

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/46

PLANNING PROPOSER: R. E. S. Davies DEPTH: 25 m
LOCATION: -280 m level W60
PURPOSE OF HOLE: Test Decline Fault
PROPOSED CO-ORDS: 220 345 E 563 985 N
INCLINATION: 0°
BEARING: 102° Grid Mag
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 102° 23' Grid Mag
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 345.21 E 563 985.71 N
R.L. OF COLLAR: -276.25
INCLINATION OF HOLE: 89° 58' (from Zenith) +0° 02'
PICKED UP BY: J. Cook DATE: 10.12.81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 9 - 14 m, 5 m @ 1.37% WO₃ gh (b)

DRILLING DATE COMMENCED: 8.12.81 DATE TERMINATED: 11.12.81
DRILLER/CONTRACTOR: B. Gills/KIS
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 15.5 m
REASON FOR TERMINATION: In Decline Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/46

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.7	1.7	1.7	100
1.7 - 5.2	3.5	3.5	100
5.2 - 6.5	1.3	1.3	100
6.5 - 8.0	1.5	1.8	120
8.0 - 11.3	3.3	3.0	91
11.3 - 13.7	2.4	1.8	75
13.7 - 14.5	0.8	0.8	100
14.5 - 15.4	0.9	0.3	33
15.4 - 17.2	1.8	1.3	72

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/46

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	30		
1.0 - 2.0	30		
2.0 - 3.0	70		
3.0 - 4.0	70		
4.0 - 5.0	80		
5.0 - 6.0	85		
6.0 - 7.0	80		
7.0 - 8.0	57		
8.0 - 9.0	0		
9.0 - 10.0	50		
10.0 - 11.0	30		
11.0 - 12.0	37		
12.0 - 13.0	40		
13.0 - 14.0	45		
14.0 - 15.0	0		
15.0 - 16.0	0		
16.0 - 17.0	0		

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/46

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13668	9	10	1.0	1.0	2.24			
69	10	11	"	"	0.75			
70	11	12	"	"	2.60			
71	12	13	"	"	0.42			
72	13	14	"	"	0.84			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/46

0.0 - 8.3 m Lower Volcanics
8.3 - 13.5 Garnet Hornfels (banded)
13.5 - 17.2 Decline Fault

0.0 - 8.3 m LOWER VOLCANICS

Dark, fairly heavily altered, fine grained crystalline meta volcanic unit.

Moderately jointed, core sticks average 20 cm long. Joint planes are well lined by chlorite/serpentine slickensides.

The unit is homogeneous, some feldspar filled amygdales are present.

8.3 - 13.5 GARNET HORNFELS (BANDED)

An erratically and generally poorly mineralised unit, probably averaging 0.5% WO_3 .

The ground is considerably broken, particularly at the volcanics contact, and at 11.3 m. Most of the core is pyroxene hornfels and garnet hornfels (andradite) and is recovered as 10 - 20 cm sticks.

Bedding is @ 50° LCA @ 10 m
" @ 50° 12 m

13.5 - 17.2 DECLINE FAULT

It is hard to accurately identify the start of this unit due to core loss.

Typical Decline fault zone consisting of small (1-2 cm) biotite hornfels fragments, some loose and some set in a poorly revealed fault breccia. These are sub-angular.

The latter part of the unit is fragments of more massive biotite hornfels.

EOH

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D340/45

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
4.2	4.2	3.9	93
6.7	2.5	2.3	92
9.7	3	2.96	99
12.7	3	3.2	107
14.3	1.60	1.7	106
16.7	2.40	1.7	71
17.7	1	0.93	93
20.6	2.9	2.95	102

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D340/45

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
12.5m	gh							
14.3m	D.F.							
17.8m	pgh							
20.6m	ch							

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D340/45

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
13845	0	1	1	1	0.48			
13846	1	2	1	1	0.48			
13847	2	3	1	1	2.2			
13848	3	4	1	1	0.96			
13849	4	5	1	1	0.91			
13850	5	6	1	1	1.14			
13851	6	7	1	1	1.03			
13852	7	8	1	1	1.20			
13853	8	9	1	1	1.15			
13854	9	10	1	1	1.17			
13855	10	11	1	1	1.08			
13856	11	12	1	1	3.1			
13857	12	13	1	1	3.2			
13858	13	14	1	1	0.66			
13859	14	15	1	1	0.65			
13860	15	16	1	1	0.68			
13861	16	17	1	1	1.02			
13862	17	18	1	1	1.30			
13863	18	19	1	1	0.18			
13864	19	20	1	1	0.07			
13865	20	21	1	1	0.09			

SPECIFIC GRAVITY
 Depth (metres):
 Rock Type:
 S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D340/45

0 - 12.5 m

GARNET HORNFELS

Typical massive khaki brown, medium grained andradite garnet skarn that is well mineralised approx. 1.0% WO₃.

Several leached areas of pale, wuggy, c^l veined core occur at 0.4 m, 4.8 m, 6.5 m and 8.5 m.

The ground is good in the unaltered gh with 60 cm sticks. In the leached areas the core is recovered in 5-10 cm pieces.

12.5 - 14.3 m

DECLINE FAULT

A zone of badly broken and weak easily degradable core although with only slight loss of core.

Lithology in the fault is leached gh and altered gph with development of chlorite slickenslides on most surfaces.

Mineralisation does occur in the fault zone, but as scheelite in fragments of gh.

This unit contains the typical poorly recemented fault breccia of the Decline Fault.

14.3 - 17.8 m

GARNET PYROXENE HORNFELS

Similar lithology to the gph in the fault zone and generally similar to the Decline Fault although not quite so broken.

Most of the core has many fractures running through it and the majority is recovered as 1 - 5 cm fragments although core sticks of up to 40 cm are present.

The unit is poorly mineralised, about 0.2%.

17.8 - 20.6 m

MARBLE

Typical, fresh pale grey B Lens Marble, unmineralised. It appears to have a faulted contact with the gph as marked by a small piece of clay core with gravel sized fragments of the contact.

The marble is moderately competent, generally 25 cm core sticks, most partings appearing to be cavities and lined with crystals.

Bedding is @ 35° to L.C.A. @ 19 m

E.O.H. 20.6 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/44

PLANNING PROPOSER: R. E. S. Davies DEPTH: 15 m
LOCATION: W56 -260 m level
PURPOSE OF HOLE:
PROPOSED CO-ORDS: 220 346 E 563 956 N
INCLINATION: 0°
BEARING: 102° Grid Mag
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 101° 15' Grid Mag
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 347.06 E 563 956.51 N
R.L. OF COLLAR: -262.37
INCLINATION OF HOLE: 88° 23'
PICKED UP BY: J. Cook DATE: 8.10.81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS:

DRILLING DATE COMMENCED: 21.9.81 DATE TERMINATED: 30.9.81
DRILLER/CONTRACTOR: B. Gills/KIS
CASING: SIZE:
DEPTH:
CORE: SIZE: E17
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 12 m
REASON FOR TERMINATION: In Decline Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/44

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 0.73	0.73	0.5	68
0.73 - 1.5	0.77	0.7	91
1.5 - 3.0	1.5	1.5	100
3.0 - 5.0	2.0	2.0	100
5.0 - 7.0	2.0	2.0	100
7.0 - 8.9	1.9	1.2	63
8.9 - 11.0	2.1	1.8	86
11.0 - 12.0	1.0	0.9	90
EOH 12 m			

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D340/44

0.0 - 11.5 m GARNET HORNFELS

Medium grained, khaki brown, andradite skarn carrying high grade (1.0%) mineralisation. Core mostly good although E size.

Some lost core, cavities and leached appearance from about 8 m on suggest close proximity of Decline Fault and effects of it.

11.5 - 12.0 DECLINE FAULT

Typical breccia held in composted clay. Fragments (1 cm

EOH

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/43

PLANNING PROPOSER: R. E. S. Davies DEPTH:
LOCATION: W58 -260 m level Lower Wedge
PURPOSE OF HOLE: Test Decline Fault
PROPOSED CO-ORDS: 220 343 E 563 971 N
INCLINATION: 0°
BEARING: 102° °Grid °Mag
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 98° 56' °Grid °Mag
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 343.42 E 583 971.8 N
R.L. OF COLLAR: -263.0
INCLINATION OF HOLE: 89° 31'
PICKED UP BY: J. Cook DATE: 16/9/81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 3 - 15 m, 12 m @ 1.89% WO₃ Lower Wedge gh

DRILLING DATE COMMENCED: 15/9/81 DATE TERMINATED: 18/9/81
DRILLER/CONTRACTOR: B. Gills/K,I,S,
CASING: SIZE:
DEPTH:
CORE: SIZE:
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 15.1 m
REASON FOR TERMINATION: Into Decline Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/43

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 0.93	0.93	0.5	54
0.93 - 1.7	0.77	0.5	65
1.7 - 4.7	3.0	2.8	93
4.7 - 6.5	1.8	1.7	94
6.5 - 12.1	5.6	5.6	100
12.1 - 14.4	2.3	2.2	96
14.4 - 15.1	0.7	0.3	43
EOH 15.1 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/43

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13492	0	1	1.0	1.0	0.12			
93	1	2	"	"	0.12			
94	2	3	"	"	0.07			
95	3	4	"	"	2.2			
96	4	5	"	"	10.8			
97	5	6	"	"	1.66			
98	6	7	"	"	1.03			
99	7	8	"	"	1.00			
500	8	9	"	"	0.73			
01	9	10	"	"	1.74			
02	10	11	"	"	3.9			
03	11	12	"	"	1.03			
04	12	13	"	"	2.1			
05	13	14	"	"	0.54			
06	14	15	"	"	2.8			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/483

Summary

0.0 - 3.4 m Marble Marker
3.4 - 15.1 m Garnet Hornfels

0.0 - 3.4 m MARBLE MARKER

A rather broken unit, 5.0 - 15.0 cm core sticks, of biotite hornfels and marble. No mineralisation is present.

Bedding is @ 50° to LCA.

3.4 - 15.1 GARNET HORNFELS

Mostly a khaki brown, well mineralised andradite garnet skarn.

From 9.5m on the unit contain large amounts of sulphides, (dominantly pyrite, probably some pyrrhotite) and shows a fabric, possibly bedding @ 35° to LCA, marked by thin calcite bands.

The last 20 cm of the unit are broken into 5 cm fragments and represent the start of the Decline Fault.

Large discrete scheelite crystals occur from 9.5 - 14.9 m.

EOH 15.1 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/42

PLANNING PROPOSER: R. E. S. Davies DEPTH: 50 m
LOCATION: S10 -240 m level W58
PURPOSE OF HOLE: Test F/W of Lower Wedge Orebody
PROPOSED CO-ORDS: 220 349 E 563 970 N
INCLINATION: -80°
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 102° 22' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 347.9 E 563 971.1 N
R.L. OF COLLAR: -240.75
INCLINATION OF HOLE: 168° 35' (-78° 35')
PICKED UP BY: J. Cook DATE: 20/7/81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 0 - 40 m, 50 m @ 1.38% WO₃ C Lens Lower Wedge

DRILLING DATE COMMENCED: 9/7/81 DATE TERMINATED: 14/7/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 48.5 m
REASON FOR TERMINATION: Passed through Orebody
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: S/S
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/42

Surveyed method: Single shot
 Final depth: 48.5 m
 Casing depth: Nil

Depth surveyed to: 48.5 m
 Date surveyed: 14/7/81
 Surveyed by: R. Drake
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.			
0.0	102.37			-78.58			
25.0	102.00	S88° E	10° 30'	-79.50	24.51		
48.5	100.00	S90° E	10° 45'	-79.25	47.61		

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/42

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.7	1.7	1.7	100
1.7 - 3.2	1.5	1.5	100
3.2 - 5.0	1.8	1.8	100
5.0 - 6.5	1.5	1.5	100
6.5 - 9.5	3.0	3.0	100
9.5 - 12.5	3.0	3.0	100
12.5 - 15.5	3.0	3.0	100
15.5 - 18.5	3.0	3.0	100
18.5 - 21.5	3.0	3.0	100
21.5 - 24.5	3.0	3.0	100
24.5 - 27.5	3.0	3.0	100
27.5 - 30.5	3.0	3.0	100
30.5 - 32.5	0.5	0.4	80
32.5 - 34.0	1.5	1.5	100
34.0 - 37.0	3.0	3.0	100
37.0 - 40.0	3.0	3.0	100
40.0 - 41.3	1.3	1.2	92
41.3 - 43.7	2.4	2.4	100
43.7 - 45.8	2.1	2.0	95
45.8 - 48.5	2.7	2.7	100
EOH 48.5 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/42

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13335	0	1	1.0	1.0	0.80			
36	1	2	"	"	0.67			
37	2	3	"	"	2.30			
38	3	4	"	"	5.60			
39	4	5	"	"	4.30			
40	5	6	"	"	4.30			
41	6	7	"	"	2.10			
42	7	8	"	"	1.50			
43	8	9	"	"	1.50			
44	9	10	"	"	0.77			
45	10	11	"	"	0.69			
46	11	12	"	"	0.67			
47	12	13	"	"	0.80			
48	13	14	"	"	0.76			
49	14	15	"	"	0.46			
50	15	16	"	"	0.72			
51	16	17	"	"	0.79			
52	17	18	"	"	0.65			
53	18	19	"	"	0.72			
54	19	20	"	"	0.65			
55	20	21	"	"	0.75			
56	21	22	"	"	1.18			
57	22	23	"	"	2.3			
58	23	24	"	"	2.2			
59	24	25	"	"	1.8			
60	25	26	"	"	9,6			
61	26	27	"	"	1.20			
62	27	28	"	"	6.57			
63	28	29	"	"	0.24			
64	29	30	"	"	0.80			
65	30	31	"	"	0.18			
66	31	32	"	"	0.14			
67	32	33	"	"	2.0			
68	33	34	"	"	1.20			
69	34	35	"	"	2.6			
70	35	36	"	"	0.56			
71	36	37	"	"	0.69			
72	37	38	"	"	1.39			
73	38	39	"	"	2.50			
74	39	40	"	"	0.42			
75	40	41	"	"	0.16			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/42

Summary

0.0 - 27.6 m gh
27.6 - 32.7 m m/m
32.7 - 39.2 m gh (b)
39.2 - 45.8 m bfb
45.8 - 48.5 m L.V

0.0 - 27.6 m

GARNET HORNFELS

High grade khaki brown andradite skarn. Grade probably about 1.0% WO₃.

Small amethyst lined joint at 8.9 m.

Ground is good with sticks averaging 60 cm except for the last few metres where the ground is a little more broken.

Significant amount of sulphides are present locally especially at the end of the unit.

27.6 - 32.7

MARBLE MARKER

Essentially a barren zone of biotite hornfels/pyroxene hornfels and grossular garnet, although scattered scheelite is present. The ground has a number of fractures and in places is quite badly broken especially from 31.8 - 32.5 m.

Bedding is @ 35° to LCA 30.5 m

32.7 - 39.2

BANDED GARNET HORNFELS

Again a well mineralised (0.9% WO₃) fairly competent rock unit (40 cm sticks)

Bedding is @ 60° to LCA 36 m
" 50 38 m

39.2 - 45.8

BANDED FOOTWALL BEDS

Very broken unit of biotite hornfels with subsidiary pyroxene hornfels and garnet hornfels a 20 cm band from 43.3 m is mineralised. Although most of the partings are on bedding plans considerable fracturing is also present, average core sticks 10 - 30 cm.

Bedding is @ 35° to LCA @ 41 m
" 60 43.8 m
55 65 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/42

45.8 - 48.5 m LOWER VOLCANICS

Fine to medium grained grey, lower volcanics carrying white alteration spotting in its top contact and fine (1 mm) dark brown, secondary minerals throughout..

The ground is quite good, core sticks average 30 cm.

EOH 48.5 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/41

PLANNING PROPOSER: R. E. S. Davies DEPTH: 40 m
LOCATION: W60 -260 m level
PURPOSE OF HOLE: Test Decline Fault and B Lens
PROPOSED CO-ORDS: 220 344 E 563 987 N
INCLINATION: 0°
BEARING: 102° °Grid °Mag
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 103° 10' °Grid °Mag
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 342.66 E 563 985.52 N
R.L. OF COLLAR: -263.29
INCLINATION OF HOLE: 89° 44'
PICKED UP BY: J. Cook DATE: 3/6/81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 0 - 3 m, 3 m @ 1.33% WO₃ gh (b) Lower Wedge

DRILLING DATE COMMENCED: 1/6/81 DATE TERMINATED: 5/6/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 17,3 m
REASON FOR TERMINATION: In Fault Zone
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/41

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.8	2.8	2.8	100
2.8 - 6.0	3.2	3.2	100
6.0 - 8.8	2.8	2.8	100
8.8 - 10.2	1.4	1.4	100
10.2 - 11.1	0.9	0.9	100
11.1 - 12.2	1.1	0.8	73
12.2 - 13.5	1.3	1.1	85
13.5 - 14.3	0.8	0.5	63
14.3 - 15.8	1.5	1.4	93
15.8 - 16.2	0.4	0.3	75
16.2 - 17.3	1.1	1.0	91
EOH 17.3 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/41

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	0		
1.0 - 2.0	90		
2.0 - 3.0	95		
3.0 - 4.0	75		
4.0 - 5.0	0		
5.0 - 6.0	60		
6.0 - 7.0	80		
7.0 - 8.0	80		
8.0 - 9.0	90		
9.0 - 10.0	60		
10.0 - 11.0	30		
11.0 - 12.0	0		
12.0 - 13.0	20		
13.0 - 14.0	40		
14.0 - 15.0	0		
15.0 - 16.0	0		
16.0 - 17.0	0		

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/41

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13376	0	1	1,0	1,0	1,33			
77	1	2	"	"	2,0			
78	2	3	"	"	0,67			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/41

Summary

0.0 - 3.5 m gh (b)
3.5 - 4.9 m bh/ph
4.9 - 14.1 m gph ?B Lens
14.1 - 17.3 m F.Z.

0.0 - 3.5 m GARNET HORNFELS BANDED

Well mineralised, strong competent andradite skarn, fairly typical garnet hornfels (banded) with some pyroxene hornfels interbeds.

Bedding is @ 40° to LCA @ 3.0 m

This unit grades about 0.8% WO₃

3.5 - 4.9 BIOTITE HORNFELS/PYROXENE HORNFELS

A unit of pyroxene hornfels and biotite hornfels, all barren with a fault zone in the centre @ 4 m which is 20 cm long and consists of sharp angular, small (2 cm) pieces of pyroxene hornfels and biotite hornfels.

Most of the rest of the core is broken, with chlorite lined surfaces, these pieces are 3 - 10 cm long

Bedding is @ 60° to LCA @ 3.7 m
" " 25 " 4.4 m

4.9 - 14.1 GARNET PYROXENE HORNFELS

This erratically mineralised and locally broken rock unit appears at first glance to be B Lens. It has a gradational contact with the previous unit and consists of chaotically mixed garnet hornfels and pyroxene hornfels, overall grade is probably about 0.5%.

Initially the ground is competent, 30 m sticks to 10 m. Beyond that the core is very fractured, but alternates with longer (15 cm) pieces of core.

Broken pieces are from 5 cm down generally clear and angular with little clay.

At 12.2 m a 10 cm section of core that has a chaotic structure and contains fragments of a deep pink material (?feldspar). The fragments are small 0.5 - 1 cm and are sub-angular. Pyrite is locally present.

From 13 - 13.7 m is a leached but mineralised garnet pyroxene hornfels, which is quite competent.

Bedding is @ 40° to LCA @ 8.3 m
" " 0 " 9.0 m

Considerable marble is present throughout the unit, both interstitially and as veins.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/41.

14.1 - 17.3 FAULT ZONE

A wide unit, mostly consisting of small (1 cm) pieces of fault breccia biotite hornfels with occasional large pieces of core which is also biotite hornfels, up to 15 cm long. At 14.5 m a significant amount of clay is present, at 16.9 m 5 cm of thin garnet hornfels and pyroxene hornfels interbeds are present, at 50⁰ to LCA they have a sharp contact against angular biotite hornfels fragments.

EOH 17.3 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/40

PLANNING PROPOSER: R, E, S, Davies DEPTH: 25 m
LOCATION: W62 -260 m level
PURPOSE OF HOLE: Test base of Wedge Orebody
PROPOSED CO-ORDS: 220 350 E 564 000 N
INCLINATION: $\sim 66^{\circ}$
BEARING: 102° GRID MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: 220 348,8 E 563 999,4 N
SURVEYED BEARING: $101^{\circ} 08'$ GRID MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 348,8 E 563 999,4 N
R.L. OF COLLAR: -263,5
INCLINATION OF HOLE: $-64^{\circ} 47'$
PIGKED UP BY: M. Marchant DATE: 14/6/81

SUMMARY LOGGED BY: R. E.S Davies
RESULTS: 1 - 10 m, 9 m @ 0.62% WO_3 L Wedge

DRILLING DATE COMMENCED: 3/6/81 DATE TERMINATED: 5/6/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 18 m
REASON FOR TERMINATION: In Lower Volcanics
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/40

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.3	1.3	0.9	69
1.3 - 3.1	1.8	1.8	100
3.1 - 4.7	1.6	1.6	100
4.7 - 6.7	2.0	1.9	95
6.7 - 8.8	2.1	2.1	100
8.8 - 10.7	2.00	2.0 0	100
10.7 - 12.5	1.8	1.8	100
12.5 - 14.8	2.3	2.1	91
14.8 - 16.7	1.9	1.8	95
16.7 - 18.0	1.3	1.1	85
EOH 18.0 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/40

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13311	0	1	1.0	1.0	0.23			
12	1	2	"	"	1.46			
13	2	3	"	"	0.77			
14	3	4	"	"	0.67			
15	4	5	"	"	0.10			
16	5	6	"	"	0.75			
17	6	7	"	"	0.18			
18	7	8	"	"	0.77			
19	8	9	"	"	0.49			
20	9	10	"	"	0.42			
21	10	11	"	"	0.17			
22	11	12	"	"	0.24			
23	12	13	"	"	0.18			
24	13	14	"	"	0.10			
25	14	15	"	"	0.13			
26	15	16	"	"	2.5			
27	16	17	"	"	0.16			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/40

Summary

0.0 - 12.0 m gh (b)
12.0 - 16.4 m BFB
16.4 - 18.0 m LV

0.0 - 12.0 m BANDED GARNET HORNFELS

A well mineralised unit (0.9% WO_3) of garnet hornfels interbedded with biotite hornfels, pyroxene hornfels and marble. The ground is mostly good except for the biotite hornfels layers which tends to be broken into 2 - 5 cm pieces as at 4 - 5 m, 11.7 m, 9.6 m.

Bedding is @	43°	to LCA @	2.5 m
"	38°		6.0 m
"	40°		10.0 m

12.0 - 16.4 BANDED FOOTWALL BEDS

Thinly interbedded biotite hornfels and pyroxene hornfels mostly poor broken ground with core averaging 5 - 15 cm length.

A unit of well mineralised garnet hornfels occurs from 15 - 15.4 m

Bedding is @	37°	to LCA @	13 m
"	55°		15.5 m

16.4 - 18.0 LOWER VOLCANICS

A khaki green, fractured and chloritic rock mostly recovered in pieces < 7 cm.

EOH 18.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/39

PLANNING PROPOSER: R.E.S. Davies DEPTH: 30 m
LOCATION: W76 -220 m level strike drive
PURPOSE OF HOLE: Test Northern Boundary and Grassy Fault
PROPOSED CO-ORDS: 220 333 E 564 102 N
INCLINATION: 0
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 43° 56' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 336.2 E 564 104.3 N
R.L. OF COLLAR: -218.2
INCLINATION OF HOLE: 0°
PICKED UP BY: J. Cook DATE: 10/4/81

SUMMARY LOGGED BY: R.E.S. Davies
RESULTS: 0 - 9 m, 9 m @ 2.22% WO₃ gh Lower Wedge

DRILLING DATE COMMENCED: 6/4/81 DATE TERMINATED: 7/4/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 56TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 15 m
REASON FOR TERMINATION: Badly fractured quartzites
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/39 _____

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0 - 1	37		
1 - 2	95		
2 - 3	85		
3 - 4	80		
4 - 5	25		
5 - 6	92		
6 - 7	88		
7 - 8	32		
8 - 9	0		
9 - 10	0		
10 - 11	0		
11 - 12	0		
12 - 13	0		
13 - 14	0		
14 - 15	0		

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/39

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.1	2.1	1.7	81
2.1 - 5.8	3.7	3.7	100
5.8 - 7.3	1.5	1.5	100
7.3 - 8.8	1.5	1.5	100
8.8 - 10.1	1.3	1.2	92
10.1 - 12.2	2.1	1.8	86
12.2 - 12.7	0.5	0.4	80
12.7 - 13.3	0.6	0.5	83
13.3 - 14.0	0.7	0.5	71
14.0 - 15.0	1.0	0.8	80
EOH 15.0 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/39

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A Q C)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 9.4	U/C	5		chlor/cc			72	
9.4 - 15.0	N.B.F.	> 20		chlor/cc			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/39

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13106	0	1	1.0	1.0	0.93			
07	1	2	"	"	1.12			
08	2	3	"	"	1.12			
09	3	4	"	"	1.90			
10	4	5	"	"	2.18			
11	5	6	"	"	6.4			
12	6	7	"	"	6.0			
13	7	8	"	"	4.0			
14	8	9	"	"	0.72			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/39

Summary

0.0 - 9.4 m Upper C Lens
9.4 - 15.0 Quartzites

0.0 - 9.4 m

GARNET HORNFELS AND PYROXENE GARNET HORNFELS

This is a mixed unit of garnet hornfels and pyroxene garnet hornfels all mineralised to high grade, locally probably in excess of 2% WO_3 .

The unit consists of garnet hornfels to about 2.4 m, followed by pyroxene garnet hornfels to 4.8 m, the remainder is garnet hornfels. The core is competent except for partings and puggy material @ 4.6 to 4.7 m. The core becomes increasingly jointed and puggy from 7 m on.

9.4 - 15.0 m

NORTHERN BOUNDARY FAULT AND QUARTZITES

Initially (1 m) consisting of short pieces (5 cm) of quartzite with angular fractures. The rest of the core is totally fractured into fragments of 1-2 cm all angular quartzite, mostly with slickensides, occasionally with sulphides.

Some carbonate veining in the first metre.

EOH 15.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/38

PLANNING PROPOSER: R. E. S. Davies DEPTH: 35 m
LOCATION: W76 -220 m level strike drive
PURPOSE OF HOLE: Test decline fault
PROPOSED CO-ORDS: 220 333 E 564 102 N
INCLINATION: 0°
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 102° 05' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 336.5 E 564 102.7 N
R.L. OF COLLAR: -218.2
INCLINATION OF HOLE: 89° 58'
PICKED UP BY: J. Cook DATE: 10/4/81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 0 - 6 m, 6 m @ 0.96% WO₃ gh, Lower Wedge

DRILLING DATE COMMENCED: 3/4/81 DATE TERMINATED: 6/4/81
DRILLER/CONTRACTOR: S. Batchelor/A,D,D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 56TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 23 m
REASON FOR TERMINATION: In Grassy River Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/38

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.2	1.2	1.0	83
1.2 - 2.7	1.5	1.5	100
2.7 - 4.2	1.5	1.5	100
4.2 - 7.0	2.8	2.7	96
7.0 - 8.0	1.0	0.95	95
8.0 - 9.0	1.0	1.0	100
9.0 - 10.5	1.5	1.3	87
10.5 - 11.7	1.2	1.2	100
11.7 - 13.5	1.8	1.7	94
13.5 - 14.0	0.5	0.4	80
14.0 - 15.0	1.0	0.9	90
15.0 - 16.4	1.4	1.2	86
16.4 - 18.0	1.6	1.5	94
18.0 - 21.2	3.2	3.0	94
21.2 - 23.0	1.8	1.0	56
EOH 23.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/38

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	60		
1.0 - 2.0	70		
2.0 - 3.0	91		
3.0 - 4.0	97		
4.0 - 5.0	88		
5.0 - 6.0	50		
6.0 - 7.0	0		
7.0 - 8.0	15		
8.0 - 9.0	30		
9.0 - 10.0	0		
10.0 - 11.0	13		
11.0 - 12.0	0		
12.0 - 13.0	10		
13.0 - 14.0	32		
14.0 - 15.0	10		
15.0 - 16.0	20		
16.0 - 17.0	0		
17.0 - 18.0	0		
18.0 - 19.0	0		
19.0 - 20.0	17		
20.0 - 21.0	32		
21.0 - 22.0	33		
22.0 - 23.0	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/38

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 5.4 m	gh	3		cc/chlor			91	
5.4 - 6.2	pgh	15		"			0	
6.2 - 23.0	F.Z.	20		"			12	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/38

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13163	0	1	1.0	1.0	0.54			
64	1	2	"	"	0.76			
65	2	3	"	"	0.87			
66	3	4	"	"	1.9			
67	4	5	"	"	1.01			
68	5	6	"	"	0.69			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/38

Summary

0.0 - 5.4 m gh
5.4 - 6.2 pgh
6.2 - 23.0 F.Z.

0.0 - 5.4 m GARNET HORNFELS

5
Very well mineralised (approx. 1.5% WO₃) khaki brown, coarsely crystalline andradite garnet skarn. Good competent ground with few partings,

5.4 - 6.2 PYROXENE GARNET HORNFELS

A fractured and disturbed sliver of pyroxene garnet hornfels against the fault. It is only sparsely mineralised.

6.2 - 23.0 FAULT ZONE

This is a region of extremely broken core. Some is just angular biotite hornfels fragments other are loosely compacted fault breccia.

Initially this zone most represent the Decline Fault zone characterised by loosely compacted fault breccias and water bearing clay/chlorite laminations. This persist to about 10.5 m.

The section 10.5 - 17 m consists of angular biotite hornfels in fragments of 1 - 2 cm size in lengths of core up to 15 cm long All surfaces are slickensides,

From 17 - 19.5 m the core is very broken with few pieces larger than 2 cm.

From 19.5 - 22 the core is a highly fractured intermixed biotite hornfels/ pyroxene hornfels with a whole network of cracks and partings running through the core.

High core loss and a very weak incompetent clay/decomposed volcanics material occur from 22 m on and probably denote the Grassy River Fault.

EOH 23.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/37

PLANNING PROPOSER: R. E. S. Davies DEPTH: 35 m
LOCATION: W74 -220 m level Strike drive
PURPOSE OF HOLE: Test Decline Fault, B Lens and Grassy River Fault
PROPOSED CO-ORDS: 220 337 E 564 102 N
INCLINATION: 0°
BEARING: 102° Grid Mag
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 101° 21' Grid Mag
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 564 089.3 N 220 332.9 E
R.L. OF COLLAR: -218.7
INCLINATION OF HOLE: 90° 40'
PICKED UP BY: J. Cook DATE: 10/4/81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 6 - 9 m, 3 m @ 0.5% WO₃ pgh (min)
22 - 30m, 8 m @ 0.42% WO₃ B Lens

DRILLING DATE COMMENCED: 10/3/81 DATE TERMINATED: 14/4/81
DRILLER/CONTRACTOR: S. Batchelor/A,D,D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 56TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 31.5 m
REASON FOR TERMINATION: In Grassy Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/37

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.3	1.3	1.1	1
1.3 - 2.8	1.5	1.5	100
2.8 - 4.3	1.5	1.5	100
4.3 - 5.8	1.5	1.5	100
5.8 - 7.3	1.5	1.5	100
7.3 - 8.2	0.9	0.9	100
8.2 - 9.0	0.8	0.8	100
9.0 - 10.2	1.2	1.2	100
10.2 - 10.6	0.4	0.3	75
10.6 - 11.4	0.8	0.5	63
11.4 - 13.4	2.0	1.8	90
13.4 - 14.6	1.2	1.1	92
14.6 - 15.6	1.0	0.9	90
15.6 - 16.5	0.9	0.9	100
16.5 - 19.2	2.7	2.6	96
19.2 - 20.0	0.8	0.6	75
20.0 - 20.7	0.7	0.4	57
20.7 - 21.2	0.5	0.4	80
21.2 - 22.5	1.3	1.1	85
22.5 - 24.0	1.5	1.5	100
24.0 - 25.5	1.5	1.5	100
25.5 - 27.0	1.5	1.5	100
27.0 - 28.0	1.0	1.0	100
28.0 - 30.0	2.0	1.9	95
30.0 - 31.5	1.5	0.8	53
EOH 31.5 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No.

D 340/37

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	40		
1.0 - 2.0	54		
2.0 - 3.0	71		
3.0 - 4.0	95		
4.0 - 5.0	80		
5.0 - 6.0	54		
6.0 - 7.0	92		
7.0 - 8.0	70		
8.0 - 9.0	60		
9.0 - 10.0	67		
10.0 - 11.0	0		
11.0 - 12.0	0		
12.0 - 13.0	0		
13.0 - 14.0	26		
14.0 - 15.0	31		
15.0 - 16.0	74		
16.0 - 17.0	40		
17.0 - 18.0	50		
18.0 - 19.0	57		
19.0 - 20.0	21		
20.0 - 21.0	0		
21.0 - 22.0	65		
22.0 - 23.0	73		
23.0 - 24.0	80		
24.0 - 25.0	81		
25.0 - 26.0	71		
26.0 - 27.0	22		
27.0 - 28.0	51		
28.0 - 29.0	81		
29.0 - 30.0	80		
30.0 - 31.0	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/37

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A O C)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 9.7	Pgh	4		cc/chlor			59	
9.7 - 12.3	D.F.	20		"			0	
12.3 - 23.0	bph	20- 20		"			40	
23.0 - 30.0	gph	14		"			63	
30.0 - 31.5	G.R.F.	20		"			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/37

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13115	0	1	1.0	1.0	0.31			
16	1	2	"	"	0.20			
17	2	3	"	"	0.16			
18	3	4	"	"	0.10			
19	4	5	"	"	0.10			
20	5	6	"	"	0.13			
21	6	7	"	"	0.36			
22	7	8	"	"	0.57			
23	8	9	"	"	0.57			
24	22	23	"	"	0.14			
25	23	24	"	"	0.67			
26	24	25	"	"	0.21			
27	25	26	"	"	0.49			
28	26	27	"	"	0.11			
29	27	28	"	"	0.09			
30	28	29	"	"	1.04			
31	29	30	"	"	0.64			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/37

Summary

0.0 - 9.7 m Pgh (m)
9.7 - 12.3 D.F.
12.3 - 23.0 bph
23.0 - 30.0 gph
30.0 - 31.5 G.R.F.

0.0 - 9.7 m

PYROXENE GARNET HORNFELS (MINERALISED)

Poorly mineralised pyroxene garnet hornfels, probably sub grade, it is pyroxene hornfels rich with grossular and a few, small carbonate clasts.

It is fairly well fractured, core length are generally 20 - 30 cm long.

9.7 - 12.3

DECLINE FAULT

Badly fractured angular biotite hornfels pieces 1 - 5 cm big, almost always with slickenslides.

From about 11.8 to 12.3 m the core is a compacted breccia of biotite hornfels/clay/chlorite veined by carbonate.

12.3 - 23.0

BIOTITE PYROXENE HORNFELS

Similar to the Decline Fault Zone but core length are longer, up to 30 cm, but many small (1 - 5 cm) angular slickenslides pieces in between the larger sections of core.

The lithology is a bedded biotite hornfels/pyroxene hornfels with biotite hornfels pyroxene hornfels.

A severely broken area occurs @ 18.8 - 21.4 m consisting mostly of small (1 cm) sub angular fragments.

Bedding is @	60°	to LCA @	13.5 m
"	50		16.8 m
"	80		18.5 m
"	60		22.5 m

23.0 - 30.0

B LENS GARNET PYROXENE HORNFELS

Rather erratically mineralised section with a virtually barren centre section of unreplaced marble from 26.0 - 28.0 m.

This section is badly cut by solution cavities and is not good ground.

The remainder is half replaced B Lens, garnet pyroxene hornfels and is fairly competent and mineralised to about 0.5%. Overall this unit may just be grade.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/37

30.0 - 31.5

GRASSY RIVER FAULT

Very poor recovery, recovered core is a greenish clay with semi solid fragments of decomposed ?volcanics

EOH 31.5 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/36

PLANNING PROPOSER: R.E.S. Davies DEPTH: 40 m
LOCATION: W64 -240 m level
PURPOSE OF HOLE: Define D.F.Z. B Lens Decline
PROPOSED CO-ORDS: 220 340 E 564 016 N
INCLINATION: 0°
BEARING: 102° Grid °Mag
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 102° 50' °Grid °Mag
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 346.0 E 564 013.5 N
R.L. OF COLLAR: -236.1
INCLINATION OF HOLE: +30'
PICKED UP BY: R. Howman DATE: 3/3/81

SUMMARY LOGGED BY: R.E.S. Davies
RESULTS: 25 - 28 m, 3 m @ 1.33% WO₃ B lens Decline

DRILLING DATE COMMENCED: 20/2/81 DATE TERMINATED: 4/3/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 56TT 46TT
DEPTH: 40
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 33 m
REASON FOR TERMINATION: In Fault Zone
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: S/S
WATER: Inflow in section 18-31 m,
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/36

Surveyed method: Single Shot
 Final depth: 33.0 m
 Casing depth: Nil

Depth surveyed to: 33.0 m
 Date surveyed: 4/3/81
 Surveyed by: R. Drake
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.			
0.0	102° 50'			89° 30'	0.00		
33.0	107°	S 83° E	90° 30'	89° 30'	0.29		

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/36

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.0	1.0	0.9	98
1.0 - 4.0	3.0	3.0	100
4.0 - 4.7	0.7	0.5	71
4.7 - 5.0	0.3	0.1	33
5.0 - 6.0	1.0	0.6	60
6.0 - 6.9	0.9	0.4	44
6.9 - 7.7	0.8	0.4	50
7.7 - 8.4	0.7	0.5	71
8.4 - 9.0	0.6	0.4	66
9.0 - 12.0	3.0	2.5	83
12.0 - 15.0	3.0	2.9	97
15.0 - 18.0	3.0	3.0	100
18.0 - 21.0	3.0	3.0	100
21.0 - 24.0	3.0	3.0	100
24.0 - 27.0	3.0	3.0	100
27.0 - 30.0	3.0	3.0	100
30.0 - 32.0	2.0	1.9	95
32.0 - 33.0	1.0	0.4	40
EOH 33.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/36

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0 - 1	51		
1 - 2	90		
2 - 3	66		
3 - 4	77		
4 - 5	0		
5 - 6	11		
6 - 7	11		
7 - 8	13		
8 - 9	16		
9 - 10	16		
10 - 11	12		
11 - 12	34		
12 - 13	32		
13 - 14	86		
14 - 15	82		
15 - 16	78		
16 - 17	100		
17 - 18	62		
18 - 19	100		
19 - 20	100		
20 - 21	85		
21 - 22	80		
22 - 23	100		
23 - 24	81		
24 - 25	88		
25 - 26	56		
26 - 27	87		
27 - 28	55		
28 - 29	36		
29 - 30	90		
30 - 31	61		
31 - 32	0		
32 - 33	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/36

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A O C)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 4.0	pgh (m)	90		chlor			56	
4.0 - 6.5	D.F.Z.	> 20					10	
6.5 - 12.8	bph	15-20		chlor/clay			13	
12.8 - 14.4	gph	4		cc/chlor			81	
14.4 - 18.0	ch	6		cc/ph			67	
18.0 - 31.0	gph	4-8		cc			72	
31.0 - 33.0	ph	>-20		chlor			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/36

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 103019	0	1	1.0	1.0	0.34			
20	1	2	"	"	0.42			
21	2	3	"	"	0.22			
22	3	4	"	"	0.13			
23	12	13	"	"	0.14			
24	13	14	"	"	0.45			
25	14	15	"	"	0.21			
26	17	18	"	"	0.13			
17	18	19	"	"	0.18			
28	19	20	"	"	0.15			
29	20	21	"	"	0.20			
30	21	22	"	"	0.52			
31	22	23	"	"	0.19			
32	23	24	"	"	0.28			
33	24	25	"	"	0.24			
34	25	26	"	"	0.88			
35	26	27	"	"	1.6			
36	27	28	"	"	1.5			
37	28	29	"	"	0.21			
38	29	30	"	"	0.16			
39	30	31	"	"	0.82			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/36

Summary

0.0 - 4.0 m	Pyroxene garnet hornfels (mineralised)
4.0 - 6.5	Decline Fault
6.5 - 12.8	Biotite pyroxene hornfels ▲
12.8 - 14.4	Garnet pyroxene hornfels
14.4 - 18.0	Marble
18.0 - 31.0	Garnet pyroxene hornfels
31.0 - 33.0	Pyroxene hornfels ▲

0.0 - 4.0 m

PYROXENE GARNET HORNFELS (MINERALISED)

Dark green podded pyroxene garnet hornfels, carrying low grade scheelite (0.4%) for the first 2 m. The last 2 m are virtually barren, most of the scheelite in this unit is carried in rare, discrete crystals. The rock has many partings, core sticks rarely exceed 20 cm. No faulting is evident although a rehealed breccia texture is visible adjacent to the Decline Fault.

4.0 - 6.5

DECLINE FAULT

Abrupt contact with the pyroxene garnet hornfels, but a gradational contact to the other side. The lithology of the fragments is biotite hornfels or biotite pyroxene hornfels, these are generally faced with chlorite slickenslides and are 2 - 5 cm diameter. At 5 m and at 6 m small concentrations of subrounded fragments of biotite hornfels 0.5 - 1 cm diameter. From 4.3 - 4.7 m is the centre of the fault, a clay bound zone of small (0.2 cm) angular gravel fragments.

6.5 - 12.8

SHEARED BIOTITE PYROXENE HORNFELS

This unit appears to be contiguous with the Decline Fault, the lithology is much the same but thin bands of pyroxene hornfels are more evident in this unit. The core consists of short lengths of biotite pyroxene hornfels (2 - 12 cm) interspersed with angular fragments of biotite hornfels carrying chlorite slickenslides.

Coating of clay are also locally present.

Bedding is @	60°	to LCA @	8.6 m
"	65°		10.5 m
"	52°		11.5 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/36

12.8 - 14.4 m

GARNET PYROXENE HORNFELS

This unit merges into the preceding unit indicating that this is B Lens footwall. It is moderately well mineralised (0.5% WO_3) and consists of impure pyroxene hornfels and garnet hornfels.

14.4 - 18.0

MARBLE

Mostly a clean fresh grey unmineralised marble. Some fractures are heavily carbonate lined and some pyroxene alteration is present.

18.0 - 31.0

GARNET PYROXENE HORNFELS

This unit is a mixture of pure pyroxene hornfels, intermixed pyroxene hornfels and garnet hornfels and some areas of carbonate infilled pyroxene hornfels breccias. Mineralisation is variable probably averaging 0.6% WO_3 overall.

The driller reported water inflow from this unit. A zone of clay coated angular fragments @ 28 - 28.4 m probably indicates a fault.

Bedding is not clear. The last 2 m are mostly pyroxene hornfels with a 10 cm thick biotite hornfels bed @ 30.8 m.

31.0 - 33.0

SHEARED PYROXENE HORNFELS

This unit, essentially the same lithology as the last 2 m of the previous unit, is entirely fragmented into angular pieces 0.5 - 2 cm long.

The fragments are generally clean, slickensides are only seen in the last 1 m of core but are still not dominant.

This unit is taken to be B Lens hangingwall.

EOH 33.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/35

PLANNING PROPOSER: R.E.S. Davies DEPTH: 20 m
LOCATION: W56 -220 m level strike drive
PURPOSE OF HOLE: Test Decline Fault
PROPOSED CO-ORDS: 220 333 E 563 960 N
INCLINATION: 0
BEARING: 102° ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: 220 333.3 E 563 961.1 N
SURVEYED BEARING: 98° 40' ° GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: E N
R.L. OF COLLAR: -216.9
INCLINATION OF HOLE: 89° 23' (+0° 37')
PICKED UP BY: J. Cook DATE: 10/4/81

SUMMARY LOGGED BY: R.E.S. Davies
RESULTS: 1 - 7 m, 6 m @ 1.61% WO₃ pgh Lower Wedge

DRILLING DATE COMMENCED: 7/4/81 DATE TERMINATED: 10/5/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 56TT 46TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 27 m
REASON FOR TERMINATION: Passed through Fault Zone
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/35

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 0.62	0.6	0.2	33
0.62 - 2.7	1.9	1.9	100
2.7 - 4.2	1.5	1.5	100
4.2 - 5.7	1.5	1.5	100
5.7 - 8.0	2.3	1.7	74
8.0 - 9.7	1.7	1.0	59
9.1 - 10.0	0.3	0.1	33
10.0 - 10.5	0.5	0.4	80
10.5 - 11.2	0.7	0.5	71
11.2 - 11.7	0.5	0.2	40
11.7 - 12.4	0.7	0.4	57
12.4 - 12.9	0.5	0.4	80
12.9 - 13.5	0.6	0.5	83
13.5 - 14.3	0.8	0.6	75
14.3 - 15.7	1.4	1.2	86
15.7 - 18.0	2.3	1.5	65
18.0 - 18.5	0.5	0.4	80
18.5 - 19.2	0.7	0.5	71
19.2 - 20.7	1.5	1.5	100
20.7 - 21.5	0.8	0.7	88
21.5 - 22.2	0.7	0.7	100
22.2 - 23.0	0.8	0.8	100
23.0 - 24.5	1.5	1.5	100
24.5 - 26.0	1.5	1.5	100
26.0 - 27.0	1.0	1.0	100
EOH 27.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/35

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0 - 1	40		
1 - 2	88		
2 - 3	88		
3 - 4	73		
4 - 5	90		
5 - 6	50		
6 - 7	0		
7 - 8	0		
8 - 9	0		
9 - 10	0		
10 - 11	20		
11 - 12	13		
12 - 13	0		
13 - 14	16		
14 - 15	15		
15 - 16	17		
16 - 17	0		
17 - 18	0		
18 - 19	15		
19 - 20	60		
20 - 21	30		
21 - 22	13		
22 - 23	83		
23 - 24	55		
24 - 25	44		
25 - 26	50		
26 - 27	55		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/35

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T/ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 6.1	pgh (m)	3		cc/chlor			74	4.5
6.1 - 18.0	F.Z.	> 20		chlor			7	0.8
18.0 - 27.0	bh	2->20		chlor			37	3.3

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/35

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13099	0	1	1.0	1.0	0.27			
100	1	2	"	"	1.36			
01	2	3	"	"	0.95			
02	3	4	"	"	0.40			
03	4	5	"	"	1.80			
04	5	6	"	"	2.49			
05	6	7	"	"	2.65			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/35

Summary

0.0 - 6.1 m pgh (m)
6.1 - 18.0 Fault Zone
18.0 - 27.0 bh

0.0 - 6.1 m PYROXENE GARNET HORNFELS (MINERALISED)

Characteristic erratic mineralisation, mostly large (1 cm) discrete scheelite crystals, overall grade probably about 0.8% WO₃. Scheelite veining is also present, particularly around 1 - 3 m and are @ 30 - 40 to LCA.

The ground is competent with few fractures.

6.1 - 18.0 FAULT ZONE

This is a region of extremely broken and sheared core, the rest is biotite pyroxene hornfels. where the core is large enough fabric can be seen in the biotite pyroxene hornfels @ 50° to LCA.

Localised carbonate veining is present @ 7.5 m, this may represent part of B lens.

Although the initial part of this unit is probably the Decline Fault, it is likely that the rest is another fault running sub-parallel to the hole and lying east of the Decline Fault.

A large percentage of the core was recovered as highly sheared, mushy, slickenslide fragments of chlorite generally 1 cm.

At 16 - 18 m, they are compacted to make a fault breccia.

18.0 - 27.0 BIOTITE HORNFELS

The ground improves from 18 m, although local patches of highly fragmented and sheared biotite hornfels occur @ 18.5 m, 20 - 22 m and 25.5 to 26.0 m.

The remainder is biotite hornfels with subsidiary pyroxene hornfels. Partings lined with chlorite occur every 20 - 30 cm.

A biotite hornfels/pyroxene clastic fabric (1 cm fragments) occurs from 21 - 26 m running @ 40° to LCA.

EOH 27.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/34

PLANNING PROPOSER: R.E.S. Davies DEPTH: 30 m
LOCATION: W58 -220 m level
PURPOSE OF HOLE: Test Decline Fault and B Lens
PROPOSED CO-ORDS: 220 334 E 563 974 N
INCLINATION: 0°
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 106° 03' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 335.2 E 563 972.9 N
R.L. OF COLLAR: -217.2
INCLINATION OF HOLE: +2° 19'
PICKED UP BY: R. Howman DATE: 6/4/81

SUMMARY LOGGED BY: R.E.S. Davies
RESULTS: 0 - 6 m, 6 m @ 1.32% WO₃ Pgh Lower Wedge
14 - 16 m, 2 m @ 0.95% WO₃ B Lens Decline

DRILLING DATE COMMENCED: 7/3/81 DATE TERMINATED: 11/3/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 56TT
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 19.0 m
REASON FOR TERMINATION: In fault zone
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/34

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.8 m	3.8	3.7	97
3.8 - 6.5	2.7	2.6	96
6.5 - 8.4	1.9	1.8	95
8.4 - 9.5	1.1	0.6	55
9.5 - 12.0	2.5	2.0	80
12.0 - 15.0	3.0	3.0	100
15.0 - 16.0	1.0	0.9	90
16.0 - 16.7	0.7	0.5	71
16.7 - 18.0	1.3	0.8	62
18.0 - 19.0	1.0	0.4	40
EOH 19.0 m			

GEOLOGY - KING ISLAND SCHERLITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/34

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0 - 1	42		
1 - 2	95		
2 - 3	97		
3 - 4	70		
4 - 5	54		
5 - 6	48		
6 - 7	64		
7 - 8	40		
8 - 9	0		
9 - 10	0		
10 - 11	0		
11 - 12	52		
12 - 13	94		
13 - 14	86		
14 - 15	65		
15 - 16	89		
16 - 17	0		
17 - 18	0		
18 - 19	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/34

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 7.48 m	pgh (m)	2-12		cc/scheelite			0.80	
7.48 - 8.4	D.F.	>20		Rock floor			0	
8.4 - 15.5	B Lens	4>20		cc			45	
15.5 - 19.0	F.Z.	>20		Rock floor			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/34

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13053	0	1	1.0	1.0	3.4			
54	1	2	"	"	0.99			
55	2	3	"	"	0.70			
56	3	4	"	"	1.04			
57	4	5	"	"	1.04			
58	5	6	"	"	0.73			
59	6	7	"	"	0.18			
60	14	15	"	"	0.90			
61	15	16	"	"	0.99			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/34

Summary

0.0 - 7.48 m Pyroxene garnet hornfels (mineralised)
7.48 - 8.4 Decline Fault
8.4 - 15.4 B Lens
15.5 - 19.0 Fault Zone

0.0 - 7.48 m

PYROXENE GARNET HORNFELS (MINERALISED)

A pale khaki brown rock, not well podded, but locally showing rehealed breccia textures (1 cm clasts). It is moderately well mineralised throughout (0.6% WO_3). A scheelite vein occurs @ 7.3 m @ 50° to LCA.

Many carbonate veins occur in the first 3 m of core, these are not mineralised and are @ 40° to LCA spaced 2 - 5 cm apart.

The area of rehealed breccia is from 4 - 6 m, other fractures occur @ 4 - 5 and 5.5 m. Water solution cavities occur @ 4.4 m, and a large joint is present @ 3.1 m.

7.48 - 8.4

DECLINE FAULT

This narrow Fault Zone is initially composed of loosely compacted muddy/sand/gravel. In the central part @ 8 m the core is unconsolidated material as described above. The last 25 cm is a weathered looking friable biotite hornfels in a semi-compact mud/sand matrix.

8.4 - 15.5

B LENS

From 8.4 - 14.3 m this unit is marble, beyond that it is a mineralised, black garnet pyroxene hornfels carrying carbonate veining. The first 3 m of marble is highly fragmented and poorly recemented by carbonate. Pieces are generally 5 cm wide and angular. The remainder of the marble is competent but shows evidence of water solution and later carbonate deposition.

Bedding is @ 55° to LCA @ 14.4 m

There is gradational contact from marble to garnet pyroxene hornfels, broken ground occurs @ 14.8 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/34

15.5 - 19.0 m

FAULT ZONE

This unit is totally brecciated, most fragments are about 2 cm diameter and angular, the lithology is biotite hornfels with extensive chlorite slickenslides. Occasional larger pieces up to 8 cm are present. At 16.5 m a loosely compacted breccia occurs in a piece of core 9 cm long. Angular biotite hornfels fragments 1 cm are bound in a chlorite matrix.

A significant amount of blue fluorescing scheelite is present in this piece of core and other, similar crystals occur between 15.5 and 16.5 m.

EOH 19.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/33

PLANNING PROPOSER: R. E. S. Davies DEPTH: 40 m
LOCATION: W62 -260 m level
PURPOSE OF HOLE: Test Decline Fault B Lens and Grassy River Fault
PROPOSED CO-ORDS: 220 330 E 564 002 N
INCLINATION: 0°
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 100° 45' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 346.1 E 563 999.7 N
R.L. OF COLLAR: -261.9
INCLINATION OF HOLE: +1° 07'
PICKED UP BY: R. Howman DATE: 16/3/81

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 0 - 9 m, 9 m @ 0.96% WO₃ gh (b) L. Wedge

DRILLING DATE COMMENCED: 12.3.81 DATE TERMINATED: 16.3.81
DRILLER/CONTRACTOR: S. Batchelor/A,D,D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 56TT 46TT
DEPTH: 10 13
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 13.0 m
REASON FOR TERMINATION: Abandoned in Decline Fault due to lock up of
rods when water applied
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Nil
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/33

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.6	3.6	3.5	97
3.6 - 4.5	0.9	0.9	100
4.5 - 8.0	3.5	3.5	100
8.0 - 9.5	1.5	1.5	100
9.5 - 10.0	0.5	0.4	80
10.0 - 11.5	1.5	1.1	73
11.5 - 12.3	0.8	0.4	50
12.3 - 13.0	0.7	0.5	71
EOH 13.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/33

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	13		
1.0 - 2.0	70		
2.0 - 3.0	89		
3.0 - 4.0	70		
4.0 - 5.0	93		
5.0 - 6.0	70		
6.0 - 7.0	57		
7.0 - 8.0	76		
8.0 - 9.0	54		
9.0 - 10.0	0		
10.0 - 11.0	0		
11.0 - 12.0	28		
12.0 - 13.0	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/33

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A O C)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 9.0	gh (b)	7		cc			66	
9.0 - 13.0	D.F.	20		chlor/rock floor			7	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/33

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13062	0	1	1.0	1.0	1.06			
63	1	2	"	"	1.44			
64	2	3	"	"	1.16			
65	3	4	"	"	0.79			
66	4	5	"	"	0.80			
67	5	6	"	"	1.16			
68	6	7	"	"	0.72			
69	7	8	"	"	1.10			
70	8	9	"	"	0.45			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/33

Summary

0.0 - 9.0 m gh (b)
9.0 - 13.0 m D.F.

0.0 - 9.0 m

BANDED GARNET HORNFELS

Well mineralised poorly banded garnet hornfels. The whole unit consists of garnet hornfels with no interbedded waste rock.

Only small local areas of pyroxene hornfels are present. Overall grade is probably 1% WO₃.

Partings are fairly frequent but do not appear to be closely connected with bedding.

Bedding is @ 26° to LCA @ 3.8 m
" " 57 " 6.7 m

Banding in the garnet hornfels is definitely present up to 4 m although the barren pyroxene hornfels beds are rare. Beyond 4 m no distinct banding can be discerned but disturbed patches of pyroxene hornfels are present of 10 - 20 cm diameter.

The lack of large euhedral andradite garnets, characteristic of upper C Lens and the presence of the pyroxene hornfels patches suggested that the last 5 m of the unit is still banded garnet hornfels. It is unusual in being almost totally replaced.

9.0 - 13.0 m

DECLINE FAULT

Fault contact is @ 60° to LCA at the end of the garnet hornfels (banded). The initial 10 cm has a thick muddy consistency which passes in to the usual small (1 cm) fragments of angular biotite hornfels locally recovered in the chlorite/rock floor fault matrix. This persists to about 11 m after which is about 30 cm of competent biotite hornfels followed by more gravel. The last metre is cleanly fragmented biotite hornfels with virtually no clay in rock floor fragments although most surfaces carry chlorite slickensides.

EOH 13.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/32

PLANNING PROPOSER: R. H. Davies DEPTH: 60 m
LOCATION: W60 on -220 m SID
PURPOSE OF HOLE: Define D.F.Z. and B Lens
PROPOSED CO-ORDS: 220 328 E 563 990 N
INCLINATION: 0°
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 100° 15' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 331.2 E 563 988.3 N
R.L. OF COLLAR: -218.1
INCLINATION OF HOLE: +0° 16'
PICKED UP BY: J. Cook DATE: 19/1/81

SUMMARY LOGGED BY: R. E. Sandell Davies
RESULTS: 1 - 14 m, 13 m @ 0.80% WO₃ L Wedge Pgh
21 - 26 m, 5 m @ 1.19% WO₃ B Lens Decline

DRILLING DATE COMMENCED: 16/1/81 DATE TERMINATED: 19/1/81
DRILLER/CONTRACTOR: S. Batchelor/ADD
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: 34.6
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 34.6 m
REASON FOR TERMINATION: Passed through B Lens
CONDITION OF HOLE ON COMPLETION: Good
CASING:
CEMENTED:
BORE HOLE SURVEY: Singleshot
WATER: Water lost at 10.7 m
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D340/32

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0 m	25		
1.0 - 2.0	75		
2.0 - 3.0	45		
3.0 - 4.0	50		
4.0 - 5.0	100		
5.0 - 6.0	70		
6.0 - 7.0	100		
7.0 - 8.0	100		
8.0 - 9.0	80		
9.0 - 10.0	80		
10.0 - 11.0	50		
11.0 - 12.0	60		
12.0 - 13.0	90		
13.0 - 14.0	50		
14.0 - 15.0	20		
15.0 - 16.0	10		
16.0 - 17.0	50		
17.0 - 18.0	80		
18.0 - 19.0	70		
19.0 - 20.0	70		
20.0 - 21.0	80		
21.0 - 22.0	90		
22.0 - 23.0	90		
23.0 - 24.0	40		
24.0 - 25.0	80		
25.0 - 26.0	80		
26.0 - 27.0	50		
27.0 - 28.0	40		
28.0 - 29.0	0		
29.0 - 30.0	10		
30.0 - 31.0	0		
31.0 - 32.0	0		
32.0 - 33.0	0		
33.0 - 34.0	0		
EOH 34.0 m			

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/32

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 - 14.50	2.8	2.7	96
14.50 - 15.30	0.8	0.7	88
15.30 - 17.70	2.4	2.3	96
17.70 - 20.70	3.0	3.0	100
20.70 - 23.50	2.8	2.8	100
23.50 - 26.50	3.0	3.0	100
26.50 - 29.40	2.9	2.6	90
29.40 - 30.00	0.6	0.4	16
30.00 - 31.00	1.0	0.7	70
31.00 - 31.60	0.6	0.4	66
31.60 - 33.50	1.9	1.3	68
33.50 - 34.00	0.5	0.2	40
34.00 - 34.60	0.6	0.2	33
EOH 34.6 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/32

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A O C)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 14.0	pgh	3.8		cc			68	
14.0 - 15.4	DFZ	> 20		cc/chlor			0	
15.4 - 21.0	ch	6		cc			78	
21.0 - 26.9	gph	4		cc/chlor			83	
26.9 - 31.5	bh	> 20		cc/chlor			4	
31.5 - 34.6	v (Δ)	> 20		cc/chlor			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/32

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12963	0	1	1.0	1.0	0.06			
64	1	2	"	"	0.89			
65	2	3	"	"	0.49			
66	3	4	"	"	1.70			
67	4	5	"	"	0.40			
68	5	6	"	"	0.34			
69	6	7	"	"	0.53			
70	7	8	"	"	0.65			
71	8	9	"	"	0.33			
72	9	10	"	"	0.14			
73	10	11	"	"	2.5			
74	11	12	"	"	0.71			
75	12	13	"	"	0.83			
76	13	14	"	"	0.86			
77	20	21	"	"	0.23			
78	21	22	"	"	0.97			
79	22	23	"	"	1.15			
80	23	24	"	"	1.07			
81	24	25	"	"	1.07			
82	25	26	"	"	1.70			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/32

0.0 - 14.0 m Pyroxene Garnet Hornfels
14.0 - 15.4 Decline Fault Zone
15.4 - 21.0 Marble
21.0 - 26.9 Garnet Pyroxene Hornfels
26.9 - 31.5 Biotite Hornfels (Breccia)
31.5 - 34.6 Volcanics (Breccia)

0.0 - 14.0 m

PYROXENE GARNET HORNFELS

Moderately jointed pyroxene garnet hornfels carrying fair to medium grade mineralisation probably averaging about 0.5% over the whole length.

Drilling water was lost at 10.7 m and the core show a carbonate lined cavity at this point.

14.0 - 15.4

DECLINE FAULT ZONE

The initial 20 cm consists of small fragments 2-5 cm of biotite hornfels, the remainder being a fault breccia of biotite hornfels and pyroxene which in some places is still cemented together.

But in others has deteriorated to a soft, gravel sized fault rubble.

The soft clayey "heart" of the Decline Fault Zone normally seen is not present here.

15.4 - 21.0

MARBLE

Mostly a fresh pale grey competent marble showing poorly defined bedding. The first 1 m contain more pyroxene hornfels both as discrete beds and also as alteration within the marble.

Thus bedding is more pronounced in this section.

Bedding is at	55°	to	LCA	@	15.5 m
"	60°		"		16.1 m
"	60°		"		18.5 m

21.0 - 26.9

GARNET PYROXENE HORNFELS

A uniform unit of replaced marble now consisting mostly of garnet hornfels with minor pyroxene hornfel. It is uniformly mineralised, probably assaying about 0.6%. The core quality is good, and is only cut by a few joints and carbonate veins.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/32

26.9 - 31.5

SHEARED BIOTITE HORNFELS

From 26.9 to about 28.4 the core is recemented biotite hornfels fault breccia, initially heavily veined by carbonate. Clast size varies from 3 - 0.2 mm.

Beyond 28.4 m the core was recovered as individual fragments of biotite hornfels with roughly the same size distribution.

31.5 - 34.6

SHEARED VOLCANICS

This rock has a bluey green colour to it and has a more angular clast shape than the biotite hornfels but a similar size distribution.

The cement is predominantly carbonate, but significant chlorite is also present.

EOH 34.6 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/31

PLANNING PROPOSER: R.H. Davies DEPTH: 45 m
LOCATION: W60 -240 m level
PURPOSE OF HOLE: Test Decline Fault and B lens
PROPOSED CO-ORDS: 220 340 E 563 987 N
INCLINATION: 0
BEARING: 102° ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 103° 00' ° GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 339.7 E 563 986.9 N
R.L. OF COLLAR: -239.1
INCLINATION OF HOLE: +0° 40'
PICKED UP BY: R. Howman DATE: 5/3/81

SUMMARY LOGGED BY: R.E.S. Davies
RESULTS: 0 - 13 m, 13 m @ 2.16% WO₃ gh and pgh Lower Wedge

DRILLING DATE COMMENCED: 4/3/81 DATE TERMINATED: 6/3/81
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE:
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 14.2 m
REASON FOR TERMINATION: Abandoned in Decline Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER:
COMMENTS ON DRILLING CONDITIONS: Hole stopped due to lockup when
water applied.

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/31

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 5.2 m	5.2	5.0	96
5.2 - 7.2	2.0	2.0	100
7.2 - 10.2	3.0	3.0	100
10.2 - 12.3	2.1	2.0	95
12.3 - 13.5	1.2	0.9	75
13.5 - 14.2	0.7	0.2	29
EOH 14.2 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/31

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0 - 1	34		
1 - 2	93		
2 - 3	77		
3 - 4	100		
4 - 5	98		
5 - 6	86		
6 - 7	37		
7 - 8	70		
8 - 9	60		
9 - 10	100		
10 - 11	90		
11 - 12	64		
12 - 13	20		
13 - 14	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/31

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 9.4	gh	5-8		cc/chlor			86	
9.4 - 12.3	pgh	7-9		chlor/cc			76	
12.3 - 14.2	D.F.	20		chlor			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/31

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 13040	0	1	1.0	1.0	1.48			
41	1	2	"	"	1.26			
42	2	3	"	"	0.80			
43	3	4	"	"	1.28			
44	4	5	"	"	2.6			
45	5	6	"	"	1.4			
46	6	7	"	"	2.6			
47	7	8	"	"	2.4			
48	8	9	"	"	2.2			
49	9	10	"	"	4.0			
50	10	11	"	"	2.7			
51	11	12	"	"	3.2			
52	12	13	"	"	2.1			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/31

Summary

0.0 - 9.4 m Garnet Hornfels
9.4 - 12.3 m Pyroxene Hornfels (mineralised)
12.3 - 14.2 m Decline Fault

0.0 - 9.4 m

GARNET HORNFELS

Medium grained, khaki grey andradite skarn, uniform lithology and fine grained mineralisation > 1% WO₃.

The first 6 m is solid competent ground but the remainder has a slightly higher fracture density and the core is recovered mostly in blocks 5-15 cm long. There is a gradual change to the overlying pyroxene garnet hornfels.

9.4 - 12.3 m

PYROXENE GARNET HORNFELS (MINERALISED)

Not well podded, but distinguished by its pyroxene hornfels and large discrete crystals of scheelite. Overall grade is estimated @ 0.7% WO₃.

Large scale carbonate replacement occurs @ 10.9 m of fragments angular blocks.

Well defined scheelite vein occurs @ 10 m @ 22° to LCA

12.3 - 14.2

DECLINE FAULT

(Core beyond 14.2 m is cavings, as hole was abandoned at this point).

The first 1 m is mostly composed of angular weathered biotite hornfels fragments set in a loosely compacted matrix of chloritic rock flour which is water bearing and friable.

Beyond that the core consists of small (1 cm) fragments of biotite hornfels. These may be sub-rounded and appear water worn and clean, or faced with chlorite slickensides and angular and sharp.

EOH 14.2 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/30

PLANNING PROPOSER: R. H. Davies DEPTH: 30 m
LOCATION: W54 240 m Level Strike Drive
PURPOSE OF HOLE: Test Decline Fault Zone
PROPOSED CO-ORDS: 220 333 E 563 946 N
INCLINATION: 0°
BEARING: 102° ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: R. E. Sandell Davies DATE: 11/8/80

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 103° 21' ° GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 330.6 E 563 945.7 N
R.L. OF COLLAR: -239.9
INCLINATION OF HOLE: +0° 17'
PICKED UP BY: J. Cook DATE: 21/8/80

SUMMARY LOGGED BY: R. E. Sandell Davies
RESULTS: 0-19 m, 19 m @ 1.07% WO₃ U/C & pgh Lower Wedge

DRILLING DATE COMMENCED: 11/8/80 DATE TERMINATED: 15/8/80
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: NQ
DEPTH: BQ
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 58 m
REASON FOR TERMINATION: Passed through Grassy River Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Singleshot
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/30

Surveyed method: Single shot
Final depth: 58/0 m
Casing depth: 24.0 m

Depth surveyed to: 58.0 m
Date surveyed: 16/8/80
Surveyed by: R. Drake
Checked by: B. Schneiders

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.			
40 m	106°	96°	91° 30'	+1° 30'			
58	107°	97°	93°	+3°			
EOH							

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/30

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.8	2.8	2.7	96
2.8 - 5.8	3.0	3.0	100
5.8 - 8.8	3.0	3.0	100
8.8 - 11.8	3.0	3.0	100
11.8 - 14.8	3.0	3.0	100
14.8 - 17.8	3.0	3.0	100
17.8 - 20.8	3.0	3.0	100
20.8 - 21.5	0.7	0.6	86
21.5 - 22.6	1.1	0.8	73
22.6 - 23.0	0.4	0.3	75
23.0 - 23.5	0.5	0.4	80
23.5 - 24.0	0.5	0.3	60
24.0 - 24.4	0.4	0.3	75
24.4 - 24.5	0.1	0.05	50
24.5 - 25.5	1.0	0.1	10
25.5 - 26.0	0.5	0.2	40
26.0 - 26.1	0.1	0.05	50
26.1 - 27.0	0.9	0.7	78
27.0 - 27.7	0.7	0.7	100
27.7 - 28.9	1.2	1.0	83
28.9 - 29.4	0.5	0.3	60
29.4 - 30.1	0.7	0.5	71
30.1 - 30.6	0.5	0.3	60
30.6 - 31.2	0.6	0.3	50
31.2 - 31.7	0.5	0.1	20
31.7 - 32.2	0.5	0.2	40
32.2 - 33.2	1.0	0.8	80
33.2 - 33.9	0.7	0.4	57
33.9 - 34.4	0.5	0.3	60
34.4 - 35.3	0.9	0.7	78
35.3 - 35.8	0.5	0.2	40
35.8 - 36.6	0.8	0.5	63
36.6 - 37.5	0.9	0.4	44
37.5 - 38.1	0.6	0.2	33
38.1 - 38.4	0.3	0.2	66
38.4 - 39.2	0.8	0.6	75
39.2 - 40.0	0.8	0.7	88
40.0 - 40.4	0.4	0.03	75
40.4 - 41.3	0.9	0.6	66
41.3 - 42.0	0.7	0.4	57
42.0 - 43.2	1.2	0.9	75
43.2 - 44.3	1.1	0.2	18
44.3 - 44.8	0.5	0.2	40
44.8 - 45.7	0.9	0.8	89
45.7 - 46.6	0.9	0.7	78
46.6 - 47.5	0.9	0.8	89
47.5 - 49.0	1.5	1.3	87
49.0 - 51.4	2.4	2.3	96
51.4 - 52.6	1.2	0.5	42
52.6 - 53.5	0.9	0.8	89
53.5 - 54.4	0.9	0.7	78
54.4 - 55.0	0.6	0.3	50
55.0 - 56.0	1.0	0.7	70
56.0 - 57.0	1.0	0.8	80
57.0 - 58.0	1.0	0.2	20

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/30

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0 m	34	53.0 - 54.0	0
1.0 - 2.0	74	54.0 - 55.0	0
2.0 - 3.0	90	55.0 - 56.0	0
3.0 - 4.0	94	56.0 - 57.0	13
4.0 - 5.0	94	57.0 - 58.0	0
5.0 - 6.0	85		
6.0 - 7.0	100		
7.0 - 8.0	97		
8.0 - 9.0	90		
9.0 - 10.0	100		
10.0 - 11.0	77	EOH 58.0 m	
11.0 - 12.0	78		
12.0 - 13.0	92		
13.0 - 14.0	97		
14.0 - 15.0	90		
15.0 - 16.0	98		
16.0 - 17.0	88		
17.0 - 18.0	86		
18.0 - 19.0	80		
19.0 - 20.0	90		
20.0 - 21.0	30		
21.0 - 22.0	0		
22.0 - 23.0	0		
23.0 - 24.0	0		
24.0 - 25.0	11		
25.0 - 26.0	0		
26.0 - 27.0	24		
27.0 - 28.0	86		
28.0 - 29.0	46		
29.0 - 30.0	25		
30.0 - 31.0	17		
31.0 - 32.0	0		
32.0 - 33.0	41		
33.0 - 34.0	0		
34.0 - 35.0	44		
35.0 - 36.0	0		
36.0 - 37.0	35		
37.0 - 38.0	34		
38.0 - 39.0	0		
39.0 - 40.0	42		
40.0 - 41.0	44		
41.0 - 42.0	0		
42.0 - 43.0	36		
43.0 - 44.0	0		
44.0 - 45.0	0		
45.0 - 46.0	20		
46.0 - 47.0	22		
47.0 - 48.0	55		
48.0 - 49.0	50		
49.0 - 50.0	74		
50.0 - 51.0	60		
51.0 - 52.0	27		
52.0 - 53.0	11		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/30

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A O C)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 13.1	gh	3		Chl /cc			92	
13.1 - 20.0	pgh	4		chl/cc			94	
20.0 - 26.1	DFZ	> 20		Clay/chl			5	
26.1 - 52.0	bph Δ	10-→20		Chl			29	
52.0 - 58.0	v Δ	> 20		Chl			6	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) += $\frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/30

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12857	0	1	1.0	1.0	1.15			
58	1	2	"	"	0.77			
59	2	3	"	"	0.73			
60	3	4	"	"	0.77			
61	4	5	"	"	1.18			
62	5	6	"	"	0.77			
63	6	7	"	"	0.77			
64	7	8	"	"	0.77			
65	8	9	"	"	0.82			
66	9	10	"	"	0.89			
67	10	11	"	"	1.34			
68	11	12	"	"	0.83			
69	12	13	"	"	1.06			
70	13	14	"	"	0.82			
71	14	15	"	"	0.40			
72	15	16	"	"	4.2			
73	16	17	"	"	0.39			
74	17	18	"	"	0.85			
75	18	19	"	"	1.77			
76	19	20	"	"	0.19			
77	20	21	"	"	0.25			
78	27	28	"	"	0.09			
79	28	29	"	"	0.15			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/30

0.0 - 13.1 Garnet Hornfels
13.1 - 20.0 Pyroxene Garnet Hornfels
20.0 - 26.1 Decline Fault Zone
26.1 - 52.0 Sheared biotite pyroxene hornfels
52.0 - 58.0 Sheared Volcanics

0.0 - 13.1 m GARNET HORNFELS

Uniform well mineralised khaki brown andradite skarn. Scheelite occurs as a dense scattering of small crystals, grade is probably $>1\% \text{ WO}_3$.

1 mm pyrite vein filling @ 4.3 m and 7.5 m

13.1 - 20.0 PYROXENE GARNET HORNFELS

Erratically mineralised pyroxene garnet hornfels. Some large veins present but only a poor background of dispersed small scheelite crystals. Grade is probably 0.2 - 0.3%. The unit is disturbed in places and contains many large (5 cm) and small (1 cm) clasts of marble.

20.0 - 26.1 DECLINE FAULT ZONE

Typical Decline Fault Zone consisting of sheared and fractured biotite hornfels reduced to rubble (0.5 - 2.0 cm, rarely 5 cm).

From 20.0 - 21.5 the core consists of roughly 10 cm lengths of rubble held together by compacted clay.

26.1 - 52.0 SHEARED BIOTITE HORNFELS

This unit consists of broken and rubbly core interspersed with lengths of solid biotite hornfels from 5.0 - 15.0 cm long. A moderate amount of core loss was recorded throughout the unit.

The biotite hornfels shows a sheared texture in addition to occasional thin beds of brown pyroxene hornfels like material.

The fabric is @	50°	to LCA @	27 m
"	46°	"	30 m
"	42°	"	36 m
"	30°	"	43 m
"	60°	"	50.5 m

Scattered flecks of blue fluorescing scheelite are present between 27 and 28.5 m and discrete crystals @ 50.3 m.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/30

52.0 - 58.0 m SHEARED VOLCANICS

Very high core loss was recorded at the boundary of this unit with the previous unit. This together with lithology change has been taken to indicate the Grassy River Fault.

This unit is again highly sheared, with much of the core recovered as 1 cm sized rubble. Lengths core up to 10 cm long show a green fractured and sheared rock which is very weak. In places (53 m) concentration of white mica can be seen. A ?fault breccia, now rehealed can be seen from 56.0 - 56.5 m

EOH 58.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/29

PLANNING PROPOSER: R. H. Davies DEPTH: 20 m
LOCATION: 240 m R.L. W56
PURPOSE OF HOLE: Test Decline Fault Zone
PROPOSED CO-ORDS: 220 338 E 564 957 N
INCLINATION: 0°
BEARING: 102° GRID MAG
TARGET: 11 m E N
DEPTH: 20 m
CHECKED BY: R. E. Sandell Davies DATE: 7/8/80

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 102° 41' GRID MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 333.8 E 563 960.0 N
R.L. OF COLLAR: -240.3
INCLINATION OF HOLE: 89° 39' (+25')
PICKED UP BY: J. Cook DATE: 15/8/80

SUMMARY LOGGED BY: R. E. Sandell Davies
RESULTS: 0 - 19 m, 19 m @ 1.44% WO₃ C Lens Wedge

DRILLING DATE COMMENCED: 7/8/80 DATE TERMINATED: 9/8/80
DRILLER/CONTRACTOR: A.D.D./S. Batchelor
CASING: SIZE:
DEPTH:
CORE: SIZE: NQ BQ
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 32.0
REASON FOR TERMINATION: Penetrated D.F.Z.
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Not Surveyed
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/29

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.3 m	2.3	2.3	100
2.3 - 5.3	3.0	3.0	100
5.3 - 8.3	3.0	3.0	100
8.3 - 11.3	3.0	3.0	100
11.3 - 14.3	3.0	3.0	100
14.3 - 17.3	3.0	3.0	100
17.3 - 20.0	2.7	2.2	81
20.0 - 20.3	0.3	0.3	100
20.3 - 22.5	2.2	0.9	41
22.5 - 24.5	2.0	1.2	60
24.5 - 27.3	2.8	2.5	89
27.3 - 27.6	0.3	0.2	66
27.6 - 28.0	0.4	0.3	75
28.0 - 28.6	0.6	0.2	33
28.6 - 29.1	0.5	0.3	60
29.1 - 30.5	0.6	0.5	83
30.5 - 32.0	1.5	0.7	47
EOH 32.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/29

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	48		
1.0 - 2.0	100		
2.0 - 3.0	100		
3.0 - 4.0	89		
4.0 - 5.0	100		
5.0 - 6.0	96		
6.0 - 7.0	75		
7.0 - 8.0	100		
8.0 - 9.0	92		
9.0 - 10.0	83		
10.0 - 11.0	96		
11.0 - 12.0	83		
12.0 - 13.0	88		
13.0 - 14.0	100		
14.0 - 15.0	98		
15.0 - 16.0	91		
16.0 - 17.0	90		
17.0 - 18.0	90		
18.0 - 19.0	20		
19.0 - 20.0	0		
20.0 - 21.0	21		
21.0 - 22.0	11		
22.0 - 23.0	27		
23.0 - 24.0	48		
24.0 - 25.0	63		
25.0 - 26.0	65		
26.0 - 27.0	45		
27.0 - 28.0	32		
28.0 - 29.0	0		
29.0 - 30.0	34		
30.0 - 31.0	24		
31.0 - 32.0	17		
EOH			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/29

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 10.7	gh	4		cc/chlor			92	
10.7 - 18.5	pgh	5		cc/chlor			91	
18.5 - 22.5	DFZ	> 20		clay/chlor			8	
22.5 - 27.3	bph	8		chlor/cc			51	
27.3 - 29.1	FZ	20		chlor/clay			0	
29.1 - 32.0	bh	12		chlor Hydrogrossular			78	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/29

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12804	0	1	1.0	1.0	2.70	0.01		
05	1	2	"	"	2.35	0.01		
06	2	3	"	"	2.13	0.01		
07	3	4	"	"	2.20	0.01		
08	4	5	"	"	2.00	0.01		
09	5	6	"	"	1.10	0.01		
10	6	7	"	"	0.90	0.01		
11	7	8	"	"	1.70	0.01		
12	8	9	"	"	0.99	0.01		
13	9	10	"	"	1.40	0.01		
14	10	11	"	"	1.01	0.01		
15	11	12	"	"	1.60	0.01		
16	12	13	"	"	0.35	0.01		
17	13	14	"	"	0.70	0.01		
18	14	15	"	"	0.92	0.01		
19	15	16	"	"	1.42	0.01		
20	16	17	"	"	3.10	0.01		
21	17	18	"	"	0.15	0.02		
22	18	19	"	"	0.65	0.01		
23	19	20	"	"	0.08	0.05		
24	25	26	"	"	0.07	0.06		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/29

0.0 - 10.7 m GARNET HORNFELS

Well mineralised high grade (1.5 % WO_3) andradite garnet skarn. Massive and competent unit.

10.7 - 18.5 PYROXENE GARNET HORNFELS

Green to brown, pyroxene garnet hornfels, erratically mineralised. Apart from some barren patches eg. 11-11.3 m the unit is probably ore grade. It contains a number of marble veins which appear to be structurally weak.

Much of the rock has a cracked texture although they are not normally planes of parting.

18.5 - 22.5 DECLINE FAULT ZONE

A zone of small (1-2 cm) fragments of fault rubble or pieces of core 10-15 cm of rubble held together with compacted clay. The first 50 cm is highly sheared, deformed a weak pyroxene garnet hornfels. The remainder appears to be biotite hornfels. From about 19 - 19.5 m is the compacted clay/rubble "heart" of the fault. After that the unit is almost entirely rubble.

22.5 - 27.3 BIOTITE PYROXENE HORNFELS

Generally a well bedded but slightly disturbed unit. It consists of beds of pyroxene hornfels and biotite hornfels of approximately equal thickness (0.2 - 1 cm).

A 10 cm zone from about 24.5 m contain scattered blue fluorescing scheelite.

Bedding is @ 54° to LCA @ 24 m
" @ 50° " @ 26 m

It is thought that this unit may be B Lens Footwall.

27.3 - 29.1 FAULT ZONE

A region of poor core recoveries and very broken core. Most of it consisting of angular fragments, 0.5 - 5.0 m long. The lithology appears to be a sheared biotite hornfels.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/29

29.1 - 32.0 m SHEARED BIOTITE HORNFELS

More competent ground than the fault zone but a high core loss was recorded for this unit as well.

The rock look like a biotite hornfels which has been extensively sheared and now has a fabric running @ 50° to LCA. A green fractured section of core @ 31.5 m appears to be a silicified pyroxene hornfels.

The last few pieces of core 10 cm from the end show small clear crystals on joint surfaces possibly hydrogrossular.

EOH 32.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/28

PLANNING PROPOSER: R. H. Davies DEPTH: 45 m
LOCATION: W68 -240 m S/D
PURPOSE OF HOLE: To Test Decline Fault Zone and B Lens
PROPOSED CO-ORDS: 220 328 E 564 047 N
INCLINATION: 0°
BEARING: 102° °GRID °MAG
TARGET: 21 m E N
DEPTH:
CHECKED BY: DATE: 31/7/80

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 104° 21' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 564 047.9 N 220 328.6 E
R.L. OF COLLAR: -236.2
INCLINATION OF HOLE: -0° 32'
PICKED UP BY: J. Cook DATE: 6/8/80

SUMMARY LOGGED BY: R. E. Sandell Davies
RESULTS: 0 - 14 m, 14 m @ 2.29% WO₃ L/C Lens Wedge
17 - 22 m, 5 m @ 1.00% WO₃ U/C Wedge
33 - 44 m, 11 m @ 1.05% WO₃ B Lens Decline

DRILLING DATE COMMENCED: 1/8/80 DATE TERMINATED: 6/8/80
DRILLER/CONTRACTOR: A.D.D./S. Batchelor
CASING: SIZE:
DEPTH:
CORE: SIZE: NQ BQ
DEPTH: 23.15 49
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 49.0 m
REASON FOR TERMINATION: In Grassy River Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Yes - Single shot at 35 m and 49 m
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/28

Surveyed method: Single Shot
Final depth: 49.0 m
Casing depth: 0.0 m

Depth surveyed to: 49.0 m
Date surveyed: 6/8/80
Surveyed by: R. Drake
Checked by: B. Schneiders

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.			
35 m	109°	99°	88° 30'	-1° 30'			
49 m	109°	99°	88° 30'	-1° 30'			
EOH							

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/28

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.6 m	2.6	2.6	85
2.6 - 5.6	3.0	3.0	100
5.6 - 8.6	3.0	3.0	100
8.6 - 11.6	3.0	3.0	100
11.6 - 14.8	3.2	3.2	100
14.8 - 17.8	3.0	2.9	97
17.8 - 18.6	0.8	0.8	100
18.6 - 21.0	2.4	2.3	96
21.0 - 22.0	1.0	0.8	80
22.0 - 22.6	0.6	0.4	75
22.6 - 23.1	0.5	0.4	80
23.1 - 24.0	0.9	0.5	56
24.0 - 24.8	0.8	0.3	38
24.8 - 25.6	0.8	0.4	50
25.6 - 26.4	0.8	0.6	75
26.4 - 27.0	0.6	0.3	50
27.0 - 28.2	1.2	1.0	83
28.2 - 30.0	1.8	1.5	83
30.0 - 30.4	0.4	0.2	50
30.4 - 41.4	1.0	0.8	80
31.4 - 32.7	1.3	1.0	77
32.7 - 34.2	1.5	1.5	100
34.2 - 36.4	2.2	2.0	91
36.4 - 38.5	2.1	2.1	100
38.5 - 40.1	1.6	1.6	100
40.1 - 41.6	1.5	1.5	100
41.6 - 43.3	1.7	1.6	86
43.3 - 44.9	1.6	1.6	100
44.9 - 45.6	0.7	0.6	86
45.6 - 48.0	2.4	1.5	63
48.0 - 49.0	1.0	0.2	20
EOH 49.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/28

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	12		
1.0 - 2.0	48		
2.0 - 3.0	65		
3.0 - 4.0	50		
4.0 - 5.0	82		
5.0 - 6.0	64		
6.0 - 7.0	85		
7.0 - 8.0	70		
8.0 - 9.0	56		
9.0 - 10.0	75		
10.0 - 11.0	58		
11.0 - 12.0	70		
12.0 - 13.0	73		
13.0 - 14.0	90		
14.0 - 15.0	40		
15.0 - 16.0	23		
16.0 - 17.0	11		
17.0 - 18.0	75		
18.0 - 19.0	58		
19.0 - 20.0	58		
20.0 - 21.0	82		
21.0 - 22.0	34		
22.0 - 23.0	11		
23.0 - 24.0	14		
24.0 - 25.0	11		
25.0 - 26.0	0		
26.0 - 27.0	10		
27.0 - 28.0	26		
28.0 - 29.0	36		
29.0 - 30.0	20		
30.0 - 31.0	14		
31.0 - 32.0	11		
32.0 - 33.0	49		
33.0 - 34.0	76		
34.0 - 35.0	78		
35.0 - 36.0	83		
36.0 - 37.0	53		
37.0 - 38.0	57		
38.0 - 39.0	79		
39.0 - 40.0	75		
40.0 - 41.0	81		
41.0 - 42.0	73		
42.0 - 43.0	32		
43.0 - 44.0	70		
44.0 - 45.0	100		
45.0 - 46.0	44		
46.0 - 47.0	0		
47.0 - 48.0	0		
48.0 - 49.0	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/28

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 13.9m	L/C	8-12		cc/chlor			57	
13.9 - 16.8	M/M	10		cc/chlor			28	
16.8 - 21.3	U/C	7		cc/chlor			67	
21.3 - 31.4	DFZ	20		clay/chlor			14	
31.4 - 33.0	bph	15		chlor			44	
33.0 - 44.9	gph	6		cc/chlor			67	
44.9 - 45.6	ch	5		cc			57	
45.6 - 49.0	GRFZ	20		clay/chlor			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/28

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12768	0	1	1.0	1.0	1.2	0.01		
69	1	2	"	"	2.80	0.01		
70	2	3	"	"	3.50	0.01		
71	3	4	"	"	9.70	0.01		
72	4	5	"	"	3.50	0.01		
73	5	6	"	"	3.20	0.01		
74	6	7	"	"	2.70	0.01		
75	7	8	"	"	1.30	0.01		
76	8	9	"	"	0.54	0.01		
77	9	10	"	"	2.60	0.01		
78	10	11	"	"	3.60	0.01		
79	11	12	"	"	1.80	0.01		
80	12	13	"	"	0.90	0.01		
81	13	14	"	"	0.46	0.01		
82	14	15	"	"	0.11	0.04		
83	15	16	"	"	0.07	0.08		
84	16	17	"	"	0.18	0.04		
85	17	18	"	"	0.94	0.01		
86	18	19	"	"	1.01	0.01		
87	19	20	"	"	0.81	0.01		
88	20	21	"	"	1.08	0.01		
89	21	22	"	"	1.18	0.01		
90	32	33	"	"	0.06	0.03		
91	33	34	"	"	0.88	0.01		
92	34	35	"	"	0.99	0.01		
93	35	36	"	"	0.29	0.01		
94	36	37	"	"	0.59	0.01		
95	37	38	"	"	0.73	0.01		
96	38	39	"	"	0.83	0.01		
97	39	40	"	"	2.90	0.01		
98	40	41	"	"	1.65	0.01		
99	41	42	"	"	1.70	0.01		
800	42	43	"	"	0.25	0.02		
01	43	44	"	"	0.69	0.01		
02	44	45	"	"	0.24	0.01		
03	45	46	"	"	0.03	0.03		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/28

0.0 - 13.9 m BANDED GARNET HORNFELS

This unit is mostly well mineralised (?0.8% WO_3) and is dominantly Khaki brown andradite skarn. Thin (1-5 cm) beds of pyroxene hornfels and marble are present.

An unmineralised region from 8-11 m consists of marble followed by pyroxene hornfels with minor biotite hornfels.

Bedding and jointing combine to give many breaks in the core.

Bedding is @	40°	to LCA @	3.2 m
"	46°	"	5.5 m
"	60°	"	8.4 m
"	26°	"	12.8 m

Broken and disturbed core @ 11m together with a change in bedding angles may indicate a fault here.

The preceding barren zone may be the marble marker which may be faulted of at 11 m.

13.9 - 16.8 MARBLE MARKER

No marble present but unmineralised biotite pyroxene hornfels, except for the 10 cm bed of scheelite and garnet hornfels from 14.3 m

The rock is disturbed and broken @ 15.8 m and 16.7 - 16.8 m.

Bedding is @ 31° to LCA @ 14.6 m

16.8 - 21.3 MASSIVE GARNET HORNFELS

Some pyroxene hornfels in the first 50 cm, other wise it is entirely massive, well mineralised garnet hornfels (1% WO_3).

It displays the quartz/garnet intergrowth characteristic of very high grade skarn.

The last metre of the unit has a pale, leached appearance, and has a lower strength than the normal garnet hornfels.

21.3 - 31.4 DECLINE FAULT ZONE

A wide zone of very broken core with low recoveries.

In the first metre of the unit several pieces of core 10-15 cm long consist of fragments of biotite hornfels loosely bound together with clay. The are obviously very weak.

Up to 27 m the lithology is fine grained biotite hornfels, but beyond that it becomes a biotite pyroxene hornfels with layers and thin lenses of pyroxene hornfels interbedded in the biotite hornfels.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/28

From 27-28.5 m small (1 mm) white, feldspar collocrysts are present in the biotite hornfels.

The majority of the core is rubble, pieces of 1-5 cm diameter with slickenslides on most surfaces.

31.4 - 33.0 BIOTITE PYROXENE HORNFELS

Slightly more competent but lithologically identical to the last 4 m of the Decline Fault Zone. This unit represents the B Lens footwall.

Bedding is @ 50° to LCA @ 32.2 m

The rock is biotite hornfels with minor pyroxene hornfels.

33.0 - 44.9 GARNET PYROXENE HORNFELS

B Lens skarn, mineralised throughout, probably with an average grade of 0.6% WO₃.

The lithology is a mixture of garnet hornfels and pyroxene hornfels. It is mostly competent but occasionally cut by weak carbonate veins.

44.9 - 45.6 MARBLE

A fresh grey, barren marble, disturbed and rehealed @ 45.1 m.

45.6 - 49.0 GRASSY RIVER FAULT ZONE

A totally incompetent rock unit, consisting of water logged, compacted clays with coarse gravel sized fragments of rock, probably volcanics.

Green? epidote alteration is evident.

EOH 49.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/27

PLANNING PROPOSER: R. H. Davies DEPTH: 30 m
LOCATION: W72 -220 Strike Drive
PURPOSE OF HOLE: Test Decline Fault B Lens Grassy River Fault
PROPOSED CO-ORDS: 220 339 E 564 072 N
INCLINATION: 0°
BEARING: 102° GRID °MAG
TARGET: E N
DEPTH: 30 m
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 102° 35' GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 336.5 E 564 073.5 N
R.L. OF COLLAR: -218.2
INCLINATION OF HOLE: +1° 05'
PICKED UP BY: J. Cook DATE: 5/8/80

SUMMARY LOGGED BY: R. E. Sandell Davies
RESULTS: 25 - 34 m 9 m @ 0.79% WO₃ B Lens Decline

DRILLING DATE COMMENCED: 23/7/80 DATE TERMINATED: 31/7/80
DRILLER/CONTRACTOR: ADD/S. Batchelor
CASING: SIZE:
DEPTH:
CORE: SIZE: NQ BQ
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 43.3 m
REASON FOR TERMINATION: In G. R. F. Z.
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Yes - Single shot at 21.0 m and 43.3 m
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/27

Surveyed method: Single Shot
 Final depth: 43.3 m
 Casing depth: Nil

Depth surveyed to: 43.3 m
 Date surveyed: 31/7/80
 Surveyed by: B. Schneiders
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.			
21 m	104° 30'	94° 30'	90° 30'	+0° 30'			
43.3 m	102° 30'	92° 30'	91°	+1°			
EOH							

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/27

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.7 m	1.7	1.5	88
1.7 - 3.0	1.3	1.1	85
3.0 - 3.5	0.5	0.4	80
3.5 - 5.0	1.5	1.1	73
5.0 - 5.8	0.8	0.3	38
5.8 - 7.7	1.9	1.3	68
7.7 - 8.5	0.8	0.6	75
8.5 - 9.1	0.6	0.3	50
9.1 - 9.8	0.7	0.6	86
9.8 - 11.0	1.2	1.0	83
11.0 - 11.7	0.7	0.4	57
11.7 - 12.1	0.4	0.2	50
12.1 - 12.8	0.7	0.5	71
12.8 - 14.3	1.5	1.4	93
14.3 - 15.4	1.1	0.9	82
15.4 - 18.0	2.6	2.4	92
18.0 - 21.0	3.0	3.0	100
21.0 - 24.0	3.0	3.0	100
24.0 - 27.0	3.0	3.0	100
27.9 - 30.0	3.0	3.0	100
30.0 - 33.0	3.0	3.0	100
33.0 - 36.0	3.0	2.9	97
36.0 - 38.1	2.1	1.5	71
38.1 - 38.8	0.7	0.3	43
38.8 - 39.5	0.7	0.4	57
39.5 - 40.0	0.5	0.3	60
40.0 - 41.0	1.0	0.4	40
41.0 - 42.0	1.0	0.3	30
42.0 - 43.3	1.3	0.8	62

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/27

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0 m	33		
1.0 - 2.0	23		
2.0 - 3.0	14		
3.0 - 4.0	15		
4.0 - 5.0	42		
5.0 - 6.0	0		
6.0 - 7.0	16		
7.0 - 8.0	0		
8.0 - 9.0	0		
9.0 - 10.0	18		
10.0 - 11.0	15		
11.0 - 12.0	13		
12.0 - 13.0	0		
13.0 - 14.0	30		
14.0 - 15.0	39		
15.0 - 16.0	21		
16.0 - 17.0	40		
17.0 - 18.0	97		
18.0 - 19.0	80		
19.0 - 20.0	100		
20.0 - 21.0	92		
21.0 - 22.0	92		
22.0 - 23.0	93		
23.0 - 24.0	85		
24.0 - 25.0	94		
25.0 - 26.0	59		
26.0 - 27.0	100		
27.0 - 28.0	81		
28.0 - 29.0	91		
29.0 - 30.0	82		
30.0 - 31.0	98		
31.0 - 32.0	85		
32.0 - 33.0	94		
33.0 - 34.0	99		
34.0 - 35.0	64		
35.0 - 36.0	12		
36.0 - 37.0	0		
37.0 - 38.0	0		
38.0 - 39.0	0		
39.0 - 40.0	0		
40.0 - 41.0	0		
41.0 - 42.0	0		
42.0 - 43.0	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/27

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 3.2	pgh	15		chlor			16	
3.2 - 13.7	DFZ	10- 20		chlor/clay			9	
13.7 - 16.4	bph	7- 20		chlor/cc			34	
16.4 - 35.3	gh	5		chlor/cc			90	
35.3 - 43.3	GRFZ	20		lay/chlor			0	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $= \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/27

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12743	0	1	1.0	1.0	0.43	0.02		
44	1	2	"	"	0.25	0.03		
45	2	3	"	"	0.60	0.01		
46	3	4	"	"	0.07	0.05		
47	14	15	"	"	0.05	0.06		
48	15	16	"	"	0.13	0.06		
49	16	17	"	"	0.09	0.05		
50	17	18	"	"	0.24	0.01		
51	18	19	"	"	0.39	0.01		
52	19	20	"	"	0.16	0.01		
53	20	21	"	"	0.13	0.01		
54	21	22	"	"	0.26	0.01		
55	22	23	"	"	0.49	0.01		
56	23	24	"	"	0.24	0.01		
57	24	25	"	"	0.23	0.01		
58	25	26	"	"	0.47	0.01		
59	26	27	"	"	0.36	0.01		
60	27	28	"	"	0.87	0.01		
61	28	29	"	"	0.65	0.01		
62	29	30	"	"	0.06	0.02		
63	30	31	"	"	1.50	0.01		
64	31	32	"	"	0.63	0.01		
65	32	33	"	"	1.90	0.01		
66	33	34	"	"	0.65	0.01		
67	34	35	"	"	0.26	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/27

0.0 - 3.2 m PYROXENE GARNET HORNFELS

Poorly mineralised rock, with disseminated scheelite - no large veins probably subgrade. Core is very broken. Lithology is mostly pyroxene hornfels with marble pods and minor grossular and andradite garnet.

3.2 - 13.7 DECLINE FAULT ZONE

Very wide zone of disturbed and broken core. The lithology is biotite pyroxene hornfels throughout, some large pieces of core (10 cm) show good bedding and are competent rocks. The remainder consists of small (1 - 3 cm) pieces with slickensides on most faces.

A section of core 13 cm long @ 13.5 m consists of compacted clay and gravel fragments.

Bedding is @ 54° to LCA @ 10 m
" 51 " 10.7 m

biotite hornfels > pyroxene hornfels

13.7 - 16.4 BIOTITE PYROXENE HORNFELS

Well bedded biotite pyroxene hornfels, dominantly pyroxene hornfels with thin 0.1 - 1.0 cm layers of biotite hornfels. Scattered flecks of scheelite are present.

Lithologically this unit extends well into the Decline Fault Zone.

Bedding is @ 57° to LCA @ 15.7 m

16.4 - 35.3 GARNET HORNFELS

A large competent homogeneous unit. It consists dominantly of andradite skarn with scheelite and is moderately well mineralised (probably to about 0.6% WO₃ average overall).

Significant pyroxene hornfels is also present and some unreplaced marble @ 29.0 - 30.0 m.

Bedding is @ 51° to LCA @ 16.8 m
" 60° " 20.2 m
" 40° " 23.3 m

The unit become disturbed and weakly mineralised in the last metre, with a few biotite hornfels bands present. The last 0.3 m is entirely biotite hornfels. This would seem to indicate the stratigraphic hangingwall of B Lens.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/27

35.3 - 43.3 m GRASSY RIVER FAULT ZONE

A zone of extremely broken and loose core with a high clay content. The first 20 cm of the unit is clay pug. The remainder of the pieces of core > 5 cm consists of compacted clay and gravel (very weak).

The lithology of the small (1 - 2 cm) slickenslides fragments is hard to determine. However due to their low density it is thought they are biotite hornfels.

Marble veins are present in core fragments from 40 m onwards.

EOH 43.3 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/26

PLANNING PROPOSER: R.H. Davies DEPTH: 40 m

LOCATION: W64 -220 Strike Drive

PURPOSE OF HOLE: Test B Lens & Decline Fault

PROPOSED CO-ORDS: 220 330 E 564 017 N

INCLINATION: 0°

BEARING: 102° GRID °MAG

TARGET: E N

DEPTH: 40 m

CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N

SURVEYED BEARING: 102° 28' GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 329.4 E 564 017.5 N

R.L. OF COLLAR: -217.9

INCLINATION OF HOLE: +0° 04'

PICKED UP BY: J. Cook DATE: 7/8/80

SUMMARY LOGGED BY: R. H. Davies

RESULTS: 0- 4 m, 4 m @ 3.90% WO₃ C Wedge
26-43 m, 17 m @ 0.58% WO₃ B Lens Decline

DRILLING DATE COMMENCED: 24/7/80 DATE TERMINATED: 28/7/80

DRILLER/CONTRACTOR: ADD/S. Batchelor

CASING: SIZE:

DEPTH:

CORE: SIZE: NQ BQ

DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 48.0 m

REASON FOR TERMINATION: In B Lens Decline hangingwall

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: No

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/26

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.60	2.6	2.6	100
2.60 - 4.10	1.5	1.5	100
4.10 - 5.70	1.6	1.54	96
5.70 - 8.40	2.7	2.80	104
8.40 - 9.90	1.5	1.5	100
9.90 - 11.2	1.3	1.28	98
11.20 - 12.3	1.1	1.1	100
12.3 - 13.0	0.70	0.73	104
13.0 - 13.5	0.50	0.50	100
13.50 - 14.70	1.20	0.80	67
14.7 - 16.0	1.30	1.4	108
16.0 - 16.6	0.6	0.6	100
16.6 - 16.9	0.3	0.25	83
16.9 - 17.6	0.7	0.66	94
17.6 - 18.1	0.5	0.53	106
18.1 - 18.6	0.5	0.30	60
18.6 - 19.0	0.4	0.4	100
19.0 - 21.0	3.0	2.30	77
21.0 - 24.0	3.0	3.1	103
24.0 - 27.0	3.0	3.0	100
27.0 - 30.0	3.0	3.1	103
30.0 - 33.0	3.0	3.0	100
33.0 - 35.2	2.2	2.2	100
35.2 - 37.3	2.1	2.1	100
37.3 - 40.3	3.0	3.0	100
40.3 - 42.6	2.3	2.3	100
42.6 - 43.8	1.2	1.2	100
43.8 - 46.4	2.6	1.9	73
46.4 - 47.1	0.7	0.57	81
47.1 - 48.0	0.9	0.58	64
EOH 48.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/26

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	38		
1.0 - 2.0	64		
2.0 - 3.0	75		
3.0 - 4.0	75		
4.0 - 5.0	49		
5.0 - 6.0	64		
6.0 - 7.0	67		
7.0 - 8.0	48		
8.0 - 9.0	26		
9.0 - 10.0	50		
10.0 - 11.0	17		
11.0 - 12.0	12		
12.0 - 13.0	0		
13.0 - 14.0	0		
14.0 - 15.0	43		
15.0 - 16.0	34		
16.0 - 17.0	55		
17.0 - 18.0	33		
18.0 - 19.0	11		
19.0 - 20.0	50		
20.0 - 21.0	37		
21.0 - 22.0	45		
22.0 - 23.0	64		
23.0 - 24.0	90		
24.0 - 25.0	50		
25.0 - 26.0	57		
26.0 - 27.0	93		
27.0 - 28.0	77		
28.0 - 29.0	72		
29.0 - 30.0	93		
30.0 - 31.0	99		
31.0 - 32.0	97		
32.0 - 33.0	80		
33.0 - 34.0	90		
34.0 - 35.0	88		
35.0 - 36.0	93		
36.0 - 37.0	76		
37.0 - 38.0	70		
38.0 - 39.0	87		
39.0 - 40.0	91		
40.0 - 41.0	90		
41.0 - 42.0	98		
42.0 - 43.0	75		
43.0 - 44.0	20		
44.0 - 45.0	26		
45.0 - 46.0	14		
46.0 - 47.0	0		
47.0 - 48.0	0		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/26

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T/ L. A. O. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.00 - 1.70	gh	4		cal		100	82	Low RQD due to blasting
1.70 - 3.90	pgh	3	30 90	cal/scheelite/quartz		100	95	
3.90 - 10.50	bh	8	40 30	chl	48 25	100	71	
10.50 - 14.50	DFZ	20	30	Clay/pyrite/chl			16	Decline Fault Zone
14.50 - 19.20	bph	20	80		50		51	
19.20 - 42.7	B Lens	5	90 45 0	Quartz/clay/cal	30	100	89	Open fissures common in first 6 m
42.7 - 45.2	ph	20		Chl/cal	52 70	85	52	
45.2 - 48.0	UV		20	Chl		70	5	
EOH 48.0 m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/26

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12710	0	1	1.0	1.0	3.6	0.07		
11	1	2	"	"	5.3	0.08		
12	2	3	"	"	4.1	0.01		
13	3	4	"	"	10.8	0.01		
14	19	20	"	"	0.13	0.01		
15	20	21	"	"	0.23	0.01		
16	21	22	"	"	0.38	0.01		
17	22	23	"	"	0.01	0.02		
18	23	24	"	"	0.01	0.01		
19	24	25	"	"	0.03	0.01		
30	25	26	"	"	0.23	0.01		
21	26	27	"	"	0.49	0.01		
22	27	28	"	"	0.30	0.01		
23	28	29	"	"	0.41	0.01		
24	29	30	"	"	0.91	0.01		
25	30	31	"	"	0.48	0.01		
26	31	32	"	"	0.23	0.01		
27	32	33	"	"	0.69	0.01		
28	33	34	"	"	0.98	0.01		
29	34	35	"	"	0.91	0.01		
30	35	36	"	"	0.94	0.01		
31	36	37	"	"	0.37	0.01		
32	37	38	"	"	0.35	0.01		
33	38	39	"	"	0.13	0.01		
34	39	40	"	"	0.64	0.01		
35	40	41	"	"	0.49	0.01		
36	41	42	"	"	0.85	0.01		
37	42	43	"	"	0.70	0.01		
38	43	44	"	"	0.14	0.03		
39	44	45	"	"	0.05	0.05		
40	45	46	"	"	0.04	0.04		
41	46	47	"	"	0.03	0.02		
42	47	48	"	"	0.03	0.03		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/26

0.0 - 1.70 m GARNET HORNFELS

The core consists of a typical dark coarse grained garnet skarn. Mineralisation is quite good and large subhedral scheelite crystals and molybdenite are common. The initial 0.5 m is broken, probably from blast damage.

1.70 - 3.90 PYROXENE GARNET HORNFELS

This unit consists of a well mineralised pale olive green pyroxene garnet hornfels. Calcite ovoids rimmed by pyroxene and garnet are present from:

1.70 - 2.70 m in this region mineralisation is largely present as finely disseminated scheelite in a matrix of calcite, garnet and pyroxene.

The remainder of this unit is more correctly a pyroxene skarn. The mineralisation in this region is due to large subhedral scheelite crystals and veins set in a fine grained matrix of pyroxene and actinolite.

3.90 - 10.50 BIOTITE HORNFELS

This unit consists of a relatively massive barren fine grained dark biotite hornfels.

The base of the unit is relatively pyroxene rich and grades into the mineralised pyroxene skarn. Towards the top of the unit the biotite hornfels is darker and more biotite rich. The unit is very well jointed.

Joints	88°
"	55°
"	30°
"	50°

Bedding @ 4.1 m	is 48°
" 9.4 m "	25°
" 9.7 m "	50°

Possible Faults	7.4 m
	9.9 m

10.5 - 14.5 DECLINE FAULT ZONE

This zone consists of brecciated and fractured biotite hornfels/ biotite pyroxene hornfels fragments often set in a matrix of clay and chlorite.

The upper limit of the zone was arbitrarily defined as occurring with a change in RQD at 14.5 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/26

However the fracture zone could easily be interpreted as extending from 10.5 - 19.2 m

This would indicate that the biotite pyroxene hornfels below B Lens adjacent to the fault has been severely fractured.

The "core" of the fault zone, a zone of small biotite hornfels/pyroxene hornfels fragments set in a matrix of clay/chlorite extends from 10.6 - 12.1 m.

14.5 - 19.2

BIOTITE PYROXENE HORNFELS ▲

This part of the core consists of badly fractured and jointed biotite pyroxene hornfels.

The unit was essentially a dark fine grained, bedded biotite hornfels with minor pyroxene hornfels blebs and interbeds.

Small white feldspar dots are present from 14.5 - 17.6 m. Pyrite occurs on joint faces and disseminated through more pyroxene rich bands.

Joints 30°
80°
60°

Bedding @ 15.7 m is 50°
" 16.8 m " 48°

19.2 - 42.7

B LENS

This unit consists essentially of a pale olive green mineralised garnet pyroxene hornfels with minor barren grey marble bands.

The garnet pyroxene hornfels from 19.2 - 21.3 has a weathered leached appearance, this is probably due to the large number of open fissures in this section of the core. From 23.6 - 42.7 m the garnet pyroxene hornfels appears to be fresher.

Barren fresh grey marble bands occur between 21.3 - 23.6 and 37.4 - 38.5 m

Numerous calcite, pyroxene clay and quartz filled joints and fractures cut the core.

Joints/Fractures 19.2 m 75°
19.4 m 50°
19.8 m 28°
20.0 m 80°
21.2 m 18°
26.0 m 80°
28.0 m 60°
28.5 m 30°

Possible Faults 21.0 m
25.6 m
28.4 m
36.4 m

Bedding @ 22.0 m is 30°

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/26

42.7 - 45.2

PYROXENE HORNFELS

This unit consists of a pale olive green poorly mineralised pyroxene hornfels. The unit appears disturbed and is extensively cut by a network of chloritic and calcitic veinlets.

At 44 m and 45.0 m minor grossularite interbeds occur, these are associated with minor scheelite mineralisation.

Bedding @ 44 m is 52°
 45 m 70°

45.2 - 48.0

UPPER VOLCANICS?

This unit consists of a dark olive green rock, possibly upper volcanics.

The rock appears to be composed of fine grained pyroxene with actinolite and chlorite.

The unit has been severely fractured and contains an extensive network of calcite and chloritic veinlets.

From 47.8 - 48.0 minor pyroxene with grossularite garnet and calcite occurs with minor scheelite mineralisation.

EOH 48.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/25

PLANNING PROPOSER: R, E. Sandell Davies DEPTH: 50 m
LOCATION: W68 -220 strike drive
PURPOSE OF HOLE: Test Decline fault zone B lens & Grassy River Zone
PROPOSED CO-ORDS: 220 331 E 564 047 N
INCLINATION: 0°
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH: 50 m
CHECKED BY: S. G. Brown DATE: 15/7/80

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 100° 02' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220 331.3 E 564 047.7 N
R.L. OF COLLAR: -218.6
INCLINATION OF HOLE: +00° 49'
PICKED UP BY: R. Howman DATE: 24/7/80

SUMMARY LOGGED BY: R. H. Davies
RESULTS: 0.0 - 7.0 m, 7 m @ 2.79% WO₃ C Lens
18.0 - 46.0 m, 28 m @ 0.62% WO₃ B Lens

DRILLING DATE COMMENCED: 18/7/80 DATE TERMINATED: 23/7/80
DRILLER/CONTRACTOR: ADD/S. Batchelor
CASING: SIZE: 46TT
DEPTH:
CORE: SIZE:
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 46.2
REASON FOR TERMINATION: Passed through B Lens & Bad ground
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Single shot at 46.2 m
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/25

Surveyed method: Single shot camera
 Final depth: 46.2 m
 Casing depth:

Depth surveyed to: 46.2 m
 Date surveyed: 23/7/80
 Surveyed by: R. Drake
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.			
23 m	102°	92°	90°	0°			
46.2 m	012°	92°	90°	0°			

REMARKS: Bearing and Inclination for 23 m depth is assumed

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/25

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.00 - 3.00 m	3.00	3.00	100
3.00 - 6.00	3.00	3.00	100
6.00 - 8.00	2.00	2.00	100
8.00 - 10.50	2.50	2.50	100
10.50 - 12.00	1.50	1.60	100
12.00 - 13.00	1.00	0.30	30
13.00 - 13.50	0.50	0.30	60
13.50 - 14.00	0.50	0.40	80
14.00 - 15.00	1.00	0.68	68
15.00 - 15.70	0.70	0.47	70
15.70 - 16.60	0.90	0.90	100
16.60 - 18.00	1.60	1.50	94
18.00 - 20.20	2.20	1.90	86.4
20.20 - 21.70	1.50	1.50	100
21.70 - 23.20	1.50	1.50	100
23.20 - 24.70	1.50	1.50	100
24.70 - 26.20	1.50	1.50	100
26.20 - 27.70	1.50	1.50	100
27.70 - 29.20	1.50	1.50	100
29.20 - 32.20	3.00	3.00	100
32.20 - 35.50	3.00	3.00	100
35.50 - 38.20	2.70	2.70	100
38.20 - 41.20	3.00	3.00	100
41.20 - 44.20	3.00	3.10	103
44.20 - 45.20	1.00	0.84	84
45.20 - 46.20	1.00	1.00	100
EOH 46.20 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/25

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0 m	12		
1.0 - 2.0	47		
2.0 - 3.0	41		
3.0 - 4.0	34		
4.0 - 5.0	85		
5.0 - 6.0	61		
6.0 - 7.0	61		
7.0 - 8.0	90		
8.0 - 9.0	25		
9.0 - 10.0	11		
10.0 - 11.0	27		
11.0 - 12.0	36		
12.0 - 13.0	0		
13.0 - 14.0	0		
14.0 - 15.0	0		
15.0 - 16.0	11		
16.0 - 17.0	81		
17.0 - 18.0	95		
18.0 - 19.0	47		
19.0 - 20.0	58		
20.0 - 21.0	70		
21.0 - 22.0	89		
22.0 - 23.0	71		
23.0 - 24.0	86		
24.0 - 25.0	84		
25.0 - 26.0	95		
26.0 - 27.0	95		
27.0 - 28.0	60		
28.0 - 29.0	92		
29.0 - 30.0	100		
30.0 - 31.0	100		
31.0 - 32.0	85		
32.0 - 33.0	62		
33.0 - 34.0	100		
34.0 - 35.0	100		
35.0 - 36.0	88		
36.0 - 37.0	78		
37.0 - 38.0	97		
38.0 - 39.0	85		
39.0 - 40.0	94		
40.0 - 41.0	50		
41.0 - 42.0	87		
42.0 - 43.0	30		
43.0 - 44.0	79		
44.0 - 45.0	14		
45.0 - 46.0	17		

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/25

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.00 - 4.20	gh	9		Chl/calcite		100	59	Broken due to blasting?
4.20 - 8.40	pgh	6		Calcite/clay	50	100	91	
8.40 - 9.50	bh	27		Chl		100	19	Major Fault zone
9.50 - 15.80	DFZ	20		Clay/chl		61	17	
15.80 - 18.40	bph	7		Pyrite/chl		95	81	
18.40 - 44.00	gph	5	80 25 50 10	Clay/clay/chl	60	100	93	
44.0 - 46.2	bph	20		Chl/clay	70	92	32	Broken bph
EOH 46.2 m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/25

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12574	0	1	1.0	1.0	3.2	0.01		
75	1	2	"	"	1.97	0.01		
76	2	3	"	"	2.45	0.01		
77	3	4	"	"	8.40	0.01		
78	4	5	"	"	7.2	0.01		
79	5	6	"	"	2.90	0.01		
80	6	7	"	"	1.04	0.01		
81	7	8	"	"	0.27	0.01		
82	8	9	"	"	0.09	0.01		
83	15	16	"	"	0.23	0.01		
84	16	17	"	"	0.41	0.01		
85	18	19	"	"	0.61	0.01		
86	19	20	"	"	0.16	0.01		
87	20	21	"	"	0.31	0.01		
88	21	22	"	"	0.62	0.01		
89	22	23	"	"	0.81	0.01		
90	23	24	"	"	0.51	0.01		
91	24	25	"	"	0.44	0.01		
92	25	26	"	"	0.17	0.01		
93	26	27	"	"	0.53	0.01		
94	27	28	"	"	0.48	0.01		
95	28	29	"	"	0.65	0.01		
96	29	30	"	"	0.90	0.01		
97	30	31	"	"	0.27	0.01		
98	31	32	"	"	0.83	0.01		
99	32	33	"	"	0.90	0.01		
600	33	34	"	"	0.84	0.01		
01	34	35	"	"	0.91	0.01		
02	35	36	"	"	0.83	0.01		
03	36	37	"	"	0.63	0.01		
04	37	38	"	"	0.78	0.01		
05	38	39	"	"	0.55	0.01		
06	39	40	"	"	0.26	0.01		
07	40	41	"	"	0.64	0.01		
08	41	42	"	"	1.06	0.01		
09	42	43	"	"	0.84	0.01		
10	43	44	"	"	0.96	0.08		
11	44	45	"	"	0.31	0.02		
12	45	46	"	"	0.44	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/25

0.00 - 4.20 m GARNET HORNFELS

This unit consists of a well mineralised coarse grained andradite garnet skarn. The coarse dark andradite garnet is set in a matrix of pyroxene, actinolite and calcite.

4.20 - 8.20 PYROXENE GARNET HORNFELS

This unit consists of typical pyroxene garnet hornfels. A pale olive green rock which contains numerous calcite ovoids rimmed by pyroxene and grossular garnet.

The unit is well mineralised from 4.20 to 7.00 m

At 6.9 m the calcite ovoids appear to have a preferred orientation of their long axes. This may be a reflection of bedding 50° LCA.

Bedding? 6.9 m 50°

8.20 - 9.50 BIOTITE HORNFELS

This unit consists of a dark fine grained massive biotite hornfels. The unit contains irregular blebs and patches of pale olive green pyroxene.

At 9.0 m the core has been extensively crushed and slickensided.
Faults 9.0 m

9.50 - 15.80 DECLINE FAULT ZONE

The initial 2.1 m of this zone consists of small (0.2 cm) brecciated fragments of biotite hornfels set in a clayey matrix. On exposure to air this zone has swelled and deteriorated.

The remainder of the zone consists of completely fractured and jointed biotite hornfels. The biotite hornfels fragments were only rarely larger than 3.0 m long.

At 15.6 m a large piece of bedded biotite pyroxene hornfels was present. The rock contained numerous calcite veins as well as chlorite veinlets as a network. Disseminated pyrite is common and minor blue fluorescing scheelite was present. No other scheelite was observed in the D.F.Z.

15.80 - 18.40 BIOTITE PYROXENE HORNFELS

The core consists of what appears to be interbedded biotite hornfels and pyroxene hornfel layers, although no definite bedding was observed. The rock contains pyrite and chlorite on joint surfaces with numerous chlorite and pyroxene veinlets which form a network of dark veins.

Possible fault at 16.0 m where the core is broken.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/25

18.40 - 44.0

B LENS

This unit consists of a massive fine grained competent olive green mineralised garnet pyroxene hornfels. Within the garnet pyroxene hornfels are unmineralised units of marble and pyroxene hornfels. Such unmineralised units occur between

24.40 - 26.0 m as a fresh grey barren marble

39.20 - 39.8 as a barren light olive green pyroxene hornfels

Numerous veins and joints filled with calcite were common.

Open Fractures/joint occur at:

27.7 m

25.2 m

41.4 m

41.6 m

42.4 m

42.5 m

43.6 m

These fractures contain secondary calcite linings and clay and probably had water flowing along them.

Probable faults 20.4 m

40.2 m

Joints 19 m 80°

30 m 25°

20.7 m 50°

43.4 10°

Bedding 25.2 60°

44.0 - 46.2

BIOTITE PYROXENE HORNFELS

This unit is severely fractured and is cut by a network of chlorite and calcite veinlets.

At 44.0 a pug zone of chlorite and clay exists.

Minor mineralisation was observed between 45.2 - 45.8 m

The final 0.4 m is a dark barren banded biotite pyroxene hornfels

Faults 44.0 m

44.4

45.0

46.2

Bedding 45.4 70°

EOH 46.2 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/24

PLANNING PROPOSER: R.E. Sandell Davies DEPTH: 45 m
LOCATION: 240 W62
PURPOSE OF HOLE: Test Decline Fault Zone & B Lens
PROPOSED CO-ORDS: 220 347 E 563 999 N
INCLINATION: 0°
BEARING: 102° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: T. Potter DATE: 15/5/80

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 104° 47' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 563 999.44 N 220 347.99 E
R.L. OF COLLAR: -236.48
INCLINATION OF HOLE: +0° 29'
PICKED UP BY: J. Cook DATE: 20/6/80

SUMMARY LOGGED BY: R.E. Sandell Davies
RESULTS: 0.0 - 2.0 m, 2 m @ 0.72% WO₃ B Lens
13.0 - 28.0 m, 15 m @ 1.68% WO₃ B Lens

DRILLING DATE COMMENCED: 30/5/80 DATE TERMINATED: 19/6/80
DRILLER/CONTRACTOR: S. Batchelor/A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: NQ BQ
DEPTH: 8 38
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 38 m
REASON FOR TERMINATION: Abandoned in Grassy River Fault
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: No
WATER: Nothing Significant
COMMENTS ON DRILLING CONDITIONS: Good until G.R.F.Z.

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/24

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.3 m	2.3	1.5	65
2.3 - 3.0	0.7	0.2	29
3.0 - 4.6	1.6	0.15	9
4.6 - 5.2	0.6	0.2	30
5.2 - 5.9	0.7	0.2	29
5.9 - 6.5	0.6	0.25	42
6.5 - 7.0	0.5	0.3	60
7.0 - 8.6	1.6	1.5	94
8.6 - 10.1	1.5	0.9	60
10.1 - 12.8	2.7	2.2	81
12.8 - 14.0	1.2	1.2	100
14.0 - 17.0	3.0	3.0	100
17.0 - 20.0	3.0	3.0	100
20.0 - 22.5	2.5	2.5	100
22.5 - 25.5	3.0	3.0	100
25.5 - 28.0	2.5	2.0	80
28.0 - 28.5	0.5	0.2	40
28.5 - 29.0	0.5	0.2	40
29.0 - 30.0	1.0	0.4	40
30.0 - 31.0	1.0	0.1	10
31.0 - 36.1	5.0	12	24
26.1 - 37.0	0.9	0.3	33
37.0 - 38.0	1.0	0.1	10
EOH 38.0 m			

GEOLOGY - KING ISLAND SCHEELITE

LENGTH OF CORE GREATER THAN 10 CM PER METRE

D.D.H. No. D 340/24

INTERVAL (m)	LENGTH (cm)	INTERVAL (m)	LENGTH (cm)
0.0 - 1.0	0		
1.0 - 2.0	44		
2.0 - 3.0	10		
3.0 - 4.0	0		
4.0 - 5.0	0		
5.0 - 6.0	0		
6.0 - 7.0	55		
7.0 - 8.0	70		
8.0 - 9.0	70		
9.0 - 10.0	30		
10.0 - 11.0	65		
11.0 - 12.0	33		
12.0 - 13.0	12		
13.0 - 14.0	100		
14.0 - 15.0	80		
15.0 - 16.0	99		
16.0 - 17.0	98		
17.0 - 18.0	89		
18.0 - 19.0	90		
19.0 - 20.0	76		
20.0 - 21.0	80		
21.0 - 22.0	88		
22.0 - 23.0	77		
23.0 - 24.0	85		
24.0 - 25.0	88		
25.0 - 28.0	80		
26.0 - 27.0	84		
27.0 - 28.0	23		
28.0 - 29.0	0		
29.0 - 30.0	0		
30.0 - 31.0	10		
31.0 - 32.0	0		
32.0 - 33.0	0		
33.0 - 34.0	0		
34.0 - 35.0	0		
35.0 - 36.0	0		
36.0 - 37.0	0		
37.0 - 38.0	0		
EOH 38.0			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/24

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T/ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 2.2 m	pgh	10-15		cc/chlor			35	
2.2 - 6.2	D.F.Z.	> 20		chlor/gauge/clay			0	
6.2 - 12.9	bh/ph	4-19		chlor			54	
12.9 - 27.1	Gh	3-7		cc/clay/rock flour			96	
27.1 - 28.0	G.R.F.	> 20		chlor/clay/gauge			1	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/24

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12367	0	1	1.0	1.0	1.07	0.01		
68	1	2	"	"	0.37	0.01		
69	11	12	"	"	<0.01	0.01		
70	12	13	"	"	<0.01	<0.01		
71	13	14	"	"	0.40	0.01		
72	14	15	"	"	1.68	0.02		
73	15	16	"	"	0.78	0.01		
74	16	17	"	"	0.92	0.01		
75	17	18	"	"	0.91	0.02		
76	18	19	"	"	1.02	0.03		
77	19	20	"	"	4.6	0.06		
78	20	21	"	"	0.37	0.02		
79	21	22	"	"	0.55	0.02		
80	22	23	"	"	0.86	0.02		
81	23	24	"	"	1.72	0.04		
82	24	25	"	"	8.6	0.09		
83	25	26	"	"	5.6	0.07		
84	26	27	"	"	0.93	0.02		
85	27	28	"	"	3.1	0.08		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D340/24

0.0 - 2.2 m PYROXENE GARNET HORNFELS

Mineralised to about 1.5 m in typical pyroxene garnet hornfels fashion, i.e. large discrete scheelite crystals, with little or no small scale dissemination.

Core recovery is low, probably due to blasting effects. The bottom 60 cm of the unit is barren, disturbed and fractured biotite pyroxene hornfels.

2.2 - 6.2 DECLINE FAULT ZONE

Very poor core recovery, all material is less than 7 cm diameter and the majority has a diameter of around 2 cm.

Rock type is a sheared biotite hornfels, many of the smaller (1 cm) fragments are subrounded. Slickenslides are not extensively developed.

Two fragments of core, each 5 cm long @ 4.8 m and 5.5 m are a clay cemented breccia and may represent the "heart" of the Fault Zone.

6.2 - 12.9 BIOTITE/PYROXENE HORNFELS

Interbedded biotite hornfels and pyroxene hornfels, probably footwall of B Lens. The rock is fractured for the greater part of the unit.

Thin (2 cm) beds of grossularite are present @ 6.4 m. Otherwise the rock has a biotite hornfels background with 1.0 - 4.0 cm pyroxene hornfels interbeds.

Bedding is @ 65° to LCA @ 6.4 m
" 52° " 10.2 m
" 47° " 12.7 m

12.9 - 27.1 GARNET SKARN

Probably replaced B Lens marble, this unit is mineralised throughout. It looks particularly high grade from 21.0 - 25.0 m

The rock is competent and mostly unbroken except for a small fracture @ 20.3 m.

27.1 - 38.0 GRASSY RIVER FAULT

Extremely fractured, broken rock. Overall green colour and with a breccia/agglomerate texture. The rock is thought to be volcanic.

Extremely poor core recoveries were recorded. Most of the core consists of chlorite/clay mud with small 1.0 - 2.0 cm rock fragments or as short (5 cm) pieces of core. These are fragile and break up easily.

Hole abandoned @ 38.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/23

PLANNING PROPOSER: S. Grieve Brown DEPTH: 60 m

LOCATION: S13 Drive -200 m level

PURPOSE OF HOLE: To test for ore in 'B' lens

PROPOSED CO-ORDS: 220340.0 E 564062.0 N

INCLINATION:

BEARING: 360° GRID °MAG

TARGET: S. G. Brown E N

DEPTH: 30.60 m

CHECKED BY: S. G. Brown DATE: 27/7/79

SURVEY SURVEY CO-ORDS: E N

SURVEYED BEARING: 0° 01' GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220340.9 E 564061.3 N

R.L. OF COLLAR: -199.7

INCLINATION OF HOLE: +23° 55'

PICKED UP BY: R. Howman DATE: 6/9/79

SUMMARY LOGGED BY: S. G. Brown

RESULTS: Abandoned at 40.10 m

14-15 m, 1m @ 0.63% WO₃, 0.03% Mo. B-lens

21-22 m, 1 m @ 0.38% WO₃ 0.02% Mo. B-lens

DRILLING DATE COMMENCED: DATE TERMINATED:

DRILLER/CONTRACTOR:

CASING: SIZE:

DEPTH:

CORE: SIZE:

DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 41 m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Hole not surveyed (collapsing)

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/23

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.00 - 3.00 m	3.00	1.70	57
3.00 - 4.40	1.40	1.40	100
4.40 - 5.60	1.20	1.18	98
5.60 - 6.25	0.65	0.57	88
6.25 - 6.85	0.60	0.42	70
6.85 - 8.10	1.25	0.71	57
8.10 - 9.20	1.10	0.27	25
9.20 - 10.00	0.80	0.55	69
10.00 - 11.50	1.50	1.42	95
11.50 - 14.40	2.90	2.94	101
14.40 - 18.00	3.60	3.10	86
18.00 - 20.30	2.30	2.20	96
20.30 - 22.50	2.20	2.17	99
22.50 - 25.50	3.00	3.10	103
25.50 - 27.88	2.38	2.30	97
27.88 - 29.50	1.72	1.50	87
29.50 - 29.90	0.40	0.46	115
29.90 - 31.30	1.40	1.50	107
31.30 - 31.95	0.65	0.67	103
33.95 - 33.10	1.15	0.72	63
33.10 - 35.50	2.40	0.30	13
35.50 - 37.10	1.60	0.90	56
37.10 - 36.70	1.60	0.58	36
38.70 - 39.00	0.30	0.27	90
39.00 - 39.30	0.30	0.30	100
39.30 - 39.70	0.40	0.15	38
39.70 - 41.00	1.30	0.55	42

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/23

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 6.25 m	bh		10	Chl/sulph/clay			24.0	
6.25 - 9.5	bh		> 20 very fractured	Chl			0	
9.5 - 10.8	bh		10	Chl/clay	Movement 32° @ 10.40		35	
10.8 - 14.00	gph		15	Carb/chl/clay			83	
14.00 - 14.40	pgh		> 20	Carb/clay			0	
14.40 - 17.5	gph		13	Carb/clay/			52	
17.40 - 20.0	C R U S H E D		Z O N E				0	
20.0 - 22.6	ch		0.5	Cal/sulph			13	
22.6 - 29.3	pbh		> 20	Clay/chl/sulph			34	
29.3 - 41.0	Breccia			Chl/clay/sulph			13	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/23

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11519	12	13	1.0	1.0	0.12	< 0.01		
20	13	14	"	"	0.09	0.01		
21	14	15	"	"	0.63	0.03		
22	15	16	"	"	0.20	0.02		
23	16	17	"	"	0.03	0.01		
24	17	18	"	"	0.12	0.02		
25	20	21	"	"	0.28	0.01		
26	21	22	"	"	0.38	0.02		
27	22	23	"	"	0.06	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/23

0.00 - 10.80 m BIOTITE HORNFELS

This unit consists of a biotite hornfels with a chlorite matrix in which some garnet and pyroxene is present. The unit has been strongly deformed. Lamination has been observed 6.00 - 8.70 m. The light and dark grey bands are sub-parallel to LCA - 10° @ 6.85 m and may represent bedding.

Between 2.10 m and 3.64 m a small band of garnet hornfels is present. Minor scheelite mineralisation is associated with this band. As are numerous calcite veinlets. A small breccia zone is present at 4.40 m to this zone angular fragments of the biotite hornfels are set in a matrix of chlorite. A similar breccia occurs at 9.90 m

Main fractures are located at 0.65 m.
4.40 m 10° LCA
9.90 m

10.80 - 17.40 GARNET PYROXENE HORNFELS

This is an olive green rock with abundant calcite veinlets. Minor scheelite mineralisation was present from 12.30 to 13.20 m. Between 14.00 - 14.40 m the core is broken which may indicate the present of a fault. Adjacent to this area there is some scheelite mineralisation 14.40 - 15.40 m

Major fractures
14.00 - 14.10
Sub parallel Joints @ 16.2 m
25° @ 17.2 m

17.40 - 20.00 CRUSH ZONE

Within this interval the core has been completely chloritised and sheared - numerous joint planes are present.

The core has turned to pug on exposure to air and water. Also the pressure of along within this region many indicate it is a channel for water.

20.00 - 22.60 MARBLE

This unit is a fine grained light gray marble which has been partially replaced to a pyroxene garnet skarn. Some good scheelite mineralisation is present between 20.30 - 21.45.

Major joint @ 21.70 m 26°

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/23

22.60 - 29.30 m

PYROXENE BIOTITE HORNFELS

This unit is an olive green colour and may simply be the top of the marble unit. which has been more completely replaced.

This part of the unit however, has been more extensively deformed. With numerous joint planes being present. These have mainly been filled with chlorite although some calcite is present. More competent pyroxene hornfels bands have calcite fillings whilst more biotite rich bands are more extensively jointed. These have chlorite filling along the joint planes.

29.30 - 40.10

BRECCIA

This zone consists of a breccia with angular fragments of biotite hornfels and pyroxene hornfels? Set in a chlorite biotite matrix.

Much of the core in this region has been reduced to rubble less than 2 cm. diameter which has often been completely reduced to pug.

At 36.00 m a smeared bed out was at an angle of 18° to LCA and this may indicate the direction of movement. Generally there was no alignment of the angular fragments within the breccia.

EOH 40.10 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/22

PLANNING PROPOSER: R. E. S. Davies DEPTH: 60 m
LOCATION: S13 Diamond Drill Drive
PURPOSE OF HOLE: To Define B Lens Above Decline Fault
PROPOSED CO-ORDS: 220340 E 564060 N
INCLINATION: +45°
BEARING: 0 ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: S. G. Brown DATE: 5/7/79

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 359° 50' GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220340.4 E 564061.1 N
R.L. OF COLLAR: W-199.2
INCLINATION OF HOLE: +44° 30'
PICKED UP BY: R. Howman DATE: 10/7/79

SUMMARY LOGGED BY: R. E. S. Davies
RESULTS: 40 - 48 m 8 m at 0.48% 0.03
52 - 61 m 9 m at 0.51% 0.03
64 - 75 m 11 m at 1.95% 0.9

DRILLING DATE COMMENCED: 27/6/79 DATE TERMINATED: 9/7/79
DRILLER/CONTRACTOR: ADD
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: ~~66.00~~ 80.90 m
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION: Nil
FINAL DEPTH: ~~66.00~~ → 80.90 m
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Mutlishop to 59.60m
WATER:
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/22

Surveyed method: Multishot
 Final depth: 66.00 m
 Casing depth: -

Depth surveyed to: 59.60 m
 Date surveyed: 9/7/79
 Surveyed by: L. Denby
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		N	W
10.00	360°	350°	45° 45'	+44° 15'	6.98	7.05	1.24
25.00	1°	351°	45° 45'	+44° 15'	17.45	17.66	2.92
31.00	1°	351°	45° 15'	+44° 45'	21.67	21.87	3.59
40.00	1°	351°	45° 15'	+44° 45'	28.01	28.18	4.59
55.00	1°	351°	45°	+45°	38.62	38.66	6.25
59.60	1°	351°	45°	+45°	41.87	41.87	6.76
66.00	1°	351°	45°	+45°	46.40	46.34	7.47

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/22

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.5	1.5	1.5	100
1.5 - 2.9	1.4	1.4	100
2.9 - 5.5	2.6	2.6	100
5.5 - 7.65	2.15	2.15	100
7.65 - 9.1	1.45	1.45	100
9.1 - 12.1	3.0	3.0	100
12.1 - 15.1	3.0	3.0	100
15.1 - 17.8	2.7	2.7	100
17.8 - 20.85	3.05	3.05	100
20.85 - 23.85	3.0	3.0	100
23.85 - 26.8	2.95	2.95	100
26.8 - 29.75	2.95	2.95	100
29.75 - 32.75	3.0	3.0	100
32.75 - 35.7	2.95	2.95	100
35.7 - 38.7	3.0	3.0	100
38.7 - 41.7	3.0	3.0	100
41.7 - 44.7	3.0	3.0	100
44.7 - 47.7	3.0	3.0	100
47.7 - 50.7	3.0	3.0	100
50.7 - 53.65	2.95	2.95	100
53.65 - 56.6	2.95	2.95	100
56.6 - 59.6	3.0	3.0	100
59.6 - 62.45	2.85	2.85	100
62.45 - 63.89	1.34	1.34	100
63.89 - 66.1	2.21	2.21	100
66.1 - 66.4	0.30	0.45	150
66.4 - 69.0	2.6	2.6	97
69.0 - 72.0	3.0	2.96	99
72.0 - 74.8	2.80	2.72	97
74.8 - 75.5	0.70	0.47	67
75.5 - 76.8	1.30	0.93	72
76.8 - 77.5	0.70	0.54	77
77.5 - 78.0	0.5	0.25	50
78.0 - 78.2	0.20	0.18	90
78.2 - 79.1	0.90	0.70	78
79.1 - 79.7	0.60	0.55	92
79.7 - 80.4	0.7	0.57	81
80.4 - 80.7	0.30	0.03	10
80.7 - 80.9	0.20	0.06	30
EOH 80.90 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/22

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 5.2	Gph	9-12		Ch1/carb		100	36%	
5.2 - 15.2	Ch	2-5		Carb		100	82	
15.2 - 20.1	Ch (min)	2-4		Carb/clay		100	82	
20.1 - 33.4	Ch	6-12		Carb/ch1	24°-24.5m	100	65	
33.4 - 66.0	Gph	7-15		Ch1/carb/clay		100	37	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/22

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 10831	0	1	1.0	1.0	0.29	0.02		
32	1	2	"	"	1.16	0.05		
33	2	3	"	"	0.75	0.04		
34	3	4	"	"	0.26	0.02		
35	4	5	"	"	0.21	0.02		
36	5	6	"	"	0.07	0.02		
37	6	7	"	"	<0.01	0.01		
38	7	8	"	"	<0.01	0.01		
39	8	9	"	"	<0.01	0.01		
40	13	14	"	"	<0.01	0.01		
41	14	15	"	"	<0.01	0.04		
42	15	16	"	"	<0.01	0.02		
43	16	17	"	"	<0.01	0.01		
44	17	18	"	"	0.03	0.02		
45	18	19	"	"	0.13	0.02		
46	19	20	"	"	<0.01	0.01		
47	20	21	"	"	<0.01	0.01		
48	21	22	"	"	<0.01	0.01		
49	22	23	"	"	<0.01	<0.01		
50	23	24	"	"	<0.01	0.01		
51	24	25	"	"	<0.01	<0.01		
52	25	26	"	"	<0.01	0.01		
53	26	27	"	"	<0.01	0.01		
54	27	28	"	"	<0.01	0.01		
55	28	29	"	"	<0.01	0.01		
10901	29	30	"	"	<0.01	0.01		
56	30	31	"	"	<0.01	0.01		
57	31	32	"	"	<0.01	<0.01		
58	32	33	"	"	<0.01	0.01		
59	33	34	"	"	0.04	0.01		
60	34	35	"	"	0.44	0.01		
61	35	36	"	"	0.55	0.03		
62	36	37	"	"	0.16	0.03		
63	37	38	"	"	0.05	0.02		
64	38	39	"	"	0.18	0.02		
65	39	40	"	"	0.19	0.03		
66	40	41	"	"	0.59	0.02		
67	41	42	"	"	0.36	0.02		
68	42	43	"	"	0.63	0.02		
69	43	44	"	"	0.46	0.02		
70	44	45	"	"	0.80	0.03		
71	45	46	"	"	0.42	0.03		
72	46	47	"	"	0.15	0.04		
73	47	48	"	"	0.45	0.02		
74	48	49	"	"	0.07	0.01		
75	49	50	"	"	0.26	0.02		
76	50	51	"	"	<0.01	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/22

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 10877	51	52	1.0	1.0	0.20	0.01		
78	52	53	"	"	0.75	0.03		
79	53	54	"	"	0.55	0.04		
80	54	55	"	"	0.47	0.04		
81	55	56	"	"	0.55	0.05		
82	56	57	"	"	0.28	0.01		
83	57	58	"	"	0.29	0.02		
84	58	59	"	"	0.55	0.02		
85	59	60	"	"	0.55	0.03		
86	60	61	"	"	0.56	0.03		
87	61	62	"	"	0.19	0.02		
88	62	63	"	"	0.03	0.01		
89	63	64	"	"	0.04	0.01		
90	64	65	"	"	1.93	0.08		
91	65	66	"	"	3.14	0.47		
92	66	67	"	"	0.91	0.07		
93	67	68	"	"	0.30	<0.01		
94	68	89	"	"	0.91	0.05		
95	89	70	"	"	0.45	0.01		
96	70	71	"	"	0.65	0.04		
97	71	72	"	"	0.48	0.03		
98	72	73	"	"	0.72	0.02		
99	73	74	"	"	1.22	0.04		
10900	74	75	"	"	10.7	0.21		
11516	75	76	"	"	0.01	0.02		
17	76	77	"	"	<0.01	0.02		
18	77	78	"	"	0.01	0.03		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/22

0.0 - 5.2 m GARNET PYROXENE HORNFELS

This rock has a greenish grey colour and a moderate grain size, This unit is homogenous with no interbands. It is poorly mineralised.

Slickenslides and broken rock at 3.5 m indicates minor Faulting.

5.2 - 15.2 MARBLE

This light to pale grey fine grained marble is sparsely mineralised in its upper 1 m. Although it is commonly disturbed there are no interbeds. The rock is reasonably competent.

15.2 - 20.1 MINERALISED MARBLE

This section of core is mostly a cream colour, but with rare pale green parts. The rock is very disturbed and is mineralised.

Swelling clays and fractured rock at 15.5 m probably indicates Faulting.

20.1 - 33.4 MARBLE

This rock unit is similar to that previously described. The major difference being that this unit is more broken up by jointing and minor faulting than the previous unit. This probably explains the very sparse mineralisation present here. The rock is badly broken @ 25.0 - 26.0 m

28.2 m

32.7 m

Joints 24° to LCA @ 24.15 m

33.4 - 60.00 GARNET PYROXENE HORNFELS

This large unit is homogeneous, consisting of intermixed, andradite garnet and pyroxene hornfels, with consequent generally good mineralisation.

Its colour varies from khaki brown to khaki green. Grain size also varies from coarse to fine. The rock is very disturbed throughout its length and in some places is extensively fractured eg. 46.4 - 47.0 m

59.0 - 59.5 m

At 66 m a large amount of molybdenite is present.

60.00 - 74.10 GARNET PYROXENE SKARN

A well mineralised unit of garnet pyroxene hornfels with minor calcite present throughout as beds and small veinlets. Scheelite mineralization is finely dispersed throughout.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/22

74.10 - 76.80 m BANDED BIOTITE PYROXENE GARNET HORNFELS

Initially this unit has a number of mineralised garnet rich bands present in it.

74.10 - 74.60 This is a garnet rich band containing about 50% scheelite.

Below 74.60 m the core is very badly broken and only very minor amounts of this natural is bigger than 0.05 m in size.

76.80 - 77.15 POSSIBLE FAULT ZONE

This appears to be a fault breccia at least partially recemented with calcite.

77.15 - 80.90 ?QUARTZITES

A dark grey-black fine grained siliceous hornfels. This core is extremely broken but the overall appearance suggest that this is quartzites.

EOH 80.90 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/21

PLANNING PROPOSER: R. E. S. Davies DEPTH: 50m

LOCATION: S13 Diamond Drill Drive

PURPOSE OF HOLE: To Define B lens Above Decline Fault

PROPOSED CO-ORDS: 220340 E 564060 N

INCLINATION: +24

BEARING: 180 ° GRID ° MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N

SURVEYED BEARING: 181° 11' ° GRID ° MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220340.1 E 564056.3 N

R.L. OF COLLAR: -199.8

INCLINATION OF HOLE: +25° 37'

PICKED UP BY: W. Davies DATE: 5/7/79

SUMMARY LOGGED BY: R. E. S. Davies

RESULTS: 39 - 43 m 4 m @ 0.71% WO₃

DRILLING DATE COMMENCED: 27/6/79 DATE TERMINATED: 5/7/79

DRILLER/CONTRACTOR:

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 54m

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION: 4m

FINAL DEPTH: 54.0m

REASON FOR TERMINATION: Out of Ore & Into Fault Zone

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multic-shot

WATER: -

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/21

Surveyed method: Multishot
Final depth: 55.00 m
Casing depth: Nil

Depth surveyed to: 49.50 m
Date surveyed: 4/7/79
Surveyed by: L. Denby
Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		S	E
4	181°	171°	65°	+25°	1.69	3.59	.57
7	180°	170°	65°	+25°	2.96	6.27	1.04
19	182°	172°	65°	+25°	8.03	17.04	2.55
31	181°	171°	65°	+25°	13.10	27.81	4.06
43	181°	171°	65°	+25°	18.17	38.58	5.57
49	181°	171°	65°	+25°	20.71	43.95	6.42
55	181°	171°	65°	+25°	23.25	49.32	7.27

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/21

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.95	2.95	2.95	100
2.95 - 5.9	2.95	2.95	100
5.9 - 8.9	3.0	3.0	100
8.9 - 11.9	3.0	3.0	100
11.9 - 14.9	3.0	3.0	100
14.9 - 17.9	3.0	3.0	100
17.9 - 20.9	3.0	3.0	100
20.9 - 24.0	3.1	3.1	100
24.0 - 27.0	3.0	3.0	100
27.0 - 30.0	3.0	2.7	90
30.0 - 33.0	3.0	3.0	100
33.0 - 36.0	3.0	3.0	100
36.0 - 39.0	3.0	2.7	90
39.0 - 42.0	3.0	3.0	100
42.0 - 45.0	3.0	3.0	100
45.0 - 48.0	3.0	3.0	100
48.0 - 49.5	1.5	1.3	87
49.5 - 51.6	2.1	2.0	95
51.6 - 52.6	1.0	0.9	90
52.6 - 53.35	0.75	0.6	80
53.35 - 54.0	0.65	0.5	77
 EOH 54.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 320/21

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 47.5	B lens	4-10	24°-6.5m	Carb/chl/clay	24° - 167	100	75	
47.5 - 54.0	Fault zone	20		Chl/clay/carb		88	7	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/21

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 10783	0	1	1.0	1.0	<0.01	0.01		
84	1	2	"	"	0.02	<0.01		
85	2	3	"	"	0.27	0.03		
86	3	4	"	"	0.61	0.04		
87	4	5	"	"	0.20	0.02		
88	5	6	"	"	<0.01	<0.01		
89	6	7	"	"	<0.01	<0.01		
90	7	8	"	"	<0.10	<0.01		
91	8	9	"	"	0.05	0.01		
92	9	10	"	"	0.84	0.05		
93	10	11	"	"	1.19	0.06		
94	11	12	"	"	0.33	0.03		
95	12	13	"	"	<0.01	<0.01		
96	13	14	"	"	<0.01	<0.01		
97	15	16	"	"	<0.01	<0.01		
98	16	17	"	"	<0.01	<0.01		
99	17	18	"	"	0.04	0.01		
10800	18	19	"	"	0.25	0.02		
01	19	20	"	"	0.16	0.01		
02	20	21	"	"	0.18	0.02		
03	21	22	"	"	0.28	0.03		
04	22	23	"	"	0.08	0.01		
05	23	24	"	"	0.43	0.03		
06	24	25	"	"	0.16	0.01		
07	25	26	"	"	0.23	0.01		
08	26	27	"	"	0.54	0.01		
09	27	28	"	"	0.33	0.01		
10	28	29	"	"	0.06	<0.01		
11	29	30	"	"	0.07	0.01		
12	30	31	"	"	<0.01	<0.01		
13	31	32	"	"	<0.01	<0.01		
14	32	33	"	"	<0.01	<0.01		
15	33	34	"	"	0.05	<0.01		
16	34	35	"	"	<0.01	<0.01		
17	35	36	"	"	0.73	0.02		
18	36	37	"	"	0.40	0.01		
19	37	38	"	"	0.01	0.01		
20	38	39	"	"	0.04	0.01		
21	39	40	"	"	0.31	0.01		
22	40	41	"	"	0.94	0.02		
23	41	42	"	"	0.81	0.03		
24	42	43	"	"	0.78	0.02		
25	43	44	"	"	<0.01	0.01		
26	44	45	"	"	0.24	0.01		
27	45	46	"	"	0.01	0.01		
28	46	47	"	"	0.05	0.01		
29	47	48	"	"	0.15	0.01		
30	48	49	"	"	0.01	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/21

0.0 - 47.5m B LENS

This unit consists mostly of andradite skarn and carbonate hornfels. The unit is best described by Subdivision.

0.0 - 4.5m Garnet hornfels andradite skarn, greeny brown, poor scheelite.

4.5 - 9.0 Carbonate hornfels, light grey to cream.

S₁ 24° to LCA @ 6.5m with clay filling bedding is disturbed

9.0 - 11.8 Garnet hornfels andradite skarn, greeny brown, good mineralisation massive competent rock.

11.8 - 17.3 Marble, light grey marble, brecciated, and refilled @ 14m leaving vughs and cavities.

Bedding 24° to LCA @ 16.7m

17.3 - 30.0 Garnet hornfels andradite skarn with pyroxene hornfels. Variable mineralisation. Faulting between 28.2 and 29m evidence by slickensides and clay development.

30.0 - 33.0 Marble. Pale grey marble, no mineralisation. The core is disturbed generally and loose and rubbly from 32 - 33m with some clay.

33.0 - 39.0 A light brown rock, well fractured and broken. Part andradite skarn with poor mineralisation.

39.0 - 47.5 Andradite skarn with pyroxene hornfels. Moderate mineralisation is present. A number of fractures ore common, non filled with, calcite.

47.5 - 55.0 FAULT ZONE

Here the core is very broken, loose and rubbly, most fragments display slickensides and some clay is present. The lithology is mainly pyroxene 2 biotite hornfels, but on aplite dyke is present @ 51.0m probably about 30m thick.

EOH 55m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/20

PLANNING PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S13 Daimond Drill Drive
PURPOSE OF HOLE: To Define B-lens Above the Decline Fault zone
PROPOSED CO-ORDS: 220340 E 564060 N
INCLINATION: +90°
BEARING: ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 201° 30' ° GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220340.0 E 564057.8 N
R.L. OF COLLAR: -198.9
INCLINATION OF HOLE: +88° 55'
PICKED UP BY: W. Davies DATE: 5/7/79

SUMMARY LOGGED BY: R. E. Sandell Davies
RESULTS: 28 - 32m 4m @ 0.45% WO₃ B Lens

DRILLING DATE COMMENCED: 22/6/79 DATE TERMINATED: 27/6/79
DRILLER/CONTRACTOR: A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: 39m
WEDGE PLACED: N11 DEPTH: PROPOSER:
EXTENSION: N11
FINAL DEPTH: 39m
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Multishot
WATER:
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. Ø 340/20

Surveyed method: Multishot
 Final depth: 39.60 m
 Casing depth: -

Depth surveyed to: 39.60 m
 Date surveyed: 27.6.79
 Surveyed by: L. Denby
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		S	W
4.00	203°	193°	1° 15'	+88° 45'	4.00	.09	.02
19.00	191°	181°	1° 45'	+88° 15'	18.99	.55	.03
28.00	193°	193°	1°	+89°	27.99	.71	.07
31.00	191° 30'	181° 30'	1°	+89°	30.99	.76	.07
39.60	200°	190°	1°	+89°	39.59	.91	.10

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/20

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.4 m	1.4	1.4	100
1.4 - 2.8	1.4	1.4	100
2.8 - 5.8	3.0	3.0	100
5.8 - 8.8	3.0	3.0	100
8.8 - 11.8	3.0	3.0	100
11.8 - 14.8	3.0	3.0	100
14.8 - 17.7	2.9	2.9	100
17.7 - 20.7	3.0	3.0	100
20.7 - 21.7	0.8	0.8	100
21.5 - 23.8	2.8	1.6	57
23.8 - 26.8	3.0	3.0	100
26.8 - 28.5	1.7	1.3	76
28.5 - 31.2	1.7	1.7	100
31.2 - 33.2	2.0	2.0	100
33.2 - 35.2	2.0	1.5	75
35.2 - 35.7	0.5	0.3	60
35.7 - 36.5	0.8	0.8	100
36.5 - 38.0	1.5	1.5	100
38.0 - 39.6	1.6	1.6	100
EOH 39.6 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/20

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A O C)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 24.6 m	Ch	6-10	16 - 4.8 67 - 9.4 30 - 17.5 140 - 22.0	Carb/chl/clay	40° - 3.6m 40° - 13.7m 48° - 15.6m 32° - 22.0m	95	0.62	
24.6 - 31.4	Gh	3-8		Chl/carb/chl	43° - 28.0m	94	0.41	
31.4 - 39.6	Ph	7-20	:	Chl/carb	37° - 32.2 26° - 37.7 34° - 39.3	91	0.46	
EOH 39.6 m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) = $\frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/20

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11354	1	2	1.0	1.0	0.05	0.01		
55	2	3	"	"	<0.01	0.01		
56	3	4	"	"	<0.01	0.01		
57	15	16	"	"	<0.01	0.01		
58	16	17	"	"	0.42	0.02		
59	17	18	"	"	0.02	0.01		
60	18	19	"	"	<0.01	<0.01		
61	19	20	"	"	0.01	0.01		
62	20	21	"	"	<0.01	0.01		
63	21	22	"	"	<0.01	0.01		
64	22	23	"	"	<0.01	<0.01		
65	23	24	"	"	<0.01	<0.01		
66	24	25	"	"	0.13	0.01		
67	25	26	"	"	0.44	0.03		
68	26	27	"	"	<0.01	<0.01		
69	27	28	"	"	<0.01	<0.01		
70	28	29	"	"	0.49	0.03		
71	29	30	"	"	0.36	0.03		
72	30	31	"	"	0.52	0.03		
73	31	32	"	"	0.44	0.02		
74	32	33	"	"	<0.01	0.01		
75	33	34	"	"	<0.01	0.01		
76	34	35	"	"	<0.01	0.01		
77	35	36	"	"	<0.01	0.01		

SPECIFIC GRAVITY

Determined by:

Depth (metres):

Rock Type:

S.G.:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/20

0.0 - 24.6 m CARBONATE HORNFELS

This is a rather heterogeneous unit, containing a number of lithologies other than true marble. Since these lithologies occur on a small scale and are frequently repeated and are probably not laterally continuous, they are all logged as a whole. However they will be described separately.

Marble - comprising about 75% of the unit. Light grey colour, rarely creamy, fine grained numerous carbonate veins, occasionally producing vughs, and cavities eg. 6.0 m, 11.5 m. Locally brecciated as at 21.0 - 24.0 m also producing vughs and cavities. Bedding is generally well developed.

Pyroxene Hornfels - locally interbanded with the marble eg. 1.6 m and admixed as at 18.7 - 20.7. Here is is brecciated with consequent vughs development.

Andradite Skarn - developed locally as at 2.1 m and 15.8 - 17.5 m. Brown coloured, medium grained with good mineralisation. A siliceous bed occurs at 7 m. Mineralisation is as follows:

0.0 - 2.4 m Good.
16.0 - 17.5 m Good.
17.5 - 24.5 m Patchy.
24.5 - 31.4 m Fair.
31.4 - 34.2 m Poor.

Faults suspected at:

2.1 m Crushed rock.
@ 7.5 m Brecciated rock.
@ 12.5 Brecciated rock.
@ 16.0 Crushed and disturbed rock.
@ 19.0 Brecciated rock.
@ 21.0 Brecciated rock.
@ 23.5 Brecciated rock.

The upper boundary of the unit is gradational.

Bedding	40° to LCA	at	3.6 m
Bedding	40°		13.7 m
Bedding	48°		15.6 m
Bedding	32°		22.0 m

Joints	16°		4.8 m
Joints	67°		9.4 m
Joints	30°		17.5 m
Joints	140°		22.0 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/20

24.6 - 31.4 m GARNET HORNFELS

Vague contacts both above and below this unit. The colour and texture of this unit varies from brown and coarse grained in the andradite hornfels sections to grey/green fine - medium grained rock in the pyroxene hornfels parts. The pyroxene hornfels forms about 40% of the unit and is locally well bedded.

Mineralisation is fair in this unit. The rock is broken and brecciated @ 27.3 m and contains some vughs, - possible fault:

Bedding 43° to LCA at 28.6 m.

31.4 - 39.6 PYROXENE HORNFELS

This unit grades into the garnet hornfels and has an overall olive green colour, although significant biotite hornfels are developed in the last 1 m.

Bedding is usually well developed and there is poor mineralisation from 31.4 - 34.2 m. Lensoid structures about 1 cm long and present through most of the unit. These probably represent compressed detrital clasts. Is this the "possible tuffite". *NO*

Bedding 37° to LCA at 32.2 m
Bedding 26° 37.7 m
Bedding 34° 39.3 m

Extensive fracturing and broken rock with slickensides occurs at:

35.0 - 36.0 m
36.0 - 5 m
36.3 - 37.5 m

Probably indicating significant faults.

EOH 39.6 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/19

PLANNING PROPOSER: R. E. S. Davies DEPTH: 100m
LOCATION: S9 Diamond Drill Drive
PURPOSE OF HOLE: To Define Southern Area
PROPOSED CO-ORDS: 220330 E 563900 N
INCLINATION: -53°
BEARING: 169° GRID MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: $173^{\circ} 45'$ GRID MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220331.1 E 563899.6 N
R.L. OF COLLAR: -236.6
INCLINATION OF HOLE: $-50^{\circ} 54'$
PICKED UP BY: D. Cameron DATE: 4/7/79

SUMMARY LOGGED BY: R E. S. Davies
RESULTS: 71-78, 7m @ 0.9% WO_3
patchy mineralisation

DRILLING DATE COMMENCED: 23/6/79 DATE TERMINATED: 29/6/79
DRILLER/CONTRACTOR: A.D.D.
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: 111m
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION: 11m
FINAL DEPTH: 111m
REASON FOR TERMINATION: In Granite
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Multi-shot
WATER:
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

52-915

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/19

Surveyed method: Multishot
 Final depth: 111.00 m
 Casing depth: 1.00 m

Depth surveyed to: 111.00 m
 Date surveyed: 2/7/79
 Surveyed by: L. Denby
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		S	E
19.00	176°	166°	38°	-52°	14.97	11.35	2.83
25.00	177°	167°	38°	-52°	22.06	16.75	4.08
31.00	176°	166°	38°	-52°	26.79	20.33	4.97
40.00	177°	167°	37° 45'	-52° 15'	33.91	25.70	6.21
43.00	177°	167°	37° 45'	-52° 15'	36.28	27.49	6.62
52.00	177°	167°	37° 30'	-52° 30'	43.42	32.83	7.85
64.00	177°	167°	37° 30'	-52° 30'	52.94	39.95	9.49
76.00	177°	167°	37° 30'	-52° 30'	62.46	47.07	11.13
85.00	177°	167°	37° 30'	-52° 30'	69.60	52.41	12.36
97.00	176° 30'	166° 30'	37° 15'	-52° 45'	79.15	59.49	14.06
103.00	176°	166°	37° 15'	-52° 45'	83.93	63.02	14.94
111.00	176°	166°	37° 15'	-52° 45'	90.30	67.73	16.11

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/19

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.0m	1.0	0.75	75
1.0 - 1.7	0.7	0.7	100
1.7 - 3.1	1.4	1.4	100
3.1 - 6.1	3.0	3.0	100
6.1 - 8.4	2.3	2.3	100
8.4 - 11.2	2.8	2.8	100
11.2 - 14.2	3.0	3.0	100
14.2 - 17.2	3.0	3.0	100
17.2 - 20.2	3.0	3.0	100
20.2 - 23.2	3.0	3.0	100
23.2 - 25.4	2.2	2.2	100
25.4 - 27.5	1.9	1.9	100
27.5 - 29.8	2.3	2.3	100
29.8 - 32.8	3.0	3.0	100
32.8 - 35.8	3.0	3.0	100
35.8 - 38.8	3.0	3.0	100
38.8 - 41.8	3.0	3.0	100
41.8 - 44.8	3.0	3.0	100
44.8 - 47.8	3.0	3.0	100
47.8 - 50.8	3.0	3.0	100
50.8 - 53.8	3.0	3.0	100
53.8 - 56.8	3.0	3.0	100
56.8 - 59.8	3.0	3.0	100
59.8 - 62.8	3.0	3.0	100
62.8 - 65.2	2.4	2.4	100
65.2 - 68.2	3.0	3.0	100
68.2 - 71.1	2.9	2.9	100
71.1 - 74.0	2.9	2.9	100
74.0 - 77.0	3.0	3.0	100
77.0 - 80.2	3.2	3.2	100
80.2 - 81.7	1.5	1.5	100
81.7 - 84.6	2.9	2.9	100
84.6 - 87.6	3.0	3.0	100
87.6 - 90.1	2.5	2.5	100
90.1 - 92.0	1.9	1.9	100
92.0 - 94.6	2.6	2.6	100
94.6 - 97.5	2.9	2.9	100
97.5 - 100.4	2.9	2.9	100
100.4 - 103.3	2.9	2.9	100
103.3 - 103.7	0.4	0.4	100
103.7 - 104.2	0.5	0.5	100
104.2 - 106.7	2.5	2.5	100
106.7 - 108.0	1.3	1.3	100
108.0 - 111.0	3.0	3.0	100
EOH 111.0m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D. 340/19

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11246	36	37	1.0	1.0	<0.01	0.02		
47	37	38	"	"	0.02	0.03		
48	38	39	"	"	0.29	0.03		
49	39	40	"	"	0.11	0.01		
50	40	41	"	"	0.05	0.02		
51	41	42	"	"	0.04	0.02		
11301	50	51	"	"	<0.01	<0.01		
02	51	52	"	"	<0.01	0.02		
03	52	53	"	"	<0.01	0.01		
10752	61	62	"	"	0.03	0.03		
53	62	53	"	"	0.05	0.03		
54	63	64	"	"	0.04	0.01		
55	64	65	"	"	0.10	0.02		
56	65	66	"	"	0.04	0.02		
57	66	67	"	"	<0.01	0.01		
58	67	68	"	"	<0.01	0.01		
59	68	69	"	"	<0.01	<0.01		
60	69	70	"	"	0.10	<0.01		
61	70	71	"	"	0.04	0.01		
62	71	72	"	"	1.04	0.04		
63	72	73	"	"	1.22	0.17		
64	73	74	"	"	3.00	0.05		
65	74	75	"	"	0.16	0.05		
66	75	76	"	"	0.35	<0.01		
67	76	77	"	"	0.24	<0.01		
68	77	78	"	"	0.34	<0.01		
69	78	79	"	"	0.02	0.01		
70	79	80	"	"	<0.01	0.01		
71	80	81	"	"	<0.01	0.01		
72	81	82	"	"	<0.01	0.01		
73	82	83	"	"	<0.01	0.01		
74	83	84	"	"	0.07	<0.01		
75	84	85	"	"	0.01	0.01		
76	85	86	"	"	0.02	0.02		
77	86	87	"	"	<0.01	0.02		
78	87	88	"	"	<0.01	0.02		
79	88	89	"	"	0.37	0.02		
80	89	90	"	"	<0.01	0.01		
81	90	91	"	"	<0.01	0.02		
82	91	92	"	"	0.03	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/19

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.00 - 32.4	Bh	4-10		Chl/carb		99	72	
32.4 - 41.6	Ph	10-15		Chl/carb		100	29	
41.6 - 56.93	Ch	4-8		Chl/carb			75	
56.93 - 91.88	Ch	3-10		Chl/carb			70	
91.88 - 106.8	Bh	6-18		Chl/carb			51	
106.8 - 111.0	Ad	8-19		Chl/carb/qtz			31	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/19

0.0 - 32.4m BIOTITE HORNFELS

This large unit is virtually all dark grey and fine grained. Interbeds of pyroxene hornfels are only present in the last 4m. The rock is massive and competent. At 9.2m there is a lithified breccia .

S ₁	40°	to LCA @	17.4m
S ₁	43°		26.6m
S ₁	30°		31.8m
Bedding	52°		32.2m

Some thin (2cm) injection of aplite are present between 26 and 30m.

32.4 - 41.6 PYROXENE HORNFELS

This green fine grained rock is fairly uniform and does not commonly display good bedding but it is present as:

Bedding 42° to LCA 2 38.2m

The rock is disturbed @ 37.4m poor mineralisation is locally present between 36 - 42m probably associated with the faulting present from 40.3 - 41.6m as evidenced by broken and fractures core, slickenside and clay formation.

At around 40m calc hornfels is present.

S₁ 34° to LCA @ 33.4m

41.6 - 56.93 B/LENS MARBLE

This unit is light grey in colour and slightly coarse grained than the biotite hornfels or pyroxene hornfels.

Poor mineralisation is present between 50 and 53m.

Interbeds are rare, a pyroxene hornfels rich zone occurs around 52m and a biotite hornfels rich zone @ 42.2m.

Dykes occur @ 57.7m - a fine grained pinkish aplite and @ 44.2m on altered on sheared red and greenish siliceous injection.

A clay filled joint 2cm wide occurs @ 536m.

Bedding	50°	to LCA @	46.5m
S ₁	36°		42.9m

The last 1m is heavily fractured and refilled.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/19

56.93 - 91.88 B LENS MARBLE

This unit is dominantly carbonate hornfels but contains a number of pyroxene and biotite hornfels interbeds together with some andradite skarn. The mineralised skarn is patchy and nowhere does even moderate grade mineralisation extend to more than 1m.

The marble is commonly disturbed ore brecciated/fractured usually relithified. However faulting is suspected at:

61.3 - 62.2m	Loose broken core, clay minerals and slickenslides.
64.6 - 65m	Extensive clays and slickenslides
@ 67.3m	Clay formation and slickenslides
@ 71	Slickenslides
@ 80.8	Broken core and slickenslides

91.88 - 106.8 BIOTITE HORNFELS

The core in this section is dark grey, fine grained and poorly bedded. It is virtually pure with no interbeds of other lithologies.

There is no mineralisation. Generally the core is competent and whole except at (about 96.4 - 97.2 close jointing 5cm).

92.4	5cm wide crushed core zone
@ 103.7	Fractured core with slickenslides
@ 104.2	" " " "

Bedding 35° to LCA @ 95.8m

106.8 - 111.0 GRANITE

Pink, medium grained general appearance. The first 1m of core is badly fractured but the remaining core is fairly competent.

EOH 111m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/18

PLANNING PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S9 Diamond Drill Drive
PURPOSE OF HOLE: To Define the Southern Area
PROPOSED CO-ORDS: 220330 E 363900 N
INCLINATION: -67.5
BEARING: 161.57° ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 164° 25' ° GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220331.2 E 563899.9 N
R.L. OF COLLAR: -236.5
INCLINATION OF HOLE: -65° 33'
PICKED UP BY: W. Davies DATE: 15/6/79

SUMMARY LOGGED BY: G. J. Bujtor
RESULTS: 37 - 48 m 11 m @ 1.81% WO₃
B Lens Southern Area.

DRILLING DATE COMMENCED: 13/6/79 DATE TERMINATED: 22/6/79
DRILLER/CONTRACTOR: ADD
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: 65.40
WEDGE PLACED: Nil DEPTH: PROPOSER:
EXTENSION: Nil
FINAL DEPTH: 65.40m
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Multishot
WATER:
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/18

Surveyed method: Multishot
 Final depth: 65.40 m
 Casing depth: 1 m

Depth surveyed to: 55.00 m
 Date surveyed: 22/6/79
 Surveyed by: L. Denby
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		S	E
13.00	174°	164°	24° 30'	-65° 30'	11.83	5.18	1.49
19.00	167	157	24	-66	17.31	7.43	2.44
22.00	166	156	24	-66	20.05	8.54	2.94
34.00	168	158	23 45'	-66 15'	31.03	13.02	4.75
46.00	168 30'	158 30'	23 45'	-66 15'	42.01	17.51	6.52
55.00	169	159	23 15'	-66 45'	50.28	20.82	7.79
65.40	169	159	23 15'	-66 45'	59.84	24.65	9.26

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/18

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.0 m	3.0	2.75	91.7
3.0 - 6.0	3.0	3.0	100
6.0 - 9.0	3.0	3.0	100
9.0 - 11.1	2.1	2.1	100
11.1 - 14.1	3.0	3.0	100
14.1 - 17.1	3.0	3.0	100
17.1 - 20.1	3.0	3.0	100
20.1 - 23.1	3.0	3.0	100
23.1 - 24.6	1.5	1.5	100
24.6 - 26.0	1.4	1.1	73
26.0 - 28.8	2.8	2.8	100
28.8 - 31.8	3.0	3.0	100
31.8 - 33.5	1.7	1.7	100
33.5 - 36.1	2.6	2.3	88
36.1 - 38.8	2.7	2.7	100
38.8 - 41.8	3.0	3.0	100
41.8 - 44.3	2.5	2.3	92
44.3 - 47.3	3.0	3.0	100
47.3 - 50.3	3.0	3.0	100
50.3 - 53.3	3.0	2.5	83
53.3 - 54.9	1.6	1.6	100
54.9 - 58.0	3.1	2.5	81
58.0 - 59.6	1.6	1.6	100
59.6 - 60.6	1.0	1.0	100
60.6 - 63.15	2.55	2.55	100
63.15 - 63.6	0.45	0.45	100
63.6 - 65.4	1.8	1.8	100
EOH 65.4m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/18

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 30.1	Bh	7-11		Carb/chl/clay	30°-21.0m 47°-28.5 43°-29.7	100	78	
30.1 - 37.2	Ph	6-12		Carb/chl/clay		98	31	
37.2 - 47.9	B/L	3-9		Chl/carb		99	77	
47.9 - 52.0	Aplite	4-10		Carb/Qtz		96	44	
52.0 - 63.85	Bh	5-15		Chl/sulph		96	33	
63.85 - 65.4	Aplite	3-4		Carb		100	24	
EOH 65.4m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340.18

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11337	33	34	1.0	1.0	<0.01	0.01		
38	34	35	"	"	<0.01	0.01		
39	35	36	"	"	0.04	0.01		
40	36	37	"	"	0.07	0.01		
41	37	38	"	"	1.15	0.02		
42	38	39	"	"	1.63	0.03		
43	39	40	"	"	1.61	0.03		
44	40	41	"	"	1.12	0.01		
45	41	42	"	"	1.34	0.01		
46	42	43	"	"	1.42	0.03		
47	43	44	"	"	1.64	0.03		
48	44	45	"	"	3.88	0.08		
49	45	46	"	"	1.41	0.16		
50	46	47	"	"	2.48	0.04		
51	47	48	"	"	0.37	0.01		
52	48	49	"	"	0.01	0.04		
53	49	50	"	"	<0.01	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/18

0.0 - 30.1 m BIOTITE HORNFELS

Generally black to pale grey colour.

Interbedded pyroxene lens eg. at 28.0 - 29 m. Injections of silic siliceous materials occur at 10.8 m and 26.1 m. Bedding not well defined but can be seen as:

Bedding	30 ^o	to LCA at	21.0 m.
Bedding	47 ^o		28.5 m
Bedding	43 ^o		29.7 m

No scheelite is present. No detectable faults, joints occur generally every 20 - 40 cm.

30.1 - 37.2 PYROXENE HORNFELS

This unit has a green colour, and does not show bedding. It contains many small rehealed cracks and fractures. Joints and usually spaced 10 - 20 cm apart probable faults identified at 31.8 m - fractured rock and slickenslides. 35.4 - 35.4 - fractured rock with clay. 36.1 - broken and brecciated rock slickenslides.

37.2 - 47.9 B LENS SKARN

The colour of this unit varies from dark green to light grey. Generally massive, bedding is not displayed. In places it is brecciated eg. 38.45 m and 44.3 m. The unit has many small cracks and fractures and displays a mottled appearance overall.

Scheelite is present throughout the unit, with especially high grades between 38.9 and 46.4m.

A brecciated section between 44.25 and 44.40 m is notable for an excellent example of replacement. Rims of pure scheelite surround cores of powellite. approximately 1 cm in diameter.

The unit is generally competent with little loose fractured material joints occur from 10 - 50 cm apart. possible faults at:

38.4 m	Fractured rock
44.39 m	Fractured rock and slickenslides.
45.50	Fractured rock and slickenslides.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/18

47.9 - 52.0 m APLITE

This rock is a pale grey colour, shows no bedding, but is jointed every 20 - 30 cm. It is hard, fine grained (1 mm) and contains white micas, probably with chlorite. It grades into the unit below over about 1 m.

No scheelite and no faults present. Secondary calcite is distributed through the unit.

52.0 - 63.0 BIOTITE HORNFELS

This unit is black in its upper portion changing to a dark green below about 58 m, and will be described as 2 sub units:

52 - 58 m Massive biotite hornfels, poorly developed bedding, patches of green pyroxene hornfels. Brecciated in places. Some sulphides present.

Bedding 36° to LCA at 56.2 m

58 - 63 Very disturbed rock, fractured and brecciated, slickensides are common. Grassular garnet @ 58.8 m
This rock is obviously close to a major fault.

No ore is present in this biotite hornfels unit,

63.15 - 64.83 BIOTITE HORNFELS

This unit is black, fine grained and massive. It is slightly colourless and occasionally has a greenish blue slickensides developed at 63.15, probably represent the base of a fault.

No bedding and no mineralisation present.

64.83 - 65.4 APLITE

This rock is pale orange to light grey in colour. It is massive and competent and has a fine grain size. Flecks of chlorite became more prominent at the base.

EOH 65.4 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/17

PLANNING PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S9 Diamond Drill Drive
PURPOSE OF HOLE: To Define Wedge Area
PROPOSED CO-ORDS: 220331 E 563900 N
INCLINATION: -31.5
BEARING: 0.15° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 18° 13' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220331.1 E 563902.2 N
R.L. OF COLLAR: -235.4
INCLINATION OF HOLE: -28° 40'
PICKED UP BY: W. Davies DATE: 15/6/79

SUMMARY LOGGED BY: G. J. Bujtor
RESULTS: 17.0 to 53.4 m 36.4 m at 1.34% 0.02%

DRILLING DATE COMMENCED: 13/5/79 DATE TERMINATED: 13/6/79
DRILLER/CONTRACTOR: ADD
CASING: SIZE: NQ
DEPTH: 22.51
CORE: SIZE: 46TT
DEPTH: 53.40
WEDGE PLACED: Nil DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 53.40 m
REASON FOR TERMINATION: Hole could not progress because of bad
CONDITION OF HOLE ON COMPLETION: conditions.
CASING:
CEMENTED:
BORE HOLE SURVEY: Multishot to 22.50 m
WATER:
COMMENTS ON DRILLING CONDITIONS: Very bad

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/17

Surveyed method: Multishot
 Final depth: 53.40 m
 Casing depth: 22.50 m

Depth surveyed to: 22.50 m
 Date surveyed: 13/6/79
 Surveyed by: L. Denby
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		N	E
4.00	18° 30'	8° 30'	59° 45'	-30° 15'	2.02	3.28	1.10
16.00	18° 30'	8° 30'	59° 45'	-30° 15'	8.07	13.11	4.39
22.50	18° 30'	8° 30'	59° 45'	-30° 15'	11.34	18.43	6.17
53.40	18° 30'	8° 30'	59° 45'	-30° 15'	26.91	43.74	14.64

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/17

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.9	1.9	1.6	84 broken
1.9 - 2.9	1.0	0.4	40 broken
2.9 - 4.1	1.2	1.2	100 broken
4.1 - 4.45	0.35	0.35	100 broken
4.45 - 4.9	0.45	0.2	44 broken
4.9 - 5.1	0.2	0.2	100 broken
5.1 - 5.4	0.3	0.3	100 broken
5.4 - 6.2	0.8	0.8	100 broken
6.2 - 6.9	0.7	0.6	86 broken
6.9 - 7.3	0.4	0.4	100 broken
7.3 - 7.5	0.2	0.2	100 broken
7.5 - 8.0	0.5	0.4	80 broken
8.0 - 8.6	0.6	0.7	86 broken
8.6 - 10.5	1.9	1.9	100
10.5 - 11.4	0.9	0.9	100
11.4 - 12.2	0.8	0.8	100
12.2 - 14.0	1.8	1.8	100
14.0 - 14.6	0.6	0.6	100 broken
14.6 - 16.2	1.6	1.6	100 broken
16.2 - 17.4	1.2	1.0	83 broken
17.4 - 18.3	0.9	0.9	100 broken
18.3 - 19.5	1.2	1.2	100 broken
19.5 - 19.9	0.4	0.25	63 broken
19.9 - 22.3	2.6	1.0	38 broken
22.3 - 22.6	0.3	0.3	100 broken
22.6 - 24.0	1.6	0.8	50 broken
24.0 - 26.1	2.1	1.5	71 broken
26.1 - 28.5	2.4	1.2	50 broken
28.5 - 30.8	2.3	2.0	87
30.8 - 33.8	3.0	3.0	100
33.8 - 36.8	3.0	1.7	57 broken
26.8 - 39.6	2.8	2.5	89
39.6 - 41.8	2.2	1.9	86
41.8 - 44.8	3.0	3.0	100
44.8 - 47.7	2.9	2.6	90
47.7 - 50.6	2.9	2.3	79
50.6 - 53.4	2.8	2.3	82 broken
EOH 53.4 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/17

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T/ L. A. C. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 7.5 m	Bh	<u>FAULT</u> <u>ZONE</u>		Chl/clay/sulph		97	14	20
7.5 - 14.0	Bh	14		Chl/clay/sulph		97	31	
14.0 - 17.4	<u>FAULT</u>	<u>ZONE</u>		Chl/clay/carb		98	14	20
17.4 - 29.0	Gh	15-20		Chl/clay/carb		80	20	
29.0 - 46.0	Gh	4-5		Chl/clay/sulph		90	88	
46.0 - 53.4	Gh	5-8		Chl/clay/carb		80	49	
EOH 53.4 m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size. 46TT

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/17

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11284	16	17	1.0	1.0	0.01	0.01		
85	17	18	"	"	1.06	0.01		
86	18	19	"	"	1.51	<0.01		
87	19	20	"	"	2.10	0.01		
88	20	21	"	"	1.85	0.02		
89	21	22	"	"	1.79	0.02		
90	22	23	"	"	1.39	0.02		
91	23	24	"	"	0.85	0.01		
92	24	25	"	"	1.68	0.03		
93	25	26	"	"	0.62	0.01		
94	26	27	"	"	0.94	0.01		
95	27	28	"	"	1.90	0.04		
96	28	29	"	"	1.66	0.03		
97	29	30	"	"	1.12	0.02		
98	30	31	"	"	1.06	0.02		
99	31	32	"	"	1.63	0.03		
00	32	33	"	"	1.48	0.02		
04	33	34	"	"	1.18	0.02		
05	34	35	"	"	1.21	0.01		
06	35	36	"	"	1.18	0.01		
07	36	37	"	"	0.88	0.01		
08	37	38	"	"	1.22	0.02		
09	38	39	"	"	1.88	0.02		
10	39	40	"	"	1.63	0.03		
11	40	41	"	"	1.51	0.03		
12	41	42	"	"	1.45	0.02		
13	42	43	"	"	1.40	0.01		
14	43	44	"	"	1.86	0.02		
15	44	45	"	"	1.40	0.01		
16	45	46	"	"	1.10	0.01		
17	46	47	"	"	0.90	0.01		
18	47	48	"	"	1.60	0.03		
19	48	49	"	"	0.74	0.01		
20	49	50	"	"	0.78	0.01		
21	50	51	"	"	1.48	0.02		
22	51	52	"	"	6.88	0.02		
23	52	53	"	"	1.19	0.01		
24	53	53.40	"	"	1.34	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/17

0.0 - 17.40(?)m BIOTITE HORNFELS/FAULTS

Highly fractured, broken and faulted unit of biotite hornfels with numerous aplite dykes. The core is quite incompetent.

0.0 - 7.5 m Rubbly, brecciated core, the zone which no doubt correlates with the Decline Fault Zone in the face of the 59 drive. The hole has obviously been cemented.

7.5 - 14.0 m Biotite hornfels, though more competent than that above with only a minor fault around 10.5 m. Aplite dykes (granitic?) occur from 8.5 - 9.15 m, and 13.2 - 13.9 m. No visible scheelite is present.

14.0 - 17.4 Fault zone/breccia zone with numerous open carbonate vughs and cavities particularly around 14.6 m and 15.6 m. The unit is incompetent.

?17.40 - 53.4

ANDRADITE SKARN - UPPER C LENS

Coarse grained andradite garnet skarn with good grade scheelite present throughout. From 17.4 - 28.5m, the unit is very much fractured, disturbed and broken with abundant open carbonate vughs and cavities and carbonate veining. This is the zone where all water was lost in drilling. Up to 1.5 - 2.0 m of core has been lost from this zone. A well developed breccia occurs around 19.6 m.

From ?36.0 - 36.8 m, the core is broken and carbonate filled with open vughs and cavities. Core has been lost within this zone but amount unknown.

Broken and faulted core occurs at the bottom of the hole from 52 - 53.4 m, particularly around 52.8 m.

Carbonate joints and fractures are common throughout.

Bedding scheelite at 32.4 m is at 10° to LCA.

EOH 53.4 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/16

PLANNING PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S9 Diamond Drill Drive
PURPOSE OF HOLE: To Define Wedge Area
PROPOSED CO-ORDS: 220330 E 563900 N
INCLINATION: -60°
BEARING: 28.5° ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: $30^{\circ} 18'$ ° GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220331.05 E 563900.97 N
R.L. OF COLLAR: -236.69
INCLINATION OF HOLE: $-59^{\circ} 16'$
PICKED UP BY: R. Howman DATE: 1/6/79

SUMMARY LOGGED BY: G. J. Bujtor
RESULTS: 30.0 to 60.0 m 30m at 1.23% , 0.02%

DRILLING DATE COMMENCED: 28/5/79 DATE TERMINATED: 4/6/78
DRILLER/CONTRACTOR: ADD
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: 77.6
WEDGE PLACED: Nil DEPTH: PROPOSER:
EXTENSION: Nil
FINAL DEPTH: 77.60 m
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Mutlishot
WATER:
COMMENTS ON DRILLING CONDITIONS: Poor

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/16

Surveyed method: Multishot
 Final depth: 77.60 m
 Casing depth: 1.00 m

Depth surveyed to: 77.60 m
 Date surveyed: 4/6/79
 Surveyed by: L. Denby
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		N	E
4.00	28°	18°	30°	-60°	3.46	1.90	.62
22.00	29° 30'	19° 30'	30°	-60°	19.05	10.38	3.62
37.00	29°	19°	30°	-60°	32.04	17.47	6.06
49.00	27° 30'	17° 30'	29° 45'	-60° 15'	42.46	23.14	7.85
61.00	29°	19°	29° 45'	-60° 15'	52.88	28.77	9.79
73.00	27°	17°	29° 45'	-60° 15'	63.30	34.46	11.53
77.60	27° 30'	17° 30'	30°	-60°	67.28	36.65	12.22

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/16

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.0	2.0	2.0	100
2.0 - 3.2	1.2	1.2	100
3.2 - 6.0	2.8	2.8	100
6.0 - 8.1	2.1	2.1	100 broken
8.1 - 10.3	2.2	2.0	100 broken
10.3 - 10.7	0.4	0.4	100 broken
10.7 - 12.4	1.7	1.5	100 broken
12.4 - 14.4	2.0	1.5	100 broken
14.4 - 14.6	0.2	0.2	100 broken
14.6 - 15.1	0.5	0.3	100 broken
15.1 - 15.5	0.4	0.3	100 broken
15.5 - 15.9	0.4	0.2	100 broken
15.9 - 16.5	0.6	0.6	100 broken
16.5 - 17.1	0.5	0.5	100 broken
17.1 - 17.6	0.5	0.5	100 broken
17.6 - 19.7	2.1	2.1	100
19.7 - 20.7	1.0	1.0	100
20.7 - 22.8	2.1	2.1	100
22.8 - 23.6	0.8	0.8	100
23.6 - 24.5	0.9	0.9	100
24.5 - 24.75	0.25	0.25	100 broken
24.75 - 25.4	0.65	0.60	100 broken
25.4 - 27.1	1.5	0.9	100 broken
27.1 - 28.7	1.6	1.6	100 broken
28.1 - 30.0	1.9	1.9	100 broken
30.0 - 33.0	3.0	3.0	100
33.0 - 36.0	3.0	3.0	100
36.0 - 39.0	3.0	3.0	100
39.0 - 42.0	3.0	3.0	100
42.0 - 45.0	3.0	3.0	100
45.0 - 48.0	3.0	3.0	100
48.0 - 51.0	3.0	3.0	100
51.0 - 54.0	3.0	3.0	100
54.0 - 56.4	2.4	2.4	100
56.4 - 59.35	2.95	2.95	100
59.35 - 60.85	1.5	1.5	100
60.85 - 63.85	3.0	3.0	100
63.85 - 66.0	2.15	2.15	100
66.0 - 67.2	1.2	1.2	100
67.2 - 70.1	2.9	2.9	100
70.1 - 73.1	3.0	3.0	100
73.1 - 76.0	2.9	2.9	100
76.0 - 77.6	1.6	1.6	100
EOH 77.60 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/16

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R Q D.	REMARKS (WEATHERING)
0.0 - 9.0 m	Bh	6-12		Chl/clay/sulph				
9.0 - 17.6	FAULT ZONES							
17.6 - 27.1	Bh/Ph	10		Chl/sulph/carb/clay				
27.1 - 32.15	Bh/Ph	6-7		Chl/sulph/carb/clay				
32.15 - 59.8	L/C	5-10		Chl/clay/sulph/carb				
59.8 - 59.9	FAULT							
59.9 - 63.15	Bh/Ph	9		Chl/clay/sulph/carb				
63.15 - 68.8	L/C	4-10		Chl/clay/sulph				
68.8 - 68.9	FAULT							
68.9 - 73.25	Bh/Ph	8-10		Chl/sulph/carb/clay				
73.25 - 77.6	Granite	15		Chl/carb				
EOH 77.60 m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/16

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 10997	26	27	1.0	1.0	0.27	0.01		
98	27	28	"	"	0.30	0.01		
99	28	29	"	"	0.02	0.01		
11000	29	30	"	"	0.10	<0.01		
51	30	31	"	"	0.90	0.01		
52	31	32	"	"	0.34	<0.01		
53	32	33	"	"	1.32	0.01		
54	33	34	"	"	0.53	0.01		
55	34	35	"	"	1.58	0.01		
56	35	36	"	"	1.70	0.02		
57	36	37	"	"	1.36	0.02		
58	37	38	"	"	0.21	0.01		
59	38	39	"	"	0.44	0.01		
60	39	40	"	"	0.64	0.02		
61	40	41	"	"	2.63	0.05		
62	41	42	"	"	<0.01	<0.01		
63	42	43	"	"	1.88	0.02		
64	43	44	"	"	0.81	0.01		
65	44	45	"	"	0.74	0.01		
66	45	46	"	"	0.66	0.01		
67	46	47	"	"	0.69	0.01		
68	47	48	"	"	0.24	0.01		
69	48	49	"	"	0.04	<0.01		
70	49	50	"	"	1.07	0.02		
71	50	51	"	"	0.80	0.01		
72	51	52	"	"	2.77	0.04		
73	52	53	"	"	0.23	0.01		
74	53	54	"	"	2.47	0.05		
75	54	55	"	"	3.91	0.06		
76	55	56	"	"	1.80	0.02		
77	56	57	"	"	3.80	0.05		
78	57	58	"	"	1.32	0.02		
79	58	59	"	"	1.80	0.03		
80	59	60	"	"	0.33	0.01		
81	60	61	"	"	<0.01	<0.01		
82	61	62	"	"	0.33	<0.01		
83	62	63	"	"	0.09	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/16

- 0.0 - 9.00 m BIOTITE HORNFELS
- Fine grained greenish to black coloured biotite hornfels with no visible scheelite present.
- The core is broken at the top of the unit (0.0 - 2.0) and at the bottom (7.0 - 9.0 m) where numerous open vughs and cavities are present.
- 9.00 - 12.00 FAULT
- Major fault zone with rubbly, broken brecciated and fractured core. No scheelite is present. Fault material is mainly biotite hornfels.
- 12.00 - 13.5 BIOTITE HORNFELS
- Mainly brownish coloured, medium grained biotite hornfels.
- 13.5 - 17.6 FAULT ZONE WITH APLITE DYKES
- Broken fractured and rubbly fault zone with pink to reddish aplite dykes. The core is very incompetent.
- 17.60 - 20.25 BIOTITE HORNFELS
- Dominantly grey coloured spotted biotite hornfels. Grossular and pyroxene is developed at the top of the unit from 17.6 - 17.95 m. No scheelite is present.
- 20.25 - 32.15 PYROXENE HORNFELS/BIOTITE HORNFELS
- Disturbed and fractured green coloured pyroxene hornfels resembling that often associated with faulting - around 20.7 m; 24.75 - 25.4 m; around 26.5 - 27.1 m (0.6 m core loss); 27.5 m; 27.7 m (clay, pug). Carbonate veining an- minor rubble in common.
- From 28.0 - 32.15 m, biotite hornfels is the dominant rock type, also containing numerous faults - vis - 29.25 m (clay pug); 29.8 m (rubble, slickensides).
- Some disseminated scheelite is present, but unlikely to go ore grade.
- There is a distinct possibility that this unit could be the marble Marker on the northern side of the Wedge Fault.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/16

32.15 - 59.80 m BANDED SKARN - LOWER C-LENS

Well bedded, though in places disturbed, andradite skarn with numerous interbeds of biotite hornfels, pyroxene hornfels and marble. Good to high grade disseminated and coarse scheelite is present throughout.

The following fault zones were noted - 40.6 m (clay pug breccia); around 43 m; 47.65 m (breccia);

A dominance of marble with biotite hornfels overlying and underlying occurs from 41 - 42.65 m.

Strong sulphide mineralisation is present towards the base of the unit from 57 - 59.8 m.

The lower 2 m of the unit is basically Banded Footwall Beds.

The following bedding angles were noted:

Bedding	38°	to LCA at	34 m
Bedding	28°		38.9 m
Bedding	35°		43.2 m
Bedding	48°		52 m
Bedding	58°		55.1 m
Bedding	55°		56 m
Bedding	55°		58.9 m

59.80 - 63.15 BIOTITE HORNFELS/PYROXENE HORNFELS

Disturbed and fine grained, well bedded biotite hornfels/pyroxene hornfels with minor patchy scheelite present. (Unlikely to go ore grade). Minor grossular is also present as is an abundance of pyrite.

Major fault zone present occur at 59.80 -59.85 m (brecciated, sheared clay-pug); 61.3 m (clay pug), 62.0 m (slickensides);

bedding 45° to LCA at 60.4m

63.15 - 68.80 LOWER VOLCANICS

Very coarse grained, greenish and spotted lower volcanics with no visible scheelite present.

68.80 - 68.90 FAULT ZONE

A major clay-pug sheared fault zone which may also represent movement along the sediment/volcanics contact.

No scheelite is present.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/16

68.90 - 73.25 m BIOTITE/PYROXENE HORNFELS

Well bedded, fine grained sequence of biotite hornfels/pyroxene hornfels with minor grossular interbeds. Bedding is fairly consistent throughout -

* Bedding 68° to LCA at 71 m
Bedding 70° 71.65 m

73.25 - 77.60 GRANITE/ADAMELLITE

Fine to medium grained equigranular adamellite or granite with no visible scheelite present.

A major fault with chlorite and clay appears to be present at 75.9 m. The granite is fractured and broken.

EOH 77.60 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/15

PLANNING PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S9 Diamond Drill Drive
PURPOSE OF HOLE: To Define Bottom of Wedge Area
PROPOSED CO-ORDS: 220331 E 563900 N
INCLINATION: -78 to -79°
BEARING: 90° ° GRID ° MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 84° 10' ° GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220331.1 E 563900.6 N
R.L. OF COLLAR: R-236.7
INCLINATION OF HOLE: -76° 20'
PICKED UP BY: R. Howman DATE: 25/5/79

SUMMARY LOGGED BY: G. J. Bujtor
RESULTS: 33 - 57m 24 @ 1.07% WO₃

DRILLING DATE COMMENCED: 21/5/79 DATE TERMINATED: 26/5/79
DRILLER/CONTRACTOR: ADD
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: 72m
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 72.0m
REASON FOR TERMINATION: Intersected Granite/Adamellite
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Surveyed at 72.00
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/15

Surveyed method: Multishot
Final depth: 72.0m
Casing depth: 1.00m

Depth surveyed to: 72.0m
Date surveyed: 26/5/79
Surveyed by: L. Denby
Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		N	E
4	80°	70°	13°	-77°	3.90	.31	.85
19	81°	71°	12° 45'	-77° 15'	18.53	1.39	3.98
34	82°	72°	12° 45'	-77° 15'	33.16	2.41	7.13
49	82°	72°	12°	-78°	47.83	3.37	10.10
61	83°	73°	12°	-78°	59.57	4.10	12.48
72	82°	72°	12° 15'	-77° 45'	70.32	4.82	14.70

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/15

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.8	2.8	2.8	100
2.8 - 5.7	2.9	2.9	100
5.7 - 6.1	0.4	0.4	100
6.1 - 9.1	3.0	3.0	100
9.1 - 11.0	1.9	1.9	100
11.0 - 13.1	2.1	2.1	100
13.1 - 15.8	2.7	2.7	100
15.8 - 17.3	1.5	1.5	100
17.3 - 18.3	1.0	1.0	100 broken
18.3 - 19.6	1.3	1.3	100 broken
19.6 - 21.2	1.6	1.6	100
21.2 - 22.7	1.5	1.5	100
22.7 - 24.2	1.5	1.5	100
24.2 - 26.7	2.5	2.5	100
26.7 - 29.6	2.9	2.9	100
29.6 - 30.1	0.5	0.5	100
30.1 - 33.1	3.0	3.0	100
33.1 - 36.1	3.0	3.0	100
36.1 - 39.1	3.0	3.0	100
39.1 - 42.1	3.0	3.0	100
42.1 - 45.1	3.0	3.0	100
45.1 - 48.1	3.0	3.0	100
48.1 - 51.1	3.0	3.0	100
51.1 - 54.1	3.0	3.0	100
54.1 - 57.1	3.0	3.0	100
57.1 - 59.6	2.5	2.5	100
59.6 - 61.5	1.9	1.9	100
61.5 - 64.1	2.6	2.6	100
64.1 - 64.6	0.5	0.5	100
64.6 - 66.0	1.4	1.4	100
66.0 - 69.0	3.0	3.0	100
69.0 - 72.0	3.0	3.0	100
EOH 72.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/15

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 30.0	bh	5-13		Chl/carb/sulph		100	72	
30.0 - 30.25	<u>W E D G E F A U L T</u>							
30.25 - 33.5	Pyr - Gross.	3-6		Chl/carb/clay		100	89	
33.5 - 57.8	L/C	6	Chl/carb	Chl/carb/clay/sulph	34°: 34.2m 42°: 39.5 43°: 48 45°: 56.15	100	91	
57.8 - 67.0	Bh/ph	20		Chl/clay/carb/sulph	37°: 59.0 63°: 63.1 54°: 65.5	100	61	
67.0 - 72.0	Granite	4-20		Chl/carb		100	56	
EOH 72.0								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/15

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11213	28	29	1.0	1.0	0.01	0.01		
14	29	30	"	"	0.01	<0.01		
15	30	31	"	"	0.01	<0.01		
16	31	32	"	"	0.02	<0.01		
17	32	33	"	"	<0.01	<0.01		
18	33	34	"	"	0.47	0.01		
19	34	35	"	"	0.81	0.01		
20	35	36	"	"	0.89	<0.01		
21	36	37	"	"	0.73	<0.01		
22	37	38	"	"	1.28	0.02		
23	38	39	"	"	0.31	0.01		
24	39	40	"	"	0.53	0.02		
25	40	41	"	"	1.11	0.01		
26	41	42	"	"	5.7	0.04		
27	42	43	"	"	0.91	<0.01		
28	43	44	"	"	1.04	0.01		
29	44	45	"	"	1.01	0.01		
30	45	46	"	"	1.69	0.01		
31	46	47	"	"	0.75	0.01		
32	47	48	"	"	0.94	0.01		
33	48	49	"	"	0.60	0.01		
34	49	50	"	"	1.26	0.02		
35	50	51	"	"	0.70	0.01		
36	51	52	"	"	1.55	0.02		
37	52	53	"	"	1.18	<0.01		
38	53	54	"	"	0.47	<0.01		
39	54	55	"	"	1.42	0.01		
40	55	56	"	"	1.07	0.01		
41	56	57	"	"	1.07	0.02		
42	57	58	"	"	0.09	0.01		
43	58	59	"	"	0.02	0.01		
44	59	60	"	"	0.09	<0.01		
45	60	61	"	"	0.05	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/15

0.0 - 30.00m BIOTITE HORNFELS

Fine to medium grained brown coloured biotite hornfels with no scheelite present.

The following internal subdivisions were noted -

- 10.25 - 14.6 Distinctive, light brownish coloured, disturbed(?) biotite hornfels similar to that intersected in some other holes in section 320 E (drilling from s9). The textures and colour are diagnostic.
- 15.8 - 19.0 Spotted biotite hornfels.
- 28.15 - 29.15 Pyroxene hornfels with rare grossular garnet.

Evidence of shearing and disturbance increases from 27m onwards on approaching the Wedge Fault zone.

A fine grained aplite dyke occurs from 21.2 - 21.7m and 22.0 - 24.06m. No scheelite is present.

Broken fractures core occurs from 0.0 - 1.0m (from blasting in drive); 17.0 - 20.0m (some minor open cavities); 29.0 - 30.0m (next to Wedge Fault zone).

30.0 - 30.25 WEDGE FAULT

Broken, sheared, brecciated, chloritic fault zone with abundant slickensides. No scheelite is present within the fault zone.

Angle to LCA is 43°

30.25 - 33.50 PYROXENE - GROSSULAR ROCK

A pyroxene - grossular rich rock (resembling pyroxene granet hornfels) found adjacent to the major fault zones. Some minor scheelite is present (below cutoff grade). Fragments of marble with grossular rims are present, as are completely replaced marble fragments (raw grossular granet). A typical matted texture is also developed in places.

33.50 - 57.80 BANDED SKARN - LOWER C LENS

Well bedded, coarse grained, andradite skarn with numerous interbeds of Marble, biotite hornfels, pyroxene hornfels. The unit is well mineralised throughout and is expected to average over 1% WO_3 .

The base of the unit from 56m onwards appears to grade into a ?pyroxene - rich Banded footwall beds.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/15

A peculiar, barren quartz - amphibole ?intrusive rock occurs from 46.85 - 47.80m

A possible minor fault occurs around 38.85m

Numerous marble interbeds with pyroxene hornfels and volcanics? occur between 36.75 - 39.60m Some mineralisation is present in skarn interbeds and patches.

Bedding	34°	to	LCA	at	34.2m
Bedding	42°				39.5
Bedding	43°				48.0m
Bedding	45°				56.15m

57.80 - 67.0

BIOTITE - PYROXENE HORNFELS

Well bedded and fractured sequence of fine grained biotite - pyroxene hornfels with numerous granite - endoskarn apophyses

Numerous broken and brecciated fault zones are present - 58.6m, 59.65 - 59.70m (major fault) 62.7m.

Contact with granite below is very broken and fractured.

Bedding	37°	to	LCA	at	59.0m
Bedding	63°				63.1m
Bedding	54°				65.5m

67.0 - 72.0

GRANITE/ADAMELLITE

Fine to coarse grained, unmineralised granite/adamellite. The contact with sediments appears to be siliceous.

EOH 72.00m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. 0 340/14

PLANNING PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S13 Diamond Drill Drive
PURPOSE OF HOLE: To Define C-lens Wedge Area
PROPOSED CO-ORDS: 220340 E 564060 N
INCLINATION: -25°
BEARING: 0° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 358° 20' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220339.2 E 564061.0 N
R.L. OF COLLAR: -202.5
INCLINATION OF HOLE: -23° 50'
PICKED UP BY: W. Davies DATE: 19/4/79

SUMMARY LOGGED BY: G. J. Bujtor
RESULTS: 33-36m, 3m @ 0.94% WO₃
39-50m, 11m @ 1.31% WO₃

DRILLING DATE COMMENCED: 28/3/79 DATE TERMINATED:
DRILLER/CONTRACTOR:
CASING: SIZE: NQ
DEPTH: 2m
CORE: SIZE: 46TT
DEPTH: 54.10
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 54.10m
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING: Stem pipe left in hole
CEMENTED:
BORE HOLE SURVEY: Single shot
WATER:
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/14

Surveyed method: Single shot
Final depth: 54.10m
Casing depth: 2m

Depth surveyed to: 40.0m
Date surveyed: 10/4/79
Surveyed by: J. Penna
Checked by: L. Denby

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
40.00	001°	351°	64°	-26°	17.54	35.51	5.62
54.00	001°	351°	64°	-26°	23.72	48.03	7.60

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/14

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.80	3.8	3.7	97
3.80 - 5.2	1.4	1.4	100
5.2 - 7.5	2.3	2.2	96
7.5 - 10.2	2.7	2.5	93
10.2 - 11.3	1.1	1.0	91
11.3 - 13.2	1.9	1.9	100
13.2 - 14.0	0.8	0.6	75
14.0 - 15.2	1.2	1.2	100
15.2 - 16.5	1.3	1.3	100
16.5 - 18.0	1.5	1.5	100
18.0 - 19.5	1.5	1.5	100
19.5 - 21.0	1.5	1.5	100
21.0 - 24.0	3.0	3.0	100
24.0 - 25.5	1.5	1.4	93
25.5 - 27.0	1.5	1.5	100
27.0 - 28.2	1.2	1.2	100
28.2 - 29.0	0.8	0.8	100
29.0 - 30.5	1.5	1.5	100
30.5 - 33.2	2.7	2.4	89
33.2 - 35.3	2.1	2.05	98
35.3 - 38.2	2.9	2.9	100
38.2 - 41.1	2.9	2.9	100
41.1 - 43.2	2.1	2.1	100
43.2 - 46.2	3.0	3.0	100
46.2 - 48.6	2.4	2.4	100
48.6 - 50.5	1.9	1.9	100
50.5 - 52.2	1.7	1.5	88
52.2 - 54.1	1.9	1.8	95
EOH 54.1m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/14

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 32.2m	bh	20		Ch1/py	25°-30°	97	27	Badly broken. See log.
Contains following subdivisions: 22.5 - 32.2	Decline Fault Zone			14.0 - 21.6m		57		
32.2 - 40.0m	pgh	6		py		99	77	
40.0 - 48.9m	gh banded gh	4			60°	100	88	
48.9 - 51.3	bfb(d)?	> 20		Ch1		91	11	Possible fault zone(s) 52.0 - 52.2m possilbe fault zone.
51.3 - 53.4	Ch/ph	10		Ch1	26	100	59	
53.4 - 53.85	Northern Boundary Fault	> 20		Ch			Nil	
53.85 - 54.1m	q						60	
EOH 54.1m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core } > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/14

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 10375	32	33	1.0	1.0	0.21	0.01		
76	33	34	"	"	0.92	0.02		
77	34	35	"	"	1.03	0.03		
78	35	36	"	"	0.86	0.02		
79	36	37	"	"	0.13	<0.01		
80	37	38	"	"	0.28	0.01		
81	38	39	"	"	0.24	0.01		
82	39	40	"	"	0.68	0.03		
83	40	41	"	"	3.26	0.08		
84	41	42	"	"	1.48	0.04		
85	42	43	"	"	3.4	0.07		
86	43	44	"	"	1.08	0.02		
87	44	45	"	"	1.22	0.07		
88	45	46	"	"	0.46	0.04		
86	46	47	"	"	0.80	0.03		
90	47	48	"	"	0.90	0.03		
91	48	49	"	"	0.43	0.01		
92	49	50	"	"	0.58	0.03		
93	50	51	"	"	0.02	0.01		
94	51	52	"	"	<0.01	0.01		
95	52	53	"	"	1.15	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D340/14

0.0 - 32.20m BIOTITE HORNFELS

Dark purplish brown biotite hornfels with small lenses of light green biotite hornfels. The unit is badly broken.

- 0.0 - 5.2m Well bedded (at 25° to core axis) pyroxene/biotite hornfels with small white quartz stringers parallel to bedding.
- 8.0 - 11.5 Broken core with most fractures being chlorite coated and slickensided. At 7.5m shearing is sub parallel to the core axis. Minor recemented breccia in present at 8.4m.
- 13.2 - 14.0 Badly broken core, parts of which are rubble. Shearing is subparallel to the core axis. Recemented breccia in present at 13.4m.
- 21.6 - 21.8 Broken core.
- 22.5 - 32.2 decline fault zone, consisting of badly broken core with short lengths of more solid core. Core is very sheared and has many slickensides. Recemented breccias are present at 24.0 - 25.4m, 27.1 - 27.8m (rubble also present), 29.6 - 30.0m, 30.8 - 31.0m and 31.7 - 32.2m. The last zone of breccia (31.7 - 32.2m) is mostly rubble.

At 15.5m bedding is 30° to core axis.

Fractures/m = 20
Recovery = 97 %

32.20 - 40.00m PYROXENE - GARNET HORNFELS

Irregularly shaped fragments of calcite, calcite/grossular and calcite/amphibole are present in a matrix of pyroxene, grossular, calcite and minor smphibole. Short sections near the top of this unit resemble pyroxene/grossular rock typical of fault zones.

Fine to medium grained scheelite is irregular disseminated through the unit. Short sections may reach or grade.

- 38.85 - 39.40 Garnet hornfels contianing abundant fine grained scheelite.
- 39.4 - 40.0 Pyroxene/biotite hornfels which appears to be severely microfaulted and has many chlorite veinlets. The boundaries on either side with garnet hornfels are stays. The lower boundary is possibly faulted.

Fractures/m = 6
Recovery = 99%

40.00 - 44.15 GARNET HORNFELS

Massive andradite garnet hornfels which contains usually large amounts of pyroxene and calcite. Fine grained scheelite is thickly disseminated and is probably $\frac{1}{3}$ WO₃.

Fractures/m = 3
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/14

44.15 - 48.90

BANDED GARNET HORNFELS

The boundary between this unit and that above is very indistinct. This unit is a disturbed and indistrictly bedded garnet hornfels fine grained pyroxene rich beds, (up to 30cm thick) which are more disturbed, do not contain scheelite.. Beds of garnet hornfels contain fine grained disseminated scheelite, and unusually large amounts of pyroxene.

48.6 - 48.9m Transition pyroxene rich zone between disturbed unit to fault zone below.

At 45.5m bedding is 60° to core axis.

At 48.4m grossular banded is 50° to core axis.

Fractures/m = 4
Recovery = 100%

48.90 - 53.40

DISTURBED BANDED GARNET HORNFELS

There are fault zones throughout this unit and it is very badly disturbed.

48.9 - 49.1m Fault zone is ?pyroxene hornfels with many chlorite slickensides at 31° to core axis. Recemented breccias are present.

49.1 - 49.45 Garnet hornfels containing fine grained scheelite appears to be intensely microfaulted.

49.45 - 49.9 Recemented breccia of pyroxene hornfels

49.9 - 50.0 Garnet hornfels containing scheelite.

50.0 - 51.3 Predominantly recemented breccia with some rubble zones. Chlorite slickensides are abundant and range from 35.60° to core axis..

51.3 - 52.0 White fine grained marble with minor bedded marble/pyroxene hornfels at 26° to core axis.

52.0 - 52.2 Recemented breccia of pyroxene and calcite hornfels.

52.2 - 52.9 Pyroxene hornfels and pyroxene/pyrite/scheelite hornfels. Parts of this appear to be strongly sheared.

52.9 - 53.4 Strongly sheared pyroxene/calcite/grossular rock with many small calcite veinlets. Shearing is 53° to core axis.

Fractures/m = 20
Recovery = 100%

53.40 - 54.10

QUARTZITE

Fine grained dark grey quartzite with abundant pyrite veining. Small vugs are occasionally associated with pyrite.

53.4 - 53.85m Northern Boundary fault consisting of broken core with intensely slickensides edges.

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/13

PLANNING

PROPOSER: G. J. Bujtor DEPTH: 55m
LOCATION: S10 Drill Drive
PURPOSE OF HOLE: Defining Wedge Orebody - Normal Oreblocking
CO-ORDS: 220340 E 563975 N
INCLINATION: +20
BEARING: 180 °GRID °MAG
TARGET: E N
DEPTH: 55m

SURVEY

SURVEY CO-ORDS: E N
SURVEYED BEARING: 176°56' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220338.7 E 563971.0 N
R.L. OF COLLAR -238.7
INCLINATION OF HOLE +22° 21'
PICKED UP BY: B. Davies DATE: 29/3/79

SUMMARY

LOGGED BY: G. J. Bujtor
RESULTS: 0-17m, 17m @ 1.39% WO₃ (Upper C)
20-35m, 15m @ 0.99% WO₃ (Min Pgh)

DRILLING

DATE COMMENCED: 23.3.79 DATE TERMINATED: 27.3.79
DRILLER/CONTRACTOR: ADD
CASING: SIZE:
DEPTH:
CORE: SIZE: HQ 46TT
DEPTH: 2.5m 45.5
WEDGE PLACED: DATE:
EXTENSION:
FINAL DEPTH: 45.5m
REASON FOR TERMINATION: Intersected ?Wedge Fault Zone
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Surveyed at 15.5m, 45.5m
WATER:
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/13

Surveyed method: Single shot
 Final depth: 45.5m
 Casing depth: Nil

Depth surveyed to: 45.5m
 Date surveyed: 27/3/79
 Surveyed by: L. Denby
 Checked by: L. Denby

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		S	E
0	176°56'	166°56'		+22.21	0	0	0
15.5	180	170	70°	+20.0	+5.30	14.35	2.53
45.5	180	170	70°	+20.0	+15.56	42.11	7.42

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/13

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.5	2.5	2.5	100
2.5 - 5.5	3.0	3.0	100
5.5 - 8.5	3.0	3.0	100
8.5 - 11.5	3.0	3.0	100
11.5 - 14.5	3.0	3.0	100
14.5 - 17.5	3.0	3.0	100
17.5 - 20.5	3.0	3.0	100
20.5 - 23.5	3.0	3.0	100
23.5 - 26.5	3.0	3.0	100
26.5 - 29.5	3.0	3.0	100
29.5 - 32.5	3.0	3.0	100
32.5 - 35.5	3.0	3.0	100
35.5 - 38.5	3.0	3.0	100
38.5 - 41.5	3.0	3.0	100
41.5 - 44.2	2.7	2.7	100broken
44.2 - 45.5	1.3	1.3	100broken
 EOH 45.5m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

DDH No. D 340/13

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 16.6	Gh	4-5		Chl/carb/clay		100	88	
16.6 - 38.5	Pgh	5		chl/carb/clay/ sulph		100	91	
38.5 - 42.15	Bh	4		Chl/sulph/carb		100	78	
42.15 - 45.5	<u>F A U L T Z O N E</u>							
EOH 45.5m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/13

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D 9738	0	1	1.0	1.0	1.70	0.02	
39	1	2	"	"	1.56	0.03	
40	2	3	"	"	1.00	0.01	
41	3	4	"	"	1.27	0.02	
42	4	5	"	"	1.16	0.01	
43	5	6	"	"	2.32	0.05	
44	6	7	"	"	1.04	0.01	
45	7	8	"	"	1.00	0.01	
46	8	9	"	"	0.92	0.01	
47	9	10	"	"	1.70	0.02	
48	10	11	"	"	1.84	0.02	
49	11	12	"	"	1.16	0.01	
50	12	13	"	"	0.86	<0.01	
51	13	14	"	"	1.30	0.01	
52	14	15	"	"	2.44	0.02	
53	15	16	"	"	1.08	0.01	
54	16	17	"	"	1.20	0.01	
55	17	18	"	"	0.04	<0.01	
56	18	19	"	"	0.14	<0.01	
57	19	20	"	"	0.15	<0.01	
58	20	21	"	"	0.56	<0.01	
59	21	22	"	"	0.43	0.01	
60	22	23	"	"	0.35	0.01	
61	23	24	"	"	0.30	<0.01	
62	24	25	"	"	0.58	<0.01	
63	25	26	"	"	3.8	0.05	
64	26	27	"	"	0.03	<0.01	
65	27	28	"	"	0.11	<0.01	
66	28	29	"	"	1.21	0.02	
67	29	30	"	"	0.46	0.01	
68	30	31	"	"	0.20	<0.01	
69	31	32	"	"	5.5	0.08	
70	32	33	"	"	0.46	0.01	
71	33	34	"	"	1.73	0.03	
72	34	35	"	"	0.58	0.01	
73	35	36	"	"	0.04	<0.01	
74	36	37	"	"	0.09	0.01	
75	37	38	"	"	0.17	0.01	
76	38	39	"	"	0.08	0.01	

SPECIFIC GRAVITY

Depth (metres);

Rock Type :

S.G. :

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/13

- 0.0 - 16.50m ANDRADITE SKARN - UPPER C-LENS
- Coarse grained andradite skarn with good high grade disseminated scheelite present.
- The core is competent throughout. Possible minor faults occur at 4.75m (slickensides/carbonate), 8.5m (open carbonate vugs), 14.15m (clay, shearing),
- The unit grades into Pyroxene garnet hornfels above.
- 16.50 - 38.50 PYROXENE GARNET HORNFELS
- Typical Pyroxene garnet hornfels with calcite pods/fragments and reaction rims. Patchy coarse scheelite is present throughout.
- Probably minor faults occur at 31.1m (slickensides), 35m (chloritic, clay) and 36.1m (chloritic, clay).
- Unit is very competent throughout.
- 38.50 - 42.15 BIOTITE HORNFELS
- Medium grained grey coloured biotite hornfels with large metamorphic spots. No scheelite is present.
- 42.15 - 43.15 APLITE
- Broken and fractured aplite vein intruding along the major fault zone below. No scheelite present.
- 43.15 - 45.50 MAJOR FAULT
- Very badly broken, brecciated, clayey, fault zone. Core is completely incompetent, with no visible scheelite.
- Hole Abandoned at 45.50m.

EOH 45.50m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/12

PLANNING PROPOSER: G. J. Bujtor DEPTH: 40m
LOCATION: S10 Drill Drive
PURPOSE OF HOLE: Definition of C-lens in Wedge and Location of Decline
PROPOSED CO-ORDS: 220340 E 563975 N Fault Zone
INCLINATION: +31° (approx.)
BEARING: 0° GRID °MAG
TARGET: E N
DEPTH: 40m
CHECKED BY: DATE:

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 359° 13° GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220338.5 E 563976.5 N
R.L. OF COLLAR: -237.9
INCLINATION OF HOLE: +29° 46'
PICKED UP BY: W. Davies DATE: 29/3/79

SUMMARY LOGGED BY: G. J. Bujtor
RESULTS: 0-23m, 23m @ 1.93% WO₃ U/C
23-32m, 9m @ 2.58% WO₃ (Pgh-min)

DRILLING DATE COMMENCED: 20/3/79 DATE TERMINATED: 22/3/79
DRILLER/CONTRACTOR: ADD
CASING: SIZE: NQ
DEPTH: 2m
CORE: SIZE: 46TT
DEPTH: 39m
WEDGE PLACED: Nil DEPTH: PROPOSER:
EXTENSION: Nil
FINAL DEPTH: 39m
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Single shot
WATER: Nil
COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/12

Surveyed method: Single shot
Final depth: 39.00m
Casing depth: 2m

Depth surveyed to: 39.00m
Date surveyed: 23/3/79
Surveyed by: R. J. S. P.
Checked by: L. Denby

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		S	E
10	181°	171°	61° 15'	28° 45'	4.81	8.66	1.37
39	181°	171°	62° 15'	27° 45'	18.31	34.01	5.38

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/12

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.4	2.4	2.4	100
2.4 - 5.5	3.1	3.1	100
5.5 - 8.45	2.95	2.95	100
8.45 - 11.45	3.0	3.0	100
11.45 - 14.45	3.0	3.0	100
14.45 - 17.45	3.0	3.0	100
17.45 - 21.20	3.75	3.75	100
21.20 - 23.5	2.3	2.3	100
23.5 - 26.5	3.0	3.0	100
26.5 - 29.5	3.0	3.0	100
29.5 - 32.5	3.0	3.0	100
32.5 - 35.0	2.5	2.5	100
35.0 - 37.0	2.0	2.0	100
37.0 - 40.0	3.0	3.0	100
EOH 40.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 340/12

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W R T/ L A Q C)	% CORE RECO- VERY	R Q D	REMARKS (WEATHERING)
0.0 - 22.65m	gh	4-6		Chl/carb/sulph		100	87	
22.65 - 34.0	pgh	4-6		Chl/sulph/clay		5	90	
34.0 - 40.0	bh	10+		Chl/clay/sulph		10	45	
EOH 40.0m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
- Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/12

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 9918	0	1	1.0	1.0	1.44	0.01		
19	1	2	"	"	1.42	0.03		
20	2	3	"	"	2.97	0.04		
21	3	4	"	"	1.68	0.03		
22	4	5	"	"	2.48	0.05		
23	5	6	"	"	1.03	0.04		
24	6	7	"	"	1.33	0.02		
25	7	8	"	"	0.72	0.01		
26	8	9	"	"	1.53	0.03		
27	9	10	"	"	1.4	0.03		
28	10	11	"	"	1.11	0.02		
29	11	12	"	"	2.71	0.06		
30	12	13	"	"	2.90	0.04		
31	13	14	"	"	2.80	0.04		
32	14	15	"	"	1.96	0.02		
33	15	16	"	"	1.76	0.01		
34	16	17	"	"	3.4	0.07		
35	17	18	"	"	2.15	0.03		
36	18	19	"	"	2.20	0.04		
37	19	20	"	"	3.2	0.05		
38	20	21	"	"	1.72	0.04		
39	21	22	"	"	1.38	0.02		
40	22	23	"	"	1.18	0.02		
41	23	24	"	"	2.77	0.14		
42	24	25	"	"	2.46	0.07		
43	25	26	"	"	5.1	0.09		
44	26	27	"	"	1.24	0.02		
45	27	28	"	"	1.18	0.01		
46	28	29	"	"	1.42	0.02		
47	29	30	"	"	4.5	0.07		
48	30	31	"	"	2.16	0.03		
49	31	32	"	"	20.0	0.29		
50	32	33	"	"	0.06	0.01		
51	33	34	"	"	0.08	0.01		
52	34	35	"	"	0.03	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. 340/12

0.0 - 22.65m ANDRADITE SKARN - UPPER C-LENS

Coarse grained andradite garnet skarn with high grade disseminated and coarse scheelite mineralisation throughout. Visual grade appears to increase away from the collar.

Carbonate veining as well as actinolite - carbonate masses are common.

Some broken and fractured core occurs between 20 - 22m, with minor evidence of leaching.

The contact with pyroxene garnet hornfels is gradational and difficult to determine exactly.

22.65 - 34.00 PYROXENE GARNET HORNFELS

Mineralised and partly skarnetised pyroxene garnet hornfels with abundant coarse scheelite present (ie 31 - 31.2 m)
Replaced and altered remnant pods are present, and the top 2m (32.0 - 34.0m), contain minor unreplaced pods with no scheelite present.

34.00 - 40.00 BIOTITE HORNFELS

Fine grained dark brown coloured biotite hornfels with no scheelite present.

The core is slightly broken and fractured, particularly around 36.6 - 37.0m (breccia, slickensides)

Contact with pyroxene garnet hornfels is stratigraphic and not faulted.

Bedding 40° to LCA at 36m
Bedding 33° 36.5m

EOH 40.0m

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 340/11

PLANNING

PROPOSER: J. M. Clark

DEPTH:

LOCATION: S10 Daimond Drill Drive

PURPOSE OF HOLE: Ore blocking on 220340E

CO-ORDS: 220230 E 563970 N

INCLINATION: +45°

BEARING: 180 °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: 220338.9 E 563972.5 N

SURVEYED BEARING: 177° 18' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220338.9 E 563972.5 N

R.L. OF COLLAR: -236.4

INCLINATION OF HOLE: +45° 02'

PICKED UP BY: W. Davies DATE: 22/12/78

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: Upper C 0-4 m 4 m @ 1.31% WO₃
Min Pgh 4-29m 25m @ 0.72% WO₃

Decline Fault 29.35 - 31.0 m

DRILLING

DATE COMMENCED: 15/12/78 DATE TERMINATED: 20/12/78

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 31.0 m

WEDGE PLACED: DEPTH:

EXTENSION: Nil

FINAL DEPTH: 31.0 m

REASON FOR TERMINATION: Successfully Tested C-lens and Intersected
CONDITION OF HOLE ON COMPLETION: Decline Fault

CASING:

CEMENTED:

BORE HOLE SURVEY: Survyed to 31.0 m

WATER: Very Small Amount of Water

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/11

Survey method: Single shot
Final depth: 31.0 m
Casing depth: Nil

Depth surveyed to: 31.0 m
Date surveyed 20/12/78
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		S	E
0	187.25 ^o	177.25	+45	+45	0	0	0
1	177	167	45.25	45.25	0.70	0.69	0.16
31	177	167	45.25	45.25	21.82	21.45	4.95
EOH	31.0 m						

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/11

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.6	2.6	2.6	100
2.6 - 5.6	3.0	3.0	100
5.6 - 8.6	3.0	3.0	100
8.6 - 11.6	3.0	3.0	100
11.6 - 13.5	1.9	1.9	100
13.5 - 16.5	3.0	3.0	100
16.5 - 19.0	2.5	2.5	100
19.0 - 22.0	3.0	3.0	100
22.0 - 25.0	3.0	3.0	100
25.0 - 28.0	3.0	3.0	100
28.0 - 31.0	3.0	3.0	2.5 broken
EOH 31.0 m			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/11

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 3.75	Gh	5		Carb/sulph		100	84	
3.75 - 21.0	Pgh	6		Chl/carb/sulph/ Molybdenum		100 100	84 84	
21.0 - 29.35	Ph/Gross	7		Chl/carb/Qtz		100	76	
29.35 - 31.0	<u>D E C L I N E F A U L T Z O N E</u>							
EOH 31.0 m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/11

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo	
D 9055	0	1	1.0	1.0	0.84	0.01	
56	1	2	"	"	0.99	0.01	
57	2	3	"	"	0.26	0.01	
58	3	4	"	"	1.14	<0.01	
59	4	5	"	"	2.81	0.11	
60	5	6	"	"	1.40	0.19	
61	6	7	"	"	1.32	0.05	
62	7	8	"	"	0.41	0.01	
63	8	9	"	"	0.15	<0.01	
64	9	10	"	"	0.11	0.01	
65	10	11	"	"	0.34	0.01	
66	11	12	"	"	2.00	0.03	
67	12	13	"	"	0.78	<0.01	
68	13	14	"	"	1.00	<0.01	
69	14	15	"	"	1.14	0.01	
70	15	16	"	"	0.72	0.01	
71	16	17	"	"	0.60	<0.01	
72	17	18	"	"	0.50	0.01	
73	18	19	"	"	0.05	<0.01	
74	19	20	"	"	0.41	<0.01	
75	20	21	"	"	0.19	<0.01	
76	21	22	"	"	0.35	<0.01	
77	22	23	"	"	0.42	0.01	
78	23	24	"	"	0.25	<0.01	
79	24	25	"	"	0.94	<0.01	
80	25	26	"	"	0.52	<0.01	
81	26	27	"	"	0.44	0.01	
82	27	28	"	"	0.73	0.01	
83	28	29	"	"	0.36	<0.01	
84	29	30	"	"	0.16	0.01	

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/11

0.0 - 3.75m UPPER C-LENS GARNET SKARN

Coarse grained well mineralised andradite garnet skarn with very minor quartz and carbonate veining.

3.75 - ?21.0 PYROXENE GARNET HORNFELS

Disturbed, variably mineralised Pyroxene garnet hornfels with only a few remaining calcite pods/fragments up to 4cm in size.

The base of the unit is unknown and grades in to a pyroxene - grossular rock adjacent to the Decline Fault.

Free molybdenum is present around 13 m.

?21.0 - 29.35 PYROXENE GROSSULAR ROCK

Coarse grained, disturbed pyroxene - grossular rich rock formed adjacent to the Decline Fault.

The (?) lower contact with Decline Fault is at 26° to LCA.

29.35 - 31.0 DECLINE FAULT

Very broken, brecciated, clayey fault zone with minor associated water flow.

EOH 31.0 m

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 340/10

PLANNING

PROPOSER: G. J. Bujtor

DEPTH:

LOCATION: S13 Diamond Drill Drive

PURPOSE OF HOLE: To Define C-lens Wedge Area

CO-ORDS: 220340 E 564060 N

INCLINATION: -37°

BEARING: 180 °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: $180^{\circ} 03'$ °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220340.4 E 564056.5 N

R.L. OF COLLAR: -202.6

INCLINATION OF HOLE: $-36^{\circ} 43'$

PICKED UP BY: W. Davis DATE: 4/1/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 30-84m 54m @ 1.63 % WO_3

DRILLING

DATE COMMENCED: 5/12/78

DATE TERMINATED: 21/12/78

DRILLER/CONTRACTOR: A.D.D.

CASING:	SIZE:	NQ	BQ(?)		
	DEPTH:	4m	25m		

CORE:	SIZE:	56TT	46TT		
	DEPTH:	24	97m		

WEDGE PLACED: DEPTH:

EXTENSION:

FINAL DEPTH: 95.7m (Possibly 97m?)

REASON FOR TERMINATION: Successfully Tested C-lens Upper and Marble

CONDITION OF HOLE ON COMPLETION: Marker

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed to 87m

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/10

Survey method: Single shot
Final depth: 97m
Casing depth: 25m

Depth surveyed to: 87m
Date surveyed 18/12/78
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		S	E
27	181	171	52	-38	16.62	21.02	3.33
57	181	171	51.75	-38.25	35.19	44.20	7.01
87	180	170	51.25	-38.75	53.97	67.33	11.07

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/10

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 22.0 m	2.0	1.5	75 Broken
22.0 - 3.5 m	1.5	1.0	67 "
3.5 - 5.0	1.5	1.5	100 "
5.0 - 8.0	3.0	2.8	93 "
8.0 - 10.0	2.0	2.0	100 "
10.0 - 11.0	1.0	1.0	100 "
11.0 - 12.5	1.5	0.3	20 "
12.5 - 15.0	2.5	0.4	16 "
15.0 - 16.5	1.5	1.5	100 "
16.5 - 19.0	2.5	2.0	80 "
19.0 - 20.5	1.5	1.5	100 Sandy/broken
20.5 - 22.0	1.5	0.8	53 " "
22.0 - 23.5	1.5	1.5	100 Broken
23.5 - 26.0	2.5	2.5	100
26.0 - 29.5	3.5	3.5	100
29.0 - 32.5	3.0	3.0	100
32.5 - 34.8	2.3	2.0	87
34.8 - 37.8	3.0	3.0	100
37.8 - 40.8	3.0	3.0	100
40.8 - 43.8	3.0	3.0	100
46.8 - 49.8	3.0	3.0	100
49.8 - 52.3	2.5	2.5	100
52.3 - 55.3	3.0	3.0	100
55.3 - 58.3	3.0	3.0	100
58.3 - 61.3	3.0	3.0	100
61.3 - 64.3	3.0	3.0	100
64.3 - 67.3	3.0	3.0	100
67.3 - 70.3	3.0	3.0	100
70.3 - 73.3	3.0	3.0	100
73.3 - 75.8	2.5	2.5	100
75.8 - 78.8	3.0	3.0	100
78.8 - 81.8	3.0	3.0	100
81.8 - 84.8	3.0	3.0	100
84.8 - 87.8	3.0	3.0	100
87.8 - 89.7	1.9	2.7	142
89.7 - 92.7	3.0	3.0	100
92.7 - 95.7	3.0	3.0	100
EOH 95.7 m			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/10

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE- RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 23.5	Bh							A lot of lost core)
23.5 - 27.0	Bh	4-8		Carb., chl, sulph.		100	77	
27.0 - 39.0	Pgh	5-10		Chl, carb, qtz sulph		100	84	
39.0 - 64.0	Gh	8		Carb, qtz, clay chl		100	69	
64.0 - 81.0	Gh	4-6		Carb, qtz, chl, clay, sulph		100	90	
81.0 - 85.0	M/M (?)	5		Carb, clay, sulph, qtz		100	66	
85.0 - 87.2	M/M	15		Chl, clay, sulph		100	22	
87.2 - 95.7	Bnd. gh	6		Chl, clay, carb qtz	21°: 88m 15°: 92-5m	100	80	
EOH 95.7m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 349/10

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8986	27	28	1.0	1.0	0.04	<0.01		
87	28	29	"	"	0.95	<0.01		
88	29	30	"	"	0.11	<0.01		
89	30	31	"	"	0.27	<0.01		
90	31	32	"	"	4.40	0.03		
91	32	33	"	"	1.00	<0.01		
92	33	34	"	"	3.01	0.01		
93	34	35	"	"	1.80	<0.01		
94	35	36	"	"	1.08	<0.01		
95	36	37	"	"	0.72	<0.01		
96	37	38	"	"	0.86	<0.01		
97	38	39	"	"	0.38	<0.01		
98	39	40	"	"	1.45	<0.01		
99	40	41	"	"	2.58	<0.01		
9001	41	42	"	"	3.30	<0.01		
02	42	43	"	"	1.60	<0.01		
03	43	44	"	"	2.82	<0.01	30 - 84m	
04	44	45	"	"	3.11	<0.01	54 @ 1.63 % WO ₃	
05	45	46	"	"	3.02	<0.01		
06	46	47	"	"	1.24	<0.01		
07	47	48	"	"	0.37	<0.01		
08	48	49	"	"	1.37	0.02		
09	49	50	"	"	3.9	0.04		
10	50	51	"	"	0.43	<0.01		
11	51	52	"	"	0.35	<0.01		
12	52	53	"	"	0.98	0.01		
13	53	54	"	"	1.04	0.03		
14	54	55	"	"	1.61	0.03		
15	55	56	"	"	1.20	0.03		
16	56	67	"	"	0.48	0.01		
17	57	58	"	"	1.15	0.04		
18	58	59	"	"	1.15	0.04		
19	59	60	"	"	8.90	0.15		
20	60	61	"	"	1.54	0.04		
21	61	62	"	"	1.78	0.04		
22	62	63	"	"	2.55	0.04		
23	63	64	"	"	1.22	0.04		
24	64	65	"	"	0.66	0.01		
25	65	66	"	"	0.96	0.01		
26	66	67	"	"	0.72	0.01		
27	67	68	"	"	1.51	0.03		
28	68	69	"	"	0.94	<0.01		
29	69	70	"	"	0.97	0.01		

SPECIFIC GRAVITY

Depth (metres):
 Rock Type :
 S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/10

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 9030	70	71	1.0	1.0	2.05	0.04		
31	71	72	"	"	1.90	0.02		
32	72	73	"	"	2.80	0.04		
33	73	74	"	"	1.22	0.02		
34	74	75	"	"	1.74	0.03		
35	75	76	"	"	1.84	0.02		
36	76	77	"	"	1.78	0.01		
37	77	78	"	"	2.21	0.01		
38	78	79	"	"	1.08	0.01		
39	79	80	"	"	1.10	0.01		
40	80	81	"	"	1.99	0.01		
41	81	82	"	"	2.83	0.01		
42	82	83	"	"	0.90	0.01		
43	83	84	"	"	1.56	0.01		
44	84	85	"	"	0.01	0.01		
45	85	86	"	"	0.04	0.01		
46	86	87	"	"	3.18	0.01		
47	87	88	"	"	2.66	0.01		
48	88	89	"	"	13.50	0.10		
49	89	90	"	"	2.35	0.01		
50	90	91	"	"	0.45	0.01		86 - 95.7
51	91	92	"	"	0.92	0.02		
52	92	93	"	"	0.58	0.03		9-7m @ 1.81% WO ₃
53	93	94	"	"	0.78	0.01		
54	94	95	"	"	1.38	0.01		
85	95	95.7	"	"	1.80	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/10

- 0.0 - (?)23.5 m FAULT ZONE - DELIVE PLUS OTHERS
- Very badly broken, fractured, brecciated, rubbly core consisting of mainly biotite hornfels. The core is completely in competent.
- The probably Decline Fault may well be in very "sandy" portion of the core occurring from around 19.0 - 23.5 m.
- No scheelite mineralisation is present.
- (?)23,5 - 27.0 m BIOTITE HORNFELS
- Fine grained grey to brown coloured, competent biotite hornfels grading inot Pgh below.
- 27.0 - 39.0 m PYROXENE GARNET HORNFELS
- Typical Pgh becoming increasingly mineralised towards the base of the unit. Carbonate pods and fragments are common at the top of the unit and appear to give way the chlorite - quartz - carbonate pods at the base of the unit.
- Minor broken core occurs around 31.5 m.
- Scheelite mineralisation is rather coarse grained and patchy.
- The base of the unit in contact with Gh below is at 27^o to LCA.
- 39.0 - ?80.85 GARNET SKARN---UPPER C-LENS
- Coarse grained andradite garnet skarn with very good disseminated scheelite mineralisation throughout (1 - 1.2% WO₃).
- The top of the unit from 39.0 - 53.0 m appears somewhat leached with numerous carbonate - ?quartz shears of fault zones (ie 52 - 53 m - running almost parallel to the LCA). Minor rubble occurs around 46.8 and 49.8 m.
- From 53 - 56.2 m, some pyroxene hornfels (ie 53.3 - 53.45 m) and biotite hornfels (ie 55.95 - 56.15 m @ 29^o to LCA). appears to be present. This could be a mineralised marble marker horizon???
- Some badly sheared (al most parallel to LCA) skarn occurs from 57.5 - 56.3 m

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/10

A unit of Ph and Bh occurs from 60 - 61 m and is virtually devoid of scheelite mineralisation.

Minor leached Gh with an associated shear occurs at 64 m @ 18° to LCA.

Minor broken core occurs around 73.3 m.

The base of the unit is approximate and appears to grade into mineralised marble marker.

?80.85 - (/) 87.20 m

MARBLE MARKER - mineralised is part.

Marble marker horizon which appears to be wall mineralised from 80.85 - 84.80 m and appears to grade into Upper C-lens. Here, the unit contains numerous pyroxene zones/patches and (?) interbeds.

From 84.80 - 87.20 m the unit consists mainly of Bh which appears sheared and broken, particularly the footwall contact.

Note: The depth an core blocks don't fit too well and could be out by up to 1 m.

87.20 - 95.70 m

BANDED SKARN - LOWER C-LENS

Coarse grained and bedded L/C skarn with numerous Ph/Bh and grossular interbeds at shallow angles to the long core axis.

Fine disseminated scheelite occurs throughout, and very coarse high grade scheelite occurs from 89.90 m/

Badly broken core occurs from 92.6 - 93 m. Some marble occurs around 89.7 (core in ?).

So 21° to LCA at 88m
So 15° to LCA at 92.5m
So(dist)14° to LCA at 93.1m

EOH 95.7 m

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 340/9

PLANNING

PROPOSER: G. Bujtor

DEPTH:

LOCATION: S10 Diamond Drill Drive

PURPOSE OF HOLE: Ore Blocking and Cover for S9 Along 220340E

CO-ORDS: 220340 E 563970 N

INCLINATION: 0°

BEARING: 180° °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 179° 59' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220337.6 E 563970.3 N

R.L. OF COLLAR: -239.4

INCLINATION OF HOLE: 0° 38'

PICKED UP BY: B. Davies DATE: 19/12/78

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 0.0 - 50.0 50m @ 1.82 % WO₃

DRILLING

DATE COMMENCED: 1/12/78 DATE TERMINATED: 8/12/78

DRILLER/CONTRACTOR: A.D.D.

CASING: SIZE: NIL
DEPTH:

CORE: SIZE: 57.25
DEPTH: 46TT

WEDGE PLACED: DEPTH:

EXTENSION:

FINAL DEPTH: 57.25 m

REASON FOR TERMINATION: Successfully Tested C-lens But Abandoned

CONDITION OF HOLE ON COMPLETION: in Fault Zone.

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed to 57.0 m

WATER: Minor water flow in fault zone.

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/9

Survey method: Singleshot
Final depth: 57.25 m
Casing depth: Nil

Depth surveyed to: 57.0 m
Date surveyed 7/12/78
Surveyed by: A. Black
Checked by: G. Bujtor

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		S	E
0	180	170		0.5	0	0	0
30	180	170	89.75	0.25	0.33	29.54	5.21
57	180	170	89.75	0.25	0.45	56.13	9.90

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/9

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 31.0	Gh	3		Chl, sulph, carb		100	94	
31.0 - 49.5	Gh	7-8		Chl, sulph, carb		100	82	
49.5 - 57.25	<u>F A U L T Z O N E</u> -			Chl, cal, breccia,	clay and rubble.			
EOH	57.25 m							

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/9

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8859	0	1	1.0	1.0	1.92	<0.01		
60	1	2	"	"	1.30	<0.01		
61	2	3	"	"	2.77	0.01		
62	3	4	"	"	1.19	0.01		
63	4	5	"	"	15.8	0.08		
64	5	6	"	"	1.46	<0.01		
65	6	7	"	"	0.88	<0.01		
66	7	8	"	"	1.48	<0.01		
67	8	9	"	"	2.15	0.01		
68	9	10	"	"	1.60	<0.01		
73	10	11	"	"	1.22	0.02		
74	11	12	"	"	1.95	0.03		
75	12	13	"	"	3.17	0.06		
76	13	14	"	"	1.78	0.03		
77	14	15	"	"	2.42	0.04		
78	15	16	"	"	3.70	0.01		
79	16	17	"	"	2.00	<0.01		
80	17	18	"	"	1.06	<0.01		
81	18	19	"	"	2.19	<0.01		
82	19	20	"	"	0.99	<0.01		
83	20	21	"	"	0.98	<0.01		
84	21	22	"	"	2.73	0.01		
85	22	23	"	"	1.92	<0.01		
86	23	24	"	"	1.53	<0.01		
87	24	25	"	"	1.12	<0.01		
88	25	26	"	"	1.13	<0.01		
89	26	27	"	"	1.22	<0.01		
90	27	28	"	"	2.40	<0.01		
91	28	29	"	"	1.90	<0.01		
92	29	30	"	"	1.40	<0.01		
93	30	31	"	"	1.54	<0.01		
94	31	32	"	"	1.32	<0.01		
95	32	33	"	"	1.86	<0.01		
96	33	34	"	"	2.14	0.01		
97	34	35	"	"	1.52	<0.01		
98	35	36	"	"	1.30	<0.01		
99	36	37	"	"	1.88	<0.01		
8900	37	38	"	"	2.13	<0.01		
01	38	39	"	"	1.51	<0.01		
02	39	40	"	"	1.76	<0.01		
03	40	41	"	"	1.32	<0.01		
04	41	42	"	"	1.46	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/9

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo	
D 8905	42	43	1.0	1.0	8.1	<0.01	
06	43	44	"	"	1.73	<0.01	
07	44	45	"	"	1.70	<0.01	
08	45	46	"	"	1.60	<0.01	
09	46	47	"	"	1.75	<0.01	
10	47	48	"	"	1.06	<0.01	
11	48	49	"	"	1.64	<0.01	
12	49	50	"	"	1.99	<0.01	

SPECIFIC GRAVITY

Depth (metres):
Rock Type :
S.G. :

Determined by:

106213

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/9

0.0 - 49.5 m

GARNET SKARN

Coarse grained Upper C-lens andradite garnet skarn with good high grade disseminated scheelite present throughout.

Coarse scheelite is present from 4.65 - 4.9 m,
42.2 - 42.45 m,

Badly broken core occurs from 35.6 - 35.8 m (fault zone?), around 41.8 m, 43.8 m, 46.4 - 46.8 m (fault - rubble). The core quality and "weathering" deteriorates on approaching the fault below.

49.5 - 49.9 m

PYROXENE HORNFELS

Green pyroxene hornfels adjacent to the major fault below.

49.9 - 57.25 m

FAULT ZONE

Badly broken, fractured, brecciated and rubbly fault zone with abundant carbonate and qtz veining. The rock type appears to be mainly Bh. Chlorite is common. Some vughs and open cavities are present and the hole is making some water.

EOH 57.25 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/8

PLANNING

PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S10 Diamond Drill Drive
PURPOSE OF HOLE: To Define C-lens Wedge Area
CO-ORDS: 220340 E 563975 N
INCLINATION: -50
BEARING: 180 ° GRID ° MAG
TARGET: E N

SURVEY

SURVEY CO-ORDS: E N
SURVEYED BEARING: 179° 57' GRID ° MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220340.5 E 563972.6 N
R.L. OF COLLAR -240.7
INCLINATION OF HOLE -45° 17'
PICKED UP BY: B. Davies DATE: 21/12/78

SUMMARY

LOGGED BY: G. J. Bujtor
RESULTS: 0-26m, 26m @ 2.01% WO₃ Upper C
26-30m, 4m @ 1.28% WO₃ Marble Marker
30-59m, 29m @ 1.98% WO₃ Lower C
65-67m, 2m @ 1.43% WO₃

DRILLING

DATE COMMENCED: 17/11/78 DATE TERMINATED: 30/11/78
DRILLER/CONTRACTOR: ADD
CASING: SIZE: BQ
DEPTH: 1m
CORE: SIZE: 46TT
DEPTH: 78m
WEDGE PLACED: DATE:
EXTENSION:
FINAL DEPTH: 78.0m
REASON FOR TERMINATION: Successfully Tested C-lens Wedge Area.
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Surveyed to 30m (collapse of hole)
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/8

Survey method: Single shot
Final depth: 78.0m
Casing depth: 1m

Depth surveyed to: 30m
Date Surveyed: 30/11/78
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		S	E
4	181	171	44.75	-45.25	2.84	2.79	0.44
30	182	172	44.25	-45.75	21.46	20.75	2.97
78	184	174	43.5	-46.5	56.28	53.61	6.42

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/8

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.00	3.0	3.0	100
3.00 - 6.00	3.0	3.0	100
6.00 - 9.00	3.0	3.0	100
9.00 - 10.50	1.5	1.5	100
10.50 - 13.50	3.0	3.0	100
13.50 - 16.50	3.0	3.0	100
16.50 - 19.00	2.5	2.5	100
19.00 - 22.00	3.0	3.0	100
22.00 - 25.00	3.0	3.0	100
25.00 - 28.00	3.0	3.0	100
28.00 - 28.50	0.5	0.5	100
28.50 - 31.50	3.0	3.0	100
31.50 - 33.50	2.0	2.0	100
33.50 - 36.30	2.8	2.8	100
36.30 - 39.50	3.2	3.2	100
39.50 - 40.80	1.3	1.3	100
40.80 - 42.80	2.0	2.0	100
42.80 - 45.80	3.0	3.0	100
45.80 - 46.80	1.0	1.0	100
46.80 - 48.30	1.5	1.5	100
48.30 - 51.30	3.0	3.0	100
51.30 - 54.00	2.7	2.7	100
54.00 - 57.00	3.0	3.0	100
57.00 - 59.50	2.5	2.5	100
59.50 - 62.50	3.0	3.0	100
62.50 - 64.50	2.0	2.0	100
64.50 - 67.50	3.0	3.0	100
67.50 - 70.50	3.0	3.0	100
70.50 - 78.30	.30	3.0	100
73.30 - 75.10	1.8	1.8	100
75.10 - 75.80	0.7	0.7	100 Broken
75.80 - 78.00	2.2	2.5	114 Broken
EOH 78.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

DDH No. D 340/8

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 25.57	Gh	5-6		Chl/clay/carb sulph/iro		100	87	
25.57 - 30.30	M/M	6-12		Chl/clay/carb sulph		100	71	
30.30 - 45.80	L/C	6-8		Chl/clay/carb sulph		100	81	
45.80 - 49.00	L/C	8-12		Chl/clay/carb sulph		100	46	
49.00 - 60.80	L/C	6-8		Chl/clay/crab sulph		100	77	
60.80 - 67.75	Bh/Ph	12-15		Clay/chl/carb		100	58	
67.75 - 74.30	L Vol	4-12		Chl/clay		100	73	
74.30 - 76.00	Bh/Ph			Chl/clay/carb		100	19	
76.00 - 78.00	Bh/Ph	7-10		Chl/clay/carb		100	55	
EOH 78.0m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/8

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D 8656	0	1	1.0	1.0	1.62	0.03	
57	1	2	"	"	1.2	0.19	
58	2	3	"	"	3.25	0.08	
59	3	4	"	"	1.45	0.02	
60	4	5	"	"	1.26	0.01	
61	5	6	"	"	1.74	0.04	
62	6	7	"	"	1.72	0.04	
63	7	8	"	"	3.1	0.09	
64	8	9	"	"	2.18	0.06	
65	9	10	"	"	1.24	0.02	
66	10	11	"	"	1.40	0.03	
67	11	12	"	"	2.21	0.06	
68	12	13	"	"	2.50	0.06	
69	13	14	"	"	2.25	0.06	
70	14	15	"	"	0.98	0.02	
71	15	16	"	"	1.40	0.04	
71	16	17	"	"	1.04	0.02	
73	17	18	"	"	0.94	0.03	
74	18	19	"	"	1.48	0.02	
75	19	20	"	"	1.50	0.02	
76	20	21	"	"	1.12	0.01	
77	21	22	"	"	1.99	0.04	
78	22	23	"	"	4.10	0.13	
79	23	24	"	"	5.1	0.08	
80	24	25	"	"	1.70	0.02	
81	25	26	"	"	2.29	0.03	
82	26	27	"	"	3.15	0.01	
83	27	28	"	"	0.16	0.01	
84	28	29	"	"	0.02	0.01	
85	29	30	"	"	1.80	0.04	
86	30	31	"	"	1.08	0.02	
87	31	32	"	"	1.88	0.03	
88	32	33	"	"	1.92	0.04	
89	33	34	"	"	0.13	0.01	
90	34	35	"	"	1.42	0.02	
91	35	36	"	"	1.23	0.02	
92	36	37	"	"	0.80	0.01	
93	37	38	"	"	4.30	0.07	
94	38	39	"	"	0.60	0.02	
95	39	40	"	"	3.60	0.06	
96	40	41	"	"	2.23	0.04	
97	41	42	"	"	1.81	0.03	

SPECIFIC GRAVITY

Depth (metres);

Rock Type :

S.G. :

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 340/8

Sample No.	DEPTH (MEATRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo		
D 8698	42	43	1.0	1.0	0.96	0.02		
99	43	44	"	"	0.45	0.01		
8700	44	45	"	"	0.68	0.02		
01	45	46	"	"	0.39	0.01		
02	46	47	"	"	0.22	0.01		
03	47	48	"	"	3.66	0.04		
04	48	49	"	"	1.48	0.02		
05	49	50	"	"	6.10	0.08		
06	50	51	"	"	7.9	0.11		
07	51	52	"	"	6.5	0.08		
08	52	53	"	"	1.62	0.01		
09	53	54	"	"	6.1	0.07		
10	54	55	"	"	3.05	0.04		
11	55	56	"	"	11.6	0.15		
12	56	57	"	"	0.17	<0.01		
13	57	58	"	"	2.49	0.04		
31	58	59	"	"	0.74	0.01		
32	59	60	"	"	0.21	0.01		
33	60	61	"	"	0.05	0.01		
34	61	62	"	"	<0.01	<0.01		
35	62	63	"	"	0.04	<0.01		
36	63	64	"	"	<0.01	<0.01		
37	64	65	"	"	0.11	0.01		
38	65	66	"	"	0.45	0.01		
39	66	67	"	"	2.40	0.02		

SPECIFIC GRAVITY

Depth (metres);

Rock Type :

S.G. :

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/8

0.0 - 25.57m GARNET SKARN - UPPER C-LENS

Coarse grained well mineralised andradite garnet skarn with numerous calcite veins and fractures throughout. In places the scheelite mineralisation is more intense than in others.

Evidence of disturbance with abundant chlorite and calcite occurs around 16.0m

Skarn in places is very sulphide rich i.e. around 12m.

25.57 - 30.30m MARBLE MARKER (mineralised in part)

Marble marker unit consisting of pyroxene hornfels, biotite hornfels and minor marble, with the base of the unit from 29.0 - 30.30m being quite skarnetised (and possibly part of lower C-lens).

The biotite hornfels and pyroxene hornfels appear somewhat fractured and broken.

The boundary between M/M and Lower C-lens is arbitrary.

30.30 - 60.80m BANDED SKARN - LOWER C-LENS

Well bedded/banded lower C-lens skarn with fine to coarse disseminated scheelite throughout. The following possible fault zones were noted - around 33.5m (minor rubble), 46.8m (rubble), 48.3m (broken rubbly core), 54.0m (minor rubbly), 60.8m (possible shearing along bedding).

From 48.0 - 49.3m the core resembles typical Pyroxene garnet hornfels, but appears to be broken and fractured lower C-lens adjacent to the probably fault around 48.3m.

Coarse scheelite mineralisation occurs from 48m onwards.

The following bedding angles were noted -

Bedding 36°	to LCA at	36.25m
Bedding 39°		42.8m
Bedding 43°		47.55m
?Bedding 28°		52.4m

The core from 50.56m appears very pyroxene rich and in places resembles volcanics. It contains very coarse scheelite crystals.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/8

60.8 - 67.75 BIOTITE HORNFELS/PYROXENE HORNFELS

Fractured and somewhat disturbed Biotite hornfels/Pyroxene hornfels with abundant chlorite and clay on joint surfaces. The top of the unit at 60.8m appears sheared or faulted.

Some specks of scheelite mineralisation is present, particularly from 65.67m (coarse scheelite in pyroxene rich rock or? volcanics).

Bedding 35° to LCA at 64.3m

67.75 - ?74.5 LOWER VOLCANICS

Typical coarse grained and spotted lower metavolcanics with no scheelite mineralisation present. A small sugary aplite quartz vein occurs around 73.5m. (Lower contact not accurately located due to lousy core blocks).

?74.5 - ?76.0m FAULT

Badly broken, fractured, clayey and rubbly fault zone with no visible scheelite.

From ?74.5 - ?74.7m (ie top 20m of unit) the unit is massive biotite hornfels (pyroxene hornfels with bedding or shearing at $25 - 30^{\circ}$ to LCA.

?76.0 - ?78.0m BIOTITE HORNFELS (Pyroxene hornfels)

Fine grained, well bedded Biotite hornfels with abundant Pyroxene alteration zones and patches. Bedding throughout is at 25° to LCA..

Minor marble with grossular occurs around 77.25m

EOH 78.0m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 340/7

PLANNING

PROPOSER: A. Younger DEPTH:

LOCATION: S10 Diamond Drill Drive

PURPOSE OF HOLE: To Define C-lens - Wedge Area

CO-ORDS: 220 340 E 563975 N

INCLINATION: -52°

BEARING: 360° GRID MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: $6^{\circ} 30'$ GRID MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220340.3 E 563974.2 N

R.L. OF COLLAR -240.8

INCLINATION OF HOLE $-50^{\circ} 21'$

PICKED UP BY: B. Davies DATE: 21/12/78

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 0-18m, 18m @ 1.59% WO_3 (Upper C)
18-23m, 5m @ 1.51% WO_3 (min M/M)
23-34m, 11m @ 0.89% WO_3 (Lower C?)
34-40m, 6m @ 0.42% WO_3 (min BFB)

DRILLING

DATE COMMENCED: 12/11/78 DATE TERMINATED: 16/1/78

DRILLER/CONTRACTOR: A.D.D.

CASING: SIZE: BQ
DEPTH: 1

CORE: SIZE: 46TT
DEPTH: 40.0m

WEDGE PLACED: DATE:

EXTENSION:

FINAL DEPTH: 40 m

REASON FOR TERMINATION: Successfully Tested C-lens Wedge Area

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed to 34.5m

WATER:

COMMENTS ON DRILLING CONDITIONS: Hole Incorrectly Collared for Bearing.

GEOLOGY -- KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/7

Survey method: Singleshot
 Final depth: 40.0m
 Casing depth: 1m

Depth surveyed to: 34.5m
 Date surveyed: 15/11/78
 Surveyed by: L. Denby
 Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read.	Corrected		N	W
4.5	8°	358	39	-51	3.50	2.83	0.10
34.5	9°	359	39	-51	26.81	21.71	0.43
40	10	360	39	-51	31.08	25.17	0.43
EOH	40m						

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 340/7

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.3	3.3	2.7	82
3.3 - 6.3	3.0	3.0	100
6.3 - 9.3	3.0	3.0	100
9.3 - 12.0	2.7	3.0	111
12.0 - 15.0	3.0	3.0	100
15.0 - 18.0	3.0	3.0	100
18.0 - 21.2	3.2	3.0	94
21.2 - 23.1	1.9	2.0	105
23.1 - 25.0	1.9	1.45	76
25.0 - 28.0	3.0	3.0	100
28.0 - 31.5	3.5	3.0	86 0.5 core loss
31.5 - 34.5	3.0	3.0	100
34.5 - 37.5	3.0	3.0	100
37.5 - 38.5	1.0	2.0	200
38.5 - 40.0	1.5	1.5	100

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. _____

Sample No.	DEPTH (MEATRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo		
D 8616	0	1	1.0	1.0	1.04	<0.01		
17	1	2	"	"	1.31	0.02		
18	2	3	"	"	1.22	<0.01		
19	3	4	"	"	1.06	<0.01		
20	4	5	"	"	1.14	0.01		
21	5	6	"	"	1.42	0.01		
22	6	7	"	"	1.38	0.01		
23	7	8	"	"	1.64	0.01		
24	8	9	"	"	1.49	0.02		
25	9	10	"	"	1.41	0.03		
26	10	11	"	"	1.63	0.03		
27	11	12	"	"	1.92	0.03		
28	12	13	"	"	10.17	0.22		
29	13	14	"	"	3.23	0.08		
30	14	15	"	"	0.36	0.01		
31	15	16	"	"	1.60	0.02		
32	16	17	"	"	1.32	0.01		
33	17	18	"	"	1.41	0.01		
34	18	19	"	"	1.40	0.02		
35	19	20	"	"	2.50	0.04		
36	20	21	"	"	1.80	0.02		
37	21	22	"	"	0.31	0.03		
38	22	23	"	"	1.52	0.01		
39	23	24	"	"	1.24	<0.01		
40	24	25	"	"	1.16	0.01		
41	25	26	"	"	1.43	0.02		
42	26	27	"	"	0.64	0.01		
43	27	28	"	"	0.98	0.02		
44	28	29	"	"	1.34	0.02		
45	29	30	"	"	0.42	<0.01		
46	30	31	"	"	1.00	0.02		
47	31	32	"	"	0.22	<0.01		
48	32	33	"	"	0.55	0.01		
49	33	34	"	"	0.80	0.01		
50	34	35	"	"	0.66	0.01		
51	35	36	"	"	0.49	0.01		
52	36	37	"	"	0.46	<0.01		
53	37	38	"	"	0.23	0.01		
54	38	39	"	"	0.30	0.01		
55	39	40	"	"	0.35	<0.01		

SPECIFIC GRAVITY

Depth (metres);

Rock Type :

S.G. :

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. D340/7

LAB.		K.I.S.		LAB. K.I.S. Check			LAB. AMDEL			LAB. A.C.S.L.		
Original Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo	
8631	1.60	0.02	9097	1.68								
32	1.41	0.01	98	1.41								
33	1.73	0.01	99	1.73								
34	1.40	0.02	9100	1.61								
35	2.50	0.04	01	3.20								
36	1.80	0.02	02	0.52								
37	0.31	0.03	03	0.24								
38	1.52	0.01	04	1.36								
39	1.24	0.01	05	1.40								
40	1.16	0.01	06	1.28								
41	1.43	0.02	07	0.74								

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

DDH No. D340/7

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 18.6	Gh	4-5		Chl-Clay-Carb.		99	90	
18.6 - 23.2	M/M	4-12		Chl-Clay-Carb.		97	62	
23.2 - 34.0	Banded Gh	6		Chl-Clay-Carb.	45° : 26m 60° : 33m	85	81	
34.0 - 40.0	BFB/L.V. Bh/Ph	8		Chl-Clay-Carb.	57° : 36m	100	70	
EOH 40.0 m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
3. Core size. 46TT

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/7

0.0 - 18.60

GARNET SKARN - UPPER C-LENS

Coarse grained Upper C-lens andradite garnet skarn with good grade disseminated and coarse scheelite (12.7 - 13.5 m : 5.0% WO_3).

Minor broken and fractured core occurs around 15.0 m, and 18.0 m. Remainder of core is very competent.

18.60 - ? 23.20 m

MARBLE MARKER

Marble marker unit consisting of biotite hornfels, pyroxene hornfels, marble, grossular garnet, andradite garnet and minor scheelite.

A 0.5 m band of biotite hornfels occurs at the top of the unit.

Clay - pug broken core occurs from 21.2 - 21.5 (probable fault zone?).

Minor unreplaced marble grading into skarn occurs from 21.8 - 22.1 m.

The base of the unit is difficult to determine.

?23.20 - ? 34.0 m

BANDED SKARN - LOWER C-LENS

Well bedded/banded lower C-lens andradite garnet skarn with fair - good disseminated scheelite present. There is also some coarser grained scheelite present, particularly at the top of the unit.

The lower contact grades into mineralised Banded Footwall Beds and will no doubt be a % grade cut-off in the Banded Footwall Beds unit. The base of the unit here is taken where the first unreplaced marble interbed occurs at around 34 m.

Possible faults occur at 28.0 m (some fracturing), and around 31 m (Chlorite, slickensides and possible 0.5 m core loss).

The following bedding angles were noted:-

Bedding 45° to LCA at 26 m (disturbed)
Bedding 60° to LCA at 33 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 340/7

?34.0 - 38.5 m

MINERALISED BANDED FOOTWALL BEDS

Variable mineralised, well bedded Banded Footwall beds with fair fine disseminated scheelite present. Beds of unreplaced marble are common with the typical Pyroxene Hornfels/grossular garnet reaction zones.

Around 35.4 m, the core is somewhat rubbly.

Bedding 57° to LCA at 36 m.

38.5 - 39.4 m

BIOTITE HORNFELS/PYROENE HORNFELS

Fine grained well bedded Biotite Hornfels/Pyroxene Hornfels with evidence of micro faulting and fracturing.

39.4 - 40.0 m

LOWER VOLCANIES

Typical greenish coloured and spotted lower volcanics.

EOH 40.0 m

Note: Core blocks in the last tray may be incorrect as we have 1 m too much core. The following then may be true depths:-

34.0 - 39.5 m min Bfb

39.5 - 40.4 m Bh/Ph

40.0 - 41.0 m L.V.

EOH 41.0 m

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 340/6

PLANNING

PROPOSER: A. Younger

DEPTH:

LOCATION: S10 Diamond Drill Drive

PURPOSE OF HOLE: To oreblock C lens

CO-ORDS: 220340E E 563975 N

INCLINATION: -90°

BEARING: °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220340.1 E 563973.3 N

R.L. OF COLLAR: -240.9

INCLINATION OF HOLE: -90°

PICKED UP BY: B. Davies DATE: 22-12-78

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: Upper C lens 0-14 m, 14 m @ 1.82% WO_3
Lower C lens 18-29m, 11 m @ 0.97% WO_3

DRILLING

DATE COMMENCED: 2-11-1978 DATE TERMINATED: 10-11-1978

DRILLER/CONTRACTOR: A.D.D.

CASING: SIZE: BQ
DEPTH: 1m

CORE: SIZE: 46TT
DEPTH: 52.6 m

WEDGE PLACED: DEPTH:

EXTENSION:

FINAL DEPTH: 52.6 m

REASON FOR TERMINATION: Successfully tested C lens & intersected adamellite

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed to 52.6 m

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/6

Survey method: Singleshot Camera
Final depth: 52.60
Casing depth: 1.0 m

Depth surveyed to: 52.60
Date surveyed 10-11-78
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
0	10 ^(CASED)	0	0	-90	0	0	0
22.6	317	307	1	-89	22.6	0.24	0.32
52.6	311	301	1	-89	52.59	0.61	0.77

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/6

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.2	3.2	2.7	84
3.2 - 6.2	3.0	3.0	100
6.2 - 9.2	3.0	3.0	100
9.2 - 12.2	3.0	3.0	100
12.2 - 15.2	3.0	3.0	100
15.2 - 18.2	3.0	3.0	100
18.2 - 21.2	3.0	3.0	100
21.2 - 24.2	3.0	3.0	100
24.2 - 27.2	3.0	3.0	100
27.2 - 30.2	3.0	3.0	100
30.2 - 31.2	1.0	1.0	100
31.2 - 32.4	1.2	1.2	100
32.4 - 33.2	0.8	0.8	100
33.2 - 36.2	3.0	3.0	100
36.2 - 39.2	3.0	3.0	100
39.2 - 42.2	3.0	3.0	100
42.2 - 44.3	2.1	2.1	100
44.3 - 45.2	0.9	0.9	100
45.2 - 45.5	0.3	0.3	100 broken
45.5 - 46.0	0.5	0.5 (?)	100 broken
46.0 - 46.2	0.2	0.2 (?)	100 broken
46.2 - 47.4	1.2	1.2	100 broken
47.4 - 48.2	0.8	0.8	100 broken
48.2 - 49.0	0.8	0.7	88
49.0 - 49.6	0.6	0.6	100
49.6 - 51.2	1.6	1.6	100
51.2 - 51.8	0.6	0.27	45
51.8 - 52.6	0.8	0.9	113
EOH 52.6.			

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/6

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8538	0	1	1.0	1.0	1.40	0.07		
39	1	2	"	"	3.55	0.15		
40	2	3	"	"	4.03	0.21		
41	3	4	"	"	2.00	0.09		
42	4	5	"	"	2.6	0.12		
43	5	6	"	"	3.08	0.20		
44	6	7	"	"	1.72	0.09		
45	7	8	"	"	0.56	0.02		
46	8	9	"	"	1.15	0.03		
47	9	10	"	"	0.48	0.03		
48	10	11	"	"	1.46	0.08		
49	11	12	"	"	1.10	0.05		
50	12	13	"	"	1.81	0.08		
51	13	14	"	"	0.49	0.02		
52	14	15	"	"	0.20	<0.01		
53	15	16	"	"	<0.01	<0.01		
54	16	17	"	"	0.52	0.02		
55	17	18	"	"	<0.01	<0.01		
56	18	19	"	"	1.20	0.03		
57	19	20	"	"	0.70	0.04		
58	20	21	"	"	1.58	0.07		
59	21	22	"	"	0.43	0.02		
60	22	23	"	"	0.31	0.02		
61	23	24	"	"	2.76	0.10		
62	24	25	"	"	1.95	0.08		
63	25	26	"	"	0.46	0.03		
64	26	27	"	"	0.23	0.01		
65	27	28	"	"	0.35	0.02		
66	28	29	"	"	0.68	0.04		
67	29	30	"	"	0.26	0.02		
68	30	31	"	"	0.09	0.01		
69	31	32	"	"	0.21	0.01		
70	32	33	"	"	0.05	0.01		
71	33	34	"	"	<0.01	<0.01		
72	34	35	"	"	<0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

Determined by:

GROPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/6

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 13.8	Gh	2-4		Chl,carb,sulph		99	87	
13.8 - 18.75	M/M	4-12		Clay,chl,carb		100	52	
18.75 - 30.4	L/C	2-5		Chl,carb		100	94	
30.4 - 35.0	BFB	6-12		Clay,chl,carb		100	65	
35.0 - 41.75	L.Vol	4-10		Clay,chl		100	85	
41.75 - 46.7	Bh/Ph	15- 20		Chl,clay,sulph		100	7	broken
46.7 - 52.6	Granite	12-15		Carb,qtz,sulph		100	14	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) \pm $\frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \times$
- Core size. 46TT

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/6

0.0 - 13.80 m

GARNET SKARN - UPPER C LENS

Coarse grained andradite garnet skarn with high grade disseminated scheelite throughout. Towards the base of the unit on approaching the marble marker, the proportion of grossular garnet present appears to increase.

At 10.5 m, the scheelite appears to be parallel to bedding and orientated at 43° to LCA.

Carbonate and quartz veins are present particularly around 4.75 m.

13.80 - 18.75 m

MARBLE MARKER

Marble marker horizon consisting of marble, pyroxene hornfels, biotite hornfels and grossular garnet.

The unit is almost completely barren of mineralization apart from a 10-15 cm band of pyroxene rock from 16.10 - 16.25 m which contains abundant disseminated scheelite.

Bedding with the marble is orientated at 50° to LCA at 15.0 m. The majority of the unit appears to have been original marble apart from the 1m of biotite hornfels at the base of the unit (originally shales).

Possible minor faulting/brecciation (bedding plane slip or faulting?) occurs at 17.6 and 17.85 m (breccia, pug), 18.3 and 18.7 m.

18.75 - 30.40 m

BANDED SKARN - LOWER C LENS

Typical well bedded/banded lower C lens andradite skarn with good grade scheelite mineralization (decreasing towards base). Minor barren interbeds of biotite hornfels and pyroxene hornfels are present.

The following bedding angles were noted:-

So	47°	to	LCA	at	21.35 m
So	45°	to	LCA	at	23.45 m
So	50°	to	LCA	at	25.60 m
So	30°	to	LCA	at	28.80 m

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/6

30.40 - 35.0 m

BIOTITE HORNFELS/PYROXENE HORNFELS -
BANDED FOOTWALL BEDS

Interbedded sequence of banded (bedded) footwall beds consisting of biotite hornfels/pyroxene hornfels, marble, minor grossularite and andradite.

Scheelite mineralization is about absent apart from an andradite garnet bed from 31.55 - 32.15 m.

The unit is slightly broken and fractured with the following zones of noticeable disturbances -30.5 m (sheared?), 31.52 m (clay breccia), 32.4m (broken).

A thin marble unit immediately overlies the lower volcanics below, and occurs from 34.65-35.0 m.

The following bedding angles were noted:-

So 59° to LCA at 31.4 m
So 55° to LCA at 33.4 m

35.00 - 41.75 m

LOWER VOLCANICS

Typical, competent coarse grained and spotted lower volcanics with no scheelite mineralization. The core becomes increasingly broken from 39.0 m onwards, especially around the base of the unit.

41.75 - 46.70 m

BIOTITE HORNFELS/PYROXENE HORNFELS

Fine grained, interbedded biotite hornfels/pyroxene hornfels which is badly broken and rubbly at the base of the unit (44.9 - 46.7 m). This badly broken ground could represent a fault zone or the sheared/intruded contact zone of the granite below. An aplite dyke occurs from 42.65 - 43.75 m.

46.70 - 52.60 m

ADAMELLITE

Fine to coarse grained Grassy Adamellite with no visible scheelite or endoskarn. That portion of the adamellite in contact with the sediments is finer grained (chilled?) with noticeable quartz veining. The adamellite is quite fractured and broken.

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 340/5

PLANNING

PROPOSER: G. J. Bujtor

DEPTH:

LOCATION: S13 Diamond Drill Drive

PURPOSE OF HOLE: To Define C-lens Wedge Area.

CO-ORDS: 220340 E 564060 N

INCLINATION: -61.5°

BEARING: 180° °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: $179^{\circ} 30'$ °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220340.15 E 564058.7 N

R.L. OF COLLAR: -203.0

INCLINATION OF HOLE: $-61^{\circ} 00'$

PICKED UP BY: B Davies DATE: 4/1/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 16-27m, 11m @ 1.11% WO_3 (Min PGH)
27-36m, 9 m @ 1.37% WO_3 (?)
41-60m, 19m @ 1.14% WO_3 (Lower C-lens)

DRILLING

DATE COMMENCED: 6/11/78 DATE TERMINATED: 4/12/78

DRILLER/CONTRACTOR: ADD

CASING: SIZE: 56TT
DEPTH: 20.0 m

CORE: SIZE: 46TT
DEPTH: 95.0 m

WEDGE PLACED: DEPTH:

EXTENSION:

FINAL DEPTH: 95.0 m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed to 95 m

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/5

Survey method: Single shot
Final depth: 95.0 m
Casing depth: 20 m

Depth surveyed to: 95.0 m
Date surveyed 4/12/78
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		S	E
0	179.5°			- 61.0	0	0	0
35	186	176	27.25	-62.75	31.12	15.99	1.12
65	186	176	27	-63.0	57.85	29.58	2.07
95	186	176	27.25	-62.75	84.52	43.29	3.03
EOH	95.0 m						

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/5

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 4.0	4.0	0.7	18 broken
4.0 - 5.0	1.0	0.65	65 "
5.0 - 5.6	0.6	0.45	75 "
5.6 - 6.3	0.7	0.2	29 "
6.3 - 7.3	1.0	0.25	25 Sand
7.3 - 9.5	2.2	1.3	60 broken
9.5 - 12.3	2.8	1.8	64 "
12.3 - 13.3	1.0	1.0	100 "
13.3 - 14.0	0.7	0.3	43 "
14.0 - 16.7	2.7	2.7	100
16.7 - 18.0	1.3	1.3	100
18.0 - 21.1	3.1	3.1	100
21.1 - 23.6	2.5	2.5	100
23.6 - 27.5	3.9	2.9	74 1m core loss - block wrong
27.5 - 30.5	3.0	3.0	100
30.5 - 33.5	3.0	3.0	100
33.5 - 36.5	3.0	3.0	100
36.5 - 39.5	3.0	3.0	100
39.5 - 42.5	3.0	3.0	100
42.5 - 45.5	3.0	3.0	100
45.5 - 48.5	3.0	3.0	100
48.5 - 51.5	3.0	3.0	100
51.5 - 54.5	3.0	3.0	100
54.5 - 56.5	2.0	2.0	100
56.5 - 59.5	3.0	3.0	100
59.5 - 64.0	4.5	4.5	100
64.0 - 67.0	3.0	3.0	100
67.0 - 68.0	1.0	1.0	100
68.0 - 69.9	1.9	1.9	100
69.9 - 71.9	2.0	2.0	100
71.9 - 74.6	2.7	2.7	100
74.6 - 77.6	3.0	3.0	100
77.6 - 80.6	3.0	3.0	100
80.6 - 82.0	1.4	1.4	100
82.0 - 85.0	3.0	3.0	100
85.0 - 88.0	3.0	3.0	100
88.0 - 89.5	1.5	1.5	100
89.5 - 92.5	3.0	3.0	100
92.5 - 95.0	2.5	2.5	100
EOH 95.0 m			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/5

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 14.5								
14.5 - 27.12	PGH	6		OTHERS : Clay chl,		100	79	
27.12 - 33.8	M/M	8-10		Chl, clay, carb	46°: 31.15 m	100	81	
33.8 - 35.0	L/C	8		Chl, clay, carb	44°: 34.6 m	100	71	
35.0 - 41.4	M/M	8		cal.	45°: 36.7 m	100	65	
41.4 - 58.8	L/C	6		Chl, clay, carb.	40°: 40.65	100	83	
58.8 - 61.5	BFB	8		Sulph	49°: 48m	100	67	
61.5 - 69.75	BFB/Bh-Ph	10		Chl, clay, carb	50°: 54 m	100	47	
69.75 - 75.8	L. Vol	6-7		Chl, clay, carb	50°: 66m	100	69	
75.8 - 87.9	Bh/Ph	13		Chl, Clay	55°: 69m	100	36	
87.9 - 95.0	Granite	> 20		Sulph	46°: 78.5 m	100	24	
EOH 95.0 m				Clay, carb	35°: 81.8 m	100		

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size. 46TT

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/5

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 9833	15	16	1.0	1.0	0.07	0.02		
34	16	17	"	"	0.38	0.01		
35	17	18	"	"	0.80	0.03		
36	18	19	"	"	1.05	0.01		
37	19	20	"	"	3.17	0.01		
38	20	21	"	"	1.46	0.01		
39	21	22	"	"	1.22	0.01		
40	22	23	"	"	1.61	0.01		
41	23	24	"	"	0.80	0.02		
42	24	25	"	"	1.15	0.02		
43	25	27	"	"	0.29	0.01		
44	27	28	"	"	2.75	0.01		
45	28	29	"	"	1.78	0.01		
46	29	30	"	"	0.54	0.01		
47	30	31	"	"	0.36	0.01		
48	31	32	"	"	0.17	0.02		
49	32	33	"	"	0.50	0.01		
50	33	34	"	"	1.49	0.01		
51	34	35	"	"	1.97	0.01		
52	35	36	"	"	2.80	0.01		
53	36	37	"	"	0.24	0.02		
54	37	38	"	"	0.02	0.01		
55	38	39	"	"	0.32	0.02		
56	39	40	"	"	0.22	0.01		
57	40	41	"	"	0.18	0.01		
58	41	42	"	"	0.66	0.01		
59	42	43	"	"	0.76	0.02		
60	43	44	"	"	0.56	0.01		
61	44	45	"	"	0.54	0.01		
62	45	46	"	"	1.12	0.01		
63	46	47	"	"	1.45	0.01		
64	47	48	"	"	1.72	0.01		
65	48	49	"	"	0.29	0.01		
66	49	50	"	"	1.96	0.02		
67	50	51	"	"	1.86	0.02		
68	51	52	"	"	1.56	0.02		
69	52	53	"	"	3.1	0.05		
70	53	54	"	"	1.11	0.02		
71	54	55	"	"	0.96	0.02		
72	55	56	"	"	0.48	0.01		
73	56	57	"	"	0.44	0.01		
74	57	58	"	"	0.82	0.02		

SPECIFIC GRAVITY

Depth (metres):
 Rock Type :
 S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/5

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8975	58	59	1.0	1.0	1.32	0.03		
76	59	60	"	"	0.95	0.02		
77	60	61	"	"	0.11	0.01		
78	61	62	"	"	0.21	0.01		
79	62	63	"	"	<0.01	<0.01		
80	63	64	"	"	0.01	0.01		
81	64	65	"	"	0.84	0.01		
82	65	66	"	"	<0.01	<0.01		
83	85	86	"	"	0.04	0.01		
84	86	87	"	"	0.60	0.02		
85	87	88	"	"	0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/5

- 0.0 - 22.0 m B LENS
- Fractured and broken B-lens marble with only 30 cm core recovery. No scheelite mineralisation appears to be present.
- 2.0 - 14.50 m FAULT ZONE - DECLINE FAULT AND OTHERS
- A major broken, fractured, clayey, rubbly brecciated fault zone consisting of the Decline Fault (probably 12.0 - 14.5 m) and numerous other unnamed faults (similar to these mapped in S13 around 220340E). Definite fault breccia from 2.0 - 5.6 m.
- No scheelite mineralisation is present and the core consists dominantly of biotite hornfels.
- Core recovery is lousy throughout.
- 14.50 - 27.12 PYROXENE GARNET HORNFELS
- Typical Pyroxene Garnet Hornfels with calcite pods and fragments often completely replaced by grossular.
- The top of the unit from 14.5 - 16.0 m contains few pods and is biotite rich/pyroxene rich.
- Scheelite mineralisation appears to increase towards the base of the unit.
- Contact with Upper C-lens is at 35° to LCA.
- 27.12 - 29.15 m GARNET SKARN - UPPER C-LENS
- Coarse grained well mineralised andradite garnet skarn with rare carbonate veins.
- 29.15 - 33.80 m MARBLE MARKER
- Disturbed marble marker unit consisting of Biotite Hornfels, Pyroxene Hornfels, Marble and minor skarn with patchily disseminated and coarse scheelite mineralisation.
- No obvious fault occurs at the top of the unit but there appears noticeable pyroxene enrichment which is often associated with faulting. A further possible fault may also occur around 32.6 m.
- So 46° to LCA at 31.15m

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/5

33.80 - 35.00

BANDED SKARN - LOWER C - LENS

Coarse grained and crudely bedded andradite garnet skarn with good disseminated and coarse scheelite mineralisation.

A probable fault appears at the base of the unit (35m) where carbonate, coarse scheelite and rubble appears to be present.

So 40°	to LCA	at 33.8 m
So 44		34.6 m

35.0 - 41.40 m

MARBLE MARKER

Marble marker unit consisting of biotite hornfels pyroxene hornfels, marble and minor skarn (grossularly dominantly). Some patchy scheelite mineralisation is present.

The core is somewhat broken and fractured with possible evidence of bedding plane movement (ie around 40.25 - 40.40m)

So 45°	to LCA	at 36.7 m
37°		38 m
40°		40.65m

41.40 - 58.8

BANDED SKARN - LOWER C-LENS

Well bedded lower C lens skarn with fair to good disseminated scheelite mineralisation throughout. Rare biotite hornfels, pyroxene hornfels and Marble interbeds are present.

The following broken zones were noted - 43.4 m, 51.5m 56.35m,

So 45°	to LCA	at 42.4 m
43		44.45
49		48
40		49.65
50		54.0

58.8 - 761.5

BANDED FOOTWALL BEDS (mineralised in part)

Well bedded/ banded footwall beds consisting of marble, biotite hornfels and pyroxene hornfel with numerous skarn interbeds.

Minor clay pug occurs at the base of the unit (possible fault).

61.5 - 69.75

BANDED FOOTWALL BEDS

Well bedded Banded Footwall Beds with Biotite Hornfels/ Pyroxene Hornfels at the top of the unit. Typical metamorphic

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/5

reaction zoning is present (pyroxene hornfels, grossular).
Some partly mineralised andradite beds are present.

The base of the unit is slightly fractured. Rubbly core occurs
around 64 m.

So 50^o to LCA at 66m
55 69m

A 50cm marble unit virtually overlies the LVolcanics below
(ie 50 cm above).

69.75 - (?) 75.80 LOWER VOLCANICS

Typical coarse grained, spotted in part, Lower Volcanics with
no visible scheelite present.

?75.50 - 87.90 BIOTITE HORNFELS/PYRXOENE HORNFELS

Well bedded biotite hornfels/pyroxene hornfels which is
intruded by some quartz-carbonate (?) aplite veins (80.3 -
81.0 m: weathered). The core appears slightly broken and
fractured. Minor pyroxene/grossular/andradite skarn appears
to be developed in the lower 3 m of the unit above the granite
basement. Some scheelite is present, although only very
minor.

So 46^o to LCA at 78.5 m
So 35^o (?) 81.8 m

Numerous rubble zones could represent faults.

87.90 - 95.0 m GRANITE/ADAMELLITE

Fine to coarse grined granit/admaellite with abundant white
quartz.

EOH 95.00 m

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 340/4

PLANNING

PROPOSER: G. J. Bujtor DEPTH:
LOCATION: S13 Diamond drill drive

PURPOSE OF HOLE: To oreblock C lens Wedge Area
CO-ORDS: 220340 E 564060 N
INCLINATION: -85°
BEARING: 180° °GRID °MAG
TARGET: E N

SURVEY

SURVEY CO-ORDS: E N
SURVEYED BEARING: 179°50' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220340.2 E 564059.3 N
R.L. OF COLLAR: -202.9
INCLINATION OF HOLE: -84° 40'
PICKED UP BY: B. Davies DATE: 4-1-1979

SUMMARY

LOGGED BY: G. J. Bujtor
RESULTS: Lower C lens 43 - 57m, 14m at 1.28% WO₃
Upper C lens 16 - 37m, 21m at 1.39% WO₃
+ (min pgh)

DRILLING

DATE COMMENCED: DATE TERMINATED:
DRILLER/CONTRACTOR:
CASING: SIZE:
DEPTH:
CORE: SIZE:
DEPTH:
WEDGE PLACED: DEPTH: 64.0m
EXTENSION:
FINAL DEPTH:
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY:
WATER:
COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/4

Survey method: Singleshot Camera
Final depth: 64.0 m
Casing depth: 13.5m

Depth surveyed to: 64.0m
Date surveyed 1-11-78
Surveyed by: L. Denby
Checked by: G. Bujtor

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		S	E
0					0	0	0
4	173	163	5	-85	3.98	0.33	0.10
34	173	163	5	-85	33.87	2.82	0.91
64	171	161	5	-85	63.76	5.30	1.76
EOH 64.0m							

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/4

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.0	3.0	1.2	40
3.0 - 6.5	3.5	2.0	57
6.5 - 7.3	0.8	1.5	188
7.3 - 8.0	0.7	0.35	50
8.0 - 9.5	1.5	1.5	100
9.5 - 10.5	1.0	0.8	80
10.5 - 12.0	1.5	?1.5	100
12.0 - 13.0	1.0	1.0	100
13.0 - 14.8	1.8	1.3	72
14.8 - 15.0	0.2	0.75	375
15.0 - 17.5	2.5	2.0	80
17.5 - 18.5	1.0	1.2	120
18.5 - 21.5	3.0	3.0	100
21.5 - 24.5	3.0	3.0	100
24.5 - 27.2	2.7	2.7	100
27.2 - 30.2	3.0	3.0	100
30.2 - 33.2	3.0	3.0	100
33.2 - 36.0	2.8	2.8	100
36.0 - 37.5	1.5	1.5	100
37.5 - 39.5	2.0	1.8	90
39.5 - 41.0	1.5	1.4	93
41.0 - 44.0	3.0	3.0	100
44.0 - 47.0	3.0	3.0	100
47.0 - 50.0	3.0	3.0	100
50.0 - 53.0	3.0	3.0	100
53.0 - 55.3	2.3	2.3	100
55.3 - 58.3	3.0	2.0	93
58.3 - 61.0	2.7	2.7	100
61.0 - 64.0	3.0	3.0	100
EOH 64.0 m			

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/4

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8464	13	14	1.0	1.0	0.02	0.01		
65	14	15	"	"	0.44	0.01		
66	15	16	"	"	0.04	0.01		
67	16	17	"	"	1.92	0.05		
68	17	18	"	"	4.40	0.07		
69	18	19	"	"	0.74	0.01		
70	19	20	"	"	1.01	0.02		
71	20	21	"	"	0.45	<0.01		
72	21	22	"	"	0.77	0.02		
73	22	23	"	"	0.45	0.01		
74	23	24	"	"	2.50	0.04		
75	24	25	"	"	0.20	0.01		
76	25	26	"	"	1.11	0.03		
77	26	27	"	"	0.54	0.02		
78	27	28	"	"	2.97	0.06		
79	28	29	"	"	2.27	0.05		
80	29	30	"	"	3.80	0.15		
81	30	31	"	"	1.16	0.08		
82	31	32	"	"	1.67	0.05		
83	32	33	"	"	0.06	0.01		
84	33	34	"	"	0.82	0.02		
85	34	35	"	"	0.82	0.01		
86	35	36	"	"	1.00	0.02		
87	36	37	"	"	0.48	<0.01		
88	37	38	"	"	0.02	0.01		
89	38	39	"	"	<0.01	<0.01		
90	39	40	"	"	0.02	0.01		
91	40	41	"	"	<0.01	<0.01		
92	41	42	"	"	<0.01	0.02		
93	42	43	"	"	<0.01	<0.01		
94	43	44	"	"	4.70	0.10		
95	44	45	"	"	1.99	0.06		
96	45	46	"	"	1.20	0.04		
97	46	47	"	"	0.05	0.01		
98	47	48	"	"	0.49	0.01		
99	48	49	"	"	0.76	0.01		
D 8500	49	50	"	"	0.46	0.01		
1	50	51	"	"	0.66	0.02		
2	51	52	"	"	0.44	0.01		
3	52	53	"	"	0.84	0.01		
4	53	54	"	"	4.50	0.07		
5	54	55	"	"	0.39	0.01		
6	55	56	"	"	0.03	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

Determined by:

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/4

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8507	56	57	1.0	1.0	1.40	0.04		
8	57	58	"	"	0.03	0.01		
9	58	59	"	"	0.05	0.01		
10	59	60	"	"	0.03	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/4

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT I.AOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 4.0	B lens	>20		Chl, clay, carb		780	0	
4.0 - 10.5	Bh	20		Chl, clay, carb, sul			5	
10.5 - 12.25	<u>DECLINE FAULT</u> -			Chl, clay, pug				
12.25 - 28.85	Pgh	6		Chl, clay, carb		100	84	
28.85 - 32.05	Gh	5		Chl, clay, carb		100	95	
32.05 - 33.20	Bh	15		Chl, clay, carb, sul		100	26	
33.20 - 35.85	Gh	4-6		Chl, clay, carb		100	94	
35.85 - 39.5	M/M?	15-20		Chl, clay, carb	55°:36.15m	100	25	
39.5 - 43.6	M/M?	4-5		Chl, carb		100	88	
43.6 - 54.65	Banded gh	8		Clay, chl, carb	61°:46.3 m	100	82	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/4

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
54.65 - 59.50	Bh/Ph	12-15		Clay, chl, sul, carb	57°:57.5 m 65°:57.7 m	100	63	
59.50 - 64.0	L. Vol	4		Chl, sulph, clay		100	67	
EOH 64.0m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size. 46TT

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/4

0.0 - 74.00 m

B LENS

Extremely badly broken and fractured B lens consisting of marble, pyroxene hornfels and minor grossular with biotite hornfels. The core is mainly rubble and internal subdivisions are impossible to determine.

74.00 - 10.50 m

BIOTITE HORNFELS

Broken and fractured biotite hornfels with numerous pyroxene - actinolite alteration zones and patches. Chlorite coating of joints is common as is the presence of slickensides and evidence of shearing.

10.50 - 12.25 m

DECLINE FAULT ZONE

Highly brecciated, broken, fractured, clayey fault zone with abundant chlorite and slickensides. No scheelite mineralization is present.

12.25 - 28.85 m

PYROXENE GARNET HORNFELS (MINERALIZED)

Typical pyroxene garnet hornfels containing numerous marble pods and fragments throughout. Reaction rims of grossular are common. The marble fragments become more altered and mineralized on approaching the skarn below.

Coarse, scattered scheelite mineralization occurs throughout the unit.

The following clay-pug breccia zones (probable faults and shears) were noted - around 14.8 (rubble-possibly due to drilling), 15.4 m (clay pug zone), 18.0 m (clay-pug).

28.85 - 729.4

UPPER C LENS GARNET SKARN

Coarse grained andradite garnet skarn with good fine disseminated scheelite throughout. Upper contact with pyroxene garnet hornfels is pyroxene rich, but no evidence of a faulted contact.

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GEOLOGICAL LOG

D.D.H. No. D 340/4

Lower contact may be sheared and grades into a pyroxene-carbonate-scheelite rich rock.

?29.4 - 31.05 m

PYROXENE - CARBONATE ROCK WITH SCHEELITE

Light green to white pyroxene - carbonate (calcite) rich rock with good disseminate and coarse scheelite present throughout. Very little andradite appears to be present.

Possible shear occurs at 29.75 m.

The unit could be mineralized marble marker?

31.05 - 32.05 m

GARNET SKARN - UPPER C LENS

Coarse grained andradite garnet skarn with fine disseminated scheelite present throughout. The upper contact appears gradational, the bottom pyroxene rich with probable brecciation and fracturing.

32.05 - 33.20 m

BIOTITE HORNFELS

Mainly biotite hornfels with numerous zones of pyroxene hornfels and possibly some grossular garnet interbeds.

The unit appears fractured and sheared throughout particularly the top and the base. Only rare specks of scheelite are present.

33.20 - 35.85 m

GARNET SKARN - ?UPPER C LENS

Coarse grained andradite garnet skarn with medium grade disseminate scheelite present. The unit shows abundant evidence of disturbance and contains numerous calcite veins and masses throughout.

The unit in places looks similar to disturbed banded Lower C lens. Minor pyroxene and biotite hornfels occurs around 33.75 m.

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/4

35.85 - 43.60 m

?MARBLE MARKER

Possible marble marker horizon consisting of biotite hornfels, pyroxene hornfels, ?volcanics (?tuffite) and rare grossular garnet.

A volcanic looking rock occurs from 39 m onwards and contains small abundant biotite flacks/specks often orientated at approx. 35° to LCA. (possible cleavage formation due to shearing?)

From 35.85 - 40.0 m, the unit is very much disturbed, sheared and broken particularly from - 36.25 - 37.0 m, 37.95 m, 38.4 m.

The unit is virtually barren of scheelite apart from lower 1 metre of the unit where it grades into Lower C lens.

So 55° to LCA at 36.15 m

43.60 - 54.65 m

LOWER C LENS - BANDED SKARN

Well bedded/banded Lower C lens skarn consisting of mainly andradite garnet skarn and interbeds of pyroxene hornfels, marble and biotite hornfels.

From 49.5 m onwards, the unit almost becomes mineralized banded footwall beds with increasing barren marble/biotited hornfels and pyroxene hornfels interbeds.

Scheelite mineralization occurs throughout the garnet beds.

Broken and fractured core occurs around 45.85m, 47.0 m (some rubble); 50.0 m, 50.25 m, and 54.65 m.

The following bedding angles were noted:-

So 61° to LCA at 46.3 m
So 62° to LCA at 48.45m
So 59° to LCA at 51.0 m

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GEOLOGICAL LOG

D.D.H. No. D 340/4

54.65 - 59.50 m

BIOTITE HORNFELS - PYROXENE HORNFELS

Mainly well bedded biotite hornfels/pyroxene hornfels with some mineralized skarn (grossular and andradite) interbeds. Mineralization is very patchy and unlikely to go grade over substantial widths.

The core is rather broken and fractured with abundant chlorite and evidence of shearing in places.

So 57^o to LCA at 55.7 m
So 65 to LCA at 57.7 m

59.50 - 64.00 m

LOWER VOLCANICS

Typical competent lower volcanics with abundant flecks and masses of biotite. No scheelite mineralization is present.

Upper contact with sediments is at 55^o to LCA.

EOH 64.00 m

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/3

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 4.6	4.6	4.6	100
4.6 - 7.3	2.7	2.7	100
7.3 - 8.8	1.5	1.6	107
8.8 - 12.1	3.3	3.3	100
12.1 - 13.6	1.5	1.5	100 broken
13.6 - 15.1	1.5	1.5	100 broken
15.1 - 16.3	1.2	0.4	33 broken
16.3 - 19.15	2.85	2.5	88 broken
19.15 - 21.5	2.35	2.0	85 broken
21.5 - 23.60	2.1	0.6	29 broken
23.6 - 24.0	0.4	0.5	125 broken
24.0 - 25.0	1.0	1.2	120 broken
25.0 - 26.4	1.4	1.4	100 broken
26.4 - 27.7	1.3	1.0	77 broken
27.7 - 28.7	1.0	1.0	100 broken
28.7 - 32.2	3.5	3.5	100
32.2 - 33.0	0.8	0.8	100
33.0 - 34.7	1.7	1.7	100
34.7 - 36.2	1.5	1.0	67
36.2 - 37.9	1.7	1.7	100
37.9 - 38.8	0.9	0.8	89
38.8 - 40.2	1.4	0.4	29 broken
40.2 - 43.8	1.6	0.4	25 broken
43.8 - 44.2	0.4	0.4	100 fault
44.2 - 45.5	1.3	1.3	100 fault
45.5 - 46.2	0.7	0.5	71 fault
46.2 - 47.0	0.8	0.8	100 fault
47.0 - 48.0	1.0	0.5	50 fault
48.0 - 49.3	1.3	1.3	100 fault
49.3 - 50.5	0.8	0.8	100 fault
50.5 - 52.0	1.5	0.5	33 fault
52.0 - 57.0	5.0	0.6	12 fault
EOH 52.0 - (?) 57.0 m			

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/3

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8511	0	1	1.0	1.0	1.61	0.02	↑ 12m @ ↓	2.66% WO ₃
12	1	2	"	"	1.46	<0.01		
13	2	3	"	"	2.46	0.01		
14	3	4	"	"	2.50	0.02		
15	4	5	"	"	1.70	0.01		
16	5	6	"	"	2.05	0.02		
17	6	7	"	"	1.72	0.02		
18	7	8	"	"	3.70	0.04		
19	8	9	"	"	6.60	0.10		
20	9	10	"	"	3.80	0.07		
21	10	11	"	"	1.70	0.05		
22	11	12	"	"	2.63	0.04		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/3

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT N.A.O.C.)	JOINT FILLING	BEDDING ANGLE (W R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 5.8	Gh	4		Carb		100	93	
5.8 - 12.0	Pgh	4-6		Chl,carb,clay		100	84	
12.0 - 17.7	<u>DECLINE FAULT ZONE</u>			Chl,clay,carb,breccia				
17.7 - 38.8	Bh	10-20		Chl,clay,carb		98	33	
38.8 - 757.0	<u>GRASSY RIVER FAULT</u>			Chl,clay,breccia				

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size.

0.0 - 1.0	HQ
1.0 - 19.15	NQ
19.15- 757.0	BQ

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/3

0.0 - 25.80 m

ANDRADITE SKARN - UPPER C LENS

Coarse grained andradite garnet skarn with good disseminated scheelite mineralization present. Numerous calcite veins also present. Contact with pyroxene garnet hornfels is gradational.

25.80 - 112.00 m

PYROXENE GARNET HORNFELS

Somewhat disturbed and heavily mineralized pyroxene garnet hornfels with numerous remnant pods and chlorite masses. Very coarse scheelite up to 5cm across is abundant.

112.00 - 17.75 m

DECLINE FAULT ZONE

Badly broken, fractured, brecciated core with little or no competence. Distinct breccia zones occur from 12.7 - 13.2 m, and 16.3 - 17.75 m. Biotite hornfels with 'stretched - out' (ie elongate) dark spots occurs between the two breccia zone. The spots are elongated at 48-50° to LCA.

The Decline Fault zone may extend down as far as 24.0 m.

17.75 - 38.80 m

BIOTITE HORNFELS

Highly disturbed, broken and sheared biotite hornfels with numerous zones of pyroxene hornfels particularly adjacent to the Decline Fault zone. Carbonate veining and brecciated texture is common down to 25.0 m.

The core appears to have a strong cleavage or schistosity developed, V12 :-

S ₁	47°	to	LCA	at	30.1 m
S ₁	37°	to	LCA	at	32.6 m
S ₁	45°	to	LCA	at	33.8 m

No scheelite mineralization is present.

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/3

38.80 - (?) 57.00 m

GRASSY RIVER FAULT ZONE

Badly broken, brecciated, clayey pug fault zone. Towards the base of the zone, the core looks rather volcanic like. Chlorite is abundant as are the presence of slickensides.

Hole abandoned at 57 m (?)

GEOPEKO DIVISION - King Island

LOG OF D.D.H. No. D 340/2

PLANNING

Proposer: G. Bujtor Depth:
Location: S13 Diamond Drill Drive
.....
Purpose of Hole: .. To test C lens min. and locate Northern Boundary
Co-ords: 220340 E 564060 N
Inclination: -45°
Bearing: 0° $^{\circ}$ Grid $^{\circ}$ Mag
Target: E N
Depth:
Approved by: Date:

SURVEY

Survey Co-ords: .. 220339.8 E .. 564060 N
Surveyed Bearing: $0^{\circ} 07'$ $^{\circ}$ Grid $^{\circ}$ Mag
Surveyed in by: .. B. Davies Date .. 14-8-78
Actual Co-ords: .. 220339.8 E .. 564060.1 N
R.L. of Collar: .. -203.1
Inclination of Hole: .. $-42^{\circ} 58'$
Picked up By: B. Davies Date .. 14-8-78

SUMMARY

Logged By: .. G. Bujtor Date
Results: .. Upper and Lower C 33-45 m, 12m @ 1.06% WO₃
.....
.....

DRILLING

Date Commenced: .. 2-8-1978 Date Terminated .. 8-8-1978
Driller/Contractor A.D.D.

Casing:	Size :	56TT		
	Depth :	21.6		
Core:	Size :	56TT	46TT	
	Depth :	21.6m	67.50m	

Wedge Runoff:

Wedge placed:
Proposed by: Depth
Reason Approved by

Extension: Nil
Final Depth: 67.50m
Reason for Termination: Successfully intersected C lens.

Condition of hole on completion:

Casing;
Cemented:

Bore hole survey: Surveyed to 60.0m

Water:

Comments on Drilling Conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/2

Survey method: Singleshot Camera
Final depth: 67.50m
Casing depth: 21.0 m

Depth surveyed to: 60.0m
Date surveyed: 8-8-1978
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
30	0	350	47	-43°	20.46	21.61	3.81
60	1	351	46.25	-43.75°	41.21	43.01	7.20
67	1	351	46.25	-43.75°	46.05	48.01	7.99
EOH 67.50 m							

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/2

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.7	2.7	1.3	48 broken
2.7 - 3.2	0.5	0.5	100 broken
3.2 - 5.0	1.8	1.0	56 broken
5.0 - 5.6	0.6	0.6	100 broken
5.6 - 6.2	0.6	0.6	100 broken
6.2 - 7.0	0.8	0.8	100 broken
7.0 - 8.0	1.0	1.0	100
8.0 - 8.4	0.5	0.4	80 broken
8.5 - 9.0	0.5	0.5	100 broken
9.0 - 9.8	0.8	0.8	100 broken
9.8 - 10.7	0.9	0.9	100
10.7 - 11.2	0.5	0.5	100
11.2 - 12.1	0.9	0.9	100
12.1 - 12.7	0.6	0.5	83
12.7 - 13.4	0.7	0.9	129
13.4 - 14.2	0.8	0.5	63 broken
14.2 - 14.7	0.3	0.3	100 broken
14.7 - 15.1	0.4	0.4	100 broken
15.1 - 15.8	0.7	0.7	100 broken
15.8 - 16.30	0.5	0.5	100 broken
16.3 - 16.7	0.4	0.4	100 broken
16.7 - 17.60	0.9	0.6	67 broken
17.6 - 19.3	1.7	1.6	94
19.3 - 21.6	2.3	2.3	100
21.6 - 23.5	1.9	1.9	100
23.5 - 26.5	3.0	3.0	100
26.5 - 29.5	3.0	3.0	100
29.5 - 30.5	1.0	1.0	100
30.5 - 32.8	2.3	2.3	100
32.8 - 35.8	3.0	3.0	100
35.8 - 38.8	3.0	3.0	100
38.8 - 41.7	2.9	2.9	100
41.7 - 44.6	2.9	2.9	100
44.6 - 46.8	2.2	2.2	100
46.8 - 49.8	3.0	3.0	100
49.8 - 52.7	2.9	2.9	100
52.7 - 55.8	3.1	3.1	100
55.8 - 58.8	3.0	3.0	100
58.8 - 61.8	3.0	3.0	100
61.8 - 64.5	2.7	2.7	100
64.5 - 65.0	0.5	0.5	100
65.0 - 67.5	2.5	2.5	100
EOH 67.5 m.			

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/2

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8099	22	23	1.0	1.0	<0.01	0.01		
100	23	24	"	"	0.01	<0.01		
101	24	25	"	"	0.31	0.01		
102	25	26	"	"	0.09	0.01		
103	26	27	"	"	0.07	<0.01		
104	27	28	"	"	3.40	0.07		
105	28	29	"	"	0.25	<0.01		
106	29	30	"	"	0.02	<0.01		
107	30	31	"	"	0.48	0.01		
108	31	32	"	"	<0.01	<0.01		
109	32	33	"	"	0.07	<0.01		
110	33	34	"	"	0.56	0.01		
111	34	35	"	"	1.28	0.03		
112	35	36	"	"	3.20	0.07		
113	36	37	"	"	0.56	0.02		
114	37	38	"	"	0.76	0.03		
115	38	39	"	"	0.49	0.08		
116	39	40	"	"	0.86	0.03		
117	40	41	"	"	1.71	0.07		
118	41	42	"	"	0.96	0.04		
119	42	43	"	"	0.69	0.03		
120	43	44	"	"	0.40	0.05		
121	44	45	"	"	1.26	0.10		
122	45	46	"	"	0.18	0.01		
123	46	47	"	"	<0.01	<0.01		
124	47	48	"	"	0.22	0.01		
125	48	49	"	"	0.49	0.02		
126	49	50	"	"	0.46	0.01		
127	50	51	"	"	0.05	0.01		
128	51	52	"	"	0.02	<0.01		
129	52	53	"	"	<0.01	<0.01		
130	53	54	"	"	0.02	<0.01		
131	60	61	"	"	0.10	0.01		
132	61	62	"	"	0.10	0.01		
133	62	63	"	"	0.03	0.01		

↑
 33-45m
 12m @ 1.066 WO₃
 ↓

SPECIFIC GRAVITY
 Depth (metres):
 Rock Type :
 S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/2

0.0 - 12.70 m

B LENS

Probable B lens consisting of marble, pyroxene hornfels, grossular garnet and biotite hornfels. The unit is rubbly, fractured, broken and one in place just fine sand-like. Very minor scheelite is present at the top of the hole.

?-2.70 - 13.45 m

BIOTITE HORNFELS

Broken and fractured, fine grained biotite hornfels with numerous pyroxene / ? actinolite alteration zones and patches. Numerous shears / faults zones are also present (ie around 6.45 m, 8.2 m, around 8.5 m, 13.45 m,).

13.45 - 17.70 m

DECLINE FAULT ZONE

Badly broken, brecciated, clayey, fractured fault zone with associated core loss. No scheelite mineralization is present.

17.70 - 22.30 m

BIOTITE HORNFELS OR PYROXENE GARNET HORNFELS

Fine grained dark brown to grey coloured biotite hornfels or siliceous type pyroxene garnet hornfels. Some grossular garnet masses appear to be pod like / fragments like, but are few in number and rather sparse. Scheelite mineralization is absent.

The core is somewhat broken due to proximity of the decline fault.

22.30 - 33.90 m

PYROXENE GARNET HORNFELS

Typical pyroxene garnet hornfels with calcite pods/ fragment, many of which are completely replaced by grossular garnet. Some disseminated and fracture - type scheelite is present. Minor shearing occurs around 26.5 m and 27.45 m. The pyroxene garnet hornfels become increasing mineralized and andradite rich on approaching the base of the unit.

33.90 - ?36.35 m

UPPER C LENS - ANDRADITE SKARN

Coarse grained andradite garnet skarn with good disseminated scheelite.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/2

?36.35 - 37.10 m

BIOTITE / PYROXENE HORNFELS

Interbedded biotite hornfels / pyroxene hornfels with no visible scheelite. (? marble marker horizon ?).

So 65° to LCA at 36.55 m.

37.10 - 42.90 m

? LOWER C LENS - BANDED

Irregularly banded (disturbed) sequence of dominantly andradite garent, pyroxene and grossular with quartz and carbonate.

Bedding / banding is poorly defined at the top of the sequence. Fair to good disseminated scheelite is present.

So 50° to LCA at 42.2 m.

42.90 - ?48.50 m

MINERALIZED BANDED FOOTWALL BEDS

Well bedded, disturbed and mineralized sequence of andradite garnet, pyroxene hornfels, grossular garent, marble and biotite hornfels.

The unit is much disturbed with numerous shear and fracture zones - 43.3 - 44.6 m, 45.4 - 47.1 m, 47.65 - 47.80 m. Clay pug is common.

So 44° to LCA at 47.45 m.

?-48.50 - ? 63.00 m

BIOTITE HORNFELS / PYROXENE HORNFELS

Highly disturbed sequence of biotite hornfels / pyroxene hornfels with numerous shear zones throughout (around 50.5 m, around 53.25 m, around 58.0 m). Good disseminated scheelite occurs from 48.5 - 50.0 m; minor scheelite from 60-63 m (adjacent to Northern Boundary Fault) - where grossular, pyroxene and sulphides are common.

So 70° to LCA at 48.75 m.

63.00 - 63.60 m

NORTHERN BOUNDARY FAULT

Sheared, brecciated and disturbed fault zone with no visible scheelite.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/2

63.60 - 67.50 m

QUARTZITE

Fractured and broken, light grey coloured siliceous quartzites.

EOH 67.50 m.

GEOPEKO DIVISION - King Island

LOG OF D.D.H. No. D 340/1

PLANNING Proposer: G. Bujtor Depth:
Location: S13 Diamond Drill Drive -200 m R.L.
.....
Purpose of Hole: ... To define C lens
Co-ords: ... 220340 E ... 564060 N
Inclination: -70°
Bearing: 0° °Grid °Mag
Target: E N
Depth:
Approved by: Date:

SURVEY Survey Co-ords: E N
Surveyed Bearing: 356° 35' °Grid °Mag
Surveyed in by: Date
Actual Co-ords: ... 220339.8 E ... 564059.4 N
R.L. of Collar: ... -203.0
Inclination of Hole: -69° 45'
Picked up By: B. Davies Date 14/8/1978

SUMMARY Logged By: .. G. Bujtor Date
Results: ... Min. PGH 15 - 27 m, 12 m @ 1.44% WO₃
..... Upper & Lower C lens 27 - 36 m, 9 m @ 0.62% WO₃
.....
.....

DRILLING Date Commenced: .. 25/7/1978 Date Terminated... 2/8/1978
Driller/Contractor ... A.D.D.

Casing:	Size :	56TT		
	Depth :	18 m		
Core:	Size :	56TT	46TT	
	Depth :	18.3 m	90.5 m	

Wedge Runoff:
Wedge placed: Depth
Proposed by: Approved by
Reason .
Extension: Nil
Final Depth: 90.5 m
Reason for Termination: Successfully tested C lens & granite basement.

Condition of hole on completion:
Casing;
Cemented: No
Bore hole survey: Survey to 90.5 m.
Water:
Comments on Drilling Conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 340/1

Survey method: Singleshot Camera
Final depth: 90.5 m
Casing depth: 18.0 m

Depth surveyed to: 90.5 m
Date surveyed: 2+8-1978
Surveyed by: A. Younger
Checked by:

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
30	359	349	21.75	-68.25	27.86	10.91	2.12
60	354.5	344.5	21.5	-68.5	55.77	21.5	5.06
90.5	356	346.0	21.0	-69.0	84.24	32.01	8.07
EOH 90.5 m							

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 340/1

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.7	2.7	0.8	30 broken
2.7 - 3.6	0.9	0.2	22 broken
3.6 - 4.5	0.9	0.25	28 broken
4.5 - 5.4	0.9	0.4	44 broken
5.4 - 5.7	0.3	0.3	100 broken
5.7 - 6.4	0.7	0.5	71 broken
6.4 - 7.3	0.9	0.8	89 broken
7.3 - 8.1	0.8	0.6	75 broken
8.1 - 8.8	0.7	0.6	86 broken
8.8 - 10.1	1.3	1.3	100 broken
10.1 - 10.8	0.7	?0.6	86 broken
10.8 - 11.0	0.2	?0.2	100 broken
11.0 - 11.8	0.8	0.4	50 broken
11.8 - 12.5	0.7	0.7	100 broken
12.5 - 13.1	0.6	0.8	133 broken
13.1 - 13.7	0.6	0.6	100 broken
13.7 - 14.7	1.0	1.0	100 broken
14.7 - 16.0	1.3	1.3	100 broken
16.0 - 18.3	2.3	2.3	100 broken
18.3 - 21.2	2.9	2.9	100 broken
21.2 - 24.2	3.0	3.0	100
24.2 - 27.2	3.0	3.0	100
27.2 - 30.2	3.0	3.0	100
30.2 - 33.2	3.0	3.0	100
33.2 - 36.2	3.0	3.0	100
36.2 - 39.4	3.2	3.2	100
39.4 - 42.3	2.9	2.9	100
42.3 - 45.3	3.0	3.0	100
45.3 - 48.3	3.0	3.0	100
48.0 - 52.0	3.0	3.0	100
52.0 - 55.0	3.0	3.0	100
55.0 - 58.0	3.0	3.0	100
58.0 - 61.0	3.0	3.0	100
61.0 - 64.0	3.0	3.0	100
64.0 - 64.5	0.5	0.5	100
64.5 - 67.5	3.0	3.0	100
67.5 - 70.5	3.0	3.0	100
70.5 - 72.0	1.5	1.7	113
72.0 - 78.0	3.0	3.0	100
78.0 - 79.5	1.5	1.5	100
79.5 - 82.5	3.0	2.8	93
82.5 - 84.5	2.0	2.0	100
84.5 - 87.5	3.0	3.0	100
87.5 - 90.5	3.0	3.0	100
EOH 90.5			

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 340/1

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 7493	14	15	1.0	1.0	0.01	0.02		
94	15	16	"	"	0.45	0.02		
95	16	17	"	"	1.76	0.04		
96	17	18	"	"	0.10	0.01		
97	18	19	"	"	1.76	0.04		
98	19	20	"	"	0.48	0.01		
99	20	21	"	"	0.58	0.02		
D 7500	21	22	"	"	3.60	0.06		
D 8051	22	23	"	"	0.08	0.01		
52	23	24	"	"	4.20	0.08		
53	24	25	"	"	0.22	0.01		
54	25	26	"	"	3.20	0.06		
55	26	27	"	"	0.90	0.03		
56	27	28	"	"	0.92	0.02		
57	28	29	"	"	0.30	0.02		
58	29	30	"	"	0.58	0.02		
59	30	31	"	"	1.22	0.05		
60	31	32	"	"	0.08	0.02		
61	32	33	"	"	0.55	0.02		
62	33	34	"	"	0.88	0.02		
63	34	35	"	"	0.19	0.01		
64	35	36	"	"	0.88	0.03		
65	36	37	"	"	<0.01	0.02		
66	37	38	"	"	0.60	<0.01		
67	38	39	"	"	0.01	0.02		
68	39	40	"	"	<0.01	0.01		
69	40	41	"	"	<0.01	<0.01		
70	41	42	"	"	<0.01	0.01		
71	42	43	"	"	<0.01	0.02		
72	43	44	"	"	0.04	0.01		
73	44	45	"	"	0.43	0.01		

SPECIFIC GRAVITY
 Depth (metres):
 Rock Type :
 S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 340/1

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 10.1	B lens	20		Clay, chl, carb		50	112	
10.1 - 13.7	Decline Fault Zone							
13.7 - 14.7	Bh	> 20		Chl, clay, sulph		100	111	
14.7 - 26.75	PGH	6-8		Chl, clay, carb		100	89	
26.75 - 35.75	C lens	5		Clay, chl, sulph, carb	33°: 33 m	100	93	
35.75 - 57.35	Bh/Ph	8-10		clay, chl, sulph	35°: 38 m	100	65	
57.35 - 64.25	L.V.	4		Chl, clay		100	86	
64.25 - 81.90	Bh/Ph	6-10		Chl, clay, sulph	50°: 67.5 m	100	66	
81.90 - 90.5	Granite	8		Chl, clay		99	49	
EOH 90.5 m								

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{Length Core 10 cm}}{\text{Length Drilled}} \%$
- Core size. 56TT 0.0 - 18.3 m
46TT 18.3 - 90.5 m

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/1

0.0 - 22.70 m

? B LENS

Broken fractured and rubbly core consisting of mainly marble, and very fine rubbly which probably correlates with the faults mapped along the S13 drive. Some 2.0 m core loss.

22.7 - 10.1 m

BIOTITE HORNFELS

Fine grained brown coloured biotite hornfels with some grey and greenish coloured pyroxene / ?actinolite reaction zone.

The core is heavily fractured and broken. Chlorite along joints is common.

Some 2.4 m core loss.

10.10 - 213.10

DECLINE FAULT

Extremely fractured, broken, clayey brecciated fault zone which is completely incompetent. No scheelite mineralization is present.

Fracturing of the units adjacent to the fault is common.

213.10 - 14.70 m

BIOTITE HORNFELS

Broken and fractured biotite hornfels with some pyroxene hornfels reaction bands. This unit could represent the biotite hornfels overlying the pyroxene garnet hornfels below.

14.70 - 26.75 m

PYROXENE GARNET HORNFELS

Typical pyroxene garnet hornfels with numerous calcite pods / fragments up to 20 cm across. The fragments contain typical grossular garnet and pyroxene reaction rims.

The pyroxene garnet hornfels is somewhat mineralized and appears to grade into upper C lens garnet hornfels.

56TT core down to 18.3 m. 46TT thereafter.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/1

26.75 - 731.0 m

GARNET SKARN - ?UPPER C LENS

Medium to coarse grained andradite garnet skarn which doesn't really look like typical Upper C lens. It has banded / bedding in places and also contains minor biotite hornfels interbeds (ie around 28.75 m). Disseminated scheelite mineralization is present.

731.0 - 35.75 m

LOWER C LENS

Well bedded sequence of andradite skarn with some interbeds of marble, pyroxene hornfels, grossular garnet and biotite hornfels. The base of the unit could be described as mineralized banded footwall beds. Some disseminated scheelite mineralization is present.

The base of the unit could possibly be extended down to 38 m where some interbeds of skarn are present.

No obvious marble marker unit appears to be present between the above two units.

The core is slightly sheared and clayey (fault?) around 33.95 m and possibly disturbed around 35m.

So 63° to LCA at 33 m

So 60° to LCA at 34 m

35.75 - 57.35 m

BIOTITE HORNFELS / PYROXENE HORNFELS

Fine grained interbedded sequence of green pyroxene hornfels and brown biotite hornfels with rare grossular - marble interbeds (51 - 52 m). Rare scheelite specks are present.

Broken and sheared core with and without clay pug (probable fault zones) occur around 36.15 m, around 37 m, around 37.45 m, around 39 m, around 40.5 m, around 49.7m, around 50.55 m, 51.85 m, and 54.5 m.

So 65° to LCA at 38 m
So 60° to LCA at 48.3 m.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 340/1

57.35 - 64.25 m

LOWER VOLCANICS

Typical lower volcanics - greenish in colour, medium grained, brown biotite flecks and masses somewhat resembling a porphyritic texture.

64.25 - 81.90 m

BIOTITE HORNFELS / PYROXENE HORNFELS

Barren, fine grained, well bedded biotite hornfels / pyroxene hornfels with numerous aplite veins present (eg 71.5 - 72.3 m). The core appears to be quite competent down to 74 m: thereafter it becomes increasingly broken with numerous fault / shear zone present.

From 79.5 - 80 m, large green irregular blades of mafic minerals (chlorite?, ?actinolite) are present which in places appear to be radiating.

No scheelite mineralization is present

So 50° to LCA at 67.5 m

So 77° to LCA at 73.3 m

81.90 - 90.5

GRANITE / ADAMELLITE

Fine to coarse grained granite with no visible scheelite present. The granite becomes increasingly coarser grained away from the sediment contact (evidence of chilled margin).

EOH 90.5 m.

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LOG OF D.D.H. NO. D 330/1

PLANNING

Proposer: K.I.S.

Depth: 60m

Location: R.14 -150m RL

Purpose of hole: Test ground plus water condition

Co-ordinates: 220 330 E 564 060

Inclination: -2°

Bearing 112° Grid

Target: E

Approved by: M. C. R.

N

Magnetic:

Target Depth:

N

Date: 1-7-77

SURVEY

Survey Co-ords: E

Survey bearing: 101°30' Grid

Surveyed in by:

Actual Co-ords: 220 324.63 E 564 062.22

R.L. of Collar: W - 148.00

Picked up by: R. J. H.

N

Magnetic:

Date:

N

Inclination of Hole: -2° 20'

Date: 03-11-77

SUMMARY

Logged by: G. Buckland

Results: Refer memo to G. M. S. by G. L. B. OF 9-11-77

DRILLING

Driller/Contractor: 4-10-77

Date commenced: A. D. D.

Date terminated:

Casing: Size: see memo

Depth:

Core: Size: see memo

Depth:

Wedge Runoff:

Wedge placed: Nil

Proposed by:

Reason:

Depth:

Approved by:

Extension: Nil

Reason for termination: Passed beyond proposed end of development

Condition of hole on completion:

Casing: Collar pipe and tap remain

Cemented: No

Final depth: 55.0 m

Bore hole survey: No

Water: 18 gal/min. at 18m

Comments on drilling conditions: Generally fair

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 330/1

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 3.5	bh	+20		Minor carbonate	100	0		Note: blasting adjacent to hole collar would have fractured rock
3.5 - 5.0	bh	+20		Minor carbonate	40	7		
5.0 - 17.0	baph	7		Minor, pyrite clay, carbonate	8.5m 42° LAOC	64	23	Rubble: 8.71 - 9.75 10.1 - 10.6 12.0 - 13.8 16.2 - 17.0 Fault: brecciated rubbly core 15.65 - 15.70
17.0 - 43.0	baph	6		clay, carbonate, minor pyrite		84	54	Rubble: 23.37 - 23.90, 29.1 - 29.3 37.7 - 38.1 Fault: 32.4 - 32.42, a clay/carbonate recemented breccia Fault minor breccia at 38.0m.
43.0 - 55.0	bph	+20		Clorite, minor carbonate		58	4	Interval almost entirely rubble Fault Zone 43.72 - 45.00 (leached, puggy broken).

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{length core } > 10 \text{ cms}}{\text{length drilled}} \%$
- Core size. NB: Water inflow measurement (Rock Mechanics Engineer - pers.comm.) at 18metres of 18 gal/min.

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 330/1

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 1.4	1.4	1.4	100
1.4 - 3.5	2.1	2.1	100
3.5 - 4.6	1.1	0.52	47
4.6 - 7.6	3.0	1.26	42
7.6 - 10.6	3.0	2.60	87
10.6 - 12.0	1.4	0.75	54
12.0 - 14.0	2.0	0.66	33
14.0 - 17.0	3.0	2.37	79
17.0 - 20.0	3.0	2.33	78
20.0 - 23.0	3.0	3.0	100
23.0 - 27.4	4.4	4.14	94
27.4 - 29.1	1.7	1.16	68
29.1 - 31.7	2.6	1.10	42
31.7 - 34.7	3.0	2.52	84
34.7 - 37.7	3.0	2.55	85
37.7 - 43.0	5.3	5.15	97
43.0 - 44.4	1.4	1.30	93
44.4 - 47.58	3.18	2.90	91
47.58 - 51.68	4.10	1.85	45
51.68 - 53.68	2.0	0.30	15
53.68 - 55.0	1.32	0.56	42

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 330/1

0 - 14.15

Biotite hornfels

A black barren bedded biotite hornfels being heavily fractured throughout.

Bedding: 8.5m - 42° LAOC

14.15 - 43.0

Biotite actinolite pyroxene grossular hornfels

An interval dominantly composed of black (biotite) grey (actinolite) pale green (pyroxene) and minor honey coloured grossularite with coarse scheelite developed:

24.40 - 24.43

42.0 - 42.05

Bedding: 25m - 55° LAOC

Textural differences are obvious within the unit:

14.15 - 20.50 - disturbed and weakly podded.

20.50 - 22.0 - massive, podded.

22.0 - 38.36 - highly disturbed, being grossularite rich.

38.36 - 40.65 - massive (volcanics)(?)

40.65 - 43.0 - highly disturbed, grossularite rich.

Faults: 15.65 - 15.70;
brecciated rubbly core

32.4 - 32.42;

38.0;

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 330/1

43.0 - 55.0

Biotite pyroxene hornfels

A black (biotite) and minor pale green (pyroxene) hornfels being extensively fractured throughout. Core quality is very poor.

Fault zone:

43.72 - 45.0; core is leached, puggy in places and heavily broken.

Note: owing to core loss and the heavily fractured nature of the core, precise limits to the fault zone are difficult to measure.

55.0m E.O.H.

Note:

1. This hole was drilled to locate the unconformable contact between mine series hornfels and the upper metavolcanics. No obvious sign of the upper metavolcanic (a tremolite, phlogopite, magnetite rock) horizon is evident in the core.
2. Core from surface ddh 402, at the region of the -150m RL. was compared to that in this hole.
3. Reference should be made to a memo.

By G. L. Buckland to the General Mining Superintendent dated 9-11-77

(dolphin Rock Mechanics file).

Core size.

0 - 3.5 HQ (63.5mms dia).
3.5 - 5.0 46 TT (36.5 mms dia).
5.0 - 43.0 NQ (47.5mms dia).
43.0 - 55.0 44 TT (36.5mms dia).