

**GEOLOGICAL CONSULTANTS LTD
DIAMOND DRILL CORE LOG**

Sheet No. 1

UTM CO-ORDINATES 525948 E 5407765 N
 GRID CO-ORDINATES L260 E 7350 N
 ELEVATION ~ 270 m
 DIP AT COLLAR -50°
 BEARING 155°
 TOTAL DEPTH 236.2 m CORE SIZE NQ
 REMARKS The depth 232.5, drilled with metric rods but marked as if drilled with Imperial rods

Tests Depth	Dip	Magnetic Bearing	Corrected Bearing
236.2	-48°	192°	215°

Project No. G-4793 & G-6304M Hole No. LS-2K-004
 Property Buchans Highway
 NTS 12A/15 Grid Name Little Sandy
 Date started 09/03/2000 Completed 11/03/2000
 Contractor Lantech Drilling Services
 Logged by J. Harris - 2000

Depth & Lithology	Description	Alteration	Mineralization
0 - 10.1 m	Overburden		
10.1 - 34.2 m	Sediments and tuff - mainly fine grained green and grey-green cherty sediment, some mafic and felsic tuff - green fine to medium grained mafic tuff from ≈ 14.6 to ≈ 16.0 m - medium grained felsic lithic tuff to tuffaceous sediment from 10.7 - 11.1 m and 20.3 - ≈ 24.0 m - common broken rubbly core, also some lost core down to 40.8 m - some faulting between 22.9 - 24.0 m - 30.4 - ≈ 34.0 m - light green intermediate tuff	local chloritic fractures some core dropped from tube and drilled over	10.1 - 13.1 m - <1% pyrite mainly as bands with chlorite 13.1 - 14.2 m - 2-3% py and local cpy as thin stringers and disseminations 14.2 - 34.2 m - <1% py as local veins and along fractures
34.2 - 43.8 m	Mafic tuff - dark to medium green, mostly fine grained - a few thin cherty interbeds - some faulting/shearing at 40.8 m - 41.1 - 43.8 m - mafic lapilli tuff, small angular fragments in a soft light green matrix	moderate to strong chloritic alteration mainly along fractures	34.2 - 35.0 m - minor py 35.0 - 41.1 m - 2-3% pyrite and cpy as stringers and disseminations with chlorite, minor sp on fractures @ 35.1 m - 2 small pieces of massive py- py- py - dropped from the core tube and drilled over band at least 1.5 cm thick 41.1 - 43.8 m - $\approx 1\%$ disseminated pyrite
43.8 - 52.2 m	Sediments - fine grained green to brown silt and chert - 43.8 - 46.8 m - fine grained soft silt, could be mafic tuff, massive, not bedded - 46.8 m - mainly cherty sediment, local bedding at 45 - 50° to the core, may contain some thin felsic tuff beds		43.8 - 46.8 m - $\approx 1\%$ py as thin veinlets and local disseminations 46.8 - 52.2 m - 1-3% py disseminated and as thin bands and veinlets, local cpy

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Sheet No. 2

Depth & Lithology	Description	Alteration	Mineralization
52.2 - 53.8 m	Felsic lithic tuff - pink to buff - fragments of prominent quartz rhyolite and a few of chert in a fine grained crystal tuff matrix - could be conglomerate		<1% py, local cpy
53.8 - 57.5 m	Siltstone to mudstone - grey, green, buff and black, commonly cherty - local bedding at 65 - 70° to the core		minor py
57.5 - 62.5 m	Mafic tuff - medium green, fine grained, massive - granular look but could be a flow or sill - thin calcite stringers common	61.5 - 62.5 m - moderate chloritic and sericitic alteration	minor py, rare cpy mainly near 62.5 m
62.5 - 64.4 m	Siltstone to mudstone - light green, similar to above - slumped bedding at 70 - 75° to the core		1-2% py, disseminated and as thin stringers
64.4 - 82.3 m	Mafic volcanic - medium to dark green - tuffs and some possible flows - small silica amygdules locally - moderately sheared at 60 - 70° to the core from 64.4 - 65.5 m - a few cherty sediment interbeds increasing downward	local chloritic and sericitic alteration	rare py to 67.4 m 4-5 cm py band with chlorite @ 67.4 m 67.4 - 70.1 m - ≈ 1% py as local concentrations of 2-3% 67.4 - 79.0 m - minor py and rare cpy minor sp @ 70.2 m with py 79.0 - 82.3 m - ≈ 1% py, 2-3% locally over short intervals occasional sp and cpy, i.e. @ 82.0 m
82.3 - 89.3 m	Siltstone to mudstone - grey-green, some thin red beds - mafic tuff interbeds down to 86.9 m - poorly defined bedding @ 75 - 80° to the core - a few dacitic tuff interbeds towards 89.3 m - small fault @ 88.6 m	moderate sericitic and chloritic alteration of tuff beds	generally <1% py but 1-2% in some tuff beds
89.3 - 93.7 m	Felsic tuff (prominent quartz unit) - light grey to buff - a few grey siltstone interbeds - mostly fairly coarse crystal lithic tuff - quartz and feldspar crystals, rhyolite and siltstone lithic fragments	weak quartz-sericite alteration	≈ 1% disseminated pyrite

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
93.7 - 106.9 m	Mafic volcanic - dark green - mafic tuff and sediment to 96.5 m - some felsic fragments near 93.7 m - 93.7 - 104.8 m - mafic fragmental - pillow basalt and pillow breccia? - siltstone interbed @ 104.8 - 105.2 m	irregular epidote and calcite blotches	no sulphide
106.9 - 112.0 m	Interbedded mafic tuff and cherty siltstone - green and grey green - small faults @ 106.9m and 107.3 - 107.4 m - poorly defined bedding @ 75 - 85° to the core	local chloritic alteration	≈ 1% py and cpy as thin discontinuous stringers and disseminations locally to 1% cpy
112.0 - 150.3 m	Mafic tuff - dark green - commonly fine grained and massive, could be in part flows - some lapalli tuff beds - local fine silicic matrix - 112.2 - 112.6 m - chilled mafic dyke - fault gouge and breccia @ 114.3 m, 116.0 m and 118.2 - 118.3 m - occasional thin cherty sediment beds - 121.9 - 123.6 m - angular lapalli in a soft grey to pink matrix (not calcite) - small fault gouge at ~ 128.9 m and @ 135.3 m - 127.9 - 135.7 m - rubbly core, fractured, some faulting - occasional white and pink calcite amygdulites in fragments below 132.0 m - 136.5 - 138.5 m - a few cherty and black carbonaceous silt beds	possible silicification of the matrix down to about 116.0 m 117.1 - 118.2 m - moderate chlorite alteration 128.0 m - local chloritic alteration in fracture zones	no sulphide to 117.1 m 117.1 - 118.2 m - 3-4% pyrite mainly as thin bands with chlorite 118.2 - 128.0 m - no sulphide 128.0 - 150.3 m - ≈ 1% py as local concentrations and thin semi-massive bands with chlorite
150.3 - 158.3 m	Mafic volcanic - flow? - dark green, flecked with epidote - local plag phenos - fairly massive - 151.35 - 151.5 m - jasper-pyrite band - lower contact gradational - alteration	epidote alteration 157.5 - 158.3 m - becomes altered gradually, sericite - chlorite mainly	<1% pyrite to ≈ 157.5 m, except 10-15% from 151.35 to 151.5 m, minor cpy 150.5 - 151.3 m 157.5 - 158.3 m 2-3% disseminated pyrite
158.3 - 162.2 m	Altered mafic - may be equivalent to the overlying unit - some sericitized feldspars evident near 158.3 m - small fault gouge @ ~ 161.0 m	strong chlorite - sericite alteration 161 - 162.2 - is all chlorite and pyrite	5 - 6% pyrite increasing percentage downward
162.2 - 162.7 m	Massive pyrite - some chlorite		strongly conductive
162.7 - 166.1 m	Altered mafic tuff? - locally looks like lapalli tuff	strong sericite - chlorite - quartz alteration	5-6% pyrite, disseminated and as veins

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Sheet No. 4

Depth & Lithology	Description	Alteration	Mineralization
166.1 - 175.7 m	Felsic tuff and sediments - light grey to brown - local bedding at ~80° to the core - chert and tuffaceous silt beds - some larger prominent quartz rhyolite fragments in lithic tuff beds	moderate to strong sericite - quartz alteration local minor chlorite	5 - 15% pyrite, finely disseminated and as veinlets percentage decreasing downward
175.7 - 179.8 m	Interbedded mafic and felsic tuffs - grey to green, fine grained tuffs - some fine chloritic and sericitic shards - may be all mafic to intermediate (felsic look due to alteration?)	moderate to strong sericite - chlorite ± quartz alteration	5 - 6% pyrite disseminated and on fractures
179.8 - 205.8 m	Mafic volcanic - dark green, flecked with epidote - 179.8 - 184.0 m - massive flow with a few small calcite amygdulites - 184.0 - 193.9 m - lighter grey-green, fine grained, granular look - may be a tuff, not epidotized - common calcite veining - 193.9 - 200.7 m - epidotized flow, as above - 200.7 - 205.8 m - fine grained mafic tuff or flow	epidote alteration 179.8 - 184.0 and especially 193.9 - 200.7 m 184.0 - 193.7 m - local chlorite - sericite alteration, also 200.7 - 205.8	179.8 - 180.2 m - ~ 1% py 180.2 - 184.0 m - rare py 184.0 - 193.9 m - 2-3% pyrite and minor cpy with alteration, overall ~ 1% py 193.9 - 200.7 m - rare py 200.7 - 205.8 m - as for 184.0 - 193.9 200.9 - 201.4 m - <1% sp with calcite in a thin vein and in amygdulites
205.8 - 236.2 m	Interbedded fine grained sediments and mafic tuff - dark green to grey - bedding variable from 45 - 70° to the core - may include some fine grained felsic tuff - 217.0 - 218.6 m - mafic flow? weakly epidotized - sediments are mainly cherty - 223.5 - 227.1 m - light grey cherty sediment - 227.1 - 233.1 m - mainly fine grained mafic tuff - 233.1 - 234.9 m - green siltstone - 234.9 - 236.2 m - mafic tuff with a cherty matrix - 236.2 m E.O.H. -	205.8 - 223.5 m - moderate chloritic and sericitic alteration 227.1 - 236.2 m - moderate sericite - chlorite alteration locally	5-8% pyrite as thin stockwork veins and disseminated, down to 223.5 209.0 - 209.1 m - semi-massive py band/bed with chlorite and ~ 1% cpy (conductive) 223.5 - 227.1 m - 1-2% py 222.4 - 222.8 m - to 1% sphalerite with pyrite veinlets 227.1 - 233.1 m - 1-3% py 233.1 - 236.2 m - 4-5% py, mainly as veinlets

HOLE NO. LS-2K-004

**GEOLOGICAL CONSULTANTS LTD.
DIAMOND DRILL CORE ASSAYS**

SHEET NO. 1 of 1

PROJECT NO. G-4793

HOLE NO. LS-2K-004

PROPERTY Buchans Highway

Sample No.	From (metres)	To (metres)	Length (metres)	DESCRIPTION	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)	Ba (ppm)
36283	13.1	14.2	1.1	Chert 2 to 3% py & cpy.	4660	-10	54	0.7	16	35
36284	35.0	36.0	1.0	Vm. Tuff, 2 to 3% py & cpy	3120	31	77	0.5	3	-10
36285	36.0	37.5	1.5	Vm. Tuff, 2 to 3% py & cpy	1480	30	76	0.6	5	16
36286	37.5	39.0	1.5	Vm. Tuff, 2 to 3% py & cpy	2080	45	74	0.8	4	33
36287	67.4	68.4	1.0	Vm. 1 to 2% py.	1100	-10	106	-0.3	1	85
36288	81.7	82.7	1.0	Vm. Minor sp & cpy.	89	-10	468	-0.3	-1	124
36289	107.3	108.3	1.0	Vm. Tuff & Sltst., 1% py & cpy.	1550	-10	153	-0.3	8	174
Dup-36289	107.3	108.3	1.0	Vm. Tuff & Sltst., 1% py & cpy.	1550	-10	160	-0.3	8	180
36298	150.5	151.5	1.0	Vm. & jasper-pyrite band, minor cpy	27	-10	258	-0.3	3	23
36290	160.0	162.0	2.0	alt Vm. 5 to 6% py	431	35	227	0.6	6	-10
36291	162.0	163.0	1.0	alt. Vm. & 0.5m massive py.	-10	20	202	-0.3	8	21
36292	163.0	164.5	1.5	alt. Vm. 5 to 6% py	-10	-10	201	-0.3	7	128
36293	164.5	166.1	1.6	alt. Vm. 5 to 6% py	-10	-10	103	-0.3	4	51
36294	166.1	167.6	1.5	alt. Vm. 5 to 6% py	-10	-10	43	-0.3	3	45
36295	167.6	169.1	1.5	alt. Vm. 5 to 6% py	-10	-10	52	-0.3	4	35
36296	169.1	170.6	1.5	alt. Vm. 5 to 6% py	-10	-10	60	-0.3	3	38
36297	170.6	172.1	1.5	alt. Vm. 5 to 6% py	792	26	106	-0.3	3	150
36299	200.8	201.8	1.0	Vm. 1%py, minor sp.	49	19	3160	-0.3	2	286
36300	208.5	209.5	1.0	Vm. & Sed. 4 to 5% py, <1% cpy	2300	27	211	1	6	18
36301	209.5	211.0	1.5	Vm. & Sed. 4 to 5% py	11	18	164	-0.3	9	34
Dup-36301	209.5	211.0	1.5	Vm. & Sed. 4 to 5% py	-10	16	167	-0.3	8	30
36302	211.0	212.5	1.5	Vm. & Sed. 4 to 5% py	-10	20	182	-0.3	15	-10
36303	222.0	223.0	1.0	Vm. Tuff, 2 - 3% py, minor sp	177	-10	1770	-0.3	3	37