

**GEOLOGICAL CONSULTANTS LTD
DIAMOND DRILL CORE LOG**

Sheet No. 1

UTM CO-ORDINATES 513382E, 5406969N
 GRID CO-ORDINATES 13311E, 7000N
 ELEVATION 218M
 DIP AT COLLAR - 90°
 BEARING _____
 TOTAL DEPTH 328.3m CORE SIZE NQ

Tests Depth	Dip	Magnetic Bearing	Corrected Bearing
<u>328m</u>	<u>-80°</u>	<u>239°</u>	<u>-262° ?</u>

Project No. _____ Hole No. BR-2K-04-02
 Property Buchans East - Powerhouse Zone
 NTS 12A/15 Grid Name Buchans East
 Date started 04/04/2000 Completed 07/04/2000
 Contractor Lantech Drilling Services

 Logged by J. Harris

REMARKS The depth 323.1, drilled with metric rods but marked as if drilled with Imperial rods

Depth & Lithology	Description	Alteration	Mineralization
0 - 5.5	Overburden		
5.5 - 13.2	Mafic lapilli tuff - dark to medium green - mainly basalt fragments, some green to purplish andesite with large sericitized feldspar phenos - some large fragments, up to 0.3m, in a matrix of small chips and some black chloritic pumice/shards - calcite and chlorite amygdules - conformable contact, gradational over 0.1m	weak to moderate chlorite-sericite alteration	
13.2 - 17.9	Felsic lithic tuff to breccia - light green to grey - rhyolite and dacite fragments in an intermediate, tuffaceous matrix - fragments up to about 10cm - small quartz crystals in the matrix and in fragments - waxy altered feldspar phenos - local weak foliation or layering at ~ 50° to the core	moderate quartz-sericite ± chlorite alteration	minor py

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Depth & Lithology	Description	Alteration	Mineralization
17.9 - 20.4	Mafic tuff or flow - pale green - bleached - weakly foliated or layered at 45-50° to the core - elongate, small sericite shards or altered feldspars - a few small calcite "amygdules"	weak to moderate sericitic alteration	
20.4 - 26.1	Felsic to intermediate tuff to breccia, dacitic - similar to 13.2 - 17.9m - light green - small quartz crystals throughout - some black chloritic pumice - fine grained siliceous or chloritic matrix	weak chlorite-sericite alteration	
26.1 - 27.4	Basalt - dark green - calcite and a few small quartz amygdulcs		
27.4 - 46.5	Felsic to intermediate tuff to breccia - as for 20.4 - 26.1 - light green, grey and buff - a few large pink to buff rhyolite fragments, up to 30cm - occasional mafic fragments - 31.6 32.9 sheared, strongly foliated at 60-75° to the core - starting at about 38.6 becomes strongly sheared and foliated - foliation varies from about 30° to 85° to the core, with common kink folding - some fault gouge 43.2 - 43.5 41.8 - 42.4 unfoliated rhyolite porphyry fragment, large pink feldspar phenos, sericitic	weak to moderate sericite - chlorite alteration	minor pyrite locally 42.7 - 42.9 2-3% py

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
46.5 - 50.3	Altered felsic fragmental - light grey, locally pale green - some foliated mafic as above, ie, 48.8 - 49.5 - local fault gouge, at 46.6 and 47.6-47.8 - mostly fairly coarse felsic breccia	strong quartz-sericite-pyrite alteration	3-5% finely disseminated pyrite
50.3 - 51.9	Mafic dyke -grey-green, fine grained, chilled contacts	50.9 - 53.9~ 60% core recovery also lost core at 84m	
51.9 - 100.2	Altered felsic volcanic - may include some altered mafic - grey, buff and brown - some recognizable rhyolite zones or fragments, with small quartz phenos and waxy altered feldspars - 51.9 - 53.9 fault gouge and breccia, low core recovery - a few bleached mafic fragments down to 59.5m - 56.9 - 57.0 fault gouge and breccia also 58.3 - 58.35 - weak to moderate foliation down to 66.2m at 50-60° to the core - local calcite veins and clots, also some quartz veining - fault gouge at 74.9, also at 77.0, 78.5 and 79.1 - 77.0 -78.5 about 5% pink barite or feldspar crystals - 83.7 - 4.1 mainly fault gouge and breccia, ~0.7m lost - gradational contact	very strong quartz-sericite-pyrite alteration	pyrite varies from 3 - 30% brown zones contain higher concentrations of very fine pyrite local sp, ga and cpy in calcite and disseminated with pyrite base metal sulphides to 1% locally 80.8 - 81.6 cpy-py veining to 1% cpy 84.4 - 100.2 15-30% fine pyrite ~ 90.0 - 96.0 minor quartz stockwork veining with py, sp, ga and cpy
100.2 - 127.1	Rhyolite - grey buff and pink, somewhat less altered than above but with zones f strong alteration - fresher, pink sections have small quartz and feldspar phenos, resembles Buchans River fm rhyolite - alteration contacts at 100.2 and 127.1 are somewhat arbitrary - minor calcite and quartz calcite veining - alteration increases again below 127m	moderate to locally strong quartz-sericite pyrite alteration strong alteration along fractures and in zones up to ~ 3m long 111.5 - 114.3 strongly altered	

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Sheet No. 4

Depth & Lithology	Description	Alteration	Mineralization
127.1 - 238.7	Altered felsic volcanic (Similar to 51.9 - 100.2) - grey, brown and buff - at least in part altered rhyolite - 150.0 - 156.6 and 166.0 - 166.6 coarse rhyolite lithic tuff, some pumice - fault gouge and breccia 147.3 - 147.4 and 162.1 - 162.7 - local tuff to breccia zones evident throughout - below ~ 156.0m some larger quartz phenos, may be altered prominent quartz unit, at least in part - more like PQ unit below 174.0m - 191.5 - 195.1 fractured, locally porous fault breccia 194.6 - 195.1 - a few thin lithic tuff beds 193.3 - 203.0m - 212.6 - 212.8 lithic tuff to breccia - local flow breccia	Very strong quartz-sericite-pyrite alteration local bright green mica base metal mineralization is often associated with quartz stockwork veining	127.1 - 142.4 2-5% pyrite and minor sp, ga and cpy mainly with thin quartz stockwork veins zones with 10-20% py 142.4 - 174.0 5-30% pyrite local sp, ga and cpy disseminated and with quartz +/- calcite veining at 181.2 2cm py band at 30° to the core with 1% sp and ga 181.4 - 181.6 sericite band with ~ 30% fine pyrite 174.0 - 238.7 generally 3-5% pyrite locally 10-20%, minor sp, ga and cpy 221.1 - 221.2 pyrite-sericitic band, 50% y 221.2 - 221.4 qtz-py veining with to 1% sp and ga
238.7 - 259.9	Shear zone - strongly sheared, predominately felsic rocks, mostly similar to the overlying unit - some possible mafic volcanics and sediment - 244.5 - 248.4 strong foliation at 70-80° to the core, very soft and sericitic, above and below foliations are at various angles and kinked - fault gouge and breccia zones at 240.4 - 240.6 and 243.2 - 244.0 - 251.7 - 252.0 mostly chert - below 248.6 wisps of black carbonaceous sediment? - 255.6 - 258.5 felsic tuff and sediments foliated/banded at 30° to the core, coarse quartz dacitic tuff, black carbonaceous sediment, minor chert and jasper - 258.5 - 259.9 sheared rhyolite or felsic tuff, some resemblance to PQ rhyolite	strong sericite-quartz ± pyrite alteration	238.7 - 243.4 3-10% pyrite local sp, ga and cpy 240.6 - 242.2 to 1% sp, ga and cpy 243.4 - 248.4 1-3% pyrite 248.4 - 252.7 5-6% pyrite mostly concentrated in more resistant less sheared zones, up to 0.3m, local sp, ga and cpy 251.6 - 251.7 fine grained high grade sulphide clasts or veins 252.7 - 255.6 1-3% py 1% sp, ga and cpy 255.6 - 258.5 10% pyrite mainly as concordant semi-massive bands, minor cpy, minor sp and ga down to 256.1 258.5 - 259.4 2-3% occasional sp, ga and cpy

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Sheet No. 5

Depth & Lithology	Description	Alteration	Mineralization
259.9 - 283.3	Altered rhyolite - pink, grey and buff - generally massive with small quartz and altered feldspar phenos - local flow breccia to lithic tuff zones, minor - 279.0 - 283.3 local fault breccia- calcite cement - brecciated contact	moderate to strong quartz-sericite alteration local bright green alteration, fegisite? especially in fragmental zones	2-3% pyrite disseminated and with silicification / 1% disseminated sp and ga down to 261.6 Some finely disseminated sp? throughout
283.3 - 286.7	Mafic volcanic - light to medium green, altered - weakly sheared and cut by a network of late calcite veinlets - shearing increases downward - 284.3 - 284.8 sericitic and pyrite "felsic"? band	moderate chlorite-sericite alteration	5-6% pyrite as coarse disseminations and "disrupted bands"? of very fine grained massive pyrite - to 1% sp, ga and cpy locally
286.7 - 289.4	Shear zone - strongly sheared pale green to grey-green rock - mostly sericite and chlorite - some fault gouge and breccia - foliations mostly at 60-80° to the core but locally along the core		1-2% pyrite
289.4 - 309.7	Conglomerate, 4s Sandy Lake fm - dark green and light grey-green - common mafic fragments - somewhat sheared throughout - 289.4 - 293.0 looks mafic, about 8-10% fairly large (2-4mm) pink feldspar crystals, mainly mafic fragments, some arkosic matrix - 293.0 - 300.0 arkose and arkosic conglomerate - 300.0 - 304.7 strongly sheared, light green, felsic rock - 304.7 - 309.7 arkosic conglomerate with common mafic fragments - fault gouge and breccia 308.5 - 309.3		rare pyrite 303.1 - 303.3 minor py and cpy in a felsic fragment

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Sheet No. 6

Depth & Lithology	Description	Alteration	Mineralization
309.7 - 317.6	Basaltic fragmental - dark green and red - hematitized - calcite amygdules and common calcite veining to matrix - some minor sandy interbeds to matrix - moderately sheared		
317.6 - 328.3	Hematitized felsic rock - most likely sediments but could be in part rhyolite - moderate sheared throughout	hematite to sericite alteration	
	328.3 End of Hole		

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GEOLOGICAL CONSULTANTS LTD.
DIAMOND DRILL CORE ASSAYS

SHEET NO. 1 of 2

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PROPERTY Buchans East, Powerhouse Zone

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SHEET NO. 2 of 2

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