

**GEOLOGICAL CONSULTANTS LTD
DIAMOND DRILL CORE LOG**

Sheet No. 1

UTM CO-ORDINATES 5409440N, 512185E
 GRID CO-ORDINATES 12, 576E, 11, 015N
 ELEVATION ~258 m
 DIP AT COLLAR -90°
 BEARING _____
 TOTAL DEPTH 308.5 CORE SIZE NQ

Tests Depth	Dip	Magnetic Bearing	Corrected Bearing
<u>308m</u>	<u>-85°</u>	<u>322°</u>	<u>345°</u>

Project No. G4806 Hole No. BR-2K-01-03
 Property Buchans - mining lease
 NTS 12A/15 Grid Name Mine grid
 Date started 21/03/2000 Completed 24/03/2000
 Contractor Lantech Drilling Services
 Logged by J. Harris

REMARKS The depth 303.6 drilled with metric rods but marked as if drilled with Imperial rods. DDH collared on a steep fault

Depth & Lithology	Description	Alteration	Mineralization
0 - 27.5	Overburden		
27.5 - 30.4	Mafic dyke - pale green bleached - some chilled contact along the core - some fault gouge and breccia especially near 30.4m		minor fine pyrite
30.4 - 41.7	Fault gouge and breccia - mostly developed in felsic rock - prominent quartz unit - soft with clay and sericite - ≈ 33.1 - 35.7 grey gouge, may be mafic		
41.7 - 47.7	Mafic dyke - light green to black - some brittle deformation but much less than host rock - chilled and bleached near contacts, darker and more massive centrally - some felsic breccia and gouge "inclusions" 45.4 - 45.9m		

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Depth & Lithology	Description	Alteration	Mineralization
47.7 - 51.4	Fault gouge and breccia in prominent quartz felsic - as above		
51.4 - 62.2	Mafic dyke - medium green, soft - fractured to brecciated - chilled contacts evident, very steep lower contact - brecciated prominent quartz "rhyolite" inclusion 54.4 to 5.3 more preserved quartz crystal than above		minor pyrite
62.2 - 69.5	Fault breccia and gouge in felsic rock - similar to above, no prominent quartz grains - pinker and less gouge - mafic dyke contact along the core from 62.2 -64.5 and from 66.5 - 69.5		
69.5 - 75.1	Mafic dyke and felsic rock - faulted and brecciated - drill holes runs near dyke contact - zones of PQ felsic and chilled dyke		
75.1 - 87.2	Fault breccia in prominent quartz rhyolite - white to pink - some what less gouge than higher in the hole - clay and sericite matrix to quartz crystals		minor pyrite some minor sp?
87.2 - 96.0	Pink felsic rock - arkose, rhyolite or crystal tuff, (likely arkose) - 2-3mm quartz grains - broken shattered look with sericitic matrix due to faulting		minor py
96.0 - 98.5	Mafic dyke - dark green to almost black, magnetic - a few small calcite amygdules - chilled and faulted contacts		

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
98.5 - 100.5	As for 87.2 - 96.0 (arkose)		
100.5 - 101.8	Mafic dyke, as above		
101.8 - 103.3	As for 87.2 - 96.0 (arkose) - some prominent quartz fragments - chilled dyke along the core from 103.0 - 103.4		
103.4 - 113.0	Mafic dyke - light green chilled contacts, dark grey to black - magnetic		
113.0 - 163.8	Arkose and arkosic conglomerate - pink, red and grey-green - faulted/sheared down to 143.0m with greenish sericite development, common brecciated zones - 127.2 - 128.2 bands of grey sheared mafic rock, shearing @ ~ 20° to the core - 128.2 - 133.2 prominent quartz fragments common - below 143.0 mainly arkosic conglomerate - faulting decreases gradually - weakly sheared contact		154.5 - 155.6 minor sp-ga with calcite veining
163.8 - 177.4	Rhyolite, and rhyolite breccia 3r? or 4r - brick red - commonly fractured and brecciated, fault gouge and breccia zones, ie; 164.0 - 164.2 - small quartz and feldspar phenos - chlorite coated fractures		
177.4 - 179.2	Mafic dyke - dark green, fine grained - steep chilled lower contact - magnetic, calcite veining		

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Sheet No. 4

Depth & Lithology	Description	Alteration	Mineralization
179.2 - 181.5	Rhyolite, as for 163.8 - 177.4		minor fine pyrite
181.5 - 194.6	Mafic dyke, as above - well fractured, chilled contacts		
194.6 - 216.7	Felsic tuff 4cq - 3r - grey green to reddish crystal lithic tuff - quartz and feldspar crystals and pumice in a sericitic matrix, the matrix is locally silty - increasing lithic fragments downward rhyolitic - some chilled dyke along the core down to 196.9m, with mafic dyke from 196.5 - 196.8 - 198.0 - 199.0 fractured to faulted some gouge - 210.4 - 216.9 chilled mafic dyke - crude layering at $\approx 45^\circ$ to the core locally - conformable contact	weakly hematitized locally down to 205m, moderate sericitic alteration, especially of matrix	disseminated hematite, occasional disseminated Py
216.7 - 232.6	Mafic volcanic - medium to dark green - 216.7 - 218.5 lithic tuff, medium grained matrix of mafic chips. May be resedimented - 218.5 - 232.6 Andesite, faint plagioclase phenocrysts - hematitic fractures - irregular clots and stringers of calcite and quartz - 227.4 - 227.5 band of jasper - alteration		
232.6 - 235.1	Breccia to conglomerate (debris flow) - mainly fairly small angular and bleached mafic clasts - also clasts of pink and grey rhyolite and some granitic	quartz-sericite alteration of some fragments	2-3% pyrite as matrix grains and disseminated in altered clasts
235.1 - 238.2	Mafic flow and flow breccia - dark green andesitic - occasional rhyolite fragment	weak sericitic and chlorite alteration	

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Sheet No. 5

Depth & Lithology	Description	Alteration	Mineralization
238.2 - 243.1	Breccia to conglomerate, similar to 232.6 - 235.1 - locally tuffaceous matrix - 239.6 - 240.9 sericitic felsic tuff? Weakly sheared at 240.9 - 240.9 - 241.6 pink rhyolite boulder or flow, broken at contacts - faulting at 242.8	weak to moderate sericitic and some chloritic alteration	2 -3% pyrite 242.6 - 242.7 cpy, sp & ga with calcite veining
243.1 - 344.5	Rhyolite - pink to buff - pink feldspar phenos locally - flow banded at 40° to the core over lower 0.3m, (could be tuffaceous layering)	weak to moderate quartz -sericite alteration	minor py
244.5 - 246.8	Felsic tuff - green to pinkish -pink and green sericitic feldspar crystals, small quartz grains, some pumice	moderate to strong sericitic alteration, some chloritic alteration	minor py
246.8 - 252.9	Rhyolite - pink, fractured with quartz and calcite infill - a few small quartz and feldspar phenos - 251.5 -251-6 green sericitic gouge		minor pyrite
252.9 - 257.4	Felsic to intermediate tuff - grey green pumiceous tuff - some rhyolite fragments - fine sericitic and siliceous matrix	moderate to strong sericite quartz ± chlorite alteration	minor pyrite

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Sheet No. 6

Depth & Lithology	Description	Alteration	Mineralization
257.4 - 264.0	Breccia to conglomerate - angular to subrounded fragments of bleached mafic volcanic and rhyolite - occasional granitic fragments - fine grained siliceous matrix, "silicified?" - becomes more mafic downward - bleached mafic fragments have small calcite, quartz and chlorite amygdules - gradational contact	fragments are commonly bleached and altered, also some quartz - sericite alteration of matrix	3 - 4% pyrrite, finely disseminated in fragments and as matrix grains local sp, ga, and cpy as matrix grains and with alteration
264.0 - 308.5	Mafic fragmental - lapalli tuff - bleached grey green mafic fragments in a matrix of smaller fragments and chlorite - small chlorite and calcite amygdules - fragments have altered, chloritic rims - below about 271.0m becomes darker coloured and has some purple mafic fragments with silica and calcite amygdules (Ski Hill fragmental?) - 273.5 - 275.0 fractured with local fault gouge, also 282.4 - 285.0 - 288.6 - 289.4 thin gouge at 10° to the core - 289.1 - 293.7 - about 50% pink rhyolitic fragments - 293.7 - 308.5 mafic lapalli tuff, rare rhyolite fragment - commonly bleached light grey-green to pink 308.5 end of hole	moderate sericitic and chloritic alteration moderate sericitic alteration local chloritic alteration	to 1% pyrite mainly in occasional strongly pyritic fragments locally in the matrix and along fragment boundaries below 271.0 - local disseminated magnetite mainly in dark fragments local disseminated hematite

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GEOLOGICAL CONSULTANTS LTD.
DIAMOND DRILL CORE ASSAYS

SHEET NO. 1 of 1

PROJECT NO. _____

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PROPERTY Buchans Mining Lease

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