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DEPARTMENT OF NATIONAL DEVELOPMENT
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ORE RESERVES AT KING ISLAND SCHEELITE MINE.

by

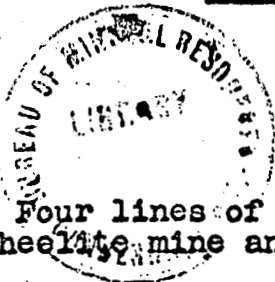
P. BP NYE.

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ORE RESERVES AT KING ISLAND

SCHEELITE MINE.

Report No. 1943/22.



*Original
B. B. Nyl.*

Four lines of diamond drill holes were selected at the King Island scheelite mine and holes were drilled as follows:

- No.1 line - Nos. 35, 39, 29, 32 and 33.
- No.2 line - Nos. 34, 37, 22 and 24.
- No.3 line - Nos. 31, 38, 23, 25 and 26.
- No.4 line - Nos. 36, 28, 30, 40 and 27.

The above drill holes prove that the scheelite deposits consisted of a top lode and a bottom lode separated by a band of low-grade material. The top lode has an average width of approximately 30 feet and an average grade of slightly over 1% WO₃. The bottom lode has an average width of approximately 75 feet and an average grade of 0.3 to 0.5% WO₃. The intervening low-grade band has a width ranging from 10 feet to 60 feet.

The above four lines were 140 feet apart and in the calculation of reserves it is assumed that the ore extends 40 feet to the west of No.1 line and 40 feet to the east of No.4 line.

The sides of the open cut, as recommended by Mr. T.M. Barson, have been adopted in the calculation of reserves. The bottom of this open cut is at sea-level and the ore has been calculated to that depth only.

From the results of the drilling, calculations have been made and the following factors have been adopted for the number of cubic feet per ton:

Top Lode	11.0
Low-grade band	13.0
Bottom Lode	11.3
Average	11.4

The amounts and the average grades of ore on each of the four lines of drill holes are as follows:

Line	Top lode Low grade band Bottom lode		Top and Bottom lodes		Low grade band.	
	Amount tons	Grade WO ₃ percent	Amount tons	Grade WO ₃ percent	Amount tons	Grade
1	218,000x	0.55	218,000x	0.55	Ø	Ø
2	438,500	0.68	359,600	0.83	78,900	Ø
3	429,600	0.57	373,400	0.66	56,200	Ø
4	159,000	0.70	123,400	0.89	35,600	Ø
	1,245,100	0.623	1,074,400	0.703	170,700	

- x Probably bottom lode only.
- Ø If present, the band is regarded as overburden.
- Ø The band is regarded as barren.

Four holes have been drilled (2 on each line) on lines 5 and 6 to the west of the No.1 line. The final results of the logging and the assaying of samples have not yet been received and no calculation of reserves has therefore been made.

To the east of the No.4 line some geological information is available in the quarry workings and in adits. Six drill holes were

put down in 1934, but very little information is available in the results. The drilling of eight holes is being completed in this section of the deposit, but the final results will not be available for some weeks. However, sufficient information is available to determine generally the amount of material (irrespective of grade) in the mineralised zone and the following figures represent the amount of such material on section lines 5, 6 and 7. (these lines are Mr. Barson's section lines and are not to be confused with the lines of drill holes) The figures do not represent ore reserves in the same sense as figures for lines 1 to 4. Calculations of ore reserves will, however, be made when the final results of the eight drill holes are received.

Section Line 5	285,000 tons
Section Line 6	564,000 tons
Section Line 7	<u>184,000 tons</u>

1,033,000 tons.

P.B. Nye

(P.B. Nye.)
Assistant Director.

Mineral Resources Survey,
Canberra.
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