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
NO CORE		No Core - Non coring bit used.							
HW HQ	4·0								
1·2	5	Lt. grey f.g. (micaceous) quartzite A massive rock containing numerous qtz. veins, av 2mm thick locally preferred orientation. Core very broken.						5	Py rare.
·9	7·2								
1·5		Lt. grey siltstone to sericitic shale. A massive to foliated rock ranging from the finer grained equivalent of the quartzite to a well foliated v.f.g. shale consisting of v.f.g. lt. grey sericite. Bedding not evident Core is very broken & locally puggy & weathered.							
1·1	10							10	
·5									
2·5	15							15	
	15·9	Lt. grey f.g. weakly micaceous quartzite A massive rock containing numerous thin quartz veins which are generally unoriented and locally form a stock-work. Core is very broken.							
3·0									
1·2	20							20	
	≈21	Lt. grey siltstone to sericitic shale Description as for 7.2-15.9.m. Core very broken and puggy.							
·6									
	25							25	

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
.9	25.3	Dk. grey to black shale w. fragments & contorted interbeds of lt. grey f.g. quartzite Typical QS. core is very broken & locally puggy. Rock is locally graphitic. Black shale matrix w. interbeds to 3-4 m of lt. grey bedded quartzite (contorted) & fragments to 1-2 cm.			
1.3					
1.5					
1.5	30			30	
HQ NQ	33.6	Lt. grey f.g. micaceous quartzite A f.g. generally unbedded rock with minor thin (<5mm) q/z. veins often ≈ 45° to c.A.		34.0	10 cm @ 30 c.g.
2.5	35	Rock is very strongly fractured & contains numerous soln. cavities. Fracture planes gen 40-50° c.A.		35	
2.0					Py rare
.9	40			40	
2.5					
3.0	45			45	
2.0	46.4	QS Dk grey to black (carbonaceous) shales w. interbedded lt. grey f.g. quartzite bands & fragments. Locally graphitic shale contains beds to 30 cm. gen 3-5, or up to 2-3m, of finely laminated to locally massive quartzite. Cleavage is // to bedding in general ie Si/So.		46.4	Py 1-2 veins.
2.0	50			48.7 48.9 49.15 49.35 50	Py 25-30 veins & F.g. Py 1-2 veins Py 20-30 c.g. & veins.

ABERFOYLE

DIAMOND DRILL LOG

HOLE Nº G62 Page Nº3

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
	50.3	FAULT ZONE? - Broken core & pug.			Py 1-2 f.g. & veins
.5	51.5				
3.0		The grey quartzite laminae which reflect bedding are generally strongly contorted & broken. Due to 1) soft sed deformation and/or 2) transposition during isoclinal D_1 or breaking up during later deformation.	Py	52.4	1cm py vein 60° c.A.
				53.0	5cm py 20 veins // S_1 50° c.A.
					Py trace.
				54.0 54.1	10cm py 40 veins 50° c.A.
.5	55			55	Py rare.
3.0				55.65 55.85	Py 30 veins assoc. w. breccia. 70° c.A.
3.0	60	S_1/S_0 - 45° to c.A.		60	Py rare
2.6	63.8	FAULT ZONE Broken core & pug.			
.1					
.8	65 65.1			65	
2.0				66.4	1cm Gn 60 py 40 vein 60° c.A.
3.0	68.4	Lt. grey f.g. quartzite - Massive qtzite; ess. lge interbed in QS.			
	69.2				
	70			70	
3.0					
3.0		FAULT - pug 45° c.A.	F	73.9 74.0	10cm py 10 Gn tr vein assoc. w. sid.
	75			75	

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
		Lithology - as above - med grey to black shale with fragments & (contorted) beds of lt. grey f.g. quartzite. - Qs.			
3.0					
3.0	80	S1/S0 in this 25m interval is commonly 45-60° to c.A.		80	Py rare
3.0		FAULT - broken core - 70° c.A?	F	83.3	
	85			85	
		FAULT - broken core - 60° c.A	F	86.0	
3.0					
3.0	90			90	
	90.8	Lt. grey massive f.g. micaceous quartzite			
	91.45	essentially a thick interbed in Qs			
		Qs - as previously			
3.0					
				94.5	3cm Py 99 Cm tr. vein assoc. w. sid.
	95	FAULT - pug - 80° to c.A.	F	94.8 95	
3.0				95.8 96.0	Py 5. cg. assoc. w. sid veins.
		FAULT - pug - 60° to c.A.	F	96.6	
				97.4	10cm py vein 60° c.A. Tr. lt. green sericite.
2.7					Py 1-2 (10) f.g. & veinlet.
	100			100	

ABERFOYLE — **DIAMOND DRILL LOG** — **HOLE No** G62 — Page No 5

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	DEPTH m	MINERALIZATION
·9	100·1	FAULT ZONE – Broken core & pug.		Py as above
	101·2		101·3 – 101·5	Py 40 vein
2·0	102·35 – 102·65	FAULT ZONE – Pug 70° to c.A. Lithology – as above – Lt. grey to black shale w. (contorted) interbeds and fragments of lt. grey (micaceous) quartzite.		Py 2-3 (10) f.g. & veins
3·0	105		105 / 105·3	10 cm py ten. 50° c.A.
				Py 1-2 f.g. & veins
2·8		FAULT – pug – 60° to c.A.	108·0	
	108·4 – 108·7	FAULT ZONE – broken core – ?° to c.A.	108·9	Py 20-30 f.g. & veinlets oriented roughly 30-35° to c.A. Earlier qtz. veining episode? Minor veins > 1cm thick.
3·0	110		110 – 110·15	Py 30-40 f.g. & c.g. in veins av. 2-3cm 60° to c.A. Sm 5-10% c.g. in massive Py. Tr. Marcasite? or Arspy?
			110·6 – 110·9	Py 20-30 veinlets & f.g. in QS!
		FAULT – pug – 70° to c.A.	111·4 – 111·7	Py 1-2 veinlets & f.g.
	112·9 – 113·2	Lt. grey f.g. quartzite thick interbed.		
3·0		Lithology – as above – QS.		Py rare
NQ/BQ	115		115	
3·0				
			118·7	2 cm py vein 45° to c.A.
			119·0	10 cm py 40 veins Gn 5 c.g. in py.
3·0	120		120	Py 1-2 f.g. & veinlets tr Gn. in py veinlets.
			121·7	
3·0				Py rare.
	124·4 – 124·9	Lt. grey f.g. micaceous quartzite		
	125		125	

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		Lithology - as above - med grey to black siltstone-shale with interbeds (contorted) & fragments of lt. grey f.g. (micaceous) quartzite.			Py rare
3.0		Rock is gen. well layered & laminated in this interval. Si/So av 45-50° to c.A.			
3.0	130			130	
3.0			Py	134.2	1cm Py vein 40° c.A.
3.0	135			135	
3.0	138.3	Lt. grey f.g. to m.g. micaceous quartzite - a massive rock w. thin shale bands ⇒ bedding 10 to 30° to c.A. Numerous qtz. patches and veins.			
	140			140	
3.0	140.5	Lithology - QS - as above.			
3.0	142.7	Lt. grey f.g. micaceous quartzite - a massive rock containing discont. shale patches. Numerous qtz. blebs & veins.			
BQ	145			145	
NQ 1.1	145.2	Lithology - QS - as above.			
1.9		Si/So has a very low angle to c.A ≈ 0-10° av.			
3.0					
	150			150	

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
		Lithology – as above – med grey to black siltstone-shale with (contorted & def.) lt. grey f.g. qtzite interbeds & fragments. – QS.		150.2	
				150.7	1cm py vein 30° c.A.
				151.4	1cm py vein 45° c.A.
				151.5	1cm py " " "
	152.0	FAULT? – broken core – ?° c.A.	F	151.9	
3.0		Lt. grey f.g. micaceous quartzite – a massive rock. essentially thick qtzite interbed.		153.1	Py 3-5 (10) f.g. & blebs & veinlets
	153.6	FAULT ZONE – broken core ?° to c.A.			
	154.0	Lithology – typical QS to 157.5m			
3.0	155			155	
					Py trace as rare thin veinlets.
	157.5	Med grey weakly bedded siltstone w. minor lt. grey f.g. qtzite. laminae. Interval is far more uniform than typical QS. – essentially a homogeneous siltstone. Only local development of the interbedded shale & qtzite occur.			
3.0	160			160	
				162.55	Py 40-50 veins to 5cm assoc. w. sid
				162.85	Py 3-5 veinlets
				163.3	
				163.7	2cm py vein 50° c.A.
3.0	165	166.2 – D_1 fold pair.		165	
3.0					
	169.7				
	170	Lt. grey f.g. micaceous quartzite – interval contains minor shale bands ⇒ bedding ≈ 50° to c.A.		170	
3.0	171.3	Lithology – typical QS as above.			
	172.75	FAULT ZONE – Pug & broken core 60° to 90° to c.A.			
2.3					
	174.5				
8	175			175	

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	177.2	Lithology - as above - dk. grey to black shale w. fragments & (contorted) interbeds of lt. grey f.g. micaceous quartzite.	F						
		FAULT - pug in fault // to c.A.							
3.0	178.2		F					179.7	
	180	FAULT - Pug 25° to c.A.	F					180	
2.4		FAULT - Pug - ?° to c.A.	F					180.9 182.3	
3.1	185	FAULT - Pug - 55° to c.A.	F					184.4 185	
3.1	189.6	FAULT ZONE Pug & broken core - ?° to c.A.						190	
3.2	190 190.3								
3.0	195							195	
3.0		FAULT - Pug - 50° to c.A. FAULT - Pug - 50° to c.A.	F F					196.6 196.75	
								198.1	2 cm py vein 45° to c.A.
								198.4	Py 2-3 stringers flecks & blebs.
		FAULT - Pug 60° to c.A. FAULT - Pug 65° to c.A. FAULT - Pug 60° to c.A.	F F F					199.3 199.5 199.7	
	200							200	

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
		Lithology - QS as above		200.0	2cm py - sef. vein - 45° c.A. Py 3-5 / veinlets 45° to c.A. 15cm py sid q vein - py 50 Cm 2-3.
3.0	201.1	Lt. grey green to med. grey f.ine lithic tuff & minor agglomerate. Conformable contact w. QS above. Rock has strong fabric def. by p.o. of flattened frag. Interval shows evidence of rep. by pyrite locally. Vesicles may be filled by py. & the rock may contain f.g. flecks & blebs of py. 203.15 - FAULT - Pug 80° to c.A.		200.35 200.50 201.1	Py 2-3 veinlet, f.g. & bedded?
3.0	203.5	Dk. grey to black silicic & pyritic mudstone - extensively veined. A dark (bedded) mudstone with wisps bands and dots of bedded? v.f.g. py. The upper ½ of the interval is strongly veined by py veins. Bedding where evident is 45-60° to c.A.		202.9 203.5	Py 3-5 (30) f.g. flecks & blebs & filling vesicles - replacing vole? Py 15-20 (50) f.g. - blebs & veinlets (stockwork)
2.9	205	From 205.4 - 207.65 the core is strongly fractured with very irregular fracture surfaces. This fracturing corresponds with a decrease in veining.		205	Py 50 (90-100) f.g. flecks but mainly vein. Locally veins are py / qtz. Py 5-10 veins - gen unoriented.
2.8	205.4 207.65 210	Pyritic siliceous rock - An extensively silicified and locally much qtz veined rock - originally a siltstone? Veining is extensive enough locally to form a breccia. Pyrite is not intimately associated with the silica but occurs as f.g. to c.g. diss & aggregates of xtals & as veinlets gen not assoc w. qtz. Feeder??		207.65 207.8 210 210.25	Py 15 f.g. & veinlet. Py 30-40 f.g. to c.g. diss. but more common as aggregates of c.g. Minor veinlet.
	210.65	FAULT ZONE? - Zone of pug & very broken core. Interval contains m. to c. xtal py. - rextal. bedded?		210.65	Py 90-100 massive f.g. (8cm Cm 50 Cpy 15 sid. 35) Replaced rock?
2.3	212.4	Interbedded lt. grey chert & brown silicic. pyritic mudstone. Extremely well bedded interval. So constant at 20° to c.A. Interlaminated chert & mudstone on the scale of 1-10 cm. 216.0 m younging up hole from dropped pebble. Minor component of siltstone & pyritic fragments. Framboidal pyrite common in py. mudstone.		211.3 214.1	Py 40-50 m.g. rext? i py. mudstone. Py 10-15 v.f.g. bedded.
younging ↑ 3.0	215 216.25	216.25 - 227.0m Pyrite - Qtz - Siderite rock - replacement min. f.g to c.g. pyrite (pyro) replacing originally dolomitic? rocks with minor unmineralised pyritic mudstone. Bulk of the interval is c. xtalline pyrite (av. >60%) with white to black chalcedonic silica and gen. c. xtalline cream to grey siderite. In gen. sid > qtz. Relict bedding is common esp. in areas of less c. xtalline pyrite. Locally v.f.g. unmineralised py. mudstone occurs conformably next to c. xtalline py - qtz - sid rock with relict bedding. Rare blebs of lt. green sericite occur.		215 216.25	Py 30-40 v.f.g. bedded & framboids
3.0	220			217.6 217.8 218.6 220	Py 40-50 f.g. to c.g. replacement min. & minor v.f.g. bedded. Py 35-40 v.f.g. bedded - tr. f.g. rep? Py 45-50 of c.g. f.g. to c.g. diss & clusters Py 50-70 f.g. to c.g. diss. relict bedding & stylolites?
3.0	225	223.9 - 10cm qtz veins. - 70° c.A. Solution cavities common from 223.8 to 225.0m. Esp 224.0 - 224.8 (20%)		221.0 221.3 223.85 224.0 224.8 225	Py 20 c.g. in silicic rock - trace flour. Py 60-70 (100) f.g. to c.g. c.g. gen. as clusters of xtals 80-100%. f.g. gen. as diss. of <80% in dk. grey silicic rock. Py 20 f.g. - c.g. diss. & Flecks & blebs. Py 75 massive f.g. aggreg. qtz 5% as blebs & veins & soln. cavities 20% Py 70-80 f.g. diss & aggreg & c.g.

ABERFOYLE **DIAMOND DRILL LOG** **HOLE Nº** 962 Page No 10

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
		Lithology – as above – replaced carbonate rock – dolomite?		225.4	aggreg. Pyroh. – 1-2 f.g. masses. tr. cassiterite.
				226.0	Py 20-30 f.g. to c.g. diss. & aggreg. in highly siliceous rock. 1-2 Pyroh.
				226.6	Py 70-80 f.g. to c.g. diss aggreg in siderite qtz rock. tr. soln cavities.
	227.0			227.0	Pyroh 30-40 Py 30-40 f.g. to c.g. diss & aggreg. 2-3% soln. cavities.
	227.15	Blk. grey to black shale – bedded 70° to c.A.		227.15	Py 20 – f.g. diss & vein.
2.2	227.55	Replaced tuffaceous shale? – Pyritic & pyrrhotite rich silicic replaced + transitional rock.		227.55	Py 50-60 f.g. & aggreg. Pyroh. 3-5 aggreg. Tr. cass.
.9		Pyritic Volcanics – Lt. grey sericitic lithic tuff containing f.g. diss. to massive pyrite & pyrrhotite. The rock is strongly silicified to approx 229 m. For the remainder of the interval volcs. are very carbonate (siderite?) rich. Extremely pyritic zones			Py 10-20 f.g. diss & f.g. aggreg. Pyroh 15-30 (40) gen more common than py. as f.g. diss & f.g. aggreg. Tot. sulphide gen. 0-50%. Tr. Flourite. Cassit. observable as V.f.g.
3.0	230	gen. containg soln. cavities with sharp margins at 40-45° to c.A. occur. These may be small feeders for the more gen. replacement min. Occur at 230.4-5cm 230.7 – 10cm 230.9 – 25cm.		230	
		Rich mineralization ends sharply at 232.3 possibly against a fracture 5° to cA 230.6 – 231.05m – 20% soln. cavities		230.35	Py 60-70 as Py 80, cavity 20 "feeders" & Py w. = 10 pyroh. rep. volcs as f.g. bet "feeders". 10% soln cavities over interval.
	232.3	Lt. grey green sericitic		231.05	Py 30-40 f.g. diss, f.g. aggreg.) flecks & blebs. Tr. pyroh. as F.g. Tr. Flour.
3.0		Pyrite – pyrrhotite is no longer a major component of the rock. The volcanics to 236.8 m are extremely carbonate rich (siderite?). The carbonate is mainly assoc. w. the matrix of the volcs. (see below) whilst the frag. are more sericitic (locally carbonate rich) and a darker green than the mainly cream matrix.		232.3	Py 2-3 (15) f.g. diss. & rare veinlets. Pyroh. 2-5 (10) f.g. dissem. Total sulphide 3-5 (15).
	235			235	
3.0	236.8	Below 236.8 the volcs become typical tuff.		236.5	Py & Pyroh. – trace. (<1%)
				238.35	1 cm py vein 45° c.A.
3.0	240			240	
				240.85	Py 1-2 f.g. to c.g. (rep vesicles) tr. vein.
				241.5	Pyroh. 1-2 f.g. to c.g. (rep. vesicles)
				242.2	Py trace (ie <1%)
3.0				242.55	
				243.0	5 cm Py 40 blebs & veinlets 15° to c.A.
				243.25	10 cm Py 30 blebs & veinlets 30° to c.A.
				243.75	Py trace (<1%) 1 cm py vein 60° c.A.
				244.1	
		1 cm. q. vein 50° to c.A.		244.6	Py 2-3 (10) f.g. flecks & blebs & veinlets gen 15° to c.A.
	245			244.8 245	
3.0					Py trace (ie <1%)
		246.65 – 1 cm. std. vein 60° c.A.		246.5 246.65 246.7	Py 1-2 f.g., flecks, veinlets 50°? c.A.
					Py trace (ie <1%)
				247.75	
				248.15	Py 15-20 f.g. assoc. w. c. vein 45° to c.A diss in tuff.
3.0					Py rare
				249.2 249.4	Py 15 veinlets 20° to c.A.
	250			250	Py rare

ABERFOYLE

DIAMOND DRILL LOG

HOLE Nº 962

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		Lithology - as above - Lt. grey green sericitic lithic tuff.							Py rare
3.0	255	FAULT - sid vein 60° c.A 1cm.						253.85 255	
	256.2	END OF HOLE							
	260							260	
	265							265	
	270							270	
	275							275	