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GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 300/5

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 90 m

LOCATION: T7 Drill Cuddy -240 m

PURPOSE OF HOLE: Test S.O.B.

PROPOSED CO-ORDS: 220 300 E 563 900 N

INCLINATION: -50°

BEARING: 180° °Grid °Mag

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 177° 49' °Grid °Mag

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 301.4 E 563 897.2 N

R.L. OF COLLAR: 237.4

INCLINATION OF HOLE: -49° 27'

PICKED UP BY: R. Howman DATE: 9/11/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: 43 - 118 m, 5 m @ 0.71% WO_3
123 - 129 m, 6 m @ 0.88% WO_3 gh Coast Oreblock

DRILLING

DATE COMMENCED: 3/11/81 DATE TERMINATED: 30/11/81

DRILLER/CONTRACTOR: J. Archer/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE:
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 154.0 m

REASON FOR TERMINATION: Abandoned due to Fault zone grabbing rods.

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: M/S

WATER:

COMMENTS ON DRILLING CONDITIONS:

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CORE RECOVERY

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INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.00 - 3.00	3.0	3.0	100
3.00 - 5.70	2.7	2.7	100
5.70 - 8.70	3.0	3.0	100
8.70 - 11.70	3.0	3.0	100
11.70 - 13.70	2.0	2.0	100
13.70 - 16.30	2.6	2.2	84.62 ?
16.30 - 18.10	1.8	2.1	117 ?
18.10 - 19.90	1.8	1.8	100
19.90 - 21.80	1.9	1.9	100
21.80 - 23.85	2.05	2.05	100
23.85 - 26.70	2.38	2.65	113
26.20 - 28.40	2.2	2.2	100
28.40 - 30.90	2.5	2.5	100
30.90 - 32.90	2.0	2.0	100
32.90 - 35.00	2.1	2.1	100
35.00 - 37.80	2.8	2.8	100
37.80 - 40.40	2.6	2.6	100
40.40 - 42.80	2.4	2.4	100
42.80 - 45.50	2.7	2.7	100
45.50 - 48.20	2.7	2.9	107
48.20 - 50.80	2.6	2.6	100
50.80 - 53.10	2.3	2.3	100
53.10 - 55.00	1.9	1.9	100
55.00 - 57.70	2.7	2.7	100
57.70 - 60.20	2.5	2.5	100
60.20 - 62.70	2.5	2.5	100
62.70 - 65.20	2.5	2.5	100
65.20 - 71.80	2.6	2.6	100
71.80 - 74.30	2.5	2.5	100
74.30 - 77.20	2.9	2.5	86
77.20 - 79.80	2.6	2.6	100
79.80 - 82.80	3.0	3.0	100
82.80 - 84.30	1.5	1.5	100
84.30 - 87.30	3.0	3.0	100
87.30 - 90.30	3.0	3.0	100
90.30 - 93.30	3.0	3.0	100
93.30 - 96.30	3.0	3.0	100
96.30 - 99.30	3.0	3.0	100
99.30 - 102.30	3.0	3.0	100
102.30 - 105.30	3.0	3.0	100
105.30 - 108.30	3.0	3.0	100
108.30 - 110.60	2.3	2.3	100
110.60 - 113.60	3.0	3.0	100
133.60 - 116.60	3.0	3.0	100
116.60 - 119.60	3.0	3.0	100
119.60 - 123.00	2.4	3.2	94
123.00 - 126.00	3.0	3.0	100
126.00 - 129.10	3.1	3.1	100
129.10 - 132.10	3.0	3.0	100
132.10 - 135.10	3.0	3.0	100
135.10 - 138.00	2.9	2.9	100

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CORE RECOVERY

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INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
138.00 - 141.00 m	3.0	3.0	100
141.00 - 144.00	3.0	2.8	93
144.00 - 147.00	3.0	3.0	100
147.00 - 148.00	1.0	1.0	100
148.00 - 150.50	2.5	2.7	108
150.50 - 153.50	3.0	3.0	100
153.50 - 154.00	0.5	0.35	70
EOH 154.0 m			

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ASSAY DATA

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SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13633	18	19	1.0	1.0	0.31			
34	19	20	"	"	0.08			
35	89	90	"	"	0.22			
36	97	98	"	"	0.16			
37	98	99	"	"	0.14			
38	108	109	"	"	0.10			
39	109	110	"	"	0.08			
40	110	111	"	"	0.15			
41	111	112	"	"	0.06			
42	112	113	"	"	0.07			
43	113	114	"	"	0.89			
44	114	115	"	"	0.61			
45	115	116	"	"	0.94			
46	116	117	"	"	0.44			
47	117	118	"	"	0.65			
48	118	119	"	"	0.16			
49	119	120	"	"	0.13			
50	120	121	"	"	0.06			
51	121	122	"	"	0.06			
53	122	123	"	"	0.19			
54	123	124	"	"	1.5			
55	124	125	"	"	0.60			
56	125	126	"	"	0.39			
57	126	127	"	"	0.45			
58	127	128	"	"	0.73			
59	128	129	"	"	1.6			
60	129	130	"	"	0.18			
61	130	131	"	"	0.11			
62	131	132	"	"	0.10			
63	132	133	"	"	0.18			
64	153	154	"	"	0.20			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGICAL LOG

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Summary

0.0	-	14.7 m	Garnet pyroxene hornfels
14.7	-	57.7	Marble
57.7	-	86.3	Biotite Hornfels
86.3	-	100.0	Pyroxene garnet hornfels
100.0	-	103.3	Aplite
103.3	-	110.0	Pyroxene garnet hornfels
110.0	-	117.5	Garnet hornfels
117.5	-	120.0	Aplite
120.0	-	128.2	Garnet hornfels
128.2	-	133.0	Garnet pyroxene hornfels
133.0	-	154.0	Banded Footwall Beds

0.0 - 14.7 m GARNET PYROXENE HORNFELS

Mixed unit of garnet pyroxene hornfels representing the top unit of B Lens. Dominant rock type is pyroxene hornfels with subsidiary garnet hornfels (grossular) biotite hornfels and marble. Small amounts of scheelite are present in veins and rare disseminated crystals.

The ground is generally fairly broken with core sticks around 20 cm long.

Bedding is @ 35° to LCA @ 1 m
" 30° " 3 m
" 25° " 12 m

14.7 - 57.7 MARBLE

Essentially a large, monotonous unit of fresh grey marble locally altered to pyroxene hornfels.

Bedding is usually well displayed and ground is generally good (30 cm core sticks).

Rare crystals of scheelite occur in the unit, and from 18 - 20 m is the highest density, but is still below ore grade.

A major fault occurs at 39 - 40.2 m with some core loss. The fault zone consists of puggy, soft and friable decomposed marble and pyroxene hornfels and had to be cemented during drilling.

Broken ground at 54 - 55 m may indicate another fault. This zone consist of angular fragments 2.5 cm diameter of biotite hornfels.

The top and bottom contacts of this unit are gradational.

Bedding is @ 25° to LCA @ 17 m
" 35° " 22 m
" 35° " 26.4 m
" 40° " 30 m
" 10° " 41 m
" 20° " 49 m
" 30° " 52 m
" 40° " 54 m
" 55° " 56 m

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57.7 - 86.3 m BIOTITE HORNFELS

Generally massive homogeneous biotite hornfels but cut by many fractures. From 57.7 to 64 m thin (1 - 2 cm) beds of pyroxene hornfels are interbedded with the unit. Aplite occurs from 67.5 - 70 m.

Broken or fractured core occurs at 59.5 - 60 m, 67 - 68 m, 73 - 77 m (1 - 10 cm fragments). The remainder of the core consists of 15 - 30 cm core sticks interspersed with sections of small 1 cm fragments and angular 5 cm pieces of core.

Overall this to quite a badly broken unit.

86.3 - 110.0 PYROXENE GARNET HORNFELS

Typical podded, mainly green pyroxene garnet hornfels. Ground generally good 30 - 40 cm sticks. Scheelite occurs rarely at 89 m and from 97 - 98.5 m, and around 108 m.

A coarse grained aplite occurs at 100 - 103.3 m.

Possible bedding is at 40° to LCA @ 107 m

110.0 - 128.2 GARNET HORNFELS

A typical garnet hornfels in that it is fine grained and has a pale appearance. The first 2 m from 111 - 113 appears to be barren of scheelite. A fine grained aplite occurs from 110 - 111 m and from 117.5 - 120 m and has rather diffuse contacts.
Visible scheelite commences at 113 m but is very fine grained, The unit is mineralised to about 0.8% from here to the end, with a slight increase in grain size at ground 120 m.

The garnet hornfels has a pale, leached appearance at 121 - 122 m.

Initially to about 120 m the ground is fairly good with 30 m core sticks.

Shorter core sticks 10 - 15 cm occur from 120 to 123 m.

128.2 - 133.0 GARNET PYROXENE HORNFELS

A rather mixed unit that carries scheelite as large infre ent crystals associated with quartz. The background is pyroxene hornfels with fine grained garnet hornfels (andradite).

Ground is fairly good, 30 cm sticks.

Bedding is @ 30° to LCA @ 132 m

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133.0 - 154.0 m BANDED FOOTWALL BEDS

By no means a typical banded footwall beds, this unit consists of fractured and broken biotite hornfels interbedded with unmineralised fine grained andradite garnet hornfels with or increasing amount of feldspar with depth.

Severly broken ground accurs at 133 - 134 m, 136 - 137.5 m, 142 - 142.5 m, 146 - 148 m.

Thin Jasper bands 2 - 5 cm thick occurs in the last 2 m of the unit.

Bedding	is	@	25°	to LCA	133.5 m
"			10°	"	141 m
"			45°	"	148 m

Some chalcopyrite is present in the last 4 m of the unit.

EOH 154.0 m