

LITHIUM

Current resources for Western Australia

- Western Australia contains the world's largest single hardrock deposit of lithium – **Greenbushes**
- Australia has been the world's largest supplier of lithium since 2013
- Total resources of spodumene currently estimated at 16.8 Mt of contained Li₂O
- Lithium minerals in Western Australia (all occurring in pegmatite) include spodumene, lepidolite, zinnwaldite and petalite
- Construction of two lithium hydroxide processing plants was completed in 2019 at Kwinana (Tianqi Lithium) and Kemerton (Albemarle), both sourcing spodumene concentrate from the Greenbushes operation

Lithium operations

Greenbushes

- Historic spodumene production, all from pegmatites, commenced in 1985
- Production of spodumene concentrate has increased to 1.34 Mt per annum following the opening of a new chemical grade processing plant (CGP2) in 2019

Mt Cattlin

- Mined from 1955 to 1964 (108 t), 2011 to 2012 and from 2016
- The project has recently reopened to produce spodumene concentrate and a tantalum byproduct

Pilgangoora

- Pilbara Minerals has operated the mine since opening in 2018
- Resources are to be updated in Q3 2021 following the acquisition of the Altura Project

Mt Marion

- Site upgrades during 2018–19 have increased capacity to 450 000 t per annum. The spodumene concentrate will also be produced with a lithium content of 6%

Lithium resources of Western Australia

Resources estimated according to JORC 2012

Project	Status	Owner	Resources (Mt)	Avg. grade Li ₂ O (%)	Contained Li ₂ O (kt)	Resource date
Greenbushes	Operating	IGO Limited (24.9%), Albemarle Corporation (49%), Tianqi Lithium Australia Pty Ltd (26.1%)	196.8	1.90	3748	31/03/2018
Wodgina	Care and maintenance	Mineral Resources Limited (40%), Albemarle Corporation (60%)	259.2	1.17	3032	23/10/2018
Mt Holland	Pre-feasibility	Sociedad Química Y Minera De Chile S.A. (50%), Wesfarmers Limited (50%)	189.0	1.50	2843	19/03/2018
Pilgangoora	Operating	Pilbara Minerals Limited (100%)	222.5	1.27	2814	30/06/2020
Kathleen Valley	Pre-feasibility	Liontown Resources Limited (100%)	156.0	1.35	2100	31/03/2021
Mt Marion	Operating	Gangfeng Lithium Company Limited (50%), Mineral Resources Limited (50%)	72.9	1.37	995	01/07/2019
Altura Project	Care and maintenance	Pilbara Minerals Limited (100%)	45.7	1.06	482	30/06/2019
Bald Hill	Care and maintenance	Alita Resources Limited (100%)	26.5	0.97	256	30/04/2018
Mt Cattlin	Operating	Galaxy Resources Limited (100%)	12.0	1.26	151	31/12/2019
Buldania	Exploration	Liontown Resources Limited (100%)	15.0	0.97	145	08/11/2019
Pioneer Dome	Exploration	Essential Metals Limited (100%)	11.2	1.22	136	29/09/2020
Marbel Bar Lithium Project	Exploration	Global Lithium Resources Pty Ltd (100%)	10.5	1.00	105	12/10/2020
TOTAL			1168.4		16 543	

Mines, deposits and occurrences

- Poona** ● Lithium (with minor tantalum)
- Mt Deans** ● Tantalum (with minor lithium)
- Highway / major road
- Town

