

CORPORATION FALCONBRIDGE COPPER

1985  
C.F.C.  
Twin Drilling 824271

*Jack*

X METRIC UNITS  
IMPERIAL UNITS

DRILL HOLE RECORD

HOLE NUMBER AA-1	GRID Austin-Apex	FIELD COORDS	LAT. L65+00	DEP 1+60S	ELEV.	COLLAR BRNG. 225°	COLLAR DIP -50°	HOLE SIZE NQ	FINAL DEPTH 102.7m.
PROJECT 216	CLAIM # Twin 2	SURVEY COORDS.				DATE STARTED: 15 Feb/85 DATE COMPLETED: 17 Feb/85	CONTRACTOR: Boisvenu CORE STORAGE: Skwaam Bay CASING: Left in hole.		

PURPOSE Test Au anomaly in soils	ROD LOG COLLAR SURVEY	PULSE EM SURVEY MULTISHOT SURVEY.
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ACID TESTS		TROPARI TESTS			MULTISHOT DATA				
DEPTH ( m )	CORRECTED ANGLE	DEPTH ( )	CORRECTED ANGLE	DEPTH ( )	AZIMUTH	DIP	DEPTH ( )	AZIMUTH	DIP
30	43°								
60	Not taken								
102	37°								

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
3 - 7.52	Casing					
7.62 - 25.3	Mafic Volcanic (Pyroclastic)	<p>Colour - greeny-grey to buff grey Grain Size - fine grained <u>7.62-14.1</u> Schistose rock of original mafic composition but lacking obvious primary textures. Mineralogy now chlorite, carbonate, sericite with considerable vein related quartz-carbonate. Quartz-carb. veins generally 3cm or less (except where noted) and make up 20-25% of the core overall. <u>14.1-18.5</u> Less heterogeneous, darker, probable fg-mg mafic intrusion. Speckling effect due to saussuritization of feldspar. Only 5% quartz-carb. veining. <u>18.5-25.3</u> Heterogeneous and strongly altered zone with 20% quartz-carb. veinlets or quartz knots (disrupted veinlets). Becomes fragmental towards 25.3.</p>	<p>65°</p> <p>68-70°</p> <p>65°</p>	<p>Abundant yellowy-green chlorite. Variable bleaching believed to consist of carbonate-chl-ser.</p> <p>Restricted to bleaching around quartz veinlets.</p> <p>Strong chl-carb-ser including common apple green, talcy mineral (mica? carbonate?)</p>	<p>5-10% fine pyrite throughout with local concentrations in veinlets with quartz-carb.</p> <p>2% py disseminated throughout. Locally 5-10% where bleaching has occurred.</p> <p>10% py finely disseminated through veinlets and wallrock.</p>	<p>7.62-8.6 predominately buff quartz with pyritic zones.</p> <p>Carbonate usually needs to be scratched to react (at least partly Fe Carb.)</p>

<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
25.3 - 29.9	Greywacke/ Microcon- glomerate Grading to Mafic Agglomerate	Colour - light grey Grain Size - fine grained Fine wacke with scattered chips of black argillite (now biotite). Wacke consists of quartz-carbonate- sericite-chlorite and biotite. Possibly graded at 25.3, tops down hole. At 25.9 a mafic volcanic fragment is present. These become more abundant until, by 27m, rock is almost entirely volcanic again.  Contact sharp @ Marked by irregular quartz veinlet	60°       70°	Mafic fragments are usually weakly bleached with green chloritic speckles pseudomorphing ferromags.	Traces of pyrite only in the metased. 1-2% in fragments.	<u>27.2-28.0</u> Fg, speckled dyke. Top contact sharp @ 70° to CA. Downhole half of the dyke is quite bleached. Bottom contact marked by quartz vein at 70° to CA.
29.9 - 54.4	Mafic Pyroclastic	Colour - grey-green to buff green Grain Size - fine grained Heterogeneous unit with vaguely fragmental sections interspersed with quite schistose sections and the occasional thin speckled dykes or flows. Abundant Qtz-carb veining ranging from 5% to 30% of the rock. Veins often rimmed by chlorite. General orientation parallels foliation but occ. veins are very shallow to CA. There are definitely both pre and post tectonic generations. More massive, speckled dyke or flow becomes more common downhole. Speckling is invariably rhombic carbonate, although some appear to be feldspar pseudomorphs.	31m = 72°  39m = 60- 70° (variable)	Pervasive moderate bleaching giving way to darker, chloritic alteration with depth. Veins often rimmed by dark chlorite. Green, waxy, talcy mineral still locally present, usually in the veins.	Pervasive py, but only in local thin veinlets is it greater than 5%.  42.2 Trace cp. 43.5m Trace amounts of a fine steel grey mineral in quartz-carb vein. 49.0 < 1/2% cp in quartz- carb. vein. 53.0 Trace cp.	<u>32.3-33.2; 47.8-49</u> Particularly strongly veined zones.  Speckled mafic is identical to that in RG-23,24 etc.

<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
54.4 - 102.7	Diorite	Colour - dark green Grain Size - fine grained Dark, homogeneous, still quartz- carb veined but lacks the bleaching /alteration. Mineralogy fp-amph- leucoxene with minor chlorite, magnetite and quartz. Carbonate locally strong. Veins <10% of rock. Local coarser phases. Mt. locally reverted to hematite.	veins @ 70-75°	A little carbonate around veins.	Trace py only. <u>65.6:66.4</u> 2-3% py with veiny section. <u>71.4-72.95</u> Traces of cp with 1/2% hem. associated with quartz-carb veins in this section.	
102.7		END OF HOLE				

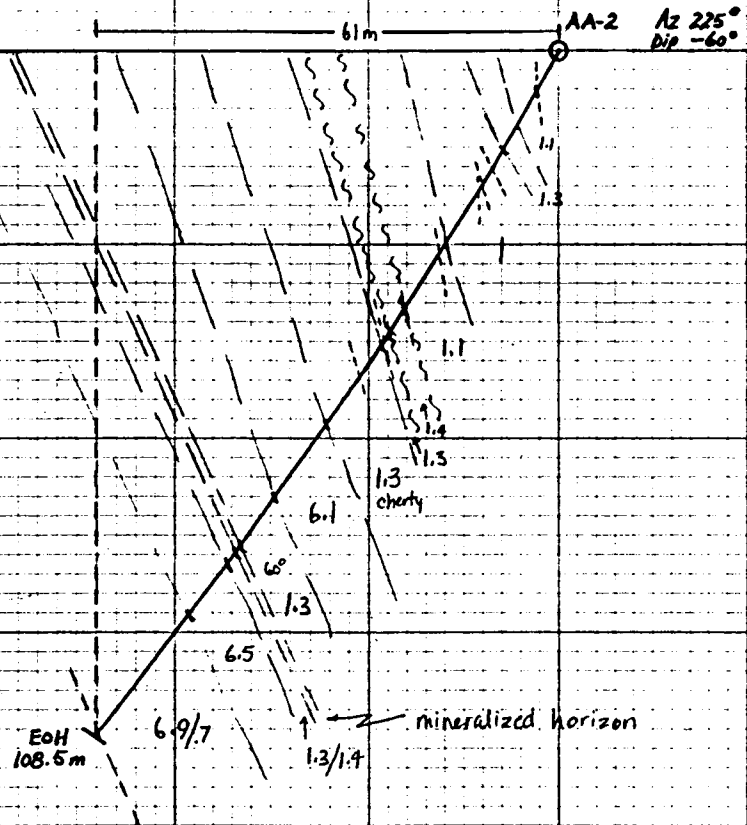
ASSAY SHEET

Sample Number	From (m)	To (m)	Estimate		Length (m)	% Cu	% Zn	% Pb	gm/T Ag	gm/T Au	% SiO <sub>2</sub>	% TiO <sub>2</sub>	% Na <sub>2</sub> O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au				
			Cu	Zn																				
BCD 3001	7.6	8.9			1.3				0.3	0.1											210			
3002	8.9	10.4			1.5				0.3	0.1														
3003	10.4	11.9			1.5				0.3	<0.1														30
3004	11.9	13.4			1.5				0.3	0.1														
3005	13.4	14.1			0.7				0.3	0.1														
3006	14.1	15.6			1.5				<0.3	<0.1														<5
3007	15.6	17.1			1.5				<0.3	<0.1														
3008	17.1	18.5			1.4				0.3	<0.1														
3009	18.5	20.0			1.5				0.3	<0.1														10
3010	20.0	21.5			1.5				0.3	<0.1														
3011	21.5	23.0			1.5				0.3	<0.1														
3012	23.0	24.5			1.5				<0.3	<0.1														<5
3013	24.5	25.3			0.8				<0.3	<0.1														
3014	25.3	25.9			0.6				<0.3	<0.1														
3015	25.9	27.2			1.3				0.3	<0.1														<5
3016	27.2	28.0			0.8				0.5	<0.1														
3017	28.0	29.5			1.5				0.3	<0.1														
3018	29.5	31.0			1.5				0.3	<0.1														
3019	31.0	32.2			1.2				1.0	<0.1														
3020	32.2	33.3			1.1				<0.3	<0.1														

ASSAY SHEET

Sample Number	From ( m )	To ( m )	Estimate		Length ( m )	% Cu	% Zn	% Pb	gm. T Ag	gm. T Au	% SiO <sub>2</sub>	% TiO <sub>2</sub>	% Na <sub>2</sub> O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au			
			Cu	Zn																			
BCD 3021	33.3	34.8			1.5				0.5	<0.1													
3022	34.8	36.3			1.5				1.0	<0.1													
3023	36.3	37.8			1.5				1.0	<0.1													
3024	37.8	39.3			1.5				0.5	<0.1													
3025	39.3	40.8			1.5				1.0	<0.1													
3051	40.8	42.3			1.5				0.3	<0.1													
3052	42.3	43.15			1.15				<0.3	<0.1													
3053	43.45	43.8			0.35				<0.3	0.1													
3054	43.8	45.3			1.5				<0.3	<0.1													
3055	45.3	46.8			1.5				1.0	<0.1													
3056	46.8	48.4			1.6				1.0	<0.1													
3057	48.4	49.1			0.7				<0.3	<0.1													
3058	49.1	50.6			1.5				0.3	<0.1													
3059	50.6	52.4			1.8				1.0	<0.1													
3060	52.4	53.15			0.75				1.0	<0.1													
3061	53.15	54.5			1.35				1.0	<0.1													
3062	54.5	56.0			1.5				1.7	<0.1													
3063	56.0	57.5			1.5				1.7	<0.1													
3064	65.6	66.4			0.8				1.7	<0.1													
3065	71.4	72.95			1.55				<0.3	<0.1													

CROSS SECTION of DDH AA-2 looking NW



# CORPORATION FALCONBRIDGE COPPER

## DRILL HOLE RECORD

X. METRIC UNITS  
IMPERIAL UNITS

HOLE NUMBER AA-2	GRID Austin-Apex	FIELD COORDS	LAT. L73	DEP. 6+505	ELEV. surface	COLLAR BRNG. 225°	COLLAR DIP -60°	HOLE SIZE NQ	FINAL DEPTH 108.5m.
PROJECT 216	CLAIM # Twin 3	SURVEY COORDS.				DATE STARTED: 17 Feb/85 DATE COMPLETED: 18 Feb/85	CONTRACTOR: Boisvenu CORE STORAGE: Skwaam Bay CASING: PVC piped Left in hole		
PURPOSE Test MaxMin anomaly on Rea Horizon								ROD LOG : COLLAR SURVEY :	PULSE EM SURVEY : MULTISHOT SURVEY :
ACID TESTS				TROPARI TESTS			MULTISHOT DATA		
DEPTH ( m )	CORRECTED ANGLE	DEPTH ( )	CORRECTED ANGLE	DEPTH ( )	AZIMUTH	DIP	DEPTH ( )	AZIMUTH	DIP
35	57.5°								
63	55°								
93	52.5°								

APR 10 1985

HOLE NO AA-2  
ZIPPY PRINT • - BRIDGEPORT RICHMOND

LOGGED BY I. D. Pirie



<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
0 - 6.4	Casing					
6.4 - 11.7	Mafic Flow	Colour - green Grain Size - fine grained Well foliated, vesicular basaltic flow with some flow breccia. Quite homogeneous. Rare quartz-carb veinlets.	37°	Essentially unaltered.	1 - 2 % finely disseminated pyrite throughout.	
11.7 - 15.1	Quartz Injected Mafic	Colour - white to green Grain Size - fine grained Mafic volcanic, possibly tuffaceous, containing 40% quartz as irregular veins, veinlets and knots. Sulphide fragment described under 'sulphides' looks to be a vein fragment, but it does have both coarse and very fine sulphides within it, in a quartz-chlorite gangue.		Local chlorite-carbonate-sericite alteration but not extensive. Surprisingly little altered considering the amount of veining.	Overall 5% py, locally up to 15% with certain veins. Trace of cp. Except: <u>14.9m</u> 2 fragments, 5cmX2cm and 6X3cm, containing 40-50% sulphide as follows 35% pyrite 6% galena + sphalerite 1% chalcopyrite	
15.1 - 29.9	Mafic Pyroclastic	Colour - Green Grain Size - fine grained Mainly tuff and lithic lapilli tuff with isolated blocks up to 8cm in diameter. Textures well preserved despite moderate quartz veining. Core quite badly broken locally with minor gouge zones (no displacement) 22m, becomes block, lapilli and ash with blocks to 15cm. These are quite vesicular with qtz(-carb-ch) fillings. Distinct contact with next unit at 29.9m. Last 0.25m (top?) is a chlorite-quartz-sericite-pyrite (20%) mud.	18.0=60° 20.8=46° 21.5=35°	Weakly to moderately chloritic around veins.	<u>18.6m</u> 15% py, 3% gn (+sp) trace cp in vein (over 10cm). <u>19.7</u> <1% gn (+sp)  Otherwise just 2-3% py.	

<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
29.9 - 40.1	Mafic Flow and Flow Ereccia	Colour - grey Grain Size - fine grained Massive to brecciated fairly homogeneous basaltic flow. Vesicular, though not as strongly as 6.4 - 11.7. Local quartz veining. Also locally broken and ground but no major faulting.	31.3=42°  34.7=45°	Weak saussurite. Occ. trace green mica. Minor bleached zones associated with veins (chl-carb-ser).	Generally just 2-3% py but local zones of 5%. Trace galena @ 37.5m.	
40.1 - 40.8	Fault Breccia with Quartz-Carb Vein	Irregular, broken and rehealed quartz-carb vein in a fault breccia/gouge zone.	45°		Minor pyrite only.	
40.8 - 43.1	Mafic Lapilli Tuff	Colour - grey Grain Size - fine grained Well foliated but distinctly fragmental.	40-50°	Quite chloritic	5-10% pyrite dissem- inated throughout.	
43.1 - 43.7	Fault Breccia with Quartz-Carb Vein	As 40.1-40.8				
43.7 - 45.7	Mafic Tuff?	Colour - grey Grain Size - fine grained Schistose mafic with quartzose knots.	45°	Quite chloritic	5-10% py.	

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
45.7 - 58.2	Impure Cherty Tuff with Mafic Tuff Beds	<p>Colour - light grey to green</p> <p>Grain Size - fine grained - very fine grained.</p> <p>Distinctly bedded section of impure chert with pyritic tuff layers. Bedding, generally 5-20mm for chert and up to 20cm for tuff, becomes less distinct with depth.</p> <p>Fault gouges at: 49.1 - 49.25 51.5 - 52.2</p> <p>Contact marked by 10cm of gouge.</p>	varies from 38° - 58° with 50'+ predominant	Tuff is weakly to moderately sericitic. Splashes of apple green talcy mineral are not uncommon.	Tuff screens contain up to 20% pyrite. Cherty layers <1%. Local traces of galena noted in quartz veins.	
58.2 - 70.0	Chert Breccia	<p>Colour - light grey to black</p> <p>Grain Size - very fine grained</p> <p>Classic breccia type chert with light chert laminae interspersed with black cherty argillite and occasional sericitic, cherty tuff screens.</p> <p>Abundant secondary quartz as bull quartz veins. Little brecciation of laminae but contortion is locally present.</p> <p>Several small gouge zones present.</p>	49-58°	Moderate-strong sericite in tuffaceous screens.	10% pyrite throughout without preference for creed or colour.	A couple of the more graphitic black cherty argillite units are moderately to strongly conductive.
70.0 - 77.6	Mafic to Intermediate Tuff, Lapilli Tuff	<p>Colour - light grey</p> <p>Grain Size - fine grained</p> <p>Vaguely fragmental basalt or basaltic andesite with abundant chlorite and pyrite. A few slightly cherty layers.</p> <p>Unit is topped by 35cm of impure chert and black cherty argillite.</p>	55-50°	Moderate chlorite + sericite.	10-15% pyrite throughout.	

<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
77.6 - 78.6	Mineralized Horizon	Colour - grey to dark grey Grain Size - fine grained Starts with 0.25m of quite cherty material. Followed by 0.75m of dark tuffaceous argillite. The contact between these zones (i.e. the base of the argillite) is marked by 1cm of sphalerite rich sulphides and the entire argillite contains disseminated apy and sp as well as the omnipotent pyrite. A part from the obvious chert/argillite contact there is a weak bedding with more argillaceous and more tuffaceous or cherty beds. Towards the end of the section a white, crystalline baritic? mineral becomes very common (Celsian?).	60°	Chloritic	Cherty section contains 2-3% pyrite. The 5mm of tuffaceous argillite adjacent to the chert contains abundant honey and dark metallic sphalerite, arsenopyrite, pyrite and galena, but over the 0.75m section from 77.95 to 78.6 the average is: pyrite 15% sphalerite 1% arsenopyrite < 1/4% galena trace	
78.6 - 80.8	Mafic to Intermediate Tuff, Lapilli Tuff	As 70 - 77.6 only more chloritic.				
80.8 - 88.9	Pyritic Argillite (Conductor!)	Colour - black to grey Grain Size - very fine grained Well laminated pyritic argillite with some tuffaceous component. Sufficient sulphide to be a weak conductor throughout, a moderate are locally. Locally very sheared and gouged.	60°	Sericite + Chlorite alteration of tuff component is weak to moderate.	30% pyrite overall with bands of 75% +.	

<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
38.9 - 60H	Quartzose Wacke and Conglomer- ate with minor cherty Argillite	Mainly fragmental with slightly flattened chert and quartz clasts and squashed argillite and sericitic tuff clasts. Locally strong quartz veining. <u>98.3-99.4</u> Mafic tuff bed similar to 70-77.6				Veinlets of pyrite associated with quartz veins.
108.5		END OF HOLE				

ASSAY SHEET

Sample Number	From ( m )	To ( m )	Estimate		Length ( m )	% Cu	% Zn	% Pb	gm/T Ag	gm/T Au	% SiO <sub>2</sub>	% TiO <sub>2</sub>	% Na <sub>2</sub> O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au	ppm As	ppm Ba
			Cu	Zn																		
BCD 3066	11.7	13.2			1.5				0.7	<0.1						116	148	21			27	130
3067	13.2	14.3			1.1				0.7	<0.1						152	254	9			53	130
3068	14.3	15.1			0.8	0.01	0.06	0.06	1.0	<0.1											69	140
3069	15.1	16.6			1.5				0.7	<0.1						59	115	14			67	120
3070	18.4	18.8			0.4	<0.01	0.04	0.04	1.0	<0.1											100	320
3071	18.8	20.3			1.5				0.7	<0.1						102	108	33			100	380
3072	47.55	49.05			1.5				<0.3	<0.1						138	355	535			170	560
3073	68.95	70.0			1.05				0.7	<0.1						18	78	85			33	1240
3074	77.8	78.7			0.9	0.03	0.37	0.25	6.4	0.4											2500	1200
3075	78.7	80.2			1.5				1.3	0.1						45	1050	1130			180	1800
3076	82.5	84.0			1.5				3.2	0.2												
3077	84.0	85.5			1.5				1.3	0.1												
3078	86.8	88.3			1.5				<0.3	<0.1												
3079	93.8	94.9			1.1				<0.3	<0.1												
3080	106.9	108.4			1.5				0.7	<0.1												