

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

Sheet No. 1

GPS CO-ORDINATES <u>17215.17</u> <u>9600.16 N</u>	Depth	Dip	Magnetic Bearing	Corrected Bearing	Project No. _____	Hole No. <u>BE-97-17</u>
GRID CO-ORDINATES <u>(172+00 E 9550 N)</u>	_____	_____	_____	_____	Property <u>Buchans River Ltd.</u>	
ELEVATION <u>308.81 m</u>	_____	_____	_____	_____	NTS <u>12A/15</u>	Grid Name <u>Buchans East</u>
DIP AT COLLAR <u>-90°</u>	_____	_____	_____	_____	Date started <u>09/25/97</u>	Completed <u>09/27/97</u>
BEARING _____	_____	_____	_____	_____	Contractor <u>Logan Drilling</u>	
TOTAL DEPTH <u>147.5</u> CORE SIZE <u>NQ</u>	_____	_____	_____	_____		
REMARKS <u>Down hole measurements from top of casing</u>	_____	_____	_____	_____	Logged by <u>Jim Harris</u>	

Depth & Lithology	Description	Alteration	Mineralization
0 - 4.6	Overburden		
4.6 - ~ 31.0	Felsic volcanic? grey to white with local short greenish patches hint of tiny "quartz"? phenos locally brecciated by alteration some fragmental zones may be primary 8.5 - 9.0 - medium green mafic dyke - magnetic boundaries between light & dark colour zones are indistinct - alteration fronts 24.1 - 25.0 - fairly coarse dacitic lithic tuff some chloritic and sericitic pumice fragments below 24.4 m - unit becomes gradationally darker coloured, still with stockwork quartz-pyrite. May be altered mafic locally appears fragmental with remnant grey-green less altered "zones" surrounded by light coloured silicification lower contact arbitrary	very strong silicification with local sericite and chlorite alteration - mainly in darker coloured areas 4.6 - 4.7 - pinkish "granitic" alteration - may be a boulder local stockwork solution breccias - light grey almost clear silica cutting buff coloured silica chlorite alteration more pronounced towards 30.0 m	10 - 20% pyrite as disseminations and stockwork veinlets with quartz from 1 cm to less than 1 mm 4.6 - 4.8 minor cpy and sp (may be boulders) 7.1 - 7.2 - 60%+ pyrite, semi-massive band or stringer, is partially ground away 22.6 - 24.3 - only minor pyrite 24.1 - 25.0 - minor dissem. sphalerite? minor pyrite 25.4 - 31.0 8 - 10% pyrite
31.0 - 66.2	Altered mafic to intermediate volcanic dark green to grey green mostly fragmental with angular dark green mafic fragments in a white to greenish silica matrix appears to be fragmented by silicic alteration but may be primary resembles Ski Hill Fm. mafic fragmentals but more white silica 34.2 - 34.5 - buff silicic felsic zone - may be more intense alteration 36.4 - 37.1 - gouge coated fractures - fault sub-parallel to core - calcite infill	silica flooding of "matrix" black chlorite alteration along fractures increasing down hole silica flooding less pronounced below 40.6 m	pyrite 5 - 10% mainly as coarse blobs and stringers with silicification or black chlorite 34.2 - 34.5 - minor dissem. sphalerite @ 36.8 - minor sp with calcite @ 37.2 - minor sp with silicification and black chlorite

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Depth & Lithology	Description	Alteration	Mineralization
31.0 - 66.2 (Cont'd)	39.9 - 40.0 - quartz porphyry "fragment"? ≈ 41.0 - 44.0 - more massive, less altered, also more intermediate 44.0 - 45.1 - quartz porphyry fragment? shearing @ 45.1 occasional short more felsic (dacitic?) zones appear to be alteration 53.7 54.4 - clasts of pink quartz - feldspar porphyry and a few of grey silicified felsic 56.7 - 57.2 - felsic clasts and chips - tuff? also 61.8 - 62.0		py decreases to 3 - 4% below about 46.6, almost entirely with black chlorite and/or silica 53.7 - 54.4 minor disseminated sp in felsic clasts 61.8 - 62.0 minor sphalerite in felsic fragments 58.5 66.2 1 - 2% pyrite
66.2 - 71.0	Dacite? medium green fairly hard silicic rock may be alteration of above 66.4 - 67.6 - mottled - intrusive looking texture may be hornfels faint plagioclase phenos locally 67.6 - 67.9 - sheared to brecciated felsic, some quartz and carbonate infill 70.9 - 71.0 - highly fractured to brecciated	minor stockwork quartz flooding may be weakly silicified locally moderate black chlorite on fractures	to 1% pyrite mainly associated with black chlorite alteration
71.0 - 74.4	Dyke or sill brown to green "intermediate" intrusive abundant plagioclase and biotite - similar to intrusive in hole BE-97-15 local orange felsic alteration or inclusions 72.8 - 72.9 - sheared @ ≈ 50° to the core 73.5 - 74.1 - dacite inclusion	73.5 - 74.1 - strong black chlorite - pyrite stockwork alteration	73.5 - 74.1 - 8 - 10% py
74.4 - 109.9	Dacite green to grey green massive flecked with chlorite and waxy green sericite 87.5 - 87.8 - fragmental - lithic tuff with large quartz grains 108.2 - 108.3 - small chilled mafic dyke @ 10 - 15° to core	some bleached "weakly silicified" zones i.e. 89.0 - 90.1 black chlorite fracture coatings, to small zones (1 - 2 cm), < 1% 108.6 - 109.9 slightly more pronounced black chloritic alteration	pyrite 1 - 2% as small stringers on fractures with black chlorite and rarely with quartz stringers 87.5 - 87.8 - minor disseminated sp in some clasts possible minor sp on a fracture at 91.2 2 - 3% pyrite in lighter bleached zones
109.9 - 113.1	Mafic dyke fine grained, black - massive, magnetic chill contacts - upper at 20° to the core lower contact at 75° to the core		

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
113.1 - 147.5	Dacite - as for 74.4 - 109.9 medium grey-green massive very hard - silicic 114.1 - 114.3 - chilled mafic dyke @ 20 - 25° to the core 124.0 - 124.1 - small silicic lithic tuff zone or silicified zone below 128.0 - common broken (fractured) rubble core - some faulting 145.0 - 146.0, also @ 134.5 - 147.5 E.O.H. -	black chloritic alteration limited to fractures local zones of weak silicification 114.8 - 115.0 weak to moderate silicification and chloritic alteration 116.8 - 116.9 strong black chlorite alteration 124.6 - 126.25 weak silicification and black chlorite on fractures 126.25 - 126.5 moderate silicification and black chlorite alteration 126.5 - 128.8 moderate to strong chloritic alteration below 128.8 local black chlorite on fractures, some weak silicification and occasional wormy white quartz stringers	1 - 3% pyrite as small disseminated blebs and thin stringers associated with black chlorite @ 114.3 - a 5 cm by 0.5 cm cpy bleb associated with a calcite veinlet minor disseminated cpy down to 115.3 116.8 - 116.9 ≈ 20% pyrite 124.6 - 126.25 < 1% cpy, galena and sphalerite mainly along fractures with black chlorite 126.25 - 126.5 ≈ 50% pyrite, cpy, sp and ga, mainly pyrite cpy, sp and ga near 126.5 126.5 - 126.35 some layering/ shearing? at ≈ 85° to the core 128.8 - 147.5 - to 1% py mainly with chlorite on fractures

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

SHEET NO. _____

PROJECT NO. _____

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PROPERTY Buchans East

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