

FALCONBRIDGE LTD
DIAMOND DRILL LOG
Property : 15220

Hole # : SP-90-03 Zone # : 20 Contractor : New Valley Drilling Co. Date started : 7/11/1990
Township: Concession: Claim # : LIC. 2636 Date completed: 7/14/1990
Lot : 12H/01

Level : Section: Location :
Collar coordinate : Line : 40+00 S Latitude: 5443800.00 N Azimuth: 125° 0' 0"
Reference frame : Station: 9+20 E Departure: 556500.00 E Dip : -45° 0' 0"
Elevation: 0.00 Length : 197.51 M

Surveyed by:

Deviation tests :

Depth	Dip	Azimuth
76.20 M	-44° 0' 0"	122° 0' 0"
137.16 M	-44° 0' 0"	121° 0' 0"
191.41 M	-44° 0' 0"	119° 0' 0"

Remarks : 6.11 meters of casing left in hole.

Water flow :
Cimented :

Plugged:
Core size: N Q

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPM	PB PPM	ZN PPM	AG PPM
0.00	6.11	OVERBURDEN									
6.11	52.80	MAFIC VOLCANICS; pale green to medium green, generally fine-grained, locally sheared. Minor quartz-carbonate veining and blotches (5-7%).									
	10.00	Flow contact at 41° to core axis.									
	12.40	Shearing at 35° to core axis.									
	13.10- 13.60	Zone of broken core, with some hematized fault gouge.									
	22.40- 22.44	Shearing at 30° to core axis.									
	26.00- 26.02	Quartz vein with cubic pyrite.									
	30.33	Foliation at 80° to core axis.									
	30.90- 31.25	Zone of intense quartz veining.									
	40.00	Shearing at 50° to core axis.									
	45.60	Fault at 35° to core axis.									
	46.60	Foliation at 37° to core axis.									
	50.47- 50.48	Hematized quartz vein.									
	51.21- 52.80	Laminated and moderately sheared section with <1% disseminated pyrite.									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPH	PB PPH	ZN PPH	AG PPH
52.80	58.30	51.50 Flow contact with chert at 60° to core axis.									
		MODERATELY TO STRONGLY CHLORITIZED MAFIC VOLCANICS, dark green, with up to 5% stringer pyrite. Foliation and shearing is pervasive throughout.									
58.30	74.32	54.18 Fine to medium scale banding at 45° to core axis.									
		55.00- 55.10 Disseminated pyrite (5%) associated with contorted quartz veins.									
		WEAKLY FOLIATED MAFIC VOLCANICS, less chloritized. Pyrite occurs up to 3% as stringers. Epidote veining occurs locally.									
		59.00 Foliation at 47° to core axis.									
		59.90- 60.20 Zone of strongly chloritized and sheared mafic volcanics.									
		61.87 Fault at 30° to core axis.									
		65.36- 65.65 Zone with several epidote veins up to 4 cm thick.									
		67.47 Shearing/fault at 15° to core axis.									
		68.00- 68.40 Banded and folded section with pyrite bands up to 2 mm.									
		72.50 Flow contact at 22° to core axis.									
			NF02557	72.00	73.00	1.00	<5	120	33	2420	<0.2
			NF02558	73.00	74.00	1.00	<5	63	2	530	<0.2
			NF02559	74.00	75.00	1.00	<5	126	<1	270	<0.2

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPM	PB PPM	ZN PPM	AG PPM
74.32	75.70	STRONGLY CHLORITIZED MAFIC VOLCANICS; dark green, with pyrite and lesser chalcopyrite calcite-filled stringers. 75.54- 75.70 Zone of calcite veining with 15% pyrite and 2-3% chalcopyrite.	NF02560	75.00	76.00	1.00	6	8400	<1	230	1.3
75.70	76.52	WEAKLY CHLORITIZED MAFIC VOLCANICS, fine-grained, with common quartz-calcite veining throughout. Unit contains minimal sulphide mineralization.	NF02561	76.00	77.00	1.00	<5	164	<1	96	<0.2
76.52	80.58	PORPHYRITIC MAFIC DYKE; contains 4-6% rounded plagioclase phenocrysts in a fine-grained basaltic matrix. Up-hole contact broken and downhole contact diffuse and slightly chilled.									
80.58	84.90	MODERATELY SHEARED, WEAKLY CHLORITIZED MAFIC VOLCANICS, minor sulphides. 81.20- 81.28 Milky quartz-epidote vein. 82.10 Shearing at 60° to core axis.									
84.90	86.88	MODERATELY TO STRONGLY CHLORITIZED MAFIC VOLCANIC, weakly sheared, with minor stringer pyrite (increasing down-hole). Thin quartz veinlets are common throughout. 86.40- 86.87 Zone with 3% chalcopyrite and 4% pyrite. Locally brecciated.	NF02562 NF02563 NF02564	85.34 86.34 86.67	86.34 86.67 87.67	1.00 0.33 1.00	<5 19 <5	510 540 450	<1 <1 <1	870 940 230	<0.2 2.1 <0.2
86.88	109.82	WEAKLY CHLORITIZED MAFIC VOLCANICS; fine-grained, local strong chloritization, with common quartz-epidote-calcite veining. Sulphide mineralization is minimal. 89.74 Bedding at 40° to core axis. 94.00- 94.55 Zone of highly schistose, chloritized and									

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FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPH	PB PPH	ZN PPH	AG PPH
109.82	130.52	broken core. 95.40- 96.00 Zone of highly schistose, chloritized and broken core. 108.25- 108.31 Quartz-carbonate-epidote vein. MODERATELY CHLORITIZED MAFIC VOLCANICS, fine-grained, with 2-3% pyrite throughout. Quartz-calcite veining is common. 123.87- 123.95 Zone with higher pyrite content; 8-10% as contorted bands. 125.30 Contact between mineralized and non-mineralized mafic volcanics, at 40° to core axis. 125.63 Shearing at 45° to core axis. 126.10- 126.22 Zone of weakly banded pyrite at 20° to core axis. 126.52 Shearing with pyrite banding at 65° to core axis. 127.72 Shearing with pyrite banding at 70° to core axis. 129.00- 129.17 Contorted pyrite-rich section with narrow cherty beds. 129.28 Shearing at 78° to core axis. 129.61									

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FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPH	PB PPH	ZN PPH	AG PPH
		Sharp contact between sheared, sulphide-rich and undeformed mafic volcanics, at 80° to core axis.									
130.52	143.28	130.00- 130.52 Undeformed mafic volcanics with no sulphide.									
		MAFIC VOLCANICS, light to medium grey-green, locally foliated, contain negligible sulphide. Quartz-calcite-epidote veins are common.									
		135.55- 135.85 Zone of 10% pyrite associated with quartz-calcite veining.									
		142.10 Shearing at 65° to core axis.									
143.28	153.35	PYRITIC, STRONGLY FOLIATED MAFIC VOLCANICS, medium to dark green, with 3-5% sulphide throughout. Zones with up to 20% pyrite and minor chalcopyrite are common.	NF02487 NF02488	143.00 144.00	144.00 145.00	1.00 1.00	<5 <5	330 5200	<1 <1	131 118	<0.2 <0.2
		144.10 Chalcopyrite bleb associated with quartz as fracture-filling.									
		144.19- 144.25 Chalcopyrite associated with pyrite bands and blotchy quartz veins.									
		145.89- 145.92 Chalcopyrite associated with stringer pyrite and blotchy quartz.	NF02489	145.00	146.00	1.00	<5	2300	<1	186	<0.2
		147.05- 147.33 Zone with 1% chalcopyrite, 4-5% pyrite. Patches of chalcopyrite associated with stringer pyrite. Zone is extremely chloritized.	NF02490 NF02491	146.00 147.00	147.00 148.00	1.00 1.00	<5 <5	2400 4900	<1 <1	200 277	<0.2 <0.2
		147.54 Shearing at 45° to core axis.									

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FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPH	PB PPH	ZN PPH	AG PPH
		147.89- 148.05 Pyrite band.									
		148.00- 148.05 Pyrite band.	NF02492	148.00	149.00	1.00	<5	5200	<1	308	<0.2
		148.74- 149.40 Zone of quartz-calcite with associated pyrite and minor chalcopyrite disseminations.	NF02493	149.00	150.00	1.00	<5	5400	<1	815	<0.2
		150.04- 150.25 Zone of pyrite-calcite bands at 50° to core axis.	NF02494	150.00	151.00	1.00	<5	1600	<1	341	<0.2
		150.30- 150.70 Zone of brecciation; highly sheared with abundant chlorite and pyrite.	NF02495	151.00	152.00	1.00	<5	2300	<1	154	<0.2
		152.70 Shearing and banding parallel to core axis.	NF02496	152.00	153.00	1.00	<5	3300	<1	191	<0.2
153.35	160.30	CHLORITIZED, FOLIATED MAFIC VOLCANICS, medium-grained, dark green. Numerous quartz-calcite veins throughout. Generally no sulphides except for rare 1-5 cm pyrite bands.	NF02497	153.00	154.00	1.00	<5	2500	<1	134	<0.2
			NF02498	154.00	156.00	2.00	<5	2100	<1	348	<0.2
160.30	164.46	PYRITIZED, HIGHLY SHEARED AND CHLORITIZED MAFIC VOLCANICS, 3-6% pyrite throughout as patches and folded bands.									
		160.54 'Bull's eye' fold nose in pyrite layer.									
		161.90 Shearing at 40° to core axis.									
164.46	165.04	FELDSPAR PORPHYRITIC MAFIC DYKE, narrow, relatively unaltered, with common epidote veining.									
		164.46 Contact at 70° to core axis.									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPM	PB PPM	ZN PPM	AG PPM
165.04	166.62	MODERATELY PYRITIC, HIGHLY SHEARED AND CHLORITIZED MAFIC VOLCANICS, dark green, sulphide content up to 12% throughout. Calcite stringers are common.									
		166.25- 166.33 Quartz-calcite vein with chlorite at 35° to core axis.									
		166.46 Shearing at 40 to 50° to core axis.									
166.62	181.04	PYRITIC, MODERATELY FOLIATED MAFIC VOLCANICS, numerous calcite and pyrite stringers (6-8%), trace chalcopyrite.									
		167.65 Foliation at 55° to core axis.									
		NF02499 169.00 170.00 1.00 <5 3500 <1 210 <0.2									
		NF02500 170.00 171.00 1.00 <5 4100 <1 378 <0.2									
		170.10- 170.90 Zone with 15% pyrite, 1% chalcopyrite as disseminations and blebs.									
		170.77 Quartz-calcite vein with chalcopyrite blebs.									
		171.00 Foliation at 55° to core axis.									
		NF02551 171.00 172.00 1.00 <5 1300 <1 3090 <0.2									
		NF02552 172.00 173.00 1.00 <5 620 <1 2110 <0.2									
		NF02553 173.00 174.00 1.00 <5 3100 <1 1550 0.3									
		NF02554 174.00 175.00 1.00 <5 1800 <1 558 <0.2									
		174.01- 174.03 Massive pyrite band with 1% chalcopyrite blebs, at 65° to core axis.									
		NF02555 175.00 176.00 1.00 <5 660 <1 280 <0.2									
		175.34- 175.38 Folded massive pyrite band with 2-3% chalcopyrite at center.									
		NF02556 176.00 177.00 1.00 <5 520 <1 224 <0.2									
		177.08- 177.10 Folded pyrite band with chalcopyrite blebs.									
		178.00									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPM	PB PPM	ZN PPM	AG PPM
181.04	187.50	Foliation at 70° to core axis.									
		178.11- 178.13 Massive pyrite band at 70 to 75° to core axis, 1-2% chalcopyrite.									
		180.42- 181.04 Zone of shearing with folded calcite-pyrite bands.									
		UNMINERALIZED MAFIC VOLCANICS, medium green, relatively unmineralized throughout.									
		181.98 Foliation at 72° to core axis.									
		182.00- 182.14 Zone of epidotization with quartz-calcite-feldspar stringers.									
187.50	197.51	182.80- 182.90 Zone of blotchy epidotization with cherty calcite bands at 75 to 80° to core axis.									
		184.89- 184.92 Zone of cherty silica at 70° to core axis.									
		186.50 foliation at 50 to 60° to core axis.									
		EPIDOTIZED MAFIC VOLCANICS, medium green, amygdaloidal; become less altered downhole.									
		192.00 Weak foliation at 45° to core axis.									
		193.70- 193.80 Calcite vein at <10° to core axis.									
197.51		193.90- 197.51 Unit appears more massive, contains minor pyrite blotches.									
		End of hole									

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FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	AU PPB	CU PPH	PB PPH	ZN PPH	AG PPH
		Total amount of samples= 28 Total length sampled = 28.33M									

HOLE NUMBER: SP-90-03

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	NB PPM
NF02366	10.00	13.00	3.00																			
NF02367	40.00	43.00	3.00																			
NF02368	70.00	73.00	3.00																			
NF02369	78.00	80.50	2.50																			
NF02370	100.00	103.00	3.00																			
NF02371	130.00	133.00	3.00																			
NF02372	160.00	163.00	3.00																			
NF02373	170.00	173.00	3.00																			
NF02374	190.00	193.00	3.00																			