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DRILL HOLE RECORD

Location Que River Area **Property** Mackintosh EL 2/70 **District** Tasmania, Australia. **Bearing (M)** 99° 31' **Hole No** QR 53 D.

Commenced 24.7.1975 **Completed** 27.7.1975 **% Recovery** 92 **Grid bearing (M)** 8.75 **Date** 5.8.1975

Objective To test P south lens at 7200N RL 650. (Development) **Core size** NQ to 85 m E.O.H. **Logged** E.H. SKEY

Co-ordinates 7197.9N 5078.8E **Dip** 50° 19' **Alt./R.L.** 701.3

SURVEY DATA				GRAPH DERIVED DATA			CALCULATED CO-ORDINATES			REMARKS
DEPTH	DIP	BEARING(M)	INSTRUMENT TYPE	DEPTH	DIP	BEARING(M)	NORTHING	EASTING	ALTITUDE	
0	50	99	Clinometer & Tube Compass	0	50.25	99.5	7197.9	5078.8	701.3	
0	50°19'	99°31'	Theodolite	25	51.5	100	7197.6	5094.6	681.9	
49	52.5	106	Eastman	50	52.5	100	7197.3	5110.0	662.2	
82	52.5	105	Single Shot	75	52.5	99	7197.1	5125.2	642.4	77.55 - 80.85 m Disseminated base metal
			Camera.	85	52.5	99	7197.1	5131.3	634.4	mineralization.

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DIAMOND DRILL LOG

Hole No QR53(D) Page No 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
	5	No Core Recovery Overburden and weathered rock.							
	10								
	15								
	20								
	25								

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DIAMOND DRILL LOG

Hole No QR53(D) Page No 2.

Feature : Bedding, Foliation, Fragment - size & shape (D%), 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
	30	No Core.							
	33.7								
1.20	35	DTL Orange to fawn, locally blue-grey weathered fine acid (quartz-sericite) tuff or lava. Pug Tectonic fracturing which is present throughout, particularly at 25° to C.A. may be obscuring an agglomerate texture.	F						
0.75									
0.20									
0.20	36.5								
1.20		Fawn to pale green, locally pinkish, fine grained, siliceous tuff, partly massive, partly occuring as agglomerate with bedding foliation visible in randomly oriented fragments.							
1.50									
0.30	40	Alteration is pervasive carbonate, and sericite (?) also chlorite, as spotting, on fractures and locally pervasively through some fragments.							
0.30		Concentric colour zoning is apparent (buff/grey) in some fracture bounded blocks. Minor quartz and carbonate veining occurs.							Traces of pyrite visible below 42 m as disseminated grains on fracture surfaces.
2.90		The core is broken throughout, particularly along joints at 30° to core axis. It is invariably leached, leaving cavities fringed by carbonate.							
1.10	44.8 45	Pug zone.	F						
	45.5								
1.30		Below 44 m the colour is fawn to pink with green alteration fringes to fragments and along fractures.	F F F						
1.70									
	48.3								
1.40	55	DP Dominatly a lithic tuff comprising green feldspathic chloritised fragments to 2 cm with occasional blocks to 10 cm of fine carbonated sericitised							

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DIAMOND DRILL LOG

Hole No QR 53(p) Page No 3.

Feature : Bedding, Foliation, Fragment - size & shape (D%), 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	DEPTH m	MINERALIZATION
1.30		feldspathic tuff of DTL aspect in a pale grey to green matrix, commonly leached above 58 m to a sponge texture. The fragments are generally finer down the unit, typically less than 5 mm below 56 m. Fracturing at 30° - 45° to core axis is common. The unit is broken throughout.			
1.25					
0.65		Occasional white and brown carbonate veining is present.			
0.60	55				
0.50					
0.40					
1.65					
1.30	59.7	Shear folded? alternating beds of fine tuff and fine lithic feldspar DP crystal tuff.			
	60				
	60.1	$P_y P_3$ Sheared lithic tuff to tuff agglomerate composed of pale green to cream, rounded, angular and amoeboid fragments rich in sericite with other less common rounded fawn fragments of DTL aspect. All fragments appear to be of feldspar crystal tuff or feldspar porphyry. Fragment size ranges up to 10-15 cm.			
1.50					
1.58					
1.50		The matrix is typically sheared (at 5° - 30° to core axis) and is rich in sericite. Green illite-hydromuscovite is present at the top of the unit. The core is badly fractured and broken, below 67 m.			
	65				
1.40					
1.13	67.13		F	66.5	10% pyrite band at 30° to core axis of fine grained aggregates.
	67.5	Fault Pug, carbonate and cleaved rock.	F		
1.20	68.2		F		Rare pyrite rich fragments
		Fault zone Pug and schist.	F		
	69.0		F		
0.90		Carbonate clots and veins occur, sporadically, associated with leached cavities.	C	70.0	5%-7% Pyrite as veins and disrupted bands at 30° to core axis. Residual(?) galena occurs in cavities at 71.9 m.
	70				
1.00		Sheared and veined at 30° - 40° to C.A.			
0.80	71.5	The obvious feldspar crystals suggest $P_y P_3$ after DP with DTL fragments.	F		
		Contact zone Fine grained pinkish-fawn feldspathic tuff agglomerate with a blue-grey matrix. The fragmental texture is partly disguised by shearing at 40° to C.A. and by obliquely opposed jointing at 50° to C.A.		72.5	Pyrite 3%-5% as veins and stringers also as irregular aggregates within rock fragments, less than 3 mm.
1.30					
0.83					
0.18		The core is broken throughout with leached cavities with some carbonate.			
	75				

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DIAMOND DRILL LOG

Hole N° QR 53(D) Page N° 4.

Feature : Bedding, Foliation, Fragment - size & shape (0%), 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	DEPTH m	MINERALIZATION
1.40	75.3	PyP_3 after DTL.			
0.60		Fawn fine grained feldspathic(?) agglomerate or lava(?) jointed at 40° to core axis in opposing directions also sub-perpendicular to core axis also sub-parallel to core axis. The internal fabric is a foliation parallel to one fracture at 40° to core axis. This fabric is shown by pyrite aggregates to 3 mm. Leached tension gashes occur perpendicular to this direction. The rock is generally siliceous, alteration probably being pervasive carbonate and sericite. PyP_3 after DTL?		77.55	3% Gn with Py and siderite.
1.60				77.95	Pyrite 3%-5% with siderite and occasional galena in veins and fine aggregates.
0.23					
1.64					
1.20	80		c	80.25	Pyrite is 10% with associated grey silicification.
0.90				80.85	Trace pyrite below 82.54m
0.65					
	82.54			82.54	
2.85		Cleaved sericitised tuff agglomerate to agglomerate. Greenish-fawn fragments to 8 cm occur in a carbonate rich(?) matrix of small (less than 0.5 cm) fragments.	F		
	85	E.O.H. The core is very broken and sheared at angles from 45° to sub-parallel to the core axis. Tension joints are developed at 45° to 90° to core axis.			