

Addendum to Mt. Sicker Property  
Report on the 1986 Drill Programme  
and Geophysical Report  
FAME GRANT 10962E-15

March 25, 1987

by H. Gibson  
M. Gray

827175



CORPORATION FALCONBRIDGE COPPER

6415 - 64th Street  
Delta, B.C., Canada V4K 4E2  
Telephone (604) 946-5451

March 24, 1987

Dr. J. Gammon, Manager  
Exploration British Columbia  
Mineral Resources Division  
Ministry of Energy, Mines and  
Petroleum Resources  
Parliament Buildings  
Victoria, B. C.  
V8V 1X4

Re: Fame Grant 10962E-15

Dear John;

Please find enclosed an addendum to FAME Report 10962E-15 containing summary and detailed drill logs for holes MTS-28 to 31 (4) and an itemized cost statement. The FAME program has made a significant contribution to our exploration program on Mt. Sicker and will be a contributing factor to new discoveries in the area.

If you have any questions please call.

Yours truly,

H. L. Gibson  
Senior Exploration Geologist

HLG/ik



Addendum to  
Mt. Sicker Property  
Report on the 1986 Drill Programme  
Victoria Mining Division  
NTS 92B/13W  
48° 59' Latitude, 123° 51' Longitude  
Owner/Operator: Corporation Falconbridge Copper  
by: H. L. Gibson  
January 30, 1987

Claims

Queen Bee	Herbert
Key City	Morley-Jane
Tony	Estelle
XL	

## ADDENDUM TO FAME REPORT

### GRANT #10962E-15

#### MTS-28

MTS-28, located to test the up-plunge extension of a strong (+35%) pyrite-pyrrhotite-chalcopyrite stringer zone, failed to intersect significant mineralization.

#### Summary Log

0 - 84.51	Dacite crystal tuff, fault at 32.41m.
84.51 - 95.00	Andesitic crystal tuff and ash.
95.00 - 96.01	Diorite
96.01 - 103.0	Laminated andesitic tuff, <2% py.
103.0 - 104.5	Laminated dacitic tuff and chert - hematitic.
104.5 - 105.9	Andesite ash.

#### MTS-29 and MTS-30

Holes MTS-29 and MTS-30 test stratigraphy to the Myra-Nitinat translation within the core of the Mt. Sicker anticline and along the north and south margins of a graben-like structure bounded by the Nugget Creek and Mine faults.

#### Summary Log

##### MTS-29

0 - 88.40	Dacite to rhyodacite crystal tuffs, 1-8% pyrite.
88.40 - 103.93	Chert with banded massive magnetite (0.35m).
103.93 - 302.61	Diorite
302.61 - 397.06	Dacite to rhyodacite crystal tuffs, 1-10% py.
397.06 - 495.45	Andesite tuff, 1-15% py.
495.45 - 508.00	Dacitic crystal tuff, 5-15% py.
508.00 - 562.05	Andesite tuff, 2-8% py.

562.05 - 568.20	Rhyodacite quartz porphyritic flow, 1-3% py.
568.20 - 663.75	Andesite tuff, crystal tuff.
663.75 - 685.10	Quartz-eye dacitic crystal tuff, 3-8% py.
685.10 - 695.25	Andesitic crystal tuff.

#### MTS-30

0 - 139.59	Diorite
139.59 - 206.85	Rhyodacite, quartz-porphyritic flow, 1-5% py, 2-3% sphalerite locally.
206.85 - 480.91	Dacite to rhyodacite ash, crystal tuff, 1-5% py.
480.91 - 558.39	Andesite tuff and crystal tuff.
559.72 - 632.36	Diorite.
632.36 - 645.26	Andesitic tuff, crystal tuff.

#### MTS-31

MTS-31 tested the faulted eastern extension of the Lenora-Tyee Mine Package 1km east of the former mine and 250m southeast of MTS-27.

#### Summary Log

0 - 42.37	Diorite
42.37 - 54.14	Dacite crystal tuff.
54.14 - 58.22	Fault.
58.22 - 101.69	Dacitic crystal tuff, fine ash, minor chert.
101.69 - 245.36	Diorite.

ITEMIZED COST STATEMENT

1987 DRILLING

Contractor - F. Boisvenu

1533m.	\$110,133.32
Machine, Man and Cat hours	5,778.63
Materials	3,672.35

Salaries

H. Gibson	2 days at \$350/day	700.00
M. Gray	34 days at \$300/day	10,200.00
E. Denholm	7 days at \$150/day	1,050.00

Field Expenses

Truck	17 days at \$50.00/day	850.00
Food/accommodation	34 days at \$40.00/day	1,360.00

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Total	\$133,744.30
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☒ METRIC UNITS  
☐ IMPERIAL UNITS

[illegible]

HOLE NO MTS-28  
ZIPPY PRINT - BRIDGEPORT RICHMOND

LOGGED BY M. J. Gray

<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 3.05	CASING					
3.05 to 5.18	ANDESITE CRYSTAL ASH TUFF	Colour - medium to dark green/grey Grain Size - fine +/- medium Very weakly foliated. Andesite crystal ash tuff. 25-35% 1mm Fp phenos, trace <1mm quartz eyes, chloritized matrix, possibly some mafic phenos present. Note: Trace magnetite diss. throughout, f.g.	Fol'n 45 (45-55)	Very weak - weak pervasive chloritization +/- minor sericitization.  Trace epidote.	Trace py.	Litho: BCD 6151 3.05-5.18m Note dissolution texture in bands, probably former calc veins.
5.18 to 14.16	DACITE QTZ EYE-FP CRYSTAL ASH TUFF +/- MINOR DAC-AND ASH	Colour - medium grey, local grey-green Grain Size - fine - medium Weakly, locally strongly foliated. 5.18-8.84: Medium grey dacitic ash - crystal tuff. Crudely laminated, 2-5% <1-1mm grey-white qtz eyes, approx. 5% 1mm cloudy white Fp phenos. 8.84-10.47: Dacitic andesite well foliated. No qtz eyes. 10.47-14.16: Medium to light grey-green dacite ash - crystal tuff, 1-8% (5% avg.) <1-1mm qtz eyes.	Fol'n  60 (60-45)  45 60 (45-65)	Weak sericitization. Locally silicified(?) (7.63-8.23m as bands 1mm)  <1mm calcite veinlets throughout. Tr chlorite.  Weak-moderate ser & chl  Very weak - weak ser, tr. chl throughout. Strong - intense qtz-carbonate + limonite 1-2mm veinlets parallel to foliation @ 11.00-11.30, 11.40-11.88, 11.95-12.10, 12.20-12.25, 12.37-12.62.	Tr - 1% py   Tr-1% py  Tr-1% py overall Locally 3% f.g. diss. py at 11.30-11.40.	Note dissolution texture due to calcite veins. Note local tr-1% f.g. specularite. BCD Litho #6152 5.18 - 8.18m  Note chl patches/veinlets in qtz-calc-lim alteration. BCD Litho #6153 11.00 - 13.57m

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14.16 to 14.39	AND. +/- DAC F. ASH TUFF	Colour - light green Grain Size - very fine - fine Poor - moderately laminated, weakly foliated Andesite-Dacite fine ash tuff; no qtz eyes.	Layering 65-70	Weak - weak/moderate chloritization, some <1mm black chl. veinlets with bleached envelopes.	Trace py	Possible marker ash bed.
14.39 to 24.88	DAC +/- DAC-AND CRYSTAL ASH TUFFS WITH MINOR LAPILLI TUFF	Colour - medium grey-green Grain Size - fine matrix, fine-medium crystal lapilli. Weakly foliated, crudely - poorly laminated.  14.39-15.55: Dac-and grey/green lapilli tuff, 20% 2-4mm size felsic frags, 2-3% <1mm qtz eyes, 10-20% <2mm Fp(?) crystals 15.55-18.61: Medium grey/grey Dac-And coarse ash tuff, <2-3% <1mm qtz eyes, more mafic in matrix than above.  18.61-19.60: Medium green/grey Dac-And crystal-lapilli tuff, trace qtz eyes(?), 5% 2-3mm lapilli felsic frags, matrix coarse-fine ash (Mafic clots possibly frags). 19.60-22.47: Medium grey, Dac-And ash tuff, homogeneous looking; 1-3% <2mm qtz eyes, 10-20% <1-1mm Fp phenos.  22.47 - 23.51: Medium to light grey +/- green Dac-And coarse ash tuffs +/- crystal ash tuff crudely laminated, locally mod.foliated. 10-20% Fp phenocrysts <1-1mm, <2% <1-1mm quartz eyes 23.51 - 24.88: Light grey quartz eye dacite ash tuff. 5-10% <1-1mm quartz eyes.	Fol'n (15-70)  45 (40-50)  45  30-35  Fol'n 45 (45-70)  45 (30-45)	Very weakly sericitic, local tr chl.  Very weak-weak sericitization/ chloritization Mod qtz+/-cal+/-lim 4mm veinlets (up to 50mm) Very weak - weak ser/chl  Tr ser.  Trace - very weak sericitization +/- chl, weakly bleached. Weak selective epidotization of <2mm Fp phenocrysts. Weakly sericitized pervasive.	Tr py (<1%)  Tr py - <1%  Tr py  Tr py  Tr py  Tr py	Tr - 2% hem diss. throughout interval.  Subtle division.  Litho BCD 6154 19.60 - 22.47m  Note: pink oxidized hem. locally on frac.  1-2% diss. hem.

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24.88 to 26.52	DACITE ASHES (very blocky section)	Colour - greys - greens Grain Size - fine Blocky ground, core dacite ashes, not above qtz-eye dacite. (35% recovery).		Includes a 3-5cm qtz vein in one piece of core, with moderate ser/chl. Generally very weak sericitization/chloritiza- tion.	Tr py	
26.52 to 29.57	DACITE ASHES (very blocky)	Colour - Light grey - green Grain Size - very fine - fine Blocky ground (30% recovery) bleached light grey dacite ashes, some pieces with 2-3% qtz eyes.		Very weak - weak ser, tr. chl, weakly bleached.	Tr py - no visible sulphides.	Tr - 2% Hem dissem.
29.57 to 32.61	DAC-AND ASH? (very blocky section)	Colour - greys & greens Grain Size - fine-medium Broken pieces include dacite ash and gouge (recovery <10%).				
32.61 to 34.14 (poss. 24.57 to 34.14)	FAULT ZONE (GOUGE)	Colour - buff - pale green - slightly pink Grain Size - fine-medium gouge, frags > coarse Gouge & sheared/milled dacite ash.	Top ctc?  internal 5  bottom ctc?	Clay gouge, locally calcareous. Massive white-milky qtz veins throughout >5mm <20cm. Trace Hematite diss. Bleached dacite ash? hosts fault. Variable weak-strong sericitization +/- chloritization.	Tr - 1% py	24.57 - 32.61 <5% recovery, most pieces redrilled core. Lost water? in this section.



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34.14 to 55.47	DACITE- ANDESITE ASH TUFF, LOCAL CRYSTAL TUFF	<p>Colour - light - medium green - grey Grain Size - fine Weakly, locally moderately foliated. Crudely laminated, locally poorly laminated. Homogeneous looking unit.</p> <p>34.14 - 35.66: Med. grey/green dacite-and. ash tuff; 5% qtz eyes &lt;1mm.</p> <p>35.66 - 39.82: similar to above, locally 2-5% 1mm qtz eyes in f.g. ash tuff, crudely laminated.</p> <p>39.82 - 41.36: Lt. grey/green dacite-andesite ash tuff with 5-10% 1mm qtz eyes. Weak - mod. foliation, crudely laminated.</p> <p>41.36 - 50.80: Med - light green - grey dacite-andesite ash tuffs, very homogeneous looking, locally poorly laminated.</p> <p>50.80 - 50.90: Fault Gouge</p> <p>50.90 - 55.47: Lt. grey-green Dac-And ash (f.g.) tuff; 5-15% &lt;1-1mm qtz eyes. Crudely laminated, weak foliation.</p>	<p>Fol'n</p> <p>30</p> <p>25-30</p> <p>15-30</p> <p>Fol'n 30 (5-40)</p> <p>30</p> <p>45 (20-45)</p>	<p>Massive white qtz veins throughout interval + K-spar + chl C/A 15. ie) 35.13-35.56m Tr - very weak seritization/chloritization</p> <p>Tr - very weak seritization/chloritization</p> <p>Very weak chl/seritization pervasive + weak - mod. bleaching. Qtz 20-50mm thick veins weak intensity.</p> <p>Tr - very weak ser/chl pervasive. Very weakly bleached. Weak - mod 3mm qtz veins throughout. Clay - ser - limonite. Very weak ser/chloritization pervasive. Weak - moderately bleached.</p>	<p>Tr - &lt;1% py.</p> <p>Tr - &lt;1% py.</p> <p>Tr - &lt;1% py.</p> <p>Tr - &lt;1% py mainly locally 43.70-44.10:-1% 47.00-47.30: 2-3%</p> <p>Tr py. Tr py.</p>	<p>1-3% dissem. hematite.</p> <p>2-3% dissem. hematite(?) grains conspicuous. Poss. part of small dyke (andesite) noted.</p> <p>BCD 6155 Litho 43.08 - 46.08m</p> <p>Diss. Hem(?) &lt;1-2% throughout. Litho BCD #6156 52.49 - 55.47m.</p>
55.47 to 56.22	DIORITE DYKE	<p>Colour - medium - light green Grain Size - fine &amp; very fine Very weakly foliated, equigranular, massive looking. Contacts not seen. Approx. 50% &lt;1mm Fp crystals Approx. 50% &lt;1mm Mafic crystals.</p>	<p>Top ctc 55?? Bottom ctc 60??</p>	<p>Weak pervasive chl +/- ep.</p> <p>Mod. 2-4mm calc veins throughout.</p>	<p>No visible sulphides.</p>	<p>Non magnetic.</p>



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		63.18 - 63.92: Pale green-grey and maroon siliceous f.g. tuff (cherty tuff?) to dacitic ash, poorly laminated? 3-8mm poorly defined hematite rich vs pale green chert tuff bands over a 20cm section.  Note brecciation at 63.18. Healed by calcite veins.	Lam. (?) 65	Very weak chl. locally, hem. as dissem. in bands also throughout.  Moderate-strong calc. 1mm veinlets.	No visible sulphides.	Hematite bands maroon - slight red, poss. selective hematization of indiv. ash.
		63.92 - 64.35: Light green +/- grey dacite-andesite ash tuff, up to 5% <1mm qtz eyes, quite siliceous. Possible dyke? at 64.22 - 64.30m	Top Ctc? approx. 60 Fol'n 40-60 Bot. Ctc. 35 dyke	Trace - very weak chl/ser. Grey sections pervasive hematization.	No visible sulphides.	Subtle division. Note dyke mentioned beige - pale green qtz eye rhyolite porphyry <2mm 10% qtz eyes.
		64.35 - 67.18: Medium grey, locally light grey dacite ash with qtz eyes (up to 5% generally <1-1mm). Homogeneous unit, locally laminated poorly. Note narrow dyke @ 66.00 - 66.04m same as previous section. 67.18 - 68.02: Similar to above but has intermittent 1cm-3cm bands of crystal tuff/lapilli tuff. Felsic frags (some with qtz eyes) 2mm-20mm(?), 60-80% of bands. 68.02 - 68.27: Similar to (64.30 - 67.18m) Dacite ash. 68.27 - 68.47: Qtz-fp porphyry rhyolite dyke; beige - pale green, 15% <2mm qtz eyes. Flow structure noted.	Fol'n 45 (40-60)  Dyke 80-60 ctc Lay/Fol'n 40 (35-45)  50  Top Ctc 50 Bot Ctc 65	Pervasive hematite dusting, tr ser/chl, moderate <1mm calc stringers  Pervasive hematite, Trace ser/chl, very weak chl in Lapilli tuff bands.  As above  Traces of hematite.	No visible sulphides.  No visible sulphides.  No visible sulphides.	2-5% dissem. hematite grains, metallic luster. Litho BCD #6158 64.36 - 67.18m.  2-5% hematite as above. Bands or patches of lapilli tuff, Poss. thicker where folded. 2-5% hematite as above. Note greenish rind surrounding qtz/fp crystals.

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		68.47 - 69.08: Same as (68.02 - 68.27) dacite ash with 5-10% qtz eyes.	55	Pervasive hemitized dusting. Nil-trace ser.	No visible sulphides.	2-5% hematite <1mm grains.
		69.08 - 69.39: Same as above though light green-grey "bleached", <5% qtz eyes 1-<2mm.	30-40	Weakly bleached, pervasive dissem. hematite.	No visible sulphides.	2-3% hematite <1mm grains.
		69.39 - 69.48: Qtz-fp porphyry dyke?? or felsic band. Similar to previous dykes.	Top ctc 70	Very weak chl/ep.	No visible sulphides.	
		69.48 - 72.40: Medium-dark grey (purple hue + green hue) dacite ash - crystal tuff. Has up to 10% <1mm-1mm qtz eyes. Also crystals? with greenish hue 10%. Poss. frag at 71.58 approx. 5X8cm.	Bot ctc 30	Local bleached patches. Pervasive dissem. hematite. Tr sericite. Chlorite is weak selective around qtz eyes(?)	No visible sulphides.	2-5% hematite dissem. Minor quartz feldspar porphyry dykes @ 69.81m, 70.35(?)
		72.40 - 72.90: Medium grey-green dacitic-ash tuff +/- lapilli tuff. Local lapilli frags felsic 5% 2-5mm over narrow 10mm section.	40-45	Tr ser/chl, pervasive dissem. hematite.	No visible sulphides.	Hematite same as above.
		72.90 - 73.05: Medium - light green lapilli tuff andesite/dacite, 30% felsic frags eye shape 2-6mm.	Layering/ Fol'n 45	Tr ser/chl, pervasive hematite in matrix.	No visible sulphide - trace py.	Hematite same as above - not in frags.
		73.05 - 73.25: F.g. medium grey - green dacite ash.	Fol'n 45	Tr ser/chl, pervasive dissem. hematite.	No visible sulphides.	2-3% dissem. hematite.

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73.25 to 77.25	ANDESITE & ANDESITIC- DACITE ASH	Colour - medium-light green +/- grey Grain Size - fine - lapilli Weak - moderately foliated, locally well laminated tuff over 20cm (i.e. 74.47) overall crudely laminated. Andesite/Andesitic-dacite fine - coarse grained ash tuff & interlaminated lapilli ash tuff & minor (10%) interlaminated grey dacite(?) f.g. ash. Lapilli tuff (poss. crystal tuff?) Similar to 72.90 - 73.05.	Fol'n 45 Layering 45?	Very weak +/- weak ser/chl.	No visible sulphides.	Litho BCD #6159 73.39 - 77.16m Lapilli tuff bands 10cm-50cm. Some interlaminated dacite bands with 2-5% hematite near end of interval.
77.25 to 85.22	DACITE & DACITE/ ANDESITE FINE ASH - FINE CRYSTAL TUFF MINOR INTER- LAYERED LAPILLI TUFF	Colour - medium - light green, lapilli tuff is light green. Grain Size - fine +/- lapilli. Weak - moderately foliated, relatively homogeneous ash - crystal ash tuff, minor lapilli tuff bands (5cm-25cm) at 77.46, 78.48, 79.97 - 80.47. Lapilli tuff 10-20% 2mm lapilli felsic frags.	Fol'n 50 Layering 45-55	Very weak ser, tr. chl. Pervasive hematite dusting.	No visible sulphides.	2-5% very fine dissem. hematite throughout.
85.22 to 88.95	DACITE- ANDESITE LAMINATED ASH TUFF & CHERTY TUFF +/- CHERT (INTERLAM.)	Colour - light green & grey - green Grain Size - very fine - medium ash, aphanitic cherty tuff Weakly - moderately foliated, ash & cherty ash & cherts are well laminated. Laminations <1mm-10mm Avg. 2-5mm. Approx. 25% cherty tuff, 5% chert(?), 70% Dacite-andesite f.g. ash.	Layering 40-60 (30-65)	Very weak chl/ser locally weak. No pervasive hematite dusting but local sections have 1-2% dissem. hematite in ash layers.	No visible sulphides - trace py except locally 1-2% f.g. py ie) 86.40, 86.96.	Litho BCD #6160 85.58 - 89.01

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88.95 to 91.64	DACITE +/- DACITE- ANDESITE LAPILLI +/- CRYSTAL TUFF	Colour - Light green-grey. Grain Size - matrix - fine-medium Frgs - lapilli, Crystals - fine-medium. Weakly foliated, crude local laminations. Lapilli tuff - crystal lithic tuff heterolithic frags/crystals include 10-15% cherty tuff/chert, 10% <2mm qtz eyes, 10-20% Dacite-rhyolite quartz feldspar porphyry(?) frags. Frgs lenticular up to 5cm X 3cm, Avg. 3-5mm, lapilli tuff dominated from 88.95 - 89.61, crystal-tuff(?) dominated to end.	Layering? 40-45	Trace - very weak chl/ser.	1-3% pyrite f.g. dissem & blebs from 88.95 - 89.81. Trace py throughout rest of interval.	Note 1-2% hematite dissem. locally throughout interval.  Litho BCD #6161 89.01 - 91.87m
91.64 to 91.87	FAULT	Colour - light-medium green Grain Size - fine matrix, lapilli Strongly sheared lapilli tuff, minor clay gouge on upper plane.	Top 25 Bot. 55	Moderate ser/chl, minor clay.	Trace py.	1-2% hematite dissem.(included in BCD 6161)
91.87 to 95.01	ANDESITE - FINE ASH TUFF (EXTREMELY WELL LAMINATED)	Colour - light-medium camouflage green Grain Size - aphanitic - fine Weak - moderately foliated, extremely well laminated, <<1-3mm laminations avg. <1mm. Andesite - fine ash tuff (Homogeneous overall).	Lam. 45-50 (40-70) Upper ctc 55	Weak locally, weak - moderate chl +/- ser +/- ep.  Moderate - strong calcite veins, gashes parallel to layering, also contorted vein folded into fol'n.	No visible sulphides - 1% Locally 1% py.	(PSEUDO- VARVELIKE LAMS.) Tr-2% dissem. local hematite. Note felsic dyke same as below at 94.60 - 94.70m. Lam. bands not very sharp. Litho BCD #6162 92.01 - 95.01m

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95.01 to 96.01	FELSIC DYKE (POSS. PHASE OF DIORITE)	Colour - light grey with light green margins. Grain Size - fine. Massive, equigranular, leucocratic light grey - beige throughout. <15% chl altered mafics, 80% Fp (?), no qtz recognized.	Upper Ctc 75 Bot. Ctc 40	Bleached(?) strong Moderate chloritization.	No visible sulphides.	Gradational grey centre to green outsides then chilled very fine - aphanitic margins. Litho BCD #6163 95.01 - 96.01
96.01 to 103.17	ANDESITE FELSIC ASH TUFF/ (EXTREMELY WELL LAMINATED, SAME AS ABOVE)	Colour - light-medium camouflage green. Grain Size - aphanitic-fine Same as above (91.87 - 94.34)	45-70 Lam.	Same as above (91.87 - 94.34) weak - moderate chl +/- ser +/- ep locally.		Note patches hematite dissem. locally, tr throughout to 2% hematite to 3%. Note clots of mafics <<1 X 1mm smeared parallel to foliation locally.
103.17 to 104.43	DACITE TUFF +/- MINOR CHERTY TUFF (EXTREMELY WELL LAM. ASH)	Colour - beige/buff & dull purple Grain Size - aphanitic - fine Weakly foliated, extremely well laminated. Laminations <1-2mm Avg. <1mm, good sharp interlaminae ctcs. Bands are beige/buff and dull purple (15%) hematite rich bands.	55-60	Very weak - weak seritization. Hematite? in bands poss. primary. Weak calcite <1mm str.	No visible sulphides.	1% hematite dissem. throughout in addition to hematite-rich bands. Litho BCD #6164 103.17 -104.43m

<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>
104.43 to 106.14	ANDESITE & ANDESITE- DACITE FINE ASH TUFFS	Colour - medium-light-dark green. Grain Size - very fine - fine - aphanitic. Weak locally moderately foliated. Poorly laminated fine andesite & andesite-dacite ash tuff, laminations not sharp avg. 4-10mm. Note local mafic clots/lenses <1mm X 2mm.	Fol'n/ Layering? 70	Moderate & weak-moderate chl +/- ser. Calc veinlets 1mm moderate throughout generally parallel to foliation also local floods of calc.	Tr - 2% py. Locally see 8X8mm, euhedral py cubes. ie) 105.50 2% py assoc. with calc lenses(?)	Note lower ctc with dyke is transitional, bleached, hard to pin down location within 30cm. Therefore approx. 60cm gradational/ bleached section.
106.14 to 112.93	DACITE FINE ASH TUFF	Colour - grey-beige locally with greenish hue. Grain Size - very fine - fine +/- aphanitic No visible volcanition. Massive fine - very fine grained faint bands, dacite fine ash tuff. >50% felsic minerals, some sections almost aphanitic. ie) 107.15 - 107.68, 108.23 - 108.61	Upper ctc grada- tional  lower ctc 75-80	Tr - very weak ser? Weak - moderate calcite veins and lenses, <2mm veins. Weak qtz veins 1-3mm. Calc veins parallel to approx. 80 C/A Bleached? moderately.	Py Tr-5%, some as disseminations mainly as str. and dissem. with in qtz f.g. euhedral. 106.14-106.89 1% py dissem. 106.89-108.51 3-5% <1mm str. 108.51-112.36 Tr py dissem. 112.36-112.93 3-5% py str. Py str. parallel to quartz/calc. veins.	(poss. bleached diorite?) but very felsic & no suggestion of foliation. Note hematite dissem. throughout 1%, sections with less py, up to 5% hematite. Litho BCD #6165 106.94 - 109.95m
112.93 to 113.57	ARGILLITE (WITH SILICEOUS DACITE OR CHERTY TUFF INTERLAM.)	Colour - black & med-light grey Grain Size - very fine - aphanitic Weak - moderately foliated, extremely well laminated, 1mm sharp ctc laminations, alternating argillite and cherty tuff or dacite f.g. ash.	Top ctc approx. 75 lam. 75 Bot. ctc approx. 55	Moderate irregular calcite veins 3-8mm thick. perpendicular to laminations. Moderate qtz veins irregular as above parallel and perpendicular to laminations. Graphite throughout.	Py 5-10% as str. 1-2mm parallel to laminations/ foliations, f.g. brassy- yellow. Also irregular blebs and dissem.	Foliation is marked by carbonaceous planes. Litho BCD #6171 112.93 - 113.57m (Saw)



<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>
113.57 to 119.94	DACITE TO RHYODACITE ASH TUFF +/- CRYSTAL TUFF	Colour - very light grey/green. Grain Size - aphanitic-fine. Weakly foliated, massive, homogeneous looking unit. Up to 10% <<1mm qtz eyes. Dacite-rhyodacite ash tuff, (?poss. flow?). 113.57 - 114.56: Crystal-ash tuff with lapilli (5%) frags including 1% argillite chips. C/A foliation at upper contact 10-15. 114.56 - 114.60: Argillaceous tuff band similar to above argillite. 114.60 - 119.94: Homogeneous dacite-rhyodacite ash/crystal-ash tuff, <10% <1mm qtz eyes.	Bot. ctc Grad.  Fol'n 60-70 (45-75)  60 Layering	Pervasive very weak - weak seritization, tr. chl. Bleached.	Tr - 1% py throughout, locally up to 3% py as dissem. & blebs.  Small blebs of cpy @ 116.20 in a 1-2mm py str. (1% over 5cm).	No hematite(?)   Note C/A 10-15 of crystal-ash- lapilli tuff vs ctc.  Litho BCD #6166 116.00 - 119.00m
119.94 to 124.00	FLOW- BRECCIA DACITE	Colour - light grey matrix, medium green frags also white. Grain Size - aphanitic - fine. Massive with elongate fragments (poor outlines) of feldspar porphyry dacite, possible rhyolite matrix.	Top?	Trace ser/chl.  Weak - moderate <1mm calc veins throughout coat fractures.	Tr - 5% py, avg. Tr-2% locally up to 2% f.g. py dissem. + 1-2mm irregular str., f.g. blebs. 122.23-122.33 5% str. py.	Litho BCD #6167 121.56 - 123.15m  Note minor chloritic fragment 2X8mm.
124.00 to 132.90	DACITE FLOW	Colour - medium - dark green-grey + light grey. Grain Size - aphanitic - fine. Massive, very weakly foliated. Dacite flow(?) weakly feldspar porphyritic (<1mm grains) homogeneous unit.  Narrow dykes at 126.93, 127.03, 132.22, 132.36-132.44.	Fol'n 60 (50-80)	Very weak ser/chl, locally weak. Weak - moderate 2-4mm thick calcite irregular veinlets generally parallel to foliation. Very weak qtz veins 5-25mm thick with <1mm weak chl selvages.	Tr-5% py as f.g. dissem. blebs up to 4X4mm, avg. 2X2mm. 123.25-123.65: Tr-<1% py 123.65-126.00: 2-5% py Locally 5% over 35cm. 126.00-132.90: Tr-<1% py.	Tr qtz eyes(?) Litho BCD #6168 128.60 - 131.60m Very siliceous.

<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>
132.90 to 135.23	QUARTZ-FP PORPHYRY RHYOLITE(?)	Colour - beige-white Grain Size - aphanitic-groundmass, fine-medium phenos Weakly foliated, flow banded, distinct quartz porphyry rhyolite flow (F.W.) 10-20% qtz eyes, <1-3mm, Avg. 1-2mm, Ang-round. Note qtz-porphyry-rich bands.	Fol'n Flow B. 60-65	Tr - very weak seritization. Fracture/veinlets of <1mm ser(?)	No visible sulphides, except locally over narrow sections ie) 134.43-134.48: 3-5% py dissem as patches parallel to foliation f.g. 134.78-134.93: 3-5% py same as above.	Footwall quartz porphyry. Litho BCD #6169 133.03 - 134.90m
135.23 to 137.56	FELDSPAR PORPHYRY DACITE- RHYOLITE	Colour - dark green - black. Grain Size - groundmass - very fine, phenos - medium. Massive, foliation not evident. Feldspar porphyry, porphyritic, groundmass - very fine grained - aphanitic, mafics + feldspar phenos Sub-anhedral 1-3mm Avg. 1-2mm grains	Upper ctc 70?  Lower ctc 30	Very weak chloritization. Silicified(?) pervasive fractures/veinlets of ser(?) <1mm moderate throughout.	Tr py throughout.	Litho BCD #6170 135.35 - 137.31m
137.56 to 137.72 E.O.H.	QUARTZ PORPHYRY RHYOLITE (SAME AS ABOVE)	Colour - beige - white. Grain Size - aphanitic - groundmass, fine - medium phenos. Flow banded(?) qtz porphyry rhyolite (same as above 132.90 - 135.23).	Fol'n Flow B. 45	Tr - very weak seritization.  Fractures/veinlets of ser? as above.	No visible sulphides.	Dissem. hematite? in fractures. Poss. altered version of above feldspar porphyry.

# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	As ppm	Sr%	Sb ppm	Zr%	Total
6151	3.05	5.18	53.97	18.88	2.81	4.30	5.01	2.04	9.28	0.28	0.75	.046	37	73	21	.3	10	7	.04	7	.013	97.42
6152	5.18	8.18	66.99	16.75	1.67	1.17	1.48	5.43	4.03	0.07	0.34	.088	2	19	6	.2	5	1	.02	1	.013	98.05
6153	11.00	13.57	63.87	17.42	3.39	0.87	4.28	3.26	4.40	0.21	0.28	.093	3	23	7	.2	5	1	.03	3	.009	98.11
6154	19.60	22.47	63.66	16.93	3.61	1.10	4.60	2.99	4.52	0.22	0.26	.094	3	46	13	.2	5	1	.04	3	.008	98.05
6155	43.08	46.08	71.04	14.84	1.41	1.67	2.33	2.96	3.53	0.07	0.27	.072	2	56	9	.2	10	1	.02	2	.010	98.21
6156	52.49	55.47	65.81	17.71	1.89	1.70	3.88	2.63	4.06	0.08	0.31	.063	1	45	9	.2	5	4	.03	3	.015	98.17
6157	62.83	63.18	64.48	19.33	3.20	1.64	4.28	1.44	3.34	0.05	0.34	.072	1	57	13	.2	5	1	.04	2	.018	98.23
6158	64.36	67.18	69.04	16.24	1.38	1.21	4.86	1.35	3.56	0.03	0.30	.068	1	42	9	.2	5	1	.03	2	.012	98.08
6159	73.39	77.16	66.20	17.26	4.11	2.16	2.91	0.84	4.02	0.05	0.39	.040	1	75	13	.2	10	1	.03	3	.013	98.04
6160	85.58	89.01	66.35	16.91	2.59	1.80	4.00	2.13	3.76	0.08	0.44	.073	10	78	13	.2	5	4	.03	3	.011	98.18

Hole No. MTS-28

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# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	ppm As	Sr%	ppm Sb	Zr%	Total
6161	89.01	91.87	69.31	15.96	1.56	2.67	0.75	3.31	4.26	.05	0.26	.102	5	77	11	.2	5	11	.02	3	.011	98.27
6162	92.01	95.01	49.79	19.20	6.19	5.27	1.58	2.76	11.16	.22	1.31	.038	114	76	21	.3	5	28	.03	7	.005	97.55
6163	95.01	96.01	64.05	16.63	4.39	1.95	3.61	2.10	4.61	.20	0.39	.169	13	42	13	.2	10	1	.04	3	.005	98.15
6164	103.17	104.43	48.15	19.86	7.29	3.57	0.65	4.66	11.65	.18	1.39	.064	118	78	13	.2	5	1	.02	8	.005	97.51
6165	106.94	109.95	54.52	15.97	7.33	4.37	3.06	1.10	10.25	.21	0.79	.087	118	101	33	.3	5	38	.03	9	.005	97.72
6171	112.93	113.57	62.66	10.61	11.63	1.55	1.05	1.61	7.92	.33	0.49	.110	57	70	25	.2	10	62	.03	8	.005	97.98
6166	116.00	119.00	69.66	15.29	2.26	2.35	0.51	3.37	4.18	.08	0.37	.085	276	71	9	.2	5	4	.02	3	.012	98.18
6167	121.56	123.15	71.25	15.32	2.01	0.22	6.52	0.73	1.69	.06	0.34	.032	23	24	7	.2	15	1	.02	2	.011	98.20
6168	128.60	131.60	62.17	19.58	4.63	1.43	4.93	1.07	3.51	.13	0.53	.035	5	28	13	.2	10	2	.04	3	.009	98.07
6169	133.03	134.90	60.60	19.84	4.63	1.66	4.51	1.13	5.00	.13	0.55	.040	13	27	9	.2	5	1	.04	4	.010	98.09

Hole No. MTS-28

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## LITHOGEOCHEMISTRY

## MAJOR OXIDES

### TRACE ELEMENTS

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Hole No. MTS-28

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# CORPORATION FALCONBRIDGE COPPER

## DRILL HOLE RECORD

X METRIC UNITS  
IMPERIAL UNITS

HOLE NUMBER MTS-29	GRID CFC	FIELD COORDS	LAT. 2+55S	DEP. 1+00W	ELEV. 476.5m.	COLLAR BRNG. N/A	COLLAR DIP -90°	HOLE SIZE NQ	FINAL DEPTH 695.25m.
PROJECT PN 304	CLAIM #	SURVEY COORDS.				DATE STARTED: Jan 24/87 DATE COMPLETED: Feb 15/87	CONTRACTOR: F. Boisvenu CORE STORAGE: Duncan CASING: 5.79m 1		
PURPOSE Test Myra-Nitinat contact (H-W horizon) for evidence of volcanogenic massive sulphides.							ROD LOG COLLAR SURVEY		PULSE EM SURVEY MULTISHOT SURVEY

ACID TESTS				TROPARI TESTS			MULTISHOT DATA		
DEPTH ( m )	CORRECTED ANGLE	DEPTH ( m )	CORRECTED ANGLE	DEPTH ( m )	AZIMUTH	DIP	DEPTH ( )	AZIMUTH	DIP
30.48	89.5°	*365.76	90°	693.73	280.5°	88°			
60.96	90°	396.22	86-87°						
91.44	90°	424.70	87°						
121.92	89°	455.18	85°						
152.40	89°	485.66	84-85°						
182.88	90°	516.14	85°						
213.36	90°	548.64	85-86°						
243.84	88.5°	579.12	84-85°						
274.32	788-90°	609.60	84°						
304.80	88.5-89.5°	670.56	84°						
335.28	88°								
365.76	88-89°								

MTS-29

\* 2nd Drill Hole

LOGGED BY M. J. Gray

HOLE NO \_\_\_\_\_  
ZIPPY PRINT - BRIDGEPORT, RICHMOND

<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 5.18	CASING					
5.18 to 11.48	DACITE- RHYOLITE FLOW (POSS. ASH?)	Colour - light greenish grey. Grain Size - aphanitic-groundmass, fine +/- medium crystals. Weakly foliated, massive, flow banded. Dacite-rhyolite flow 5-15%, <1mm qtz eyes; <5%, <1mm Fp phenos.	5 (0-20) Fol'n	Tr - very weak seritization, tr. chl.	1-3% py as f.g. dissem. Locally a blebs.	
11.48 to 12.19	FLOW BOTTOM BRECCIA? OR TOP?	Colour - medium grey - white +/- green. Grain Size - fine. Massive, brecciated qtz-rich flow bottom(?) has bands of irregular microfaulted fragments strongly bleached/epidotized?		Bleached frags/bands poss. epidotized. Pervasive silicif.(?) with chl. throughout along frags.	2-5% py as dissem., patches & blebs.	Qtz-chl-ep/ bleach frag. rock.
12.19 to 16.87	ANDESITE FP PORPHYRY FLOW(?) (POSS. DYKE)	Colour - medium green. Grain Size - fine-ash, fine-medium crystals. Very weakly foliated; massive internally, flow structure at margins. Porphyritic; Fp phenocrysts 1-<2mm up to 10%, also mafic phenos 1-<2mm up to 10%. Top of flow-brecciated, poss. related to above flow bottom(?)	Fol'n 0-20  Top ctc 15 Bot. ctc 10-15	Pervasive very weak chloritized. Very weak selective epidotization of Fp crystals, also moderate epidotization in bands, also poss. Ep of rinds of frags? at top of interval.	1-5% py avg. 2-3% f.g. dissem. and str. in qtz veinlets. Note 3-5% py in first 75m of interval in breccia(?)	Top of interval is breccia (flow top or flow bottom) see above. Litho BCD #6101 13.59 - 16.87m

<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>
16.87 to 44.97	DACITE- RHYOLITE QTZ-EYE-FP CRYSTAL ASH TUFF + MINOR DACITE +/- DACITE- ANDESITE CRYSTAL ASH TUFF	Colour - light greenish grey. Grain Size - aphanitic - matrix crystal - fine-coarse. Weakly - very weakly foliated. Locally bedded/laminated Dacite-rhyolite flow (same as 5.18 - 11.48m). Up to 25% qtz eyes avg. 10%, <1-6mm, Avg. <1-2mm. Fp phenocrysts locally up to 5%, avg. 2-3% where present <1-3mm, Avg. 1mm. Crystal ash beds marked by variations in qtz eye %, presence/absence of Fp phenos, local very fine ash-laminated, also by qtz eyes size & shape. Beds vary from 0.5cm thick v.f.g. ash +/- chert ash (1%) to 3m qtz-rich crystal-ash tuff beds. Avg. >1m to 2m thick crystal tuff beds. Layering 0-10 towards end of interval(?)	Fol'n/ Layering 40-45 (0-55)	Very weak - weak pervasive seritization +/- chl.	1-8% py, average 3-5% mainly dissem., also stringers with quartz veins. Py is f.g. brassy sub- euhedral.	Litho BCD #6102 30.60 - 33.60; qtz eye - rich (15%) crystal- ash bed. No clay/ser alteration of Fp phenocrysts. Litho BCD #6102 30.60 - 33.60m
44.97 to 45.11	ANDESITE- DACITE DYKE	Colour - pale green. Grain Size - fine - aphanitic. Massive bleached andesite-dacite dyke.	Top ctc 65 Bot. ctc 25	Strongly bleached with white-grey qtz veins irregular throughout.	2-3% f.g. py dissem. + mainly on frac.	
45.11 to 51.09	DACITE- RHYOLITE QTZ EYE-FP CRYSTAL TUFF (SAME AS ABOVE) + MINOR DACITE- ANDESITE CRYSTAL TUFF	Colour - light greenish grey to medium greenish grey. Grain Size - aphanitic - very fine matrix, crystals - fine-coarse. Same as above (16.87 - 44.97), mainly dacite-rhyolite crystal ash with 2-3% 4-6mm qtz eyes, 5-10% <1-3mm qtz eyes, 2% <1mm Fp. Poss. more dacitic (chl) at 48.11 - 52.84m.	Fol'n 20-10? (0-35)	Very weak pervasive seritization +/- chl. Locally weak - very weak chl +/- ser at 48.11 - 52.80.	2-3% f.g. dissem. py throughout. Local sections have 5-10% py dissem. as blebs and medium-coarse grains ie) 46.56 - 46.86, 48.11 - 48.64, 50.77 - 51.09.	* Note 4-6mm qtz eyes are spherical.





<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>
88.40 to 100.93	CHERTY TUFF/ SILICEOUS EXHALITE + RHYO- DACITE - DACITE CRYSTAL TUFF (AND MINOR ANDESITIC BANDS AND FE FORMATION BAND)	<p>Colour - light grey - light grey/green - white. Grain Size - aphanitic - fine. Very weakly foliated, overall massive section of cherty ash tuff with &lt;5% andesite bands.</p> <p>88.40 - 89.54: white-light grey rhyolite Fp crystal tuff(?) and minor cherty tuff, looks disrupted approx. 35% Fp &lt;1-2mm phenos.</p> <p>89.54 - 91.32: white - very light grey aphanitic-v.f.g. cherty tuff with minor bands 5% Fp phenos, 2-3% &lt;2mm Qtz eyes also 2cm andesitic(?) band at 91.00m.</p> <p>91.32 - 91.54: Light-medium green andesitic band(?); poss. dacitic with chl/sauss. of Fp - crystal tuff.</p> <p>91.54 - 94.88: white - light grey, tr green. Cherty rhyodacite ash tuff. Up to 10% &lt;1mm Qtz eyes locally. Locally brecciated.</p> <p>94.88 - 95.95: Very light grey rhyodacite crystal tuff - minor cherty tuff, 10-15% &lt;2mm Qtz eyes.</p> <p>95.95 - 96.92: Very light grey-green cherty fine ash tuff with vague chloritic seams/bands, poss. insitu breccia up to 10% &lt;&lt;1mm Qtz eyes.</p>	<p>Fol'n 45-60</p> <p>Layering? 40-45 (40-70)</p> <p>35</p> <p>45-60(?)</p> <p>45(?)</p> <p>45-50</p>	<p>Tr - weak Ep in andesitic bands. Tr ser/chl in cherty tuff &amp; crystal tuffs.</p> <p>Tr ser/chl.</p> <p>Same as above, also weak epidote in andesitic band.</p> <p>Weak chloritization, weak epidote locally.</p> <p>Tr - very weak ser.</p> <p>Tr ser.</p> <p>Tr ser.</p>	<p>No visible sulphides - tr py throughout except in andesitic bands 3-8% f.g. pyrite.</p> <p>No visible sulphides.</p> <p>No visible sulphides except andesitic band 3-5% dissem. f.g. py.</p> <p>5% f.g. dissem. py.</p> <p>No visible sulphides except and/chl band @ 91.84 3-5% py as blebs.</p> <p>No visible sulphides.</p> <p>No visible sulphides.</p>	<p>*Note Fe-formation exhalative horizon (next page for description). Note 1% dissem. submetallic grey-black mineral v.f.g. (Hem?). 1-2% dissem. un-ident. min. black-grey.</p> <p>Litho BCD #6105 90.00 - 93.00m (1pc sawn). 1-2% un-ident. min. (same as above.)</p> <p>1% dissem. grey-black mineral (mag. or hem?) Litho BCD #6113 96.02 - 96.92m.</p>

<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>
		96.92 - 97.27: Fe-formation band(?), crudely layered magnetite-quartz-chlorite assemblage/rock. 50% mag v.f.g., 30% qtz v.f.g. - aphanitic, 20% v.f.g. chlorite quartz is light grey, magnetite and chl together as irregular shaped patches/bands.	Top ctc 55 Bottom ctc 65 Layers? 45	Weak-moderate chl throughout. Irregular calcite veinlets, indistinct frac. fillings, strong <1-2mm thick. Weak selective Ep at top ctc, local patches within band and at bottom.	1-2% dissem. f.g. py.	Litho BCD #6106 (sawed) 96.92 - 97.27m
		97.27 - 99.66: Very light grey-green, massive, v.f. ash rhyodacite - cherty tuff. Poss. a v.f. crystal tuff.	Layers 45-65	Tr ser/chl.	No visible sulphides.	
		99.66 - 100.93: Light-medium green-grey dacite - rhyolite fine crystal tuff, 10-15% <<1mm qtz eyes.	65 (55-65)	Tr ser/chl.	No visible sulphides.	
100.93 to 108.75	DIORITE FP PORPHYRY AND V.F.G. DIORITE	Colour - dark green - medium green. Grain Size - v.f.g. & fine groundmass, medium-coarse pheno. Massive v.f.g. diorite and Fp porphyry diorite (dykes?) 100.93 - 103.23: Fe porphyry diorite medium green, note chilled contact with flow structure in 10cm margin. Fp phenos 8% 1-3mm sub-hedral mafic phenos? 10% <1-1mm (chl) 103.23 - 106.28: V.f.g. diorite pseudo-breccia due to calcite veins. 5-7% <.5mm leucoxene grains. Dark green-black. 106.28 - 107.42: Fp porphyry diorite dyke(?) Very sharp contact 10% 1-3mm Fp subhedral phenos very similar to above. Groundmass - f.g., medium-dark green. 107.42 - 108.75: V.f.g. diorite pseudo breccia similar to 103.23 - 106.28.	Top ctc 80	Very weak - moderate chl, locally bleached, trace Ep as veins.  Bleached weakly throughout, weak chl?, weak 2-8mm calcite veins. Tr qtz +/- Ep 8mm veins.  Strong calcite irregular 1-2mm veins cause insitu-pseudo breccia texture, weak chl pervasive. Very weak chl pervasive.	Tr py f.g. dissem. throughout.  Tr py.  Tr dissem. f.g. py.  Tr py.	Litho BCD #6107 100.93 - 103.15m     2-5% dissem. hem?
			Top ctc 45 Bot. ctc ?grada.	Weak chl.	Tr 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>
137.65 to 139.74	QUARTZ VEIN	Colour - milky white - grey. Grain Size - fine. Massive f.g. milky white to grey qtz vein. Frags and bands of diorite locally throughout.	Top ctc 45 Bot. ctc 35-40	Qtz vein with tr - weak chl +/- ser, calc on fractures as narrow stringers.	No visible sulphides.	
139.74 to 151.34	DIORITE (SAME AS ABOVE)	Colour - medium-dark green. Grain Size - v.f.g. 139.74 - 141.39: V.f.g. diorite, pseudo breccia, some Fp phenocrysts. 141.39 - 142.34: Medium grained weakly Fp porphyry diorite. 142.34 - 146.70: V.f.g. dark green, pseudo breccia.  146.70 - 148.04: Medium-coarse grained diorite to FP porphyry, sub-anhedral Fp.  148.04 - 151.34: Dark green - black, weak - moderately foliated?/ sheared, calcite parallel to foliation boudined-out.	Fol'n 15 (0-20)	Very weak - weak calcite pervasive. Pseudo breccia, calcite veins strong. Calcite veins throughout, very weak chl pervasive. Calcite strong-intense insitu breccia, very weak chl. Weak insitu breccia healed by irregular calcite. Weak selective epidotization of feldspars. Strong - intense calcite veins parallel to foliation shear, weak chl.	Trace - py  Tr py.  Tr. py.  Tr - no visible sulphides.  1% dissem. py.	1-2mm 5% magnetite grains.  1-2mm 3-5% magnetite. 1-4mm 5-8% magnetite.  1-4mm 5-8% magnetite.  1-3% Magnetite, 1-2mm.
151.34 to 152.49	QTZ VEIN (SIMILAR TO PREVIOUS)	Colour - milky white - grey. Grain Size - fine. Massive qtz vein with fragments of diorite included.	Top ctc 30 Bot. ctc 30	Qtz vein, minor calc. on fract., 2-5% chl seams discon.	Tr py, Tr cpy at bottom ctc.	Poss. only sheared near qtz veins.



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		168.77 - 171.40: Medium-coarse grained dark green + pale green diorite, with pseudo trachytoidal or skeletal texture (.5 X 2-3mm acicular mag. grains crudely alligned), 50% Fp, 15% mag., 35% Hb?	Trac approx. 90	Nil	Tr py.	10-15% acic. medium grained grains throughout. BCD #6115 Litho 168.87 - 171.40 +Pt, Pl, P2O5
		171.40 - 172.10: Dark green f.g. diorite, pseudo breccia. <5% Fp phenocrysts(?)		Calc heals insitu breccia. Very weak chl.	Tr py.	Note no leucoxene.
		172.10 - 179.83: Dark green & white medium grained diorite. Foliated or sheared?, varies intensity. Note dissem. calcite.	Fol'n? 0	Dissem. or boudined calcite throughout, tr chl. Note calcite vein - breccia 5-30cm thick healed by qtz	Tr py.	Tr magnetite. Note streaky texture in CS of core.
		179.83 - 182.27: F.g. weakly foliated, dark green diorite.	Fol'n? 0-15	Calcite veins parallel to foliation, similar to above. Minor 1-5cm qtz-calcite veins.	Tr py.	2% leucoxene, Tr mag?
		182.27 - 185.87: V.f. - f.g., dark green to black diorite, pseudo breccia.	Fol'n 30	Calcite veins heal insitu breccia, generally parallel to core axis.	Tr py.	Contorted looking section up to 5% dissem. medium grained throughout 1-2mm grains.
		185.87 - 187.75: Dark green + whitish look, fine-medium grained, weakly foliated, equigranular.	Fol'n 25	Very weak chl., calcite parallel to foliation, dissem?	Tr py - no visible sulphides.	Tr Mag?
		187.75 - 188.15: Same as above though dark green, no white Fp crystals stand out, not as foliated.		Same as above + very weak epidote, selective.	Tr py.	Hammered with dissem. calcite alt'n.
		188.15 - 194.63: Dark green - black, fine grained diorite pseudo breccia weakly foliated.	Fol'n 15 (0-30)	Calcite heals insitu breccia, weak chl.	No visible sulphides - tr py.	Litho BCD #6110 185.87 - 188.15m As above.
		194.63 - 196.26: Dark - medium green, fine-medium grained diorite with streaky texture on end of core. Locally brecciated.	Fol'n? 35?	Calcite in foliation, boudined?	Tr - 1% py dissem.	1-5% dissem. Mag <1mm grains. Tr Mag.
		196.26 - 200.15: Dark green - black, fine grained diorite - pseudo breccia, weak-moderately foliated.		Calcite heals insitu breccia strong. Very weak - weak chl.	Tr py.	1-5% Magnetite <1mm grains.
		200.15 - 200.31: Medium-light green, very fine grained dyke - diorite? Note narrow chilled margin.	Top ctc 40-45 Bot. ctc 30	Weakly bleached, weak chl.	No visible sulphides.	Nil Magnetite.

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		200.31 - 205.65: Medium-dark green & white. Medium, locally coarse grained equigranular diorite. 50% Fp, 10% Mag, 40% Mafics. Fp Lath shaped mainly, also tabular pandiomorphic.		Tr chl/ep. Tr calcite veins.	Tr py.	8-15% dissem. Magnetite 1-3mm grains avg. 8%. Poss. felsic dyke?/qtz vein 15cm @ 203.45. Assay BCD #6301 (Pt + P1) 202.00 - 204.00m Note Leucoxene grains 5%, 1-3% dissem. magnetite
		205.65 - 208.86: Medium-coarse grained medium-dark green diorite. Similar to above, though weakly porphyritic and locally pseudo breccia. Hypidiomorphic.	Calcite 0-10	Very weak chl, tr ep. Locally strong calcite veins as gashes(?) heal breccia.	Tr py.	
		208.86 - 212.15: Medium-dark green, medium grained wealy Fp porphyritic, hypidiomorphic.		Very weak chl/ep. Tr - weak calcite.	Tr py.	Up to 5% dissem. 1-2mm Magnetite grains.
		212.15 - 216.71: Medium-dark green, fine-medium grained pseudo breccia, sheared?	Fol'n 30	Very weak chl/ep, weak Ep veins, calcite veinlets irregular, strong, heal insitu breccia.	Tr py.	1-2% <1mm Magnetite grains.
		216.71 - 218.70: Medium-dark green weakly Fp porphyritic, fine-medium groundmass.		Moderate calcite discont. gashes, very weak chl, tr Ep veins and patches.	Tr py.	1-2% 1mm Magnetite grains.



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		218.70 - 223.97: Medium grained +/- coarse grained medium green and white diorite. 50% Fp, 5% Mag, 45% mafics.		Weak calcite veins throughout. Tr chl +/- Ep.	Tr py.	Approx. 5% 1-2mm magnetite grains.
		223.97 - 229.18: Medium green to grey sheared(?) diorite, has slight streaky look, locally pseudo breccia.	45	Weak - strong calcite veins parallel to foliation, one calcite/qtz vein-breccia. Tr chl.	Tr py.	1-2% magnetite(?) 5% leucoxene.
		229.18 - 229.67: Dark green, very fine grained, diorite pseudo breccia.		Strong calcite veins heal insitu breccia. Very weak chl.	Tr py.	Tr - 1% magnetite.
		229.67 - 231.40: Medium green Fp (8%) porphyry, fine grained - groundmass. Fp 1-3mm.		Moderate calcite veins throughout, very weak - weak chl.	Tr py - no visible sulphides.	2-5% dissem. magnetite 1mm grains.
		231.40 - 244.73: Dark green + white, medium-coarse grained equigranular weak porphyritic diorite with local Fp porphyritic diorite.		Very weak calcite +/- Ep +/- chl veinlets <1-3mm. Very weak chl pervasive.	Tr py.	2-5% dissem. 1-2mm magnetite grains.
		244.73 - 245.48: Medium-dark green, fine-medium grained, locally Fp porphyry.		Weak calcite veins.	Tr py.	Tr magnetite although 2-3% magnetite looking grains.

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		245.48 - 249.50: Dark green + white, medium grained - coarse grained, equigranular subporphyritic diorite.		Tr - weak calcite veins, tr chl.	Tr py.	2-5% dissem. grains magnetite.
		249.50 - 254.76: Dark green + white, medium grained, equigranular to Fp porphyritic/groundmass - fine, varies. + fine grained diorite sections.		Tr - weak calcite +/- Ep +/- chl; Tr - very weak chl.	Tr py.	3-5% magnetite grains 1-2mm. 5% leucoxene in fine grained diorite.
		254.76 - 256.00: Dark green fine grained diorite - pseudo breccia, streaky foliation?	Fol'n 25	Strong calcite veins irregular heal insitu breccia. Weak - moderate chl. Weak - moderate Qtz-calcite 5mm veins. Weak calcite veins. Very weak chl.	No visible sulphides - tr py.	Tr magnetite? Note Hem/Jasper frag in qtz vein.
		256.00 - 258.55: Medium green, Fp porphyry 5%, very fine grained - groundmass diorite.			Tr py.	1-3% dissem. magnetite.
		258.55 - 262.19: Medium - dark green + white, Fp sub porphyritic, medium-coarse grained diorite.		Very weak chl. Weak selective epidotization of 25% of Fp. Weak calcite veins throughout.	Tr py. - no visible sulphides.	1-5% dissem. magnetite.
		262.19 - 263.76: Intensely sheared fine-medium grained diorite. Fp & leucoxene drawn-out parallel to foliation mafics sheared. Medium-dark green/grey.	Fol'n 20-25 Top ctc 90	Calcite parallel to foliation throughout, weak - moderate chl.	No visible sulphides.	1-2% leucoxene grains. Tr magnetite. Litho BCD #6111 (1 pc sawn) 262.24 - 263.66m
		263.76 - 265.53: Dark-medium green, fine grained diorite pseudo breccia.	Fol'n 40?	Moderate - strong calcite +/- qtz veins heal insitu breccia. Moderate chl +/- Ep. Qtz veins massive irregular up to 5cm.	Tr py.	Tr Magnetite, 2-3% leucoxene throughout.
		265.53 - 265.83: Dark green and beige cast, medium grained diorite equigranular.		Calcite dissem? pervasive + moderate veins, very weak chl.	Tr py.	Tr Magnetite(?)
		265.83 - 280.57: Massive dark green + white medium-coarse grained, weakly porphyritic equigranular. Fp 50%, 5% Mag, 45% mafics.		Tr chl throughout, tr Ep selective on Fp. Weak calcite +/- Fp +/- chl veins throughout.	Tr py.	1-5% dissem. magnetite.
		280.57 - 280.97: Dark green - black, fine-medium grained, sheared? diorite with calcite parallel to foliation.	Fol'n 45-60	Calcite in foliation also qtz-calcite vein irregular 1-3cm. Very weak chl.	Tr py.	Tr - 2% magnetite. 5% leucoxene.

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		280.97 - 281.51: Medium green & white, medium grained, weakly porphyritic diorite.		Tr chl/ep, very weak calcite veins.	Tr py.	1-3% magnetite.
		281.51 - 283.94: Dark green - black, fine grained, equigranular diorite with breccia - vein section 20% diorite frags 80% calcite vein massive irregular.		Calcite vein - breccia 281.89 - 282.49, Weak calcite veins throughout, very weak chl.	Tr py.	Tr magnetite.
		283.94 - 286.47: Dark green - black + white, medium grained, weakly porphyritic diorite with minor fine grained patches.		Local weak - moderate calcite veins. Tr chl.	Tr py.	1-3% medium grained(?) fine grained.
		286.47 - 287.84: Dark green - black, fine grained diorite.		1-2cm weak calcite +/- qtz veins + brecciation at vein margins. Tr chl.	No visible sulphides.	Tr magnetite.
		287.84 - 288.34: Dark green - black + white feldspar porphyritic diorite (10% Fp >2mm).		Tr calcite, tr chl.	Tr py.	1-3% dissem. magnetite.
		288.34 - 288.95: Dark green - black, fine grained diorite.	Top ctc 45?	Tr chl. Weak - moderate calcite veins with brecciation at margins.	No visible sulphides.	5% leucoxene, tr. magnetite.
		288.95 - 296.75: Dark green + white, feldspar porphyritic diorite, 10% Fp, 2:3mm phenos, fine - groundmass.		Tr chl, weak <1mm calcite veinlets.	Tr py locally.	Tr magnetite.
		296.75 - 297.25: Dark green - black, fine grained diorite.	Top ctc 45?	Tr - weak Ep +/- calcite veins.	Tr py.	Tr magnetite.
		297.25 - 302.61: Dark green - medium green, feldspar porphyritic diorite (same as above).	Bot. ctc 80	Tr chl, moderate Ep in vein, weak-moderate calcite veins.	Tr py.	Tr magnetite. 5cm chilled margin, non porphyritic.
				Tr - very weak chl, weakly bleached last 2m.		



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		312.43 - 312.63: Shear - fault in dacite ash (same as above) somewhat milled. Medium-light grey very little movement suspected.	Top 85 Bot. 80	Tr clay, moderate ser. no gouge.	3-5% dissem. py.	
		312.63 - 313.37: Same as above. Fine dacite ash medium green/grey.		Weak ser +/- chl.	3-5% py dissem, avg. 3%.	
		313.37 - 317.04: Medium grey-green fine - very fine dacite ash. Locally slight insitu breccia. Py is drawn out slightly parallel to foliation.	Fol'n 20 (5-35)	Very weak - weak ser +/- chl, locally mod. over 20cm. Grey-white qtz veins irregular parallel to foliation generally 3-15mm thick, weak.	3-15% py dissem. grains and patches/blebs/str. 313.37-314.44: 5-3% py 314.44-315.50: 10-15% stringer style dissem. py blebs. 315.50-316.05 3-5% dissem. py. 316.05-316.53 8% dissem/str. py. 316.53-317.04 5-7% dissem. py.	
		317.04 - 319.98: Medium-light green/grey fine dacite ash. Homogeneous more felsic than previous sections.	Fol'n 10 (5-20)	Very weak ser/chl.	3-5% dissem. py f.g.	Tr green mica, tr qtz eyes(?)
		319.98 - 321.28: Medium-dark green & light green/grey (matrix), fine grained dacite - andesite(?) ash tuff. Insitu breccia poss. silicified? Frag elongate bands 10-20cm X 1-2cm?		Silicified(?) poss. green grey silica in matrix. Tr - very weak ser/chl.	2-5% dissem. py. Fine grains & blebs.	Looks like a flow top breccia.
		321.28 - 322.80: Light grey, slightly green dacite, fine ash tuff, poss. 2-5% <1mm qtz eyes, also <1mm Fp. Weak insitu breccia as top of interval.	Fol'n 10 (5-20) Layering? 45	Very weak - weak ser. Tr chl.	3-5% (avg.) 3% py dissem. f.g.	Litho BCD #6122 319.78 - 322.05m

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322.80 to 329.35	RHYODACITE QTZ EYE CRYSTAL TUFF	Colour - light grey - white. Grain Size - very fine - matrix, fine - coarse crystals. Light grey - white Dacite-rhyolite qtz eye crystal tuff. 5-10% qtz eyes 1mm-5mm avg. 2-3mm. Oval-round shape.	Fol'n 0-30	Very weak ser, chl locally as seams. Patchy Ep + chl with qtz vein, Ep up to 3-4cm long veins. 328.95-329.35: Qtz+Ep+Chl +/- Fp vein, 5-8% py. Also tr magnetite.	5-8% py, 5% avg. dissem. throughout, conc. in chl seams.	Note Fp(?) 1mm in qtz veins.
329.35 to 330.62	RHYODACITE ULTRAFINE TUFF	Colour - very light - light grey Grain Size - very fine Finely/delicately laminated rhyodacite ultrafine ash tuff. Weak - very weakly foliated. Minor fault @ 329.55/Gouge.	30-35 Layering	Tr - weak ser. Tr chl with py. Tr irregular quartz veins 3-5mm +/- chl +/- py.	5% py fine grained - medium grained throughout as dissem. & patches.	No quartz eyes.
330.62 to 333.90	DACITE TO RHYODACITE FINE ASH WITH INTER- LAYERED ULTRAFINE TUFF.	Colour - light grey - light green Grain Size - fine & very fine Weak - moderately foliated dacite- rhyolite ash, with interlayered 5-8mm bands (10%) of very fine grained ash, poss. cherty.	Layering 40 Fol'n 20?	Tr ser, tr chl.	1-5% dissem. py, fine grained, also dissem as str. 330.62-331.67 4-3% py 331.67-333.90 1-2% py	Poss. cherty component in this interval.
333.90 to 365.67	DACITE- ANDESITE FINE ASH AND MINOR CRYSTAL ASH TUFF	Colour - medium - light green +/- grey +/- dark green Grain Size - fine - very fine Weak - moderately foliated dacite- andesite ash crystal tuff. Homogeneous overall, locally good layering. Tr qtz eyes locally. 333.90 - 339.72: Medium +/- dark green to grey, fine dacite-andesite ash tuff. Homogeneous, local layering.	Layering 50-55  50-55	Variable tr - moderate chl +/- ser.  Weak & weak-moderate chl +/- ser. Locally quartz veins 1-2cm + chl selvages.	1-10% py avg. 2-3% dissem., up to 10% in str. over 10cm.  1-3% fine grained dissem. py.	Ashes similar to "Mine Package" dacites of MTS-26 (chl altered).  Litho BCD #6114 336.50 - 339.50m.

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339.72 - 340.20:		Light-medium green-grey (sheared?) ash. Fine grained dacite.	Fol'n 60	Weak ser, weak chl pervasive.	3-5% dissem. fine grained py + 1mm blebs.	
340.20 - 343.51:		Medium green-grey dacite ash - fine crystal ash tuff. 5% mafic grains, 20% Fp crystals, remainder fine ash.	Fol'n	Weak ser/chl pervasive. Locally moderate. Minor 2-4mm thick qtz veins.	2-5% dissem. fine grained py, avg. 3% throughout. Locally 5% dissem. associated with qtz veinlets.	BCD #6116 Litho 343.04 - 346.20m
343.51 - 346.19:		Medium-dark green-grey fine dacite-andesite ash tuff, very homogeneous.	Fol'n 25-45 Layering 45	Weak & weak-moderate chl +/- ser.	2-8% fine-medium grained py, avg. 3-5% dissem. py, locally 5-8% in dissem. (poss. str.). 343.51-343.79 8% py 345.76-345.85 8% py 3-5% dissem. py.	Note py + 5% leucoxene grains consp. drawn-out along the foliation.
346.19 - 346.56:		Dark green + medium green-grey, andesite-dacite ash + interlayered siliceous ash (cherty tuff) note folded cherty tuff 8mm layers.	Layering 45-50	Weak chl, str. chl associated with white quartz vein (irregular 1cm).	1-3% dissem. py.	
346.56 - 347.70:		Light-medium green-grey fine ash - coarse dacite. Homogeneous.	Fol'n 30-60	Weak ser. pervasive.		5% dissem. <1mm leucoxene.
347.70 - 361.50:		Dark-medium green + grey fine grained locally coarser grained dacite-andesite + andesite-dacite fine ash.	Fol'n 15 (10-35)	Variable very weak - moderate chl +/- ser, mainly weak - moderate. Note 356.80-359.25 moderate chl/ser.	1-5% py dissem., locally 3-5% over 1-2m, avg. 2% py.	3-5% leucoxene throughout. Note local black chl bands parallel to foliation.
361.50 - 365.32:		Very similar to above, though more chlortitic/andesitic. Andesite-dacite overall.	Fol'n 10-20	Weak chl +/- ser pervasive.	1-8% py avg. 1-2% py as dissem. except 363.55-364.55 3-5% dissem + 1-2mm str. py (Dissem. along plane).	Litho BCD #6117 356.65 - 359.25m More dacitic toward last 50cm of interval.

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365.32 to 365.67	DIORITE DYKE	Colour - medium green. Grain Size - fine. Massive, equigranular melanocratic.	Top ctc 60 Bot. ctc 80-75	Tr - very weak chl. Crosscut by irregular 2cm qtz-calcite vein with black chl selvage.	3% fine grained dissem. py throughout.	Relatively sharp contact. No chilled margin.
365.67 to 382.51	DACITE- DACITE/ ANDESITE FELSIC ASH TUFF + ULTRAFINE TUFF	Colour - light green/grey to medium green/grey. Grain Size - fine - very fine. Massive, weak - moderately foliated, ultrafine sections layered. 365.67 - 373.98: Light-medium green/grey. Fine dacite +/- andesite.  373.98 - 382.51: Medium-dark- light green fine-ultrafine dacite- andesite ash. Note layering with contorted slumps? Note 373.98 - 378.00 more andesitic, vs. 378.00 - 382.51 which is dacitic & grades to qtz eye crystal tuff.	Fol'n 10-15  Layering 60 (35-80) 50 Fol'n (15-45)	Weak ser/chl, locally moderate.  Very weak - weak ser/chl. Some qtz + chl+ py veins 10cm thick C/A 45.  Variable weak & weak-moderate chl +/- seritization, pervasive.	1-5% dissem. + str. py.  Variable 1-5% py, Avg. 3% dissem. locally, note qtz-py-chl vein with 15-20% py over 10cm @ 369.92-370.01m.  1-8% py, avg. 2-3% fine grained dissem. py. Locally 3-8% as medium grained str. (dissem.) 2-5mm thick, range C/A 60 & 15. 380.39-382.51: 3-8% py dissem. + 2-5mm str.	Note green-bright mica locally dissem. near top of interval.  Note local streaky chl clots/frags. BCD #6118 Litho 369.92 - 370.01m. BCD #6119 Litho 371.98 - 373.98m  Note local load cast type structures. Note light grey bed of very fine pyritic ash (5-10% py) poss. exhalite? Note qtz eyes start at 381.15. Litho BCD #6120 378.00 - 381.15m
382.51 to 389.53	RHYODACITE QTZ EYE CRYSTAL TUFF (POSS. FLOW?)	Colour - varies medium-light green to light grey with green hue. Grain Size - very fine - matrix, crystals (1-6mm). Massive, weak-moderately foliated qtz eye crystal tuff - rhyodacite 5-8% 1:6mm (avg. 3mm) qtz eyes round - oval medium grey. Matrix very fine ash.	Fol'n 45 to 5 (10)	Very weak ser locally weak, pervasive. Tr chl at upper portion of interval.	1-2% fine grained py dissem. throughout. Locally 5-8% py over narrow sections. ie) 385.55 - 385.70 fine grained dissem. str?	Gradational to above fine ashes. Litho BCD #6121 385.00 - 388.00  Note: Hole to be continued approx. 2m away.



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OVERLAP 377.34 to 389.53						
377.34 to 383.29	DACITE - DACITE/ ANDESITE FINE CRYSTAL ASH TUFF + ULTRAFINE TUFF	Colour - medium-light green & light grey. Grain Size - fine - very fine. Massive, weakly foliated, relatively homogeneous. 377.34 - 382.18: medium-light green-grey, fine ash, dacite with 2-10% <1mm qtz eyes.  382.18 - 383.29: interlayered light grey fine & ultrafine dacite ash. Ultrafine ash locally well laminated. Note ultrafine 2cm band with 5-10% dissem. py @ 382.60. Locally brecciated with gouge matrix.	Fol'n 0-15  Fol'n 0-15 py 20-30 + 80  Layering 30-40	Very weak - weak seritization +/- chl pervasive., avg. weak.  1mm chl selvages in py-chl +/- qtz stringers. Trace 2mm qtz + calc veinlets.  Very weak ser., locally weak - moderate in ultra- fine ash.  Chl weak-moderate as veinlets/seams 1-3mm.	3-5% py, avg. close to 5% dissem. + str.  Py 3-5%, 5% avg. as v.f.g. dissem. also as 2-3mm distinct stringers with chl envelopes. V.f.g. dissem. py, minor 1mm discon. str.	2-3% dissem. leucoxene grains.  Poss. ultrafine pyritic ash correlates with original section.
383.29 to 384.42	FAULT- QTZ BRECCIA	Colour - light green-grey-white Grain Size - fine - matrix, <1-3cm frags. Gouge and qtz vein zone. Clay-ser- chl matrix, qtz and ash frags.	Fault 10 (Int) Top ? Bot approx. 10	Infilled by white f.g. qtz vein, brecciated. Moderate-strong ser, weak-moderate chl locally. Locally clay gouge.	5% f.g. dissem. py, local str. in breccia frags.	

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384.42 to 397.06	QTZ-EYE CRYSTAL TUFF RHYO - DACITE (POSS. FLOW?), WITH MINOR FINE DACITE ASH	Colour - varies medium-light green to light grey with green hue. Grain Size - very fine - matrix, crystals 1-8mm. Massive, weak-moderately foliated. Qtz eye crystal tuff - rhyodacite 5-10% (avg. 5%) qtz eyes 1-8mm (avg. 2-3mm), round - oval light-medium grey. Matrix - v.f. ash. Locally note v.f.g. dacite ash at 387.97 - 389.70m and (?) 387.09 - 387.25m.	Fol'n 15-30	Variably very weak - moderate sericitization +/- chl. 384.42 - 386.49 weak- moderate 386.49 - 387.38 very weak 387.38 - 387.63 moderate chl 387.63 - 388.55 very weak - weak sericite 388.55 - 389.23 weak - moderate chl 389.23 - 397.06 very weak - weak sericite.	2-8% py fine-medium grained, avg. 2-3% f.g. dissem. throughout. Locally note str. @ 391.45 - 391.75 8% str. 392.46 - 393.38 3-5% dissem., str. 394.24 - 394.29 5% str. py. Str. generally parallel to foliation.	Note calc alteration associated with stringers of py.
397.06 to 413.59	ANDESITE + ANDESITE- DACITE FINE ASH TUFF +/- ULTRAFINE TUFF. MINOR LAPILLI FRAGS NOTED.	Colour - medium - dark grey-green minor light grey bands. Grain Size - fine - very fine grained. Weak - moderately foliated, fine andesite/andesite-dacite ash tuff, massive, - moderately laminated locally. 397.06 - 400.00: dark grey - green, fine massive andesite +/- dacite tuff. Note light-medium dull green patches of tuff with white crystals drawn out along the foliation.  400.00 - 408.89: similar to above. Andesite + andesite-dacite. Locally has up to 5% lapilli size 2-12mm fragments in fine ash matrix. Locally layered. Dark-medium-light grey with green.	Fol'n 25-50  Fol'n 30 Layering 20(?)  Layering 50-60 Fol'n 30	Pervasive weak chl/ser. Locally weak-moderate & moderate ch. Also locally very weak sericitization.  Variable pervasive weak ser and weak - moderate chl. 397.06 - 398.45: weak - chl/ser. 398.45 - 400.00: moderate chloritization Moderate-strong chl pervasive, +/- ser. 400.00 - 402.25: mod. chl. 02.25 - 403.05: mod.- strong chl/ser. 403.05 - 408.89: weak ser/chl	1-5% dissem. py, locally bands and str. present.  Py f.g. dissem. 1-2% throughout, locally 399.37 - 400.00 3-5% py dissem. along bands.  Py f.g. locally c.g. dissem. str. or bands. Avg. 1-3% py throughout. Locally stringer dissem. at 400.95 - 401.05 20% py, c.g. Also sections 3-5% py. 404.12 - 405.25, 408.34 - 408.89. Also str. @ 405.64 (10% py).	This section similar to 365.61 - 384.42m  BCD Litho 6123 397.50 - 400.00  Note section 407.82 - 408.22 has cloudy white vague lapilli (2-6mm) approx. 10%.

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		408.89 - 411.10: light-medium gren/green, f.g. andesite-dacite/ dacite-andesite with cherty tuff bands. Locally layers .5-10cm thick, gradational contacts.	Layers 60 (15-60) Fol'n 60-30 Fol'n 30-60 Layering 55 (35-55)	Weak-moderate chl/ser to 409.64m. Moderate-strong chl +/- ser to 410.04 Weak-moderate ser/chl to 411.10. Weak chl/ser. Weak light grey 2-5mm irregular vuggy qtz veins.	1-2% f.g. dissem. py throughout.  1-2% py f.g. dissem. throughout.	Note poss. siliceous felsic tuff band 10cm thick @ 410.22m.
413.59 to 454.04	ANDESITE CRYSTAL/ ASH TUFF (TO ANDESITE - DACITE)	Colour - dark grey-green Grain Size - very fine - fine, crystal - fine Massive overall with intermittent laminated sections. Very weakly foliated. Andesite - andesite/ dacite crystal-ash tuff. 10-20% Fp(?) 1mm crystals in v.f.g. chloritic dark matrix. 413.59 - 415.72: Fine andesite crystal ash tuff, dark green-grey, with minor v.f.g. well laminated tuff beds 5-10cm, 1-5mm laminations. Very weakly foliated.	Layering 35-40 (Crude crystal ash 50)	Very weak - moderate chl variable. Weak sel. ep. Weak-moderate patchy ep.  Weak - moderate chl +/- ser pervasive.	1-5% dissem f.g. py avg. 1-3%, local stringers.  1-3% dissem. f.g. py, avg. 3%. Note at 494.02 py dissem. as a patches.	

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		415.72 - 420.15: Very homogeneous. Massive, very weakly foliated fine andesite crystal tuff. Poss. dacite - andesite composition.	Fol'n 0-20	Weak chl/ser pervasive. Also sel. chl of crystals. Locally moderate chl.	1-5% py, avg. 2-3% dissem, f.g., with local 1-4mm dissem. py str. @ 10-20 C/A	
		420.15 - 421.45: Medium-dark green-grey andesite breccia - foliated?, or lapilli tuff? Frags elongate parallel to foliation. Frags up to 20 X 3mm.	Fol'n 0-20	Weak - moderate chl throughout. Very weak 1cm thick irregular white qtz veins.	1-3% py fine-medium grained dissem. py. Local str. 3mm at 420.95m C/A 30.	Frgs include elongate chloritic/mafic, cherty - tuff "eyes" 3X3mm in a moderate chloritized matrix.
		421.45 - 424.11: Medium green-grey felsic ash tuff, homogeneous, massive. Andesite tuff.		Weak - moderate chl pervasive.	1-3% dissem. f.g. py.	
		424.11 - 427.50: Medium-dark grey-green andesite crystal ash tuff, 1mm Fp (10-15%), massive, very weakly foliated.	Fol'n 0-20	Weak +/- mod. chl. Sel. very weak Ep of Fp crystals, also weak patches Ep-qtz alteration up to 4X4cm locally.	1-3% dissem. f.g. py and as blebs.	Note py assoc. with Ep-qtz alteration. Litho BCD #6124 424.11 - 427.11m
		427.50 - 428.68: Dark - medium green with beige (Bleached) sections, fine ash - crystal tuff andesite.		Weak chl +/- dissem. hematite. Weak - moderate <1mm calc str. throughout. 2 qtz/calc 1-10cm vein-breccias have 10cm bl. envelopes. Fault?	1-2% dissem. f.g. py throughout.	

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		428.68 - 428.93: Fault, minor medium - light green gouge. 428.93 - 431.85: Same as above andesite + interval.				
		431.85 - 432.92: Dark green-grey andesite crystal ash tuff 10-20% 1mm Fp subh.		Very weak - weak chl/ser. Weak sel. saus. of Fp, also minor weak Ep-qtz patches.	2-5% dissem f. - c.g. py, avg. 3% throughout.	
		432.92 - 438.80: Fine andesite-dacite medium grey ash, homogeneous, massive, weakly foliated. Note poss. 1-3% qtz eyes <1mm (v. similar to above). 438.80 - 441.15: Similar to above has 10-20% 1mm Fp crystals. Crystal tuff.	Fol'n 0-30	Very weak - weak chl pervasive. Locally weak - moderate.	1-5% py dissem. f.g. 432.92 - 434.06: 2-5% py 434.06 - 438.80: 1-2% py	
		441.15 - 442.81: Dark grey, slight green, fine andesite ash, massive, weakly foliated, homogeneous. 442.81 - 452.50: Dark green-grey andesite crystal tuff. Massive, very weak foliation. 5-30% <1-2mm (avg. 1mm) Fp phenos.		Weak chl +/- ser. Local - weak-moderate chl	1-2% dissem. py throughout.	
				Weak sel. Ep of Fp. W/weak-moderate chl/ser Selective weak epidotized of Fp. Weak chl. pervasive, locally weak - moderate. Also very weak. Sel weak saus. of Fp phenocrysts. Local sections bleached.	<1-2% dissem. py throughout.  1-2% dissem. f - m.g. pyrite.  Locally 2-3% py.	Litho BCD #6125 443.00 - 446.00m
		452.50 - 454.04: Dark green andesite fine ash tuff. Locally sheared.	Fol'n 5-15	Weak - moderate, chloritization (moderate towards end on interval)	2-3% f.g. dissem. py throughout. 10% py dissem. in 1cm thick stringer C/A 30.	

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454.04 to 454.94	ANDESITE DYKE WITH QTZ VEINS	Colour - medium-light green Grain Size - aphanitic - fine - medium. Poss. flow breccia(?), weak - moderate pervasive epidotization has destroyed textures/structures to a degree. Fp porphyry frags(?) vague up to 5cm, subround. Also insitu breccia near end of interval - angular frags.	Top qtz vein 30-35  Bottom qtz vein 40?	Pervasive weak - moderate epidotization, very weak - weak chl throughout. White quartz + chlorite +/- calc, weak - moderate density as 5mm - 15cm veins. Pinch & swell. Dark green calc as selvage and fragments.	2-5% py dissem. as m. - c.g. euhedral crystals. <1% cpy as irregular shaped blebs +/- pyrite.	First appearance of Cu mineralization. BCD Litho 6126 454.15 - 454.63m Note Poss. flow structure "bands" approx. 10 C/A
454.94 to 456.40	ANDSITE TUFF - CRYSTAL TUFF	Colour - dark green Grain Size - very fine - fine grained. Massive dark green, andesite, weakly foliated similar to above, fine ash - crystal tuff.	Fol'n 20	Weak - moderate chl pervasive.	2-5% py as dissem. f.g. and blebs.	
456.40 to 456.59	ANDESITE DYKE	Colour - medium-light green Similar to above dyke.	Bot. ctc 60	Also calcite 2-4mm veins.		
456.59 to 461.75	ANDESITE ASH TUFF	Colour - very dark green-grey Grain Size - aphanitic - fine Massive, homogeneous andesite felsic ash. Note dissem. 2-3% leucoxene in matrix, variable 2-15% <1-1mm Fp crystals. Probably a tuff due to variable Fp phenocryst content throughout <2 - 20%.		Weak - moderate chl pervasive to 459.00m. Very weak - weak chl to 461.75m.	1-3% dissem. py. Locally 5-8% py medium grained. ie) 458.85 - 458.90m.	456.79 Note 1cm thick dyke with flow structure, poss. related to dykes above.

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461.75 to 463.69	ANDESITE DYKE, FELDSPAR PORPHYRY	Colour - medium-light green Grain Size - aphanitic - fine & medium crystals. Massive, feldspar porphyry dyke. Similar to above feldspar porphyry dyke. Poss. 3-4mm amygdules approx. 2%. Locally brecciated, insitu - by gashes.	Top ctc 10-20? Bot. ctc ?	Pervasive bleached (Ep?) Fragments/gashes of qtz +/- chl veins, angular patches.	Tr - <1% py	
463.69 to 465.45	ANDESITE ASH TUFF +/- CRYSTAL TUFF	Colour - dark green-grey Grain Size - aphanitic - fine Massive, similar to above fine andesite ash tuff.		Very weak - weak chl. Weak - moderate 1-2mm thick calcite veins.	1-3% f.g. dissem. py avg. 2%.	
465.45 to 466.13	ANDESITE DYKE, FELDSPAR PORPHYRY	Colour - medium-light green Massive, feldspar porphyry, similar to above dyke. Note 1-3% poss. amygdules 3-5mm across infilled by Ep - qtz/chl. Poss. flow structure at lower margins.	Top ctc ? Bot ctc ?	Pervasive bleached, cut by massive white irregular white qtz veins with chl selvages.	1% dissem. fine-coarse grained py.	
466.13 to 470.25	ANDESITIC CRYSTAL TUFF	Colour - dark green Grain Size - aphanitic-fine-medium Massive - crudely layered, very weakly foliated, relatively homogeneous looking andesite crystal tuff. 466.13 - 468.58: Crudely layered feldspar crystal tuff - andesitic. 10-25% 1mm feldspar crystals. 468.58 - 470.25: Massive andesite ash - fine crystal tuff. 20-30% Fp <1-1mm crystals.	Layering 20 Fol'n 0-20(?)	Very weak chl.  Very weak chloritization pervasive. Weak pervasive saus. of Fp. Local patches <1cm Ep. 1-3% Patches of weak-moderate Ep +/- qtz, up to 2cm across, avg. 5mm. Also pervasive weak saus. Fp. Weak chl.	1-2% py.  1-2% py.  1-2% fine-coarse grained euhedral py.	Note strange frags(?) at 466.93m, hard dark green poss. part of a dyke(?).

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470.25 to 471.09	ANDESITE DYKE? (POSS. FINE ANDESITE- DACITE ASH)	Colour - dark grey - grey Grain Size - aphanitic - fine Massive, homogeneous, lack of Ep. suggests this could be a dyke though contacts are unclear/vague.	Fol'n 20?	Weak +/- moderate chl. Tr qtz 2mm veinlets.	1-3% medium-coarse grained dissem. py.	No epidote.
471.09 to 475.42	ANDESITE CRYSTAL TUFF (OR POSS FLOW)	Colour - dark green Grain Size - aphanitic-fine-medium Similar to above andesite crystal tuffs. The Ep patches are conspicuous 3-4mm across (poss. amygdules of a flow as they show spherical - oval shapes and crude zoning). Lean with alteration (Ep) due to clusters and irregular shaped patches. Feldspar crystals up to 40% <1-2mm.		Very weak - weak chl. 2-5% Ep patches 2mm-40mm across, avg. 3-4mm. Typically dissem., large patches ad clusters or pseudo bands. Also sel. weak saus. of feldspar up to 30% saus.	Tr py.	
475.42 to 476.46	ANDESITE DYKE(?) (SIMILAR TO PREVIOUS DYKE)	Colour - very dark green-grey Grain Size - aphanitic - fine Massive, homogeneous andesite dyke, poss. fine tuff but no Ep. Contacts vague.	?	Very weak chloritization.	Trace py.	
476.46 to 483.11	ANDESITE CRYSTAL TUFF	Similar to 471.09 - 475.42, except increase in Ep alteration. 10-15% patches of moderate-strong Ep up to 3cm across, avg. 5-6mm.		Epidotization as patches moderate-strong 2-30mm (10-15% beige - pist. green 20-25% weak selvages, saus. of Fp crystals. Very weak- weak chloritization.	Tr - <1% f.g. dissem. py.	



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483.11 to 483.84	ANDESITE DYKE? (SIMILAR TO PREVIOUS DYKES)	Colour - dark green-grey Grain Size - aphanitic - fine Massive, similar to above dykes (Poss. fine ash tuff). Contacts (vague).		Trace of Ep - 1%. Very weak chloritization.	Trace py.	Note <1mm mafic crystals? or amygdules?
483.84 to 484.57	FELDSPAR PORPHYRY ANDESITE DYKE	Colour - medium - light green (bleached). Grain Size - aphanitic - fine, crystals - medium. Massive Fp porphyry in centre, has chilled fine grained margins. Very sharp contacts! 5-10% Fp phenos in centre variable size <1-3mm subhedral.	Upper 85 Bottom approx. 30	Pervasively bleached.  Tr chlorite.	Py fine-medium grained as discon. str. - irregular patches. 2-5% Locally 5% near lower contact.	Litho BCD #6127 483.89 - 484.52
484.57 to 486.18	ANDESITE CRYSTAL TUFF	Colour - dark green Grain Size - aphanitic-fine-medium Massive, crystal tuff similar to above crystal tuffs - andesite. Fp 5-20% <1-2mm.	Top ctc approx. 30 Bot ctc 70	Weak - moderate chl. 1-2% weak-moderate Ep patches 2-10mm also sel. weak Ep or Fp.	1-5% py dissem. avg. 2-3%. Locally 3-5% py over narrow widths.	
486.18 to 486.30	ANDESITE DYKE	Colour - medium green Grain Size - fine - aphanitic Massive, weakly Fp porphyry at margins. Weakly bleached. Andesite dyke.	Bot. ctc 70	Tr chl. Pervasive weakly bleached (Ep?)	1-2% dissem. py.	Poss. a phase of diorite?
486.30 to 487.06	ANDESITIC CRYSTAL TUFF	Colour - dark green Grain Size - aphanitic-fine, crystals medium. Similar to above crystal tuff - andesitic.				

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487.06 to 487.66	ANDESITE DYKE	Colour - dark - medium green Grain Size - aphanitic - fine Massive, Fp porphyry near margins, similar to above dykes. No amygdules.	Top ctc 70? Bot ctc 45	Trace - weak chl. Weakly bleached (Ep?)	2% dissem. medium-coarse grained dissem. pyrite.	
487.66 to 495.45	ANDESITE CRYSTAL TUFF	Colour - dark green Grain Size - aphanitic-fine matrix, crystals fine-medium. Similar to above andesite crystal tuffs. Relatively massive, with variations 1-20% Fp phenocryst content. Very weak foliation. Fp phenocrysts decrease to 1% at 494.52 - 495.45m, dark green fine ash gradually becomes more dacitic.	Fol'n 30?	Weak/weak-moderate chl. Weak sel. epidotization of Fp phenocrysts throughout. Also local patches Ep + qtz 1-5% VP to 2 X 3cm.	Tr - 2% (avg. 1%) py f.g. overall.  15-10% dissem. py at top ctc with dyke(?) over 5cm.	Litho BCD #6128 487.86 - 490.86
495.45 to 508.00	DACITE - PYRITIC FINE ASH, +/- CRYSTAL TUFF (MINOR DACITE- ANDESITE, LOCAL QTZ EYE CRYSTAL TUFF	Colour - light-medium grey Grain Size - aphanitic - fine Very homogeneous looking, grey dacite ash with local vague qtz eyes (Tr-3%, <1-2mm). 495.45 - 496.30: Medium grey dacite-andesite fine ash tuff, very weakly foliated. 496.30 - 506.85: Light-medium grey pyritic dacite ash - coarse ash +/- qtz eyes/lapilli(?) Locally 5% 2-4mm frags(?), +/- 1-5% <1mm qtz eyes(?) Relatively homogeneous. 506.85 - 508.60: Medium grey-green dacite-andesite ash - coarse ash tuff, similar to above.	Fol'n 10-20  10-20(?)  Fol'n 10-30  Fol'n 0-20	Very weak sericite.  Very weak sericite.  Very weak- weak sericitization.  Very weak-weak ser, tr chl - weak chl.	5-15% f.g. dissem. py throughout, also m.g. blebs.  3-5% dissem. f.g. py, avg. 3%.  5-15% f.g. dissem. euhedral py throughout, avg. 8-10%.  8-15% f.g. dissem. py + minor 2 X 3mm patches py. Avg. 10% py.	      Litho BCD #6129 501.00 - 504.00m

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508.00 to 514.90	ANDESITE- FINE TUFF	Colour - medium - dark green-grey Grain Size - aphanitic - fine Relatively massive, very weak - weakly foliated andesite ash tuff. Homogeneous felsic tuff. No visible layering.	Fol'n 20 (10-40)	Very weak-weak chl/ser perv. Tr - very weak qtz +/- py veins with weak-moderate chl envelopes 1-5mm.	Avg. 5% dissem. f.g. py, also local str. 508.00 - 508.40: 10% dissem. + minor discont. str. py. 508.40 - 511.15: 5-8% py dissem. + str(?) 1-10mm patchy py. 511.15 - 512.40: 3-5% py + str. 512.40 - 514.90: 1-3% py. Local str. with up to 10% py. At 510.60 C/A 20 At 510.20 C/A 45 At 512.90 C/A 5 At 513.70 C/A 10-20 At 513.60 C/A 75 At 513.80 C/A 20	Note: Py str. mainly accomp. by qtz. BCD Litho 6130 511.15 - 514.15m
514.90 to 522.20	ANDESITE FINE TUFF	Colour - medium-dark green +/- grey Grain Size - aphanitic - fine Massive fine andesite tuff, Relatively homogeneous. Similar to previous interval. Locally coarse tuff. Note at 519.95 2cm bed(?) with 15% 2mm qtz eyes? Poss. Fp porphyry fragments. Also at 518.15 similar 20cm layer. Note sheared sections at 519.10 - 519.14, 521.24 - 521.74 with narrow planes (1cm of pyritic gouge. Poss. minor faults, shears have moderate- strong chloritization.	Fol'n 10-20   Layering? 30  Shear 60-70	Very weak - weakly chloritized pervasive. Locally moderate chl over narrow (<25cm) intervals.  Tr local sel with ep. Tr local calcite veinlets.  Very weak qtz 2-10mm +/- py +/- chl veins.	Variable 1-10% py, mainly dissem. f.g., also local str. and pyritized shears. 514.90 - 517.15: 1-3% dissem. py 517.15 - 519.98: 3-5% dissem. py with str. @ 517.25; 3cm, 8%, C/A 45 518.33; 2cm, 15% py, C/A 20 with qtz vein 518.95; 7cm, 25% py, C/A 55 520.39; 2mm, 50% py, C/A 70 520.49; 3cm, 20% py, C/A 45 at 522.02; 5mm, 50% py, C/A 35	Poss. andesite- dacite composition. Note stringers, py is dissem. grains and blebs.  Litho BCD #6131 521.09 - 522.12m

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522.20 to 524.39	ANDESITE CRYSTAL TUFF	Colour - medium green Grain Size - aphanitic-fine matrix, fine-medium crystals. Weakly foliated, crudely layered andesite crystal tuff, Fp <1-2mm, 5-15% phenos, sel. epidotized. Layering defined by bands of Fp-rich crystal tuff.	Layering? 55	Very weak chl. Sel. weak Ep. of Fp phenos. Local patchy Ep at 522.52m	Tr - 2% dissem. f.g. py.	
524.39 to 525.65	ANDESITE- DACITE FINE TUFF + MINOR LAPILLI TUFF	Colour - medium grey +/- green Grain Size - aphanitic - fine Weakly foliated, fine andesite- dacite ash with 5% felsic lapilli frags (Poss. cherty tuff) 2X2 - 3X8mm drawn out parallel to foliation.	Upper ctc 60 Layering 45-60	Very weak - tr chl/ser	3-10% dissem. f.g. py, avg. 5% py throughout. Note 8-10% at ctc, upper (15cm) Py str. @ 525.57 C/A 45.	Note: 525.09 - 525.19m. Sheared/breccia bottom ctc 60-80.

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525.65 to 562.05	ANDESITE CRYSTAL TUFF + ANDESITE FINE TUFF, (MINOR ANDESITE-DACITE TUFF) NOTE FAULTS BETWEEN 548.98 & 556.30	Colour - medium-dark green to green-grey Grain Size - aphanitic-fine matrix, fine-medium crystals. Generally very weakly foliated, massive, andesite crystal tuff + andesite ash tuff. Locally crudely layered.  525.65 - 527.43: Medium-dark green, very weak - weakly foliated, crudely layered(?) andesite crystal tuff. Similar to above. 527.43 - 533.05: Medium-dark green, very weakly foliated, fine-coarse grained, relatively homogeneous andesite ash tuff. - Poss. an andesite-dacite/dacite-andesite composition as interval is more dacitic at end, chl overprints felsic minerals.	Fol'n 0-20? Layer 20?   Fol'n 10-30	Tr - weak chloritization, locally weak-moderate. Variable epidotization nil-weak pathes, + sel Ep of Fp.   Very weak chl. Very weak - weak sel Epidotization of Fp phenocrysts. Very weak - weak chloritization pervasive. Locally Qtz +/- chl +/- py veins/stringers.	1-3% dissem. py.   1-2% dissem. f.g. py.   2-3% f.g. dissem. py throughout, locally 10-25% py, (<1% cpy in str. +/- Qtz ie) 529.84: 2cm, 30% py, C/A 30 531.14: 1-2cm, 20% py, C/A 15 531.24: 1cm, 10% py, 3% cpy, 15 C/A 531.49: 2cm, 10% py, 25 C/A 532.04: 2cm, 15% py (+ Qtz), 20 C/A	Assay: BCD #6302 531.11 - 531.36 Litho BCD #6132 528.50 - 531.50
		533.05 - 542.24: Medium-dark grey-green, very weakly foliated andesite crystal tuff, similar to above. Variable Fp content 5-20% (<1-2mm, avg. 1mm, subhedral-euhedral). Ep patches 2mm-3cm nucleate around Fp grains. No layering.	Fol'n 20-30	Very weak - weak pervasive chloritization, weak sel ep + local patchy ep to 540.41m. Moderate sel. ep + very weak - weak patchy ep (up to 2 X 3cm sub-angular patches) to 542.24 (5-10%). Ep patches beige - pist. green.	1-2% f.g. dissem. py throughout locally str. of py at: 538.71: 2mm, 20% py, C/A 5 538.09: 1mm, 20% py, C/A 40 541.53: 1mm, 10% py, C/A 35	Note mismatch at 540.41m.

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		542.24 - 543.72: Weakly foliated, dark green, fine andesite ash - local crystal tuff. Relatively massive, poss. layering in crystal tuff(?). No distinct layering.	Fol'n 60-75 Layering 75??	Weak / weak-moderate chloritization. Fp phenos sel. weakly saus.	1-3% dissem f.g. py, note 1mm py str. at 542.55 C/A 75.	Subtle division based on decrease - nil Fp phenos.
		543.72 - 547.02: Dark green, relatively massive - crudely layered, weakly foliated. Andesite crystal tuff, 5-15% (avg. 5%) Fp phenos similar to previous crystal tuffs.	45? Layering 60 Fol'n 50-60	Tr patchy weak epidote. Weak chl, locally mod. Weak sel saus. of Fp phenos. 1-3% patchy Ep throughout.	Tr - 1% py.	
		547.02 - 548.98: Dark green - grey fine andesite ash tuff, +/- coarse ash, similar to above fine andesite ashes.	Fol'n 60	Moderate chloritization.	1-3% dissem. f.g. py.	
		548.98 - 556.30: Dark green, very weakly foliated, locally crudely layered, andesite crystal tuff. Similar to previous crystal tuffs.	Layering 40	Weak - moderate chloritization - pervasive. Local weak-moderate 2mm calc. veins. Weak-moderate sel. saus of Fp phenos, also variable very weak - weak patchy epidote.	1-2% py f.g. dissem. throughout.	Poss. fault/gouge at 548.98, 549.41 C/A 45, 553.56, 556.30 C/A 50.
		Ep patches (balls) up to 4 X 1cm subr.		548.98-551.30: 2% very weak Ep. 551.30-552.52: 2-5% weak Ep. 552.52-554.60: 15-10% weak Ep. 554.60-556.30: 5-10% weak + very weak Ep.		Litho BCD #6133 552.61 - 555.61m.
		Layering defined by Fp-rich beds.				

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		556.30 - 557.54: Dark green fine andesite ash tuff, similar to above.	Fol'n 45	Moderate/moderate-strong chloritization pervasive.	2-3% dissem py throughout, local str. at 556.60, 2mm, m.g. py, C/A 50.	
		557.54 - 558.20: Dark green weakly foliated andesite crystal tuff 2-10% Fp phenos. Similar to previous andesite crystal tuff.		Very weak chloritization pervasive.	1-2% dissem. py.	
		558.20 - 562.05: Dark green fine grained andesite tuff, similar to above fine andesite tuff. No visible layering.	Fol'n 45-0	Weak locally, weak - moderate chloritization. Tr - weak Ep locally.	1-3% dissem. f.g. py avg. 1%	
562.05 to 568.20	RHYODACITE QP FLOW WITH FLOW-TOP BRECCIA	Colour - light-medium green-grey Grain Size - aphanitic matrix/groundmass, fine crystals Massive, weakly foliated qtz-eye flow? or very homogeneous fine ash with qtz eyes. Qtz eyes 5-10% throughout, <1mm. Groundmass/matrix aphanitic. Top 40cm of interval has vague fragments/silicified zone is matrix of flow-top breccia.	Fol'n 0-10  Lower ctc 20?	Tr - very weak ser. Local 2-5mm Qtz veins +/- py +/- chl - very weak density. Note 1 vuggy qtz vein. Poss. silicified near top of section, with flow top breccia.	1-3% f.g. dissem py, avg., locally up to 5-8% with stringers +/- cpy ie) 562.62: 2-3mm, 5% py, 5 C/A 563.52: 3mm, 15% py, 2% cpy, 10-15 C/A discon. 564.82: 2mm, 15%, 10 C/A discon. 565.75: 2mm, 20%, 10 C/A + chl.	Gradational lower contact. Litho BCD #6134 564.00 - 567.00m  Assay BCD #6303 563.24 - 563.44m
568.20 to 571.71	ANDESITE- DACITE FINE TUFF	Colour - medium grey-green Grain Size - aphanitic - fine Weakly foliated, relatively massive ashes range andesite-dacite composition. Fine grained, no visible layering 568.20 - 569.06: Andesite-dacite 569.06 - 569.56: Andesite 569.56 - 571.11: Dacite-andesite 571.11 - 571.71: Dacite (qtz eye) 5% <1mm Lower contact with andesite crystal tuff sheared.	Fol'n 20  Layering 20  Bot Ctc 20	Weak-moderate chl/ser 5% patchy moderate epidote in andesite.	Trace - 2% dissem. py, f.g. - m.g.  1% py 2% py 1% py 1-2% py	

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571.71 to 597.54	ANDESITE CRYSTAL TUFF + ANDESITE FINE ASH TUFF + ANDESITE- DACITE FINE ASH	<p>Colour - dark green + pist. green Grain Size - aphanitic - fine matrix, fine-medium crystals. Relatively massive, very weakly foliated andesite crystal tuff, + fine andesite ash. Variable patchy Ep alteration. Similar to previous andesite crystal tuff. 571.71 - 582.29: Massive, very very weakly foliated andesite crystal tuff, dark green + Pist green. 5-20% 1mm Fp phenos, sel. saus.</p> <p>582.29 - 586.53: Medium-dark green-grey, massive andesite fine ash +/- fine crystal tuff (Fp phenos up to 15%). 586.53 - 597.54: Dark-medium green-grey massive fine tuff. Andesite composition. Weak- locally moderately foliated. +/- dacite-andesite. Relatively homogeneous ash.</p>	<p>Fol'n (0-35) 10</p> <p>Fol'n 10 (0-20)</p>	<p>Tr - weak chl. Variable very weak - weak epidote sel. &amp; patchy alteration. Very weak-weak chloritization throughout. Sel. moderately epidotization of Fp phenocrysts also very weak - moderate patchy "ball" epidotized ie) 571.71 - 573.90: weak-very weak (5-10%) Ep. 573.90 - 575.32: Weak-moderate (20%) Ep. 575.32 - 578.41: Very weak (1-5%) Ep. 578.41 - 582.29: Weak (10%) Ep. Trace qtz/calc veins.</p> <p>Weak locally weak-moderate chl. 1-2mm calcite veins, trace. Weak/weak-moderate chloritization +/- ser. Tr Ep locally.</p>	<p>Trace - 3% dissem. py, avg. Tr - 1% py.</p> <p>Trace - 1% dissem. py. Locally up to 3% f.g. py with qtz/calc veins.</p> <p>Tr - 3% py f.g., avg. tr - 1%, minor &lt;1mm stringers.</p> <p>1-3% dissem. py, also trace cpy locally. ie) 589.38 cpy blebs 1% in qtz-ep vein. 586.53 - 593.45: 1-2% py. 593.56 - 597.54: 3% py.</p>	<p>Similar to above andesite crystal tuffs.</p> <p>Ep patchy/balls irregular round shapes.</p> <p>Locally 1-5% leucoxene grains.</p> <p>Litho BCD #6135 589.00 - 592.00m.</p>



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597.54 to 605.31	ANDESITE FINE TUFF	Colour - medium green-green Grain Size - aphanitic-fine Weak-moderately foliated, relative homogeneous fine andesite ash. No visible layering. 2-3% dissem. v.f. leucoxene.  Note shear section at 599.12 C/A 10 Minor Fault 603.65 - 603.90m.	Fol'n 20-25      Fault 20 minor gouge	Weak + weak-moderate pervasive chl. Local patchy Ep-qtz alteration at 601.87 - 603.05m. Moderate epidotization - qtz vein(?) 40-50% Ep.	2-5% dissem. py avg. 2% f.g. py to 601.87m. 2-5% py to 605.31m. Also tr. cpy dissem. f.g. at 600.27, 601.22.	Assay BCD #6304 600.00 - 601.50m

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605.31 to 615.49	ANDESITE TUFF, MINOR ANDESITE CRYSTAL TUFF	Colour - medium green-grey to dark green. Grain Size - aphanitic-fine matrix, fine-medium crystals. Very weak - moderately foliated, relatively homogeneous, massive andesite ash tuff, minor andesite crystal tuff. 605.31 - 607.98: Medium-dark grey-green andesite fine tuff. Very weak - weakly foliated. Massive. 607.98 - 612.29: Massive, very weak foliated andesite crystal tuff, medium-dark green/grey. Layering tenuous, based on Fp-rich altered layers. 612.29 - 615.49: Relatively massive medium - dark andesite fine-coarse ash +/- crystal tuff, weakly foliated. Locally see Ep bands, poss. Fp pheno bands now altered.	Fol'n 20  Fol'n 20 (0-30) Layering 30?  Fol'n 30 Layering 30?	Very weak - weak chl +/- mod. Local patchy Ep.  Weak/weak-moderate chloritization +/- ser.  Very weak - weak chl. Trace qtz-calc C/A 0. Tr - very weak Ep patches throughout up to 5 X 5mm, also very weak sel. Ep or Fp phenos throughout. Very weak - weak chl. 2-5% weak Ep patches along foliation as bands.	2-5% py dissem. + minor stringers, local tr cpy as elongate blebs.  1-3% dissem. f.g. py. Tr < 1% cpy @ 503.20 - 503.80.  Avg. 1-3% f.g. dissem. py range 1-5%.  2-3% py dissem. throughout.	Litho BCD #6136 605.31 - 607.31m.
615.49 to 621.98	ANDESITE- DACITE ASH TUFF + CRYSTAL TUFF	Colour - medium grey-green. Grain Size - aphanitic-fine matrix, fine-coarse crystals. Relatively massive, (some ctc between ash and crystal tuff noted), andesite +/- andesite-dacite. 615.49 - 616.79: Medium grey-green fine andesite-dacite tuff, weakly foliated. 616.79 - 618.60: Light-medium green, weakly foliated, andesite-dacite qtz-eye/Fp crystal tuff. Matrix fine-aphanitic ash (andesite). Qtz eyes < 1-6mm (avg. 1-2mm, up to 5%) Fp < 1-1mm 5%. 618.60 - 621.98: Medium grey-green, massive, weakly foliated andesite-dacite fine ash.	Fol'n 10 Bot ctc 35  Fol'n 20 Bot ctc 40  Fol'n 15 (5-20) Bot ctc 5-10	Tr - weak ser +/- chl.  Weak/weak-moderate ser +/- chl.  Very weak - weak chl. Silicified??, qtz veins + weak ser. at 618.20 - 618.60.  Weak chl. +/- ser.	1-5% dissem. py.  3-5% dissem. f.g. py throughout (50% at last 30cm of section). Note discon. < 1mm stringers. 5% dissem. fine-medium grained py. Local stringers at 618.40 - 618.60 C/A 20-30.  1-2% f.g. dissem. py (avg), Locally 2-3% py.	Poss. minor fault @ 616.19, 2cm clay gouge.  Litho BCD #6138 616.79 - 618.60m. Note larger qtz eyes are oval shape vs spherical < 2mm qtz eyes. Litho BCD #6137 619.03 - 621.40m

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621.98 to 655.47	RHYODACITE QTZ-FP CRYSTAL TUFF (POSS. QFP)	Colour - medium-light grey with green hue. Grain Size - aphanitic groundmass, fine-very coarse crystals. Massive, very weakly foliated rhyodacite Qtz Fp crystal tuff or porphyry flow? Qtz eyes 1-10% <1-12mm, Fp, 3-25% <1-2mm. Note poss. flow banding? subdivisions based on phenocryst content & size. 621.18 - 625.42: Medium grey-green, massive, Qtz Fp crystal tuff. Qtz eyes 5-10%, 1-5mm, Avg. 1-3mm round-oval shape. Fp 15-20%, 1mm subhedral- euhedral. 625.42 - 632.06: Massive light grey, slightly green rhyodacite Qtz Fp crystal tuff - Fp rich. Qtz eyes 5-15% (avg. 10%), <1-6mm (avg. 2-4mm) Fp phenos 15-30% Fp (avg. 20%), <1-<2mm Mainly round Qtz eyes. 632.06 - 639.57: Massive, flow-banded, light grey Qtz eye rhyodacite + Fp crystal tuff. Qtz eyes, 5-10%, avg. 10% <1-6mm Avg. 2-4mm, dominantly oval shape. Fp <5-10%, avg. 5%, <<1mm.	Fol'n 20	Tr - weak ser, tr chl. Locally silicified?	3-8% py, avg. 3-5% py, dissem. throughout, local stringers.	Qtz eyes light- medium grey.
		625.42 - 632.06: Massive light grey, slightly green rhyodacite Qtz Fp crystal tuff - Fp rich. Qtz eyes 5-15% (avg. 10%), <1-6mm (avg. 2-4mm) Fp phenos 15-30% Fp (avg. 20%), <1-<2mm Mainly round Qtz eyes. 632.06 - 639.57: Massive, flow-banded, light grey Qtz eye rhyodacite + Fp crystal tuff. Qtz eyes, 5-10%, avg. 10% <1-6mm Avg. 2-4mm, dominantly oval shape. Fp <5-10%, avg. 5%, <<1mm.	Fol'n/F.B. 5-10	Tr-weak ser, tr chl, silicified?	3-5% dissem. fine- medium grained pyrite.	Note one 12mm Qtz eye. Minor shear with ser at 629.20 Litho BCD #6139 627.00 - 630.00m.
		632.06 - 639.57: Massive, flow-banded, light grey Qtz eye rhyodacite + Fp crystal tuff. Qtz eyes, 5-10%, avg. 10% <1-6mm Avg. 2-4mm, dominantly oval shape. Fp <5-10%, avg. 5%, <<1mm.	Fol'n 0-10	Tr-weak ser, tr chl, silicified?	3-5% py, avg. 5% py.	Strongly Qtz porphyritic. Note: inclusions in Qtz eyes. Litho BCD #6140 632.00 - 635.00m.

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		639.57 - 642.45: Massive, very weakly foliated, light-medium grey/green rhyodacite Qtz-Fp porphyry. Fp rich, crystal tuff. Qtz eyes <5-10% (5% avg), <1-6mm (avg. 1-2mm). Fp 15-25% (avg. 20%), 1mm oval-round Qtz eyes.	Fol'n/FB 30 (30-45)	Tr-weak ser, tr chl. Silicification, -devitrification? Tr local epidotization of Fp.	5-3% dissem. f.g. py.	
		642.45 - 643.79: Light grey, massive, very weakly foliated rhyodacite - Qtz eye rich tuff. Qtz eyes; 10-15%, <1-5mm (avg. <1-1mm). Fp; 5-10%, <2mm round Qtz eyes.	Fol'n/FB 20-25	Tr-weak ser, silicified?	3-5% dissem. f.g. py.	
		643.79 - 644.85: Light-medium grey - slightly green, massive, very weakly foliated Qtz Fp crystal tuff rhyodacite. Qtz eyes 5-10%, <1-4mm (<1-2mm avg). Fp 15%, 1mm.	Fol'n/FB 25-30	Tr-weak ser, silicified?	3% dissem. f.g. py.	
		644.85 - 646.02: Light-medium grey-green, massive, very weakly foliated Fp rhyodacite crystal tuff, minor Qtz eyes 1-5%, <1-3mm. Fp 20-25% Fp, <1-2mm (avg 1mm).		Tr-weak ser, silicified?	3-5% dissem. f.g. py.	
		646.02 - 650.90: Light-medium grey, slightly green, massive very weakly foliated Qtz-Fp crystal tuff. Flow-banded? Qtz eye - rich Qtz eyes 10-15%, <1-5mm (avg. 1mm). Fp 5-10%, <1-1mm. Round to oval Qtz eyes.	Fol'n/FB 20-25	Tr-weak ser, (silicified?)	3-5% dissem. f.g. py - m.g. py.	
		650.90 - 652.69: Light-medium grey-green, massive, Fp-rich Qtz Fp crystal tuff rhyodacite. Qtz eyes 10%, <1-6mm (avg. 1 & 5mm). Fp 15-25%, <1-2mm (1mm avg). Round-oval Qtz eyes.		Tr-weak ser, tr chl. (Silicified?)	3-5% py dissem. f.g. - m.g.	Note dark-medium grey large 5mm Qtz eyes.
		652.69 - 655.47: Medium-light grey, slightly green, massive, very weakly foliated, flow banded(?) Qtz eye rich rhyodacite crystal tuff. Qtz eyes 10-15%, <1-5mm (avg 1mm). Fp 5-10%, 1-<1mm. Round-oval Qtz eyes.	Fol'n/FB 5-10 Bot ctc 10-15	Tr-weak ser, chl. (Silicified?)	5% f.g.- m.g. dissem. py.	Litho BCD #6141 652.84 - 655.27m.

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655.47 to 663.55	ANDESITE, MINOR ANDESITE- DACITE TUFF - CRYSTAL TUFF	Colour - medium grey-green + light green-grey. Grain Size - fine. Massive, relatively homogeneous, weakly foliated andesite +/- andesite-dacite fine ash fine crystal tuff.	Top ctc 10-15	Very weak - weak chl +/- ser. Local weak (10-15%) patchy Ep.	1-3% dissem. f.g. py.	
		655.47 - 656.07: Light green-grey, weakly foliated, fine andesite ash with 1-3% 1mm qtz eyes.	Fol'n 15	Weak minor ser, weak chl.	3-5% py.	
		656.07 - 658.21: Medium green-grey andesite-dacite fine crystal tuff. Tr qtz eyes - 5% <1mm.	Fol'n 20	Very weak-weak chl +/- ser pervasive. Minor Ep + qtz veins, very weak. Local Ep spot/patch sections 10-20% @ 656.07-656.42, 657.01-657.19, 657.56-658.21.	1-5% dissem. py, avg. 1-2%.	Epidotization of Fp crystals (?) (Plag rich layers?)
		658.21 - 663.55: Medium grey, slightly green andesite-dacite fine crystal tuff. Relatively homogeneous. Approx. 5-10% <1mm round qtz eyes.	Fol'n 10-25	Very weak - weak chl +/- ser. Tr patchy Ep locally. Minor 2mm qtz veins +/- py locally C/A 20.	1-5% dissem. py, avg. 2% throughout. f.g. dissem. py + blebs, minor py stringers at 10 C/A ie) 663.36 3mm thick.	Litho BCD #6142 658.21 - 661.21m
663.55 to 663.75	FAULT WITH QTZ VEIN	Colour - light green & white. Grain Size - fine. Narrow fault, gouge + mud with chunks of white massive qtz vein.	?	Moderate ser/chl. Clay? Quartz vein.	1-2% dissem. f.g. py.	Significant structure.

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663.75 to 666.90	DACITE-ANDESITE QTZ EYE-FP CRYSTAL TUFF	Colour - medium-dark grey, slightly green. Grain Size - aphanitic - fine matrix, crystal - fine-medium. Massive dacite-andesite fine ash - dacite Fp crystal tuff(?) 663.75 - 665.74: Massive medium-dark grey/green dacite-andesite crystal tuff. 20% 1mm Qtz eyes shear at 664.41, 664.61m. 665.74 - 666.90: Dark-medium grey - slightly green massive dacite Fp crystal tuff, (poss. flow???) 1-5% 1mm Qtz eyes.	Fol'n 20?  Fol'n 15-25	Very weak - weak ser/chl. Tr Ep locally.  Very weak-weak chl/ser. Tr Ep spots.  Very weak/weak ser +/- chl. Tr Ep./Qtz veins.	1-5% dissem. f.g. py.  1-5% dissem. f.g. py, avg. 2-3% Minor stringers at 664.37 @ 25 C/A. 2-5% dissem. f.g. py, avg. 3%.	Note: Prob. no displacement on fault.  Qtz eyes lense shape.
666.90 to 667.27	ANDESITE FELDSPAR PORPHYRY DYKE	Colour - medium green. Grain Size - aphanitic - very fine groundmass, fine-medium crystals. Massive Fp porphyry (10%) <1-1mm subhedral plag. andesite dyke. (Silicified?)	Top ctc ? Bot ctc 10 sharp	Weakly bleached, tr chl.	1-2% dissem. fine pyrite.	
667.27 to 668.38	ANDESITE-DACITE FP CRYSTAL TUFF	Colour - dark-medium grey-green. Massive dacite-Fp-Qtz eye crystal tuff similar to 665.74 - 666.90m. Except 5-20% (avg. 8%) Qtz eyes <1mm.	Fol'n 20	Very weak-weak chl +/- ser, poss. silicified. Tr Qtz veins, tr sel epidotization of Fp.	3% dissem. f.g. py throughout. Local stringers @ 25 C/A to Qtz .5cm.	
668.38 to 668.58	ANDESITE FELDSPAR PORPHYRY DYKE	Colour - medium green. Similar to above dykes.	Top ctc 10 Bot 15			
668.58 to 668.94	DACITE-ANDESITE FP- QTZ EYE CRYSTAL TUFF	Colour - dark green-grey. Grain Size - aphanitic-fine. Massive, sheared dacite crystal tuff similar to above.	Shear approx. 30 Bot ctc approx. 30	Weak-moderate ser/chl.	5% dissem. + stringer f.g. py. Stringers @ 25-50 C/A, 1-2mm.	Hem. f.g.(?) along shear planes. Note 1-5% leucoxene parallel to foliation.

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668.94 to 673.55	DACITE FELDSPAR -QTZ EYE CRYSTAL TUFF	Colour - light-medium grey-green. Grain Size - aphanitic groundmass, fine-medium crystal. Massive Fp porphyry flow(?), flow banded(?), very weakly foliated. Fp 20-30% 1mm subhedral-euhedral qtz eyes 1-3%, 1-5mm (avg. 1-3mm). Qtz eyes round-oval.	Fol'n 30 Layering approx. 30	Very weak ser. Tr chl as envelopes associated with py stringers. Minor 1cm qtz veins + Ep. (Silicified?)	3-8% py f.g. dissem. + stringers, avg. 5% py. 669.84 - 671.15: 5-8% py stringers @ C/A 20-30 + chl, as disconnected patches of py.	Litho BCD #6143 669.00 - 671.30m Crystal charged tuffs. Note medium grey oval qtz eyes.
673.55 to 674.07	ANDESITE- DACITE FELDSPAR PORPHYRY DYKE	Colour - medium green. Grain Size - aphanitic-very fine groundmass, fine-medium crystals. Massive Fp porphyry dyke 1-5% 1-2mm Fp phenocrysts.	Top ctc 15 Bot ctc 40-45(?)	Very weak chl/ser.	2% dissem. py.	
674.07 to 674.12	FAULT	Colour - light green, fine grained gouge plane.	45	Clay gouge.	2-5% dissem. py.	
674.12 to 675.77	DACITE FELDSPAR -QTZ EYE CRYSTAL TUFF	Colour - light-medium grey-green. Grain Size - aphanitic groundmass, fine-medium crystals. Massive Fp porphyry flow(?). Same as above.	Fol'n 25-40	Tr-very weak ser/chl. Silicified?	3-5% dissem. f.g. py.	
675.77 to 676.03	ANDESITE- DACITE FELDSPAR PORPHYRY DYKE	Colour - light-medium green. Grain Size - aphanitic - very fine groundmass, fine-medium crystals. Massive Fp porphyry dyke. Same as above.	Top ctc 20 Bot ctc 10	Bleached, weak. Very weak chl.	2% dissem. 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>
676.03 to 685.10	DACITE FELDSPAR- QTZ EYE CRYSTAL TUFF	Colour - light-medium green-grey. Grain Size - aphanitic groundmass, fine-medium-coarse crystals. Massive, very weakly foliated Fp porphyry crystal tuff - dacite with qtz eyes. 676.03 - 678.65: Fp-rich. Fp crystal tuff porphyry 15-25% Fp 1mm, Qtz eyes 1-5%, 1-3mm (1-2mm avg). 678.65 - 685.10: Light grey to medium green-grey, massive qtz-Fp porphyry crystal tuff rhyodacite. (Poss. flow?) Qtz eyes 5-10% (avg 10%), <1-4mm (avg <1 and 2-3mm). FP 5-15%, <1-2mm. Qtz eyes round-oval-lenses. Flow banded(?)	Fol'n 20	Tr ser. (Silicified?)  As above.	3% f.g. dissem. py.  3% py.	
685.10 to 695.25 E.O.H.	ANDESITE/ ANDESITE- DACITE FINE CRYSTAL TUFF	Colour - medium-dark-light green- grey. Grain Size - aphanitic-very fine matrix, fine-medium crystals. Relatively massive, weakly foliated. Andesite-dacite crystal tuff, locally up to 5% qtz eyes, 10% plag. 685.10 - 691.21: Medium-dark green-grey andesite-dacite fine crystal tuff. Crudely layered Fp crystal bands. Variable 1-15% Fp crystals <1-2mm. Qtz eyes <1mm distinct in first 2m of interval.	Fol'n/FB 25-30  Layering? 25 Fol'n 20-35	Weak-weak-moderate chl +/- ser. Sel saus. of Fp + local moderate pervasive Ep +/- qtz.  Weak - weak-moderate chl +/- ser. Sel weak saus. of Fp. Locally moderately pervasive Ep/qtz vein? at 687.20 - 687.50.	1-3% f.g. dissem. py throughout, avg. 2%.  2% dissem. py.	Litho BCD #6144 687.00 - 690.00m



<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>
		691.21 - 695.25: Similar to above though slightly more mafic andesite ash crystal tuff. Dark-medium green Fp up to 15%, avg. 5%. Qtz eyes noted locally and matrix relatively siliceous throughout.	Fol'n 20 Layering? 25	Weak serl epidotization of Fp phenocrysts. Weak/weak-moderate chl. Very weak qtz +/- Ep +/- py veins 2-3mm thick - Ep envelopes. C/A 15.	2-3% dissem. f.g. py also stringer/patchy py with cpy. 691.29 - 692.51 <1-1% cpy. Stringers @ 30	Cpy as blebs within py stringers (irreg., discon.) Litho BCD #6145 691.29 - 692.51m.

# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	ppm As	ppm Sb	Sr%	Zr%	Total
6101	13.59	16.87	49.40	15.23	10.20	5.55	0.36	0.01	13.88	0.30	2.60	.005	208	43	23	0.3	5	1	6	.04	.009	97.56
Andesite feldspar porphyry flow(?)																						
6102	30.60	33.60	76.13	12.74	0.42	1.51	0.51	3.16	3.15	0.03	0.27	.150	4	7	6	0.2	10	1	2	.01	.005	98.09
Rhyodacite																						
6103	54.25	57.25	71.93	14.06	3.18	2.84	2.03	1.35	2.40	0.05	0.29	.047	7	10	9	0.2	5	1	2	.02	.005	98.21
Rhyodacite																						
6104	80.00	83.00	70.22	14.55	1.68	3.60	1.34	2.03	4.28	0.05	0.27	.071	2	12	11	0.2	15	1	2	.02	.006	98.11
Rhyodacite																						
6105	90.00	93.00	78.02	12.12	1.47	1.03	3.22	1.25	0.85	0.02	0.24	.086	3	5	7	0.3	10	1	1	.02	.005	98.34
Silicified Exhalite																						
6113	96.02	96.92	77.60	11.24	0.90	2.18	1.32	2.12	2.51	0.03	0.23	.110	2	15	7	0.3	10	1	3	.01	.005	98.08
Silicified Exhalite																						
6106	96.92	97.27	50.10	3.54	2.79	1.97	0.01	0.01	38.23	0.04	0.05	.005	15	24	30	1.6	10	30	33	.02	.005	96.75
Fe - formation band																						
6107	100.93	103.15	49.09	14.35	10.52	5.20	0.90	0.02	14.19	0.29	2.82	.005	236	35	25	0.5	20	1	7	.04	.011	97.45
Diorite																						
6108	118.81	121.81	47.69	14.17	7.56	4.35	2.97	0.46	16.07	0.28	3.59	.009	149	52	23	0.5	10	1	11	.03	.022	97.20
Diorite - sheared																						
6109	153.06	156.06	47.53	11.41	8.59	4.26	2.35	0.06	18.06	0.37	4.57	.016	302	52	19	0.3	5	1	11	.03	.019	97.27
Diorite with Magnetite.																						

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# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	ppm As	ppm Sb	Sr%	Zr%	Total
6115	168.87	171.40	48.50	10.75	9.32	6.07	1.54	0.24	16.84	0.38	3.78	.005	199	21	15	0.7	10	1	7	.03	.018	97.48
Diorite (with Magnetite)																						
6110	185.87	188.15	39.59	13.85	15.81	5.35	2.30	0.83	15.94	0.47	4.20	.018	65	39	27	0.3	5	1	11	.03	.013	97.41
Diorite																						
6111	262.24	263.66	43.44	15.12	15.75	5.21	1.97	0.83	12.76	0.27	2.22	.012	38	40	31	1.5	5	16	12	.02	.009	97.62
Diorite																						
6112	303.15	304.95	67.73	15.05	0.90	4.82	2.98	1.58	4.25	0.09	0.46	.083	6	23	12	0.7	5	1	5	.01	.005	97.95
Dacite tuff																						
6122	319.78	322.05	62.78	15.03	3.14	7.04	1.25	2.28	5.93	0.11	0.43	.092	11	21	14	0.8	5	1	6	.01	.005	98.10
Dacite - andesite tuff																						
6114	336.50	339.56	64.11	16.89	0.47	5.70	0.38	3.20	6.56	0.12	0.51	.113	7	26	13	0.8	5	1	7	.01	.005	98.08
Dacite - andesite tuff																						
6116	343.04	346.20	62.42	15.46	0.84	7.35	0.83	2.02	8.33	0.12	0.49	.073	101	32	16	1.0	5	15	9	.01	.005	97.95
Dacite - andesite																						
6117	356.65	359.25	63.31	16.08	0.57	6.50	0.72	2.47	7.63	0.12	0.47	.097	42	28	14	0.9	3	1	8	.01	.005	98.00
Dacite - andesite																						
6118	369.92	370.01	57.94	6.17	1.37	4.26	0.01	0.19	27.52	0.10	0.11	.010	458	23	29	1.5	20	39	24	.01	.005	97.68
Dacite tuff																						
6119	371.98	373.98	67.57	15.21	0.48	4.72	1.95	2.10	5.33	0.10	0.44	.080	8	29	15	0.7	5	1	6	.01	.005	98.00
Dacite tuff																						

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# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	ppm As	ppm Sb	Sr%	Zr%	Total
6120	378.00	381.15	69.32	15.27	0.36	4.00	0.85	3.09	4.78	0.08	0.37	.114	13	22	11	0.4	5	1	6	0.01	.005	98.25
Dacite - andesite tuff																						
6121	385.00	388.00	75.71	12.97	0.19	2.05	1.17	2.80	2.89	0.05	0.21	.095	5	17	9	0.4	5	1	4	0.01	.005	98.16
Rhyodacite																						
6123	397.50	400.00	59.14	18.92	0.44	7.32	0.14	3.48	7.75	0.15	0.58	.119	3	52	19	0.6	5	1	1	0.01	.005	98.04
Dacite - andesite tuff																						
6124	424.11	427.11	57.79	17.38	1.67	6.68	3.52	0.79	9.35	0.20	0.67	.024	5	55	24	0.9	5	1	1	0.02	.005	98.09
Andesite crystal tuff																						
6125	443.00	446.00	54.44	18.23	2.92	7.83	3.40	0.46	9.84	0.27	0.70	.014	1	54	23	0.8	5	1	1	0.02	.005	98.11
Andesite crystal tuff																						
6126	454.15	454.63	56.60	19.09	5.10	2.24	4.11	1.74	6.90	0.18	0.53	.042	160	25	15	0.7	5	1	5	0.04	.008	97.58
Andesite dyke(?)																						
6127	483.89	484.52	47.81	18.73	12.03	3.49	3.13	0.08	10.91	0.30	1.05	.005	37	33	29	1.1	5	1	2	0.08	.005	97.62
Andesite feldspar porphyry dyke																						
6128	487.96	490.96	53.48	17.20	5.29	7.59	2.48	0.03	10.71	0.33	0.69	.005	514	66	26	0.8	10	1	1	0.03	.005	97.84
Andesite crystall tuff																						
6129	501.00	504.00	64.41	15.33	0.51	5.42	2.53	2.28	6.99	0.50	0.50	.071	27	60	58	0.9	5	3	4	0.01	.005	98.17
Dacite pyritic ash																						
6130	511.15	514.15	52.49	16.06	0.96	10.25	2.62	0.17	14.39	0.64	0.64	.007	30	84	35	0.6	5	17	6	0.01	.005	97.87
Andesite - Dacite tuff																						

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# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	ppm As	ppm Sb	Sr%	Zr%	Total
6131	521.09	522.12	56.57	16.88	2.07	10.80	1.62	0.77	13.32	0.34	0.72	.024	44	169	35	1.0	5	3	3	.01	.005	97.70
Andesite tuff																						
6132	528.50	531.50	76.07	17.40	0.99	8.65	3.59	0.49	9.75	0.24	0.71	.013	8	81	24	0.8	5	1	2	.02	.005	97.91
Andesite tuff																						
6133	552.61	555.61	56.43	17.81	4.98	5.47	3.12	0.91	8.25	0.27	0.66	.018	21	51	23	0.8	10	1	2	.02	.005	98.06
Andesite crystal tuff																						
6134	564.00	567.00	55.89	12.21	0.12	2.99	0.77	2.97	2.76	0.07	0.18	.076	2	29	13	0.5	5	1	3	.01	.005	98.22
Rhyodacite (Flow?)																						
6135	589.00	592.00	57.94	18.06	1.11	8.48	2.33	1.67	8.95	0.26	0.70	.037	6	62	24	0.7	5	1	1	.02	.005	98.05
Andesite - Dacite tuff																						
6136	605.31	607.31	66.73	18.46	0.94	8.79	3.58	1.11	8.25	0.25	0.70	.024	53	62	19	0.5	10	1	1	.01	.005	98.02
Andesite - dacite tuff																						
6138	616.79	618.60	66.73	14.86	0.65	4.69	3.20	1.55	5.91	0.16	0.35	.040	8	47	20	0.5	5	7	5	.01	.005	98.15
Dacite tuff (Flow?)																						
6137	619.03	621.40	57.94	18.69	0.62	7.73	3.57	1.63	6.93	0.24	0.71	.044	2	62	22	0.6	5	1	1	.02	.005	98.11
Dacite - Andesite tuff																						
6139	627.00	630.00	69.75	15.20	0.43	2.84	3.88	2.04	3.54	0.09	0.30	.061	5	27	12	0.5	5	1	4	.01	.005	98.13
Rhyodacite flow(?)																						
6140	632.00	635.00	69.71	15.15	0.38	3.39	3.22	2.36	3.51	0.08	0.29	.072	4	29	12	0.4	10	1	4	.01	.005	98.19
Rhyodacite																						

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# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	As ppm	Sb ppm	Sr% .....	Zr%	Total
6141	652.84	655.27	68.45	15.07	0.70	3.99	3.85	1.63	4.07	0.13	0.31	.064	19	27	10	.4	5	1	3	.01	.005	98.29
Rhyodacite flow(?)																						
6142	658.21	661.21	55.90	17.16	1.11	10.13	3.44	0.29	9.09	0.32	0.60	.012	20	84	28	.7	5	1	1	.02	.005	98.07
Dacite-Rhyolite Tuff																						
6143	669.00	671.30	66.98	13.02	0.54	4.08	3.17	1.29	8.55	0.09	0.25	.047	9	31	21	.9	10	20	10	.01	.005	98.03
Dacite flow(?)																						
6144	687.00	690.00	56.93	17.33	2.48	7.99	2.75	0.88	8.77	0.25	0.59	.030	3	44	25	.8	5	1	1	.02	.005	98.02
Dacite tuff																						
6145	691.29	692.51	55.85	16.16	5.07	7.48	1.74	0.44	10.09	0.28	0.55	.015	2062	48	11	1.6	5	8	2	.02	.005	97.69
Dacite-Andesite tuff																						
6301	202.00	204.00	49.88	13.57	8.58	5.24	2.12	0.23	14.66	0.30	2.77	.008	178	33	14	1.2	5	1	9	.03	.012	97.41

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## ASSAY SHEET

[illegible]

# CORPORATION FALCONBRIDGE COPPER

## DRILL HOLE RECORD

x METRIC UNITS  
IMPERIAL UNITS

HOLE NUMBER MTS-30	GRID CFC	FIELD COORDS	LAT. 7+24S	DEP. 0+09E	ELEV. 499m.	COLLAR BRNG. 010°	COLLAR DIP -75°	HOLE SIZE NQ	FINAL DEPTH 645.26m
PROJECT PN 305	CLAIM #	SURVEY COORDS.				DATE STARTED: Feb 17/87 DATE COMPLETED: Mar 1/87	CONTRACTOR: F. Boisvenu CORE STORAGE: Duncan CASING: 5.79m.		

**PURPOSE**

Test the Myra/Nitinat contact stratigraphically below the Tyee Mine

ROD LOG  
COLLAR SURVEY

PULSE EM SURVEY  
MULTISHOT SURVEY

ACID TESTS				TROPARI TESTS			MULTISHOT DATA		
DEPTH ( m )	CORRECTED ANGLE	DEPTH ( m )	CORRECTED ANGLE	DEPTH ( m )	AZIMUTH	DIP	DEPTH ( )	AZIMUTH	DIP
30.48	76°	457.20	74°	014.5 -	344°	76°			
60.96	76°	487.68	74°						
91.44	76°	518.16	74-75°						
121.92	76-75°	548.64	74°						
152.40	77°	579.12	75°						
182.88	75°	609.60	74°						
213.36	76°								
243.84	76-77°								
274.32	75°								
304.80	75-76°								
335.28	75°								
365.76	75°								
396.24	74-75°								
426.72	74-75°								

HOLE NO MTS-30  
ZIPPY PRINT - BRIDGEPORT, RICHMOND

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<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 to 3.05	CASING					
3.05 to 139.59	DIORITE, MINOR DIORITE- GABBRO DYKES	<p>Colour - dark green + white. Grain Size - coarse-medium-fine. Massive diorite, varies from coarse grained - medium grained. Plagioclase tabular in coarse grained diorite, some glomerocrysts. Fp 1-20mm (avg. 1-2mm) 50% weakly porphyritic. Locally 1-2% Fp mega phenos 20mm. Crosscut by fine-medium grained gabbroic(?) dykes. 3.05 - 4.23: Coarse grained diorite, 1% mega Fp phenocrysts. 4.23 - 4.53: Dacite-andesite crystal tuff?, poss. not in right place. 4.53 - 6.71: Coarse grained diorite, 1% mega Fp phenocrysts.</p> <p>6.71 - 7.13: Gabbro(?) medium grained dyke - fine grained. 7.13 - 10.17: Medium-coarse grained diorite. 10.17 - 11.58: Gabbro(?) medium-fine grained dyke, dark green, similar to previous dyke.</p>	<p>Bot etc 30</p> <p>Top etc 20</p>	<p>Tr chl, dissem. hem. grains up to 5% + fractures. Very well local wispy Ep veins C/A 45. Weak-moderate calc. 1-2mm thick veinlets throughout C/A 45.</p> <p>Qtz +/- Ep +/- py veins 1-10mm thick 10-20. Py up to 3% in veins.</p>	<p>No visible sulphides - tr py.</p> <p>Locally up to 3% py in qtz veins.</p>	<p>Poss. dacite-andesite Fp crystal tuff at 4.23 - 4.53m.</p> <p>Poor recovery at start of interval.</p> <p>Note 5-10% leucoxene in dykes; light brown-orange.</p> <p>Litho BCD #6176 7.13 - 10.13m.</p>

<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>
		11.58 - 13.63: Medium-coarse grained diorite.				
		13.63 - 14.44: Gabbro(?) dyke similar to previous dykes.	Top etc 75			Strong irregular calc veins.
		14.44 - 16.06: Medium-coarse grained diorite.			15.00m <1% cpy in qtz-chl 5mm vein.	
		16.06 - 16.62: Gabbro dyke? Strong - intense calcite veins.				
		16.62 - 21.70: Medium-coarse grained diorite, note Ep veins + calc +/- hem veins.				Note brown-bright metallic hem fract. coatings. 10% leucoxene crystals.
		21.70 - 23.22: Vein zone in diorite, obscures diorite textures.		Cal, qtz, hem veins.		
		23.22 - 24.19: Medium grained diorite with light grey aphanitic dyke(?) or vein @ 5 C/A.				
		24.19 - 24.54: Gabbro dyke(?) with coarse grained tan leucoxene.				
		24.54 - 26.82: Medium grained diorite cross-cut by weak 1-3cm Ep veins + moderate calc veinlets, + wispy Ep along fractures.				
		26.82 - 28.25: Medium-coarse grained diorite.				2-3% hem.
		28.25 - 28.52: Ep porphyry diorite(?) dyke, medium green.	Top etc 45			
		28.52 - 29.90: Medium-coarse grained diorite. Qtz-chl vein @ 10.				
		29.90 - 30.25: Gabbro(?) dyke 5% streaked out leucoxene.	Fol'n? 45			
		Fine-medium grained.				
		30.25 - 32.16: Medium-coarse grained diorite, weakly porphyritic. Ep veins @ 90 crosscut by Qtz @ 5.				
		32.16 - 34.54: Sheared & brecciated diorite, poss. gabbro dyke now bleached.	Shear/ Fol'n 35-60	Strong - intense calc. veins.		

<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>
		34.64 - 36.71: Medium-coarse grained diorite, variably veined and sheared locally.				
		36.71 - 36.81: Gabbroic(?) dyke, similar to previous.	Top ctc 45 Bot ctc 45			
		36.81 - 38.30: Medium grained diorite, tr Ep/chl.				
		38.30 - 38.60: Sheared, strongly, diorite.	Shear 55			
		38.60 - 43.20: Medium grained diorite, with wispy Ep veins @ 70-90 C/A.				
		43.20 - 44.40: Sheared diorite - gabbro(?). Poss. dyke fine-medium grained, leucoxene streaked out.				
		44.40 - 46.63: Dark green sheared dyke - gabbroic(?) 5% streaky leucoxene grains.				
		46.63 - 51.54: Medium-coarse grained diorite mottled by wispy irregular Ep veins, locally strongly sheared.				
		51.54 - 51.91: Gabbroic(?) dark green dyke with large irregular calcite vein.	Top ctc 20? Bot ctc 70			
		51.91 - 56.20: Medium-coarse grained diorite, locally sheared.				
		56.20 - 57.55: Strongly sheared diorite medium-coarse, Ep wispy veins along shear at 50-80 C/A.				
		57.55 - 59.02: Bleached? fine grained sheared diorite.				
		59.02 - 59.74: Leucocratic grey-white medium grained diorite.				Top ctc fault gouge over 2cm @ 60 C/A.
		59.74 - 60.86: Dark green very fine grained diorite - gabbro dyke with hybridized zone gradation lower ctc.				

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		60.86 - 65.65: Leuco-melanocratic coarse - medium grained diorite, Plag.-50%.				
		65.65 - 66.03: Dark gray-green fine-medium grained dyke, diorite(?). 5% leucoxene grains 1-2mm.	Up Ctc irreg. 45-60			
		66.03 - 67.05: Coarse grained diorite. Moderate 1-2mm qtz veins.			1-2% py.	
		67.05 - 68.36: Qtz stockwork in medium grained diorite medium grey - pale green.		Stockwork 1-2mm qtz veins with bleaching.	3-10% py (avg. 5%) as discont. stringers + patches. Tr cpy.	Litho: BCD #6177 67.05 - 68.36m
		68.36 - 69.15: Medium-coarse grained diorite with moderate-strong 1-2mm qtz veins +/- py.		Moderate-strong qtz.	2-5% py, similar to above - tr cpy.	
		69.15 - 70.94: Qtz stockwork/sheared in medium grained diorite.	Bot ctc 30 Fol'n 60	Qtz stockwork.	1-8% py, 5-8% py in stockwork - vein & tr. cpy.	Note streaky leucoxene along foliation/shear.
		70.94 - 74.53: Coarse grained melanocratic diorite.		Local narrow medium grey qtz-stockwork + qtz vein with Ep envelopes.	Locally 1-2%.	
		74.53 - 75.65: Qtz stockwork - flood in medium-coarse diorite, (Similar to previous).	Top ctc 35?	Stockwork qtz.	5-10% py irregular discon. stringers & patches.	
		75.65 - 84.76: Coarse grained diorite, 1-3% mega Fp crystals 2 X 5mm to 3 X 12mm.				
		84.76 - 84.99: Medium grey sheared medium grained diorite.	Shear 35	Strong qtz 1mm veins.	1% py.	
		84.99 - 87.13: Coarse grained weakly porphyritic (Fp) diorite 2-3% Fp phenocrysts.				

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		87.13 - 89.32: Medium - dark green diorite, medium-coarse grained with weak qtz stockwork?		Very weak chl, weak qtz stockwork? White 1cm qtz-calc veins.	2-5% dissem. py	
		89.32 - 90.15: Coarse grained diorite weakly porphyritic.			Tr py.	
		90.15 - 90.90: Medium grey, medium grained(?) diorite dyke. Poss. silicified.		Silicified(?) cross-cut by moderate qtz +/- calc. veins.		5% 1-2mm leucoxene grains.
		90.90 - 92.39: Coarse grained Fp porphyry diorite.				
		92.39 - 93.03: Diorite(?) dyke, same as above 90.15 - 90.90.	Top ctc 25 Bot ctc 40			
		93.03 - 97.20: Coarse grained weakly Fp porphyritic diorite.				
		97.20 - 98.29: Diorite(?) dyke, same as above dykes. Medium grained dark green-grey.				5% leucoxene 1mm grains.
		98.22 - 100.20: Medium-coarse grained equigranular diorite, 35% Fp, 65% mafics.				
		100.20 - 100.44: Dark grey-green diorite dyke, same as above dykes.	Bot ctc 40			
		100.44 - 101.42: Fp porphyry diorite. 15-25% Fp phenos, 1-4mm Avg. 2mm. Tabular and lath shapes. Groundmass is fine grained Fp + mafics. Medium-dark green + white colour.				
		101.42 - 101.67: Diorite dyke, similar to above.				
		101.67 - 102.65: Fp porphyry diorite.				
		102.65 - 103.19: Diorite(?) dyke, same as above.				
		103.19 - 106.52: Fp porphyry diorite, weak - moderate calc veins.				

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		106.52 - 107.60: Medium grained diorite(?) dyke, same as above. 107.60 - 108.15: Fp porphyry diorite. 108.15 - 108.75: Fp porphyry diorite cross-cut by Ep +/- qtz veins (35 C/A) 108.75 - 122.84: Fp porphyry diorite, homogeneous. 122.84 - 123.34: Fine grained diorite dyke, medium grey-green. 123.34 - 126.65: Fp porphyry diorite, includes 1cm fine-aphanitic andesite dyke. 126.65 - 127.10: Medium grained Fp porphyry diorite mottled by Ep +/- qtz veins. 127.10 - 128.91: Fp porphyry diorite, fine grained groundmass, 30% Fp.				

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		<p>128.91 - 129.35: Fine grained dark green-grey diorite with 15cm qtz-epidote vein.</p> <p>129.35 - 130.27: Weakly feldspar porphyritic diorite. 1-2mm feldspars, groundmass - fine grained.</p> <p>130.27 - 131.31: Fine grained diorite(?) dyke.</p> <p>131.31 - 133.17: Feldspar porphyritic diorite. Same as above.</p> <p>133.17 - 136.39: Very fine grained diorite, part of chilled margin(?), local feldspar phenocrysts, &amp; feldspar porphyritic diorite.</p>	<p>Top ctc 50 Bot ctc approx 70</p>			
136.39 to 136.77	FAULT BRECCIA	<p>136.39 - 136.77: Beige-grey -light brown-pur ple dyke breccia. Rhyolite irregular dyke, no phenocrysts, frags include diorite?, rhyolite, calcite veins? Dykes/vein 1-5cm thick, frags &lt;1mm - 2cm. Milled(?) Bleached upper &amp; lower contact envelopes.</p>	<p>Top ctc 30-40 Bot ctc approx 30</p>		Tr py.	Poss. dissem. fine grained hematite imparts purple colour in the diorite.
136.77 to 137.58	DIORITE	<p>136.77 - 137.58: Fine grained diorite dyke, poss. same as above, fine chilled(?) diorite. Locally feldspar porphyritic.</p> <p>137.98 - 138.84: Feldspar porphyritic diorite.</p> <p>138.84 - 139.59: Altered diorite, poss. dyke?, dull medium green-brown, fine-medium grained overprinted by epidote + chl/leucox(?) alteration.</p>	<p>Lower ctc 40</p> <p>Bot ctc 45 Fault? Note slicken- lines</p>	<p>Pervasive weak-moderate epidote-chlorite + wispy epidote stringer, also strong irregular calcite 2-3mm veinlets parallel to contact or shear.</p>	<p>At contact irregular discont. stringers py + cpy, 3-5% py, 1-2% cpy over 10cm.</p>	

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139.59 to 153.78	DACITE TO RHYODACITE FELDSPAR PORPHYRY +/- QTZ PORPHYRY FLOW	Colour - light grey, slight green. Grain Size - aphanitic groundmass, fine-medium crystals. Massive flow-banded(?) feldspar porphyry dacite + QFP porphyry rhyodacite - rhyolite. Homogeneous flow, (poss. crystal tuff??). Groundmass is aphanitic, light grey - silicified(?). Phenocryst content varies, but relatively uniform, qtz eyes 1-10%, avg. 5% (<1-1mm), Fp crystals 3-15%, avg. 5-10% (<1-1mm). Mafic chl 1-2% drawn out parallel to foliation. Qtz eyes are round shape. Probably rhyodacite composition overall. More Fp rich near top of interval.	Fol'n/F.B. 0-10 (0-30)	Local cloudy devitrification patches. Tr - weak ser/chl, note chl as narrow 1-2mm envelopes with some py +/- qtz stringers. Chl also along fractures locally as irregular 1mm seams/stringers. Weak - very weak 1-10mm qtz veins, light grey - white +/- chl +/- py.	1-2% py fine grained dissem. throughout interval. Tr bleb cpy dissem. locally. Locally stringer py + chl +/- cpy veins (cpy as blebs). Stringer veins ie) 140.99: 1-2mm, py 2% cpy, 30-40 C/A 143.58: 1mm, py-chl, 5 C/A 145.51: 1mm, qtz-py-chl, patchy, 0-20 C/A 150.77: 1mm, py, irregular, 10-20 C/A	Note 1-3% dissem. <1mm leucoxene grains. Note Fp cloudy white, subhedral, but some euhedral noted.  Litho BCD #6179 141.00 - 144.00m  Note at 151.79 <1-1cm thick andesite dyke 15 C/A dark green.
153.78 to 154.54	FAULT (MINOR GOUGE)	Colour - light grey-green. Grain Size - aphanitic-fine. Sheared/gouge of above felsic flow. Note change of flow(?) composition across fault.	Top ctc approx 20 Interval ctc 25-45 Bot ctc 45	Strong ser + clay gouge in distinct plane 1-10mm thick, weak irregular calcite +/- qtz veins.	1-2% dissem. fine grained pyrite.	



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154.54 to 159.21	RHYOLITE QTZ PORPHYRY FLOW	Colour - light grey - white. Grain Size - aphanitic groundmass, fine-medium crystals. Relatively massive, very weak - weakly foliated rhyolite flow, with <1-2mm (avg. 1mm) qtz eyes 1-5% throughout. Qtz eyes round-lense shape, but vague light grey near aphyric flow(?) 1-2% very fine <1mm feldspar crystals throughout. Lower contact sheared V shape also fault with 2mm py-carbon seam.	Fol'n/FB 0-15 Top Fault 45 Bot ctc 35/V, Fault ctc 15	Weak - moderately sericitized. Late weak-moderate calcite(?) - qtz veinlets 2-10mm thick cross-cut sus stringers. 25-60 C/A Poss. white veinlets baritic(?). Local grey-white qtz veins up to 3cm thick.	Dominated by sph-cpy stringers, and py +/- cpy +/- sph +/- bar(?) stringers 1-5mm thick. Sus stringers are irregular (splays) orientations but generally parallel to foliation?FB(?). Also dissem. fine grained py throughout. 154.54 - 155.93: 2-5% py, dissem. + stringers. Stringer + qtz C/A 20-10 155.93 - 159.02: 1-5mm thick stringers spaced <5mm - 2cm apart, includes sph + py + cpy veins/stringers & py +/- cpy vein/stringer Overall 1% cpy, 2-3% sph, 3-5% py. C/A 0-10	White veinlets poss. barite?  Note round - angular qtz eyes, suggest this is a crystal tuff?  Assay BCD #6305 155.93 - 157.43m <.5% Cu, 2% Zn, 5% py  Assay BCD #6306 157.43 - 158.00m .5% Cu, 2% Zn, 3-5% py.  Assay BCD #6307 158.00 - 159.02m .5% Cu, 2% Zn, 2-5% py.
159.21 to 160.16	FAULT VEIN BRECCIA	Colour - light grey-green + white + medium green. Grain Size - aphanitic-fine matrix, <1-10mm fr. Fault infilled + silicified(?) with qtz veins, brecciated. Poss. a narrow fault/breccia 3-4cm 10% qtz frags 2-10mm 159.21 - 159.24m, with silicified vein zone from 159.24 - 160.16.	Top ctc Fault 15	Silicified/also white-grey qtz veins throughout, 2-20mm thick, with 1-2mm chl +/- epidote selvages 25-0 C/A. Fault plane coated with carbon & very fine grained pyrite, with slickenlines.	1-2% dissem. fine grained brassy pyrite. 2-3% very fine grained brown-grey py as selvages along qtz veins.	Rock unit brecciated/ altered is deeper unit (following unit). Due to composition and lack of Cu-Zn mineralization in breccia-fault.

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160.16 to 161.23	RHYODACITE FLOW (SIMILAR TO 139.59 - 159.21)	Colour - light grey-green hue. Grain Size - aphanitic-matrix, fine crystals. Massive rhyodacite flow very crude flow banding. 1-5% qtz eyes (<1-1mm), 1-2% feldspar phenos (<1mm).	Fol'n 0-20 Lower ctc 10-15	Silicified patchy devitrification. Weak sericitization. Local weak/moderate ser.	1-3% dissem. f.g. + discont. stringer py.	3-5% <1mm leucoxene dissem.
161.23 to 161.88	DACITE- ANDESITE TUFF - CRYSTAL TUFF(?) (POSS. DYKE?)	Colour - medium grey - slight brown. Grain Size - fine-aphanitic. Weakly foliated dacite-andesite(?) tuff has streaky texture due to drawn out mafic crystal, 5% <1mm leucoxene dissem. throughout.	Upper ctc sharp 15 Fol'n 20	Moderate-strong chl +/- ser.	1-2% py.	Crystal tuff? Note internal slicken sides?
161.88 to 162.60	FAULT- VEIN/ BRECCIA	Colour - medium grey + white + light grey. Fault - vein-breccia in above intermed. tuff. Tuff is moderate-strongly sericitized, rest is breccia-qtz vein with lower ctc qtz vein. Qtz frags 3mm-20mm incorp. into tuff.	Top ctc 10-45 Bot ctc 25	Qtz vein + brecciation. Moderate-strong ser. of tuff.	2-3% dissem. py. Note: local sph fine grained patches at 162.50 (lower ctc), up to 5% over 10-15cm.	Sharp lower ctc Mud-py seam on qtz vein. Assay BCD #6308 161.88 - 162.60m .5% Zn, 3% py.
162.60 to 166.69	RHYODACITE FLOW	Colour - light-medium grey - slightly green. Grain Size - aphanitic matrix, fine crystals. Massive, very weakly foliated, rhyodacite flow(?), note crude flow banding. Qtz eyes 5% (1-2mm (avg. <1mm) round. Mottled texture due to silicification.	Fol'n/FB 0-10	Silicified devitrification patches throughout, relatively pervasive. Local very weak ser +/- chl. Very weak qtz veins 2-30mm thick, 0-10 C/A, cross-cut by 3mm moderate-strong local calc gashes 60-90 C/A.	Trace - 1% fine grained dissem. py.	1-2% <1mm leucoxene throughout.  Litho BCD #6180 162.75 - 165.75m.

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166.69 to 167.85	DACITE- ANDESITE TUFF(?) (POSS. SHEARED DYKE)	Colour - medium-dark green-grey. Grain Size - aphanitic-fine. Similar to 161.23 - 163.28. Dacite-andesite tuff(?) or dyke(?). Locally sheared, note slickenlines. Bot ctc strongly sheared. Locally brecciated.	Fol'n 0-10 Top ctc 15 Bot ctc 35	Moderate-strong chl/ser pervasive. Weak-moderate qtz veins +/- calc 1-10mm thick. Late moderate gashlike irregular calc veins <1-2mm thick.	2-3% dissem. fine grained pyrite throughout.	Very blocky in this interval.  Litho BCD #6181 166.79 - 167.85m
167.85 to 169.32	RHYODACITE FLOW	Colour - light-medium grey - slightly green. Grain Size - aphanitic groundmass, fine crystals. Weakly foliated rhyodacite flow. 2-5% <1-1mm qtz eyes, round. Flow cross-cut by grey-brown irregular dykes(?) C/A 0-15 or frags of tuff.	Fol'n 10	Very weak - weak sericitization. Locally silicified(?) - devitrification patches). Weak calc 1-2mm veins.	2-3% fine grained dissem. pyrite throughout.	
169.32 to 169.40	FAULT/ SHEAR	Colour - light green-grey. Grain Size - fine. Narrow fault/shear in rhyodacite tuff(?). Milled up tuff + gouge.	Top ctc 30 Bot ctc 40-45	Ser - clay gouge infilled by 2-3mm calc +/- qtz veins.	1-2% dissem. py.	
169.40 to 172.37	RHYODACITE FLOW (POSS. CRYSTAL TUFF)	Colour - light-medium grey - slightly green. Grain Size - aphanitic matrix, fine crystals. Same as above rhyodacite flow. Cross-cut by grey-brown dyke(?). Note: Qtz eyes up to 4mm. Shearing + insitu breccia prominent towards end of interval.	Fol'n 10-25	Very weak - weak sericitization. (Silicified(?) devit. patches). Weak calc 1-2mm veins. Weak qtz vein irregular i.e. @ 171.52. Qtz + chl + bright green mica (Ni or Cr Mica?) C/A 25.	1-2% dissem. py.	Note: Conspicuous cloudy patches/lenses silica.

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172.37 to 172.85	FAULT/ SHEAR	Colour - very light grey/green. Grain Size - fine matrix, <1-10mm frags. Strongly sheared/milled felsic volc. or above, top ctc milled with clay seams. Shearing decreases intensity last half of interval. Lower contact is lithological not fault, although sheared.	Top 20-25	Moderate-intense ser. Local clay seams - grey.	5% very fine grained dissem. + discont. <1mm py stringers.	
172.85 to 185.12	RHYOLITE QP FLOW	Colour - very light grey-white. Grain Size - aphanitic groundmass, fine-medium crystals. Massive, weakly foliated. Qtz porphyry rhyolite flow. Qtz eyes <<1-2mm, avg. <1-1mm, 3-8% avg. 5% throughout. Crude - good flow banding visible. FP phenocrysts 1-5% <1mm.	Fol'n/FB 0-15	Very weak - weak ser. (Poss. silicified, devitrification) Local calcite veins.	2-3% fine grained dissem. py throughout, also stringers <1-3mm irregular, 0-30 C/A of py-sph +/- cpy +/- qtz. 172.85-176.17: 2-3% dissem. py, local 5-8% stringer py. 176.17-177.24: Stringer, 2-3% sph, 2-3% py. 177.24-183.55: Str. 2-8% py, <1-1% sph, tr cpy. 183.55-184.52: Str. + pat. 2-3 sph, 2-3% py. 184.52-185.12: Str. <1% sph, 2% py.	Litho BCD #6182 173.80 - 176.80m. Assay BCD #6309 176.17 - 177.24m. 1-2% Zn, 2-3% py. Assay BCD #6310 177.24 - 178.74m. <1% Zn, <<1% Cu, 2-8% py. Assay BCD #6311 178.74 - 180.24m. As above. Assay BCD #6312 180.24 - 181.74m As above Assay BCD #6313 181.74 - 183.55m As above Assay BCD #6314 183.55 - 184.52m 1-2% Zn, 2-3% py. Assay BCD #6315 184.52 - 185.12m <.5% Zn, 2% py.

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185.12 to 189.46	QTZ VEIN/ BRECCIA SHEAR (IN ABOVE RHYOLITE) -FAULT-	Colour - white + light grey + slightly green. Grain Size - fine - aphanitic, frags <1-30mm. Massive qtz, with seams of ser which form matrix of insitu breccia, also rotated milled breccia. Vein cross-cuts rhyolite.	Top ctc 10 Internal shear 10-45 Bot ctc 20	Massive qtz vein with shears/breccia and strong sericite. C/A 0-50. Weak - very weak ser pervasive in rhyolite.	3% pyrite dissem. + discont. stringers throughout. Tr - 1% black sph with ser also in qtz veins as irregular patches/ selvage. Tr local cpy as blebs.	Sheared + brecciated but does not appear to have a great deal of movement in zone. Assay BCD #6316 187.96 - 189.46m .5% Zn, Tr Cu, 3% py.
189.46 to 206.85	RHYODACITE QP FLOW(?) (POSS. CRYSTAL TUFF)	Colour - light grey-white. Grain Size - aphanitic groundmass/ matrix, fine crystals. Similar to above rhyolite, QP, but flow banding(?) very crude. (Poss. a crystal tuff(?)). Very homogeneous. 3-10% (avg. 5%) <1mm qtz eyes round. Tr - 5% FP (avg. 1-2%), <1mm. Locally sheared over narrow sections.	Fol'n/FB? 0-15 Top ctc 20 Bot ctc 25?	Very weak - weak sericitization. Very weak - weak calcite 2mm veinlets. Local silicified devitrification patches.	2-3% dissem. py throughout, rare stringers. Note: Tr sph - <1% @ 195.50 - 196.05m	Litho BCD #6183 198.70 - 201.70m 1-5% leucoxene <1mm grains.
206.85 to 218.85	ANDESITE/ ANDESITE- DACITE CRYSTAL TUFF	Colour - medium-dark green/grey. Grain Size - very fine-medium. Massive, weak - very weakly foliated crystal tuff. Range andesite- andesite/dacite composition. 2%, 2-3mm qtz eyes, 40% <1-2mm FP phenocrysts, 58% matrix fine-grained chloritic. Last 3m interval is ash rich crystal tuff.	Top ctc 25? Bot ctc ? Fol'n 10-20	Weak/moderate chl +/- ser. Locally (210.70 - 211.00) weak sel. epidote 2-3%. Also 216.25 - 217.50: 5-10% Ep. Local qtz + py veins/ stringers.	3-5% fine-medium grained pyrite dissem. + patches, also locally up to 25% in stringers +/- qtz i.e.) 207.15: 1cm, py blebs, 5 C/A 210.15: 3mm, py, 15 C/A 212.87: 15cm, py/ 2-3% cpy, 40 C/A 214.47: 3mm, py, 70 C/A	Litho BCD #6184 211.00 - 214.00m  Note poss. py frags(?). 211.20 minor internal fault with 3mm thick gouge 20 C/A  Litho BCD #6185 212.90 - 213.16m

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218.85 to 227.99	ANDESITE & ANDESITE/ DACITE & DACITE/ ANDESITE TUFFS MINOR CRYSTAL TUFF	Colour - dark-medium green. Grain Size - very fine - fine. Massive ash tuff, minor crystal tuff andesite - dacite/andesite composition, moderately-strongly foliated. 218.85 - 220.10: Andesite tuff - crystal tuff, relatively homogeneous. 220.10 - 221.80: Andesite-dacite fine ash tuff, light-medium green.  221.80 - 222.70: Bleached andesite-dacite fine tuff, to fine crystal tuff. Pale light green. Note poss. frags? (or silicified patches).  222.70 - 225.35: Medium-light green andesite-dacite fine tuff. 1-2% 2mm qtz eyes.  225.36 - 227.99: Dacite-andesite fine tuff. Similar to above, light- medium green.	Fol'n 10-45  Fol'n 5-15  Fol'n 0-10  Fol'n 0-15  0-20	Moderate - strong chl +/- ser.  Moderate/moderate-strong chl. Very weak sel saus. of Fp (3%). Moderate chl +/- ser. No epidote.  Moderate chl +/- ser, moderately bleached. Moderate qtz veins +/- silicification 3-5mm thick with sus. veins 0-45 C/A.  Moderate chloritization +/- ser. Very weak sel. epidotization throughout. Local qtz-calc vein 5 C/A. Moderately bleached, moderate chl +/- ser.	Variable 3-15% py, local cpy, sph.  3% fine grained dissem. py.  3% fine grained dissem. py. Locally 1-2mm str. py. parallel to fol'n. 5-15% dissem. + stringer fine grained py. <1% cpy as blebs. <1-1% brown-purple sph patchey with qtz. Note blueish metallic mineral, moly(?) (AJD). 5% very fine grained dissem. py, tr cpy blebs.  3% py very fine grained disseminations + loc. str. 2-3mm thick @ 30 C/A.	Assay BCD #6316 221.80 - 222.70m (sawn) 8% py, <.5 Cu.  Litho BCD #6186 222.70 - 225.36m.  Poss. bleached andesite.
227.99 to 230.92	FAULT/ SHEAR ZONE	Moderately foliated dacite- andesite tuffs similar to above. Cross-cut by numerous intermittent narrow faults/shears. i.e.) 227.99 - 5mm, clay-ser. 228.29 - 6cm, chl-ser. 228.74 - 10cm, clay, chl-ser. 228.98 - 5mm, clay, 45 C/A. 230.92 - 5mm, clay, 20 C/A.	Top ctc 20 Bot ctc 20 Internal shear 45	Moderate-strong chl +/- ser throughout. Local clay gouge on fault planes. Local qtz + py + cpy veins (brecciated?).	5% very fine grained dissem. py throughout. Also str. py with qtz veins +/- 1% cpy. i.e.) 229.84 - 230.24 8% py dissem., blebs, str., 1-2% cpy irreg. blebs.	Litho BCD #6187 229.84 - 230.24m.

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230.92 to 237.58	DACITE- ANDESITE TUFF	Colour - medium-light green. Grain Size - fine. Massive, moderately foliated homogeneous dacite-andesite tuff. Similar to previous section. Minor shear @ 237.58m., 235.24m. 3% 1-2mm qtz eyes locally.	Fol'n 0-30 Bot ctc 20	Moderate chl +/- ser. Locally weak (236.75 - 237.58).	3-5% py fine grained dissem. throughout. Locally str. discont. py 1-5mm thick with tr - <1% cpy.	Note py locally as round blebs, poss. frags?
237.58 to 241.57	DACITE CRYSTAL ASH TUFF (LOCALLY LAPILLI FRAGS)	Colour - light-pale green-grey. Grain Size - aphanitic-fine groundmass, ine-very coarse crystals, frags(?). Massive locally crudely layered(?), weakly foliated dacite crystal tuff/ash tuff. 1-5% 1mm Fp phenos, very weak saussuritized. Very fine grained - aphanitic matrix. 1-3% <1mm qtz eyes, round. Felsic lapilli tuff layer at 239.63 - 239.73. 20% felsic frags 2-8mm drawn out parallel to foliation. Shear @ 239.90m.	Top crc 20 Fol'n 0-45 Layering? 40-45	Tr - weak ser, tr chl. Silicified locally?, poss. devitrification? Chl as envelopes with py stringers. Sel. very weak saussuritization of some Fp phenocrysts (plag.).	1-3% dissem. fine grained pyrite throughout. Overall 3-8% py dissem. + stringers. Str. 1-3mm thick py +/- cpy Generally parallel to foliation, avg. 1 per 20cm C/A 0-20 & 70. C/A 70 are py -cpy str.? parallel to lapilli tuff band.	Assay BCD #6317 237.86 - 239.11m 5-8% py, 1-2% cpy Assay BCD #6318 239.11 - 240.29m 5-8% py, 1-2% cpy Litho BCD #6188 240.29 - 241.49 1% cpy
242.27 to 242.42	DIORITE DYKE	Colour - pale green-beige. Grain Size - very fine - fine. Massive diorite dyke, weakly Fp porphyritic. Sharp contacts.	Top ctc 45 Bot ctc 40	Moderately bleached. Moderate -strong calc 2mm veinlets.	5% dissem. fine grained pyrite.	

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242.42 to 253.46	DACITE CRYSTAL- ASH TUFF (SIMILAR TO ABOVE), TO DACITE- ANDESITE TUFF. LOCAL LAPILLI FRAGS.	Colour - very light green-grey to whitish green-grey. Grain Size - aphanitic - very fine grained matrix. Crudely, locally poorly layered dacite tuff - crystal tuff, minor lapilli size frags locally. Varies from dacite/dacite-andesite composition similar to above dacite crystal tuff - ash tuff. Note poss. folds at 246.15m.	Fol'n 20 (variable) Layering ?60	Very weak - moderate ser +/- chl. i.e.) moderate chl/ser 246.18 - 246.48. Mainly very weak - weak sericitization. Silicified? Cloudy white patches throughout.	Py in stringers/veins 1mm - 40cm thick +/- qtz +/- cpy +/- chl. Py in large stringers is massive, in quartz +/- calc gange. Overall 3-10% py, Tr - 2% cpy. Stringer @ 242.69: 2mm, py-cpy, irregular C/A -20 243.00: 1-2mm py, irregular C/A 80 243.18: 2mm, cpy-py, C/A 40 243.25: 2mm, py-cpy, C/A 5 243.59: 1mm, py-cpy, C/A 10 244.44: 4mm, py-cpy, C/A 80 244.54: 10mm, qtz-cpy-py, C/A 0-5 244.84: 4mm, py-cpy-qtz, C/A 15 245.30: 5mm, py-chl- qtz-cpy, C/A 0-5 245.67: 2cm, qtz-py, C/A 80 245.81: 2mm, cpy-py, C/A 55 245.95: 2mm, py-cpy, C/A 45 246.15: 1cm, py-chl-cpy C/A 65	Assay BCD #6319 244.24 - 245.14m 5-8% py, 2% cpy  Assay BCD #6320 245.14 - 245.99m 5-10% py, 1% cpy  Minor shear/fault @ 242.81, 248.67, 248.44.  Litho BCD #6189 249.97 - 250.30m Litho BCD #6190 251.18 - 251.60m



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255.32 to 264.72	ANDESITE- DACITE TUFF, MINOR CRYSTAL TUFF	Colour - light-medium grey/green. Grain Size - very fine - fine-medium. Massive - crudely layered, weak-moderately foliated, andesite-dacite tuff, minor crystal tuff (or coarse ash). Varies in colour (& composition?) from light green/grey through medium grey/green. Locally crystal tuff with 5% <1mm Fp.	Fol'n 60-80 (to 259.00) 40-15 (to end)  Layering parallel to fol'n? (at 257- 258m) 60-80	Moderate-weak chl +/- ser (mainly moderate). Weak qtz +/- py +/- chl +/- cpy stringers in top 5m of interval. Very weak 1cm thick milky white quartz veins. Shear at 263.75m.	Py as stringers 1mm - 30cm thick parallel to foliation & as disseminations. 3-10% py, locally tr - 2% cpy (avg. 5% py, tr cpy). Stringers py +/- qtz +/- chl +/- cpy @ 255.96: 2mm, py-cpy, 5 C/A 256.58: 4mm, py-cpy, 55 C/A 256.88: 5-10mm, py-cpy, 50 & 70 C/A 257.27-257.57: py-qtz- cpy, 60 Bot C/A, Top 70 C/A (40% py) 257.64: 2-3mm, cpy-py, 70 C/A, Boudined stringer? 257.93-258.47: 2-5mm, qtz-py-cpy, 55-60 C/A, Poss. parallel to layering? 258.86: 2mm, py, CA 35 259.80: 3mm, py-cpy-chl 35 C/A 263.55: 3-4mm, qtz-py- cpy, 5-10 C/A/	Litho BCD #6191 259.00 - 262.00m  Assay BCD #6321 256.33 - 257.27m 5-8% py, 1% cpy  Assay BCD #6322 257.27 - 258.42m 10% py, 1% cpy  Note poss. py frag locally ie) 257.93.
264.72 to 265.88	ANDESITE TUFF CUT BY MINOR FAULTS	Colour - medium-dark green. Grain Size - fine. Massive, weak-moderately foliated, locally sheared andesite tuff. Gouge is light-pale green. Gouge/shear @ 265.13, 2cm, 5-20 C/A. 265.47, 1cm, C/A 10.	Fol'n 0-20	Moderate-strong chl throughout (strong chl in gouge). Tr - very weak irregular quartz veins.	3-5% dissem. fine grained py as grains + blebs.	

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					246.52: 5mm, py-chl, C/A 25 246.95: 2mm, py-chl-cpy C/A 45 247.48: 1-3mm, py-chl- cpy, C/A 35 & 5 248.87: 15mm, qtz-chl- py, C/A 30 249.79: 4mm, py, C/A 45 249.97: 33cm, py-qtz +/- chl, C/A 30 250.27: 3cm, py-qtz-ep, C/A 60-80 251.10: 42cm, py (50%) -qtz-chl, C/A 20-30, (50%) 252.24: 3mm, qtz-py, C/A 5 252.90: 1mm, py-cpy, C/A 5 253.23: 1-2mm, py-chl, C/A 10-15	
253.46 to 254.37	ANDESITE- DACITE TUFF	Colour - medium green-grey. Grain Size - fine. Massive, weak-moderately foliated andesite-dacite tuff. Relatively homogeneous.	Fol'n 5-10 Top ctc 30?	Weak - moderate chl +/- ser, pervasive.	5% fine grained pyrite dissem. grains & blebs.	Minor shear @ 253.71m.
254.37 to 255.32	FAULT/ SHEAR	Colour - medium green-grey. Grain Size - fine-coarse. Fault plane is 4mm thick grey py-ser-chl seam with adjacent sheared margins. Fragments are 1-4mm. Elongate (rounded) parallel to shear.	Fault seam 0-5 Shear 5-10	Moderate-strong chl +/- ser throughout.	3-5% fine grained dissem. py, <1% cpy blebs in disconnected stringers.	Minor py-chl.

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265.88 to 266.25	FAULT- QTZ VEIN	Colour - white + dark green. Grain Size - fine. Massive milky white quartz vein with sheared/gouge-breccia margin at top & chl-qtz contact at bottom. Also internal chl-qtz gouge C/A approx. 40.	Top ctc 20-30 Bot ctc 25	Chl envelopes, chl/ser gouge, quartz vein.	2-3% very fine grained dissem. py. Tr cpy as blebs.	
266.25 to 270.32	ANDESITE/ ANDESITE- DACITE TUFF - CRYSTAL TUFF	Colour - medium green/grey. Grain Size - fine. Massive, moderately foliated andesite - andesite/dacite tuff, minor crystal tuff (269.02 - 270.32). Crystal tuff has 1% <1mm qtz eyes, 10% <<1mm Fp crystals.	Fol'n 15 (15-30)	Moderate/moderate-weak chl to approx. 269.02m. Weak chl +/- ser to 270.32m.	Avg. 5% dissem. fine grained pyrite throughout, range 3-10%. Minor cpy in str. Local str. @ 268.43: 8mm, qtz-py (10%) -cpy, C/A 30 270.04: 1-2mm, cpy-py, irregular discon. C/A 60.	Litho BCD #6192 267.10 - 270.10m
270.32 to 270.62	FAULT- SHEAR (MINOR)	Colour - light - pale green gouge. Medium-dark green tuff. Grain Size - fine. Fault gouge at top & bot contacts 5cm clay-chl-ser gouge-breccia, also weakly sheared and tuff.	Bot ctc 40 Bot ctc 20	Clay-chl-ser gouge. Weak - moderate chloritized tuff.	2-3% fine grained dissem. pyrite.	Prob. very little movement on fault.
270.62 to 272.76	FLOW-TOP BRECCIA- DACITE	Colour - pale grey-green. Grain Size - aphanitic-fine. Flow top breccia, bands of elongate vaguely outlined fragments(?) bands are medium-dark green silicified & light grey silicified matrix. Locally note bands are Fp porphyritic.	Fol'n 25-35	Trace - local weak ser/chl. Silicified matrix (mainly silicified).	5-8% py fine-medium grained dissem. in bands + throughout. Minor 1mm py+chl str. C.A 30.	
272.76 to 273.41	ANDESITE- DACITE TUFF (SHEARED)	Colour - medium silvery green-grey. Grain Size - fine. Massive, strongly foliated/sheared fine andesite-dacite tuff. Top ctc is sharp discord. Interval strongly sheared, poss. faulted into a dacite flow-top breccia.	Top ctc 80 Bot ctc ? Shear 60	Moderate - strong chl +/- ser.	3% fine grained dissem. py.	

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273.41 to 303.65	DACITE FLOW WITH FLOW-TOP BRECCIA	Colour - light grey-green with dark-medium green patches (frags). Grain Size - aphanitic groundmass & breccia matrix, fine-medium phenos. Massive, very weakly foliated dacite-rhyodacite flow with flow breccia. Crude flow banding(?) locally visible. Relatively homogeneous. 273.41 - 274.80: Flow-top breccia light grey/green to medium-dark green. Poss. frags are light grey with green chloritic matrix. Frags 4mm-3cm, elongate, parallel to foliation. 274.80 - 275.02: Shear-fault with ser-chl-clay gouge planes, light green-grey. 275.02 - 279.92: Very light grey slightly green - light grey/green flow top breccia. Matrix is rhyodacite quartz porphyry patchey silicified. Frags are light-medium green vaguely outlined ser-chl elongate patches. 279.92 - 294.13: Dacite flow, very weakly foliated, patchy/cloudy devitrification texture throughout. 2-5% qtz eyes, medium grey, round <1-3mm, avg. 1-2mm. 2-3% <<1mm leucoxene(?) throughout. Fp phenocrysts(?) 1-3% <1mm vague outlines.	Fol'n 25  Top/Bot approx 35  Fol'n 10-20  Fol'n/FB 10 (0-30)	Silicified matrix of flow top breccia, patchy - pervasive. Devitrification silicification throughout.  Frag moderate-strong chl/ser. Matrix moderate ser + silicified.  Weak-moderate ser +/- chl & strong clay-ser-chl in gouge planes. Silicified (devitrification patches). Moderate ser +/- chl in first m. of interval + fragments.  Silicification- devitrification patches throughout. Very weak ser locally.	3-5% py dissem. throughout. Locally cpy-py-chl stringer @ 274.08 - 274.13: 2cm, py-cpy (3-5% of interval), 70-80 C/A - irregular. 3-5% dissem. fine grained pyrite.  Tr 3% dissem. fine grained pyrite, Tr cpy locally. Note py stringer with tr cpy @ 279.20m: 3mm, py-cpy, 30 C/A.  Range 1-5% py, avg. 3% fine grained dissem. Local stringers. Tr cpy. 279.92-284.00: 3-5% dissem. py 284.00-287.30: 1-2% dissem. py 287.30-289.30: 3-5% dissem. py 289.30-290.30: 1-2% dissem. py 290.30-294.13: 3-5% dissem. py  Str. 1-2mm, py +/- cpy 0-20 C/A	Assay BCD #6323 274.01 - 274.16m 8% py, 3% cpy.  Note 2-5% qtz eyes <1-2mm in quartz porphyry flow breccia "matrix".  Litho BCD #6193 279.92 - 282.92m.

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		294.13 - 294.78: Sheared dacite flow, poss. a fault. Minor ser-clay gouge along planes.	Top 20-30 15 Bot 5-10	Moderate-strong ser, minor clay on shear planes. Calc 1cm vein @ top etc.	5% fine grained dissem. py.	
		294.78 - 300.33: Dacite-rhyolite crystal-ash tuff - silicified, or dacite flow.(devitrification-silicification). Light green & grey (grey is patchy). Relatively homogeneous.		Patchy - pervasive silicification (prob. devitrification). Tr - very weak ser/chl.	1-5% py fine grained dissem. 294.78-297.49: 3-5% py 297.49-298.29: 1-2% py 298.29-300.33: 3-5% py	Flow - very similar to above interval.
		300.33 - 300.53: Minor shears in above dacite flow(?)	35 & 60	Ser - clay on shears.	3-5% py.	
		300.53 - 303.28: Light green-grey dacite crystal tuff? or flow. Very siliceous, but no patchy/cloudy silicification. 5% 1mm round looking Fp phenocrysts, appear to be localized. 1-3% <1-2mm grey qtz eyes, lense - round shape.	Fol'n 40	Tr - very weak ser, tr chl silicified(?)	3-5% dissem. & str. py (1 str./40cm) str. up to 5mm thick 30-40 C/A.	Minor shears @ 301.73.
		303.28 - 303.65: Shear/fault in dacite, 2cm thick gouge. Very light - light grey/green.	Top 30 Bot 30	Ser - clay in ser - gouge.	5% fine grained dissem. py.	
303.65 to 309.48	DACITE TUFF/ CRYSTAL TUFF	Colour - light-medium grey - slightly green. Grain Size - very fine matrix, fine-medium crystals. Massive - crudely layered dacite ash - crystal tuff. Layering locally as crude bands of Fp. 5-10% <2mm Fp. Tr - 2% <1mm qtz eyes.	Fol'n 20-40 Layering 20?	Trace - weak ser. Silicified?	3-5% dissem. py grains & blebs.	Litho BCD #6194 306.75 - 309.30m.  Minor shears @ 306.23 C/A 25 304.83 C/A 30

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309.48 to 309.63	DACITE- ANDESITE CRYSTAL TUFF	Colour - medium green - white. Grain Size - very fine matrix, medium crystals. Moderately foliated crystal tuff bed, 40% Plag. subr. Fp.	Top ctc/ layering 15 Fol'n 15	Weak - moderate ser +/- chl. Very weak epidote.	8% dissem. fine grained pyrite.	
309.63 to 311.50	DACITE TUFF/ CRYSTAL TUFF	Colour - light-medium grey - slightly green. Grain Size - very fine matrix, fine-medium crystals. Similar to above dacite tuff/ crystal tuff.		Trace - weak ser. Silicified.	3-5% dissem. py. Local str. @ 310.58 - 310.63m, py-qtz, C/A 30.	
311.58 to 311.78	QUARTZ VEIN/ SHEAR	Colour - white & light green. Grain Size - fine. Irregular massive white qtz vein with shear chl/ser contacts.	Top 25 Bot 20	Quartz vein with sheared ser/chl margins.	3% fine grained dissem. py in ser/chl.	
311.78 to 312.38	DACITE TUFF - CRYSTAL TUFF	Colour - light grey with green hue. Grain Size - aphanitic - very fine matrix, fine - medium crystals. Similar to above dacite tuff - crystal tuff. Weakly brecciated.	Layering 35? Bot ctc 70	Weak ser locally, silicified(?).	3% fine grained dissem. py.	
312.38 to 313.02	DYKE OR DACITE- ANDESITE FELDSPAR CRYSTAL TUFF	Colour - medium brown-green. Grain Size - aphanitic-fine. Massive moderately foliated pyritic dacite-andesite dyke? Note sharp contact at top & fault seam (<.5cm) at bottom contact. Poss. a dacite-andesite crystal tuff locally sheared, textures largely destroyed.	Fol'n 0-45 Top ctc 70 Bot Fault 30-35	Moderate-strong ser?, locally silicified. Irregular strong calcite vein stockwork throughout.	8-15% fine grained dissem. py +/- fine grained blebs.	Note upper ctc is sharp.

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313.02 to 320.59	DACITE TUFF - CRYSTAL TUFF	Colour - light grey-green. Grain Size - aphanitic matrix, fine-medium crystals. Massive, weakly foliated dacite tuff - qtz eye crystal tuff. 3-5% 1mm qtz eyes - round. 5-15% <1mm feldspar crystals. Similar to above dacite tuff.	Fol'n 35-20	Weak locally moderate ser. Locally silicified(?) - patchy.	3-5% dissem. py, avg. 3% py. Minor qtz-py stringers.	Note sheared interval at 316.95-317.20m.
320.59 to 321.87	DYKE(?) OR ANDESITE- DACITE BLEACHED CRYSTAL TUFF	Colour - light-medium brown-green +/- white. Grain Size - aphanitic-fine matrix or groundmass, fine-medium crystals. Weak - moderately foliated feldspar porphyry andesite-dacite dyke or crystal tuff. Locally moderate-strongly sheared with pseudo breccia developed and healed by calcite. Note narrow sections 1-5cm. Light brown with bright green mineral parallel to foliation associated with qtz veins.	Fol'n 45 Top ctc ?10? Bot ctc ?25?	Locally moderate ser., locally silicified with cloudy white qtz veins. In unsilicified sections note stockwork calcite 2-3mm veins.	5-8% fine grained dissem. py throughout.	Note bright green Ni(?) mica drawn out parallel to foliation at 321.70: 2cm, 5% 321.32: 1cm, 5%
321.87 to 322.92	DACITE- RHYOLITE CRYSTAL TUFF	Colour - light grey - slightly green. Grain Size - aphanitic-very vein matrix, fine-coarse crystals. Massive, weak-moderately foliated dacite-rhyolite crystal tuff. 5% 1-2mm found qtz eyes, approx. 10% <1mm feldspar crystals.	Fol'n 35-40	Trace - very weak ser.	3% fine grained dissem. py.	Note pseudo breccia developed from calcite vein flood.
322.92 to 323.32	DYKE? OR ANDESITE- DACITE BLEACHED CRYSTAL TUFF	Colour - light-medium green-brown. Grain Size - aphanitic-fine matrix/ groundmass, fine-medium crystals. Weak - moderately foliated dyke or bleached crystal tuff, pyritic. Similar to 320.59 - 321.87.	Fol'n 40 Top ctc 25-30 Bot ctc 45?	Calcite vein stockwork and flood heals local pseudo breccia/insitu breccia.	5-10% fine grained dissem. py.	Top ctc relatively sharp.

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323.32 to 324.34	DACITE- RHYOLITE QTZ EYE CRYSTAL TUFF	Colour - light green-grey. Grain Size - aphanitic-fine matrix, fine-medium crystals. Similar to above qtz-eye crystal tuff.	Fol'n 20	Trace - weak ser.	3% fine grained dissem. py.	
324.34 to 325.04	DYKE(?) OR DACITE- ANDESITE CRYSTAL TUFF - BRECCIATED	Colour - light-medium green. Grain Size - aphanitic-fine matrix, fine-coarse crystals/frags. Very weakly foliated feldspar rich brecciated dyke or crystal tuff. Textures vague. Locally up to 35% 1mm feldspar phenos weakly clay altered? In silicified section note 5% pale green feldspar(?) very hard.	Top etc approx 60(?)	Silicified in central 15cm, calcite veined pseudo breccia at margins.	5-8% fine grained dissem. py.	Litho BCD #6195 324.34 - 325.04m
325.04 to 327.66	DACITE- RHYOLITE QTZ EYE CRYSTAL TUFF	Colour - light grey-green. Grain Size - aphanitic-fine matrix, fine-medium crystals. Massive, weak/weak-moderately foliated dacite-rhyolite crystal tuff, similar to previous dacite crystal tuffs. 5% <1-2mm qtz eyes <5-10% <1-2mm feldspar phenos In silicified section note 5% pale green feldspar(?) - very hard.	Fol'n 15-40  Top etc 35-40  Bot etc sharp	Trace - weak ser, trace chl.	3% dissem. fine grained py, minor py as stringers.	



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327.66 to 460.55	DIORITE	<p>Colour - dark green - medium dull green-grey +/- white. Diorite includes various phases from very fine grained - medium grained and equigranular - porphyritic. Fine grained phases often brecciated by calcite veins. Feldspar porphyritic phases have 5-30% feldspar (plag.) 1-2mm phenocrysts. Some phases are cross-cutting dykes.</p> <p>327.66 - 328.67: Fine grained + feldspar porphyritic (2-5% feldspar).</p> <p>328.67 - 328.94: Feldspar porphyry dyke(?).</p> <p>328.94 - 330.82: Fine grained dark green-grey diorite brecciated by calcite veins.</p> <p>330.82 - 332.16: Feldspar porphyry diorite.</p> <p>332.16 - 332.96: Fine grained diorite pseudo breccia.</p> <p>332.96 - 334.37: Feldspar porphyry diorite 1-2mm feldspar (10%).</p> <p>334.37 - 335.39: Feldspar porphyry same as above pseudo breccia.</p> <p>335.39 - 342.04: Fine grained diorite, good pseudo breccia (Insitu breccia) from 335.39 - 337.41.</p>	<p>Top ctc 70 (45-70?)</p> <p>Top ctc 70</p> <p>Top ctc 45?</p>	<p>Very weak pervasive chl +/- epidote. Very weak - moderate calcite veins throughout +/- Qtz - heal pseudo-breccia (Insitu breccia parallel to foliation/shear).</p> <p>Healed by calcite veins 1-2mm.</p> <p>Cross-cut by calcite veins, heal insitu breccia. Same as above, also massive fine grained diorite section flooded with calcite.</p>	<p>No visible sulphides - tr py.</p>	<p>Locally 1-5% magnetite.</p> <p>Part of chilled margin.</p> <p>Crackle breccia?</p> <p>Poss. calcareous due to shearing.</p>

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		342.04 - 346.86: Fine - medium grained moderately sheared dark green diorite.	Top ctc? 70, Bot ctc? 50	Note hematite in calcite veins. Calcite throughout as veins + dissem.?		5% leucoxene dissem. throughout.
		346.86 - 348.39: Fine grained sheared calcareous diorite.	Fol'n 25			
		348.39 - 349.84: Fine - medium grained strongly sheared calcareous diorite similar to above.	Shear 0-25			
		349.84 - 351.43: Medium grained diorite.				5-10% dissem. magnetite weathers slightly purple.
		351.43 - 354.18: Sheared fine grained diorite + diorite breccia - pseudo breccia.		Calc pervasive in shear, matrix in insitu-rotational breccia.		
		354.18 - 363.84: Fine grained diorite, pseudo breccia locally, healed by irregular calcite veins. Moderately sheared.				Litho BCD #6196 360.00 - 363.00m.
		363.84 - 364.25: Medium grained equigranular diorite, 25% feldspar crystals.				2-3% magnetite dissem., some skeletal.
		364.25 - 364.80: Fine grained diorite, local pseudo breccia by calcite veins.	Shear 30			
		364.80 - 366.38: Medium grained equigranular diorite.				5-8% skeletal magnetite weathers slightly purple. 5% leucoxene as streaky patches.
		366.38 - 371.34: Fine grained diorite - sheared diorite to feldspar porphyry diorite.	Shear 0-30 Bot ctc 45	Calcite irregular (<1-2mm veins, local pseudo breccia.		
		371.34 - 372.59: Medium grained diorite, 30% feldspar, equigranular.				
		372.59 - 373.68: Fine - medium grained sheared diorite, patchy calcite + gashes.				5% leucoxene.
		373.68 - 378.13: Medium grained diorite equigranular, moderate calcite irregular veinlets.				
		378.13 - 380.42: Weakly feldspar porphyritic medium grained diorite.				
		380.42 - 381.76: Feldspar porphyry diorite - medium grained diorite.	Top ctc 20-25			
		381.76 - 383.19: Fine grained diorite - feldspar porphyry diorite, pseudo breccia locally.		Calcite +/- quartz heals insitu breccia.		

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		383.19 - 383.68: Feldspar porphyry (5-10%) diorite, fine grained groundmass.	Fol'n 20			
		383.68 - 384.94: Fine grained diorite pseudo breccia.		Irregular gashes, strong calcite.		
		384.94 - 385.48: (15%) feldspar porphyry diorite.				
		385.48 - 387.00: Fine grained diorite, minor feldspar porphyry diorite.	Top ctc 60			
		387.00 - 391.61: Medium grained diorite 20% 1mm feldspar - weakly porphyritic diorite.				2-3% dissem. magnetite.
		391.61 - 392.27: Fine grained diorite dyke?, calcite 5-20mm veins.	Bot ctc 45			
		392.27 - 394.60: Feldspar porphyry diorite (dyke?) 10-15% feldspar.	Bot ctc 45			
		394.60 - 396.92: Medium grained diorite - weakly feldspar porphyry diorite.	Bot ctc approx 60			
		396.92 - 398.58: Fine grained diorite cross-cut by Qtz-calc veins.	Fol'n 60			
		398.58 - 410.06: Feldspar porphyry diorite, 20-30% 1-2mm feldspar phenos, 3-5% dissem. blk oxide, fine-very fine groundmass.	Bot ctc 60?			Litho BCD #6197 400.00 - 403.00m
		410.06 - 413.47: Medium grained diorite.				

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		413.47 - 414.81: Feldspar porphyry diorite.				
		414.81 - 415.13: Fine grained diorite dyke - pseudo breccia.	Fol'n 40-45	Insitu breccia healed by strong irregular calc +/- qtz.		
		415.13 - 415.28: Medium grained weakly porphyritic diorite (25% feldspar).				
		415.28 - 416.27: Fine grained to feldspar porphyry diorite dyke pseudo breccia.	Fol'n 45	Strong calcite veins heal breccia - insitu.		
		416.27 - 420.28: Medium grained - weakly porphyritic diorite.	Bot ctc approx 30			
		420.28 - 433.14: Homogeneous feldspar porphyry diorite 10-15%, 1-2mm feldspar phenos, groundmass is very fine - fine grained.		Local calcite +/- qtz veins.		
		433.14 - 439.14: Weak - strongly sheared feldspar porphyry diorite, similar to above. Locally pseudo breccia, also local streaky look.	Shear 0-25	Calcite heals local insitu breccia, also calcite flooded parallel to foliation/shear.	1-2% py in qtz-calc veins.	
		439.14 - 460.55: Feldspar porphyry diorite, massive. 5-10% feldspar <1-2mm phenos, very fine grained groundmass. Very blocky 450.19 - 454.46. Blocky throughout to 460.55m.				Litho BCD #6198 445.00 - 448.00m.
460.55 to 462.44	FAULT	Colour - medium - light gray-green. Grain Size - very fine - fine matrix, <2-15mm frags. Fault gouge/mill breccia parallel to core axis between diorite & dacite tuffs.	Fault 0-10 Top 5 Bot 5-10	Matrix - clay gouge + strong ser +/- chl. Moderate sericitization of felsic volcanics.	3-5% dissem. fine grained py throughout.	Lenora fault? Parallel/subpar. C/A.

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462.44 to 463.09	DIORITE, FELDSPAR PORPHYRY	Colour - medium-dark green & white. Light brown at chill margin. Grain Size - very fine grained groundmass, fine-medium crystals. Feldspar porphyry diorite with 10cm very fine grained chilled margin shot full of calcite veinlets (stockwork?). Crude flowage structure at ctc margin as seen by aligned feldspar crystals.	Top ctc 5 Bot ctc 45	Bleached chilled margin.  Calcite stockwork at chilled margin.	Trace pyrite except in chilled margin 3% py, 1% cpy dissem.	Top ctc with clay-gouge/ breccia.
463.09 to 480.91	RHYODACITE FLOW OR CRYSTAL TUFF IN FAULT ZONE	Colour - light grey with green hue. Grain Size - aphanitic matrix/ groundmass, fine-medium phenos. Massive very weakly foliated homogeneous rhyodacite flow? or crystal tuff. Locally silicified. 1-5% <2mm qtz eyes, aphanitic siliceous matrix. 463.09 - 465.65: Rhyodacite flow?, light grey-green. 5% 1-2mm round quartz eyes. 465.65 - 465.90: Fault, light green/grey, strongly sheared with 3mm medium grey pyritic seams.	Top ctc 45 Bot ctc Fault      Top 60 Bot 45-60	Variable very weak - weak ser. Strong ser in faults + clay gouge. Locally silicified.   Weak/weak-moderate ser.  Moderate-strong ser, minor clay.	3-5% dissem. py blebs throughout.   3-5% dissem. py grains & blebs.  5% dissem. py + in narrow seams.	

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		465.90 - 467.25: Rhyodacite, similar to above.		Weak ser.	3-5% dissem. py - py blebs.	Blebs not py fragments.
		467.25 - 467.27: Fault gouge, light grey bleached.	45	Ser - clay.	3% fine grained dissem. py.	
		467.27 - 468.22: Rhyodacite, similar to above. 3-5% <1mm qtz eyes, round.		Weak ser.	3-5% dissem. blebs py.	
		468.22 - 468.42: Fault, with some gouge, bleached white-gray to light green-grey.	40-50	Ser - clay.	3-5% very fine grained dissem. py.	
		468.42 - 469.05: Rhyodacite, similar to above.		Very weak - weak ser.	3-5% dissem. py grains + blebs.	
		469.05 - 469.41: Faults at 2 orientations(?) bleached light grey with medium grey carbon-pyrite seam(?) + pyrite-ser seam.	10 + 40	Ser - clay.	3-8% py dissem. fine grained also as a band or seam 2cm thick.	Poss. not carbon but rather a grey clay-py seam.
		469.41 - 469.77: Rhyodacite, similar to above.		Weak ser +/- moderate.	3% fine grained dissem. py.	
		469.77 - 469.97: Fault/shear 2 orientations, i) 10 C/A narrow clay py seams, ii) ser-clay gouge C/A 40 colour is light green-grey.		Clay - ser stringers.	5-8% dissem. fine grained- medium grained py.	
		469.77 - 470.00: rhyodacite, similar to above.				
		470.00 - 471.54: Intermittent fault & shears in rhyodacite. 60% of interval is milled ser - clay gouge. Light-medium gray-green.	Faults 10, 45, 30, 5	Gouge is clay-ser +/- chl. Rhyodacite is weak - moderately sericitized.	3-5% dissem. fine grained pyrite.	Rhyodacite, poss. flow.
		471.54 - 472.83: Rhyodacite, similar to above. Locally insitu brecciated.		Weak - moderate ser. Locally silicified?	3-5% fine grained dissem. py.	Litho BCD #6199 471.72 - 474.72m.
		472.83 - 473.40: Gouge/broken up rhyodacite/milled. Light green-grey. Note gray clay fault seam 3-4mm thick @ 473.29 C/A 25.	Fault 10-30	Gouge is ser-clay.	3-5% very fine grained dissem. py.	
		473.40 - 474.89: Rhyodacite similar to above with minor shears throughout.		Weak - moderate ser.	5% dissem. py.	
		474.89 - 476.63: Light grey-green rhyodacite flow or tuff - crystal tuff(?). Silicified locally. 2-3% 1mm qtz eyes - round, 95% aphanitic matrix.		Very weak - locally moderate ser. Locally silicified.	5-3% dissem. fine grained py.	Note locally dissem. blue-grey metallic mineral.

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		476.63 - 478.96: Rhyodacite flow or tuff with strong - intense fracture, intermittent faults (gouge).  Interval is shattered poss. insitu breccia on large fault margin. Light green-grey.	Faults 20 & 35	Silicified locally. Very weak - locally moderate ser. Faults are clay-ser <1cm seams with adjacent sheared/milled margins.	2-5% dissem. py, locally as blebs.	
478.96 to 480.92	FAULT- GOUGE ZONE	Colour - very light green-grey - white minor dark grey. Grain Size - matrix very fine, frags fine-coarse. Entire interval is gouge/ fine clay-ser-chl (rhyodacite & andesite) milled cataclasite. Internal clay seams @ C/A 25, note medium grey carbon? wispy seams. Last 26cm of interval appears to have been andesitic.	Top 30 Tor 10-15?	Strong ser-chl throughout. Local graphite (carbon?) seam at 480.60m.	3% fine grained dissem. py throughout.	Litho BCD #6200 479.72 - 480.47m. (split)

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480.92 to 486.00	ANDESITE TUFF - CRYSTAL TUFF IN FAULT ZONE	Colour - dark - medium green. Gouge, light-medium green. Grain Size - fine - very fine grained. Massive weakly foliated andesite tuff, locally sheared and cut by a number of faults with gouge (clay-chl +/- py). Andesite tuff relatively homogeneous.	Fol'n/ shear approx 30  Faults 20 (0-30)  Top ctc ? Fault	Very weak - weak chl throughout (moderate- strong chl adjacent to faults). Very weak patchy epidote throughout as vague cloudy light green balls approx. 5-10%. Clay-chl on narrow <1cm fault planes.	1-3% dissem. py throughout, also py in fault seams ie) 483.19m 1cm, py-clay, C/A 20.  Locally py as <1cm blebs with epidote patches.	Litho BCD #6201 481.00 - 484.00m  Faults at: 481.00: <1cm, gouge, 0-5 C/A 481.90: 2-3cm, breccia-gouge, ? C/A 482.25: .5cm, clay-chl, 15 C/A 482.70-483.55: 1-2cm, clay-py, 0-20 C/A 483.82-484.22: <5mm, chl, 5 C/A 484.82-485.07: shear/gouge, 0-10 C/A 485.37-486.00: Shear gouge in andesite clay-chl, 0-25



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485.00 to 508.11	ANDESITE TUFF, MINOR FINE CRYSTAL TUFF	Colour - dark - medium green. Grain Size - fine. Massive weakly foliated andesite tuff, homogeneous minor fine crystal tuff. Fine crystal tuff 486.00 - 497.67. Fine tuff 497.67 - 508.11	Fol'n 20-15  Layering ?10?	Weak chl throughout, weak - moderate chl @ 505.00 - 508.11. Very weak calc-qtz veins 2-5mm C/A 5-25.  Weak epidote patchy alteration 486.00 - 497.80m, outlines of patches vague approx. 10-20% epidote. (Patches range <1cm - 6X3cm). Very weak sel ep of fp in crystal tuff. Epidote associated with crystal tuff versus fine tuff.	Variable 1-10% dissem. py grains + blebs, poss. some sheared-out stringers(?), locally tr-2% cpy as irregular patches. Py blebs also associated with epidote alteration. 486.00-489.81: 2-3% py, tr cpy. 489.81-494.10: 3-5% py 494.10-498.07: 1-3% py, tr cpy. 498.07-502.00: 3-5% py, locally 1% cpy. 502.00-503.52: 5-10% py, 1-2% cpy. 503.52-508.11: 5% py, locally 5-8 py, tr-1% cpy locally.	Litho BCD #6201 499.00 - 502.00m  Litho BCD #6202 505.00 - 508.00m  Assay BCD #6325 502.10 - 503.52m 5-8% py, 1-2% cpy  Minor shears/ faults @ 492.30, 494.45, 500.11, 501.55-502.10m, 503.46.  Py most abundant in fine tuff vs crystal tuff.
508.11 to 508.38	FAULT- VEIN BRECCIA	Colour - dark green & white. Grain Size - fine matrix, frags 2mm-3cm. Matrix supported fault vein/breccia. 30-40% subround-subangular andesite tuff frags in a white calcite matrix.	Top 40 Sharp Bot 65	Frgs - weak chl. Matrix - calcite heals breccia.	3% dissem. fine grained py in fragments.	

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508.38 to 524.33	ANDESITE FINE TUFF + FINE CRYSTAL TUFF	Colour - dark-medium green. Grain Size - fine, locally medium. Massive - crudely layered very weak/very weak-weakly foliated andesite ash tuff/crystal tuff. Similar to above. Andesite fine tuff 508.11 - 511.44. Andesite crystal tuff 511.44 - 524.33 - crystal tuff has 15-35% (avg. 30%) feldspar phenocrysts 1mm in size, very homogeneous looking with crude layering.	Fol'n 40 (40-60)  Crude Layering 60 (45-60)  Bot ctc 70 Poss. 45	Weak - very weak chl. pervasive. Variable epidote as sel alteration of crystals & as patches, partially dependent on grain size? 511.44 - 512.47: very weak patchy epidote, weak sel ep. of feldspar phenos. 512.47 - 513.69: Weak patchy epidote, 10-15%, weak - moderate sel ep. 513.69 - 520.40: Very weak - weak sel. ep. 520.40 - 524.33: Very weak patchy 10%, very weak - weak sel. ep. Note epidote is light-medium green cloudy diffuse patches, not a typical pist. green.	2-8% py mainly dissem. grains & blebs, cpy irregular patches/blebs in sheared stringers? 508.38-512.00: 3-5% py, tr cpy 512.00-518.90: 2-3% py, tr cpy 518.90-519.50: 5-8% py, <1% cpy 519.50-524.00: 3-5% py, <1% cpy 524.00-524.33: 2% py.	Litho BCD #6203 521.00 - 524.00m
524.33 to 535.08	DIORITE, FELDSPAR PORPHYRY	Colour - medium-dark green & white. Grain Size - fine-very fine groundmass, fine-medium-coarse phenos. Massive feldspar porphyry diorite. 10-15% feldspar phenos (1-3mm avg. 1-2mm. Locally note glomerocrysts. Note fine-medium grained diorite dyke at 531.67 - 532.18. Bottom ctc approx. 40, Top ctc ?	Top ctc 70 (poss. 45)  Bot ctc Blocky- broken-up 235-40?	Tr - very weak chl.  Very weak saus. of fp phenos.  Weak 2mm calc. veins throughout.	Trace pyrite. 2-3% fine grained dissem. py in chilled margin.	

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535.08 to 546.17	ANDESITE TUFF, CRYSTAL TUFF	Colour - medium-dark green. Grain Size - fine +/- medium grained. Massive to crudely layered andesite uffs & crystal tuffs. (Similar to previous andesite tuffs.) Mainly fine crystal tuff, crystals <1mm, very homogeneous. Crude layering could simply be epidotization along foliation planes.	Fol'n 45 (35-55)  Layering ?60	Weak chl throughout, locally sections with weak/moderate ie) 537.55-538.65 also very weakly chloritized.  Very weak - weak 1-3mm calcite veins throughout.  Weakly epidotized between 537.55-538.65 as vague elongate light green patches (parallel to foliation or layering?). Tr selective epidotization of Fp phenos throughout. Note epidote not typical distinct balls with good colour contrast.	Mainly py as disseminations, also sheared str. Range 1-8% py, nil-2% cpy. (Locally up to 3% cpy over 20cm). 535.08-535.84: 5-8% py, <1% dissem + blebs + sheared. 535.84-540.41: 1-3% fine grained dissem. py. 540.41-546.17: 3-5% dissem. fine grained py + blebs, poss. py fragment at 543.32. Local py +/- cpy +/- qtz stringers at 537.87: 3mm, py-cpy, C/A 55 & 20 539.16: 2mm, qtz-py-cpy, C/A 35-40	Litho BCD #6204 543.00 - 546.00m  Minor shear @ 535.83, 536.05 (clay-py seam).  Note very blocky @ 540 - 542m.  Assay BCD #6326 537.81 - 538.04 3-5% py, 3% cpy, (stringer)
546.17 to 546.30	FAULT (MINOR)	Colour - medium gray & green. Grain Size - very fine grained - fine grained. Narrow fault marked by calcite-qtz vein & py seams.	Top 20-25 Bot 10-15	Calcite-qtz vein, with slicken lines(?).  Weak chl in andesite tuff.	10-15% very fine grained py (grey-brown) as seams with calcite-quartz vein, also as wispy infiltrating <1mm stringers within fault.  Tr cpy.	

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546.30 to 558.39	ANDESITE TUFF/ CRYSTAL TUFF	Colour - medium-dark green. Grain Size - fine. Massive, very weakly foliated andesite tuff - fine crystal tuff, (similar to above). Very homogeneous.	Fol'n 0-20? (0-40)  Bot ctc sheared	Very weak - weak chl. throughout. Ep is tr - very weak selective alteration of Fp throughout, local very weak ep. patches. 556.42-556.92: (5-10) (C/A 45).  Tr 2mm calc veins.	Py as fine-medium grained dissem. grains + blebs, minor str. py. 546.30-546.52: 5-8% py, 2-3% cpy 546.52-548.33: 3-5% py, <1% cpy 548.33-551.69: 1-3% py 551.69-558.39: 3-5% py, locally 1-2% cpy Note stringer py at 547.00: 3-5mm, qtz-py- cpy, 5-10 551.69: 2cm, qtz-ep-py, C/A 45 Note cpy bleb at bottom etc.	Assay BCD #6327 546.22 - 546.59m. 5-8% py, 2-3% cpy  Note: very blocky 550.20 - 551.69m
558.39 to 559.72	DACITE CRYSTAL TUFF - SILICIFIED (OR DACITE FLOW)	Colour - light-medium grey with green hue. Grain Size - aphanitic matrix, fine phenos. Massive very weakly foliated dacite crystal tuff(?), poss. flow. 1-3% qtz eyes - round <1-1mm (grey). 5-10% feldspar <1mm, locally very weakly saus. 1-3% mafic phenocrysts drawn out parallel to foliation.	Top ctc sheared  Fol'n Loc. 20	Silicified, tr. ser. Tr ep(?) of fp phenos.	No visible sulphides - trace py.	Litho BCD #6205 558.45 - 559.65m. minor shear @ 558.80m.

<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>
559.72 to 596.19	FELDSPAR PORPHYRY DIORITE, (WITH MINOR RELATED DYKES)	<p>Colour - medium green + white.</p> <p>Grain Size - fine-very fine grained groundmass, medium-coarse phenos.</p> <p>Massive feldspar porphyry diorite. Feldspar phenocrysts typically glomerophyric 2-3mm patches, also individual feldspar 1-2mm tabular crystal feldspar 5-15% phenocrysts.</p> <p>559.72 - 559.97: chilled margin, weakly feldspar porphyritic.</p> <p>559.97 - 561.09: Feldspar porphyry diorite.</p> <p>561.09 - 561.29: Fine grained diorite dyke? or epidote-qtz vein poss. brecciated.</p> <p>561.29 - 570.93: Feldspar porphyry diorite.</p> <p>570.93 - 570.97: Fine-medium grained diorite dyke(?).</p> <p>570.97 - 575.62: Feldspar porphyry diorite.</p> <p>575.62 - 575.94: Fine-medium grained diorite dyke similar to above.</p> <p>575.94 - 579.31: Feldspar porphyry diorite.</p>	<p>Top ctc (Irreg?) 20</p> <p>Irreg.</p> <p>Ctc's 40</p> <p>Top ctc 60 Bot ctc 45-60</p>	<p>Very weak chloritized pervasive.</p> <p>Weak local epidotization of groundmass. Also minor Epidote wispy veinlets.</p> <p>Weakly bleached.</p> <p>Moderate epidote pervasive, cross-cut by 1mm qtz veinlets.</p> <p>Very weak chl/ep.</p>	<p>Tr py, locally 3% py at top and bottom contacts.</p> <p>3% dissem. py blebs.</p> <p>2-3% dissem. py as blebs.</p> <p>3% dissem. fine-medium grained py.</p> <p>1-2% dissem. py.</p>	<p>561.42-569.98 &amp; 571.50-572.45 &amp; 572.65-573.02 Very blocky ground.</p>

<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>
		579.31 - 582.89: Feldspar porphyritic diorite, 15% feldspar phenocrysts. 582.89 - 585.06: Feldspar porphyry diorite, 5-10% feldspar phenocrysts. 585.06 - 585.56: Fine-medium, grained weakly feldspar porphyritic dyke. Note 5% leucoxene. 585.56 - 589.11: Feldspar porphyry diorite. 589.11 - 589.46: Sheared fine grained diorite, poss. dyke(?) with qtz veins. 589.46 - 596.19: Feldspar porphyry diorite.	Bot ctc 50			
			Fol'n 20-25 shear	Quartz veins, white-grey parallel to shear/fol'n.	1% cpy 2-3% py, dissem. with qtz.  Loc. qtz + py + cpy veinlet at 594.84.	
596.19 to 596.59	FAULT/ QTZ VEIN	Colour - white + dark green. Grain Size - fine qtz, fine diorite sheared. Fault with top 5cm chloritic gouge (milled diorite) +/- clay. Massive white quartz vein infills fault.	Top ctc 40-45 Bot ctc 40	Quartz vein with sheared margins.  Strong chl.	3% py fine grained as patches in qtz vein.	
596.59 to 602.04	DIORITE, FELDSPAR PORPHYRY	Colour - medium green & white. Grain Size - fine. 596.59 - 602.04: Feldspar porphyry diorite. Similar to above.		Very weak chlorite.	Tr py.	
602.04 to 602.94	FAULT(?), SHEARED DIORITE & QTZ VEINS	Colour - dark grey & white. Grain Size - fine. Fault? or just strongly sheared diorite. (Poss. andesite tuff??) No gouge.	Top QV 50 Shear 40	Strong chl with qtz veins.	1-3% py, note one 4mm thick py stringer.	

<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>
602.94 to 632.36	DIORITE FELDSPAR PORPHYRY	<p>Colour - medium green &amp; white. Grain Size - very fine - fine groundmass, fine-coarse phenos. 602.94 - 618.07: Similar to above feldspar porphyry diorite. 618.07 - 618.77: Fine grained diorite or andesite dark green dyke.</p> <p>618.77 - 631.96: Feldspar porphyry diorite, minor shear at 628.48m. 631.96 - 632.36: Feldspar porphyry diorite bleached/chilled margin, pale - light green 2-3% feldspar phenocrysts, very fine grained groundmass. Contact is relatively sharp but irregular V shape.</p>	<p>Top ctc 5 Bot ctc 5</p> <p>Bot ctc 10-20?</p>	<p>Very weak chl, tr ep veins local calcite patches, local qtz veins 1cm-15cm thick, C/A 50-60.</p> <p>Very weak chl. Moderate qtz + calcite veins in adjacent feldspar porphyry diorite.</p> <p>Variable weak - moderate calcite veins throughout.</p>	<p>Tr py throughout. Locally note 1-2% py with 1-2mm thick cpy veinlet in qtz-calc stringers. 1-2% dissem. py, also note 1-3% py as blebs &amp; cpy 1% in adjacent feldspar porphyry diorite qtz/calcite veins.</p>	<p>Cpy-qtz poss. related to narrow fine grained andesite dyke, 1cm.</p>
632.36 to 633.36	ANDESITE TUFF - FINE CRYSTAL TUFF	<p>Colour - medium-dark dull green-grey. Grain Size - very fine - fine +/- medium grained. Massive, weakly foliated, fine-medium grained andesite tuff. Crude layering parallel to foliation(?) defined by &lt;1mm feldspar in crystal tuff.</p>	<p>Fol'n 25</p>	<p>Very weak - weak chl throughout. Very weak sel. ep. of feldspar, very weak - weak epidote as patches near fault.</p>	<p>2-3% fine grained - dissem. py.</p>	
633.36 to 633.42	FAULT (MINOR)	<p>Colour - light grey/green. Grain Size - fine. Minor fault, with clay/chl gouge + milled tuff.</p>	<p>30</p>	<p>Clay/strong chl.</p>	<p>1-2% py.</p>	<p>Very little movement on fault judging by the alteration similarity on both sides.</p>

<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>
633.42 to 644.70	ANDESITE TUFF - CRYSTAL TUFF	Colour - medium - dark dull green-grey. Grain Size - very fine - fine +/- medium grained. Massive andesite, weakly foliated crystal tuff - tuff. Similar to above. Layering parallel to foliation(?) crystal-rich layers? drawn out along planes. Local lapilli frags at 643.74m	Fol'n 10-15 (10-30)	Very weak - weak chl throughout, locally weak - moderate.  Trace calcite, qtz veins.  Epidote weak patchy full light green up to 4X3cm patches ie) 638.02-639.27 10-15% (avg. 1cm), 640.07-641.25, 641.80-644.50. Also weak sel. epidotization of feldspar phenos, epidotization appears to be controlled by foliation or layering.	1-3% dissem. fine grained py, locally medium grained py in discon. str. (1) +/- tr cpy.  Locally 3-5% dissem. py @ 634.10 - 634.35m, tr cpy.	Litho BCD #6206 638.00 - 641.00m  Locally note metallic brown hematite fracture coatings.
644.70 to 645.26 S.O.H.	FAULT/ SHEARED ANDESITE TUFF	Colour - dark green & light green (Gouge). Grain Size - fine tuff, medium-coarse frags. Strongly sheared fine andesite tuff with gouge planes.	Shear 10-20  Gouge approx 40	Moderate/moderate-strong chloritization.  Flooded with strong dicon. irregular calcite veins up to 4mm thick (contorted).  Clay-chl on gouge - plane 5mm thick.  3mm calcite vein C/A 15 with slickenlines near gouge (continuous planar).	2% dissem. very fine grained py.	Bottom 20cm gouge & strongly sheared tuff & intense calcite veins.



# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Sr %	Zr %	ppm As	ppm Sb	Total
6176	7.13	10.13	47.91	15.78	10.70	5.26	2.05	0.12	12.76	0.28	2.51	.015	180	82	16	1.5	5	.04	.013	2	1	97.44
	8.4																					
6177	67.05	68.36	54.34	15.65	7.30	2.80	3.26	0.44	11.48	0.28	1.93	.026	313	100	15	1.6	10	.03	.033	19	4	97.56
	67.7																					
6178	112.00	115.00	48.46	13.08	11.18	7.31	2.13	0.26	12.77	0.31	2.13	.017	180	59	12	1.4	10	.03	.010	1	1	97.69
	113.5																					
6179	141.00	144.00	70.26	15.65	0.94	2.37	1.37	3.98	2.90	0.09	0.37	.277	71	45	8	0.2	25	.01	.007	1	2	98.22
	142.5																					
6180	162.75	165.75	67.11	15.69	1.70	4.06	2.25	2.88	3.58	0.19	0.44	.213	14	95	11	0.4	5	.02	.007	1	1	98.13
	164.25																					
6181	166.79	167.85	44.73	18.53	10.18	10.45	0.91	2.00	8.91	0.68	1.01	.098	73	253	43	0.5	10	.02	.002	3	1	97.52
	167.5																					
6182	173.80	176.80	73.00	14.69	0.71	2.20	2.19	3.61	1.14	0.04	0.33	.263	53	421	13	0.5	20	.02	.005	1	2	98.20
	175.3																					
6183	198.70	201.70	73.37	14.23	0.67	2.82	1.61	3.39	1.61	0.05	0.32	.164	28	77	14	0.3	15	.01	.005	1	1	98.26
	200.2																					
6184	211.00	214.00	53.45	19.15	1.01	9.12	5.37	0.06	8.32	0.51	0.91	.010	158	352	18	0.7	5	.02	.004	8	1	97.94
	212.5																					
6185	212.90	213.16	45.98	12.59	1.16	6.42	3.07	0.14	21.23	0.36	0.65	.017	8927	451	94	7.3	60	.02	.002	53	8	91.63
	213.0																					

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## LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Sr %	Zr %	ppm As	ppm Sb	Total
6186	222.70	225.36	54.56	18.06	0.72	11.57	0.62	2.03	8.88	0.38	0.89	.154	242	320	19	0.7	5	0.01	.003	4	1	97.87
224.0																						
6187	229.84	230.24	68.22	10.36	1.57	5.10	0.25	1.93	8.87	0.16	0.48	.185	2136	2929	708	2.6	75	0.01	.005	21	9	97.15
230.0																						
6188	240.29	241.49	73.57	12.38	0.91	3.59	0.65	2.73	3.50	0.10	0.27	.123	973	25	12	0.4	5	0.01	.005	1	2	97.84
241.0																						
6189	249.97	250.30	27.78	2.47	5.58	2.79	0.01	0.01	26.18	0.16	0.04	.005	196	45	37	1.3	5	0.01	.005	168	55	65.03
250																						
6190	251.18	251.60	50.64	3.29	3.04	1.44	0.19	0.52	18.51	0.08	0.07	.025	1551	35	24	1.1	5	0.01	.005	101	35	77.83
251.4																						
6191	259.00	262.00	59.30	17.21	0.59	8.33	0.39	2.69	8.33	0.26	0.75	.095	267	86	13	0.8	10	0.01	.004	7	1	97.97
260.5																						
6192	267.10	270.10	56.30	17.66	0.70	9.26	0.71	2.16	9.98	0.23	0.79	.077	930	81	10	0.7	15	0.01	.005	12	3	97.88
268.6																						
6193	279.92	282.92	70.53	13.41	1.70	3.65	1.05	2.46	4.66	0.04	0.30	.111	563	25	11	0.5	5	0.02	.001	1	3	97.93
281.4																						
6194	306.75	309.3	72.16	13.52	2.32	2.14	1.55	2.65	3.26	0.04	0.29	.164	121	19	5	0.2	5	0.02	.005	1	2	98.13
308.0																						
6195	324.34	325.04	48.70	16.76	9.14	9.34	2.35	0.51	9.72	0.16	0.90	.059	132	45	21	0.9	5	0.03	.002	7	1	97.66
324.7																						

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# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Sr %	Zr %	ppm As	ppm Sb	Total
6196	360.00	363.00	49.05	15.34	10.55	5.02	2.71	0.74	11.61	0.26	2.45	.016	143	67	19	0.9	10	0.02	.010	9	8	97.76
	361.5																					
6197	400.00	403.00	48.44	14.81	9.88	6.65	2.84	0.31	12.20	0.30	2.26	.025	169	52	11	1.3	15	0.03	.008	2	1	97.76
	401.5																					
6198	445.00	448.00	49.14	13.95	10.33	5.74	1.98	0.05	13.30	0.32	2.71	.006	241	65	13	2.0	15	0.04	.013	2	1	97.59
	444.5																					
6199	471.72	474.72	70.71	14.27	0.71	3.69	1.62	2.52	4.30	0.10	0.33	.092	58	37	4	0.4	5	0.01	.000	1	3	98.36
	473.2																					
6200	479.72	480.47	70.03	13.97	2.77	3.11	2.57	1.93	3.30	0.14	0.29	.179	57	32	6	0.3	10	0.02	.005	1	1	98.30
	480.1																					
6201	481.00	484.00	58.06	17.07	2.85	6.58	2.88	1.24	8.39	0.27	0.65	.076	56	50	7	0.6	10	0.02	.005	5	2	98.07
	482.5																					
6202	499.00	502.00	56.42	17.14	1.07	8.03	2.20	1.73	10.38	0.24	0.66	.115	232	50	15	0.7	5	0.01	.005	13	5	97.99
	500.5																					
6203	521.00	524.00	56.48	16.28	1.87	8.07	2.75	0.59	10.63	0.28	0.67	.058	1296	71	17	1.0	5	0.02	.005	15	4	97.70
	520.5																					
6204	543.01	546.00	56.39	16.70	2.43	7.52	2.83	0.69	10.19	0.31	0.64	.053	828	54	14	0.8	10	0.02	.005	15	6	97.77
	545.5																					
6205	558.45	559.65	73.59	13.21	0.67	2.14	4.25	1.18	1.94	0.05	0.26	.111	7	38	9	0.1	15	0.02	.005	16	1	97.42
	559																					

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## LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

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# 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 Ba	ppm Mo		
			Cu	Zn																				
6305	155.93	157.43		2%	1.50	.179	2.23												2.4	50	2740			
6306	157.43	158.00		2%	0.57	.150	2.70												2.0	65	2560			
6307	158.00	159.02		2%	1.02	.040	0.99												0.6	25	5900			
6308	161.88	162.60		.5%	0.72											268	3540		1.4	5	1100			
6309	176.17	177.24		1-2	1.07		0.98									730			1.2	115	2770			
6310	177.24	178.74			1.50											460	3400		0.8	45	3500			
6311	178.74	180.24			1.50											202	2630		0.9	120	3520			
6312	180.24	181.74			1.50											122	1380		0.5	60	3750			
6313	181.74	183.55			1.81											127	2350		0.4	5	3100			
6314	183.55	184.52		1-2	0.97		0.49									279			1.7	710				
6315	184.52	185.12			0.60											72	1660		1.1	340				
6324	187.96	189.46	Tr	.5%	1.50																			
6316	221.80	222.70	.3%	.5%	0.40											596	4170		2.8	160		139		
6317	237.86	239.11	.5%		1.25	.241											114		0.9	20				
6318	239.11	240.29	.5%		1.18	.189											52		1.2	30				
6319	244.24	245.14	.5%		0.90																			
6320	245.14	245.99	.3%		0.85																			
6321	256.33	257.27	.3%		0.94	.260											64		1.7	15				
6322	257.27	258.42	.3%		1.15																			
6323	274.01	274.16	1%		0.15	1.760											89		4.2	70				

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ZIPPY PRINT BRIDGEVILLE RICHMOND

## ASSAY SHEET

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HOLE NO. \_\_\_\_\_

ZIPPY PRINT      LABORATORY      RICHMOND

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☒ METRIC UNITS  
☐ IMPERIAL UNITS

## DRILL HOLE RECORD

[illegible]

MTS-31

HOLE NO \_\_\_\_\_  
ZIPPY PRINT - BRIDGEPORT, RICHMOND

LOGGED BY M. J. Gray

<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 1.52	CASING					
1.52 to 34.71	DIORITE WITH MINOR RELATED DYKES	<p>Colour - white &amp; medium green. Grain Size - medium &amp; coarse grained locally. Massive medium-coarse grained locally weakly feldspar porphyritic diorite. Interval includes minor dykes and sheared sections. 35-45% 1-3mm euhedral-subhedral feldspar laths. 45-55% mafics, 1-3% black oxides. 1.52 - 13.65: Medium grained diorite.</p> <p>13.65 - 14.15: Sheared(?) fine-medium grained diorite. Note 5% black oxide, medium grained dissem. Medium-dark green. 14.15 - 15.10: Medium grained, medium green - white diorite. 15.10 - 15.50: Sheared/brecciated diorite, texture destroyed medium-dark green +/- white.</p>	<p>Veins 60-70</p> <p>Top ctc Grad 70 Bot ctc Grad 60</p> <p>Shear 60</p>	<p>Very weak chloritization throughout. Very weak epidote veins locally very weak - weak.</p> <p>Very weak ep +/- qtz veins up to 5cm thick. Weak calc +/- qtz veins .5-2cm.</p> <p>Very weak chl/ep + qtz, strong irregular calcite veins.</p> <p>Strong calcite throughout. 1 Ep +/- qtz vein perpendicular to shear.</p>	<p>No visible sulphides - trace pyrite. Tr cpy locally.</p> <p>Tr cpy.</p>	<p>Note 1-2% black-grey non- magnetized oxide grains (not hem.).</p> <p>V. blocky interval. Litho BCD #6209 9.50 - 12.50 Illmentite? - black oxide.</p> <p>1-2% smeared leucoxene 2-5% black oxide.</p>



<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>
		15.50 - 20.91: Medium-coarse grained weakly feldspar porphyritic diorite. Darkish green & white.				
		20.91 - 21.75: Medium grained diorite dyke, dark green.	Top 60? Bot ?	Irregular qtz, calc veins weak-mod. throughout.	Locally 5% py in irreg. stringers over 15cm. F.g. brassy yellow.	5% medium grained leucoxene grains.
		21.75 - 22.25: Medium grained diorite, medium green & white.				
		22.25 - 22.65: Sheared diorite, medium-dark green medium grained(?).	Shear 60	Strong calc +/- qtz 2mm - 1cm veins.		5% black oxides.
		22.65 - 23.05: Medium grained diorite, medium green & white.				
		23.05 - 23.45: Sheared diorite same as above.	Shear 60			
		23.45 - 25.56: Medium-coarse grained diorite, medium-dark green & white.				
		25.56 - 26.06: Sheared diorite, with strong-intense calcite 1-2mm veinlet parallel to shear.	Shear 45	Strong-intense calcite veinlets.		5% black oxide mineral.
		26.06 - 30.92: Medium grained weakly feldspar porphyritic diorite.		Weak epidote stringers throughout.		Litho BCD #6224 26.40 - 29.40m.
		30.92 - 34.71: Medium-fine grained sheared(?) diorite, note streaky texture + drawn out 5% leucoxene grains. Medium - dark green colour.	Fol'n/ shear 60	Weak - moderate calc +/- qtz veins (2mm avg.).		
34.71 to 35.05	FAULT WITH QTZ VEIN	Colour - white + medium-light green. Grain Size - fine. Fault with gouge margins 5-8cm and qtz vein in center. Top ctc 8cm chl-clay gouge. Bot ctc 5cm clay-chl +/- ser gouge.	Top ctc 40 Bot ctc 60	Clay-chl gouge margins with massive white quartz vein.	1-2% fine grained dissem. py.	

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35.05 to 42.37	DIORITE, MINOR RELATED DYKES	<p>Colour - dark - medium green, + minor white.</p> <p>Grain size - fine-medium grained.</p> <p>Diorite medium-fine grained + dykes similar to above diorite.</p> <p>35.05 - 35.66: Dark green, fine-medium grained, sheared(?) diorite.</p> <p>35.66 - 36.35: Medium grained, dark green &amp; white diorite.</p> <p>36.35 - 37.70: Dark green fine grained diorite, equigranular (sheared?).</p> <p>37.70 - 38.17: Fine-medium grained equigranular white + medium grained diorite.</p> <p>38.17 - 40.80: Dark - medium green, fine-medium grained diorite.</p> <p>40.80 - 41.30: Fine grained diorite, medium-dark green, weakly feldspar porphyritic.</p> <p>41.30 - 42.20: Dark green &amp; white feldspar porphyritic diorite.</p> <p>Groundmass - fine grained, 15% 1mm feldspar phenos.</p> <p>42.20 - 42.37: Fine grained diorite chilled margin, locally feldspar porphyritic, dark green. Ctc with volcanics broken up.</p>	<p>Top ctc 60</p> <p>Bot ctc 45?</p>	<p>Wispy ep stringers &lt;1mm throughout.</p>	<p>1-2% dissem. py.</p>	<p>Note reddy-brown hematite on fractures.</p>
42.37 to 42.72	DACITE ASH- CRYSTAL TUFF	<p>Colour - light-medium grey +/- green.</p> <p>Grain Size - aphanitic - very fine.</p> <p>Massive, shattered (crackle-breccia) dacite crystal tuff - ash tuff, with faint green patches (chl?) throughout. Very fine feldspar crystals approx. 15%, mainly aphanitic - silicified ash.</p>	<p>Top ctc ?45</p> <p>Bot ctc 70</p>	<p>Silicified(?)</p> <p>Calcite hairlike fracture fillings.</p>	<p>No visible sulphides.</p>	

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42.72 to 43.02	ANDESITE FELDSPAR- PYROXENE PORPHYRY DYKE	Colour - light-pale green. Grain Size - very fine - fine +/- medium. Narrow siliceous(?) andesite dyke, with streaky flow margins. At margins mafic phenocryst are drawn-out (sheared?) parallel to ctc. 10% mafic 1mm pheno, 10% feldspar <1-2mm phenos.	Bot ctc 35 Sharp	Moderately bleached, tr chl, moderate calcite <1mm veinlets.	2-3% dissem. fine grained py.	Sharp upper & lower contacts.
43.02 to 51.56	DACITE FELDSPAR CRYSTAL TUFF	Colour - light-medium grey with green cast. Grain Size - aphanitic matrix, fine-medium crystals. Massive, very weakly foliated dacite crystal tuff. Aphanitic siliceous matrix - (silicified?). Feldspar crystals 15-20% <1-2mm euhedral-subhedral white feldspar phenos. Locally weakly fractured i.e. 50.0m, near crackle breccia.	Fol'n 60? Bot ctc approx 60	Very weak chl +/- ser on fractures + foliation planes throughout. Weak - moderate calcite veinlet (white) line some fractures.	No visible sulphides - 1% dissem. fine grained py.	Very homogeneous looking unit.  Mainly 75-90% core recovery, except 50.29 - 51.51m = 30%. Very blocky throughout.  Litho BCD #6210 43.10 - 46.10m.
51.56 to 51.64	ANDESITE DYKE/ FAULT	Colour - medium - dark green. Grain Size - fine - very fine. Andesite dyke (poss. diorite) with gouge - fault lower ctc (2cm) chl-clay.	Bot ctc 45	Chl-clay, milled gouge. Very weak chl in andesite dyke.	No visible sulphides.	
51.64 to 52.73	DACITE FELDSPAR CRYSTAL TUFF	Colour - light-medium grey with green cast. Grain Size - aphanitic matrix, fine- medium crystals. Massive, very weakly foliated dacite feldspar (15%) crystal tuff. Similar to above. Locally well fractured.	Bot ctc 80	Silicified(?) or simply very siliceous matrix. Very weak chl/ser throughout on fractures.	Trace py.	

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52.73 to 52.85	ANDESITE DYKE -SHEARED-	Colour - medium - dark green. Grain Size - very fine. Brecciated/sheared andesite dyke pseudo breccia with sheared contacts.	Shear 60 Bot ctc 80	Strong chl, tr ep, strong- intense calcite irregular veins heal insitu breccia.	2% dissem. fine grained pyrite.	
52.85 to 52.99	DACITE FELDSPAR CRYSTAL TUFF CRACKLE BRECCIA	Colour - light-medium grey with green cast. Grain Size - aphanitic matrix, fine- medium crystals. Similar to above dacite feldspar dacite crystal tuff. Crackle breccia.	Bot ctc 75	Very weak chl on fractures. Strong-intense hairlike irregular calcite veinlets throughout.	2-3% fine grained dissem. py.	
52.99 to 53.03	ANDESITE DYKE	Colour - medium. Grain Size - fine - very fine. Andesite dyke with sheared contacts.	Bot ctc 80	Moderate-strong chl. Moderately bleached locally.	2% fine grained dissem. pyrite.	
53.03 to 54.14	DACITE FELDSPAR CRYSTAL TUFF	Colour - light-medium grey + green hue. Grain Size - aphanitic matrix, fine-medium crystals. Similar to above dacite feldspar (15%) crystal tuff.	Bot ctc ?20	Very weak chl on fract. Moderate-strong hairlike calcite <1mm veinlets throughout.	2% py dissem. as blebs.	
54.14 to 58.22	FAULT BRECCIA/ GOUGE (IN DACITE CRYSTAL TUFF)	Colour - light grey - whitish to slightly green. Grain Size - aphanitic matrix, fragments <1mm - 2cm. Fault breccia & gouge in dacite crystal tuff. Crackle-rotational frag supported breccia. <1mm - 2cm 80% frags. 57.92 - 58.22: Gouge clay - ser.	Bot ctc 40	Chl/ser +/- calc +/- clay as matrix to fault breccia - insitu breccia.	Tr - 2% py fine grained dissem. py + blebs.	Avg. 50% core recovery this section.

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58.22 to 61.11	DACITE ASH TUFF - CRYSTAL TUFF	Colour - light grey - green Grain Size - fine - very fine locally medium crystals. Massive - crudely layered(?) dacite ash tuff, local feldspar crystal tuff. Relatively homogeneous looking. Siliceous. Sheared @ 59.89 - 60.12m.	Fol'n 40-45 Bot ctc approx 45	Tr - very weak ser/chl (moderate ser proximal to shear).	<1 - 2% fine grained dissem. py.	Layering poss. parallel to foliation(?).
61.11 to 61.61	ANDESITE DYKE	Colour - dark green. Grain Size - fine - very fine. Massive andesite dyke, sharp contacts. Very weak foliation weakly feldspar porphyritic (<1-2% 1mm Fp phenocrysts. Somewhat sheared at lower ctc. (Poss. not a dyke?).	Bot ctc 55	Moderate chl throughout(?) note calcite veinlets throughout visible upon testing with HCl.	Trace pyrite.	Minor gouge planes near upper ctc.  Litho BCD #6211 61.11 - 61.61m.
61.61 to 62.42	DACITE FINE CRYSTAL TUFF	Colour - light-medium grey, slightly green. Grain Size - aphanitic matrix - fine crystals. Massive, siliceous dacite fine feldspar crystal tuff. Similar to above.	Bot ctc 60?	Very weak ser/chl on frac.	1-2% dissem. fine grained pyrite.	
62.42 to 63.44	ANDESITE DYKE	Colour - dark green. Grain Size - very fine. Massive andesite or very fine grained diorite dyke, similar to above dykes, very sharp contacts.		Weak - moderate chl(?). Calcite throughout as moderate veinlets + dissem. style alteration.	Trace pyrite.	

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63.44 to 67.55	DACITE FELDSPAR CRYSTAL TUFF	Colour - light grey. Grain Size - aphanitic matrix, very fine - coarse crystals. Massive relatively homogeneous feldspar crystal tuff - dacite. Similar to above crystal tuffs, but crystals very conspicuous in aphanitic siliceous matrix. Feldspar 5-25%, <1mm - 2mm, Avg. 15%, 1mm. Lower/Bot ctc is a fault plane (very sharp contact) contact with similar feldspar crystal tuff but is crystal charged and chl altered throughout.	Bot ctc Fault/ shear 70	Tr - very weak chl locally, also moderate chl +/- ser as stringer/envelopes with py. Envelopes range <1cm - 7cm thick. ie) 63.69: 1mm, py-chl-ser C/A 45 64.92: 3cm, py-chl-ser, C/A 45 66.60: 8cm, py-chl-ser, C/A 60-80 67.08: 2mm, chl-ser-py, C/A 40	1-3% fine grained dissem. py +/- blebs throughout. Tr cpy blebs at ctc area. Also py as fine-medium grained grains and blebs in dissem. with chl-ser along fractures, up to 15% over 5cm avg. 5-10% py.	Litho BCD #6212 64.00 - 67.00  Note 3% dissem. fine grained black-grey oxide (hem?) throughout interval. Only obvious on cut sections.  Note slickenlines on fault plane.
67.55 to 74.37	DACITE FELDSPAR CRYSTAL TUFF +/- MINOR ANDESITE- DACITE CRYSTAL TUFF	Colour - medium-light green & light grey - green. Grain Size - aphanitic - very fine matrix, fine-coarse crystals. Dacite feldspar crystal tuffs. Similar to above but conspicuously crystal-rich, or crystal charged. Feldspar 25-50% avg. 40% throughout most of section. Size range of feldspar phenocrysts <1-3mm avg. 1mm. Section has distinct crystal tuff beds but no layering is present. Beds include crystal charged tuff to 69.39, fine crystal tuff (15%) to 70.22, dacite crystal charged tuff to 72.57, andesite-dacite fine crystal tuff to 72.77. Crystal charged dacite tuff but gradual loss of feldspar, increasing matrix to 74.37m. Note shears with slickenlines at 69.39 C/A 70, at 72.15 C/A 15.		Variable very weak - moderate chl +/- ser alteration throughout matrix of crystal tuff. 67.55-68.92: Weak - moderate chl +/- ser. 68.92-70.10: Weak chl +/- ser. 70.10-72.24: Very weak - weak ser +/- chl. 72.24-72.57: Weak chl +/- ser. 72.57-72.77: Weak chl, weak ep. 72.77-74.37: Very weak chl +/- ser., mainly fract. Note 1% saussuritized feldspar in crystal charged dacite tuff, weak epidote 3-5% in andesite-dacite bed.	Py 2-8% mainly dissem. as blebs and clusters of fine-medium +/- coarse grained pyrite, avg. 5%. 67.55-70.10: 5% py. 70.10-72.24: 2% py. 72.24-72.57: 3-5% py. 72.57-72.77: 5-8% py. 72.77-74.37: 3-5% py. Minor 1-2mm py stringers in weak-moderate chloritized crystal tuffs.	Litho BCD #6213 67.65 - 69.39m.

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74.37 to 84.43	DACITE ASH - QTZ EYE CRYSTAL TUFF	Colour - light grey to slightly green. Grain Size - very fine - fine matrix, fine-medium crystals. Massive - crudely layered(?) dacite fine siliceous tuff with up to 5% qtz eyes. Qtz eyes tr - 5%, avg. 2-3%, qtz eye shape lensoid-round, 1-3mm, avg. 1-2mm. Locally up to 5% feldspar (<1-1mm phenocrysts. Matrix varies from very fine (weak ser.) to aphanitic - siliceous. Note qtz eye crystal rich sections 76.80 - 77.00m.	Layering ? parallel to fol'n  Fol'n 45-50 Bot ctc Broken- up 45(?)	Variable tr - weak/moderate ser +/- chl throughout. 74.37-79.20: Weak- moderate ser +/- chl. 79.20-84.43: Tr ser +/- chl. Chl/ser on fractures throughout.	1-3% fine grained dissem. py throughout, avg. 2% py. Locally trace cpy.	Litho BCD #6214 75.00 - 78.00m Core Recovery 74.37-76.81=50% 76.81-77.72=75% 77.72-78.33=45%
84.43 to 85.18	DACITE SILICEOUS TUFF/ CRYSTAL TUFF OR DYKE	Colour - light grey to beige. Grain Size - aphanitic groundmass/ matrix, fine-medium crystals. Crudely layered(?), very weakly foliated but has a sheared look, as denoted by streaky mafic (chl) phenocrysts (5%). Feldspar (<1-1mm phenocrysts up to 8%.	Layering approx 45  Fol'n 45-50  Bot ctc 85 sharp	Silicified(?). Very weak chl +/- ser on fractures.	1-2% fine grained dissem. pyrite.	Litho BCD #6215 84.43 - 85.18m.
85.18 to 85.88	ANDESITE DYKE	Colour - dark green. Grain Size - very fine grained. Massive andesite dyke, similar to previous andesite dykes.	Bot ctc 90?	Weak chl. Strong (<1mm calcite veins, also micro calcite veinlets throughout. Visible upon reacting with HCl.	Tr - 1% pyrite.	

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85.88 to 87.22	DACITE FINE TUFF - CRYSTAL TUFF	Colour - light grey - slightly green. Grain size - aphanitic matrix, fine crystals. Massive, very homogeneous looking fine dacite crystal tuff/siliceous ash tuff. Tr - 2% 1mm qtz eyes, round + angular (<1-2mm). 10-15%(<) <1mm Fp phens vaguely defined. Chl clots dissem., poor outlines 2-5% (after mafic phenos(?)).	Bot ctc 65 sharp  Fol'n 55-70	Silicified(?) Tr ser, very weak chl as dissem. clots.	1-2% fine grained dissem. pyrite.	
87.22 to 88.38	DACITE- ANDESITE FELDSPAR PORPHYRY DYKE	Colour - dark grey-green. Grain Size - aphanitic - very fine groundmass, fine crystals. Massive dacite-andesite feldspar- pyroxene(?) porphyry dyke. 2-3% <1-1mm feldspar phenos, 2-3% <1mm mafic phenos gone to chl. Groundmass is relatively siliceous.	Bot ctc 55?	Very weak selective chloritization of mafic phenocrysts.	<1% pyrite.	
88.38 to 94.25	DACITE ASH/ CRYSTAL TUFF, MINOR DACITE- ANDESITE TUFF/ CRYSTAL TUFF	Colour - light-medium grey to medium-light green grey. Grain Size - aphanitic - very fine matrix, fine-medium crystals. Crudely layered dacite & dacite- andesite tuff + crystal tuff. Fine tuff with qtz eyes throughout. 88.38 - 93.02: Dacite crystal-ash tuff. 2-5% 1-3mm qtz eyes, round-lensoid. matrix is fine ash - feldspar rich. 93.02 - 94.25: Dacite-andesite crystal ash tuff. Medium to light green-grey colour. 2-5% <1-2mm qtz eyes. Note 93.87 - 94.12, 5% qtz eyes.	Fol'n 40-50  Layering 50-40?  Bot ctc Grad.	Very weak - locally weakly sericitized.     Very weakly sericitized throughout.  Weakly bleached weak - moderate chl/ser.	1-2% fine grained dissem. py throughout. Local narrow str. of py-cpy @ 90.05m.+ blebs py-cpy @ 89.95m.	Litho BCD #6216 89.35 - 92.35m.  Note bottom ctc based on loss of qtz crystal in tuff, and fining of ash. Note local crenulated tuff fabric. Note shear plane at 93.87m.



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94.25 to 96.28	DACITE- ANDESITE FINE - ULTRAFINE ASH TUFF (MINOR CHERTY TUFF NEAR BOT CTC)	Colour - light-medium grey/green - dull. Grain Size - very fine. Very poorly layered fine - ultrafine ash tuffs. Dacite-andesite composition. Relatively homogeneous looking. Moderately foliated. Cherty tuff component in last 30cm of interval.	Bot ctc 70  Broken Layering approx 65  Fol'n approx. 60-70	Weak chl/ser pervasive. Weak - moderate hairlike calcite stringers along fractures.	1-2% very fine grained dissem. pyrite.	No qtz eyes noted.  Litho BCD #6217 94.25 - 96.23m.
96.28 to 96.70	CHERT	Colour - medium grey, some light & dark grey. Grain Size - aphanitic. Very weakly foliated (breaks along sheeny planes. Poorly/faintly layered to massive chert. Note locally 3mm brown slumped? beds of chert. Layers have diffuse contacts.	Bot ctc approx 55  Layering 70	Tr - ser/chl on foliation planes. Weak - moderate 1-3mm qtz veins subparallel to layering also 15 C/A.	1% extremely fine grained dissem. py.	Litho BCD #6218 96.28 - 96.69m
96.70 to 98.25	DACITE/ DACITE- ANDESITE FINE TUFF WITH MINOR CHERT AND TUFF- ACEOUS CHERT	Colour - dull medium grey & grey-green. Grain Size - very fine - fine & aphanitic. Poorly layered, very weakly foliated section of ash tuff, cherty tuff and chert. 96.70 - 96.88: Dacite-andesite fine ash tuff, medium-light green-grey. 96.88 - 96.96: Dark grey chert bed, similar to above chert (slight tuff component). 96.96 - 98.22: Laminated tuffaceous chert, dull light-medium grey-green. Note minor folds at 97.00m. Interlaminated chert + tuffaceous chert. Note elongate nodules(?) of grey chert in cherty tuff beds, 8 X 40mm to 4 X 10mm size with vague outlines. 98.22 - 98.25: Massive light - medium grey chert.	Bot ctc 65 shear with slicken- lines  Layering 70-75	Very weak - weak ser/chl in tuffs. Tr ser/chl in chert & tuffaceous chert.  Weak calcite +/- qtz veinlets 1-2mm.	2-3% fine grained dissem. py, avg. 2% throughout. Tr cpy locally.  concretions.	Note nodules/ lobes of chert poss. similar to MTS-26 type chert concretions.  Litho BCD #6219 97.00 - 98.15m.

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98.25 to 98.34	FAULT	Colour - Very light green & white. Grain Size - aphanitic - very fine matrix, fine - medium frags. Narrow fault with slickenlines on hangwall & footwall in dacite-andesite tuff(?).	Bot ctc 35 with slicken- lines	Calcite + qtz stockwork near crackle breccia. <1-3mm veins. Strongly bleached, very weak ser.	3-5% py as <1mm str. + disseminations.	
98.34 to 100.69	DACITE- ANDESITE TUFF & LOCAL INTERLAM- INATED CHERTY TUFFS.	Colour - dull medium-light green-grey. Grain Size - very fine - fine +/- aphanitic. Weakly foliated, crudely-poorly laminated dacite-andesite fine ash + interlaminated tuff/ cherty tuff. 98.34 - 98.98: Dacite-andesite fine ash tuff, crudely laminated. 98.98 - 100.51: Dacite/dacite-andesite fine poor-moderately laminated tuffs, weakly foliated. Individual laminations 2-8mm thick. Bands are light-medium greenish (dacite-andesite), & light-medium grey (dacite +/- cherty tuff). Some layers are disrupted with angular breaks. 100.51 - 100.69: Contact margin, aphanitic siliceous light-medium brown with 5% dark green clots/ sheared phenocrysts.	Bot ctc 85  Layering 70	Very weak - weak chl/ser in tuffs.   Very weak chl/ser.  Very weak - weak chl/ser.   Biotite at ctc, poss. hornfels.	1-2% fine grained dissem. py throughout. Local 1mm str. py at 100.24m. 3% py dissem. parallel to lower contact.   3% py at contact.	Litho BCD #6220 98.98 - 100.46m.      Poss. the diorite here but shear is parallel to layering.

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100.69 to 164.70	FELDSPAR PORPHYRY MEDIUM GRAINED DIORITE (WITH LOCAL SHEARED DIORITE + RELATED DYKES)	<p>Colour - medium-dark green - medium green. Grain Size - very fine - medium. Massive feldspar porphyry &amp; medium grained diorite, locally sheared, local diorite dykes. Feldspar porphyry diorite has 5-15% feldspar phenos 1-2mm in very fine grained groundmass.</p> <p>100.69 - 100.81: Fine grained diorite chilled margin, medium-dark green.</p> <p>100.81 - 103.90: Feldspar porphyry diorite, medium green.</p> <p>103.90 - 104.60: Fine grained medium green diorite dyke(?).</p> <p>104.60 - 105.10: Feldspar porphyry diorite medium green.</p> <p>105.10 - 106.68: Hornblende porphyry diorite dyke, white - medium green, fine - medium groundmass, 15% 3 X .5mm hornblende needles, 30cm chilled margin at base of interval.</p> <p>106.68 - 108.28: Feldspar porphyry diorite medium-dark green &amp; white.</p> <p>108.28 - 109.06: Sheared feldspar porphyry diorite, medium-dark green.</p>	<p>Top ctc 80</p> <p>Top ctc 80</p> <p>Top ctc Grad Bot ctc 45</p> <p>Top ctc 45 Bot ctc 50</p>	<p>Very weak chloritization. Weak calcite veinlets throughout &amp; moderate-strong calcite veins - irregular, in sheared intervals.</p> <p>Weak ep wispy veinlets.</p> <p>Moderate calcite veins.</p>	<p>No visible sulphides - &lt;1% pyrite.</p> <p>&lt;1% pyrite.</p> <p>2-3% dissemin. fine grained pyrite.</p>	

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109.06 - 110.32:	Feldspar porphyry diorite medium-dark green.			Wispy ep str. + veins.		
110.32 - 110.77:	Sheared fine grained (feldspar porphyry?) diorite, medium-dark green, locally brecciated.			Moderate calcite veins 2-4mm with brecciated margins.		
110.77 - 113.42:	Medium green feldspar porphyry diorite.					
113.42 - 113.80:	Fine grained shear diorite, medium-dark green pseudo breccia.	Shear 60		Strong parallel irregular calcite veins +/- qtz heal insitu breccia.		
113.80 - 114.55:	Medium grained - weakly porphyritic diorite.					
114.55 - 125.15:	Strongly sheared feldspar porphyritic diorite + medium grained diorite. Note narrow 10-25cm sections weakly sheared. Poss. a fault(?). Pseudo breccia to 118.00m.	Shear 30		Strong parallel irregular calcite +/- qtz veins heal insitu breccia. Calcite flood in this interval throughout. Locally up to 10cm qtz veins.		Calc + qtz +/- hem veins, hem also on frags. Note locally 5-8% leucoxene dissem. in strongly sheared sections as streaky grains.
125.15 - 128.05:	Medium grained weakly feldspar porphyritic diorite.	Shear 30				
128.05 - 129.23:	Fine grained diorite, medium-dark green pseudo breccia. Similar to above breccias. Strongly sheared.			Strong-intense calcite veins heal pseudo breccia.		
129.23 - 135.53:	Medium grained, weakly feldspar porphyritic diorite. White & medium green - dark green.					

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		135.53 - 144.40m: Medium-dark green diorite strongly sheared fine grained pseudo breccia to breccia (some rotation). Locally weakly sheared feldspar porphyry diorite.	Shear 60-45	Strong-intense calcite flood/veinlets heal insitu breccia.		
		144.40 - 146.70: Medium grained diorite, medium-dark green & white.	Top ctc Grad. Bot ctc 30			
		146.70 - 149.02: Fine grained diorite pseudo breccia. Similar to above.				Litho BCD #6221 146.73 - 148.86m.
		149.02 - 155.61: Medium grained white + medium-dark green diorite.				
		155.61 - 158.03: Fine grained diorite, dark green strongly sheared pseudo breccia, similar to above.	Shear 50			
		158.03 - 160.67: Medium grained diorite white - medium green.		Wispy ep str. throughout.		
		160.67 - 164.70: Brecciated fine grained diorite cross-cut by irregular calcite veins/veinlets weak - moderately sheared.				Note start of hem frac. coatings at 162.90m.

<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>
164.70 to 216.29	FAULT ZONE	<p>Colour - dark - medium green +/- white, reddy brown on frac. Grain Size - very fine - medium. Fault zone consists of variably sheared diorite, fine - medium grained diorite, clay gouge and pseudo breccia.</p> <p>164.70 - 172.49: Sheared medium grained diorite, light-medium green, minor fault gouge @ 165.60 - 165.81. Note streaky look with hem &amp; leucoxene grains.</p> <p>172.49 - 174.66: Medium grained equigranular diorite, poss. hornblende diorite. Mafic needles are hem. stained. Dark green + white-pale green colour.</p> <p>174.66 - 180.00: Dark green, fine grained diorite, massive. Locally moderately sheared +/- clay gouge.</p> <p>180.00 - 181.36: Fault breccia, shattered fine grained dark green diorite healed by calcite.</p>	Shear 60-45	<p>Calcite veins weak-intense vary. Hem +/- calc on fract. Very weak chl throughout.</p> <p>Calcite throughout, parallel shear also stringer veinlets 1mm parallel shear. Hematite on fract. Shear fabric cross-cut by wispy ep-chl stringers. Weak epidote. Hematite on fractures with calcite veins.</p> <p>Hematite fracture coatings. Moderate locally strong calc irreg. veins. Hematite fractures. Irregular moderate-strong chl.</p>	<p>No visible sulphides - tr locally.</p> <p>Tr pyrite.</p>	<p>Very blocky this interval.</p> <p>Extremely blocky &lt;50% core recovery.</p>

<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>
		181.36 - 182.71: Medium grained equigranular white + dark green diorite.		Hem stained mafics + hem frac. coatings.		
		182.71 - 185.61: Strong - moderately sheared diorite, fine-medium grained pseudo breccia.		Strong-intense calcite irregular veins parallel to foliation heal pseudo bx.		Very blocky interval <60% core recovery.
		185.61 - 192.50: Medium grained equigranular white + dark green diorite. Similar to above. Locally sheared. Well fractured.		Calcite veins heal frac.		189.39-194.46 core box spilled before being logged.
		192.50 - 196.00: Moderate-strongly sheared, fine - medium grained diorite + fault breccia (slight rotation, angular frags, calcite matrix) + clay gouge (40cm approx. @ 193.24m).	Gouge approx 10	Similar to above sheared diorite + clay-chl gouge.		
		196.00 - 198.33: Medium grained diorite, light green/white - medium-dark green, equigranular.		Strong calc heals insitu breccia.		
		198.33 - 199.13: Strongly sheared diorite pseudo breccia.		Moderate-strong hem +/- calc veins/fract. coatings.		Some frac. hem rich.
		199.13 - 204.23: Fine-medium grained diorite, dark green, faint white.				Very blocky.
		204.23 - 209.70: Dark-medium green strong-moderately sheared diorite, locally pseudo breccia.	35-40 Shear	Locally moderately bleached calc veinlets, irregular orientations.		Hem in fracs.
		209.70 - 210.98: Medium grained diorite, pale green - dark green.				Litho BCD #6222 204.83 - 207.37m
		210.98 - 211.53: Moderately sheared diorite, same as above.				Note lower boundary of fault zone marked as disappearance of hem on frac. + non blocky ground.
		211.53 - 216.29: Medium grained diorite, equigranular, dark green - whitish feldspar. Locally moderately sheared.				

<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>
216.29 to 245.36 E.O.H.	DIORITE MEDIUM GRAINED - FELDSPAR PORPHYRY	<p>Colour - medium-dark green +/- white.</p> <p>Grain Size - very fine - medium.</p> <p>216.29 - 221.67: Weakly sheared diorite pseudo breccia, medium-dark green, fine-medium grained.</p> <p>221.67 - 226.70: Medium grained weakly feldspar porphyritic diorite, medium green + white.</p> <p>226.70 - 238.67: Moderate-strongly sheared, fine-medium diorite, medium grey-green.</p> <p>Streaky look.</p> <p>Local gouge + pseudo breccia.</p> <p>238.67 - 245.36: Medium green &amp; white medium grained weakly feldspar porphyritic diorite.</p>	<p>Shear 45-60</p> <p>Bot ctc 70</p>	<p>Calc irregular but parallel to shear heal insitu breccia.</p> <p>Flooded with calc parallel to shear, but not as distinct veins.</p>		<p>Note streaky leucoxene.</p> <p>Litho BCD #6223 234.55 - 237.25m.</p> <p>Very blocky from 244.00 - 245.35m.</p> <p>Note minor shears @ 244.50, 245.20, 240.20</p> <p>Minor gouge in shears.</p>



# LITHOGEOCHEMISTRY

## MAJOR OXIDES

## TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Sr%	Zr%	As ppm	Sb ppm	Total
6209	9.50	12.50	48.69	17.42	9.77	3.83	2.55	0.40	12.30	0.28	2.45	.016	249	90	25	2.3	5	0.04	.011	18	1	97.77
6224	26.40	29.40	48.48	16.02	9.83	5.66	2.34	0.23	12.59	0.27	2.22	.008	162	64	18	1.6	5	0.03	.011	6	1	97.69
6210	43.10	46.10	67.79	16.10	1.66	3.11	5.60	1.12	2.30	0.05	0.40	.058	4	33	14	0.2	15	0.03	.006	2	1	98.22
6211	61.11	61.61	52.85	18.80	5.99	4.81	3.39	1.78	9.02	0.26	0.74	.035	34	80	11	0.8	5	0.03	.005	14	6	97.71
6212	64.00	67.00	72.98	14.36	0.79	1.08	6.83	0.52	1.24	0.02	0.37	.017	89	19	3	0.1	10	0.02	.005	7	1	98.23
6213	67.65	69.39	56.76	19.34	3.18	3.71	8.26	0.20	6.04	0.10	0.48	.011	706	49	7	0.6	10	0.03	.010	12	5	98.11
6214	75.00	78.00	72.03	13.69	0.99	2.67	1.21	3.14	3.92	0.11	0.28	.093	298	91	6	0.2	5	0.01	.005	16	3	98.14
6215	84.43	85.18	72.09	14.60	1.02	1.77	3.70	2.09	2.24	0.10	0.32	.069	88	1608	17	0.1	20	0.02	.005	12	2	98.02
6216	89.35	92.35	70.02	14.16	0.96	3.93	1.96	2.23	4.31	0.23	0.31	.068	644	262	72	1.0	10	0.01	.005	15	3	98.19
6217	94.25	96.23	61.35	16.51	1.08	6.22	2.91	1.46	7.44	0.34	0.67	.059	178	550	9	0.4	5	0.02	.005	25	5	98.05

Hole No. MTS-31

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## LITHOGEOCHEMISTRY

### MAJOR OXIDES

### TRACE ELEMENTS

SAMPLE NUMBER	FROM ( m )	TO ( m )	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	FeO	MnO	TiO <sub>2</sub>	Ba	ppm Cu	ppm Zn	ppm Pb	ppm Ag	ppb Au	Sr%	Zr%	As ppm	Sb ppm	Total
6218	96.28	96.69	76.26	9.22	0.55	4.52	0.25	1.26	5.25	0.30	0.43	.051	182	1022	19	0.5	5	0.01	.005	17	3	98.10
6219	97.00	98.15	75.23	9.67	0.27	3.51	0.98	1.51	4.28	0.25	0.29	.062	847	374	9	1.2	25	0.01	.005	19	4	96.06
6220	98.98	100.45	56.04	19.15	1.06	6.42	5.47	0.77	7.69	0.59	0.76	.046	180	187	17	0.5	10	0.02	.005	16	3	98.03
6221	146.73	148.86	49.34	15.83	9.42	4.96	2.90	0.56	12.07	0.26	2.39	.014	134	69	18	1.1	5	0.03	.009	16	5	97.79
6222	204.83	207.37	50.54	16.84	12.26	2.69	1.42	1.34	10.09	0.25	2.11	.044	118	61	21	0.4	5	0.03	.008	20	10	97.62
6223	234.55	237.25	43.03	18.98	10.76	5.24	3.99	1.03	11.61	0.26	2.65	.017	6	58	25	0.5	5	0.03	.010	17	9	97.61

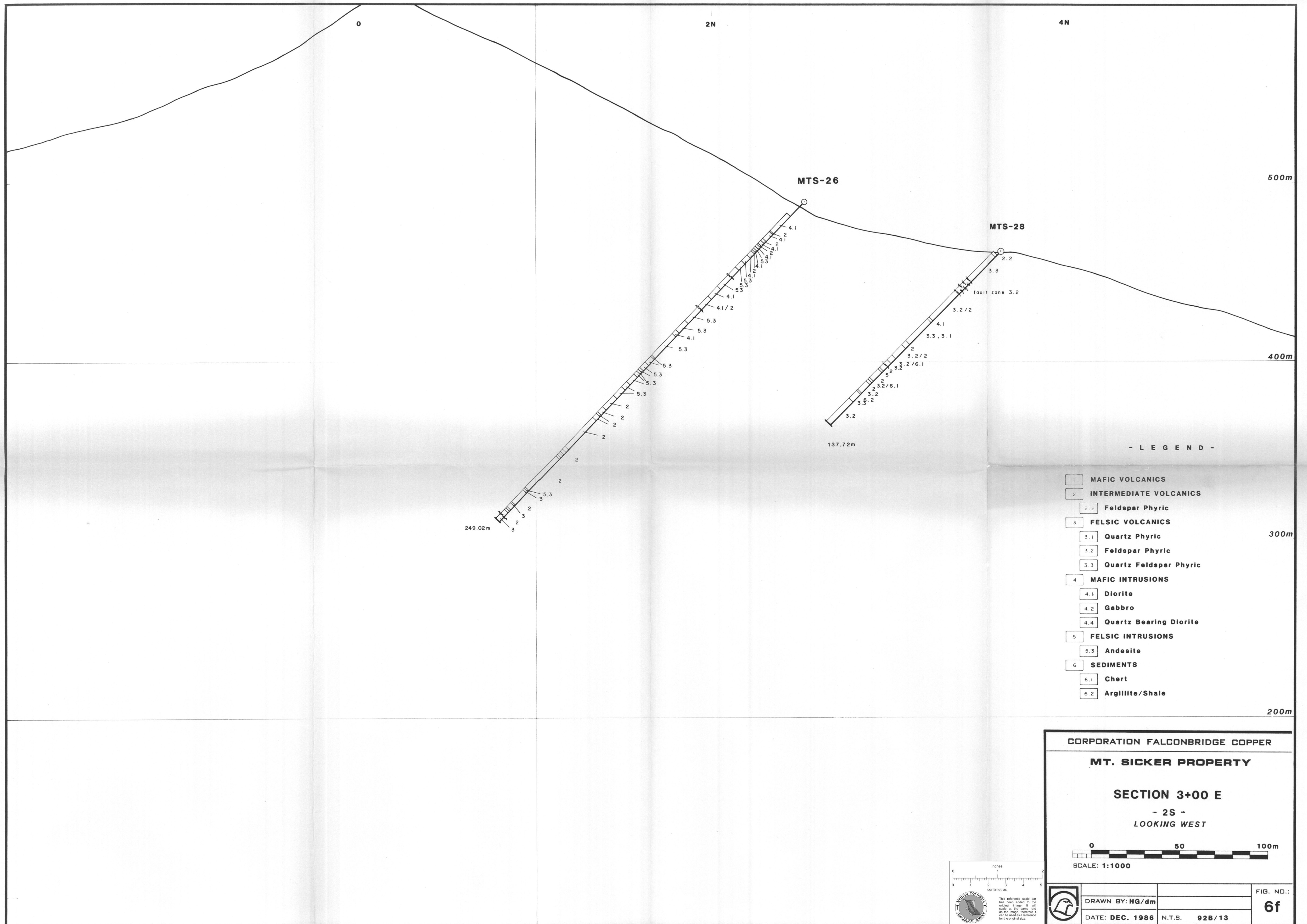
Hole No. MTS-31

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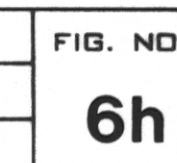
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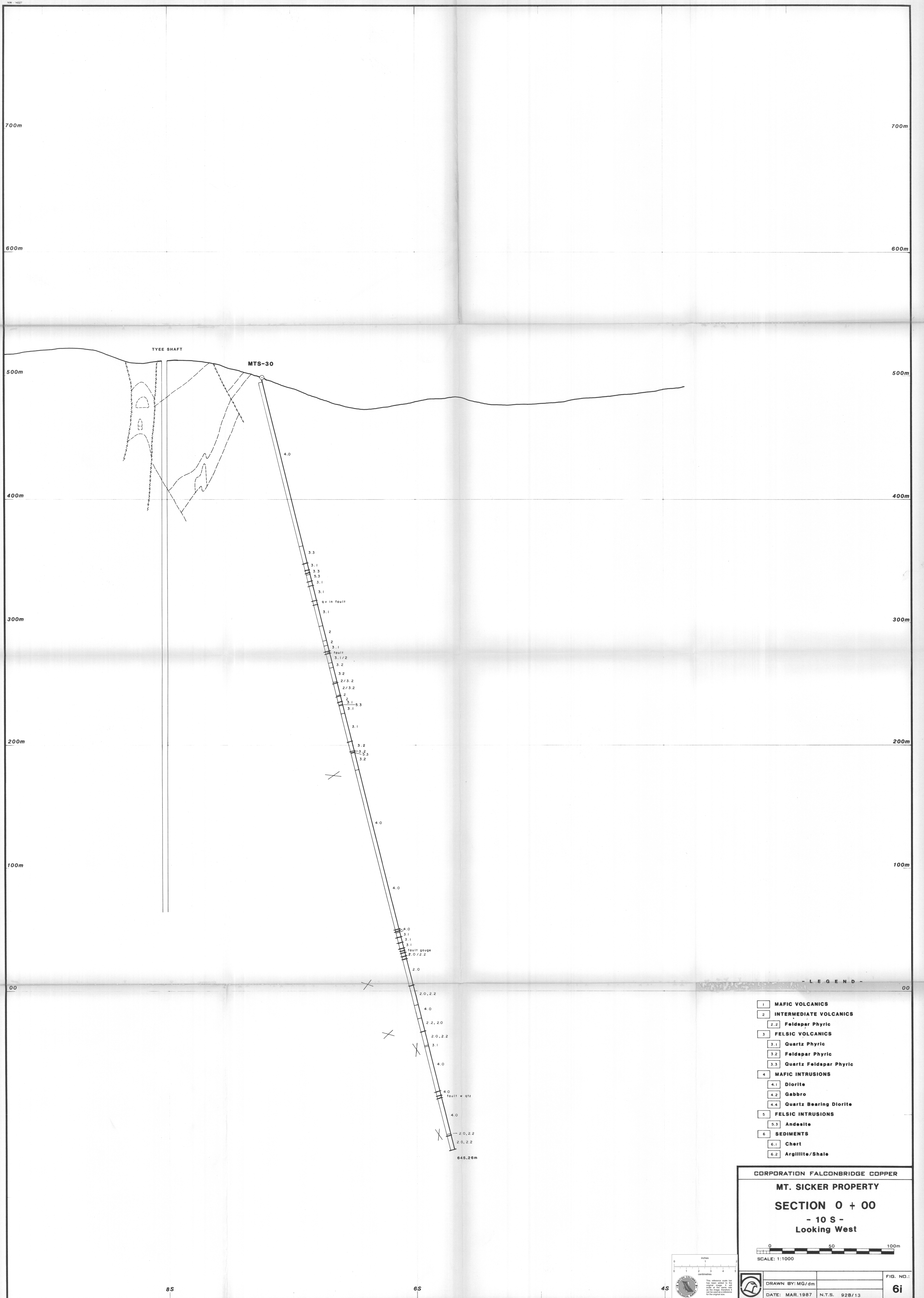






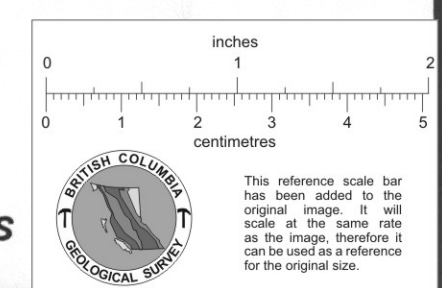






- 1 MAFIC VOLCANICS  
2 INTERMEDIATE VOLCANICS  
2.2 Feldspar Phyric  
3 FELSIC VOLCANICS  
3.1 Quartz Phyric  
3.2 Feldspar Phyric  
3.3 Quartz Feldspar Phyric  
4 MAFIC INTRUSIONS  
4.1 Diorite  
4.2 Gabbro  
4.4 Quartz Bearing Diorite  
5 FELSIC INTRUSIONS  
5.3 Andesite  
6 SEDIMENTS  
6.1 Chert  
6.2 Argillite/Shale

CORPORATION FALCONBRIDGE COPPER  
MT. SICKER PROPERTY  
SECTION 0 + 00  
- 10 S -  
Looking West  
0 50 100m  
SCALE: 1:1000



DRAWN BY: MG/dm  
DATE: MAR, 1987  
N.T.S. 92B/13  
FIG. NO.: 6i



