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DRILL HOLE RECORD

Location Que River **Property** Mineral Lease 2M/75 **District** Tasmania
Commenced 19/2/76 **Completed** 27/2/76 **Core size** NQ to 37m BQ to
Objective To test for interpreted P lens position, Section 7800N RL 575. **% Recovery** 97.// 195.35m EOH

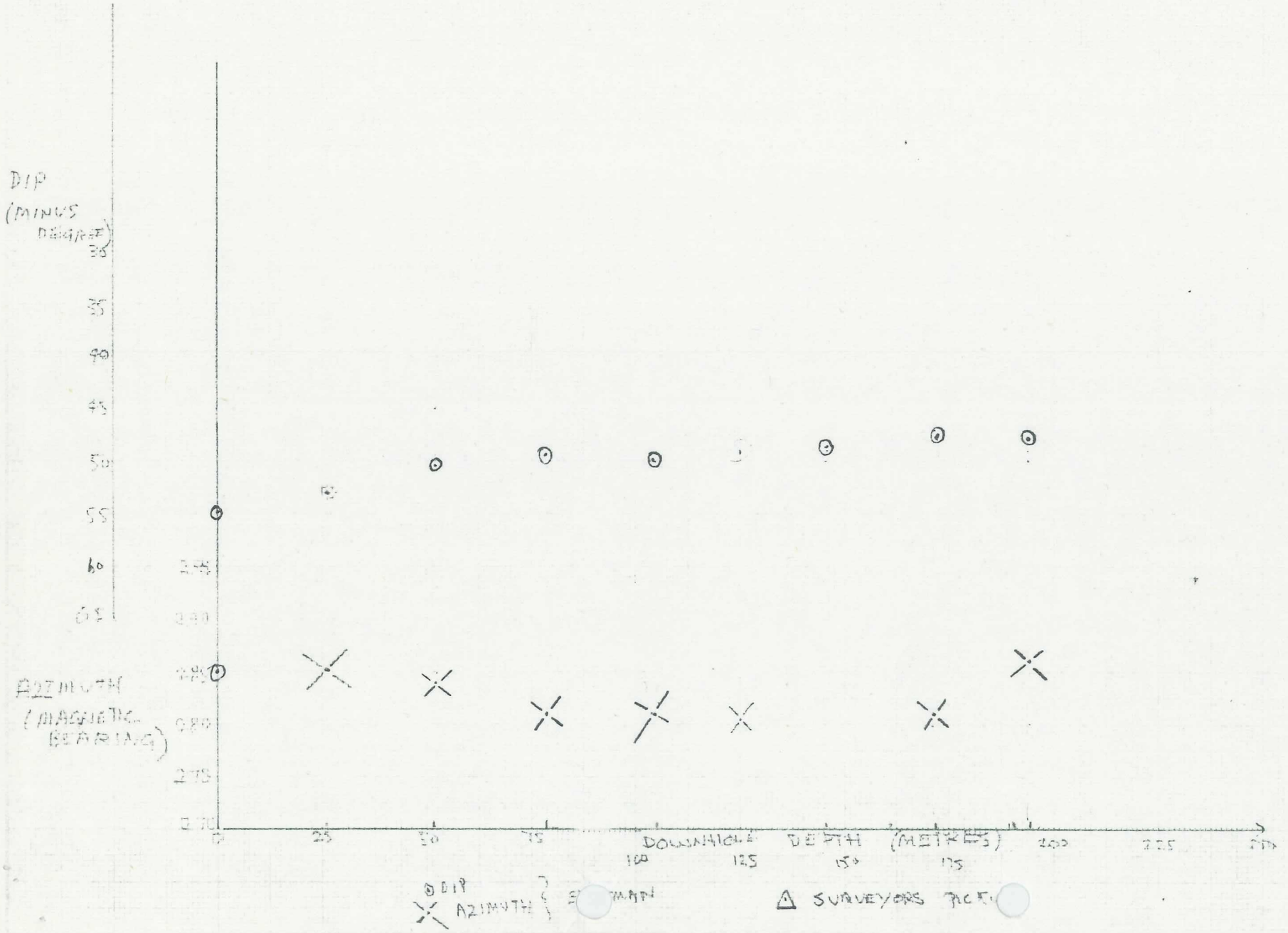
Alt./R.L. 693.1m **Hole Nº** QR89D
Co-ordinate 7804.69N, 5265.96E **Date** 28/2/76
Bearing (M) 285°25' **Logged** EH Skey, CH Young
Grid bearing (M) 8°45' **Dip** 55°23'

SURVEY DATA			
DEPTH	DIP	BEARING(M)	INSTRUMENT TYPE
0	55°23'	285°25'	Theodolite
26	53	285.25	Eastman
52	50.5	284	Single Shot
79	49	281	Camera
106	50	281	"
125	49	280.5	"
146	48.5	N/R	"
172	48	281.5	"
195	48	286	"

GRAPH DERIVED DATA						REMARKS
DEPTH	DIP	BEARING(M)	NORTHING	EASTING	ALTITUDE	
0	55.4	285.4	7804.69	5265.96	693.10	
25	53	285.4	7806.45	5250.86	672.02	
50	50.5	284	7808.11	5234.85	651.60	
75	49	281	7809.25	5217.45	631.00	88.9-93.5m. Disseminated pyrite with
100	50	281	7809.94	5199.93	610.47	trace sphalerite and galena.
125	49	280.5	7810.37	5187.60	596.02	
150	48.5	281	7810.85	5173.76	580.23	154.9-157.15m. Massive base metal
175	48	281.5	7811.60	5156.46	560.83	sulphides.
195.35	48	286	7812.95	5141.14	543.74	

QR870

COMMENCED : 7/
COMPLETED : 27/2/
DEPTH 195 METRE



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DIAMOND DRILL LOG

Hole N° QR89D 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	5	DTL. Grey-buff carbonated feldspar crystal lithic tuff agglomerate.		5.3	Pyrite <1% as disseminations. 5cm pyrite 10% as disseminations and aggregates.
3.0		Lithic fragments are irregular in outline - up to 5cm - generally 2-3cm. They consist of feldspar crystal tuff-lava, with feldspar crystals represented by aggregates of white carbonate, occasionally pale green sericite. The groundmass is grey-buff in colour, quartzo-feldspathic.			
3.0	10	Feldspar crystals have been noted within the matrix which is of similar composition and texture as the fragments.			
3.0					
3.0	15	Foliation 50° C.A.			
2.9		Irregular fractures are commonly chlorite lined.			
2.8	20	19.3 - 20.9. Sheared and broken, FeOx staining is common. 20.9 - 22.1. Massive white quartz-carbonate vein. Associated with fault. FeOx staining is common.	BROKEN CORE		
3.0		Below 25.0m the rock is less obviously fragmental - lava breccia.			

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DIAMOND DRILL LOG

Hole N° QR89D 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	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		DTL. Lava breccias as above. Occasional quartz/carbonate filled vesicles have been noted.						25.3	15cm pyrite 5%. Pyrite <1% as above.
3.0									
	28.45								
1.2	28.9	FAULT ZONE. Pug, sheared and broken core.	BROKEN CORE						
	30								
1.3								31.6	Pyrite 1-3% as disseminations and irregular aggregates and veins, occasional fragments.
1.0									
1.3									
	33.9								
1.2		FAULT ZONE. Pug, breccia, sheared and broken core.							
0.7									
0.8		Sericite, carbonate and silica alteration. 30° C.A.							
0.7									
NQ / BQ									
	38.0								
3.0		Below 38.0m the rock is again grey-buff coloured feldspar crystal lithic tuff agglomerate. Similar to above 25.0m.							
	40								
3.0		Irregular "veins" of grey chert are interpreted as matrix. (up to 2cm)	BROKEN CORE						
	45								
3.0		Below 47.4m the rock is foliated, evenly sheared at 50° C.A. Fragments of sericitised DTL- coloured chrome green by illite-hydromuscovite have been noted.							
3.0									
	49.1							49.1	Pyrite <1% as disseminations.
		Carbonated pink-buff feldspar crystal tuff-lava/coarse lithic tuff.							
	50								

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DIAMOND DRILL LOG

Hole N° QR89D Page N° 3.

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

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

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
3.0		Lithic fragments to 3cm are irregular in outline, they consist of feldspar crystal tuff-lava, occasionally flow banded.							Pyrite <1% as above.
	55								
3.0									
	60								
3.0									
1.8		Below 63.2m. Green illite-hydromuscovite has been noted, particularly associated with shearing and sericitisation.							
	65	64.2m. Carbonate, chlorite cemented breccia zone.							
3.0									
1.1									
3.0		Below 68.3m aggregates of chrome green illite hydromuscovite associated with zones of sericite alteration up to 30cm, have been noted.							
	70								
3.0									
2.5	75								

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DIAMOND DRILL LOG

Hole N° QR89D Page N° 4.

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

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

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	DEPTH m	MINERALIZATION
		DTL as above.			Pyrite <1% as above.
0.8		Pink-buff in colour carbonate rich becoming massive - non-fragmental below 82.0m.			
2.7				76.7	10cm pyrite 30%
	77.8	~~FAULT~~ ZONE. ~~Grey PyPi?. Sheared green~~		77.8	Pyrite 10% locally 15%
	79.3	~~illite hydromuscovite is common.~~		79.3	
1.6	80				Pyrite <1% as above.
1.2					
1.1					
1.9					
	85	FAULT CONTACT 50° C.A.		85.3	
	85.3	PyPi. Grey sericitised locally carbonated and silicified lithic tuff. Generally sheared and disrupted.			Pyrite 3-5% as disseminations and aggregates. Rare Sph, Gn.
	87.5				
1.1		FAULT ZONE. Pug, breccia, sheared and broken core. 30-60° CA.			
0.7				88.9	Py 10%, Sph 1-3%, Gn 1-2% as disseminations aggregates and minor stringers.
0.3		Minor carbonate veinlets commonly cement sheared and broken core.			
	90				
1.3		Lithic fragments appear to be DTL, grey sericitised tuff and recrystallised chert, up to 2cm.			
3.0	93.5			93.5	Pyrite <1% as disseminations.
		DTL. FAULT CONTACT. Pink-buff carbonated coarse lithic tuff. (Feldspar crystal tuff-lava)			
	95				
3.0		Lithic fragments are irregular in outline, from 0.5mm to 3cm. Consist of feldspar crystal tuff-lava. feldspar crystals represented by aggregates of white sericite and/or pale green sericite are			
3.0				98.3	15cm pyrite 10% as disseminations, aggregates and irregular vein
	100				

BROKEN CORE

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DIAMOND DRILL LOG

Hole N° QR89D Page N° 5.

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
2.3		DTL. randomly distributed in a fine-grained quartzo-feldspathic matrix. Below 103m the rock is essentially massive feldspar crystal tuff-lava.	F						Pyrite 1% as above.
0.7									
1.7	105								
1.0		106.00 - 108.40 - weakly chloritic. Some carbonate veining.							
1.74									
	108.67								
2.30		DTL. Pink to green, carbonate sericite rich, sheared tuff agglomerate or lava breccia. Some fragments (1cm max.) are grey, siliceous and pyritic. Others are pale green to fawn with sericitised feldspar (?) phenocrysts. Cleavage is 50° to core axis.							Pyrite continues 1%.
	110								
2.00									
	112.30								
2.49		DTL. Pink, locally flow banded feldspar crystal tuff-lava. Foliation (flow banding) is wavy and erratic at 40° to core axis. Narrow (5mm) carbonate veins at all angles, commonly offset by small movement.							
	115								
3.20		Such veins are frequently chloritic and/or pyritic. Occasionally (e.g. 132m) zones with sheared out fragments are apparent.							
3.13	120								
2.81									
		Fault, carbonate and chlorite. Rubbly.	F						
	124.40								
0.90	125								

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DIAMOND DRILL LOG

Hole N° QR89D 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
2.29		128m-130m - Broken and re-welded fault zone. No pug. Chlorite between closely packed fragments of tuff or tuff-lava.	BROKEN CORE		Pyrite 1%, fine veinlets
3.00	130				
3.01					
2.96	135				
	136.15	FAULT ZONE? Much quartz, carbonate veining	q		
	136.50				
	137.50		F		
3.07		DTL. Zone of sheared, tuff-agglomerate to agglomerate, streacked out sericitic fragments.			
	140				
3.01					
	143.28				
2.98		DTL. Massive pink, feldspathic tuff lava variably fractured and sheared. Irregular disrupted carbonate veins throughout with chlorite-sericite alteration along some fractures. Weak foliation in 35-45° to core axis.			
	145				
3.03					
1.53	149.90				
	150	S See over			

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DIAMOND DRILL LOG

Hole N° QR89D Page N° 7.

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
2.39		PyPi, Contact over 2cms, unfaulted shows small (1 cm) DTL fragments in a blue-grey matrix, lithic tuff. Between 151.15 and 151.50m is a short interval of DTL. This may well be cave in material. (The core above was dropped and re-drilled). A clean DTL-PyPi contact at 149.90 appears most likely.		151.30	Below spurious DTL. Pyrite 5-10% as re-crystallised bands, veinlets and stringers and disseminated grains.
1.23	154.93			154.93	Sheared contact 45° to C.A. Remobilised pyrite (50%) sphalerite (15-20%) galena (15-20%), relict coloform
2.40	155	Sheared pyritic lithic tuff; grey chert bands (disrupted) common above 152.00m with bands pyrite. Foliation, shearing, is 55-70° to core axis. Colour is greenish-cream to blue-grey. Alteration is sericite-carbonate.		157.10	Massive pyrite. No foliation.
3.01		154.93 - 157.65 Massive sulphide.		157.65	texture, bedding, now blocks of sulphide, galena matrix.
		157.64 onwards. Undeformed contact 90° to core axis between massive pyrite and dark-grey to black richly sericitic feldspar porphyry lithic tuff agglomerate. Intensely sheared throughout to 169.10, markedly fissile.			Pyrite 20% approx., disseminated ~~euhedral grains~~, wispy zones, pyritic rock fragments.
3.02	160			100	Pyrite 5%, disseminated crystals, some wispy zones.
3.05	165				
		10 cms fault pug. 167.24.			
3.00	168.32	FAULT PUG. Upper contact same dip as in cleavage but? rotated 30° to strike.			
	169.10	Below the fault, the fissility is less, but the rock, a feldspar porphyry lithic agglomerate is intensely sheared to as to almost obliterate the fragmental texture. Sericitised feldspars are apparent throughout. Patchy silicification and quartz and carbonate veining is present.		169.10	Pyrite 5% patchily 10-20% as veins or remobilised bands, or zones of more densely disseminated sulphide. (e.g. 181.75m). Bands are 55° to core axis.
3.00					
3.00	135				

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DIAMOND DRILL LOG

Hole No QR89D V Page No 8

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	DEPTH m	MINERALIZATION
3.0		PyP1 as above			
3.0	180				
3.0	182.45	Indefinite contact. PyP1 Larger fragments more widely spaced,, with finer grainted grit-like matrix apparent. Probably a reworked lithic tuff to tuff-agglomerate. Sericitised carbonated and sheared as above. Colour is dark grey.		182.90	Pyrite 35-40% remobilised coloform material with silica.
				183.50	Pyrite 2-5%, disseminated grains and occasional stringers.
				187.20	
2.15	187.90	Massive sericitised feldspar porphyry agglomerate. Colour is dark grey, in part light grey to fawn. Schistosity is 40-50° to core axis. 189.	F		
0.85		PyP1 (DTL?)			
2.5					
2.35					
	195				
	195.35	END OF HOLE			