

APPENDIX 2

Mt Ellen Prospect – Preliminary Assessment

(By Ken Morrison)

(See Digital File EL20_2003_200505_04_Appendix2.pdf)

Ken Morrison
23 November 2004

The following field work was completed on the Mt Ellen prospect during October-November 2004.

- A 2 km access walking was cut from Whip Spur Road to the prospect and a 100 metre x 100 metre loop track was cut through the area of known workings.
- The floor of the main open cut working was cleared and three vertical channels cut into the north wall were scan logged and sampled.
- Reconnaissance geology and pan concentrate sampling were carried out in the main alluvial workings.

The workings comprise an east-west trending box cut about 35 metres long (centred at approximately 382,224E, 5,334,841N), with a decline and a tunnel developed off the eastern end, and an area of more northeast trending shallow alluvial diggings located approximately 100 metres to the southeast. Several exploration shafts exist across the area and they are a potential hazard. A well preserved five head stamp battery sits in a cutting about 80 metres down slope from the box cut.

The prospect consists of a set of north dipping quartz veins hosted in a coherent feldspar>>quartz phyric rhyolite. In the open cut workings the exposed veins range from 1 mm to 1 cm in thickness and additional sub mm veinlets are common in hand lens view, so there is semi-continuous veining down the 4 metre channels in the north wall (Figures 1 & 2). The majority of veins dip north at about 50⁰ and the style appears more of a sheeted or stacked system, rather than a stockwork. No characteristic hydrothermal textures or colour were observed in the quartz and no sulphide was observed in either the veins or pan concentrates. Clots of specular hematite occur in the veins.

The feldspar phyric rhyolite host rock correlates with Central Volcanic Complex rhyolites outcropping near Nasty Nob and Mountain Maid. At Mt Ellen the rocks are weathered and soft, at least down to the 10 metre highest part of the box cut wall, suggesting no Late Pleistocene glacial erosion (in contrast to the equivalent rocks which are glassy and very hard at the Nasty Nob drill collar position). Pink feldspar alteration of the rhyolite is visible in the Mt Ellen open cut.

Anomalous gold values were returned in all 12 one metre channel samples taken, with the two highest grade samples assaying around 2 ppm (Figure 1, Table 1). Base metal and arsenic values are very low, which is consistent with the lack of visible sulphide.

Prospecting in the alluvial diggings shows more north dipping quartz veins in the basement rocks, which comprise both pink rhyolite and grey green felsic volcanoclastics. Patchy chloritic alteration occurs in the volcanoclastics and on some lumps of vein quartz recovered during panning. Strong shows of visible gold were panned in the central gutter of the workings (Table 1). The gold grains are ragged and juvenile in shape, suggesting no supergene overgrowth and almost no detrital transport have occurred. Minor hematite was the only other heavy mineral recognised.

The position and orientation of the alluvial workings relative to the open cut could be explained by dextral displacement along a northeast striking fault located mid way between the two workings.

Recommendations

Option 1 Assuming the outcropping mineralisation is part of a major sheeted or stacked vein system at depth, the prospect could be drilled without further work needed. A DDH of approximately 600 metres, collared on the flat topped hill north of the prospect (at approximately 382,250E, 5,335,000N) and drilled south at a dip of -60° , would test the target. The hole would require helicopter support.

Option 2 If more evidence for the size and shape of an anomalous zone is needed prior to a drilling decision, a 20 metre spaced grid should be established over the prospect and a program of detailed mapping, soil geochemistry and ground magnetics completed.



Figure 2 Channel Sampling, Mt Ellen Open Cut, November 2004.

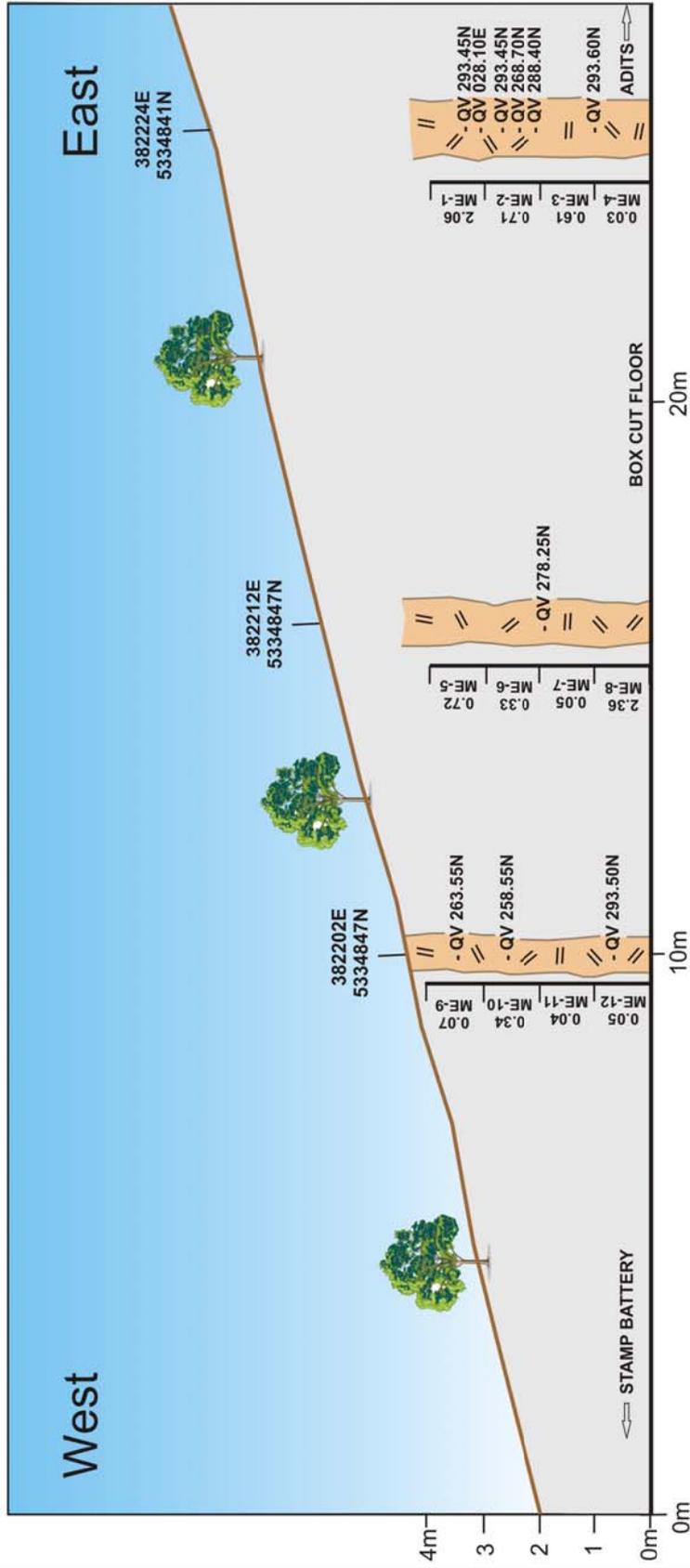
Table 1 Mt Ellen Channel and Pan Concentrate Sampling

*AGD 1966/Zone 55 AMG

Sample ID	Sample Type	Easting*	Northing*	Description	Assays																	
					BU020141	17	90	Au	Au(R)	Cu	Pb	Zn	Ag	As	Au							
					FAA505	FAA505	AAS21R	F653														
					0.01	0.01	2	3	2	3	2	1	50	1	10000	10000	5000	5000	5000	5000	200000	
					ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	æg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
ME1	channel	382224	5334841	rhyolite+qtz veins	2.06	-	7	<	9	<	-	-	-	-								
ME2	channel	382224	5334841	rhyolite+qtz veins	0.71	-	5	<	8	<	-	-	-	-								
ME3	channel	382224	5334841	rhyolite+qtz veins	0.61	-	3		19	<	-	-	-	-								
ME4	channel	382224	5334841	rhyolite+qtz veins	0.03	-	7		19	<	-	-	-	-								
ME5	channel	382212	5334847	rhyolite+qtz veins	0.72	-	13		15	<	-	-	-	-								
ME6	channel	382212	5334847	rhyolite+qtz veins	0.33	-	14		15	<	-	-	-	-								
ME7	channel	382212	5334847	rhyolite+qtz veins	0.05	-	8		7	<	-	-	-	-								
ME8	channel	382212	5334847	rhyolite+qtz veins	2.36	-	10		21	<	-	-	-	-								
ME9	channel	382202	5334847	rhyolite+qtz veins	0.07	-	11		8	<	-	-	-	-								
ME10	channel	382202	5334847	rhyolite+qtz veins	0.34	-	16		10	<	-	-	-	-								
ME11	channel	382202	5334847	rhyolite+qtz veins	0.04	-	15		12	<	-	-	-	-								
ME12	channel	382202	5334847	rhyolite+qtz veins	0.05	-	16		9	<	-	-	-	-								
ME13**	pan con	382185	5334737	3 specks vis gold	-	-	-		-	-	-	-	-								1400	
ME14**	pan con	382212	5334749	>100 specks vis gold	-	-	-		-	-	-	-	-									7390
ME15**	pan con	382165	5334723	>50 specks vis gold	-	-	-		-	-	-	-	-									3402
ME16**	pan con	381976	5334784	5 specks vis gold	-	-	-		-	-	-	-	-									900
ME17**	pan con	381841	5334868	no vis gold	-	-	-		-	-	-	-	-									1.5

**pan concentrate samples are produced by sieving stream gravel to 2 litres of -3 mm sediment, panning to approx 50 g, which is pulped and fire assayed in total. The result is reported in micrograms gold per 2 litres of -3 mm sediment and assuming no gold loss in the process, represents the gold content of the original sample sieved.

MT. ELLEN OPEN CUT - NORTH WALL CHANNEL SAMPLING
SECTION ORIENTATION - 088-268 AMG



NEWCREST MINING LIMITED

EL20/2003

Queenstown - Mt. Darwin Project

Mt. Ellen Prospect

Channel Sampling

Figure 1 | Scale: 1:1,000 | Date: Nov 2004 | Dwg No: Mt. Ellen_Channel sampling.cdr

Legend

- QV 293.50N Quartz Vein AMG strike & dip
- Rhyolite
- ME-12 0.05 Gold ppm, Sample No.

