

LITHIUM

INVESTMENT OPPORTUNITIES

**WORLD-CLASS RESOURCE PROVINCE | SECURE INVESTMENT LOCATION
WORLD-LEADING GEOSCIENTIFIC DATA | GLOBAL MINING SERVICES INDUSTRY**

Mines, deposits and prospects

- Li (with minor tantalum)
- Ta (with minor lithium)
- Highway / major road
- Town



Western Australia has a strategic advantage in the global demand for lithium

- The State has been the largest global lithium producer since 2016, and in 2019 generated >50% of global production from seven mining operations
- Western Australia continues to position itself as a battery minerals hub due to its proximity to key markets, shorter construction and ramp-up times and relatively low capital costs
- Production in 2019 decreased to 1.6 Mt of spodumene concentrate sold from the Greenbushes, Mt Cattlin, Mt Marion, Bald Hill, Wodgina and two Pilgangoora openpit operations. Bald Hill and Wodgina are now on care and maintenance.
- Tianqi Lithium's Kwinana lithium processing plant (Stage 1) was commissioned in 2019. Construction has begun at Abermarle's Kemerton lithium hydroxide processing plant. Both plants will source spodumene concentrate from the Greenbushes operation
- Covalent Lithium (Westfarmers/SQM JV) has proposed a third lithium refinery for Kwinana, to process ore from Mt Holland
- Capital expenditure in lithium mining projects that were committed or under construction in 2019 was \$2558 million

\$917 m
Sales value



1 351 934 t
Tonnes sold



2563
Full-time employees



\$3497 m*
Investment projects



1st
Production world ranking



5.0%
Royalty rate



(2019–20 financial year)

* Includes projects planned, possible, committed or under construction as of September 2020



Lithium resources ranked by contained Li₂O (kt)

Resources estimated according to JORC 2012

Project	Status	Owner	Resources (Mt)	Av. grade Li ₂ O (%)	Contained Li ₂ O (kt)	Resource date
Greenbushes*	Operating	Talison Lithium Australia	157.1	2.25	3532	30/09/2015
Wodgina	Care and maintenance	Albemarle Corporation / Mineral Resources	259.2	1.17	3032	23/10/2018
Mt Holland	Pre-feasibility	Wesfarmers / SQM	189.0	1.50	2843	19/03/2018
Pilgangoora	Operating	Pilbara Minerals	223.2	1.27	2823	30/06/2019
Kathleen Valley	Scoping	Liontown Resources	157.0	1.37	2146	11/05/2020
Mt Marion	Operating	Jiangxi Gangfeng Lithium Company / Mineral Resources	72.9	1.37	995	01/07/2019
Altura	Operating	Altura Mining	45.7	1.06	482	30/06/2019
Bald Hill^	Care and maintenance		26.5	0.97	256	30/04/2018
Mt Cattlin	Operating	Galaxy Resources	14.6	1.29	188	31/12/2019
Buldania	Exploration	Liontown Resources	15.0	0.97	145	08/11/2019
Pioneer Dome	Exploration	Essential Metals	8.2	1.23	101	25/11/2019
TOTAL			1168.4		16 543	

* September 2015 resource, but mined continuously since then

^ Resource pre-dates production

Resource estimates have been rounded

All resources are associated with pegmatites

Lithium prospectivity of Western Australia

- Western Australia's lithium resources are ranked fourth globally with Liontown Resources recently doubling the resource at the Kathleen Valley project to 157 Mt @ 1.4% Li₂O and 130ppm Ta₂O₅
- Lithium is used as a component of rechargeable lithium-ion batteries – driven by the growth of electric vehicles and energy storage system markets
- Lithium minerals in Western Australia occur in pegmatites and include spodumene, lepidolite, zinnwaldite, petalite and holmquistite

For more information



Geological Survey of
Western Australia

www.dmirs.wa.gov.au/gswa

MINEDEX

www.dmirs.wa.gov.au/minedex

GeoVIEW.WA

www.dmirs.wa.gov.au/geoview

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