carbonatization of selected sets of laminations. Occasional silicified patches up to 2 cm. with elevated pyrite (1-3%) above the average. Laminations at 45-50° to core at 55.60 m. and 45° at 57.90 m.</p> <p>57.90 - 58.35: chloritized, strongly fractured, micro-faults parallel to core axis.</p> <p>58.35 - 59.55: very well laminated at 55° to core axis at 58.70 m and 45° at 59.20 m.</p>	C								
			1171	0-1	52.15	53.15	1.00			0.01	
			1172	0-1	53.15	54.15	1.00			0.01	
			1173	0-1	54.15	55.15	1.00			0.01	
			1174	0-1	55.15	56.10	0.95			0.01	
			1175	0-1	56.10	57.00	0.90			0.01	
			1176	0-1	57.00	57.90	0.90			tr.	
			1177	0-1	57.90	58.75	0.85			tr.	
			1178	0-1	58.75	59.55	0.80			tr.	
59.55	92.55	<p><u>MAIN MINERALIZED ZONE</u></p> <p>The zone is composed of an upper member which is variably silicified, a more strongly and broadly silicified middle member and a lower variably silicified member. The central member, the "main silicified zone", is altered in response to brecciation. Little or no silicification is noted apart from breccia zones. These zones carry elevated pyrite contents of up to 10% locally.</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-45 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
(Cont.) 59.55	92.55	Average pyrite content in altered rock is 2-4%. Silicification and brecciation is not as widespread nor as strong as is normal for this zone.									
59.55	61.59	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Dark green, very fine to fine grained and weakly to moderately laminated. The zone carries abundant cherty fragments (chemical sediments?) roughly oriented parallel to bedding. Zone averages 1% pyrite as blebs up to 1mm. 59.55 - 60.03: abundant cherty fragments set in a chloritized, fine grained matrix. Some bedding laminations are still visible in the fragments. 60.03 - 61.30: abundant cherty fragments up to 5cm in length in a medium grained, strongly chloritized matrix. Some silicification is noted in zones up to 10cm in length where the rock is strongly brecciated. Core ground badly locally - possible fault at 61.30 m. 61.30 - 61.59: moderately laminated with abundant irregular cherty fragments - chloritized matrix.									
61.59	89.51	<u>MAIN SILICIFIED ZONE</u> Dark purple-grey, with abundant (about 30%) dark green chloritized sections. Brecciation controls the degree of silicification present in this zone, and this in turn is reflected in purple tinted rock. Locally, especially near or in major fracture zones, a honey coloured alteration (feldspathization?) dominates the highly silicified sections. Silicified rock carries elevated pyrite contents (average 2-4%), mostly as a fine dissemination in the matrix to highly angular breccia fragments. The zone, as a whole averages 1-3% pyrite with highest levels approaching 10% in feldspathized rock. Because of the lack of widespread brecciation, large sections of non-silicified and chloritized rock are found in the main zone. This is abnormal in a general sense, and may reflect a 'local' anomaly. The rock is non-magnetic.	C 1179	0-1	59.55	60.03	0.48			0.01	
			1180	0-1	60.03	61.30	1.27			0.01	
			1181	1-2	61.30	61.59	0.29			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
			C									
	61.59 - 61.99:	cream coloured, strongly silicified becoming more purple-grey coloured.	1182	1-3	61.59	62.45	0.86			tr.		
	61.99 - 63.00:	purple-grey, intensely silicified, strongly brecciated honey coloured halos surround fractures cutting breccia.	1183	2-3	62.45	63.00	0.55			tr.		
	63.00 - 63.69:	25% honey coloured 'feldspathized' rock with up to 7% pyrite; foliation at 50° to core axis visible locally - chloritized patches.	1184	3-5	63.00	63.69	0.69			0.02		
	63.69 - 65.02:	abundant white siliceous filling around grey breccia fragments; abundant chloritized fractures.	1185	2-3	63.69	64.50	0.81			0.01		
	65.02 - 65.50:	abundant chloritized 'patches' up to 8cm where purple-grey silicification has not penetrated; that is, the rock has not been brecciated to provide channelways.	1186	2-3	64.50	65.02	0.52			0.01		
			1187	1-2	65.02	65.50	0.48			0.01		
	65.50 - 66.30:	same as 61.99-63.00 m.	1188	2-3	65.50	66.30	0.80			tr.		
	66.30 - 67.12:	carries 10% chloritized rock.	1189	1-3	66.30	67.12	0.82			tr.		
	67.12 - 68.19:	intensely brecciated locally but carries 70% non-brecciated, non-silicified rock.	1190	1-2	67.12	68.19	1.07			tr.		
	68.19 - 68.65:	purple-grey, intensely silicified breccia.	1191	2-4	68.19	68.65	0.46			tr.		
	68.65 - 70.15:	same as 67.12-68.19 - 50% chloritized non-silicified sections; carries white quartz grains up to 1mm (tuff?), parallel chloritized and silicified breccia seams may reflect original bedding - 40° to core axis at 68.75 m; 45° at 69.83 m.	1192	1-3	68.65	69.47	0.82			tr.		
			1193	1-3	69.47	70.15	0.68			tr.		
	70.15 - 71.05:	intensely silicified breccia, 5-10% chloritized zones; honey coloured halos near major fractures carry up to 7% pyrite locally.	1194	2-4	70.15	71.05	0.90			0.02		
	71.05 - 71.75:	same as 68.65-70.15 m.	1195	1-3	71.05	71.75	0.70			0.01		
	71.75 - 73.02:	95% chloritized; 5% silicified breccia, generally well foliated/laminated at 40-50° at 72.15 m. Silicified breccia carries 3-5% pyrite, overall average 1-2%.	1196	1-2	71.75	72.54	0.79			tr.		
	73.02 - 73.28:	same as 71.75-73.02 with 50% silicified breccia.	1197	1-2	72.54	73.02	0.48			tr.		
	73.28 - 73.50:	INTRUSIVE - dark grey-green, abundant green chloritized blebs up to 2mm (biotite?), and occasional pink siliceous xenoliths up to 5mm. Carries 0-1% pyrite. Non-magnetic. White 2-3mm feldspar phenocrysts locally.	1198	1-2	73.02	74.05	1.03			tr.		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-45 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
		73.50 - 74.05:										
		generally well laminated with 30-50% silicified laminations or sets of laminations. Also carries breccia controlled silicification. Bedding at 45° at 74.50 m.	C									
		74.05 - 74.70:	1199	2-3	74.05	74.70	0.65				tr.	
		amount of silicified rock increases to 80% as the level of brecciation increases.										
		74.70 - 76.30:	1200	1-2	74.70	75.66	0.96				0.01	
		chloritized, well laminated with siliceous cherty laminations; up to 5% silicified breccia, laminations at 45° at 75.00 m. Several de-watering channels are strongly silicified and indicate <u>TOPS UP</u> (eg. 76.08 m).										
		76.30 - 77.72:	2301	1-2	75.66	76.30	0.64				0.01	
		75% strongly silicified breccia, locally laminated.	2302	2-3	76.30	76.72	0.42				0.01	
		77.72 - 77.93:	2303	1-2	76.72	77.72	1.00				0.01	
		purple-grey, intensely silicified breccia, up to 5% pyrite locally in clots up to 1.5cm.	2304	2-3	77.72	78.20	0.48				0.01	
		77.93 - 78.20:										
		40-50% silicified breccia; 50-60% chloritized sections - less brecciated than above zones.										
		78.20 - 78.75:	2305	1-2	78.20	78.75	0.55				tr.	
		78.75 - 79.35:	2306	3-5	78.75	79.35	0.60				0.02	
		similar to 71.75-73.04 m, very little silicified. sharply transitional (across 5cm), into intensely silicified and strongly brecciated rock. Major fracture systems are white quartz filled with 'feldspathized' halos. These halos carry 5-7% pyrite and up to 10% locally.										
		79.35 - 79.77:	2307	2-4	79.35	79.77	0.42				0.01	
		same as 78.75-79.35 - very little 'feldspathized' rock.										
		79.77 - 80.00:	2308	4-6	79.77	80.38	0.61				0.05	
		purple-grey intensely silicified breccia with pyrite in clots up to 1.5cm and fracture filling.										
		80.00 - 80.38:	2309	1-2	80.38	81.23	0.85				tr.	
		as above, very finely disseminated pyrite.										
		80.38 - 82.11:	2310	1-2	81.23	82.11	0.88				tr.	
		60% dark green, chloritized rock.										
		82.11 - 83.59:	2311	1-3	82.11	82.85	0.74				tr.	
		60% dark purple-grey silicified breccia with 40% chloritized patches. Minor fault zone at 83.25-83.52 - sheared at 45° to core axis.	2312	1-3	82.85	83.59	0.74				tr.	
		83.59 - 85.83:	2313	2-4	83.59	85.14	1.55				0.03	
		strongly brecciated, intensely silicified with 5% green chloritized patches, minor 'feldspathization'.	2314	2-4	85.14	85.83	0.69				0.01	
		85.83 - 86.11:	2315	0-1	85.83	86.11	0.28				0.01	
		weakly brecciated, moderately chloritized with only 10% silicified sections.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-45 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		86.11 - 87.08: intensely silicified breccia, 5% chloritized rock. Pyrite in clots up to 1cm. Increasing 'feldspathization' below 86.54 m. Up to 12% pyrite locally.	C 2316	3-5	86.11	86.54	0.43			0.01	
			2317	7-9	86.54	87.08	0.54			0.22	
		87.08 - 87.33: tensional fracturing and brecciation - white silica infilling.	2318	1-3	87.08	87.72	0.64			0.01	
		87.33 - 89.51: silicified breccia; 10-20% green, chloritized rock - mostly above 87.72 m. Carries 4-5% pyrite in clots up to 2cm between 88.36 and 88.71 m.	2319	2-3	87.72	88.36	0.64			0.01	
			2320	4-5	88.36	88.71	0.35			0.09	
			2321	1-3	88.71	89.51	0.80			0.01	
89.51	92.55	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Zone is generally dark green, fine grained and non-laminated initially becoming better bedded with depth as cherty seams increase in percentage. Carries numerous intensely silicified breccia zones up to 5cm in width. The number and size of silicified zones decrease with depth. Upper contact of zone is possibly sheared at 58° to core axis at 89.58 m.									
		89.51 - 91.45: 5% silicified intervals with 3-4% pyrite locally (91.23-91.34). Weakly laminated at 50° to core axis. Moderately carbonatized locally.	2322	1-2	89.51	90.33	0.82			0.01	
			2323	1-2	90.33	91.45	1.12			0.01	
		91.45 - 92.03: abundant cherty fragments and silicified sets of laminations; 3-4% disseminated pyrite.	2324	3-4	91.45	92.30	0.85			tr.	
		92.03 - 92.30: 50% silicified breccia; 3-5% pyrite.									
		92.30 - 92.55: 75% brecciated cherty laminations with chloritized intercalated laminations.	2325	3-5	92.30	92.55	0.25			0.05	
92.55	111.86	<u>SEDIMENTS</u>									
		Dark green and fine grained with abundant white quartz along laminations - probably a replacement. Rock is weakly to moderately carbonatized below 95 m. A well developed parting parallel to a vague foliation indicates the bedding orientation. Acid etching of core is required (in the uppermost part), to highlight the laminations: 55° to core axis at 92.75 m and 50° at 94.35 m. A 2cm breccia zone at 92.82 is moderately silicified and is the lowest detected. Section averages 1% pyrite as blebs up to 1mm.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-45 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		92.55 - 94.50:	2326	1-2	92.55	93.33	0.78			tr.	
		94.50 - 97.40:	2327	1	93.33	94.35	1.02			tr.	
		97.40 - 98.69:	2328	1	94.35	95.22	0.87			tr.	
		98.69 - 100.75:	2329	1	95.22	96.12	0.90			tr.	
		100.75-101.10:	2330	1	96.12	97.12	1.00			tr.	
		101.10-105.15:	2331	0-1	97.77	98.69	0.92			0.01	
		105.15-105.65:	2332	0-1	99.67	100.67	1.00			0.01	
		106.83-108.90:	2333	0-1	101.67	102.67	1.00			0.01	
		108.90-109.13:	2334	0-1	103.80	104.80	1.00			0.01	
		109.54-110.17:	2335	0-1	105.80	106.45	0.65			0.01	
		110.17-111.86:	2336	0-1	108.81	109.54	0.73			0.01	
		110.55 m: 45° to core axis.	2337	2-3	109.54	110.17	0.63			0.01	
		111.55 m: 55° to core axis.	2338	0-1	110.17	110.75	0.58			0.01	
		111.86 meters									
		END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-46 LENGTH 111.86 meters
 LOCATION _____
 LATITUDE 7 + 75 E DEPARTURE 0 + 65 E
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED October 17, 1983 FINISHED October 19, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-63°				
111.86	-59°				

HOLE NO. Mc-83-46 SHEET NO. 1 OF 6
 REMARKS BQ Core
Split for assay.
 LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
0		<u>OVERBURDEN</u>									
	56.20	<u>BASALT</u> Medium to dark green, aphanitic to medium grained, strongly brecciated due to tectonic activity to a depth of 34.40 m and irregularly throughout the section. A large portion of these lavas are flow brecciated as indicated by rounded, silicified fragments up to 5cm in size. Rock is non-magnetic and averages 0-1% pyrite as 0.1-1.0mm blebs. - 28.65: core badly ground. 28.65 - 34.40: angularly brecciated, flow breccia locally visible. About 0.85 m of core ground and lost between 26.52 and 28.65 m. 34.40 - 36.10: fine to medium grained. 36.10 - 37.10: flow breccia. 37.10 - 38.32: massive, fine to medium grained. 38.32 - 39.80: flow brecciated, 5-10% silicified fragments up to 2cm; rare to 5cm. 39.80 - 40.10: very fine grained flow. 40.10 - 40.50: <u>SEDIMENTS</u> - dark green, very fine grained and weakly <u>foliated</u> with minor silicification in uppermost 5cm. Averages 2-3% pyrite. 40.50 - 45.95: fine to medium grained, sub-ophitic textured, becoming coarse grained locally (eg. 42.30-43.35). Strongly sheared and moderately silicified from 43.55-43.75 m carrying 3-5% pyrite. Narrow clay seam at 44.65 marks a minor fault - local shearing at 50° to core axis. 45.95 - 46.20: tectonically brecciated, epidotized; angular fragments up to 1cm.	C 2339	1-3	40.10	40.50	0.40			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-46 SHEET NO. 2 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		46.20 - 47.07: medium-coarse grained, massive.									
		47.07 - 47.95: intensely silicified breccia, epidotized - probably flow-top breccia below apparent flow contact at 47.18 m.									
		47.95 - 51.15: fine to very fine grained, abundant tight epidotized ladder-type shrinkage fractures.									
		51.15 - 52.35: several silicified and epidotized patches, some breccia; pillow rims?									
		52.35 - 56.20: tectonically brecciated flow breccia - confused texturally - generally fine to very fine grained, abundant shearing at varying angles.									
56.20	61.59	<u>SEDIMENTS</u>									
		Medium to dark green, fine to very fine grained; crudely laminated on a 1-2mm scale highlighted by 10-15% moderately carbonatized laminations and seams parallel to the bedding. A semi-nodular texture is observed locally, possibly diagenetic silica.									
		56.20 - 57.80: well laminated with 5-10% hematized 1-2mm seams, bedding at 45° at 57.00 m and 30-35° at 57.80.	2340	0-1	56.20	57.20	1.00			0.02	
			2341	1-2	57.20	58.15	0.95			0.01	
		57.80 - 58.30: well laminated with nodular texture locally.	2342	1-2	58.15	59.05	0.90			0.01	
		58.30 - 59.90: crudely laminated, weakly carbonatized with abundant cherty fragments and brecciated cherty laminations locally.	2343	1-2	59.05	59.85	0.80			0.01	
			2344	1-2	59.85	60.90	1.05			0.01	
			2345	1-2	60.90	61.59	0.69			tr.	
		59.90 - 61.59: well laminated at 50° to core axis.									
61.59	91.84	<u>MAIN MINERALIZED ZONE</u>									
		The main zone is composed of three sub-sections; the upper section is a variably silicified zone where alteration is limited to breccia zones. Cherty beds, although brecciated and set in a chloritized groundmass, are in much evidence. These are chemical sediments. The middle section, the 'main silicified zone', is intensely silicified and strongly brecciated. Some non-brecciated lapilli tuff is in evidence. Small localized fault zones are chloritized along radiating fractures. The lower member of this section is a chloritized zone carrying 15% silicified breccia.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-46 SHEET NO. 3 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IOES	FOOTAGE			%	%	OZ/TON	OZ TON
					FROM	TO	TOTAL				
61.59	63.42	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green, fine to very fine grained and chloritized with abundant grey to mauve cherty fragments. These clasts are sub-rounded, often lentic, and larger fragments up to 6cm in size often have a nodular texture internally - diagenetic silica(?). Smaller fragments resemble rip-up clasts. Upper contact is parallel to bedding at 45-50° to the core axis. The greatest percentage of clasts are within 28cm of the upper contact. The lower contact is masked by abundant carbonate stringers and a 2mm plate of carbonate beneath lowest lamination. Contact is gradational rather than structural, but is nonetheless very sharp. The zone averages 1-2% pyrite as blebs up to 1mm.</p>	C								
			2346	1-2	61.59	62.04	0.45				tr.
			2347	1-2	62.04	62.65	0.61				tr.
			2348	1-2	62.65	63.42	0.77				tr.
63.42	85.99	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Greenish-grey becoming purple-grey below a fracture system at 64.33. Two textures are in evidence; ash and lapilli tuff clasts up to 1cm set in an aphanitic matrix - the whole being intensely silicified; and, strongly brecciated rock with an aphanitic filling in dilatant zones, also intensely silicified. Tuffaceous material is of varying lithologies, many of the clasts are extremely angular. Some vitric tuff with relic vesicles, partly outlined, are in evidence. Honey coloured 'feldspathization' invades purple-grey zones and feathers out along bedding laminations locally. These zones carry increased pyrite contents generally confined to matrix rather than fragments. The rock is weakly to moderately laminated locally (eg. 50° at 63.42 m), often with hematite concentrated between laminations.</p> <p>63.42 - 64.49: weakly laminated tuffaceous zone, clasts are pink, white and light green, up to 2cm locally. Pyrite up to 8%; very finely disseminated in matrix to fragments. Chloritized fracture zones at 64.18-64.33 m. Minor vitric tuff.</p> <p>64.49 - 68.95: honey coloured alteration invades purple-grey rock along laminations - feathering out; expands into intensely brecciated zones. Brecciation is moderate becoming strong below 66.14 m. Carries up to 10% very finely disseminated in lighter coloured rock. Laminations at 45° at 64.82 and 40° at 65.80 m.</p>									
			2349	6-8	63.42	64.18	0.76				tr.
			2350	3-5	64.18	64.50	0.32				0.01
			2351	3-5	64.50	65.40	0.90				0.01
			2352	4-6	65.40	66.30	0.90				0.04
			2353	1-3	66.30	66.63	0.33				0.06
			2354	3-5	66.63	67.40	0.77				0.08
			2355	3-5	67.40	68.20	0.80				0.16
			2356	2-4	68.20	68.95	0.75				0.01

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-46 SHEET NO. 4 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		68.95 - 69.80:	C 2357	4-6	68.95	69.80	0.85			0.15	
		69.80 - 70.60:	2358	2-3	69.80	70.60	0.80			0.03	
		70.60 - 72.24:	2359	2-3	70.60	71.42	0.82			tr.	
		72.24 - 73.78:	2360	2-3	71.42	72.24	0.82			tr.	
			2361	1-2	72.24	73.04	0.80			tr.	
			2362	1-2	73.04	73.78	0.74			tr.	
		73.78 - 74.55:	2363	0-1	73.78	74.73	0.95			tr.	
		74.55 - 77.28:	2364	7-9	74.73	75.46	0.73			0.24	
			2365	4-6	75.46	76.16	0.70			0.12	
			2366	6-8	76.16	76.87	0.71			0.19	
			2367	7-9	76.87	77.28	0.41			0.17	
		77.28 - 78.15:	2368	2-3	77.28	78.15	0.87			0.02	
		78.15 - 78.75:	2369	1-3	78.15	78.75	0.60			0.02	
		78.75 - 79.06:	2370	3-6	78.75	79.06	0.31			0.02	
		79.06 - 79.51:	2371	1-3	79.06	79.51	0.45			tr.	
		79.51 - 80.07:	2372	1-2	79.51	80.07	0.56			tr.	
		80.07 - 81.88:	2373	1-3	80.07	80.77	0.70			tr.	
			2374	1-3	80.77	81.88	1.11			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-46 SHEET NO. 5 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		81.88 - 82.83: <u>INTRUSIVE</u> - dark green, fine grained, with abundant (5-10%), reddish-pink silicified xenoliths carrying greyish reaction rims. Lower contact at 55° to core axis - parallel to chloritized seams below.	C 2375	0-1	81.88	82.83	0.95				tr.
		82.83 - 85.99: highly silicified breccia with 10-15% chloritized seams up to 10cm width. Seams are parallel to what resembles a relic lamination at 40-45° to core axis (eg. 83.45 m). Zone at 84.00-84.07 m is tuffaceous and bedded at 45-50° to core. Laminations at 45° at 85.05 m.	2376	1-3	82.83	83.65	0.82				tr.
			2377	1-3	83.65	84.43	0.78				tr.
			2378	1-2	84.43	85.36	0.93				tr.
						(measures	1.07 m				
			2379	1-2	85.36	85.99	0.63				tr.
85.99	91.84	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Light to medium green, fine to very fine grained with abundant (15%), purple-grey, aphanitic intensely silicified breccia zones. Rock is weakly laminated at 55° to core axis. Fracturing is moderately to strongly developed with pink quartz-carbonate filling.	2380	0-1	85.99	86.94	0.95				tr.
			2381	0-1	86.94	87.49	0.55				tr.
			2382	0-1	87.49	88.10	0.61				tr.
			2383	0-1	88.10	88.61	0.51				tr.
			2384	1-2	88.61	89.30	0.69				tr.
		88.10 - 88.61: <u>INTRUSIVE</u> - medium green, fine to medium grained, carries 5-10% reddish-pink siliceous xenoliths. Lower contact is at 45-50° to core axis, parallel to underlying chloritized seams.	2385	0-1	89.30	90.24	0.94				tr.
			2386	1-2	90.24	91.09	0.85				tr.
			2387	1-2	91.09	91.84	0.75				tr.
		89.30 - 90.24: very few silicified sections, locally laminated (eg. 40° at 89.80 m).									
		90.24 - 91.84: fine grained, medium locally; graded beds at 90.35 m indicate tops up; minor cherty fragments, well laminated with cherty laminations at 40-45° to core at 90.70 m.									
91.84	111.86	<u>SEDIMENTS</u>									
		Light to medium green, fine to very fine grained, generally well laminated highlighted by cherty 1-3mm laminations separating wider chloritized lamination sets. Cherty chemical sediments may comprise 50% of the rock volume over sections as great as 55cm. Carbonatization is moderate in cherty sections, but weaker in									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-46 SHEET NO. 6 OF 6

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		strictly chloritized rock. Carbonate alteration feathers out along the bedding. The zone is non-magnetic and averages 1% pyrite as blebs up to 2mm.	C								
		91.84 - 95.25: well laminated, up to 5% pyrite associated with cherty sections; bedding at 50-55° to core axis at 90.70 m.	2388	0-1	91.84	92.69	0.85			tr.	
			2389	0-1	92.69	93.57	0.88			tr.	
			2390	0-1	93.57	94.40	0.83			tr.	
			2391	0-1	94.40	95.25	0.85			0.01	
			2392	1	95.25	95.93	0.68			0.01	
		95.25 - 96.07: 50% cherty laminations, minor local brecciation of cherty beds.	2393	1-2	95.93	96.80	0.87			tr.	
			2394	0-1	96.80	97.70	0.90			0.01	
		96.07 - 96.80: abundant brecciated cherty material - up to 2% pyrite - very finely disseminated.	2395	0-1	97.70	98.55	0.85			0.01	
			2396	0-1	99.75	100.75	1.00			0.01	
		96.80 -102.00: well laminated, occasional chert. Bedding at 60° to core axis at 97.05 m; 50° to core axis at 98.55 m; 50-55° to core axis at 102.00 m.	2397	0-1	102.25	103.25	1.00			0.01	
			2398	0-1	105.25	106.15	0.90			0.01	
		102.00-111.86: weakly to moderately laminated, spotty carbonatization. Bedding at 45° to core axis at 107.40 m; 45° to core axis at 111.50 m.	2399	0-1	107.73	108.73	1.00			tr.	
			2400	0-1	110.80	111.86	1.06			tr.	
		111.86 meters END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-47 LENGTH 120.30 meters
 LOCATION _____
 LATITUDE 7 + 25 E DEPARTURE 0 + 62 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED October 19, 1983 FINISHED October 21, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-64°				
121.92	-60°				

HOLE NO. Mc-83-47 SHEET NO. 1 OF 7

REMARKS BQ Core

Split for assay.

LOGGED BY A.W. Workman

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	11.80	<u>OVERBURDEN</u>								
11.80	66.95	<u>BASALT</u>								
		<p>This section is composed of a series of flows. All are medium to dark green, fine to very fine grained at the margins with relatively coarser grained centres. The thinner flows are flow brecciated. The one thick flow seems to be massive. Rocks are weakly to moderately chloritized, and non-magnetic. Pyrite content averages 1-2% but is higher in localized 'pods' of silicified breccia.</p> <p>11.80 - 15.40: fine to medium grained. 15.40 - 16.10: fine to very fine grained. 16.10 - 16.80: flow top breccia - moderately hematized fractures. 16.80 - 24.00: flow breccia - aphanitic, rounded fragments up to 10cm in size have reaction rims. Matrix is composed of fine to very fine grained, chloritized, more angular framgnets up to 2cm.</p> <p>24.00 - 27.05: no rounded fragments, probably tectonically brecciated due to late flow movement. Rare zones of 5-10% pyrite associated with minor silicification. May carry some 20-50cm sections of flow breccia.</p> <p>27.05: flow contact. 27.05 - 28.85: angularly brecciated - flow top. 28.85 - 29.60: flow breccia, rounded fragments up to 5cm. 29.60 - 32.32: tectonically brecciated. 32.32 - 37.20: fine grained, angular tectonic breccia - upper contact at 60° to core axis. 37.20 - 39.75: very fine grained to aphanitic, sheared locally. 39.75 - 40.45: <u>SEDIMENTS</u> - strongly silicified at upper contact, weakly to very weakly laminated - well parted; up to 5% pyrite as 1-2mm cubes.</p>								

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-47 SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		40.45 - 54.55: massive flow - fine grained near upper contact (40.45-41.45), then becoming medium to coarse grained. Minor epidotized breccia - tectonic type.									
		54.55 - 56.25: fine to very fine grained.									
		56.25 - 57.55: fine to medium grained.									
		57.55 - 59.66: fine to very fine grained, strongly tectonically brecciated.									
		59.66 - 64.60: very fine grained to aphanitic, abundant silicified and epidotized breccia. Tensional fractures are common below a silicified zone at 63.09-63.38 m.									
		64.60 - 64.80: flow-type breccia - rounded fragments up to 5cm carry well developed reaction rims.									
		64.80 - 66.90: fine grained, abundant tensional carbonate filled fractures.									
		66.90 - 66.95: strongly brecciated and silicified - carbonate and silica in matrix to fragments. Section carries 3-4% pyrite.									
66.95	75.95	<u>SEDIMENTS</u>									
		Medium green, fine to very fine grained, mostly well laminated on a 1-3mm scale. Wider laminations are composed of cherty material which frequently pinches and swells up to 1cm thickness. Bedding is highlighted by pale grey carbonate replacing selected sets of laminations. This carbonatization feathers out along the laminations and is weak to moderate in strength.	C								
		66.95 - 68.40: well laminated, occasional carbonatization, bedding at 45° to core axis at 67.20 m.	2501	0-1	66.90	67.90	1.00				tr.
		68.40 - 74.61: moderate to well developed laminations with occasional purple-grey hematized and carbonatized beds. Carbonate alteration dramatically increases in this section. Bedding at 71.40 m at 30° to core axis and at 73.10 m at 40° to core axis.	2502	0-1	67.90	68.80	0.90				tr.
		74.61 - 74.98: strongly carbonatized seams and laminations - purple grey colour reflects minor localized silicification and hematization.	2503	0-1	68.80	69.65	0.85				tr.
			2504	0-1	69.65	70.65	1.00				tr.
			2505	0-1	70.65	71.55	0.90				tr.
			2506	0-1	71.55	72.35	0.80				tr.
			2507	0-1	72.35	73.25	0.90				tr.
			2508	0-1	73.25	74.00	0.75				tr.
			2509	0-1	74.00	74.61	0.61				tr.

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-47 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		74.98 - 75.29:									
		abundant cherty fragments up to 3cm are lensitic in shape. Chloritized laminations wrap around fragments. Rock becomes a characteristic purple-grey colour but contains only minor weak silicification.	C								
		75.29 - 75.95:	2510	0-1	74.61	75.29	0.68				tr.
		purple-grey sets of laminations up to 1cm thickness. Non-silicified, non-brecciated. Bedding at 75.70 m is at 40° to core axis.	2511	0-1	75.29	75.95	0.66				tr.
75.95	111.46	<u>MAIN MINERALIZED ZONE</u>									
		The zone is composed of four sections - a variably silicified upper member; an intensely silicified central zone; a lower variably silicified member; and, at the base a second thin zone of very strong silicification (lower mineralized zone). Pyrite contents up to 12% are noted - highest in honey coloured 'feldspathized' rock. Brecciation is irregularly developed throughout the zone and has a vague control over 'feldspathization' (but not silicification, except in lower section).									
75.95	81.24	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Medium to dark green, with abundant pink to light grey replacements of fine to very fine grained dark green chloritized laminations and sets of laminations. Most of this replacement is silica although some carbonate is also present. Approximately 20% of the zone is silicified sections. A reddish cherty zone is noted at 78.23-79.02 which was previously termed syenitic. Bedding is well developed locally. Major silicified horizons are noted at 76.85-76.95; 77.23-77.35; and 77.41-77.98 m.									
		75.95 - 76.85: well laminated locally with silicification confined to only thin sections.	2512	1-2	75.95	76.97	1.02				tr.
		76.85 - 78.23: silicification replaces carbonatized cherty fragments eventually coalesing into massive beds.	2513	1-2	76.97	77.60	0.63				tr.
			2514	1-2	77.60	78.23	0.63				tr.

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-47 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDFG	FOOTAGE			%	%	OZ TON	OZ TON
					FROM	TO	TOTAL				
		78.23 - 79.02: reddish-pink, aphanitic, possibly laminated, strongly brecciated and highly siliceous. Carries 3-5% pyrite. Highly fractured - chloritized breaks.	C 2515	3-5	78.23	79.02	0.79			tr.	
		79.02 - 81.24: chloritized with abundant siliceous (cherty), fragments up to 5cm - laminated locally - core badly ground.	2516	0-1	79.02	79.74	0.72			tr.	
			2517	0-1	79.74	80.47	0.73			tr.	
			2518	0-1	80.47	81.24	0.77			tr.	
81.24	98.67	<u>MAIN SILICIFIED ZONE</u>									
		Purple-grey, aphanitic, laminated locally, variably brecciated with abundant honey coloured 'feldspathized' sections. Pyrite contents up to 12% are noted in honey coloured rock. Purple-grey rock carries smaller amounts. Pyrite is found as a very fine grained dissemination, as clots up to 2cm and as fillings between laminations. Purple colouration is due to strong, very fine grained hematization.									
		81.24 - 81.97: mostly purple-grey, intensely silicified breccia.	2519	2-4	81.24	81.97	0.73			0.29	
		81.97 - 82.37: strongly 'feldspathized' - up to 7% pyrite; averaging 4-6%, concentrated along 1-2mm seams - possibly reflecting former laminations.	2520	4-6	81.97	82.37	0.40			0.62	
		82.37 - 83.04: honey coloured angular breccia fragments in a dark grey matrix - hematized fractures.	2521	1-3	82.37	83.04	0.67			0.08	
		83.04 - 85.45: honey coloured, moderately brecciated; strongly laminated locally. Pyrite contents up to 10% - often concentrated along laminations. Bedding at 55° at 84.75 m and 45° to core axis at 85.20 m.	2522	6-8	83.04	83.74	0.70			0.31	
			2523	6-8	83.74	84.64	0.90			0.14	
			2524	7-9	84.64	85.48	0.84			0.14	
		85.45 - 86.15: intensely silicified, strongly 'feldspathized' with pyrite along well developed laminations - 55° to core axis at 85.75 m.	2525	7-9	85.48	86.08	0.60			0.05	
			2526	7-9	86.08	86.78	0.70			0.18	
		86.15 - 88.21: same as 83.04-85.45 m - laminated locally 45° to core axis at 87.83 m.	2527	7-9	86.78	87.60	0.82			0.06	
			2528	9-11	87.60	88.21	0.61			0.03	
		88.21 - 89.68: <u>INTRUSIVE</u> - dark green, fine to medium grained, abundant siliceous xenoliths. Carries abundant 1-2mm chloritized flakes - biotite? Cut by several 1-5cm quartz veins. Contains up to 1% pyrite.	2529	1	88.21	88.96	0.75			tr.	
			2530	1	88.96	89.68	0.72			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-47 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		Clay seams at 88.76 and 88.81 m indicate minor faults. Core recovery in this section is 75%.	C								
	89.68 - 90.70:	purple-grey, aphanitic, laminated at 45° to core at 89.83 m. Bedding is increasingly disturbed by increasing brecciation with depth.	2531	1-3	89.68	90.53	0.85			0.04	
	90.70 - 91.17:	same as 89.68-90.70 m but carries 10% dark green chloritized and hematized patches up to 2cm in diameter.	2532	1-3	90.53	91.30	0.77			0.02	
	91.17 - 92.15:	same as 89.68-90.70 m.	2533	1-3	91.30	92.15	0.85			0.01	
	92.15 - 92.65:	minor chloritized patches. Zone is increasingly 'feldspathized' along fracture systems. Laminated at 55° to core axis at 92.65 m.	2534	1-2	92.15	92.80	0.65			0.02	
	92.65 - 93.30:	strongly brecciated, locally laminated, with 10% chloritized patches up to 5cm.	2535	1-2	92.80	93.30	0.50			0.01	
	93.30 - 94.29:	grey to purple-grey with increasing honey coloured rock in strongly brecciated zones.	2536	4-6	93.30	93.85	0.55			0.01	
	94.29 - 95.61:	well laminated - 80% 'feldspathized' initially decreasing with depth. Chloritized seams increase to 10%. Up to 12% pyrite is carried in massively feldspathized rock. Bedding at 55° to core at 98.21 m.	2537	4-6	93.85	94.29	0.44			0.20	
			2538	8-10	94.29	94.69	0.40			0.14	
			2539	4-6	94.69	95.61	0.92			0.01	
95.61	109.85	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Initially, the zone is purple-grey, intensely silicified and locally honey coloured with 40-50% dark green chloritized laminations. Percentage chloritized rock ranges from 25-75%. Below 99.65 m, chloritized rock is dominant although significant quantities of silicified breccia are observed below this point. Laminated rock is not silicified. The zone is generally well laminated. The rock is non-magnetic.									
	95.61 - 96.60:	dominantly silicified rock, well bedded at 45° to core axis.	2540	1-3	95.61	96.51	0.90			0.03	
	96.60 - 99.40:	chloritized with silicified breccia locally.	2541	1-3	96.51	97.46	0.95			0.01	
	99.40 -100.85:	mostly silicified, honey coloured, brecciated rock. Localized increases in pyrite content to 3-4% - average 2-3%. Bedding visible locally - 45° at 99.40 m.	2542	1-3	97.46	98.33	0.87			0.01	
			2543	1-3	98.33	99.23	0.90			tr.	
			2544	2-3	99.23	100.00	0.77			0.03	
			2545	2-3	100.00	100.86	0.86			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-47 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		100.85-101.79: chloritized, limited silicification along fractures Strongly silicified breccia at 101.55-101.73 m.	C								
		101.79-102.29: <u>INTRUSIVE</u> - dark green, fine grained, silicified xenoliths near upper contact, non-magnetic. Mostly ground core. Lower contact at 60-65° to core axis.	2546	1-3	100.86	101.78	0.92			0.01	
		102.29-103.52: same as 100.85-101.79 m.	2547	0-1	101.78	102.28	0.50			0.01	
		103.52-105.76: zone is 75% strongly to intensely silicified breccia. Some sections (eg. 104.17-104.75 m) carry up to 6% finely disseminated pyrite. Laminated locally - 55° at 105.55 m.	2548	1-2	102.28	102.99	0.71			tr.	
		105.76-106.79: dark green, fine grained, chloritized, non-silicified, weakly developed lamination or foliation.	2549	1-2	102.99	103.52	0.53			0.01	
			2550	2-3	103.52	104.16	0.64			0.12	
			2551	4-6	104.16	104.74	0.58			0.11	
			2552	2-4	104.74	105.75	1.01			0.02	
			2553	1-2	105.75	106.79	1.04			0.01	
106.79	108.34	<u>LOWER MINERALIZED ZONE</u>									
		Honey coloured to purple-grey, intensely silicified breccia with 2-4% very finely disseminated pyrite. Minor chloritized rock at 107.15-107.48 m. A sheared, mylonitic fault zone is noted at 107.78-107.91 m. Movement has occurred at 60° to the core axis. The "lower mineralized zone" might extend up to and include the silicified breccia found there.	2554	2-4	106.79	107.77	0.98			0.01	
			2555	2-4	107.77	108.34	0.57			0.03	
108.34	120.30	<u>SEDIMENTS</u>									
		Dark green, fine grained, chloritized weakly to moderately. Well laminated sections alternate with massive and well fractured sections. Weak to moderate carbonatization highlights the bedding. Single laminations are locally brecciated - up to 4% pyrite. Zone averages 1-2% pyrite.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-47 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		109.20-110.40: laminated at 65° to core axis.	C								
		111.47: laminated at 60-65° to core axis.	2556	1-2	108.34	109.23	0.89			0.02	
		114.85: laminated at 50° to core axis.	2557	1-2	111.65	112.65	1.00			tr.	
		117.75-118.30: bedding at 55° to core axis.	2558	1	114.65	115.65	1.00			tr.	
		120.30: bedding at 65° to core axis.	2559	1	117.65	118.55	0.90			tr.	
			2560	1	119.32	120.30	0.98			0.01	
		120.30 meters END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 LENGTH 145.08 meters
 LOCATION _____
 LATITUDE 10 + 25 E DEPARTURE 1 + 00 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED October 24, 1983 FINISHED October 29, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
53.34	-63°				
144.78	-57°				

HOLE NO. Mc-83-48 SHEET NO. 1 OF 8

REMARKS BQ Core
Split for analysis

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0	40.00	<u>OVERBURDEN</u>										
40.00	64.47	<u>BASALT</u> Dark green, fine to medium grained, with abundant tensional fractures up to 1cm width - carbonate filled with purple-red hematite. Very little textural change apart from being finer grained below 52.20 m. Rock is massive flow, non-magnetic, non-brecciated. 40.00 - 52.20: fine to medium grained, massive flow. carries a carbonate-filled dilatant zone with abundant basaltic debris at 41.50-42.18 m. Up to 3% chalcopyrite locally, often along seams parallel to a crude foliation. 52.20 - 56.10: fine grained flow - carbonate zone at 54.92-55.10m. 56.10 - 64.47: fine to very fine grained, spotty epidotization locally; very minor fragments - rafted into flow.	C 2561	1 cpy	41.56	42.16	0.60			0.02		
64.47	69.10	<u>QUARTZ VEINS</u> White bull quartz veins up to 1.5 m thickness; carry little or no sulphide but dark green xenoliths of wall rock may be strongly pyritized and carry up to 1% chalcopyrite (eg. 65.90-66.05 m). Minor amounts of pyrite and chalcopyrite are found in green seams near the contacts within the quartz veins (eg. 64.47-64.59 m). 64.47 - 65.90: white bull quartz. 65.90 - 66.97: dark green xenolith - may be tuffaceous. Rock is highly sheared locally, but may be in original orientation. Pyritized throughout - strongest from 65.90-66.30 m.	2562	3-5	65.90	66.30	0.40			0.02		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-48 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
		66.97 - 68.27: white bull quartz, xenoliths below 68.05 m. 68.27 - 68.58: dark green xenolith - sediment?; lenticular, clastic texture. 68.58 - 69.10: white bull quartz.								
69.10	88.11	<u>BASALT</u> Medium to dark green, very fine grained to fine grained, aphanitic locally, and possibly variolitic above 70.60 m. Abundant tensional fractures up to 5mm width are carbonate filled with up to 50% chalcopyrite locally (average less than 1%). Fractures below 73.90 are strongly hematized. White quartz veins are located at 69.67-69.96 m and 70.06-70.17. They carry abundant green debris from wall rock. Small quartz veins up to 1cm width are common above 78.75 m. A mylonitic carbonate 'vein' dips along the core axis at 74.62-75.22 m. Below 75.90, tectonic breccia is noted locally (eg. 81.40-81.90 m). <u>NOTE:</u> Depth markers in core boxes 7-10 inclusive are <u>very regular</u> in spacing and indicate a regular core loss of 12-28cm (average 16.1cm per 3.05 m or 10'). Total loss between 69.19 and 96.62 m is 1.45 meters. These markers may be in error. Very little ground core is observed.								
88.11	98.55	<u>SEDIMENTS</u> Medium to dark green, very fine grained to medium grained locally, very weakly laminated to non-laminated. Well parted locally along a C foliation probably reflecting bedding. The upper contact is probably at a polished plane cutting core at 48° - possibly a fault. Rock below shows minor pale green alteration. 88.11 - 94.12: poorly foliated to well foliated and parted locally eg. 50° to core at 88.95 m. 94.12 - 94.14: silicified seam with green clay - <u>FAULT</u> , one side of plane is 40% covered with <u>GOLD</u> plates, up to 1cm width.								
			2563	0-1	88.11	88.91	0.80			0.01
			2564	0-1	88.91	89.76	0.85			0.01
			2565	0-1	89.76	90.53	0.77(measures 0.60)			0.01
			2566	0-1	90.53	91.33	0.80			0.01
			2567	0-1	91.33	92.19	0.86			tr.
			2568	0-1	92.19	93.00	0.81			tr.
			2569	0-1	93.00	93.57	0.57(measures 0.43)			tr.
			2570	0-1	93.57	94.25	0.68			0.01

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-48 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ./TON	OZ./TON
					FROM	TO					TOTAL
		96.57 - 96.85: alteration zone - aphanitic, pale green, very well laminated at 60-65° to core axis - uppermost part is weakly brecciated; lower contact is very sharp - colouration may be compositional.	C							
		96.85 - 98.35: dark green, fine grained, chloritized, poorly bedded.	2571	0-1	94.25	95.10	0.85			0.01
		98.35 - 98.55: strongly sheared, abundant polished and chlorite coated planes. Fault at 98.40 m is denoted by a 2cm green mylonitic clay seam - possibly a bedding fault.	2572	0-1	95.10	95.97	0.87			tr.
			2573	0-1	95.97	96.62	0.65(measures 0.37)			tr.
			2574	0-1	96.62	97.44	0.82			tr.
			2575	0-1	97.44	98.35	0.91			tr.
98.55	129.45	<u>MAIN MINERALIZED ZONE</u> The main silicified zone which forms the core of this section, is not nearly as well developed as is usual. Brecciation is not particularly strong anywhere in this zone and very few sections of significant thickness are free of chloritized, non-silicified rock. Average pyrite content, reflects the lack of substantial silicification and amounts to 3%. Up to 9% is noted locally. The upper and lower transition zones are wider than would be expected based upon the diminished thickness of the main silicified member. Therefore the alteration process has not been of sufficient duration to produce a thick central member.								
98.55	101.00	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Two textural types are present - dark green, fine grained, chloritized clastic rock and grey to purple-grey cherty sediments. The amount of cherty beds varies throughout the zone and is often present as rounded to sub-angular fragments up to 2cm in size. Cherty sediments are well laminated locally (eg. 55° at 98.58 m). Brecciation of cherty beds may be due to rip-up action. Pyrite is present as a very fine grained dissemination. 98.55 - 99.90: cherty fragments in a green chloritized matrix. 99.90 -100.09: massive cherty sediments - chemical origin?	2576	1-2	98.35	98.90	0.55			tr.
			2577	1-2	98.90	99.90	1.00			0.04
			2578	1	99.90	100.60	0.70			0.04
			2579	1-2	100.60	101.28	0.68			0.08

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-48 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		100.09-101.00: brecciated cherty sediments in a chloritized clastic matrix. Cherty fragments appear to have been ripped up from the top of the underlying zone.										Rech.
101.00	106.35	<u>MAIN SILICIFIED ZONE</u>										
		Purple-grey to honey coloured strongly silicified and cherty sediments alternate locally with dark green chloritized sediments. Silicification is limited to breccia zones and together with cherty beds account for 80% of the section. Green chloritized rock is non-brecciated. The rock is well laminated locally. Pyrite content up to 9% is noted locally in silicified breccia, generally as a very fine dissemination with few larger clots.										
		101.00-101.86: massive cherty sediments, honey-grey to purple-grey in colour. Pyrite content increases from 1-2% to 2-3% in purple-grey zone at 101.28-101.55 m. Rock is moderately brecciated below 101.28 m.	C									
		101.86-103.43: honey coloured, intensely silicified with moderate brecciation. Pyrite content is higher averaging 3-5% - up to 9% at 102.79-103.04 m and up to 7% at 103.15-103.43 m. Becomes well laminated at 103.30 m at 50° to core axis.	2580	2-3	101.28	101.86	0.58			0.11)		0.14
			2581	2-3	101.86	102.33	0.47			0.01)	0.102	0.06
			2582	2-3	102.33	102.79	0.46			0.19)	2.77	0.17
			2583	5-7	102.79	103.43	0.64			0.10)	(9.1')	0.09
)		
)		
		103.43-103.85: well laminated with purple-grey cherty seams and sets of laminations up to 2cm width alternate with dark green chloritized seams up to 2cm width. Rock is only 10-15% chloritized. Cherty layers are weakly brecciated locally and may carry slightly elevated pyrite contents. A minor fault plane is located at 103.63 m dipping 15-20° to the core axis. Slickensides are parallel to the core axis. Laminations at 103.80 m cut the core axis at 45°.	2584	2-3	103.43	104.05	0.62			0.10)		0.11
		103.85-104.05: same as 103.43-103.85 m but percentage of chloritized rock increases to 50%.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-48 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		104.05-104.90: zone is approximately 80-90% chloritized rock with siliceous seams up to 1cm associated with fractures and fracture networks. Rock is weakly laminated locally. A 1cm pink carbonate vein is located at 104.30 m.	C 2585	2-3	104.05	104.90	0.85			0.02	
		104.90-106.35: the percentage of siliceous rock increases to 80% as cherty layers become more abundant. The rock is better laminated below 105.80 m. Bedding at 105.95m is at 55° to the core axis. Chloritized sections increase in the lowermost 10cm.	2586 2587	2-3 4-5	104.90 105.77	105.77 106.35	0.87 0.58			0.04 0.04	
106.35	129.45	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> The zone is principally dark green fine grained and non-silicified. Localized sections of purple-grey silicification and cherty laminations make up 30-40% of the section. In general, silicification is confined to brecciated rock, and to narrow halos surrounding fractures. Bedding is not well developed in this region, generally only exhibited where cherty laminations are present. A cyclic repetition of cherty beds is noted locally. The cycles consist of a gradual increase downwards in cherty sediments then an abrupt change back to dominantly green clastic sediments. This transition occurs over intervals up to 1 meter.									
		106.35-107.01: minor silicification above 106.65 m then slowly increasing brecciation allows increasing silicification.	2588	2-4	106.35	107.01	0.66			0.02	
		107.01-108.01: similar to overlying zone - silicified halos to fractures. Increasing silicification and brecciation below 107.80 m.	2589	2-3	107.01	108.01	1.00			0.01	
		108.01-108.97: dark to medium grey-green, weakly silicified locally; moderately chloritized. Strongly silicified locally below 108.47 m - increasing amount of cherty beds at 45° to core axis.	2590	1-3	108.01	108.97	0.96			0.01	
		108.97-109.97: purple-grey, moderately to strongly brecciated and intensely silicified.	2591	3-5	108.97	109.40	0.43			0.04	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-48 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		109.97-110.87:	C								
		greenish-grey, becoming medium grey with depth - occasional white to pink quartz seams parallel to core axis - up to 8mm width.	2593	2-3	109.97	110.87	0.80			0.01	
		110.87-111.70:	2594	3-5	110.87	111.70	0.83			0.01	
		purple-grey with honey coloured halos around fracture systems - moderately to strongly silicified.									
		111.70-115.05:	2595	1-2	111.70	112.40	0.70			0.01	
		generally grey-green with selected silicification of localized areas (breccia), up to 35cm in thickness. Major zones of silicified breccia are located at 112.15-112.40; 112.97-113.16; 113.72-114.11 (80% silicified); 114.45-114.83 and 114.90-115.05 m. Overall content of silicification in section is 40%.	2596	1-3	112.40	113.15	0.75			0.01	
			2597	1-2	113.15	113.72	0.57			0.01	
			2598	2-3	113.72	114.30	0.58			0.01	
			2599	2-3	114.30	115.05	0.75			0.06	
		115.05-116.42:	2600	1-2	115.05	115.76	0.71			0.01	
		dark green; localized purple-grey silicification along fractures - 5% of total section.	2601	1-2	115.76	116.42	0.66			tr.	
			2602	1-2	116.42	117.25	0.83			tr.	
		116.42-118.88:	2603	1-2	117.25	118.10	0.85			tr.	
		variably brecciated - pinkish to purple-grey silicification is moderate to intensely developed proportionally to degree of brecciation. Up to 3% very finely disseminated pyrite, often in fissures - possibly along relic lamination noted locally (eg. 35-40° at 118.35-118.55 m). Zone is 40-50% silicified. Minor 10cm massively silicified sections.	2604	1-2	118.10	118.88	0.78			tr.	
		118.88-119.48:	2605	5	118.88	119.48	0.60			tr.	
		purple-grey to honey-grey coloured, strongly silicified with 5-10% relic chloritized rock. Pale coloured zones carry 7-9% very fine pyrite. Zone is strongly brecciated centrally at 119.22-119.34 m. Well laminated throughout at 35-40° to core axis.									
		119.48-120.53:	2606	1-2	119.48	120.53	1.05			tr.	
		same as 116.42-118.88 m with few microfaults running along core axis which displace silicified seams.									
		120.53-120.78:	2607	1-2	120.53	121.41	0.88			tr.	
		mylonitic zone - angular fractured fragments up to 1cm in a chloritized matrix - voids are white carbonate filled.									
		120.78-122.79:	2608	1-2	121.41	122.20	0.79			tr.	
		same as 116.42-118.88 m - well laminated locally (30° at 121.50 m), becoming very well bedded below 122.27 m. Bedding is highlighted by grey cherty laminations.	2609	1-2	122.20	122.79	0.59			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-48 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS			
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ./TON	OZ./TON
					FROM	TO					TOTAL
		122.79-124.00: dark green, minor 8mm silicified halos around fractures. Zone includes 15cm of lost (ground) core at 123.18-123.33 m.	C							
		124.00-129.45: dark green with 20% purple-grey silicified and cherty fragments. Clasts appear to have (in part) been ripped up from cherty beds. The zone 125.35-126.01 m is 50% siliceous material. The lower contact is a fracture system which has undergone minor penetrative silicification.	2610	1	122.79	123.34	0.55			tr.
			2611	1	123.34	124.00	0.66			tr.
			2612	1-2	124.00	124.90	0.90			tr.
			2613	1-2	124.90	125.75	0.85			tr.
			2614	1-2	125.75	126.56	0.81			0.18)
			2615	1	126.56	127.34	0.78			0.01)
			2616	1	127.34	128.10	0.76			0.01)
			2617	1-2	128.10	128.77	0.67			0.10)
			2618	1-2	128.77	129.45	0.68			0.02
										0.076
										3.02
										(9.9')
129.45	138.22	<u>SEDIMENTS</u>								
		Dark green, fine grained and weakly to moderately chloritized, minor silicification of fracture walls over 1-3mm. Minor cherty fragments up to 5cm. Zone has a tuffaceous texture locally - possibly ash fall. Sedimentary laminations are found in sections up to 30cm thickness (eg. 30° at 131.50 m). The rock is strongly fractured locally with polished chloritized surfaces.	2619	1	129.45	130.25	0.80			0.02
			2620	1	130.25	131.09	0.84			tr.
			2621	1	131.09	131.58	0.49			tr.
			2622	0-1	131.58	132.11	0.53			tr.
			2623	1	132.11	132.97	0.86			tr.
			2624	1	132.97	133.76	0.79			tr.
		131.58-132.11: <u>INTRUSIVE</u> - dark green, fine to very fine grained with 10-15% reddish-pink siliceous xenoliths. Very weakly magnetic. Chills are moderately well developed.	2625	1-2	133.76	134.60	0.84			tr.
			2626	1-2	134.60	135.37	0.77			tr.
			2627	1	135.37	136.25	0.88			tr.
			2628	1	136.25	137.09	0.84			tr.
			2629	1	137.09	137.62	0.53			0.01
			2630	1	137.62	138.22	0.60			0.01
138.22	139.29	<u>LOWER MINERALIZED ZONE</u>								
		Purple-grey and aphanitic, strongly silicified with less than 20% grey-green moderately chloritized rock. A moderately brecciated top (138.22-138.52 m) grades downwards to a zone of alternating silicified and chloritized beds. Zone carries 2-3% finely disseminated pyrite.	2631	2-3	138.22	139.29	1.07			0.02

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-48 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
139.29	145.08	<u>SEDIMENTS</u>									
		Dark green, fine to very fine grained, with no silicified brecciation. Fractures have minor 1-2mm silicified halos. Minor cherty laminations are found locally in 5cm thick zones (eg. 140.26-140.31 m). These sections are the only zones of well laminated rock - generally at 45° to core axis. Pyrite content is 1% as blebs up to 1mm.	C								
			2632	1	139.29	140.16	0.87			0.01	
			2633	1	140.16	140.97	0.81			0.01	
			2634	1	140.97	141.90	0.93			0.01	
			2635	1	143.00	143.70	0.70			0.01	
		145.08 meters END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-49 LENGTH 139.46 meters
 LOCATION _____
 LATITUDE 10 + 00 E DEPARTURE 0 + 93 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED November 1, 1983 FINISHED November 4, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-62°				
139.46	-58°				

HOLE NO. Mc-83-49 SHEET NO. 1 OF 8
 REMARKS BQ Core
Split for analysis
Casing Pulled.
 LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
0	19.10	<u>OVERBURDEN</u>										
19.10	58.30	<u>BASALT</u> Medium green to grey-green, fine to medium grained massive flow. Non-magnetic to very weakly magnetic. The base of the flow and shear planes which developed during flowage are moderately epidotized and locally silicified. The section carries 1% pyrite locally as blebs up to 1mm. 19.10 - 22.70: fine to medium grained. 22.70 - 23.67: fine grained - lower half is weakly to moderately brecciated - autobreccia. 23.67 - 25.10: fine to medium grained. 25.10 - 26.25: medium to coarse grained. 26.25 - 30.37: fine to medium grained - brecciated below 30.10 m. Base is at flow contact at 45° to core axis. 30.37 - 30.80: aphanitic to very fine grained. 30.80 - 31.10: fine grained. 31.10 - 38.05: fine to medium grained. 38.05 - 39.00: fine grained, weakly to moderately silicified; epidotized locally. 39.00 - 42.30: fine to medium grained. 42.30 - 48.00: fine grained, locally very fine; a zone of 70cm at top of section carries abundant quartz-carbonate veins up to 2cm at 20° to core axis. 48.00 - 49.80: fine to medium grained. 49.80 - 52.00: fine to very fine grained, abundant strongly epidotized flowage structures. 52.00 - 57.05: fine, occasionally medium grained. Zone at 55.41-55.46 m is strongly silicified breccia (flow bottom?). Sharp contact at 55.46 m at 45° to core axis.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-49 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		57.05 - 58.30: fine grained with several epidotized breccia fragments up to 1cm in size. Zone is strongly fractured with quartz-carbonate veining.									
58.30	61.05	<u>QUARTZ VEIN</u> White bull quartz with abundant dark green xenoliths in the uppermost 13cm and the lowermost 75cm. The upper part, at the contact, carries minor 1-2mm pyritized fractures. The lower contact zone is distinguished by strong pyritization of foliated (50° to core axis) sedimentary fragments. Up to 3% pyrite is noted with occasional 1-2mm blebs of chalcopyrite.	C 2636	1-2	60.30	61.23	0.93				tr.
61.05	68.83	<u>SEDIMENTS</u> Medium to dark green, fine to very fine grained, moderately foliated and parted parallel to foliation (45° at 61.20 m). Very little good evidence of depositional laminations. The rock is weakly to moderately carbonatized on a local basis. White carbonate replacement feathers out along the foliation and highlights the 'bedding' locally (eg. 60° at 66.40 m). The zone contains up to 1% pyrite locally.	2637 2638 2639 2640 2641	0-1 0-1 0-1 0-1 0-1	61.23 62.20 64.15 65.05 66.85	62.20 63.09 65.05 65.90 67.66	0.97 0.89 0.90 0.85 0.81				tr. tr. tr. tr. tr.
68.83	75.00	<u>BASALT</u> Medium green, very fine grained to aphanitic, and generally finely tectonically brecciated. Dilatant movement has allowed carbonate to fill the voids in breccia. Non-magnetic. 69.50 - 72.00 strongly fractured, occasionally brecciated with 5% intensely silicified moderately developed breccia. 72.00 - 72.63: very finely brecciated - angular chloritized fragments up to 3mm. 72.63 - 73.20: flow breccia - rounded fragments up to 7cm in size with reaction rims. 73.20 - 75.00: fine grained, weakly brecciated; pink carbonate in fractures.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-49 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
75.00	83.65	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine to very fine grained; weakly to moderately foliated - often highlighted by carbonatization which feathers out along the foliation (eg. 50-55° at 75.02 m). The rock is well laminated locally becoming more strongly laminated below 81.45 m. Minor brecciation is noted throughout the zone.</p> <p>75.00 - 81.45: foliated, laminated locally, weakly to moderately carbonatized. Core is ground and lost at 78.45-78.60 m (minor), and 79.40-79.98 m (34cm lost). Bedding at 80.05 m at 60° to core axis.</p> <p>81.45 - 83.18: well laminated throughout - alternating laminations are white and siliceous, and, dark green and chloritized. Bedding at 40-45° at 81.50 m.</p> <p>83.18 - 83.65: rock carries 10-15% cherty lenticular fragments up to 2cm in length oriented parallel to the laminations. The fragments are probably rip-up clasts now layered at 55° to core axis at 83.55m.</p>	C									
			2642	0-1	75.02	76.07	1.05				tr.	
			2643	0-1	76.07	76.95	0.88				tr.	
			2644	0-1	76.95	77.80	0.85				tr.	
			2645	0-1	77.80	78.60	0.80				tr.	
			2646	1	78.60	79.40	0.80				0.01	
			2647	1	79.40	80.53	1.13				0.01	
					(34cm ground and lost core)							
			2648	1	80.53	81.45	0.92				0.01	
			2649	1	81.45	82.32	0.87				0.01	
			2650	1	82.32	83.18	0.86				0.01	
			2651	1	83.18	83.65	0.47				0.01	
83.65	103.22	<p><u>MAIN MINERALIZED ZONE</u></p> <p>This zone is composed of three sections; a thin upper transitional zone, the central 'Main Silicified Zone', and the lower transitional zone. The central zone is an intensely silicified breccia zone. The flanking members are less well silicified rocks originally very similar to the central zone. With silicification, pyrite contents increase up to 7% locally, usually as a very fine dissemination and occasionally, as clots up to 3mm. The sequence of events operating in the 'Main Silicified Zone' is:</p> <ol style="list-style-type: none"> (1) brecciation and chloritization (2) penetration along fracture networks of hematite and silica bearing fluids (3) later fracturing of silicified rocks and introduction of silica as clear, colourless quartz. 										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-49 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
83.65	84.53	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>The rock is essentially the same as the overlying sediments but is more poorly laminated with larger cherty fragments up to 5cm in size. Fragments increase in size down-section into a massive cherty bed at 83.98-84.12 m. The matrix to the clasts is dark green, clastic and may be tuffaceous. A 2cm green clay seam (FAULT) is noted at 84.27 m cutting the core axis at 55°. Brecciation of the cherty sediments and chloritization of fractures is noted each side of the fault. Another fault zone cutting the core axis at 40-45°, is mylonitic and carries pink siliceous fragments - located at 84.43-84.53 m.</p>	C 2652	1	83.65	84.53	0.88			0.02	
84.53	91.72	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Purple-grey to honey coloured, aphanitic to very fine grained, generally strongly brecciated and intensely silicified. Relic sedimentary laminations are noted locally. The section has been strongly fractured and dilatant-type movement has allowed the openings to be cemented with specularite. Intense silicification is not well developed in the section above 86.13 m. Chlorite is seldom absent from fractures.</p> <p>84.53 - 84.91: fault block - silicified, intensely fractured. Some silica dumping in lowermost 20cm. Section carries 5-7% very fine pyrite above the quartz-rich zone, 1-2% below. Minor slickensides parallel to core axis, developed in fractures.</p> <p>84.91 - 85.59: probable fault block - highly fractured with chloritized partings. Base of section is very strongly broken.</p> <p>85.59 - 86.26: more characteristic purple-grey colour, chlorite not as common in fractures and change to specular hematite takes place at 86.13 m along single fractures. Silicification is stronger and appears to emanate from below.</p>	2653	3-5	84.53	84.91	0.38			0.05	
			2654	2-3	84.91	85.59	0.68			0.04	
			2655	2-3	85.59	86.26	0.67			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-49 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ./TON
					FROM	TO					TOTAL
		86.26 - 87.76: purple-grey to mauve, intensely brecciated carrying 10% hematite and 3-4% pyrite. Intense silicification in fragments along major fracture systems and in large dilatant zones. Many small, less than 1cm, zones of relic chloritized rock remain which are only partially invaded by silicification. The zone 87.14-87.43 m is nearly completely silicified. Fractures from 87.43-87.74 m are strongly chloritized.	C							
			2656	3-4	86.26	87.14	0.88			0.13)
			2657	3-5	87.14	87.76	0.62			0.01)
)
)
										) 0.154
										) 4.21
										) (13.8')
)
		87.76 - 90.47: intensely silicified breccia; pale purple-grey with a moderate number of chlorite-plugged fractures - decreasing with depth. Relic laminations visible locally: 45° at 89.65 m.	2658	3-5	87.76	88.73	0.97			0.21)
			2659	2-3	88.73	89.16	0.43			0.23)
			2660	4-6	89.16	89.75	0.59			0.15)
			2661	2-3	89.75	90.47	0.72			0.19)
		90.47 - 90.95: same as 87.76-90.47 m but with 10% green chloritized patches up to 2cm in size.	2662	1-2	90.47	90.95	0.48			0.08
		90.95 - 91.72: intensely silicified but increasing number of chloritized fractures and patches - up to 20% of section. Minor zones of silicified breccia carry 8-10% pyrite locally.	2663	2-3	90.95	91.72	0.77			0.06
91.72	103.22	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>	2664	1-3	91.72	92.35	0.63			0.01
		The section is dark green and fine grained becoming greenish grey and often purple-grey where strongly brecciated and subsequently silicified. Silicification has altered about 50% of the section in zones up to 50cm in width. Pyrite content generally increases with silicification. Major silicified zones are located at 91.99-92.12; 92.35-92.78; 92.92-93.07; 93.39-93.73; 93.90-93.98; 94.01-94.11; 94.14-94.20; 94.77-95.37; 95.52-95.92; and 96.83-97.01 m. The zone from 95.92-96.83 m is composed of 50% silicified breccia in 5cm seams carrying 3-5% pyrite. Several sections carry high percentage silicification with 10-30% green chloritized patches. These areas of non-silicified rock increase in size and number downhole. Typical sections are located at 98.36-99.23 m; with increasing chloritization at 99.23-100.82 m (20-30%) and little silicification (10-20%) from 100.82-103.22 m.	2665	2-4	92.35	92.78	0.43			0.12
			2666	1-2	92.78	93.39	0.61			0.01
			2667	2-3	93.39	94.20	0.81			0.01
			2668	1-2	94.20	94.77	0.57			0.01
			2669	2-4	94.77	95.37	0.60			0.01
			2670	2-3	95.37	95.92	0.55			tr.
			2671	2-3	95.92	96.83	0.91			tr.
			2672	0-1	96.83	97.55	0.72			tr.
			2673	0-1	97.55	98.36	0.81			tr.
			2674	2-4	98.36	99.23	0.87			tr.
			2675	1-2	99.23	100.00	0.77			tr.
			2676	1-2	100.00	100.82	0.82			tr.
			2677	1	100.82	101.65	0.83			tr.
			2678	1	101.65	102.42	0.77			tr.
			2679	1	102.42	103.22	0.80			tr.

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-49 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ. TON
					FROM	TO	TOTAL				
103.22	126.38	<u>SEDIMENTS</u>	C								
		Dark green, fine grained, moderately chloritized, generally non-laminated - may be weakly foliated locally. Section carries occasional zones of purple-grey, intensely silicified fragments in a chloritized matrix (eg. 106.49-106.55; 108.49-108.56 and 112.05 - 112.13 m).	2680	1	103.22	104.05	0.83				tr.
		109.83-110.00: carries green chloritized fragments up to 3cm in networks of purple-grey silicified breccia - fracture controlled.	2681	1	104.05	104.95	0.90				tr.
		111.40-111.60: purple-grey silicified breccia developed in shear at 25° to core axis - carries 1-2% pyrite.	2682	1	104.95	105.87	0.92				tr.
		113.40-114.13: irregularly developed silicified breccia in fracture systems.	2683	1	105.87	106.77	0.90				tr.
		114.50-114.65: same as 113.40-114.13 m.	2684	1	106.77	107.65	0.88				tr.
		116.03: weakly laminated at 25° to core axis.	2685	1	107.65	108.55	0.90				0.01
		117.39-117.96: purple-grey, intensely silicified breccia; 1-3% pyrite as very fine dissemination and as clots up to 6mm.	2686	1	108.55	109.50	0.95				0.01
		117.96-126.38: occasional purple-grey silicified breccia. A zone at 120.09-120.19 m is well laminated, intensely silicified. Bedding at 40° to core axis. A second zone, laminated at 30° to the core is moderately silicified at 123.85-123.95 m.	2687	1	109.50	110.43	0.93				0.01
			2688	1	110.43	111.37	0.94				0.01
			2689	1	111.37	112.26	0.89				0.01
			2690	1	112.26	113.17	0.91				tr.
			2691	1	113.17	114.14	0.97				tr.
			2692	1	114.14	115.14	1.00				tr.
			2693	1	115.14	116.13	0.99				tr.
			2694	1	116.13	116.76	0.63				tr.
			2695	1	116.76	117.39	0.63				tr.
			2696	1-3	117.39	117.96	0.57				tr.
			2697	1	117.96	118.79	0.83				0.01
			2698	1	118.79	119.77	0.98				0.01
			2699	1-2	119.77	120.73	0.96				0.01
			2700	1	120.73	121.72	0.99				tr.
			2701	1	121.72	122.60	0.88				tr.
			833	0-1	122.60	123.50	0.90				0.005
			834	0-1	123.50	124.30	0.80				tr.
			835	0-1	124.30	125.11	0.81				tr.
			836	0-1	125.11	126.05	0.94				tr.
126.38	137.56	<u>VARIABLY SILICIFIED SEDIMENTS</u>									
		Zone is half dark green, fine grained and chloritized; and half siliceous material - composed of cherty beds and sets of cherty laminations. Where brecciated, the sediments are moderately to strongly silicified. Pyrite contents are higher in silicified zones. Cherty beds do not generally carry high pyrite contents. A contact between chloritized and silicified rock at 127.61 m at 45°	837	0-1	126.05	126.66	0.61				tr.
			838	0-1	126.66	127.20	0.54				0.09

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-49 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ TON	Rech.
					FROM	TO	TOTAL					
		to core axis is very sharp and may delineate a fault at edge of brecciation predating silicification. Larger silicified zones carry 2-4% pyrite as a very fine dissemination and as clots up to 2cm. Major zones of silicification are located at 127.20-127.30 m; 127.61-128.00; 128.80-129.00; 129.17-129.67 (60% siliceous fragments); 129.55-129.87; 130.25-130.45; 130.98-131.07 and from approximately 131.80-131.95 m. Locally, silicification is microfault controlled and offset against chloritized rock. Seldom do sections of solely chloritized rock exceed 15cm in thickness. The zone from 129.17-129.67 m carries 50-60% honey coloured brecciated cherty beds in a chloritized clastic matrix. Colour of the breccia fragments may be a degenerative result of faulting and brecciation. The zone grades into purple-grey silicified breccia at 129.67 m. Some zones of brecciated beds are convoluted and deformed - possibly due to soft sediment deformation (eg. 130.00-130.45 m).	C									
		126.38-131.95: 35-40% silicified breccia, laminated locally usually highlighted by cherty seams (45° to core at 131.00 m). Zone includes 25cm of ground and lost core between 131.60 and 132.55 m.	2702	2-3	127.20	128.00	0.80			2.42)		1.39
		131.95-135.55: relatively fewer sections of significant length composed of silicified breccia. Approximately 15cm core ground and lost at 134.15-134.30 m. A 10cm section at 135.20 m is well laminated at 40° to the core axis.	2703	1-2	128.00	128.80	0.80			0.11)		0.09
		135.55-137.56: equivalent to lower mineralized zone - uppermost 70cm is 50% composed of 1-3cm silicified breccia seams parallel in orientation at 30° to the core axis. The section below 136.25 m is 80-85% silicified breccia with up to 5% pyrite locally.	2704	1-2	128.80	129.67	0.87			0.03)		0.04
			2705	1-2	129.67	130.57	0.90			0.11)	0.425	0.11
			2706	2-3	130.57	131.52	0.95			0.02)	17.6'	0.02
			2707	1-2	131.52	132.55	1.03	measures 0.78 m)		0.10)		0.105
			2708	1-2	132.55	133.40	0.85			0.01		
			2709	1-2	133.40	134.15	0.75			0.01		
			2710	1	134.30	135.25	0.95			0.01		
			2711	1-2	135.25	136.25	1.00			0.02		
			2712	2-3	136.25	136.91	0.66			0.07		
			2713	2-3	136.91	137.56	0.65			0.01		

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-49 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
137.56	139.46	<p><u>SEDIMENTS</u></p> <p>Dark green, fine grained and chloritized, with 5-10% silicified breccia seams up to 2cm in width. The number and thickness of these seams rapidly decrease down-section. The rock becomes well foliated, perhaps crudely laminated towards the base of the hole (eg. 35° to core axis at 139.25 m).</p> <p>139.46 meters END OF HOLE</p> <p> CASING PULLED</p>	C									
			2714	1	137.56	138.26	0.70				tr.	
			2715	1	138.26	138.91	0.65				tr.	
			2716	1	138.91	139.46	0.55				tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-50 LENGTH 109.77 meters
 LOCATION _____
 LATITUDE 9 + 75 E DEPARTURE 0 + 74 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED _____ FINISHED November 7, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-64°				
109.73	-63°				

HOLE NO. Mc-83-50 SHEET NO. 1 OF 6

REMARKS BQ Core
Split for assay.

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO					TOTAL
0	12.19	<u>OVERBURDEN</u>									
12.19	44.43	<u>BASALT</u> Medium green, fine to medium grained with coarse and very fine grained phases. The flow is massive and unstructured. It is non-magnetic to very weakly magnetic locally. 12.19 - 32.00: fine to medium grained, occasional (less than 1%) silicified and epidotized breccia zones from 23.20-28.30 m in seams up to 10cm. Rare 1cm quartz veins. 32.00 - 35.40: generally fine grained, occasional quartz veins up to 1cm and epidotized breccia. 35.40 - 41.90: fine to medium grained. 41.90 - 43.95: fine to medium grained, increasingly brecciated with silicified and epidotized patches. Minor carbonated fractures cut quartz-filled voids. Rock is finer grained below 43.50 m. 43.95 - 44.43: very fine grained to aphanitic; 60% epidotized and silicified breccia.									
44.43	66.74	<u>SEDIMENTS</u> Dark green, fine to very fine grained, well laminated with many poorly laminated, weakly foliated zones. The rock is strongly brecciated locally - (eg. 48.95-49.25 m), with angular fragments supported in a white carbonate matrix. Weak ubiquitous carbonatization is noted locally. The sediments average 1% pyrite as blebs up to 1.5mm. The section is non-magnetic.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-50 SHEET NO. 2 OF 6

FOOTAGE		DESCRIPTION	SAMPLE					ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		44.43 - 45.25:	C									
		chaotic, brecciated, non-laminated, probably fine to medium grained; strongly chloritized.	2717	2-4	45.75	46.69	0.94			tr.		
		45.25 - 47.55:	2718	1-2	46.69	47.55	0.86			tr.		
		moderately laminated (50° at 46.25 m); rare highly siliceous veins, carry increased pyrite - 3-5%.	2719	1	47.55	48.40	0.85			tr.		
		47.55 - 50.35:	2720	1	48.40	49.35	0.95			tr.		
		chaotic and non-laminated to very locally laminated - possibly disturbed due to soft sediment deformation.	2721	1	49.35	50.35	1.00			tr.		
		50.35 - 51.21:	2722	5	50.35	51.21	0.86			tr.		
		fine to very fine grained, well laminated with pyrite crystals up to 8mm growing within laminations - probably in cavities now lined with carbonate. Up to 10% pyrite locally. Very weak general carbonatization. Minor silica dumping in large voids up to 5cm.	2723	1	51.21	52.05	0.84			tr.		
		51.21 - 58.10:	2724	1	52.05	53.00	0.95			0.01		
		same as 50.35-51.21 m but very low pyrite in less well laminated sequence. White bull quartz veining at 53.81-54.25 (two veins; 18cm and 5cm). Minor quartz veining between 54.25 and 55.50 m.	2725	1	53.00	53.95	0.95			0.01		
		58.10 - 58.75:	2726	1	53.95	54.83	0.88			tr.		
		brecciated with pink quartz infilling - well fractured - carbonate filling.	2727	1	54.83	55.80	0.97			tr.		
		58.75 - 60.00:	2728	1	55.80	56.68	0.88			tr.		
		same as 51.21-58.10 m.	2729	0-1	56.68	57.50	0.82			tr.		
		60.00 - 60.55:	2730	0-1	57.50	58.10	0.60			tr.		
		abundant pink quartz filling dilatant voids and fractures in zone of weak brecciation.	2731	0-1	58.10	58.75	0.65			tr.		
		60.55 - 61.65:	2732	0-1	58.75	59.60	0.85			tr.		
		well laminated locally; increasingly brecciated, becoming strong in lower 40cm.	2733	0-1	59.60	60.25	0.65			tr.		
		61.65 - 64.16:	2734	0-1	60.25	61.16	0.91			tr.		
		well laminated, abundant pink quartz veining and stringers up to 1cm thick - generally parallel to bedding. Some quartz filled voids carry up to 2% pyrite as crystals up to 2mm.	2735	0-1	61.16	61.98	0.82			tr.		
		64.16 - 66.74:	2736	0-1	61.98	62.95	0.97			tr.		
		moderate to well laminated, few pink quartz stringers.	2737	1-2	62.95	63.91	0.96			tr.		
		64.90: laminated at 45° to core axis.	2738	0-1	63.91	64.85	0.94			tr.		
		66.14: laminated at 40-45° to core axis.	2739	0-1	64.85	65.76	0.91			tr.		
			2740	1	65.76	66.72	0.96			tr.		

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-50 SHEET NO. 3 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
66.74	109.27	<p><u>MAIN MINERALIZED ZONE</u></p> <p>The rocks in this section are representative of three lithological units centred on a strongly silicified central member. A thin transitional unit lying above the 'Main Silicified Zone' ends at a fault. A broad variably silicified member underlies the main zone. In general, the degree of silicification is proportional to the degree of brecciation. Pyrite contents up to 10% are noted in strongly silicified rock. Minor cherty sediments are also noted, most commonly in or near the upper transition zone.</p>									
66.74	68.35	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green, with 25-50% pale green siliceous laminations. Bedding is well developed and often plastically deformed along narrow microfaults parallel to core axis; displacement up to 1cm. Siliceous cherty laminations (chemical sediments) increase down section to 60-70% at 68.00 m and massive cherty sediments at 68.20m. Zone averages 1% pyrite.</p> <p>67.95: laminations at 45° to the core axis. 68.15: laminations at 40-45° to the core axis. 68.21 - 68.35: FAULT ZONE - highly sheared with chloritized planes at 45-50° to core. Zone includes a gritty green clay seam at 68.30-68.34 m.</p>	C 2741 2742	1 1	66.72 67.59	67.59 68.35	0.87 0.76			tr. tr.	
68.35	91.04	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Pale honey coloured cherty sediments to purple-grey intensely silicified sediments. Aphanitic to very fine grained. Uppermost part is cherty, silicification increases downhole below 69.83 m. Minor non-silicified, relic chloritized patches are found locally in the zone. The rock is laminated locally although structure is often masked by brecciation. Alteration tends to be proportional in strength to the degree of brecciation.</p>									

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-50 SHEET NO. 4 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		68.35 - 69.83:	C								
		honey coloured, cherty, non-laminated sediments; strongly brecciated - chlorite and hematite in fractures around fragments. Rock is more yellow hued below 69.72 m where silicification increases. Lowermost 2cm intensely brecciated.	2743	1-2	68.35	69.10	0.75			0.07)	
			2744	1-2	69.10	69.83	0.73			0.13)	
		69.83 - 70.23:)	
		reddish-pink, aphanitic, highly siliceous zones up to 5cm - 10% of section.	2745	1-3	69.83	70.66	0.83			0.12)	
		70.23 - 70.66:)	
		same as 68.35-69.83 m - pyrite increases to 2-3%, moderately brecciated - relic laminations at 35-40° to core axis.)	
		70.66 - 70.92:	2746	6-8	70.66	71.24	0.58			0.12)	
		70.92 - 71.24:)	
		pale grey, resembles a quartz vein - strongly micro-brecciated, intensely silicified with 8-10% pyrite.								)	0.124
		71.24 - 71.48:	2747	1	71.24	71.48	0.24			0.02)	8.12
		71.48 - 73.64:								)	(26.6')
		honey coloured to pale grey, intensely silicified, brecciated - up to 10% pyrite - very finely disseminated and clots up to 5mm.	2748	5-6	71.48	72.24	0.76			0.08)	
			2749	7-9	72.24	72.90	0.66			0.26)	
		73.64 - 74.54:	2750	5-7	72.90	73.64	0.74			0.17)	
		zone of green chloritized fracture fillings locally, majority is intensely silicified breccia - up to 6% pyrite.	2751	3-5	73.64	74.54	0.90			0.09)	
		74.54 - 74.95:)	
		honey coloured with relic laminations at 40-45° to the core axis (eg. 74.70 m).	2752	4-6	74.54	74.95	0.41			0.21)	
		74.95 - 75.64:	2753	3-5	74.95	75.64	0.69			0.16)	
		75.64 - 76.47:	2754	3-5	75.64	76.47	0.83			0.06)	
		rock grades to a purple-grey colour with 10% honey coloured patches - carries 10% green chloritized rock.)	
		76.47 - 78.54:	2755	2-4	76.47	77.20	0.73			0.01	
		carries 10-15% green chloritized patches up to 5cm in purple-grey intensely silicified breccia. Green zones are non-brecciated.	2756	2-4	77.20	77.93	0.73			0.01	
			2757	2-3	77.93	78.54	0.61			0.05	
		78.54 - 79.42:	2758	5-7	78.54	79.42	0.88			0.01	
		purple-grey intensely silicified with 5% chloritized rock.)	
		79.42 - 79.96:	2759	3-4	79.42	79.96	0.54			0.04	
		same as 76.47-78.54 m.)	

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DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-50 SHEET NO. 5 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		79.96 - 82.90: same as 78.54-79.42 - zone at 80.82-81.25 m is free of chloritized rock. Abundant white to grey free quartz in matrix to breccia fragments.	C 2760	3-4	79.96	80.82	0.86			0.01	
		82.90 - 88.66: intensely silicified generally purple-grey breccia, honey coloured halos up to 2cm wide surround fracture systems. No zones of relic chloritized rock are observed. Abundant metallic hematite on fracture surfaces - has a bluish sheen - moly? The zone from 84.87-85.12 m carries up to 10% pyrite locally.	2761	3-5	80.82	81.57	0.75			0.01	
		88.66 - 90.44: 5-10% weakly silicified and chloritized patches. Rock is generally intensely silicified and strongly brecciated; carries rare pink quartz veins up to 3cm in width (eg. 89.76 m).	2762	2-3	81.57	82.38	0.81			0.02	
		90.44 - 91.04: 10-15% chloritized patches - increasing in size and number with depth.	2763	2-3	82.38	83.18	0.80			0.04	
			2764	2-4	83.18	84.08	0.90			0.01	
			2765	2-4	84.08	84.87	0.79			0.04	
			2766	6-8	84.87	85.12	0.25			0.13	
			2767	2-3	85.12	86.02	0.90			0.03	
			2768	2-3	86.02	86.90	0.88			0.04	
			2769	2-3	86.90	87.81	0.91			0.02	
			2770	2-3	87.81	88.66	0.85			0.02	
			2771	1-3	88.66	89.56	0.90			0.01	
			2772	1-3	89.56	90.50	0.94			0.01	
											(measures 0.88 m)
			2773	1-3	90.50	91.04	0.54			0.01	
91.04	109.27	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Dark green, fine to very fine grained, locally laminated sediments - weakly carbonatized locally and moderately chloritized. Section carries 40-45% purple-grey intensely silicified breccia in seams as narrow as 1cm to zones up to 2.9m in width. Major zones of silicification are located at 91.38-91.73 m; 92.20-92.31; 92.75-92.93; 93.60-93.80; 96.71-96.98; 97.26-100.13; 100.43-101.12; 101.83-102.12; 102.90-103.00 and 108.06-108.22 meters.	2774	1-2	91.04	91.73	0.69			0.01	
		Silicification is controlled by brecciation and often along the margins of fractures and fracture systems. The number and size of these zones diminishes with depth, particularly below 102.72 m.	2775	1-2	91.73	92.65	0.92			0.01	
		91.04 - 96.98: 20% purple-grey silicified breccia.	2776	1-2	92.65	93.57	0.92			0.01	
		95.05 - 96.70: <u>INTRUSIVE</u> - dark green, fine to medium grained, occasional silicified breccia xenoliths up to 5cm in size. Rock is weakly magnetic.	2777	1-2	93.57	94.44	0.87			0.01	
		97.26 -100.13: intensely silicified, purple-grey breccia - up to 5% pyrite.	2778	1-2	94.44	95.15	0.71			0.01	
			2779	0-1	95.15	95.88	0.73			0.01	
			2780	0-1	95.88	96.70	0.82			tr.	
			2781	1-2	96.70	97.26	0.56			tr.	
			2782	2-4	97.26	97.95	0.69			0.06	
			2783	2-4	97.95	98.70	0.75			0.07	
			2784	2-4	98.70	99.53	0.83			0.12	
											(measures 0.68 m)
			2785	2-4	99.53	100.13	0.60			0.05	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-50 SHEET NO. 6 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
	100.13-100.43:	intensely silicified, purple-grey breccia - up to 5% pyrite.	2786	1-2	100.13	101.12	0.99			0.01	
	100.43-101.12:	silicified breccia.									
	101.12-101.83:	50% silicified breccia in seams up to 2cm in a dark green chloritized rock.	2787	1-2	101.12	101.83	0.71			0.01	
	101.83-102.12:	purple-grey silicified breccia - minor honey coloured halos around fractures.	2788	1-2	101.83	102.72	0.89			0.01	
	102.23-102.72:	as at 101.83-102.12 - minor chloritization of fracture surfaces.									
	102.72-105.70:	carries 10-20% purple-grey silicified breccia; strongly fractured throughout with white carbonate in voids. White to pink silicified halos surround fractures. Some cherty laminations locally (eg. 25° to core axis at 102.90-103.00 m).	2789	1-2	102.72	103.65	0.93			tr.	
			2790	1-2	103.65	104.54	0.89			tr.	
			2791	1-2	104.54	105.15	0.61			0.01	
			2792	1-2	105.15	105.70	0.55			0.01	
	105.70-107.10:	5% pinkish-grey silicified breccia zones (eg. 106.55-106.63 meters).	2793	1-2	105.70	106.58	0.88			tr.	
			2794	1-2	106.58	107.10	0.52			tr.	
	107.10-109.27:	up to 10% purple-grey silicified breccia with zones at 107.10-107.30, 108.06-108.22 and 108.75-108.81 meters. Locally laminated, 30° to core axis at 107.06 meters.	2795	1-2	107.10	107.90	0.80			0.05	
			2796	1-2	107.90	108.60	0.70			0.01	
			2797	1-2	108.60	109.27	0.67			0.02	
	109.27 meters	END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-51 LENGTH 140.51 meters
 LOCATION _____
 LATITUDE 9 + 75 E DEPARTURE 0 + 94 S
 ELEVATION _____ AZIMUTH 344° DIP -70°
 STARTED November 8, 1983 FINISHED November 9, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
45.72	-67°				
140.21	-65°				

HOLE NO. Mc-83-51 SHEET NO. 1 OF 7
 REMARKS BQ Core
Split for assay.
 LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL				
0	4.86	<u>OVERBURDEN</u>									
4.86	68.39	<u>BASALT</u> Medium to dark green, fine to medium grained with occasional very fine grained and aphanitic sections. The rock is strongly silicified and weakly epidotized locally, possibly near flow margins, (eg. 4.95-5.50 m). The rock is non-magnetic to very weakly magnetic. Flow(s) appear to be largely massive and unstructured. 4.86 - 10.80: fine to very fine grained 10.80 - 12.90: fine to medium grained. 12.90 - 15.25: fine to very fine grained, epidotized breccia locally. 15.25 - 17.45: weakly pillowed, fine to very fine grained. 17.45 - 17.80: aphanitic to very fine grained. 17.80 - 21.40: very fine grained becoming fine grained locally down section. A quartz vein is located at 19.68-20.00 meters. 21.40 - 28.20: fine grained becoming evenly textured from 24.90-27.60 m; massive flow. 28.20 - 28.90: very fine grained with occasional aphanitic sections up to 10cm thickness. 28.90 - 30.70: same as 21.40-28.20 m. 30.70 - 32.50: fine to medium grained, massive flow. 32.50 - 34.50: fine grained, medium locally. 34.50 - 35.05: fine grained, moderately fractured with quartz crystals up to 2cm in vugs along breaks. 35.05 - 35.45: fine to very fine grained. 35.45 - 36.10: brecciated with angular fragments up to 3cm in a white carbonate gangue.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-51 SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		36.10 - 36.45: fine grained.									
		36.45 - 40.60: medium grained, massive flow.									
		40.60 - 42.95: fine grained, pale green, rare medium grained phases.									
		42.95 - 54.04: fine to medium grained, occasional red hematized fractures sub-parallel to core axis.									
		54.04 - 55.90: medium grained, massive flow.									
		55.90 - 61.58: same as 42.95-54.04 m, occasional epidotized breccia.									
		61.58 - 66.05: medium grained, occasional fine grained sections, occasional silicified shear planes (eg. 62.92 m at 70° to core axis).									
		66.05 - 68.30: fine to very fine grained.									
		68.30 - 68.39: aphanitic, strongly silicified.									
68.39	70.72	<u>QUARTZ VEIN</u>									
		White bull quartz with xenoliths of dark green sediments along the lower contact.									
		68.39 - 70.40: white bull quartz - trace pyrite locally.									
		70.40 - 70.72: abundant dark green xenoliths of sediments with pyrite crystals up to lcm. Xenoliths average 30-40% pyrite, with up to 1% chalcopyrite.									
70.72	96.34	<u>SEDIMENTS</u>									
		Dark green becoming medium green locally, fine to very fine grained. C									
		The upper part of the section is not laminated visibly except where quartz veins cut and produce sericite alteration. This localized alteration highlights the bedding. These altered zones also carry abundant pyrite crystals up to lcm in size. The rocks are moderately fractured. Voids along the fractures, often sub-parallel to the core axis, are often lined with quartz crystals and red hematite. These rocks are non-magnetic, and average 0-1% pyrite.	2798	15-20	70.72	71.17	0.45			0.16	
			2799	5	71.17	71.62	0.45			0.02	
			2800	10	71.62	72.18	0.56			0.23	
			2801	2-4	72.18	72.97	0.79			0.01	
			2802	1-2	72.97	73.92	0.95			0.01	
			2803	1-2	73.92	74.99	1.07			0.01	
			2804	0-1	74.99	75.87	0.88			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-51 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		70.72 - 75.00:										
		carries 25% quartz veins up to 33cm (eg. 72.29-72.52 meters), sediments flanking veins carry abundant pyrite.	C									
		75.00 - 79.49:	2805	0-1	75.87	76.72	0.85					tr.
		rarely laminated, strongly fractured with carbonate filling - tensional-type fractures. Rock is well parted parallel to a weakly developed foliation - probably along bedding: 65° at 75.35 meters.	2806	0-1	76.72	77.69	0.97					tr.
		50-55° at 75.93 meters.	2807	0-1	77.69	78.66	0.97					tr.
		79.49 - 79.82:	2808	0-1	78.66	79.49	0.83					tr.
		sheared at 30-35° to core axis.	2809	0-1	79.49	80.34	0.85					tr.
		79.82 - 84.20:	2810	0-1	80.34	81.14	0.80					tr.
		same as 75.00-79.49 m.	2811	0-1	81.14	82.05	0.91					tr.
		84.20 - 85.60:	2812	0-1	82.05	83.00	0.95					tr.
		moderately to weakly brecciated with pink carbonate filling - some fracture voids filled with quartz crystals.	2813	0-1	83.00	83.95	0.95					tr.
		85.60 - 89.58:	2814	0-1	83.95	84.89	0.94					tr.
		same as 75.00-79.49 m.	2815	0-1	84.89	85.84	0.95					tr.
		89.58 - 96.34:	2816	0-1	85.84	86.75	0.91					tr.
		rock becomes weakly laminated, moderate locally; and strongest below 92.30 m. Bedding is denoted by a moderate to strong foliation of 0.1-0.5mm clasts - may be tuffaceous. Lowermost 30cm fines - inversely graded?	2817	0-1	86.75	87.62	0.87					tr.
		89.82 m: foliation at 50° to core axis.	2818	0-1	87.62	88.62	1.00					tr.
		92.20 m: foliation at 45-50° to core axis.	2819	0-1	88.62	89.58	0.96					tr.
		92.40 m: lamination at 40-45° to core axis.	2820	0-1	89.58	90.53	0.95					0.01
		94.80 m: laminations at 45-50° to core axis.	2821	0-1	90.53	91.31	0.78					0.01
			2822	0-1	91.31	92.22	0.91					tr.
			2823	0-1	92.22	93.12	0.90					tr.
			2824	0-1	93.12	94.11	0.99					tr.
			2825	0-1	94.11	94.94	0.83					tr.
			2826	0-1	94.94	95.64	0.70					tr.
			2827	0-1	95.64	96.34	0.70					tr.
96.34	125.50	<u>MAIN MINERALIZED ZONE</u>										
		The upper member of the zone is a variably silicified and brecciated horizon with up to 80% cherty sediments. This unit is somewhat thicker in section than might be expected. The central member, a strongly silicified breccia, is not well developed and does not attain the typical purple-grey colour. Perhaps as a consequence, pyrite content is very low, seldom over 3%. The lower member, a variably brecciated and silicified section is of normal thickness but no purple-grey colouration is noted.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-51 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
96.34	101.03	<p align="center"><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>The zone carries 10-80% pale greenish-grey cherty rip-up clasts set in a chloritized dark green, fine to very fine grained groundmass. Fragments range from 2mm to 5cm - larger fragments being sub-angular, smaller are generally more rounded. Average size is 1cm. Smaller clasts, less than 5mm, exhibit a weak to moderate foliation, (eg. 45-50° at 96.55 m). Some irregular bedding is noted locally, possibly reflecting soft sediment slumping. Occasional pale green brecciated chert beds up to 2cm thickness are noted (eg. 97.34 m at 60° to core axis). Cherty sediments do not carry pyrite. The zone ends at a massive siliceous zone carrying higher and more consistent pyrite contents - 1-3% versus 0-2%.</p> <p>96.34 - 98.16: cherty clasts are pale green; 11cm lost core at 97.89 meters.</p> <p>98.16 - 98.17: green clay seam (FAULT), cutting core at 48°.</p> <p>98.17 -101.03: cherty clasts are pale grey with purple tint. Fragment size increases down-hole, massive chert at 99.40-99.74 m. Several other smaller massive chert beds noted locally. A general increase in pyrite is noted with depth. Pyrite is very finely disseminated.</p>									
			C								
			2828	0-1	96.34	97.10	0.76			0.01	
			2829	0-1	97.10	98.16	1.05			0.01	
			2830	0-1	98.16	98.80	0.64			0.02	
			2831	1-2	98.80	99.74	0.94			0.01	
			2832	1-2	99.74	100.31	0.57			0.01	
			2833	1-2	100.31	101.03	0.72			0.02	
101.03	107.22	<p align="center"><u>MAIN SILICIFIED ZONE</u></p> <p>Pale greenish-grey to waxy-green, with occasional dark green patches and honey coloured halos around fracture systems. Silicification is controlled by broken rock and follows breccia and fracture systems. However, brecciation is irregular and silicification is seldom strong. Some cherty sediments are noted locally in the section. Up to 5% pyrite is noted locally as a very fine dissemination. Green colouration in this section may be due to sericite alteration.</p> <p>101.03-101.63: greenish cherty sediments, rocks are weakly brecciated and strongly silicified averaging 1-3% pyrite.</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-51 SHEET NO. 5 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE		%	%	OZ/TON	OZ. TON		
					FROM	TO					TOTAL	
107.22	125.50	101.63-104.25: as above, spotty silicification increasing with brecciation down section. Up to 5% pyrite locally (averages 3-4%); with some pyrite in relic bedding planes at 102.00-102.30 m. Several zones of relic chloritization remain.	C 2834	1-3	101.03	101.54	0.51	(measures 0.60 m)	0.12	Rech. 0.11		
		104.25-105.25: same as 101.63-104.25 but with abundant chloritized fractures and broken rock between honey coloured chert and silicified breccia fragments.	2835	1-3	101.54	102.31	0.77		0.21	0.22		
		105.25-105.57: honey coloured, strongly silicified breccia with 60% dark green chloritized breccia and fractures.	2836	1-3	102.31	103.22	0.91		0.30	0.30		
		105.57-106.46: same as 104.25-105.25 m - occasional pink drusy quartz crystals on fractures. Weakly laminated locally - 35-40° at 105.70 meters.	2837	1-3	103.22	104.05	0.83		0.29	0.28		
		106.46-107.22: 40-50% chloritized material between silicified sections. Fractures are chlorite filled.	2838	1-3	104.05	104.65	0.60		0.09	0.07		
			2839	1-2	104.65	105.53	0.88		0.13	0.26		
			2840	1-2	105.53	106.44	0.91		0.08	0.09		
			2841	1-2	106.44	107.22	0.78		0.02			
		<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>										
				Pale waxy green, moderately to strongly silicified breccia with 50% dark green chloritized rock (probably non-brecciated). Brecciation developed in a network pattern which was subsequently silicified. Central parts of the network were not penetrated by silica bearing fluids. More highly silicified rocks carry higher pyrite contents, up to 3% locally. Some relic laminations are noted locally (eg. 108.00 m at 35-40° to core axis).	C 2842	1-3	107.22		108.14	0.92	0.02	
				107.22-109.30: approximately 50% silicified breccia with few individual sections greter than 10cm. Fluorite (1-2%) noted above 108.10 m - purple colour - not previously recognized in any drill hole. Silicified zones often defined along sharp contacts representing alteration fronts. A radiating needle-like texture (micro-breccia?) on a 1mm scale is noted locally - eg. 108.40 meters	2843	1-3	108.14		109.02	0.88	0.01	
				109.30-116.73: carries 25-30% silicified breccia, percentage decreasing down-section.	2844	1-2	109.02		109.85	0.83	0.01	
					2845	1-2	109.85		110.85	1.00	0.03	
			2846	1-2	110.85	111.80	0.95	0.07				
							(measures 0.87 m)					
			2847	1-2	111.80	112.71	0.91	0.02				
			2848	1-2	112.71	113.50	0.79	tr.				
			2849	1-2	113.50	114.39	0.89	tr.				
			2850	1-2	114.39	115.25	0.86	tr.				
			2851	1-2	115.25	116.20	0.95	tr.				
			2852	1-2	116.20	117.11	0.91	tr.				

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-51 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL					
		116.73-121.70:	C									
		siliceous sections partly cherty sediments and part silicified. Laminated at 20-25° at 116.80 m and at 40-45° at 117.65 m. Bedding below 118.50 m is represented by a foliation (eg. 40° at 118.80 m). Below 118.30 m siliceous rock represents 15-20% of the section - minor cherty sediments. A 2cm orange carbonate vein is noted at 120.35 meters.	2853	1-2	117.11	118.00	0.89			tr.		
			2854	1-2	118.00	118.85	0.85			tr.		
			2855	1-2	118.85	119.70	0.85			0.10		
			2856	1-2	119.70	120.60	0.90			0.07		
			2857	1-2	120.60	121.45	0.85			0.10		
			2858	0-1	121.45	122.06	0.61			0.02		
			2859	0-1	122.06	122.70	0.64			0.01		
		121.70-122.70:	2860	0-1	122.70	123.55	0.85			0.01		
		carries 20-30% cherty sediments, well bedded but openly folded - slumping? Individual beds are brecciated and set in a dark green chloritized clastic matrix. Bedding at 121.80 m at 40° to core axis.	2861	0-1	123.55	124.33	0.78			0.01		
			2862	1-2	124.33	124.96	0.63			0.04		
			2863	1-2	124.96	125.50	0.54			0.03		
		122.70-125.50:										
		same as 116.73-121.70 m. Abundant slickensided, chloritized and polished fractures. An increase in very finely disseminated pyrite is noted below 124.30 meters.										
125.50	140.51	<u>SEDIMENTS</u>										
		Dark green, fine to very fine grained, poorly bedded becoming well bedded below 136.00 m. The zone carries 10% silicified breccia seams up to 2cm width - probably developed along bedding planes. Pyrite is very finely disseminated and averages 1%.	C									
			2864	1-2	125.50	126.35	0.85			tr.		
			2865	1-2	126.35	127.30	0.95			tr.		
			2866	1-2	127.30	128.27	0.97			tr.		
		126.35-127.30: well laminated at 30° to core axis highlighted by pale grey siliceous laminations.	2867	1-2	128.27	129.12	0.85			tr.		
			2868	0-1	129.12	130.07	0.95			tr.		
		127.30-128.00: well foliated - chloritized mafic clasts are roughly aligned.	2869	0-1	130.07	131.02	0.95			tr.		
			2870	0-1	131.02	132.02	1.00			tr.		
		132.35: percentage chert and silicified breccia decreases sharply below this point to less than 5% of section.	2871	0-1	133.10	133.95	0.85			tr.		
		132.50-136.00: non-laminated, moderately fractured, cherty laminations locally - eg. 20° to core axis at 133.70-133.80 meters.										

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-51 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		136.00-140.51: moderately to well laminated.	C								
		136.55 m: bedding at 25-30° to core axis.	2872	0-1	136.25	137.25	1.00			tr.	
		138.30 m: bedding at 45° to core axis.									
		139.20 m: bedding at 35-40° to core axis.	2873	0-1	138.25	139.17	0.92			tr.	
		140.50 m: bedding at 30-35° to core axis.	2874	0-1	139.29	140.21	0.92			tr.	
		140.51 meters END OF HOLE									
		CASING PULLED									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-52 LENGTH 183.18 meters
 LOCATION _____
 LATITUDE 9 + 25 W DEPARTURE 0 + 70 S
 ELEVATION _____ AZIMUTH 344° DIP -65°
 STARTED November 9, 1983 FINISHED November 14, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-64°				
106.68	-57°				
182.88	-55°				

HOLE NO. Mc-83-52 SHEET NO. 1 OF 8
 REMARKS BQ Core
Split for assay.
 LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	15.85	<u>OVERBURDEN</u>								
15.85	51.85	<u>BASALT</u> Medium greyish-green, fine to medium grained massive flow. Textural variations often defined by sheared zone which were subsequently epidotized - shear flow. Coarser grained sections are usually weakly to moderately epidotized (deuteric). Rock is non-magnetic and is not carbonatized. 15.85 - 18.30: medium grained. 18.30 - 20.25: fine to medium grained, occasional epidotized breccia. 20.25 - 20.95: fine grained. 20.95 - 21.30: aphanitic, strongly brecciated with silicified fragments locally. 21.30 - 21.35: ground core - possible silicified flow contact. 21.35 - 23.95: fine to medium grained, patchy epidotization. 23.95 - 24.95: probably <u>Sediments</u> - well foliated at 35-40° to core axis; strongly chloritized and epidotized. Rock carries up to 3% pyrite as clots and cubes up to 2mm. 24.95 - 31.56: fine to very fine grained; occasional epidotized and silicified breccia zones, usually aphanitic. 31.56 - 32.76: <u>INTRUSIVE</u> - greenish-pink to pinkish-green, fine to very fine grained - possibly Dioritic. 32.76 - 37.49: fine to very fine grained with abundant red hematite filled fractures.								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-52 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		37.49 - 40.00: <u>SEDIMENTS</u> - dark green, well laminated locally at 35-40° to core axis (eg. 37.50 m). Rock is very fine grained, often brecciated. A layer of pale green ash-fall tuff is noted at 39.03-39.13 carrying clasts up to 1mm. A well foliated 'tuffaceous' zone at 50° to core is located at 39.69-40.00 m.									
		40.00 - 40.36: flow top breccia; angular fragments.									
		40.36 - 41.15: variably brecciated, often with white quartz between fragments.									
		41.15 - 46.60: fine grained, often brecciated, occasional epidotized and silicified flow breccia fragments.									
		46.60 - 46.86: fine to very fine grained.									
		46.86 - 51.85: same as 41.15-46.40 - fines slightly towards base. Lower contact is at a strongly silicified and weakly carbonated zone.									
51.85	54.92	<u>SEDIMENTS</u> Dark green, fine to very fine grained, locally laminated, becoming better laminated with depth, below 53.17 m. The rock is moderately chloritized. Bedding is highlighted by cherty seams parallel to the laminations - up to 5mm in thickness. This is probably secondary silica - it is also found in irregularly developed cross-cutting fractures. The section carries up to 1% pyrite as a very fine dissemination. 51.85 - 53.17: poorly laminated, weakly foliated. 53.17 - 54.92: well laminated: 55° to core axis at 53.17 m and 55-60° at 54.80 meters.	C								
			2875	0-1	51.79	52.55	0.76			0.01	
			2876	0-1	52.55	53.39	0.84			0.01	
			2877	0-1	53.39	54.27	0.88			0.01	
			2878	0-1	54.27	54.92	0.65			0.01	
54.92	82.79	<u>MAIN MINERALIZED ZONE</u> The zone is developed closer to the overlying volcanic-sedimentary contact than is normally observed. The upper transitional silicified sediments contain a variable amount of silicified sediments, chert and possibly carbonate (diagenetic) sediments. Because of intrusives, little is observed of the 'main silicified									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-52 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
54.92	59.03	<p>zone'. The lower member, a second variably silicified zone is found below an intrusive body at 70.55-82.79 meters. The main zone and the lower transitional zone seem, from what evidence remains, to have been well developed.</p> <p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green with abundant pale grey to light purple-grey beds and seams up to 25cm thickness. These beds have a texture composed of 1-5mm ovoid carbonate 'growths' - possibly diagenetic. These zones locally may be moderately to strongly silicified (eg. 56.72-57.42), and have a purple-grey colour. The individual 'growths' are partially outlined by dark green silt, present as thin wisps. These zones have a weakly developed foliation along the bedding (eg. 50° to core axis at 56.30 m). The rock is well laminated locally - 40-45° at 57.90 meters. Major carbonate bearing zones are located at 54.95-55.08 m; 55.71-56.01; and 56.09-56.33 meters.</p> <p>54.60 - 54.69: lost core.</p> <p>58.01 - 58.39: pale purple-grey cherty rip-up clasts, up to 3cm in size supported in a dark green chloritized silty groundmass. Some massive cherty beds up to 5cm are noted. Purple-grey fragments are intensely silicified and carry 2-3% very fine pyrite.</p> <p>58.39: green clay seam - FAULT.</p> <p>58.39 - 59.03: strongly fractured with moderate to strong chloritization of voids - strongly sheared zone of laminated cherty and silty sediment.</p>									
			C								
			2879	1-2	54.92	55.75	0.83			0.01	
			2880	1-2	55.75	56.72	0.97			0.01	
			2881	1-2	56.72	57.42	0.70			0.01	
			2882	1	57.42	58.01	0.59			tr.	
			2883	1-3	58.01	58.39	0.38			0.06	
			2884	1-2	58.39	59.03	0.64			tr.	
59.03	65.04	<p><u>INTRUSIVE</u></p> <p>Olive green, fine grained with green nearly acicular crystals up to 2mm. Some sections up to 20cm width near the contact, carry abundant pale waxy green siliceous phases. The rock is strongly silicified from 60.30-61.30 m and carries 1% pyrite locally as blebs up to 1mm. The rock is non-magnetic.</p>	2885	0	59.03	59.90	0.87			tr.	
			2886	0-1	59.90	60.68	0.78			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-52 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		60.68 - 60.94: ground and lost core - some overburden pushed down-hole - not included in sample.	C								
		63.74 - 65.04: probably a fractured xenolith of silicified breccia - upper contact sub-parallel to core axis. All fractures strongly chloritized. A 3cm pink quartz-carbonate vein is noted at 63.95 meters.	2887	0-1	60.94	61.87	0.93			tr.	
			2888	0-1	61.87	62.85	0.98			tr.	
			2889	0-1	62.85	63.74	0.89			tr.	
			2890	1	63.74	64.35	0.61			tr.	
			2891	1	64.35	65.04	0.69			tr.	
65.04	67.20	<u>MAIN SILICIFIED ZONE</u>									
		Purple-grey, intensely silicified breccia with 5% honey coloured possibly feldspathized zones bordering fractures. Zone also carries 10-15% relic dark green chloritized non-silicified rock, mostly in the lowermost 72cm. Rock contains up to 3% finely disseminated pyrite in silicified rock. No trace of relic bedding is observed.	2892	2-3	65.04	65.83	0.79			tr.	
			2893	2-3	65.83	66.48	0.65			0.01	
			2894	1-2	66.48	67.20	0.72			0.07	
67.20	70.55	<u>INTRUSIVE</u>									
		Identical to 59.03-65.04 meters; carries occasional quartz veins (eg. 68.38-68.50 m), with variably dipping contacts. Trace of very weak magnetism locally. Lowermost 40cm is fine grained, strongly chloritized and fractured. A well developed chill is noted at the lower contact-possibly parallel to bedding in underlying sediments.	2895	0-1	67.20	68.00	0.80			0.01	
			2896	0-1	68.00	68.95	0.95			0.01	
			2897	0-1	68.95	69.78	0.83			0.01	
			2898	0-1	69.78	70.55	0.77			tr.	
70.55	82.79	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Dark green, fine to very fine grained, well laminated locally (eg. 45-50° at 70.73 m). Abundant white free quartz filling voids. Localized zones of silicified breccia are up to 25cm in thickness, but average about 5cm. Silicified breccia is purple-grey and occasional honey coloured. Fractures are often surrounded by 1cm honey coloured halos, which are also strongly silicified. Relic green coloured rock tends to be non-brecciated and subsequently non-silicified. Up to 3% pyrite is noted in strongly altered rock. A 3cm orange carbonate vein is located at 71.68 meters.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-52 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ./TON	OZ./TON	
					FROM	TO	TOTAL				
		70.55 - 74.66: section is 30-40% silicified. An <u>intrusive</u> is noted at 70.99-71.08 meters which is pinkish-green to flesh coloured with green needle-like amphiboles(?) up to 2mm. Also carries silicified xenoliths.	2899	1-2	70.55	71.39	0.84			0.07	
			2900	1-2	71.39	72.15	0.76			0.14	
			2901	2-3	72.15	73.00	0.85			0.08	
			2902	2-3	73.00	73.80	0.80			0.01	
		72.05 - 72.15: siliceous component is composed of cherty fragments up to 2cm in size - supported in a chloritized silty matrix. Chloritized partings carry 1% chalcopyrite.	2903	2-3	73.80	74.66	0.86			0.01	
			2904	1-2	74.66	75.52	0.86			0.01	
			2905	1-2	75.52	76.06	0.54			0.01	
			2906	1-2	76.06	77.00	0.94			0.03	
		74.66 - 76.06: zone carries 15-20% silicified breccia.	2907	1-2	77.00	77.77	0.77			0.04	
		76.06 - 79.20: increased silicified breccia content to 50%. A dark green <u>intrusive</u> is noted at 76.53-76.75 meters (same as 67.20-70.55 m).	2908	1-2	77.77	78.40	0.63			0.02	
			2909	1-2	78.40	79.20	0.80			0.21	
			2910	1	79.20	79.76	0.56			0.02	
		79.20 - 80.34: carries 10% silicified breccia in seams up to 5cm thickness - also silicified halos around fractures.	2911	1	79.76	80.34	0.58			0.01	
			2912	1-2	80.34	81.23	0.89			0.02	
		80.34 - 82.79: medium to pale (sericite?) green, with major silicified zones at 81.00-81.17 and 82.45-82.61 m.	2913	0-1	81.23	82.10	0.87			0.03	
			2914	1-2	82.10	82.79	0.69			0.02	
82.79	88.80	<u>DIORITE</u> Dark green to pale wax green with occasional pinkish-green 5mm wide halos surrounding fractures. The rock is generally massive and unstructured. It is very weakly magnetic locally. The intrusive has a needle-like texture locally. Crystals up to 2mm in length and accicular in habit are probably amphiboles. This texture is observed as high as 79.25 m in this hole, interzones with silicified breccia. The intrusive is not carbonatized.									
		82.79 - 84.15: pale waxy green, randomly oriented dark green accicular needles up to 2mm.	2915	0-1	82.79	83.69	0.90			0.01	
			2916	0-1	83.69	84.20	0.51			0.01	
		84.15 - 85.72: darker green, rock texture with needles not as well developed.	2917	0-1	84.20	85.00	0.80			0.01	
			2918	0-1	85.00	85.72	0.72			0.01	
			2919	1	85.72	86.47	0.75			0.01	
			2920	0-1	86.47	87.40	0.93			tr.	
			2921	0-1	87.40	88.10	0.70			tr.	
			2922	0-1	88.10	88.80	0.70			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-52 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FRDM	TO		NO.	% SULPH IDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
88.80	109.20	<p align="center"><u>SEDIMENTS</u></p> <p>Dark green, fine to very fine grained, with a greyish tone in uppermost 30cm. Weakly to moderately fractured - white carbonate filled. Moderately to well developed bedding laminations, often with concordant 1-2cm purple-grey silicified breccia seams (5% of section above 92.70 m). The rock is moderately well parted parallel to the laminations, and is non-magnetic. Weak carbonatization is noted locally.</p> <p>92.70 - 93.55: zone contains 50% silicified breccia.</p> <p>94.23 - 94.33: <u>Diorite</u> - fine grained, non-magnetic with contacts at 60° to core - concordant to bedding.</p> <p><u>Bedding Attitudes:</u></p> <p>90.05 m: 40-45° to core axis. 90.70 m: 50-55° to core axis. 92.00 m: 40-45° to core axis. 94.75 m: 45-50° to core axis. 96.90 m: 35-40° to core axis. 101.70 m: 50° to core axis. 103.15 m: 30° to core axis.</p> <p>105.00-109.20: spotty carbonatization feathering out along bedding laminations. Minor cherty beds locally (eg. 107.21-107.40 m). Bedding at 109.19 m at 30° to core.</p>	C								
			2923	1	88.80	89.78	0.98				tr.
			2924	1	89.78	90.70	0.92				0.04
			2925	1	90.70	91.56	0.86				0.01
			2926	1	91.56	92.35	0.79				0.01
			2927	1-2	92.35	93.30	0.95				0.04
			2928	1-2	93.30	94.23	0.93				tr.
			2929	1	94.23	95.08	0.85				tr.
			2930	1	95.08	95.85	0.77				0.03
			2931	0-1	96.90	97.78	0.88				0.01
			2932	0-1	98.80	99.67	0.87				tr.
			2933	0-1	100.65	101.54	0.89				tr.
			2934	0-1	102.65	103.52	0.87				tr.
			2935	0-1	104.60	105.47	0.87				tr.
			2936	0-1	106.50	107.44	0.94				0.04
			2937	0-1	108.35	109.20	0.85				0.01
109.20	127.46	<p align="center"><u>BASALT</u></p> <p>Medium green, fine to very fine grained, massive in the upper part becoming weakly brecciated below 111.25 m. Two pillowed sequences are noted. Pillow size is approximately 1 meter. Minor amounts of tuff and hyaloclastite are observed. The flows are non-magnetic and are not carbonatized.</p> <p>109.20-111.25: massive, non-brecciated flow.</p> <p>111.25-115.40: brecciated flow - angular fragments, rock is weakly epidotized.</p> <p>115.40-115.61: variolite and hyaloclastite bearing zone.</p> <p>115.61-116.18: Tuff - dark grey with reddish hue; ash fragments up to 4mm in a very fine grained matrix.</p>									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-52 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ./TON	OZ. TON
					FROM	TO	TOTAL				
		116.18-116.23: hyaloclastite. 116.23-122.75: pale green, strongly tectonically brecciated pillowed sequence. Selvages up to 4cm in width are strongly epidotized. Pillow tops are weakly vesicular. 122.75-122.84: SEDIMENTS - well laminated at 50-55° to core. 122.84-123.35: dark green massive flow. 123.35-123.80: SEDIMENTS - moderate to well developed laminations at 45° to core axis - possibly tuffaceous. 123.80-124.50: brecciated basalt, minor hyaloclastite, moderately epidotized locally. 124.50-127.46: dark green pillowed basalt - same as 116.23-122.75 meters.									
127.46	132.83	<u>SEDIMENTS</u> Dark green, fine to very fine grained, locally very well laminated (eg. 50° at 127.72 and 132.70 m). The zone is brecciated and strongly chloritized at the upper contact. The section carries up to 1-2% very finely disseminated pyrite. Locally developed carbonatization is of moderate strength and feathers out into the laminations. Non-magnetic. 130.20-131.55: massive, non-laminated zone (silty). 132.68-132.83: ground and lost core.	C								
			2938	1	127.49	128.35	0.86				tr.
			2939	1	128.35	129.16	0.81				tr.
			2940	1	129.16	130.04	0.88				tr.
			2941	1	130.04	130.96	0.92				tr.
			2942	1	130.96	131.83	0.87				tr.
			2943	1	131.83	132.83	1.00				tr.
							(measures 0.85)				
132.83	183.18	<u>BASALT</u> Dark green, becoming pale green where strongly epidotized and moderately brecciated above 136.25 m. Several flows are noted in this section, one of which is pillowed. Flow tops are marked by angular flow top breccia. The rocks are non-magnetic and are weakly chloritized. 132.83-136.25: angular, shatter-type tectonic brecciation. Fracture systems are moderately epidotized. Fine to very fine grained.									

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-52 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FOOTAGE		%	%	OZ./TON	OZ./TON
					FROM	TO					TOTAL
		136.25-141.00:								
		fine grained and generally massive, weakly chloritized; epidotized locally in association with fractures or breccia.								
		141.00-149.85:								
		fine grained, weakly to moderately brecciated with carbonate filled fractures.								
		149.85-151.20:								
		very fine grained to aphanitic; finely brecciated locally. Abundant white carbonate stringers.								
		151.20:								
		FLOW CONTACT								
		151.20-151.40:								
		flow top breccia with angular fragments up to 1cm. Moderately silicified.								
		151.40-154.00:								
		pale green, tectonically and flow brecciated; strongly silicified locally. Very fine grained to aphanitic.								
		154.00-158.75:								
		pale greenish-grey, very fine grained becoming fine grained at 155.50 m, and almost medium grained at 158.40-158.75 meters.								
		158.75-158.78:								
		rock grades rapidly to very fine grained.								
		158.78-160.70:								
		pale green, weakly brecciated and epidotized.								
		160.70-171.33:								
		pillowed; strongly brecciated throughout pillow centres, zone includes a brecciated but massive section at 164.50-166.08 m and strongly epidotized angular breccia from 169.35-171.33 meters.								
		171.33-171.55:								
		sheared at 65-70° to core - zone resembles sedimentary laminations.								
		171.55-175.32:								
		weakly pillowed.								
		175.32-183.18:								
		brecciated massive flow - abundant carbonate stringers.								
		183.18 meters								
		END OF HOLE								
		CASING PULLED								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-53 LENGTH 131.37 meters
 LOCATION _____
 LATITUDE 9 + 25 E DEPARTURE 0 + 95 S
 ELEVATION _____ AZIMUTH 344° DIP -70°
 STARTED November 14, 1983 FINISHED November 16, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
30.48	-71°				
131.06	-67°				

HOLE NO. Mc-83-53 SHEET NO. 1 OF 6

REMARKS BQ Core

Split for analysis.

Casing Pulled.

LOGGED BY A.W. Workman

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE		%	%	OZ/TON	OZ/TON
					FROM	TO					TOTAL
0	4.23	<u>OVERBURDEN</u>								
4.23	68.81	<u>BASALT</u>								
		<p>Medium greenish-grey to greyish-green, fine to very fine grained when pillowed and fine to medium grained when massive flow. The rocks are non-carbonatized and exhibit a trace of magnetism locally. The flows average 1% pyrite as blebs up to 2mm. Rocks above 36.42 m are pillowed; below are massive flows.</p> <p>4.23 - 5.75: very fine grained, angularly brecciated. 5.75 - 7.70: fine grained, non-brecciated, generally massive. 7.70 - 11.45: fine to medium grained, generally massive. 11.45 - 11.95: fine grained becoming very fine grained. 11.95 - 17.75: pillowed - hyaloclastite in rims at 11.97 m and 12.35 m; not below. Rock is weakly pillowed below 15.30 m. Lower contact is arbitrary. 17.75 - 20.20: fine grained, locally epidotized and silicified brecciation; quartz veins and stringers up to 3cm. 20.20 - 28.60: pillowed, very fine grained, pillows up to 1.5m in size. 28.60 - 33.05: fine to very fine grained, abundant epidotized and silicified "shatter-type" brecciation. Minor flow breccia. 33.05 - 36.42: pillowed, very fine grained, increasingly brecciated towards base of zone. 36.42 - 39.45: massive flow, fine grained gradually coarsening down section. 39.45 - 40.11: massive, fine to medium grained.</p>								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-53 SHEET NO. 2 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
		40.11 - 41.18:									
		massive, medium grained, weakly to moderately fractured - filled with quartz and minor white carbonate and red hematite.									
		41.18 - 46.50:									
		same as 39.45-40.11 meters.									
		46.50 - 47.15:									
		fine grained with increasing brecciation and fracturing; spotty epidotization, texture cloudy due to alteration - possibly uralitization.									
		47.15 - 49.30:									
		fine to medium grained, massive, occasional epidotized seams up to 1cm in width.									
		49.30 - 50.85:									
		fine grained, strongly epidotized.									
		50.85 - 54.75:									
		massive, fine to medium grained.									
		54.75 - 54.85:									
		sheared; brecciated and mylonitic.									
		54.85 - 63.40:									
		massive, medium grained, sheared at 15° to core axis at 57.15 m - increased fracturing below.									
		63.40 - 64.07:									
		fine grained, lower contact is sharp at a 1cm quartz-carbonate seam at 20° to core axis - minor fault.									
		64.07 - 65.30:									
		very fine grained to aphanitic, flow top breccia above 64.24 m - finely brecciated below.									
		65.30 - 68.81:									
		medium to coarse flow breccia - sub-rounded fragments up to 5cm in size in moderately epidotized groundmass. Below 68.35 m, fragments are elongated along shear foliation in flow at 45° to core axis. Some fragments may be derived from underlying sediments. Lowest 10cm is very fine grained to aphanitic ending at a siliceous 2cm seam.									
68.81	79.50	<u>SEDIMENTS</u>									
		Dark green, fine to very fine grained, and well laminated. Local carbonatization produces a greyish tone to the rock, and these zones carry elevated pyrite contents - up to 5%. Pyrite is noted as a very fine grained dissemination and as cubes up to 1mm (eg. 69.80-70.07 moderately carbonatized). Other carbonate alteration is noted as a selective replacement of alternating laminations (eg. 70.07-70.70 meters). Rock is generally weakly to moderately chloritized. It is non-magnetic.	C								
			2944	1-2	68.81	69.80	0.99				tr.
			2945	2-4	69.80	70.70	0.90				tr.
			2946	1	70.70	71.54	0.84				tr.
			2947	1	71.54	72.35	0.81				tr.

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

 NAME OF PROPERTY McDermott

 HOLE NO. Mc-83-53 SHEET NO. 3 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		68.81 - 70.90: well laminated, moderately carbonatized locally. Bedding at 69.10 m at 55° to core axis, and, at 70.85 meters at 45°.	C								
		70.90 - 76.65: less well laminated, minor red cherty (jasperoid) sediments; non-laminated locally.	2948	1	72.35	73.16	0.81			tr.	
		76.65 - 79.50: well foliated, weakly to moderately laminated; minor brecciated rock locally - purple-grey, non-silicified, carbonated. Bedding: 45° to core at 77.00 m. 45° to core at 77.40 m. 50-55° to core at 79.33 m.	2949	1	73.16	74.08	0.92			tr.	
			2950	1	74.08	75.00	0.92			tr.	
			2951	1-2	75.00	75.88	0.88			tr.	
			2952	1-2	75.88	76.72	0.84			tr.	
			2953	1	76.72	77.50	0.78			tr.	
			2954	1	77.50	78.38	0.88			tr.	
			2955	1	78.38	79.03	0.65			tr.	
			2956	2-3	79.03	79.50	0.47			tr.	
79.50	80.71	<u>QUARTZ VEIN</u>									
		White bull quartz containing 75% intensely sericitized xenoliths of sediment. Fragments contain pyrite crystals up to 1.5 cm above 80.00 meters.	2957	5-7	79.50	80.12	0.62			tr.	
			2958	1-3	80.12	80.71	0.59			tr.	
80.71	93.76	<u>SEDIMENTS</u>									
		This zone is essentially the same as the section at 68.81-79.50 m. It is less well laminated, and for the most part is only moderately foliated. Parting is not well developed along the foliation. The rock is moderately to strongly fractured with 5-10% quartz veining above 83.30 m. Most fractures are carbonate filled. The unit carries up to 2% pyrite locally but averages less than 1%.	2959	1-2	80.71	81.61	0.90			tr.	
		88.85 - 89.30: weakly to moderately laminated at 45-55° to core.	2960	1-2	81.61	82.57	0.96			tr.	
		90.70: 5cm laminated zone at 40-45° to core axis.	2961	1-2	82.57	83.43	0.86			tr.	
		90.90 - 91.95: weakly to moderately carbonatized.	2962	1	83.43	84.28	0.85			tr.	
		93.60 - 93.76: moderately carbonatized.	2963	1	84.28	85.08	0.80			tr.	
		93.35 - 93.76: moderately to strongly fractured - surfaces are chlorite polished.	2964	1	85.08	85.97	0.89			0.01	
			2965	1	85.97	86.86	0.89			0.01	
			2966	0-1	86.86	87.69	0.83			0.01	
			2967	0-1	87.69	88.55	0.86			0.01	
			2968	0-1	88.55	89.43	0.88			0.01	
			2969	0-1	89.43	90.29	0.86			0.01	
			2970	0-1	90.29	91.10	0.81			tr.	
			2971	0-1	91.10	91.95	0.85			tr.	
			2972	0-1	91.95	92.84	0.89			tr.	
			2973	0-1	92.84	93.76	0.92			tr.	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-53 SHEET NO. 4 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON
					FROM	TO	TOTAL				
93.76	123.04	<p><u>MAIN MINERALIZED ZONE</u></p> <p>The main zone is composed of three members; an upper variably silicified zone carrying chert fragments and beds; a central strongly silicified member with variable relic chloritized patches; and a lower variably silicified and brecciated zone. Pyrite contents up to 10% are noted locally within the central member.</p>									
93.76	95.36	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green, fine to very fine grained with 10-20% pale grey to purple-grey cherty fragments up to 3cm in size. These clasts increase to 50% below 94.47 meters and have pinkish hues locally. Pyrite content is 0-1% as a very fine grained dissemination. A fault zone begins at 94.75 m and ends at a 2cm green clay seam at 95.27 m (at 47° to core axis). The zone exhibits strongly chloritized shears and some mylonite.</p>	C								
			2974	0-1	93.76	94.47	0.71			0.01	
			2975	0-1	94.47	95.36	0.89			0.01	
95.36	110.13	<p><u>MAIN SILICIFIED ZONE</u></p> <p>The dominant lithology is honey coloured intensely silicified breccia which locally contains some purple-grey breccia. Some cream coloured cherty horizons and cherty fragments (rip-up clasts) are noted. Part of the rock was not completely silicified and these 'pods' are represented by greenish chloritized zones. Pyrite contents are generally below average for this zone although 10% pyrite is noted locally. It is present as a very fine dissemination, and as clots up to 1cm in size.</p> <p>96.20 - 96.48: carries 40-50% cherty rip-up clasts in a very fine grained intensely chloritized matrix.</p> <p>96.48 - 97.88: pale grey to purple-grey, intensely brecciated rock with minor green chloritized patches. Some chloritization of very tight fractures. Silicification is weak to moderate in strength.</p> <p>97.88 - 99.44: as above - some web-like epidote filling fractures - weakly silicified but increasing downhole.</p>									
			2976	1-2	95.36	96.13	0.77			0.07	
			2977	1-2	96.13	96.96	0.83			0.03	
			2978	1-2	96.96	97.88	0.92			0.06	
			2979	3-4	97.88	98.61	0.73			0.02	
			2980	3-5	98.61	99.44	0.83			0.01	

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-53 SHEET NO. 5 OF 6

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPHIDES	FOOTAGE			%	%	OZ/TON	OZ/TON	
					FROM	TO	TOTAL					
		99.44 -100.99:	2981	1-2	99.44	100.17	0.73			0.01		
		honey coloured, intensely silicified; becomes greayer in tone down hole. Tight fractures carry red hematite.	2982	1	100.17	100.99	0.82			0.01		
		100.99-103.00:	2983	1	100.99	101.79	0.80			0.01		
		grey-green, weakly to moderately silicified with honey coloured intensely silicified rock in locally developed breccia and surrounding fractures as 1-3mm halos. Locally, silicified breccia seams and chloritized seams may be parallel to bedding - (eg. 35° to core axis at 101.94 m). Zone may carry 5-10% cherty sediments.	2984	1	101.79	102.62	0.83			0.01		
		103.00-103.66:	2985	1	102.62	103.02	0.40			0.01		
		honey coloured intensely silicified breccia with 30% purple-grey zones - up to 5% pyrite locally. Occasional chloritized fractures.	2986	2-3	103.02	103.66	0.64			0.02		
		103.66-105.80:	2987	2-3	103.66	104.51	0.85			0.05		
		same as 103.00-103.66, but no purple-grey rock; abundant chloritized fractures at 104.55-105.15 m.	2988	1-2	104.51	105.44	0.93			0.02		
		105.80-107.28:	2989	1-2	105.44	106.22	0.78			0.13		
		carries 20-30% green relic chloritized patches in a generally honey coloured intensely silicified rock.	2990	1-2	106.22	106.78	0.56			0.05		
		107.28-108.41:	2991	1-2	106.78	107.28	0.50			0.02		
		same as 103.00-103.66 m but carries 10% purple-grey rock.	2992	2-3	107.28	107.85	0.57			0.09		
		108.41-109.45:	2993	3-4	107.85	108.41	0.56			0.17		
		honey coloured, strongly silicified, with 30-40% relic green chloritized patches and seams. Rock becomes greenish toned with depth.	2994	2	108.41	108.88	0.47			0.13		
		109.45-110.13:	2995	2	108.88	109.45	0.57			0.03		
		honey coloured, intensely silicified breccia; averaging 5-7% pyrite and up to 10% locally.	2996	5-7	109.45	110.13	0.68			0.34		
		<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>	2997	1-2	110.13	110.96	0.83			0.11		
		Dark green, fine to very fine grained with up to 70% honey coloured silicified breccia zones up to 15cm in width. These zones may be purple-grey locally and show some evidence of developing along the bedding. Fractures are often surrounded by silicified, honey coloured reaction halos. The rock is well laminated on a very localized scale (eg. 40-45° at 117.62 m). Major silicified sections are found at 110.13-110.96 (50% silicified); 111.82-115.65 (25-35% silicified); 116.40-117.50 (60% silicified); and, 119.40-119.84 (70% silicified). Small increases in pyrite content are associated with alteration. Up to 3% very finely disseminated	2998	1-2	110.96	111.82	0.86			0.06		
			2999	1-2	111.82	112.68	0.86			0.02		
			3000	1-2	112.68	113.59	0.91			0.02		
			NOTE: LETTER AND NUMBER SERIES CHANGES									
			A									
			839	1-2	113.59	114.44	0.85			0.04		
			840	1-2	114.44	115.36	0.92			0.01		
			841	1-2	115.36	116.24	0.88			0.02		
			842	1-2	116.24	117.12	0.88			0.01		
			843	1-2	117.12	118.03	0.91			0.01		
110.13	123.04											

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-53 SHEET NO. 6 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FOOTAGE			%	%	OZ./TON	OZ./TON
					FROM	TO	TOTAL				
		pyrite is noted locally. Average content is 1-2%. The rock is non-magnetic and very weakly carbonatized locally.	A								
			844	1	118.03	118.94	0.91			0.01	
			845	1	118.94	119.84	0.90			0.13	
			846	1	119.84	120.72	0.88			0.06	
			847	2-3	120.72	121.67	0.95			0.12	
			848	1-2	121.67	122.27	0.60			0.08	
			849	1	122.27	123.04	0.77			0.10	
123.04	131.37	<u>SEDIMENTS</u>									
		Medium to dark green, fine to very fine grained, with up to 1% silicified seams (centred on fractures - reaction halos). Rare honey coloured silicified breccia zones up to 15cm are noted. Fractures within these zones are often hematized. In general, the rock is weakly to moderately chloritized, and non-magnetic. Fractures are generally carbonate filled. The rock is weakly carbonatized locally. Pyrite content averages 0-1% as a very fine dissemination.	850	1	123.04	123.90	0.86			0.01	
			851	1	123.90	124.80	0.90			0.01	
			852	1	124.80	125.68	0.88			0.01	
			853	1	125.68	126.55	0.87			0.01	
			854	1	126.55	127.37	0.82			0.08	
			855	1	127.37	128.22	0.85			0.06	
			856	0-1	128.22	129.08	0.86			0.01	
			857	0-1	129.08	129.97	0.89			0.01	
			858	0-1	129.97	130.55	0.58			0.01	
			859	0-1	130.55	131.37	0.82			0.01	
		131.37 meters. END OF HOLE									
		CASING PULLED									

Highway No. 101

HARKER TOWNSHIP
HOLLOWAY TOWNSHIP

2+50 E.

5+00 E.

10+00 W.

7+50 W.

5+00 W.

2+50 W.

0+00

LOST TREASURE

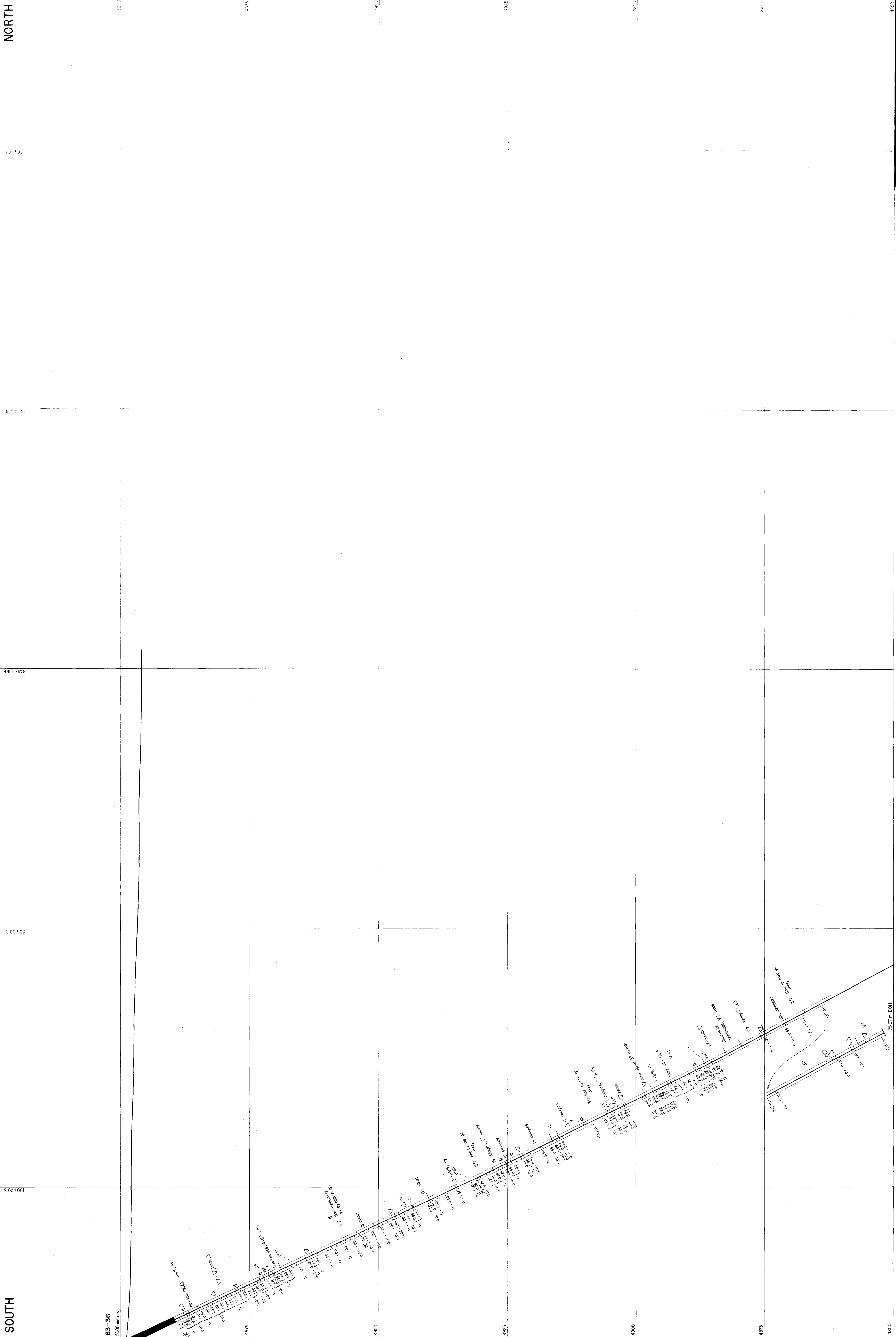
magnetic
minor 3L and 1S

HENNESSY

LENORA

BARRICK





CAMFLO MINES LTD.

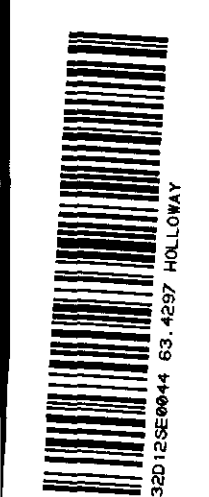
McDERMOTT PROJECT
 NUMBER 8 VOL. 10007 - PPS. 107
 SECTION 10+25 W
 TROPIC WEST 2671

SCALE 1:250
 METERS
 0 1 2 3 4 5
 DATE: 5-8-85 DRAWN BY: JMW
 NTS. NO. 327/NL PROJ. NO. 135

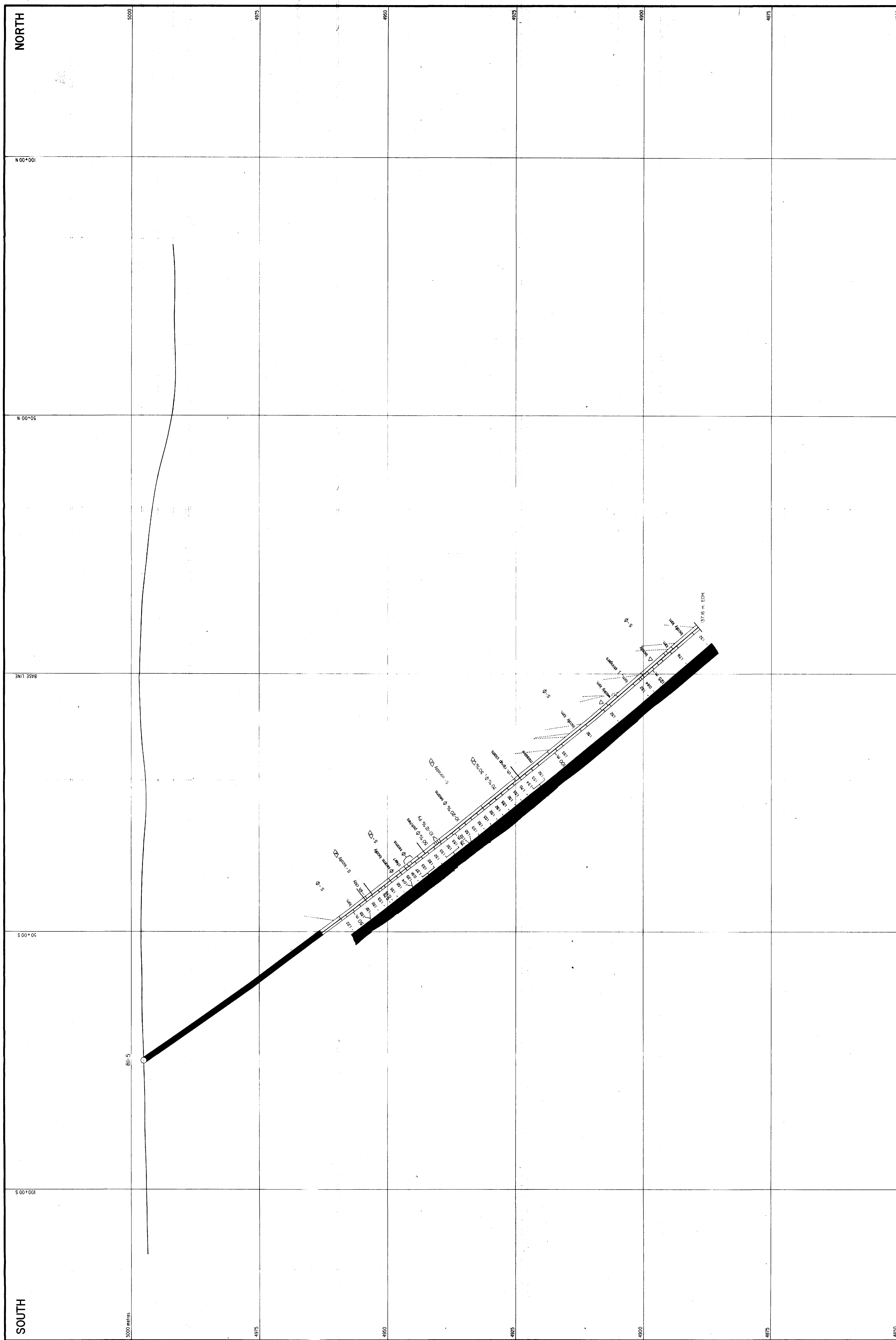
#63-4297

LEGEND

12 RHOLITE	15 SYENITE	c CHLORITE	△ SILICIFIED	Cp CHALCOPYRITE	AU GRADE
14 DACITE	16 GRANITE	f FELDSPAR	◇ CHLORITIZED	Gp GRAPHITE	0.01 - 0.05 g/t Au
15 ANDESITE	17 DORITE	i CARBONATE	▽ CARBONATED	Hm HEMATITE	0.04 - 0.06 g/t Au
16 BASALT	18 DIORITE	q QUARTZ	○ FLOWED	Mt MAGNETITE	0.07 - 0.09 g/t Au
17 TUFF	19 DIBASE	v "VEIN"	△ BRECCIATED	Py PYRITE	≥ 0.10 g/t Au
18 LAMPROPHIRE	20 LAMPROPHIRE	△ FLOW BRECCIA	△ SHEARED	Po PYRRHOTITE	
19 AGLOMERATE	21 INTRUSIVE	sh SHEARED	int INTRUSIVE		
20 SILICIFIED BRECCIA	22 ANDESITOIDAL	g ANDESITOIDAL			



820



CAMFLO MINES LTD.

McDERMOTT PROJECT
HARKER'S HOLLOW TMS. ONT.
SECTION: 1050 m. E.
(LOOKING WEST-2897) #13-42-97

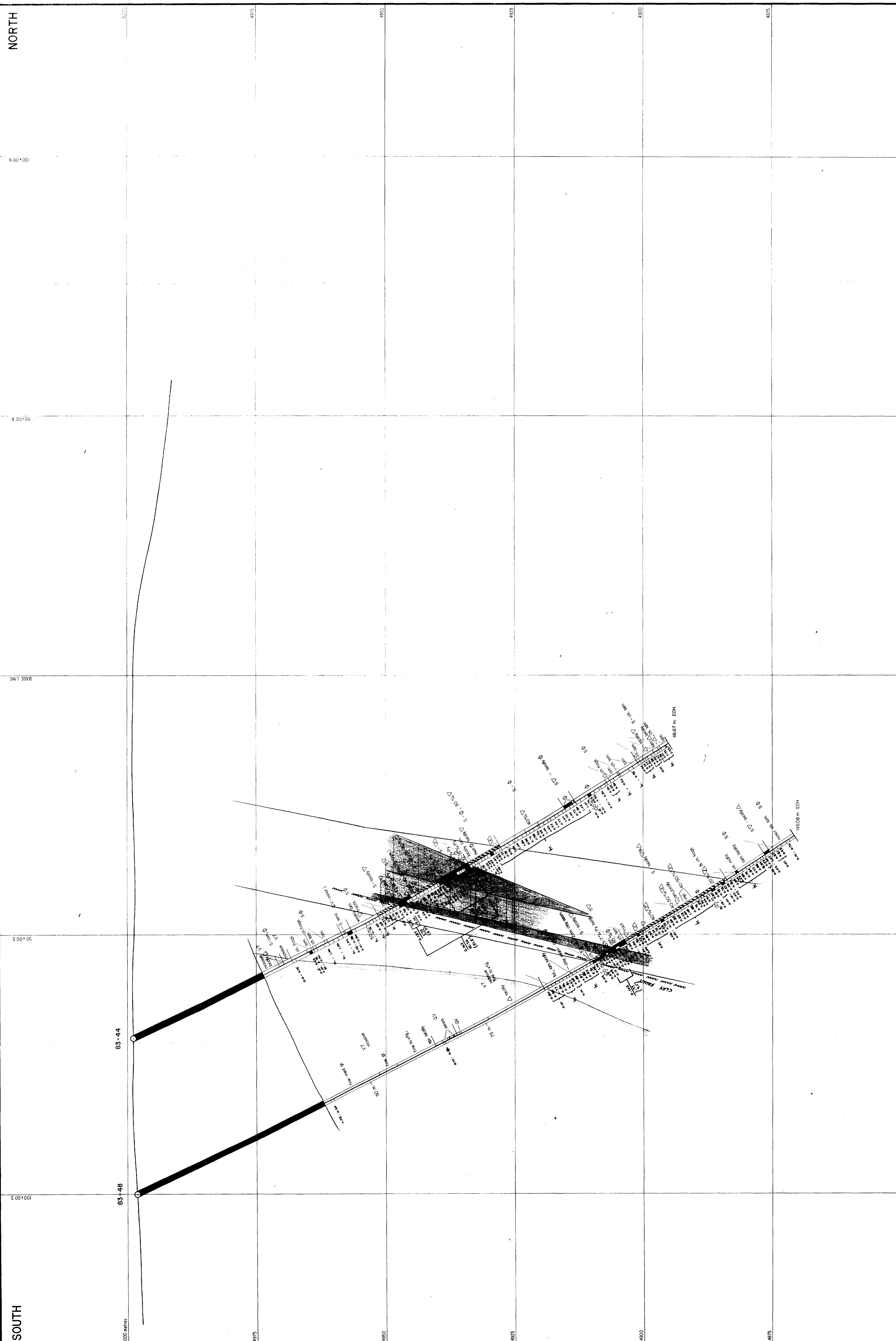
SCALE 1:250
0 1 2 3 4 5
Metres

DATE: 20-12-85 DRAWN BY: W. WILSON INTS. NO. 32 4/2 PROJ. NO. P. 35

<p>L E G E N D</p> <p>15 SIENITE 16 RHYOLITE 17 DACITE 18 ANDESITE 19 BASALT 20 ANDERITE 21 TUFF 22 AGLOMERATE 23 SILICIFIED BRECCIA</p>	<p>c CHLORITE f FELDSPAR j CARBONATE q QUARTZ v "VEIN"</p>	<p>▽ SILICIFIED a CHLORITIZED b CARBONATED c PILLOWED d BRECCIATED e FLOW BRECCIA f SHEARED g INTRUSIVE h AMYGDALOIDAL</p>	<p>Cs CHALCOPYRITE Gp GRAPHITE Mm HEMATITE Ml MAGNETITE Py PYRITE Pc PYRRHOTITE</p>	<p>AU GRADE 0.01 - 0.03 oz/ton 0.04 - 0.06 0.07 - 0.09 ≥ 0.10</p>
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5550



CAMFLO MINES LTD.

McDERMOTT PROJECT
 HARPER & HOLLOWAY "M&H" UNIT
 SECTION: 1025 m. E.
 (LONGING WEST: 2875)

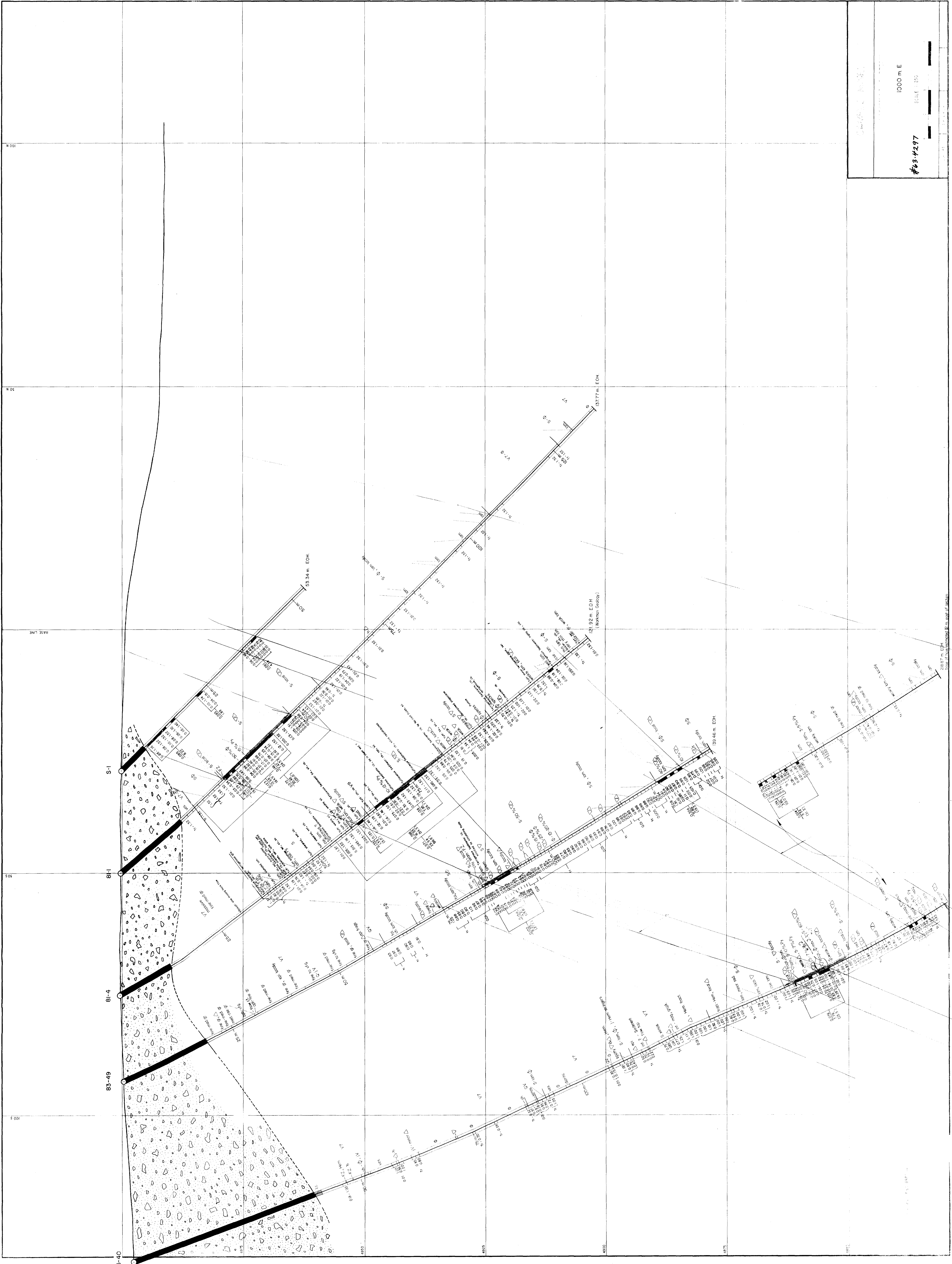
#034297

SCALE 1:250

DATE: 17-02-85 DRAWN BY: M.W. INTS. NO. 34/82 PROJ. NO. 11-35

<p>LEGEND</p> <p>12 RHOLITE 13 DACITE 14 ANGESITE 15 BASALT 16 TUFF 17 AGLOMERATE 18 SILICIFIED BRECCIA</p>	<p>CLORITE F FELDSPAR J CARBONATE Q QUARTZ V "VEN"</p>	<p>STENITE GRANITE DIORITE DIABASE LAMPORPHIRE</p>	<p>SILICIFIED CHLORITIZED CARBONATED FLOODED BRECCIATED FLOW BRECCIA SHEARED INTRUSIVE ANGI-CALODAL</p>	<p>CHALCOPYRITE GRANITE HEMATITE MAGNETITE PYRITE PYRRHOTITE</p>	<p>AU GRADE 0.01 - 0.03 gmt/ton 0.04 - 0.06 0.07 - 0.09 F 0.10</p>
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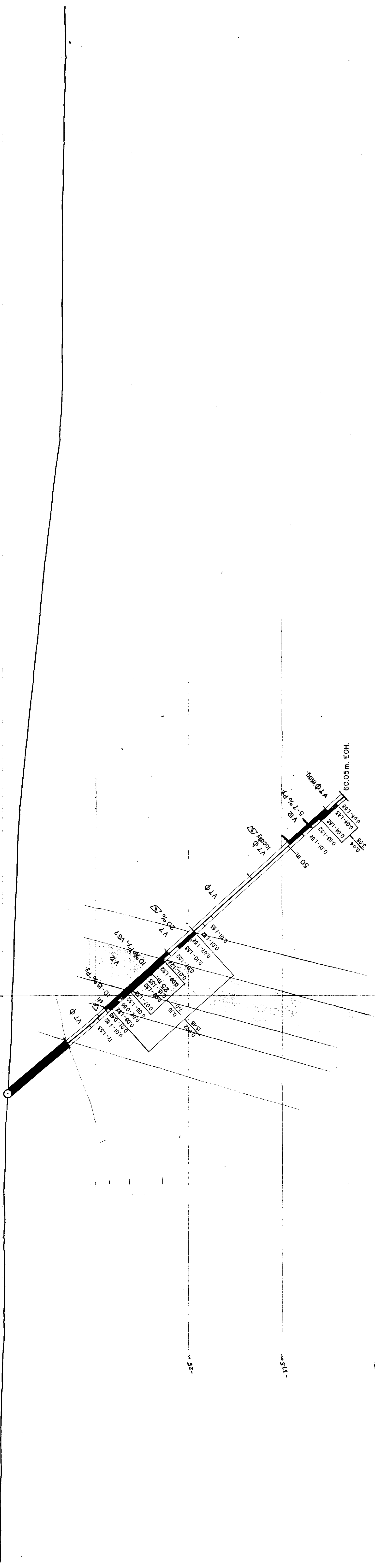


1000 m. E
 SCALE 1:250
 #234297



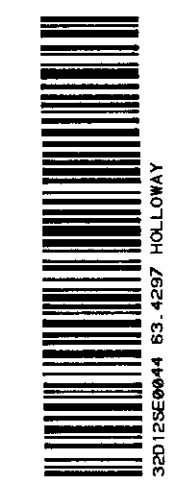
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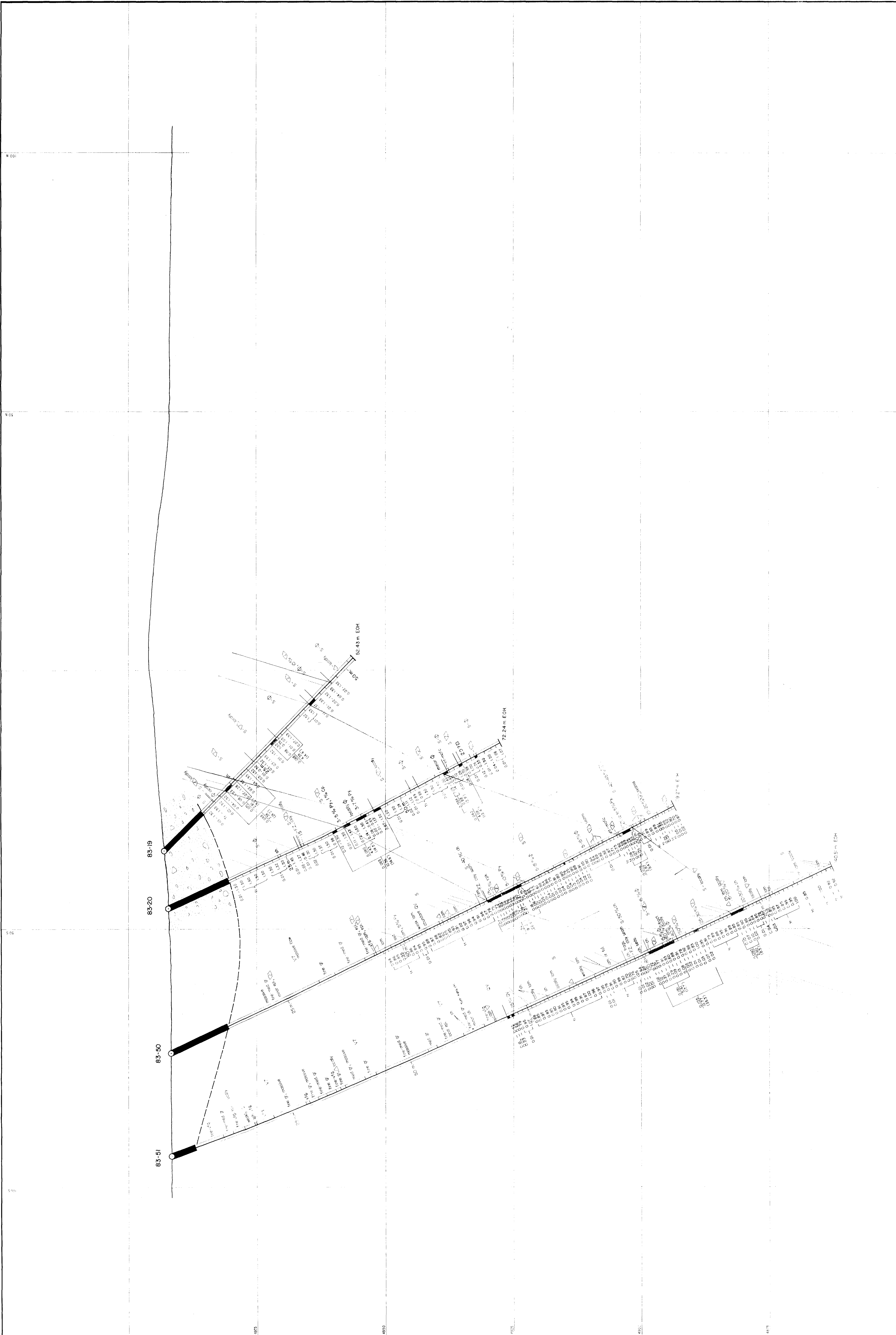
8518



CAMPLO JAMES LTD
MINE PROPERTY
SECTION 987.5 m.E.
#63-4297

SCALE
DATE
DRAWN BY
CHECKED BY





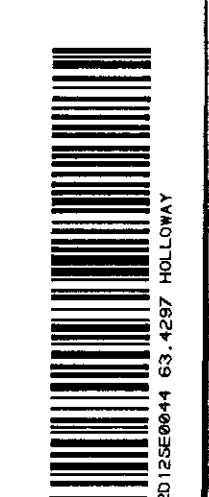
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975 m E

SCALE 1:500

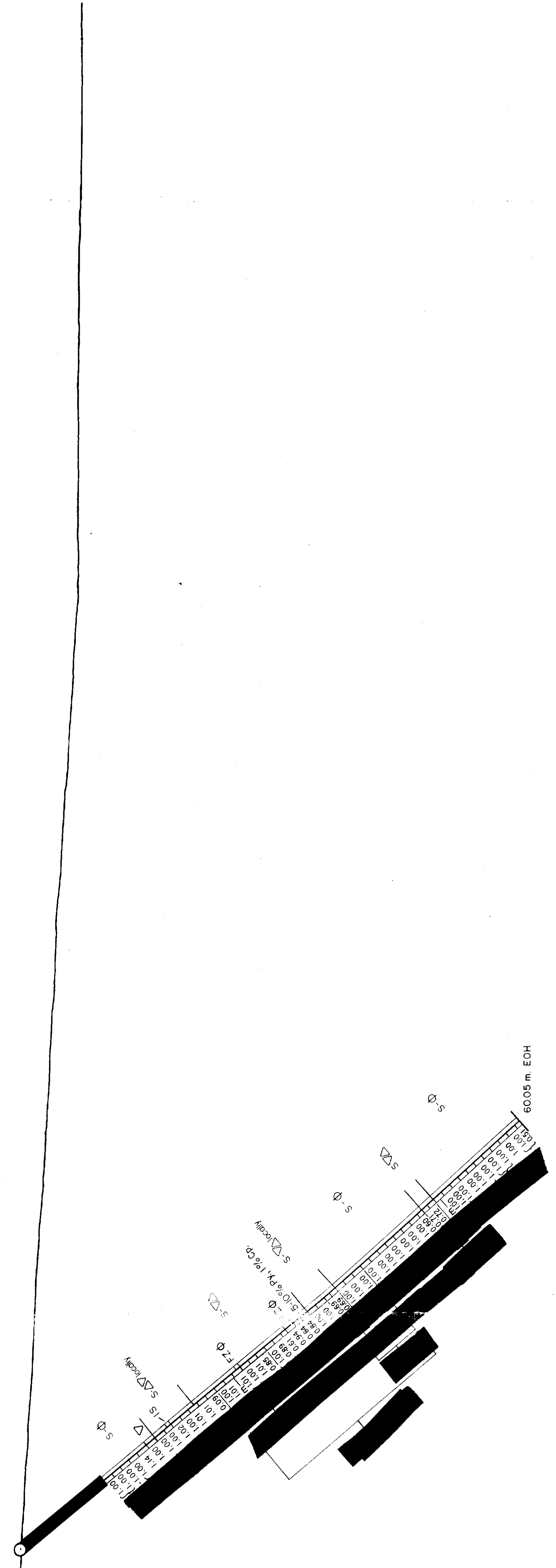
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11-51-83-51-83-50-83-20-83-19



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85-21



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9625 m.E.

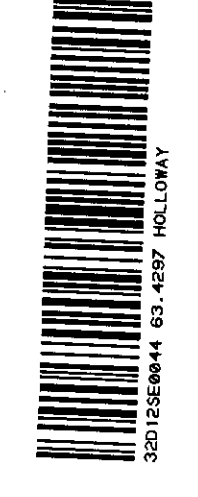
SCALE 1:250

JUNE '85

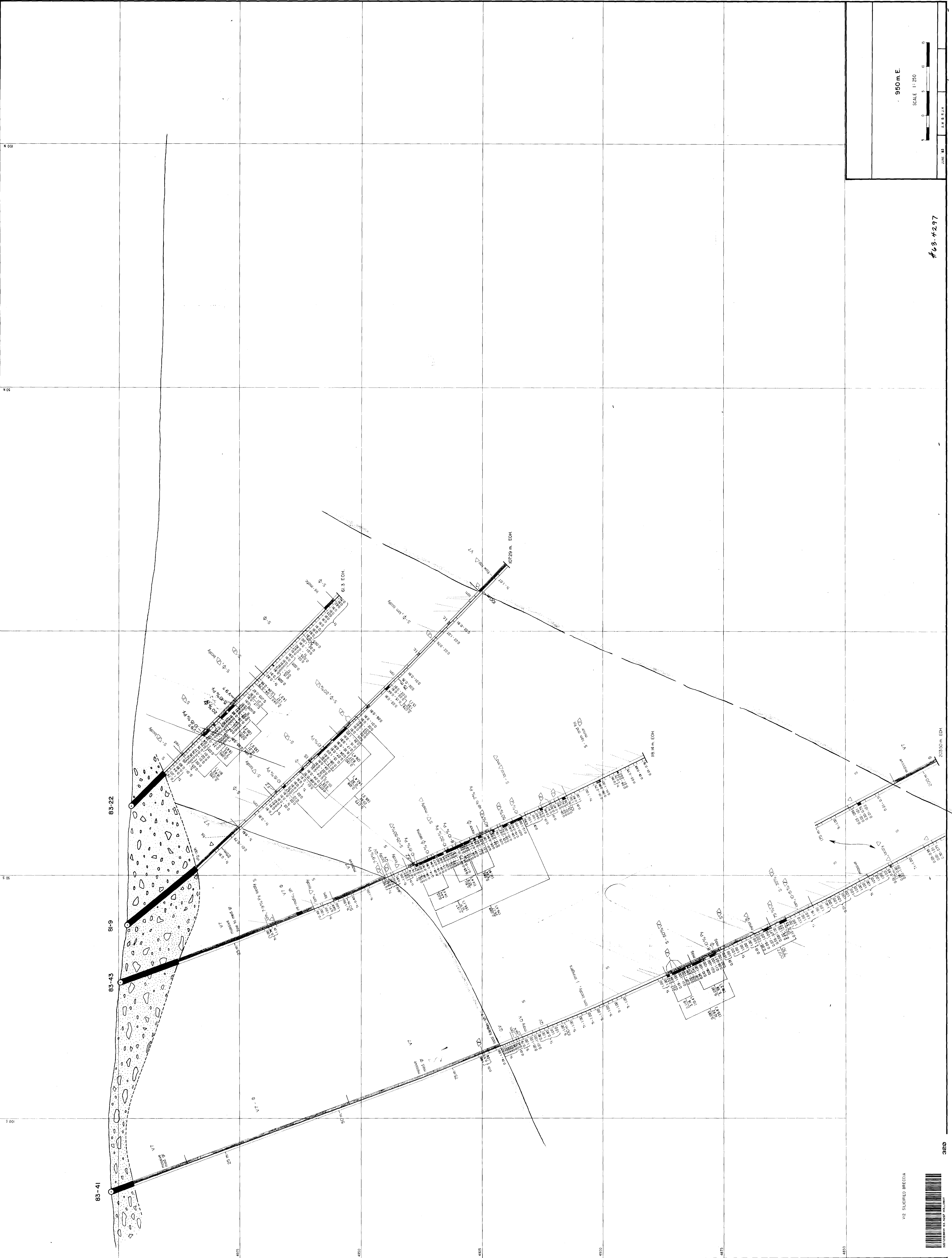
A.P.S.I.R.

#83.4297

510

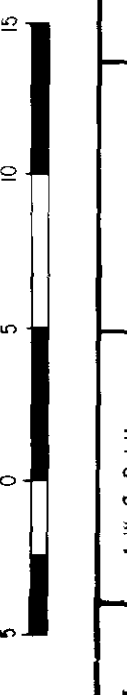


VIR SILCIFIED BRECCIA



950 m E.

SCALE 1:250



JUN 83

#13-4297

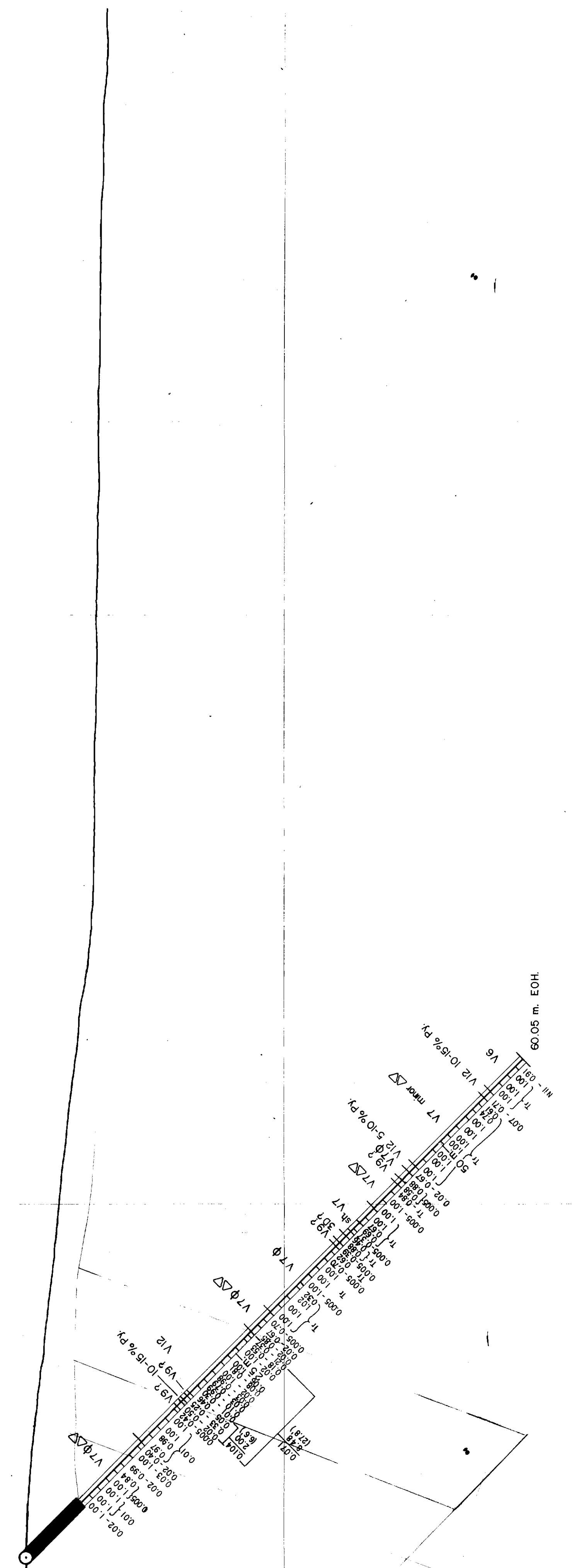
1/2 SURFIED BRECCIA



320

500 500 500

85-23



CAMFLO MINES LTD

MC DERMOTT PROPERTY
 MULLAGH "AK" ZONE
 SECTION: 937.5 m. E
 LOOKING WEST-NORTH

SCALE 1:250

5 0 5 10 METERS

DATE: JUNE '85
 BY: B.L.J.R.
 38 57/82-171

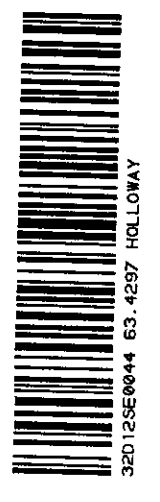
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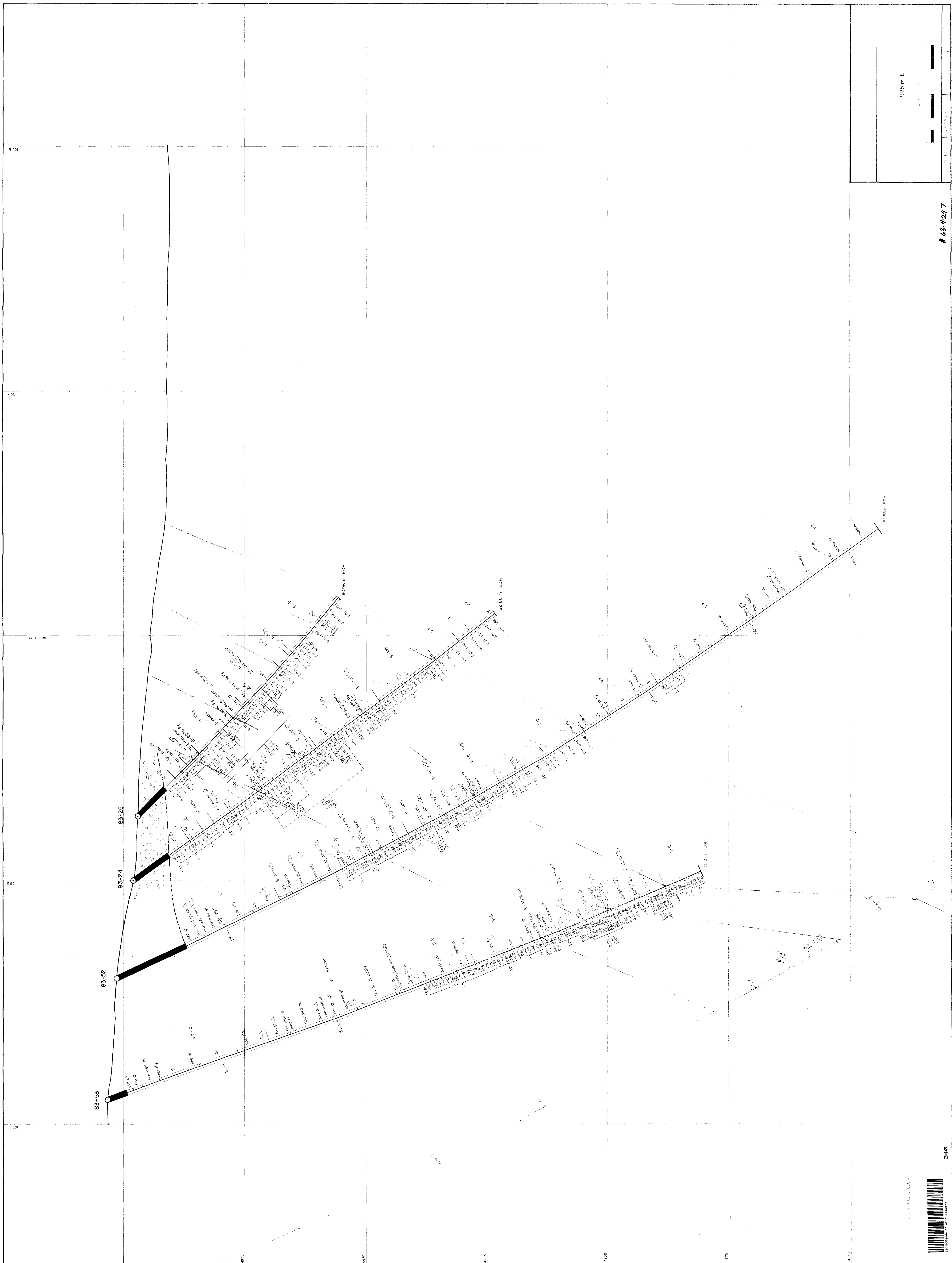
- V1 BIVOLITE
- V2 GRANITE
- V3 ANDSITE
- V4 TUFF
- V5 SLAG
- V6 SLAG
- V7 SLAG
- V8 SLAG
- V9 SLAG
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- C1 CHALCOPRITE
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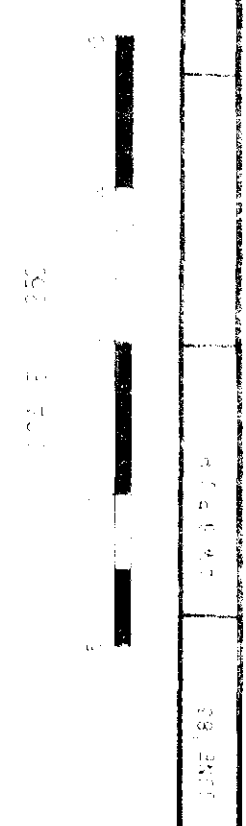
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330



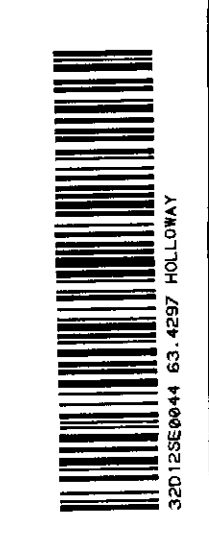


9:25 m. E

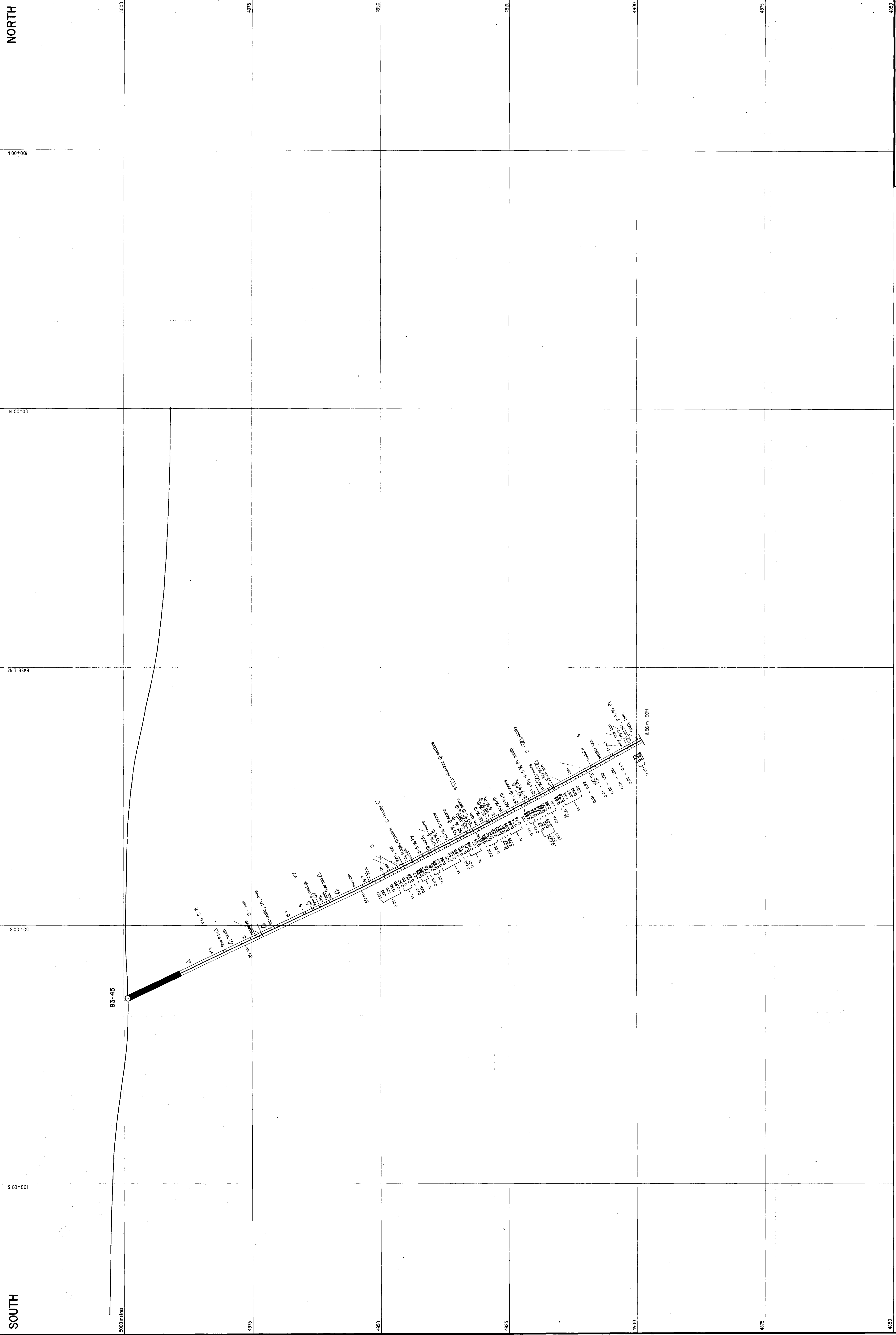


68-4297

340



340



CAMFLO MINES LTD.

MCDERMOTT PROJECT
 HARPER & HOLLOWAY T.M.P.S. ONT.
 SECTION - 887.5 m. E.
 (LOOKING WEST-360°)

SCALE 1:250

DATE: 18-10-83 DRAWN BY: JAWW HTS. NO. 32 072 PROD. NO. P135

#634297

<p>LEGEND</p> <p>S SLICIFIED CHLORITE DACTE ANDSITE BASALT TUFF AGGLOMERATE SILICIFIED BRECCIA</p>	<p>C CHLORITE F FELDSPAR J CARBONATE Q QUARTZ V "VEIN"</p>	<p>SILICIFIED CHLORITIZED CARBONATED PILLOWED BRECCIATED FLOW BRECCIA SHEARED INTRUSIVE AMYGDALOIDAL</p>	<p>AU GRADE</p> <p>0.01 - 0.03 g/t Au 0.04 - 0.06 g/t Au 0.07 - 0.09 g/t Au ≥ 0.10 g/t Au</p> <p>Cp CHALCOPYRITE Gp GARNET Hm HEMATITE M MALACONITE Py PYRITE Pn PIRROPHITE</p>
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NORTH

SOUTH

100+00

50+00

50+00S

100+00S

5000

5000 metres

83-34

5000 metres

4975

4975

4950

4950

4925

4925

4900

4900

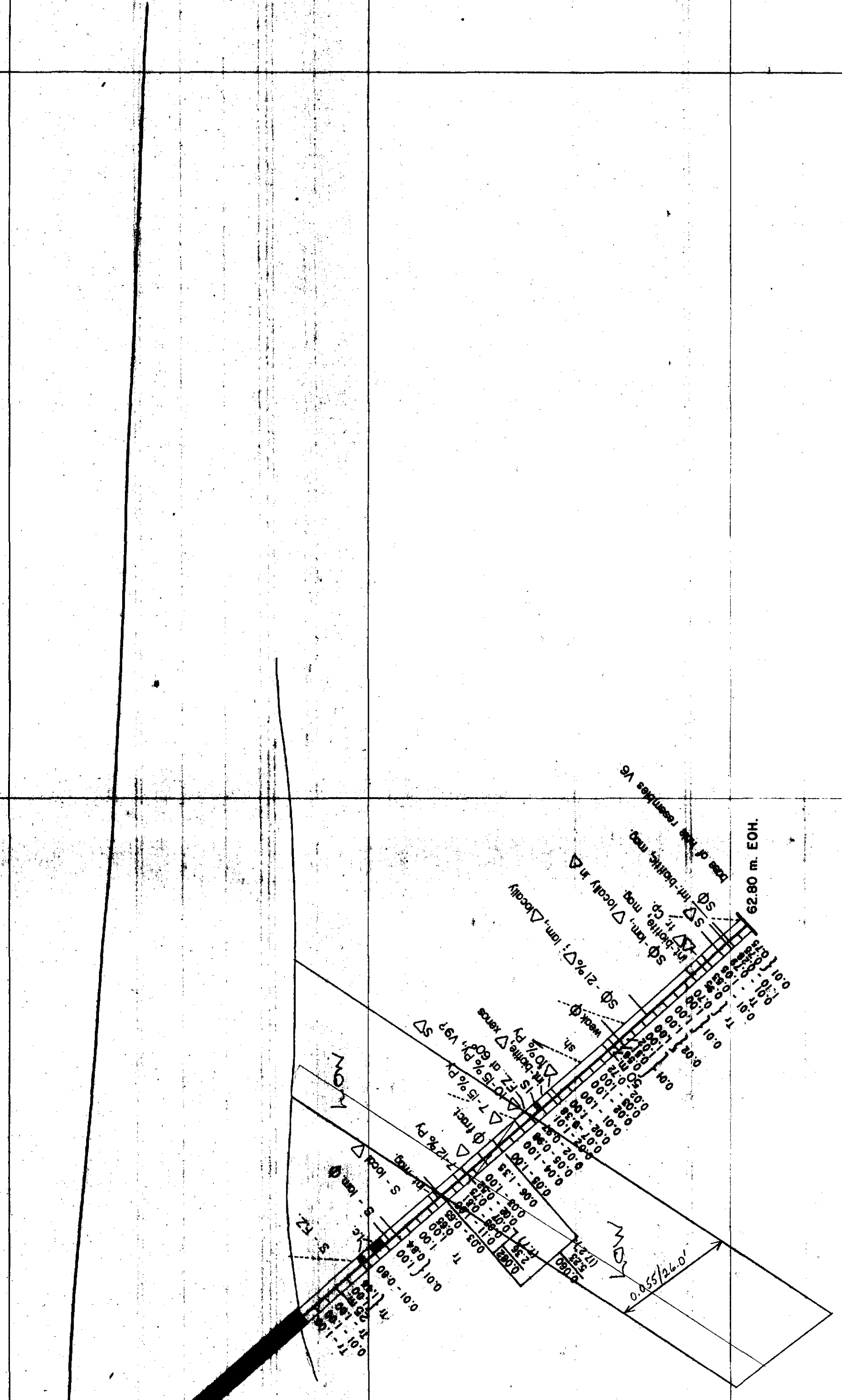
4875

4875

4850

4850

BASE LINE



CAMFLO MINES LTD.

McDERMOTT PROJECT
 HARPER & HOLLOWAY TMS. ONT.
 SECTION: 812.5 m. E.
 (LONGMAN WEST-2809)

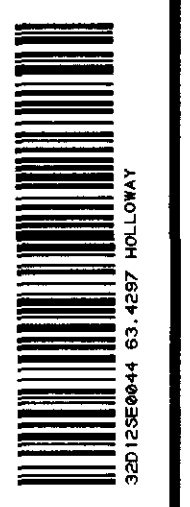
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DATE: 18-7-83 DRAWN BY: WORKMAN TMS. NO. 32 (7/2) PROJ. NO. P.135

#63-1297

LEGEND

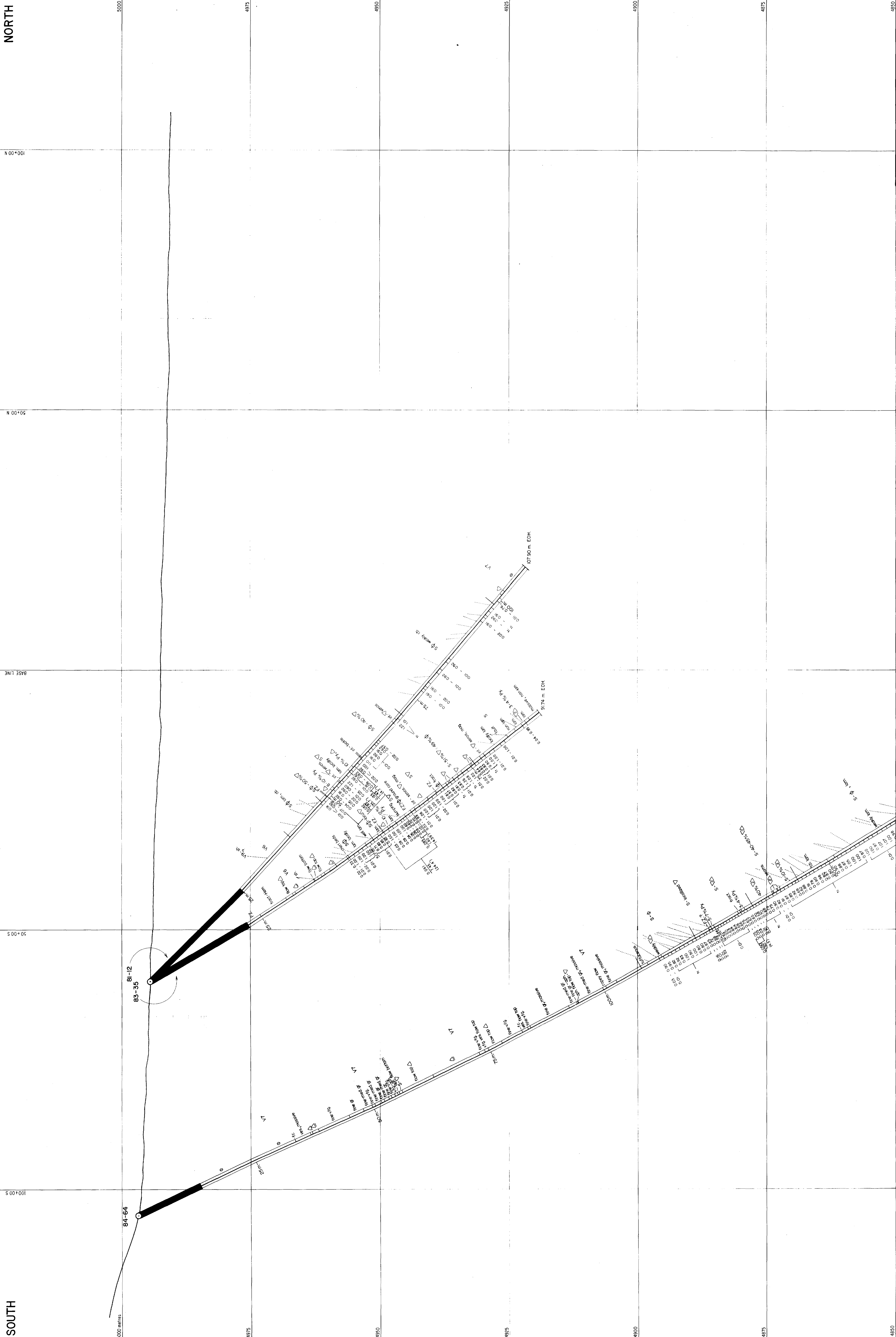
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14	DIACITE	16	GRANITE	19	FELDSPAR	22	CHLORITIZED	25	GRAPHITE	28	0.01 - 0.03 gmt/ton
16	ANDESITE	17	DIORITE	20	CARBONATE	23	CARBONATED	26	Hem	29	0.04 - 0.06
17	BASALT	18	DIOBASE	21	QUARTZ	24	PILLOWED	27	Mt	30	0.07 - 0.09
19	TUFF	20	LAMPROPHYRE	22	"VEIN"	25	BRECCIATED	28	Pt	31	≥ 0.10
20	AGLOMERATE	21	SILICIFIED BRECCIA	23	FLOW BRECCIA	26	SHALRED	29	Ps		
22	SILICIFIED BRECCIA	24	INTRUSIVE	27	INTRUSIVE	30	INT				
		25	INTRUSIVE	28	INTRUSIVE	31	INT				
		26	INTRUSIVE	29	INTRUSIVE	32	INT				



360

NORTH

SOUTH



CAMFLO MINES LTD.

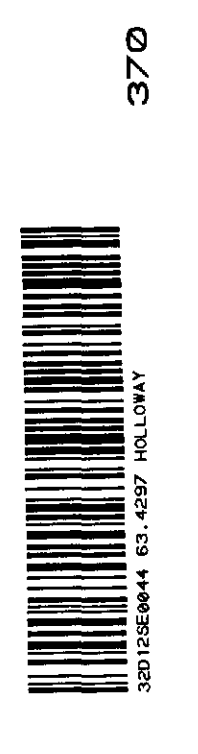
McDERMOTT PROJECT
 HANKER & HULLCROFT TMS 00T
 SECTION: 800mE
 (LONGHILL WEST 0001)

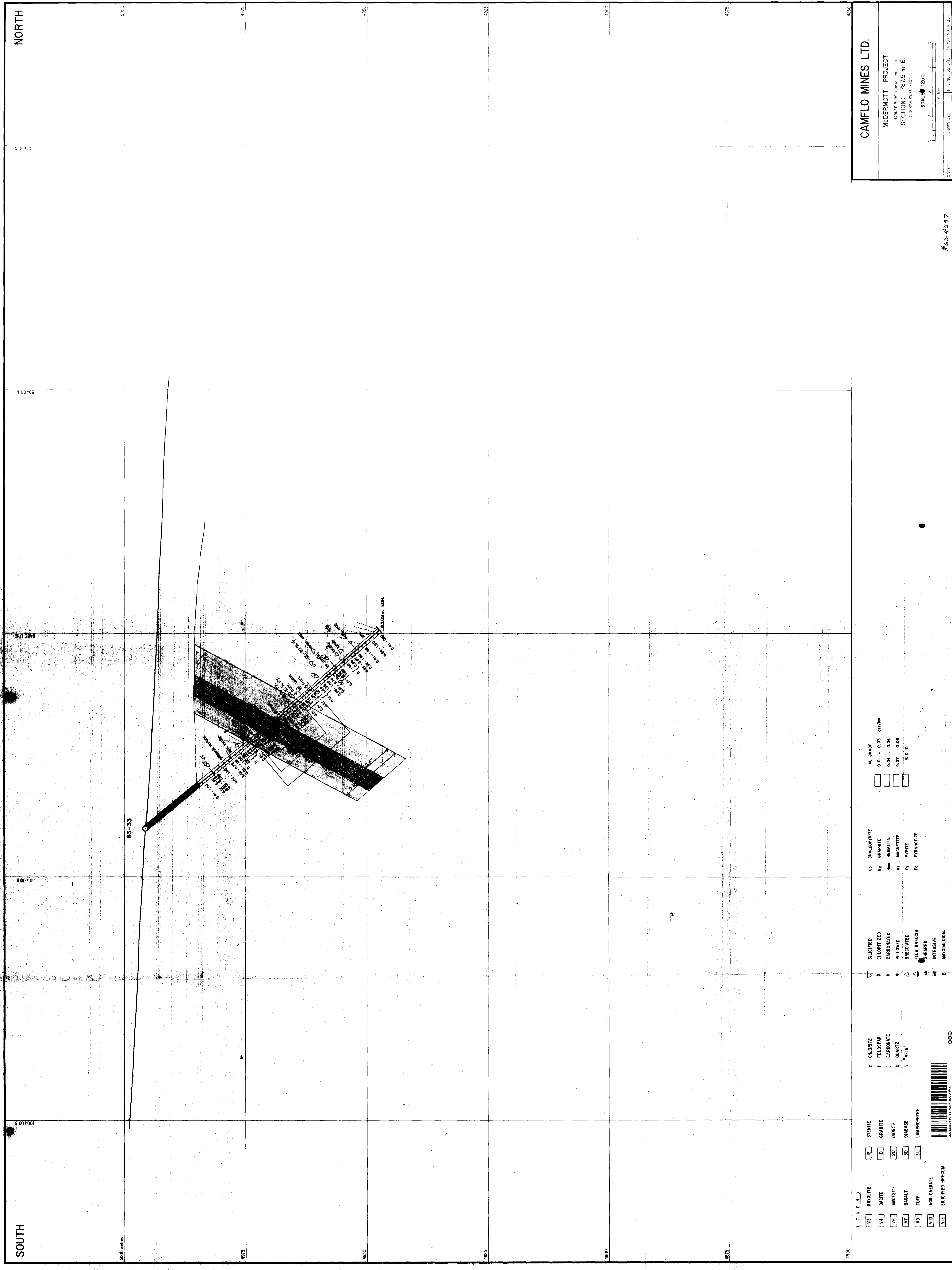
SCALE 1:250

DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 PROJECT NO. P. 35

63-4297

12	RHYOLITE	c	CHLORITE	CP	CHALCOPRITE
14	DACITE	f	FELDSPAR	Gp	GRAPHTITE
16	ANDESITE	j	CARBONATE	HeM	HEMATITE
17	BASALT	Q	QUARTZ	Mi	MAGNETITE
19	TUFF	V	"VEIN"	Py	PYRITE
20	DIORITE			Pb	PYRRHOTITE
21	DIABASE				
22	LAMPORPHIRE				
23	AGLOMERATE				
24	SILICIFIED BRECCIA				
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CAMFLO MINES LTD.

MCDERMOTT PROJECT
HARKER & HOLLOWAY: WPS, DMT
SECTION: 787.5 m. E.
(LONGHOLE WEST-0807)

SCALE: 1:250

DATE: _____
DRAWN BY: _____
CHECKED BY: _____
PROJ. NO. P-35

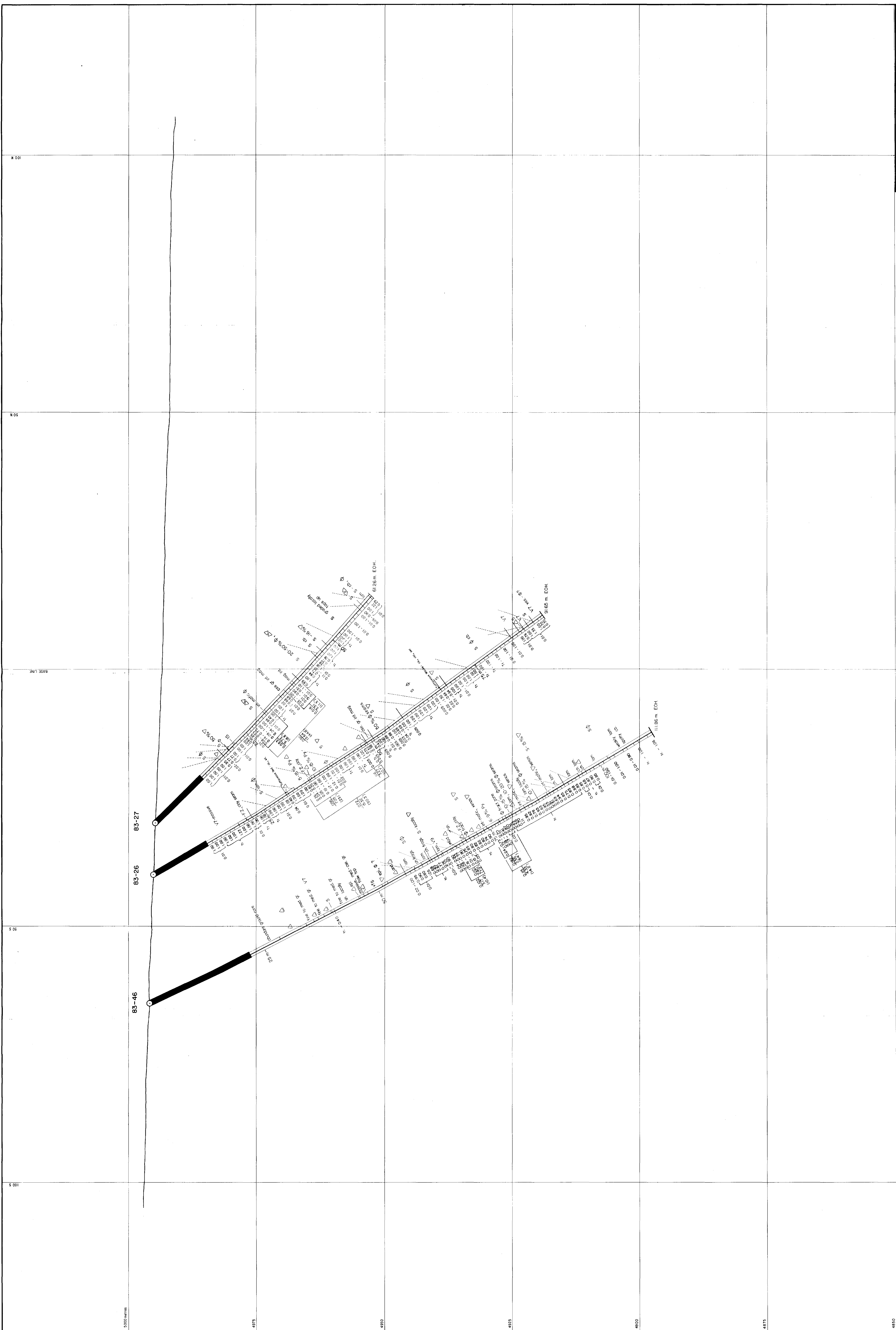
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LEGEND

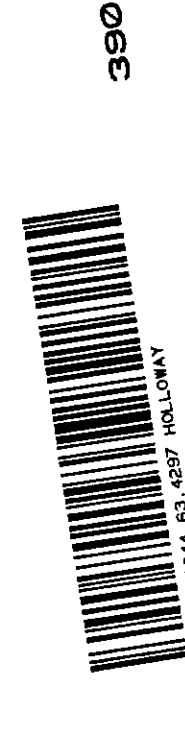
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<input type="checkbox"/> 14	DIORITE	<input type="checkbox"/> f	FELDSPAR	<input type="checkbox"/> CHLORITIZED	<input type="checkbox"/> CHLORITIZED	<input type="checkbox"/> Gp	GRANITE	<input type="checkbox"/>	0.01 - 0.03 opt/m
<input type="checkbox"/> 15	ANDESITE	<input type="checkbox"/> j	CARBONATE	<input type="checkbox"/> CARBONATED	<input type="checkbox"/> CARBONATED	<input type="checkbox"/> Hm	HEMATITE	<input type="checkbox"/>	0.04 - 0.06
<input type="checkbox"/> 16	BASALT	<input type="checkbox"/> Q	QUARTZ	<input type="checkbox"/> PILLOWED	<input type="checkbox"/> PILLOWED	<input type="checkbox"/> Ml	MAGNETITE	<input type="checkbox"/>	0.07 - 0.09
<input type="checkbox"/> 17	TUFF	<input type="checkbox"/> V	"VEIN"	<input type="checkbox"/> BRECCATED	<input type="checkbox"/> BRECCATED	<input type="checkbox"/> Py	PYRITE	<input type="checkbox"/>	≥ 0.10
<input type="checkbox"/> 18	AGLOMERATE	<input type="checkbox"/>		<input type="checkbox"/> FLOW BRECCIA	<input type="checkbox"/> FLOW BRECCIA	<input type="checkbox"/> Pn	PYRRHOTITE	<input type="checkbox"/>	
<input type="checkbox"/> 19	SILICIFIED BRECCIA	<input type="checkbox"/>		<input type="checkbox"/> SHEARED	<input type="checkbox"/> SHEARED	<input type="checkbox"/>		<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/> INTRUSIVE	<input type="checkbox"/> INTRUSIVE	<input type="checkbox"/>		<input type="checkbox"/>	
		<input type="checkbox"/>		<input type="checkbox"/> AMYGDALOIDAL	<input type="checkbox"/> AMYGDALOIDAL	<input type="checkbox"/>		<input type="checkbox"/>	



380



4850
4875
4900
4925
4950
4975
5000



SOUTH

500+00

500+05

50+00 N

5000 metres

5000

83-28

4975

4975

4975

4980

4980

4985

4985

4990

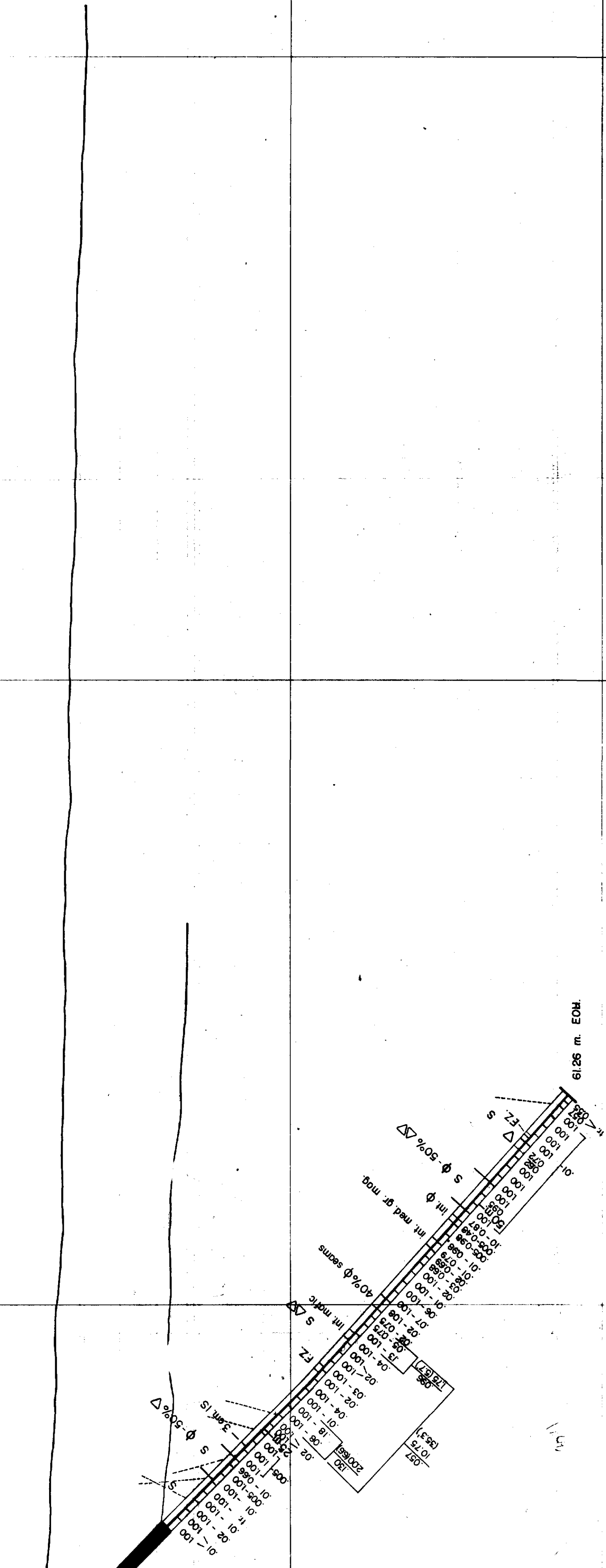
4990

4975

4975

4980

4980



CAMFLO MINES LTD.
McDERMOTT PROJECT
 HARKER & HOLLOWAY TMS. ONT.
 SECTION: 762.5 m. E.
 (LOOKING WEST - 280°)

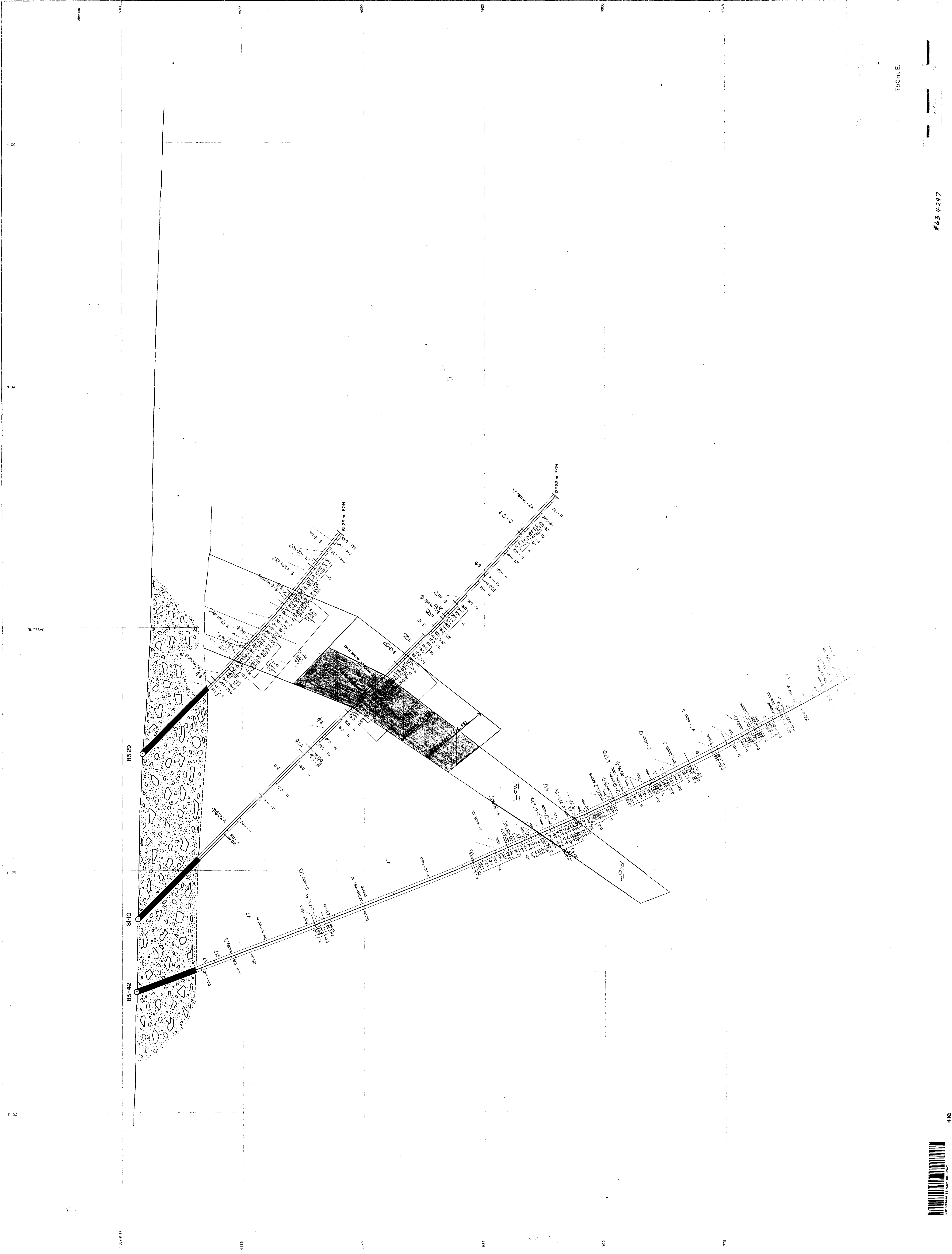
DATE: 15-7-83 | DRAWN BY: MCKINNON | INTS. NO. 32 (7/2) | PROJ. NO. P.135

SCALE 1:250

METRES

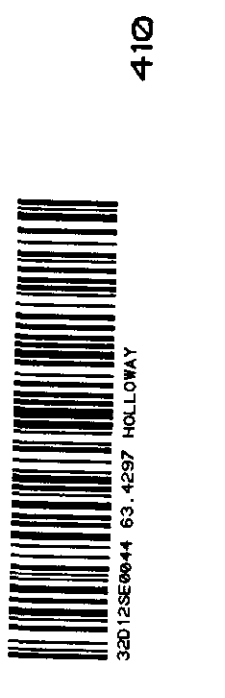
63-4297

L E G E N D	
V2	BRIDGITE
V4	DACTE
V5	ANDESITE
V7	BASALT
V9	TUFF
V0	AGLOMERATE
V2	SILICIFIED BRECCIA
C	CHLORITE
f	FELDSPAR
j	CARBONATE
Q	QUARTZ
V	"YCN"
SILICIFIED	
CHLORITIZED	
CARBONATED	
PILLOWED	
BRECCIATED	
FLOW BRECCIA	
SHEARED	
INTRUSIVE	
MYCLOCLINAL	
C+	CHALCOPRITE
G+	GRAPHRITE
Hm	HEMATITE
M	MAGNETITE
P+	PYRRHOTITE
AU GRADE	
0.01 - 0.03	ozt/ton
0.04 - 0.06	
0.07 - 0.09	
≥ 0.10	

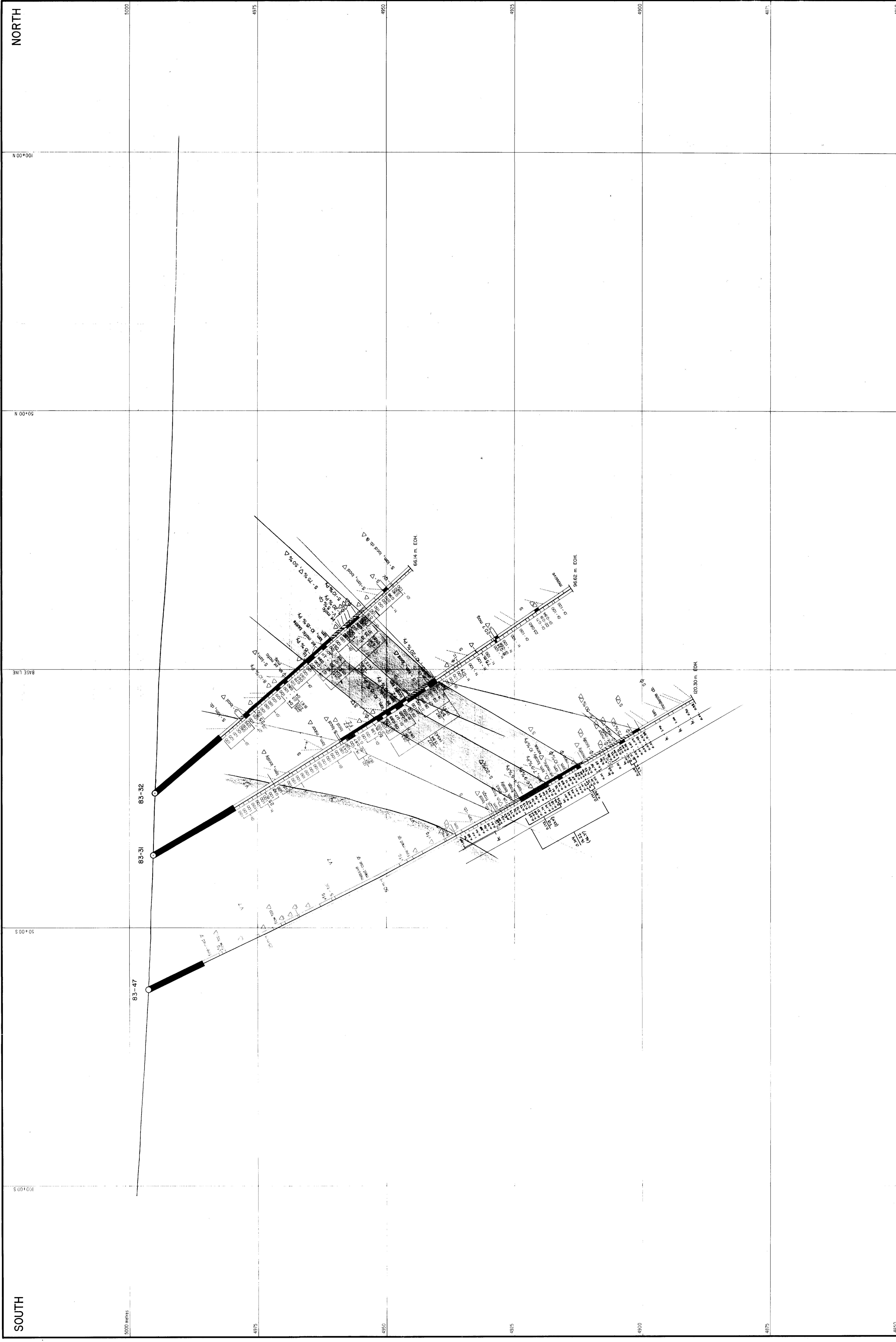


750 m. E

#63-4297



410

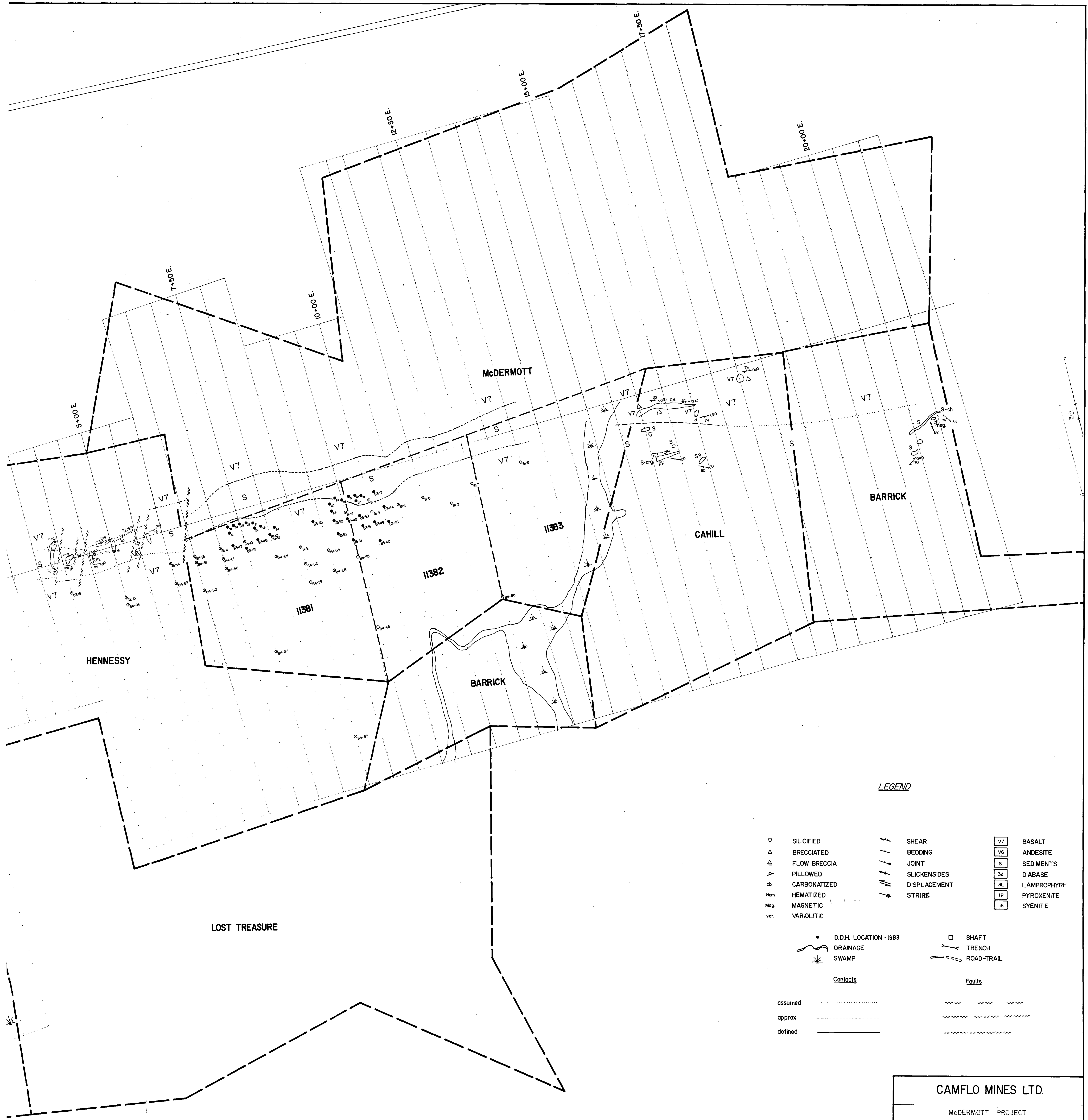


CAMFLO MINES LTD.
McDERMOTT PROJECT
 MUSKIE & HOLLAND ROPS DIST
 SECTION: 725 m. E.
 (Location West-667)
 SCALE 1:250
 DATE: 18-7-83
 DRAWN BY: WEDMAN
 N.T.S. NO. 32.1/02
 PROJ. NO. P. 35

68-4297
 0 M 33-6-C-34

LEGEND	SYENITE	CHLORITE	SILICIFIED	CHALCOPYRITE	AU GRADE
12 RHYLITE	1 GRANITE	1 CHLORITIZED	1 CHALCOPYRITE	0.01 - 0.03 g/t Au	
14 DACITE	2 ANDESITE	2 CARBONATED	2 CHALCOPYRITE	0.04 - 0.06 g/t Au	
16 ANDESITE	3 DIORITE	3 CARBONATED	3 Hem	0.07 - 0.09 g/t Au	
17 BASALT	4 DIORITE	4 PILLOWED	4 M	≥ 0.10 g/t Au	
19 TUFF	5 DIORITE	5 BRECCIATED	5 Py		
20 AGLOMERATE	6 DIORITE	6 FLOW BRECCIA	5 P		
22 SILICIFIED BRECCIA	7 DIORITE	7 SHEARED	5 Pt		
	8 DIORITE	8 INTRUSIVE	5 P		
	9 DIORITE	9 AMPHIBOLITIC	5 P		



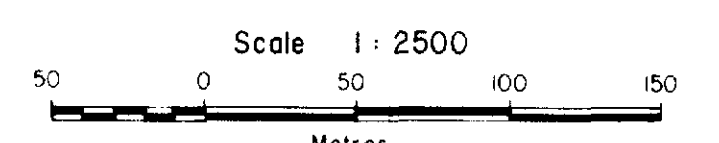


LEGEND

- | | | | | | |
|------|--------------|-----|--------------|----|-------------|
| ▽ | SILICIFIED | —+— | SHEAR | V7 | BASALT |
| △ | BRECCIATED | —\|— | BEDDING | V6 | ANDESITE |
| △ | FLOW BRECCIA | —\|— | JOINT | S | SEDIMENTS |
| △ | PILLOWED | —\|— | SLICKENSIDES | 3d | DIABASE |
| cb. | CARBONATIZED | —\|— | DISPLACEMENT | 3L | LAMPROPHYRE |
| Hem. | HEMATIZED | —\|— | STRIPE | IP | PYROXENITE |
| Map. | MAGNETIC | | | IS | SYENITE |
| var. | VARIOLITIC | | | | |
-
- | | | | |
|---|------------------------|---|------------|
| • | D.D.H. LOCATION - 1983 | □ | SHAFT |
| — | DRAINAGE | — | TRENCH |
| — | SWAMP | — | ROAD-TRAIL |
-
- | | | | |
|-----------------|-----------|---------------|-------|
| Contacts | | Faults | |
| assumed | ..... | ~~~~~ | ~~~~~ |
| approx. | - - - - - | ~~~~~ | ~~~~~ |
| defined | ————— | ~~~~~ | ~~~~~ |

CAMFLO MINES LTD.

McDERMOTT PROJECT
 HARKER & HOLLOWAY TWPNS ONT
 SURFACE GEOLOGY



#63-4297

HOLE NO. MC83-17 LENGTH 60.05 m.
 LOCATION _____
 LATITUDE 10 + 12.5 E DEPARTURE 0 + 38 S
 ELEVATION _____ AZIMUTH 344 DIP -50°
 STARTED 4-5-83 FINISHED 6-5-83

0	50°
20.5m	49°
60.05	48°



LOGGED BY A.M. MULKERRI

080

RIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE		TOTAL	%	%	ASSAYS	
				FROM	TO				GT. TON	GT. TON
0 15.39	<u>CASING</u>									
15.39 23.13	<u>ANDESITE</u>									
	Yellow green to dark green, aphanitic to very fine grained. Thin flow laminations at 60°-70° to the core axis. Moderately well fractured with quartz and relatively minor carbonate in stringers. Carbonate (calcite) is confined to narrow fractures which cross-cut the earliest fracturing. Zone is variably silicified. Lighter green areas are more strongly altered. Abundant very finely disseminated pyrite throughout.									
	15.39 - 16.92 - highly fractured, broken core	C 001		21.58	23.10	1.52			0.08	0.045
	16.92 - 17.53 - moderately silicified, weakly chloritized 7-8% pyrite.	002		23.10	24.38	1.28			0.01	14.2
	17.53 - 19.35 - less silicified, moderately chloritized 15% quartz stringers, displaced across micro fractures, 2-4% pyrite.	003		24.38	25.91	1.53			0.04	
	19.35 - 21.55 - moderately silicified, weakly chloritized up to 10% pyrite, average 5-7% flow foliation at 21.18 m. at 50°.	004		25.91	27.43	1.52			0.01	
	21.55 - 23.13 - similar to 17.53 - 19.35 - strongly silicified locally, 23 m. flow foliation at 45°-50°.	005		27.43	27.95	0.52			0.02	
	<u>BASALT</u>	006		27.95	29.47	1.52			0.02	
	Dark green, fine grained, weakly to strongly fractured moderately chloritized. Abundant pyrite along fractures. Trace amounts disseminated finely in rock. Fractures filled with quartz and carbonate. Massive flow.	007		29.47	30.02	0.55			0.02	
		008		30.02	31.36	1.34			0.01	
		009		31.36	32.89	1.53			0.02	
		010		32.89	34.17	1.28			trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC83-17 SHEET NO. 3 OF 5

FOOTAGE		DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			ASSAYS			
FROM	TO				FROM	TO	TOTAL	g	g	oz. TON	oz. TON
34.17	36.09	<p>Major fracture systems. The breccia pre-dates later C fractures which are quartz and carbonate filled. Some zones of strong silicification are located at 31.59 - 31.65, 31.97 - 32.00, 32.28 - 32.64, 32.77 - 32.80, and 33.83 - 34.17. Pyrite content averages 5-7%. A flow foliation at 33.83 dips 60° to the core axis.</p> <p><u>BASALT</u></p>	027		52.67	53.43	0.76 (2.5')			0.07	
			028		53.43	54.96	1.53			0.01	
			029		54.96	56.48	1.52			0.01	
36.09	39.47	<p>Grey-green to dark green, fine grained, weakly silicified and weakly to moderately fractured. Magnetic. A 3 cm. quartz vein is located at 35.36 which has invaded the basalt over a 50 cm. interval. The flow is massive and moderately chloritized. Pyrite is found as fine disseminations and as 1-2 mm. cubes - 2-3% content.</p> <p><u>SILICIFIED ZONE</u></p>									
		<p>Dark grey to greenish grey, pale green towards base. Silicification marked by a 3 cm. grey band cutting sharply across core. Zone is variably silicified - includes several weakly silicified basalt zones (e.g. 37.89 - 38.19), degree of silicification is proportional to mylonite development. Fractures often rimmed with grey silicified bands. All fractures quartz-filled with minor carbonate in micro-fractures. Weakly silicified rock is weakly magnetic - remainder is not.</p>									
39.47	43.89	<p>36.09 - 36.76 - strongly silicified, 3-5% py. 36.76 - 38.22 - weakly silicified, 1-3% py. 38.22 - 39.47 - strongly silicified, 3-5% py, tr. cpy.</p> <p><u>BASALT</u></p> <p>Dark green, fine grained, med. grained locally, moderately fractured and moderately chloritized. Strongly silicified locally around fractures. White and pink quartz in fractures - minor carbonate.</p>									

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MG83-17 SHEET NO. 4 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO. OF IDES	% SULPH FROM	FOOTAGE TO	TOTAL	%	%	01/10M	02/10M
43.89	50.90	<p>42.98 - 43.89 - moderately chloritized, weakly silicified 3-4% pyrite.</p> <p><u>ANDESITE</u></p> <p>Medium green to dark green, fine to coarse grained, moderately chloritized - may be altered basalt. Evenly textured for short intervals. Moderately fractured throughout - mostly quartz in fractures. Fractures are late stage - very angular - may be due to shrinkage. Lowermost 1.5 - 2.0 metres is coarser grained with dark needle - like xls. (pyroxene?). 1% very finely disseminated pyrite. Zone ends at top of underlying flow marked by hyaloclastite.</p>								
50.90	52.67	<p><u>SILICIFIED FLOW - LOWER MINERALIZED ZONE</u></p> <p>Light green to dark green with grey zones, fine grained to aphanitic. Flow is marked by hyaloclastite top and vesicles up to 7 mm. Rock is chloritized and subequently silicified. Flow may have been pillowed. If so, rims are strongly chloritized. Some fragments are epidotized. Rock is moderately silicified but not brecciated. It is strongly fractured with quartz in fractures. 3-5% pyrite very finely disseminated through zone.</p>								
52.67	60.05	<p><u>ANDESITE</u></p> <p>A medium green extension of the overlying silicified flow.</p>								

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC83-17 SHEET NO. 5 OF 5

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDS	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TOTAL	%	%	0.1 TON	0.2 TON
		This rock is not silicified - pillowed to a depth of 53.4 metres - below rock is massive flow. It becomes medium to coarse grained with 1-3 mm. dark needles (pyroxene?). Fracturing is moderately developed with quartz infilling of voids up to 1 cm. Less than 1% pyrite is present as very finely disseminated blebs and as 1-2 mm. cubes. Pyrite xls show minor tectonic brecciation. 60.05 END OF HOLE									
Hole No. MC83-17 Length 60.05 m. Latitude: 10 + 12.5 E Departure: 0 + 38 S Asimuth: 344° Dip: ~50° Started: 4-5-83 Finished: 6-5-83											
Units in metric. Whole core sent to assay B.Q. Core.											
Logged by: A.W. Workman											

Footage
 0 500 dip
 30.5m 490
 60.05 480

Remarks

HOLE NO. MC83-18 LENGTH 60.05 m
 LOCATION 9 + 87.5 E DEPARTURE 38 m S
 LATITUDE 9 + 87.5 E DEPARTURE 38 m S
 ELEVATION 344 AZIMUTH 344 DIP -50°
 STARTED 9-5-83 FINISHED 11-5-83

0	-50°		
30. m	-48°		
60.05	-48°		

REMARKS Units in meters
Whole core sent for assay
B.Q. Core
 Logged by A.W. Workman

FOOTAGE FROM	TO	DESCRIPTION	NO.	SAMPLE			ASSAYS					
				% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	02 TON	02 TON	
0	10.36	<u>CASING</u>	C 030		14.11	15.64	1.53 (5')			trace		
10.36	33.07	<u>MAIN MINERALIZED ZONE</u>	031	15.64	17.16	1.52				0.01		
			032	17.16	17.59	0.43				0.01		
			033	17.59	19.11	1.52				0.08		
			034	19.11	19.66	0.55				0.02		
			035	19.66	21.18	1.52				0.06		
			036	21.18	22.71	1.53				0.07		
			037	22.71	24.23	1.52				0.09		
			038	24.23	25.76	1.53				0.15		
			039	25.76	27.28	1.52				0.09		
			040	27.28	28.50	1.22				0.01		
			041	28.50	30.02	(4.0')				0.01		
			042	30.02	31.55	1.53				0.10		
			043	31.55	33.07	1.52				0.07		
			044	33.07	34.59	1.52				0.01		
			045	34.59	36.12	1.53				0.01		
17.16	28.50	<u>SILICIFIED ZONE</u>										
		Yellow-green to grey-green becoming grey where most strongly silicified-Aphanitic. Generally unstructured and intensely brecciated. Very fine mylonite development common in silicified rock. Fragments are angular and average less than 2 mm. in size locally. Average size is 2-5 mm. Flow foliation is noted locally in areas of weaker brecciation. Locally alteration is so intense the rock resembles a quartz vein. Visible gold may (?) be present as 0.5 mm. blebs at 25.76 and 26.67 m.										
17.16	17.16	<u>BASALT</u>										
		Dark green, fine grained, massive flow, moderately to strongly chloritized. Highest alteration along narrow shear planes, (e.g. 17.04 m.). Zone is strongly fractured with quartz and pink carbonate veining in breakages. Some fractures contain rust - weathering of pyrite. Flow banding at 12.47 dips 70° to the core axis. Pyrite content is variable up to 5% averaging 2%. Rock becomes weakly silicified towards the base.										
		15.94 - 17.16 - weakly silicified, well developed schistosity due to shearing?										
		17.16 - 17.59 - dark grey-green, well foliated and sheared - possible fault at 17.59 m.,										

0.086
31.81

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC83-18 SHEET NO. 2 OF 4

FOOTAGE	DESCRIPTION	SAMPLE			ASSAYS		
		NO.	% SUPPH. IDES	FOOTAGE	TOTAL	g	g
FROM	TO			FROM	TO		
	weakly to moderately silicified, clay on fault plane, 2-5% Py.						
17.59 - 19.66	pale green, highly silicified and brecciated 10-15% Py. Possible fault at 18.53 m						
19.66 - 22.71	grey, intensely silicified and brecciated, flow foliation was well developed at 45° to the core axis. Minor chlorite along foliation. Abundant 5 mm. thick underformed quartz stringers 5-7% pyrite.						
22.71 - 27.28	very intensely silicified - 10% Py. tr. Cpy. minor visible gold?						
27.28 - 28.50	green-grey, intensely silicified, becoming variable and medium grained; 3-5% Py.						
28.50 - 33.07	<u>BASALT</u> Dark green to grey, aphanitic to fine grained and variably silicified. Numerous highly fractured zones of micro-breccia cut the core at sharp angles (50°-80°). These zones are grey and intensely silicified. Fragments are firm less than 1 mm. to 1 cm. in size, very angular, fine grained matrix (gouge) around fragments contains up to 50% Py. locally. Unsilicified basalt is moderately chloritized and contains abundant altered glass shards. Weakly to moderately fractured - filled with white and pink carbonate. Quartz also present but not as common. Average 3-5% Py. Non-silicified rock is weakly to moderately magnetic. Strongly brecciated and silicified zones are located at: 29.11-29.26, 30.05-30.11, 31.06-31.18 31.30-31.49, 32.13-32.22, and 32.40-32.77. In total the zone is 20% intensely silicified. A 15% pyrite content is noted at 32.16 m.						

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc83-18 SHEET NO. 3 OF 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO.	% SULPH. IDES	FOOTAGE FROM TO TOTAL	%	%	GT/TON	GT TON
33.07	43.53	<u>BASALT</u> Dark green, fine grained becoming medium grained locally. Moderately chloritized. Some weak silicification locally near margins of zone. Unstructured and massive. Moderately fractured with white and pink carbonate on surfaces. Little carbonate in matrix of the rock. Weakly to moderately magnetic. Weakly silicified zones have increased pyrite content - up to 5% locally whereas zone averages 1-2%.							
43.53	50.29	<u>BASALT</u> Dark green, fine to very fine grained. Rock is becoming weakly silicified locally. Moderately chloritized. Thin sections of strong brecciation are grey and intensely silicified (e.g. 43.53-44.07). Rock is moderately magnetic. Zone is moderately fractured with infilling by pink calcite and minor quartz. A crude flow foliation is developed locally at approximately 45° to the core axis - very indistinct.							
50.29	53.95	<u>ANDESITE</u> Zone is marked by a 1.3 m. hyaloclastite top. The rock is medium open and fine grained with strongly chloritized parting surfaces - shears. Light colouration may be due to underlying silicified zone. The base of this zone may be a flow bottom. It is highly fractured with abundant quartz incorporating 50% of the rock volume. Except for the base of this zone, carbonate fills fracture openings. An irregular flow (?) foliation in the hyaloclastite cuts core at 40° to the core axis.							
53.95	57.09	<u>LOWER MINERALIZED - SILICIFIED ZONE</u> Dominantly grey with greenish-grey zones, aphanitic, highly silicified rock. Intensely brecciated on a very							

LANGRIDGE LIMITED - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC83-18 SHEET NO. 4 OF 4

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPH. IDES	FOOTAGE FROM TO	TOTAL	%	%	OZ/TON	OZ TON	
		fine scale. Breccia is angular and very hard. All C rock is moderately fractured with quartz in main fractures and carbonate in microfractures. Breccia fragments are pinkish grey to grey. Greenish zones are more weakly silicified.	046		52.43	53.95	1.52		0.01		
			047		53.95	55.47	1.52		0.03		
		53.95 - 55.47 - mixed breccia and weakly silicified rock; 3-5% Pyrite	048		55.47	57.09	1.62		0.04		
			049		57.09	58.52	1.43		0.04		
		55.47 - 57.09 - grey brecciated zone - more typical of mineralized rock, includes narrow zones up to 8 cm. of non-brecciated, weakly silicified rock. Zone has a crude fabric at 500-600 to the core axis. Abundant late cross-cutting quartz stringers. 5-7% Pyrite.	050		58.52	60.05	1.53		0.03		
57.09	60.05	<u>BASALT</u> Mixed dark green and locally grey-green weakly silicified rock. Aphanitic to fine grained. Unsilicified rock is moderately chloritized. Moderately magnetic. Massive flow. Possibly vesicular over 10 cm. at 57.55. Moderately fractured becoming strong locally-filled with white and pink carbonate. Pyrite content is 1-2% as fine disseminated blebs and accumulations of blebs up to 6 mm.									
60.05		END OF HOLE - CASING PULLED									
		Hole No.: MC83-18 Latitude: 9 + 87.5 E Started: 9-5-83 Finished: 11-5-83									
		Length: 60.05m Departure: 38 m S Azimuth: 3440 Dip: -500									
		Footage 0 30 m 60.05									
		REMARKS Units in meters. Whole core sent for assay B.O.Core.									
		Logged by: A.W. Workman.									

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC83-19 LENGTH 52.43 m

LOCATION 9 + 75# E DEPARTURE 0 + 35 m S

ELEVATION 3440 AZIMUTH 340 DIP - 450

STARTED 11-5-83 FINISHED 13-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
-	-450				
52.4	-46				

HOLE NO. MC83-19 SHEET NO. 1 OF 4
 REMARKS Units in meters
Whole core sent for assay
BQ Core

LOGGED BY A.W. Workman

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE			ASSAYS				
				NO.	% Sulfides	PH	%	%	oz/ton	oz/ton	
0	10.52	31.03	<u>CASING</u> <u>MAIN MINERALIZED ZONE</u> This section is composed of a variably silicified upper member (Basalt) and an intensely silicified lower member. Alteration is usually directly proportional to the degree of brecciation. Non-silicified rock is generally moderately chloritized. Pyrite content increases in silicified rock.								
10.52	13.69		<u>BASALT</u> Dark green, fine grained, moderately chloritized, moderately fractured. Almost all fractures filled with white and pink carbonate. Minor quartz stringers up to 2 mm. width. A crude foliation (flow?) has developed throughout zone at 60° to the core axis - rock parts easily along chloritized surfaces. Few zones of intense brecciation are grey and intensely silicified - largest at 13.5 - 13.65. Average pyrite content in the basalt is 1%. In silicified zones this level rises to 2-3% with a trace of cpy.	C 051	10.64	12.16	1.52	(5.0)	0.01		
				052	12.16	13.69	1.53		trace		
13.69	31.03		<u>MAIN SILICIFIED ZONE</u> Grey to dark greenish-grey, aphanitic, intensely brecciated and mylonitized, and strongly silicified. Locally breccia fragments 0.5 - 1 mm. are set in a	053	13.69	15.21	1.52	0.02			
				054	15.21	16.73	1.52	0.04			
				055	16.73	18.26	1.53	0.08			
									4.570		

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. Mc83-19 SHEET NO. 2 OF 4

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			%	ASSAYS	
				FROM	TO	TOTAL		oz./TON	oz./TON
	Chloritized foliated matrix - possible fault zones. This is most apparent in the uppermost 1.5 meters where silicification tends to be lower. Cream coloured silica fills voids locally in breccia zones. Fracturing is moderately developed. Quartz commonly fills the main fractures with carbonate in a separate set of (later?) microfractures. Several dark pink, aphanitic, massive syenitic dykes are located at 14.2 - 14.3 and 14.5 - 14.55. It carries no appreciable sulphide above trace amounts although the margins of the silicified rock carry higher amounts than normal - about 15%. The dyke is offset by minor microfractures.	056		18.26	19.54	1.52	0.07		
		057		19.54	21.06	1.52	0.02		
		058		21.06	22.59	1.53	0.04		
		059		22.59	24.11	1.52	0.03		
		060		24.11	24.63	0.52	0.01		
		061		24.63	26.15	1.52	0.03		
		062		26.15	27.68	1.53	0.02		
		063		27.68	29.20	1.52	0.01		
		064		29.20	30.72	1.52	0.08		
		065		30.72	31.03	0.76	0.08	*	
	13.69 - 15.21: moderately silicified, contains some green chloritized zones which are weakly silicified - 2-3% Py.								
	15.21 - 16.73: grey, intensely brecciated and strongly silicified, mylonitic at 16.55, fine chlorite between silicified angular 0.5 - 1.0 mm. fragments - fault? 6-8% average pyrite content.								
	16.73 - 18.26: grey strongly brecciated and silicified weakly silicified locally with numerous 1-3 cm. chloritized seams - well foliated at 17.5 m. at 60' to core axis.								
	18.26 - 19.54: moderately silicified and brecciated, abundant chloritized partings, 2-4% Pyrite.								
	19.54 - 24.63: intensely brecciated and strongly silicified, minor bands of green chloritized basalt locally, accounting for 20% of zone. Major fracture cuts along core at 19.8 - 20.1 m. Silicified zones carry 5-7% Py. with up to 10% locally.								

* NOTE
 Correction in footage applied - Sample was 0.76 m. in length 102' marker is 6.5' from 95' marker.

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC83-19 SHEET NO. 3 OF 4

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			TOTAL	ASSAYS					
					FROM	TO	FOOTAGE		%	%	01. TON	02. TON		
31.03	40.11	<p>24.63 - 31.03: moderately to strongly silicified - angular breccia fragments are set in a white to pink siliceous matrix. Minor zones of green unaltered rock. Brecciation is on a coarser scale than is normal. 5-7% Pyrite - some fragments are magnetic.</p> <p><u>BASALT</u></p> <p>Dark green, fine grained, massive flow - moderately to weakly chloritized with localized silicification in brecciated rock in the upper 1 - 1.5 meters. Pink and white carbonate fills moderately developed fractures. The zone is vesicular at a number of levels possibly reflecting numerous 3-4 m. thick flows. Abundant 1-2 mm. black glass shards are observed. Less than 1% pyrite as blebs up to 1 mm. Below 39.6 m. the flow is weakly silicified.</p> <p><u>LOWER MINERALIZED ZONE</u></p> <p>This zone is composed of an upper strongly silicified unit and a lower more variably silicified member. Silicification and pyrite content are highest in strongly brecciated rock.</p> <p><u>SILICIFIED ZONE</u></p> <p>Grey to greenish grey, intensely brecciated and strongly silicified, aphanitic, with 1-3% pyrite. Minor greenish weakly silicified and moderately chloritized zones. A 10 cm. zone contains vesicles at 41.15 m. - rock originally a basalt (?). The zone is strongly fractured with quartz and minor carbonate in fractures.</p>	066		31.03	32.06	1.03							
			067		32.06	33.59	1.53							
40.11	46.06													
40.11	41.48		068		37.06	38.58	1.52							
			069		38.58	40.11	1.53							
			070		40.11	41.48	1.39							
			071		41.48	43.01	1.53							
			072		43.01	44.53	1.52							
			073		44.53	46.06	1.53							

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. Mc83-19 SHEET NO. 4 OF 4

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO. IDS	% SULPH FROM	FOOTAGE TO	TOTAL	%	%	02/TON	02/TON
41.48	46.06	<p><u>BASALT</u></p> <p>Dark green, fine grained with 10% grey brecciated silicified zones. Medium grained with depth, weakly to moderately chloritized overall. Flow breccia developed locally, non-silicified, with round to sub-round fragments of basalt up to 20 cm. Minor flow foliation developed locally at 60 - 65 to the core axis, (e.g. 44.5 m).</p> <p>42.00: chloritized shear with 30% pyrite over 2 cm. section - cuts core axis at 40</p> <p>Major silicified zones located at 42.18 - 42.25, 44.78 - 44.87, 45.02 - 45.26 and 45.60 - 45.75 m.</p> <p><u>BASALT</u></p> <p>Dark green, fine grained moderately chloritized and moderately to strongly fractured. Carbonate fracture filling with minor quartz stringers locally associated with narrow silicified breccia zones. Zones of tectonic brecciation are less than 10 cm. in thickness with 3-5% pyrite vs. 1-2% for non-silicified basalt. Flow foliation is weakly developed locally: 60 at 50.4 and 40 at 51.05 m. The basalt is weakly magnetic.</p> <p>50.53 m : clay seam - fault</p> <p><u>ANDESITE</u></p> <p>Light to medium green, fine grained with a weakly developed flow foliation at 51.5 m. of 450 to the core axis. The rock is weakly fractured with carbonate in the fractures, non-magnetic, moderately chloritized and non-silicified. Up to 1% finely disseminated pyrite is found locally.</p> <p>52.43 END OF HOLE - CASING PULLED</p>	C 074	46.06	47.58	1.52				
51.18	52.43									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc. 83-20 LENGTH 72.24 M
 LOCATION 9 + 75 E DEPARTURE 0 + 46 S
 LATITUDE _____ AZIMUTH 3440 DIP -650
 ELEVATION _____ FINISHED 17-5-83
 STARTED 13-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
66.14	-62°				

HOLE NO. Mc. 83-20 SHEET NO. 1 OF 7
 REMARKS core split
BQ core
 NOTE: From 66' marker to 74'
marker is 7.3' of core
 LOGGED BY A.W. WORKMAN

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	% SILICA	FROM	FOOTAGE TO	TOTAL	%	%	oz/TON	oz/TON		
0	12.93	CASING - OVERBURDEN											
12.93	27.89	BASALT											
		Dark green to grey-green, fine grained, needle texture locally (1-3 mm amphiboles), and with well developed foliation at 45-50' to the core axis. Abundant (10%) quartz stringers which are lensitic and pinch and swell along the foliation. The rock is weakly to moderately fractured with mostly white carbonate as fracture filling - remainder is quartz and minor hematite. Rock is moderately chloritized and very weakly magnetic locally. Grey silicified bands are noted locally and carry up to 1% pyrite. They are 2-5 cm in thickness and related to zones of micro-breccia. The rock becomes increasingly fractured and vuggy with depth - particularly below 23.5 m.	075		12.93	14.43	1.50			0.01			
			076		14.43	15.93	1.50			Trace			
			077		15.93	17.53	1.60			Trace			
			078		17.53	19.03	1.50			Trace			
			079		19.03	20.53	1.50			Trace			
			080		20.53	22.35	1.50			(actually) 0.01			
			081		22.35	23.67	1.32			0.01			
			082		23.67	25.17	1.50			0.01			
			083		25.17	26.62	1.45			0.01			
			084		26.62	27.89	1.27			0.02			
			085		27.89	28.35	0.46			0.01			
		14.26, 16.06 and 17.64 m: narrow silicified zones											
		13.56: ground core - possible minor fault											
		23.62 - 24.17: strongly sheared and intensely chloritized - probable fault at 23.77 m; bordering rocks are more strongly chloritized											

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC. 83.20 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	NO.	SAMPLE			ASSAYS			
FROM	TO			% SULPHIDES	FROM	TO	TOTAL	%	%	02/TON
63.09	63.79	<u>SILICIFIED ZONE</u> Grey to blue-grey, aphanitic, moderately to strongly silicified and moderately brecciated. Some relic flow banding is observed at 63.55 m which cuts at 35° to the core axis. Fracturing increases towards the base of the zone, and chlorite begins to appear in fractures at 63.0 m. <u>PORPHYRITIC INTRUSIVE</u> The overlying zone is cut off sharply by a pale green, medium to coarse grained intrusive. It carries round to sub-round quartz crystals up to 3 mm. in size. Some dark needle-like crystals are noted locally (hornblende?). The groundmass is moderately chloritized. A trace of pyrite is found locally. <u>BASALT</u> Dark green, fine grained, strongly chloritized, moderately to strongly fractured. Patches of grey silicified rock, 1-2 cm in thickness, are found locally - especially near the overlying intrusive. Foliation, may be shearing, at 30° to core axis. <u>SILICIFIED ZONE</u> Dark grey with purple tint, aphanitic, moderately brecciated with 5-7% pyrite, mostly filling dilatant zones between fragments or in fracture systems. A foliation, perhaps due to shearing is observed at 66.9 m at 35° to the core axis. This rock is not normally observed at this depth.	116	63.09	63.79	0.70			0.08	
63.79	65.78		117	63.79	64.78	0.99			0.01	
			118	64.78	65.78	1.00			0.01	
65.78	66.54		C. 119	65.78	66.54	0.76			0.01	
66.54	67.09		C. 120	66.54	67.09	0.55			0.12	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC.83.20 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS			
FROM	TO				FROM	TO	FOOTAGE	TOTAL	%	%	OZ./TON
67.09	72.24	<p><u>ANDESITE</u></p> <p>Medium green, fine to medium grained, moderately chloritized, massive flow. Minor zones of grey silicified rock (eg. 68.7-68.8) locally. Silicified rock is confined to an upper, more strongly fractured part of this zone - that is, above 69 m. Below this point the andesite is weakly fractured and weakly to moderately foliated. The rock parts easily at 35-40° to the core axis.</p> <p style="text-align: center;">72.24 END OF HOLE CASING PULLED</p>	121		67.09	68.59	1.50			0.01	
			122		68.59	70.09	1.50			0.04	
			123		70.09	71.17	1.08			0.01	
			124		71.17	72.24	1.07			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc. 83-21 LENGTH 60.05 m
 LOCATION 335 ? DEPARTURE 9+62.5 E ?
 LATITUDE 335 ? AZIMUTH 344° DIP -50°
 ELEVATION 17-5-83 FINISHED 19-3-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	50°				
60.05	48°				

HOLE NO. Mc. 83.2 SHEET NO. 1 OF 5
 REMARKS whole core sent
for assay
all units in metric
BQ CORE
 Logged by A.W. WORKMAN

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS						
			NO.	% SULPH IDES	FOOTAGE FROM TO	TOTAL	%	%	oz/TON	oz/TON		
0	9.81	CASING - OVERBURDEN										
9.81	15.97	BASALT	c.125		9.82	10.82	1.00					
		Dark green, fine to medium grained, moderately to strongly fractured with carbonate and quartz in openings. Veining and stringers resemble splattered white paint - 30% of rock volume. Minor 1-2 cm grey, moderately silicified zones parallel to flow, foliation. Pyrite increases in these zones from average 1% to 3-5%. The basalt is weakly to very weakly magnetic. Lower contact is gradational as silicified zones increase - lower 1.0 m is moderately silicified.	125		10.82	11.82	1.00					
			127		11.82	12.83	1.00					
			128		12.83	13.83	1.00					
			129		13.83	14.97	1.14					
			130		14.97	15.97	1.00					
		12:50 m: flow (?) lamination at 40°-50° to core axis										
		<u>MAIN MINERALIZED ZONE</u>										
15.97	37.49	The zone is composed of an upper variably silicified member which grades down into a strongly silicified breccia. The breccia comprises the main member of the zone. It is characterized by up to 10% pyrite in a very hard glassy rock. It is underlain by a second variably silicified member.	131		15.97	16.97	1.00					Trace
			132		16.97	17.97	1.00					0.02

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC. 83-21 SHEET NO. 2 OF 5

FOOTAGE		DESCRIPTION	NO.	% SULPHIDES	SAMPLE		FOOTAGE TO	TOTAL	ASSAYS		
FROM	TO				FROM	TO			%	%	OZ./TON
15.97	20.60	<u>SILICIFIED BASALT</u> The zone begins as a dark green, fine grained very weakly magnetic rock with up to 50% green-grey, aphanitic, strongly silicified and brecciated rock. The grey zones increase in number and degree of alteration down-hole.	133 134 135		17.97 18.99 19.99	18.99 19.99 21.00	1.02 1.00 1.01		0.04 0.03 0.03		
20.60	34.11	16.37 : chloritized fault with chlorite developed along fractures penetrating silicified zones - movement at 70° to core axis 17.47 - 17.77: pinkish-red aphanitic intrusive - siliceous, cataclastic near contacts, may cut at 60° to core axis-SYENITE? <u>MAIN SILICIFIED ZONE</u> Grey, aphanitic, intensely brecciated and strongly silicified. Breccia consists of angular, 0.5 mm to 1.5 cm fragments which may be outlined by narrow cream coloured reaction halos. An average 1-3% pyrite is observed with up to 10% locally. Weakly to moderately fractured with quartz in major fractures and carbonate in micro-fractures. Non-magnetic. 20.60 - 26.09: 1-3% pyrite, relic flow banding at 45° to core axis at 23.6 m 25.66 - 26.15: zone of intense fracturing and mylonitization of silicified rock with chlorite in fractures - most likely a fault in chloritized seam at 26.09 m - movement at 45° to core axis - possible bedding fault	136 137 138 139 140 141		21.00 22.01 22.10 22.10 23.10 24.11 25.12	22.01 22.10 23.10 24.11 25.12 26.12	1.01 0.09 1.00 1.01 1.01 1.00		0.01 0.02 0.10 0.09 0.075 0.04		

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDEERMOTT
 HOLE NO. Mc. 83-21 SHEET NO. 3 OF 5

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH 100g	SAMPLE			ASSAYS				
					FROM	TO	TOTAL	%	%	oz/TON	oz/TON	
		26.09 - 30.88 : more highly silicified zone with 5-7% pyrite	142		26.12	27.13	1.01			0.34		
			143		27.13	27.98	0.85			0.10		
			144		27.98	28.99	1.01			Trace		
		30.88 - 31.49 : some green, chloritized and weakly silicified rock in 2-4 cm bands - zone is at least 50% silicified. Possible flow foliation at 60° to core axis. Up to 3% pyrite.	145		28.99	29.99	1.00			0.01		
			146		29.99	30.88	0.89			0.01		
			147		30.88	31.49	0.61			0.04		
			148		31.49	32.43	0.94			0.04		
		31.49 - 32.43 : FAULT ZONE - highly fractured with 30% dark green chloritized non-silicified rock. Chloritized mylonite at 32.03 - 32.35. Grey silicified rock in this zone is strongly fractured with chlorite in fractures.	149		32.43	33.27	0.84			0.03		
			150		33.27	34.11	0.84			0.01		
		32.43 - 34.11 : grey with purple tint, very highly brecciated and intensely silicified with average 7-9% pyrite and up to 10% locally. The lower 20 cm is strongly fractured with mylonite and chlorite in fractures.										
		34.11 : FAULT - chloritized plane cuts at 30° to core axis										
		<u>SILICIFIED BASALT</u>										
34.11	37.49	Grey to grey-green, aphanitic to fine grained, moderately to strongly brecciated and variably silicified. This is a variably altered zone between the overlying breccia and non-brecciated rock beneath. The zone becomes pale green at 35.66 m. Silicified zones are found at 35.02-35.11, 35.33-35.72, 36.12-36.20, 36.58-36.79, 36.91-37.12, 37.22-37.25 and 37.37-37.46; totalling 57% of the unit. In these zones, sub-angular medium to dark green 1-3 cm breccia fragments are set in a grey strongly silicified	151		34.11	35.11	1.00			0.02		
			152		35.11	36.11	1.00			0.03		
			153		36.11	36.80	0.69			0.20		
			154		36.80	37.49	0.69			0.01		

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-22 SHEET NO. 2 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	0.1 TON	0.1 TON
	12.92 - 14.78:	<u>YELLOWISH-GREEN SILICIFIED ZONE (2% PY.)</u> Pale yellowish-green, fine grained, moderately brecciated and silicified rock - this marks the beginning of the main silicified zone. It is distinctly harder than the chloritized/carbonitized zone above. The brecciated fragments are angular to subangular ranging from less than 1mm to 2cm in size and are infilled with siliceous material. The silicified zone seems to have a gradational contact, starting as a light yellowish green rock and gradually becoming the characteristic dark grey with purple hue rock. The pyrite is disseminated with some areas of quartz veining control. Pyrite content increases with depth from less than 1% to 5% with an average of 2%.	205	2%	12.92	13.72	0.79			0.01	
	14.78 - 15.09:	<u>FELSIC DIKE</u> Silicified zone abruptly interrupted by light pink aphanitic to fine grained, very hard rock. Moderately fractured and slightly brecciated. Fractures mainly filled with clear siliceous material while brecciated fragments are surrounded by white siliceous material. 2mm wide quartz-filled fractures @15 to core axis, other fracturing is more random and variable. Minor disseminated pyrite, less than 1%.	206	Less than 1%	13.72	14.78	1.07			Trace	
			207		14.78	15.09	0.30			0.03	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-22 SHEET NO. 3 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS			
		NO.	% SULPHIDES	FOOTAGE FROM TO TOTAL	%	%	GT./TON	GT. TON
15.09 - 20.65:	<u>SILICIFIED BASALT-PURPLE HUE (5% PYRITE)</u> Silicified zone, fine grained dark grey rock with purple hue. Moderately to severely brecciated with pyrite content averaging 5%.	208	5%	15.09	15.85	0.76	0.02	0.02
		209		15.85	16.61	0.76		
		210		16.61	17.37	0.76		
		211		17.37	18.14	0.76		
		212		18.14	18.90	0.76		
20.65 - 20.73:	<u>TUFF? OR FAULT?</u> Core composed of small (0-2mm) well rounded fragments. Core fragmented and broken - possible fault.	213	5%	18.90	19.66	0.76	0.01	0.02
		214		19.66	20.73	1.07		
		215		20.73	21.12	0.40		
20.73 - 21.12:	<u>LIGHT GREY ROCK WITH YELLOW HUE (10-15%) (Py.)</u> Significant increase in pyrite content 10-15%. Quartz stringers are wider in this zone - possible result of tensile forces allowing free movements of fluids.	215	10-15%	20.73	21.12	0.40	0.34	
21.12 - 22.19:	Rock becomes medium to dark grey. 2-5% pyrite.	216	2-5%	21.12	22.19	1.07	0.10	
22.19 - 23.26:	<u>DARK GREY PURPLE HUE (PYRITE 3-5%)</u> Narrower stringers of white siliceous material. Brecciated fragments seem less distinct and have a more foliated appearance at approximately 60-70° to core axis. Foliation and narrower stringers seem to indicate application of compressive stresses. Pyrite 3-5%.	217 218	3-5%	22.19 22.59 23.26	22.59 23.26	0.76 0.67	0.05 0.02	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-22 SHEET NO. 4 OF 7

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			ASSAYS			
				FROM	TO	TOTAL	%	%	OZ./TON	OZ./TON
23.26 - 23.71:	<u>LIGHT GREEN ROCK - POSSIBLE FAULT</u>	219	1-2%	23.26	23.71	0.46			0.01	
	Light green, fine grained rock. Brecciated fragments are more well developed. Core is fragmented and broken at 23.53m which could possibly be a fault. Lower pyrite content in this interval - 1-2%.									
23.71 - 24.02:	<u>SILICIFIED BASALT WITH PURPLE HUE</u>	220	3-5%	23.71	24.02	0.30			0.09	
	Same as interval 22.19-23.26m with disseminated pyrite with local concentrations or blebs - 3-5%.									
24.02 - 27.43:	<u>SILICIFIED BASALT WITH CHLORITE-RICH ZONES (20%)</u>	221	5-7%	24.02	24.93	0.91			0.05	
	Silicified zone, more distinctly brecciated with good angular fragments being visible. White siliceous material randomly infills without well-developed foliation. In some locations silicification is not as intense indicated by the medium to dark green chloritized zones which comprise approximately 20% of the interval. These zones range from 1-2cm up to 10-15cm and are softer than the silicified zone. The presence of these chloritized zones indicates that the main silicified zone is nearing the end. Pyrite content; less than 1% up to 15% with an average throughout of 5-7%.	222		24.93	25.85	0.91			0.04	
		223		25.85	26.76	0.91			0.11	
		224		26.76	27.43	0.67			0.23	
27.43 - 28.04:	<u>TUFF? OR FAULT?</u>	225		27.43	28.04	0.61			0.04	
	Interval with larger grain size. Fragments are more well rounded and consist of quartz, feldspar and mafic minerals - area of slight magnetism - more abundant white silica - fault or tuff(?)									

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-22 SHEET NO. 5 OF 7

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			ASSAYS				
					FROM	TO	TOTAL	%	%	OZ./TON	OZ./TON	
		28.04 - 30.33: <u>SILICIFIED BASALT WITH CHLORITE ZONES</u>	226		28.04	28.96	0.91			0.10		
		Same rock type as interval 24.02-27.43m. Pyrite content increases from 28.65-28.96m to 10% with average over the interval of 5%.	227		28.96	29.87	0.91			0.09		
			228	5%	29.87	30.33	0.46			0.02		
		<u>TUFF? OR FAULT?</u>										
30.33	30.66	Light green, medium grained rock with well-rounded fragments of quartz and feldspar.	229		30.33	30.66	0.33			Trace		
		<u>BASALT</u>										
		Medium green, aphanitic to fine grained rock. Carbonate present as stringers up to 5-10%. The zone has small bands of brecciated and silicified material characteristic of the main zone, 2-10cm wide and comprising no more than 10% of the interval. Pyrite is less than 1%.	230		30.66	31.58	0.91			0.005		
		30.66 - 35.91: <u>BASALT</u>	231		31.58	32.49	0.91			0.005		
		Carbonate - 5-10%. Pyrite - less than 1%.	232		32.49	33.41	0.91			0.07		
			233		33.41	34.32	0.91			0.01		
			234		34.32	35.23	0.91			0.005		
			235		35.23	35.91	0.67			Trace		
		35.91 - 36.70: <u>DIABASE?</u>										
		Medium grained, medium green rock. Prismatic amphibole crystals. Pyrite 0-0.5%.	236	less than 1%	35.91	36.70	0.79			0.04		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-22 SHEET NO. 6 OF 7

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			ASSAYS			
					FROM	FOOTAGE TO	TOTAL	%	%	OZ/TON	OZ TON
36.70 -	37.28:	Moderately silicified and brecciated. 2-5% carbonates. Up to 1% pyrite.	C 237		36.70	37.28	0.58			0.04	
38.19 -	38.37:	Strongly brecciated and silicified. 2-5% pyrite.	C 238		37.28	38.37	1.10			Trace	
39.20:		Core broken and fragmented, possible fault.	239		38.37	39.20	0.82				
39.20 -	47.03:	Carbonate stringers and veining more abundant, 15-25%.	C 240		39.20	40.11	0.91			0.005	
			241		40.11	41.03	0.91			0.005	
			242		41.03	41.18	0.15			0.15	
			243		41.18	42.09	0.91			0.02	
			244		42.09	43.01	0.91			Trace	
			245		43.01	43.92	0.91			0.005	
			246		43.92	44.84	0.91			0.005	
			247		44.84	45.75	0.91			0.005	
			248		45.75	46.36	0.61			0.02	
			249		46.36	47.03	0.67			0.005	
47.03 -	47.85:	Carbonate stringers almost absent, 2-5%.	250		47.03	47.85	0.82			Trace	
47.85 -	49.77:	Carbonate stringers 5-10%. Tuffaceous bands 1-10cm in size comprise 5-10% of core.	251		47.85	48.77	0.91			0.01	
			252		48.77	49.77	1.00			0.02	
49.77 -	57.00:	Bands of carbonates wider with zones of carbonate-free basalt at 50.22-50.38m and 51.22-51.66m.	253		49.77	51.00	0.91			0.005	
			254		51.00	51.91	0.91			Trace	
			255		51.91	52.82	0.91			Trace	
			256		52.82	53.74	0.91			Trace	
			257		53.74	54.65	0.91			Trace	
			258		54.65	55.56	0.91			Trace	
			259		55.56	56.47	0.91			Trace	
			260		56.47	57.00	0.53			Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-22 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS			
FROM	TO				FROM	TO	TOTAL	%	%	02.70M	02.70M
57.00	59.65	<u>INTRUSIVE -- DIABASE(?)</u> Light to medium green, medium grained rock with prismatic amphibole crystals. Carbonate stringers 1-3%.	261		57.00	57.91	0.91			Trace	
			262		57.91	58.83	0.91			Trace	
			263		58.83	59.65	0.82			Trace	
59.65	61.26	<u>BASALT</u> Carbonate stringers less than 1%.	264		59.65	60.56	0.91			Trace	
			265		60.56	61.26	0.70			Trace	
		61.26 meters END OF HOLE CASING PULLED WHOLE BQ CORE SENT FOR ASSAY									

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-23 LENGTH 60.05 meters
 LOCATION 9+37.5E DEPARTURE 30S
 LATITUDE 344° AZIMUTH 344° DIP -45°
 ELEVATION 24-5-83 FINISHED 26-5-83
 STARTED 24-5-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°	344°			
60.05	-45°				

HOLE NO. MC-83-23 SHEET NO. 1 OF 9
 REMARKS Second hole logged by S.M.T.
 Logged by S.M. Trueland

LANGRIDGE LIMITED,

EM. 6-1168

FROM	TO	DESCRIPTION	SAMPLE				ASSAYS							
			NO.	% SILICES	FOOTAGE FROM	FOOTAGE TO	TOTAL	%	%	OZ/TON	OZ/TON			
0	6.70	CASING												
6.70	27.28	<u>MAIN SILICIFIED ZONE</u> Fine grained, dark grey with purple hue, moderately to intensely brecciated rock. Brecciated fragments range from less than 1mm to 2-3cm and are angular to rounded. Rock is carbonatized from 6.70-18.81m decreasing in content with depth. Carbonates are absent from the highly silicified zone beginning at 18.81m. Chloritization of narrow zones (also from 6.70-18.81m) indicates the beginning of the silicified zone. Chlorite content also decreases with depth. Infiltration of siliceous material is in a random fashion throughout the silicified zone. Quartz veinlets range in size from less than 1mm to 1cm and have been introduced in more than one event as some veinlets cross-cut older brecciation and veinlets. The core is magnetic from 21.59-24.38m within the most highly silicified zone. Pyrite content ranges from less than 1% in chlorite-rich zones up to 10-15% in intensely brecciated and silicified zones. In areas of low concentration the pyrite usually appears finely disseminated while larger euhedral grains appear more frequently as concentration rises. In areas of intense brecciation a slight foliation appears at 55-65 to the core axis. 6.70 - 11.54: <u>SILICIFIED ZONE WITH CARBONATE CHLORITE ZONES (10-20%)</u> Medium grey with yellow hue to dark green with purple hue. Fine grained rock with alternating chlorite-carbonate												
					6.70	7.70	1.00							
					7.70	8.72	1.00							
					8.72	9.70	1.00							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-23 SHEET NO. 2 OF 9

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPHUR IDEA	FROM	TO	TOTAL	%	%	02. TON	01. TON
	and brecciated-silicified zones with the chlorite-carbonate zones making up approximately 10-20% of the total zone. Carbonate values increase to 10-15% in the chloritized values and is absent from the intensely brecciated and silicified zones. In some zones of brecciation the fragments are large, 3-10mm with no apparent foliation while in other areas the fragments are not quite as large, less than 1 to 3mm and there is a slight foliation. These foliated zones indicate a compressive shear force versus a tensile force in the areas of large brecciated fragments. The siliceous material infills around the brecciated fragments through micro-fractures and narrow (1-3mm) veinlets. The pyrite content ranges from less than 1% to 3-5% with an average value of 2%. There is a possible fault at 11.46 m.	269	2%	9.70	10.70	1.00			0.005	
	11.54 - 13.93: Rock becomes a dark grey with purple hue. Carbonate veinlets become wider, 5mm, but are less abundant, making up 5-10% of total zone. Brecciation is not as intense. Pyrite is finely disseminated, trace to 1%.	270		10.70	11.54	0.84			0.005	
	13.93 - 18.30: <u>SILICIFIED ZONE WITH CHLORITE ZONES (10%)</u>	271	Less than 1%	11.54	12.53	1.00			0.02	
	Rock still dark grey with purple hue. Micro-fractures and stringers more abundant with a slight foliation at 50-70 to core axis. Still small zones of non-silicified rock comprising up to 10% of zone. Carbonate content decreased with an overall abundance of approximately 1%. Pyrite content is less than 1%.	272		12.53	13.53	1.00			0.03	
		273		13.53	13.93	0.40			0.02	
		274		13.93	14.90	1.00			0.01	
		275		14.90	15.88	1.00			0.01	
		276		15.88	16.88	1.00			0.01	
		277		16.88	17.88	1.00			0.01	
		278	less than 1%	17.88	18.30	0.42			0.005	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDEERMOTT
 HOLE NO. MC-83-23 SHEET NO. 3 OF 9

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS			
				FROM	TO	TOTAL	%	%	g2./TON	g2./TON
18.30 - 18.80:	<u>TUFF OR FAULT</u> Light to medium green, medium grained rock composed of less than 1mm to 3mm well-rounded grains or fragments at the top and bottom of the zone with larger 3-6mm angular fragments in the middle of the zone - TUFF OR FAULT - pyrite is not visible. SAMPLE TAKEN 18.62-18.68m (angular fragments)	279	0%	18.30	18.80	0.53			0.02	
18.80 - 19.05:	<u>GREY-BROWN YELLOW HUE SILICIFIED ZONE</u> Light grey-brown with yellow hue. Fine grained, intensely brecciated and silicified. Slight foliation at 50-65 to core axis. Pyrite content significantly increases in this interval to 10-15%. The same zone appears in hole Mc-83-22 at 20.73-21.12m. SAMPLE TAKEN 18.80-18.90m.	280	10-15%	18.80	19.05	0.24			0.33	
19.05 - 19.51:	Core becomes medium grey with brecciated fragments still light grey-brown with yellow hue. These fragments constitute approximately 40-50% of the interval. Very distinct contact with above interval. Pyrite content 5-7%.	281	5-7%	19.05	19.51	0.46			0.05	
19.51 - 19.81:	<u>TUFF OR FAULT</u> Band of tuff (or fault). Fragments are less than 1mm to 10mm with small fragments dominating. No visible pyrite.	282	0%	19.51	19.81	0.30			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-23 SHEET NO. 4 OF 9

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			TOTAL	%	%	ASSAYS	
					FROM	TO	FOOTAGE				01/TON	02/TON
		19.81 - 21.59: <u>TYPICAL SILICIFIED ZONE (PURPLE HUE)</u>	283		19.81	20.80	1.00				0.10	
		Typical dark grey, purple hue rock. Brecciation light to moderate. Fractures less abundant with more regular quartz veins 1-5mm wide. Within quartz veins brecciated fragments are more abundant. Light brown alteration halos associated with some quartz veins while some veinlets infilled with light brown siliceous material. Finer micro-fractures, random throughout interval. Veinlets cut core axis at 30-45 with some clean white quartz veinlets running parallel to the core axis. Pyrite content ranges from less than 1% to 15% with an average concentration of approximately 7%. SAMPLE TAKEN 20.57-20.65m.	284	7%	20.80	21.59	0.79				0.03	
		21.59 - 24.38: <u>SILICIFIED ZONE: MAGNETIC</u>	285		21.59	22.57	1.00				0.03	
		Dark grey, purple hue rock. Fracturing becomes more abundant and larger. Alteration halos not visible. Core is magnetic throughout entire interval. Pyrite content is 2-4%.	286		22.57	23.57	1.00				0.02	
			287		23.57	24.38	0.81				0.08	
		24.38 - 26.91: <u>SILICIFIED ZONE: NON-MAGNETIC</u>	288		24.38	25.38	1.00				0.06	
		Dark grey rock with purple hue, non-magnetic over this interval. Small chlorite-rich zones appear and comprise 5% of interval with greater abundance down hole. Some areas of intense brecciation and silicification. Pyrite content 1-2%.	289		25.38	26.38	1.00				0.02	
			290	1-2%	26.38	26.91	0.53				0.18	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-23 SHEET NO. 5 OF 9

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS			
				FROM	TO	TOTAL	%	%	02./TON	02./TON
26.91 - 27.28	<u>GREY-BROWN YELLOW HUE SILICIFIED ZONE</u> Rock grey-brown with yellow hue, similar to interval 18.80-19.05m. Pyrite content 7-8%. End of main silicified zone.	291	7-8%	26.91	27.28	0.36			0.21	
27.28 60.05	<u>BASALT WITH SILICIFIED ZONES (1-2%)</u> Light to dark green, aphanitic to medium grained rock. Intervals of silicification and brecciation from 1-2cm up to 1 metre. These intervals constitute 1-2% of the entire basalt interval. Carbonatization becomes present directly below 27.28m and throughout the interval averages approximately 10%. Pyrite content varies from 0 in some carbonatized-chloritized zones to 5-10% in silicified and brecciated zones.	292	0%	27.28	28.13	0.85			0.02	
27.28 - 28.13	<u>TUFF OR FAULT</u> Light to medium green, fine to medium grained rock with larger fragments at 27.86m. Foliation present (measurement not taken). Pyrite absent.	293								
28.13 - 29.57	<u>BASALT WITH SILICIFIED ZONES (5%)</u> Medium green, fine grained basalt with zones of brecciation and silicification comprising 5% of the interval. Carbonate stringers throughout core in random pattern and constitute approximately 5% of the interval. 5cm zone of medium grained rock cuts across basalt at 29.11. Pyrite averages less than 1% throughout, but is 0.5-1% in brecciated and silicified areas.	294	Less than 1%	28.13	28.83	0.67			0.02	
				28.83	29.57	0.70			0.005	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-23 SHEET NO. 6 OF 9

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPHUR IDES	SAMPLE			ASSAYS				
				FROM	TO	TOTAL	%	%	OZ./TON	OZ./TON	
29.57 - 33.10:	<u>BASALT ABSENT OF SILICIFIED ZONES</u> Medium to dark green, fine to medium grained rock. Possibly the centre of a flow where crystals were able to form due to slow cooling. Carbonate content 5%. Magnetic band at 31.70m making an angle of 30° to core axis. 0 to trace pyrite.	295		29.57	30.57	1.00				Trace	
		296		30.57	31.57	1.00				Trace	
		297		31.57	32.77	1.20				Trace	
		298		32.77	33.10	0.32				Trace	
				Trace							
33.10 - 37.50:	<u>BASALT ABSENT OF SILICIFIED ZONES</u> Fine to medium grained basalt with greater amounts of carbonate stringers - approximately 10% - stringers 1mm to 1cm wide and are emplaced in irregular pattern with the majority making an angle of 80-90° to core axis. Slight ₀ foliation over 20cm making an angle of 40° to core axis (36.05-36.27). Pyrite content up to 1-2% averaging less than 1%.	299		33.10	34.13	1.00				0.005	
		300		34.13	35.13	1.00				Trace	
		301		35.13	36.13	1.00				Trace	
		302		36.13	36.85	0.70				0.005	
		303		36.85	37.50	0.62				Trace	
				Less than 1%							
37.50 - 37.89:	<u>TUFF???</u> Medium grained, brownish-green rock. Moderately brecciated with fragments no larger than 2-3mm. Some grains are well rounded - possibly tuffaceous. Carbonate stringers absent from this zone. Pyrite content slightly increased 1-2%. SAMPLE TAKEN 37.72 - 37.78.	304		37.50	37.89	0.39				0.005	
				1-2%							
37.89 - 38.77:	<u>DIABASE??</u> Medium grained, medium green rock. Carbonate content 10%. Core similar to interval 33.10-37.50m, but grain size is considerably coarser. Prismatic amphiboles - could be considered to be	305		37.89	38.77	0.88				Trace	
				less than 1%							

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-23 SHEET NO. 7 OF 9

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			TOTAL	ASSAYS						
				FROM	TO	FOOTAGE		%	%	QT./TON	QT./TON			
37.89 - 38.77:	diabasic. Pyrite content 0-1%, averages less than 1%.													
38.77 - 39.24:	<u>BASALT</u> Medium green, fine to medium grained rock. Less carbonates in this interval, which gives the division. Grain size smaller than above interval, but there is a gradational decrease in grain size. Carbonates less than 5%. Pyrite less than 1%.	306		38.77	39.24	0.46					Trace			
39.24 - 39.64:	<u>SHEARED BASALT</u> Well foliated and moderately sheared basalt. Grain size not distinguishable. Foliation makes an angle of 45° to core axis. More intensely sheared at top of interval (39.24m). Moderately sheared at bottom of zone. Pyrite absent from this interval.	307	0%	39.24	39.64	0.37					0.005			
39.64 - 40.97:	<u>LIGHTLY SHEARED BASALT</u> Basalt slightly foliated (not as intensely as zone above). Foliation makes an angle of 40° with core axis. Pyrite absent. Clay material in fracture 40° to core axis at 40.23m, possible fault.	308 323	0%	39.64 40.33	40.33 40.97	0.69 0.67					Trace			
40.97 - 42.06:	<u>BASALT</u> Medium green, fine to medium grained rock, no foliation. Carbonate stringers comprise 5% of interval. Grain size becomes finer with depth. Pyrite content up to 5%, averages 1%.	309	1%	40.97	42.06	1.10					Trace			

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDEERMOTT
 HOLE NO. Mc-83-23 SHEET NO. 9 OF 9

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS							
					FROM	TO	TOTAL	%	%	01./TON	02. TON				
47.06	55.40	<u>BASALT WITH SILICIFIED ZONE (1%)</u>	316		47.06	48.01	1.00								
		Basalt with 5% carbonates as stringers. Narrow 1-3cm silicified zones not comprising more than 1% of interval. At 50.93m hematite (specular) vein containing chalcopyrite which makes angle of 30 with core axis. Minor pyrite in silicified zones, trace in basalt.	317		48.01	49.09	1.00								
			318		49.09	50.09	1.00								
			319		50.09	51.00	1.00								
			320		51.00	52.00	1.00								
			321		52.00	53.00	1.00								
			322		53.00	54.00	1.00								
			324		54.00	54.74	0.74								
			325		54.74	55.40	0.67								
					Trace										
55.40	56.11	<u>LOWER MINERALIZED ZONE (SILICIFIED ZONE WITH BROWNISH-YELLOW FRAGMENTS)</u>	326		55.40	56.11	0.76								
		Brecciated silicified zone with brownish yellow fragments similar to interval 46.36-47.06m. Pyrite content increases dramatically to 10-15%.			10-15%										
56.11	60.05	<u>BASALT</u>	327		56.11	57.11	1.00								
		Basalt with 1-3cm wide zones of darker rock. In these zones pyrite content increases to 1-2% from 0 to trace throughout the rest of the rock. In the last 0.46m of the interval the rock becomes coarser grained gradually and a lighter green in colour. Possibly gradational contact with new rock type but since it constituted such a small amount of the core it was not noted. Carbonate stringers up to 2-3% of core.	328		57.11	58.11	1.00								
			329		58.11	59.11	1.00								
			330		59.11	60.05	0.91								
					Trace										
60.05		<u>END OF HOLE CASING PULLED</u> Whole BQ core sent in for assay.													

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-24 LENGTH 92.66 meters
 LOCATION 0+50 S DEPARTURE 9+25 E
 LATITUDE 0+50 S AZIMUTH 344° DIP -55°
 ELEVATION 0 FINISHED June 2, 1983
 STARTED May 27, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-55°				
91.44	-52°				

HOLE NO. MC-83-24 SHEET NO. 1 OF 7
 REMARKS BQ CORE
 LOGGED BY A.W. Workman

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE			ASSAYS				
				NO.	% SULPHIDES	FOOTAGE FROM TO TOTAL	%	%	OZ./TON	OZ./TON	
0	8.90	8.90	<u>OVERBURDEN</u>								
8.90	14.30	14.30	<u>BRECCIATED BASALT</u>	331		8.90	9.90	1.00			0.01
				332		9.90	10.90	1.00			tr.
				333		10.90	11.90	1.00			tr.
				334		11.90	12.90	1.00			tr.
				335		12.90	13.90	1.00			0.01
				336		13.90	14.30	0.40			0.01
14.30	24.56	24.56	<u>SEDIMENTS</u>	337		14.30	15.30	1.00			tr.
				338		15.30	16.30	1.00			tr.
				339		16.30	17.30	1.00			tr.
				340		17.30	17.70	0.40			tr.
				341		17.70	18.70	1.00			tr.
				342		18.70	19.70	1.00			tr.
				343		19.70	20.42	0.72			tr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-24 SHEET NO. 2 OF 7

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS						
					FROM	TO	TOTAL	%	%	02 TON	02 TON			
		carbonate filling. Carbonate is dominant in non-silicified rock.												
		14.65 - 14.92: yellow-green silicification with 8-10% pyrite; intensely brecciated.												
		14.92 - 15.03: reddish-brown, aphanitic, siliceous zone - carries 5-7% pyrite as 1-2mm cubes. Rock near the contacts of this zone is strongly laminated at 550 to the core axis.												
		15.03 - 17.70: poorly brecciated but well laminated and chloritized. Minor silicification locally along 1-3cm bands and lenses - about 25% silicified breccia in section. Laminations are developed at 450 to the core axis.												
		17.70 - 24.56: possible intrusive(?) or chloritized sediments - weakly brecciated but strong locally along some fracture systems. Some pale green breccia is supported in a green chloritic matrix. Minor grey silicified zones are noted. Unaltered rock is characterized by 1-3mm black blebs - altered glass shards? Numerous micro-faults cut the core axis at 300 with up to 2cm of displacement. If this section is intrusive, a sedimentary xenolith is noted at 20.42-20.93 meters. Bedding in this fragment is carbonated, locally silicified and tends to be chaotic. A second possible xenolith is noted at 22.48-23.25 meters. It is possible that this section is actually interflow sediment rather than intrusive.	344		20.42	21.42	1.00							
			345		21.42	22.42	1.00							
			346		22.42	23.42	1.00							
			347		23.42	23.99	0.57							
			348		23.99	24.56	0.57							
		<u>SEDIMENTS</u>												
24.56	25.24	Grey to greenish-grey, fine grained to aphanitic and strongly brecciated. Angular fragments, 0.5mm to 3cm, are grey and intensely silicified. The larger fragments are greenish indicating less effective silicification (silica penetration). The breccia matrix is very siliceous - essentially quartz. The rock is moderately fractured with quartz and carbonate filling. Silica is dominant in zones of silicification. Pyrite, finely disseminated, averages 1%.	349		24.56	25.24	0.68							0.01

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-24 SHEET NO. 3 OF 7

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS			
					FROM	TO	TOTAL	%	%	01 TON	02 TON
25.24	28.24	<u>SEDIMENTS</u> Light to dark green, fine grained and moderately chloritized, non-brecciated becoming moderately brecciated towards the base. Brecciation is gradational into the underlying zone. Dilatant zones along fractures up to 2cm in width are carbonate filled. Silicification is relatively rare but may be found in fractured zones up to 3cm in width. The rock is well laminated locally - 65-700 at 27.95 meters. The zone averages 0-1% pyrite.	350		25.24	26.24	1.00			0.01	
			351		26.24	27.24	1.00			0.01	
			352		27.24	28.24	1.00			0.01	
28.24	31.24	<u>SEDIMENTS</u> Medium to dark green, fine to very fine grained with patchy grey silicified zones. Alteration is very strong but limited to narrow breccia seams. The rock is strongly laminated at 45-500 to the core axis (eg. 28.40 meters). Brecciation increases below 30.24 m and the degree of silicification increases similarly. The zone averages 1% pyrite and is very similar to the rock at 14.30-20.42 m. Bedding at 30.35 meters is at 60-700 to the core axis. A clay filled fault plane is located in ground core at approximately 31.00 meters.	353		28.24	29.24	1.00			tr.	
			354		29.24	30.24	1.00			0.02	
			355		30.24	31.24	1.00			tr.	
31.24	58.58	<u>MAIN MINERALIZED ZONE</u> The zone is composed of several highly silicified sections separated by similar but less completely silicified rock. Pyrite content probably averages about 3% but ranges from 1-10% with up to 1% chalcopyrite locally. Silicification is best developed in intensely brecciated rock. Because of the breccia developed above this zone, and the spotty silicification associated with it, the upper contact of this unit may extend higher than is indicated herein.									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-24 SHEET NO. 4 OF 7

FOOTAGE	DESCRIPTION	SAMPLE			ASSAYS						
		NO.	% SULPH. IDES	FOOTAGE	%	%	g2/TON	g2/TON			
FROM	TO			FROM	TO	TOTAL					
31.24	32.60	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>This zone is a combination of green, fine grained and locally silicified sediments, and, reddish, aphanitic syenite(?). The sediments are silicified in response to localized carbonatization. Some increase in pyrite is associated with silicification. Minor honey coloured alteration is noted locally. Some cherty fragments are supported in non-silicified rock locally - rip-up clasts. The syenite is located at 32.34-32.60 meters. It is strongly brecciated at the contacts and is highly fractured internally. The rock is very siliceous, perhaps silicified, and carries a trace of pyrite.</p> <p><u>MAIN SILICIFIED ZONE - UPPER PART</u></p>									
32.60	42.84	358	3-5	32.60	33.60	1.00	0.21				
		359	6-8	33.60	34.60	1.00	0.23				
		360	7	34.60	35.60	1.00	0.14				
		361	1-3	35.60	36.60	1.00	0.10				
		362	3-5	36.60	37.60	1.00	0.06				
		363	3-5	37.60	38.60	1.00	tr.				
		364	3-5	38.60	39.60	1.00	tr.				
		365		39.60	40.60	1.00	tr.				
		366		40.60	41.60	1.00	0.02				
		367		41.60	42.22	0.62	0.01				
		368		42.22	42.84	0.62	0.01				
		<p>32.60 - 33.60: grey breccia, highly silicified with 3-5% pyrite and up to 1% chalcopyrite.</p> <p>33.60 - 34.07: yellow-grey, 5-7% pyrite - up to 9% locally.</p> <p>34.07 - 35.60: alternating grey and yellowish bands account for 30% of the zone; 5% average pyrite with up to 7% in pale coloured rock.</p> <p>35.31: 3-5mm band of ashfall tuff cuts the core axis at 650.</p> <p>35.60 - 36.70: 1-3% pyrite.</p> <p>36.70 - 39.90: probable shear zone located in generally chloritized rock at 39.20-39.50 m developed at 450 to the core axis. Section averages 3-5% pyrite in sil. rock.</p>									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-24 SHEET NO. 5 OF 7

FOOTAGE	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SULPH IDES	FOOTAGE	%	01/100	02/100		
FROM	TO			FROM	TO	TOTAL			
42.84	46.69								
		369	1	42.84	43.35	0.51			0.01
		370	2-3	43.35	44.35	1.00			0.01
		371	2-3	44.35	44.57	0.22			0.07
		372	2-3	44.57	44.88	0.31			0.02
		373	2-3	44.88	45.88	1.00			0.01
		374	2-3	45.88	46.69	0.81			0.03
46.69	58.58								

TRANSITIONAL SILICIFIED SEDIMENTS

Dark green to grey-green, weakly to moderately chloritized and variably silicified. Silicification is controlled by brecciation. Some carbonatization is noted. Pyrite content ranges from 1-3%.
 42.84 - 43.35: very weakly brecciated, 1% pyrite.
 43.35 - 46.69: alternating grey silicified rock and green non-silicified rock, reflecting variable degrees of brecciation. The zone carries 40% highly silicified rock with up to 3% pyrite locally. A dark green, chloritized intrusive(?) with 1% pyrite and traces of chalcopyrite is noted at 44.57-44.88 meters.

MAIN SILICIFIED ZONE - LOWER PART

Purple-grey, aphanitic, intensely silicified breccia accounts for 80-90% of this section. Green chloritized seams make up the remainder. Within silicified rock, cream to yellow coloured zones are common and reflect higher degrees of brecciation and silicification (also sericitization). Fragments are 1mm to 2cm in size and are highly angular. The zone averages 3-5% pyrite and a central zone from 48.00-51.00 meters averages 5-7% pyrite. Sulphide is generally confined to the matrix of the breccia and is much less abundant within fragments. Well developed laminations are noted

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MG-83-24 SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		% SULPH IDES	FROM	FOOTAGE TO	TOTAL	g	g	g/TON	g/TON	
		Locally, (650 to core axis at 51.20 meters). breccia fabric developed at 300 to the core axis. 50.25: 50% chloritized seams at 45-500 to the core axis. 50.94 - 51.30: cataclastic intrusives? - dark green, fine grained, 53.20 - 53.52: chloritized with occasional 1cm pink quartz stringers. 53.95 - 58.58: the content of chloritized, non-silicified rock increases to 25-30% of the unit. The degree of silicification and intensely brecciated rock remains extremely high. Pyrite averages 3-5% and a trace of chalcopyrite. Pyrite crystals exhibit brecciation. The zone from 57.70-58.58 meters averages 7-9% pyrite.	375	1-3	46.69	47.79	1.10			0.02	
			376	3-5	47.79	48.79	1.00			0.02	
			377	5-7	48.79	49.79	1.00			0.22	
			378	5-7	49.79	50.79	1.00			0.15	
			379	3-5	50.79	51.79	1.00			0.01	
			380	1-3	51.79	52.79	1.00			0.01	
			381	1-3	52.79	53.79	1.00			0.02	
			382	3-5	53.79	54.79	1.00			0.01	
			383	3-5	54.79	55.79	1.00			0.01	
			384	3-5	55.79	56.79	1.00			0.01	
			385	3-5	56.79	57.79	1.00			0.02	
			401	7-9	57.79	58.58	0.79			0.03	
58.58	62.86	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		The zone begins at a chloritized seam (fault?), at 800 to the core axis - very minor movement, if any, is noted. The rock is dark green becoming medium green locally and is fine to very fine grained. The section is locally brecciated and greyish silicification is found in brecciated sections. Silicified breccia averages 5-7% pyrite whereas non-silicified rock carries 1-3%. The degree and the amount of silicification decreases down-hole into the underlying unit. The rock is non-magnetic. It is well laminated locally - (eg. 450 at 61.70 meters).	402		58.58	59.58	1.00			0.04	
			403		59.58	60.58	1.00			0.03	
			404		60.58	61.58	1.00			0.01	
			405		61.58	62.22	0.64			0.04	
			406		62.22	62.86	0.64			0.01	
62.86	77.06	<u>SEDIMENTS</u>									
		Medium green, occasionally light green, fine grained and weakly to moderately fractured. Lighter colouration is due to weak to moderate carbonatization. Most fracture filling is quartz with carbonate dominant in the micro-fractures. A well developed set of bedding laminations at 450 to the core axis is noted throughout. Pyrite content averages 1% with up to 2% locally. At one point of major white and pink carbonate veining (68.38-38.55 meters), 10% pyrite was noted as a fine dissemination, as fracture filling, and as 3mm aggregates of finer crystals. The rock is non-magnetic.									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-24 SHEET NO. 7 OF 7

FOOTAGE FROM	TO	DESCRIPTION	NO.	SAMPLE			ASSAYS								
				% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	GT. TON	GT. TON				
		The section is generally non-brecciated and non-silicified although narrow seams of silicified breccia are noted locally.	407												
		68.66 - 69.17: major breccia zone - strongly silicified from 68.66-69.02 meters with 1-3% pyrite and a trace of chalcopyrite.	408	62.86	63.86	1.00	0.01								
			409	63.86	64.86	1.00	0.01								
			410	64.86	65.86	1.00	tr.								
			411	65.86	66.86	1.00	tr.								
		69.58 - 71.58: minor pale green breccia zones up to 2cm in width are weakly to moderately silicified.	412	66.86	67.86	1.00	tr.								
			413	67.86	68.66	0.51	tr.								
		76.02 - 77.06: deep reddish tone - tuffaceous? Laminations are noted locally - 700 at 76.65 meters.	414	68.66	69.17	1.00	tr.								
			415	69.17	70.17	1.00	tr.								
			416	70.17	71.17	1.00	tr.								
			417	71.17	72.17	1.00	tr.								
		<u>BASALT</u>	418	72.17	73.17	1.00	tr.								
77.06	83.20	Dark green, fine grained massive flow. Minor hyaloclastite and some vesicles are noted near the upper contact. The rock is non-magnetic.	419	73.17	74.17	1.00	tr.								
			420	74.17	75.17	1.00	0.08								
			421	75.17	76.17	1.00	0.01								
			422	76.17	77.17	1.00	tr.								
			423	77.17	78.17	1.00	tr.								
		<u>SEDIMENTS</u>		78.17	80.17	1.00	tr.								
83.20	86.25	Dark green, fine to very fine grained and well laminated. The section becomes more poorly laminated down-section but retains a sense of parting parallel to bedding with depth.	424	79.17	81.17	1.00	0.01								
		84.40: Laminated at 45-500 to the core axis.	425	81.17	82.17	1.00	0.01								
		<u>BASALT</u>	426	83.17	84.17	1.00	0.01								
			427	84.17	85.17	1.00	0.01								
86.25	92.66	Medium to dark green, very fine grained with locally developed aphanitic silicified breccia in 5cm seams. The uppermost part is massive with pillows developing below 91.17 meters.	428	85.17	86.17	1.00	0.01								
			429	86.17	87.17	1.00	0.01								
		92.66 meters		87.17	88.17	1.00	0.01								
		END OF HOLE		88.17	89.17	1.00	0.01								
		CASING PULLED		89.17	90.17	1.00	0.01								
				90.17	91.17	1.00	0.01								
				91.17	92.66	1.49	0.01								

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-25 LENGTH 60.96 m

LOCATION 925 E DEPARTURE 0+37 S

LATITUDE 925 E AZIMUTH 340 DIP -45°

ELEVATION 07-06-83 FINISHED 09-06-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
60	-39°				

HOLE NO. 83-25 SHEET NO. 1 OF 5
 REMARKS Whole core sent for assay. BQ CORE.

LOGGED BY A.W. WORKMAN

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS							
			NO. OF SPLICED	PH. DES.	FROM	FOOTAGE TO	TOTAL	%	%	oz/TON	oz/TON			
0	7.92	<u>OVERBURDEN</u>												
7.92	10.80	<u>BASALT</u>	457		7.92	8.92	1.00	0.01						
		Dark green, fine grained, moderately to highly fractured with white and pink carbonate in fractures - tensional not shearing induced. Carries 1-2% very finely disseminated pyrite.	458		8.92	9.92	1.00	0.01						
			459		9.92	10.80	0.88	tr.						
10.80	14.60	<u>FOLIATED BASALT</u>												
		Dark green, fine grained, well foliated basalt - 40-45° to the core axis throughout. The zone contains an increasing number of 3-5 cm silicified patches - grey, harder than chloritized basalt. Silicification may be micro-breccia related - difficult to distinguish fragments due to colouration. Zones carry up to 5% pyrite over the 1-2% average. Micro-faults often cut off silicification along narrow fractures. Rock generally is moderately to highly fractured - dominantly carbonate filled in non-silicified rock - quartz in remainder.	460		10.80	11.80	1.00	0.01						
			461		11.80	12.73	0.97	0.01						
			462		12.73	12.95	0.22	tr.						
			463		12.95	13.95	1.00	0.01						
			464		13.95	14.60	0.65	0.01						
		12.73 - 12.95: Mafic intrusive (?) - very fine grained, chloritized strongly and only weakly fractured.												
14.60	18.00	<u>BRECCIATED BASALT</u>												
		Grey to greenish grey, frequently green, fine grained lava. This unit has been fractured by a syenitic intrusive. However, the brecciation and silicification in this zone probably is not genetically related to the in-	465		14.60	15.50	0.90	0.01						
			466		15.50	15.65	0.15	0.01						
			467		15.65	16.65	1.00	0.01						
			468		16.65	17.65	1.00	0.01						

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-25 SHEET NO. 2 OF 5

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS			
			NO.	% SULPHIDES	FOOTAGE FROM TO TOTAL	%	%	02.70M	02.70M
		intrusive. The breccia is strongly sheared with chlorite developed in the fractures. A shear foliation has developed locally at 45-50° to the core axis - eg. 16.20m. A 2cm clay seam at 16.05 designates a major fault plane at 70° to the core axis. Average pyrite content is 4-5% with up to 7% locally, mostly near the intrusive.	469		17.65 18.00 0.35			0.06	
		15.50 - 15.65: SYENITE - reddish, strongly silicified intrusive, barren of pyrite, also at 17.86-17.93 and 17.42-17.46 m.							
18.00	42.12	<u>MAIN MINERALIZED ZONE</u> The zone is composed of an upper strongly silicified breccia member, a middle variably silicified but non-brecciated member and a lower silicified breccia zone. In general, pyrite contents average 5-7%, but, contents above 10% are noted, particularly in yellowish feldspathized (?) breccia.	470	10-12	18.00 19.00 1.00			0.08	
			471	5-7	19.00 20.00 1.00			0.05	
			472	3-5	20.00 21.00 1.00			0.03	
			473	1-3	21.00 22.00 1.00			0.01	
			474	1-3	22.00 23.00 1.00			0.01	
			475	1-3	23.00 24.00 1.00			0.02	
			476	1-3	24.00 25.00 1.00			0.01	
			477	(p. 85m pore actually)	25.00 26.00 1.00			0.02	
			478		26.00 27.00 1.00			0.01	
			479	6-8	27.00 28.00 1.00			0.01	
18.00	31.55	<u>MAIN SILICIFIED ZONE - UPPER PART</u> Dark grey, aphanitic brecciated lava. Fragment size is 1-10mm - very angular and often can be re-assembled. Breccia is strongly silicified and contains an average of 5-7% pyrite. The breccia is frequently feldspathized to a yellow-cream colour - these zones carry 10-15% pyrite and up to 20% locally. Yellowish alteration is penetrative into breccia fragments as evidenced by rim alteration locally. The zone contains abundant chloritized seams below 24.00 metres. It is moderately to strongly fractured with quartz as a fracture filling. Micro-fractures are carbonated. 18.45 - 18.65: yellowish altered silicified breccia - 15-20% pyrite decreasing rapidly out of zone to 5-7% level.							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-25 SHEET NO. 3 OF 5

FOOTAGE	DESCRIPTION	NO.	% SULPHIDES	SAMPLE		TOTAL	%	%	ASSAYS	
				FROM	TO				QZ./TON	QZ./TON
20.00 - 21.00:	3-5% pyrite, trace chalcopyrite.									
21.00 - 21.35:	minor 1-5mm chloritized seams.									
24.00 - 27.00:	rock is 25-30% chloritized seams - largest at 26.48-26.90m. Abundant pink quartz and some carbonate in fractures within quartz stringers. Silicified rock carries 5-7% pyrite vs. 1% in chloritized zones. All rock types strongly brecciated.									
25.85-26.15:	lost core.									
26.33:	pale green, glassy, lenticular vesicles - flow top?									
27.00 - 28.00:	strongly silicified - 5-7% pyrite; up to 10% locally.									
27.50:	foliation at 40° to core axis.									
28.00 - 29.09:	rock is 50% chloritized in a zone near a pale grey, aphanitic and porphyritic intrusive at 31.05-31.12. Intrusive is barren of sulphide and dips at 45-50° to the core axis - corresponds to zone at 45.75-46.00m in Mc-83-24.	480 481 482 483		28.0029.00 29.0030.00 30.0031.00 31.0031.55	1.00 1.00 1.00 0.55			0.01 0.01 0.01 0.02		
29.09 - 31.55:	becoming better brecciated - strongly silicified.									
31.55 - 37.55	<u>SILICIFIED BASALT</u> Grey to greenish-grey, moderately brecciated, intensely silicified well-foliated rock. The grey silicified rock alternates with 1-3mm cream colour feldspathized(?)	484 485 486		31.5532.55 32.5533.55 33.5534.55	1.00 1.00 1.00			0.05 0.04 0.06		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-25 SHEET NO. 4 OF 5

FOOTAGE		DESCRIPTION	NO.	% SULPH. IONES	SAMPLE			ASSAYS			
FROM	TO				FROM	FOOTAGE TO	TOTAL	%	%	OZ./TON	OZ. TON
42.12	45.20	<p>bands. The zone carries 25-40% chloritized rock. The banding is concordant to the foliation. The foliation is likely a primary structural feature at 75° to the core axis. Chloritized rock carries 3-5% pyrite whereas silicified rock carries 5-9%.</p> <p>34.55 - 34.70: strongly chloritized shear zone at 75° to the core axis; mylonitic silicified fragments in strongly chloritized fault gouge.</p> <p>37.05 - 37.55: 50% chloritized zones.</p> <p><u>MAIN SILICIFIED ZONE - LOWER PART</u></p> <p>The zone is composed of grey intensely brecciated and strongly silicified rock with minor green-grey, fine grained weakly brecciated and chloritized rock. The zones are irregular and do not have a consistent relationship in terms of thickness or apparent orientation to the core axis. The chloritized zones are found in zones up to 10cm thickness accounting for 20-30% of the section. Parting is well developed.</p> <p><u>BASALT</u></p> <p>Dark green, fine grained, moderately to strongly fractured. Fracturing is tensional and is carbonate filled. Zone contains minor grey silicified breccia - less than 5% of section.</p> <p><u>LOWER MINERALIZED (SILICIFIED) ZONE</u></p> <p>Dark greenish-grey, aphanitic and intensely silicified in highly brecciated zones. Fragments are extremely angular. The zone also contains appreciable (30-50%) chloritized and silicified, weakly brecciated rock. The degree of silicification is not as high as in this zone</p>	487	34.55	35.55	1.00			0.13		
			488	35.55	36.55	1.00			0.07		
			489	36.55	37.15	0.60			0.03		
			490	37.15	37.75	0.60			0.01		
			491	37.75	38.75	1.00			0.02		
37.55	42.12		492	38.75	39.75	1.00		0.01			
			493	39.75	40.75	1.00		0.01			
			494	40.75	41.44	0.69		0.03			
			495	41.44	42.12	0.68		0.03			
45.20	46.16		496	42.12	43.12	1.00		0.01			
			497	43.12	44.12	1.00		0.01			
			498	44.12	45.20	1.08		0.01			
			499	45.20	46.16	0.96		0.03			

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-26 LENGTH 91.65 meters
 LOCATION 7+75 E DEPARTURE 0+40 S
 LATITUDE 7+75 E AZIMUTH 340 DIP -60
 ELEVATION 07-07-83 FINISHED 10-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-60°				
91.44	-54°				

HOLE NO. MC-83-26 SHEET NO. 1 OF 8
 REMARKS BO CORE
Core split for
assay.
 LOGGED BY A.W. WORKMAN

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE			ASSAYS							
				NO.	% SiO ₂	% P ₂ O ₅	%	%	oz/TON	oz/TON				
0	12.06	12.06	<u>OVERBURDEN</u>											
12.06	19.28	19.28	<u>BASALT</u>	510			12.06	13.06	1.00	0.01				
			Dark green, fine to medium grained, gabbroic textured rock - not ophitic. Pyroxenes and other mafics comprise 70-80% of the rock volume; feldspar and quartz 20-30%. Mafics are fresh with minor epidotization locally. Generally unstructured with fine grained phases irregularly distributed. Minor silicification locally - texture becomes hazy; perhaps related to weak brecciation. Carries up to 1% pyrite as a fine dissemination. Below 15.80 m, rock contains 1-3mm black chloritized blebs, may be chloritized micro-xenoliths of wall rock. Moderately fractured with carbonate in fractures. A trace of chalcopyrite is noted locally in these fractures, along with quartz and hematite. The lower contact is highly debatable. A moderately silicified, vaguely textured zone at 19.20-19.28 seems appropriate.	511			13.06	14.06	1.00	0.01				
				512			14.06	15.06	1.00					
				513			15.06	16.06	1.00					
				514			16.06	17.06	1.00					
				515			17.06	18.06	1.00					
				516			18.06	19.28	1.22					
19.28	22.25	22.25	<u>BASALT</u>	517			19.28	20.28	1.00	Trace				
			Dark green, fine to very fine grained with an aphanitic, chloritized glassy top. The upper 0.5 m is amygdaloidal with vesicles squashed along a plane at 40° to the core axis (±5°). The rock contains minor grey, silicified breccia zones up to 3cm in width containing 1-2% pyrite. The unit is highly fractured and 20-30% of the rock volume is carbonate and relatively minor quartz veining. Quartz is evidently controlled by a well developed foliation; eg. 45° at 19.58.	518			20.28	21.28	1.00	Trace				
				519			21.28	22.28	1.00	0.01				
				520			22.28	23.28	1.00					
				521			23.28	24.28	1.00	Trace				
				522			24.28	25.28	1.00	Trace				
				523			25.28	26.28	1.00	Trace				
				524			26.28	27.28	1.00	Trace				
				525			27.28	28.28	1.00	0.01				
				526			28.28	29.28	1.00	0.01				
				527			29.28	30.30	1.02	0.01				

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-26 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	NO.	SAMPLE			ASSAYS			
FROM	TO			% SULPH.	FROM	FOOTAGE	TOTAL	%	%	0.2 TON
			IDES		TO					
22.25	30.30	21.09 - 21.12: green clay seam - FAULT at 45-500 to the core axis. <u>SEDIMENTS</u> Dark green, fine to very fine grained and well foliated/laminated (450 to the core axis at 26.00 m; 50-600 at 28.25 meters). Minor seams of silicified breccia locally. 24.00 - 25.61: abundant pale yellow to cream coloured feldspathized(?) zones; 1-2% pyrite, pale grey 'speckles' - altered crystals. 26.74 - 26.81: intensely silicified breccia zones, 5-7% pyrite, 1% chalcopyrite.	528	30.30	30.70	0.40			0.04	
30.30	49.02	<u>MAIN SILICIFIED ZONE</u> Grey-green to purplish-grey, fine grained to aphanitic. The zone appears to be very finely laminated throughout on a 0.1-0.5mm scale. However, the laminations are only apparent where the sediments are chloritized or feldspathized. Alteration highlights the bedding. The uppermost part is grey-green and weakly to moderately silicified or alternately, moderately chloritized. Alteration has preferentially affected alternating laminations. Quartz veins cutting this rock are bounded by yellowish reaction halos. Pyrite contents up to 20% are noted. Average content may be 5-7%. <u>NOTE:</u> The upper zone of "Transitionally Silicified Sediments" is approximately 1m in thickness. It is composed of cherty and chloritized laminations. 30.30 - 30.70: pale grey-green zone with a strongly brecciated yellow-cream coloured base - laminated at 550 to core axis.	529	30.70	31.70	1.00			0.01	
			530	31.70	32.70	1.00			0.01	
			531	32.70	33.70	1.00			0.01	
			532	33.70	34.70	1.00			0.01	
			501	34.70	35.50	0.80			0.26	
			502	35.50	35.75	0.25			0.04	
			503	35.75	36.75	1.00			0.05	
			504	36.75	37.75	1.00			0.10	
			505	37.75	38.75	1.00			0.17	
			506	38.75	39.75	1.00			0.12	
			507	39.75	40.75	1.00			0.01	
			508	40.75	41.75	1.00			0.02	
			509	41.75	42.75	1.00			tr.	
			510	42.75	43.75	1.00			tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MG-83-26 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS			
FROM	TO				FROM	TO	TOTAL	%	%	oz/TON	oz/TON
30.70	31.60	purple-grey with yellowish reaction zones around quartz veins at 31.00, 31.10-31.20 and 31.30. Laminations at 40' to core axis. 3-5% pyrite.	611		43.75	44.75	1.00			Trace	
			612		44.75	45.75	1.00			0.01	
			613		45.75	46.75	1.00			Trace	
			614		46.75	47.75	1.00			0.005	
31.60	32.15	weakly silicified, weakly chloritized.									
32.15	36.25	intensely silicified and moderate to strong brecciation; may average 8% pyrite but ranges from 10-15% in the upper part to 1-3% at 35.00-36.30 increasing to 5-7% at 36.30-36.95 and 10-15% at 36.95.									
33.15	33.22	quartz vein appears to mark a tectonic event - rock is broken into 2-5cm semi-rounded fractured fragments. Above this zone and below, the rock is intensely brecciated and more strongly silicified.									
34.25	34.35	same as 33.15-33.22 m.									
35.50	35.72	FAULT ZONE - large scale (2-5cm) fragmentation of breccia with surrounding chloritized mylonitic gouge. At least 5cm of clay at 35.66 m - ground core makes interval uncertain.									
35.95		minor chloritized fault.									
36.25	40.00	sed. lamination becoming apparent, brecciation lowering to weak locally, silicification remains very strong.									
		36.30 - laminated at 45-50' to core zone from 36.95 to 38.20 carries 10-15% pyrite.									
38.20	40.00	1-3% pyrite.									
40.00	40.50	5-7% pyrite.									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT

HOLE NO. MC-83-26

SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FROM	FOOTAGE TO	TOTAL	%	%	01. TON	02. TON
		40.50 - 41.35: 1-3% pyrite.									
		40.59 - 41.20: abundant chloritized stringers across 0.75 m - fault at 40.79 with carbonate cemented breccia.									
		41.35 - 41.77: less fractured, strongly brecciated and silicified, non-laminated - 5% pyrite.									
		41.77 - 43.00: vaguely laminated, strongly brecciated 42.70 - 450 to core axis.									
		43.00 - 43.65: hematitic chloritized seams parallel to laminations - 50% of section, laminations at 40-45 to core axis.									
		43.65 - 44.73: 10-20% chloritized seams - 5% pyrite, trace chalcopyrite - ends at a silicified seam indicating minor fault.									
		44.73 - 47.84: intensely brecciated and strongly silicified; 3-5% pyrite, trace chalcopyrite - laminated locally at 45 to core axis.	615		47.75	48.50	0.75			0.005	
		47.84: 2cm breccia seam carries 40% pyrite, marks top of a sheared chloritized zone, carries some mylonite.	616		48.50	49.02	0.52			0.71	
		47.92 - 47.96: pink quartz vein - barren of pyrite.									
		47.96 - 48.75: intensely brecciated; 1-2% pyrite, trace of chalcopyrite.									
		48.75 - 49.02: 5-7% pyrite.									
49.02	57.56	<u>VARIABLY SILICIFIED SEDIMENTS</u>									

This zone is composed of rocks that are essentially the same as the overlying section. Degree of silicification

DIAMOND DRILL RECORD

NAME OF PROPERTY

McDERMOTT

HOLE NO. Mc-83-26

SHEET NO. 5 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS				
					FROM	TO	TOTAL	%	%	oz./TON	oz./TON	
49.02	57.56	<p>is much lower and, in general, this is mirrored in lower pyrite contents. The rock is dark to medium green becoming grey in silicified zones. Silicification is variable but generally related directly to degree of brecciation. The zone is cut by many green chloritized 'patches' which probably reflect areas not penetrated by silicifying fluids. Non-magnetic.</p> <p>49.02 - 50.42: medium to coarse grained, non-laminated; zone above 50.00 contains 30% pink silicified fragments (clasts) - 50-60% below 50.00 m. The lower contact is sharp at 65' to the core axis.</p> <p>50.42 - 54.18: 50% chloritized seams, strongly fractured with carbonate cement. Quartz in micro-fractures within carbonate; 1-3% pyrite as a very fine grained dissemination or as 1-2mm striated cubes. 53.20 - laminations at 40' to core axis.</p> <p>54.18 - 57.56: 10-15% chloritized seams which appear to cut off small felsic stringers in core - seams may be along minor faults.</p> <p>55.95 - laminations (?) at 40-50'.</p> <p>55.95 - 56.00: 10% pyrite.</p> <p>56.20 - 56.25: dark green 'bed' of sediment (?) contains sub-rounded fragments up to 2mm - matrix is very fine grained, strongly chloritized with 1-3mg black chloritized glass shards; dips 60' to the core axis.</p> <p><u>SEDIMENT</u></p> <p>Dark to medium green, fine to very fine grained, strongly chloritized with very fine, often indistinct laminations. The rock is generally well parted along a</p>	617		49.02	50.00	0.98			0.005		
(Continued)				618		50.00	50.42	0.42			0.005	
				619		50.42	51.42	1.00			0.005	
				620		51.42	52.42	1.00			Trace	
				621		52.42	53.30	0.88			0.02	
				622		53.30	54.18	0.88			0.005	
				623		54.18	55.18	1.00			0.005	
				624		55.18	55.87	0.69			0.03	
				625		55.87	56.56	0.69			0.04	
				626		56.56	57.56	1.00			Trace	
57.56	66.86											

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-26 SHEET NO. 6 OF 8

FOOTAGE		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS			
FROM	TO				FROM	FOOTAGE TO	TOTAL	%	%	0.1 TON	0.2 TON
		cleavage parallel to the laminations. Minor moderately silicified breccia is noted locally - generally above 59.70 meters. The rock is strongly carbonated along narrow fractures parallel to and cross-cutting the laminations.	627		57.56	58.56	1.00			0.005	
			628		58.56	59.56	1.00			0.005	
			629		59.56	60.56	1.00			Trace	
			630		60.56	61.56	1.00			Trace	
			631		61.56	62.56	1.00			Trace	
		60.75: wispy laminations at 40-45° to core axis	632		62.56	63.56	1.00			Trace	
			633		63.56	64.56	1.00			Trace	
			634		64.56	65.56	1.00			0.005	
		62.85: wispy laminations at 45° to core axis.	635		65.56	66.86	1.30			0.02	
		63.25 - 63.63: medium grained with up to 3% pyrite.									
		63.63 - 63.89: moderately to strongly silicified.									
		63.89 - 64.85: well laminated, brecciated locally, 1% pyrite throughout.									
		64.85 - 65.28: several 2-3cm pink quartz veins with minor carbonate - no pyrite.									
66.86	68.14	<u>SILICIFIED SEDIMENT</u>									
		Green-grey, very fine grained, moderately to strongly silicified, moderately brecciated locally - generally weak brecciation as indicated by a generally well laminated fabric. Silicification is best developed in alternating laminations - reflection of original composition. 3-5% pyrite. Up to 8% locally in strongest silicified zones.	636		66.86	67.50	0.64			0.02	
			637		67.50	68.14	0.64			0.01	
68.14	86.90	<u>SEDIMENTS</u>									
		Light to medium green, fine to medium grained; very thin (0.5-1.0mm) laminations are indistinct but sharp locally. Rock is partially carbonated with carbonate patches feathering out along the laminations. Numerous pink silicified zones up to 8cm thickness are irregularly distributed throughout zone - cherty sediments?	638		68.14	69.14	1.00			Trace	
			639		69.14	70.14	1.00			Trace	
			640		70.14	71.14	1.00			0.01	
			641		71.14	72.14	1.00			Trace	
			642		72.14	73.14	1.00			Trace	
			643		73.14	74.14	1.00			Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. MC-83-26 SHEET NO. 7 OF 8

FOOTAGE FROM	TO	DESCRIPTION	NO.	SAMPLE			ASSAYS					
				% SULPH. IDES	FROM	TO	TOTAL	%	%	02 TON	02 TON	
68.14 (Continued)	86.90	Most are brecciated, and may contain higher pyrite contents than average; eg. 3% versus 1% average.	644		74.14	75.14	1.00				Trace	
			645		75.14	76.14	1.00				Trace	
			646		77.14	78.14	1.00				Trace	
		73.47: Laminations at 50° to core axis.	647		79.14	80.14	1.00				Trace	
			648		81.14	82.14	1.00				0.01	
		83.85: Laminations at 50° to core axis.	649		83.14	84.14	1.00				0.01	
		83.91 - 85.91: possible basalt flow - brecciated, sil. and epid.	650		85.14	86.14	1.00				0.01	
		86.45: Laminations at 45° to core axis.	651		86.14	86.90	0.76				0.01	
		73.80: fracture surfaces strongly hematized.										
		86.80 - 86.90: very angular fragments in a carbonate cement.										
86.90	87.90	<u>BASALT</u> Dark green, fine grained with a 10cm brecciated upper contact zone. Fragments are very angular, 1-8mm in size Matrix to fragments is essentially quartz. Upper contact cuts the core axis at 20-25°. Up to 1% very finely disseminated pyrite. Interior of flow is strongly brecciated without rotation of fragments. Chlorite and epidote found in tight fractures of breccia. Non-magnetic.	652		86.90	87.90	1.00				0.01	
87.90	89.25	<u>SEDIMENTS</u> Medium green, fine grained, thinly laminated locally, well parted parallel to laminations. Angle of laminations is highly variable from 40-70° to the core axis.	653		87.90	89.25	1.35				0.01	
89.25	91.65	<u>BASALT</u> Medium green, fine grained to aphanitic, chloritized. Narrow 5cm flow top breccia marks top of unit. Flow is possibly vesicular from 89.40 to 89.60 m. Interior of flow is finely brecciated. A second flow-top is noted by breccia at 90.54-90.62. Matrix to breccia is quartz. Zone 91.00-91.30 is vesicular, and possibly pillowed.	654 655 656		89.25 90.25 90.95	90.25 90.95 91.65	1.00 0.70 0.70				0.01 0.01 0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT

HOLE NO. MC-83-26

SHEET NO. 8 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS												
FROM	TO				FROM	TO	TOTAL	%	%	OZ./TON	OZ. TON									
		91.65 END OF HOLE CASING PULLED																		

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-27 LENGTH 61.26 meters
 LOCATION _____
 LATITUDE 7+75 E DEPARTURE 0+30 S
 ELEVATION _____ AZIMUTH 344 DIP -45°
 STARTED 10-06-83 FINISHED 13-06-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
60.96	-42°				

HOLE NO. MC-83-27 SHEET NO. _____
 REMARKS BQ CORE
Whole core sent for assay.
 LOGGED BY A.W. WORKMAN

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE			ASSAYS			
				NO.	% SULPHIDES	FOOTAGE FROM	FOOTAGE TO	TOTAL	%	%	OZ/TON	OZ/TON

0	12.80	12.80	<u>OVERBURDEN</u>											
12.80	18.75	18.75	<u>SEDIMENTS</u>											

Dark green to grey-green, fine to very fine grained and thinly laminated (0.5-1.0mm scale). Laminations are very irregular locally reflecting soft sediment deformation. The unit is silicified locally. Alteration has preferentially attacked certain layers perhaps reflecting original composition - that is, re-crystallization of quartz-rich layers.

13.35: laminations at 30° to core axis.

13.75: laminations at 45-50° to core axis.

14.70: laminations at 25-35° to core axis.

16.80 - 17.50: abundant quartz-carbonate veining.

17.70 - 18.75: strongly chloritized section with 30% silicified breccia.

MAIN MINERALIZED ZONE

The zone is composed of a variably silicified upper member, a strongly silicified and intensely brecciated middle member, and a more variably silicified and brecciated lower member. Pyrite contents directly reflect degree of silicification but are highest in yellow-grey feldspathized rock. The range is 1-8% with traces of chalcopyrite.

18.75 45.30

DIAMOND DRILL RECORD

NAME OF PROPERTY Mc-83-27

MCDERMOTT

HOLE NO. Mc-83-27

SHEET NO. 3 OF 6

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH	FROM	TO	TOTAL	%	%	oz./TON	oz. TON
27.46	29.85	Variable feldspathization - mostly along fracture systems, laminated at 50-60	549	3-5	27.46	28.46	1.00			0.09	
29.85	30.30	strongly fractured fault zone - chloritized planes at 30.25 m.	550	3-5	28.46	29.46	1.00			0.04	
30.30	30.75	INTRUSIVE - light grey matrix to 1-2 mm. dark green, foliated chloritized mafic minerals at 60° to the core axis	551	3-5	29.46	30.30	0.84			0.01	
30.75	34.77	coarsely brecciated with angular .5-15 mm. fragments, local feldspathization, intensely silicified 3-5% pyrite, 7% locally. Lower 10 cm. is magnetic.	552	3-5	30.30	30.75	0.45			0.01	
34.77	36.13	dark green, medium to coarse grained intrusive. Carries 20-30% pink angular to sub-angular, fragments of syenitic (?) wall rock. Moderately magnetic. Corresponds to 49.3-50.5 in hole 83-26. Carries 1% pyrite, trace of chalcopyrite locally. Lower contact sharp at 65 to core axis.	553	1-3	30.75	31.75	1.00			Trace	
36.13	38.03	same as 30.75-34.77 - 3-5% pyrite, irregularly feldspathized	554	3-5	31.75	32.75	1.00			Trace	
38.03	38.54	INTRUSIVE - probably same as 34.77-36.13, fragments are dark green, groundmass is pinkish-green biotite? - now chloritized	555	3-5	32.75	33.75	1.00			Trace	
38.54	39.64	same as 30.75-34.77 - coarsely brecciated with mylonitic phases. local feldspathization, 1-3% pyrite	556	3-5	33.75	34.77	1.02			0.03	
			557	1	34.77	35.45	0.68			0.01	
			558	1	35.45	36.13	0.68			0.01	
			559	3-5	36.13	37.13	1.00			0.03	
			560	3-5	37.13	38.03	0.90			0.01	
			561	1	38.03	38.54	0.51			0.01	
			562	1-3	38.54	39.64	1.10			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-27 SHEET NO. 4 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPHIDES	FOOTAGE FROM TO	TOTAL	%	%	01. TON	01. TON	
39.64	45.30	<p style="text-align: center;"><u>SILICIFIED SEDIMENT</u></p> <p>The zone is composed of a varying amount of chloritized rock cutting brecciated and strongly silicified rock. The dark green chloritized zones seem to have penetrated into dilatant zones after the breccia was later re-brecciated - probably a result of faulting. In this case, the silicification and brecciation appears to pre-date the dark green rock. This is best observed above 41.63 metres. The silicified rock is highly brecciated and often mylonitic.</p> <p>39.64 - 41.63 : 50% chloritized zones, 1-2% pyrite 41.63 - 42.57 : minor pink feldspathization at 41.76-41.86; zone carries an average of 20% chloritized seams 42.57 - 45.30 : dark grey to greyish-green often green variably silicified transition to non-silicified, non-brecciated rock. Silicified breccia at 43.28 - 43.63, 44.71 - 45.30. Some irregular laminations at 43.58 m.</p> <p style="text-align: center;"><u>SEDIMENTS</u></p> <p>Medium to dark green, fine to very fine grained, vague, wispy laminations (.1 - .5 mm. scale), locally parting is very well developed parallel to laminations. Moderately carbonatized. Moderately fractured - dominantly quartz filled. Carbonate in micro-fractures 45.80 : laminations at 65° to core axis</p>	563	1-2	39.64	40.63	0.99			Trace	
			564	1-2	40.63	41.63	1.00			Trace	
			565	1-2	41.63	42.57	0.94			Trace	
			566	1	42.57	43.28	0.71			Trace	
			567	1-2	43.28	43.63	0.35			0.11	
			568	1	43.63	44.71	1.08			0.01	
			569	1-3	44.71	45.30	0.59			Trace	
			570	1	45.30	46.07	0.77			Trace	
			571	1	46.07	46.85	0.78			Trace	
			572	1	46.85	47.85	1.00			Trace	
			573	1	47.85	48.85	1.00			Trace	
			574	1	48.85	49.85	1.00			Trace	
			575	1	49.85	50.85	1.00			Trace	
		576	1	50.85	51.85	1.00			Trace		
		577	1	51.85	52.85	1.00			Trace		
		578	1	52.85	53.85	1.00			0.01		
		579	1	54.85	55.85	1.00			0.01		
		580	1	56.85	57.85	1.00			0.01		
45.30	46.85										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MD-83-27 SHEET NO. 5 OF 6

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SULPHIDES	FOOTAGE FROM TO TOTAL	%	%	OZ./TON	OZ./TON	
46.85 48.38	<p><u>SILICIFIED SEDIMENTS</u></p> <p>Green to greenish-grey, variably brecciated and silicified. Some moderate to strong silicification locally: 46.90-46.95; 47.39-47.48; 47.59-47.62; 47.70-47.75 and 48.30-48.33. Total silicified content is 16%.</p>								
48.38 57.85	<p><u>SEDIMENTS</u></p> <p>Medium to dark green fine to medium grained, laminated and locally graded bedding. Coarser grained sections may be greywacke. Finer sections are argillitic. Below 50.00 m, the rock becomes better laminated. Some soft sediment deformation is noted locally. Silicification has occurred locally along preferred laminations.</p> <p>48.59: 3cm pink quartz vein - barren of pyrite. 48.38-48.65: medium to coarse grained, graded bedding - tops up. Average grain size at 48.38 is 0.2mm, vs 1.0mm at 48.65; grain size ranges from 0.1 to 3mm.</p> <p>50.00-57.85: well laminated but irregularly developed brecciation makes orientation indistinct - 70% to core axis at 50.50m. Below 51.00 the zone is very well laminated and well parted parallel to the laminations: 70% to core at 51.20m. Some tensional fracturing across laminations. Weakly silicified at 52.05-52.70. Moderately carbonatized locally. 1% pyrite.</p>								
57.85 58.75	<p><u>SILICIFIED SEDIMENT</u></p> <p>Grey, well silicified, brecciated locally, well laminated at 45 to core axis. Carries 1-3% pyrite, up to 5% locally in association with quartz veining - eg. 58.05-58.10 m.</p>	581	1-3	57.85	58.75	0.90		0.06	
		582	1	58.75	59.75	1.00		0.01	
		583	1	59.75	60.97	1.22		0.01	
		584	Trace	60.97	61.26	0.29		0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-27 SHEET NO. 6 OF 6

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE	TOTAL	%	%	01. TON	02. TON
58.75	60.97	<p><u>SEDIMENT</u></p> <p>Medium green, fine grained, thinly laminated. Well parted. Moderately carbonatized. 59.80 - laminations at 60° to core axis 60.97 - laminations at 60° to core axis</p>								
60.97	61.26	<p><u>BASALT ?</u></p> <p>Dark green, fine to very fine grained, non-laminated, weakly to moderately fractured with carbonate cement. Moderately chloritized. Rock type questionable.</p>								
	61.26	<p>END OF HOLE - CASING PULLED</p>								

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDEERMOTT
 HOLE NO. MC-83-28 LENGTH 61.26 m
 LOCATION _____
 LATITUDE 7+62.5 E DEPARTURE 0+28 m S
 ELEVATION _____ AZIMUTH 344° DIP -45°
 STARTED 13-06-83 FINISHED 15-06-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
61.26	-42°				

HOLE NO. MC-83-28 SHEET NO. 1 OF 5
 REMARKS BO CORE
Whole core sent for assay.
 LOGGED BY A.W. WORKMAN

LANGRIDGE LIMITED,

EM. 6-168

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
				NO.	SULPHIDES	FROM	TO	TOTAL	%	%	OZ/TON	OZ/TON		
0	14.04	14.04	<u>OVERBURDEN</u>											
14.04	19.25	19.25	<u>SEDIMENT</u>											
			Dark to medium green, fine to medium grained and generally well laminated. Above 16.00 m rock is non-laminated, very highly chloritized and medium grained. Sediments carry 1% pyrite with 2% locally.	585	Tr.	14.04	15.04	1.00					0.01	
			17.00: Laminations at 70° to core axis.	586	Tr.	15.04	16.04	1.00					0.01	
			17.75 - 18.00: very convolute laminations at 45-50° - soft sediment deformation.	587	1	16.04	17.04	1.00					0.02	
			19.00: Laminations at 40° to core axis.	588	1	17.04	18.04	1.00					0.01	
			<u>MAIN MINERALIZED ZONE</u>	589	1	18.04	19.04	1.00					Trace	
				590	1	19.04	20.04	1.00					0.01	
19.25	51.80	51.80	<u>SILICIFIED SEDIMENTS</u>											
			The zone is composed of a variably silicified upper member. Silicification is preferentially located along certain sets of laminations. This member is coarsely brecciated. The main central member is strongly brecciated and intensely silicified. A lower member, below 48.85 meters, is composed of alternating silicified and chloritized zones.											
19.25	21.70	21.70	<u>SILICIFIED SEDIMENTS</u>											
			The rock is yellow-green to cream coloured, often grey and fine grained to aphanitic. It is well laminated but individual beds or sets of laminations have been brecciated - rip up clasts? Material filling voids is	591	1	20.04	21.04	1.00					0.005	
				592	1	21.04	21.70	0.66					0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDONALD
 HOLE NO. MC-83-28 SHEET NO. 2 OF 5

FOOTAGE	DESCRIPTION	SAMPLE			ASSAYS		
		NO. OF DEFS	FROM	FOOTAGE TO	% SULPH	g./TON	g./TON
21.70	strongly chloritized. The zone, with the exception of the breccia matrix, is strongly silicified. A sense of the laminations is lost at 21.20 meters, where the rock becomes strongly brecciated and very highly silicified, but with 50% chloritized seams.						
	20.80: laminations at 30° to core axis.						
	<u>MAIN SILICIFIED ZONE</u>						
	Dark grey to purple-grey with minor yellow-grey feldspathized(?) zones. Aphanitic, intensely brecciated. No sense of laminations except vaguely at 24.4 m (60° to core axis). Very strongly silicified. Breccia fragments are less than 1mm to 3mm in size. Larger fragments can often be re-assembled - some up to several cm. Fracturing is moderate to strong. Some fractures in fragments, not matrix, pre-dates brecciation. Several stages of fracturing is noted after brecciation. Fractures are silica filled and often have cream coloured reaction halos. Pyrite content averages 5% but contents up to 15% are noted - usually associated with feldspathized zones.	593	1-2	21.70	22.70	1.00	0.005
		594	1-3	22.70	23.70	1.00	0.005
		595	5-7	23.70	24.70	1.00	0.005
		596	8-10	24.70	25.70	1.00	0.02
		597	5-7	25.70	26.70	1.00	0.02
		598	8-10	26.70	27.70	1.00	0.08
		599	7-9	27.70	28.70	1.00	0.18
		600	3	28.70	29.70	1.00	0.01
		657	1-3	29.70	30.70	1.00	0.04
		658	1-3	30.70	31.70	1.00	0.02
		659	1-3	31.70	32.70	1.00	0.03
		660	5	32.70	33.70	1.00	0.02
		661	3-5	33.70	34.70	1.00	0.02
		662	1	34.70	35.70	1.00	0.04
		663	3	35.70	36.70	1.00	0.13
		664	3-5	36.70	37.45	0.75	0.05
		665	3-5	37.45	38.30	0.75	0.02
	22.60 - 22.65: fault zone - intense fracturing and chloritization - minor movement.						
	22.90: 3cm syenitic zone identical to dykes in other DDH.						
	24.00 - 24.97: feldspathized - yellowish, averaging 8-10% pyrite with 15% maximum.						
	24.97 - 26.82: purple-grey, 5% pyrite.						
	24.50 - 31.30: brecciation diminishes and a sense of laminations returns: 60° to core axis at 26.25 m.						

DIAMOND DRILL RECORD

NAME OF PROPERTY MADDERMOTT
 HOLE NO. MC-83-28 SHEET NO. 3 OF 5

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS			
		NO. IDES	FOOTAGE FROM TO	TOTAL	%	%	01. TON	01. TON
26.82 - 27.75:	as at 24.00-24.97 m - average 10% pyrite, up to 15% locally. Trace of <u>visible gold</u> in a 3mm accumulation of pyrite grains.							
28.00:	possible laminations at 50° to core axis.							
28.53:	pyrite content drops sharply to 1-3%.							
31.30 - 31.90:	FAULT ZONE - green chloritized seam at 31.32 m is surrounded by strongly fractured and brecciated rock. Fractures strongly chloritized.							
34.85 - 35.62:	INTRUSIVE - medium grained, dark green, chloritized - carries pink fragments - possibly a mylonite zone?							
35.62 - 38.30:	irregular feldspathization along fracture systems - strongly brecciated and silicified.							
38.30 - 39.38:	40% dark green chloritized seams 1-2% pyrite, trace chalcopyrite.	666	1-2	38.30	39.38	1.08	0.02	
		667	3-5	39.38	40.38	1.00	0.07	
		668	3-5	40.38	41.38	1.00	0.06	
39.38 - 44.75:	as at 35.62-38.30 m; minor 1-5mm quartz veining with carbonate in micro-fractures 1-5% pyrite (av. 2%) with up to 1% chalcopyrite locally.	669	2	41.38	42.38	1.00	0.01	
		670	2	42.38	43.38	1.00	0.02	
		671	2	43.38	44.06	0.68	0.03	
		672	2	44.06	44.75	0.69	0.02	
		673	TR.	44.75	45.54	0.79	0.01	
44.75 - 45.54:	INTRUSIVE - dark green, fine to medium grained, carries pink angular fragments up to 8mm in size - correlates to similar zone in DDH #26 and #27. Magnetic.	674	1-2	45.54	46.52	0.98	0.01	
		675	1-2	46.52	47.50	0.98	0.005	
		676	1	47.50	47.98	0.48	0.005	
		677	1-2	47.98	48.85	0.87	0.10	
45.54 - 47.50:	irregular feldspathization along fracture systems - strongly brecciated and silicified; possible laminations at 47.54 m at 65° to core axis.							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-28 SHEET NO. 4 OF 5

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS							
					FROM	TO	TOTAL	%	%	01/TON	02 TON				
47.50	47.98	dark green chloritized zone, coarse grained sediment or mylonite? Grain size 1-4mm (av. 1-2 mm). Black chloritized grains may have been biotite -- INTRUSIVE? Non-magnetic.													
47.98	48.85	strongly silicified and brecciated.													
48.85	51.80	<u>SILICIFIED SEDIMENTS</u> The zone is composed of an alternating sequence of dark green chloritized rock and grey, silicified and brecciated rock. Chloritized rock is often sheared. Silicified rock carries 2-5% pyrite.	678		48.85	49.85	1.00					0.01			
		48.85 - 49.28: chloritized, very weakly silicified.	679		49.85	50.80	0.95					0.01			
		49.28 - 50.18: variably silicified, 70% chloritized and weakly sheared.	680		50.80	51.80	1.00					0.01			
		50.18 - 50.60: strongly silicified.													
		50.60 - 51.30: chloritized zone.													
		51.30 - 51.80: moderately silicified, weakly brecciated.													
51.80	61.26	<u>SEDIMENTS</u> Medium green to grey-green, fine to very fine grained and generally well laminated throughout. Moderately chloritized. Carries 1-3% pyrite as a very fine dissemination and as 1-2mm cubes. Some localized silicification along preferred laminations above 60.0 m in the hole. 54.80 - 56.14: zone of pink and white carbonate veining - minor silicified zone at 55.09 -	681	1-3	51.80	52.80	1.00					0.01			
			682	1-3	52.80	53.80	1.00					0.01			
			683	1-3	53.80	54.80	1.00					0.01			
			684	1-3	54.80	55.42	0.62					0.01			
			685	3-5	55.42	56.14	0.72					0.01			
			686	1-3	56.14	57.14	1.00					0.01			
			687	1-3	57.14	58.14	1.00					0.01			
			688		58.14	59.14	1.00					0.01			
			689		59.14	60.14	1.00					0.01			

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-28 SHEET NO. 5 OF 5

FOOTAGE		DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS			
FROM	TO				FROM	TO	TOTAL	%	%	02. TON	02 TON
		55.20 and widespread silicification between 55.42 and 56.14 with up to 10% pyrite. Contains 50% carbonate veining.	690		60.14	60.71	0.57			Trace	
		56.59 - 56.72: ground core - strongly chloritized possibly a fault zone.	691		60.71	61.26	0.55			Trace	
		59.90: laminations at 55° to core axis.									
		61.26 END OF HOLE CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-29 LENGTH 61.26 meters
 LOCATION 7+50 E DEPARTURE 0+26 S
 LATITUDE 0 AZIMUTH 344 DIP -45°
 ELEVATION _____ FINISHED 17-07-83
 STARTED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-45°				
61.26	-39°				

HOLE NO. Mc-83-29 SHEET NO. 1 OF 6
 REMARKS BO CORE
Whole core sent for assay.
 LOGGED BY A.W. WORKMAN

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SIL DES	FOOTAGE FROM TO	FOOTAGE TOTAL	%	%	OZ./TON	OZ./TON	
0 19.00	<u>OVERBURDEN</u> <u>SEDIMENT</u> Dark to medium green, fine grained with minor siliceous sub-angular fragments up to 2cm in size. Well laminated with individual laminations slightly deformed around clasts. Original composition probably alternating quartzitic and argillitic beds. Weakly to moderately fractured - quartz and minor carbonate in-filling. Weakly silicified along certain laminations. Moderately to strongly chloritized.	C692	1-2	19.00 20.15	1.15					tr.
19.00 20.15	19.30: laminations at 60° to the core axis. <u>MAIN MINERALIZED ZONE</u>									
20.15 46.23	The zone is composed of a thin upper member which marks the change from very weakly silicified, non-brecciated rock to a more highly silicified, and highly brecciated rock which forms the central member. It is underlain by a basal member which is characterized by alternating horizons of chloritized and silicified rock. The rocks in this zone were originally sediments. <u>SILICIFIED SEDIMENT</u>	693		20.15 21.30	1.15					tr.
20.15 21.30	The rock is greenish-grey to grey, fine grained and thinly laminated. Laminations are 1-3mm in thickness and are strongly broken. The resulting fragments are highly silicified and set in a green chloritic matrix. Fragments up to 5cm are noted. Below 20.70, the rock									

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-29 SHEET NO. 2 OF 6

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS		
		NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	Q1 TON	Q2 TON
21.30 - 42.58	becomes intensely brecciated and the percentage of chloritized groundmass diminishes. The laminations fade as silicification increases. <u>MAIN SILICIFIED ZONE</u> Dark grey to bluish-grey, cream to honey coloured locally - perhaps as a result of local feldspathization. Very fine grained to aphanitic, moderately brecciated becoming better brecciated with depth. Very strongly silicified throughout. A vague sense of lamination is present locally. Feldspathization seems to be fracture controlled. Tight fracture systems often have 5-10mm honey coloured halos. Pyrite content averages 2-4%, feldspathized zones usually contain more pyrite - 5-7%. Pyrite occurs as a very fine dissemination, as 1-2mm cubes and as 5mm aggregates of grains. Occasionally it fills small fractures - often associated with chlorite and minor chalcopyrite.							
	21.30 - 24.10: brecciated weakly. Some sense of lamination at 50-65 to core axis; 2-4% pyrite.	694	2-4	21.30	22.30	1.00	0.02	
	24.75 - 25.10: more strongly fractured, chlorite in very tight fracture systems with halos of feldspathization penetrating into rock.	695	2-4	22.30	23.30	1.00	0.03	
	25.10 - 27.75: rock becoming moderately brecciated; some vague laminations at 60-70 to the core axis.	696	2-4	23.30	24.30	1.00	0.06	
	27.75 - 28.30: rock is 50% feldspathized to a cream or honey colour - 5-7% pyrite locally.	697	3-5	24.30	25.10	0.80	0.01	
	28.30 - 30.50: light grey fragments up to 1cm in a dark grey matrix - strongly brecciated, strongly silicified; 3-5% pyrite.	698	1-2	25.10	26.10	1.00	0.01	
		699	1-2	26.10	27.10	1.00	0.01	
		700	3-5	27.10	27.75	0.65	0.18	
		701	5	27.75	28.30	0.55	0.12	
		702	3-5	28.30	28.80	0.50	0.06	
		703	5-7	28.80	29.65	0.85	0.07	
		704	3-5	29.65	30.50	0.85	0.07	
		705	5-7	30.50	31.42	0.92	0.04	
		706	1-3	31.42	32.23	0.81	0.01	
		707	1-2	32.23	32.93	0.70	0.01	
		708	5-7	32.93	33.73	0.80	0.10	
		709	5-7	33.73	34.53	0.80	0.11	
		710	4-6	34.53	35.53	1.00	0.07	
		711	3-5	35.53	36.53	1.00	0.05	
		712	3-5	36.53	37.53	1.00	0.07	
		713	1-3	37.53	38.53	1.00	0.06	
		714	1-3	38.53	39.53	1.00	0.02	
		715	1-2	39.53	40.53	1.00	0.02	
		716	1-2	40.53	41.53	1.00	0.01	
		717	3-4	41.53	42.58	1.05	0.10	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-29 SHEET NO. 3 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE	TOTAL	%	%	0.1 TON	0.1 TON
30.50	31.42:	brecciation decreases to moderate, rock is well laminated, highly silicified, 5-7% pyrite; laminations at 75-85° to core axis at 30.60 m - individual laminations are brecciated along bedding to produce blocky 1-2mm x 5-6mm clasts.								
31.26:		very well laminated at 60-65° to core axis.								
31.42	31.85:	highly brecciated, intensely silicified; 1-3% pyrite.								
31.85	32.23:	breccia is very finely re-brecciated on a 1-5mm scale and enclosed in a dark green chloritized groundmass, the zone is 70-80% clasts and may be an INTRUSIVE - upper contact is sharp at 80°; the lower contact is sharp at 40°; a 7cm fragment of sheared chloritized breccia is noted at 31.92-31.99 m - sheared at 70-80° to core axis.								
32.23	32.93:	breccia; same as 31.42-31.85 m.								
32.93	34.53:	cream coloured feldspathized; moderately brecciated in upper 30cm becoming laminated at 33.23 m - 65-75° to core axis at 33.40 m; 30-40° at 34.35 m. Pyrite content 5-7%, up to 2% chalcopyrite.								
34.53	36.43:	well laminated, dark grey, very highly silicified, bedding at 55° to 65° throughout, 1-3% pyrite, 1% chalcopyrite								
36.43	38.00:	moderately to highly brecciated, possibly feldspathized weakly, highly silicified, 3-5% pyrite.								

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-29 SHEET NO. 4 OF 6

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS					
					FROM	TO	TOTAL	%	%	OZ/TON	OZ TON		
		38.00 - 39.63: laminated with highly brecciated sections - 60-65 to core axis at 38.50 m.											
		39.63 - 41.43: same as 36.43-38.00 m.											
		41.43 - 41.98: weakly to moderately feldspathized, up to 6% pyrite.											
		41.98 - 42.58: grey, strongly brecciated and highly silicified - breccia is re-brecciated into 1-2cm fragments less than 1mm, silica stringers in fractures. Fractures have feldspathized halos.											
42.58	45.11	<u>INTRUSIVE ZONE</u>											
		The zone is characterized by red to pinkish-red, syenitic(?) intrusive cutting moderately to strongly chloritized green sediment. The intrusive has incorporated a large volume of wall rock. The magma is strongly brecciated and has a cataclastic texture. It is very siliceous as opposed to the sediment xenoliths (50-60% of rock volume). The syenite carries 5-7% pyrite which was probably acquired from the sediments. The upper contact is strongly broken but a contact at 44.17 m is at 50 to the core axis.	718		42.58	43.37	0.79			0.08			
		42.58 - 43.45: chloritized xenoliths.	719		43.37	44.17	0.80			0.06			
		43.45 - 44.17: intensely silicified xenoliths.	720		44.17	44.81	0.64			0.01			
		44.17 - 44.41: dark green, laminated sediments.	721		44.81	45.11	0.30			0.18			
		44.41 - 44.81: mylonitic, strongly chloritized zone, several barren quartz stringers FAULT?											
		44.81 - 45.11: pinkish-red brecciated syenitic dyke - similar to 42.58-44.17 m except only 5% fragments.											

DIAMOND DRILL RECORD

NAME OF PROPERTY McDERMOTT
 HOLE NO. Mc-83-29 SHEET NO. 5 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	G/TON	G/TON
45.11	50.65	<u>SILICIFIED SEDIMENTS</u> Medium to dark green, fine to medium grained, occasionally coarse grained, locally silicified sediments. Moderately chloritized. Silicified zones are usually intervals of less than 15cm which are moderately to strongly brecciated. These zones are grey in colour and contain 1-3% pyrite above the average of less than 1%. 45.11 - 45.55: 1-3mm syenitic stringers. 45.55 - 46.23: begins at a sharp 45° contact - possible fault, rock is strongly brecciated and weakly to strongly silicified. 46.23 - 50.65: generally chloritized but contains 13.5% silicified breccia bands; eg. 46.52-47.00; 47.14-47.24; 49.00-49.25; 49.55-49.85; and 50.60-50.65. Laminated below 47.60. (75 at 49.15 and 75-80 at 50.80 m).	722	<1	45.11	45.55	0.44			0.01	
			723	<1	45.55	46.23	0.68			0.09	
			724	1	46.23	47.23	1.00			0.01	
			725	<1	47.23	48.23	1.00			0.01	
			726	<1	48.23	49.23	1.00			0.01	
			727	2	49.23	50.23	1.00			0.02	
			728	1	50.23	51.23	1.00			0.01	
			729	1	51.23	52.23	1.00			0.01	
52.23	53.63		<u>LOWER MINERALIZED ZONE</u> Dark greenish-grey, often blue-grey, moderately to strongly brecciated, very highly silicified in 60% of section, especially 52.35-52.78 m. Laminated at 65-75 to core axis (eg. 53.50 m.). Below 52.78 m, silicification has penetrated selected laminations perhaps because of original composition. Carries 2-3% pyrite.	730	2-3	52.23	52.93	0.70		0.01	
				731	2-3	52.93	53.63	0.70			0.01
53.63	61.26	<u>SEDIMENTS</u> Dark to light green, fine to medium grained, well parted. Weakly to moderately well laminated. Moderately carbonated locally. An 8cm pink carbonate vein is found at 55.67-55.75 m dipping 60° to core axis - carries 1% chalcopyrite.		732		53.63	54.63	1.00		0.01	
		733		54.63	55.63	1.00			0.01		
		734		56.63	57.63	1.00			0.01		
		735		58.63	59.63	1.00			0.01		
		736		60.63	61.26	0.63			0.01		

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-29 SHEET NO. 6 OF 6

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO. IDES	% SULPH	FROM	TO	TOTAL	%	%	01. TON	02. TON	
		56.02:										
		58.90:										
		60.37 - 60.41:										
		60.66 - 61.26:										
		61.26										

laminated at 60° to core axis.
 laminated at 85-90° to core axis.
 quartz vein, 1% pyrite.
 beginning at a strongly chloritized seam,
 texture is different, non-laminated,
 possibly coarser non-structured sediment
 - clasts up to 3mm.

END OF HOLE
 CASING PULLED

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-30 LENGTH 69.22 meters
 LOCATION 7+37.5 E DEPARTURE 0+24 S
 LATITUDE 7+37.5 E AZIMUTH 344° DIP -50°
 ELEVATION 21-06-83 FINISHED 23-06-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
69.22	-49°				

HOLE NO. MC-83-30 SHEET NO. 1 OF 8
 REMARKS BO CORE
Whole core sent for assay.
 Logged by A.W. Workman S. Trueland

LANGRIDGE LIMITED,

EM. 6-168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	% SILICIES	FROM	TO	TOTAL	%	%	OZ/TON	OZ/TON		
0	17.42	<u>OVERBURDEN</u>											
17.42	19.65	<u>SEDIMENTS</u> Dark green, fine to medium grained, well laminated with selective carbonatization along certain laminations. This highlights the fine 0.5mm scale bedding. Moderately to strongly chloritized and well parted on chloritized planes parallel to laminations. Some 1-2cm flexures in laminations indicate soft sediment deformation. Contact with underlying silicified sediments is gradational. Occasional pink carbonate veins up to 1cm cross-cut laminations. Zone contains up to 1% pyrite.	C737	1	17.42	18.42	1.00					0.01	
		18.00: laminations at 50-60° to core axis.											
		19.15: rippled laminations at 45° to core axis.											
19.65	20.55	<u>SILICIFIED SEDIMENTS</u> Greenish-grey to grey locally. Aphanitic to fine grained with preferential silicification of selected laminations. Silicification is found as 0.5-1.0cm bands initially but increases with depth. 20.48 - 20.53: yellow limonitic banding. 20.40: laminations at 45° to core axis.	738	1	18.42	19.42	1.00					Trace	
			739	1	19.42	20.55	1.13					Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-30 SHEET NO. 2 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS							
			NO.	% SULPHIDES	FOOTAGE	TOTAL	%	%	0.1 TON	0.1 TON			
20.55	49.65	<u>MAIN SILICIFIED ZONE</u>											
		Grey to purple-grey, aphanitic to very fine grained; generally laminated but intense brecciation often masks structure. Local zones of yellow to cream coloured feldspathization. Pyrite content is variable (2-15%) but is always higher in feldspathized rock. Very strongly silicified throughout regardless of degree of brecciation.											
		20.55 - 21.25: grey, very highly silicified, locally feldspathized, coarsely brecciated with 2-4cm angular fragments; some very tight chloritized fractures. 2-3% pyrite throughout.	C740	1-3	20.55	21.50	0.95					Trace	
		21.25 - 21.67: mylonitic fault zone - green strongly chloritized and foliated at 45-50° to the core axis.	7418	10	21.50	22.32	0.82					Trace	
				Tr.									
				cpy									
		21.67 - 22.32: cream coloured feldspathized rock, feldspathization introduced along fractures. Pyrite content is 8-10% with up to 12% locally. Well laminated at 45° to the core axis.	742	3-5	22.32	23.32	1.00					Trace	
				Tr.									
				cpy									
		22.32 - 25.32: purple-grey, very finely brecciated with 1-2% hematite in very narrow (less than 0.1mm) parallel seams. 3-5% pyrite as very fine dissemination and as 2-4mm clots of crystals.	743	3-5	23.32	24.32	1.00					Trace	
		23.00: Laminations at 40-45° to core axis.											
		24.00: Increasing feldspathization.	744	7-9	24.32	25.32	1.00					Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-30 SHEET NO. 3 OF 8

FOOTAGE	DESCRIPTION	SAMPLE				ASSAYS			
		NO.	% SULPHIDES	FROM	FOOTAGE TO	TOTAL	g/g	g/g	
25.32 - 28.22:	zone of greater than 50% feldspathization along fracture systems which post-date the brecciation event. Well laminated locally (eg. 25.50: laminations at 60-70° to core axis). Laminations can usually be distinguished even in breccia due to coarseness of brecciation. 10-15% pyrite up to 20% locally.	745	10-15	25.32	26.32	1.00		Trace	
		746	10-15	26.32	27.32	1.00		0.17	
		747	8-10	27.32	28.32	1.00		0.02	
25.85 - 26.03:	brecciated intrusive(?), strongly chloritized microfracturing, pinkish-green colour, 1% pyrite.								
28.22 - 29.22:	grey with 10% cream coloured patches, moderately to strongly laminated (40-50° to core axis at 28.50). Light coloured feldspathized(?) patches contain up to 20% pyrite - zone averages 8-10%.	748	8-10	28.32	29.32	1.00		0.15	
29.22 - 30.54:	cream to honey coloured feldspathized(?) zone, very siliceous. Pyrite averages 10-15% with up to 20% locally occurring as a very fine grained dissemination, as 2-5mm clots of grains and as lensitic stringers along sedimentary laminations (1-2mm x 5-10mm). Trace of chalcopyrite.	749	10-15	29.32	30.04	0.72		0.38	
		750	8-10	30.04	30.87	0.83		0.09	
28.82 - 28.90:	chloritized mylonitic seam at 75-80° to core axis - small fault.								
30.54 - 33.57:	strongly laminated locally and weakly brecciated - individual laminations are broken with little subsequent rotation. Bedding measured at 30.55 and 31.55 at 40° to core axis. Carries 1-2% pyrite, up to 4% locally. Chloritized fault plane at 35-40° to core axis at 31.87-31.90. Some laminations are chloritized	751	1-2	30.87	31.87	1.00		0.01	
		752	3-5	31.87	32.87	1.00		0.01	
		753	1-2	32.87	33.57	0.70		0.02	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-30 SHEET NO. 4 OF 8

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			ASSAYS							
					FROM	TO	TOTAL	%	%	GT./TON	GT. TON				
		and hematitic - probably originally argillitic (3-5% of section). Below 32.00 m, rock is very pink almost appearing syenitic.													
33.00 -	33.57:	1% chalcopyrite in chloritized fractures													
33.57 -	34.52:	dark green, medium to coarse grained INTRUSIVE, moderately chloritized, carries red siliceous fragments up to 1.5cm - 25% of rock volume. Weakly magnetic, weakly foliated at 55 to core axis.	754	1	33.57	34.52	0.95						0.04		
34.52 -	35.55:	creamy yellow intensely brecciated and silicified rock. Hematite fragments are present in top 20cm. Fault or break within top 20cm of interval parallel to core axis. 34.84-35.05 - gap in core - possible fault zone. Contact with purple hue rock at 35.55 is at 18 to core axis. 15% pyrite content.	755	15%	34.52	35.55	1.03						0.14		
35.55 -	37.15:	interval of alternating creamy yellow silicified rock within intensely brecciated and silicified purple hue rock. Creamy yellow zones make up 30% of interval. Purple hue rock is brecciated with cream coloured infill. No lamination. Pyrite content 15% within cream zones and 5% within purple hue rock. Average amount is approximately 7-10%. Zone ends at 3cm quartz vein.	756	7-10	35.55	36.35	0.80						0.13		
			757	7-10	36.35	37.15	0.80						0.07		
37.15 -	42.45:	purple hue slightly brecciated and intensely silicified rock with laminations at 55 to core axis. Within the interval there are zones of cream coloured	758		37.15	38.15	1.00						0.08		
			759		38.15	39.15	1.00						0.12		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-30 SHEET NO. 5 OF 8

FOOTAGE	DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS			
				FROM	TO	TOTAL	%	%	GT./TON	GT. TON
	rock, comprising 5% of interval, which is more intensely brecciated than purple hue rock.	760		39.15	40.15	1.00			0.05	
		761		40.15	41.15	1.00			0.06	
37.40 - 37.65:	interval of brecciated silicified pink (feldspathic?) material.	762		41.15	42.45	1.30			0.04	
42.45 - 43.15:	mylonitic fault zone. Medium to light green, fine to medium grained rock with larger 2-4mm pink silicified fragments. Foliation at 45° to core axis. No pyrite.	763	0	42.45	43.15	0.70			0.02	
43.15 - 44.22:	dark grey purple hue rock, moderately brecciated and highly silicified. Lamination at 45° to core axis. Pyrite content ranges from 1-2% up to 8-10% with average throughout interval of 5%.	764	5%	43.15	44.22	1.07			0.01	
				measured → 1.30						
44.22 - 44.80:	creamy yellow brecciated and silicified rock. No distinct laminations within interval. 3 quartz veinlets 2-4mm wide at 30° to core axis. Pyrite content 5%.	765		44.22	44.80	0.58			0.06	
44.80 - 48.70:	dark grey, purple hue rock, moderately brecciated and highly silicified. Localized laminations at 60° to core axis with laminations absent in other localities.	766	3-5	44.80	45.80	1.00			0.02	
		767	3-5	45.80	46.80	1.00			0.01	
		768	3-5	46.80	47.80	1.00			0.01	
45.75:	1cm carbonate filled fracture followed by a 5cm chloritized zone.	769	3-5	47.80	48.70	0.90			0.11	
47.25 - 47.35:	10cm wide zone of creamy yellow brecciated rock. Pyrite content varies									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-30 SHEET NO. 6 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPH IDE'S	FOOTAGE FROM TO	TOTAL	%	%	02.70M	02.10M	
48.70	49.65	Interval composed of creamy yellow and dark grey purple hue brecciated and silicified rock. Laminations absent from interval. Fractures in purple hue zones infilled with cream coloured material or what appears to be alteration haloes. Pyrite present as localized highs in areas of cream coloured rock, 5% average. End of main silicified zone.	770	5%	48.70	49.65	0.95			0.13	
49.65	56.68	<u>SILICIFIED SEDIMENTS: TRANSITION ZONE</u> Transition zone from main silicified zone to chloritized sediments. At the top of this interval silicification is dominant while chloritized sediments become more abundant lower down in the interval. Silicified zone characterized by intense brecciation and silicification with pinkish fragments within the rock. Chloritized zones softer and have a well defined lamination at 40-60° to core axis. Pyrite content throughout zone averages 5% with lows in chlorite zones of 1% and highs in silicified zones of 10%.									
49.65	51.10	Silicified and Brecciated Rock (65% of interval)	771	3-5	49.65	50.45	0.80			0.09	
51.10	51.60	Silicified and brecciated rock makes up 65% of interval. Chloritized zone (35%) have laminations 60° to core axis. Pyrite content 3-5% with trace chalcopyrite. <u>Intrusive?/Fault Zone?</u> Light green-grey, medium grained rock composed of quartz, feldspar, biotite	772	3-5	50.45	51.10	0.65			0.01	

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	GT/TON	GT/TON
51.10	51.60:	51.10 - 51.60: Within a finer light grey groundmass. (Continued) Could this be a fault zone or an intrusive? Laminations at 60 to core axis with contact at bottom of the interval, with the sediments at 70 to core axis. Pyrite nil within this zone.	773	nil	51.10	51.60	0.50			0.01	
51.60	56.68:	50% Silicified Zone silicified zones comprise 50% of interval and are more dominant towards the top of the zone. Chloritized rock more dominant towards the bottom of the zone. Pyrite content is finely disseminated within the sediments and consistent throughout. Pyrite averages 5% throughout. Laminations at 50-60 to core axis. Laminations: C774 60° to core axis C775 45° to core axis C776 50° to core axis C777 60° to core axis C778 55° to core axis	774		51.60	52.60	1.00			0.01	
			775		52.60	53.60	1.00			0.14	
			776		53.60	54.60	1.00			0.10	
			777		54.60	55.60	1.00			0.01	
			778		55.60	56.68	1.08			0.01	
56.68	69.22	<u>SEDIMENTS</u> Non-silicified rock assumed to be sediments. Carbonate filled fractures become more abundant with depth. Laminations vary from 40-60° to core axis and are more well developed locally. Lower silicified zone not present in this hole. Lamination at bottom of the hole not as apparent. Could be basalt? Carbonate veins: -59.45m at 15° to core axis, 1-1.5cm wide with xenoliths. -60.44m 1cm wide at 15° to core axis. -69.30m 2cm wide at 80° to core axis. 7cm wide silicified, brecciated zone at 68.70.	779	<1%	56.68	57.68	1.00			0.01	
			780	Tr.	57.68	58.68	1.00			Trace	
			781	Tr.	58.68	59.60	1.00		measured	Trace	
			782	Tr.	59.60	60.60	1.00			Trace	
			783	Tr.	60.60	61.60	1.00			Trace	
			784	Tr.	61.60	62.50	1.00		measured	Trace	
			785	Tr.	62.50	63.50	1.00			Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-30 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO. ² SULPHIDES	FOOTAGE FROM TO	TOTAL	%	%	oz. TON	oz. TON
56.68	69.22	cont.	C						
			786	up to 1%	63.50	64.50	1.00		Trace
			787	Tr.	64.50	65.50	1.00		Trace
			788	Tr.	65.50	66.50	1.00		Trace
			789	Tr.	66.50	67.50	1.00		Trace
			790	< 1%	67.50	68.50	1.00		Trace
			791	Tr.	68.50	69.22	0.72		0.08
69.22		END OF HOLE							
		BQ CORE - WHOLE CORE SENT FOR ASSAY							
		REPORTED HOLE TERMINATION AT 70.12 MEASURED END AT 69.22							
		<u>INTERVAL</u> 0 - 34.52: logged by A.W. Workman							
		34.52 - 69.22: logged by S. Trueland							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-31 LENGTH 96.62 meters
 LOCATION 7+25 E DEPARTURE 0+36 S
 ELEVATION 344 AZIMUTH 344 DIP -50°
 STARTED 06-23-83 FINISHED 06-27-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
96.6	-56°				

HOLE NO. Mc-83-31 SHEET NO. 1 OF 8
 REMARKS BQ CORE
 Whole core sent for assay.
 Casing pulled.
 LOGGED BY A. Workman, S. Truveland

EM. 6-1168

LANGRIDE LIMITED,

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE			ASSAYS				
				NO.	% SULPHIDES	FOOTAGE	%	%	OZ/TON	OZ/TON	
0	18.29	18.29	<u>OVERBURDEN</u>								
18.29	24.39	18.29	core badly ground with some continuous sections - assumed to be bedrock.								
18.29	27.22	18.29	<u>GABBRO</u>								
			Medium green, fine to medium grained rock composed of 30% felsic minerals - principally quartz and feldspar; and 70% mafics, chiefly pyroxene. Numerous light green siliceous bands, 2-4mm wide cut core at 45°. Grain size increases down-hole to lower contact at 45° to core axis. Hematite coating on fractures between 21.04 and 24.55 m. Pyrite contents up to 2% are noted locally but average less than 1%.	792		18.29	19.29	1.00	0.01		
				793		19.29	20.29	1.00	0.01		
				794		20.29	21.29	1.00	0.01		
				795		21.29	22.29	1.00	0.01		
				796		22.29	23.29	1.00	Trace		
				797		23.29	24.29	1.00	Trace		
				798		24.29	25.29	1.00	Trace		
				799		25.29	26.29	1.00	Trace		
				800		26.29	27.22	0.93	Trace		
27.22	42.60		<u>SEDIMENTS</u>								
			Medium to light green, fine to medium grained well-laminated locally; grains tend to be well-rounded. Abundant carbonate stringers along laminations - occasionally cross-cutting. Moderately brecciated locally with angular fragments up to 1cm. Generally non-silicified but weak to moderate silicification noted locally in the base of the unit. Pyrite content ranges from nil to 1%.	801		27.22	28.22	1.00	Trace		
				802		28.22	29.44	1.22	Trace		
				803		29.44	30.44	1.00	Trace		
				804		30.44	31.44	1.00	Trace		
				805		31.44	32.44	1.00	Trace		
				806		32.44	33.44	1.00	Trace		

*NOTE: CHANGE OF PREFIX LETTER SERIES.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-31 SHEET NO. 2 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	02.70M	02.70M
		27.22 - 31.07: laminated section with some brecciation at 28.22-28.55 m.	A807		33.44	34.44	1.00			Trace	
			808		34.44	35.44	1.00			Trace	
		28.44 - 28.76: fault zone(?) - rubble for core - abundant carbonate fracture filling below; 1-5mm breaks at angles of 10-20° and 80° to core.	809		35.44	36.44	1.00			Trace	
			810		36.44	37.44	1.00			0.01	
			811		37.44	38.44	1.00			0.01	
		31.07 - 36.53: weakly laminated locally, carbonate stringers at 70-80° to core axis; pyrite content averages less than 1% (local highs of 2%).	812		38.44	39.44	1.00			0.01	
			813		39.44	40.44	1.00			0.01	
			814		40.44	41.44	1.00			0.01	
			815		41.44	42.44	1.00			0.01	
42.60	64.66	<u>MAIN MINERALIZED ZONE</u> The zone is composed of a narrow upper transition zone between non-silicified sediments and highly silicified rock. The latter zone is intensely brecciated locally with pyrite contents up to 15%. A few chloritized fault zones are observed locally to intersect the silicified member. The lower part is a gradual transition back to non-silicified sediments. Some high pyrite contents are observed in association with strong silicification.									
42.60	42.87	<u>SILICIFIED SEDIMENT</u> Dark green to greenish grey, moderately to strongly laminated with increasing silicification of individual laminations then broader 1-5cm zones. Up to 2% pyrite.	816		42.44	42.87	0.43			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-31 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS				
FROM	TO				FROM	TO	TOTAL	%	%	OZ./TON	OZ. TON	
42.87	57.90	<p><u>MAIN SILICIFIED ZONE</u></p> <p>Grey with purple hue, yellow to cream locally, aphanitic to fine grained, very intensely silicified rock. Brecciation is not ubiquitous throughout zone, but is well developed locally. Laminations at 35-55 are developed throughout zone but are frequently masked by brecciation. Purple hued and cream coloured rock is highest in pyrite content with many zones of 10-15%. Average content is probably 6-8% for the entire silicified zone.</p> <p>42.87 - 45.74: moderately brecciated cream coloured rock, well laminated at 45-50 to the core axis with purple coloured rock as inter-lamination highlight. Cream colour tends to infiltrate around dark fragments in breccia zones - lighter colour may be due to feldspathization.</p> <p>45.74 - 46.44: medium green, medium to coarse grained, mylonitic zone with sub-round to round fragments, 1-4mm in size with a few in the cm range. Foliated at 40 to the core axis. No sulphide present.</p> <p>46.44 - 49.47: intensely brecciated, generally cream coloured with some grey-purple fragments up to 2cm in size. Laminations are masked and not well exhibited but make an angle of 45-50 to the core axis. Pyrite averages 1-2% and ranges as high as 5%.</p> <p>49.47 - 49.82: mylonitic fault zone - chloritized zone with 2-6mm brecciated fragments - minor hematite staining.</p>										
			817			42.87	43.87	1.00			0.01	
			818			43.87	44.87	1.00			0.14	
			819			44.87	45.74	0.87			0.10	
			820	0		45.74	46.44	0.70			0.01	
			821			46.44	47.44	1.00			0.01	
			822			47.44	48.44	1.00			0.01	
			823			48.44	49.82	1.38			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-31 SHEET NO. 4 OF 8

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS							
					FROM	TO	TOTAL	%	%	OZ./TON	OZ./TON				
		49.82 - 52.07: dark grey, purple hued, strongly brecciated individual laminations oriented at 50° to core axis. 5% pyrite.	A-												
		52.07 - 53.96: greenish pink, medium grained with laminations at 35-40° to the core axis. Composed of quartz, feldspar and altered, chloritized, mafic minerals. Intensely silicified. Average 10-15% pyrite. Laminations are frequently convoluted.	824	5	49.82	50.82	1.00				0.01				
			825	5	50.82	51.82	1.00				0.10				
			826	5	51.82	52.07	0.25				0.13				
		53.96 - 55.13: green, medium to coarse grained, 60-70% mafic minerals, with 1-4mm pink grains, probably intrusive. No apparent pyrite. <u>Weakly foliated.</u>	827	10-15	52.07	53.07	1.00				0.01				
			828	10-15	53.07	53.96	0.89				0.08				
			829	0	53.96	55.13	1.17				0.01				
		55.13 - 55.78: same as 52.07-53.96 well-laminated with 10% pyrite, very finely disseminated and concentrated along laminations at 50° to core axis.	830	10	55.13	55.78	0.65				0.12				
		55.78 - 55.84: chloritized mylonite - fault.													
		55.84 - 57.90: cream-brown rock becoming grey to purple-grey with depth. Not well laminated - locally at 50-60° to core axis. Average 10% pyrite - up to 15% locally concentrated along laminations.	831	10	55.78	56.78	1.00				0.19				
			832	10	56.78	57.90	1.12				0.02				
57.90	64.66	<u>SILICIFIED SEDIMENT</u> Grey to dark greenish-grey, aphanitic to fine grained, well laminated but intensely brecciated locally. The rock is essentially a continuation of the overlying silicified zone but with increasing non-silicified and strongly chloritized rock. Chloritized laminations make up 20-25% of the zone, often as 10-15cm sections. An average pyrite content of 5-6% is noted with a range of													

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-31 SHEET NO. 5 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS					
		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	02. TON	02. TON	
57.90 - 64.66	3-15% Pyrite is present as a very fine dissemination, as 1-3mm cubes in carbonate filled fractures, and as clots of grains and crystals up to 1cm in size.										
	58.05: Laminations at 45° to the core axis. C	901	8-10	57.90	58.90	1.00	0.05				
	58.98 - 59.20: ground core - strongly chloritized and apparently sheared at 50-55° to the core axis; 1-3% pyrite.	902	3-5	58.90	59.90	1.00	0.11				
	60.50: Laminated at 30° to core axis.	903	5-7	59.90	60.90	1.00	0.06				
	62.10 - 62.17: red siliceous zones - syenitic(?) with 20% pyrite in a 2cm zone along each contact.	904	7-9	60.90	61.90	1.00	0.07				
	62.90 - 63.66: very strongly silicified - resembles main silicified zone; very finely brecciated with 1-3mm fragments in a cream coloured feldspathized(?) rock. Pyrite content is 10-15% - mostly in the matrix between fragments - minor graphitic partings.	905	7-9	61.90	62.90	1.00	0.03				
	63.52 - 63.60: syenite - red, aphanitic, 5% pyrite, conchoidal fracture. Siliceous sediment?	906	10-15	62.90	63.90	1.00	0.14				
64.66 - 78.74	<u>SEDIMENT</u> Dark green, fine grained, moderately chloritized rock, with selective grey silicification of less than 30% of laminations. Amount of silicification rapidly decreases with depth. Generally well laminated but brecciation is widespread and destroys or masks structure. Silicified zones up to 15cm are noted locally - seem to be concordant to laminations. Weakly to moderately fractured with quartz in dilatant zones and carbonate in micro-fractures. Several 1-2cm carbonate veins are noted locally. Below 70.0 m, carbonate fracture filling becomes dominant.	907	15-20	63.90	64.66	0.76	0.12				
		908	1-3	64.66	65.66	1.00	0.01				
		909	3-5	65.66	66.66	1.00	0.01				
		910	1-3	66.66	67.66	1.00	0.01				
		911	1-3	67.66	68.66	1.00	0.01				
		912	1-3	68.66	69.66	1.00	0.01				
		913	1-3	69.66	70.40	0.74	Trace				

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-31 SHEET NO. 6 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IN 100g	FROM	FOOTAGE TO	TOTAL	%	%	01/10M	02/10M
		64.80: brecciated laminations at 30° to core axis	914	1-3	71.40	72.40	1.00			Trace	
		69.10: laminations at 60-65° to core axis.	915	1-3	73.40	74.40	1.00			Trace	
		66.39 - 66.53: moderately silicified - 5-7% pyrite.									
		67.22 - 67.31: strongly silicified - 1-3% pyrite.									
		67.22 - 69.13: strongly brecciated and weakly silicified.									
		69.72 - 69.92: chloritized interval with 50% pinkish-red and green 1-2mm xenoliths - intrusive?									
		69.92 - 70.40: 80% lost core.									
		72.60: weakly laminated at 45-50° to core axis.									
		74.22 - 74.35: strongly silicified.									
		74.35 - 78.74: minor 5cm grey-green silicified zones; several 5mm thick beds of ash-fall tuff, with clasts less than 0.1mm in size - well laminated at 40° to core axis. Becoming well parted below 76.00 m.	916	1-2	75.40	76.40	1.00			Trace	
			917	1-2	77.40	78.40	1.00			Trace	
			918	1-2	78.40	78.74	0.34			0.18	
		76.23: laminations at 40° to core axis.									
		78.00 - 78.37: DIORITE(?) - pinkish green, with well foliated mafic minerals, about 15-20% pink felsic minerals - similar zone at 77.73-77.81; all are weakly magnetic.									
78.74	79.42	<u>SILICIFIED ZONE</u> Greyish-green, aphanitic to very fine grained, well laminated, and non-brecciated except for lowermost 10cm. Moderately to strongly silicified with selective silicification of individual laminae locally.	919		78.74	79.42	0.68			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-31 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO.	% SULPH IDES	FOOTAGE FROM TO TOTAL	%	%	02 TON	02 TON
79.42	96.62	<u>SEDIMENTS</u>							
		Medium green, fine grained, well laminated with minor selective silicification of individual laminations. Minor silicified sections up to 30cm are noted locally (eg. 85.58-85.90). These sections are associated with brecciation of individual sets of laminations and are characterized by moderate to weak carbonatization. Little movement of fragments has followed brecciation. Bedding cuts the core axis at 45-65°.	920		79.42	80.42	1.00		Trace
			921		80.42	82.42	1.00		Trace
			922		83.42	84.42	1.00		0.01
			923		85.82	86.42	0.60		0.03
			924		87.42	88.13	0.71		0.01
		80.00: laminations at 45° to the core axis.	925		88.13	89.04	0.91		0.02
		81.62 - 81.70: minor silicified breccia zone.	926		89.04	89.98	0.94		0.01
		82.67: laminations at 60-65° to the core axis.	927		90.98	91.98	1.00		0.01
		84.25: laminations at 60-65° to the core axis.	928		92.45	93.45	1.00		0.01
		87.62 - 87.73: moderately silicified breccia zone.							
		88.13 - 89.06: brecciated silicified laminations at 45-55° to core axis with alternate laminations or sets of laminations or dilatant zones are strongly chloritized.							
		90.28: vaguely laminated at 45-50° to core axis.							
		94.00: laminated at 45-50° to core axis.							
		94.75: laminations become highly convolute for 20-25cm then laminations are lost between 95.0-95.2 m. Rock is well parted to approximately 95.80 m. and more massive below.							

*NOTE: FOOTAGE MARKERS IN CORE BOX BETWEEN 287' and 307' (87.48 - 93.57 m) ARE MISPLACED - THE FIGURES IN LOG ARE CORRECTED MEASUREMENTS.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-31 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SUPH IDES	FROM	TO	TOTAL	%	%	02.70N	02.70N
	95.00	below this point, rock begins to resemble a volcanic with abundant carbonate filled tensional fractures. Minor non-silicified, coarse brecciation locally. Non-laminated. poorly parted.									
	96.62	END OF HOLE CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-32 SHEET NO. 2 OF 7

IGRIDGE LIMITED TORONTO 366-1168

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS			
		NO.	% SULPH IDES	FOOTAGE FROM TO TOTAL	%	%	g./TON	g./TON
22.92 - 45.61	<p>certain laminations. Contains 1-2% pyrite.</p> <p>22.23: Laminations at 60° to the core axis.</p> <p>22.80 - 22.92: limonite filled fracture zone - core badly ground - possible fault. Minor green clay in ground core at 22.86 m.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Purple-grey to grey, with 60% cream coloured zones, aphanitic to very fine grained, highly silicified and weakly to moderately well laminated on a mm scale. Contains high pyrite contents, up to 20% locally. This zone is less competent and contains more chloritized fractures than is normally expected. Fracturing, particularly the chloritized set, is post-brecciation and post-silicification.</p> <p>22.92 - 24.50: non-brecciated, cream feldspathized zones along laminations.</p> <p>24.50 - 26.45: brecciated - cream coloured zones along laminations and breccia fractures. 5-7% pyrite.</p> <p>23.75: Laminations at 60-70° to core axis.</p> <p>26.45 - 29.92: weakly brecciated, sense of laminations returns.</p> <p>29.92 - 33.72: weak to moderate brecciation.</p> <p>27.90: laminations are variable 30-50° to axis.</p> <p>29.30: laminations at 40° to core axis.</p> <p>29.92 - 30.92: sample spans an 80cm breccia zone feldspathized with up to 10% pyrite.</p>	808	3-5	22.92 23.92 1.00	0.07			
		809	3-5	23.92 24.92 1.00	0.02			
		810	5-7	24.92 25.92 1.00	0.01			
		811	5-7	25.92 26.92 1.00	0.01			
		812	5-7	26.92 27.92 1.00	0.01			
		813	3-5	27.92 28.92 1.00	0.01			
		814	3-5	28.92 29.92 1.00	0.01			
		815	3-5	29.92 30.92 1.00	0.01			
		816	3-5	30.92 31.92 1.00	0.04			
		817	3-5	31.92 32.92 1.00	0.03			
		818	2-3	32.92 33.72 0.80	0.04			

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-32 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FROM	TO	TOTAL	%	%	G/TON	G/TON
33.20	- 33.30:	chloritized shear.	C 819	1-3	33.72	34.82	1.10			0.01	
33.75	- 33.85:	chloritized shear.	820	3-5	34.82	35.60	0.78			0.01	
33.85	- 34.32:	abundant chloritized fractures.	821	1-2	35.60	36.25	0.65			0.01	
33.72	- 34.82:	<u>INTRUSIVE</u> - dark green, fine grained, moderately chloritized, weakly magnetic with abundant (3-5%) pink silicified xenoliths up to 5mm in size.	822	1-2	36.25	36.90	0.65			0.01	
34.82	- 35.60:	purple grey silicified zone, abundant white carbonate stringers, 3-5% pyrite.									
35.60	- 36.90:	abundant chloritized patches and fracture zones along laminations.									
36.37:		laminations at 65° to core axis.									
36.90	- 39.45:	moderately brecciated with 1.5cm frag-ments, strongly silicified with few chloritized patches. Numerous 2-3mm quartz stringers cut core axis at 20-25° - post-date breccia. Occasional 5-10cm zones of extreme silicification - rock resembles quartz veins - zones carry 10-15% pyrite.	823	5-7	36.90	37.90	1.00			0.01	
			824	5-7	37.90	38.90	1.00			0.01	
			825	5-7	38.90	39.90	1.00			0.08	
						(30cm lost core)					
39.45	- 39.75:	lost core.									
39.90	- 40.85:	intensely silicified with strong feld-C spathization from 40.37-40.85 containing 15% pyrite laminated at 50-60° to core axis.	826	8-10	39.90	40.85	0.95			0.07	
40.85	- 41.00:	<u>INTRUSIVE</u> - dark green, moderately chloritized, non-magnetic, very similar to 33.72-34.82 m.	827	5-7	40.85	41.83	0.98			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-32 SHEET NO. 4 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	0.1 TON	0.2 TON	
41.00	41.83	strongly silicified with abundant pink carbonate stringers and veins up to 1.5cm in thickness. Pyrite content is 5-7% but up to 15% near carbonate veins. Also chalcopyrite blebs up to 1.5cm in carbonate veins.	828	1	41.83	42.94	1.11				0.02	
41.83	42.94	INTRUSIVE - dark green, fine to medium grained, biotite bearing very similar to 33.72-34.82 m. Carries 20% pink and green angular fragments of wall rock - fragments have a tuffaceous texture locally, particularly lower in zone. Pyrite content is 1%.	829	10-15	42.94	43.94	1.00				0.07	
42.94	45.61	purple-grey to cream coloured, intensely silicified, strongly feldspathized(?) from 43.20-44.56 m. with 10-15% pyrite. Average pyrite content is 8-10% mostly concentrated along laminations. Laminations well developed. Zone is not brecciated.	830	10	43.94	44.94	1.00				0.02	
43.40	45.61	Laminations developed at 60° to core axis. <u>SILICIFIED SEDIMENTS</u>	831	7-9	44.94	45.61	0.67				0.01	
45.61	54.63	Well laminated with alternating purple-grey and dark green 1-3mm bands; fine to very fine grained. Moderately to strongly brecciated locally with angular 0.5-1.5cm fragments in a cream coloured, possibly feldspathized rock. Fractures have cream coloured halos. Zone is mostly silicified rock. Chloritized sections are limited to less than 15cm thickness at any one point. Combined, they may total 20-25% of the unit. Pyrite content averages 3-5% with up to 15% locally.										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-32 SHEET NO. 5 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS					
		NO.	% SULPH. IDES	FOOTAGE FROM TO	TOTAL	%	%	oz./TON	oz./TON	
45.61 - 47.13:	well laminated at 55-60° to core axis.	832	3-5	45.61	46.61	1.00			0.01	
47.13 - 48.28:	moderately to strongly brecciated.	833	3-5	46.61	47.61	1.00			0.01	
47.60:	Laminations at 60-70° to core axis.	834	3-5	47.61	48.61	1.00			0.01	
48.28 - 48.43:	<u>INTRUSIVE</u> (?) - dark green, chloritized mylonitic zone.									
48.43 - 48.49:	90% pink carbonate veins carrying 1% chalcopyrite blebs, 1-2mm in size and single grains up to 1.5cm in vugs - grain is triangular with sub-angular corners.									
48.49 - 48.61:	dark green-grey, weakly chloritized.									
48.61 - 49.85:	intensely silicified, often reddish colour particularly near chloritized seam at 49.05-49.17 m. Some sections resemble quartz veins and carry 5-7% pyrite, (eg. 48.75-48.94 m). Up to 20% pyrite in lower half of zone - clots of crystals up to 1.5cm.	835 836	5-7 15	48.61 49.23	49.23 49.85	0.62 0.62			0.01 0.11	
49.85 - 50.30:	very coarsely brecciated with 1-2cm grey, intensely silicified fragments in a dark green, weakly chloritized matrix - section is 70-75% silicified. Carries 3-5% pyrite. Laminations are present but un-readable.	837	3-5	49.85	50.85	1.00			0.10	
50.30 - 51.53:	as above at 49.85-50.30 but without chloritized zones - matrix to silicified fragments is cream coloured due to feldspathization(?). Up to 15% pyrite locally.	838 839 840	5-7 10-12 3-5	50.85 51.80 52.45 53.30	51.80 52.45 53.30	0.95 0.65 0.85			0.25 0.37 0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-32 SHEET NO. 6 OF 7

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			TOTAL	%	%	ASSAYS	
					FROM	TO	FOOTAGE				02.10M	02.10M
		51.53 - 53.30: same as 49.85-50.30 m.										
		53.30 - 53.85: <u>INTRUSIVE</u> - dark green, fine to medium grained with reddish, 1-2mm siliceous fragments (xenoliths), in a moderately chloritized groundmass. Chill zone, 5cm wide, at contact dipping 60-70° to the core axis.	841	1-2	53.30	53.85	0.55				0.01	
		53.85 - 54.63: weakly to moderately brecciated, intensely silicified. Feldspathized fragments up to 2cm in a dark grey matrix. Carries 1-2% pyrite, up to 3-4% locally.	842	1-2	53.85	54.63	0.78				0.01	
		<u>SEDIMENTS</u>										
54.63	59.33	Dark green, fine to medium grained, strongly chloritized with 1-5cm zones of moderate silicification locally making up less than 5% of section above 58.0 m. Moderately brecciated at top of unit generally decreasing in degree with depth. Local silicified zones are usually brecciated more strongly. Rock is weakly carbonated below 56.13 m. Weakly to moderately fractured - dominantly quartz filled above 56.13 m and tend towards carbonate filling below this point. Carries 1-2% pyrite, very finely disseminated; in fractures as 1-2mm cubes. Up to 4% in silicified zones. Rock becomes crudely laminated at 57.10m (50-60° to core axis).	843	1-2	54.63	55.63	1.00				0.01	
		58.11 - 58.27:) largest silicified zones.	844	1-2	55.63	56.63	1.00				Trace	
		58.73 - 58.82:)	845	1-2	56.63	57.63	1.00				Trace	
			846	1-2	57.63	58.63	1.00				Trace	
			847	1-2	58.63	59.33	0.70				Trace	
		<u>LOWER SILICIFIED ZONE</u>										
59.33	60.31	Grey-green to greenish grey, purple-grey locally, aphanitic to fine grained, laminated locally, moderately to strongly silicified with 10% chloritized rock. Zone	848	2-3	59.33	60.31	0.98				Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-32 SHEET NO. 7 OF 7

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS							
					FROM	TO	TOTAL	%	%	OZ./TON	OZ./TON				
59.33	60.31	is not as strongly silicified or as uniformly silicified as might be expected from other drill holes. Numerous chloritized partings. Lower contact may be a fault plane at 80° to core axis.													
		59.43: laminations at 45° to core axis.													
60.31	66.14	<u>SEDIMENTS</u>													
		Dark green, fine to very fine grained, becoming well laminated with depth. Minor narrow silicified bands locally. Pyrite content averages 1% with up to 2% locally. A pale pink quartz vein is located at 61.21-61.41 m - contacts at 45° and 55° to core axis.	C 849	1-2	60.31	61.21	0.90								
		60.31 - 62.25: minor moderate brecciation locally.													
		62.35: laminations at 65-70° to core axis.													
		63.09: laminations at 55° to core axis.													
		62.25 - 63.95: well laminated - laminations fade over 5cm sections.													
		64.00 - 66.14: green, fine to medium grained, non-laminated, with abundant tensional fractures - foliation (laminations?) evident at 66.00 at 25° to core axis.													
		64.16 - 64.22: quartz-carbonate vein.													
		65.75 - 66.14: fractures strongly hematitized.													
		66.14 END OF HOLE CASING PULLED													

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-33 LENGTH 63.09 meters
 LOCATION 7+87.5 E DEPARTURE 0+40 S
 ELEVATION AZIMUTH 3440 DIP -50°
 STARTED 07-07-83 FINISHED 11-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
63.00	-49°				

HOLE NO. MC-83-33 SHEET NO. 1 OF 7
 REMARKS BQ CORE
Whole core sent for assay.
 LOGGED BY A.W. WORKMAN

EM. 6-1158

LANGRIDGE LIMITED,

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS							
			NO.	% SULPHIDES	FOOTAGE FROM	FOOTAGE TO	TOTAL	%	%	oz/TON	oz/TON		
0	14.21	<u>OVERBURDEN</u>											
14.21	22.83	<u>BASALT</u>											
		Dark green, fine to very fine grained, moderately to strongly brecciated with angular to rounded fragments up to 4cm in size. Brecciation is probably flow breccia. The flow was generally massive; abundant tensional fractures are noted below 17.8 m. Relic vesicles are found at 18.74-18.79 as 3-7mm well rounded chloritized amygdules. Some strong silicification is observed locally (eg. 15.03-15.32 m) to carry slightly higher pyrite contents - up to 1%. Flow averages less than 1% pyrite. Below 19.70 m, the rock becomes fine to medium grained and gabbroic textured - probably central flow. The rock does not appreciably fine towards the lower contact. Rock may be weakly sericitized locally.	852	0-1	15.00	16.00	1.00			0.01			
		18.59 - 18.74: 1-3mm elongated black chloritized specks possibly small vesicles.	853	0-1	16.00	17.96	0.96			0.01			
		17.96 - 18.11: breccia zone, silicified, 5-10% pyrite, 3-5% chalcopyrite - brecciation extends to 18.30 m.	854	5-10	17.96	18.11	0.15			0.01			
		22.35 - 22.41: highly pyritized sediment xenolith carries 20% pyrite, mostly as cubes; sediments are well laminated.	855	1	18.11	19.11	1.00			0.02			
		<u>SEDIMENTS</u>	856	1	20.11	21.11	1.00			0.02			
22.83	27.90	Dark green, fine grained, strongly chloritized and well laminated locally. Uppermost 10cm contains anomalous	857	1	22.11	22.83	0.72			0.01			

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-33 SHEET NO. 2 OF 7

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPH IDES	FOOTAGE FROM TO	TOTAL	%	%	oz./TON	oz. TON	
22.83	27.90	pyrite (5%) along laminations at 40° to the core axis. Most pyrite as 1-2mm cubes. Locally, the laminations are strongly carbonatized but still contain 50% silica. Carbonate stringers, 1-2mm in width cut the core at varying angles. The rock is easily parted along planes parallel to the laminations. Cleavages have a waxy green colour - possible sericite alteration. Pyrite content averages 1% and ranges from nil to 2%. A trace of chalcopyrite is noted locally on fracture surfaces (eg. 25.85 m).									
22.83 - 24.20:		well laminated locally, some massive non-laminated fine grained sections.	858	1	22.83	23.83	1.00			0.01	
			859	1	23.83	24.83	1.00			Trace	
24.20 - 26.45:		brecciated - angular fragments up to 3cm with carbonate filling large dilatant zones - micro-fractures in carbonate are silica filled. Laminated locally - eg. 40-45° to core axis at 25.00 m.	860	1	24.83	25.83	1.00			Trace	
			861	1	25.83	26.83	1.00			Trace	
26.45 - 27.50:		well laminated, non-brecciated, a 1cm clot of chalcopyrite grains at 27.05m.	862	1	26.83	27.37	0.54			Trace	
			863	2-3	27.37	27.90	0.53			0.01	
26.52:		Laminations at 50-55° to axis.									
26.73:		Laminations at 70-75° to axis.									
27.50 - 27.90:		coarse brecciation similar to 24.20 - 26.45 m, some partings are slickensided - lower 10cm of zone is badly ground core with 30% recovery.									
27.80 - 27.90:		<u>FAULT ZONE</u>									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-33 SHEET NO. 3 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS						
		NO.	% SULPHIDES	FOOTAGE	%	%	oz./TON	oz. TON			
				FROM TO	TOTAL						
27.90	<p><u>MAIN MINERALIZED ZONE</u></p> <p>The mineralized section lies in fault contact with overlying non-silicified sediments. It is composed of a highly silicified, usually brecciated sedimentary formation overlying a variably silicified and chloritized lower member.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Purple-grey with minor green chloritized zones related to localized fault movement. Aphanitic, strongly to intensely silicified, and was originally well laminated. Bedding is marked by brecciation which is nearly ubiquitous. Breccia is well developed becoming weak locally. Fragments are angular, up to 2cm in size - can often be re-assembled. Silicification in this zone is independent of brecciation and is strongest below 31.0 m Pyrite content variable; 2-20%, averaging 5%. It is found as a very fine dissemination, as small clots of grains up to 1cm and as small cubes. Pyrite seems to replace some laminations locally or has moved into fractures along laminations.</p>	864	3-5	27.90	28.90	1.00			0.04		
28.16 - 29.96:		intensely brecciated, some laminations locally at 45° to core axis.	865	7-9 Trace cpy	28.90	29.90	1.00			0.09	
29.96 - 30.60:		FAULT ZONE - green chloritized fracture systems dips at 25-30° to core axis - mylonitic locally with purple-grey, rounded silicified fragments up to 1.5cm. Fragments have honey coloured reaction rims, and carry 5-7% pyrite.	866	2-3	29.90	30.65	0.75			0.03	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-33 SHEET NO. 4 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	02./TON	02./TON
30.60	31.12:	intensely silicified and brecciated purple-grey sediments, some suggestion of laminations locally, 5-7% pyrite.	C 867	5	30.65	31.12	0.47			0.02	
31.12	31.88:	as at 29.96-30.60 - FAULT ZONE - fracturing at 45° to core axis, silicified fragments carry 7-9% pyrite.	868	5	31.12	31.88	0.76			0.10	
31.88	34.70:	dark purple-grey, intensely silicified, pyrite content variable 3-7%. Contains several minor chloritized fracture systems at 32.25-32.48 and 33.55-33.75. Laminated locally - 45° to core axis at 33.75 m. Carbonate veining in chloritized fracture zone.	869	5	31.88	32.88	1.00			0.21	
			870	3-5	32.88	33.88	1.00			0.21	
			871	2-3	33.88	34.88	1.00			0.08	
34.70	37.21:	abundant chloritized fractures with red siliceous stringers at 35.50-35.60 m - section has abundant ground core similar to zone at 29.96-30.60. Moderately fractured with carbonate in dilatant zones. Well laminated locally - 45° at 35.00 m. Core loss is probably 20%. Zone carries 3-5% pyrite; trace chalcopyrite locally, possibly associated with carbonate stringers.	872	1-3	34.88	35.88	1.00			0.05	
			873	1-3	35.88	36.88	1.00			0.02	
				Trace cpy							
			874	3-5	36.88	37.88	1.00			0.06	
37.21	38.71:	increasing feldspathization(?) of rock to a cream colour, fewer chloritized fractures, pink carbonate veins at 37.88.	C 875	3-5	37.88	38.71	0.83			0.07	
38.71	40.15:	cream coloured, feldspathized rock, well laminated in upper half and strongly brecciated below 39.4 m. Contains 8-15% pyrite concentrated along laminations as very fine (less than 0.1mm) dissemination. Up to 20% pyrite is noted locally in the lower brecciated section. Carries several 5mm pink carbonate veins at 60° to core axis.	876	8-10	38.71	39.43	0.72			0.15	
			877	10-15	39.43	40.15	0.72			0.24	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-33 SHEET NO. 5 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPHIDES	FROM	TO	%	%	0.1 TON	0.2 TON	
40.15	41.05	strongly brecciated, minor chloritized fractures with up to 1% chalcopyrite, variably feldspathized in matrix to breccia fragments - pyrite ranges 5-10%, averaging 6-8%.	878	6-8	40.15	41.05	0.90			0.13	
41.05	42.03	strongly brecciated, abundant chloritized fractures with white carbonate in-filling. 1-3% pyrite, up to 10% locally as 1cm clots in chloritized dilatant zones.	879	2-4	41.05	42.03	0.98			0.02	
42.03	42.67	purple-grey breccia, few chloritized fractures.	880	1-3	42.03	42.67	0.64			0.02	
42.67	43.46	INTRUSIVE - dark green, fine to medium grained, well foliated (45-50 to core), mafic minerals (biotite?). Non-magnetic. Carries 50% xenoliths of silicified sediment. Fragments are 1-8mm in size and are well rounded. Carries 1% pyrite locally. Upper contact at 60 to core axis. Lower contact at 65 to core axis.	881	1-2	42.67	43.46	0.79			0.01	
43.46	43.97	purple-grey, silicified breccia same as 42.03-42.67 m.	882	2-3	43.46	44.46	1.00			0.01	
43.97	44.30	chloritized fracture zone.									
44.30	44.81	silicified breccia becoming less silicified with depth.	883	2-3	44.46	44.81	0.35			0.02	
44.81	51.30	<u>SILICIFIED SEDIMENTS</u> Purple-grey to green-grey, becoming green locally in chloritized sections. Very fine grained to aphanitic with variable pyrite contents - 1% in chloritized rock, up to 5% in silicified rock. Generally moderately to strongly brecciated with angular fragments up to several									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-33 SHEET NO. 6 OF 7

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	02./TON	02./TON	
44.81	51.30	cm. Silicified strongly except in green chloritized zones. These zones of chlorite alteration total 19% of the section and are located at: 45.23-45.30; 45.70 - 45.80; 46.15-46.44; 47.30-47.38; 47.86-47.95; 47.99 - 48.17; 48.42-48.62; 50.80-50.94; 51.14-51.21. Laminaions are well developed locally. 48.53: brecciated laminaions at 45° to axis. 49.57: contact between silicified brecciated sediments and intrusive - sediments become more strongly silicified 15cm from contact. Little fining of intrusive near contact at 60° to axis. 49.57 - 50.64: <u>INTRUSIVE</u> - same as 42.67-43.46; weakly magnetic. 50.64 - 51.30: silicified breccia with 32% green chloritized rock. <u>SEDIMENTS</u> Medium to dark green, fine to very fine grained, well laminated but structure is locally obliterated by moderately developed brecciation. Weakly carbonatized along certain preferred laminaions and sets of bands. Minor silicification locally, weakly to moderately developed, in association with breccia zones. Average of 1% pyrite, up to 3% with silicification. Trace of chalcopyrite on partings which are well developed parallel to laminaions. 55.25 - 56.22: several zones of silicification, locally brecciated. 56.76 - 57.00: <u>INTRUSIVE</u> - similar to 49.57-50.64 m, very weakly magnetic.	884	1-2	44.81	45.81	1.00				0.01	
			885	1-2	45.81	46.81	1.00				0.01	
			886	3-5	46.81	47.81	1.00				0.01	
			887	1-2	47.81	48.81	1.00				0.03	
			888	1-2	48.81	49.57	0.76				0.01	
			889	1	49.57	50.64	1.07				0.01	
			890	1-2	50.64	51.30	0.76				0.01	
51.30	63.09			891	1-2	51.30	52.30	1.00			0.01	
			892	1-2	53.30	54.30	1.00			Trace		
			893	1	54.30	55.25	0.95			Trace		
			894	2-3	55.25	56.22	0.97			0.05		
			895	2-3	56.22	57.22	1.00			0.02		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-33 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FROM	FOOTAGE TO	TOTAL	%	%	OZ/TON	OZ/TON
		58.00 - 63.09: parting is very well developed parallel to laminations.	896	0-1	58.22	59.22	1.00			0.01	
		58.40: laminations at 60° to core axis.	897	1	60.22	61.22	1.00			0.04	
		60.10: laminations at 60° to core axis.		Trace							
		61.35: laminations at 50° to core axis.		cpy							
		62.22: laminations at 55° to core axis.									
		63.05: laminations at 60° to core axis.	898	1	62.22	63.09	0.87			0.01	
		63.09 meters	END OF HOLE								
		CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-34 LENGTH 62.80 meters
 LOCATION 8+12.5 E DEPARTURE 0+50 S
 LATITUDE 8+12.5 E AZIMUTH 344 DIP -50°
 ELEVATION 11-07-83 FINISHED 15-07-83
 STARTED 11-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-50°				
62.80	-48°				

HOLE NO. MC-83-34 SHEET NO. 1 OF 7
 REMARKS BQ CORE
Core split for analysis.
 LOGGED BY A.W. WORKMAN

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLING			ANALYSIS						
				NO.	% S.D.S.	FROM	TO	TOTAL	%	%	oz/TON	oz/TON	
0	21.95	21.95	OVERBURDEN										
21.95	29.86	29.86	FAULT ZONE - SEDIMENTS ?										
			Dark green to grey-green, fine to very fine grained rock. Strongly chloritized, weakly silicified locally. Probably an altered sedimentary (volcanoclastic?) rock. Highly sheared and broken. Fractures are limonite coated occasionally hematitic. Core recovery is 70%. Possible sediment laminations at 26.90 m, dip 45-50° to the core axis.	934	nil	21.95	22.95	1.00					Trace
				935	nil	22.95	23.95	1.00					0.01
				936	nil	23.95	24.95	1.00					Trace
				937	1	24.95	25.95	1.00					Trace
				938	1	25.95	27.40	1.45					Trace
				939	1	27.80	28.60	0.80					0.01
				940	1	29.48	30.48	1.00					0.01
			27.15 - 29.48: 45% core recovery - badly ground.										
			27.40 - 27.80: core lost.										
			28.60 - 29.48: core lost										
			29.60: clay filled fault zone.										
			SEDIMENT (locally silicified)										
29.86	31.32	31.32	Dark green with grey to grey-green bands and laminations. Fine to very fine grained. Grey colouration is result of weak to moderate carbonization of selected sets of laminations. Occasional grey silicification of individual laminae. Rock is poorly laminated locally. Contains 1% pyrite - up to 2% locally as a very fine grained dissemination.	941	1	30.48	31.32	0.84					0.01
			MAIN MINERALIZED ZONE										
31.32	53.57	53.57	This zone is composed of an upper variably silicified, frequently brecciated member overlying the Main Silicified zone. This unit is strongly silicified and										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-34 SHEET NO. 2 of 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH IDS	FROM	TO	TOTAL	%	%	01. TON	01. TON
31.32	53.57	moderately to strongly brecciated. It contains up to 15% pyrite - rarely 20%, and traces of chalcopyrite. It is underlain by a transitional zone of irregularly silicified and brecciated rocks.	942	1-3	31.32	32.32	1.00			Trace	
			943	1-3	32.32	33.32	1.00			Trace	
			944	2-3	33.32	33.97	0.65			Trace	
31.32	34.62	<u>SILICIFIED SEDIMENT</u> Dark green to greenish-grey, fine to very fine grained, well laminated but frequently brecciated rock. Breccia zones tend to be grey in colour and moderately to strongly silicified. Some selective silicification of individual laminations is noted. Laminations are 0.5-2.0mm in thickness. In weakly silicified rock, tuff(?) clasts up to 4mm are greenish grey in a green argillitic(?) matrix. Clasts have indistinct boundaries. The section averages 3% pyrite, ranging 2-4%; very finely disseminated, and as 1-2mm crystals often in 1-1.5cm clusters. Trace of chalcopyrite locally.	945	2-4	33.97	34.62	0.65			0.03	
		32.05: laminations at 40-45° to core axis - grey elongated, 2-3cm zones (clasts?) are strongly carbonatized.									
		32.80: 1.5cm syenitic vein.									
		33.97 - 34.43: INTRUSIVE - dark green, very strongly chloritized, very weakly magnetic, red brecciated siliceous xenoliths are 50% of rock volume. Highly pyritized contacts (20%) averaging 3-4% very finely disseminated pyrite.									
34.62	50.98	<u>MAIN SILICIFIED ZONE</u> Purple-grey locally, greenish-grey, aphanitic to very fine grained, strongly to intensely silicified. The rock is moderately to strongly brecciated. Dilatant zones in the breccia are filled with cream to light grey, occasionally white coloured silica. Fragments									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-34 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH.	FROM	TO	TOTAL	%	%	GT/TON	GT/TON
34.62	50.98	are angular and 2-5mm in size often with less than 0.5mm grit. Some tensional fracturing which post-dates the breccia is noted - quartz filled. Pyrite contents are highest in very finely brecciated, or mylonitic rock - up to 20%. The zone averages 5-7%. A highly pyritized mylonitic seam at 35.02 is displaced 6cm by a fault cutting core axis at 40°. Single clots of pyrite grains up to 5x10mm are noted.									
		34.62 - 34.75: resembles a brecciated quartz vein.	C 946	5-7	34.62	35.62	1.00			0.11	
		36.23 - 36.98: variably feldspathized yellow-grey patches, and halos around fractures. 7-9% pyrite, up to 12% locally. Tensional fractures at 60-75° to core axis are cut by chloritized fractures at 10-20° to core axis with 1cm displacement.	947	5-7	35.62	36.23	0.61			0.05	
			948	7-9	36.23	36.98	0.75			0.07	
		36.98 - 37.50: dark grey to purple-grey, intensely brecciated, 1-2% pyrite rapidly increasing down-hole to 5-7%; very finely disseminated. Pink carbonate vein with fine quartz particules at 37.30-37.31 at 15° to core axis.	949	2-4	36.98	37.50	0.52			0.02	
		37.50 - 38.50: same as 36.23-36.98 - more abundant quartz veining along tension fractures.	950	5-7	37.50	38.50	1.00			0.03	
		38.50 - 39.85: as above - abundant chloritized fractures - average 1 per 10cm of core.	951	5-7	38.50	39.85	1.35			0.06	
		39.85 - 41.87: variably feldspathized, intensely silicified breccia; 7-9% pyrite, up to 15% locally, trace chalcopyrite. Pyrite fills fractures up to 4mm wide in 10-15mm long stringers. Also clots up to 1.5cm of smaller grains. Abundant chloritized fractures.	952	7-9	39.85	40.85	1.00			0.05	
			953	10-12	40.85	41.85	1.00			0.04	
			954	10-15	41.85	42.83	0.98			0.05	

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDermott
 HOLE NO. MC-83-34 SHEET NO. 4 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	% SULPH. IDES	FROM	TO	TOTAL	%	%	02.70M	02.70M		
41.87	42.83:	cream to pale yellow coloured, feldspathized zone, strongly brecciated - fragments up to 1cm can be reassembled from finer clasts. Material in the 1-2mm range appears to be tuffaceous(?). Relic sedimentary laminations are observed locally (eg. 60-65' at 42.00 m and 50-60' at 42.65 m). Pyrite averages 10-15% as very fine dissemination, in clots of grains and as individual crystals concentrated along laminations.											
42.11	42.33:	FAULT ZONE - abundant chloritized fractures at 70-75' to core axis, chloritized mylonite at 42.18-42.33 m.											
42.83	42.85:	FAULT - dark green clay seam at 50-60' to core axis.	955	5-7	42.83	43.80	0.97				0.02		
42.85	43.80:	rock becomes dark purple-grey, strongly brecciated and intensely silicified. Reddish syenitic material at 43.41-43.47 and 43.57-43.74 m.											
43.80	44.81:	INTRUSIVE - dark green, fine grained, intensely chloritized and contains abundant (50% by volume) siliceous xenoliths - angular to sub-rounded, up to 1cm in size. Intrusive contacts are chilled and extremely broken. Non-magnetic but strongly resembles magnetic dikes in other holes west of this section. May be biotitic. Up to 1% pyrite.	956	1	43.80	44.81	1.01				0.02		
44.81	45.19:	greenish-grey, fine to medium grained and very finely brecciated, abundant honey coloured alteration (feldspathization?). Un-structured. Very weakly magnetic near upper contact. Average 10% pyrite. May be tuffaceous.	957	10	44.81	45.19	0.38				0.07		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-34 SHEET NO. 5 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	oz./TON	oz./TON
45.19	49.91:	variably feldspathized, strong locally C in 10cm sections, appears tufaceous locally, 3-4% pyrite, trace chalcopyrite weakly sheared at 60-75° to core axis. Chloritized planes cross-cut vague sedimentary fabric at 10-20° angle. Weakly fractured - quartz filled.	958	3	45.19	46.19	1.00			0.02	
			959	3	46.19	47.19	1.00			0.01	
			960	5	47.19	48.19	1.00			0.02	
			961	5	48.19	49.19	1.00			0.03	
			962	5-7	49.19	49.91	0.72			0.02	
49.91	50.47:	moderately silicified, weakly chloritized greenish-grey in colour. Chloritized plane at 50.24 m is a fault at 80° to the core axis. Pyrite content is 3-5% with a trace of chalcopyrite on chloritized planes.	963	3-5	49.91	50.47	0.56			0.01	
				Trace cpy							
50.47	50.98:	as above at 45.19-49.91, few chloritized fractures; 2-4% pyrite.	964	2-4	50.47	50.98	0.51			0.01	
50.98	53.57	<u>SILICIFIED SEDIMENTS</u> Dark purple-grey, green grey and dark green, aphanitic to fine grained rock. Grey areas are strongly brecciated and moderately to intensely silicified. Green zones are brecciated weakly, non-silicified but moderately to strongly chloritized. Carries 2-4% pyrite, mostly in silicified rock. Occasional quartz stringers with 1-2 mm. blebs of chalcopyrite. Lamminations are noted locally, often rippled and/or brecciated. Abundant white carbonate in veins, vugs and small fractures. Acid etch indicates pink quartz occupies 50% of fracture volume. Carbonate occurs as clasts in quartz. Lower contact of zone is gradational. Silicified rock is located at: 51.05-51.10; 51.30-51.33;	965	2-4	50.98	52.00	1.02			0.01	
			966	2-4	52.00	53.00	1.00			0.01	
			967	2-4	53.00	54.00	1.00			0.02	

DIAMOND DRILL RECORD

NAME OF PROPERTY _____
 HOLE NO. MC-83-34 SHEET NO. 6 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS							
			NO.	% SULPH IDS	FROM	FOOTAGE TO	TOTAL	%	%	OZ./TON	OZ./TON			
		51.53-51.77; 52.00-52.02; 52.35-52.38; 53.38-53.57, totalling 21.5% of section.												
		51.98: Laminations at 60° to core axis.												
		54.68: rippled laminations at 60° to core axis												
		55.25: vague laminations at steep angle to core axis, at least 60'.												
		<u>SEDIMENTS</u>												
53.57	60.23	Medium to dark green, fine grained, vaguely developed C laminations becoming better with depth. Silicified only locally (eg. 56.38-56.51m.), in response to localized brecciation. May be tuffaceous. Pyrite 1-3%.	968	1-3	54.00	55.00	1.00					0.02		
		55.40: Laminations at 55' to core axis.	970	1-3	56.00	57.00	1.00					0.01		
		57.70 - 58.65: <u>INTRUSIVE</u> - medium green, fine to medium with greater than 25% of rock volume composed of siliceous reddish-pink fragments up to several centimeters. Micaceous, possibly biotitic. Well foliated at 45° to the core axis. Weakly magnetic, 1% pyrite.	971	1-3	57.00	57.70	0.70					Trace		
		58.65 - 59.18: moderately silicified breccia, 2-3% pyrite, trace chalcopyrite on chloritized fractures. Intrusives at 58.99-59.03. Same as intrusive at 58.0 m.	972	1	57.70	58.65	0.95					Trace		
		59.75: becomes well parted at 60-65° to core axis along what may be a vague bedding lamination.	973	1-3	58.65	59.18	0.53					0.01		
			974	1-3	59.18	60.23	1.05					Trace		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-34 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO. LOGS	% SUPPL	FROM	FOOTAGE TO	TOTAL	%	%	0.1 TON	0.1 TON
60.23	61.02	<u>LOWER SILICIFIED ZONE</u> Purple-grey to greenish-grey, with medium green sections. Aphanitic to fine grained, and strongly brecciated. Moderately to strongly silicified. Pyrite content averages 2-3%, as a very fine dissemination. Green sections are moderately chloritized. Weaker silicification reflects weaker brecciation.	975	2-3	60.23	61.02	0.79			0.01	
61.02	61.30		<u>INTRUSIVE</u> Medium green, fine to medium grained. Possibly contains biotite - well developed foliation at 60-65° to core axis. Weakly magnetic. Same as zone at 57.70-58.65 m.	976	0-1	61.02	61.30	0.28			1.10
61.30	62.80	<u>SEDIMENTS</u> Medium to dark green, fine to medium grained, coarsening down-hole. Well laminated locally. Many carbonated filled tension fractures throughout. 62.28: Laminations at 45' to core axis. 62.46: coarses to medium grained, unstructured, tensional fractures, occasional 1-1.5 mm. black chloritized specks - possibly devitrified shards of volcanic glass.	977	1-2	61.30	62.05	0.75			0.01	
			978	1-2	62.05	62.80	0.75			0.01	
			62.80 END OF HOLE CASING PULLED								

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-35 LENGTH 91.74 m.
 LOCATION 8 + 00 E DEPARTURE 0 + 60 S
 ELEVATION 16-07-83 AZIMUTH 340 DIP -600
 STARTED 16-07-83 FINISHED 19-07-83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-600				
91.74	-520				

HOLE NO. MC-83-35 SHEET NO. 1
 REMARKS BO CORE
 Whole core sent for Analysis
 LOGGED BY A.W. WORKMAN

EM. 6-1168

LANGRIDGE MITED,

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE		ANALYSIS	
				NO.	%	oz/TON	oz/TON
0	21.95	21.95	OVERBURDEN				
21.95	42.50	42.50	ANDESITE				

Medium to pale green, aphanitic to very fine grained, generally massive flow. Flow tops are generally brecciated and may locally show evidence of vesicles (eg. 30.95-32.48 m.). Rock is moderately chloritized but silicification is noted locally associated with small (up to 5cm.) breccia zones. These zones may carry up to 2% pyrite whereas the flow averages less than 1%. Pyrite is present as a very fine dissemination, as 1-2 mm. cubes in quartz-carbonate stringers, and occasionally as thin plates on chloritized slippage planes. The zone is moderately to strongly brecciated throughout, probably as a result of post-volcanic faulting. Many mylonitic seams and shears are noted throughout the zone. In particular, the interval 21.95 to 25.10 m. is a major fault zone, containing 25% mylonite. Core loss is estimated at 25-30%. The rock is strongly chloritized and all fractures are hematite and limonite coated. White carbonate occasionally fills dilatant zones.

21.95 - 25.10: FAULT ZONE - Intensely brecciated, strongly chloritized.

30.95 - 32.48: flow top breccia, rounded to sub-angular fragments up to 5 cm. X 3 cm., andesitic composition, in a finer brecciated matrix strongly chloritized, minor epidote along fractures.

DIAMOND DRILL RECORD

NAME OF PROPERTY MCDERMOTT
 HOLE NO. MC-83-35 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	02. TON	02. TON
		33.10 - 34.10: flow breccia - rounded, vaguely defined fragments up to 7 cm. some remelting.									
		34.25 - 34.40: as above									
		34.65 - 35.00: flow top breccia, same as 33.10-34.10.									
		36.20 - 36.53: angular breccia, fragments up to 2.5 cm.									
		37.38 - 37.57: breccia - probably flow bottom; fragments of varying lithologies are well rounded and up to 4 cm. in size.									
		37.57: FAULT - mylonitic shear plane at 40° to core axis.									
		37.57 - 38.20: flow breccia - vaguely outlined fragments up to 6 cm., well rounded, andesitic composition.									
		38.20 - 38.70: angular fragments, often mylonitic.									
		38.70 - 38.83: ground core - some massive; some brecciated.									
		39.05 - 39.81: flow top breccia - sharply defined, angular fragments up to 5 cm. which are much harder than enclosing rock. Below 39.20 m., fragments are larger, less distinct and show evidence of re-melting. Minor fault plane at 39.38.									
		40.32 - 40.75: small silicified zone bordering intensely silicified fracture zone at 40.53-40.58m. Resembles a pale green quartz vein at 45-50 to core axis.									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-35 SHEET NO. 3 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH. IDES	FROM	TO	TOTAL	%	%	02. TON	02. TON
42.50	51.28	40.98 - 42.50: tectonically brecciated locally; lower contact is highly fractured. <u>SEDIMENTS</u> Medium green, fine to very fine grained, well laminated and moderately to strongly chloritized. Generally non-silicified. Many non-laminated, generally coarser grained zones, (1.0-1.5 mm. clasts). Uppermost zone is weakly brecciated and sheared to a depth of 44.1 m. Most of sediments are probably tuffaceous. 44.45: laminations at 40° to core axis. 45.50: laminations at 45° to core axis. 44.83 - 45.17: strongly brecciated, laminations disrupted. 45.17 - 45.50: numerous black, well laminated cherty bands - tuffaceous? 45° to core axis, carry 1% very finely disseminated pyrite. 44.80 - 44.90: dark red, well foliated dike (?) SYENITIC (?). Contacts at 40-50° to core axis - possibly a sharply defined zone of hematized chemical sediments. Also pinkish green sediments at 44.46-44.52. 45.50 - 49.60: weakly laminated locally, medium grained, brecciated locally on a 1-2 mm. scale. Laminations at 46.60 m. dip 50° to the core axis. 49.60 - 51.28: well laminated at 35° to the core axis. steepening to 45° at 51.08. Moderate carbonatization of selected sets of laminations. <u>MAIN MINERALIZED ZONE</u> This zone is composed of an upper variably silicified									
			979	1	45.17	45.50	0.33			0.02	
			980	0-1	45.50	46.50	1.00			0.01	
			981	0-1	46.50	47.50	1.00			0.02	
			982	0-1	47.50	48.50	1.00			0.01	
			983	0-1	48.50	49.50	1.00			0.01	
			984	0-1	49.50	50.50	1.00			0.01	
			985	0-1	50.50	51.21	0.71			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-35 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FROM	TO	TOTAL	%	%	02./TON	02./TON
51.28	53.76	<p>member overlying the main silicified zone. Both are C sedimentary in origin although the main zone does not always exhibit recognizable sedimentary structures or textures. Pyrite contents increase to a maximum of 12% in the main zone. It is underlain by a section of alternating silicified and chloritized rock.</p> <p><u>SILICIFIED SEDIMENTS</u></p> <p>Dark green, aphanitic to very fine grained, moderately chloritized with abundant purple-grey strongly silicified sections. The zone is well laminated with a few medium grained, non-laminated sections. Silicification is initially confined to small zones of brecciation then expands to cover sections of non-brecciated rock. Minor pink quartz - carbonate veins up to 1 cm. thickness are noted in this unit.</p> <p>51.28 - 51.53: very strongly silicified.</p> <p>52.01 - 52.66: Massive to very weakly laminated, same reddish silicified clasts up to 15 mm. - tuffaceous.</p> <p>52.66 - 53.60: well laminated at 50° to core axis, 40-50% silicified.</p> <p>53.60 - 53.76: <u>FAULT ZONE</u> - post silicification brecciation, chloritized fractures; silicified fragments up to 2 cm. in size in a fractures chloritized matrix.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Dark purple-grey, aphanitic to fine grained, generally well laminated but brecciation often destroys sedimentary textures and structures. Numerous cream coloured feldspathized (?) zones are superimposed on</p>	986	1-3	51.21	52.06	0.85			0.01	
			987	1-3	52.06	52.91	0.85			0.01	
			988	1-3	52.91	53.76	0.85			0.01	
53.76	68.12			989	3-4	53.76	54.76	1.00		0.03	
				990	8-10	54.76	55.76	1.00		0.09	
				991	6-10	55.76	56.76	1.00		0.09	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-35 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	oz./TON	oz./TON
		on the generally high degree of silicification. Feldspathized rock contains higher (10-12%) pyrite contents, than the purple-grey rock (5-7% pyrite). Several dark green chloritized fault zones are noted. They are characterized by increased fracturing, local mylonitization and the development of clay seams.	C								
		53.76: faulted contact									
		53.76 - 54.89: very finely brecciated, abundant slickensided, chloritized fractures carries 3% pyrite.									
		54.89 - 55.23: feldspathized, occasional chloritized fractures, carries 10-12% pyrite.									
		55.50 - 56.76: becoming well laminated locally, purple-grey, spotty feldspathization locally, occasional chloritized fractures with slickensides pitching at 20° to 60°. Some individual darts up to 2 mm. - tuffaceous. Averages 7-9% pyrite as a very fine dissemination and as clots of crystals up to 4 mm. across.	C	995	10	58.96	59.66	0.70			0.09
		56.76 - 58.96: banded cream coloured and purple-grey rock, well laminated, extremely convoluted with very tight folding - soft sediment slumping, particularly at 57.96-58.16 (recumbant folds).		996	8-10	59.66	60.36	0.70			0.10
		55.55: laminations at 30° to core axis.									
		58.16: laminations at 45° to core axis.									
		58.96 - 60.36: cream coloured, well laminated FAULT ZONE - 80% of core is badly ground - many chloritized partings at 59.80-60.05 m.									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-35 SHEET NO. 6 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS				
					FROM	TO	TOTAL	%	%	02./TON	02./TON	
60.36	61.25:	dark grey, well laminated, locally brecciated, abundant 3mm. pink carbonate veins carrying quartz grit. C	997	1-3	60.36	61.25	0.89				0.02	
60.60:		<u>FAULT</u> - 5 mm. green clay seam at 60-70° to core axis.										
61.25	62.31:	<u>INTRUSIVE</u> - medium green fine to medium grained with 2-4 mm. dark green crystals - possibly chloritized biotite - carries 10% angular fragments of silicified sediments - very weakly magnetic.	998	NIL	61.25	62.31	1.06				0.01	
62.31	64.49:	brecciated with angular moderately feldspathized fragments in a dark purple-grey matrix. Breccia can often be re-assembled into whole rock. Relic laminations locally - eg. 45° to core axis at 63.80 m.	999	4-6	62.31	63.31	1.00				0.01	
			1000	3-5	63.31	64.31	1.00				0.01	
			1201	3-5	64.31	65.31	1.00				0.01	
64.49	66.60:	<u>FAULT ZONE</u> - strongly fractured and chloritized.	1202	3-5	65.31	66.31	1.00				0.02	
66.60	68.12:	as at 62.31-64.49 - more abundant chloritized fractures and pink carbonate veining. Trace chalcopyrite in carbonate.	1203	2-4	66.31	67.31	1.00				0.01	
			1204	1-3	67.31	68.12	0.81				0.01	
68.12	75.76	<u>SILICIFIED SEDIMENT</u> Dark purple-grey to green, fine to very fine grained variably brecciated zone of transition from intensely silicified rock to non-silicified rock. Degree of silicification and amount decrease with depth. Silicification is generally related to zones of brecciation. Average 1% pyrite increases to 3% in sil. rock. Major silicified zones are located at 69.09-69.67, 69.91-70.72 (2 cm. chloritized mylonite plane at 70.15), 71.90-72.81, 74.92-75.12 and 75.29-75.76. Many smaller zones are observed and total	1205	1-2	68.12	69.09	0.97				0.01	
			1206	1-2	69.09	69.91	0.82				0.01	
			1207	2-3	69.91	70.72	0.81				Trace	
			1208	1	70.72	71.55	0.83				0.01	
			1209	2-3	71.55	72.81	1.26				0.01	
			1210	1-2	72.81	73.90	1.09				Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-35 SHEET NO. 7 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	01.70M	02.70M
75.76	91.74	<p>silicified rock accounts for 51% of the section.</p> <p><u>SEDIMENT</u></p> <p>Dark to medium green, fine grained, moderately chloritized, non-silicified and moderately brecciated. Becomes well parted at about 76.5 meters - parting is likely parallel to bedding although lamination are not well developed above 80 meters. Irregular bedding noted at 78.35 m. Some pink quartz veins locally (eg, 81.03-81.08) developed parallel to laminations. Pyrite average 1-2% with up to 3% locally.</p> <p>77.42 - 78.32: <u>INTRUSIVE</u> - Medium to dark green, fine to medium grained with well developed chills at contacts. Carries 5-10% siliceous xenoliths; weakly magnetic.</p> <p>81.09: laminations at 45° to core axis.</p> <p>84.00: fault plane at 40° to core axis separates moderately laminated rock above from medium grained non-laminated rock below.</p> <p>85.93 - 89.50: gradually becomes well laminated, very well parted throughout, moderately carbonatized, carbonate appears to replace selected lamination sets.</p> <p>86.50: parting at 65% to core axis.</p> <p>87.90: carbonate altered laminations at 70° to core axis.</p> <p>87.60 - 88.55: moderately brecciated, weakly silicified, 3-4% pyrite</p>	1211	1-2	73.90	74.92	1.02			0.01	
			1212	1-2	74.92	75.76	0.84			0.02	
			1213	0-1	75.76	76.59	0.83			0.01	
			1214	0-1	76.59	77.42	0.83			0.01	
			1215	0-1	77.42	78.32	0.90			Trace	
			1216	1	78.32	79.32	1.00			Trace	
			1217	0-1	79.32	80.32	1.00			0.01	
			1218	0-1	82.00	83.00	1.00			0.01	
			1219	0-1	87.60	88.55	0.95			0.04	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-35 SHEET NO. 8 OF 8

FOOTAGE		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS											
FROM	TO				FROM	TO	TOTAL	%	%	oz./TON	oz./TON								
		89.50 - 90.25: medium grained, massive, weakly brecciated.																	
		91.00 - 91.74: shearing (?) at 65° to core axis - planes of very dark green mylonite; breccia fragments increase in size away from mylonitized planes. Graded beds (??) locally.																	
		91.74: END OF HOLE CASING PULLED																	

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-37 LENGTH 137.46 meters
 LOCATION 10 + 00 W DEPARTURE 0 + 69 S
 LATITUDE _____ AZIMUTH 344° DIP -65°
 ELEVATION _____
 STARTED August 5, 1983 FINISHED August 11, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
137.46	-57°				

HOLE NO. Mc-83-37 SHEET NO. 1 OF 5
 REMARKS BQ Core
Split for assay.
 LOGGED BY A.W. WORKMAN

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS								
			NO.	% SIL IDES	FROM	TO	TOTAL	%	%	OZ./TON	OZ./TON				
0	15.85	<u>OVERBURDEN</u>													
15.85	32.65	<u>BASALT</u>													
		Dark green, fine to medium grained, locally coarse grained, locally silicified, often associated with brecciation. Weakly to moderately tectonically brecciated locally. Weakly to moderately fractured - breaks are strongly chloritized and often hematized. Pyrite content averages 0-1% and does not seem to increase with brecciation or silicification. Up to 1% chalcopyrite is associated with quartz-carbonate veining locally (eg. 24.85-24.89 m). These veins may carry high pyrite contents - up to 40%.	C												
		18.02 - 20.40: weakly to moderately silicified.	1329	0-1	18.02	19.21	1.19							0.01	
		22.82 - 23.93: weakly brecciated, moderately silicified.	1330	0-1	19.21	20.40	1.19							tr.	
		23.82 - 26.20: weakly to moderately silicified; quartz-carbonate vein at 24.85-24.89 m carries 40% pyrite, 1% chalcopyrite.	1331	0-1	22.82	23.80	0.98							tr.	
		28.90: carbonated shear at 40-450 to core axis carries 1% chalcopyrite.	1332	0-1	23.80	24.80	1.00							tr.	
		30.20 - 30.35: weakly brecciated, moderately silicified.	1333	2-3	24.80	25.45	0.65							tr.	
		<u>DIORITE</u>	1334	0-1	25.45	26.20	0.75							tr.	
32.65	67.25	Medium to dark green, generally medium to coarse grained with occasional fine grained phases. A zone of ground core at upper contact is thought to be the chilled margin. Some variation in texture is noted below 59 meters which may reflect proximity to the lower contact.													

DIAMOND DRILL RECORD

NAME OF PROPERTY Jenora
 HOLE NO. Mc-83-37 SHEET NO. 2 OF 5

FOOTAGE		DESCRIPTION	NO.	% SUPPLIES	SAMPLE			ASSAYS								
FROM	TO				FROM	FOOTAGE TO	TOTAL	%	%	0.1 TON	0.1 TON					
32.65	42.20:	fine to medium grained with several zones carrying pink feldspar phenocrysts up to 3mm - often saussuritized.														
42.20	45.20:	medium to coarse grained, occasionally very coarse grained in 10cm sections with crystals up to 5mm. A few quartz veins are noted at 60-70° to core axis - adjoining rock may be highly pyritized over 5cm border zones.														
44.55	45.05:	zone averages 2-3% pyrite.														
45.20	46.15:	medium grained.														
46.15	49.20:	medium to coarse grained; amphibole crystals up to 1.1cm at 47.10 m.														
49.20	58.70:	medium grained, occasional coarse grained phases; fracture surfaces are well plated with thin foils of pyrite - rock carries an average 0-1%.														
58.70	59.10:	fine, locally medium grained.														
59.10	59.68:	carbonate filled breccia zone, no pyrite observed; fractures in lower half are strongly hematized.														
59.68	66.90:	fine to medium grained; rapid gradational textural changes.														
64.07	64.18:	65.01 - 65.08: fine grained, dark green <u>intrusives</u> - well chilled contacts at 40° to core axis.														
66.90	67.25:	sheared, silicified, epidotized zone at edge of intrusive; carries 5% pyrite, contact may be at 80-85° to core axis.	1336	5	66.95	67.30	0.35					0.02				
67.25	125.50	<u>BASALT</u> Dark green, locally grey-green, fine grained to aphanitic, often flow brecciated with angular to sub-rounded fragments up to 3cm. Moderately to weakly chloritized. Fragments are usually harder than the matrix but of the same composition. The uppermost 1 m carries occasional highly lenticular fragments up to 1cm in size - tuft? flow-top breccia. 67.25 - 72.50: strongly fractured due to shrinkage - quartz-epidote filling; very fine grained flow; rare fragments are strongly epidotized. 73.15 - 74.50: strongly fractured due to shrinkage - quartz-epidote filling; very fine grained flow; rare fragments are strongly epidotized.	1337	0-1	71.50	72.50	1.00						cr.			

DIAMOND DRILL RECORD

NAME OF PROPERTY Ignora
 HOLE NO. MC-83-37 SHEET NO. 3 OF 5

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPH IDES	FROM	TO	TOTAL	%	%	02. TON	02. TON
74.50 - 79.62:	occasional flow breccia fragments; 1-2% pyrite in fractures and rarely rimming fragments; moderately silicified at 75.60-76.00 m.	C 1338	0-1	75.60	76.00	0.40			0.02	
79.62 - 80.35:	carries fine, 1-3mm clasts of varying lithologies - possible base of flow - strongly chloritized fragments.									
81.65 - 82.03:	weakly brecciated, moderately silicified.	1339	0-1	81.65	82.03	0.38			0.02	
82.03 - 82.63:	chloritized, moderately brecciated locally.	1340	0-1	82.03	82.63	0.60			tr.	
82.63 - 83.25:	moderately to strongly silicified; weakly to moderately brecciated - fragments exhibit 1mm reaction rims.	1341	0-1	82.63	83.25	0.62			tr.	
83.25 - 83.30:	hyaloclastite? - flow top?									
83.30 - 84.90:	moderately to strongly brecciated, fragments are larger and less distinct (remelting) with depth and possibly more rounded. Sub-rounded fragments up to 10cm are noted at 84.50 m - flow breccia.									
84.90 - 85.85:	sub-angular fragments up to 2cm - well defined - lower temperature flow.									
85.85 - 86.95:	three narrow zones of fine grained dark green rock incorporated into flow - possibly sediments.									
88.93 - 89.55:	strongly brecciated - pale green angular fragments in dark green matrix - weak silicification locally (eg. 89.30-89.55 m).	1342 1343	0-1 0-1	88.80 89.30	89.30 90.10	0.50 0.80			0.01 0.01	
89.55 - 91.34:	dark green, abundant tensional fractures at top - weakly brecciated, locally silicified (eg. 89.55 - 90.10 m). Strongly silicified at 90.80-91.34 m.	1344 1345	0-1 0-1	90.10 90.80	90.80 91.34	0.70 0.54			0.01 0.01	
91.34 - 91.94:	irregularly silicified - nil to strong locally; well brecciated throughout - carries 5-6% pyrite mostly concentrated in fractures - average concentration 3-5%.	1346	3-5	91.34	91.94	0.60			tr.	
91.94 - 92.54:	moderately to strongly brecciated, irregularly silicified; abundant carbonate veining with up to 6% associated pyrite.	1347	3-5	91.94	92.54	0.60			tr.	
92.54 - 93.60:	fine to medium grained, very weakly brecciated massive flow, 1-3% pyrite.	1348	1-3	92.54	93.60	1.06			0.01	
93.60:	flow top.									

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. MC-83-37 SHEET NO. 4 OF 5

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS	
					FROM	TO	TOTAL	g./TON	oz. TON
93.60	93.83:	strongly amygdaloidal - relic vesicles up to 1cm are well rounded becoming smaller with depth - TOPS UP.							
93.83	-107.05:	locally tectonically brecciated, weakly to moderately fractured, fine grained becoming medium with depth. Carbonate vein at 100.54-100.80 m - no sulphide.							
107.05	-108.30:	moderately brecciated (locally strong), non-silicified; carries increased pyrite from 107.10-107.65 m at 2-3%, brecciation is tectonic.							
108.30	-109.65:	moderately to strongly brecciated tectonically, non-silicified, becoming very dark grey-green.							
111.30	-111.50:	white carbonate vein.	1350	3-5	112.00	112.80	0.80	cr.	
111.77	-119.92:	flow breccia - fragments angular to well rounded. Largest fragments are well rounded and up to 4cm in size. Non-silicified; up to 7% pyrite concentrated around fragments but overall average is 3-5%. Most pyrite at 112.00-112.80 m. Some dilatant zones strongly epidotized. Possible sediments (tuff?) at 114.30-114.48 m.	1423		112.80	113.58	0.78	cr.	
			1424		113.58	114.43	0.85	0.01	
			1425		114.43	115.59	1.16	0.01	
			1426		115.59	116.62	1.03	0.01	
			1427		116.62	117.43	0.81	0.01	
			1428		117.43	118.43	1.00	0.01	
			1429		118.43	119.45	1.02	0.01	
			1430		119.45	120.50	1.05	0.01	
119.92	-120.50:	massive, medium green, non-brecciated zone - strongly fractured.	1351	1-3	120.50	121.50	1.00	cr.	
120.50	-122.63:	strongly brecciated, weakly silicified locally, 1-3% pyrite, very finely disseminated.	1352	1-3	121.50	122.10	0.60	cr.	
125.43	-125.50:	green clay filled shear at 450 to core axis - FAULT.	1431	1-3	122.10	122.63	0.53	cr.	
			1431		122.63	123.44	0.81	0.01	
			1432		123.44	124.18	0.74	0.01	
125.50	127.10	<u>FAULT ZONE</u> Strongly sheared, strongly chloritized zone. Rock type indefinite - may be sediments.							

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mg-83-37 SHEET NO. 5 OF 5

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	oz./TON	oz. TON		
127.10	137.46	<u>SEDIMENTS</u> Dark green with white bands and lensitic laminations; fine to very fine grained. Sheared parallel to bedding at upper contact. Zone near top of unit is brecciated moderately and the matrix to the breccia fragments is moderately to strongly silicified. No pervasive silicification is noted. Selective silicification of certain laminations highlights the bedding. Individual sets of laminations are strongly brecciated below 136.49 m and set in a strongly chloritized sedimentary matrix. 127.10-132.20: brecciated, silicified matrix with very little carbonate, 0-1% pyrite. 132.20-137.46: moderately well laminated, weakly sheared - laminations at 135.40 m are at 45-50° to core axis. 137.46 meters END OF HOLE CASING PULLED	C 1563 1564 1565 1566 1567 1568 1569 1570 1354 1571 1572 1573	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 1-2 0-1 0-1 0-1	127.10 127.95 128.95 129.95 130.95 131.95 132.95 133.95 134.30 135.30 136.25 137.00	127.95 128.95 129.95 130.95 131.95 132.95 133.95 134.30 135.30 136.25 137.00 137.46	0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 0.75 0.46					tr. tr. tr. tr. tr. tr. tr. tr. tr. 0.03 tr. tr. 0.08	

DIAMOND DRILL RECORD

NAME OF PROPERTY LENORA

HOLE NO. MC-83-38

SHEET NO. 2 OF 5

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS								
			NO.	% SULPH IDES	FROM	TO	FOOTAGE	TOTAL	%	%	01 TON	02 TON			
41.00 - 42.64:		generally massive flow - minor small breccia zones locally - radiating from fracture systems - minor related silicification locally - no pyrite association.													
42.64 - 44.93:		pillowed sequence - moderately to strongly silicified with 1-2mm variolites locally (eg. 43.10) anomalous number of pillow selvages between 44.50-44.90 with 5-10% pyrite in selvages.	1505	0-2	42.64	43.64	1.00			0.01					
44.93 - 45.98:		generally non-silicified to very weakly silicified; non-brecciated massive flow.	1506	0-2	43.64	44.27	0.63			0.01					
45.98 - 47.39:		pillowed, weakly silicified locally.	1507	3-5	44.27	44.90	0.63			0.01					
47.39 - 50.90:		massive - minor penetrative silicification locally on a cm scale - associated with narrow fracture zones.													
50.90 - 57.38:		pillowed - sample of inter-pillow epidotized and pyritized material removed for assay (51.20-51.30). Coarsely crystalline calcite in voids. Pillows have spotty silicification locally associated with 5-10cm breccia zones - no apparent increased pyrite except in selvages (3-5% above 1% average). Rock is strongly fractured and locally sheared - possible basal flow, lower 1.0 m is less pillowed.	1508	2-3	51.20	51.30	0.10			0.01					
57.38 - 58.98:		brecciated - strongly epidotized, moderately to strongly silicified.	1509	0-1	59.55	60.55	1.00			tr.					
59.88 - 60.03:		massive, weakly brecciated flow, fine grained to very fine grained.	1510	2-3	60.55	61.45	0.90			tr.					
60.03 - 62.83:		pillowed - similar to 50.90-57.38 m - pillow centres are weakly brecciated, silicification is irregular.	1511	1-2	61.45	62.14	0.69			tr.					
62.83 - 66.70:		massive, moderately brecciated locally, minor moderate silicification locally - white calcite locally in dilatant zones.	1512	1-2	62.14	62.83	0.69			tr.					
66.70 - 67.20:		brecciated - strongly chloritized - near flow margin (base)?	1513	1-2	66.70	67.20	0.50			tr.					
67.20 - 68.00:		epidotized, brecciated, strongly hematized fractures - basal flow?	1514	1-2	67.20	67.70	0.50			tr.					
			1515	2	67.70	68.70	1.00			tr.					
			1516	1-2	68.70	69.70	1.00			tr.					

DIAMOND DRILL RECORD

NAME OF PROPERTY LENDRA
 HOLE NO. MC-83-38 SHEET NO. 3 OF 5

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS						
			NO.	% SUPPH IDES	FOOTAGE FROM TO	TOTAL	%	%	02.70M	02.70M		
68.00	86.96	<p><u>DIORITE</u></p> <p>Dark green, fine to medium grained, mostly carrying 5% strongly hematized, weakly pyritized xenoliths of moderately silicified volcanic rock. Xenoliths are usually rounded. Hematite seems to be bladed in the fragments. Fragments average 1cm in size but 2cm size is common. Intrusive is weakly to moderately fractured. Breaks are chloritized and hematized with minor epidote. Feldspar crystals are weakly saussuritized. Plasmatic hornblende crystals up to 1cm are noted locally. A central zone (73.18-73.70 m), is porphyritic with 1-5cm fractured feldspar phenocrysts - probably were euhedral and zoned. Abundant carbonate stringers cut core at varying angles and carry a trace of chalcopyrite. Pyrite content averages 1%.</p> <p>68.00 - 69.00: fine to medium grained, up to 2% pyrite.</p> <p>69.00 - 73.18: several well foliated (chloritized mica), bands up to 10cm - up to 5% pyrite locally in less than 10cm zones; abundant xenoliths.</p> <p>73.18 - 73.70: porphyritic zone - 1cm hornblende crystals.</p> <p>73.70 - 74.95: medium grained.</p> <p>74.95 - 77.10: fine grained, abundant carbonate stringers, trace chalcopyrite.</p> <p>77.10 - 77.52: mylonitic, intensely chloritized, and brecciated fault zone - carbonate in dilatant zones. Green clay seam at 77.44 - 77.48 m.</p> <p>79.12 - 79.50: 5-10% green breccia fragments of local origin.</p> <p>81.70 - 86.60: massive, weakly fractured, medium grained; mm scale mottling - texture due to segregation of mafic and felsic components(?). Moderately chloritized. Major fractures are strongly hematized.</p> <p>86.60 - 86.76: moderate to strongly fractured - white carbonate filling.</p> <p>86.76 - 86.96: weak to moderate brecciation - rock is finer grained - fragments up to 2cm, no subsequent movement to tension (pull-apart) - shrinkage fractures.</p>										
			C	0-1	86.46	86.96	0.50				0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY LENORA
 HOLE NO. Mc-83-38 SHEET NO. 4 OF 5

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO. IDS	% SULPH. FROM	FOOTAGE TO	% TOTAL	% 0.1 TON	% 0.2 TON		
86.96 - 106.98	<u>SEDIMENTS</u> Dark green to medium green, fine to very fine grained, strongly fractured with quartz and carbonate in fractures. Strongly hematized locally, especially 86.96-87.40 m carrying 5-10% hematite. Near upper contact, network fracturing and brecciation is strong but decreases with depth. Some dilatant zones are white carbonate "vein" filled. Carbonate supports abundant angular fragments of which some are volcanic. Approximately 5% are of silicified blue-grey micro-breccia. Silicification of the sediments is variable and does not appear to be entirely breccia related. Pyrite contents are up to 7% - associated with strong hematization. Sulphide present as a very fine grained dissemination. 88.60 - 89.19: white carbonate filled breccia zone - some fragments are well laminated. 89.00 - 91.05: strongly fractured, brecciated at top, silicification is limited to breccia fragments; zone carries 3-5% pyrite, up to 7% locally with trace of chalcopyrite. Non-silicified rock is strongly chloritized. Pink "cyanitic" zone at 89.42-89.52 m - cherty sediment? 91.05 - 91.83: <u>FAULT ZONE</u> - chloritized breccia, mylonitic. 91.83 - 92.40: breccia - minor silicification locally restricted to fragments; 2-4% pyrite. 92.40 - 92.80: weakly brecciated - several quartz-carbonate stringers sub-parallel to core axis. 92.80 - 93.45: moderately to strongly brecciated, non-silicified, strongly fractured, moderately chloritized; strongly laminated locally (93.22 - 450 to core axis), with tufaceous appearance. 93.45 - 93.52: mylonitic seam - small bedding fault. 93.52 - 95.04: well laminated - contains several zones of what appears to be chloritized vitric tuff - fragments up to 1mm. Zone from 93.97-94.06 may contain 1-5mm punice sharts in an intensely chloritized groundmass. 95.04 - 96.50: well brecciated, moderate silicification of certain laminations, very minor carbonatization. Below 95.61, silicification of breccia is more pervasive although strongly fractured rock is chloritized.	1518 1519 1520 1521 1522 1523 1524 1525 1526 1901 1902 1903 1527 1528 1529	0-1 0-1 0-1 3-5 3-5 3-5 3-5 0-1 0-1 2-4 2-4 2-4 2-3 2-3	86.96 87.43 88.43 88.43 89.00 89.50 90.00 90.53 90.53 91.05 91.05 91.83 92.40 92.40 93.40 94.40 95.04 95.04 95.61 96.10 96.10 96.50	87.43 88.43 89.00 89.50 90.00 90.53 91.05 91.83 92.40 93.40 94.40 95.04 95.61 96.10 96.50	0.47 1.00 0.57 0.50 0.50 0.53 0.52 0.78 0.57 1.00 1.00 0.64 0.57 0.49 0.40	0.01 0.01 0.01 0.02 0.02 0.08 0.15 0.01 0.01 tr. tr. 0.01 0.05 0.11 0.27	0.130 1.46 (4.8')	

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-39 SHEET NO. 2 OF 6

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			ASSAYS					
					FROM	TO	TOTAL	%	%	GZ/TON	GZ TON		
15.98 - 16.51:		<u>Dioritic Intrusive</u> - fine to medium grained, with abundant felsic and mafic fragments. Xenoliths are well rounded. Upper contact at 550 to core; lower at 35-400 to core axis.											
16.51 - 23.68:		weakly brecciated, pillowed section; carries 1% pyrite, 2% in pillow selvages. Pillow rims are off-set up to 6cm locally across microfaults.	1470	1	18.00	19.00	1.00			0.01			
23.68 - 24.78:		fine grained, dioritic zone - probably not intrusive; carries fractured, pale green feldspar phenocrysts up to 1cm. No pillow selvages.											
24.78 - 31.26:		pillowed section - abundant breccia associated with pillow margins. Dilatant zones between pillows are carbonate filled and may contain up to 5% pyrite (eg. 26.95-27.32 and 28.25-28.80 m). Rare fractured 1-5mm feldspar phenocrysts. Zone averages 1% pyrite.	1471	2	26.95	27.38	0.43			cr.			
			1472	2	28.25	28.80	0.55			0.01			
31.26 - 31.42:		<u>Dioritic Intrusive</u> : pinkish green, fine grained, chilled contacts.											
31.42 - 31.95:		hyaloclastite - less glassy than might be expected, intense shattering of lava then re-welding.											
31.95 - 40.35:		massive flow - few pillow selvages; minor intense brecciation with pink quartz (silica) infilling - carrying 2-4% pyrite; (eg. 34.90-35.09 and 36.35-36.50 m). Possibly vesicular at 36.50-36.80.	1473	1	34.90	35.09	0.19			cr.			
40.35 - 40.85:		very fine grained, strongly fractured and brecciated; dilatant zones are white carbonate filled. Some increase in pyrite content is noted in carbonate filled fractures and interstitially in lava.	1474		40.35	40.85	0.50			cr.			
40.85	55.09	<u>DIORITE</u> Dark green, fine to medium grained, strongly fractured with abundant pink quartz and carbonate filled fracture zones above 43.20 m. Zone also carries a few fractured silicified xenoliths of volcanic rock (presumably). These are rounded and up to 2cm in size. Margins are fine grained with a porphyritic central zone.											

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-39 SHEET NO. 3 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	01. TON	02 TON
		40.85 - 43.20: fractured contact zone, strongly chloritized, weakly epidotized; fractures are strongly hematized - carries volcanic xenoliths.	C 1475		40.85	41.85	1.00			0.01	
		43.20 - 48.16: fine to medium grained, weakly fractured, less altered.									
		48.16 - 53.80: porphyritic, little increase in grain size of groundmass but carries fractured, previously euhedral pale green feldspars up to 1.5cm - weakly urallitized; zone is weakly fractured.	1476	0-1	53.00	54.00	1.00			0.01	
		53.80 - 55.09: finer grained, abundant silicified reddish-pink, fractured xenoliths of volcanic(?) rock. Zone below a shear at 55.05 m carries larger xenoliths in 10cm+ range. Xenoliths are pinkish, silicified and weakly pyritized.									
55.09	59.45	<u>BASALT</u> Medium to dark green, fine to very fine grained, strongly brecciated - cross network of fractures - epidotized. No fragment rotation is noted post-dating brecciation. Pillow selvages are noted locally (26.50-28.00). The rock is non-magnetic and weakly silicified locally.									
		55.09 - 56.50: massive, strongly brecciated.	1477	1-2	55.09	56.09	1.00			0.01	
		56.50 - 58.00: pillowed zone, some increased pyrite in space between pillows.	1478	1-2	56.09	57.10	1.01			tr.	
		58.00 - 58.80: possible xenoliths of sediment - reddish-green, up to 5cm in size - others are blue-grey and up to 2cm. Fragments are moderately to strongly silicified.	1479	1-2	57.10	58.10	1.00			tr.	
		58.80 - 59.45: reddish-pink, fine grained and highly silicified. Carries abundant intensely chloritized, green fragments up to 2mm in size.	1480	1-2	58.10	58.80	0.70			0.01	
59.45	91.74	<u>SEDIMENTS</u> Dark green, fine to very fine grained, becoming purple-grey in brecciated or strongly silicified sections. The uppermost part is very poorly laminated to non-laminated. Well laminated sections are	1481	2	58.80	59.45	0.65			tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-39 SHEET NO. 4 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS		
			NO.	% SULPH. IDES	FROM	TO	TOTAL	01. TON	02 TON
		noted deeper. Chloritization is strong at the upper contact, possibly due to the overlying lavas, but decreases with depth. Several zones of moderate to strong silicification are noted, and increases in pyrite content, up to 10%, are observed. The section averages 1-3% pyrite. Purple colouration is due to varying degrees of hematization.							
59.45 - 60.00:		strongly chloritized, weakly sheared, non-laminated; shear at 60.00 cuts core at 20°.	1482	0-1	59.45	60.00	0.55	0.01	
60.00 - 61.40:		purple-grey with honey coloured feldspathized filling in dilatant zones and along fractures developed in breccia. Fragments are up to 1cm - openings are filled with micro-breccia. Feldspathized rock carries increased pyrite - 7-9% versus an average 3-7%. Below 60.65, chloritized seams and fractures increase, degree of silicification decreases from strong to moderate and pyrite content falls to 3-5%. Purple colouration due to moderate hematization, also hematite seams up to 5mm.	1483 1484	7-10 3-5	60.00 60.65	60.65 61.40	0.65 0.75	0.01 0.01	
61.40 - 62.22:		FAULT ZONE - intensely chloritized and strongly sheared - mylonitic from 61.68-61.88 m. Lower 34cm is strongly fractured with carbonate filling; 0-1% pyrite.	1485	0-1	61.40	62.22	0.82	0.02	
62.22 - 62.98:		pinkish-green, weakly chloritized and weakly to moderately silicified; moderately to strongly brecciated - fragments are very angular with no subsequent rotation. Silicification is penetrative into fragments but alteration is incomplete. Zone 62.54-62.64 m is non-silicified.	1486	2-3	62.22	62.98	0.76	0.01	
62.98 - 65.34:		moderately chloritized, weakly silicified locally and moderately brecciated; laminations visible locally at 450 to core axis (eg. 63.22 m). 0-1% pyrite.	1487 1488 1489	0-1 0-1 0-1	62.98 63.98 64.66	63.98 64.66 65.34	1.00 0.68 0.68	cr. cr. cr.	
65.34 - 66.10:		spotty silicification; moderate in strength, with weak to moderate hematization; 1% pyrite.	1490	1	65.34	66.10	0.76	0.01	
66.10 - 66.84:		dark grey-green to grey, well laminated and weakly silicified; very minor brecciation. Carries 8-10% pyrite concentrated as a fine grained dissemination	1491	8-10	66.10	66.84	0.74	0.07	

DIAMOND DRILL RECORD

NAME OF PROPERTY Tenora
 HOLE NO. Mc-83-39 SHEET NO. 5 OF 6

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS		
		NO. IDCS	% SULPH	FOOTAGE FROM TO	%	g2 TON	g2 TON
66.84 - 72.06:	parallel to the laminations in narrow seams. Bedding is at 60-70o to core axis. A fault at 66.50 m cuts core at 40o and slickensides pitch 60o across plane. moderately laminated, non-brecciated, moderately chloritized with minor 10cm weakly siltified sections - pyrite averages 1-3% with minor increases in siltified rock. Laminations at 45-50o to core axis at 70.80 m. The zone 71.46-71.54 is intensely chloritized fault zone - surrounding rock strongly brecciated and sheared.	1492 1493 1494 1495 1496	1-3 1-3 1-3 1-2 1-2	66.84 67.84 68.95 69.95 70.95 72.06	67.84 68.95 69.95 70.95 72.06	1.00 1.11 1.00 1.00 1.11	0.07 0.08 0.16 0.12 0.01
72.06 - 72.46:	well laminated, chloritized zone; 3-5% pyrite - very finely disseminated between laminations - alternating siliceous and argillitic.	1497	3-5	72.06	72.46	0.40	
72.46 - 73.90:	chloritized, moderately well laminated (73.16 at 45o to core), same as 66.84-72.06, trace chalcopyrite in fractures.	1498 1499	1-2 1-2	72.46 73.18	73.18 73.90	0.72 0.72	
73.90 - 74.11:	intensely siltified, then brecciated - highly angular fragments up to 1cm in a strongly chloritized groundmass; 5-7% pyrite.	1500	5-7	73.90	74.11	0.21	
74.11 - 74.65:	same as 72.46-73.90 - laminations at 65o to core axis (eg. 74.63 m).	1543	1-3	74.11	74.65	0.54	
74.65 - 75.15:	zone of soft sediment deformation - bedding tightly folded, often open folds along core axis.	1544	1	74.65	75.15	0.50	
75.15 - 78.35:	poorly laminated, fine to medium grained, moderately fractured, moderately siltified locally.	1545 1546 1547	1 0-1 0-1	75.15 76.15 77.15	76.15 77.15 77.75	1.00 1.00 0.60	
78.35 - 79.35:	weakly to moderately foliated, non-laminated, possibly tuffaceous - fine to medium grained.	1548	0-1	77.75	78.35	0.60	
79.35 - 80.70:	moderately laminated, similar to overlying section compositionally; bedding at 79.40 m is at 50-55o to core axis. A 3cm quartz vein cuts at 50o at 80.23 m.	1549 1550 1551	0-1 0-1 0-1	78.35 79.35 80.00	79.35 80.00 80.82	1.00 0.65 0.82	
80.70 - 80.82:	laminated and strongly brecciated, 1-3% pyrite.	1552	1-2	80.82	81.82	1.00	
80.82 - 81.82:	generally non-laminated.	1553	0-1	81.82	82.83	1.01	
81.82 - 82.18:	strongly laminated at 20-30o to core axis - soft sediment slumping.						

DIAMOND DRILL RECORD

NAME OF PROPERTY Lenora
 HOLE NO. Mc-83-39 SHEET NO. 6 OF 6

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHUR IDES	FROM	TO	TOTAL	%	%	01 TON	02 TON
82.18	91.74	massive, non-laminated, some weak foliation of chloritized clasts at 30-400 to core axis. Fractures strongly hematized from 82.18-82.90. A gradual increase in epidotization is noted, becoming pronounced below 87.50 m. Rock is medium grained and less fractured at base of hole. A 6cm sample was removed for thin sectioning.	C	0-1	82.83	83.83	1.00			0.01	
			1555	0-1	83.83	84.83	1.00			0.01	
			1556	0-1	84.83	85.83	1.00			0.05	
			1557	0-1	85.83	86.83	1.00			0.05	
			1558	0-1	86.83	87.83	1.00			0.03	
			1559	0-1	87.83	88.83	1.00			0.05	
			1560	0-1	88.83	89.83	1.00			0.12	
				1561	0-1	89.83	90.83	1.00		0.06	
				1562	0-1	90.83	91.74	0.91		0.02	
91.74 meters		END OF HOLE									
		CASING PULLED									

DIAMOND DRILL RECORD

HOLE NO. Mc-83-40 SHEET NO. 1 OF 10

REMARKS BQ Core

Split for analysis

Hole drilled 7° off section.

LOGGED BY A.W. Workman

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-40 LENGTH 218.87 meters

LOCATION 10 +00 E DEPARTURE 1 + 30 S

LATITUDE 10 +00 E AZIMUTH 351° DIP -70°

ELEVATION 137.16 FINISHED September 14, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°		182.88	-59°	
45.72	-69°		218.54	-57°	
91.44	-65°				
137.16	-67°				

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS							
			NO.	SIZE	FROM	TO	TOTAL	%	%	OZ./TON	OZ./TON			
0	39.93	OVERBURDEN												
39.93	41.45	LOST CORE												
41.45	87.82	Casing over-drilled. <u>BASALT</u>												
		Dark green, fine to very fine grained, generally pillowed flow with some massive zones. Lava is vesicular locally - vesicles now filled with carbonate and occasionally chlorite. Fracturing is variable - usually carbonate with hematite. Some textural changes are noted across narrow breccia or shear zones. Pyrite content averages 1% with traces of chalcopyrite. The zone is non-magnetic.	C	1574	0-1	46.00	47.00	1.00						0.01
		48.35 - 48.45: hematized fractures at 200 to core axis.												
		48.35 - 48.45: carbonate filled, coarsely brecciated zone sheared at 300 to core axis.												
		48.45 - 48.56: finely brecciated fault gouge; strongly chloritized.												
		50.35 - 51.85: strongly fractured; strongly chloritized, often sheared (200 at 51.0 m). Abundant white carbonate filled fractures.												
		52.30 - 57.00: relic vesicles throughout zone - carbonate filled; 10-15% 1-2cm carbonate filled fractures.												
		55.35 - 55.45: carbonated, brecciated shear zone.		1575	0-1	57.06	58.06	1.00						0.01
		58.06 - 58.40: carbonated, breccia zone.		1576	0-1	58.06	58.40	0.36						0.01
		61.35 - 63.00: 80-90% white crystalline carbonate, with 10-20% Green angular breccia fragments up to 1cm in size.		1577	0-1	58.40	59.40	1.00						0.01
		63.00 - 87.30: medium green, pillowed section, fine grained, with locally developed vesicles up to 1cm, mostly developed near selvages; single pillow selvages cut up to 60cm along core axis. Some inter-pillow breccia - strongly chloritized with 1-3% pyrite, and white carbonate in voids. Moderately silicified		1578	0-1	61.35	62.20	0.85						cr.
				1579	0-1	62.20	63.00	0.80						cr.
				1580	1-3	75.00	75.50	0.50						cr.
				1581	1	79.95	80.54	0.59						cr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-40 SHEET NO. 2 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	02. TON	01. TON
87.82 - 90.04	<p>87.30 - 87.65: moderately to strongly sheared - pyrite crystals up to 8mm.</p> <p><u>QUARTZ VEIN</u></p> <p>White bull quartz, barren of sulphide; lower 28cm carries abundant 'streaks' of green sediments - preserving bedding orientation as evidenced below. Lower 'dirty' section carries 1-3% pyrite.</p>	1582	3-5	87.30	87.82	0.52			tr.	
90.04 - 91.93	<p><u>SEDIMENTS</u></p> <p>Dark green, fine grained, very well laminated, possibly tuffaceous. Moderately to strongly chloritized with 3-5% pyrite throughout. Several quartz stringers cut core parallel to laminations.</p> <p>Non-magnetic.</p> <p>90.20: laminated at 55-600 to core axis.</p> <p>90.95: laminated at 650 to core axis.</p> <p>91.73 - 91.93: non-laminated, fine to medium grained.</p>	1585	1-3	87.82 88.79 89.76	88.79 89.76 90.04	0.97 0.97 0.28			0.01 0.01 0.01	
91.93 - 109.77	<p><u>BASALT.</u></p> <p>Medium to dark green, fine to very fine grained, very finely tectonically auto-brecciated. No subsequent rotation of highly angular 1-7mm fragments. Lower part is well pillowed. Some sections are medium grained and felsic - almost dioritic.</p> <p>Non-magnetic. Stimlar to flow(s) in top of hole.</p> <p>92.65 - 93.70: relic vesicles, chlorite and carbonate filled - up to 1mm in size. Very weak flow foliation locally - rock may be weakly flow brecciated. Also relic pillow selvages locally. Carries 1% pyrite and 1-3% quartz stringers up to 2cm width.</p> <p>93.70 - 96.72: possibly pillowed, alternating aphanitic seams with fine grained epidotized rock.</p> <p>96.72 - 97.53: fine to medium grained - dioritic.</p>	1588 1589	0-1 0-1	91.93 92.65	92.65 93.70	0.72 1.05			tr. tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-40 SHEET NO. 3 OF 10

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ASSAYS			
				FROM	TO	TOTAL	%	%	GT/TON	GT/TON
97.53 - 106.25:	pillowed section - selvages well defined and average 55cm apart. Dip to 5% pyrite between pillow selvages. Pillow centres often brecciated and epidotized with minor silicification. Some increase in pyrite towards lower contact.	1590	1-2	106.25	107.10	0.85			0.01	
106.25-107.10:	Zone of 40-60% clear quartz with remainder composed of epidotized volcanic rock. Quartz may have filled large dilatant zone or void between pillows then later brecciated.									
107.10-107.25:	several pillow selvages with 5% pyrite.	1591	5	107.10	107.25	0.15			0.01	
107.25-109.77:	variably brecciated and epidotized; locally silicified with minor epidote. Several small shears noted at 40-450 to core axis - quartz filled with 3-5% pyrite. Shears are parallel to laminations in underlying sediments. Lowermost 12cm may actually be hematized silicified sediment.	1592	1-2	108.77	109.77	1.00			tr.	
109.77 - 111.73	<u>SEDIMENTS</u> Alternating dark green and pale green laminations; fine to very fine grained and well laminated at 45-500 to core axis at 109.85 m. Small micro-faults offset banding at right angles on a mm scale. Some 'silty' zones are weakly carbonatized. Most carbonate in the zone is fracture rather than texturally controlled. Small, locally developed, breccia zones up to 20cm in width cut across laminations. Zone is non-silicified, non-magnetic. Abundant 0.1-5.0mm carbonate stringers carry 30-50% bladed hematite crystals. Stringers are often parallel to bedding. Zone carries 0-1% pyrite.	1593 1594 1595	0-1 0-1 0-1	109.77 110.57 111.33	110.57 111.33 111.73	0.80 0.76 0.40			tr. tr. tr.	
111.73 - 129.58	<u>BASALT</u> Medium to dark green, fine grained, moderately brecciated locally. Epidote and carbonate in fractures of breccia - fragments have undergone no subsequent movement. Zone is not pillowed but does contain some flow breccia. Section averages 0-1% pyrite in clots up to 8mm. 111.73-114.02: weakly to moderately brecciated, non-silicified. 114.02-115.45: greenish-pink, chloritic zone; fine to medium grained with a 1-2cm very fine grained upper contact	1596 1597 1598	0-1 0-1 0-1	113.52 114.02 114.72	114.02 114.72 115.45	0.50 0.70 0.73			tr. tr. tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc.83-40 SHEET NO. 4 OF 10

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE		TOTAL	ASSAYS				
				FROM	TO		%	%	02.70M	02.70M	
115.45-115.67:	at 800 to core axis. zone does not fine towards lower 450 contact - possibly sedimentary rather than intrusive. Carries abundant chloritized specks - 2-3mm in size.	C 1599	3-5	115.45	115.67	0.22					tr.
118.10-120.26:	lava has incorporated numerous xenoliths of sediment - well rounded with alteration rims and vaguely preserved laminations. Fragments are tectonically brecciated with quartz and carbonate in tight fractures which cut both fragments and lava matrix. Both are strongly chloritized. Weakly to moderately silicified locally (eg. 119.41-120.26).	1600 1601	1 1	118.66 119.41	119.41 120.26	0.75 0.85					tr. tr.
120.26-121.30:	medium grained matrix surrounds sub-angular to sub-rounded fragments up to 5cm in width and probably 5-10cm in length; 2-4mm reaction rims. Matrix is strongly chloritized. Zone is likely a flow breccia.	1602	0-1	120.26	121.30	1.04					tr.
121.30-122.07:	tectonically brecciated.	1603	0-1	121.30	122.07	0.77					tr.
122.07-123.32:	greenish-red, fine to medium grained <u>INTRUSIVE</u> - massive, weakly fractured, weakly magnetic, carries 1-3% pyrite but up to 10% at contacts. No chlll developed at upper contact at 350 to core axis. Lower contact exhibits a well developed 25cm chlll zone. The lower 40cm carries several rounded to sub-angular mafic xenoliths up to 2cm in size.	1604	2-3	122.07	123.32	1.25					tr.
123.32-129.58:	weakly auto-brecciated - tectonic stresses; weakly sheared locally over sections of 30-40cm at 350 to core axis. Fractures are dominantly carbonate and hematite filled. Probable base of volcanic rocks.	1605 1606 1607 1608 1609 1610	0-1 0-1 0-1 0-1 0-1 0-1	123.32 124.43 125.43 126.43 127.43 128.43 129.58	124.43 125.43 126.43 127.43 128.43 129.58	1.11 1.00 1.00 1.00 1.00 1.00 1.15					tr. 0.01 0.01 tr. tr. tr.
129.58 146.45	<u>SEDIMENTS</u> Dark green to medium grey-green, fine to very fine grained and weakly to moderately chloritized. Bedding laminations are well exhibited becoming moderately developed locally. Parting is well developed parallel to the laminations. The rock is fine to medium grained locally in grey coloured zones up to 15cm in thickness. Bedding is less well developed in these 'sandy' zones. White										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-40 SHEET NO. 5 OF 10

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS			
		NO. ID#S	% SULPH FROM	FOOTAGE TO	%	%	GT./TON	GT./TON
	carbonate is found as a replacement feathering out along the laminations. Rock is weakly carbonatized. Abundant quartz-carbonate stringers cross-cut the laminations at varying angles, make up 1-5% of the section. Small shear planes parallel to the laminations are often weakly hematized.	C						
	129.58-134.32: weakly hematized, abundant semi-massive rock. Hematite fracture fillings and stringers up to 8mm at 132.80-133.20 m. Pyrite, 3-5% in locally developed breccia at 138.75-133.85 m.	1616	5-6	134.32	134.85	0.53		
	134.32-134.85: greyish, fine to medium grained, crudely laminated at 450 to core axis. Pyrite in concentrations up to 5-6% in chloritized seams along laminations.	1617	0-1	134.85	135.85	1.00		
	Selective brecciation of sets of laminations locally alternates with non-brecciated beds - possibly due to soft sediment deformation - some weak to moderate silicification in breccia.	1618	0-1	135.85	136.85	1.00		
	134.85-140.64: moderately to well laminated, chloritized, non-brecciated, non-silicified.	1619	0-1	137.85	138.85	1.00		
	140.64-141.38: laminations are better developed, often coarser and possibly tuffaceous (eg. 140.64-141.15 m). Locally silicified, especially 141.15-141.26 m., with increased pyrite up to 5% as very finely disseminated blebs and crystals up to 1mm.	1620	0-1	139.85	140.64	0.79		
	Laminations at 40-450 to core axis at 141.10 m. Zone averages 3-5% pyrite.	1621	3-5	140.64	141.38	0.74		
	141.38-146.45: coarsely laminated, possibly due to original texture; medium to coarse grained towards base. Rock contains 20-30% dark green intensely chloritized clasts up to 3mm in size. Clasts are moderately well foliated.	1622	0-1	141.38	142.40	1.02		
		1623	1	143.40	144.40	1.00		
		1624	1	145.39	146.39	1.00		
		1625	1-2	146.39	147.42	1.03		
146.45 165.33	<u>MAIN MINERALIZED ZONE</u> The zone consists of a gradual increase in silicification and brecciation with local peaks, then a gradual decline in brecciation and with it, silicification. Pyrite contents are highest where the rock is strongly brecciated and silicified. The rocks through this section are sediments although sedimentary structure is not always visible.							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc. 83-40 SHEET NO. 6 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SULPHIDES	FOOTAGE FROM TO	%	%	01./10M	02./10M	
146.45 - 148.42	<p><u>TRANSITIONALLY SILICIFIED SEDIMENTS</u></p> <p>Dark green to grey-green, fine to locally medium grained, well laminated but brecciation often masks structure. Brecciation is confined to single laminations and sets of laminations. Silicification is confined to breccia zones, and fractures. 146.45-147.30: fractures have flesh coloured halos which are strongly silicified. Fractures themselves are chlorite filled. 147.30-148.42: selective brecciation and silicification of certain laminations or sets of laminations up to 1cm thickness. Bedding at 450 to core axis.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Grey to purple-grey, occasionally honey coloured due to feldspathization, moderately to intensely silicified and about 95% brecciated. Breccia fragments are most highly silicified and are often set in a strongly chloritized clastic matrix. In this case, silicification has preceded brecciation. Brecciation may have been due to a sedimentary process and siliceous clasts enveloped in later sediment. Fragments are extremely angular. Some zones, which may be the most highly silicified, are well laminated, and non-brecciated. Pyrite content is proportional to degree of silicification and increases from an average of 3-4% to peaks of 10%. 148.42-148.72: intensely silicified fragments up to 5cm in strongly chloritized matrix. 148.72-148.95: upper contact is a green clay filled fault plane - underlying rock is very well laminated at 450 to core axis, very highly silicified; feldspathized, up to 10% pyrite. 148.95-150.85: same as 148.42-148.72 m. Content of silicified fragments increases from 50% to 80%. Well laminated locally at 450 to core axis (eg. 150.25 m).</p>	C							
148.42 - 160.45			1626	1-2	147.42 - 148.42	1.00	tr.		
			1627	3-4	148.42 - 148.72	0.30	tr.		
			1628	8-10	148.72 - 148.95	0.23	0.18		
			1629	3-4	148.95 - 150.00	1.05	0.02		
			1630	3-5	150.00 - 150.85	0.85	0.06		
			1631	5-7	150.85 - 151.85	1.00	0.06		
			1632	8-10	151.85 - 152.60	0.75	0.07		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc. 83-40 SHEET NO. 7 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPHIDES	FROM	FOOTAGE TO	TOTAL	%	%	02./TON	02./TON
150.85-152.60:	weakly brecciated, intensely silicified with 10-20% chloritized rock. Some fragments below 151.95 m are feldspathized. Zone carries 5-7% pyrite, up to 10% locally in feldspathized sections. A reddish-purple alteration or hematization is noted locally, becoming stronger with depth.									
152.60-153.65:	moderately to strongly brecciated, intensely silicified fragments; carries 10-20% chloritized beds; pyrite content 5-7%, well laminated locally; eg. 400 at 152.65 m.	1633	5-7	152.60	153.65	1.05			0.06	
153.65-154.65:	fragments increasingly feldspathized, content of silicified fragments decreasing slightly.	1634	5-7	153.65	154.15	0.50			0.04	
154.65-156.48:	25-50% silicified breccia fragments with brecciated horizons up to 10cm. Flanking horizons are non-brecciated, chloritized and very weakly silicified. Silicified breccia carries 3-5% pyrite above a 1-3% average.	1635	5-7	154.15	154.65	0.50			0.07	
156.48-158.50:	dark green, weakly to moderately brecciated throughout with white carbonate in tentional type fractures separating angular fragments up to 2cm. Generally non-laminated. Minor silicified breccia locally (eg. 157.30-157.40).	1636	2-4	154.65	155.65	1.00			0.16	
158.50-160.45:	essentially same as above section but carries better laminations with more widespread brecciation and silicification. Weak to moderate hematization produces a purple-grey colour locally.	1637	2-4	155.65	156.48	0.83			0.10	
160.45-162.97:	This zone is a dark green to grey green, fine grained locally brecciated and silicified transition zone from mostly silicified rock to non-silicified rock. Brecciation resembles shrinkage type fracturing (tensional). Sedimentary laminations are well developed but locally, brecciation masks structure. Pyrite content averages 1-3%; higher in silicified breccia.	1638	0-1	156.48	157.50	1.02			0.02	
162.97-164.45:	massive, non-silicified, very locally brecciated along certain laminations. Bedding well developed locally eg. 300 to core axis at 160.50 m. Zone carries 2-3% pyrite - mostly as 1mm cubes.	1639	1-2	157.50	158.50	1.00			0.01	
164.45-166.15:		1640	3-5	158.50	159.50	1.00			tr.	
166.15-167.85:		1641	3-5	159.50	160.45	0.95			tr.	
167.85-169.55:		1642	2-3	160.45	161.45	1.00			tr.	
169.55-171.25:		1643	2-3	161.45	162.45	1.00			tr.	
171.25-172.95:		1644	2-3	162.45	162.97	0.52			tr.	

TRANSITIONALLY SILICIFIED SEDIMENTS

This zone is a dark green to grey green, fine grained locally brecciated and silicified transition zone from mostly silicified rock to non-silicified rock. Brecciation resembles shrinkage type fracturing (tensional). Sedimentary laminations are well developed but locally, brecciation masks structure. Pyrite content averages 1-3%; higher in silicified breccia.

160.45-162.97: massive, non-silicified, very locally brecciated along certain laminations. Bedding well developed locally eg. 300 to core axis at 160.50 m. Zone carries 2-3% pyrite - mostly as 1mm cubes.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-40 SHEET NO. 8 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SULPH IDS	FOOTAGE FROM TO	TOTAL	%	%	OZ/TON	OZ/TON
162.97-164.45:	reddish-pink, intensely silicified, euhedral(?) appearing zone - carries angular red breccia clasts up to 3cm in a strongly chloritized dark green matrix - 60-70% fragments; carries 2-3% very finely disseminated pyrite. Zone may be sediment.	1645	2-3	162.97	163.68	0.71			CT.
		1646	2-3	163.68	164.45	0.77			CT.
164.45-165.33:	zone is composed of silicified breccia beds up to 3cm in a dark green chloritized, laminated sequence. Silicification is very strong to intense - abundant reddish-pink silicified beds cut core axis at 400 - very similar to overlying zone. Silicified beds are micro-brecciated with 1-3mm fragments.	1647	2-4	164.45	165.33	0.88			CT.
<u>LOCALLY SILICIFIED SEDIMENTS</u>									
165.33-184.60	Dark green, fine to very fine grained, non-laminated to weakly laminated. Abundant white carbonate replacement feathers out along sedimentary foliation and highlights probable bedding. Weakly developed breccia zones up to 10cm locally are weakly silicified (eg. 166.00-166.05 m), greyish in colour and carry 1-3% pyrite versus an average of 0-1%. Carbonate veins and stringers were introduced later and often cut core axis at 0-50.	1648	0-1	165.33	166.35	1.02			CT.
		1649	0-1	166.35	167.35	1.00			CT.
		1650	1-2	167.35	167.87	0.52			CT.
		1651	1	167.87	168.87	1.00			CT.
		1652	1-2	168.87	169.34	0.47			CT.
		1653	0-1	169.34	170.53	1.19			CT.
		1654	0-1	170.53	171.43	0.90			CT.
		1655	0-1	171.43	173.00	1.57			CT.
		1656	0-1	173.00	174.00	1.00			CT.
		1657	0-1	174.00	175.06	1.06			CT.
		1658	2-4	175.06	175.80	0.74			CT.
		1659	1-2	175.80	176.52	0.72			0.01
		1660	4-5	176.52	176.93	0.41			0.07

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc. 83-40 SHEET NO. 9 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	oz./TON	oz./TON
176.93-178.44:	<p>selective siltification of particular brecciated sets of laminations - totalling 5-10% of section. Laminated at 250 to core; averages 1-3% pyrite. moderately to strongly siltified and brecciated; up to 5% pyrite, averaging 4-5%. 178.44-179.02: dark green with 10-20% purple-grey siltified brecciated laminations; contains average 2-3% pyrite, up to 4% locally. Weakly magnetic. 179.02-180.38: occasional siltified brecciated laminations. abundant strongly siltified brecciated zones up to 5cm thickness with clots of pyrite up to 1cm. Remaining chloritized rock is moderately hematized. Weakly magnetic. 180.38-181.21: same as 176.93-178.44 m. Up to 10% very finely disseminated pyrite locally. Laminated at 400 to core at 182.15 m. Weakly magnetic. 181.21-181.84: percentage siltification decreases - some grouping of locally siltified breccia. Carries 60% siltified breccia between 184.20-184.55 with 2-4% pyrite.</p> <p><u>SEDIMENTS</u></p> <p>Dark green, often sandy textured, and fine grained; moderately to well laminated at 35-500 to the core axis and weakly chloritized. Up to 4% pyrite is observed locally. Averages 0-2% pyrite. Sandy texture may reflect a tuffaceous component. Below 185.00 m the zone is weakly magnetic often becoming moderately magnetic. The lower part of this zone is composed of alternating fine and fine to medium grained sediments. Bedding becomes variably developed. Generally, the rock is non-brecciated and non-siltified. 184.60-188.06: sandy, non-siltified, laminated at 35-400. 188.06-188.80: brecciated bedding, moderately to strongly siltified, up to 5% pyrite, well laminated at 300 to core at 188.80 m.</p>	1661	1-3	176.93	178.00	1.07			0.01	
		1662	1-3	178.00	178.44	0.44			0.01	
		1663	4-5	178.44	179.02	0.58			0.74	
		1664	2-3	179.02	179.70	0.68			tr.	
		1665	2-3	179.70	180.38	0.68			tr.	
		1666	1-3	180.38	181.21	0.83			tr.	
		1667	5	181.21	181.84	0.63			0.08	
		1668	2-3	181.84	183.00	1.16			0.03	
		1669	1-2	183.00	184.00	1.00			0.01	
		1670	2-3	184.00	184.60	0.60			0.11	
184.60 218.87		1671	1-2	184.60	185.60	1.00			0.01	
		1672	2-3	187.80	188.80	1.00			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc. 83-40 SHEET NO. 10 OF 10

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	01.70M	01.70M
188.80-190.70:		fine grained, moderately laminated becoming less laminated and fine to medium grained with depth. Appears tuffaceous from 190.20-190.70 m.	1673	1-3	189.70	190.20	0.50			0.01	
190.70-190.90:		fine grained, weakly laminated.	1674	1-3	190.20	190.70	0.50			0.01	
190.90-191.80:		fine to medium grained.									
191.80-200.60:		alternating fine to very fine with fine to medium grained; below 197.50 is generally fine to medium grained, weakly chloritized; speckled with white 0.5mm clasts - possibly tuffaceous. Minor silicification associated with 1cm breccia zones surrounding narrow fractures.	1675	1	194.00	195.00	1.00			0.01	
200.60-201.00:		minor weak silicification with associated brecciation of individual laminations; weakly laminated; 2-4% pyrite.	1676	1	198.50	199.20	0.70			0.01	
201.00-201.15:		same as 191.80-200.60 m.									
201.15-202.15:		strongly laminated, lower 10cm becomes somewhat chaotic and moderately laminated; non-silicified; 202.20 m laminated at 30-350 to core axis.	1677	2-4	200.60	201.00	0.40			0.01	
202.15-204.20:		same as 201.00-201.15 m.									
204.20-212.65:		vaguely laminated, fine to medium grained carrying 0-1% pyrite as blebs up to 1mm. Abundant barren white carbonate stringers and veins up to 1cm. A dark grey zone at 207.42-207.95 m is strongly brecciated but not silicified and no increased pyrite.	1678	1-2	201.95	202.45	0.50			tr.	
212.65-213.50:		fine grained, well laminated at 45-500 to core axis.									
213.50-214.80:		fine to medium grained, poorly bedded.									
214.80-217.45:		well laminated locally at 45-500.									
217.45-218.30:		well laminated at 45-500 to core axis.									
218.30-218.87:		fine to medium grained, weakly foliated but not laminated.	1679	0-1	207.42	207.95	0.53			tr.	
218.87 meters		END OF HOLE CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-41 LENGTH 203.30 meters

LOCATION 9 + 50 E DEPARTURE 1 + 15 S

LATITUDE _____ AZIMUTH 344° DIP -70°

ELEVATION _____ STARTED September 14, 1983 FINISHED September 16, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
45.72	-70°				
91.44	-68°				
137.16	-64°				

HOLE NO. Mc-83-41 SHEET NO. 1 OF 7

REMARKS _____

LOGGED BY S. Trueland

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE			ASSAYS						
				NO.	SUIT	% PHOS	%	%	OZ/TON	OZ/TON			
0	5.00	5.00	OVERBURDEN										
5.00	16.87	16.87	BASALT										
16.87	52.50	52.50	PILLOWED BASALT										
52.50	85.84	85.84	BASALT										

Medium to dark green with medium grain size (2-4mm) consisting of 70% mafics and 30% felsics. The rock is massive with minor fractures infilled with carbonate. These fractures are 3-10mm wide and are oriented at 30° and 90° to the core axis. Sulphides can be found throughout in trace amounts.

The contact with the above flow is gradational over about 20-25cm at which point the rock becomes very fine grained and light to medium green in colour. This is a sequence of pillowed volcanics with well developed selvages which are infilled with carbonate. Amygdules are found within the volcanics in close proximity to the pillow selvages (2-10cm) and are infilled with carbonates. Hairline fractures throughout pillows have no regular orientation. Pillow breccia may be found, but is not abundant. Sulphides may be found associated with carbonates within pillow selvages.

Rock is medium to dark green and medium green. It is the same texturally as from 5.00-16.87 m. The contact with the above volcanics is abrupt and makes an angle of 10° with the core axis. Fracturing is minor and at random orientations.

DIAMOND DRILL RECORD

NAME OF PROPERTY Mc-83-41 McDetmott
 HOLE NO. 2 OF 7 SHEET NO. 2 OF 7

FOOTAGE	DESCRIPTION	NO.	% SULPHIDES	SAMPLE			TOTAL	%	%	ASSAYS	
				FROM	TO	FOOTAGE				02. TON	02. TON
57.00:	3cm wide olive green silicified material - looks like epidote but much harder - cuts core at 300 to core axis.										
69.64:	15cm wide carbonate vein at 200 to core axis.										
72.24:	5cm wide carbonate vein at 700 to core axis.										
74.79:	3-5cm wide cream coloured highly silicified material containing brecciated fragments ranging in size from 1mm to 2cm. Some carbonates found within it (fizzing from 10% HCl).										
75.50:	1cm wide carbonate vein at 550 to core axis.										
77.15:	1cm wide carbonate vein at 550 to core axis.										
78.23:	3cm wide cream coloured with green hue material. Does not contain large brecciated fragments as with 74.79 meters.										
80.65:	1cm wide carbonate vein at 550 to core axis. Hematite staining between carbonate and wallrock. Sulphides present.	1680		80.88	81.88	1.00				0.01	
81.88 - 82.18:	Intensely brecciated, highly silicified rock. Fragments are predominantly 2-3mm in size with some larger 2-5cm quartz fragments.	1681		81.88	82.18	0.30				0.01	
82.68 - 85.84:	more abundant fractures 1-2 $\frac{1}{2}$ within the intrusive ranging in size from 2-5mm. Infilling with carbonates and possibly quartz. The rock has localized foliation which could be caused by shearing.	1682		82.18	83.18	1.00				0.01	
85.84	88.78	1683		84.84	85.84	1.00				0.01	
<u>QUARTZ VEIN</u>											
	Milky white massive non-mineralized bull quartz. Within the quartz there are mafic fragments which were probably broken off from the wallrock upon intrusion of the quartz. These fragments have a slight foliation to them (possibly sediments) and range in size from 1-2mm up to 5-10cm. Sulphides (pyrite, chalcopyrite) are associated with these fragments as well as fractures containing darker material (possibly reworked wallrock). The quartz makes an angle of 75-80° to core axis on both upper and lower contact.	1684	1-2	85.84	86.35	0.50				tr.	
		1685	tr	86.35	86.85	0.50				tr.	
		1686	tr	86.85	87.35	0.50				tr.	
		1687	nil	87.35	87.85	0.50				tr.	
		1688	nil	87.85	88.35	0.50				tr.	
		1689	nil	88.35	88.78	0.48				tr.	
										(measures 0.70)	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-41 SHEET NO. 3 OF 7

FOOTAGE	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPHIDES	FROM	TO	%	%	GT./TON	GT. TON	
88.78 - 89.48	<u>SEDIMENTS</u> Medium to dark green laminated rock; locally is intensely brecciated. Brecciated fragments (2-10mm) are cream coloured as well as purple and white in colour. Purple coloured material scratches red - hematite. Euhedral pyrite crystals found within the brecciated rock as well as being finely disseminated along sedimentary lamellae. Average amount throughout is 1-2%.	C 1690	1-2	88.78	89.48	0.70			0.01	
89.48 - 89.93	<u>QUARTZ VEIN</u> As from 85.84-88.78 meters.	1691	tr	89.48	89.93	0.45			0.01	
89.93 - 94.63	<u>SEDIMENTS</u> Medium to dark green, fine grained, well laminated rock oriented between 400 and 600 to the core axis. The rock is locally brecciated with fragments up to 2cm in size. Sulphides are not confined to the brecciated zones, but are found throughout the interval as euhedral crystals, as well as being finely disseminated along lamellae. Hematite (purple) is found locally within some brecciated zones. 89.93 - 90.10: brecciated - fragments up to 5mm. 90.23 - 90.37: brecciated - hematite, 2cm quartz vein, cream coloured fragments (ankerite?). 90.53 - 90.60: quartz - no sulphides. 90.73 - 90.76: brecciated hematized zone. 90.97 - 91.23: quartz vein with cream coloured fragments (ankerite?) 2-5cm in size, and hematized fragments 2-4cm in size. Pyrite, localized, averages 1%.	1692 1693 1694 1695 1696		89.93 90.82 91.82 92.82 93.82	90.82 91.82 92.82 93.82 94.64	0.89 1.00 1.00 1.00 0.82	(actual 1.00)		tr. tr. 0.05 0.01 tr.	
	92.37 - 92.44: quartz vein) pyrite is concentrated within 92.77 - 92.79: brecciated) the sediments close to the 93.12 - 93.14: brecciated) brecciation									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-41 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FROM	TO	FOOTAGE TOTAL	%	%	0.2 TON	0.2 TON
94.64	96.44	<p><u>QUARTZ VEIN</u></p> <p>Bull white quartz with no sulphides. Pyrite concentrated at contact between quartz and sediments. Quartz contact is at 10-150 to core axis. This contact cuts across sedimentary lamellae which makes an angle of 60° with the core axis.</p>	1697		94.64	95.64	1.00			tr.	
			1698		95.64	96.44	0.80			tr.	
96.44	123.30	<p><u>SEDIMENTS</u></p> <p>Dark green, poorly to well laminated sediments. Narrow bands of brecciation up to 15cm wide found within the sediments. These bands represent less than 1% of the zone. Carbonates fill hairline fractures as well as fractures up to 1cm wide. The fractures are randomly oriented making up less than 1% of interval. Sulphides finely disseminated throughout amount to less than 1%. 112.33-112.91: sediments become more coarse grained with less carbonate veining. Laminations at 550 to core axis. 117.96: lamination at 450 to core axis. 121.00: lamination at 450 to core axis. 122.00: lamination at 400 to core axis.</p>	1701		99.44	100.44	1.00			tr.	
			1702		100.94	101.94	1.00			tr.	
			1703		102.94	103.94	1.00			tr.	
			1704		104.94	105.94	1.00 (actual 0.78)			tr.	
			1705		106.94	107.94	1.00			tr.	
			1706		108.94	109.94	1.00			tr.	
			1707		110.94	111.94	1.00			tr.	
			1708		112.94	113.94	1.00			tr.	
			1709		121.30	122.30	1.00			tr.	
			1710		122.30	123.30	1.00			tr.	
123.30	147.19	<p><u>MAIN SILICIFIED ZONE</u></p> <p>The main silicified zone is defined by the presence of highly silicified rock, possibly tuffaceous sediments. At the top of the zone there is alternating silicified and relic chloritized material. Chloritized rock is medium green with 40% white sub-rounded to</p>									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-41 SHEET NO. 5 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SULPH. IDES	FOOTAGE FROM TO	TOTAL	%	%	01. TON	02 TON
	rounded fragments. The silicified intervals are brecciated and highly silicified and are either creamy in colour (ankerite?) or dark grey with a purple hue (hematite). Brecciation is intense throughout the silicified zone. Pyrite is finely disseminated throughout, but the chloritized zone averages less than 1% while the silicified zones have up to 10% and average 5%.								
123.30-123.53:	chloritized interval with laminations at 300 to core axis.	1716	tr	127.46	127.87	0.41			
123.53-123.80:	cream coloured silicified zone, pyrite 3-5%.	1717	tr	127.87	128.64	0.77			
123.80-124.47:	chloritized interval, 400 to the core axis.	1718	tr	128.64	129.05	0.41			
124.47-125.25:	cream and purple hue silicified zone.	1719	6-8	129.05	130.05	1.00			
125.25-125.63:	chloritized interval, 400 to the core axis.	1720	3-5	130.05	131.05	1.00			
125.63-126.18:	purple hue silicified zone.	1721	5-6	131.05	132.05	1.00			
126.18-126.46:	interlayered chloritized and silicified zones.	1722	2-3	132.05	133.05	1.00			
126.46-127.87:	purple hue silicified zone.	1723	8-10	133.05	134.05	1.00			
127.87-129.05:	chloritized interval, 350 to the core axis.	1724	tr	134.05	134.42	0.37			
129.05-134.05:	purple hue silicified rock.	1725	5	134.42	135.42	1.00			
		1726	1	135.42	136.42	1.00			
		1727	2-3	136.42	137.42	1.00			
		1728	1-2	137.42	138.42	1.00			
		1729	1	138.42	139.42	1.00			
		1730	1	139.42	140.42	1.00			
134.05-134.42:	interval of non-silicified rock with medium-coarse grains at top of interval with sub-rounded to rounded fragments at the bottom of the interval. Why are these chloritized zones not vulnerable to mineralization? Pyrite trace.	1731	1	140.42	141.42	1.00			
		1732	1-2	141.42	142.42	1.00			
		1733	1	142.42	143.42	1.00			
		1734	1	143.42	144.42	1.00			
		1735	1	144.42	145.42	1.00			
		1736	1	145.42	146.42	1.00			
134.42-147.19:	silicified rock.	1737	1	146.42	147.19	0.77			

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. MC 83-41

SHEET NO. 6 OF 7

FOOTAGE		DESCRIPTION	SAMPLE		ASSAYS		
FROM	TO		% SULPH. IDES	FROM	TO	%	GT/TON
147.19	156.88	<p><u>TRANSITION ZONE</u></p> <p>The rock alternates silicified and chloritized within this interval. The rock is still moderately to intensely brecciated. The chloritized zones are dark green with a medium-fine to coarse-fine grained appearance. The silicified zones are purple in hue to creamy in hue. The silicification represents 75-80% from 147.19-150.72 while the chloritized zones dominate 85-90% from 150.72-156.88 m. Within the upper part of the transition zone the brecciation is moderate to intense. Sulphides are more abundant in the silicified zones, up to 2%, while in the chloritized zone sulphides only reach trace amounts. Brecciation in the lower transition zone is less abundant and the presence of carbonate veining becomes dominant. Lamination within the upper zone is masked by brecciation, but in the lower zone lamellae are oriented at between 40-50° to the core axis.</p>	1				
			C				
			1738	147.19	148.19	1.00	0.03
			1739	148.19	149.19	1.00	0.02
			1740	149.19	150.19	1.00	0.23
			1741	150.19	150.72	0.53	0.12
			1742	150.72	151.72	1.00	tr.
			1743	151.72	152.72	1.00	tr.
			1744	152.72	153.72	1.00	tr.
			1745	153.72	154.72	1.00	tr.
		1746	154.72	155.72	1.00	tr.	
		1747	155.72	156.88	1.16	tr.	
156.88	193.72	<p><u>SEDIMENTS</u></p> <p>Medium to light green, fine to coarse grained, well laminated to massive rock with carbonate veining comprising approximately 1% of interval. The carbonates lie along laminations in the well laminated rock but in a random orientation in a massive rock. Sulphides (pyrite and chalcopyrite) are trace throughout and appear very finely disseminated.</p> <p>160.00: 45° to core axis, less than 1% CO₃</p> <p>161.00: massive, less than 1% CO₃</p> <p>162.00: massive, less than 1% CO₃</p> <p>163.00: 50° to core axis.)</p> <p>164.00: 35° to core axis.)</p> <p>165.00: 30° to core axis.) Laminations</p> <p>166.00: 30° to core axis.)</p> <p>167.90: carbonate vein 4cm wide at 25° to core axis.</p> <p>168.00-169.77: massive, less than 1% carbonate veining.</p> <p>169.77-170.67: very well laminated at 30° to core axis. Carbonates absent.</p> <p>172.98-173.08: 10cm wide brecciated band at 45° to core axis.</p>					
			1748	156.88	157.88	1.00	tr.
			1749	157.88	158.88	1.00	tr.
			1750	158.88	159.88	1.00	tr.
			1751	159.88	160.88	1.00	0.01
			1752	160.88	161.88	1.00	0.01
			1753	161.88	162.88	1.00 (actual 0.77)	0.01
			1754	162.88	163.88	1.00	0.01
			1755	163.88	164.88	1.00	tr.
			1756	164.88	165.88	1.00	tr.
		1757	165.88	166.88	1.00	tr.	
		1758	166.88	167.88	1.00	tr.	
		1759	167.88	168.88	1.00	tr.	
		1760	168.88	169.88	1.00	tr.	
		1761	169.88	170.88	1.00	tr.	
		1762	170.88	171.88	1.00	tr.	
		1763	171.88	172.88	1.00	tr.	
		1764	172.88	173.90	1.02 (actual 0.91)	tr.	
		1765	173.90	174.73	0.83 (actual 0.90)	0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-41 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	01 TON	02 TON
			C								
		Increases up to 5%, but averaging 1-2%. Laminations at 550 to core axis.	1766		174.73	175.53	0.80			0.08	
		5cm wide brecciated zone, bedding at 550 to axis.	1767		175.53	176.53	1.00			0.02	
		5cm wide brecciated zone, bedding at 500 to axis.	1768		178.72	179.72	1.00			tr.	
		brecciated zone, 2% pyrite.	1769		182.91	183.86	0.95			0.03	
		brecciated zone - brecciated rock comprises 90-95% of the zone, pyrite up to 1%, averaging trace, 550 to core axis.	1770		183.86	184.87	0.96			0.02	
		brecciated zone, 70% brecciated.	1771		184.87	185.62	0.75			0.30	
		brecciated zone, 65-70% brecciated up to 3% pyrite, averaging 1%, bedding at 500 to core axis.	1772		185.62	186.64	1.02			0.01	
		Laminations at 50-550 to core axis.	1773		189.00	189.71	0.71			0.01	
		<u>SEDIMENT?</u>									
193.72	203.30	The rock becomes massive and absent of lamination. The rock is medium green in colour with a medium grain size with very little carbonate veining and trace pyrite. This rock should be thin sectioned for positive identification.									
		203.30 meters END OF HOLE									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 LENGTH 186.12 metres
 LOCATION _____
 LATITUDE 7 + 50 E DEPARTURE 0 + 75 S
 ELEVATION _____ AZIMUTH 344° DIP -70°
 STARTED September 16/83 FINISHED September 21/83

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°		185.93	-60°	
45.72	-69°				
91.44	-67°				
137.16	-62°				

HOLE NO. Mc-83-42 SHEET NO. 1 OF 10
 REMARKS BQ Core
Split for analysis
 LOGGED BY A.W. Workman

LANGRIDGE LIMITED, EM. 6-1168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	SUB- PH- IDES	FOOTAGE FROM	TO	%	%	OZ./TON	OZ./TON			
0	13.11	OVERBURDEN											
13.11	39.42	BASALT											
		Light to dark green, often grey-green; very fine grained becoming medium grained locally, probably near flow centres. Lava is frequently vesicular with relic vesicles up to 1cm now chlorite filled. Rock is weakly to moderately fractured with quartz filling and traces of chalcopyrite (up to 5% locally). Fractures are often hematized, mostly in coarser grained sections. Pyroxene crystals are fresh to weakly chloritized; feldspars are moderately epidotized or saussuritized. Localized strong silicification is noted which does not seem to have a textural or structural association.											
		13.11 - 19.17: very strongly silicified, non-brecciated, to weakly brecciated locally; very fine grained; possibly pillowed from 17.35-19.35 m.	C		1779	0-1	14.18	15.18	1.00				0.01
		19.17 - 22.95: moderately brecciated locally in 10cm sections; dilatant zones are silica filled with 1-2% chalcopyrite. Minor local silicification (eg 20.95-21.05 m).			1780	1-2	20.88	21.62	0.74				0.01
		22.95 - 36.20: fine to medium grained, weakly silicified locally, weakly to moderately fractured becoming strongly fractured below 35.60 m. Rock is locally brecciated and epidotized.											
		36.20 - 39.42: fine to medium grained, strongly fractured with quartz-epidote filling. Zone is strongly brecciated locally with moderate to strong silicification. Brecciation tends to increase with depth - lower 10cm carries sub-rounded highly silicified xenoliths of the underlying zone. Fractures are weakly carbonated and moderately hematized.			1781	0-1	38.42	39.42	1.00				cr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 2 OF 10

FROM	TO	DESCRIPTION	SAMPLE			ASSAYS						
			NO.	% SULPHIDES	FOOTAGE	%	%	oz./TON	oz./TON			
					FROM	TO	TOTAL					
39.42	41.57	<p><u>SEDIMENTS</u></p> <p>Light to dark green, fine to very fine grained and well laminated inter-flow sediment. Bedding is at 45° to the core axis, but is locally cross-laminated and rarely exhibits signs of soft sediment slumping. Locally, the rock is strongly brecciated and moderately to strongly silicified with up to 15% very finely disseminated pyrite and 1-2mm cubes. Zone averages 2-4% pyrite. Sediments are epidiorized and feldspathized in and proximal to breccia zones best developed above 39.96 m. Pyrite content is proportional to brecciation and alteration.</p> <p>39.42 - 39.96: variably brecciated; 5-7% pyrite - up to 15% locally.</p> <p>39.96 - 40.46: non-brecciated; 5-7% pyrite - mostly as a very fine dissemination.</p> <p>40.46 - 41.57: well laminated, moderately chloritized. Rock has a 'sandy' appearance - possibly tuffaceous. Minor silicification in 1-3cm zones and feldspathized breccia zones. Pyrite is mostly fracture controlled.</p>										
				C								
				1782	5-7	39.42	39.96	0.54			Cr.	
				1783	5-7	39.96	40.46	0.50			0.01	
				1784	2-4	40.46	41.57	1.11			0.01	
41.57	74.68	<p><u>BASALT</u></p> <p>Dark green, very fine to medium grained, often ophitic textured particularly in coarser zones, and generally massive flow. The upper 15-20cm contains chloritized flattened vesicles up to 1.5mm. The axis of elongation is at 30-35° to the core axis. Largest percentage of flow is medium grained, with coarse grained phases, and very weakly magnetic. Carries abundant (3-5%) pyrite to a depth of 42.75 m. Flow averages 1%.</p> <p>41.57 - 43.85: brecciated, carries 5-10cm sediment at top of flow - (infilling from above); averages 3-5% pyrite.</p> <p>Vesicular flow top.</p> <p>43.85 - 57.00: medium grained, coarse locally - ophitic. Strongly fractured with hematite and white carbonate in fractures. Rock is locally brecciated. Zone carries 2-3% hematized soft, sub-rounded fragments</p>										
				1785	3-5	41.57	42.27	0.70			Cr.	
				1786	3-5	42.27	42.75	0.48			Cr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 4 OF 10

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH IDS	SAMPLE		TOTAL	%	%	ASSAYS	
				FROM	TO				g./TON	g. TON
84.43 - 106.77	<p>hands are concordant to the laminations. The bedding is well developed (350 at 82.78 m and 40-450 at 83.70 m), throughout but often disrupted by brecciation. Purple hue is due to moderate hematization and is strongest in strongly brecciated rock. Breccia fragments are highly angular and often laminated. They may be rip-up clasts.</p> <p>82.48 - 83.65: rock is less than 40% silicified. 83.65 - 84.43: rock is 60-65% silicified.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Purple-grey, aphanitic to fine grained, intensely silicified with abundant honey coloured sections reflecting feldspathization, (?). Degree of alteration does not appear to be dependent upon brecciation. Purple hue is best developed in intensely brecciated rock, and is attributable to moderate hematization. Brecciation is absent in some sections. Pyrite content averages 5-6% and ranges from 2-15%. Bedding laminations are well displayed in non-brecciated, often feldspathized zones. The zone is non-magnetic.</p> <p>84.43 - 85.07: highly tuffaceous, clasts up to 2mm, laminated matrix wraps around some fragments. Clasts are strongly foliated along laminations at 400 to core axis. Carries 3-4% very finely disseminated pyrite.</p> <p>85.07 - 86.33: strongly brecciated; honey coloured angular fragments in purple-grey matrix.</p> <p>86.33 - 86.86: relic laminations are visible through breccia at 40-450 to core axis. Zone carries abundant reddish breccia clasts up to 1cm at 86.65-86.80 m. Abundant chloritized shear planes at 86.80-86.86 m - minor fault.</p> <p>86.86 - 87.66: strongly brecciated - fragments up to 2cm. 87.66 - 89.53: strongly tuffaceous as at 84.43-85.07 m; laminated at 450 to core axis at 88.35 m. 89.53 - 89.86: abundant chloritized fractures due to minor fault movement - rock strongly feldspathized. Minor green clay associated with faulting.</p>	1796 1797	2-3 3-4	82.48 83.38	83.38 84.43	0.90 1.05			CT. CT.	Rech.
		1798	3-4	84.43	85.43	1.00			0.01	
		1799	3-5	85.43	86.43	1.00			0.01	
		1800	2-4	86.43	87.05	0.62			0.03	
		1920	3-4	87.05	87.66	0.61			0.01	0.01
		1921	3-5	87.66	88.66	1.00			0.02	0.01
		1922	3-5	88.66	89.52	0.87			0.01	0.02
		1923	2-3	89.53	89.86	0.33			0.03	0.005

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 5 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	01. TON	02. TON
89.86 - 91.95:	dark purple-grey; chloritized fractures, core highly broken, carries 5-6% pyrite well laminated at 400 to core axis.	1924	5-6	89.86	91.03	1.17			0.08	Rech. 0.07
		1925	5-6	91.03	91.95	0.92			0.02	0.08
91.95 - 92.89:	pale green, with dark green chloritized fractures - often mylonitic, probable <u>intrusive</u> carries abundant silicified breccia fragments of wall rock - possibly biotitic. (NOTE: Zone is same as weakly magnetic intrusive in other holes).	1926	1-2	91.95	92.89	0.94			0.01	0.01
92.89 - 94.35:	dark purple-grey with 20-30% honey to cream coloured feldspathized laminations at 400 to core axis - very well laminated at base.	1927	4-5	92.89	93.57	0.68			0.02	0.02
		1928	4-5	93.57	94.35	0.78			0.05	0.01
94.35 - 95.22:	rock becoming increasingly feldspathized along certain sets of laminations. Bedding at 35-400 to core throughout.	1929	5-6	94.35	95.22	0.87			0.12	0.03
95.22 - 97.42:	intense feldspathization (90-100%) of rock; generally well laminated with up to 15% pyrite concentrated along laminations. Some blue-grey quartz infilling of voids near base with little contained pyrite.	1930	10-12	95.22	96.20	0.98			0.07	0.03
		1931	8-10	96.20	96.62	0.42			0.09	0.04
		1932	9-10	96.62	97.42	0.80			0.05	0.05
97.42 - 97.60:	strongly chloritized, medium grained possibly mylonitic (fault?) zone. Well foliated at 40-450 to core axis, parallel to lamination in silicified sediment.	1933	0-1	97.42	97.60	0.18			0.01	0.02
97.60 - 97.88:	strongly feldspathized; 8-10% pyrite.	1934	8-10	97.60	97.88	0.28			0.01	0.04
97.88 - 100.50:	spotty feldspathization along fractures - 10-20% of rock volume; remainder is purple-grey, well laminated locally (50-600 at 98.78-99.04 m). Degree of feldspathization decreases with depth. Laminations at 450 to core axis are highly convoluted locally - non-silicified.	1935	1-2	97.88	98.75	0.87			0.02	0.02
		1936	2-4	98.75	99.75	1.00			0.01	0.005
		1937	2-4	99.75	100.50	0.75			0.01	0.005
100.50-100.98:	laminations at 450 to core axis are highly convoluted locally - non-silicified.	1938	0-1	100.50	100.98	0.48			0.01	0.01
100.98-101.98:	purple-grey, with spotty honey coloured feldspathization containing 7-9% pyrite above average of 4-6%. Moderately laminated at 40-500 to core axis. Pyrite found in 1cm clusters of 1mm cubes and as a very fine dissemination.	1939	4-6	100.98	101.98	1.00			0.01	0.02
101.98-103.16:	strongly feldspathized locally containing up to 10% pyrite in clots and very finely disseminated.	1940	6-8	101.98	102.62	0.64			0.01	0.04
		1941	3-5	102.62	103.16	0.54			0.01	0.01

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 6 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO. 100's	% SULPH	FROM TO	%	%	01/100	02/100	
103.16-105.74:	Initially feldspathization is ubiquitous then becomes irregular and fracture controlled below 102.62 m. strongly silicified but weakly brecciated, spotty strong feldspathization associated with fractures. Contains a few chloritized seams locally which are non-silicified (eg. 103.18-103.21, 103.45-103.48, 103.68-103.71, 104.01-104.08 m). Zone is 95% silicified, weakly laminated: 450 at 104.60 and 350 at 104.96 m.	C 1942 1943 1944	3-5 2-3 2-3	103.16 104.13 105.13	104.13 105.13 105.95	0.97 1.00 0.82	CR. CR. CR.	0.005 0.01 0.005	Rech.
105.74-106.15:	well laminated, strongly silicified, non-brecciated; strong localized feldspathization along laminations at 400 to core axis (eg. 105.95 m).	1945	1-3	105.95	106.77	0.82	CR.	0.01	
106.15-106.57:	spotty chloritization, weakly laminated, moderate to strong silicification, weakly brecciated.								
106.57-106.77:	well laminated at 400 to core axis, intensely silicified, non-chloritized, non-brecciated, non-feldspathized.								
<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
106.77-111.61	Dark purple-grey with abundant dark green chloritized seams and zones up to 25cm. Zone is about 25% chloritized. Purple hue in silicified rock is due to hematization. Silicification is due to intense brecciation usually associated with fracture systems. Quartz is found infilling voids and fractures up to 1cm wide. Rock is well laminated locally (eg. 450 at 105.87 m). Zone carries 2-3% pyrite, up to 5% locally associated with local feldspathization.	1774 1775 1776	2-3 2-3 1-2	106.77 107.77 108.93	107.77 108.93 109.43	1.00 1.16 0.50	CR. CR. CR.		
	108.93-109.43: pinkish-green, fine to medium grained <u>INTRUSIVE</u> - carries abundant (10%), green chloritized sub-angular xenoliths up to 2cm, weakly magnetic, blocky? Zone carries 30% pink fragments in 0.5-1.0mm range - feldspar?	1777	1-3	109.43	110.43	1.00	CR.		
	109.43-111.61: well laminated - 40-450 at 109.85 m. Lower 1.0 m is 70-80% chloritized as silicification decreases with depth.	1778	1-2	110.43	111.61	1.18	?		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 7 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SUPPL IDES	FROM TO	FOOTAGE TOTAL	%	%	02/TON	02 TON
111.61 124.17	<u>SEDIMENTS</u> Medium to dark green, fine grained and finely laminated on a mm scale. Contains a few 1-5cm sections of brecciation which are moderately to strongly silicified. Laminations are distinguishable locally at 45-500 to core in the upper half of the section, and at 40-450 in the lower part. Rock is weakly to moderately fractured with infilling by carbonate containing quartz debris and 5-10% hematite. Sediments are weakly chloritized and moderately carbonatized. Parting is well developed parallel to laminations. Zone averages 1-2% pyrite, with 3-7% in silicified rock. Silicified rock comprises 5% of the section, the largest zone being at 115.71-116.17 m (moderately to strongly brecciated). Pyrite is noted as a very fine dissemination and as clots of grains up to 3mm.								
	111.61-115.12: well laminated at 40-500 to core axis.	1946	1	111.61	112.61	1.00	tr.		
	115.12-115.30: fine to medium grained, chaotic, non-laminated.	1947	1	112.61	113.61	1.00	tr.		
	115.30-115.71: moderately well laminated at 400.	1948	1	113.61	114.66	1.05	tr.		
	115.71-116.17: weakly to moderately brecciated in 80-90% of section. Strong silicification of lamination sets up to 5mm. Bedded at 400 to core axis.	1949	3-4	114.66	114.91	0.25	0.01		
	116.17-118.03: well laminated, moderately carbonatized locally.	1950	1	114.91	115.71	0.80	tr.		
	118.03-118.72: strongly brecciated, weakly silicified. Brecciation is confined to ripping apart of individual cherty laminations in chloritized groundmass. Relic bedding at 400 to core axis.	1951	2-3	115.71	116.17	0.46	tr.		
	118.72-122.35: well laminated at 450 to core; locally silicified, minor brecciation. Moderately carbonatized - carbonate replacement feathering out along laminations increasing below 120.75 m.	1952	0-1	116.17	117.16	0.99	tr.		
	122.35-122.80: well laminated, weakly brecciated with associated silicification; carbonatized at 123.65-123.82 m.	1953	0-1	117.16	118.03	0.87	tr.		
	122.80-124.17: weakly laminated.	1954	2-3	118.03	118.72	0.69	0.05		
		1955	0-1	118.72	119.75	1.03	0.01		
		1956	0-1	119.75	120.75	1.00	0.01		
		1957	0-1	120.75	121.75	1.00	0.01		
		1958	0-1	121.75	122.75	1.00	tr.		
		1959	1-3	122.75	123.50	0.75	tr.		
		1960	3-5	123.50	123.92	0.42	0.03		
		1961	1-2	123.92	124.17	0.25	0.01		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 8 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS								
		NO.	% SULPH. IDES	FROM TO	FOOTAGE TO	TOTAL	%	%	02.70W	02.10W			
124.17 132.98	<u>BASALT</u> (with sediments)												
	Dark green, aphanitic to fine grained, weakly pillowed flow with moderate brecciation throughout. Localized silicification is noted along 1-2cm epidotized, bands of breccia, probably pillow selvages. Fractures are strongly hematized, dilatant zones are carbonated. Pyrite content averages 1% with 2% in selvages. Section contains 1.33 m of sediment below 129.36 m. Probably deposited during a hiatus in extrusion. The lower contact of the sediments is uncertain.												
	124.17-129.36: Basalt - as described.	1962	1-3	129.36	130.01	0.65				0.02			
	129.36-130.69: <u>Sediment</u> - dark green, fine to very fine grained, well laminated at 40-450 to core axis, crudely bedded at base, 1-2% pyrite, weakly silicified locally.	1963	1	130.01	130.67	0.66				cr.			
	130.69-132.98: <u>Basalt</u> - probably not pillowed, flow base designated at a 1.5cm quartz vein.												
132.98 140.45	<u>SEDIMENTS</u>												
	Medium to dark green, fine to very fine grained, non-silicified but moderately brecciated locally (eg. 133.92-134.11 and 134.38-134.44). Minor increased pyrite is noted in association with brecciation. The rock is crudely foliated in the uppermost 35cm becoming well laminated at 134.10 m. Zone averages 0-1% pyrite with up to 3% in brecciated rock.												
	132.98-136.50: generally well laminated; 55-600 at 134.10 and 600 to core axis at 135.50 m.	1964	0-1	133.50	134.50	1.00				cr.			
	136.50-137.50: weakly to moderately brecciated along single laminations.	1965	1-2	135.50	136.50	1.00				cr.			
	137.50-137.93: moderately laminated at 650 to core, very weakly brecciated locally.	1966	0-1	136.50	137.25	0.75				0.01			
	137.93-138.23: weakly to moderately brecciated, minor silicification.	1967	1	137.25	137.60	0.35				0.01			
	138.23-139.29: weakly laminated, abundant carbonatization.	1968	1-2	137.60	137.93	0.33				0.01			
	139.29-139.61: dark grey to purple-grey, strongly silicified, brecciated locally with 3-5% pyrite. Laminated at 60-650 at 139.40 m.	1969	0-1	137.93	138.50	0.57				0.01			
	139.61-140.45: well laminated at 55-600; lower 15cm is strongly carbonatized.	1970	0-1	138.50	139.29	0.79				0.01			
		1971	3-5	139.29	139.61	0.32				0.01			
		1972	1-2	139.61	140.45	0.84				cr.			

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 9 OF 10

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS								
		NO.	% SUPPH IDES	FROM TO	FOOTAGE TO	TOTAL	%	%	OZ. TON	OZ. TON			
140.45 160.87	<u>BASALT</u> Medium to dark green, often pale green, fine to medium grained, locally aphanitic especially near upper contact. Flow is pillowed with 1cm selvages marking pillows which must be about 1 m in size. Selvages carry up to 5% pyrite. Several samples taken at points of intersection of three selvages. Pillow centres are strongly silicified and often epidotized, and may be brecciated locally (eg. 143.10-143.65). Rock is moderately fractured throughout. Flow is non-magnetic.												
	140.45-141.20: chloritized vesicles up to 2mm.	C											
	141.20-143.75: pillowed, generally silicified, minor breccia.	1973	5	142.01	142.11	0.10							Cr.
	143.75-145.25: massive, minor breccia, hematized fractures.	1974	5	142.66	142.76	0.10							Cr.
	145.25-145.51: vesicular flow top.	1975	1-2	143.10	143.65	0.55							0.01
	145.51-145.71: very glassy, locally vesicular, brecciated with epidotized hyaloclastite, zone ends at a pillow selvage.	1976	3-5	145.51	145.71	0.20							0.01
	145.71-146.48: pillowed.	1977	3-5	146.48	146.71	0.23							0.01
	146.48-146.71: <u>SEDIMENT</u> - dark green, fine grained, well laminated at 50-550 to core axis, chloritized, local strong silicification.												
	146.71-148.83: possibly pillowed, strongly sheared at 350 to core at 148.75-148.83 m possibly marking flow base. Zone above is fine to medium grained.												
	148.83-150.20: very fine grained.												
	150.20-153.35: weakly to very strongly vesicular.												
	153.45-155.20: weak to moderate brecciation with black chlorite in dilatant zones up to 1cm in width. Auto-breccia fragments are very angular, have undergone very little rotation movement, and are weakly vesicular.												
	155.75-156.57: <u>Sediment(?)</u> , weakly laminated, moderately foliated and well parted.	1978	1-3	155.75	156.57	0.82							0.01
	156.57-157.58: lava is unstructured.												
	157.58-158.98: <u>SEDIMENT</u> - well laminated becoming somewhat chaotic at base; minor grey intense silicification with up to 10% pyrite over 1-2cm. Zone averages 1-3% pyrite. Bedding at 40-450 to core axis.	1979	3-5	157.58	158.29	0.71							Cr.
		1980	1-3	158.29	158.98	0.69							Cr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-42 SHEET NO. 10 OF 10

FOOTAGE		DESCRIPTION	NO.	% SULPH. IDES	SAMPLE			ASSAYS			
FROM	TO				FROM	TO	TOTAL	%	%	OZ. / TON	OZ. / TON
160.87	162.00	158.98-160.87: Lava is massive and vesicular above 160.40 m. Lower 15cm is strongly epidotized, silicified breccia. <u>SEDIMENTS</u>	C 1981	1-3	160.87	162.00	1.13			tr.	
162.00	186.12	<u>ANDESITE</u> Light to medium green, aphanitic to fine grained, and often vesicular, non-silicified to moderately silicified. Strongly brecciated locally. Non-magnetic. Section is probably altered basalt in original composition. Zone averages 1-3% pyrite as blebs up to 1mm. Rock fines below 169.25 and a flow contact is noted at 169.33 m. 162.00-162.20: vesicular, massive flow. 162.20-162.75: fine, locally medium grained. 162.75-163.00: brecciated, carbonate filling dilatant zones; pyrite cubes up to 5mm. 169.33: flow contact. 169.33-172.30: vesicular massive flow. 172.30-186.12: pillowed flow - coarsely brecciated locally, weak to locally strong silicification throughout. Pillows contain poorly formed variolites.	1982	2-3	162.75	163.00	0.25			tr.	
186.12 meters		END OF HOLE									
		CASING PULLED	1983	1-2	174.75	175.50	0.75			tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-43 LENGTH 118.14 meters
 LOCATION 9 + 50 W DEPARTURE 0 + 72 S
 LATITUDE _____ AZIMUTH 344° DIP -70°
 ELEVATION _____
 STARTED October 3, 1983 FINISHED October 7, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
87.48	-66°				
118.10	-64°				

HOLE NO. Mc-83-43 SHEET NO. 1 OF 7
 REMARKS BQ Core
Split for assay.
Casing pulled.
 LOGGED BY A.W. Workman

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
				NO.	SUPPH IDES	FROM	TO	TOTAL	%	%	OZ/TON	OZ/TON		
0	12.80	12.80	<u>OVERBURDEN</u>											
12.80	32.71	32.71	<u>BASALT</u>											
			Grey-green, fine to medium grained, ophitic to sub-ophitic textured. Generally weakly fractured, uniformly textured and massive. White carbonate veins are observed locally with 10% quartz debris (eg. 24.22-24.42 m). Lava tends to be finer grained below 29.70 m, brecciated and locally silicified. Silicification is generally accompanied by epidotization. A chilled lower contact is observed at 32.50-32.71 m. Zone carries an average 0-1% pyrite.											
			<u>SEDIMENTS</u>											
32.71	34.46	34.46	Dark green, fine to very fine grained, often aphanitic and moderately epidotized, especially near upper contact. Well laminated with many strongly brecciated zones. 32.90: Laminations at 300 to core axis. 33.06 - 33.31: 7-9% pyrite as very fine dissemination and 1-2mm cubes. Rock also moderately hematized along laminations. 33.45 - 34.46: weakly laminated, abundant breccia.	1984	C	0-1	31.71	32.71	1.00					tr.
			<u>BASALT</u>											
34.46	42.97	42.97	Dark green, fine grained to aphanitic, pillowed with abundant selvages up to 1 m apart. Pillow rims are enriched in pyrite, and may be silicified locally. Basalt averages 1-2% pyrite. 39.30 - 40.30: Intrusive 7 pinkish-green, fine grained to aphanitic with a central porphyritic zone from 39.55-39.85 m. Carries euhedral pink feldspar phenocrysts up to 2mm. Rock is very weakly magnetic, and carries basalt xenoliths up to 5cm. Contacts are sharp at 300 to core axis.	1986		1-3	33.45	34.46	1.01					tr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-43 SHEET NO. 3 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		% SULPHIDES	FROM	TO	TOTAL	%	%	0.1 TON	0.1 TON		
59.48	60.31	<p>59.48 - 60.31: moderate to strong silicification in local breccia zones. Abundant pink quartz veins up to 10cm. Up to 10% pyrite cubes. Strongly chloritized and epidotized. Sheared locally. Laminated at 400 to core axis.</p> <p>60.31 - 60.81: white to pinkish-white quartz vein with abundant dark green debris from wallrock.</p> <p>60.81 - 63.86: abundant silicification near pinkish quartz veins up to 7cm. Rock is well laminated locally below 61.30 but structure is often masked by brecciation. Bedding often incorporates cherty fragments up to 1cm in an argillitic matrix.</p> <p>61.35: laminated at 450 to core axis.</p> <p>63.50: laminated at 45-500 to core axis.</p> <p><u>MAIN MINERALIZED ZONE</u></p> <p>This section is composed of three members; an upper variably silicified zone, a central strongly silicified and locally feldspathized member, and a broad lower zone of irregular breccia-controlled silicification. Pyrite contents are highest in feldspathized sections of the central member.</p> <p><u>SILICIFIED SEDIMENTS</u></p> <p>Dark green, fine grained, generally well laminated and chloritized with abundant moderately to strongly silicified zones. Silicification begins as halos surrounding microfractures. As fracturing increases with depth to form a network silicification is more highly penetrative into formerly chloritized rock. Some intense feldspathization in lower half of interval. Zone carries 25-50% silicified rock and 1-3% pyrite. The lower 10cm is a fault zone carrying 5-7% pyrite. Shearing is noted at 450 to core axis along a 1cm clay plane.</p>	C	1999	5-7	59.48	60.31	0.83			0.01	
2000	60.81		1-2	60.31	60.81	0.50			0.01			
* CHANGE TO #2200 SERIES												
2201	60.81		2-3	60.81	61.76	0.95			0.01			
2202	61.76		1-3	61.76	62.76	1.00			tr.			
2203	62.76		1-3	62.76	63.31	0.55			0.01			
2204	63.31		1-3	63.31	63.86	0.55			0.01			
63.86	100.03											
63.86	65.34											
				2205	1-3	63.86	64.60	0.74			0.01	
			2206	2-4	64.60	65.34	0.74			tr.		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-43 SHEET NO. 4 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	GZ. / TON	GZ. / TON	
65.34	80.56	<p style="text-align: center;"><u>MAIN SILICIFIED ZONE</u></p> <p>Honey coloured to purple-grey, very fine grained to aphanitic, well laminated but vague due to strong brecciation. Zone is strongly to intensely silicified. Honey coloured zones are feldspathized and carry up to 20% pyrite locally. Darker rock is weakly to moderately hematized, and carries up to 10% pyrite - usually as a very fine dissemination. Zone averages 5% pyrite.</p> <p>65.34 - 65.63: strongly brecciated with chloritized fractures, strongly feldspathized but only 1-3% pyrite.</p> <p>65.63 - 66.14: weakly brecciated, strongly silicified and feldspathized with 10-15% pyrite.</p> <p>66.14 - 66.76: strongly brecciated and feldspathized.</p> <p>66.76 - 68.56: purple-grey, moderately to strongly brecciated intensely silicified, up to 5% fine pyrite.</p> <p>68.56 - 69.50: carries 10% dark green, chloritized seams, zone becoming moderately feldspathized.</p> <p>69.50 - 70.07: honey coloured with abundant chloritized and hematized fractures.</p> <p>70.07 - 71.93: purple-grey, honey coloured locally; intensely silicified and moderately to strongly brecciated. Up to 7% pyrite locally.</p> <p>71.93 - 72.55: dark green, fine grained, with abundant pink silicified clasts up to 3mm. Non-magnetic. Lower 30cm is poorly bedded with cherty fragments in chloritized matrix oriented at 45-50° to core axis. Lower contact consists of siliceous angular fragments being ripped up and 'rafted' into this interval.</p> <p>72.55 - 73.26: honey coloured to pale purple-grey, aphanitic strongly brecciated, intensely silicified. Up to 20% pyrite (with 1% chalcopyrite associated with pink carbonate stringers). More strongly brecciated below 73.01 m.</p> <p>73.26 - 73.93: intensely silicified breccia with angular purple fragments in a cream-grey matrix.</p>	C	1-3	65.34	65.63	0.29	0.02				
			2207	10-15	65.63	66.14	0.51	0.18				
			2208	2-4	66.14	66.76	0.62	0.08				
			2209	3-5	66.76	67.66	0.90	0.06				
			2210	2-4	67.66	68.56	0.90	0.14				
			2211	2-3	68.56	69.50	0.94	0.09				
			2212	1-3	69.50	70.07	0.57	0.18				
			2213	4-5	70.07	70.67	0.60	0.04				
			2214	3-4	70.67	71.29	0.62	0.13				
			2215	3-5	71.29	71.93	0.64	0.06				
			2216	0-1	71.93	72.55	0.62	0.01				
			2217	15	72.55	73.01	0.46	0.28				
			2218	10-15	73.01	73.26	0.25	0.89				
		2219	7-9	73.26	73.93	0.67	0.17					
		2220										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-43 SHEET NO. 5 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO. SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	GT. TON	GT. TON
73.93 - 74.24:	moderately well laminated, weakly brecciated intensely silicified; 5-10% chloritized laminations.	2221	73.93	74.24	0.31			0.11	
74.24 - 74.92:	intensely silicified throughout, well laminated at 45-500 to core axis. Cream to white coloured feldspathization.	2222	74.24	74.92	0.68			0.23	
74.92 - 75.40:	weakly brecciated, well laminated at 60-700 to core axis locally.	2223	74.92	75.40	0.48			0.11	
75.40 - 75.80:	intensely silicified, feldspathized.	2224	75.40	75.80	0.50			0.08	
75.80 - 76.34:	as above, less pyrite.	2225	75.80	76.34	0.54			0.11	
76.34 - 76.62:	slight greenish tint due to chloritization pervades the zone. Zone is moderately to strongly silicified.	2226	76.34	76.62	0.28			0.03	
76.62 - 77.07:	well laminated at 450 to core axis, weakly brecciated, strongly silicified.	2227	76.62	77.07	0.45			0.10	
77.07 - 78.17:	strongly silicified but carries 10-15% chloritized seams.	2228	77.07	78.07	1.00			0.06	
78.17 - 80.56:	strongly silicified, moderately to strongly brecciated with 5-6% pyrite. Silicification is penetrative from openings in breccia into fragments. Zone carries minor chloritized rock (eg. 78.90 - 79.03 m), totalling 5-10% of section.	2229	78.07	78.85	0.78			0.04	
		2230	78.85	79.20	0.35			0.11	
		2231	79.20	79.86	0.66			0.01	
		2232	79.86	80.56	0.70			0.21	
80.56	<u>SILICIFIED SEDIMENTS</u> Alternating medium to pale green, and honey coloured to grey-green (minor purple-grey) rock. Green rock is chloritized. Grey to purple-grey colouration is due to variably developed silicification. Lighter colours reflect feldspathization. Rock is fine to very fine grained. Silicification is related to brecciation and is penetrative outwards from fracture networks. In general, the thickness of silicified sections and percentage silicified rock decrease with depth. Pyrite content is higher in silicified rock - up to 10% locally, over the average 2-3%. Pyrite occurs as a very fine dissemination and as cubes up to 2mm in size.								
100.03									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-43 SHEET NO. 6 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	1	2	01 TON	02 TON
	80.56 - 81.61: 20% chloritized seams.	2233	2-4	80.56	81.61	1.05				
	81.61 - 83.37: strongly brecciated and strongly chloritized with 50% silicified, honey coloured to white seams - resemble quartz veins.	2234	3-5	81.61	82.45	0.84				
		2235	1-3	82.45	83.09	0.64				
	83.37 - 84.43: pale green with 50% intensely silicified breccia. Silicified fragments are purple-grey in honey coloured matrix. Percentage silicification decreases with depth.	2236	5-7	83.09	83.37	0.28				
		2237	2-3	83.37	84.43	1.06				
		2238	0-1	84.43	85.05	0.62				
		2239	2-3	85.05	85.35	0.30				
		2240	0-2	85.35	86.35	1.00				
	84.43: rock above is 40% silicified whereas zone below is 30% silicified.	2241	1-2	86.35	87.15	0.80				
		2242	3-5	87.15	87.75	0.60				
	84.43 - 85.05: chloritized, non-structured.	2243	1-2	87.75	88.75	1.00				
	85.05 - 87.75: section is 50% silicified with major silicified breccia zones at 85.05-85.35, and 87.15-87.75 m.	2244	1-3	88.75	89.75	1.00				
		2245	1-2	89.75	90.65	0.90				
	87.75 - 90.65: section is less (10%) silicified with some increased pyrite in altered rock.	2246	1-2	90.65	91.65	1.00				
		2247	1-2	91.65	92.65	1.00				
	90.65 - 97.37: weakly foliated but non-laminated, weakly to moderately fractured, with white carbonate filling tentional breaks. Local silicified breccia totals 10% of section. Fractures commonly have 1cm thick grey silicified halos. Where fractures are very close, rock has a brownish tint. Major silicified zones are noted at 93.85-94.39, 96.18-96.50 and 96.94-97.08 m.	2248	1-2	92.65	93.25	0.60				
		2249	1-2	93.25	93.85	0.60				
		2250	4-6	93.85	94.39	0.54				
		2251	1-2	94.39	95.27	0.88				
		2252	1-2	95.27	96.18	0.91				
		2253	2-3	96.18	96.50	0.32				
		2254	1-2	96.50	97.37	0.87				
		2255	2-3	97.37	98.27	0.90				
		2256	1-2	98.27	98.97	0.70				
		2257	1-2	98.97	99.67	0.70				
		2258	2-3	99.67	100.03	0.36				
100.03 - 118.14	<u>SEDIMENTS</u> Medium to dark green, fine to very fine grained, locally laminated becoming better bedded with depth. Well parted parallel to laminations or foliation. Abundant (10-20%), white carbonate filled tentional fractures. Occasional pink carbonate and quartz filled veins up to 1cm wide. Rare greyish silicified breccia zones are noted locally up to 2cm in width. Zone averages 1-2% pyrite. Section at 106.87-107.73 m is weakly brecciated, moderately silicified locally with 3-5% pyrite. May be equivalent to the "lower mineralized zone".									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-43 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	g	g	01. TON	02 TON
101.90:		Laminations at 450 to core axis.	C	1-2	100.03	101.03	1.00			0.01	
107.75:		Laminations at 35-400 to core axis.		1-2	101.03	101.85	0.82			0.01	
108.25:		Laminations at 25-300 to core axis.		1-2	101.85	102.85	1.00			0.01	
108.80:		bedding laminations at 55-600 to core axis.		1-2	103.85	104.85	1.00			tr.	
106.87-107.73:		moderate local silicification in breccia zone with 3-5% pyrite.		1-2	106.12	106.87	0.75			0.01	
110.20:		Laminations at 400 to core axis.		3-5	106.87	107.73	0.86			0.06	
111.35:		Laminations at 450 to core axis.		1-2	107.73	108.73	1.00			0.01	
111.55-111.80:		moderately to strongly silicified.		1-2	109.85	110.80	0.95			tr.	
111.95:		Laminations at 25-400 to core axis.		2-3	110.80	111.55	0.75			tr.	
112.50:		non-laminated but well foliated.		3-5	111.55	111.80	0.25			0.08	
115.00:		Laminations at 450 to core axis.		1-2	111.80	112.40	0.60			0.01	
117.50:		foliation at 450 to core axis.		1-2	113.50	114.25	0.75			0.02	
118.05-118.14:		weakly brecciated, weakly silicified with 2-3% pyrite.		1-2	115.36	116.04	0.68			0.01	
				2	117.38	118.14	0.76			0.01	
118.14 meters		END OF HOLE									
		CASING PULLED									

DIAMOND DRILL RECORD

HOLE NO. Mc-83-44 SHEET NO. 1 OF 8

REMARKS BQ Core

Split for assay

Casting pulled

LOGGED BY A.W. Workman

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-63°				
109.73	-58°				

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 LENGTH 118.67 meters
 LOCATION 10 + 25 E DEPARTURE 0 + 70 S
 ELEVATION 344 AZIMUTH 344° DIP -65°
 STARTED October 7, 1983 FINISHED October 13, 1983

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE			ASSAYS							
				NO.	SUPP.	DES.	FROM	TO	TOTAL	%	%	oz/TON	oz/TON	
0	28.04	28.04	OVERBURDEN											
28.04	31.56	31.56	BASALT											
31.56	32.50	32.50	SEDIMENTS											
32.50	34.18	34.18	BASALT											

Medium to dark green, fine grained, weakly to moderately fractured with 1-5mm width carbonate stringers in tensional fractures. Carries occasional pale green, weakly epidotized rounded fragments of flow breccia, up to 2cm in size, below 30.25 m. Rocks are non-magnetic and average 0-1% pyrite.

Dark to pale green, fine grained becoming aphanitic, re-crystallized and strongly silicified in the uppermost 25cm. This zone carries 3-4% pyrite - probably a result of migration with overlying basalt. Well laminated at 25-400 to core axis. Lowermost 10cm carries 50% magnetite seams along laminations and is moderately magnetic. Zone as a whole, is non-magnetic and averages 2-3% pyrite. The lower contact is at 450 to the core axis.

Dark green, fine to medium grained, fining towards the lower contact. Rock is weakly fractured with white carbonate filling tensional fractures. The flow is massive and averages 0-1% pyrite. The lower contact is at 250 to the core axis. The flow is non-magnetic.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 SHEET NO. 2 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	4 SULTPH IDS	FROM	FOOTAGE TO	TOTAL	%	%	02. TON	02 TON
34.18 - 52.98	<u>SEDIMENTS</u> Dark green, fine to very fine grained, crudely laminated becoming well laminated locally with alternating grey cherty seams and green chloritized argillitic rock. The uppermost 25cm carries abundant magnetite between laminations. The rock is weakly carbonatized. A series of quartz veins cut the zone between 45.13-47.05 m. Below this vein, the sediments are strongly tensionally fractured with abundant white to pink quartz stringers in openings. Zone averages 1-2% pyrite. The rock carries some cherty breccia fragments which seem to have been dumped into green argillitic sediments - probably rip-up clasts.									
	34.18 - 37.60: dark green, abundant cherty rip-up fragments.	1107	1-2	37.90	38.55	0.65			0.15	
	37.60 - 38.55: 40-60% of the laminations are cherty, zone may be graded on a micro-scale, laminations at 45-500 to core axis.									
	38.55 - 38.90: same as 34.18-37.60 m.	1108	1-2	38.55	38.90	0.35			0.01	
	38.90 - 39.50: 20-30% cherty laminations at 450 to core axis.	1109	1-2	38.90	39.50	0.60			cr.	
	39.50 - 41.40: zone becomes crudely laminated and fine to medium grained. Bedding at 40-450 to core. White quartz vein at 41.77-41.83 m.	1110	1-2	41.09	42.09	1.00			cr.	
	41.40 - 41.96: finely laminated (no cherty material), at 650 to core axis.									
	41.96 - 45.13: crudely laminated, fine grained, moderately chloritized.	1111	1-2	43.09	44.09	1.00			cr.	
	45.13 - 47.05: quartz vein system carries sediment xenoliths at 45.43-45.61 and 46.06-46.26 m which carry 2-3% pyrite cubes up to 1cm.	1112	1-2	45.13	46.17	1.04			cr.	
	47.05 - 52.98: crudely laminated to non-laminated, strongly tensionally fractured with pink quartz filling.	1113	2-3	46.17	47.05	0.88			0.08	
	Abundant white to pink quartz veins and stringers up to 7cm width. Silicified sediment near vein margins carries increased pyrite contents (3-4% locally). Veins carry rare 1-3mm chalcopyrite blebs.	1114	1-3	47.05	47.85	0.80			0.01	
		1115	1-3	50.15	50.90	0.75			cr.	
		1116	1-2	51.68	52.33	0.65			cr.	
		1117	1-2	52.33	52.98	0.65			cr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-44 SHEET NO. 3 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS				
			NO.	% SUPPH IDES	FOOTAGE FROM TO	TOTAL	%	%	0.2 TON	0.2 TON
52.98	57.47	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Pale green to dark green, becoming light grey where silicified, fine to very fine grained, often aphanitic, well laminated locally. Silicification is controlled by selected beds or sets of laminations initially. With increasing brecciation in the lower half, silicification is more widespread. Strongly silicified sections are noted at 53.86-53.94, 55.92-56.10 and 56.16-56.48 m. The last two intervals carry 3-5% pyrite versus a zone average of 1-3%. 53.75: laminations at 45-50 to core axis. 55.10: laminations at 45 to core axis. 56.53 - 56.55: mylonitic fault zone at 650 to core axis. 56.55 - 57.47: moderately to strongly brecciated and moderately to intensely silicified - fractures are chloritized.	C	2-4	52.98	53.75	0.77			tr.
				1-3	53.75	54.50	0.75			tr.
				1-3	54.50	55.30	0.80			tr.
				1-3	55.30	56.01	0.71			tr.
				2-4	56.01	56.76	0.75			0.01
				2-4	56.76	57.47	0.71			0.01
57.47	61.23	<u>SILICIFIED ZONE</u> Honey coloured to grey and dark purple-grey, aphanitic and originally laminated (sediments). Strong brecciation masks the structure. Pyrite concentrations along fractures possibly indicate original bedding attitude. Up to 15% pyrite is noted as a very fine dissemination and as 1mm blebs. Some pyrite fills voids in breccia as 1cm x 2cm clots. 57.47 - 59.75: intensely silicified, moderately to strongly brecciated, glassy (chemical sediment?). 59.75 - 60.29: carries chloritized fractures but zone intensely silicified; 20cm ground core at 59.85-60.05 m. 60.29 - 61.23: reddish-pink to pinkish-grey, aphanitic, strongly fractured - chemical sediment? would have been called arenitic previously, carries 10-20% pyrite.		10-12	57.47	58.45	0.98			0.15
				10	58.45	59.20	0.75			0.12
				7-9	59.20	59.75	0.55			0.01
				5-7	59.75	60.29	0.54			0.01
				15	60.29	61.23	0.94			0.03
61.23	65.93	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Dark green, fine grained chloritized rock with many grey-green, aphanitic, silicified sections. These sections account for 35-40% of the zone. Major examples are found at 61.95-62.15, 62.31-62.44, 64.44-64.54 and 65.54-65.70 m. Pyrite content is variable, averaging 2-3% and highest in silicified rock. Non-magnetic.								

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 SHEET NO. 4 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS			
			NO.	% SULPH. IDES	FROM	TO	TOTAL	g	%	g2/TON	g2 TON
		61.23 - 61.95: pervasive moderate silicification.	2284	2-3	61.23	61.95	0.72		0.02	
		61.95 - 62.15: reddish-pink, intensely silicified - resembles 60.29-61.23 m section.	2285	2-4	61.95	62.90	0.95		0.01	
		62.15 - 64.44: same as 61.23-61.95 m.	2286	3-5	62.90	63.80	0.90		0.02	
		64.44 - 64.54: moderately brecciated, strongly silicified, 3-5% pyrite.	2287	1-3	63.80	64.55	0.75		0.02	
		64.54 - 65.54: same as 61.23-61.95 m.	2288	1-3	64.55	65.25	0.70		0.01	
		65.54 - 65.70: weakly brecciated, intensely silicified, 7-9% pyrite; fault plane at 30° to core axis at 65.54 m slickensides pitch 30°.	2289	5	65.25	65.93	0.68		tr.	
		65.70 - 65.93: strongly brecciated, intensely silicified, silica infilling of voids is emanating up from underlying zone.								
65.93	73.17	<u>MAIN SILICIFIED ZONE</u> Dark purple-grey to honey coloured and aphanitic, with several dark greyish-green, very fine grained chloritized zones. Rock is generally intensely silicified and is locally feldspathized in lighter coloured sections. The zone is strongly brecciated with some weakly developed breccia locally. Bedding laminations are rarely visible as fragmented relics. Pyrite content averages 4-6% as a very fine dissemination and as clots up to 5mm. The zone is non-magnetic.								
		65.93 - 66.29: reddish-pink zone, similar to 60.29-61.23 with 7-9% pyrite mostly as fracture filling, resembles a quartz vein - lower contact is gradational.	2290	7-9	65.93	66.29	0.36		tr.	
		66.29 - 67.11: strongly brecciated, may originally have been laminated (relics visible locally); carries 5-7% pyrite as fine dissemination and as clots up to 3mm in matrix to very angular fragments, feldspathization appears to radiate into rock from post-breccia, silica filled fractures.	2291	5-7	66.29	67.11	0.82		0.04	
		67.11 - 67.72: honey coloured, assumed feldspathized, possibly micro-brecciated(?)	2292	10-15	67.11	67.72	0.61		0.81	
		67.72 - 68.16: purple-grey breccia, intensely silicified, 3-5% pyrite - some as fracture filling.	2293	3-5	67.72	68.16	0.44		0.24	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 SHEET NO. 5 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FROM	FOOTAGE TO	TOTAL	%	%	01.70M	02.70M
68.16	69.60:	purple-grey breccia fragments are penetrated by feldspathization - dilatant zones are also honey coloured - up to 7% pyrite.	2294	4-6	68.16	68.90	0.74			0.12	
69.60	70.20:	as above - increased feldspathization and up to 10% pyrite locally.	2295	5-7	68.90	69.60	0.70			0.05	
70.20	70.88:	pinkish-grey to purple-grey, intensely silicified and strongly brecciated - some fragments seem to carry relic vesicule-like openings.	2296	6-8	69.60	70.20	0.60			0.10	
70.88	71.79:	honey coloured, reddish-pink locally (71.28-71.50) similar to other reddish zones. Relic laminations visible locally, zone carries 10-12% pyrite and 10-20% white free quartz filling voids - silica dumping(?).	2297	3-5	70.20	70.88	0.68			0.01	
71.79	72.03:	weakly silicified breccia, moderately chloritized carries 1-2mm pyrite cubes; sheared.	2298	10-15	70.88	71.33	0.45			0.01	
72.03	72.62:	dark purple-grey breccia fragments; intensely silicified with up to 20% pyrite locally, never less than 10%; no coarse clots, mostly very finely disseminated and 1-2mm blebs.	2299	8-10	71.33	71.79	0.46			0.01	
72.62	73.17:	dark purple-grey breccia with abundant chloritized fractures; strongly silicified, carries up to 10% pyrite locally. Lower contact is a very short transition over 1-2cm.	2300	1-2	71.79	72.03	0.24			0.01	
73.17	80.18	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Dark green to dark grey-green, fine to very fine grained and weakly to moderately chloritized. Many intensely silicified sections are noted locally in seams up to 5cm parallel to a crudely developed bedding lamination. Pyrite content is 3-5%. Some general decrease is observed with depth. The rock is locally brecciated, and these sections may be more strongly silicified than is generally the rule. The uppermost 2m of the zone are 40% silicified sections with no single section greater than 5cm in length. Pyrite content is generally evenly distributed in this section, with local increases up to 5% in narrow silicified zones.	1101	10-15	72.03	72.62	0.59			0.69	
			1102	5-6	72.62	73.17	0.55			0.16	
			1103	4-6	73.17	73.67	0.50			0.01	
			1104	4-6	73.67	74.17	0.50			0.01	
			1105	4-6	74.17	74.72	0.55			tr.	
			1118	2-4	74.72	75.05	0.33			tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 SHEET NO. 7 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS					
		NO. IDES	% SULPH IDES	FROM TO	FOOTAGE TO	TOTAL	% G	% G	GT/TON	GT TON	
97.20 111.55	<u>SEDIMENTS</u> Medium to dark green, fine grained, generally non-laminated but well parted locally. Locally brecciated sections are the sites of subsequent moderate silicification. The rock is weakly fractured. Fractures often have 1-2mm silicified halos and are quartz filled. White carbonate content in fractures may increase with depth. Pyrite content averages 0-1% with up to 5% in silicified breccia (eg. 100.18-100.38; 100.91-100.94 m). 97.20-104.37: chloritized with rare silicified sections. 104.37-105.06: purple-grey to cream coloured, strongly brecciated cherty fragments set in a medium green argillitic(?) matrix. Purple tint in uppermost 25cm may be due to subsequent silicification. Carries 3-5% pyrite. 105.06-107.04: weakly to moderately laminated (eg. 550 to core axis at 105.15 m). 107.04-107.36: 50-60% cherty laminations at 35-400 to core axis. 107.36-111.55: moderately to well laminated with 10% cherty laminations: 550 to core axis at 107.90 m and 40-450 to core axis at 110.40 m.	C 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148	1-2 1-2 1-2 3-4 1-2 1-3 1-3 2-4 0-1 1 1	97.20 98.22 99.23 99.97 100.60 101.42 102.42 103.87 104.37 105.06 105.86 107.04 109.30	98.22 99.23 99.97 100.60 101.42 102.92 104.37 105.06 105.86 107.36 110.25	1.02 1.01 0.74 0.63 0.82 0.50 0.50 0.50 0.69 0.80 0.32 0.95			cr. cr. 0.01 0.15 0.01 0.01 cr. cr. cr. cr. cr. cr.		
111.55 118.67	<u>CHERTY AND ARGILLITIC SEDIMENTS</u> The zone is composed of grey to purple-grey angular cherty fragments which are set in a medium green, fine grained chloritized matrix. These sections alternate with well laminated zones composed of intercalated grey cherty laminations and green chloritized laminations. The fragmental zones have probably been brecciated through rip-up action by high energy sediment flow (turbidite?). Localized subsequent silicification is noted, often with elevated pyrite contents (3-5%). Average pyrite content is 1-3%. Laminations are well preserved except where the rock is strongly brecciated. 111.55-112.10: brecciated cherty beds, chloritized matrix. 112.10-112.85: well laminated at 600 to core axis. 112.85-113.22: brecciated, weakly to moderately silicified.	1149 1150 1151	3-4 2-3 3-4	111.55 112.10 112.85 113.22	112.10 112.85 113.22	0.55 0.75 0.37			cr. cr. cr.		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 SHEET NO. 7 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS														
			NO.	% SULPH. IDES	FOOTAGE FROM TO	TOTAL	%	%	GT/TON	GT/TON										
97.20	111.55	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine grained, generally non-laminated but well parted locally. Locally brecciated sections are the sites of subsequent moderate silicification. The rock is weakly fractured. Fractures often have 1-2mm silicified halos and are quartz filled. White carbonate content in fractures may increase with depth. Pyrite content averages 0-1% with up to 5% in silicified breccia (eg. 100.18-100.38; 100.91-100.94 m).</p> <p>97.20-104.37: chloritized with rare silicified sections.</p> <p>104.37-105.06: purple-grey to cream coloured, strongly brecciated cherty fragments set in a medium green argillitic(?) matrix. Purple tint in uppermost 25cm may be due to subsequent silicification. Carries 3-5% pyrite.</p> <p>105.06-107.04: weakly to moderately laminated (eg. 550 to core axis at 105.15 m).</p> <p>107.04-107.36: 50-60% cherty laminations at 35-400 to core axis.</p> <p>107.36-111.55: moderately to well laminated with 10% cherty laminations: 550 to core axis at 107.90 m and 40-450 to core axis at 110.40 m.</p> <p><u>CHERTY AND ARGILLITIC SEDIMENTS</u></p> <p>The zone is composed of grey to purple-grey angular cherty fragments which are set in a medium green, fine grained chloritized matrix. These sections alternate with well laminated zones composed of intercalated grey cherty laminations and green chloritized laminations. The fragmental zones have probably been brecciated through rip-up action by high energy sediment flow (turbidite?). Localized subsequent silicification is noted, often with elevated pyrite contents (3-5%). Average pyrite content is 1-3%. Laminations are well preserved except where the rock is strongly brecciated.</p> <p>111.55-112.10: brecciated cherty beds, chloritized matrix.</p> <p>112.10-112.85: well laminated at 600 to core axis.</p> <p>112.85-113.22: brecciated, weakly to moderately silicified.</p>																		
				C																
				1138	1-2	97.20	98.22	1.02											CR.	
				1139	1-2	98.22	99.23	1.01												CR.
				1140	1-2	99.23	99.97	0.74												0.01
				1141	3-4	99.97	100.60	0.63												0.15
				1142	1-2	100.60	101.42	0.82												0.01
				1143	1-3	102.42	102.92	0.50												0.01
				1144	1-3	103.87	104.37	0.50												CR.
				1145	2-4	104.37	105.06	0.69												CR.
				1146	0-1	105.06	105.86	0.80												CR.
				1147	1	107.04	107.36	0.32												CR.
				1148	1	109.30	110.25	0.95												CR.
111.55	118.67																			

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-44 SHEET NO. 8 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPHIDES	FROM	FOOTAGE TO	TOTAL	%	%	01 TON	01 TON
113.22	113.72:	mostly green chloritized rock, few cherty laminations.	C	0-1	113.22	113.72	0.50			cr.	
113.72	114.60:	strongly brecciated, moderately silicified.	1153	3-4	113.72	114.60	0.88			0.01	
114.60	115.18:	moderately brecciated, very weakly silicified.	1154	2-3	114.60	115.18	0.58			0.01	
115.18	115.85:	well laminated at 500 to core axis, strongly brecciated locally.	1155	1-2	115.18	115.85	0.67			0.01	
115.85	116.31:	well laminated, few brecciated zones, 30% cherty laminations.	1156	1-2	115.85	116.31	0.46			cr.	
116.31	116.82:	strongly brecciated, cherty laminated zone; 4-6% pyrite locally.	1157	2-3	116.31	116.82	0.51			cr.	
116.82	117.74:	weakly laminated, well parted, few cherty laminations, bedding at 40-450 at 116.85 m.	1158	1-2	116.82	117.74	0.92			cr.	
117.74	117.92:	cherty beds up to 1cm, argillitic chloritized rock is very weakly laminated.	1159	1-2	117.74	118.67	0.93			cr.	
117.92	118.67:	medium green, chloritized rock, weakly laminated becoming better laminated with depth - 400 to the core axis.									
118.67 meters		END OF HOLE									
		CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE FROM TO TOTAL	%	%	01/10M	02/10M	
28.81	52.15	<p><u>BASALT</u></p> <p>Dark to medium green, fine to very fine grained, weakly to moderately flow brecciated throughout - possibly pillowed below 32.0 meters with abundant chloritized inter-pillow sediment. Flows carry 3-4% very finely disseminated pyrite locally in association with narrow silicified breccia seams, but in general average 0-1%.</p> <p>28.81 - 30.90: mostly flow brecciated</p> <p>30.90 - 31.57: Intrusive - pinkish-green, fine grained with well developed chills. Central part is more felsic in composition and carries numerous thin magnetite-filled fractures. Consequently, the rock is moderately to strongly magnetic. Contacts dip in opposing directions; top at 700 and basal at 500 to the core axis.</p> <p>32.20 - 37.85: vague pillow selvages locally</p> <p>37.85 - 38.25: Sediments - thinly laminated, probably tuffaceous.</p> <p>39.80 - 40.05: strongly flow brecciated with rounded fragments up to 2 cm. occupying 20% of rock volume.</p> <p>40.05 - 40.45: strongly shrinkage fractured - epidotized.</p> <p>40.45 - 41.25: fine to medium grained, moderately chloritized.</p> <p>41.25 - 41.37: several 5 cm. quartz veins.</p> <p>41.37 - 42.95: fine to very fine grained.</p> <p>42.95 - 43.55: strongly fractured, lower 15 cm. is moderately to strongly silicified.</p> <p>43.55 - 44.25: flow top breccia - epidotized</p> <p>44.25 - 47.70: flow breccia - wide variety of rounded to sub-angular fragments up to 2 cm.</p> <p>47.70 - 50.70: generally massive, fine grained, tectonically fractured - shrinkage fractures.</p> <p>50.70 - 52.15: crude pillowed appearance - possibly pillow-breccia (?).</p>								

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 3 OF 8

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE		TOTAL	ASSAYS			
				FROM	FOOTAGE TO		%	%	01.70M	02.70M
52.15 - 59.55	<u>SEDIMENTS</u> Dark green, fine to medium grained, variably laminated - from poor to excellent. Bedding locally exhibits signs of soft sediment deformation. Carbonatization is weakly developed locally and feathers out along the laminations. The zone averages 0-1% pyrite as a very fine dissemination and as occasional blebs up to 1 cm. elongated along laminations. 52.15 - 52.30: abundant quartz (replacement?) filling voids up to 3 cm. roughly parallel to bedding. 52.30 - 52.70: well laminated at 300 to core axis: moderately chloritized. 52.70 - 55.53: poorly laminated with minor carbonatization along a well developed foliation at 450 to core axis. Rare laminated sections up to 10 cm. (53.95-54.05), at 550 to core. Section of ground and lost core at 53.95-54.10 meters. 55.53 - 57.90: moderately well laminated becoming better laminated with depth. Bedding is highlighted by carbonatization of selected sets of laminations. Occasional silicified patches up to 2 cm. with elevated pyrite (1-3%) above the average. Laminations at 45-500 to core at 55.60 m. and 450 at 57.90 m. 57.90 - 58.35: chloritized, strongly fractured, micro-faults parallel to core axis. 58.35 - 59.55: very well laminated at 550 to core axis at 58.70 m and 450 at 59.20 m.	1171	0-1	52.15	53.15	1.00			0.01	
		1172	0-1	53.15	54.15	1.00			0.01	
		1173	0-1	54.15	55.15	1.00			0.01	
		1174	0-1	55.15	56.10	0.95			0.01	
		1175	0-1	56.10	57.00	0.90			0.01	
		1176	0-1	57.00	57.90	0.90			cr.	
		1177	0-1	57.90	58.75	0.85			cr.	
		1178	0-1	58.75	59.55	0.80			cr.	
59.55 - 92.55	<u>MAIN MINERALIZED ZONE</u> The zone is composed of an upper member which is variably silicified, a more strongly and broadly silicified middle member and a lower variably silicified member. The central member, the "main silicified zone", is altered in response to brecciation. Little or no silicification is noted apart from breccia zones. These zones carry elevated pyrite contents of up to 10% locally.									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS					
FROM	TO		NO. OF DEFS	% SUPPH	FROM	FOOTAGE TO	TOTAL	%	%	01 TON	02 TON
(Cont.) 59.55	92.55	Average pyrite content in altered rock is 2-4%. Silicification and brecciation is not as widespread nor as strong as is normal for this zone.									
59.55	61.59	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green, very fine to fine grained and weakly to moderately laminated. The zone carries abundant cherty fragments (chemical sediments?) roughly oriented parallel to bedding. Zone averages 1% pyrite as blebs up to 1mm.</p> <p>59.55 - 60.03: abundant cherty fragments set in a chloritized, fine grained matrix. Some bedding laminations are still visible in the fragments.</p> <p>60.03 - 61.30: abundant cherty fragments up to 5cm in length in a medium grained, strongly chloritized matrix. Some silicification is noted in zones up to 10cm in length where the rock is strongly brecciated. Core ground badly locally - possible fault at 61.30 m.</p> <p>61.30 - 61.59: moderately laminated with abundant irregular cherty fragments - chloritized matrix.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Dark purple-grey, with abundant (about 30%) dark green chloritized sections. Brecciation controls the degree of silicification present in this zone, and this in turn is reflected in purple tinted rock. Locally, especially near or in major fracture zones, a honey coloured alteration (feldspathization?) dominates the highly silicified sections. Silicified rock carries elevated pyrite contents (average 2-4%), mostly as a fine dissemination in the matrix to highly angular breccia fragments. The zone, as a whole averages 1-3% pyrite with highest levels approaching 10% in feldspathized rock. Because of the lack of widespread brecciation, large sections of non-silicified and chloritized rock are found in the main zone. This is abnormal in a general sense, and may reflect a 'local' anomaly. The rock is non-magnetic.</p>									
61.59	89.51										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-45 SHEET NO. 5 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SULPHIDES	FOOTAGE FROM TO	TOTAL	%	%	g2/TON	g2/TON
61.59 - 61.99:	cream coloured, strongly silicified becoming more purple-grey coloured.	C 1182	1-3	61.59	62.45	0.86			tr.
61.99 - 63.00:	purple-grey, intensely silicified, strongly brecciated honey coloured halos surround fractures cutting breccia.	1183	2-3	62.45	63.00	0.55			tr.
63.00 - 63.69:	25% honey coloured 'feldspathized' rock with up to 7% pyrite; foliation at 500 to core axis visible locally - chloritized patches.	1184	3-5	63.00	63.69	0.69			0.02
63.69 - 65.02:	abundant white siliceous filling around grey breccia fragments; abundant chloritized fractures.	1185	2-3	63.69	64.50	0.81			0.01
65.02 - 65.50:	abundant chloritized 'patches' up to 8cm where purple-grey silicification has not penetrated; that is, the rock has not been brecciated to provide channels.	1186	2-3	64.50	65.02	0.52			0.01
		1187	1-2	65.02	65.50	0.48			0.01
65.50 - 66.30:	same as 61.99-63.00 m.	1188	2-3	65.50	66.30	0.80			tr.
66.30 - 67.12:	carries 10% chloritized rock.	1189	1-3	66.30	67.12	0.82			tr.
67.12 - 68.19:	intensely brecciated locally but carries 70% non-brecciated, non-silicified rock.	1190	1-2	67.12	68.19	1.07			tr.
68.19 - 68.65:	purple-grey, intensely silicified breccia.	1191	2-4	68.19	68.65	0.46			tr.
68.65 - 70.15:	same as 67.12-68.19 - 50% chloritized non-silicified sections; carries white quartz grains up to 1mm (buff?), parallel chloritized and silicified breccia seams may reflect original bedding - 400 to core axis at 68.75 m; 450 at 69.83 m.	1192	1-3	68.65	69.47	0.82			tr.
		1193	1-3	69.47	70.15	0.68			tr.
70.15 - 71.05:	intensely silicified breccia, 5-10% chloritized zones; honey coloured halos near major fractures carry up to 7% pyrite locally.	1194	2-4	70.15	71.05	0.90			0.02
71.05 - 71.75:	same as 68.65-70.15 m.	1195	1-3	71.05	71.75	0.70			0.01
71.75 - 73.02:	95% chloritized; 5% silicified breccia, generally well foliated/laminated at 40-500 at 72.15 m.	1196	1-2	71.75	72.54	0.79			tr.
	Silicified breccia carries 3-5% pyrite, overall average 1-2%.								
73.02 - 73.28:	same as 71.75-73.02 with 50% silicified breccia.	1197	1-2	72.54	73.02	0.48			tr.
73.28 - 73.50:	INTRUSIVE - dark grey-green, abundant green chloritized blebs up to 2mm (blotite?), and occasional pink siliceous xenoliths up to 5mm. Carries 0-1% pyrite. Non-magnetic. White 2-3mm feldspar phenocrysts locally.	1198	1-2	73.02	74.05	1.03			tr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 6 OF 8

FOOTAGE	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE		FOOTAGE TO	TOTAL	%	%	ASSAYS	
				FROM	TO					g./TON	g./TON
73.50 - 74.05:	generally well laminated with 30-50% silicified laminations or sets of laminations. Also carries breccia controlled silicification. Bedding at 450 at 74.50 m.	C 1199	2-3	74.05	74.70	0.65					tr.
74.05 - 74.70:	amount of silicified rock increases to 80% as the level of brecciation increases.	1200	1-2	74.70	75.66	0.96					0.01
74.70 - 76.30:	laminations; up to 5% silicified breccia, laminations at 450 at 75.00 m. Several de-watering channels are strongly silicified and indicate TOPS UP (eg. 76.08 m).	2301	1-2	75.66	76.30	0.64					0.01
76.30 - 77.72:	75% strongly silicified breccia, locally laminated.	2302	2-3	76.30	76.72	0.42					0.01
77.72 - 77.93:	purple-grey, intensely silicified breccia, up to 5% pyrite locally in clots up to 1.5cm.	2303	1-2	76.72	77.72	1.00					0.01
77.93 - 78.20:	40-50% silicified breccia; 50-60% chloritized sections - less brecciated than above zones.	2304	2-3	77.72	78.20	0.48					0.01
78.20 - 78.75:	similar to 71.75-73.04 m, very little silicified. sharply transitional (across 5cm), into intensely silicified and strongly brecciated rock. Major fracture systems are white quartz filled with 'feldspathized' halos. These halos carry 5-7% pyrite and up to 10% locally.	2305	1-2	78.20	78.75	0.55					tr.
78.75 - 79.35:	same as 78.75-79.35 - very little 'feldspathized' rock.	2306	3-5	78.75	79.35	0.60					0.02
79.35 - 79.77:	purple-grey intensely silicified breccia with pyrite in clots up to 1.5cm and fracture filling.	2307	2-4	79.35	79.77	0.42					0.01
79.77 - 80.00:	as above, very finely disseminated pyrite.	2308	4-6	79.77	80.38	0.61					0.05
80.00 - 80.38:	60% dark green, chloritized rock.	2309	1-2	80.38	81.23	0.85					tr.
80.38 - 82.11:	60% dark purple-grey silicified breccia with 40% chloritized patches. Minor fault zone at 83.25-83.52 - sheared at 450 to core axis.	2310	1-2	81.23	82.11	0.88					tr.
82.11 - 83.59:	strongly brecciated, intensely silicified with 5% green chloritized patches, minor 'feldspathization'.	2311	1-3	82.11	82.85	0.74					tr.
83.59 - 85.83:	weakly brecciated, moderately chloritized with only 10% silicified sections.	2312	1-3	82.85	83.59	0.74					tr.
85.83 - 86.11:		2313	2-4	83.59	85.14	1.55					0.03
		2314	2-4	85.14	85.83	0.69					0.01
		2315	0-1	85.83	86.11	0.28					0.01

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 7 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPH IDES	FOOTAGE FROM TO	TOTAL	%	%	01. TON	01. TON	
		86.11 - 87.08: Intensely silicified breccia, 5% chloritized rock. Pyrite in clots up to 1cm. Increasing 'feldspathization' below 86.54 m. Up to 12% pyrite locally.	C 2316 2317	3-5 7-9	86.11 86.54	86.54 87.08	0.43 0.54			0.01 0.22	
		87.08 - 87.33: tentional fracturing and brecciation - white silica infilling.	2318	1-3	87.08	87.72	0.64			0.01	
		87.33 - 89.51: silicified breccia; 10-20% green, chloritized rock - mostly above 87.72 m. Carries 4-5% pyrite in clots up to 2cm between 88.36 and 88.71 m.	2319 2320 2321	2-3 4-5 1-3	87.72 88.36 88.71	88.36 88.71 89.51	0.64 0.35 0.80			0.01 0.09 0.01	
89.51	92.55	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Zone is generally dark green, fine grained and non-laminated initially becoming better bedded with depth as cherty seams increase in percentage. Carries numerous intensely silicified breccia zones up to 5cm in width. The number and size of silicified zones decrease with depth. Upper contact of zone is possibly sheared at 580 to core axis at 89.58 m. 89.51 - 91.45: 5% silicified intervals with 3-4% pyrite locally (91.23-91.34). Weakly laminated at 500 to core axis. Moderately carbonatized locally. 91.45 - 92.03: abundant cherty fragments and silicified sets of laminations; 3-4% disseminated pyrite. 92.03 - 92.30: 50% silicified breccia; 3-5% pyrite. 92.30 - 92.55: 75% brecciated cherty laminations with chloritized intercalated laminations.	2322 2323 2324	1-2 1-2 3-4	89.51 90.33 91.45	90.33 91.45 92.30	0.82 1.12 0.85			0.01 0.01 tr.	
92.55	111.86	<u>SEDIMENTS</u> Dark green and fine grained with abundant white quartz along laminations - probably a replacement. Rock is weakly to moderately carbonatized below 95 m. A well developed parting parallel to a vague foliation indicates the bedding orientation. Acid etching of core is required (in the uppermost part), to highlight the laminations: 550 to core axis at 92.75 m and 500 at 94.35 m. A 2cm breccia zone at 92.82 is moderately silicified and is the lowest detected. Section averages 1% pyrite as blebs up to 1mm.	2325	3-5	92.30	92.55	0.25			0.05	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-45 SHEET NO. 8 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	GT. TON	GT. TON
92.55 - 94.50:	weakly laminated.	C	1-2	92.55	93.33	0.78			cr.	
94.50 - 97.40:	very finely laminated on a 0.1mm scale.	2326	1	93.33	94.35	1.02			cr.	
97.40 - 98.69:	finely laminated, moderately carbonatized.	2327	1	94.35	95.22	0.87			cr.	
98.69 - 100.75:	laminated at 400 to core axis.	2328	1	95.22	96.12	0.90			cr.	
100.75-101.10:	elongated nodular texture - probably diagenetic growth of silica.	2329	1	96.12	97.12	1.00			cr.	
101.10-105.15:	vaguely laminated.	2330	1	97.12	98.69	0.92			0.01	
105.15-105.65:	abundant tensional fractures; quartz-carbonate filled.	2331	0-1	97.77	100.67	1.00			0.01	
106.83-108.90:	light green, very fine grained, very finely laminated; 30-350 at 108.70 m.	2332	0-1	99.67	102.67	1.00			0.01	
108.90-109.13:	tuffaceous - light green clasts of mostly ash size, dark green chloritized matrix.	2333	0-1	101.67	104.80	1.00			0.01	
109.54-110.17:	several narrow breccia zones with 2-3% pyrite - probably tuffaceous at 109.75-109.85 m.	2334	0-1	103.80	106.45	0.65			0.01	
110.17-111.86:	very finely laminated; carbonatized locally.	2335	0-1	105.80	109.54	0.73			0.01	
	110.55 m: 450 to core axis.	2336	0-1	108.81	110.17	0.63			0.01	
	111.55 m: 550 to core axis.	2337	2-3	109.54	110.75	0.58			0.01	
		2338	0-1	110.17						
111.86 meters	END OF HOLE									
	CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-46 SHEET NO. 2 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS						
			NO.	% SULPHIDES	FOOTAGE FROM TO	TOTAL	%	%	g/TON	g/TON		
		46.20 - 47.07: medium-coarse grained, massive.										
		47.07 - 47.95: intensely silicified breccia, epidotized - probably flow-top breccia below apparent flow contact at 47.18 m.										
		47.95 - 51.15: fine to very fine grained, abundant tight epidotized ladder-type shrinkage fractures.										
		51.15 - 52.35: several silicified and epidotized patches, some breccia; pillow rims?										
		52.35 - 56.20: tectonically brecciated flow breccia - confused texturally - generally fine to very fine grained, abundant shearing at varying angles.										
56.20	61.59	<u>SEDIMENTS</u>										
		Medium to dark green, fine to very fine grained; crudely laminated on a 1-2mm scale highlighted by 10-15% moderately carbonatized laminations and seams parallel to the bedding. A semi-nodular texture is observed locally, possibly diagenetic silica.	2340	0-1	56.20	57.20	1.00				0.02	
		56.20 - 57.80: well laminated with 5-10% hematized 1-2mm seams, bedding at 450 at 57.00 m and 30-350 at 57.80.	2341	1-2	57.20	58.15	0.95				0.01	
		57.80 - 58.30: well laminated with nodular texture locally.	2342	1-2	58.15	59.05	0.90				0.01	
		58.30 - 59.90: crudely laminated, weakly carbonatized with abundant cherty fragments and brecciated cherty laminations locally.	2343	1-2	59.05	59.85	0.80				0.01	
		59.90 - 61.59: well laminated at 500 to core axis.	2344	1-2	59.85	60.90	1.05				0.01	
			2345	1-2	60.90	61.59	0.69				tr.	
61.59	91.84	<u>MAIN MINERALIZED ZONE</u>										
		The main zone is composed of three sub-sections; the upper section is a variably silicified zone where alteration is limited to breccia zones. Cherty beds, although brecciated and set in a chloritized groundmass, are in much evidence. These are chemical sediments. The middle section, the 'main silicified zone', is intensely silicified and strongly brecciated. Some non-brecciated lapilli tuff is in evidence. Small localized fault zones are chloritized along radiating fractures. The lower member of this section is a chloritized zone carrying 15% silicified breccia.										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-46 SHEET NO. 3 OF 6

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO.	% SULPHIDES	FROM TO	%	%	GT/TON	GT/TON	
61.59 - 63.42	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Dark green, fine to very fine grained and chloritized with abundant grey to mauve cherty fragments. These clasts are sub-rounded, often lentic, and larger fragments up to 6cm in size often have a nodular texture internally - diagenetic silica(?). Smaller fragments resemble rip-up clasts. Upper contact is parallel to bedding at 45-500 to the core axis. The greatest percentage of clasts are within 28cm of the upper contact. The lower contact is masked by abundant carbonate stringers and a 2mm plate of carbonate beneath lowest lamination. Contact is gradational rather than structural, but is nonetheless very sharp. The zone averages 1-2% pyrite as blebs up to 1mm.	C 2346 2347 2348	1-2 1-2 1-2	61.59 - 62.04 62.04 - 62.65 62.65 - 63.42	62.04 - 62.65 62.65 - 63.42	0.45 0.61 0.77	tr. tr. tr.		
63.42 - 85.99	<u>MAIN SILICIFIED ZONE</u> Greenish-grey becoming purple-grey below a fracture system at 64.33. Two textures are in evidence; ash and lapilli tuff clasts up to 1cm set in an aphanitic matrix - the whole being intensely silicified; and, strongly brecciated rock with an aphanitic filling in dilatant zones, also intensely silicified. Tuffaceous material is of varying lithologies, many of the clasts are extremely angular. Some vitric tuff with relic vesicles, partly outlined, are in evidence. Honey coloured 'feldspathization' invades purple-grey zones and feathers out along bedding laminations locally. These zones carry increased pyrite contents generally confined to matrix rather than fragments. The rock is weakly to moderately laminated locally (eg. 500 at 63.42 m), often with hematite concentrated between laminations. 63.42 - 64.49: weakly laminated tuffaceous zone, clasts are pink, white and light green, up to 2cm locally. Pyrite up to 8%; very finely disseminated in matrix to fragments. Chloritized fracture zones at 64.18-64.33 m. Minor vitric tuff. 64.49 - 68.95: honey coloured alteration invades purple-grey rock along laminations - feathering out; expands into intensely brecciated zones. Brecciation is moderate becoming strong below 66.14 m. Carries up to 10% very finely disseminated in lighter coloured rock. Laminations at 450 at 64.82 and 400 at 65.80 m.	2349 2350 2351 2352 2353 2354 2355 2356	6-8 3-5 3-5 4-6 1-3 3-5 3-5 2-4	63.42 - 64.18 64.18 - 64.50 64.50 - 65.40 65.40 - 66.30 66.30 - 67.40 67.40 - 68.20 68.20 - 68.95	64.18 - 64.50 64.50 - 65.40 65.40 - 66.30 66.30 - 67.40 67.40 - 68.20 68.20 - 68.95	0.76 0.32 0.90 0.90 0.33 0.77 0.80 0.75	tr. 0.01 0.01 0.04 0.06 0.08 0.16 0.01		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott SHELT NO. 4 U 6
 HOLE NO. Mc-BJ-46

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS					
			NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	G/TON	G/TON	
68.95 - 69.80:		95% honey coloured 'feldspathized' rock with abundant chlorite in tight fracture systems and between fragments in breccia. Lower contact is a 2cm green clay seam - fault plane at 45-550 to core axis. A zone of intense fracturing extends 0.5 m above fault plane.	C	4-6	68.95	69.80	0.85				0.15	
69.80 - 70.60:		rock was strongly 'feldspathized' but intense fracturing has created 20-30% green mylonitic seams. Greenish sheared zone at 69.80-70.05 m.	2358	2-3	69.80	70.60	0.80				0.03	
70.60 - 72.24:		dark purple-grey, aphanitic, intensely silicified, moderately to strongly brecciated.	2359	2-3	70.60	71.42	0.82				cr.	
72.24 - 73.78:		as above, less purple tint, degree of silicification not as high but still very strong. Spotty 'feldspathization' locally with 3-4% pyrite locally; average content is 1-2%.	2360	2-3	71.42	72.24	0.82				cr.	
			2361	1-2	72.24	73.04	0.80				cr.	
			2362	1-2	73.04	73.78	0.74				cr.	
73.78 - 74.55:		INTRUSIVE - grey to grey-green, fine to medium grained with abundant grey silicified xenoliths concentrated near upper contact (floatation?); weakly magnetic locally.	2363	0-1	73.78	74.73	0.95				cr.	
74.55 - 77.28:		honey coloured 'feldspathized' rock accounts for 10-15% of breccia - carries up to 12% pyrite locally. Purple-grey zones carry 2-4% but as little as 1% is observed. Relic laminations are visible locally - 500 at 76.30 m and 450 to core axis at 76.75 m.	2364	7-9	74.73	75.46	0.73				0.24	
			2365	4-6	75.46	76.16	0.70				0.12	
			2366	6-8	76.16	76.87	0.71				0.19	
			2367	7-9	76.87	77.28	0.41				0.17	
77.28 - 78.15:		Increasing grey rock - less 'feldspathized'. chloritized fractured zone - little pyrite.	2368	2-3	77.28	78.15	0.87				0.02	
78.15 - 78.75:			2369	1-3	78.15	78.75	0.60				0.02	
78.75 - 79.06:		purple-grey, intensely silicified breccia with 3-6% pyrite in matrix to fragments.	2370	3-6	78.75	79.06	0.31				0.02	
79.06 - 79.51:		purple-grey as above - 1-3% pyrite.	2371	1-3	79.06	79.51	0.45				cr.	
79.51 - 80.07:		carries 10-15% chloritized seams up to 1.5cm in width; also carries 20-30% silicified 'feldspathized' breccia.	2372	1-2	79.51	80.07	0.56				cr.	
80.07 - 81.88:		purple-grey to grey silicified breccia; relic laminations at 81.07 m at 550 to core axis; 10-20% chloritized seams; up to 10% pyrite locally over 1-5cm and rare chalcopyrite as plates in chloritized fractures.	2373	1-3	80.07	80.77	0.70				cr.	
			2374	1-3	80.77	81.88	1.11				cr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-46 SHEET NO. 5 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS									
			NO.	% SULPH. IDES	FROM	TO	TOTAL	%	%	02.70M	01.70M					
		81.88 - 82.83: <u>INTRUSIVE</u> - dark green, fine grained, with abundant (5-10%), reddish-pink silicified xenoliths carrying greyish reaction rims. Lower contact at 550 to core axis - parallel to chloritized seams below.														
		82.83 - 85.99: highly silicified breccia with 10-15% chloritized seams up to 10cm width. Seams are parallel to what resembles a relic lamination at 40-450 to core axis (eg. 83.45 m). Zone at 84.00-84.07 m is tuffaceous and bedded at 45-500 to core. Laminations at 450 at 85.05 m.	2375	0-1	81.88	82.83	0.95									
			2376	1-3	82.83	83.65	0.82									
			2377	1-3	83.65	84.43	0.78									
			2378	1-2	84.43	85.36	0.93									
			2379	1-2	85.36	85.99	0.63									
85.99	91.84	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Light to medium green, fine to very fine grained with abundant (15%), purple-grey, aphanitic intensely silicified breccia zones. Rock is weakly laminated at 550 to core axis. Fracturing is moderately to strongly developed with pink quartz-carbonate filling. 88.10 - 88.61: <u>INTRUSIVE</u> - medium green, fine to medium grained, carries 5-10% reddish-pink siliceous xenoliths. Lower contact is at 45-500 to core axis, parallel to underlying chloritized seams. 89.30 - 90.24: very few silicified sections, locally laminated (eg. 400 at 89.80 m). 90.24 - 91.84: fine grained, medium locally; graded beds at 90.35 m indicate tops up; minor cherty fragments, well laminated with cherty laminations at 40-450 to core at 90.70 m.	2380	0-1	85.99	86.94	0.95									
			2381	0-1	86.94	87.49	0.55									
			2382	0-1	87.49	88.10	0.61									
			2383	0-1	88.10	88.61	0.51									
			2384	1-2	88.61	89.30	0.69									
			2385	0-1	89.30	90.24	0.94									
			2386	1-2	90.24	91.09	0.85									
			2387	1-2	91.09	91.84	0.75									
91.84	111.86	<u>SEDIMENTS</u> Light to medium green, fine to very fine grained, generally well laminated highlighted by cherty 1-3mm laminations separating wider chloritized lamination sets. Cherty chemical sediments may comprise 50% of the rock volume over sections as great as 55cm. Carbonatization is moderate in cherty sections, but weaker in														

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-46 SHEET NO. 6 OF 6

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE	DESCRIPTION	SAMPLE			ASSAYS						
		NO.	% SULPHURIDES	FOOTAGE	%	%	01. TON	02. TON			
FROM	TO			FROM	TO	TOTAL					
	strictly chloritized rock. Carbonate alteration feathers out along the bedding. The zone is non-magnetic and averages 1% pyrite as blebs up to 2mm.										
91.84 - 95.25:	well laminated, up to 5% pyrite associated with cherty sections; bedding at 50-550 to core axis at 90.70 m.	C	0-1	91.84	92.69	0.85					tr.
95.25 - 96.07:	50% cherty laminations, minor local brecciation of cherty beds.	2388	0-1	92.69	93.57	0.88					tr.
96.07 - 96.80:	abundant brecciated cherty material - up to 2% pyrite - very finely disseminated.	2389	0-1	93.57	94.40	0.83					tr.
96.80 - 102.00:	well laminated, occasional chert. Bedding at 600 to core axis at 97.05 m; 500 to core axis at 98.55 m; 50-550 to core axis at 102.00 m.	2390	0-1	94.40	95.25	0.85					0.01
102.00-111.86:	weakly to moderately laminated, spotty carbonatization. Bedding at 450 to core axis at 107.40 m; 450 to core axis at 111.50 m.	2391	0-1	95.25	95.93	0.68					0.01
		2392	1	95.93	96.80	0.87					tr.
		2393	1-2	96.80	97.70	0.90					0.01
		2394	0-1	97.70	98.55	0.85					0.01
		2395	0-1	99.75	100.75	1.00					0.01
		2396	0-1	102.25	103.25	1.00					0.01
		2397	0-1	105.25	106.15	0.90					0.01
		2398	0-1	107.73	108.73	1.00					tr.
		2399	0-1	110.80	111.86	1.06					tr.
		2400	0-1								
111.86 meters	END OF HOLE										
	CASING PULLED										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-47 LENGTH 120.30 meters
 LOCATION 7 + 25 E DEPARTURE 0 + 62 S
 LATITUDE _____ AZIMUTH 34° DIP -65°
 ELEVATION _____
 STARTED October 19, 1983 FINISHED October 21, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-64°				
121.92	-60°				

HOLE NO. Mc-83-47 SHEET NO. 1 OF 2
 REMARKS BQ Core
Split for assay.
 LOGGED BY A.W. Workman

EM. 6-1168

LANGRIDGE LIMITED,

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS			
		NO.	% SULPHIDES	FROM	TO	%	%	oz/TON	oz/TON
0 - 11.80	OVERBURDEN								
11.80 - 66.95	BASALT								
<p>This section is composed of a series of flows. All are medium to dark green, fine to very fine grained at the margins with relatively coarser grained centres. The thinner flows are flow brecciated. The one thick flow seems to be massive. Rocks are weakly to moderately chloritized, and non-magnetic. Pyrite content averages 1-2% but is higher in localized 'pods' of silicified breccia.</p> <p>11.80 - 15.40: fine to medium grained. 15.40 - 16.10: fine to very fine grained. 16.10 - 16.80: flow top breccia - moderately hematized fractures. 16.80 - 24.00: flow breccia - aphanitic, rounded fragments up to 10cm in size have reaction rims. Matrix is composed of fine to very fine grained, chloritized, more angular fragments up to 2cm. 24.00 - 27.05: no rounded fragments, probably tectonically brecciated due to late flow movement. Rare zones of 5-10% pyrite associated with minor silicification. May carry some 20-50cm sections of flow breccia. 27.05: flow contact. 27.05 - 28.85: angularly brecciated - flow top. 28.85 - 29.60: flow breccia, rounded fragments up to 5cm. 29.60 - 32.32: tectonically brecciated. 32.32 - 37.20: fine grained, angular tectonic breccia - upper contact at 60° to core axis. 37.20 - 39.75: very fine grained to aphanitic, sheared locally. 39.75 - 40.45: SEDIMENTS - strongly silicified at upper contact, weakly to very weakly laminated - well parted; up to 5% pyrite as 1-2mm cubes.</p>									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott

HOLE NO. Mc-83-47

SHEET NO. 2 OF 7

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO.	% SULPHIDES	FROM	TO	TOTAL	1	2	02.70M	02.70M	
		40.45 - 54.55: massive flow - fine grained near upper contact (40.45-41.45), then becoming medium to coarse grained. Minor epidotized breccia - tectonic type.										
		54.55 - 56.25: fine to very fine grained.										
		56.25 - 57.55: fine to medium grained.										
		57.55 - 59.66: fine to very fine grained, strongly tectonically brecciated.										
		59.66 - 64.60: very fine grained to aphanitic, abundant silicified and epidotized breccia. Tensional fractures are common below a silicified zone at 63.09-63.38 m.										
		64.60 - 64.80: flow-type breccia - rounded fragments up to 5cm carry well developed reaction rims.										
		64.80 - 66.90: fine grained, abundant tensional carbonate filled fractures.										
		66.90 - 66.95: strongly brecciated and silicified - carbonate and silica in matrix to fragments. Section carries 3-4% pyrite.										
66.95	75.95	<u>SEDIMENTS</u>										
		Medium green, fine to very fine grained, mostly well laminated on a 1-3mm scale. Wider laminations are composed of cherty material which frequently pinches and swells up to 1cm thickness. Bedding is highlighted by pale grey carbonate replacing selected sets of laminations. This carbonatization feathers out along the laminations and is weak to moderate in strength.										
		66.95 - 68.40: well laminated, occasional carbonatization, bedding at 450 to core axis at 67.20 m.	C	0-1	66.90	67.90	1.00					tr.
		68.40 - 74.61: moderate to well developed laminations with occasional purple-grey hematized and carbonatized beds. Carbonate alteration dramatically increases in this section. Bedding at 71.40 m at 300 to core axis and at 73.10 m at 400 to core axis.		0-1	67.90	68.80	0.90					tr.
		74.61 - 74.98: strongly carbonatized seams and laminations - purple grey colour reflects minor localized silicification and hematization.		0-1	68.80	69.65	0.85					tr.
				0-1	69.65	70.65	1.00					tr.
				0-1	70.65	71.55	0.90					tr.
				0-1	71.55	72.35	0.80					tr.
				0-1	72.35	73.25	0.90					tr.
				0-1	73.25	74.00	0.75					tr.
				0-1	74.00	74.61	0.61					tr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-47 SHEET NO. 3 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS														
			NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	01. TON	01. TON										
75.95	111.46	<p>74.98 - 75.29: abundant cherty fragments up to 3cm are lensitic in shape. Chloritized laminations wrap around fragments. Rock becomes a characteristic purple-grey colour but contains only minor weak silicification.</p> <p>75.29 - 75.95: purple-grey sets of laminations up to 1cm thickness. Non-silicified, non-brecciated. Bedding at 75.70 m is at 400 to core axis.</p> <p><u>MAIN MINERALIZED ZONE</u></p> <p>The zone is composed of four sections - a variably silicified upper member; an intensely silicified central zone; a lower variably silicified member; and, at the base a second thin zone of very strong silicification (lower mineralized zone). Pyrite contents up to 12% are noted - highest in honey coloured 'feldspathized' rock. Brecciation is irregularly developed throughout the zone and has a vague control over 'feldspathization' (but not silicification, except in lower section).</p> <p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Medium to dark green, with abundant pink to light grey replacements of fine to very fine grained dark green chloritized laminations and sets of laminations. Most of this replacement is silica although some carbonate is also present. Approximately 20% of the zone is silicified sections. A reddish cherty zone is noted at 78.23-79.02 which was previously termed syenitic. Bedding is well developed locally. Major silicified horizons are noted at 76.85-76.95; 77.23-77.35; and 77.41-77.98 m.</p>	C																		
75.95	81.24	<p>75.95 - 76.85: well laminated locally with silicification confined to only thin sections.</p> <p>76.85 - 78.23: silicification replaces carbonatized cherty fragments eventually coalescing into massive beds.</p>																			
			2510	0-1	74.61	75.29	0.68														
			2511	0-1	75.29	75.95	0.66														
			2512	1-2	75.95	76.97	1.02														
			2513	1-2	76.97	77.60	0.63														
			2514	1-2	77.60	78.23	0.63														

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-47 SHEET NO. 4 OF 7

FOOTAGE	DESCRIPTION	SAMPLE				ASSAYS	
		NO.	DEPTH (m)	TRIMM (m)	FOOTAGE (m)	% OF TON	% OF TON
81.24 - 98.67	<p>78.23 - 79.02: reddish-pink, aphanitic, possibly laminated, strongly brecciated and highly siliceous. Carries 3-5% pyrite. Highly fractured - chloritized breaks.</p> <p>79.02 - 81.24: chloritized with abundant siliceous (cherty), fragments up to 5cm - laminated locally - core badly ground.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Purple-grey, aphanitic, laminated locally, variably brecciated with abundant honey coloured 'feldspathized' sections. Pyrite contents up to 12% are noted in honey coloured rock. Purple-grey rock carries smaller amounts. Pyrite is found as a very fine grained dissemination, as clots up to 2cm and as fillings between laminations. Purple colouration is due to strong, very fine grained hematization.</p> <p>81.24 - 81.97: mostly purple-grey, intensely silicified breccia. strongly 'feldspathized' - up to 7% pyrite; averaging 4-6%, concentrated along 1-2mm seams - possibly reflecting former laminations.</p> <p>81.97 - 82.37: honey coloured angular breccia fragments in a dark grey matrix - hematized fractures.</p> <p>82.37 - 83.04: honey coloured, moderately brecciated; strongly laminated locally. Pyrite contents up to 10% - often concentrated along laminations. Bedding at 550 at 84.75 m and 450 to core axis at 85.20 m.</p> <p>83.04 - 85.45: intensely silicified, strongly 'feldspathized' with pyrite along well developed laminations - 550 to core axis at 85.75 m.</p> <p>85.45 - 86.15: same as 83.04-85.45 m - laminated locally 450 to core axis at 87.83 m.</p> <p>86.15 - 88.21: INTRUSIVE - dark green, fine to medium grained, abundant siliceous xenoliths. Carries abundant 1-2mm chloritized flakes - blotite? Cut by several 1-5cm quartz veins. Contains up to 1% pyrite.</p> <p>88.21 - 89.68:</p>	C					
		2515	3-5	78.23	79.02	0.79	cr.
		2516	0-1	79.02	79.74	0.72	cr.
		2517	0-1	79.74	80.47	0.73	cr.
		2518	0-1	80.47	81.24	0.77	cr.
		2519	2-4	81.24	81.97	0.73	0.29
		2520	4-6	81.97	82.37	0.40	0.62
		2521	1-3	82.37	83.04	0.67	0.08
		2522	6-8	83.04	83.74	0.70	0.31
		2523	6-8	83.74	84.64	0.90	0.14
2524	7-9	84.64	85.48	0.84	0.14		
2525	7-9	85.48	86.08	0.60	0.05		
2526	7-9	86.08	86.78	0.70	0.18		
2527	7-9	86.78	87.60	0.82	0.06		
2528	9-11	87.60	88.21	0.61	0.03		
2529	1	88.21	88.96	0.75	cr.		
2530	1	88.96	89.68	0.72	0.01		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-47 SHEET NO. 5 OF 7

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS					
FROM	TO		NO.	% SULPH	FROM	TO	TOTAL	%	%	0.1 TON	0.2 TON	
		Clay seams at 88.76 and 88.81 m indicate minor faults. Core recovery in this section is 75%. purple-grey, aphanitic, laminated at 450 to core at 89.83 m. Bedding is increasingly disturbed by increasing brecciation with depth.	C									
	89.68 - 90.70:	same as 89.68-90.70 m but carries 10% dark green chloritized and hematized patches up to 2cm in diameter.	2531	1-3	89.68	90.53	0.85			0.04		
	90.70 - 91.17:	same as 89.68-90.70 m but carries 10% dark green chloritized and hematized patches up to 2cm in diameter.	2532	1-3	90.53	91.30	0.77			0.02		
	91.17 - 92.15:	same as 89.68-90.70 m.	2533	1-3	91.30	92.15	0.85			0.01		
	92.15 - 92.65:	minor chloritized patches. Zone is increasingly 'feldspathized' along fracture systems. Laminated at 550 to core axis at 92.65 m.	2534	1-2	92.15	92.80	0.65			0.02		
	92.65 - 93.30:	strongly brecciated, locally laminated, with 10% chloritized patches up to 5cm.	2535	1-2	92.80	93.30	0.50			0.01		
	93.30 - 94.29:	grey to purple-grey with increasing honey coloured rock in strongly brecciated zones.	2536	4-6	93.30	93.85	0.55			0.01		
	94.29 - 95.61:	well laminated - 80% 'feldspathized' initially decreasing with depth. Chloritized seams increase to 10%. Up to 12% pyrite is carried in massively feldspathized rock. Bedding at 550 to core at 98.21 m.	2537	4-6	93.85	94.29	0.44			0.20		
			2538	8-10	94.29	94.69	0.40			0.14		
			2539	4-6	94.69	95.61	0.92			0.01		
95.61	109.85	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>										
		Initially, the zone is purple-grey, intensely silicified and locally honey coloured with 40-50% dark green chloritized laminations. Percentage chloritized rock ranges from 25-75%. Below 99.65 m, chloritized rock is dominant although significant quantities of silicified breccia are observed below this point. Laminated rock is not silicified. The zone is generally well laminated. The rock is non-magnetic.										
	95.61 - 96.60:	dominantly silicified rock, well bedded at 450 to core axis.	2540	1-3	95.61	96.51	0.90			0.03		
	96.60 - 99.40:	chloritized with silicified breccia locally.	2541	1-3	96.51	97.46	0.95			0.01		
	99.40 - 100.85:	mostly silicified, honey coloured, brecciated rock. Localized increases in pyrite content to 3-4% - average 2-3%. Bedding visible locally - 450 at 99.40 m.	2542	1-3	97.46	98.33	0.87			0.01		
			2543	1-3	98.33	99.23	0.90			tr.		
			2544	2-3	99.23	100.00	0.77			0.03		
			2545	2-3	100.00	100.86	0.86			0.01		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-47 SHEET NO. 6 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS							
			NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	GT/TON	GT/TON			
100.85-101.79:		chloritized, limited silicification along fractures	C											
		Strongly silicified breccia at 101.55-101.73 m.	2546	1-3	100.86	101.78	0.92			0.01				
101.79-102.29:		INTRUSIVE - dark green, fine grained, silicified xenoliths near upper contact, non-magnetic. Mostly ground core. Lower contact at 60-650 to core axis.	2547	0-1	101.78	102.28	0.50			0.01				
102.29-103.52:		same as 100.85-101.79 m.	2548	1-2	102.28	102.99	0.71			cr.				
103.52-105.76:		zone is 75% strongly to intensely silicified breccia. Some sections (eg. 104.17-104.75 m) carry up to 6% finely disseminated pyrite. Laminated locally - 550 at 105.55 m.	2549	1-2	102.99	103.52	0.53			0.01				
			2550	2-3	103.52	104.16	0.64			0.12				
			2551	4-6	104.16	104.74	0.58			0.11				
			2552	2-4	104.74	105.75	1.01			0.02				
			2553	1-2	105.75	106.79	1.04			0.01				
105.76-106.79:		dark green, fine grained, chloritized, non-silicified, weakly developed lamination or foliation.												
106.79	108.34	<u>LOWER MINERALIZED ZONE</u>												
		Honey coloured to purple-grey, intensely silicified breccia with 2-4% very finely disseminated pyrite. Minor chloritized rock at 107.15-107.48 m. A sheared, mylonitic fault zone is noted at 107.78-107.91 m. Movement has occurred at 600 to the core axis. The "lower mineralized zone" might extend up to and include the silicified breccia found there.	2554	2-4	106.79	107.77	0.98			0.01				
			2555	2-4	107.77	108.34	0.57			0.03				
108.34	120.30	<u>SEDIMENTS</u>												
		Dark green, fine grained, chloritized weakly to moderately. Well laminated sections alternate with massive and well fractured sections. Weak to moderate carbonatization highlights the bedding. Single laminations are locally brecciated - up to 4% pyrite. Zone averages 1-2% pyrite.												

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-47 SHEET NO. 7 OF 7

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH. IDES	FROM	TO	TOTAL	%	%	oz./TON	oz. TON
109.20	110.40	Laminated at 650 to core axis.	C	1-2	108.34	109.23	0.89			0.02	
111.47		Laminated at 60-650 to core axis.	2556	1-2	111.65	112.65	1.00			tr.	
114.85		Laminated at 500 to core axis.	2557	1	114.65	115.65	1.00			tr.	
117.75	118.30	bedding at 550 to core axis.	2558	1	117.65	118.55	0.90			tr.	
120.30		bedding at 650 to core axis.	2559	1	119.32	120.30	0.98			0.01	
		120.30 meters									
		END OF HOLE									
		CASING PULLED									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 LENGTH 145.08 meters
 LOCATION 10 + 25 E DEPARTURE 1 + 00 S
 ELEVATION 3440 AZIMUTH 344° DIP -65°
 STARTED October 24, 1983 FINISHED October 29, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
53.34	-63°				
144.78	-57°				

HOLE NO. Mc-83-48 SHEET NO. 1 OF 8
 REMARKS BQ Core
Split for analysis
 LOGGED BY A.W. Workman

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	SUPHIDES	FOOTAGE FROM	FOOTAGE TO	TOTAL	%	%	oz/TON	oz/TON		
0	40.00	<u>OVERBURDEN</u>											
40.00	64.47	<u>BASALT</u>											
		Dark green, fine to medium grained, with abundant tensional fractures up to 1cm width - carbonate filled with purple-red hematite. Very little textural change apart from being finer grained below 52.20 m. Rock is massive flow, non-magnetic, non-hrecclated.											
		40.00 - 52.20: fine to medium grained, massive flow. carries a carbonate-filled dilatant zone with abundant basaltic debris at 41.50-42.18 m. Up to 3% chalcopyrite locally, often along seams parallel to a crude foliation.											
		52.20 - 56.10: fine grained flow - carbonate zone at 54.92-55.10m.											
		56.10 - 64.47: fine to very fine grained, spotty epidotization locally; very minor fragments - rafted into flow.											
		<u>QUARTZ VEINS</u>											
64.47	69.10	White bull quartz veins up to 1.5 m thickness; carry little or no sulphide but dark green xenoliths of wall rock may be strongly pyritized and carry up to 1% chalcopyrite (eg. 65.90-66.05 m). Minor amounts of pyrite and chalcopyrite are found in green seams near the contacts within the quartz veins (eg. 64.47-64.59 m).											
		64.47 - 65.90: white bull quartz.											
		65.90 - 66.97: dark green xenolith - may be tuffaceous. Rock is highly sheared locally, but may be in original orientation. Pyritized throughout - strongest from 65.90-66.30 m.	2562	3-5	65.90	66.30	0.40				0.02		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 SHEET NO. 2 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO. IDES	% SULPH FROM	FOOTAGE TO TOTAL	%	%	GT/TON	GT TON	
69.10 - 88.11	66.97 - 68.27: white bull quartz, xenoliths below 68.05 m. 68.27 - 68.58: dark green xenolith - sediment?; lenticular, clastic texture. 68.58 - 69.10: white bull quartz. <u>BASALT</u> Medium to dark green, very fine grained to fine grained, aphanitic locally, and possibly variolitic above 70.60 m. Abundant tensional fractures up to 5mm width are carbonate filled with up to 50% chalcopyrite locally (average less than 1%). Fractures below 73.90 are strongly hematized. White quartz veins are located at 69.67-69.96 m and 70.06-70.17. They carry abundant green debris from wall rock. Small quartz veins up to 1cm width are common above 78.75 m. A mylonitic carbonate 'vein' dips along the core axis at 74.62-75.22 m. Below 75.90, tectonic breccia is noted locally (eg. 81.40-81.90 m). NOTE: Depth markers in core boxes 7-10 inclusive are <u>very</u> regular in spacing and indicate a regular core loss of 12-28cm (average 16.1cm per 3.05 m or 10'). Total loss between 69.19 and 96.62 m is 1.45 meters. These markers may be in error. Very little ground core is observed.								
88.11 - 98.55	<u>SEDIMENTS</u> Medium to dark green, very fine grained to medium grained locally, very weakly laminated to non-laminated. Well parted locally along a foliation probably reflecting bedding. The upper contact is probably at a polished plane cutting core at 480 - possibly a fault. Rock below shows minor pale green alteration. 88.11 - 94.12: poorly foliated to well foliated and parted locally eg. 500 to core at 88.95 m. 94.12 - 94.14: silicified seam with green clay - FAULT, one side of plane is 40% covered with <u>GOLD</u> plates, up to 1cm width.								
		2563	0-1	88.11	88.91	0.80		0.01	
		2564	0-1	88.91	89.76	0.85		0.01	
		2565	0-1	89.76	90.53	0.77(measures 0.60)		0.01	
		2566	0-1	90.53	91.33	0.80		0.01	
		2567	0-1	91.33	92.19	0.86		tr.	
		2568	0-1	92.19	93.00	0.81		tr.	
		2569	0-1	93.00	93.57	0.57(measures 0.43)		tr.	
		2570	0-1	93.57	94.25	0.68		0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 SHEET NO. 3 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	oz./TON	oz./TON
98.55	129.45	<p>96.57 - 96.85: alteration zone - aphanitic, pale green, very well laminated at 60-650 to core axis - uppermost part is weakly brecciated; lower contact is very sharp - colouration may be compositional.</p> <p>96.85 - 98.35: dark green, fine grained, chloritized, poorly bedded.</p> <p>98.35 - 98.55: strongly sheared, abundant polished and chlorite coated planes. Fault at 98.40 m is denoted by a 2cm green mylonitic clay seam - possibly a bedding fault.</p> <p><u>MAIN MINERALIZED ZONE</u></p> <p>The main silicified zone which forms the core of this section, is not nearly as well developed as is usual. Brecciation is not particularly strong anywhere in this zone and very few sections of significant thickness are free of chloritized, non-silicified rock. Average pyrite content, reflects the lack of substantial silicification and amounts to 3%. Up to 9% is noted locally. The upper and lower transition zones are wider than would be expected based upon the diminished thickness of the main silicified member. Therefore the alteration process has not been of sufficient duration to produce a thick central member.</p> <p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Two textural types are present - dark green, fine grained, chloritized clastic rock and grey to purple-grey cherty sediments. The amount of cherty beds varies throughout the zone and is often present as rounded to sub-angular fragments up to 2cm in size. Cherty sediments are well laminated locally (eg. 550 at 98.58 m). Brecciation of cherty beds may be due to rip-up action. Pyrite is present as a very fine grained dissemination.</p> <p>98.55 - 99.90: cherty fragments in a green chloritized matrix.</p> <p>99.90 -100.09: massive cherty sediments - chemical origin?</p>	C	0-1	94.25	95.10	0.85			0.01	
			2571	0-1	95.10	95.97	0.87			tr.	
			2572	0-1	95.97	96.62	0.65(measures 0.37)			tr.	
			2573	0-1	96.62	97.44	0.82			tr.	
			2574	0-1	97.44	98.35	0.91			tr.	
98.55	101.00		2576	1-2	98.35	98.90	0.55			tr.	
			2577	1-2	98.90	99.90	1.00			0.04	
			2578	1	99.90	100.60	0.70			0.04	
			2579	1-2	100.60	101.28	0.68			0.08	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 SHEET NO. 4 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO. OF TESTS	% SILICA FROM	FOOTAGE TO	% TOTAL	% 02 TON	% 01 TON		
100.09-101.00:	brecciated cherty sediments in a chloritized clastic matrix. Cherty fragments appear to have been ripped up from the top of the underlying zone.								
<u>MAIN SILICIFIED ZONE</u>									
101.00-101.86:	massive cherty sediments, honey-grey to purple-grey in colour. Pyrite content increases from 1-2% to 2-3% in purple-grey zone at 101.28-101.55 m. Rock is moderately brecciated below 101.28 m.	C	2580	2-3	101.28	101.86	0.58	0.11	0.14
101.86-103.43:	honey coloured, intensely silicified with moderate brecciation. Pyrite content is higher averaging 3-5% - up to 9% at 102.79-103.04 m and up to 7% at 103.15-103.43 m. Becomes well laminated at 103.30 m at 500 to core axis.		2581	2-3	101.86	102.33	0.47	0.01	0.06
			2582	2-3	102.33	102.79	0.46	2.77	0.17
			2583	5-7	102.79	103.43	0.64	0.10	0.09
103.43-103.85:	well laminated with purple-grey cherty seams and sets of laminations up to 2cm width alternate with dark green chloritized seams up to 2cm width. Rock is only 10-15% chloritized. Cherty layers are weakly brecciated locally and may carry slightly elevated pyrite contents. A minor fault plane is located at 103.63 m dipping 15-20° to the core axis. Stickenides are parallel to the core axis. Laminations at 103.80 m cut the core axis at 45°. same as 103.43-103.85 m but percentage of chloritized rock increases to 50%.		2584	2-3	103.43	104.05	0.62	0.10	0.11
103.85-104.05:									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 SHEET NO. 5 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	02/TON	02 TON
104.05-104.90:	zone is approximately 80-90% chloritized rock with siliceous seams up to 1cm associated with fractures and fracture networks. Rock is weakly laminated locally. A 1cm pink carbonate vein is located at 104.30 m.	C 2585	2-3	104.05	104.90	0.85			0.02	
104.90-106.35:	the percentage of siliceous rock increases to 80% as cherty layers become more abundant. The rock is better laminated below 105.80 m. Bedding at 105.95m is at 550 to the core axis. Chloritized sections increase in the lowermost 10cm.	2586 2587	2-3 4-5	104.90 105.77	105.77 106.35	0.87 0.58			0.04 0.04	
106.35-129.45	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> The zone is principally dark green fine grained and non-silicified. Localized sections of purple-grey silicification and cherty laminations make up 30-40% of the section. In general, silicification is confined to brecciated rock, and to narrow halos surrounding fractures. Bedding is not well developed in this region, generally only exhibited where cherty laminations are present. A cyclic repetition of cherty beds is noted locally. The cycles consist of a gradual increase downwards in cherty sediments then an abrupt change back to dominantly green clastic sediments. This transition occurs over intervals up to 1 meter. 106.35-107.01: minor silicification above 106.65 m then slowly increasing brecciation allows increasing silicification. 107.01-108.01: similar to overlying zone - silicified halos to fractures. Increasing silicification and brecciation below 107.80 m. 108.01-108.97: dark to medium grey-green, weakly silicified locally; moderately chloritized. Strongly silicified locally below 108.47 m - increasing amount of cherty beds at 450 to core axis. 108.97-109.97: purple-grey, moderately to strongly brecciated and intensely silicified.	2588 2589 2590 2591	2-4 2-3 1-3 3-5	106.35 107.01 108.01 108.97	107.01 108.01 108.97 109.40	0.66 1.00 0.96 0.43			0.02 0.01 0.01 0.04	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 SHEET NO. 6 OF 8

FOOTAGE FROM TO	DESCRIPTION	NO.	% SUPPH IDES	SAMPLE		TOTAL	%	%	ASSAYS	
				FROM	TO				01 TON	02 TON
109.97-110.87:	greenish-grey, becoming medium grey with depth - occasional white to pink quartz seams parallel to core axis - up to 8mm width.	C 2593	2-3	109.97	110.87	0.80			0.01	
110.87-111.70:	purple-grey with honey coloured halos around fracture systems - moderately to strongly siltified.	2594	3-5	110.87	111.70	0.83			0.01	
111.70-115.05:	generally grey-green with selected siltification of localized areas (breccia), up to 35cm in thickness. Major zones of siltified breccia are located at 112.15-112.40; 112.97-113.16; 113.72-114.11 (80% siltified); 114.45-114.83 and 114.90-115.05 m. Overall content of siltification in section is 40%. dark green; localized purple-grey siltification along fractures - 5% of total section.	2595 2596 2597 2598 2599 2600 2601 2602 2603 2604	1-2 1-3 1-2 2-3 2-3 1-2 1-2 1-2 1-2 1-2	111.70 112.40 113.15 113.72 114.30 115.05 115.76 116.42 117.25 118.10	112.40 113.15 113.72 114.30 115.05 115.76 116.42 117.25 118.10 118.88	0.70 0.75 0.57 0.58 0.75 0.71 0.66 0.83 0.85 0.78			0.01 0.01 0.01 0.01 0.06 0.01 tr. tr. tr. tr.	
115.05-116.42:	variably brecciated - pinkish to purple-grey siltification to degree of brecciation. Up to 3% very finely disseminated pyrite, often in fissures - possibly along relic lamination noted locally (eg. 35-400 at 118.35-118.55 m). Zone is 40-50% siltified. Minor 10cm massively siltified sections.	2605	5	118.88	119.48	0.60			tr.	
118.88-119.48:	purple-grey to honey-grey coloured, strongly siltified with 5-10% relic chloritized rock. Pale coloured zones carry 7-9% very fine pyrite. Zone is strongly brecciated centrally at 119.22-119.34 m. Well laminated throughout at 35-400 to core axis. same as 116.42-118.88 m with few microfaults running along core axis which displace siltified seams.	2606	1-2	119.48	120.53	1.05			tr.	
119.48-120.53:	mylonitic zone - angular fractured fragments up to 1cm in a chloritized matrix - voids are white carbonate filled.	2607	1-2	120.53	121.41	0.88			tr.	
120.53-120.78:	same as 116.42-118.88 m - well laminated locally (300 at 121.50 m), becoming very well bedded below 122.27 m. Bedding is highlighted by grey cherty laminations.	2608 2609	1-2 1-2	121.41 122.20	122.20 122.79	0.79 0.59			tr. tr.	
120.78-122.79:										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 SHEET NO. 7 OF 8

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE			TOTAL	ASSAYS					
					FROM	TO	FOOTAGE		%	%	OZ. TON	OZ. TON		
122.79-124.00:		dark green, minor 8mm silicified halos around fractures. Zone includes 15cm of lost (ground) core at 123.18-123.33 m.	2610	1	122.79	123.34	0.55							
			2611	1	123.34	124.00	0.66							
			2612	1-2	124.00	124.90	0.90							
			2613	1-2	124.90	125.75	0.85							
124.00-129.45:		dark green with 20% purple-grey silicified and cherty fragments. Clasts appear to have (in part) been ripped up from cherty beds. The zone 125.35-126.01 m is 50% siliceous material. The lower contact is a fracture system which has undergone minor penetrative silicification.	2614	1-2	125.75	126.56	0.81							
			2615	1	126.56	127.34	0.78							
			2616	1	127.34	128.10	0.76							
			2617	1-2	128.10	128.77	0.67							
			2618	1-2	128.77	129.45	0.68							
SEDIMENTS														
129.45	138.22	Dark green, fine grained and weakly to moderately chloritized, minor silicification of fracture walls over 1-3mm. Minor cherty fragments up to 5cm. Zone has a tufaceous texture locally - possibly ash fall. Sedimentary laminations are found in sections up to 30cm thickness (eg. 300 at 131.50 m). The rock is strongly fractured locally with polished chloritized surfaces.	2619	1	129.45	130.25	0.80							
			2620	1	130.25	131.09	0.84							
			2621	1	131.09	131.58	0.49							
			2622	0-1	131.58	132.11	0.53							
			2623	1	132.11	132.97	0.86							
			2624	1	132.97	133.76	0.79							
			2625	1-2	133.76	134.60	0.84							
			2626	1-2	134.60	135.37	0.77							
			2627	1	135.37	136.25	0.88							
			2628	1	136.25	137.09	0.84							
			2629	1	137.09	137.62	0.53							
			2630	1	137.62	138.22	0.60							
LOWER MINERALIZED ZONE														
138.22	139.29	Purple-grey and aphanitic, strongly silicified with less than 20% grey-green moderately chloritized rock. A moderately brecciated top (138.22-138.52 m) grades downwards to a zone of alternating silicified and chloritized beds. Zone carries 2-3% finely disseminated pyrite.	2631	2-3	138.22	139.29	1.07							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-48 SHEET NO. 8 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO.	% SULPHIDES	FOOTAGE	%	%	0.1 TON	0.2 TON
				FROM	TO	TOTAL			
139.29	145.08	<u>SEDIMENTS</u> Dark green, fine to very fine grained, with no silicified brecciation. Fractures have minor 1-2mm silicified halos. Minor cherty laminations are found locally in 5cm thick zones (eg. 140.26-140.31 m). These sections are the only zones of well laminated rock - generally at 450 to core axis. Pyrite content is 1% as blebs up to 1mm.	C						
			2632	139.29	140.16	0.87			0.01
			2633	140.16	140.97	0.81			0.01
			2634	140.97	141.90	0.93			0.01
			2635	143.00	143.70	0.70			0.01
		145.08 meters END OF HOLE CASING PULLED							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-49 LENGTH 139.46 meters
 LOCATION 10 + 00 E DEPARTURE 0 + 93 S
 ELEVATION 344 AZIMUTH -65° DIP -65°
 STARTED November 1, 1983 FINISHED November 4, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-62°				
139.46	-58°				

HOLE NO. Mc-83-49 SHEET NO. 1 OF 8
 REMARKS BQ Core
Split for analysis
Casing Pulled.
 LOGGED BY A.W. Workman

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS							
		NO.	SITE DES	PH	%	FROM	TO	TOTAL	%	%	OZ/TON	OZ/TON	
0	OVERBURDEN												
19.10	RASALT												
19.10 - 22.70:	Medium green to grey-green, fine to medium grained massive flow. Non-magnetic to very weakly magnetic. The base of the flow and shear planes which developed during flowage are moderately epidotized and locally silicified. The section carries 1% pyrite locally as blebs up to 1mm.												
22.70 - 23.67:	fine to medium grained.												
23.67 - 25.10:	fine grained - lower half is weakly to moderately brecciated - autobreccia.												
25.10 - 26.25:	fine to medium grained.												
26.25 - 30.37:	medium to coarse grained.												
30.37 - 30.80:	fine to medium grained - brecciated below 30.10 m. Base is at flow contact at 450 to core axis.												
30.80 - 31.10:	aphanitic to very fine grained.												
31.10 - 38.05:	fine grained.												
38.05 - 39.00:	fine to medium grained.												
39.00 - 42.30:	fine grained, weakly to moderately silicified; epidotized locally.												
42.30 - 48.00:	fine to medium grained.												
48.00 - 49.80:	fine grained, locally very fine; a zone of 70cm at top of section carries abundant quartz-carbonate veins up to 2cm at 200 to core axis.												
49.80 - 52.00:	fine to medium grained.												
52.00 - 57.05:	fine to very fine grained, abundant strongly epidotized flowage structures. fine, occasionally medium grained. Zone at 55.41-55.46 m is strongly silicified breccia (flow bottom?). Sharp contact at 55.46 m at 450 to core axis.												

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-49 SHEET NO. 2 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	*SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	01 TON	02 TON
58.30	61.05	57.05 - 58.30: fine grained with several epidotted breccia fragments up to 1cm in size. Zone is strongly fractured with quartz-carbonate veining. <u>QUARTZ VEIN</u>	2636	1-2	60.30	61.23	0.93			cr.	
61.05	68.83	<u>SEDIMENTS</u> Medium to dark green, fine to very fine grained, moderately foliated and parted parallel to foliation (450 at 61.20 m). Very little good evidence of depositional laminations. The rock is weakly to moderately carbonized on a local basis. White carbonate replacement feathers out along the foliation and highlights the 'bedding' locally (eg. 600 at 66.40 m). The zone contains up to 1% pyrite locally.	2637	0-1	61.23	62.20	0.97			cr.	
68.83	75.00	<u>BASALT</u> Medium green, very fine grained to aphanitic, and generally finely tectonically brecciated. Dilatant movement has allowed carbonate to fill the voids in breccia. Non-magnetic. 69.50 - 72.00 strongly fractured, occasionally brecciated with 5% intensely silicified moderately developed breccia. 72.00 - 72.63: very finely brecciated - angular chloritized fragments up to 3mm. 72.63 - 73.20: flow breccia - rounded fragments up to 7cm in size with reaction rims. 73.20 - 75.00: fine grained, weakly brecciated; pink carbonate in fractures.	2638	0-1	62.20	63.09	0.89			cr.	
			2639	0-1	64.15	65.05	0.90			cr.	
			2640	0-1	65.05	65.90	0.85			cr.	
			2641	0-1	66.85	67.66	0.81			cr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-49 SHEET NO. 3 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS						
FROM	TO		NO. LOGS	% SULPH.	FROM	TO	TOTAL	%	%	GT. TON	GT. TON	
75.00	83.65	<p><u>SEDIMENTS</u></p> <p>Medium to dark green, fine to very fine grained; weakly to moderately foliated - often highlighted by carbonatization which feathers out along the foliation (eg. 50-550 at 75.02 m). The rock is well laminated locally becoming more strongly laminated below 81.45 m. Minor brecciation is noted throughout the zone. 75.00 - 81.45: foliated, laminated locally, weakly to moderately carbonatized. Core is ground and lost at 78.45-78.60 m (minor), and 79.40-79.98 m (34cm lost). Bedding at 80.05 m at 600 to core axis. 81.45 - 83.18: well laminated throughout - alternating laminations are white and siliceous, and, dark green and chloritized. Bedding at 40-450 at 81.50 m. 83.18 - 83.65: rock carries 10-15% cherty lenticular fragments up to 2cm in length oriented parallel to the laminations. The fragments are probably rip-up clasts now layered at 550 to core axis at 83.55m.</p> <p><u>MAIN MINERALIZED ZONE</u></p> <p>This zone is composed of three sections; a thin upper transitional zone, the central 'Main Silicified Zone', and the lower transitional zone. The central zone is an intensely silicified breccia zone. The flanking members are less well silicified rocks originally very similar to the central zone. With silicification, pyrite contents increase up to 7% locally, usually as a very fine dissemination and occasionally, as clots up to 3mm. The sequence of events operating in the 'Main Silicified Zone' is:</p> <ol style="list-style-type: none"> (1) brecciation and chloritization (2) penetration along fracture networks of hematite and silica bearing fluids (3) later fracturing of silicified rocks and introduction of silica as clear, colourless quartz. 	C									
			2642	0-1	75.02	76.07	1.05			tr.		
			2643	0-1	76.07	76.95	0.88			tr.		
			2644	0-1	76.95	77.80	0.85			tr.		
			2645	0-1	77.80	78.60	0.80			tr.		
			2646	1	78.60	79.40	0.80			0.01		
			2647	1	79.40	80.53	1.13			0.01		
			2648	1	80.53	81.45	0.92			0.01		
			2649	1	81.45	82.32	0.87			0.01		
			2650	1	82.32	83.18	0.86			0.01		
		2651	1	83.18	83.65	0.47			0.01			
83.65	103.22											

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-49 SHEET NO. 4 OF 8

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FROM	FOOTAGE TO	TOTAL	%	%	GT/TON	GT/TON
83.65	84.53	<p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>The rock is essentially the same as the overlying sediments but is more poorly laminated with larger cherty fragments up to 5cm in size. Fragments increase in size down-section into a massive cherty bed at 83.98-84.12 m. The matrix to the clasts is dark green, clastic and may be tuffaceous. A 2cm green clay seam (FAULT) is noted at 84.27 m cutting the core axis at 550. Brecciation of the cherty sediments and chloritization of fractures is noted each side of the fault. Another fault zone cutting the core axis at 40-450, is mylonitic and carries pink siliceous fragments - located at 84.43-84.53 m.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Purple-grey to honey coloured, aphanitic to very fine grained, generally strongly brecciated and intensely silicified. Relic sedimentary laminations are noted locally. The section has been strongly fractured and dilatant-type movement has allowed the openings to be cemented with specularite. Intense silicification is not well developed in the section above 86.13 m. Chlorite is seldom absent from fractures.</p> <p>84.53 - 84.91: fault block - silicified, intensely fractured. Some silica dumping in lowermost 20cm. Section carries 5-7% very fine pyrite above the quartz-rich zone, 1-2% below. Minor silicates parallel to core axis, developed in fractures.</p> <p>84.91 - 85.59: probable fault block - highly fractured with chloritized partings. Base of section is very strongly broken.</p> <p>85.59 - 86.26: more characteristic purple-grey colour, chlorite not as common in fractures and change to specular hematite takes place at 86.13 m along single fractures. Silicification is stronger and appears to emanate from below.</p>	C	1	83.65	84.53	0.88			0.02	
84.53	91.72		2652	3-5	84.53	84.91	0.38			0.05	
			2654	2-3	84.91	85.59	0.68			0.04	
		2655	2-3	85.59	86.26	0.67			0.01		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-49 SHEET NO. 7 OF 8

FOOTAGE	DESCRIPTION	SAMPLE				ASSAYS		Rech.	
		NO.	% SUPPLIES	FROM	FOOTAGE TO	TOTAL	%		g/TON	g/TON
	to core axis is very sharp and may delineate a fault at edge of brecciation predating siltification. Larger siltified zones carry 2-4% pyrite as a very fine dissemination and as clots up to 2cm. Major zones of siltification are located at 127.20-127.30 m; 127.61-128.00; 128.80-129.00; 129.17-129.67 (60% siltyeous fragments); 129.55-129.87; 130.25-130.45; 130.98-131.07 and from approximately 131.80-131.95 m. Locally, siltification is microfault controlled and offset against chloritized rock. Seldom do sections of solely chloritized rock exceed 15cm in thickness. The zone from 129.17-129.67 m carries 50-60% honey coloured brecciated cherty beds in a chloritized clastic matrix. Colour of the breccia fragments may be a degenerative result of faulting and brecciation. The zone grades into purple-grey siltified breccia at 129.67 m. Some zones of brecciated beds are convoluted and deformed - possibly due to soft sediment deformation (eg. 130.00-130.45 m). 126.38-131.95: 35-40% siltified breccia, laminated locally usually highlighted by cherty seams (450 to core at 131.00 m). Zone includes 25cm of ground and lost core between 131.60 and 132.55 m. 131.95-135.55: relatively fewer sections of significant length composed of siltified breccia. Approximately 15cm core ground and lost at 134.15-134.30 m. A 10cm section at 135.20 m is well laminated at 400 to the core axis. 135.55-137.56: equivalent to lower mineralized zone - uppermost 70cm is 50% composed of 1-3cm siltified breccia seams parallel in orientation at 300 to the core axis. The section below 136.25 m is 80-85% siltified breccia with up to 5% pyrite locally.	C							
		2702	2-3	127.20	128.00	0.80		2.42)	1.39
		2703	1-2	128.00	128.80	0.80		0.11)	0.09
		2704	1-2	128.80	129.67	0.87		0.03)	0.04
		2705	1-2	129.67	130.57	0.90	measures 0.78 m)	0.11)	0.11
		2706	2-3	130.57	131.52	0.95		0.02)	0.02
		2707	1-2	131.52	132.55	1.03	measures 0.78 m)	0.10)	0.105
		2708	1-2	132.55	133.40	0.85		0.01	
		2709	1-2	133.40	134.15	0.75		0.01	
		2710	1	134.30	135.25	0.95		0.01	
	2711	1-2	135.25	136.25	1.00		0.02		
	2712	2-3	136.25	136.91	0.66		0.07		
	2713	2-3	136.91	137.56	0.65		0.01		

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	01/TON	02/TON
137.56	139.46	<p style="text-align: center;"><u>SEDIMENTS</u></p> <p>Dark green, fine grained and chloritized, with 5-10% silicified breccia seams up to 2cm in width. The number and thickness of these seams rapidly decrease down-section. The rock becomes well foliated, perhaps crudely laminated towards the base of the hole (eg. 350 to core axis at 139.25 m).</p> <p style="text-align: center;">139.46 meters END OF HOLE</p> <p style="text-align: center;">CASING PULLED</p>	C								
			2714	1	137.56	138.26	0.70			tr.	
			2715	1	138.26	138.91	0.65			tr.	
			2716	1	138.91	139.46	0.55			tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-50 LENGTH 109.27 meters
 LOCATION 9 + 75 E DEPARTURE 0 + 74 S
 LATITUDE _____ AZIMUTH 344° DIP -65°
 ELEVATION _____ FINISHED November 7, 1983
 STARTED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-64°				
109.73	-63°				

HOLE NO. Mc-83-50 SHEET NO. 1 OF 6
 REMARKS BQ Core
Split for assay.
 LOGGED BY A.W. Workman

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE		ASSAYS								
			NO.	% SULPHIDES	FROM	TO	TOTAL	%	%	oz/TON	oz/TON		
0	12.19	OVERBURDEN											
12.19	44.43	BASALT											
		Medium green, fine to medium grained with coarse and very fine grained phases. The flow is massive and unstructured. It is non-magnetic to very weakly magnetic locally.											
		12.19 - 32.00: fine to medium grained, occasional (less than 1%) silicified and epidotized breccia zones from 23.20-28.30 m in seams up to 10cm. Rare 1cm quartz veins.											
		32.00 - 35.40: generally fine grained, occasional quartz veins up to 1cm and epidotized breccia.											
		35.40 - 41.90: fine to medium grained, increasingly brecciated with silicified and epidotized patches. Minor carbonated fractures cut quartz-filled voids. Rock is finer grained below 43.50 m.											
		41.90 - 43.95: very fine grained to aphanitic; 60% epidotized and silicified breccia.											
44.43	66.74	SEDIMENTS											
		Dark green, fine to very fine grained, well laminated with many poorly laminated, weakly foliated zones. The rock is strongly brecciated locally - (eg. 48.95-49.25 m), with angular fragments supported in a white carbonate matrix. Weak ubiquitous carbonatization is noted locally. The sediments average 1% pyrite as blebs up to 1.5mm. The section is non-magnetic.											

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-50 SHEET NO. 2 OF 6

FOOTAGE	DESCRIPTION	SAMPLE				ASSAYS			
		NO.	% SULPHIDES	FROM	TO	%	%	oz. TON	oz. TON
44.43 - 45.25:	chaotic, brecciated, non-laminated, probably fine to medium grained; strongly chloritized.	2717	2-4	45.75	46.69	0.94		tr.	
45.25 - 47.55:	moderately laminated (500 at 46.25 m); rare highly siliceous veins, carry increased pyrite - 3-5%.	2718	1-2	46.69	47.55	0.86		tr.	
47.55 - 50.35:	chaotic and non-laminated to very locally laminated - possibly disturbed due to soft sediment deformation.	2719	1	47.55	48.40	0.85		tr.	
50.35 - 51.21:	fine to very fine grained, well laminated with pyrite crystals up to 8mm growing within laminations - probably in cavities now filled with carbonate. Up to 10% pyrite locally. Very weak general carbonatization. Minor silica dumping in large voids up to 5cm.	2720	1	48.40	49.35	0.95		tr.	
		2721	1	49.35	50.35	1.00		tr.	
		2722	5	50.35	51.21	0.86		tr.	
		2723	1	51.21	52.05	0.84		tr.	
		2724	1	52.05	53.00	0.95		0.01	
		2725	1	53.00	53.95	0.95		0.01	
		2726	1	53.95	54.83	0.88		tr.	
		2727	1	54.83	55.80	0.97		tr.	
		2728	1	55.80	56.68	0.88		tr.	
		2729	0-1	56.68	57.50	0.82		tr.	
51.21 - 58.10:	same as 50.35-51.21 m but very low pyrite in less well laminated sequence. White bull quartz veining at 53.81-54.25 (two veins; 18cm and 5cm). Minor quartz veining between 54.25 and 55.50 m.	2730	0-1	57.50	58.10	0.60		tr.	
		2731	0-1	58.10	58.75	0.65		tr.	
		2732	0-1	58.75	59.60	0.85		tr.	
		2733	0-1	59.60	60.25	0.65		tr.	
58.10 - 58.75:	brecciated with pink quartz infilling - well fractured - carbonate filling.	2734	0-1	60.25	61.16	0.91		tr.	
		2735	0-1	61.16	61.98	0.82		tr.	
		2736	0-1	61.98	62.95	0.97		tr.	
58.75 - 60.00:	abundant pink quartz filling dilatant voids and fractures in zone of weak brecciation.	2737	1-2	62.95	63.91	0.96		tr.	
60.00 - 60.55:	well laminated locally; increasingly brecciated, becoming strong in lower 40cm.	2738	0-1	63.91	64.85	0.94		tr.	
		2739	0-1	64.85	65.76	0.91		tr.	
		2740	1	65.76	66.72	0.96		tr.	
61.65 - 64.16:	60.70: laminated at 500 to core axis. 63.85: laminated at 40-450 to core axis. well laminated, abundant pink quartz veining and stringers up to 1cm thick - generally parallel to bedding. Some quartz filled voids carry up to 2% pyrite as crystals up to 2mm. moderate to well laminated, few pink quartz stringers.								
64.16 - 66.74:	64.90: laminated at 450 to core axis. 66.14: laminated at 40-450 to core axis.								

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-50 SHEET NO. 1 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS					
			NO.	% SULPHIDES	FOOTAGE	%	%	GT/TON	GT/TON		
66.74	109.27	<p><u>MAIN MINERALIZED ZONE</u></p> <p>The rocks in this section are representative of three lithological units centred on a strongly silicified central member. A thin transitional unit lying above the 'Main Silicified Zone' ends at a fault. A broad variably silicified member underlies the main zone. In general, the degree of silicification is proportional to the degree of brecciation. Pyrite contents up to 10% are noted in strongly silicified rock. Minor cherty sediments are also noted, most commonly in or near the upper transition zone.</p> <p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green, with 25-50% pale green siliceous laminations. Bedding is well developed and often plastically deformed along narrow microfaults parallel to core axis; displacement up to 1cm. Siliceous cherty laminations (chemical sediments) increase down section to 60-70% at 68.00 m and massive cherty sediments at 68.20m. Zone averages 1% pyrite.</p> <p>67.95: Laminations at 450 to the core axis. 68.15: Laminations at 40-450 to the core axis. 68.21 - 68.35: FAULT ZONE - highly sheared with chloritized planes at 45-500 to core. Zone includes a gritty green clay seam at 68.30-68.34 m.</p> <p><u>MAIN SILICIFIED ZONE</u></p> <p>Pale honey coloured cherty sediments to purple-grey intensely silicified sediments. Aphanitic to very fine grained. Uppermost part is cherty, silicification increases downhole below 69.83 m. Minor non-silicified, relic chloritized patches are found locally in the zone. The rock is laminated locally although structure is often masked by brecciation. Alteration tends to be proportional in strength to the degree of brecciation.</p>	2741	1	66.72	67.59	0.87			tr.	
				2742	1	67.59	68.35	0.76			tr.
68.35	91.04										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-50 SHEET NO. 4 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS			
			NO.	% SULPH. IDES	FROM	TO	%	%	oz. TON	oz. TON
68.35 - 69.83:		honey coloured, cherty, non-laminated sediments; strongly brecciated - chlorite and hematite in fractures around fragments. Rock is more yellow hued below 69.72 m where silicification increases. Lowermost 2cm intensely brecciated.	C 2743 2744	1-2 1-2	68.35 69.10	69.10 69.83	0.75 0.73	0.07 0.13		
69.83 - 70.23:		reddish-pink, aphanitic, highly siliceous zones up to 5cm - 10% of section.	2745	1-3	69.83	70.66	0.83	0.12		
70.23 - 70.66:		same as 68.35-69.83 m - pyrite increases to 2-3%, moderately brecciated - relic laminations at 35-400 to core axis.								
70.66 - 70.92:		2-4% pyrite, cherty sediments.	2746	6-8	70.66	71.24	0.58	0.12	0.124	
70.92 - 71.24:		pale grey, resembles a quartz vein - strongly micro-brecciated, intensely silicified with 8-10% pyrite.							8.12	
71.24 - 71.48:		purple-grey, strongly fractured, with green chloritized partings - 1% pyrite.	2747	1	71.24	71.48	0.24	0.02	(26.6')	
71.48 - 73.64:		honey coloured to pale grey, intensely silicified, brecciated - up to 10% pyrite - very finely disseminated and clots up to 5mm.	2748 2749 2750	5-6 7-9 5-7	71.48 72.24 72.90	72.24 72.90 73.64	0.76 0.66 0.74	0.08 0.26 0.17		
73.64 - 74.54:		zone of green chloritized fracture fillings locally, majority is intensely silicified breccia - up to 6% pyrite.	2751	3-5	73.64	74.54	0.90	0.09		
74.54 - 74.95:		honey coloured with relic laminations at 40-450 to the core axis (eg. 74.70 m).	2752	4-6	74.54	74.95	0.41	0.21		
74.95 - 75.64:		same as 73.64-74.54 m.	2753	3-5	74.95	75.64	0.69	0.16		
75.64 - 76.47:		rock grades to a purple-grey colour with 10% honey coloured patches - carries 10% green chloritized rock.	2754	3-5	75.64	76.47	0.83	0.06		
76.47 - 78.54:		carries 10-15% green chloritized patches up to 5cm in purple-grey intensely silicified breccia. Green zones are non-brecciated.	2755 2756 2757	2-4 2-4 2-3	76.47 77.20 77.93	77.20 77.93 78.54	0.73 0.73 0.61	0.01 0.01 0.05		
78.54 - 79.42:		purple-grey intensely silicified with 5% chloritized rock.	2758	5-7	78.54	79.42	0.88	0.01		
79.42 - 79.96:		same as 76.47-78.54 m.	2759	3-4	79.42	79.96	0.54	0.04		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-50 SHEET NO. 5 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH. IDES	FROM	FOOTAGE TO	TOTAL	%	%	G/TON	G/TON
		79.96 - 82.90: same as 78.54-79.42 - zone at 80.82-81.25 m is free of chloritized rock. Abundant white to grey free quartz in matrix to breccia fragments.	2760	3-4	79.96	80.82	0.86			0.01	
			2761	3-5	80.82	81.57	0.75			0.01	
			2762	2-3	81.57	82.38	0.81			0.02	
		82.90 - 88.66: intensely silicified generally purple-grey breccia, honey coloured halos up to 2cm wide surround fracture systems. No zones of relic chloritized rock are observed. Abundant metallic hematite on fracture surfaces - has a bluish sheen - moly? The zone from 84.87-85.12 m carries up to 10% pyrite locally.	2763	2-3	82.38	83.18	0.80			0.04	
			2764	2-4	83.18	84.08	0.90			0.01	
			2765	2-4	84.08	84.87	0.79			0.04	
			2766	6-8	84.87	85.12	0.25			0.13	
			2767	2-3	85.12	86.02	0.90			0.03	
			2768	2-3	86.02	86.90	0.88			0.04	
			2769	2-3	86.90	87.81	0.91			0.02	
		88.66 - 90.44: 5-10% weakly silicified and chloritized patches. Rock is generally intensely silicified and strongly brecciated; carries rare pink quartz veins up to 3cm in width (eg. 89.76 m).	2770	2-3	87.81	88.66	0.85			0.02	
			2771	1-3	88.66	89.56	0.90			0.01	
			2772	1-3	89.56	90.50	0.94			0.01	
							(measures 0.98 m)				
		90.44 - 91.04: 10-15% chloritized patches - increasing in size and number with depth.	2773	1-3	90.50	91.04	0.54			0.01	
91.04	109.27	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u>									
		Dark green, fine to very fine grained, locally laminated sediments - weakly carbonatized locally and moderately chloritized. Section carries 40-45% purple-grey intensely silicified breccia in seams as narrow as 1cm to zones up to 2.9m in width. Major zones of silicification are located at 91.38-91.73 m; 92.20-92.31; 92.75-92.93; 93.60-93.80; 96.71-96.98; 97.26-100.13; 100.43-101.12; 101.83-102.12; 102.90-103.00 and 108.06-108.22 meters. Silicification is controlled by brecciation and often along the margins of fractures and fracture systems. The number and size of these zones diminishes with depth, particularly below 102.72 m.	2774	1-2	91.04	91.73	0.69			0.01	
			2775	1-2	91.73	92.65	0.92			0.01	
			2776	1-2	92.65	93.57	0.92			0.01	
			2777	1-2	93.57	94.44	0.87			0.01	
			2778	1-2	94.44	95.15	0.71			0.01	
			2779	0-1	95.15	95.88	0.73			0.01	
			2780	0-1	95.88	96.70	0.82			tr.	
			2781	1-2	96.70	97.26	0.56			tr.	
			2782	2-4	97.26	97.95	0.69			0.06	
			2783	2-4	97.95	98.70	0.75			0.07	
		95.05 - 96.70: <u>INTRUSIVE</u> - dark green, fine to medium grained, occasional silicified breccia xenoliths up to 5cm in size. Rock is weakly magnetic.	2784	2-4	98.70	99.53	0.83			0.12	
							(measures 0.68 m)				
		97.26 -100.13: intensely silicified, purple-grey breccia - up to 5% pyrite.	2785	2-4	99.53	100.13	0.60			0.05	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-50 SHEET NO. 6 OF 6

FOOTAGE FROM TO	DESCRIPTION	NO.	% SULPH. IDES	SAMPLE		FOOTAGE FROM TO	TOTAL	ASSAYS			
				FROM	TO			%	%	oz./TON	oz. TON
100.13-100.43:	Intensely stitified, purple-grey breccia - up to 5% pyrite.	2786	1-2	100.13	101.12	0.99				0.01	
100.43-101.12:	stitified breccia.	2787	1-2	101.12	101.83	0.71				0.01	
101.12-101.83:	50% stitified breccia in seams up to 2cm in a dark green chloritized rock.	2788	1-2	101.83	102.72	0.89				0.01	
101.83-102.12:	purple-grey stitified breccia - minor honey coloured halos around fractures.										
102.23-102.72:	as at 101.83-102.12 - minor chloritization of fracture surfaces.										
102.72-105.70:	carries 10-20% purple-grey stitified breccia; strongly fractured throughout with white carbonate in voids. White to pink stitified halos surround fractures. Some cherty laminations locally (eg. 250 to core axis at 102.90-103.00 m).	2789	1-2	102.72	103.65	0.93				tr.	
105.70-107.10:	5% pinkish-grey stitified breccia zones (eg. 106.55-106.63 meters).	2790	1-2	103.65	104.54	0.89				tr.	
107.10-109.27:	up to 10% purple-grey stitified breccia with zones at 107.10-107.30, 108.06-108.22 and 108.75-108.81 meters. Locally laminated, 300 to core axis at 107.06 meters.	2791	1-2	104.54	105.15	0.61				0.01	
		2792	1-2	105.15	105.70	0.55				0.01	
		2793	1-2	105.70	106.58	0.88				tr.	
		2794	1-2	106.58	107.10	0.52				tr.	
		2795	1-2	107.10	107.90	0.80				0.05	
		2796	1-2	107.90	108.60	0.70				0.01	
		2797	1-2	108.60	109.27	0.67				0.02	
109.27 meters	END OF HOLE										
	CASING PULLED										

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-51 LENGTH 140.51 meters
 LOCATION 9 + 75 E DEPARTURE 0 + 94 S
 LATITUDE _____ AZIMUTH 344° DIP -70°
 ELEVATION _____
 STARTED November 8, 1983 FINISHED November 9, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
45.72	-67°				
140.21	-65°				

HOLE NO. Mc-83-51 SHEET NO. 1 OF 7
 REMARKS BQ Core
Split for assay.
 LOGGED BY A.W. Workman

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	SIZE	FROM	TO	%	%	OZ/TON	OZ/TON			
0	4.86	OVERBURDEN											
4.86	68.39	BASALT											
		Medium to dark green, fine to medium grained with occasional very fine grained and aphanitic sections. The rock is strongly silicified and weakly epidotized locally, possibly near flow margins, (eg. 4.95-5.50 m). The rock is non-magnetic to very weakly magnetic. Flow(s) appear to be largely massive and unstructured.											
		4.86 - 10.80: fine to very fine grained											
		10.80 - 12.90: fine to medium grained.											
		12.90 - 15.25: fine to very fine grained, epidotized breccia locally.											
		15.25 - 17.45: weakly pillowed, fine to very fine grained.											
		17.45 - 17.80: aphanitic to very fine grained.											
		17.80 - 21.40: very fine grained becoming fine grained locally down section. A quartz vein is located at 19.68-20.00 meters.											
		21.40 - 28.20: fine grained becoming evenly textured from 24.90-27.60 m; massive flow.											
		28.20 - 28.90: very fine grained with occasional aphanitic sections up to 10cm thickness.											
		28.90 - 30.70: same as 21.40-28.20 m.											
		30.70 - 32.50: fine to medium grained, massive flow.											
		32.50 - 34.50: fine grained, medium locally.											
		34.50 - 35.05: fine grained, moderately fractured with quartz crystals up to 2cm in vugs along breaks.											
		35.05 - 35.45: fine to very fine grained.											
		35.45 - 36.10: brecciated with angular fragments up to 3cm in a white carbonate gangue.											

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-51 SHEET NO. 2 OF 7

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS		
			NO.	% SULPH. IDES	FOOTAGE FROM TO	TOTAL	%	%	oz./TON
		36.10 - 36.45: fine grained.							
		36.45 - 40.60: medium grained, massive flow.							
		40.60 - 42.95: fine grained, pale green, rare medium grained phases.							
		42.95 - 54.04: fine to medium grained, occasional red hematized fractures sub-parallel to core axis.							
		54.04 - 55.90: medium grained, massive flow.							
		55.90 - 61.58: same as 42.95-54.04 m, occasional epidotized breccia.							
		61.58 - 66.05: medium grained, occasional fine grained sections, occasional silicified shear planes (eg. 62.92 m at 700 to core axis).							
		66.05 - 68.30: fine to very fine grained.							
		68.30 - 68.39: aphanitic, strongly silicified.							
68.39	70.72	<u>QUARTZ VEIN</u> White bull quartz with xenoliths of dark green sediments along the lower contact.							
		68.39 - 70.40: white bull quartz - trace pyrite locally.							
		70.40 - 70.72: abundant dark green xenoliths of sediments with pyrite crystals up to 1cm. Xenoliths average 30-40% pyrite, with up to 1% chalcopyrite.							
70.72	96.34	<u>SEDIMENTS</u> Dark green becoming medium green locally, fine to very fine grained. The upper part of the section is not laminated visibly except where quartz veins cut and produce sericite alteration. This localized alteration highlights the bedding. These altered zones also carry abundant pyrite crystals up to 1cm in size. The rocks are moderately fractured. Voids along the fractures, often sub-parallel to the core axis, are often lined with quartz crystals and red hematite. These rocks are non-magnetic, and average 0-1% pyrite.							
		C							
		2798 15-20	70.72	71.17	0.45	0.16			
		2799 5	71.17	71.62	0.45	0.02			
		2800 10	71.62	72.18	0.56	0.23			
		2801 2-4	72.18	72.97	0.79	0.01			
		2802 1-2	72.97	73.92	0.95	0.01			
		2803 1-2	73.92	74.99	1.07	0.01			
		2804 0-1	74.99	75.87	0.88	tr.			

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-51 SHEET NO. 3 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE			ASSAYS				
		NO. SULPH. IDS	FROM	FOOTAGE TO	TOTAL	g	g	g/t TON	g TON
70.72 - 75.00:	carries 25% quartz veins up to 33cm (eg. 72.29-72.52 meters), sediments flanking veins carry abundant pyrite.	2805	0-1	75.87	76.72	0.85	TR.		
		2806	0-1	76.72	77.69	0.97	TR.		
		2807	0-1	77.69	78.66	0.97	TR.		
75.00 - 79.49:	rarely laminated, strongly fractured with carbonate filling - tensional-type fractures. Rock is well parted parallel to a weakly developed foliation - probably along bedding: 650 at 75.35 meters. 50-550 at 75.93 meters.	2808	0-1	78.66	79.49	0.83	TR.		
		2809	0-1	79.49	80.34	0.85	TR.		
		2810	0-1	80.34	81.14	0.80	TR.		
		2811	0-1	81.14	82.05	0.91	TR.		
79.49 - 79.82:	sheared at 30-350 to core axis.	2812	0-1	82.05	83.00	0.95	TR.		
79.82 - 84.20:	same as 75.00-79.49 m.	2813	0-1	83.00	83.95	0.95	TR.		
84.20 - 85.60:	moderately to weakly brecciated with pink carbonate filling - some fracture voids filled with quartz crystals.	2814	0-1	83.95	84.89	0.94	TR.		
		2815	0-1	84.89	85.84	0.95	TR.		
		2816	0-1	85.84	86.75	0.91	TR.		
85.60 - 89.58:	same as 75.00-79.49 m.	2817	0-1	86.75	87.62	0.87	TR.		
89.58 - 96.34:	rock becomes weakly laminated, moderate locally; and strongest below 92.30 m. Bedding is denoted by a moderate to strong foliation of 0.1-0.5mm clasts - may be tuffaceous. Lowermost 30cm fines - inversely graded?	2818	0-1	87.62	88.62	1.00	TR.		
		2819	0-1	88.62	89.58	0.96	TR.		
		2820	0-1	89.58	90.53	0.95	TR.		
		2821	0-1	90.53	91.31	0.78	0.01		
		2822	0-1	91.31	92.22	0.91	TR.		
		2823	0-1	92.22	93.12	0.90	TR.		
		2824	0-1	93.12	94.11	0.99	TR.		
		2825	0-1	94.11	94.94	0.83	TR.		
		2826	0-1	94.94	95.64	0.70	TR.		
		2827	0-1	95.64	96.34	0.70	TR.		

MAIN MINERALIZED ZONE

The upper member of the zone is a variably silicified and brecciated horizon with up to 80% cherty sediments. This unit is somewhat thicker in section than might be expected. The central member, a strongly silicified breccia, is not well developed and does not attain the typical purple-grey colour. Perhaps as a consequence, pyrite content is very low, seldom over 3%. The lower member, a variably brecciated and silicified section is of normal thickness but no purple-grey colouration is noted.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-51 SHEET NO. 5 OF 7

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS			
		NO.	% SULPH 10CS	FOOTAGE FROM TO	TOTAL	%	%	g1/TON	g2/TON
107.22 125.50	<p>101.63-104.25: as above, spotty silicification increasing with brecciation down section. Up to 5% pyrite locally (averages 3-4%); with some pyrite in relic bedding planes at 102.00-102.30 m. Several zones of relic chloritization remain.</p> <p>104.25-105.25: same as 101.63-104.25 but with abundant chloritized fractures and broken rock between honey coloured chert and silicified breccia fragments.</p> <p>105.25-105.57: honey coloured, strongly silicified breccia with 60% dark green chloritized breccia and fractures.</p> <p>105.57-106.46: same as 104.25-105.25 m - occasional pink drusy quartz crystals on fractures. Weakly laminated locally - 35-40° at 105.70 meters.</p> <p>106.46-107.22: 40-50% chloritized material between silicified sections. Fractures are chlorite filled.</p> <p><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Pale waxy green, moderately to strongly silicified breccia with 50% dark green chloritized rock (probably non-brecciated). Brecciation developed in a network pattern which was subsequently silicified. Central parts of the network were not penetrated by silica bearing fluids. More highly silicified rocks carry higher pyrite contents, up to 3% locally. Some relic laminations are noted locally (eg. 108.00 m at 35-40° to core axis).</p> <p>107.22-109.30: approximately 50% silicified breccia with few individual sections greater than 10cm. Fluorite (1-2%) noted above 108.10 m - purple colour - not previously recognized in any drill hole. Silicified zones often defined along sharp contacts representing alteration fronts. A radiating needle-like texture (micro-breccia?) on a 1mm scale is noted locally - eg. 108.40 meters</p> <p>109.30-116.73: carries 25-30% silicified breccia, percentage decreasing down-section.</p>	C	1-3	101.03	101.54	0.51		0.12	Rech. 0.11
		2834				(measures 0.60 m)			
		2835	1-3	101.54	102.31	0.77		0.21	0.22
		2836	1-3	102.31	103.22	0.91		0.30	0.30
		2837	1-3	103.22	104.05	0.83		0.29	0.28
		2838	1-3	104.05	104.65	0.60		0.09	0.07
		2839	1-2	104.65	105.53	0.88		0.13	0.26
		2840	1-2	105.53	106.44	0.91		0.08	0.09
		2841	1-2	106.44	107.22	0.78		0.02	
		C	1-3	107.22	108.14	0.92		0.02	
		2842							
		2843	1-3	108.14	109.02	0.88		0.01	
		2844	1-2	109.02	109.85	0.83		0.01	
		2845	1-2	109.85	110.85	1.00		0.03	
		2846	1-2	110.85	111.80	0.95		0.07	
						(measures 0.87 m)			
		2847	1-2	111.80	112.71	0.91		0.02	
		2848	1-2	112.71	113.50	0.79		tr.	
		2849	1-2	113.50	114.39	0.89		tr.	
		2850	1-2	114.39	115.25	0.86		tr.	
		2851	1-2	115.25	116.20	0.95		tr.	
		2852	1-2	116.20	117.11	0.91		tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-51 SHEET NO. 6 OF 7

FOOTAGE	DESCRIPTION	SAMPLE				ASSAYS		
		NO.	% SUPPH. IDES	FOOTAGE FROM TO	TOTAL	%	oz. TON	oz. TON
116.73-121.70:	<p>siliceous sections partly cherty sediments and part silticified. Laminated at 20-250 at 116.80 m and at 40-450 at 117.65 m. Bedding below 118.50 m is represented by a foliation (eg. 400 at 118.80 m). Below 118.30 m siliceous rock represents 15-20% of the section - minor cherty sediments. A 2cm orange carbonate vein is noted at 120.35 meters.</p> <p>121.70-122.70: carries 20-30% cherty sediments, well bedded but openly folded - slumping? Individual beds are brecciated and set in a dark green chloritized clastic matrix. Bedding at 121.80 m at 400 to core axis.</p> <p>122.70-125.50: same as 116.73-121.70 m. Abundant silticified, chloritized and polished fractures. An increase in very finely disseminated pyrite is noted below 124.30 meters.</p> <p><u>SEDIMENTS</u></p> <p>Dark green, fine to very fine grained, poorly bedded becoming well bedded below 136.00 m. The zone carries 10% silticified breccia seams up to 2cm width - probably developed along bedding planes. Pyrite is very finely disseminated and averages 1%.</p> <p>126.35-127.30: well laminated at 300 to core axis highlighted by pale grey siliceous laminations.</p> <p>127.30-128.00: well foliated - chloritized mafic clasts are roughly aligned.</p> <p>132.35: percentage chert and silticified breccia decreases sharply below this point to less than 5% of section.</p> <p>132.50-136.00: non-laminated, moderately fractured, cherty laminations locally - eg. 200 to core axis at 133.70-133.80 meters.</p>	C						
		2853	1-2	117.11	118.00	0.89		tr.
		2854	1-2	118.00	118.85	0.85		tr.
		2855	1-2	118.85	119.70	0.85		0.10
		2856	1-2	119.70	120.60	0.90		0.07
		2857	1-2	120.60	121.45	0.85		0.10
		2858	0-1	121.45	122.06	0.61		0.02
		2859	0-1	122.06	122.70	0.64		0.01
		2860	0-1	122.70	123.55	0.85		0.01
		2861	0-1	123.55	124.33	0.78		0.01
		2862	1-2	124.33	124.96	0.63		0.04
		2863	1-2	124.96	125.50	0.54		0.03
125.50 140.51			C					
		2864	1-2	125.50	126.35	0.85		tr.
		2865	1-2	126.35	127.30	0.95		tr.
		2866	1-2	127.30	128.27	0.97		tr.
		2867	1-2	128.27	129.12	0.85		tr.
		2868	0-1	129.12	130.07	0.95		tr.
		2869	0-1	130.07	131.02	0.95		tr.
		2870	0-1	131.02	132.02	1.00		tr.
		2871	0-1	133.10	133.95	0.85		tr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-51 SHEET NO. 7 OF 7

FOOTAGE		DESCRIPTION	SAMPLE				ASSAYS				
FROM	TO		NO.	% SULPH 1028	FROM	FOOTAGE TO	TOTAL	%	%	OZ./TON	OZ./TON
		136.00-140.51: moderately to well laminated. 136.55 m: bedding at 25-30° to core axis. 138.30 m: bedding at 45° to core axis. 139.20 m: bedding at 35-40° to core axis. 140.50 m: bedding at 30-35° to core axis.	C								
		140.51 meters END OF HOLE CASING PULLED	2872	0-1	136.25	137.25	1.00			CT.	
			2873	0-1	138.25	139.17	0.92			CT.	
			2874	0-1	139.29	140.21	0.92			CT.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-52 LENGTH 183.18 meters
 LOCATION 9 + 25 W DEPARTURE 0 + 70 S
 LATITUDE _____ AZIMUTH 344° DIP -65°
 ELEVATION _____
 STARTED November 9, 1983 FINISHED November 14, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-65°				
30.48	-64°				
106.68	-57°				
182.88	-55°				

HOLE NO. Mc-83-52 SHEET NO. 1 OF 8
 REMARKS BQ Core
Split for assay.

LOGGED BY A.W. Workman

FOOTAGE	FROM	TO	DESCRIPTION	SAMPLE		ASSAYS			
				NO.	% SULPHIDES	%	oz/TON	oz/TON	
0	15.85	15.85	OVERBURDEN						
15.85	51.85	51.85	BASALT						
			Medium greyish-green, fine to medium grained massive flow. Textural variations often defined by sheared zone which were subsequently epidotized - shear flow. Coarser grained sections are usually weakly to moderately epidotized (deuteric). Rock is non-magnetic and is not carbonatized.						
			15.85 - 18.30: medium grained.						
			18.30 - 20.25: fine to medium grained, occasional epidotized breccia.						
			20.25 - 20.95: fine grained.						
			20.95 - 21.30: aphanitic, strongly brecciated with silicified fragments locally.						
			21.30 - 21.35: ground core - possible silicified flow contact.						
			21.35 - 23.95: fine to medium grained, patchy epidotization.						
			23.95 - 24.95: probably Sediments - well foliated at 35-40° to core axis; strongly chloritized and epidotized.						
			Rock carries up to 3% pyrite as clots and cubes up to 2mm.						
			24.95 - 31.56: fine to very fine grained; occasional epidotized and silicified breccia zones, usually aphanitic.						
			31.56 - 32.76: INTRUSIVE - greenish-pink to pinkish-green, fine to very fine grained - possibly Dioritic.						
			32.76 - 37.49: fine to very fine grained with abundant red hematite filled fractures.						

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-52 SHEET NO. 2 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE			ASSAYS							
			NO.	% SULPH. IDES	FROM	TO	TOTAL	%	%	02.70N	02.70N		
37.49	40.00:	<p><u>SEDIMENTS</u> - dark green, well laminated locally at 35-40' to core axis (eg. 37.50 m). Rock is very fine grained, often brecciated. A layer of pale green ash-fall tuff is noted at 39.03-39.13 carrying clasts up to 1mm. A well foliated 'tufaceous' zone at 500 to core is located at 39.69-40.00 m.</p> <p>40.00 - 40.36: flow top breccia; angular fragments.</p> <p>40.36 - 41.15: variably brecciated, often with white quartz between fragments.</p> <p>41.15 - 46.60: fine grained, often brecciated, occasional epidotized and silicified flow breccia fragments.</p> <p>46.60 - 46.86: fine to very fine grained.</p> <p>46.86 - 51.85: same as 41.15-46.40 - fines slightly towards base. Lower contact is at a strongly silicified and weakly carbonated zone.</p> <p><u>SEDIMENTS</u></p> <p>Dark green, fine to very fine grained, locally laminated, becoming better laminated with depth, below 53.17 m. The rock is moderately chloritized. Bedding is highlighted by cherty seams parallel to the laminations - up to 5mm in thickness. This is probably secondary silica - it is also found in irregularly developed cross-cutting fractures. The section carries up to 1% pyrite as a very fine dissemination.</p> <p>51.85 - 53.17: poorly laminated, weakly foliated.</p> <p>53.17 - 54.92: well laminated; 550 to core axis at 53.17 m and 55-600 at 54.80 meters.</p> <p><u>MAIN MINERALIZED ZONE</u></p> <p>The zone is developed closer to the overlying volcanic-sedimentary contact than is normally observed. The upper transitional silicified sediments contain a variable amount of silicified sediments, chert and possibly carbonate (diagenetic) sediments. Because of intrusives, little is observed of the 'main silicified</p>											
51.85	54.92			C									
				2875	0-1	51.79	52.55	0.76				0.01	
				2876	0-1	52.55	53.39	0.84				0.01	
				2877	0-1	53.39	54.27	0.88				0.01	
			2878	0-1	54.27	54.92	0.65				0.01		
54.92	82.79												

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-52 SHEET NO. 4 OF 8

FOOTAGE FROM TO	DESCRIPTION	SAMPLE				ASSAYS				
		NO. C	% SUPPH IDS	FROM TO	FOOTAGE TO	TOTAL	%	%	02. TON	02. TON
65.04 67.20	60.68 - 60.94: ground and lost core - some overburden pushed down-hole - not included in sample. 63.74 - 65.04: probably a fractured xenolith of silicified breccia - upper contact sub-parallel to core axis. All fractures strongly chloritized. A 3cm pink quartz-carbonate vein is noted at 63.95 meters. <u>MAIN SILICIFIED ZONE</u>	2887 2888 2889 2890 2891	0-1 0-1 0-1 1 1	60.94 61.87 62.85 63.74 64.35	61.87 62.85 63.74 64.35 65.04	0.93 0.98 0.89 0.61 0.69			tr. tr. tr. tr. tr.	
67.20 70.55	<u>INTRUSIVE</u> Identical to 59.03-65.04 meters; carries occasional quartz veins (eg. 68.38-68.50 m), with variably dipping contacts. Trace of very weak magnetism locally. Lowermost 40cm is fine grained, strongly chloritized and fractured. A well developed chill is noted at the lower contact-possibly parallel to bedding in underlying sediments.	2892 2893 2894	2-3 2-3 1-2	65.04 65.83 66.48	65.83 66.48 67.20	0.79 0.65 0.72			tr. 0.01 0.07	
70.55 82.79	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Dark green, fine to very fine grained, well laminated locally (eg. 45-50' at 70.73 m). Abundant white free quartz filling voids. Localized zones of silicified breccia are up to 25cm in thickness, but average about 5cm. Silicified breccia is purple-grey and occasional honey coloured. Fractures are often surrounded by 1cm honey coloured halos, which are also strongly silicified. Relic green coloured rock tends to be non-brecciated and subsequently non-silicified. Up to 3% pyrite is noted in strongly altered rock. A 3cm orange carbonate vein is located at 71.68 meters.	2895 2896 2897 2898	0-1 0-1 0-1 0-1	67.20 68.00 68.95 69.78	68.00 68.95 69.78 70.55	0.80 0.95 0.83 0.77			0.01 0.01 0.01 tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-52 SHEET NO. 5 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH IDES	FROM	FOOTAGE TO	TOTAL	%	%	01. TON	02. TON
70.55 - 74.66:		section is 30-40% silicified. An intrusive is noted at 70.99-71.08 meters which is pinkish-green to flesh coloured with green needle-like amphiboles(?) up to 2mm. Also carries silicified xenoliths. siliceous component is composed of cherty fragments up to 2cm in size - supported in a chloritized silty matrix. Chloritized partings carry 1% chalcopyrite.	2899	1-2	70.55	71.39	0.84			0.07	
			2900	1-2	71.39	72.15	0.76			0.14	
			2901	2-3	72.15	73.00	0.85			0.08	
			2902	2-3	73.00	73.80	0.80			0.01	
72.05 - 72.15:			2903	2-3	73.80	74.66	0.86			0.01	
			2904	1-2	74.66	75.52	0.86			0.01	
			2905	1-2	75.52	76.06	0.54			0.01	
			2906	1-2	76.06	77.00	0.94			0.03	
			2907	1-2	77.00	77.77	0.77			0.04	
74.66 - 76.06:		zone carries 15-20% silicified breccia.	2908	1-2	77.77	78.40	0.63			0.02	
76.06 - 79.20:		Increased silicified breccia content to 50%. A dark green intrusive is noted at 76.53-76.75 meters (same as 67.20-70.55 m).	2909	1-2	78.40	79.20	0.80			0.21	
			2910	1	79.20	79.76	0.56			0.02	
			2911	1	79.76	80.34	0.58			0.01	
79.20 - 80.34:		carries 10% silicified breccia in seams up to 5cm thickness - also silicified halos around fractures.	2912	1-2	80.34	81.23	0.89			0.02	
			2913	0-1	81.23	82.10	0.87			0.03	
80.34 - 82.79:		silicified zones at 81.00-81.17 and 82.45-82.61 m.	2914	1-2	82.10	82.79	0.69			0.02	
82.79 - 88.80		<u>DIORITE</u>									
		Dark green to pale wax green with occasional pinkish-green 5mm wide halos surrounding fractures. The rock is generally massive and unstructured. It is very weakly magnetic locally. The intrusive has a needle-like texture locally. Crystals up to 2mm in length and acicular in habit are probably amphiboles. This texture is observed as high as 79.25 m in this hole, interzones with silicified breccia. The intrusive is not carbonatized.	2915	0-1	82.79	83.69	0.90			0.01	
			2916	0-1	83.69	84.20	0.51			0.01	
			2917	0-1	84.20	85.00	0.80			0.01	
			2918	0-1	85.00	85.72	0.72			0.01	
			2919	1	85.72	86.47	0.75			0.01	
			2920	0-1	86.47	87.40	0.93			tr.	
			2921	0-1	87.40	88.10	0.70			tr.	
			2922	0-1	88.10	88.80	0.70			tr.	
		84.15 - 85.72: pale waxy green, randomly oriented dark green acicular needles up to 2mm. darker green, rock texture with needles not as well developed. xenolith of silicified brecciated sediment. good dioritic texture and composition and possibly a second intrusive from overlying body. Greyish-green, fine grained with a pinkish-green, fine to medium grained feldspathic core at 87.35-87.65 m. Strongly fractured with orange carbonate at 86.90-87.25 m. Lower contact at 200 to core axis.									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-52 SHEET NO. 6 OF 8

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS					
			NO.	% SULPH IDS	FROM	FOOTAGE TO	TOTAL	%	%	01/TON	02 TON	
88.80	109.20	<p><u>SEDIMENTS</u></p> <p>Dark green, fine to very fine grained, with a greyish tone in uppermost 30cm. Weakly to moderately fractured - white carbonate filled. Moderately to well developed bedding laminations, often with concordant 1-2cm purple-grey silicified breccia seams (5% of section above 92.70 m). The rock is moderately well parted parallel to the laminations, and is non-magnetic. Weak carbonatization is noted locally.</p> <p>92.70 - 93.55: zone contains 50% silicified breccia.</p> <p>94.23 - 94.33: Diorite - fine grained, non-magnetic with contacts at 60' to core - concordant to bedding.</p> <p><u>Bedding Attitudes:</u></p> <p>90.05 m: 40-45° to core axis.</p> <p>90.70 m: 50-55° to core axis.</p> <p>92.00 m: 40-45° to core axis.</p> <p>94.75 m: 45-50° to core axis.</p> <p>96.90 m: 35-40° to core axis.</p> <p>101.70 m: 50° to core axis.</p> <p>103.15 m: 30° to core axis.</p> <p>105.00-109.20: spotty carbonatization feathering out along bedding laminations. Minor cherty beds locally (eg. 107.21-107.40 m). Bedding at 109.19 m at 30° to core.</p> <p><u>BASALT</u></p> <p>Medium green, fine to very fine grained, massive in the upper part becoming weakly brecciated below 111.25 m. Two pillowed sequences are noted. Pillow size is approximately 1 meter. Minor amounts of tuff and hyaloclastite are observed. The flows are non-magnetic and are not carbonatized.</p> <p>109.20-111.25: massive, non-brecciated flow.</p> <p>111.25-115.40: brecciated flow - angular fragments, rock is weakly epidotized.</p> <p>115.40-115.61: variolite and hyaloclastite bearing zone.</p> <p>115.61-116.18: Tuff - dark grey with reddish hue; ash fragments up to 4mm in a very fine grained matrix.</p>	C	1	88.80	89.78	0.98			tr.		
				2923	1	89.78	90.70	0.92			0.04	
				2924	1	90.70	91.56	0.86			0.01	
				2925	1	91.56	92.35	0.79			0.01	
				2926	1-2	92.35	93.30	0.95			0.04	
				2927	1-2	93.30	94.23	0.93			tr.	
				2928	1	94.23	95.08	0.85			tr.	
				2929	1	95.08	95.85	0.77			0.03	
				2930	0-1	96.90	97.78	0.88			0.01	
				2931	0-1	98.80	99.67	0.87			tr.	
				2932	0-1	100.65	101.54	0.89			tr.	
				2933	0-1	102.65	103.52	0.87			tr.	
				2934	0-1	104.60	105.47	0.87			tr.	
			2935	0-1	106.50	107.44	0.94			0.04		
			2936	0-1	108.35	109.20	0.85			0.01		
			2937									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. MC-83-52 SHEET NO. 7 OF 8

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO. IDS	% SULPH	FOOTAGE FROM TO TOTAL	%	%	GT/TON	GT TON
116.18	116.23:	hyaloclastite.							
116.23	122.75:	pale green, strongly tectonically brecciated pillowed sequence. Selvages up to 4cm in width are strongly epidotized. Pillow tops are weakly vesicular.							
122.75	122.84:	SEDIMENTS - well laminated at 50-550 to core.							
122.84	123.35:	dark green massive flow.							
123.35	123.80:	SEDIMENTS - moderate to well developed laminations at 450 to core axis - possibly tufaceous.							
123.80	124.50:	brecciated basalt, minor hyaloclastite, moderately epidotized locally.							
124.50	127.46:	dark green pillowed basalt - same as 116.23-122.75 meters.							
127.46	132.83	<u>SEDIMENTS</u> Dark green, fine to very fine grained, locally very well laminated (eg. 500 at 127.72 and 132.70 m). The zone is brecciated and strongly chloritized at the upper contact. The section carries up to 1-2% very finely disseminated pyrite. Locally developed carbonatization is of moderate strength and feathers out into the laminations. Non-magnetic.							
130.20	131.55:	massive, non-laminated zone (silty).							
132.68	132.83:	ground and lost core.							
132.83	183.18	<u>BASALT</u> Dark green, becoming pale green where strongly epidotized and moderately brecciated above 136.25 m. Several flows are noted in this section, one of which is pillowed. Flow tops are marked by angular flow top breccia. The rocks are non-magnetic and are weakly chloritized. 132.83-136.25: angular, shatter-type tectonic brecciation. Fracture systems are moderately epidotized. Fine to very fine grained.							
			C						
			2938	1	127.49	128.35	0.86		tr.
			2939	1	128.35	129.16	0.81		tr.
			2940	1	129.16	130.04	0.88		tr.
			2941	1	130.04	130.96	0.92		tr.
			2942	1	130.96	131.83	0.87		tr.
			2943	1	131.83	132.83	1.00		tr.
							(measures 0.85)		

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-52 SHEET NO. 8 OF 8

LANGRIDGE LIMITED - TORONTO - 366-1168

FOOTAGE		DESCRIPTION	SAMPLE			ASSAYS			
FROM	TO		NO.	% SULPH. IDES	FOOTAGE FROM TO TOTAL	%	%	OZ./TON	OZ. TON
	136.25-141.00:	fine grained and generally massive, weakly chloritized; epidotized locally in association with fractures or breccia.							
	141.00-149.85:	fine grained, weakly to moderately brecciated with carbonate filled fractures.							
	149.85-151.20:	very fine grained to aphanitic; finely brecciated locally. Abundant white carbonate stringers.							
	151.20:	FLOW CONTACT							
	151.20-151.40:	flow top breccia with angular fragments up to 1cm. Moderately silticified.							
	151.40-154.00:	pale green, tectonically and flow brecciated; strongly silticified locally. Very fine grained to aphanitic.							
	154.00-158.75:	pale greenish-grey, very fine grained becoming fine grained at 155.50 m, and almost medium grained at 158.40-158.75 meters.							
	158.75-158.78:	rock grades rapidly to very fine grained.							
	158.78-160.70:	pale green, weakly brecciated and epidotized.							
	160.70-171.33:	pillowed; strongly brecciated throughout pillow centres, zone includes a brecciated but massive section at 164.50-166.08 m and strongly epidotized angular breccia from 169.35-171.33 meters.							
	171.33-171.55:	sheared at 65-700 to core - zone resembles sedimentary laminations.							
	171.55-175.32:	weakly pillowed.							
	175.32-183.18:	brecciated massive flow - abundant carbonate stringers.							
	183.18 meters	END OF HOLE							
		CASING PULLED							

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-53 LENGTH 131.37 meters
 LOCATION _____
 LATITUDE 9 + 25 E DEPARTURE 0 + 95 S
 ELEVATION _____ AZIMUTH 344° DIP -70°
 STARTED November 14, 1983 FINISHED November 16, 1983

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-70°				
30.48	-71°				
131.06	-67°				

HOLE NO. Mc-83-53 SHEET NO. 1 OF 6
 REMARKS BO Core
Split for analysis.
Casing Pulled.
 LOGGED BY A.W. Workman

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS						
			NO.	SIZE	FROM	TO	%	%	OZ/TON	OZ/TON			
0	4.23	OVERBURDEN											
4.23	68.81	BASALT											
<p>Medium greenish-grey to greyish-green, fine to very fine grained when pillowed and fine to medium grained when massive flow. The rocks are non-carbonatized and exhibit a trace of magnetism locally. The flows average 1% pyrite as blebs up to 2mm. Rocks above 36.42 m are pillowed; below are massive flows.</p> <p>4.23 - 5.75: very fine grained, angularly brecciated. 5.75 - 7.70: fine grained, non-brecciated, generally massive. 7.70 - 11.45: fine to medium grained, generally massive. 11.45 - 11.95: fine grained becoming very fine grained. 11.95 - 17.75: pillowed - hyaloclastite in rims at 11.97 m and 12.35 m; not below. Rock is weakly pillowed below 15.30 m. Lower contact is arbitrary. 17.75 - 20.20: fine grained, locally epidotized and silticified brecciation; quartz veins and stringers up to 3cm. 20.20 - 28.60: pillowed, very fine grained, pillows up to 1.5m in size. 28.60 - 33.05: fine to very fine grained, abundant epidotized and silticified "shatter-type" brecciation. Minor flow breccia. 33.05 - 36.42: pillowed, very fine grained, increasingly brecciated towards base of zone. 36.42 - 39.45: massive flow, fine grained gradually coarsening down section. 39.45 - 40.11: massive, fine to medium grained.</p>													

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-53 SHEET NO. 2 OF 6

FOOTAGE FROM	TO	DESCRIPTION	NO.	% SULPH IDES	SAMPLE		FOOTAGE TOTAL	ASSAYS						
					FROM	TO		%	%	GT/TON	GT/TON			
		40.11 - 41.18: massive, medium grained, weakly to moderately fractured - filled with quartz and minor white carbonate and red hematite.												
		41.18 - 46.50: same as 39.45-40.11 meters.												
		46.50 - 47.15: fine grained with increasing brecciation and fracturing; spotty epidotization, texture cloudy due to alteration - possibly uranization.												
		47.15 - 49.30: fine to medium grained, massive, occasional epidotized seams up to 1cm in width.												
		49.30 - 50.85: fine grained, strongly epidotized.												
		50.85 - 54.75: massive, fine to medium grained.												
		54.75 - 54.85: sheared; brecciated and mylonitic.												
		54.85 - 63.40: massive, medium grained, sheared at 150 to core axis at 57.15 m - increased fracturing below.												
		63.40 - 64.07: fine grained, lower contact is sharp at a 1cm quartz-carbonate seam at 200 to core axis - minor fault.												
		64.07 - 65.30: very fine grained to aphanitic, flow top breccia above 64.24 m - finely brecciated below.												
		65.30 - 68.81: medium to coarse flow breccia - sub-rounded fragments up to 5cm in size in moderately epidotized groundmass. Below 68.35 m, fragments are elongated along shear foliation in flow at 450 to core axis. Some fragments may be derived from underlying sediments. Lowest 10cm is very fine grained to aphanitic ending at a siliceous 2cm seam.												
		<u>SEDIMENTS</u>												
68.81	79.50	Dark green, fine to very fine grained, and well laminated. Local carbonatization produces a greyish tone to the rock, and these zones carry elevated pyrite contents - up to 5%. Pyrite is noted as a very fine grained dissemination and as cubes up to 1mm (eg. 69.80-70.07 moderately carbonatized). Other carbonate alteration is noted as a selective replacement of alternating laminations (eg. 70.07-70.70 meters). Rock is generally weakly to moderately chloritized. It is non-magnetic.	2944	1-2	68.81	69.80	0.99							tr.
			2945	2-4	69.80	70.70	0.90							tr.
			2946	1	70.70	71.54	0.84							tr.
			2947	1	71.54	72.35	0.81							tr.

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-53 SHEET NO. 3 OF 6

FOOTAGE FROM	TO	DESCRIPTION	SAMPLE				ASSAYS				
			NO.	% SULPH. IDS	FROM	FOOTAGE TO	TOTAL	%	%	OZ. TON	OZ. TON
		68.81 - 70.90: well laminated, moderately carbonatized locally. Bedding at 69.10 m at 550 to core axis, and, at 70.85 meters at 450.	2948	1	72.35	73.16	0.81			tr.	
		70.90 - 76.65: less well laminated, minor red cherty (jasperoid) sediments; non-laminated locally.	2949	1	73.16	74.08	0.92			tr.	
		76.65 - 79.50: well foliated, weakly to moderately laminated; minor brecciated rock locally - purple-grey, non-silicified, carbonated.	2950	1	74.08	75.00	0.92			tr.	
		Bedding: 450 to core at 77.00 m. 450 to core at 77.40 m. 50-550 to core at 79.33 m.	2951	1-2	75.00	75.88	0.88			tr.	
			2952	1-2	75.88	76.72	0.84			tr.	
			2953	1	76.72	77.50	0.78			tr.	
			2954	1	77.50	78.38	0.88			tr.	
			2955	1	78.38	79.03	0.65			tr.	
			2956	2-3	79.03	79.50	0.47			tr.	
79.50	80.71	<u>QUARTZ VEIN</u> White bull quartz containing 75% intensely sericitized xenoliths of sediment. Fragments contain pyrite crystals up to 1.5 cm above 80.00 meters.	2957	5-7	79.50	80.12	0.62			tr.	
			2958	1-3	80.12	80.71	0.59			tr.	
80.71	93.76	<u>SEDIMENTS</u> This zone is essentially the same as the section at 68.81-79.50 m. It is less well laminated, and for the most part is only moderately foliated. Parting is not well developed along the foliation. The rock is moderately to strongly fractured with 5-10% quartz veining above 83.30 m. Most fractures are carbonate filled. The unit carries up to 2% pyrite locally but averages less than 1%. 88.85 - 89.30: weakly to moderately laminated at 45-550 to core. 90.70: 5cm laminated zone at 40-450 to core axis. 90.90 - 91.95: weakly to moderately carbonatized. 93.60 - 93.76: moderately carbonatized. 93.35 - 93.76: moderately to strongly fractured - surfaces are chlorite polished.	2959	1-2	80.71	81.61	0.90			tr.	
			2960	1-2	81.61	82.57	0.96			tr.	
			2961	1-2	82.57	83.43	0.86			tr.	
			2962	1	83.43	84.28	0.85			tr.	
			2963	1	84.28	85.08	0.80			tr.	
			2964	1	85.08	85.97	0.89			tr.	
			2965	1	85.97	86.86	0.89			tr.	
			2966	0-1	86.86	87.69	0.83			tr.	
			2967	0-1	87.69	88.55	0.86			tr.	
			2968	0-1	88.55	89.43	0.88			tr.	
			2969	0-1	89.43	90.29	0.86			tr.	
			2970	0-1	90.29	91.10	0.81			tr.	
			2971	0-1	91.10	91.95	0.85			tr.	
			2972	0-1	91.95	92.84	0.89			tr.	
			2973	0-1	92.84	93.76	0.92			tr.	

DIAMOND DRILL RECORD

NAME OF PROPERTY McDermott
 HOLE NO. Mc-83-53 SHEET NO. 4 OF 6

FOOTAGE		DESCRIPTION	NO.	% SULPH. IDES	SAMPLE		TOTAL	ASSAYS			
FROM	TO				FROM	TO		%	%	OZ./TON	OZ./TON
93.76	123.04	<p style="text-align: center;"><u>MAIN MINERALIZED ZONE</u></p> <p>The main zone is composed of three members; an upper variably silicified zone carrying chert fragments and beds; a central strongly silicified member with variable relic chloritized patches; and a lower variably silicified and brecciated zone. Pyrite contents up to 10% are noted locally within the central member.</p> <p style="text-align: center;"><u>TRANSITIONAL SILICIFIED SEDIMENTS</u></p> <p>Dark green, fine to very fine grained with 10-20% pale grey to purple-grey cherty fragments up to 3cm in size. These clasts increase to 50% below 94.47 meters and have pinkish hues locally. Pyrite content is 0-1% as a very fine grained dissemination. A fault zone begins at 94.75 m and ends at a 2cm green clay seam at 95.27 m (at 470 to core axis). The zone exhibits strongly chloritized shears and some mylonite.</p> <p style="text-align: center;"><u>MAIN SILICIFIED ZONE</u></p> <p>The dominant lithology is honey coloured intensely silicified breccia which locally contains some purple-grey breccia. Some cream coloured cherty horizons and cherty fragments (rip-up clasts) are noted. Part of the rock was not completely silicified and these 'pods' are represented by greenish chloritized zones. Pyrite contents are generally below average for this zone although 10% pyrite is noted locally. It is present as a very fine dissemination, and as clots up to 1cm in size.</p> <p>96.20 - 96.48: carries 40-50% cherty rip-up clasts in a very fine grained intensely chloritized matrix.</p> <p>96.48 - 97.88: pale grey to purple-grey, intensely brecciated rock with minor green chloritized patches. Some chloritization of very tight fractures.</p> <p>Silicification is weak to moderate in strength. as above - some web-like epidote filling fractures - weakly silicified but increasing downhole.</p>	C	0-1	93.76	94.47	0.71	0.01			
			2974	0-1	94.47	95.36	0.89	0.01			
			2975								
			2976	1-2	95.36	96.13	0.77	0.07			
			2977	1-2	96.13	96.96	0.83	0.03			
		2978	1-2	96.96	97.88	0.92	0.06				
		2979	3-4	97.88	98.61	0.73	0.02				
		2980	3-5	98.61	99.44	0.83	0.01				
95.36	110.13										
		97.88 - 99.44:									

DIAMOND DRILL RECORD

NAME OF PROPERTY McDetmott
 HOLE NO. Mc-83-53 SHEET NO. 5 OF 6

FOOTAGE FROM TO	DESCRIPTION	NO.	SAMPLE		ASSAYS		
			% SULPH IDS	FOOTAGE FROM TO		%	%	01/TON	02/TON
99.44 -100.99:	honey coloured, intensely silicified; becomes greyer in tone down hole. Tight fractures carry red hematite.	2981	1-2	99.44 100.17	0.73	0.01	
		2982	1	100.17 100.99	0.82	0.01	
		2983	1	100.99 101.79	0.80	0.01	
100.99-103.00:	grey-green, weakly to moderately silicified with honey coloured intensely silicified rock in locally developed breccia and surrounding fractures as 1-3mm halos. Locally, silicified breccia seams and chloritized seams may be parallel to bedding - (eg. 350 to core axis at 101.94 m). Zone may carry 5-10% cherty sediments.	2984	1	101.79 102.62	0.83	0.01	
		2985	1	102.62 103.02	0.40	0.01	
103.00-103.66:	honey coloured intensely silicified breccia with 30% purple-grey zones - up to 5% pyrite locally. Occasional chloritized fractures.	2986	2-3	103.02 103.66	0.64	0.02	
		2987	2-3	103.66 104.51	0.85	0.05	
		2988	1-2	104.51 105.44	0.93	0.02	
103.66-105.80:	same as 103.00-103.66, but no purple-grey rock; abundant chloritized fractures at 104.55-105.15 m.	2989	1-2	105.44 106.22	0.78	0.13	
105.80-107.28:	carries 20-30% green relic chloritized patches in a generally honey coloured intensely silicified rock.	2990	1-2	106.22 106.78	0.56	0.05	
		2991	1-2	106.78 107.28	0.50	0.02	
107.28-108.41:	same as 103.00-103.66 m but carries 10% purple-grey rock.	2992	2-3	107.28 107.85	0.57	0.09	
		2993	3-4	107.85 108.41	0.56	0.17	
108.41-109.45:	honey coloured, strongly silicified, with 30-40% relic green chloritized patches and seams. Rock becomes greenish toned with depth.	2994	2	108.41 108.88	0.47	0.13	
		2995	2	108.88 109.45	0.57	0.03	
109.45-110.13:	honey coloured, intensely silicified breccia; averaging 5-7% pyrite and up to 10% locally.	2996	5-7	109.45 110.13	0.68	0.34	
110.13 123.04	<u>TRANSITIONAL SILICIFIED SEDIMENTS</u> Dark green, fine to very fine grained with up to 70% honey coloured silicified breccia zones up to 15cm in width. These zones may be purple-grey locally and show some evidence of developing along the bedding. Fractures are often surrounded by silicified, honey coloured reaction halos. The rock is well laminated on a very localized scale (eg. 40-450 at 117.62 m). Major silicified sections are found at 110.13-110.96 (50% silicified); 111.82-115.65 (25-35% silicified); 116.40-117.50 (60% silicified); and 119.40-119.84 (70% silicified). Small increases in pyrite content are associated with alteration. Up to 3% very finely disseminated	2997	1-2	110.13 110.96	0.83	0.11	
		2998	1-2	110.96 111.82	0.86	0.06	
		2999	1-2	111.82 112.68	0.86	0.02	
		3000	1-2	112.68 113.59	0.91	0.02	
		NOTE:	LETTER AND NUMBER SERIES CHANGES				
		A	1-2	113.59 114.44	0.85	0.04	
		839	1-2	114.44 115.36	0.92	0.01	
		840	1-2	115.36 116.24	0.88	0.02	
		841	1-2	116.24 117.12	0.88	0.01	
		842	1-2	117.12 118.03	0.91	0.01	
		843	1-2	118.03			