

Western Australia's principal resources projects, 2020-21

In 2020-21, Western Australia had 125 principal mining projects.

Each of the principal mining projects is export-oriented and high value. They each had mineral sales valued at more than \$5 million (or more than 2,500oz of gold), or, in the case of projects on private land, for which sales are not reported, had employees of greater than 50. Projects are grouped according to main commodity sold.

The State's mining industry also comprised hundreds of quarries and small mines that largely produced the basic raw materials required for the local construction industry. This includes clays, construction materials (aggregate, gravel, rock and sand), dimension stone, gypsum, limestone, limesand and spongolite. There were 10 principal producers of these products.

There were also 13 major mineral processing operations to transform bauxite into alumina; gold doré into gold bars; nickel ore into nickel concentrate (where accepting third party fee) and nickel concentrate into nickel matte, nickel powder and nickel briquettes; rutile and synthetic rutile into titanium dioxide pigment; zircon into fused zirconia; and silica sand into silicon metal.

Western Australia's petroleum industry consisted of 22 projects that produced oil, gas and condensates from 55 fields in onshore and offshore areas of the State. These projects had 13 processing plants, predominantly for LNG exports and domestic gas sales.

The tables below provide details of the State's principal mining projects, principal producers of basic raw materials, principal mineral processing operations, and petroleum projects.

PRINCIPAL MINING PROJECTS		
Company	Project(s)	Comments
Base metals		
29Metals Ltd	Golden Grove	29Metals Ltd was divested from EMR Capital Pty Ltd, the former owner of Golden Grove, in June 2021.
Round Oak Minerals Pty Ltd	Jaguar	
Sandfire Resources NL	DeGrussa	
Bauxite		
Alcoa Corporation	Huntly Willowdale	Huntly and Willowdale are owned by a joint venture of Alcoa Corporation (60%) and Alumina Limited (40%)
South32 Limited	Boddington	Boddington is a joint venture of South32 Limited (86%) Sojitz Corporation (9%), and Press Metal Bintulu (5%).
Coal		
Griffin Coal Mining Company Pty Ltd	Griffin	
Yancoal Australia Limited	Premier	
Diamonds		
Rio Tinto Ltd	Argyle	Production at Argyle ended in November 2020 with final sales in the March quarter 2021.
Gold		
Adaman Resources Pty Ltd	Kirkalocka	Adaman Resource Pty Ltd is a subsidiary of Remagen Lend ADA Pty Ltd.
AngloGold Ashanti Limited	Sunrise Dam	Tropicana is owned by a joint venture of AngloGold Ashanti

	Tropicana	Limited (70%) and Regis Resources Limited (Regis, 30%). Regis acquired its 30 per cent interest in Tropicana in May 2021 from IGO Ltd.
Beacon Minerals Limited	Jaurdi	
Billabong Gold Pty Ltd	Plutonic	Billabong Gold Pty Ltd is a subsidiary of Superior Gold Inc.
Dacian Gold Limited	Mt Morgans	Dacian Gold Limited merged with NTM Gold Ltd in March 2021 with the merged company trading as Dacian Gold Limited.
Evolution Mining Limited	Kundana Mungari	Evolution Mining Limited acquired Kundana from Northern Star Resources Ltd in August 2021.
FMR Investments Pty Ltd	Gordon-Sirdar	
Gascoyne Resources Limited	Dalgaranga	
Gold Fields Limited	Agnew Granny Smith St Ives Gruyere	Gruyere is a joint venture of Gold Fields Limited (50%) and Gold Road Resources (50%).
Habrok Pty Ltd	Battler Bullabulling North	Bullabulling North is a joint venture of Habrok Pty Ltd (70%) and Bulletin Resources Limited (30%).
Horizon Minerals Ltd	Boorara	New project. Trial mining conducted between April and August 2020 with sales between July 2020 and April 2021.
Karora Resources Inc	Beta Hunt Higginsville	
Linden Gold Alliance Pty Ltd	Linden	Re-opened project. Linden Gold Alliance Pty Ltd acquired the project in September 2020, with gold production re-commencing in April 2021.
Lord Byron Mining Pty Ltd	Jasper Hills	Sales occurred between July and September 2020.
Lukah Mining Pty Ltd	The Mount	
Matsa Resources Limited	Lake Carey	Production at the Red October mine within the Lake Carey project was completed in the June quarter 2021, with further exploration underway.
Minjar Gold Pty Ltd	Southern Cross	Minjar Gold Pty Ltd is a subsidiary of Shandong Tianye Real Estate Development Group Co., Ltd.
Newcrest Mining Limited	Telfer	
Newmont GoldCorp Corporation	Boddington	
Northern Star Resources Ltd	Jundee Carosue Dam Kanowna Belle	Northern Star Resources Ltd merged with Saracen Mineral Holdings Ltd in February 2021, with the merged company trading as Northern Star Resources Ltd.

	South Kalgoorlie Super Pit / Mt Charlotte Thunderbox	
Norton Gold Fields Ltd	Paddington	Norton Gold Fields Pty Ltd is a subsidiary of Zijin Mining Group Company Limited.
Novo Resources Corp.	Beatons Creek	Novo Resources Corp. acquired the Nullagine gold project through its acquisition of Millennium Minerals Limited in September 2020. Nullagine is now part of the Beatons Creek project. Sales from Beatons Creek commenced in February 2021.
Ora Banda Mining Ltd	Davyhurst	Re-opened project. Sales recommenced in February 2021.
Orminex Limited	Comet Vale	Mining activities were suspended at Comet Vale in September 2020, with final sales in July 2021.
Pantoro Limited	Halls Creek	The Halls Creek project includes the Nicolsons mine.
Ramelius Resources Ltd	Edna May Marda Mt Magnet Vivien	
Red 5 Limited	Darlot King of the Hills	Sales from King of the Hills occurred between July 2020 and April 2021 and were suspended as an expansion project is undertaken.
Regis Resources Ltd	Duketon	
Rose Dam Resources NL	Rose Dam	
Shine Resources Pty Ltd	Scotia	New project. Achieved first sales in January 2021.
Silver Lake Resources Ltd	Deflector Mt Monger	
St Barbara Mines Ltd	Gwalia	
Westgold Resources Limited	Meekatharra Cue Fortnum	
Wiluna Mining Corporation Limited	Matilda / Wiluna	
Iron ore		
Atlas Iron Limited	Mt Webber Sanjiv Ridge	Atlas Iron Limited is a subsidiary of Hancock Prospecting Pty Ltd.

		Sanjiv Ridge is a new project with first sales in the March quarter 2021.
BCI Minerals Limited	Iron Valley	Operated by a subsidiary of Mineral Resources Limited.
BHP	Jimblebar / Wheelara Mining Area C Newman Yandi	Newman comprised the Mt Whaleback, Orebody 24 / 25 (Eastern Ridge), Orebody 29 / 30 / 35, and Orebody 18 mines. The South Flank mine, part of the Mining Area C project, achieved first production in May 2021.
CITIC Pacific Mining Management Pty Ltd	Sino Iron	
Fenix Resources Ltd	Iron Ridge	New project. First sales achieved in the March quarter 2021.
Fortescue Metals Group Ltd	Chichester Solomon Western	Chichester comprised the Christmas Creek and Cloudbreak mines, while Solomon comprised the Firetail and Kings Valley mines. Western is a new project that includes the Eliwana mine. First sales occurred in the March quarter 2021.
GWR Group Ltd	Wiluna West	New project. First sales from the C4 deposit were achieved in the March quarter 2021. Operations were subsequently suspended in September 2021.
Hancock Prospecting Pty Ltd	Roy Hill	
Karara Mining Limited	Karara	Karara Mining Limited is wholly owned by Anshan Iron and Steel Group.
Kimberley Metals Group Pty Ltd	Ridges	Operated by a Joint Venture of Ridges Iron Ore Pty Ltd and Habrok (Ridges) Pty Ltd. Ridges was placed into care and maintenance in September 2021.
Mineral Resources Limited	Carina Koolyanobbing Wonmunna	Wonmunna is a new project. First sales achieved in the March quarter 2021.
Mount Gibson Iron Limited	Koolan Island Mid West	Mid West includes the Extension Hill and Shine mines. Sales concluded from Extension Hill in the December quarter 2020. Production from the Shine mine commenced in the June quarter 2021 with first sales in August 2021. It was subsequently announced in October 2021 that operations at Shine would be suspended.

Rio Tinto Ltd	<p>Brockman 2 – Nammuldi – Silvergrass</p> <p>Brockman 4</p> <p>Greater Paraburdoo</p> <p>Hope Downs</p> <p>Marandoo</p> <p>Mt Tom Price</p> <p>Robe Valley (Mesa A & Mesa J)</p> <p>West Angelas</p> <p>Yandicoogina</p>	<p>Greater Paraburdoo comprised the Paraburdoo, Channar and Eastern Ranges mines, Hope Downs comprised the Hopes Downs 1 and 4 mines, and Mt Tom Price included the Western Turner Syncline mine.</p>
Sinosteel Midwest Corporation Limited	Blue Hills	Re-started project. Sales recommenced in the March quarter 2021.
Young Australian Mines Ltd	Spinifex Ridge	Re-started project.
Lithium		
Alita Resources Limited	Bald Hill	<p>Alita Resources Limited went into receivership in August 2019 and as a result suspended operations at Bald Hill.</p> <p>Bald Hill has been on care and maintenance since August 2020.</p> <p>Sales of stockpiles occurred in the September and December quarters 2020.</p>
Mineral Resources Limited	Mount Marion	Mount Marion is a joint venture of Mineral Resources Limited (50%) and Ganfeng Lithium Company (50%).
Orocobre Limited	Mt Cattlin	Orocobre Limited merged with Galaxy Resources Limited in August 2021, with the merged company trading as Orocobre Limited.
Pilbara Minerals Limited	Pilgangoora	<p>Pilbara Minerals Limited acquired Altura Mining Limited's (Altura) Pilgangoora lithium project in January 2021 after Altura went into receivership in October 2020.</p> <p>The former Altura operations are now part of the Pilgangoora project, which includes the Pilgan (original Pilbara Minerals) and Ngungaju (former Altura) plants.</p>
Talison Lithium Australia Pty Ltd	Greenbushes Lithium	Talison Lithium Australia Pty Ltd is a joint venture of Tianqi Lithium Pty Ltd

		and IGO Ltd (51%) and Albemarle Corporation (49%).
Manganese		
Consolidated Minerals Pty Ltd	Woodie Woodie	
Mineral sands		
Doral Pty Ltd	Yoongarillup mine and Picton dry separation plant Keysbrook	
GMA Garnet Pty Ltd	Port Gregory	
Iluka Resources Limited	South West Mid West	Active operations at South West comprised the Capel dry plant, the North Capel mineral separation plant, and one of two synthetic rutile kilns at North Capel. Active operations at Mid West comprised the Cataby mine, Narngulu mineral separation plant and the Eneabba screening plant.
Image Resources	Boonanarring	
Tronox Limited	Cooljarloo mine and Chandala mineral separation plant Wonnerup mine and North Shore mineral separation plant	
Nickel		
BHP	Leinster Mt Keith	The Leinster and Mt Keith operations comprised mining and concentrator operations.
First Quantum Minerals Ltd	Ravensthorpe	
IGO Limited	Nova	
Minara Resources Ltd	Murrin Murrin	Minara Resources Ltd is a subsidiary of Glencore Plc.
Western Areas Ltd	Forrestania	
Rare earths		
Lynas Corporation Ltd	Mt Weld	
Salt		
Dampier Salt Ltd	Dampier Lake MacLeod Port Hedland	Dampier Salt Ltd is a joint venture of Rio Tinto (68%), Marubeni Corporation (22%) and Sojitz Corporation (10%).
Onslow Salt Pty Ltd	Onslow	
Shark Bay Salt Pty Ltd	Shark Bay	
WA Salt Koolyanobbing Pty Ltd	Lake Deborah	
Silica sand		
Hanson Australia Pty Ltd	Gnangara	
Simcoa Operations Pty Ltd	Moora	
Talc		
Imerys Talc Australia Pty Ltd	Three Springs	

Tantalum		
Global Advanced Metals Pty Ltd	Greenbushes Tantalum	

Basic Raw Materials	
Company	Location(s)
Adelaide Brighton Ltd	Dongara, Lake Hillman, Lancelin, Nowergup, Parkeston, Woodman Point
BGC Pty Ltd	Chidlow, Perth Metro, Port Hedland
Boral Limited	Ashburton, Kalgoorlie, Kununurra, Mt Regal, Orange Grove, Perth North, Pilbara (Tabba Tabba), Port Hedland
Hanson Australia Pty Ltd	Ashburton, Bunbury, Byford, Learmonth, Mt Barker, Mt Regal, North of Perth, Port Hedland, Red Hill, South of Perth
Holcim (Australia) Pty Ltd	Albany, Bunbury, Esperance, Geraldton, Gosnells, Jandabup, Kalgoorlie-Boulder, Karratha, Newman, Port Hedland
MLG Oz Pty Ltd	Coolgardie (Canegrass, Eight Mile, Jonah Bore), Tarmoola
Mobile Concreting Solutions Pty Ltd	Indee, Onslow, Tom Price
Spinifex Crushing & Screening Services Pty Ltd	Mt Regal, Port Hedland
Urban Resources Pty Ltd	Baldivis-Nambeelup, Jarrahdale-West Coolup, Perth North, Perth South
WA Limestone Pty Ltd	Byford, North Metro, Onslow, Port Hedland, Perth Metro, South Metro

PRINCIPAL MINERAL PROCESSING OPERATIONS	
Company	Project
Alumina	
Alcoa Corporation	Kwinana alumina refinery Pinjarra alumina refinery Wagerup alumina refinery
South32 Limited	Worsley alumina refinery
Gold	
Gold Corporation	Perth Mint
Nickel	
BHP	Kalgoorlie nickel smelter Kambalda nickel concentrator Kwinana nickel refinery
Minara Resources Ltd	Murrin Murrin nickel refinery
Mineral sands	
Tronox Limited	Bunbury pigment plant Kwinana pigment plant
Doral Pty Ltd	Rockingham fused zirconia plant
Silica sand	
Simcoa Operations Pty Ltd	Kemerton silicon smelter

PRINCIPAL PETROLEUM PROJECTS						
Operator	Project(s)	Processing plant(s)	Operating field(s)	Type	Area	Comments
Beach Energy	Beharra Springs	Beharra Springs Gas Facility	Redback, Redback South	Gas	Onshore	
BHP	Macedon	Macedon Domestic Gas Plant	Macedon	Gas and condensate	Offshore	
	Pyrenees		Crosby, Moondyne, Ravensworth, Stickle, Tanglehead, Wild Bull	Oil	Offshore	
Buru Energy	Ungani	Ungani Production Facility	Ungani	Oil	Onshore	
Chevron Corporation	Barrow Island	Gorgon LNG	Barrow Island	Oil	Onshore	Woodside Petroleum operates the Brunello field within the Wheatstone LNG project.
	Gorgon		Jansz-lo, Gorgon	Gas and condensate	Offshore	
	Wheatstone		Iago, Wheatstone, Brunello	Gas and condensate	Offshore	
ENI	Blacktip		Blacktip	Gas and condensate	Offshore	
Exxon Mobil	Athena		Athena	Gas and condensate	Offshore	Athena ceased production in October 2020.
INPEX Corporation	Ichthys		Ichthys	Condensate	Offshore	
Jadestone Energy	Stag		Stag	Oil	Offshore	
Mitsui & Co	Waitsia	Xyris Production Facility	Waitsia	Gas	Onshore	
RMCA Group	Jingemia	Jingemia Production Facility		Oil	Onshore	
Santos	Reindeer	Devil Creek Processing Plant	Reindeer	Gas	Offshore	
	Van Gogh		Coniston, Novara, Van Gogh	Oil	Offshore	
	Varanus Island		Bambra, Halyard, John Brookes, Lee, Spar	Oil, gas and condensate	Offshore	
Shell	Prelude	Prelude FLNG	Prelude	Gas	Offshore	

Triangle Energy (Global) Limited	Cliff Head	Arrowsmith Stabilisation Plant	Cliff Head	Oil	Offshore	
Vermillion	Wandoo		Wandoo	Oil	Offshore	
Woodside Petroleum	Enfield		Vincent, Cimatti and Laverda	Oil and gas	Offshore	
	North West Shelf	Karratha Gas Plant	Angel, Cossack, Dockrell, Goodwyn, Hermes, Keast, Lady Nora, Lambert, North Rankin, Pemberton, Persephone, Perseus, Rankin, Sculptor, Searipple, Tidepole, Wanaea	Oil, gas, and condensate	Offshore	
	Pluto	Pluto LNG	Pluto, Xena	Gas	Offshore	