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DRILL HOLE RECORD

Location Que River
Commenced 24/1/76
Objective

Property M.L. 3M/75
Completed 31/1/76

District Tullah, Tasmania
Core size NQ to , BQ to
% Recovery EOH

Alt./R.L. 697.74
Co-ordinate 8701.3N, 5526.3E
Bearing (M) 276°57'
Grid bearing (M) 8°45'

Hole No QR 81
Date
Logged
Dip 45°22'

SURVEY DATA			
DEPTH	DIP	BEARING(M)	INSTRUMENT TYPE
0	45	278°	Clino.Theod.
0	49	276°57'	Theod.
49	47°	2765	Old Eastman
70	47°	N/A	"
100	46.5°	281.5	"
136	44.5°	280	"
172	43.5	280	"

GRAPH DERIVED DATA						REMARKS
DEPTH	DIP	BEARING(M)	NORTHING	EASTING	ALTITUDE	
0	45.5	277.0	8701.30	5526.30	697.74	Initial collar azimuth set with
25	46.5	276.8	8700.73	5508.94	679.76	tube compass
50	47.0	276.5	8700.10	5491.83	661.55	
75	47.0	278.0	8699.65	5474.78	643.26	
100	46.8	279.5	8699.65	5457.70	625.01	
125	45.0	280.0	8699.96	5440.31	607.06	
150	44.0	280.0	8700.35	5422.48	589.54	
175	43.5	280.0	8700.74	5404.43	572.25	
199	43.0	280.0	8701.12	5386.95	555.81	End of hole.

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DIAMOND DRILL LOG

Hole N° QR81 Page N° 1

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	0								
	5								
	10								
	15	AP.							
1.45		Pale cream-brown weathered andesite. Original texture obliterated by weathering.							No sulphide. Rock oxidised.
0.50									
0.15									
0.55									
0.30									
0.20	20								
0.40			Rubble, core very broken.						
	23.00								
2.25		Foliated, weathered, chloritised (green) andesite lithic tuff. Fragments are all less than 1cm. Foliation (shearing)							
	25								

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DIAMOND DRILL LOG

Hole N° QR81 Page N° 2

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
		is 70° to core axis.	F		No visible pyrite.
2.45		Becomes andesite agglomerate below 24m. Fragment size range is 1cm to 15cm. colour is green with white feldspars to 2mm common. Fragments may be (partly) flow banded andesit lava, but are considered more likely to be feldspar crystal tuff. Shapes are generally angular. The matrix varies from grey-green to yellow-brown depending on the degree of weathering.			
2.65	30	This is intense between 37m and 47m and 49-50m and 51-50m.			
3.00		Intermediate stages of weathering (?alteration) show conversion from primary (chloritic) green to pale pink so that appearance is much like some D.T.L. species.			
3.00	35	Below 60m approx., weathering persists (rock is leached, partly oxidised) however its effects are distinguishable from those of alteration.			
2.85		The latter appear to be increasing silicification and carbonation of several fragments in any given material. Such fragments are pale pink in colour (DTL) and must have been altered prior to incorporation in the agglomerate as other fragments show chloritic feldspar crystal lithic tuff characters.			
	40	(One might therefore deduce that this agglomerate overlies the altered ore bearing host rocks.			
2.85					
3.00	45				
1.60					
		Several large fragments, near 62m, are S1-DTL altered to GP, that is			

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DIAMOND DRILL LOG

Hole N° QR 81 Page N° 3

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1-5%, Common 5-15%, Abundant 15-(x)%, Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION

3.00

1.65

1.40 — 55

green illite-hydromuscovite is quite apparent. Both GP and DTL fragments contain cavities after (leached) feldspar phenocrysts.

Foliation, throughout is 50-70° to core axis, locally 30° but partly confused by relict bedding in fragments which is probably random.

3.00

The core is broken throughout, with occasional strong cleavage at 40° to the core axis.

1.60

60

1.40

2.90

65

1.45

1.45

2.20

70

0.75

71.80

Coarse andesite lithic tuff. Fragments showing concentric pink/green colour changes, and feldspar porphyry texture range up to 25mm.

2.95

74.00

As previously, andesite agglomerate

75

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DIAMOND DRILL LOG

Hole N° QR 81 Page N° 4

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1-5%, Common 5-15%, Abundant 15-(x)%, Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
3.00					
1.80					
1.30					
1.15	80				
0.95					
0.85					
0.90					
0.95	85	Pale cream-brown siliceous alteration reaches zenith around 88-90m. The rock texture remains andesite lithic tuff, varying to agglomerate, with large pink fragments. Note that patchy weathering is still quite common, and the core very broken.		89.20	Trace pyrite, plus narrow massive zone of pyrite 50%, galena 30%, sphalerite 10%, gangue of carbonate and silica, 89.20 - 89.42.
2.90				89.42	See above
2.90	90			92.04	92.04 - 92.19 massive
				92.19	(vein) pyrite.
2.80				93.10	Small 3cm fragment of massive galena - quite b obviously a pyroclastic fragment, confirming position of this rock unit above the ore sequence.
	95				
2.30					
	97.70	Intermediate zone, andesite feldspar porphyry. Probably agglomerate.			
2.70	99.0	As above, but pink fragments no longer present.			
	100				

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DIAMOND DRILL LOG

Hole N° QR 81 Page N° 5

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1-5%, Common 5-15%, Abundant 15-(x)%, Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
3.15		Andesite feldspar porphyry lithic-tuff to agglomerate, probably lava-breccia in part. Fragmental texture locally obscured by silicification (some silica filled vesicles? - see 128m - 140m?							No obvious pyrite.
1.25									
1.60	105	Note - unusual form of feldspars, often pinkish and rather large - 3mm, often occurring at the contact of fragment and matrix.							
1.00									
1.00		Lava-breccia texture rather more common below 120m. Foliation (shearing) continues at 40-60° to core axis.							
1.25									
1.50	110								
0.90									
1.40	115	Intermittent quartz veining, note subhedral crystals (cavity filling after fault shattering?)							
0.40									
0.90									
0.55									
0.70									
0.20									
0.10									
0.10									
0.65									
0.40	120								
0.90									
0.45									
0.20									
1.30									
0.25									
1.10									
	125		Very broken zone of core, much rubble. No pug (lost?)						

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DIAMOND DRILL LOG

Hole N° QR 81 Page N° 6

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault (F), Vein (c carbonate, q quartz)

Mineralization : Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
1.95		Fracturing throughout at several angles (opposed) 50° to core axis, 15° to core axis.							
0.90									
1.65									
1.00	130								
2.30									
2.25									
	135								
2.20		136.80 - 139.00m. Zone of pink - brown feldspar porphyry (alteration zone?)							
0.65									
0.45									
2.30	140	Note a marked decrease in fracturing below 140m.							
2.45									No pyrite.
2.65									
	145	Andesite feldspar porphyry lithic tuff or lava-breccia continues. Typical colour is green, due to pervasive chlorite alteration after rarely discernable pyroxenes.							
2.95									
	150								

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DIAMOND DRILL LOG

Hole N° QR 81 Page N° 7

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1 5%; Common 5 15%; Abundant 15 60%; Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
3.00					
2.20					
0.95	154.50				
3.00	155	Andesite agglomerate. Large fragments, particularly pink ones become dominant. Feldspar phenocrysts occur throughout. Massive competent rock with no well defined fluctuations. Colour is pink to green to 158m - then green as pink fragments become rare. Tuff-agglomerate to agglomerate texture continues. Fragmental shape is rounded to subangular, compared with angular forms common at the top of the hole.			
3.00	160				
	160.70				
3.00		160.70 to 163.70. Andesite lithic tuff. Fine tuff material with dispersed lithic fragments to 2cm plus occasional larger blocks to 7cms.			
	163.70				
3.00	165	163.70 onwards. Dominantly altered andesite feldspar porphyry agglomerate. Alteration is different to previously big sericite-carbonate, giving rise to a yellowish green fine mottling alternating with dense chlorite. Patchy silicification is present.			
2.35	170				
3.10	175				

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DIAMOND DRILL LOG

Hole N° QR 81 Page N° 8

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1 5%, Common 5 15%, Abundant 15 (40)%, Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
1.90		Patchy silicification intense carbonation gives rise to fawn to pink patches.							
1.50									
	180	AP							
2.65	180.10	Light grey to pink lavas ? or fine DTL tuff of DTL aspect to 181.40.							
	181.40								
		181.40 onwards. AP							
2.35		Minor sericite andesite feldspar porphyry agglomerate but dominantly andesite lithic tuff to tuff agglomerate of grey colour with grey, fawn and greenish fragments. There appears to be sedimentary fining in several sub-units. This is tentatively interpreted as putting facing up hole.							No pyrite.
	185								
3.05									
		Probable bedding, also cleavage(?) is 55° to core axis.							
3.10		Alteration is silica-carbonate-sericite.							
	190								
		END OF HOLE.							