

85-993 - 14186
12/86

Diamond Drill Report

CCF 1, 2, and 3

Chu Chua Option

Kamloops Mining Division

NTS 92P/8E

51°15'; 120°00

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,186

Owner & Operator
Corporation Falconbridge Copper
6415 - 64th Street
Delta, B. C.
V4K 4E2

Ian D. Pirie
December 1985

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Map 1	Max Min - 1777 Hz with drillhole locations
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INTRODUCTION

General

The Chu Chua property was optioned by Corporation Falconbridge Copper in August 1985. It includes a massive sulphide deposit, discovered in 1978, estimated to contain 2M tonnes grading 2% copper. It was felt that the property offered good potential for further mineralization with higher grades of base and precious metals.

As a first stage in exploration a small grid was cut in a readily accessible and relatively well exposed part of the property and a Max Min I survey carried out (recently filed AR). This report details three diamond drill holes subsequently drilled.

Location and Access (Figure 1)

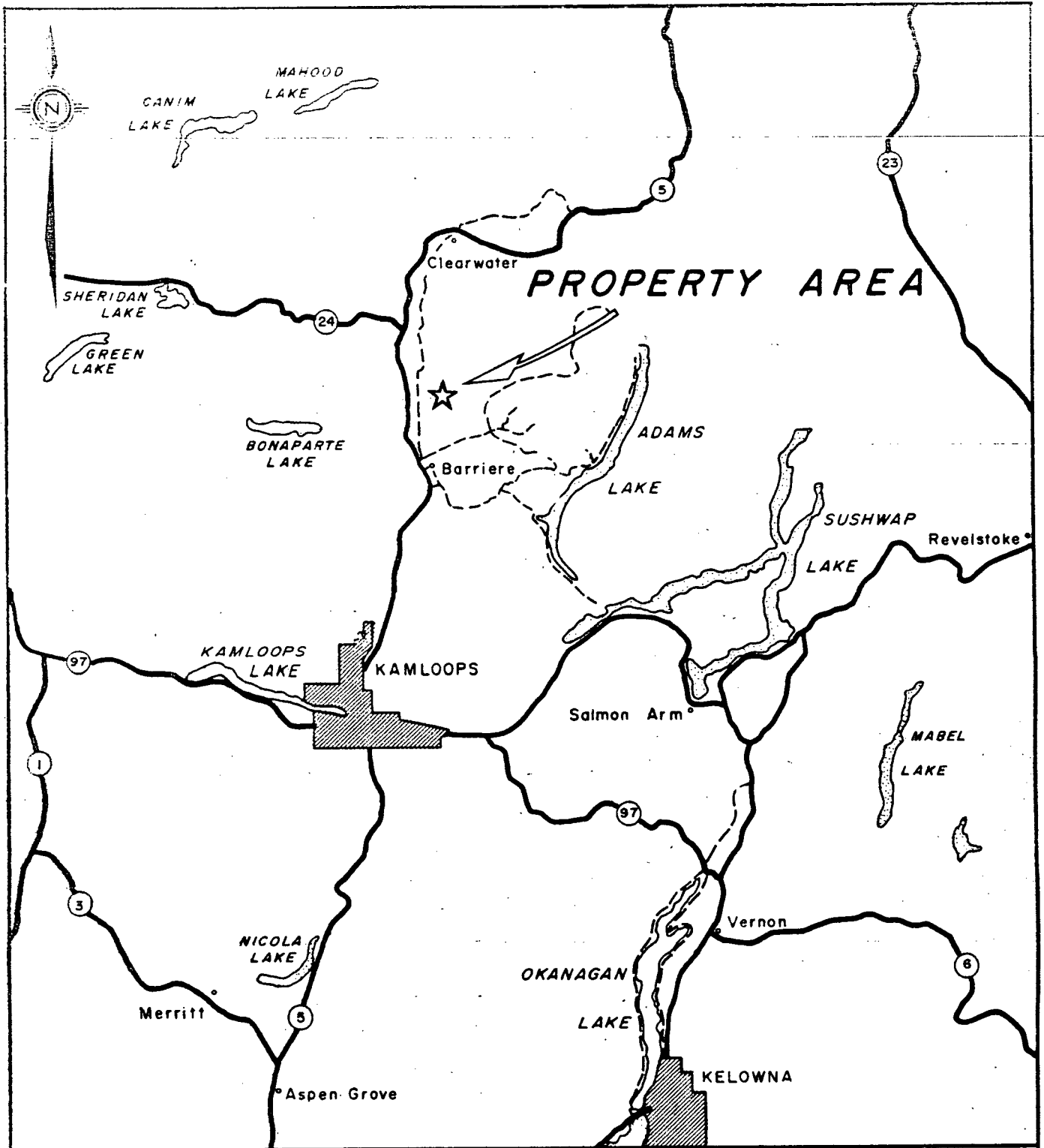
The Chu Chua property is situated about 20km NE of Barriere, B. C. It is readily accessible from the Yellowhead highway by way of the North Barriere Lake road and the Birk Creek logging road.

Physiography

The property straddles Chu Chua creek in sub-alpine terrane at an elevation of approximately 1500m. Both north and south of the creek elevations rise to in excess of 2000m. The climate is moderate to extreme with the snow free period very brief, from July to October.

Property and Ownership

Table 1 summarizes the pertinent claim data for the Chu Chua property. All claims are registered to Corporation Falconbridge Copper. Figure 2 shows this pictorially.



**- LOCATION MAP -
CHU CHUA OPTION**

Fig. 1.

Table 1

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Month</u>	<u>Group</u>	<u>Expiry Date</u>
CC1	16	1154	3	South	March 2/88
CC2	4	1373	8	South	August 22/88
CC3	3	1374	8	South	August 22/88
CC4	9	1423	10	North	October 10/88
CC5	20	1455	10	Dunn	October 24/88
CC6	9	1456	10	Dunn	October 24/87
CC7	20	1457	10	Dunn	October 24/87
CC8	6	1424	10	North	October 10/88
CC9	12	1458	10	Pink	October 22/86
CC10	20	1459	10	South	October 24/89
CC11	20	1460	10	Pink	October 24/86
CH1	20	1461	10	South	October 24/87
CH2	20	1462	10	Pink	October 24/86
CH9	12	1469	10	Dunn	October 24/88
CH4	20	1464	10	South	October 24/87
CH11	16	1471	10	South	October 24/87

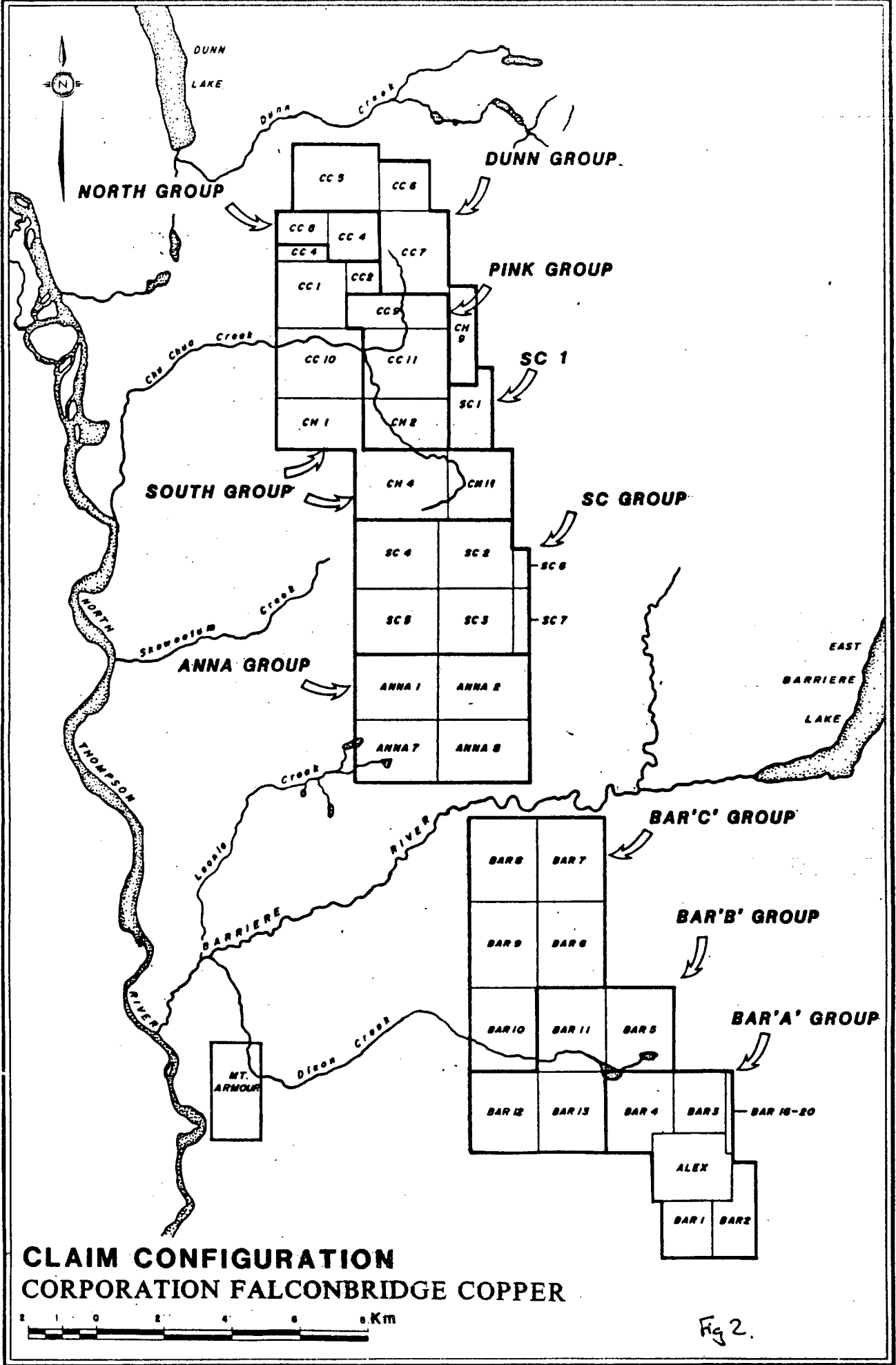
History

A massive sulphide deposit was located on claim CC1 during exploration by Craigmont in 1978. This was subsequently estimated to contain 2M tonnes grading 2% Cu. During 1979 a DigheM AEM survey was flown over the area (AR - July'79, Fraser & Dvorak). Between 1979 and 1984 further geology, geochem and drilling was carried out on the property without additional discovery.

In August 1985, CFC took an option on the property from Pacific Cassiar, Vestor and Quinterra. Linecutting and Max Min was carried out over a small part of the property (AR Dec'85, L. D. Pirie).

Work Done

Three diamond drillholes totalling 617.5m were put down to test Max Min anomalies and adjacent stratigraphy, during the period October 15th - November 10th.



**CLAIM CONFIGURATION
CORPORATION FALCONBRIDGE COPPER**

Fig 2.

PURPOSE OF PROGRAM

The purpose of this program was to test stratigraphy in the area of Max Min anomalies identified in a previous assessment report (AR Dec'85, L. D. Pirie). Hole locations are shown on Map 1 (back pocket) superimposed upon the 1777 Hz data.

RESULTS

CCF-1 was collared to test anomaly B which appears to be caused by graphitic argillite intermixed with chert. Stratigraphy below the conductor proved to be highly interesting, consisting of a mixed sequence of quartz-porphyritic rhyolite, basalt flows and breccias and chert breccias. Particularly interesting is the intense sericite alteration in the rhyolite.

CCF-2 was drilled approximately 300m along strike from CCF-1 to the north. Although much thinner, it also intersected altered rhyolite.

CCF-3 tested conductor A. It proved to be graphitic argillite and mudstone with a basalt/chert sequence.

CONCLUSIONS

Although no significant sulphides were intersected in any of the holes, CCF-1 and 2 have indicated the presence of a hydrothermally altered felsic centre which deserves further attention.

ITEMIZED COST STATEMENT

Diamond Drilling (Olympic Drilling Ltd)

CCF-1	246.9m	
CCF-2	185.0m	
CCF-3	<u>185.6m</u>	
	617.5m @ \$54.45	\$33,622.87

Man & Machine Hours

(moving, stabilizing holes, waterline, standby, etc)		
161 hrs @ \$23,50/hr		3,783.50

Cat Hours	18 @ \$55/hr	990.00
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Materials

(fuel, casing left in holes, mud, etc)		2,842.38
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Road Clearing (snow removal to get drill out)

D8 13 hrs @ \$110/hr		1,430.00
(L. Bloomfield)		

TOTAL \$42,668.75

Apportionment

Dunn Group (CCF-1, CCF-2)

Pre October 24th	381m @ \$54.45	20,745.45	
	+ share of other costs	5,581.34	= <u>26,326.79</u>

Post October 23rd	50.9m @ \$54.45	2,771.50	
	+ share of other costs	745.64	= <u>3,517.14</u>

South Group (CCF-3)

	185.6m @ \$54.45	10,105.92	
	+ share of other costs	2,718.90	= <u>12,824.82</u>

CERTIFICATE OF QUALIFICATIONS

I, Ian D. Pirie certify that:

1. I am an Exploration Geologist residing at 307 - 2145 York Avenue, Vancouver, B. C.
2. I have a BSc (Hons) in Applied Geology from the University of Strathclyde, Glasgow, Scotland (1977) and a MSc (Geology/Geochemistry) from Queen's University at Kingston, Ontario (1980).
3. I have practised my profession since 1977.
4. I personally carried out or supervised the work reported herein.

Date

Ian D. Pirie



CERTIFICATE OF QUALIFICATIONS

I, Michael J. Burson certify that:

1. I am an Exploration Geologist residing at 7357 Celista Drive, Vancouver, B. C.
2. I have received my B Sc (Honours Science, Earth Science Major) from The University of Waterloo, Waterloo, Ontario (1975).
3. I have practised my profession since 1975.
4. I personally carried out the work reported herein.

Date Dec. 17, 1985

Michael J. Burson



APPENDIX I

Drill Logs CCF-1 - 3

<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>
3.96 to 12.8	Chert/ Argillite	Colour - black/dark grey Grain Size - f.g. Chert > argillite. Latter occurs as bands and/or fragments. Often very graphitic. Thin to medium bedded.	60°	Generally Tr - 1% carbonate minerals throughout. Sporadic, minor bleaching.	Trace pyrite as disseminations and occasional ptygmatic veinlets. Often disseminated between beds. Occasionally have + 1mm beds of pyrite.	Core very fractured. Largest piece approx. 10cm. Main fractures at approx. 15°. Can see quartz and pyrite filled tension fractures parallel to main fracture zone.
12.8 to 22.7	Chert/ Argillite	Colour - light grey/dark grey Grain Size - f.g. Beds range from + 1mm to 5cm. Light-coloured chert is often "blotchy" in appearance. Occasional bleaching. Occasional fragments. Begin to get v.f.g., very thin bedded buff-coloured tuff beds towards the end of the section.	50°	Minor chlorite on fracture surfaces. Tr - 0.5% carbonate minerals. A few sections with moderate chlorite +/- pyrite veinlets at acute or right angles to bedding. Very good carbonate minerals within tuffaceous component.	Most of pyrite is along fractures, but there is the occasional bed(?) (14.2m).	
22.7 to 33.3	Chert/tuff	Colour - light grey/buff Grain Size - f.g. Intercalated chert & tuff. Tuff beds generally 1-2cm in width. Chert 2-7cm. Tuff very thinly laminated, chert quite massive. Very occasional 0.4metre sections of black chert and argillite.		Tuff has 10-20% carbonate mineral which are also developed within the chert for 2-3mm from the chert/tuff contact. The chert often has strong chlorite(?) veinlets at acute angles to the bedding; these do not extend into the tuff beds.	Trace pyrite	Core becoming more competent although still quite fractured.

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33.3 to 36.6	Chert/ Argillite	Colour - med. grey Grain Size - f.g. Very thin bedded chert and argillite. Minor tuff component at beginning of the section. Argillite increases towards end of section. Beds sometimes slumped. Also occasional primary brecciation.	55°	v. f. g. carbonate mineralization.	Trace Py/Po as disseminations & occasional veins.	
36.6 to 50.9	Argillite/ Chert	Colour - black/med grey Grain Size - f.g. Interbedded argillite & chert. Argillite to chert ratio is 65:35. Beds sometimes are discontinuous or brecciated - diagenetic in origin. Beds steepen to 45° near lower contact and become somewhat brecciated in the last 10cm.		Strong carbonate mineralization to 40.4m; thereafter only very sporadic until 47.3m where there is moderate to strong alteration to 50.9.	Trace to 1% pyrite throughout - often along contacts as disseminations, occasional pygmatic py + quartz veins and also as discontinuous, convoluted veins. i.e. 39.5, 46.6m. Occasional limonite or hematite bands throughout.	Argillite is generally quite graphitic. 39.1 - 1mm barite crystals within argillite.
50.9 to 68.9	Chert/Tuff	Colour - light grey/buff Grain Size - f.g. Interbedded chert and tuff beds 2-5cm thick. Chert beds sometimes brecciated, and almost always have diagenetic fracturing perpendicular to bedding. Beds within this section often appears convoluted and brecciated, much more than in section from 22.7 - 33.3	40°	Good carbonate minerals to 55.8, then rare after that.	Occasional pyrite within the chert, usually at the contact with the tuff.	Core very fractured from 55.3m - 62.5m. Recovery approx. 95%.
68.9 to 74.3	Tuff Breccia	Colour - med. grey Grain Size - f.g. Pebble to cobble sized fragments of tuff set within a fine-grained tuffaceous matrix. Tuff matrix is a medium grey - much darker than previous unit. Clasts are generally sub-rounded and are a lighter grey than the matrix. Occasional chert fragments.	50°	Very good carbonate mineralization throughout.	Minor sporadic pyrite.	Contact with above unit not distinct.

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74.3 to 79.3	Chert/tuff breccia	Colour - dark grey Grain Size - f.g. Sand to cobble size fragments of chert tuff & minor argillite within a dark argillite matrix.	Upper Contact @ 60°		Trace to 1% disseminated pyrite. Also several subrounded pyrite fragments throughout.	
79.3 to 82.9	Basalt	Colour - green/grey Grain Size - m.g. Fairly massive. Occasional pillow margin but generally very homogeneous. Several cross-cutting quartz veins + pyrite + chlorite. Pyroxene microcrysts.	Lower Contact @ 50°	Moderate amount of chlorite veins throughout. Chlorite alteration often permeates the wall rock resulting in a "mottled" appearance. Slightly sausseritized; Also pyroxene altered to a bright lime green zoisite?	Trace disseminated pyrite cubes.	
82.9 to 86.1	Argillite/ Chert Breccia	Colour - dark grey Grain Size - f.g. Pebble-sized chert fragments within a fine grained matrix of argillite. Also some argillite clasts.			Disseminated pyrite cubes, occasional veins. Also a moderate amount of small elongate pyrite fragments (2X6mm). Also two larger fragments which contain 70-80% pyrite.	
86.1 to 91.3	Argillite/ Wacke	Colour - black/dark grey Grain Size - f.g. - m.g. Massive argillite to 88.3m occasional pyrite fragments especially at beginning of the section. Minor quartz veining. Grades into a medium-grained wacke containing small argillite chips and tiny cream coloured chips (clay?).	60° Lower Contact @ 45°		Occasional pyrite fragments at beginning of section. Good 4cm bed of pyrite fragments, argillite and feldspar at 90.4m. Also 0.5X2cm pyrite - quartz fragment at 90.5m.	Core quite broken from 86.3-87.5m. 85% recover. 20cm of gouge and gravel at 90.8m.

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91.3 to 124.3	Basalt	Colour - med. grey/green Grain Size - m.g. Fairly massive although pillow structures are visible. Generally very little interpillow material. Occasionally very coarse grained. Pyroxene is generally med. gr. - sometimes quite pale in colour. Occasionally good hydroclastic texture, & good chilled pillow margins. Pillow interstices often filled with chert.		Minor chlorite & carbonate veining. In general chlorite > carbonate at the beginning of the section and the reverse is true towards the end. Moderate clay alteration from 123.0m to 124.3m.		
124.3 to 125.3	Rhyolite	Colour - grey Grain Size - f.g. Very hard, silicic unit. Possible chertified tuff. Very fine-grained.			Trace disseminated pyrite & occasional pyrite veinlet.	Core very broken.
125.3 to 139.5	Basalt	Colour - med. grey/green Grain Size - m.g. Massive to fragmental. Fragments subrounded. Interfragment material is v.f.g., tuffaceous unit. Massive material is f.g., equigranular & contains good leucoxene. Minor fault gouge at 138.7. Pyroxene bearing.		125.3 - 127.3 Moderate clay alteration.		
139.5 to 160.7	Rhyolite	Colour - light grey/green Grain Size - v.f.g. Contact missing in core. Fairly massive although there is the impression of small (1cm) fragments. Tiny, sparse quartz eyes (<1mm) present. Also occasional feldspar. 149.0 - 150.2 Light grey rhyolite. Quartz eyes slightly larger (1-2mm) 150.2 - 160.7 Pale green. Q.E. up to 3mm.		First 1.5m is darker than rest of rhyolite. Very occasional quartz veining, usually with trace pyrite, and often with serpentine. Minor sericite at 156.1 - 156.4. Minor carbonate alteration and sometimes minor bleaching along very tiny fractures.	Good disseminated pyrite at 140.6m.	Core is very fractured. Lots of blocking when drilling.

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160.7 to 161.7	Diorite(?)	Colour - med. grey Grain Size - f.g. Equigranular, medium hard dyke or sill. Upper contact difficult to see, but appears to be approx. 55°. Lower contact not visible.	55°			
161.7 to 209.2	Rhyolite	Colour - light grey/green Grain Size - f.g. Sparse Q.E. up to 5mm, but usually less. Occasional zone with good feldspar. Often good <1cm fragments.		Occasional quartz vein. Minor epidote on very tight fractures; also bleaching. 171.4-171.5 Quartz vein - tr. pyrite. 175.1 - 179.3 Moderately intense sericite alteration minor chlorite. 188.2 - 189.8 Sericite 204.8 - Sericite alteration usually along fractures but becomes more pervasive towards end. Quartz & pyrite + chlorite veins are not uncommon after 198.0m, usually with a bleached envelope.		Core quite soft & shattered in sericite zone.
209.2 to 215.8	Argillite/ Chert Breccia	Colour - dark grey Grain Size - c.g. Chips and fragments of argillite & chert within a m.g. wacke matrix. Occasional basalt fragments. Contains minor (<1m) beds (blocks?) of chert. Possible <u>Rhyodacite</u> from 214.2 - 214.9 with good pyrite veining.	Contact 60°	Minor sericite & carbonate.		Pyrite veins & disseminations 214.2 - 214.9
215.3 to 216.7	Argillite	Colour - black Grain Size - f.g. Contains minor very black grains. Very tiny. Lower contact is gouge.			Tr. Diss. pyrite.	

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216.7 to 214.9	Microbreccia	Colour - grey/green Grain Size - c.g. Chert chips and fragments and basalt fragments in f.g. - m.g., volcanic derived matrix. Very homogeneous. Some large blocks of basalt towards E.O.H. 235.8 - 236.8 - m.g. Light grey unit. Cherty or silicified. Very hard.		v. minor quartz-carb veining.		
246.9		END OF HOLE.				

<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>
0 to 6.1		Casing				
6.1 to 8.2	Diorite	Colour - dark green Grain Size - c.g. Very coarse grained, massive		Occasional quartz vein	Trace pyrite	Very blocky; poor drilling. Non-magnetic
8.2 to 33.2	Basalt	Colour - m. green Grain Size - m.g. Massive Flow. Equigranular, very homogeneous, very fresh 31.3 - fault gouge and very fractured core fracturing suggest fault Angle to 20°	20°	Minor carbonate veining and very minor quartz veining. Fault has minor carbonate infilling and good chlorite on fractures.	Trace Pyrite, 1cm cube at 26.0	31.3-40.5 fault gouge, breccia & very fractured core.
33.2 to 52.9	Chert/Tuff	Colour - light grey/buff Grain Size - f.g. Interbedded chert & tuff. Occasional chert fragment. Tuff >> chert until last 6.0m in which chert > Tuff.	50°	Tuff has good carbonate minerals.	33.6-quartz-pyrite vein 42.6-quartz-pyrite vein 43.9-quartz-pyrite vein 44.6-quartz-pyrite vein 51.4-52.1- good cubic pyrite (+quartz) associated with tiny quartz veinlets.	
52.9 to 56.7	Chert Breccia	Colour - med. grey Grain Size - f.g. Pebble to cobble sized fragments of light to dark grey chert intimately mixed with buff coloured, re-worked tuff.	Lower Contact at 70°		Often very fine disseminated pyrite, or associated with small quartz veinlets.	

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56.7 to 78.4	Basalt	Colour - grey/green Grain Size - m.g. Massive. Occasional quartz vein. Minor, usually wispy, interflow chert. Possible, very minor, hydroclastic texture.	70°	Bleached and ferromags gone to zoisite(?) until 62.8. 57.1-57.3 - good chlorite veining & wallrock alteration. Occasional quartz + chlorite vein (+ pyrite). Strong carbonate & chlorite + quartz veining @ 5-20° from 75.8-78.4.	Pyrite often associated with quartz veins.	
78.4 to 80.0	Chert Micro- Breccia	Colour - grey Grain Size - m.g. < 1.5cm chips of chert & occasionally basalt within f.g. volcanic - derived matrix	55°	Minor quartz veining.	1-5% pyrite, most often as cubes up to 0.5cm. Minor occurrence as veinlets. Occasional Cp or cupriferous pyrite.	
80.0 to 116.1	B a s a l t breccia	Colour - grey-green Grain Size - m.g. Fragments generally 4cm or less. Sometimes have cherty matrix. Occasional interbreccia flow or large block (>1.0m) matrix supported.		Minor to moderate quartz+ calcite + chlorite + pyrite veins.	88.8 - chalcopyrite - pyrrhotite veinlet @ 20° 99.0 - Quartz - Pyrrhotite veinlet @ 40°	
116.1 to 122.6	Basalt/ chert Breccia	Colour - grey-green Grain Size - c.g. At 116.1m begin to get occasional chert fragments. These increase in density downhole until 122.0m, after which there is only a very minor basalt component. Very occasional argillite chip. Occasional rhyolite tuff fragment towards end of section.		Minor quartz-carb veining.		

<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>
122.6 to 126.5	Rhyolitic Tuff	Colour - light grey Grain Size - m.g. Fragments of rhyolite with minor chert and argillite. Kaolinitized feldspar crystals and several good quartz eyes. Distinct pyroclastic. 124.2 - begin to get an increase in the argillite component within the matrix.		Minor greenish sericite although not as altered as on 96+50.		
126.5 to 139.3	Chert (Basalt) Breccia	Colour - med. grey Grain Size - c.g. Mainly chert with minor argillite & subordinate basalt. 134.2 - First occurrence of a tuffaceous component. Unit gradually becomes well bedded during last 3 metres. Occasional rhyolite fragment at beginning of the section. 138.5-139.0m - basalt block(?)		Minor, chlorite.	129.4 - 2 cm of disseminated pyrite	Core is well fractured from 130.0m to 134.0m with good gouge from 133.1 - 133.7m @ 60°
139.3 to 171.2	Tuff/Chert	Colour - light grey Grain Size - f.g. Often appears bedded but there is evidence to suggest the chert occurs as fragments. 157.1-159.1 More basic, med. green tuff.	45-60	Very minor quartz veining and fair carbonate veining.	140.0 - Pyrite sur- rounding a chert fragment. 160.6 - Several pyrite cubes within the tuff 168.5 - Several pyrite cubes within the tuff 169.7 - Several pyrite cubes within the tuff	

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171.2 to 185.7 E.O.H	Chert/ Argillite	Colour - dark grey Grain Size - f.g. Mainly chert, both white and black. Argillite occurs as fragments as convoluted beds and as fracture fillings within the chert very minor tuff component. Little argillite between 177.0m & 182.3m but is present as chips and fracture infillings from 182.3 to 185.7		Minor carbonate veining mining chlorite on fractures.	Occasional pyrite cubes.	

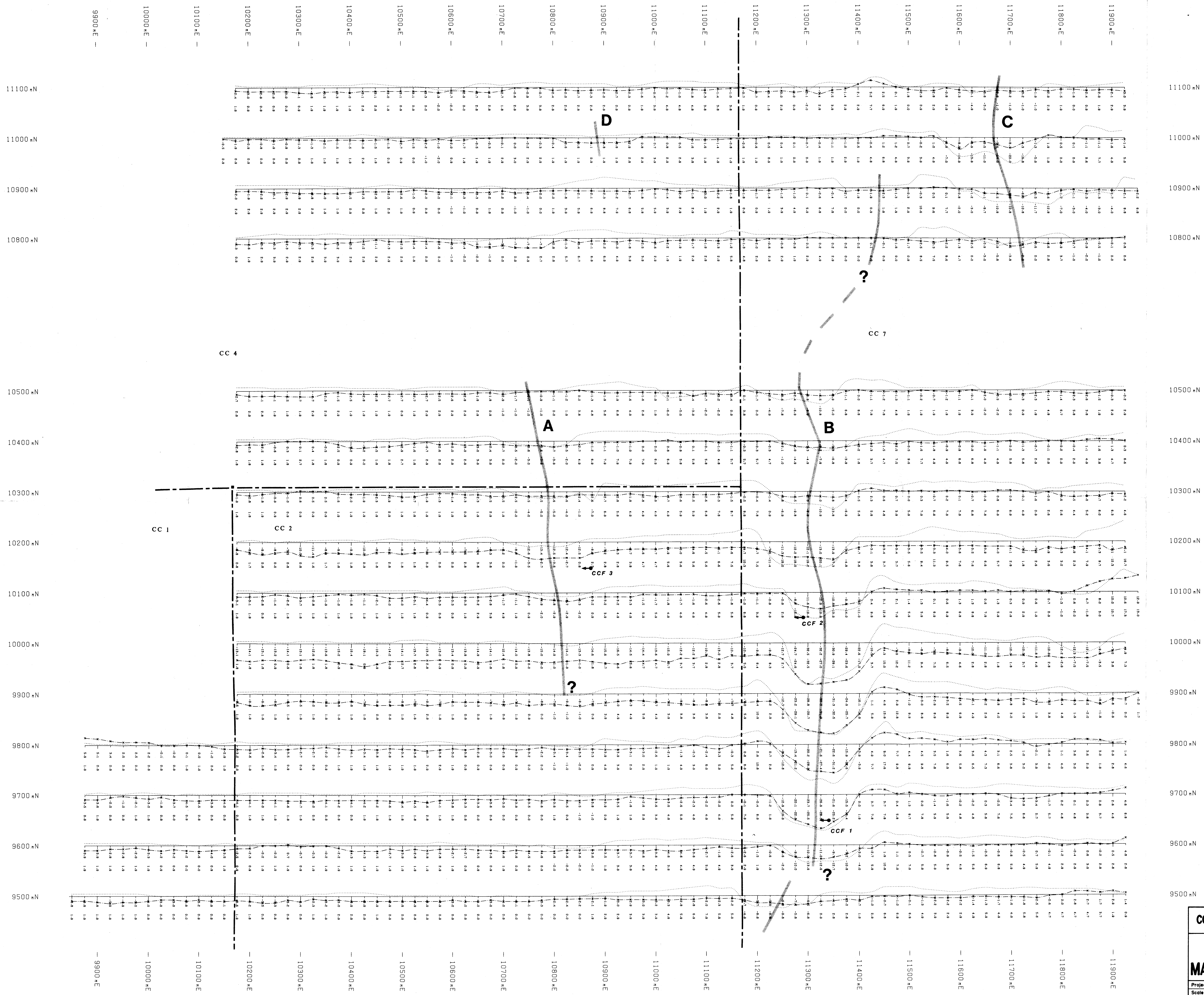
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0 to 9.5	Basalt	Colour - green Grain Size - m.g. Fairly massive with minor flow textures		Occasional quartz vein + Po + Zoisite(?)	Frctures very rusty occasional pyrite cube.	
9.5 to 25.3	Chert/Tuff	Colour - light grey Grain Size - f.g. Thin bedded. Occasional chert fragments. Becomes quite brecciated with good chlorite in last 1.8m.	85°	Moderate carbonate mineralization within tuff.	Moderate amount of pyrite cubes.	15.8 - 18.3 Fractured & brecciated core. Good gouge at 17.0m. angle = 80°
25.3 to 54.1	Basalt	Colour - green Grain Size - m.g. - c.g. Very massive ferromags generally quite large and often occur as "clumps", as well as good distinct green/black crystals. Good leucoxene in the vicinity of carbonate veins. Very coarse ferromag clumps from 48.4 - 50.5. In general becomes fine grained during last 1.0m.	Lower Contact (Struct- ural) @ 45°	Generally good chlorite. Good carbonate (+ quartz) as veins and wispy stringers.		Minor gouge @ 32.0m with very little fracturing on either side.
54.1 to 60.8	Chert	Colour - light grey Grain Size - f.g. First 10cm is f.g. soft mudstone or tuff. Chert is very massive with only occasional areas which contain chert fragments.		Moderate carbonate veinlets (with small bleached envelope. Minor talc at 57.0 - 60.8. Originally could have been more, but now weathered out of broken section.	Very minor rhombohedral pyrrhotite (weathered). Possible pyrite fragments at 55.8m.	Very broken core from 57.4-51.0. Lower contact not seen. Recovery 85%.
60.8 to 65.7	Basalt	Colour - med. grey Grain Size - f.g - m.g. Fairly homogeneous. Finer grained on margins. Possible sill. Often good leucoxene.	Lower Struct- ural contact sharp @ 55°	Moderate amount of carbonate veining.	Good pyrrhotite (1-2%) in last 20cm.	

<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>
65.9 to 70.1	Chert	Colour - light grey Grain Size - f.g. Fairly fragmental with quartz + carbonate + sericite cement.	Lower Struct- ural Contact Sharp @ 80°	Chlorite within fractures in chert.	Minor pyrite & Po.	Thin Section
70.1 to 87.7	Chert; Cherty Argillite	Colour - light grey to black Grain Size - f.g. Thin to thick-bedded. Often have fragments of chert or cherty argillite floating in an argillite matrix. Minor black chert. Often good graphite on fracture surfaces.		Minor quartz (+ chlorite) veining. - Often have carbonate spots	Many large (+1cm) pyrite (+ pyrrotite) cubes as well as smaller ones. 82.5-82.7 and 83.3-83.9 cherty tuff with good Po (Py) as exhalative component. 83.9-84.0 Quartz vein with PbS, ZnS, CuFeS ₂ .	Core very broken from 73.3-76.8. Some core is cemented, brecciated chert suggesting remobiliation along an earlier fault plane. Blackest argillite is very weakly conductive - not enough to account for Max-Min. 84.0-84.6 Fault zone with gouge in structural H.W. & fractured core in footwall.
87.7 to 90.5	Dacite Tuff	Colour - med. grey Grain Size - m.g. Massive fairly homogeneous unit. Good ferromag & strongly suspect tiny quartz eyes.		Strong carbonate alteration throughout	Tr - 1% Po throughout	Thin Section
90.5 to 95.3	Chert; Cherty Tuff	Colour - med. grey Grain Size - f.g. Well laminated to massive. Carbonate + quartz cement filling early diagenetic fractures.	40°	Moderate quartz- carbonate veining.		95.8-96.9 - tuffaceous unit (intermediate) occasionally with

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95.8 to 96.9	Intermediate tuff	Colour - green grey Grain Size - f.g. Obscure but fine laminations. Often appears to have lapilli sized fragments.		Strong quartz - carbonate veining often with good Talc.	Tr - 1% Py & Po throughout.	
96.9 to 102.2	Chert/ argillite	Colour - grey/black Grain Size - f.g. Generally finely laminated occasional breccia fragments.	55°	Moderate quartz & quartz- carb. veining.	Large pyrite cubes throughout.	Argillite weakly conductive.
102.2 to 105.9	Intermediate Tuff	Colour - light grey Grain Size - f.g. Fairly massive but get the impression of laminations. Contacts appear to include load casts.		Minor carbonate veining.	Large pyrite cubes throughout.	
105.9 to 111.4	Chert; Cherty Argillite	Colour - med. grey-black Grain Size - f.g. Generally well laminated & occasionally brecciated. Moderately graphitic.		Minor quartz+carbonate veining.	Large pyrite cubes throughout.	
111.4 to 113.0	Chert- Basalt Breccia	Colour - light grey Grain Size - f.g. 30% basalt fragments; smaller fragments have light coloured reaction rims.		Good rhombohedral carbonate minerals.	Large pyrite cubes throughout.	
113.0 to 117.0	Basalt flow	Colour - med. grey/green Grain Size - f.g. Massive. Upper contact is fairly sharp but includes a fragment of chert. Lower 0.4m is brecciated and contains fragments of basalt and chert - also slightly bleached in this area.	Upper Contact 80° Lower 80°	Good carbonate alteration and chlorite+quartz veining.	Minor cubic pyrite throughout.	

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117.0 to 118.6	Chert Breccia	Colour - light grey Grain Size - f.g. Cemented with carbonate-quartz. Very minor argillite component in last 0.5m.		Good carbonate minerals in cement as pseudomorphs after? often zoned - probably hexagonal.	Good pyrite as cubes within the chert and as disseminations and discontinuous beds? or veinlets within the cement.	
118.6 to 121.8	Argillite; Cherty Argillite (Mudstone IAP)	Colour - black Grain Size - f.g. Very massive; slightly graphitic - increasing chert component after 120.7m. Occasional chert fragments.			1-2mm pyrrhotite beds (discontinuous) Occasional pyrite.	Moderately strong conductor.
121.8 to 155.1	Chert Breccia	Colour - light grey; pink Grain Size - f.g. Fairly homogenous unit. Up to 8cm chert beds cemented by carbonate-quartz. < 1cm Talc beds at 127.2m. Chert beds sometimes have pink tinge (Jasperoid?) Decreasing argillite component in first metre. 0.6m basalt (fg) dyke at 133.4-134.0 135.3-137.0 Argillite & cherty argillite. Fault zone contains minor basalt fragments. After the fault zone (144.7). The chert becomes more massive and exhibits a noticeably greener colour. 146.1-146.5 - basalt dyke Chert is occasionally finely laminated, but becomes quite massive towards the end of the section.		20cm quartz-chlorite vein at 151.2-151.4	Good pyrite cubes in Talc. 124.7 - pyrite fragments Trace pyrite within first 3 metres, then essentially barren. 136.0 1cm X 2cm pyrrhotite quartz fragment in argillite. Tr - 1% Py in vein.	Core very broken from 141.0m to 144.7m. Remnant fault breccia observed. Minor gouge at 142.1m.

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155.1 to 157.8	Basalt	Colour - grey-green Grain Size - f.g. Massive dyke.	Upper Contact at 50°	Minor quartz veining. Moderate carb. veining.		
157.8 to 158.6	Chert	Colour - med. grey Grain Size - f.g. Massive but well fractured.		Minor carbonate veining.		
158.6 to 185.6 E.O.H. (162.8- 163.4)	Basalt	Colour - grey/green Grain Size - f.g. - m.g. Massive to brecciated. (Interflow chert) Generally good leucoxene throughout. 177.2-179.7 Good pyx-porph.		Minor quartz veining. Minor epidote alteration. Moderate chlorite.	Occasional pyrite associated with quartz veins.	Slightly magnetic.



LEGEND

INSTRUMENT: Apes Parametrics Max Min I

CABLE LENGTH: 450m

FREQUENCY: 1777 Hz

PROFILE SCALE: 1 cm = 10%

Plotting Designation:

Intersect Profile:

Quadrature Profile:

Station Location:

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,186



CORPORATION FALCONBRIDGE COPPER

CHUCHUA GRID

MAX MIN I SURVEY-1777 Hz

Project No: V-213	By: R.Nickson, D.Jones
Scale: 1:2,500	Drawn: Dataglotting/MPH
Drawing No:	Date: October, 1985

MPH MPH Consulting Limited