

FALCONBRIDGE LTD
DIAMOND DRILL LOG
Property : LAKE BOND NORTH

Hole # : SP-90-01 Zone # : 12H/1 Contractor : New Valley Drilling Co. Date started : 6/27/1990
Township: Concession: Claim # : LIC. 3591 Date completed: 7/ 3/1990
Lot :

Level : Section: Location :
Collar coordinate : Line : 34+00 S Latitude: 0.00 N Azimuth: 128° 0' 0"
Reference frame : Station: 10+75 W Departure: 0.00 E Dip : -42° 0' 0"
Elevation: 0.00 Length : 230.12 M

Surveyed by:

Deviation tests :

Depth	Dip	Azimuth
60.96 M	-40° 0' 0"	125° 0' 0"
106.68 M	-41° 0' 0"	124° 30' 0"
152.40 M	-41° 0' 0"	121° 30' 0"
194.46 M	-42° 0' 0"	127° 30' 0"

Remarks : 9.75 m of casing left in hole.

Water flow :
Cimented :

Plugged:
Core size: NQ

Logged by : DAVID J. BUTLER

Date logged: 6/28/1990

Hole # : SP-90-01

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0.00	9.75	OVERBURDEN		0.00	0.00	0.00					
9.75	230.12	MAFIC VOLCANIC ROCKS Mafic volcanic rocks with 5% mafic dykes. Volcanics are medium to locally dark green, with variable degrees of chlorite, carbonate and hematite alteration. Zones of extreme chloritization are usually schistose. Foliation is moderately to weakly developed throughout. Sulphides are concentrated in zones with >20% chlorite alteration. Locally, one sulphide-bearing zone appears to be of exhalative origin, occurring with banded cherty sediments over several meters. Sulphides consist of pyrite, sphalerite and chalcopyrite. Zones with up to 5% sulphides are quite common. Mafic dykes are light to medium green, usually non-foliated, and contain very minor sulphide. The dykes are usually less than 2 meters wide, and locally contain epidote alteration. 9.75- 34.12 Mafic volcanic rocks - are medium green, with epidote-calcite stringers (5%) and hematite staining common along fractures. Zones with jasperoidal silica are not uncommon. Sulphides occur as 11.97 Quartz vein at 20° to core axis. 15.85- 15.86 Quartz-pink carbonate-epidote veins. 19.86- 19.94 Epidote + minor jasper-white carbonate vein cut by barren quartz veins. 20.40- 20.75 Zone of patchy epidotization with		0.00	0.00	0.00					

[illegible]

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		veining.									
		36.10- 36.12 White carbonate-quartz-epidote vein at 40° to core axis.									
		37.83- 38.10 Zone with approximately 20% white carbonate veining.									
		41.80 Foliation at 30° to core axis.									
		41.90- 42.54 5 to 10% epidotization.									
		45.56- 46.65 Zone of coarser grained basalt with intense carbonatization and chlorite-epidote.									
		47.56- 49.02 Mafic dyke - is massive and locally fragmented, medium green and non-mineralized.									
		49.02- 85.30 Mafic volcanic rocks - are medium to dark green with common carbonatization, hematization, and epidotization. Numerous zones of brecciation (fracturing) and fault / fracture gouge.									
		49.09- 52.28 Zone of sheared mafic rocks with 20 to 25% calcite and 2 to 5% sulphides (pyrite).									
		53.95- 54.15 Fracture at 15° to core axis; hematite-calcite filled.									
		57.75- 59.37 Zone of shearing; very chloritic with 40% calcite as stringers, veinlets									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		and blebs.									
		59.88- 60.40 Zone of brecciation or small fault gouge.									
		62.40- 63.96 Zone with 10 to 15% calcite-epidote stringers.									
		69.72 Flow contact at 55° to core axis.									
		71.15- 72.55 Zone with abundant hematite alteration.									
		74.92- 75.02 Epidote stringer with calcite and hematite.									
		79.36- 79.43 Calcite-quartz stringer.									
		82.32- 82.45 Calcite vein at 45° to core axis.									
		83.39- 84.00 Zone of brecciated mafic with hematite-calcite throughout.									
		85.30- 98.98 Fault zone - is pervasively hematized (65%) with gouge and blocks of mafic volcanics. From 98.00 - 98.64 block or intrusion of granite or silicified mafic.									
		98.98- 108.00 Mafic volcanic rocks - are broken, medium to dark green, and very chloritized. Minor sulphides are present. Foliation is well developed.									
		100.00 Foliation at 55° to core axis.									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		102.30 Foliation at 50° to core axis.									
		105.95- 108.00 Zone of extremely broken core; chloritic (>60%) with epidote.									
		108.00- 110.35 Feldspar porphyritic dyke - is mafic with approximately 5% feldspar phenocrysts (up to 3 mm). Dyke is non-mineralized except near lower contact with volcanics.	NF02451	109.27	110.39	1.12	<5	85	4	350	0.2
		110.35- 111.43 Zone of volcanogenic exhalative sulphides with chert and fine volcanoclastic banding. Locally the unit is very chloritic (>75%). 1 meter section is estimated to contain 8 to 10% sphalerite / chalcopryrite.									
		110.35- 111.10 Zone of 20 to 25% exhalative sulphide; pyrite, sphalerite, chalcopryrite.	NF02452	110.39	110.49	0.10	143	22400	120	92000	>6.0
			NF02453	110.49	111.30	0.81	32	10500	87	20000	4.3
		111.35- 111.70 Zone of banded volcanics with chert horizons at 52° to core axis; 5% stringer-style pyrite.	NF02454	111.30	111.76	0.46	<5	320	36	2770	0.6
		111.43- 151.17 Mafic volcanic rocks - are medium green, moderately chloritized, with moderately developed foliation.	NF02455	111.76	112.76	1.00	<5	60	11	403	<0.2
			NF02456	112.76	113.10	0.34	9	290	24	4570	0.5
			NF02457	113.10	113.60	0.50	<5	62	2	1240	<0.2
		113.80- 113.90 Zone of chert with 4 to 6% pyrite.									
		114.80 Shearing or foliation at 20 to 25° to core axis.									
		114.95- 115.12 Very chloritic, hematite-stained									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		fracture at 40° to core axis.									
		115.61- 155.98 Very chloritic zone with epidote-calcite-silica veining at low angle to core axis; hematite staining.									
		116.30 Flow (dyke?) contact at 52° to core axis.									
		117.16- 117.32 Mafic dyke at 45° to core axis; fine grained.									
		118.92 Flow / dyke contact at 30° to core axis.									
		119.63- 122.43 Zone of fracturing with calcite stringers and cherty silica banding; very chloritic; 2 to 3% stringer sulphide.									
		124.37- 125.60 Zone of broken core; minor hematite staining along fractures; low angle fractures.									
		126.02 Flow contact (?) at 45° to core axis.									
		127.42- 127.53 Zone of quartz-epidote-chlorite veining.									
		128.60 Flow contact at 54° to core axis.									
		129.70- 129.79 Zone of epidote alteration.									
		130.08- 130.12									

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FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		149.63- 149.75 Zone with quartz-chlorite veining; 1 to 2% pyrite blebs.									
		151.17- 152.32 Mafic dyke - is fine grained with common calcite stringers; minor disseminated and stringer sulphide; weak chloritic alteration.									
		152.32- 156.73 Mafic volcanic rocks - are moderately chloritized.									
		152.55- 152.70 Zone of grey-green cherty silica.									
		153.86- 154.02 Zone with cherty silica at 57° to core axis.									
		154.48- 154.49 Band of pyrite at 80 to 85° to core axis.									
		155.45- 155.60 Zone of cherty silica with minor calcite; 1 to 2% stringer sulphide at 62° to core axis.									
		156.28- 156.44 Zone of cherty silica with 4 to 6% stringer pyrite.									
		156.73- 158.00 Mafic dyke - is fine grained with common calcite stringers; minor disseminated and stringer sulphide; weak chloritic alteration.									
		158.00- 177.87 Mafic volcanic rocks - are moderately chloritized; 2 to 3% pyrite.									
		159.89- 159.97									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		Zone with stringer pyrite and cherty silica-calcite at 75° to core axis.									
		162.30- 162.35 Zone of cherty silica with minor stringer / disseminated pyrite at 55° to core axis.									
		164.20- 164.24 Quartz-calcite vein at 40° to core axis.									
		165.64- 166.45 Mafic dyke or coarser grained mafic flow.									
		166.80- 166.96 Zone with calcite and 5 to 7% pyrite.									
		167.15- 167.80 Zone with calcite-silica stringers; basalt is obscured.									
		167.90- 168.38 Zone with 5 to 7% pyrite.									
		170.39- 171.10 Zone of broken core with hematite staining along fractures.									
		172.05- 172.11 Quartz-calcite vein at 45° to core axis.									
		175.45- 176.60 Zone with numerous quartz-calcite stringers at 55 to 65° to core axis.									
		177.87- 178.55 Mafic dyke - is fine grained; good chill margin at upper contact; contact at 38° to core axis.									
		178.55- 183.90 Mafic volcanic rocks - are moderately									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		chloritized; 2 to 3% pyrite.									
		178.75- 178.95 Mafic dyke at 40° to core axis; minor disseminated pyrite.									
		181.05- 181.40 Zone with 4 to 6% stringer pyrite at 65° to core axis.									
		183.90- 188.65 Diorite dyke - is medium grained; feldspar porphyritic; weak chloritic alteration; epidote is common along fractures and as stringers; trace disseminated pyrite.									
		185.85 Epidote-filled fracture at 32° to core axis.									
		188.64- 188.66 Contact at 65° to core axis.									
		188.65- 191.43 Mafic volcanic rocks - are moderately chloritized.									
		188.66- 190.50 Zone with 5 to 7% stringer pyrite at 65 to 70° to core axis.									
		190.05- 190.15 Zone of cherty silica at 55 to 60° to core axis.									
		191.43- 200.56 Mafic volcanic rocks - very chloritic; 1 to 2% pyrite.	NF02458	191.50	192.50	1.00	<5	54	99	347	0.3
		192.18- 192.19 Epidote vein at 60 to 70 ° to core axis.	NF02459	192.50	193.50	1.00	<5	40	5	144	0.4
		193.76- 193.83 Band of cherty silica-epidote;	NF02460	193.50	194.50	1.00	<5	83	21	463	0.5

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HOLE NUMBER: SP-90-01

GEOCHEM. SHEET

Sample	From (M)	To (M)	Length (M)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO %	TiO2 %	P2O5 %	Cr2O3 %	LOI %	SUM %	Cr ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Hf ppm	Ba ppm
NF02351	12.00	15.00	3.00																				
NF02352	42.00	45.00	3.00																				
NF02353	72.00	75.00	3.00																				
NF02354	102.00	105.00	3.00																				
NF02355	132.00	135.00	3.00																				
NF02356	162.00	165.00	3.00																				
NF02358	184.00	187.00	3.00																				
NF02357	192.00	195.00	3.00																				
NF02383	210.00	213.00	3.00																				