

**J. TUACH GEOLOGICAL CONSULTANTS, INC.
DIAMOND DRILL CORELOG**

Sheet No. 1

LATITUDE _____
 DEPARTURE 10.148.52N 12.941.31E
 ELEVATION 3816.91
 DIP AT COLLAR -90°
 BEARING _____
 TOTAL DEPTH 1671' CORE SIZE Ax
 REMARKS _____

Tests Depth	Dip	Magnetic Bearing	Corrected Bearing
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
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_____	_____	_____	_____

Project No. _____ Hole No. 1662
 Property Buchans - Middle Branch
 NTS _____ Grid Name Mine grid
 Date started 1957 Completed _____
 Contractor _____
 Logged by J. Harris - 1996

Depth & Lithology	Description	Alteration	Mineralization
0 - 79'	- Overburden STARTED LOG AT 370'		
370 - 377'	- Diabase dyke - chilled contact @ 377' - but lost core as well		
377 - 462'	- Prominent quartz - Agglomerate - Mainly coarse dacitic crystal tuff with clasts of mafic volcanic, fine felsic tuff and a few rhyolitic - Some boulders or interbeds to 1' - mainly of mafic volcanic i.e. 416.5 - 419.5 and 437 - 439 - Fewer fragments below 418	Weak chloritic and sericitic alteration of matrix	Little or no Py.
462 - 575'	- Mafic dyke - diabase - (some as dyke at bottom 1606) - Chilled contact along the core from 461.5 - 463 - small calcite vein and Pyrite/hematite along contact - "inclusion" of prominent quartz unit 477 - 479' - Locally amygdoidal with chlorite and calcite, locally magnetic - Local calcite and quartz calcite veining - i.e. 516 - 519, 533 - 539 - @ ≈ 558 - 560 - silica - epidote vein breccia or cemented fault breccia - Lower contact - lost core	Core recovery commonly poor throughout	
575 - 599'	- Arkose to arkosic conglomerate	upper 10 - 12' moderately silicified	

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Sheet No. 2

Depth & Lithology	Description	Alteration	Mineralization
599 - 617'	- Mafic volcanic - agglomerate - very rich in calcite - amygdules and veins - stringers, some epidote alteration		
617 - 767.5'	- Arkosic conglomerate - Assorted clasts - mainly felsic volcanic - Hematite veining (fracture infill locally) - 742 - 767.5' - interbedded coarse sandstone and siltstone - bedding @ 50 - 80° to the core - 766 - 767.5' - some interbanded porphyritic rhyolite		
767.5 - 773'	- Rhyolite - deep reddish brown, porphyritic with plagioclase and occasionally quartz - hard and massive		
773 - 792'	- Dacitic crystal vitric tuff - Green to reddish brown colour, very similar in appearance to above rhyolite but softer and some faint banding/layering - Occasional indistinct fragments - Lower contact sharp and banded @ about 70° to the core	sericitic and hematitic alteration of matrix	
792 - 811'	- As for 767.5 - 773		
811 - 867'	- Rhyolite (felsite) dyke contact appears to be gradational from above - Porphyritic rhyolite - maybe chilled - or above unit could be baked dacitic xtal tuff	About 5' lost core 801 - 811' very poor core recovery 827 - 867 ≈ 14' recovered	
867 - 1015'	- Dacitic crystal tuff (ore horizon type - Thurlow) - Grey green colour - commonly fragmental with fragments of tuff, mafic volcanic and occasionally pink rhyolite and granite - Epidote - silica fracture infill - common - From 999 - 1007 - rhyolitic, reddish and porphyritic - 4' lost core at lower contact	Black to green chloritic or sericitic groundmass	very minor Pyrite
1015 - 1035'	- <u>Altered</u> felsic tuff - Light grey to buff, locally foliated or layered at ≈ 80° to the core - Some core lost throughout - Fragmental texture preserved locally with flattened wispy lapilli	Strong quartz - sericite alteration	1% Py. ≈ 1015 - ≈ 1021' more silicified Some stockwork Pb-Zn and barite veining

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
1035 - 1075'	- <u>Silicified</u> felsic volcanic - Light grey colour, may have been rhyolite or rhyolite breccia - Fragmental appearance locally - also very faint - altered feldspar phenos locally - Lost core between 1058 and 1075, 1058 - 1060 - 1' lost, 1064 - 1067 - 3.8' lost, 1067 - 1070 ≈ 1' lost, 1070 = 1095 - 4' lost - Gradational contact to rhyolite at ≈ 1075	Strong silicification with local short zones of sericitic alteration	1 - 3% Py. as stringers - local stockwork Pb-Zn, Barite mineralization ≤ 1% overall, dies out below 1058'
1075 - 1258'	- Rhyolite (typical ore horizon type - Thurlow) - Maroon to pink - faint plagioclase phenos. - Sections with poor core recovery throughout - Below ≈ 1165' - more consistent maroon colour, some sections of fine breccia - autobrecciation? - 1220 - 1234 - shattered rock with hairline fractures infilled with epidote - Lower contact lost core	Pink colour due to bleaching and is often along fractures Sericitic alteration 1230 - 1234	@ 1046 - 2 - 3" breccia with barite cement ≈ 2" barite vein/bed at 1043
1258 - 1293'	- Altered felsic volcanic - Pale grey to green, faint altered feldspars locally - Similar to above rhyolite - Upper contact area is very sericitic and may be sheared - Probably an altered rhyolite (white rhyolite) - ≈ 2' lost core 1286 - 1293	Very strong silicification with thin bands and larger zones of sericitic alteration	1 - 2% disseminated sulphides Py and Pb-Zn - some barite stringers
1293 - 1332.5'	- Altered felsic tuff (lapilli and/or pumice) - Grey green colour - fragmental - contains short zones of above silicic alteration - 1302 - 1307 - more rhyolitic sections - still obviously fragmental over ≈ 50% - 1310 - 1317 - broken and very rubbly core	Very strong sericitic alteration and patchy silicification 1302 - ≈ 1310 mostly silicified	minor sulphides 1302 - 1310 stockwork Pb-Zn ± Ba veinlets and some disseminated
1332.5 - 1346'	- As for 1258 - 1293		1332.5 - 1346 - 1 - 2% dissem. sulphides some pale pink mineral, leucoxene? - looks like barite
1346 - 1354'	- Altered dacitic? crystal vitric tuff, green sericitic	strong sericitic alteration some silicification	
1354 - 1369'	- Silicified rhyolite - as for 1258 - 1293		1354 - 1369' to 1% sulphides
1369 - 1398'	- Altered felsic tuff - Crystal vitric and pumiceous - Fragmental texture and faint feldspars evident locally	strong sericitic and local silicic alteration	Minor sulphides and some barite mainly with silicified zones

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Depth & Lithology	Description	Alteration	Mineralization
1398 - 1658'	- Altered rhyolite - as for 1258 - 1293 - Maybe fragmental/brecciated locally - Hint of layering and more sericitic down to about 1416 - maybe tuff - Poor core recovery 1423 - 1482 - about 32' recovered $\approx$ 55% - Faint altered feldspar evident locally - Possible sericitic shear zone @ $\approx$ 1477' and definite shear at 1489 - Thin diabase dykes @ 1510 - 1511, 1520 - 1527 and 1603 - 1608 - Poor core recovery 1502 - 1610 $\approx$ 65' recovered - contains several sericitic shear zones i.e. $\approx$ 1536 - 1538, 1571 - 1582 - Below 1510 - local zones of obvious fragmental - rhyolite breccia? - Lower 20 - 25' shattered brecciated look with hairline fractures	very strong silicification and local sericitic alteration Below $\approx$ 1535 - sericitic alteration is much more pronounced	Weakly disseminated Py and Pb-Zn down to about 1489 <1% 1489 - 1510 stockwork Barite $\pm$ Pb-Zn sulphides to 1%. Also some pink lencoxene 1510 - 1658 - <1% sulphides overall but some zones with stringer and disseminated Pb-Zn, Barite and Py. locally 1 - 2%, mainly in stronger silicified zones. 1631 - 1658 - increase in barite veinlets and total sulphides 3 - 5%, mainly pyrite
1658 - 1671'	- Mafic volcanic - dark green - Amygdoidal mafic fragmental, basalt - sheared and chloritic - $\approx$ 3' lost core at upper contact - sheared - Calcite veining and infill throughout - Sheared throughout with slickensides on most fractures	Moderate to strong chloritic alteration - some silicified fragments	2 - 3% disseminated Pyrite
E.O.H.			

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