

LOCATION	Mt. Black E.L. 1/62 - Murchison River Grid (5,376,400N 384,778E)	Direction	Dip.	Metre	A.M.G.		COLLAR DIP.	-65°	TOTAL DEPTH	155.6m
OBJECTIVE	To test a ground magnetic anomaly under glacial scree cover.			20 65 110 155	Direction	Dip.	DIRECTION	90° A.M.G.	HOLE SIZE	HQ-12.2m, NQ-17.8m
RESULT	No significant mineralisation intersected. Magnetic anomaly due to disseminated magnetite.						R.L.	158.5	COMMENCED	BQ rest
							COORDINATES	5,376,394.0mN 384,778.0mE	COMPLETED	19th March, 1981
									LOGGED BY	I.R. McDonald

FROM	TO	ROCK DESCRIPTION	MINERALISATION	Sample No.	From	To	Core Rec'd	Sample Length	Pb	Zn	Cu	Assay Ag	Data Mn	per ppm Fe%	As	Sn	CORE REC'D		
																	RUN	SHORT	
C = Chip Samples and S = Split Sample																			
0	11	Glacial Deposits 0-7.4 Quartzite boulders & brown clays 7.4-11 Grey ?fluvioglacial clays		38485C 586C 587C	11.0 15.8 20.5	15.8 20.5 25.5	4.8 4.7 5.0	4.8 4.7 5.0	15 5 30	135 130 230	X X 5	X X 0.5	1300 1250 1700	4.65 4.3 5.7	3 3 2	X X X			
11	15.8	Green mg porphyritic, with fg groundmass, massive, lithic tuff. Intermediate-quartz latite, moderate to strongly chloritised. Phenocrysts of feldspar, trachytic liths, and minor quartz. 11.2-11.4 Strong carbonate clots (poss after liths?) 13.8-15.8 Chloritic, fiamme and vague layering at 35° suggest ashflow origin		38488C 489C 38490C 491C 492C 493C 494C 495C 496C 497C 498C 499C 38500C	25.5 27.6 30.8 33.1 34.0 37.2 38.3 41.9 43.1 46.8 49.5 52.2 55.4 57.3	27.6 30.8 33.1 34.0 37.2 38.3 41.9 43.1 46.8 49.5 52.2 55.4 57.3	2.1 3.2 2.3 0.9 3.2 1.1 3.6 1.2 3.7 2.7 2.7 3.2 1.9	2.1 3.2 2.3 0.9 3.2 1.1 3.6 1.2 3.7 2.7 2.7 3.2 1.9	10 15 15 95 10 15 10 10 20 20 785 10 25	135 135 215 260 120 100 125 130 120 195 125 160 105	15 X X 20 5 X X X X X X X 55	0.5 X 0.5 0.5 0.5 0.5 X 0.5 X 0.5 3.0 X 0.5 0.5	1650 1350 1900 1600 1300 1400 1500 1700 1300 1700 1700 29000 1500 1300	4.7 4.65 0.3 5.8 4.75 4.9 4.5 4.65 5.45 5.6 5.6 6.3 5.2	1 1 2 19 1 2 2 2 34 110 7700 63 57	X X X 6 X X X X 34 34 6 14 3			
15.8	25.5	Pale green mg porphyritic massive lithic tuff as above and possibly minor epidote. Groundmass chloritised 21.2-21.5 Very weakly porphyritic fg ash-flow tuff. 23.5-24.0 Core vuggy, possibly weathered out ?carbonated liths. Lower contact gradational		43450C 459C 43460C 451C 462C 463C 464C 465C 466C 467C 468C 469C	57.3 59.8 61.1 63.3 64.4 67.0 69.6 73.0 75.9 80.3 84.0 87.9	58.8 61.1 63.3 64.4 67.0 69.6 73.0 75.9 80.3 84.0 87.9	1.5 2.3 2.2 1.1 2.6 2.6 3.4 3.9 3.4 3.7 3.9 2.0	1.5 2.3 2.2 1.1 2.6 2.6 3.4 3.9 3.4 3.7 3.9 2.0	55 20 15 25 20 15 10 15 15 5 10	140 165 130 145 105 110 110 125 130 150 140	10 X X X X X X X X X X 150	X X X X X X X X X X X X	1200 1350 1200 1300 1150 1200 1200 1050 1250 1450 1300 1600	5.9 6.2 5.6 6.5 4.8 4.65 4.35 4.6 4.4 4.75 4.3 5.9	53 61 38 39 25 20 12 9 10	4 8 2 2 12 18 4 20 16 10 10			
25.5	26.5	Pale green, f-mg, massive, intermediate, andesitic, crystal vitric ash flow tuff. Chloritised. Lower contact gradational.		43470C 471C 472C 473C 474C	89.9 92.4 94.8 98.8 100.1	92.4 94.8 98.8 100.1	2.5 2.4 4.0 1.3 3.3	2.5 2.4 4.0 1.3 3.3	65 10 10 10 10	90 110 100 150 105	115 X 5 5 5	X 0.5 X 0.5 0.5	1200 1200 1100 2400 1350	4.0 4.2 3.85 4.6 3.7	33 14 9 9 8	14 20 75 16 30			
26.5	27.2	Grey-green, fg, weakly porphyritic lithic intermediate quartz-latite tuff. Chloritised, weakly silicified with thin quartz-carbonate vnlts and quartz-carbonate replacement of liths. Lower contact diffuse 35°		475C 476C 477C	103.4 106.9 109.2	106.9 109.2 113.1	3.5 2.3 3.9	3.5 2.3 3.9	10 10 10	110 130 110	X 5 60	0.5 0.5 0.5	1150 1250 1300	4.45 4.6 4.1	8 6 7	8 6 X			
27.2	27.6	Green fg massive, chloritised andesitic vitric lava. Possibly a fg vitric tuff.																	
27.6	33.1	Green, fg, variably porphyritic, chloritised, intermediate lithic ashflow tuff.																	

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METRE		ROCK DESCRIPTION	MINERALISATION	Sample No.	From	To	Core Rec'd	Sample Length	Pb	Zn	Cu	Assay Data per pom					CORE REC'D		
FROM	TO											Ag	Mn	Fe%	As	Sr	RUN	SHORT	
	28.2-28.8	Carbonate replacement of coarse grained liths; possibly some are vesicle infillings.		43478C	113.1	114.3	1.2	1.2	10	140	45	1.0	1750	4.1	16	28			
				479C	114.3	117.2	2.9	2.9	5	145	40	0.5	1600	3.9	10	14			
				43480C	117.2	120.4	3.2	3.2	5	170	X	0.5	1200	4.0	5	6			
	29.4	Quartz vn 25mm thick at 50° Silicification around the vn.		481C	120.4	122.3	1.9	1.9	5	185	X	0.5	1350	4.3	6	10			
				482C	122.3	124.9	2.6	2.6	10	170	X	0.5	1650	4.05	9	20			
				483C	124.9	125.3	0.25	0.4	810	425	5	1.0	4150	3.35	52	8			
	29.4-30.8	Chloritic flame form weak banding at 40°		484C	125.3	127.0	1.7	1.7	25	250	X	X	1700	5.8	12	10			
				485C	127.0	129.1	2.1	2.1	150	500	5	X	2900	4.5	32	14			
	30.8-33.1	Bands of pale green to cream silicification with rare thin quartz veins. Lower contact diffuse irregular.		486C	129.1	131.6	2.5	2.5	90	185	5	1.0	2600	2.7	83	13			
				487C	131.6	134.4	2.8	2.8	165	320	5	1.0	2750	3.7	42	6			
				43493S	134.3	135.3	0.9	0.9	950	1850	5	1.0	5250	5.5	57	10			
				494S	135.3	135.5	0.2	0.2	1850	2500	10	4.0	1.8%	3.9	85	28			
				495S	135.5	135.8	0.3	0.3	2700	3200	15	4.5	8600	4.0	76	26			
				496S	135.6	136.4	0.5	0.6	1150	1350	10	3.0	7150	2.7	34	2			
33.1	34	Green fg massive andesitic vitric lava. Strongly chloritised. Lower contact sharp 40°.		497S	136.4	135.8	0.4	0.4	1700	2400	10	2.5	1.5%	2.85	68	X			
				498S	136.8	137.3	0.35	0.5	1550	310	80	24.5	1.3%	6.5	6.5%	X			
				499S	137.3	137.4	0.1	0.1	10	170	20	X	1450	4.7	130	4			
				43500S	137.4	137.8	0.4	0.4	4000	6350	105	6.0	2.3%	5.1	900	2			
				43488C	137.8	142.5	4.7	4.7	640	1100	20	2.0	8450	4.0	200	20			
34	36.7	Green weakly porphyritic, lithic ashflow tuff. Intermediate, quartz latite, chloritised with rare thin quartz-carbonate veinlets.		489C	142.5	147.3	4.7	4.8	7150	1.7%	35	7.5	6800	3.45	200	8			
				43490C	147.3	148.3	0.75	1.0	245	170	890	6.0	2.5%	6.2	1.8%	2			
				491C	148.3	153.0	4.65	4.7	190	145	20	0.5	6850	4.4	260	X			
				492C	153.0	155.6	2.6	2.6	150	410	40	0.5	2950	4.7	180	X			
				Resample by split core of Cnip Sample No. 43489															
				41858	142.5	143.3	0.8	0.8	535	450	10	1.0	6700	3.5	100	6			
				859	143.3	144.3	1.0	1.0	130	265	10	0.5	8150	3.5	130	X			
				41860	144.3	145.3	1.0	1.0	225	195	15	1.0	9500	3.5	150	X			
				861	145.3	146.0	0.7	0.7	140	90	15	0.5	6250	3.3	160	6			
				862	146.0	146.8	0.8	0.8	295	650	20	0.5	9450	3.7	180	4			
				41863	146.8	147.3	0.4	0.5	230	250	410	2.0	2.4%	5.9	600	8			
36.7	37.2	Green/green porphyritic lithic tuff. Intermediate quartz latite chloritised. Vuggy appearance ?solution cavities after carbonates liths Lower contact sharp at 40°																	
37.2	38.3	Grey-green, fg, massive lithic vitric welded tuff, possibly a lava, Intermediate, chloritised, variably silicified with thin quartz-carbonate veins. 38-38.3 Silicified breccia zone annealed with quartz veins																	
38.3	38.8	Dark grey fg weakly porphyritic lithic vitric welded tuff. Intermediate, weakly chloritised & sericitised.	Trace fg disseminated pyrite.																
38.8	41.9	Grey-green fg lithic vitric welded tuff Intermediate, chloritised. Possibly a vesicular lava with the 'liths' being infilled vesicles, with quartz carbonate vns 40.6-40.75 Dark grey unit as per 38.3-38.8																	
41.9	43.1	Grey-green, mg porphyritic with fg groundmass, vitric lithic tuff Intermediate. In places silicified with strong quartz-																	

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METRE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA						CORE REC'D			
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT	
		carbonate veining & brecciation 41.9-42.1 Strong breccia annealed with quartz vns 42.5-42.7 Strongly silicified 42.7-43.1 Strong breccia zone with quartz carbonate veins & chlorite clots															
43.1	46.8	Dark grey, fg massive intermediate lava with rare thin quartz-carbonate veins. Weakly chloritised. 43.1-43.6 Strong silicification decreasing downwards. 44.3-44.5 Strong silicification and quartz veining 45.2 Sample No 35185 thin section 46.2-46.5 Strong silicification & quartz vning with ?epidote alteration Lower contact 55°															
46.8	52.2	Green to grey fg lithic vitric pumaceous Intermediate ashflow. Chloritised with rare thin quartz vns and rare agglomerate sized blocks of grey porphyritic silicified tuff. Weak banding at 60° 49.3-49.5 Silicified & epidotised with chloritic clots after shale fragments? or pumice? Lower contact 45°															
52.2	52.9	Grey-green, fg lithic vitric Intermediate ashflow. Banded at 10°, finer grained bands are chloritised. Liths are replaced by quartz and carbonate. Lower contact irregular.															
52.9	55.4	Grey-green, mg porphyritic, fg groundmass vitric lithic tuff Intermediate andesitic. Weakly chloritised with thin quartz vns and patches of quartz filled vesicles. 52.9-53.1 Strong quartz-carbonate vning 53.4 Sample No 35186 thin section Lower contact irregular.															

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METRE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D	
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT
55.4	57.3	Pale green fg vesicular trachytic lava Silicified and epidotised. Vesicles filled with quartz. 55.4-55.8 Auto breccia; possibly a flow top breccia Lower contact 30'														
57.3	58.2	Grey-green mg porphyritic lithic tuff Intermediate. Weakly silicified with thin quartz veins 57.8-58 Finer grained chloritic section ?vitric? with moderate cleavage at 15' Lower contact diffuse.														
58.2	58.8	Pale green, fg vesicular trachytic lava. Vesicles filled with quartz. Lower contact diffuse 30'.														
58.8	61.1	Green fg, weakly porphyritic vitric lithic tuff. Intermediate andesitic. Weakly chloritised with chloritic shale fragments Lower contact irregular.														
61.1	63.3	Grey-green fg welded lithic vitric tuff Intermediate weakly chloritised with quartz filled vesicles. Lower contact diffuse irregular.														
63.3	64.4	Green fg banded pumaceous ashflow tuff Intermediate andesitic. Weakly chloritised Lower contact 40'														
64.4	69.6	Grey-green, mg porphyritic, fg groundmass lithic tuff, intermediate latite. Weakly silici- fied and chloritised with some liths re- placed by quartz and some ?vesicles in- filled by quartz. Lower contact diffuse.														
69.6	76.9	Interbanded zone. Two types of rock 1. Green fg weakly banded ?pumaceous ashflow Intermediate. Chloritised 2. White/grey porphyritic lapilli tuff. Intermediate, weakly silicified with liths frequently replaced by quartz.														

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798299

METRE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D		
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT	
		Rock type 2) is more abundant. Bands are up to 1m long. The entire unit is probably an ignimbrite.															
76.9	80.3	Cream/grey-green porphyritic lithic tuff to lapilli tuff. Intermediate latite. Weakly chloritised with rare thin quartz vns. Lower contact irregular about 15°															
80.3	84	Pink/green agglomerate intermediate tuff. Coarse fragments of pink rhyolite occur in a fg chloritic groundmass. 81.9-82.3 No agglomerate fragments. Weakly banded with ash to lapilli sized fragments. Lower contact 30°.															
84	87.9	Cream/grey-green porphyritic lithic tuff to lapilli tuff. Intermediate latite. Weakly chloritised. 87.2-87.9 Some pink agglomerate sized fragments of rhyolite. Lower contact 60°.	Trace of pyrite on the lower contact.														
87.9	89.9	Grey-green, f-mg andesite lava. Possibly a small intrusive. 88.9-89 Breccia annealed with quartz veins. Lower contact against a quartz annealed breccia.															
89.9	94.8	Cream/grey-green, porphyritic lithic tuff. Intermediate latite with rare quartz vns. 90.6 Sample No 35187 thin section. 91.5-91.8 Strongly silicified. 94.4-94.6 Breccia zone annealed by quartz and chlorite. Lower contact diffuse, about 20°.															
94.8	98.8	Zone of two interbedded rock types as per the interval 69.6-> 76.9. Lower contact irregular.															

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798300

METRE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D		
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT	
98.8	100.1	Breccia zone. Brecciated tuff is annealed by quartz, chlorite and pink carbonate. Lower contact gradational with veinlets of chlorite penetrating the underlying tuff.															
100.1	106.9	Cream/grey-green, porphyritic lithic tuff, Intermediate latite. Weakly chloritised with rare quartz veins 103.4-103.8 Strongly silicified & epidotised 104.3-104.7 " " " 105.3-105.5 " " " Lower contact diffuse.															
106.9	109.2	Green, fg, weakly porphyritic, weakly banded vitric tuff, Intermediate with bands of grey-green porphyritic lithic tuff. 107.6-107.9 Quartz-chlorite annealed breccia Lower contact gradational															
109.2	113.1	Cream/grey-green, mg porphyritic lithic tuff. Intermediate latite with rare quartz veins & weak silicification. Lower contact gradational															
113.1	113.5	Green, fg banded, lithic pumaceous, chloritised Intermediate tuff. Banding at 30° Lower contact diffuse.															
113.5	114.3	Green, fg, massive andesite lava or possibly small intrusive with thin quartz veins. Lower contact quartz vns at 60°															
114.3	120.4	Grey-green fg, weakly porphyritic silicified Intermediate lithic tuff. 117-117.2 Core broken ?possible fault zone? 119-119.2 Silicified breccia zone annealed by quartz vns															
120.4	122.3	Grey-green, f-mg massive andesite lava, ?or welded vitric tuff?, with thin quartz carbonate vns. Lower contact diffuse 30° 122.0 Sample No 35188 thin section															

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798301

METRE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA						CORE REC'D			
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT	
122.3	124.9	Grey-green, fg, weakly porphyritic, crystal lithic tuff. Intermediata latite. Weakly silicified with thin quartz-carbonate vns.															
124.9	125.3	Fault zone? Core very broken, recovery 0.35m of chips 60%. The chips are strongly carbonate and quartz veined chloritic volcanics.	1% fg disseminated pyrite														
125.3	127	Grey-green, f-mg massive andesite lava, or possibly a welded vitric ashflow, with thin quartz-carbonate veins & moderate silicification 126.1-126.2 fg massive green chloritic band. Possibly a chloritised vitric lava. Lower contact broken core.	1-2% fg disseminated pyrite partly associated with quartz-carbonate veins.														
127	129.1	Grey-green, f-mg lithic vitric ashflow tuff. Intermediate, weakly chloritised and silicified with quartz-carbonate veins. Core broken but no consistant fracture direction. Lower contact seems gradational but core very broken.	1-2% fg disseminated pyrite partly associated with quartz-carbonate veins.														
129.1	134.4	Pale grey fg banded sericitised carbonated volcanicalstic sediment. Core very broken but recovery of chips good. 129.2-129.9 Banding at 25° 130.8-131.1 White quartz vein, broken core. 131.2-131.3 White quartz vein at 45° 131.5-131.6 " " " 25° contacts irregular Lower contact, core very broken.	2% pyrite as fg disseminations and as small stringers and blebs.														
134.4	135.8	Dark green & white strongly carbonated chlorite schist. Core very broken	134.3-135.3 2-3% disseminated f-mg pyrite 135.3-135.8 15% pyrite in an irregular vein														
135.8	136.4	Cream/green-grey strongly carbonated chlorite sericite schist. Carbonate clots look like breccia infillings. Core fairly broken.	2-3% f-mg disseminated pyrite.														

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METRE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D			
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT		
		149-155.4 Weak banding & cleavage at 75°	153-153.2 3% disseminated pyrite & trace galena associated with dolomite veins															
		155.4-155.6 Interbedded dark grey siltstone & grey volcanic wacke. Banding subparallel to core.	153.2-155.6 1% disseminated fg pyrite															
155.6	EOH	Sample No's 35185, 186, 187 & 188 Thin Section descriptions refer to C.M.S. Report 81/4/20.																

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