

**J. TUACH GEOLOGICAL CONSULTANTS, INC.
DIAMOND DRILL CORE LOG**

Sheet No. 1

LATITUDE _____	Tests _____	Dip _____	Magnetic _____	Corrected _____	Project No. _____ Hole No. <u>1769</u>
DEPARTURE <u>11.687.98N 13.973.05E</u>	Depth _____		Bearing _____		Property <u>Buchans - Middle Branch</u>
ELEVATION <u>3794.93</u>	_____	_____	_____	_____	NTS _____ Grid Name <u>Mine grid</u>
DIP AT COLLAR <u>-90</u>	_____	_____	_____	_____	Date started <u>1958 - 59</u> Completed _____
BEARING _____	_____	_____	_____	_____	Contractor _____
TOTAL DEPTH <u>1320'</u> CORE SIZE <u>Ax</u>	_____	_____	_____	_____	_____
REMARKS _____	_____	_____	_____	_____	Logged by <u>J. Harris - 1996</u>

Depth & Lithology	Description	Alteration	Mineralization
0 - 56'	Overburden		
56 - 109'	- Mafic volcanic - dark grey green - Weakly to locally well foliated at $\approx 50^\circ$ to the core (near thrust) - Small rhyolite dyke or flow @ 79 - 79.7' - 85 - 97 more felsic with pink K-spar or grains of rhyolite (dacite tuff?)	Chloritic alteration Local epidote veins and clots	
109 - 124'	- Felsic volcanic rhyolitic - layered at 30 - 50° to the core - Maybe flow banding - but appears tuffaceous locally	weak sericitic alteration	
124 - 137'	- As for 56 - 109' - more tuffaceous - some faint plag phenos		
137 - 167'	- Rhyolite - pink to brownish colour - porphyritic with quartz, plag. and chlorite		
169 - 314'	- Mafic volcanic - tuff and interbedded - intermediate tuffs with pink felsic grains - Commonly moderately to well foliated @ $\approx 50^\circ$ to the core - Poor core recovery throughout	epidote alteration common weak to moderate chloritic alteration	
314 - 357'	- Pink to brown rhyolite - as for 137 - 167 - Some interbanded mafic down to 327' - Very poor core recovery		

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Depth & Lithology	Description	Alteration	Mineralization
357 - 407'	- Mafic dyke - black - fine grained - magnetic		
407 - 585'	- Rhyolite - pink to brown - locally green tint, (poor core recovery) - Quartz and feldspar phenos. - Some flow banding between 452 - 469'. - 488 - 494' flow banded along the core, flecked with grey to black calcite and chlorite "phenos" - Flow banded units may be later intrusive - 501 - 527' fine grained grey green - intrusive texture - 527 - 561 pale green porphyritic - 561 - 2575 felsic tuff - 561 - 575 ≈ 4' core recovery some weak foliation between 564 and 567 (thrust fault?) - 575 - 585' pink to brown rhyolite, porphyritic	Commonly bleached and altered below 450' Some wormy silicification 479 - 484 and sericitic 488 - 496 green - sericitic 527 - 561 - pale green sericitic 561 - 575 - silicified	479 - 489 5 - 8% Py. Possible barite, also bright green mica. elsewhere no py. 561 - 575 - 5 - 8% py. locally, about 1 - 3% overall
585 - 676'	- Mafic dyke - dark green to black - magnetic - Only about 15' of rubbly core recovered. - Weak foliation at 45 - 50° to the core @ 590 - 594' - Chilled contacts		
676 - 679'	- 1 - 2" rubble - Arkose? (could be intrusive)		
679 - 685'	- Felsic tuff (Poor core recovery) - Pale grey to buff - quartz and feldspar crystals and chlorite	sericitic and chlorite alteration, possible weak silicification	3 - 5% disseminated py.
685 - 692'	- Mafic dyke, dark green to black - magnetic - poor core recovery - Chilled contacts		
692 - ≈ 725'	- Rhyolite, pink to buff - tiny qtz. and feldspar phenos - Highly fractured - 700-703 some fault gouge and breccia - brittle fault.	Clay alteration along fractures	
725 - 729'	- Felsic tuff - Similar to 679 - 685 but more altered - Faint qtz. and feldspar crystals	Strong sericitic Alteration Some silicification	725 - 729' ≈ 5% py.
729 - 737'	- Rhyolite, pale pink, silicified or chilled - Faint quartz and feldspar phenos		

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
737 - 829'	- Felsic volcanic - dacitic tuff - As for 725 - 729 down to 755, 755 - 765 more felsic, quartz - abundant and smaller feldspar crystals as well as a few lithic fragments - some of rhyolite - Poor core recovery with rubbly fractured core down to 779 - locally slickensides on fractures - Below 779 - more competent core and good recovery - Unit becomes more mafic downward	Fairly strong sericitic and locally chloritic alteration Some silicification (Patchy)	737 - 755 - to 5% py. 755 - 829 1- 2% py. but locally to 5% with stronger alteration
829 - 1030	- Contact somewhat arbitrary - Interbanded mafic and intermediate tuffs - fragmental - Mostly mafic - dark grey green colour - Some calcite fracture infill - Often fragmental with some pink felsic clasts - mostly porphyritic rhyolite, 2 - 3" felsic to intermediate bands may be fragments (clasts) - @ 894' - 6" calcite vein @ 30° to the core - @ 898' - 1" silicified fault breccia - 745 - 960 - weakly foliated ≈ 55° to the core, some fault breccia - below 995' included clasts are more commonly dacitic - 1018 - 1030 - some interbeds of felsic tuff - Mafic here looks like pale grey green distinctive tuff seen in other holes - but may be due to shearing in this hole	Chloritic alteration (weak) throughout 931 - 936' some development of black chl. 1018 - 1030 generally well foliated at ≈ 60° to the core	very minor py. 913 - 914 - Pb - Zn and py. with patchy silicification and qtz. - calcite veining 931 - 936 - ≈ 3 - 5% py and cpy as fracture infill and veinlets
1030 - 1049	- Felsic volcanic - tuff - Prominent quartz crystals - dacitic - Green to locally pinkish colour - sheared - Locally foliated @ 65 - 70° to the core		< 1% py. 1043 - 1045 - silicified with 1 - 3% py and cpy.
1049 - 1057	- Strongly sheared and foliated mafic volcanic, tuff - Foliation often disrupted but mainly 70 - 85° to the core - fault zone?	about 60% of the zone is strongly hematitized. The remained is chloritic and locally silicified.	
1057 - 1091	- Mafic volcanic - Andesitic (to basalt) tuff breccia - Dark green chloritic, locally amygdoidal - 1061 - 1064 - pink carbonate fracture infill - @ 1078 1- 2" jasper clast	Chlorite and some sericitic alteration becomes more strongly altered towards the base, with black chl and weak silicification	
1091 - 1122	- Grey silicified rock - rubbly, very poor recovery - Apparently an altered felsic volcanic - faint altered feldspars locally - Cut by a network of hairline fractures - 1100 - 1105 - sheared and foliated with sericite and black chlorite - foliation 55 - 65° to the core	Strongly silicified. Pale green sericite or Pyrophyllite on fractures (greasy)	<1% Py. throughout rare fleck sphalerite. 1104 - 1105' to 1% Py. and sphalerite

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Depth & Lithology	Description	Alteration	Mineralization
1122 - 1267	- Felsic tuff (pumice) light grey colour - resembles a breccia with a haphazard array of lithic fragments in a matrix of shards and chips (silicic) - Altered feldspars apparent locally - @ 1230' - foliation or layering at 40° to the core - Flecked with chlorite towards base - Unit could be in fact an alteration breccia	Moderately silicified black chlorite on fractures, sericitic	Generally <1% disseminated pyrite but locally 1 - 2%
1267 - 1275	- Silicified rock - very poor recovery (less than 3') - Very likely a more silicified part of above unit	strong silicification	<1% py.
1275 - 1288	- Felsic (pumice) tuff - pale grey green colour, soft and sericitic - Flecked with chlorite - Coarser lithic fragments towards base giving breccia appearance.	Sericitic alteration	to 1% dissem py.
1288 - 1320	- Silicified rock light grey as for 1267 - 1275 - Cut by hairline fractures - A few faint altered feldspars visible	Strong silicification	<1% finely dissem. py.
1320 - E.O.H.			

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