PROJEOT : MACKINTOSH

PROSPEOT: A - ZONE

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

HOLE NO : HL-80

PAOE : 1 of 10

LOOGEO : AMH

DATE : 12-4-85

DEPTH	DRILL RUNS	CORE LOSS	ROOK NAME	OESORIPTION
	.30	.8	BLACK SHALE	STRONGLY WEATHERED BANDED BLACK SHALE.
2	1.1	1.02		
	1.5	1.5		3.5 FINELY BANDED BLACK SHALE. FINE PYRITE (+SPHALERITE?) AT 40° A.
4	.9	.68		
	.5	.05		
	.6	0		
6	1.0	.78		
	.6	.38	6.5 VESICULAR BASALT LAVA.	WEATHERED, CAVERNOUS VESICULAR BASALT. PEPPERITIC SHALE INCLUSIONS ON CONTACT.
	1.5	.75		
8	.9	.78		
10	1.5	.67		
12	1.5	.14		13.0 PALE GREEN/GREY VESICULAR BASALT. MINOR PEPPERITIC SHALE TO ≈ 16.0m. VESICLES RUNNING, 1-10mm, FILLED WITH CARBONATE AND QUARTZ.
14	3.0	0		
16	1.5	.12		
18	1.5	0		
	1.5	.1		
20				
22	3.0	0		
24	1.5	0		
	1.5	0		
26	1.5	0		
28				
30	3.0	0		
	1.5	0		
32	1.5	0		
34	1.5	0		
36	2.0	0		
38	1.0	0		
	1.5	0		
40	.6	0	HQ / NQ 40.0	
	1.7	.3		
42				

ALTERATION TYPE	ALTERATION INTENSITY	VEININO TYPE	VEININO INTENSITY	MINERALISATION	STRUCTURE	WEATHERING	VISUAL LOG	REMARKS	DEPTH
					0-11.9 STRONGLY BROKEN	OXID 4 3.5 OXID 2 6.5 OXID 3 9.4 OXID 2 11.9			
				6.5 IRREGULAR - STRINGERY PATCHES OF PYRITE SURROUNDING SHALE ZONES AND RARELY FUCHSITE ALTERED FRAGMENTS.	6.5 ALIGNMENT OF ROCK FABRIC (i.e. VESICLES, ALTERATION PATCHES, PYRITE ZONES) AT 30-40° TO C.A.				
9.0 FUCHSITE PERVASIVE IN PATCHES AND AS 1-2mm GREEN SPOTS	4	13.0 IRREGULAR PATCHES AND 2mm VEINLETS OF CARBONATE, LESSER QUARTZ	3						
"		"		"	"				
"		"		"	"				
"		"		"	"			F • 31.9, 100m, RUBBLE + PUS	
"		"		"	"				
"		"		"	"			F • 39.0, 10cm, RUBBLE	
"		40.0		"					
"	2								

PROJEOT : MACKINTOSH

PROSPECT : A-ZONE

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

HOLE NO : HL-80

PAOE : 2 of 10

LOGGEO : AMH

DATE : April 1985

DEPTH	DRILL RUNS	CORE LOSS	LITHOLOGY: ROCK NAME	LITHOLOGY: DESCRIPTION	ALTERATION: TYPE	ALTERATION: INTENSITY	VEINING: TYPE	VEINING: INTENSITY	MINERALISATION	STRUCTURE	WEATHERING	VISUAL LOG	REMARKS	DEPTH
44	2.0	0	VESICULAR BASALT LAVA		"		"		"					
46	2.8	0												
	.6	0												
48	2.6	.1												
50	2.0	.2			"		"		"					
52	1.1	0												
54	3.0	.3												
56	.7	0			"		"		"					
58	2.3	0												
60	2.0	.1												
62	3.1	.1		62.5 1-30cm ANGULAR BASALT FRAGMENTS IN GREY/PURPLE SILICA MATRIX. MATRIX SUPPORTED 63.8										
64														
66	2.8	.2			65.0 "	2	66.7 "	3	65.0 TRACE PYRITE ONLY					
68	3.0	.2												
70	2.7	0		69.8 0.5 to 80cm ANGULAR BASALT FRAGMENTS IN SERICITE/QUARTZ MATRIX.	69.5 PERVASIVE FUCHSITE ALTERATION.	3								
72				72.9			72.0 Composition as above (CARBONATE, MINOR QTZ) BUT WITH "PAINT SPLASH" VEINS PREDOMINATING OVER PATCHES.	3		F 72.0, 20cm, RUBBLE + PUG				
74	2.2	.1												
76	2.3	0												
78	2.2	.2												
80	3.1	.4											BLACK CHLORITE PATCHES IN CARB/QTZ VEINS	
82														
84	1.8	0		83.4 0.5 to 6.0cm ANGULAR FRAGMENTS IN GREY/PURPLE SERICITE MATRIX (SIMILAR TO 62.5-63.8)										

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

PROJECT : MACKINTOSH

PROSPECT : A - ZONE

HOLE NO : HL-80

PAGE : 3 of 10

LOGGED : AMH

DATE : April 1985

DEPTH	DRILL RUNS	CORE LOSS
86	1.8	0
88	3.0	.1
90	3.0	.1
92	3.0	0
94	3.0	0
96	3.0	0
98	3.0	.1
100	3.0	.2
102	3.0	.1
104	3.0	0
106	3.0	.1
108	2.8	.1
110	3.1	0
112	.9	0
114	3.2	.2
116	3.1	0
118		
120		
122		
124		
126		

LITHOLOGY

ROCK NAME	DESCRIPTION
VESICULAR BASALT LAVA.	(QUENCH TEXTURE?)
	87.8 PALE GREEN WEAKLY VESICULAR BASALT WITH DISTINCTIVE "MUD CRACK" QTZ/PY/CARB VEINS
	(94.1-94.9 - FLOW BANDED, PORPHYRITIC PALE COLOUR, PYRITIC STRINGERS — A STAGE IN DEVELOPMENT OF "PORPHYRITIC DACITE" TEXTURE?)
	107.5 GREY/GREEN BASALT, VERY WEAKLY VESICULAR WITH PRONOUNCED BRECCIA TEXTURE - POSSIBLY A QUENCH TEXTURE. FRAGMENTS ARE VERY ANGULAR WITH SIZE RANGE <1mm TO 5mm. MATRIX MATERIAL IS GREY/WHITE SUGARY SILICA.

ALTERATION

TYPE	INTENSITY
"	3
87.8 PERVASIVE FUCHSITE, MINOR FUCHSITE SPOT.	4
	4
99.8 NON-ALTERED? ROCK IS GREY COLOUR	

VEINING

TYPE	INTENSITY
91.8 DISTINCTIVE "MUD CRACK" SHAPE VEINS, 1-10mm MAY HAVE A CARBONATE CORE, QUARTZ SELVEDGE AND GREY PYRITE ALTERATION RIM AFFECTING HOST ROCK TO A DEPTH OF 5mm. QUARTZ MAY BE GREY, CHERTY.	3
107.0 TYPICAL PAINT SPLASH VEINS AS FOR 72.0-91.8	3

MINERALISATION

"
"
"
107.5
121.2 - 122.0 PALE BROWN SPHALERITE IN VEINS + MINOR GALENA

STRUCTURE

	WEATHERING

VISUAL LOG

REMARKS

REMARKS	DEPTH
62.5-63.8 PET. 355086 at 85.8; REP. 83.4 - 87.8 BASALTIC BRECCIA. CLASTS OF SILICA/CALCITE ALTERED BASALTIC LAVA; MATRIX OF SERICITIC CHERT. PY/SER STRINGERS AND VUGS WITH CHALCEDONY/MINOR SPHALERITE IN MATRIX. ULTRAFINE CHROMITE IN BASALT. SUBAQUEOUS FLOW BRECCIA.	86
	88
	90
	92
PET. 355087 at 99.3; REP 94.1-94.9. STRONGLY CHLORITE AND CALCITE ALTERED FLOW BANDED PORPHYRITIC BASALT LAVA. DISSEMINATED CHROMITE. CHLORITE/CALCITE AND CHLORITE/PYRITE STRINGERS.	94
	96
	98
	100
	102
	104
F • 107.5, 10cm, RUBBLE	106
	108
	110
	112
	114
	116
	118
F • 119.6, 20cm, RUBBLE	120
	122
	124
	126

PROJECT : MACKINTOSH

PROSPECT: A-ZONE

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

HOLE NO : HL-80

PAGE : 4 of 10

LOGGED : AmH

DATE : April 1985

DEPTH	DRILL RUNS	CORE LOSS	LITHOLOGY: ROCK NAME	LITHOLOGY: DESCRIPTION	ALTERATION: TYPE	ALTERATION: INTENSITY	VEINING: TYPE	VEINING: INTENSITY	MINERALISATION	STRUCTURE	WEATHERING	VISUAL LOG	REMARKS	DEPTH
128	2.7	0			"		"			F @ 129.4, 10cm, RUBBLE				128
	.8	.11												
130	1.1	.05												130
132	3.0	0												132
134														134
136	3.1	0												136
138	3.1	0			"		"							138
140														140
142	3.1	0							142.5 20cm PATCH PALE BROWN SPHALERITE IN CARB/QTZ VEIN					142
144	3.0	0							144.5 10cm PATCH AS ABOVE					144
146	1.8	0												146
148	3.1	0			"		"							148
150														150
152	3.0	0		152.0 CONTACT GRADATIONAL OVER 2m TYPICAL VESICULATE BASALT WITH PAINT SPLASH VEINLET/VEINING.										152
154	3.2	0					154.6 (PINK FK/Si IN VEIN)							154
156							"							156
158	3.1	0												158
160							159.8 (PINK FK/Si IN VEIN)							160
162	3.1	0												162
164	3.0	0			"		"							164
166							165.0							166
168	3.1	0												168

3/4

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

PROJECT: MACKINTOSH
PROSPECT: A - ZONE

HOLE NO: HL-80

LOGGED: AMN
DATE: April 1985

DEPTH / DRILL RUNS / CORE LOSS

DEPTH	DRILL RUNS	CORE LOSS
170	3.0	0
172		
174	3.0	0
176	0.9	0
178	3.0	·2
180	3.0	0
182		
184	2.5	·1
186	1.9	0
188	2.8	·1
190	3.0	0
192	1.0	·2
	·8	·1
194	1.2	0
196	3.1	·1
198		
200	3.1	0
202	3.1	0
204		
206	3.1	0
208	3.1	0
210		

LITHOLOGY

ROCK NAME: BASALT LAVA

DESCRIPTION:

TYPICAL VESICULAR BASALT WITH "PAINT SPLASH" VESICLES/VEINING

200.6
GREEN MASSIVE BASALT WITH VERY LITTLE VEINING AND NO 0.5-1.0CM QTZ/CARB VESICLES
< 2mm CHLORITE VESICLES COMMON

204.7
M ABOVE 152.[illegible] - 200.6

ALTERATION

Type / INTENSITY

195.0 GRADATIONAL CONTACT
PERVASIVE FUCHSITE — 2

"

"

VEINING

" — 4

171.0 [illegible]

TYPICAL PAINT SPLASH VEINS) OF QTZ/CARB WITH PATCHY DEVELOPMENT OF PINK Fd/Si — 4

"

"

184.9 (BRIGHT GREEN EPIDOTE ASSOCIATED WITH PINK Fd/Si IN LARGER VEIN.

187.6 (AS ABOVE, 184.9)

189.0
PAINT SPLASH WHITE QUARTZ/CARBONATE VEINS — 4

"

200.6 — 4 / 2

"

204.7 — 2 / 4

"

MINERALISATION

STRUCTURE

180.2 F — 50cm, WEAKLY OXID RUBBLE

189.0 BROKEN CORE IN CHLORITIC SECTION

192.0 F — 10cm, SILICIFIED RUBBLE

193.2 F — 20cm, RUBBLE

193.8 F — 50cm, RUBBLE

WEATHERING

VISUAL LOG

REMARKS

PET 355088 AT 171.5; REP 152.0 - 301.2

SEMI-GLASSY BASALTIC LAVA. CHLORITE/CARBONATE ALTERED. CALCITE/QUARTZ (± CHLORITE, EPIDOTE, PY, GAL, SPH) IN VESICLES. SOME SIDERITE REPLACEMENT OF CALCITE

PROJEOT : MACKINTOSH

PROSPEOT: A-ZONE

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

HOLE NO : HL-80

PAGE : 6 of 10

LOOGEO : AMH

OATE : April 1985

DEPTH	DRILL RUNS	CORE LOSS	LITROLOOY: ROOK NAME	LITROLOOY: OESORIPTION	ALTERATION	VEININO	MINERALISATION	STRUOTUBE	WEATHERING	VISUAL LOG	REMARKS	DEPTH
212	3.2	.2	BASALT LAVA.	TYPICAL VESICULAR BASALT WITH "PAINT SPLASH" VESICLE/VEINING	11 2	4 4						212
214												214
216	3.0	0										216
	1.1	.2										218
218	1.4	0			11 2							
220	2.9	.3						221.0 – 225.0 BROKEN CORE IN CHLORITIC SECTION				220
222												222
	1.8	0				11 4						
224	9	0			11 2							224
226	3.1	.2										226
228	09	.1										228
230	1.8	0			4 2							230
232	3.1	.1										232
234	2.1	0				11 4						234
236					11 2							236
	3.0	0										
238												238
240	2.7	0				11						240
242					11 2							242
	3.1	0										
244						245.0						244
246	3.1	0			246.7 GREY/PURPLE PERVASIVE FELDSPAR/SILICA ALTERATION 3	WHITE QTZ/CARBONATE VEINS AS ABOVE WITH COMMON PINK PATCHES OF FLDSP. AND MINOR BRIGHT GREEN EPIDOTE 4						246
248	3.1	0			249.7							248
250												250
252												252

PROJECT : MACKINTOSH

PROSPECT: A-ZONE

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

HOLE NO: HL-80

PAGE: 7 of 10

LOGGED: AMH

DATE: April 1985

DEPTH	DRILL RUNS	CORE LOSS	LITHOLOGY: ROCK NAME	LITHOLOGY: DESCRIPTION	ALTERATION	VEINING	MINERALISATION	STRUCTURE	WEATHERING	VISUAL LOG	REMARKS	DEPTH
254	3.0	0	BASALT LAVA	TYPICAL VESICULAR BASALT WITH "PAINT SPLASH" VESICLES/VEINING	253.0 253.8 ▲ 4 PERVASIVE PINK FELDSPAR/SILICA ALT. WEAK PERVASIVE FUCHSITE ALTERATION 2 263.0 WEAK PERVASIVE FUCHSITE ALTERATION WITH 10cm IRREGULAR BANDS AND PATCHES OF DARK GREEN CHLORITE 3 283.0	11 4 11 4 " 4 " 4 " 4 " 4 " 4					
256	3.0	0										
258	3.0	0										
260												
262	3.0	0										
264	3.0	0										
266												
268	3.0	0										
270	2.7	0										
272	3.1	0										
274												
276	3.1	0										
278												
280	3.0	0										
282	3.1	.1						283.8 – 285.0 BROKEN CORE IN CHLORITIC SECTIONS				
284	.6	0										
	.8	.1										
286	2.6	0										
288												
290	2.9	0										
292	3.1	0										
294												

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

PROJEOT : MACKINTOSH
PROSPEOT : A-ZONE

HOLE NO : HL-80
PAOE : 8 of 10
LOOGEO : AMH
DATE : APRIL 1985

DEPTH	DRILL RUNS	CORE LOSS
296	3.4	0
298	3.1	0
300		
302	1.5	0
304	3.0	0
306	3.0	0
308		
310	3.0	0
312	3.0	0
314		
316	3.0	0
318	3.0	0
320		
322	3.0	0
324	3.0	0
326		
328	2.3	·1
330	1.9	0
332	1.8	0
334	3.0	0
336		

LITHOLOOY

ROOK NAME	OESORIPTION
BASALT LAVA. (to 301·2)	SHARP CONFORMABLE CONTACT
301·2 – 303·0 ANDESITE LAVA	FINE (0·5cm) GRANULAR EPICLASTIC PINK FRAGMENTS IN SERICITIC MATRIX. SHARP CONTACT DISRUPTED BY CARB/QTZ VEINING
303·0 – 305·7 LAMINATED SILTSTONE	FINELY LAMINATED PYRITIC SILTSTONE. A75°. VERY SHARP CONTACT
305·7 – 308·3 VOLCANIC SEDIMENTARY BRECCIA	PALE BROWN FLD/Si ALT. LAVA FRAGMENTS IN GREY/BLACK PELITE MATRIX. GRADATIONAL OVER 4cm
308·3 – 331·0 ANDESITE LAVA	DARK GREY GREEN WEAKLY VESICULAR ANDESITE LAVA. CHAOTIC TEXTURE DUE TO PATCHY PURPLE/BROWN/PINK FELD/SILICA ALTERATION. 325·0 FROM 325·0 LAVA IS WEAKLY BRECCIATED WITH DIFFUSE, PATCHY BLACK SHALE/CHERT MATRIX. CONTACT OBSCURED BY 10cm OF INTENSE SERICITE ALTERATION. 331·0
VESICULAR BASALT LAVA	TYPICAL VESICULAR BASALT WITH PAINT SPLASH VEINS AND PATCHY CHLORITE BANDS.

ALTERATION

TYPE	INTENSITY
(to 297·0)	2
297·0 – 299·6 "	—
299·6 "	3
	2
SERICITE + PINK FLD/Si	3
308·3: PATCHY PERVASIVE PURPLE BROWN/PINK Fd/Si ALTERATION. USUALLY IN BRECCIATED ZONES AROUND QTZ/CARB VEINS	4
"	
"	
325·0 (FROM 325·0 TO 331·0 PATCHES OF YELLOW SERICITE ALTERATION DEVELOPED – INTENSE ON CONTACT)	
331·0 "	4
CHLORITIZED. Fd/Si alt AROUND IRREGULAR VEIN.	3

VEINING

TYPE	INTENSITY
"	4
"	
303·2	4 / 2
307·0 (2cm QTZ/CARB VEIN WITH CONSPICUOUS 2cm PATCHES OF SPH, YELLOW AND BROWN PLUS MINOR GAL. CPY) 309·0	2 / 4
"PAINT SPLASH" QTZ/CARB VEINS/VESICLES WITH CONSPICUOUS PATCHES OF PINK FLD/Si, MINOR DIRTY GREEN WAXY ILLITE	
"	4
"	4
330·0 – 331·5 (STRONG DIRTY GREEN ILLITE IN LARGE VEIN)	
"	4

MINERALISATION

← SPH/GAL/CPY IN VEINS (at 307·0)

STRUCTURE

328·7 – 329·0 BROKEN CORE IN CHLORITIC SECTION

WEATHERING

VISUAL LOG

REMARKS

PET 355089 at 302·2; REP 301·2 – 303·0
PERLITIC, PORPHYRITIC LEUCO-ANDESITE LAVA. SERICITE/ALBITE ALT. PLAGIOCLASE PHENOCRYSTS IN STRONGLY SERICITIC CALCITE STAINED GROUNDMASS. MESOSCOPIC FRAGMENTAL TEXTURE DUE TO BOUDINAGE OF PERLITIC STRUCTURE AND CHLORITE/QUARTZ VEINLETS.

PET. 355090 AT 303·2; REP. 303·0 – 305·7
TUFFACEOUS PSAMMOPELITE. SERICITISED LITHIC/LAVA CLASTS + SER/ALB ALTERED FELDSPAR AND QTZ GRAINS IN SERICITE CHERTY QUARTZ MATRIX. TRACES CARBONACEOUS MATTER, SYNGENETIC PYRITE. SIDERITE QUARTZ VEINS.

PET. 355091 AT 304·2; REP. 303·0 – 305·7
TUFFACEOUS PSAMMOPELITE. SIMILAR TO 355090. MORE FELDSPATHIC, CHLORITE IN MATRIX. DARK SHALEY BANDS WITH CARBONACEOUS MATTER AND SYNGENETIC PYRITE

PET 355092 AT 304·8; REP. 303·0 – 305·7
VOLCANOMICT LITHIC SANDSTONE. FRAGMENTS OF SERICITE/(SILICA) CARB) ALTERED LAVA CLASTS AND ALBITISED PLAGIOCLASE GRAINS IN PYRITIC CARBONACEOUS PELITE MATRIX. DISSEM. SPH. IN LATE QUARTZ/CALCITE VEINS.

PET. 355093 AT 307·8; REP 305·7 – 308·3
ANDESITIC(?) FLOW BRECCIA IN MATRIX OF SERICITIC/CHLORITIC PYRITIC PELITE. LAVA CLASTS CHLORITISED/ALBITISED.

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

PROJECT : MACKINTOSH

PROSPECT : A-ZONE

HOLE NO : HL-80

PAGE : 9 of 90

LOGGED : AMH

DATE : APRIL 1985

DEPTH	DRILL RUNS	CORE LOSS
338	3.0	0
340	3.0	0
342	3.0	0
344		
346	3.0	0
348	3.0	0
350		
352	3.0	0
354	2.5	.1
356		
358	3.0	0
360	2.3	.1
362	3.1	0
364		
366	3.1	0
368	3.1	0
370		
372	3.1	0
374		
376	3.1	.2
378	3.0	.2

LITHOLOGY

ROCK NAME	DESCRIPTION
338.0	308.3 – 338.0

ALTERATION

Depth		
	"	
	"	
349.2	"	3/4
	"	
360.6	"	4/3
	"	

VEINING

Depth		
342.0	"	4/3
	"	
	"	3
	"	3
358.0	Qtz/carb. veins as for 309.0 – 358.0, but with only weak rare pink Fld/Si patches.	
	"	3
	"	3
376.6	(10 cm patch of waxy green illite in major vein)	

MINERALISATION

364.1 (5 mm patch of galena in qtz/carb vein)

STRUCTURE

355.4 F 100 cm?, rubble, vein material

REMARKS

Pet 355094 at 325.8; Rep 308.3 – 331.0

Similar to 355094.
Clasts of albite/calcite and sericite/chlorite altered andesite in matrix of impure chert and quartz/albite. Trace sph + gal in matrix vugs.

Pet. 355095 at 341.4; Rep 331.0 – 397.4.

Chloritic basaltic lava.
Silicified around irregular veins of alb/orth/musc/qtz.
Late calcite veinlets.
Trace py, sph, gal in veins.
Traces of chromite.

ABERFOYLE EXPLORATION

DIAMOND DRILL LOG

PROJECT : MACKINTOSH

PROSPECT: A-ZONE

HOLE NO : HL-80

PAGE : 10 of 10

LOGGED : AMH

DATE : APRIL 1985

DEPTH	DRILL RUNS	CORE LOSS	LITHOLOGY: ROCK NAME	LITHOLOGY: DESCRIPTION	ALTERATION	VEINING	MINERALISATION	STRUCTURE	WEATHERING	VISUAL LOG	REMARKS	DEPTH
380	3.1	2			1 3	1 3						
382												
384	3.0	0			385.0							
386	3.0	0				386.0 1 3						
388						1 4						
390	3.1	0										
392	3.1	0				1 4						
394												
396	3.0	0									397.4 EOH	
398												
400												
402												
404												
406												
408												
410												
412												
414												
416												
418												
420												