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Interim Report on Gypsum Deposits of Australia

by

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DEPARTMENT OF SUPPLY & SHIPPING.

MINERAL RESOURCES SURVEY BRANCH.

INTERIM REPORT ON GYPSUM DEPOSITS OF AUSTRALIA, REPORT NO. 1944/36.

I. INTRODUCTION.

Gypsum has been found in all the States of the Commonwealth, but, as far as known at present, deposits of commercial importance are limited to New South Wales, Victoria, South Australia and Western Australia. South Australia is the major producer and provides approximately 80 percent of the total Australian production.

II. QUEENSLAND.

Gypsum, selenite, satin spar and alabaster have been reported from various localities, but there is no record of production. Of the reported deposits of gypsum, those in the eastern portion of the State are generally too small to warrant development and those farther west are too far from railheads.

III. NEW SOUTH WALES.

Approximately 17,000 tons of gypsum have been produced annually from four principal localities:-

A. Marlow, Parish Cameron, County Moosiel, Menindie District. A number of important deposits of gypsum occur, varying in thickness from 10 inches to 3 feet 6 inches. The following is a typical analysis of the higher grade gypsum:-

CaSO_4	$\text{Fe}_2\text{O}_3 + \text{Al}_2\text{O}_3$	Gangue	Equivalent gypsum content.
%	%	%	%
60.18	1.48	12.76	76.11

The annual production at present is approximately 10,000 tons from leases held principally by Australian Plaster Industries Limited and the Colonial Sugar Refining Company Limited.

B. Counties Menapa and Livingstone, (Hay Mining Division).

(1) Bailbarrerie, Parishes of Amosna and Casew. Deposits of gypsum approximating 2,500,000 tons are reported and the following analysis is given:-

CaSO_4	Equivalent Gypsum Content.
%	%
60.67	76.73

(2) Gypsum Palace, Parish Kilfera. Deposits of gypsum are reported with large nodules of selenite, frequently occurring in the surface crust. The following is an analysis of the gypsum:-

CaSO_4	$\text{Fe}_2\text{O}_3 + \text{Al}_2\text{O}_3$	Gangue	Equivalent Gypsum Content.
%	%	%	%
71.5	1.34	7.5	90.42

(3) Leases are also held in the Parishes of Blenallen, Connulpie and Eilsen, but no information on the deposits has been published. The average annual production from this group of deposits is approximately 1,700,000 tons, the lease-holding Companies being Auburn Plaster Mills Limited and the Colonial Sugar Refining Company Limited.

C. Lake Wyangan, Parish Wyangan, County Cooper, Griffith District. No information has been published on the deposits themselves, but the

average annual production is 5,000 tons from leases held by Griffith Gypsum Mines Limited.

D. Col. Col. Farishes Bourguons and Hillie, County Kentworth. A high grade deposit 2-5 feet in thickness occurs over an area of 400 acres. The following is an analysis of the rock:-

CaSO_4	$\text{Fe}_2\text{O}_3 + \text{Al}_2\text{O}_3$	Gangue	Equivalent Gypsum Content.
%	%	%	%
75.06	0.32	6.28	83.00

The average annual production is 900 tons from leases held by the Mildura Plaster Mills Pty. Limited.

Small quantities of gypsum were produced from a superficial deposit at Yanco Glen, in the Broken Hill District, in 1904-5, and some from the Murrumbidgee district in 1940, but no further information on these deposits is available.

The occurrence of gypsum has been recorded from several other localities in New South Wales, but not in commercial quantities.

IV. VICTORIA.

Gypsum is produced in Victoria, but ^{There is no published} information on the deposit and location of the mines is not available at present. In 1942, gypsum was mined at Nowingi, Bolton, Cowangie and Bronzewing, and at several other centres prior to 1942. There is also a reference in Bulletin No. 34 of the Victorian Geological Survey, to "enormous masses" of earthy gypsum forming conspicuous white mounds in the Lallie district.

V. TASMANIA.

No gypsum deposits of economic significance are known in Tasmania.

VI. SOUTH AUSTRALIA.

Approximately three-quarters of Australia's production of gypsum comes from three localities in South Australia.

A. Marion Bay and Cape Spencer, Hundred of Warrenben. Rock gypsum for use in the plaster industry has been mined by various Companies at Marion Bay. No details of production are available, but the deposits have been worked intensively.

B. Lake Fowler, Hundred of Melville. Seed gypsum is mined at Lake Fowler, and used chiefly for agricultural purposes and in the manufacture of cement.

C. Lake McDonnell, Hundreds of Kevin and Keith. This is one of the largest deposits of seed gypsum in the State and supplied the Plaster factory at Thevenard before it closed in 1934.

The occurrence of gypsum has been reported from other localities, but not in commercial quantities.

Figures showing the production of gypsum from the various localities in South Australia are not available at present, but the annual pre-war production for the State approximated 145,000 tons, practically all of which came from localities 1 and 2 above.

VII. WESTERN AUSTRALIA.

Gypsum has been mined in three principal localities in Western Australia, and the average annual production for the State has been approximately 4,700 tons.

A. Coolundra. The principal deposit of seed gypsum contains approximately 35,000 tons and the average annual production, since 1924, has been 1,900 tons. In 1943, the deposits were mined by the Ajax Plaster Company Limited, Western Australia.

B. Baandee. Little information on the deposit is available, but a typical sample is recorded as having an equivalent gypsum content of 99.53%. The average annual production since 1924 is 2,000 tons.

C. Lake Seabrook. Seed gypsum from this locality yields an equivalent gypsum content of 95-96%, and is used to manufacture a pure white plaster. The average annual production from 1925-1941 was 730 tons.

Small quantities of gypsum have also been mined at Hines Hill, Cliff Head, Koorda, Dukin and Lake Brown. 2,250 tons were produced annually at Lake Brown from 1938-1941.

Gypsum and selenite have been recorded from other localities, where the deposits are presumably of no economic importance.

CANBERRA, A.C.T.
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