

DIAMOND DRILL CORE RECORD

LOCATION	Sterling Valley E.L. 4/73	Depth (M)	Direction	Dip.	Depth (M)	Direction	Dip.	COLLAR DiP.	-60°	TOTAL DEPTH	268.8m
OBJECTIVE	To test coincident ground magnetic, I.P. & V.H.E.M. anomalies	91.8	141.5°	-46°	208.8	93°	-26°	DIRECTION	108°(A.M.G.)	HOLE SIZE HQ	0-11.7m NQ 11.7-72m
RESULT	Anomalies were due to minor pyrrhotite & pyrite associated with black slate	121.8	237.5°	-44°	239.0	96.5°	-22°	R.L.	178M	COMMENCED	BQ 72-268.8m
		157.8	147.5°	-41°	261.8	95°	-21°	COORDINATES	4275N 5000E	COMPLETED	8.11.80
			234°	-41°				St. Valley Grid (5,374,200mN 384,625mE)		LOGGED BY A. Mollison/J. Mill	

\* azimuth readings affected by pyrrhotite

Depth (M)		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA (ppm)							CORE REC'D		
FROM	TO							Sample Length	Pb	Zn	Cu	Ag-g/t	Au-g/t	Sn	As	RUN	SHORT
0	#8	Fluvio-glacial overburden.															
8	13.8	Black Slate - Dk gry-black cleaved contorted pyritic slate. Minor carbonate & quartz veining occurs parallel to and cross cutting cleavage. A soft pale green mineral (probably chlorite) occurs associated with these quartz carbonate veins. Leaching of carbonata is extensive. Core angles 13.8 -65° to long core axis. Contact with underlying tuffaceous unit is conformable, with a tuff cleft 2 in shale immediately above contact giving a possible west facing.	Pyrite occurs as blebs, cubes & veins up to 10% averaging 1-2%. Mineralisation is strongest in association with quartz/carbonate veining 8.0m-8.7m and 13.6m-13.8m	38363	8.0	8.7	Sc	0.7	75	50	100	0.3	0.008	580	190	0	8.0
				364	8.7	13.6	Chip	4.9	75	130	140	1.0		X	90	8.7	0.1
				365	13.6	13.8	Sc	0.2	100	100	125	0.5	X	84	650	9	0.3
																9.4	
																10.8	
																11.7	
																12.85	0
																14.1	0.15
																16.8	0.1
																19.8	0.1
																22.8	
																25.8	
13.8	24.5	Volcaniclastic Siltstone - Ple grey-green grey moderately cleaved fg volcaniclastic siltstone. Rounded amorphous fragments up to 5cm in diameter in a pale green chloritic? matrix suggest local brecciation. (Thin section taken at m Sample No )	Trace disseminated & stringer pyrite <1%	38366	13.8	17	Chip	3.2	75	110	20	1.0		X	15	28.8	0.2
				367	17	21	"	4.0	60	195	10	0.3		X	4	31.8	0.4
				368	21	24.5	"	3.5	45	100	5	1.0		X	4	34.8	0.1
																37.8	0.1
																39.8	0.3
																42.9	0.1
																45.5	0.3
																48.7	
24.5	29.9	Black Slate - Similar to 8.0m-13.8m but with minor thin silty laminations between 28.8m and 29.9m. Local thin <0.5cm veins of quartz siderite? carbonate, chlorite containing minor pyrite locally leached. Bottom contact appears gradational	Moderately pyritic, as veins parallel to cleavage av 1-2%  Core angles: bedding to long core axis 24.9m -60° 29.9m -60°	38369	24.5	29.9	Chip	5.4	130	225	80	1.0		400	65	51.8	
																58	
																61.1	
																64.8	
																67.8	
																72	
																73.8	
																76.8	
																79.8	
29.9	32.6	Volcaniclastic siltstone/greywacke - Similar to 13.8-24.5m with thin black slate band 31.2-31.7m. Below 31.7m, this unit becomes rapidly coarser down hole with elongate shale clasts up to 10cm dia (long axis) & smaller rounded volcanic fragments of quartz porphyry. No appreciable veining. Bed appears to be graded giving west facing.	Diss pyrite + 1%	38370	29.9	32.6	Chip	2.7	75	150	35	1.0		X	31	82.8	0.2
																85.8	
																88.8	0.1
																90.9	0.1
																93.9	
																97	
																100.1	
																103.2	
																105.4	

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Depth (M)		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA (ppm)							CORE REC'D	
FROM	TO							Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Sn	As	RUN
		<p>117.2-126.4 Grey greywacke. Composed of rounded quartz grains up to 4mm dia &amp; black slate clasts of irregular shape up to 4cm long in a silty matrix. Fine siderite occur locally through this unit with subordinated quartz associated.</p> <p>NOTE: Size of clasts grades up hole from coarse to fine through whole of unit.</p>														
126.4	129.5	<p><u>Interbedded black slate &amp; volcaniclastic greywacke/conglomerate</u> The unit grades from massive black slate to pure volcaniclastic greywacke through a series of interbeds from 1mm to 3cm wide. The volcanoclastic conglomerate at the (base?) of the unit is composed of a) quartz-phyric rhyolite b) volcaniclastic siltstone and c) black slate fragments, all up to 4cm long. Occasional fine carbonate vns occur making less than 1% of the core volume. Angle - bedding to long core axis 129.2 - 60°</p>	<p>Minor vns &amp; dissem of pyrite &amp; subordinate pyrrhotite occur along fractures &amp; also throughout the unit. Total sulphide content is less than 1% core volume.</p>	38399	126.4	129.5	Chip	3.1	80	180	40	0.5		X	450	
129.5	136.6	<p><u>Grey volcaniclastic greywacke</u> Unit is composed of rounded quartz grains and occasional shale fragments in a grey silty matrix. Interbedding with black slate occurs on both contacts on the core. Occasional irregular carbonate (siderite) vns occur throughout. Quartz is associated in minor amounts with these vns.</p>	<p>Trace blebs of pyrite &amp; sphalerite occur with the sphalerite localised between 135.5 &amp; 136.6m</p>	38400	129.5	133	Chip	3.5	113	225	15	0.5		X	32	
				35448	133	137	"	4.0	70	150	15	0.5		X	35	
				35449	137	138	Split	1.0	300	425	45	X		X	40	
136.6	137.9	<p><u>Slumped &amp; interbedded greywacke &amp; black slate.</u> Clasts or interbeds of slate are contained within the volcaniclastic greywacke. At 137.1 the greywacke is slumped downhole into the black slate. This gives a facing, uphole.</p>	<p>Minor vnlets &amp; dissem of pyrite occur in this unit.</p>													
137.9	157.5	<p><u>Black Slate</u> 137.9-139 Black Slate with frequent siderite vns upto 2cm wide making up 10-20% of the core volume.</p>														

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Depth (M)		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA (ppm)							CORE REC'D		
FROM	TO							Sample Length	Pb	Zn	Cu	Ag - g/t	Au - g/t	Sn	As	RUN	SHORT
		137.9-139 cont. Quartz, chlorite alteration is also common (approx 20% of the core volume). Core Angles - bedding to long core axis 132.0 - 65° 152.8 - 70° 156.4 - 60°	Vns of pyrite with galena & chalcopyrite occur in association with the quartz siderite and chlorite alteration. Av total sulphides are 10-20%	38450	138	138.7	Split	0.7	3.25%	3.2%	4850	81.0	X	1500	2000		
				452	138.7	139.7	"	1.0	4550	8200	1250	10.0	X	380	380		
				453	139.7	140.7	"	1.0	1850	2100	180	3.0	X	640	190		
				454	140.7	141.7	"	1.0	350	280	100	1.5	X	360	110		
				455	141.7	142.7	"	1.0	210	145	85	0.5	X	X	110		
				456	142.7	143.7	"	0.4	90	75	80	0.5	X	X	110		
		139-151.2 Black Slate - frequent fine siderite vns upto 1cm wide ave 1-2mm approx 10% of the core volume. Quartz-chlorite vns common usually assoc with siderite.	Pyrite occurs as vns & blebs up to 1cm wide upto 20% core volume eg 136.9m ave 1-2%. Rare pyrrhotite & a sphalerite vn occurs with pyrite at 150.0m.	457	143.1	148.8	Chip	0.7	70	250	135	1.0	X	X	90		
				458	148.8	151.2	"	2.4	240	740	100	2.0	X	X	550		
				459	151.2	157.5	"	6.3	125	900	100	1.5	X	X	230		
				35499	148.8	149.8	Split										
				35500	149.8	150.8	"										
		151.2-157.5 Black slate containing minor fine siderite vns. Cleaved bands occur through this unit.	Trace pyrite occurs in assoc with the siderite vns.														
157.5	162.4	Interbedded black slate & volcaniclastic greywacke Quartz vns upto 30cm wide cut this contact zone between slate & greywacke. Chlorite is associated with the quartz. Ang. - bedding to long core axis 156.6 - 70°	Trace pyrite & pyrrhotite occur as vns & blebs through this unit.	35460	157.5	162.5	Chip	5.0	65	175	70	0.5	X	360			
				461	162.5	167.5	"	5.0	70	115	15	1.0	X	15			
162.4	171.9	Pale grey volcaniclastic greywacke Siderite & quartz occur in sparse vns upto 1cm wide throughout the unit. There is weak chlorite alteration through the unit.	Trace pyrite	462	167.5	171.9	"	4.4	145	100	10	1.0	X	8			
				463	171.9	175.5	"	3.6	85	325	30	1.0	X	19			
				464	175.5	180.3	"	4.8	45	530	60	1.0	X	65			
171.9	180.3	Interbedded black slate & minor volcaniclastic siltstone Unit is strongly quartz vned with assoc chlorite in the vns & on vn margins. Siderite is also common but subordinate to quartz. Ang. - bedding to long core axis 172.9 - 80° 179.6 - 85°	Minor pyrite & pyrrhotite occur through the unit as blebs & vlets.														
180.3	211.5	Pale green grey volcaniclastic siltstone Grades downhole from fg siltstone to greywacke with large black slate clasts upto 4cm wide. Ang. - bedding to long core axis 189.8 - 75° 209.7 - 75°	Weekly pyritic <1%	35465	180.3	185.3	Chip	5.0	515	480	15	1.5	X	24			
				466	185.3	190.3	"	5.0	100	200	10	0.5	X	27			
				467	190.3	195.3	"	5.0	125	290	10	0.5	X	11			
				468	195.3	200.3	"	5.0	740	205	10	1.5	X	27			
				469	200.3	205.3	"	5.0	215	275	15	1.0	X	37			
211.5	212.0	Conglomerate Lt-dk grey cleaved polymictic conglomerate consisting of elongate rounded-subrounded shales & rhyolite fragments upto 15cm	Minor dissem pyrite & thin vns along cleavage : faces <1%	35470	205.3	211.5	"	6.2	150	110	15	1.0	X	22			
				471	211.5	212.0	Split	0.5	65	115	35	X	X	X	30		

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Depth (M)		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA (ppm)						CORE REC'D			
FROM	TO							Sample Length	Pt	Zn	Cu	Ag - g/t	Au - g/t	Sn	As	RUN	SHORT
260.7	268.8	cont. fragments & one interbed of laminated volcaniclastic siltstone between 262.8 & 265.1		35496	260.7	262.8	Chip	2.1	140	1300	95	2.0		X	42		
				497	262.8	265.1	"	2.3	2850	750	20	1.5		X	7		
				498	265.1	268.8	"	3.7	60	90	85	6.5		X	35		
		NOTE: Fe & Mn also analysed - refer to analytical form.															

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