

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

Sheet No. 1

LATITUDE _____
 DEPARTURE 9.250N 11.500E
 ELEVATION 3824
 DIP AT COLLAR -90°
 BEARING _____
 TOTAL DEPTH 1067 CORE SIZE Ax 135-
 REMARKS _____

Tests Depth	Dip	Magnetic Bearing	Corrected Bearing
_____	_____	_____	_____
_____	_____	_____	_____
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Project No. _____ Hole No. 1589
 Property Buchans - Middle Branch
 NTS _____ Grid Name Mine Grid
 Date started 1956 Completed _____
 Contractor _____

 Logged by J. Harris - 1996

Depth & Lithology	Description	Alteration	Mineralization
0 - 125'	- Overburden		
125 - 154'	- Arkosic - Arkose conglomerate and grit - Lost core 150 - 155? = 2' - 2" epidote cemented breccia at or near base		
154 - 161'	- Mafic dyke? may be basalt - Fine grained dark green to reddish - when hematitized - Strongly magnetic		
161 - 192'	- Mafic volcanic (Sandy Lake Fm.) - Red and green amygdoidal basalt locally fragmental - Abundant calcite filled amygdules, also calcite veining	Hematitic alteration	
192 - 217.5'	- Arkosic conglomerate - similar to 125 - 154 - Matrix gradationally becomes more tuffaceous with some interbanding over lower 5'	A few epidote - silica vein breccias or cemented faults. Some sericitic alteration of matrix	

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Sheet No. 2

Depth & Lithology	Description	Alteration	Mineralization
217.5' - 285.5'	- Dacitic crystal - vitric tuff - (ore horizon type Thurlow) - Dark green to black with abundant plagioclase crystals - @ 230 - weakly foliated/sheared at 45° to the core - 220.5 - 222 - tuffaceous conglomerate (as above) - locally fragmental - 263 - ~ 278' - arkosic look - less tuffaceous matrix - mainly feldspar and a few quartz crystals and chlorite - lower 6 - 8' also has abundant pink k-spar chips - Lower contact conformable - indistinct	Sericitic and chloritic alteration of groundmass local weak silicification epidote alteration patchy down to about 250'	
285.5 - 355'	- Rhyolite - porphyry - Pink to grey green altered - Reddish feldspar crystals in an aphanitic matrix (Plagioclase?) - 314 - 355 - fairly fresh maroon rhyolite - local fairly unaltered sections above - Some lost core throughout - about 80% recovery	285.5 - 314' - moderate sericitic alteration of groundmass	285.5 - 313 - fracture controlled and disseminated Pb - Zn mineralization about 1 - 2% overall
355 - 386'	- Dacitic crystal vitric tuff - As for 217.5 - 285.5 - 358 - 359 and 363 - 365 - pink arkosic looking zones as for 263 - 278	Moderate to strong sericitic and chloritic alteration of matrix	some disseminated hematite throughout
386 - 395'	- Mafic to intermediate fragmental (looks like top of Ski Hill - Thurlow) - Hematitized porphyritic - mafic clasts in a fairly bright green sericitic matrix - Matrix flecked with (tiny) white clay mineral - leucoxene? -	Strong sericitic alteration of matrix and feldspars hematitic alteration of clasts	
395 - 399'	- Carbonate cemented breccia - fault? - Clasts similar to those in overlying unit - rounded		
399 - 569'	- Intermediate to felsic tuff - similar to 386 - 395' down to about 406' - then more dacitic pumiceous tuff - wispy pumice fragments, altered shards and feldspar crystals in a sericitic matrix - Boxes 404 - 478' have been tipped over and core is mixed - Some fault gouge, local pink more felsic rock - altered rhyolite" - Local fragmental agglomerate or conglomerate and some Rhyolite dyke between 439 and 478' - Old log 440 - 448.5' fragmental tuff - matrix - Old log 448.5 - 452' Rhyolite dyke - 502 - 512 - light pink altered rock, likely a rhyolite - clasts of similar rock ns overlying 480 - 502 - 512 - 569' green pumiceous tuff - altered feldspar phenos - Occasional buff to pink zones may be altered rhyolite, i.e. 557 - 561 - 559.5 - 561 rhyolite - Occasional carbonate - barite? veinlets	Strong sericitic alteration Some silicification beginning at ~ 452 Patchy silicification and silicified clasts 478 - 496 496 - 512 moderately silicified 512 - 569 strong sericitic alteration Patchy silicification	minor disseminated hematate and Pyrite 496 - 512 <1% disseminated Pb-Zn 512 - 569' <1% disseminated - Py. - rare dissem. and fracture Pb-Zn @ 548 and at 559 - 560
569 - 601'	- Mafic dyke - dark grey to black - locally amygdoidal with chlorite ± calcite, - magnetic		

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
601 - 612'	- Felsic to intermediate pumiceous tuff - Similar to above dyke but darker - more dacitic matrix - Below 608 - picks up fragments of underlying rhyolite - Locally weakly foliated at 45 - 50° to the core	Moderate to strong sericitic alteration	
612 - 627'	- Rhyolite - maroon to red, weakly porphyritic - plagioclase	Hematite alteration throughout	
627 - 644'	- Felsic volcanic - fragmental - tuff or rhyolite breccia - Pale green to pinkish, abundant altered plagioclase and a few quartz phenocrysts, flecked with tiny, white clay minerals	Moderate to strong sericitic alteration	
644 - 744'	- Altered felsic to intermediate volcanics - Often fragmental pumice tuff - but locally buff to pale pink - Rhyolitic or silicified - feldspar and local quartz crystals - 685 - 717 - fairly uniform grey green sericitic pumice tuff - 662 - 673 - pink altered rhyolite to rhyolite breccia - 673 - 678 - green sericitic rhyolite clasts sheared and brecciated 677 - 678 - 678 - 685 - buff to pink rhyolite breccia? - 717 - 734 - pink to grey rhyolite breccia or silicification	Variable moderate to strong green sericitic alteration Local black chlorite lining fractures 656 - 662 - moderate silicification	<1% disseminated Py. 662 - 673 up to 1% Pb-Zn, cpy. and barite 685 - 717 - some dissem. hematite
744 - 829'	- Pink to tan felsic volcanic - common hard-rhyolitic - Fragmental texture apparent locally - pumice like fragments may be at least in part welded or silicified pumice tuff - Weakly banded locally - flow banding or bedding - Very similar to maroon rhyolite locally - Some pink to orange K-spar crystals - Looks like rhyolite breccia towards base	Feldspars altered to sericite - possible silicification Doesn't look strongly altered i.e. silicified	
829 - 919'	- Felsic tuff - Pink to greenish - 829 - 835 interbands of pink felsic rock as above with dark green sericitic dacitic tuff - tuffaceous interbeds - @ ≈ 835' sheared at about 85° to the core - 835 - 847 green dacitic tuff and lighter green pumiceous tuff with clasts and bands of pink to maroon felsic rock as above - 847 - 858 - dacitic pumice tuff - 858 - 919 - more felsic and harder and pink again, local obvious tuffaceous zones - also locally thinly banded with what looks like flow banding and some thinly banded clasts - Very likely original textures - i.e. welded and locally pumiceous tuff rebrecciated	Local moderate to strong green sericitic alteration i.e. 881 - 882 893 - 895 and 905 - 909 minor patchy silicification	

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Sheet No. 4

Depth & Lithology	Description	Alteration	Mineralization
919 - 967'	- Rhyolite and rhyolite breccia - fairly typical maroon rhyolite with faint - plagioclase phenocrysts	Some hematite alteration - local epidote fracture infill	Disseminated hematite <1%
967 - 1009'	- Felsic tuff - dacite - Light and dark green sericitic - fragmental often - pumiceous, flecked with fairly large altered plagioclase crystals	Moderate sericitic alteration - some dark chloritic alteration	
1009 - 1058'	- Rhyolite - Pale green weakly altered near contact, pink and close to felsite - Centrally likely intrusive - Feldspar porphyritic		
1058 - 1067'	- As for 967 - 1009' E.O.H.		

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J. TUACH GEOLOGICAL CONSULTANTS, INC.
DIAMOND DRILL CORE ASSAYS

SHEET NO. _____

PROJECT NO. _____

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PROPERTY Buchans - Middle Branch

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