614095

DRILL LOG COVER SHEET

Project: Cape Sorell **Exploration Licence:** EL10/97

Prospect: Pelias Cove **Hole Number:** PC-3

Co-ordinates: **E** 363633 **N** 5310673 **Logged by:** Luke Vanzino

RL Collar: 5mASL

Azimuth: 280m/267g

Inclination: -45deg

Depth: 205m

Hole Size:

	FROM	TO
HQ	0	205
NQ		

Commenced: 20 June 1999

Completed: 12 July 1999

Drillers: DDT - Jamie Kaye/Justin

Drill Type: LF70

Comments:

GEOLOGICAL LOG

Project:	**Cape Sorell**	**Exploration Licence:**	**EL10/97**
Prospect:	**Pelias Cove**	**Hole Number:**	**PC-3**
Logged By:	**Luke Vanzino**		

DEPTH (m)	RECOVERY From	To	%	CORE DESCRIPTION	C.B/CV.A C.V.A	MAGNETIC SUSCEPTIBILITY	COMMENTS
0	0	4	0	**0-4m:** Tricone - No Core.			
1						NS	
2						NS	
3						NS	
4	4	11	55	**4-26.4m:** UNCONSOLIDATED CLAYS - (aftersiltstone) cream pale brown to off white clays with evidence of transported fragments in upper interval.		18	
5						0	
6						0	
7						2	
8						1	
9						0	
10						0	
11	11	14	37			0	
12						2	
13						0	
14	14	17	17			0	
15						46	
16						0	
17	17	20.1	93			0	
18						0	
19						0	
20	20.1	21.3	42			0	
21	21.3	23	0			0	
22						NS	
23	23	26	53			0	
24						0	
25						0	

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26	26	27.4	100	**26.4-29m:** METASEDIMENT. Dark grey & white, compositionally banded psammite/pelite. Metamorphic layering 1-10mm with white-pale grey quartz rich layers & dark grey pelite folia. Locally schistose. Local quartz augen development. Evidence for localised syn-sed brecciation/soft sed deformation.		0	
27	27.4	29.8	92			0	@27.4 10cm zone of coarse euhedral qtz.
28						0	
29	29.8	32.0	54	**29-37m:** FAULT ZONE. Off white & mottled ferruginous clays with silicified sedimentary clasts.		0	
30						4	
31						0	
32	32.0	34.0	55			0	
33						0	
34	34.0	35.8	78			0	
35	35.8	36.9	91			0	
36	36.9	38.8	100			0	
37				**37-48.07m:** METASEDIMENT. Dark grey & white, compositnally banded psammite/pelite. Metamorphic layering 1-10mm with white-pale grey quartz rich layers & dark grey pelite folia. Locally schistose. Local quartz augen development. Evidence for localised syn-sed brecciation/soft sed deformation.	CB 45deg	0	
38	38.8	40.8	100			1	
39						0	
40	40.8	44.0	59			0	@40.8 lost water.
41						0	@41.05o-41.8 oligomictic fault breccia band.
42					CB 50deg	0	
43						1	
44	44.0	46.7	88			0	
45						2	
46	46.7	50	27			0	
47						1	
48				**48.07-85.4m:** BRECCIA. -(Thrust Plan Fault Brecia?). -Variably Textured with rapid changes from clast to matrix supported. -Angular, poorly sorted clasts of local derivation (sandstones, black shales, siltstones)		0	
49						0	

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50	50.0	52.1	61			0	
51						18	Camera Shot - Dip 46deg Az 276grid/263mag
52	52.1	53.4	100			7	
53	53.4	56	62			0	
54						0	
55						0	
56	56	59	93	@56-59.6m Distinctive hydrothermal silica overprinting the breccia event. Euhedral white quartz vughs with remnant unaltered cores of breccia protolith.		0	
57						0	
58						0	
59	59	62	20			7	
60				**48.07-85.4m:** BRECCIA. -(Thrust Plan Fault Brecia?). -Variably Textured with rapid changesfrom clast to matrix supported. -Angular, poorly sorted clasts of local derivation (sandstones, black shales, siltstones)		33	
61						NS	
62	62	63.7	47			0	
63	63.7	64.9	92	@63-63.7m Distinctive hydrothermal silica overprinting the breccia event. Euhedral white qtz vughs with remnant unaltered cores of breccia protolith.		0	
64	64.9	67.9	100	@64-64.6m & 64.9-65.25m Distinctive hydrothermal silica overprinting the breccia event. Euhedral white quartz vughs with remnant unaltered cores of breccia protolith.		0	
65						14	
66						8	@66.15-68.1 reamed material.
67	67.9	68.7	100			5	
68	68.7	71.0	100			0	
69						7	
70						0	
71	71.0	74.0	93			14	

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72						7	@72.0 A large 15cm plus clst of the distinctive, vuggy, hydrothermal quartz rock as a breccia clast. This ffeture plus the brecciated & dismembered qtz veinlets in the interval 77.2-81.2 are evidence for reactiviation of the thrust fault.
73				@73.0-73.6m Distinctive hydrothermal silica overprinting the breccia event. Euhedral white quartz vughs with remnant unaltered cores of breccia protolith.		0	
74	74.0	76.7	88			2	
75						4	
76	76.7	81.3	69			4	
77				@7.2-81.2m Brecciated black shale horizon with dismembered tectonised quartz veinlets.		11	@77.2-81.2 Disseminated pyrite, euhedral, <1% plus a spatially related dk orange mineral as a rind on the pyrite. Undetermined.
78						2	
79						1	
80						14	
81	81.3	81.8	100			0	
82	81.8	83.2	100			2	
83	83.2	84.8	63			1	
84	84.8	85.4	100			0	
85	85.4	87.6	93	**85.4-135m:** METASEDIMENT. Dark grey & white, compositionally banded psammite/pelite. Metamorphic layering 1-10mm with white-pale grey quartz rich layers & dark grey pelite folia. Locally schistose. Local quartz augen development. Evidence localised syn-sed brecciation/soft sed deformation.	CB 40deg	0	
86						0	
87	87.6	90.6	100			0	@87.5 Type example of a crenulation cleavage at right angles to the main cleavage.
88						0	
89					CV 40deg	5	@89.35 - 20cm wide quart vein.
90	90.6	93.8	97			0	
91						0	
92						0	

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93	93.8	96.9	100			9	
94						0	
95						40	
96	96.9	100	100			28	@96.15 - 20cm wide zone of anastamosing qtz veining.
97						0	
98						0	
99						25	
100	100	103.1	100			0	
101						0	
102						0	
103	103.1	106.2	100		CB 45deg	0	*** From 103m onwards to 135m, metamorphic features such as compositional banding, schistose zones, & quartz augers are less pronounced. Protolith returns to a dark grey, cleaved, laminated siltstone***.
104						0	
105						1	@105m Camera Shot - Dip 47deg Az 277grid/264mag
106	106.2	109.3	100			0	@106.35-106.9 Milky white qtz vein with temporal related well rock brecciation.
107						0	
108						0	
109	109.3	112.5	97			0	
110						0	
111						0	
112	112.5	115.6	100			0	
113					CB 45deg	4	
114						0	
115	115.6	118.7	100			22	@115.7-116 Milky white qtz vein ***Core vein angles along bedding over interval 115-128m.
116						0	
117						0	@117.3-117.6 Milky white qtz vein.
118	118.7	120.8	100			0	
119						0	
120	120.8	123.4	100			0	
121						0	
122						0	@122.6-122.7 Milky white qtz vein.

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123	123.4	125	100			0	@123-123.1 Milky white qtz vein with trace, diss, anhedral. Brassy pyrite.
124						0	
125	125	131	100			0	@125.9-126.1 Milky white qtz vein.
126						15	
127						0	
128						0	@128-128.1 Black graphitic band.
129						14	
130					CB 45deg	1	
131	131	134	100			0	
132						0	
133						0	
134	134	137	100			0	
135				**135-146.8m:** Zone of Silicification and Quartz veining. The protolith of dark grey siltstone has been progressively silica bleached over this interval.		2	
136						16	@136.3-137.1 Zone of interbedded coarse sandstone bands.
137	137	138.7	97			0	
138	138.7	140.3	88			5	@138.0 3cm qtz vein rimmed by pyrite @138.15 3cm qtz vein rimmed by pyrite.
139						15	@138.65 5cm qtz vein (no pyrite).
140	140.3	142.4	100			0	
141						0	
142	142.4	145.2	96			0	
143						0	Within the zone of silicification; there is a gradation change in colour index with the zone of intense silica bleaching within the interval 143.5-146.8.
144						4	
145	145.2	146.8	100			0	
146	146.8	148.0	100	**146.8-194.55m:** SALE. Black shales wth 2 lithofacie units noted. Laminated unit & intraclast breccia unit. Intraclast breccia facies is defined by pale grey angular mudstone clasts up to 4mm long that were eroded from a previous deposited horizon & subseqently incorporated into the current bed. These clasts are inbricated with the long axes defining bedding - There is a rapid interbedding of the two lithofacies.		0	@146.8-155m Graphitic black shales.

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147					CB 35deg	4	**The black shale unit is indurated from 146 to 155m (slow coring / slow cutting).
148	148.0	149.7	100			0	
149	149.7	152.0	100			0	
150						0	
151						0	
152	152.0	153.8	100			0	Camera shot - Dip 47deg Az 273grid/260mag
153	153.8	155.7	95			0	
154						0	
155	155.7	158	100			0	@155-155.2 quartz veining
156						0	
157						2	@157.5-157.9 quartz veining.
158	158	161	100			1	
159						0	
160						0	
161	161	161.4	100			11	@161.4 scour & fill sedimentary structure. Core is right way up.
162	161.4	163.4	95			1	
163	163.4	166	100			0	
164						0	
165					CB 40deg	0	
166	166	168	95			0	
167						0	
168	168	170	100			0	
169						0	@169.7-169.8 quartz vein
170	170	172.4	100		CB 60deg	0	
171						0	
172	172.4	175.5	97			0	
173						0	
174						0	
175	175.5	177.5	100			0	
176						11	
177	177.5	179	100			0	
178						0	
179	179	181.2	91			0	
180						0	
181	181.2	184.2	100		CV 40deg CB 40deg	26	
182						0	@181.8-182.1 quartz vein with trace pyrite.
183						0	

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184	184.2	187.3	100			2	@184.2-184.65 quartz vein with brecciated quartz and shale clasts and brassy, anhedral pyrite <1%.
185						0	
186						0	
187	187.3	187.7	100			12	@187.2 quartz vein with trace pyrite.
188	187.7	189.1	93			0	@188.8-189.1 quartz vein with trace pyrite.
189	189.1	190.9	100		CV 45deg	0	
190	19.9	193.6	100			0	
191						0	
192						0	
193	193.6	196.7	100		CB 35deg	0	
194				**194.55-205m:** METASANDSTONE. Dark grey, fine grained, massive quartz rich sandstone.		0	
195						5	
196	196.7	199.8	100			0	
197						0	
198						0	
199	199.8	203	97			0	
200						0	
201						0	
202						0	
203	203	205	100			0	
204						0	Camera shot - Dip 45deg Az 278grid/265mag
205				**205m: END OF HOLE.**		26	END OF HOLE 205m - Slotted polypipe in hol for possible downhole EM.

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