GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 960/8

PLANNING

PROPOSER: R. E. Sandell Davies DEPTH: 20 m

LOCATION: -75 m Pit

PURPOSE OF HOLE: Test Pit Orebody

PROPOSED CO-ORDS 219 960° E 564 104 N

INCLINATION: +90°

BEARING: °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 959.9 E 564 103.7 N

R.L. OF COLLAR: -69.1

INCLINATION OF HOLE: Vertically up

PICKED UP BY: R. Howman DATE: 12/8/80

SUMMARY

LOGGED BY: R. E. Sandell Davies

RESULTS: 7-15 m, 8 m @ 2.59% WO_3 pgh (m) Pit

DRILLING

DATE COMMENCED: 29/7/80 DATE TERMINATED: 4/8/80

DRILLER/CONTRACTOR: D. Rutherford/K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 20 m

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 20 m

REASON FOR TERMINATION: Penetrated pgh

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 960/8

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 4.9	4.9	4.8	98
4.9 - 6.2	2.0	2.0	100
6.2 - 8.9	2.0	2.0	100
8.9 - 10.6	1.7	1.7	100
10.6 - 12.9	2.3	2.3	100
12.9 - 14.9	2.0	2.0	100
14.9 - 17.0	2.1	2.1	100
17.0 - 20.0	3.0	3.0	100
EOH 20.0 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/8

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 - 17.8	pgh	2-5		Chl/cc			84	
17.8 - 20.0	bh	8		Chl			64	

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) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 960/8

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 12692	0	1	1.0	1.0	0.03			
93	1	2	"	"	0.02			
94	2	3	"	"	0.03			
95	3	4	"	"	0.22			
96	4	5	"	"	0.37			
97	5	6	"	"	0.38			
98	6	7	"	"	0.13	<0.01		
99	7	8	"	"	0.37	<0.01		
700	8	9	"	"	0.52	0.05		
01	9	10	"	"	3.8	<0.01		
02	10	11	"	"	12.0	0.01		
03	11	12	"	"	0.55	0.02		
04	12	13	"	"	30.0	<0.01		
05	13	14	"	"	33.6	<0.01		
06	14	15	"	"	3.5	<0.01		
07	15	16	"	"	0.09	0.05		
08	16	17	"	"	0.07	0.06		
09	17	18	"	"	0.13	0.03		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/8

0.0 - 17.8 m PYROXENE GARNET HORNFELS

From 0.0 to around 10.0 m it is a mixture of andradite garnet and pyroxene hornfels with small pods of grossular garnet. Scheelite is disseminated through the rock but is probably not quite ore grade.

The interval from 10.0 - 14.0 m consists mainly of quartz veins with large included scheelite crystals. This section is probably ore grade. It also contains a number of carbonate lined joints, tending subparallel to LCA, which have opened up. From 14.0 - 17.8 m the unit is more strictly a podded biotite pyroxene hornfels with only traces of scheelite small (2 cm) pods of pyroxene hornfels and grossular lie in a biotite hornfels matrix.

A large pod (10 cm diameter) occurs at the very end of the unit. It contains significant pyrrhotite in addition to scheelite.

Bedding	is @	44°	to	LCA	@ 2.9 m
"		54°		"	14.3 m
"		40°		"	17.0 m

17.8 - 20.0 BIOTITE HORNFELS

Black, fine grained and homogeneous, 5 mm diameter spots occur in the last 40 cm.

Bedding is @ 46° to LCA @ 19 m

EOH 20.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. 960/7

PLANNING

PROPOSER: R. E. Sandell Davies DEPTH: 25 m

LOCATION: -75 m Pit

PURPOSE OF HOLE: Test Pit Orebody

PROPOSED CO-ORDS: 219 960 E 564 104 N

INCLINATION: -68^{o}

BEARING: 180^{o} ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 177^{o} 31' ^{o}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 959.5 E 564 103.0 N

R.L. OF COLLAR: -74.2

INCLINATION OF HOLE: -66^{o} 12

PICKED UP BY: R. Howman DATE: 12/8/80

SUMMARY

LOGGED BY: R. E. Sandell Davies

RESULTS: 8-15 m, 7 m @ 0.71% WO_3 L/C Pit

DRILLING

DATE COMMENCED: 18/7/80 DATE TERMINATED: 29/7/80

DRILLER/CONTRACTOR: J. Penna/D. Rutherford K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 25.2

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 25.2 m

REASON FOR TERMINATION: Below bfb (m)

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 960/7

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.0	3.0	2.4	80
3.0 - 5.2	2.2	2.2	100
5.2 - 7.0	1.8	1.8	100
7.0 - 9.8	2.8	2.8	100
9.8 - 11.8	2.0	2.0	100
11.8 - 13.8	2.0	2.0	100
13.8 - 15.8	2.0	2.0	100
15.8 - 17.8	2.0	2.0	100
17.8 - 19.8	2.0	2.0	100
19.8 - 21.6	1.8	1.7	94
21.6 - 23.5	1.9	1.7	89
23.5 - 25.2	1.7	1.7	100
EOH 25.2 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/7

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 - 25.2	BFB & bph	3-10		Chl/cc			59	

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) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 960/7

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 12647	0	1	1.0	1.0	0.25			
48	1	2	"	"	0.16			
49	2	3	"	"	0.40			
50	3	4	"	"	0.33			
51	4	5	"	"	0.01			
52	5	6	"	"	0.08			
53	6	7	"	"	0.54			
54	7	8	"	"	0.02			
55	8	9	"	"	0.33			
56	9	10	"	"	0.75			
57	10	11	"	"	1.40			
58	11	12	"	"	0.36			
59	12	13	"	"	0.42			
60	13	14	"	"	0.81			
61	14	15	"	"	0.93			
62	15	16	"	"	0.12			
63	16	17	"	"	0.02			
64	17	18	"	"	0.01			
65	18	19	"	"	0.09			
66	19	20	"	"	0.02			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/7

0.0 - 18.6 m MINERALISED BANDED FOOTWALL BEDS

Mostly a fairly homogeneous unit of andradite garnet skarn with subsidiary pyroxene biotite and calcic hornfels. The unit is mineralised throughout. A bed of pure marble occurs from 14.6 - 15.0 m followed by pyroxene hornfels and biotite hornfels to 16.0 m.

The interval from 12.0 - 13.3 m is rich in pyrite. Minor pyrite is present in the rest of the unit.

Bedding is @	27^{o}	to LCA @	3.3 m
"	27^{o}	"	5.5 m
"	30^{o}	"	17.3 m

18.6 - 25.2 BIOTITE PYROXENE HORNFELS

Mainly a massive biotite hornfels unit with thin (1cm) interbeds of pyroxene hornfels. No mineralisation is present.

Aplite is present from 22.5 - 23.3 and 23.7 - 24.2 m.

Broken and fractured core from about 21.5 - 22.0 m probably indicates faulting.

Bedding is @	44^{o}	to LCA @	19.0 m
"	34^{o}	"	21.2 m
"	21^{o}	"	22.1 m
"	35^{o}	"	23.4 m
"	28^{o}	"	25.0 m

EOH 25.2 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 960/6

PLANNING

PROPOSER: R. E. Sandell Davies DEPTH: 20 m

LOCATION: -75 m Pit

PURPOSE OF HOLE: Test Pit Orebody

PROPOSED CO-ORDS: 219 960 E 564 104 N

INCLINATION: 0^{o}

BEARING: ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 00^{o} 46' ^{o}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 564 103.7 N 219959.1 E

R.L. OF COLLAR: -74.2 m

INCLINATION OF HOLE: -62^{o} 53'

PICKED UP BY: R. Howman DATE: 23/7/80

SUMMARY

LOGGED BY: R. E. Sandell Davies

RESULTS: 3 - 13 m, 10 m @ 0.60% WO_3 C Lens Pit

DRILLING

DATE COMMENCED: 10/7/80 DATE TERMINATED: 15/7/80

DRILLER/CONTRACTOR: J. Penna/K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 34.2 m

REASON FOR TERMINATION: Encountered Volcanics

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Yes, 2 Single Shots

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 960/6

Surveyed method: Single Shot
Final depth: 34.2 m
Casing depth:

Depth surveyed to: 34.2 m
Date surveyed: 16/7/80
Surveyed by: B. Schneiders
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.			
18 m	2°	N8° W	26°	154°			
34.2 m	3° 30'	N6° 30'W	25° 45'	154° 15'			

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 960/6

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.4 m	3.4	2.5	74
3.4 - 5.4	2.0	1.9	95
5.4 - 9.1	3.7	3.7	100
9.1 - 12.1	3.0	3.0	100
12.1 - 15.1	3.0	3.0	100
15.1 - 18.1	3.0	3.0	100
18.1 - 20.2	2.1	2.1	100
20.2 - 22.8	2.6	2.4	92
22.8 - 25.8	3.0	3.0	100
25.8 - 27.8	2.0	2.0	100
27.8 - 30.8	3.0	3.0	100
30.8 - 32.3	1.5	1.5	100
32.3 - 34.2	1.9	1.9	100
EOH 34.2 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/6

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 - 17.1 m	BFB (m)	3-6		Chlor/cc			89	
17.1 - 32.3 m	BFB	12-15		Chlor/cc			51	
32.3 - 34.2 m	V	7		Chlor			68	

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) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 960/6

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 12667	0	1	1.0	1.0	1.10	0.01		
68	1	2	"	"	0.14	0.01		
69	2	3	"	"	0.12	0.01		
70	3	4	"	"	0.39	0.01		
71	4	5	"	"	0.21	0.01		
72	5	6	"	"	0.38	0.01		
73	6	7	"	"	0.97	0.01		
74	7	8	"	"	0.91	0.01		
75	8	9	"	"	0.47	0.01		
76	9	10	"	"	0.58	0.01		
77	10	11	"	"	0.53	0.01		
78	11	12	"	"	0.84	0.01		
79	12	13	"	"	0.71	0.01		
80	13	14	"	"	0.07	0.01		
81	14	15	"	"	0.21	0.01		
82	15	16	"	"	0.32	0.01		
83	16	17	"	"	0.49	0.01		
84	17	18	"	"	0.12	0.01		
85	18	19	"	"	0.05	0.01		
86	19	20	"	"	0.06	0.01		
87	26	27	"	"	0.10	0.01		
88	27	28	"	"	0.05	0.05		
89	28	29	"	"	0.04	0.05		
90	29	30	"	"	0.05	0.05		
91	30	31	"	"	0.09	0.03		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/6

0.0 - 17.1 m MINERALISED BANDED FOOTWALL BEDS

With the exception of the first and last portions this unit is almost completely replaced to andradite skarn and is mineralised to about 0.8%.

The first 2 m of core consist of unreplaced, or partially replaced marble and pyroxene hornfels. From about 13 m to 17.1 the mineralisation is probably subgrade.

The unit is competant and unfaulted.

Bedding is @	67°	to LCA	@ 3.5 m
"	50°	"	6.2 m
"	57°	"	10.2 m
"	68°	"	14.9 m

17.1 - 32.3 BANDED FOOTWALL BEDS

A well bedded sequence consisting mostly of interbedded biotite hornfels and pyroxene hornfels with bed thickness of 0.1 - 5 cm. Minor beds of grossular garnet are present. An aplite occurs from 23.8 - 24.8 and 25.2 - 25.6 m

From 27.5 - 30.0 m many of the individual beds have been disrupted to form angular breccia - probably syndepositional.

Small flecks of scheelite occur randomly from 26 m on.

Bedding is @	60°	to LCA	@ 22 m.
"	67°	"	15 m
"	60°	"	28 m
"	54°	"	31 m

The last 30 cm of the unit are broken and disturbed.

32.3 - 34.2 VOLCANICS

Steel grey homogenous fine grained rock, showing a mosaic texture of black and pale grey spots of about 1 mm diameter.

It is separated from the previous unit by a fault.

EOH 34.2 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 960/5

PLANNING

PROPOSER: T. Potter DEPTH: 55 m

LOCATION: J16 -122 m R.L.

PURPOSE OF HOLE: Test C Lens

PROPOSED CO-ORDS: 219960 E 564056 N

INCLINATION: +65°

BEARING: ° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: S. G. Brown DATE: 6/12/79

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 359° 00' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219960.2 E 564054.8 N

R.L. OF COLLAR: B-120.0

INCLINATION OF HOLE: +65° 20'

PICKED UP BY: R. Howman DATE: 28/12/79

SUMMARY

LOGGED BY: T. Potter

RESULTS: 24 - 36 m 12 m @ 0.52%, 0.01%

DRILLING

DATE COMMENCED: 14/12/79 DATE TERMINATED: 24/12/79

DRILLER/CONTRACTOR: K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE:
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH:

REASON FOR TERMINATION: 556 m

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY:

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 960/5

Surveyed method: Single shot
Final depth: 55.60 m
Casing depth: -

Depth surveyed to: 55.60 m
Date surveyed: 28/12/79
Surveyed by: R. Drake
Checked by: L. Denby

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
25.00	360°	350°	25	+65°	22.66	10.40	1.84
55.60	360°	350°	25	+65°	50.39	23.14	4.08

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 960/5

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.00 - 4.70 m	4.7	4.7	100
4.70 - 7.70	3.0	3.0	100
7.70 - 9.70	2.0	2.0	100
9.70 - 11.70	2.0	2.0	100
11.70 - 14.40	2.7	2.7	100
14.40 - 17.40	3.0	3.0	100
17.40 - 19.90	2.5	2.5	100
19.90 - 22.40	2.5	2.5	100
22.40 - 25.30	2.9	2.9	100
25.30 - 28.40	3.1	3.1	100
28.40 - 30.70	2.3	2.3	100
30.70 - 33.60	2.9	2.9	100
33.60 - 36.46	2.8	2.8	100
36.46 - 39.40	3.0	3.0	100
39.40 - 42.30	2.9	2.9	100
42.30 - 45.20	2.9	2.9	100
45.20 - 48.10	2.9	2.9	100
48.10 - 51.10	3.0	3.0	100
51.10 - 53.60	2.5	2.5	100
53.60 - 55.60	2.0	2.0	100
EOH 55.60 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/5

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)
0.00 - 11.5 m	bh	106	30-45°, 20°			100	10 cm 3.6	
11.5 - 14.0	ph	18	30-45			100	0.46	
14.0 - 17.1	bh	17	60° 30°			100	0.12	
17.1 - 29.8	L/C	100	60° 20°			100	2.43	
29.8 - 36.68	U/C	52	60°			100	1.10	
36.68 - 54.7	pgh	4	60°			100	1.87	
54.7 - 55.60	bh	8	60°			100	0.17	

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) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 960/5

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11656	16	17	1.0	1.0	0.01	0.01		
57	17	18	"	"	0.02	0.01		
58	18	19	"	"	0.17	<0.01		
59	19	20	"	"	0.92	0.01		
60	20	21	"	"	<0.01	<0.01		
61	21	22	"	"	0.28	0.01		
62	22	23	"	"	0.23	0.01		
63	23	24	"	"	<0.01	<0.01		
64	24	25	"	"	0.34	0.01		
65	25	26	"	"	0.45	<0.01		
66	26	27	"	"	0.45	<0.01		
67	27	28	"	"	0.17	<0.01		
68	28	29	"	"	0.44	0.01		
69	29	30	"	"	0.69	0.01		
70	30	31	"	"	0.18	0.01		
71	31	32	"	"	0.68	<0.01		
72	32	33	"	"	0.29	<0.01		
73	33	34	"	"	0.71	0.01		
74	34	35	"	"	1.25	0.02		
75	35	36	"	"	0.54	0.01		
76	36	37	"	"	0.27	<0.01		
77	37	38	"	"	<0.01	0.01		
78	38	39	"	"	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 960/5

0.0 - 11.5 m BIOTITE HORNFELS

Well bedded with pyroxene zones appearing from about 8 m.

0.3 - 0.9 3-5 cm aplite sub-parallel to core.

4.7 - 4.8 coarse grained aplite.

Bedding 2.8 m 20° to C.A.
7.7 m 30° to C.A.
9.8 m 40° to C.A.

Minor shear 20° ro C.A. at 9.6 m

11.5 - 14.0 PYROXENE HORNFELS

Contains minor zones of biotite hornfels moderate bedding 0-30° to C.A. large pods of grossularite garnet common.

14.0 - 17.1 BIOTITE HORNFELS

Well bedded containing minor zones of pyroxene.

17.1 - 29.8 LOWER C LENS

17.1 - 19.9 m Andradite garnet with very minor pyroxene zones and calcite clumps. No bedding.
18.3 - 19.9 Disseminated mineralisation.
19.9 - 21.3 Pyroxene with andradite garnet 'pods' weak mineralisation confined to garnets.
21.3 - 23.15 Andradite garnet with very minor pyroxene bands as distinct bedded units.
Bedding 30° to C.A.
Moderate mineralisation.
23.15 - 23.75 Marble - clean; both beds biotite clots and a minor pyroxene band are truncated by an annealed joint (?) at 23.29 m - 60° to C.A. 23.61 m 2 cm of fault material and 23.68 m 8 cm calcite vein parallel to above fault a joint barren with above fault carrying very minor powdery scheelite
23.75 - 29.5 Andradite garnet with occassional beds or zones of pyroxene. Moderate bedding around 35° to C.A.
Moderate mineralisation 23.75 to 29.10
29.5 - 29.8 60% pyroxene with 40% andradite - well bedded barren.

29.8 - 36.68 UPPER C LENS

Very fine grained massive andradite garnet with occassional zones of pyroxene - Moderate mineralisation to 36.10 m

36.68 - 54.7 PODDED PYROXENE GARNET HORNFELS

36.68 - 37.74 Massive biotite hornfels both contacts distinct at 75° to C.A.
37.74 - 40.4 Typical pyroxene garnet hornfels containing small pods of calcite with grossularite.
40.4 - 42.3 Biotite(?) rock containing numerous (25%) 'laths' and veins of calcite

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/5

Minor fault zone 50.0 - 50.2 m
42.3 - 54.7 Pyroxene garnet hornfels
As above.

Complete unit from 36.68 - 54.70 m contains very sparse coarse grained scheelite with athe occassional pod showing fine disseminations. Strongest mineralisation is at 45.96 - 46.04 m where a large pod contains andradite.

54.70 - 55.60 BIOTITE HORNFELS

Weakly bedded containing small calcite pods in some zones.

EOH 55.60 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 960/4

PLANNING

PROPOSER: G. J. Bujtor DEPTH: 70m

LOCATION: F12 off J16 Pit Stope Access

PURPOSE OF HOLE: Test Southern Orebody

PROPOSED CO-ORDS: 219960 E 564014 N

INCLINATION: -84°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 175° 50' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219962.5 E 564014.8 N

R.L. OF COLLAR: R-129.1

INCLINATION OF HOLE: -81° 00'

PICKED UP BY: R. Howman DATE: 25/5/79

SUMMARY

LOGGED BY: J. Clark

RESULTS: 38 - 42m 4m @ 0.73 % WO_3
45 - 53m 8m @ 0.40 % WO_3

DRILLING

DATE COMMENCED: 9.5.79 DATE TERMINATED: 11.5.79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 69m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 69m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multi-shot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 960/4

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.3	3.3	3.3	100
3.3 - 6.3	3.0	3.0	"
6.3 - 9.3	3.0	3.0	"
9.3 - 12.3	3.0	3.0	"
12.3 - 15.2	2.9	2.9	"
15.2 - 18.25	3.05	2.05	"
18.25 - 21.25	3.0	3.0	"
21.25 - 24.2	2.95	2.95	"
24.2 - 27.2	3.0	3.0	"
27.2 - 30.2	"	"	"
30.2 - 33.2	"	"	"
33.2 - 36.2	"	"	"
36.2 - 39.2	"	"	"
39.2 - 42.2	"	"	"
42.2 - 45.2	"	"	"
45.2 - 48.2	"	"	"
48.2 - 51.2	"	"	"
51.2 - 54.2	"	"	"
54.2 - 57.2	"	"	"
57.2 - 60.2	"	"	"
60.2 - 63.2	"	"	"
63.2 - 66.2	"	"	"
66.2 - 69.2	"	"	"

EOH 69.2m

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/4

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)
0.0 - 6.0	ch, ph	5			50°	100	70	
6.0 - 35.6	bh	10		chl/calc	55° @ 31m	100	68	Minor broken core- see log.
35.6 - 42.0	pgh/bph/ gh	3		chl		100	78	
42.0 - 44.9	M/M	3		chl	60° @ 44m	100	76	
44.9 - 55.3	gh	3		chl/calc	50° @ 60°	100	75	
55.3 - 69.2	bph	6		chl/calc		100	73	
EOH 69.2m								

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) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 960/4

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10582	33	34	1.0	1.0	0.03	<0.01		
83	34	35	"	"	<0.01	<0.01		
84	35	36	"	"	0.23	0.01		
85	36	37	"	"	0.45	0.01		
86	37	38	"	"	0.10	<0.01		
87	38	39	"	"	0.34	0.01		
88	39	40	"	"	0.52	0.01		
89	40	41	"	"	0.72	0.01		
90	41	42	"	"	1.34	0.03		
91	42	43	"	"	0.01	<0.01		
92	43	44	"	"	0.01	<0.01		
93	44	45	"	"	0.03	<0.01		
94	45	46	"	"	0.65	<0.01		
95	46	47	"	"	0.44	0.01		
96	47	48	"	"	0.30	<0.01		
97	48	49	"	"	0.49	<0.01		
98	49	50	"	"	0.35	<0.01		
99	50	51	"	"	0.26	<0.01		
10600	51	52	"	"	0.40	<0.01		
01	52	53	"	"	0.32	0.01		
02	53	54	"	"	0.25	<0.01		
03	54	55	"	"	0.03	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/4

0.0 - 6.0m **MARBLE**

Fine grained light grey marble with lengths of light green pyroxene hornfels (some of which contain grossular) and thin disturbed beds of biotite hornfels. In places pyroxene, garnet and biotite hornfels have been disrupted to form a pyroxene garnet hornfels - like rock.

At 5.0m bedding is 50° to core axis.

Minor fine grained scheelite is present in small beds between 4.7 - 5.0m

Fractures/m = 5
Recovery = 100%

6.0 - 35.6 **BIOTITE HORNFELS**

Fine grained brown to dark grey fine grained biotite hornfels with small beds and irregular lenses of green pyroxene hornfels.

6.0 - 6.2m	Minor broken core and calcite veining.
10.1 - 10.2	Broken and sheared core. Most fractures have chloritic slickensides.
13.8 - 13.9	Light pink fine grained aplite dyke.
20.1 - 24.2	Moderate calcite veining in biotite hornfels. In places the veining has caused brecciation of the lost rock and this is most noticeable at 20.1m, 21.8m 22.2m. Minor broken core is present at 24.24m.
28.1 - 28.3	Broken core with minor calcite veining.
29.0 - 29.3	Medium grained white aplite dyke.

Bedding in generally not present in this unit, but at 31.2m is 55° to core axis.

Fractures/m = 10
Recovery = 100%

35.6 - 39.0 **PYROXENE GARNET HORNFELS**

Small calcite and grossular fragments are present in a matrix of pyroxene with minor amphibole, grossular and calcite. Irregularly shaped blebs are rich in coarse grained amphibole and calcite.

38.0 - 38.0m Grossular - pyroxene rock in which rounded but micro-fractured blebs of grossular are present in a darker green pyroxene matrix.

Fine to medium grained scheelite is irregularly disseminated and in low or sub-grade throughout the unit.

Fractures/m = 3
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/4

39.0 - 40.5 BIOTITE - PYROXENE HORNFELS

This is a very disturbed unit and consists of biotite hornfels with lenses and distorted beds of pyroxene hornfels, some of which contain grossular.

Scheelite is not present.

Fractures/m = 3
Recovery = 100%

40.5 - 42.0 GARNET HORNFELS

Medium grained andradite garnet hornfels with abundant pyroxene and calcite between crystals. Fine grained scheelite is moderately disseminated throughout.

40.9 - 41.0m Pyroxene rich, grossular hornfels which does not contain scheelite.

Fractures/m = 4
Recovery = 100%

42.0 - 44.9 ?MARBLE MARKER

Consists of biotite hornfels, marble and finely interbeds calcite/pyroxene/grossular hornfels.

42.3 - 42.8m Slightly broken biotite hornfels fracture surfaces have chlorite slickensides and pyrite films on them.

At 44.0m bedding is 60^{o} to core axis.

Scheelite is not present.

Fractures/m = 3
Recovery = 100%

44.9 - 55.3 GARNET HORNFELS

Bedded garnet hornfels consisting of beds of andradite garnet hornfels and pyroxene hornfels. Minor disturbances of bedding are present near the top of the unit, but towards the base, becomes very regular despite minor microfracturing.

47.8m, 49.4 - 49.5m (most severe), 53.7m and 54.9m. Moderately broken core. Minor fine calcite veining is present from 54.3 - 54.8m.

Fine grained scheelite is present in most of the garnet hornfels beds, but is usually only sparsely disseminated. Only the interval 44.9 - 50.0m appears to be low to medium grained ore.

Bedding is 50^{o} - 60^{o} to core axis.

Fractures/m = 3
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/4

55.3 - 69.2 BIOTITE/PYROXENE HORNFELS

Finely interbedded biotite and pyroxene hornfels with marble beds becoming more fragment towards the end of the unit.

58.8m, 63.2m Minor broken core with fractures coated with chloritic slickensides.
64.7 - 65.8m Medium grained aplite vein.

Bedding is slightly disturbed but averages about 50^{o} to core axis.

Fractures/m = 6
Recovery = 100%

EOH 69.20m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 960/4

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	
10584	0.23	0.01	11973	0.27		11974	0.27		11975	0.17		
10594	0.65	<0.01	11976	0.65		11977	0.73		11978	0.57		
10602	0.25	<0.01	11979	0.23		11980	0.29		11981	0.28		
10649	0.32	0.01	11982	0.34		11983	0.36		11984	0.28		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 960/3

PLANNING

PROPOSER: G. J. Bujtor, J. M. Clark DEPTH:

LOCATION: F12 off J16

PURPOSE OF HOLE: To define Southern Area

PROPOSED CO-ORDS: 219960 E 564010 N

INCLINATION: -63

BEARING: 180 °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 184° 20' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219962.5 E 564014.3 N

R.L. OF COLLAR: R-129.0

INCLINATION OF HOLE: -60° 50'

PICKED UP BY: R. Howman DATE: 25/5/79

SUMMARY

LOGGED BY:

RESULTS:

DRILLING

DATE COMMENCED: 20/5/79 DATE TERMINATED: 24/5/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 107m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 107m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multi-shot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 960/3

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.2	3.15	3.15	98
3.2 - 6.15	2.95	2.95	100
6.15 - 9.15	3.0	3.0	100
9.15 - 12.15	3.0	3.0	100
12.15 - 13.10	0.95	0.95	100
13.10 - 15.30	2.2	2.2	100
15.30 - 18.30	3.0	3.0	100
18.30 - 21.30	3.0	3.0	100
21.30 - 24.35	3.05	3.05	100
24.35 - 26.15	1.8	1.8	100
26.45 - 27.5	1.35	1.35	100
27.5 - 30.50	3.0	3.0	100
30.50 - 38.55	3.05	3.05	100
53.55 - 36.55	3.0	3.0	100
36.55 - 39.60	3.05	3.00	100
39.60 - 42.60	3.0	3.0	100
42.60 - 45.60	3.0	3.0	100
45.60 - 48.60	3.0	3.0	100
48.60 - 51.60	3.0	3.0	100
51.60 - 53.70	2.1	2.1	100
53.70 - 56.20	2.5	2.5	100
56.20 - 59.20	3.0	3.0	100
59.20 - 62.20	3.0	3.0	100
62.20 - 65.20	3.0	3.0	100
65.20 - 68.20	3.0	3.0	100
68.20 - 71.20	3.0	3.0	100
71.20 - 74.20	3.0	3.0	100
74.20 - 77.20	3.0	3.0	100
77.20 - 80.20	3.0	3.0	100
80.20 - 83.20	3.0	3.0	100
83.20 - 86.20	3.0	3.0	100
86.20 - 85.20	3.0	3.0	100
89.20 - 92.15	2.95	2.95	100
92.15 - 94.15	2.0	2.0	100
94.15 - 96.25	2.1	2.1	100
96.25 - 99.05	2.8	2.8	100
99.05 - 99.75	0.7	0.7	100
99.75 - 101.75	2.0	2.0	100
101.75 - 104.45	2.3	2.3	100
104.45 - 107.45	3.0	3.0	100

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/3

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 - 12.0m	pgh	4		Calcite	0°@ 5m 35°@ 8m	100	80	Minor broken core at: 2.85 - 2.95m, 4.0 - 4.1m, 4.8 - 4.9m, 5.8 - 5.9m, 9.15m.
12.0 - 40.05	bph	5		Calcite/chlorite	0°@ 18.3 15°@ 193 45°@ 25.9	100	65	12.0 - 13.7m Mildly broken core. 16.1 - 17.1m Mildly broken & sheared core. 23.5 - 23.9m. Broken and sheared core 31.5 - 33.0m Calcite veining & brecciation. 39.95 - 40.05 Calcite veins and shearing.
			S u b d i v i d e d:		12.0-13.8 13.8-16.1 16.1-17.5 17.5-40.05	 9 	7 89 72	
40.05 - 48.60	pch	3		Chlorite	0°@ 41.2 35°@ 43 55°@ 43.7	100	70	Brecciated core at 43.9 - 45.3m Broken core at 48.4 - 48.6
48.60 - 53.70	bh	6		Chlorite	62°@ 50	100	86	53.0 - 53.7m Broken & sheared.
53.70 - 65.60	pch	5		Chlorite	0°-30°@ 53.7 -59.6 28°@ 62 45°@ 63.4	100	81	58.9 - 59.0 Broken core 65.5-62.25m Broken core

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) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/3

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)
65.6 - 76.5	bh	6		Calcite	65°@ 61.0m 64°@ 70.2	100	72	70.4 - 70.5 Rubbly core
76.5 - 87.8	py-gross h	6		Chlorite		100	63	84.3 - 87.8m Broken core with 85.7 - 85.9m being rubble
87.8 - 103.35	bh	3- 20		Chlorite, calcite	62° @ 90.2	100	51	87.95 - 88.0m, 95.8 - 96.4m brecciated bh 99.6 - 101.75m, Broken, chlorite core
013 - 105.9	py cal	7		Chlorite		100	76	105.8 - 105.85m crush zone at 30° to core axis.
105.9 - 107.45	ad	3		Ironstaining		100	88	

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) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 960/3

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11124	5	6	1.0	1.0	<0.01	<0.01		
25	6	7	"	"	0.02	0.01		
26	7	8	"	"	0.70	0.03		
27	8	9	"	"	0.43	0.03		
28	9	10	"	"	0.45	0.02		
29	10	11	"	"	0.09	0.01		
30	11	12	"	"	0.18	0.02		
31	39	40	"	"	0.03	0.01		
32	40	41	"	"	0.03	0.01		
33	41	42	"	"	0.14	0.01		
34	42	43	"	"	0.09	0.01		
35	43	44	"	"	0.02	0.01		
36	44	45	"	"	0.03	0.01		
37	45	46	"	"	0.03	0.01		
38	46	47	"	"	0.06	0.01		
39	54	55	"	"	0.05	0.01		
40	55	56	"	"	0.08	0.01		
41	56	57	"	"	0.45	0.02		
42	57	58	"	"	0.14	0.02		3m @ 0.34
43	58	59	"	"	0.44	0.01		
44	59	60	"	"	0.28	0.02		
45	60	61	"	"	0.01	<0.01		
46	61	62	"	"	<0.01	<0.01		
47	62	63	"	"	0.01	<0.01		
48	63	64	"	"	<0.01	<0.01		
49	64	65	"	"	0.01	0.01		
50	65	66	"	"	<0.01	0.01		
11210	81	82	"	"	<0.01	0.07		
11	82	83	"	"	0.25	<0.01		
12	83	84	"	"	<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 960/3

0.0 - 12.0m PYROXENE - CALCITE HORNFELS

Impure marble with abundant pyroxene and lesser amounts of grossular garnet.

0.0 - 6.4m Bedding is very disturbed in this section, but appears to be sub-parallel the core axis. Scheelite is not present.

6.4 - 12.0 Bedding is more prominant and although still disturbed, averages 35° to core axis. Beds of andradite garnet contain minor fine grained disseminated scheelite.

Small zones of broken core are present at 2.85 - 2.95m, 4.0 - 4.1m, 4.8 - 4.9m, 5.8 - 5.9m, 9.15m.

Fractures/m = 4
Recovery = 100%

12.0 - 40.05 BIOTITE - PYROXENE HORNFELS

Purplish brown biotite hornfels with lesser amounts of interbedded green pyroxene hornfels.

12.0 - 13.7m Mildly broken core which appears to be sheared. The beginning (12.0 - 12.3) is a breccia, but this may be the interformational breccia at the base of B lens. Calcite veining with minor chlorite is present.

13.8 - 16.1 Mottled pyroxene hornfels with calcite and minor biotite. Calcite veins are common parts of the unit appear to be sheared.

16.1 - 17.1 Biotite hornfels which is mildly broken and apparently sheared. Rubble core is present at 16.8m and 16.8 - 16.9m is a ?fault breccia.

23.5 - 23.9 Broken biotite hornfels which is sheared and micro-fractured.

31.5 - 33.0 Biotite hornfels with abundant calcite veins. Brecciation is associated with these veins, the most noticeable at 32.4 - 32.5m and 33.0m.

35.3 - 36.0 Short intervals of broken core.

38.6 - 40.05 Pyroxene hornfels is becoming more abundant towards the end of the unit

39.95 - 40.05 At the base of this unit there are many small calcite veins in sheared biotite hornfels (?possibly a fault zone)

Bedding is disturbed:

At 18.3m bedding is subparallel core axis.
19.3 15°
25.9 45°

Fractures/m = 5
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/3

40.05 - 48.60m PYROXENE - CALCITE HORNFELS

Pyroxene hornfels with disturbed beds and fragments of marble often rimmed by grossular. Minor andradite is present with some of the beds and these contain minor scheelite.

43.9 - 45.3m Core is mildly to severly brecciated with minor broken core. At 44.6m, chlorite coated fractures at 10° to core axis appear to have caused the brecciation.

Between 41.2 - 43m bedding varies from subparallel to 35° to core axis and is very disturbed. At 43.7m, bedding is 55° to core axis.

45.3 - 45.8 Mottled pyroxene hornfels containing abundant small spots of calcite and minor pyrite. The unit appears to be sheared at 65° to core axis. (Similar to the rock between 13.8 - 16.1m).

48.4 - 48.6 Broken core with chlorite slickensides all fractured surfaces.

Fractures/m = 3
Recovery = 100%

48.60 - 53.70 BIOTITE HORNFELS

Purplish brown biotite hornfels with this beds of pyroxene hornfels and marble (sometimes with minor grossular and scheelite specks).

At 50.0m bedding is 62° to core axis, and is not disturbed.

53.0 - 53.7 Broken sheared core with narrow calcite veins. Fracture surfaces are coated with chlorite slickensides.

Fractures/m = 6
Recovery = 100%

53.70 - 65.50 PYROXENE - CALCITE HORNFELS

A varied unit which is mildly disturbed.

53.7 - 59.6 Green pyroxene hornfels with fragments and disturbed beds of marble and grossular. Where andradite is present in these beds minor scheelite also occurs. Bedding ranges from subparallel to 30° to core axis.

58.9 - 59.0 Broken core with abundant chlorite slickensides.

59.6 - 62.7 Light well bedded marble (at 28° to core axis.)

62.7 - 65.5 Dark green pyroxene hornfels containing calcite and beds of marble and biotite hornfels. Bedding is mildly disturbed at 45° to core axis. (63.4)m

65.I5 - 65.25 Broken core.

Fractures/m = 5
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/3

65.50 - 76.50 BIOTITE HORNFELS

Purplish brown biotite hornfels with small marble and pyroxene interbeds near the top of the unit and small irregular pyroxene lenses elsewhere. Both the upper and lower boundaries of this unit appear to be comformable.

70.4 - 70.5m Rubbly core
76.45 Calcite vein at 40° to core axis contians rock fragments

At 61.0m bedding is 65° to core axis.
70.2m 64

Fractures/m = 6
REcovery = 100%

76.50 - 87.80 PYROXENE - GROSSULAR HORNFELS

Parts of this unit are similar to the typical pyroxene garnet hornfels whilst the rest resembles the fault induced pyroxene - grossular rock.

76.5 - 79.1m Light green pyroxene matrix with round marble fragments sometimes completely replace by grossular. Calcite filled microfracturing in abundant and only small area of dark green pyroxene matrix are present.

79.1 - 80.0 Marble with irregular lenses of grossular and minor pyroxene.

80.0 - 84.3 Pyroxene grossular rock in which rounded by irregular shaped blebs of grossular are present in a dark green pyroxene matrix. Minor calcite veining is present.

84.3 - 87.8 Rounded marble grossular fragments are set in a light green pyroxene matrix. Chlorite filled microfractures are abundant. Core is very broken and between 85.7 - 85.9m has disintergrated into marble. Matrix pyroxene is dark green between 85.9 - 86.2m. Calcite veins are 32° to core axis between 87.2 - 87.5m.

The lower boundary of the unit appears to be conformable.

Fractures/m = 6
Recovery = 100%

87.80 - 103.35 BIOTITE HORNFELS

Purplish brown biotite hornfels with small lenses of pyroxene hornfels. Bedding is not usually present, and chlorite filled microfractures are common.

87.95 - 88.0 Calcite veins at 45° to core axis have caused moderate brecciation of biotite hornfels.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/3

93.25 - 93.3m, 94.0 - 94.15m, Broken core.
94.2 - 94.6m, 94.9 - 95.4m. Medium grained, mildly iron-stained aplite veins. Calite veinlets are abundant.
95.8 - 96.4 Brecciated biotite hornfels some of which has been reduced to rubble. Calcite veins are abundant and at the begining of this section are 20° to core axis.
99.6 - 101.75 Broken chloritic biotite hornfels, with most fractures coated with chloritic slickensides.

At 90.2m bedding is 63° to core axis.

Fractures/m = 3- 20
Recovery = 100%

103.35 - 105.90 PYROXENE - CALCITE ROCK

Dark green pyroxene hornfels, probably also containing amphibole, with fragments and blebs of marble ranging 4cm to 2mm in size. Chlorite filled microfaults are abundant.

104.5 - 105.9 Abundant pyrite in fine grained aggregates is present in a fine grained dark green pyroxene/ calcite rock with few large calcite fragments. The rock appears to be severely sheared.
105.8 - 105.85 Crush zone at 30° to the core axis, containing up to 2mm in diameter. The lower boundary with adamellite appears to be a fault.

Fractures/m = 7
Recovery = 100%

105.90 - 107.45 ADAMELLITE

Medium grained (non-porphyritic) adamellite containing quartz, feldspars biotite and chlorite.from 107.0 - 107.45m the adamellite is mildly ironstained.

Fractures.m = 3
Recovery = 100%

EOH 107.45m

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 960/3

Surveyed method: Multishot
Final depth: 107.45
Casing depth: 1m

Depth surveyed to: 107.45
Date surveyed: 24/5/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		S	E
16.00	183° 00'	173° 00'	28° 45'	-61° 15'	14.03	7.64	.94
31.00	184 30	174 30'	28 45	-61 15'	27.81	14.83	1.63
43.00	184 00'	174 00'	28 00'	-62 00'	37.77	20.43	2.22
55.00	182 30'	172 30'	28 30'	-61 30'	48.32	26.07	2.97
67.00	183 30'	173 30'	28 30'	-61 30'	58.87	31.76	3.62
79.00	185 30'	175 30'	28 45'	-61 15'	69.39	37.51	4.07
91.00	186 00'	176 00'	28 00'	-62 00'	79.98	43.13	4.46
103.00	188 00'	178 00'	27 00'	-63 00'	90.67	48.58	4.65
107.45	190 00'	180 00'	28 00'	-62 00'	94.60	50.67	4.65

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 960/3

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	
11126	0.70	0.03	12012	0.72		12013	0.66		12014	0.63		
11141	0.45	0.02	10215	0.54		12016	0.52		12017	0.48		
11210	0.01	0.07	12018	0.07		12019	0.02		12020	0.02		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 960/2

PLANNING

PROPOSER: J. M. Clark J16 DEPTH:

LOCATION: F12 Cuddy off I12.

PURPOSE OF HOLE: To test for Southern Orebody

PROPOSED CO-ORDS: 219960 E 564014 N

INCLINATION: -72°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 348° 00' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219962.2 E 564015.2 N

R.L. OF COLLAR: R-129.1

INCLINATION OF HOLE: -69° 00'

PICKED UP BY: R. Howman DATE: 25/5/79

SUMMARY

LOGGED BY: J. M. Clark

RESULTS:

43.0m - 49.0m 6m @ 0.75% WO_3

DRILLING

DATE COMMENCED: 14/5/79 DATE TERMINATED: 18/5/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 67m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 67m

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 960/2

Surveyed method: Multishot
Final depth: 67.00m
Casing depth: 1m

Depth surveyed to: 67.00
Date surveyed: 17/5/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
4.00	360°	350°	20°	-70°	3.76	1.35	.24
22.00	357	347	19	-71	20.78	7.06	1.56
34.00	353	343	19	-71	32.13	10.80	2.76
49.00	354	344	19	-71	46.31	15.49	4.04
67.00	353	343	18 45'	-71 15'	63.35	21.03	5.73

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 960/2

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 5.0m	5.0	4.9	98
5.0 - 6.3	1.3	1.3	100
6.3 - 9.3	3.0	3.0	100
9.3 - 12.3	3.0	3.0	100
12.3 - 15.3	3.0	3.0	100
15.3 - 18.3	3.0	3.0	100
18.3 - 21.3	3.0	3.0	100
21.3 - 24.3	3.0	3.0	100
24.3 - 27.3	3.0	3.0	100
27.3 - 30.3	3.0	3.0	100
30.3 - 33.3	3.0	3.0	100
33.3 - 36.3	3.0	3.0	100
36.3 - 39.3	3.0	3.0	100
39.3 - 42.3	3.0	3.0	100
42.3 - 45.25	2.95	2.95	100
45.25 - 48.25	3.0	3.0	100
48.25 - 51.2	2.95	2.95	100
51.2 - 54.2	3.0	3.0	100
54.2 - 57.2	3.0	3.0	100
57.2 - 60.2	3.0	3.0	100
60.2 - 62.05	1.85	1.85	100
62.05 - 64.52	2.47	2.47	100
64.52 - 76.00	2.48	2.3	93

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 960/2

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 - 4.0m	Ph (B lens)	7		Chl	37°	98	69	
4.0 - 38.7	Bh	5		Chl/pyrite	77° @ 10.7m 66° @ 26m	100	77	Broken core at 4.5 - 5.0m 17.8 - 18.15m
38.7 - 42.45	Ap	10		Chl/cal		100	69	
42.45 - 49.15	Banded gh	3		Chl	75°	100	87	
49.15 - 61.85	Bh/ph	5		Chl	70° Except 20° @ 61m	100	81	
61.85 - 62.3	LV					100	Nil	Swan fault zone
52.3 - 67.0	LV	9		Clay/chl/cal		97	57	

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) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 960/2

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10634	40	41	1.0	1.0	0.01	0.02		
35	41	42	"	"	< 0.01	0.04		
36	42	43	"	"	0.05	0.02		
37	43	44	"	"	0.95	0.02		
38	44	45	"	"	0.69	0.01		
39	45	46	"	"	1.05	0.01		
40	46	47	"	"	0.47	< 0.01		
41	47	48	"	"	1.02	0.01		
42	48	49	"	"	0.34	0.01		
43	49	50	"	"	0.13	0.01		
44	50	51	"	"	0.06	0.01		
45	51	52	"	"	0.02	0.01		
46	52	53	"	"	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 960/2

0.0 - 4.00m **PYROXENE HORNFELS**

Slightly bedded pyroxene hornfels containing abundant grossular, with beds of marble and biotite hornfels. Minor fine grained disseminated scheelite is present some marble rich beds.

Bedding is 37^{o} to core axis.

Fractures/m = 7
Recovery = 98

4.00 - 38.70 **BIOTITE HORNFELS**

Dark brown fine grained biotite hornfels. Thin pyroxene-rich beds are present near the top of the unit and elsewhere there are minor grey actinolite-rich beds.

4.0 - 4.5m Intraformational breccia contains light coloured rock fragments in a brown biotite rich matrix.
4.5 - 5.0 Broken core fracture surfaces are coated with chlorite and clacite.
8.3, 17.8 - 18.15m, 21.2m. Minor broken core.
31.0 - 33.4m Indistinct spotting caused by rounded dark spots in a lighter coloured rock.
38.05 - 38.15 Aplite
38.15 - 38.70 Pyroxene-biotite hornfels with a disturbed texture.

At 10.7 bedding is 77^{o} to core axis.
26.0 66^{o}

Fractures/m = 5
Recovery = 100%

38.70 - 42.45 **APLITE**

Medium grained aplite containing white quartz and feldspar and adundant green chlorite, ?pyroxene and epodote. Small pyrrhotite crystals are common throughtout.

39.2m Crystal of white and yellow scheelite, 1cm is diameter.
41.1, 42.0 Calcite veins (1cm diameter) at 20^{o} to the core axis. There are many smaller calcite and calcite/chlorite veins.

Fractures/m = 10
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 960/2

42.45 - 49.15 **GARNET HORNFELS**

Bedded andradite garnet hornfels with pyroxene hornfels and minor grossular garnet, marble and biotite.

Fine to medium grained scheelite is moderately disseminated in andradite-rich beds and not present elsewhere.

Bedding is slightly disturbed but averages about 75° to core axis.

Fractures/m = 3
Recovery = 100%

49.15 - 61.85 **BIOTITE HORNFELS/PYROXENE HORNFELS**

Finely interbedded brown biotite hornfels and green pyroxene hornfels. Small beds of marble and grossular garnet are also present, expecially between 57.0 - 60.0m.

Bedding is uniform at 70° to core axis, except for 60.8 - 61.85m where beds have been severely disturbed next to a fault, and dip at 20° to core axis.

Trace scheelite is present in some of the grossular-rich beds.

Fractures/m = 5
Recovery = 100%

61.85 - 62.30 **FAULT ZONE**

Brecciated dark green chloritic volcanics and light brown to green clay pug zones. Chlorite veinlets are also present. This is the Swan Fault Zone.

62.30 - 67.00 **LOWER VOLCANICS**

Dark green medium grained mildly chloritic lower volcanics have a spotted texture due to the present of altered feldspar.

Light green clay/calcite veins are common and minor broken core is present along some of these (eg 61.4 - 65.5m)

Fractures/m = 9
Recovery = 97%

EOH 67.00m

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. DOLPHIN 960/1

PLANNING

Proposer: M. Danielson — Depth: 50m

Location: J.16 -122m RL

Purpose of hole: Test southern extension of C Pit ore horizons at -122m RL

Co-ordinates: 220 962 E 564 051 N
Inclination: 0°
Bearing 143° Grid
Target: E N
Approved by: M.C. Rogers
Magnetic:
Target Depth: 50m
Date: 1/11/76

SURVEY

Survey Co-ords: E N
Survey bearing: 143° 50' Grid
Surveyed in by:
Actual Co-ords: 219 961.73E 564 050.80
R.L. of Collar: W - 123.81
Picked up by: RJH
Magnetic:
Date:
Inclination of Hole: +0° 30'
Date: 13/11/76

SUMMARY

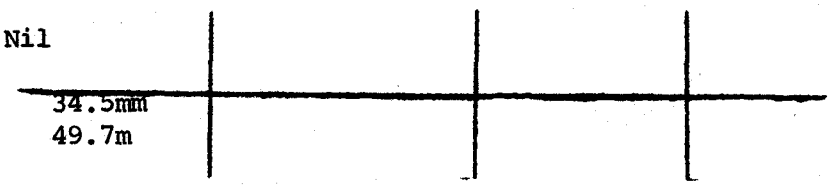
Logged by: M. Danielson
Results: No significant C lens mineralisation

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 12/11/76 — Date terminated: 15/11/76

Casing: Size: Nil
Depth:
Core: Size: 34.5mm
Depth: 49.7m



Wedge Runoff:
Wedge placed: Nil — Depth:
Proposed by: — Approved by:
Reason:

Extension: Nil
Reason for termination: Passed into hangingwall biotite hornfels

Condition of hole on completion: — Final depth: 49.7m
Casing: Nil
Cemented: No
Bore hole survey: Yes
Water: Nil

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. Dolphin 960/1

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)
0-43.7	bh/ph bfb	4		clay carbonate	15m. 30° 19m. 25° 26m. 28° 33m. 45° 38m. 35° 43m. 45°	100	83	5.3 - 5.6 clay recemented breccia. Possible Fault 7.6 - 8.0 leached pug zone leached marble 17.0 - 17.7 20.0 - 20.3
43.7/ 49.7	Spotted volcs.	10		clay, minor carbonate		100	55	

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) $+= \frac{\text{length core } >10 \text{ cms}}{\text{length drilled}}$ %
3. Core size.
   34.5mms dia.

GEOPEKO LIMITED - DOLPHIN

ASSAY DATA

D.D.H. No. D 960/1

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo		
D5245	24	25	1.0	1.0	0.23	< 0.01		
6	25	26	"	"	< 0.01	< 0.01		
7	26	27	"	"	0.60	0.01		
8	27	28	"	"	0.09	< 0.01		
9	28	29	"	"	0.04	"		
D5250	29	30	"	"	0.39	"		

SPECIFIC GRAVITY

Determined by:

Depth (m):
Rock Type:
S.G. :

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. Dolphin 960/1

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 2.3.	2.3	2.25	98
3.7	1.4	1.4	100
8.7	5.0	5.0	100
11.7	3.0	3.0	100
14.7	3.0	3.0	100
17.7	3.0	3.0	100
20.7	3.0	3.0	100
23.7	3.0	2.9	97
25.7	2.0	3.0	100
28.7	3.0	3.0	100
31.7	3.0	3.0	100
34.7	3.0	3.0	100
37.7	3.0	3.0	100
40.7	3.0	3.0	100
43.7	3.0	3.0	100
46.7	3.0	3.0	100
49.7	3.0	3.0	100
E.O.H.			

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. Dolphin 960/1

Survey method: Multishot camera

Final depth : 49.7m

Casing depth : -

Depth surveyed to: 48m

Date surveyed: 15/11/76

Surveyed by : GLB

Checked by : GLB

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected			
6	145°	135°	90°	0°	-		
12	145°	135°	89°	-1°	-0.105		
15	145°	135°	89° 30'	-0° 30'	-0.135		
30	145°	135°	89° 30'	-0° 30'	-0.27		
48	144°	134°		+3°	+0.67		

REMARKS: At 48m the film "inclination scale" reads +3°

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. 960/1

LAB.	K.I.S.		LAB.	K.I.S		LAB.	AMDEL		LAB.	ACSL		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
D5247	0.60		D5470	0.56	0.03	D5471	0.635		D5472	0.69		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. Dolphin 960/1

0 -3.5	BASAL HORNFELS Barren to very weakly mineralised biotite pyroxene hornfels and minor skarn development. Sub oregrade.
3.5 - 3.55	POSSIBLE FAULT Carbonate recemented breccia.
3.55 - 5.70	PYROXENE GARNET HORNFELS Barren pale green pyroxene hornfels with occasional white carbonate pods and grossular garnet. 5.3 - 5.6 clay recemented breccia.
5.7 - 12.0	BASAL HORNFELS Barren green and grey hornfels - mottled appearance with no significant bedding. Possible fault at 7.6 - 8.0m where core is a leached pug zone.
12.0 - 29.0	BANDED FOOTWALL BEDS minor shear 14.2 - 14.3 Very weakly mineralised, banded barren grey marble with minor skarn developed, minor bh and ph.
29.0 - 34.7	BEDDED PYROXENE GARNET HORNFELS (?) Very weakly mineralised green ph with minor white carbonate and brown grossular garnet. Pods are not well developed and unit is bedded making it difficult to distinguish from the banded footwall bed unit.
34.7 - 44.0	BIOTITE HORNFELS Barren grey biotite hornfels. Bedding apparent. Minor green ph (less than 10%) occurs in this unit.
44.0 - 49.7	SPOTTED VOLCANICS Beyond 44.0m bedding is not recognisable and prominent black spotting develops. Spots are generally less than 2mms dia. Core is more jointed in this unit.

PTO.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

RE-LOG JAN '80 - T POTTER

D.D.H. No. D 960/1

0.0 - 3.5 m	Garnet - pyroxene skarn - part of lower C lens. Very weak mineralisation with broad bands of andradite rich and pyroxene rich rock.
3.5 - 3.6	Fault breccia cemented with calcite.
3.6 - 5.7	PYROXENE GARNET HORNFELS
	With a few calcite blobs showing grossularite ~~plugs~~ rings.
5.7 - 7.8	BIOTITE HORNFELS
	Dark in colour and with occassion chips of calcite.
7.8 - 7.9	Strongly sheared rock.
7.8 - 12.2	PYROXENE HORNFELS
	With the biotite becoming prominent towards base.
12.2 - 20.5	B LENS
	12.2 - 16.7 Pyroxene rock with andradite garnet and calcite zones or blobs. Some min. with the andradite but overall min is very weak.
	Bedding 30 - 40°
	16.7 - 20.5 Grey marble barren strong shear 10.9 pug 20.3
	Bedding 20 - 30°
20.5 - 23.6	PYOXENE BIOTITE HORNFELS
	Fine grain no bedding.
23.6 - 29.9	GARNET PYROXENE HORNFELS
	Zones of garnet-calcite in pyroxene rich rock containing four 5-10 cm bands of barren calcite.
29.9 - 34.0	Pyroxene rock with weak zones of garnet [redacted].
	Bedding 45 - 60°
34.0 - 49.7	BIOTITE HORNFELS
	Dark grey and bedded, very minor pyroxene bands

EOH 49.7 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D920/3 Dolphin

PLANNING

PROPOSER: C.J. Kendall DEPTH:

LOCATION: H16 Upper Pit Access Ramp

PURPOSE OF HOLE: Test mineralisation on Swan Fault

PROPOSED CO-ORDS: 219220 E 564079 N

INCLINATION: +8°

BEARING: °Grid °Mag

TARGET: E N

DEPTH:

CHECKED BY: S.G. Brown DATE: 12.1.83

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 179°51' °Grid °Mag

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 922.1 E 564 076.3 N

R.L. OF COLLAR: -86.0

INCLINATION OF HOLE: + 06°48'

PICKED UP BY: M. Marchant DATE: 19.01.83

SUMMARY

LOGGED BY: C. Kendall

RESULTS: No significant mineralisation.

DRILLING

DATE COMMENCED: 12.01.83 DATE TERMINATED: 21.01.83

DRILLER/CONTRACTOR: L. Limbourne, K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 45.6

WEDGE PLACED: No DEPTH: PROPOSER:

EXTENSION: No

FINAL DEPTH:

REASON FOR TERMINATION: Volcanics reached

CONDITION OF HOLE ON COMPLETION:

CASING: No

CEMENTED: No

BORE HOLE SURVEY: No

WATER: No

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. 920/3 Dolphin

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
3.0	3.0	2.8	93
5.2	2.2	2.2	100
7.4	2.2	2.4	109
12.0	4.8	4.5	94
14.5	2.5	2.5	100
18.4	3.9	4.0	103
20.7	2.3	2.5	109
24.0	3.3	3.3	100
27.7	3.7	3.8	103
29.4	1.7	1.6	94
33.0	3.6	3.8	105
37.4	4.4	4.5	102
40.3	2.9	3.0	103
42.6	2.3	2.3	100
45.6	3.0	3.0	100

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. 920/3 Dolphin

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
14 104	16.4	17.4	1.0	1.0	0.02			
14 105	17.4	18.4	1.0	1.0	0.06			
14 106	18.4	19.4	1.0	1.0	0.04			
14 107	19.4	20.4	1.0	1.0	0.02			
14 108	20.4	21.4	1.0	1.0	0.04			
14 109	21.4	22.4	1.0	1.0	0.13			
14 110	22.4	23.4	1.0	1.0	0.09			
14 111	23.4	24.4	1.0	1.0	0.14			

SPECIFIC GRAVITY

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

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. 920/3 Dolphin

0 - 14.1 m Banded Biotite Pyroxene Hornfels

A strikingly banded sequence consisting of biotite hornfels with sulphide rich bands at 30° LCA. These bands show no obvious deformation.

There is a large grossularite band at 0.8 m.

From 2.9 m the banding changes to be pyroxene rich in boitite hornfels. The attitude varies from 30° LCA to 40° LCA. Many bands show disturbance across minor structure at right angles to LCA.

At 5.0 m the groundmass changes to become mainly pyroxene with calcite bands. The bands are sub-parallel to LCA and show significant disturbance. This disturbance appears more sedimentary in origin rather than structural.

At 9.5 m the banding is parallel to LCA and displaced by at least six faults normal to LCA. Displacement is in the order of 1 cm.

There is another obvious fault at 10.0 m. Below 10.0 m, the banding returns to 30° LCA and varies to 80° LCA.

14.1 - 14.7 Grossularite

A banded sequence of pyroxene hornfels and grossularite. Mineralisation is limited to a few isolated grains of blue scheelite.

14.7 - 16.6 Biotite Pyroxene Hornfels

A more massive unit than above with faint banding.

16.6 - 22.6 Andradite Skarn

Very crudely banded with large bands? of pyroxene rich material. It does not appear to be well mineralised. There are many calcite veins, some with large sulphide inclusions.

There is a possible fault zone at 21.6 m.

22.6 - 24.2 Disturbed Zone

A biotite pyroxene hornfels zone with numerous calcite veins. The unit is banded, with orientation erratic. Many calcite veins have been leached away to leave open stockwork structure.

...../2

24.2 - 42.8 m Biotite Hornfels

24.2 - 32.4 Banded Biotite Hornfels

32.4 - 40.3 Massive bh

40.3 - 42.8 Spotted bh

Jointing 30° LCA 60° LCA

40° LCA

45° LCA

12° LCA

42.8 - 44.2 Fault Zone

44.2 - 45.6 Volcanics.

A blue grey, spotted sequence, heavily jointed.

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. 920/2 Dolphin

PLANNING

PROPOSER: C.J. Kendall DEPTH: 45 m

LOCATION: H16 Access ramp to upper pit stope

PURPOSE OF HOLE: Test ore on hanging wall

PROPOSED CO-ORDS: 219 920 E 564 080 N

INCLINATION: +45

BEARING: 180 °Grid °Mag

TARGET: E N

DEPTH:

CHECKED BY: S.G. Brown DATE: 20.12.82

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 182°35' °Grid °Mag

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 922.1 E 564 077.5 N

R.L. OF COLLAR: -85.2

INCLINATION OF HOLE: +44°38'

PICKED UP BY: M. Marchant DATE: 19.01.83

SUMMARY

LOGGED BY: C.J. Kendall

RESULTS: 9.0 - 15.0 m 6 m @ 0.50% WO3 gh(b)
18.0 - 23.0 m 5 m @ 1.59% WO3 Upper C

DRILLING

DATE COMMENCED: 24.12.82 DATE TERMINATED: 10.01.83

DRILLER/CONTRACTOR: L. Limbourne, K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46 TT
DEPTH: 28 m

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH:

REASON FOR TERMINATION: Hole blocked at Swan Fault

CONDITION OF HOLE ON COMPLETION:

CASING: No

CEMENTED: No

BORE HOLE SURVEY: Yes, multi shot.

WATER: Very little

COMMENTS ON DRILLING CONDITIONS: Ground good.

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. 920/2

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
3.6	3.6	3.5	97
5.8	2.2	2.3	104
8.8	3.0	3.0	100
11.8	3.0	3.0	100
13.8	2.0	2.0	100
15.8	2.0	2.0	100
18.5	2.7	2.8	104
21.5	3.0	3.1	103
24.4	2.9	2.8	96
27.5	3.1	3.1	100
28.0	0.5	0.6	120
E.O.H.			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. 920/2 Dolphin

Surveyed method: Multi shot
Final depth: 28.00 m
Casing depth: Nil

Depth surveyed to: 28.00 m
Date surveyed: 07.01.83
Surveyed by: R. Drake
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		S	E
10.00		N6° W	46	44	6.947	7.15	0.75
19.00		N6.5°W	46	44	13.20	13.58	1.48
28.00		N7° W	46	44	19.45	20.01	2.26

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. 920/2 Dolphin

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
14070	4.0	5.0	1.0	1.0	0.06			
71	5.0	6.0	1.0	1.0	0.15			
72	6.0	7.0	1.0	1.0	0.16			
73	7.0	8.0	1.0	1.0	0.09			
74	8.0	9.0	1.0	1.0	0.18			
75	9.0	10.0	1.0	1.0	0.73			
76	10.0	11.0	1.0	1.0	0.31			
77	11.0	12.0	1.0	1.0	0.31			9.0 m @ 0.43% gh(b)
78	12.0	13.0	1.0	1.0	0.62			
79	13.0	14.0	1.0	1.0	0.60			
80	14.0	15.0	1.0	1.0	0.42			
81	15.0	16.0	1.0	1.0	0.08			
82	16.0	17.0	1.0	1.0	0.62			M/M
83	17.0	18.0	1.0	1.0	0.14			
84	18.0	19.0	1.0	1.0	1.20			
85	19.0	20.0	1.0	1.0	1.02			
86	20.0	21.0	1.0	1.0	2.10			5.0 m @ 1.59% gh
87	21.0	22.0	1.0	1.0	2.32			
88	22.0	23.0	1.0	1.0	1.30			
89	23.0	24.0	1.0	1.0	0.18			
90	24.0	25.0	1.0	1.0	0.13			
91	25.0	26.0	1.0	1.0	0.09			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. 920/2 Dolphin

0.0 - 4.3 m	Biotite Pyroxene Hornfels A dark brown-grey banded unit showing alternating bands of biotite hornfels and pyroxene hornfels. Banding is at 45°LCA (approx.) Core is fractured and appears brecciated. Banding is most prominent in the first metre of core. From 1.0 to 1.2 core is very broken with some slickensiding on joint surfaces. A prominent calcite filled joint parallel to LCA runs from 3.2 m to 4.0 m.
4.3 m - 18.4 m	Banded footwall beds (mineralised). A well mineralised unit consisting of bands of andradite garnet skarn, pyroxene hornfels and grossularite. There are many large calcite grains associated with large andradite garnets and this gives a mottled appearance to the rock. Pyrite and some minor sulphides are commonly associated with these larger calcite fragments. Banding becomes indistinct with depth as more biotite hornfels appear and form large "swirls".with the pyroxene hornfels. This appears to have been caused by slumping or other turbidity during deposition.
18.4 - 23.2 m	Massive Andradite Skarn Very well mineralised skarn with large garnets and large calcite grain. It appears the same as the gh bands within the banded footwall beds.
23.2 - 23.3 m	Biotite/Pyroxene Hornfels
23.3 - 25.6 m	Pyroxene Garnet Hornfels A podded sequence with large calcite pods and veins. The sequence is poorly mineralised with a very large scheelite grain visible under U.V. clustered around the calcite pods.
25.4 - 25.6 m	Fault Zone A breccia zone of medium size clasts cemented together in a carbonate rich matrix. Most of the clasts appear to be biotite hornfels.

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. 920/1 Dolphin

PLANNING

PROPOSER: C.J. Kendall DEPTH:

LOCATION: H16 Access Ramp to Upper Pit

PURPOSE OF HOLE: Test ore on hanging wall

PROPOSED CO-ORDS: 219 920 E 564 080 N

INCLINATION: +65

BEARING: 360 °Grid °Mag

TARGET: E N

DEPTH: 20 m

CHECKED BY: S.G. Brown DATE: 20.12.82

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 00°47' °Grid °Mag

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 921.8 E 564 078.9 N

R.L. OF COLLAR: -85.0

INCLINATION OF HOLE: +65°11'

PICKED UP BY: M. Marchant DATE: 19.01.83

SUMMARY

LOGGED BY: C.J. Kendall

RESULTS: 10 m @ 0.44% WO3 gh(b) 6.0 - 18.2 m

DRILLING

DATE COMMENCED: 11.01.83 DATE TERMINATED: 12.01.83

DRILLER/CONTRACTOR: L. Limbourne, K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 18.2

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 18.2

REASON FOR TERMINATION: Proximity to open cut

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: No

WATER: No

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. 920/1 Dolphin

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
14092	6.0	7.0	1.0	1.0	0.12			
93	7.0	8.0	1.0	1.0	0.22			
94	8.0	9.0	1.0	1.0	0.57			
95	9.0	10.0	1.0	1.0	0.33			
96	10.0	11.0	1.0	1.0	0.19			
97	11.0	12.0	1.0	1.0	0.75	10 m @	0.44%	gh(b)
98	12.0	13.0	1.0	1.0	0.63			
99	13.0	14.0	1.0	1.0	0.41			
14100	14.0	15.0	1.0	1.0	0.36			
01	15.0	16.0	1.0	1.0	0.20			
02	16.0	17.0	1.0	1.0	0.40			
03	17.0	18.2 (EOH)	1.2	1.2	0.56			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. 920/1 Dolphin

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
3.2	3.2	3.1	97
6.4	3.2	3.2	100
9.4	3.0	3.0	100
12.3	2.9	2.9	100
15.2	2.9	2.9	100
18.2	3.0	2.9	97
E.O.H.			

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. 920/1 Dolphin

0 - 4.4 m Biotite Pyroxene Hornfels

A banded unit consisting of biotite hornfels, pyroxene hornfels, marble and replaced marble.

The banding is at 55° LCA. The core is broken in patches with discs forming along banding planes.

Some calcite rich pods are also evident.

4.4 - 4.6, 5.0 - 5.1 Aplite medium to coarse grade - light pink.

4.6 - 5.0, 5.1 - 7.6 Banded biotite pyroxene hornfels - same as above.

7.6 - 18.2 Banded Andradite Skarn.

Basically a massive andradite skarn, well mineralised with uniform garnet grain size throughout. Possible fault zone at 15.1 m.

Small bands of bh and ph occur particularly between 14.0 and 15.6 m and 17.8 and 18.0 m.

Banding is less obvious within the andradite skarn.