

QR 108
6.12.76

Eastern Single Shot
Down Hole Camera
Graph of Down Hole Survey.

321.5 EOH



DIAMOND DRILL LOG

Hole No **PR108** Page No **1**

Feature : Bedding Shearing
 Foliation Fault c carbonate
 Fragment-size & shape Vein 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
0-15	0-3	D. Weathered FeOx stained to DACITE						0-3	Py < 1
0-30		PDP. Partly weathered grey lithic tuff agglomerate							Py 2-3 as disseminations
0-05	1-5	FeOx on fractures = 4/m. (open)						1-5	
0-35		D Buff carbonated fine grained locally amygdaloidal dacite (lava?)							Pyrite < 1% occurs as discrete disseminations and as secondary fracture filling.
0-40		The rock is locally grey in colour due to Pyrite/Sericite alteration.							
0-50		Flow banding at 20° CA has been noted at 4.5-4.7m.							
1-65		The rock is only partly weathered, Open FeOx stained fractures occur at approximately 2/metre. Other breaks are tight, generally due to handling the core. (generally at 30° CA.)							
1-0	5	Main fracture is at 3.4m. FeOx stained * Water table measured 10m 2-3 cm wide at 30° CA.						10-0	Pyrite 1% - 3% as secondary fracture filling.
0-7		FeOx down to 10.5m on joints. Gradational contact.						10-25	Pyrite 3% - 5% as disseminations fragments and irregular veins.
0-20		PDP/DRWT Grey carbonated polyminetic lithic tuff agglomerate. Fragment alignment approx 20° to core axis. = 40° CA.							
0-30		Main faults at 12.6, 13.5, 14.6m. Slips are open, gritty probably water carriers.							
1-05		Other fractures at approx 1/m.							
1-75	15	quartz carbonate vein 50° at contact. Some open pathways.						16-3	Pyrite < 1% as above.
1-0	20	DP Buff-grey lithic tuff agglomerate to agglomerate. Fragments of fine grained buff coloured dacite predominate - fragments to 40cm have been noted. The rock is carbonated, with a grey "fragmented" matrix.							
1-8		17.6-20.5m. Main fracture 10° CA. Open - with carbonate infilling.							
2-45		Other fractures are tight at approximately 1/2m. (One 3m slick of one was recovered)							



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Hole No **QR 108** Page No 3

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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	3.0	50.0 Fractures 10° to core axis, irregular The matrix is sericite rich, fine grained and calcy. 51.9m. 2 minor shears, 35° to C.A. in sericite tuff. Complementary. Minor Fracture = 1/m (Partings)							Pyrite 37-5% as above.
	3.0	54.0 GRADATIONAL CONTACT Grey sericitised locally carbonated coarse lithic tuff. Identical to the rock above 54.0m. 55.8. Minor tight fracture 10° to C.A. Fragment size is increasing down hole.							
	3.0	60 GRADATIONAL CONTACT Grey sericitised locally carbonated lithic tuff agglomerate as above. Fragments to 6cm have been noted.							
	3.0	65 64.5 Minor fracture, slightly open 25° to core axis.							
	3.0	67.8m Minor shear 30° CA in sericite tuff. Foliation 10°-20° to core axis.							
	3.0	* Down to 71.2m, minor fractures etc at approximately 1/2 m intervals are coupled with slight spicula due to sericite. GRADATIONAL CONTACT							
	3.0	PDP 71.8m, fracture 35° to core axis slightly open. Light grey siliceous locally carbonated and sericitised lithic tuff - agglomerate.							
	3.0	Lithic fragments are irregular in outline light grey to buff porphyritic							74.4m. 3cm stringy Pyrite 10% rare Sph, Cu.



DIAMOND DRILL LOG

Hole No DR 103 Page No 4

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Mineralization : Trace 1-5%
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 Abundant 15-60%
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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	3.0	<p>dacite. The matrix appears to be of similar composition and texture.</p> <p>77.0 m. 2 fractures at 20° to core axis, complementary. Slightly open.</p> <p>* This unit may be a brecciated porphyritic dacite.</p>							Pyrite 37-57 as above. Aggregates of Sphalerite, galena to 3 mm have been noted.
	3.0	<p>80 80.3 Grey sericitized locally silicified and carbonated lithic tuff agglomerate</p> <p>82.0 m. Fracture 10° to CA. appears to be open, is water filled. (approx 2 mm wide)</p>							
	3.0	<p>Similar to the rock above, more obviously fragmental.</p> <p>85 85.5-88.5 3 m stretch of core.</p> <p>Fractures average less than 0.5 metre.</p>							
	3.0	<p>Fragment of porphyritic dacite, where feldspar phenocrysts to 3 mm are represented by aggregates of pale green sericite in a fine grained quartz. Feldspathic groundmass are ubiquitous.</p>							
	3.0	<p>90 91.8 GRADATIONAL CONTACT</p> <p>Grey sericitized locally carbonated lithic tuff agglomerate. Similar to above, increasing sericite content.</p>						92.4	Pyrite 57 locally 20% as above, some sphalerite and galena.
	3.0	<p>93.8 m. Bedding 30° to core axis.</p> <p>95 Cross bedding indicates it is up hole? (15 cm fine tuff band.)</p>						95.3	Pyrite 107 locally 30% as above and as minor stringer veins some Sph, Gn.
	3.0	<p>96.0 m Foliation in sericite tuff at 30° to core axis.</p> <p>Large fragments of sericitized trachyte? to 10 cm have been noted.</p>						96.4	Pyrite 57 locally 10% as above. some Sph, Gn
	3.0	<p>97.9 DSBT Grey sericitized lithic tuff lithic fragments of porphyritic dacite to 1 cm, occasional microcline and sericitized trachyte?</p>							
	3.0	<p>100</p>							



DIAMOND DRILL LOG

Hole No **OR108**Page No **8**

Feature : Bedding Shearing
 Foliation Fault
 Fragment - size & shape Vein carbonate
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Mineralization : Trace 1-5%
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CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	7.0	Occasionally pyrite have been noted. The matrix is hard to de-pur, being a water washed stuff. There is a crude fragment alignment 30°-40° core axis. 2 fractures at 40° to C.A. have been noted							Pyrite 5% locally 20% Trace Sph, Gn, Cpy as above.
	178.2								
	3.0 180	PDP Grey carbonated locally silicified and orientated <u>lithic</u> 180.8 m. Minor fault 70° CA. (1cm) Tuff agglomerate. Lithic fragments to be more irregular in outline. Fragments are commonly porphyritic dacite. The matrix appears to be of similar composition.							182.0 Pyrite 10% locally 20% as small string veins. Sph 1% - 2% Galena 1% - 2%. Trace Ba
	3.0 185							185	185.0 - 190.0 m. Brite 10% as irregular veins Sulphide as above.
	3.0								
	3.0 190							190	Sulphide as above 185.0 m. Trace Brite
	3.0	192.3 Fracture 10° CA.							
	3.0 195	194.9 Fracture 10° CA.						193.6	Pyrite 5% locally 20% as above. Trace Sph, Gn.
	3.0								
	3.0 200	198.7. 2mm Sph 30° CA							



DIAMOND DRILL LOG

Hole No **QR108** Page No 11

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


CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		to pyrite stringers and carbonate sericite alteration.							Pyrite 10% as above.
	251.2	ADP Grey carbonated, locally silicified and sericitized lithic tuff agglomerate. Similar to the rock above 247.4m.						251.2	Pyrite 5% as disseminations aggregates and irregular veins.
2.0								253.4	3cm Pyrite 40% Sph 5% Ca 3% as stringer 40° CA.
1.0								254.5	Pyrite 15% as vein 2cm sub-parallel to CA.
	255	Fragments to 10cm are irregular in outline - porphyritic andesite and less common porphyritic dacite						255.5	Pyrite 5% as above.
3.0		* 255m. Complex folding in Pyrite vein.						256.4	2cm pyrite 60% 25° CA.
		258.2. Fracture 30° CA.							
3.0		258.4. Fault. 20cm broken core at top 70° CA.							
	260	260.2/2. Fractures 50° CA.							
3.0		262.5 Fracture 20° CA.						261.4	Pyrite 15% as irregular vein 2cm wide sub-parallel to core axis Tr Sph, Ca.
		264 - 266m. Minor carbonate veins to 5cm illustrating pyroclastic folding. Includes carbonate cemented breccia at 265.4m.							Pyrite 5% as above.
3.0		266.5 Foliation / Coarse fragment alignment at 25° CA.						264.0	Pyrite 10% as irregular vein, illustrating complex folding. 2cm of pyrite veining have been noted.
	265	267.7 Fracture 30° CA.						266.0	Pyrite 5% as disseminations aggregate and irregular veins.
3.0		269.5 3 Fractures 30° CA.							
		270.0. Fragment Alignment / Bedding? 5° CA.						269.2	Pyrite 60% Hem vein 65° CA
3.0		* Unbroken core 271.5 - 286.5m						269.5	Pyrite 10% as irregular veins and aggregates with carbonate.
	270							270.0	Pyrite 5% Trace Sph, Ca.
3.0									
								273.4	2cm Py 30% as irregular vein 30° CA.
	274.5								
	275	Grey carbonated, locally silicified							






DIAMOND DRILL LOG

Hole No **DR 108**

Page No 12

Feature : Bedding 
 Foliation 
 Fragment - size & shape 

Shearing 
 Fault 
 Vein  c carbonate
 q quartz

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

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		and sericitised lithic tuff. Similar to the rock above 274.5m. Fragments are generally < 3cm.						275.3 Pyrite 5% Trace Sph, bn, carbonates 275.6 20cm vein P, 30% Sph, 15% bn 10% 35° CA. 276.3 1cm vein as above 10cm P, 15% Sph 5% bn 3%	
	280							279.0 2cm vein P, 40% Sph 10% 6.5% Pyrite 5% Trace Sph, bn, carbonates	
	285							281 30cm irregular veins Pyrite 15% Sph 5% bn 5% 6.10% 30° CA. 282.4 Pyrite 10% locally 30% in disseminations, aggregates and irregular stringer veins. Tr. Sph, bn, Cpy 1% - 3%	
		287.7. Fracture 20° CA.						285.5 As above Tr Sph, bn, Cpy. 287.3. 20cm vein Sph 30% bn 15% Pyrite 30% 30° CA. 288.3 Pyrite 30% Sph 3% bn 2% Cpy 3% in stringer veins. 289.6 Pyrite 10% locally 30% as above. Tr Sph, bn, Cpy.	
	290	290.1. Shear 5cm wide 30° CA.						292.7 Pyrite 20% Sph 3% bn 2% Cpy 2% in irregular stringer veins. 294.3 Pyrite 15% Trace Sph, bn, Cpy in irregular stringer veins.	
	295	Unbroken Core 292.0m - 301.5m						298.5 Pyrite 5% locally 10% Tr Sph, bn, Cpy	
	300	Dsh T. Grey sericitised tuff 299.2. Fracture 30° CA. Fine grained sericitised tuff							



DIAMOND DRILL LOG

Hole No QR108 Page No 13

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Mineralization : Trace 1-5%
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 Massive >60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	300.7	Foliation 30° CA. Fracture 50° CA. ADP. Grey carbonated locally siliceified, sericitized and chloritized lithic tuff agglomerate						300.7	Pyrite 5% locally 10% Fe Sph, Gn, Cpy, Ba. Pyrite 10% locally 15% Trace Sph, Gn, Cpy, Ba. with carbonate or irregular veins.
	3.0	Lithic fragments are irregular in outline approx 0.5 to 5 cm. * Unbroken core 304.5-31.5 m							
	305	They consist of chlorite-sericite replaced andesite and associated porphyritic dacite.							
	3.0	The matrix is grey-fine grained and siliceous. The rock is locally "healed" with carbonate and pyrite.							
	310								
	3.0	312.5 and 312.8 Fractures 40° CA.						311.5	as vein Py 50% Sph 5% Gn 5% Cpy 5% 30° CA.
	315							313.7	Pyrite 10% locally 15% Fe Sph, Gn, Cpy a dissemination, aggregate and irregular stringer veins.
	3.0	316.0 Fracture 80° CA.						317.3	Pyrite 5% rare Sph, Gn, Cpy as above.
	320								
	2.0								
	321.5	E.C.H.							