

Cu

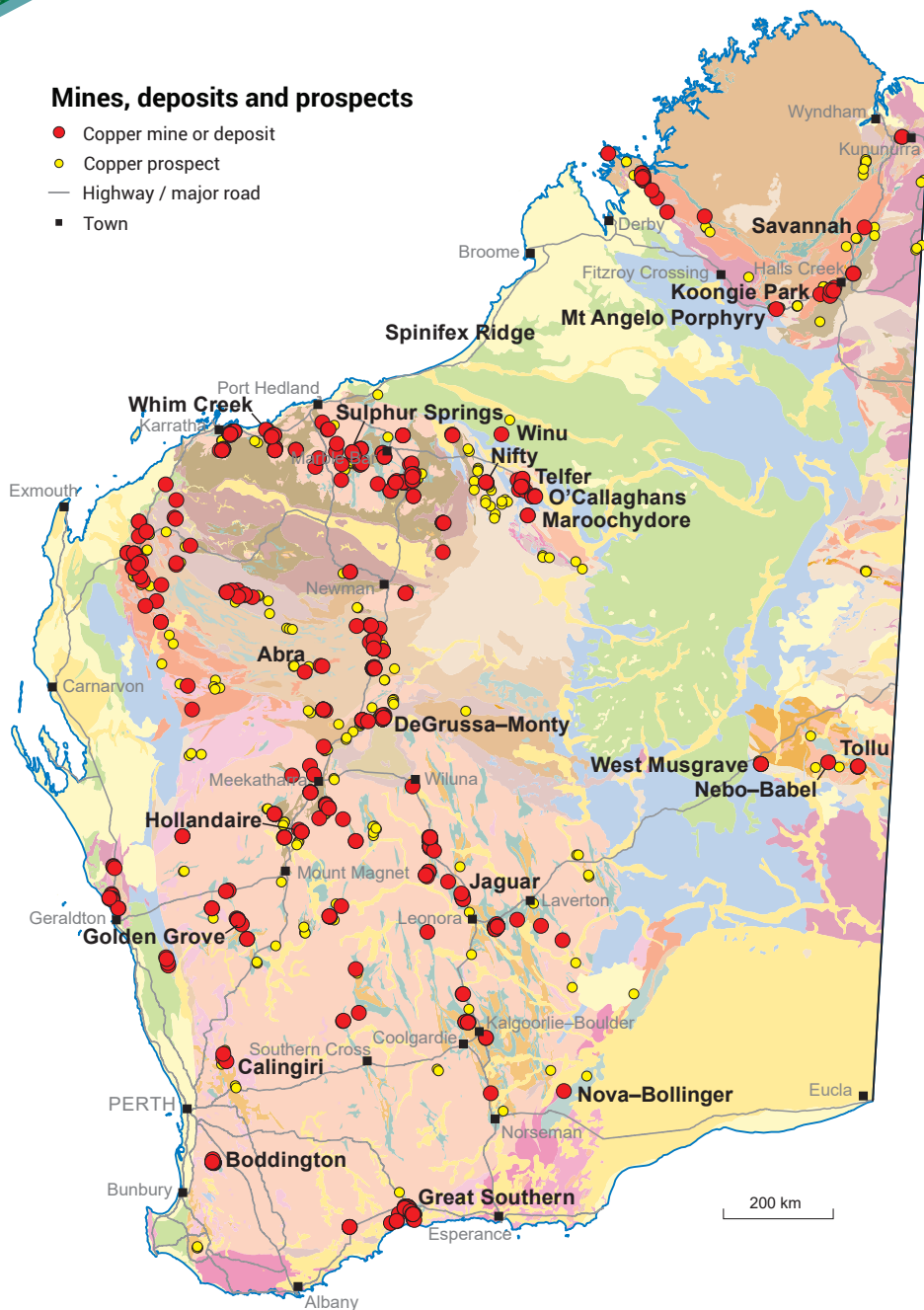
COPPER

INVESTMENT OPPORTUNITIES

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

Mines, deposits and prospects

- Copper mine or deposit
- Copper prospect
- Highway / major road
- Town



Western Australia hosts world-class copper deposits

- Current Western Australian resources of over 9 Mt of contained copper
- Discoveries are still being made, e.g. Monty (Capricorn Orogen), Mawson, Andromeda (Albany–Fraser Orogen), Altair, Perrinvale, Mt Alexander, Mt Venn (Yilgarn Craton), Winu (Paterson Orogen)

Production trends

- In 2018, copper production in Western Australia was 168 000 t
- Principal operating mines are Boddington, DeGrussa–Monty, Golden Grove, Nova–Bollinger and Telfer
- Recently commissioned copper mines include DeGrussa (2012), Nova–Bollinger (2016) and Monty (2018)

Most of Western Australia's Archean and Proterozoic terranes are prospective for copper, in:

- Orthomagmatic nickel–copper sulfide deposits, e.g. Nova–Bollinger (Albany–Fraser Orogen), Nebo–Babel (West Musgrave Orogen), Savannah (Halls Creek Orogen), Mt Scholl (Pilbara Craton) in the Archean (Yilgarn Craton)
- Volcanic-hosted massive sulfide deposits, e.g. Golden Grove, Jaguar (Yilgarn Craton), Sulphur Springs (Pilbara Craton), DeGrussa (Capricorn Orogen), Koongie Park (Halls Creek Orogen)
- Sediment-hosted massive sulfide deposits, e.g. Abra (Capricorn Orogen), Nifty, Maroochydore (Paterson Orogen)
- Porphyry-related deposits, e.g. Boddington, Calingiri (Yilgarn Craton), Spinifex Ridge (Pilbara Craton)
- Vein and hydrothermal deposits, e.g. Telfer (Paterson Orogen)
- Skarn deposits, e.g. O'Callaghans (Paterson Orogen)

\$1349 m
Sales value



168 600 t
Tonnes sold



\$1379 m
Exports



2172
Full-time employees



\$508 m*
Investment projects



(2018 Calendar year)

* Includes projects planned, possible, committed or under construction as of September 2019



Government of Western Australia
Department of Mines, Industry Regulation and Safety

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Geological Survey of
Western Australia



Copper projects – ranked by contained copper > 25 kt

Project	Commodity	Status	Project owner	Resources (Mt)	Av. grade (%Cu)	Contained Cu (kt)
West Musgrave	Cu–Ni	Pre-feasibility study	Oz Minerals / Cassini Resources	340.00	0.36	1200
Calingiri	Co–Mo–Ag–Au	Pre-feasibility study	Caravel Minerals	372.10	0.35	1302
Boddington	Au–Cu	Operating	Newmont Corporation	927.80	0.10	969
Spinifex Ridge	Mo–Cu–Ag	Exploration	Young Australian Mines	1 051.29	0.08	798
Nifty	Cu	Care and maintenance	Metals X	43.92	1.38	608
Maroochydore	Cu–Co	Active exploration	Metals X	48.53	1.00	484
Golden Grove	Zn–Cu–Pb–Ag–Au	Operating	EMR Capital Golden Grove	19.33	2.39	461
DeGrussa–Monty	Cu–Au	Operating	Sandfire Resources	7.55	4.52	341
Telfer	Au–Cu	Operating	Newcrest Mining	199.00	0.16	324
Sulphur Springs	Zn–Cu–Pb–Ag	Active exploration	Venturex Resources	17.35	1.32	229
O'Callaghans	Cu–Zn–Pb	Feasibility study	Newcrest Mining	78.00	0.28	222
Great Southern	Au–Cu–Ag	Active exploration	Ach Minerals Pty	20.09	0.84	168
Nanadie Well	Cu–Au	Active exploration	Horizon Minerals	36.07	0.42	151
Horseshoe Lights	Cu–Au–Ag	Active exploration	Horseshoe Metals	14.51	0.95	138
Citadel	Au–Cu–Ag–W	Active exploration	Rio Tinto Ltd / Antipa Minerals	63.80	0.20	130
Thaduna	Cu–Ag	Active exploration	Sandfire Resources	5.50	2.20	119
Savannah	Ni–Cu–Co	Operating	Panoramic Resources	12.98	0.77	100
Nova–Bollinger	Ni–Cu–Co	Active exploration	Independence Group	13.20	0.80	107
Koongie Park	Zn–Cu–Pb–Ag–Au	Active exploration	Anglo Australian Resources	7.99	1.17	94
Pardoo–Highway	Ni–Cu–Co	Active exploration	Caeneus Minerals	50.00	0.13	63
Whim Creek – Mons Cupri	Zn–Cu–Pb–Ag–Au	Operating	Venturex Resources	8.60	1.10	
Mt Sholl	Ni–Cu	Exploration	Welcome Exploration	8.95	0.63	56
Jaguar	Zn–Cu–Ag–Au	Operating	Round Oak Minerals	6.50	0.86	56
Carlow Castle	Au–Cu	Active exploration	Artemis Resources	8.00	0.60	48
Hollandaire–Eelya	Cu–Au–Ag	Active exploration	Musgrave Minerals	1.09	2.00	38
Tollu	Cu–Ni	Active exploration	Redstone Resources	3.80	1.00	38
Munni Munni	PGE–Au–Cu–Ni	Active exploration	Artemis Resources / Platina Resources	23.60	0.15	35
Whundo	Cu–Zn	Active exploration	Artemis Resources	2.67	1.14	30
Silver Knight	Ni–Cu–Co	Feasibility study	Great Southern Nickel	4.20	0.60	26

 Stratabound volcanic-hosted massive sulfides	 Porphyry related	 Vein and hydrothermal
 Orthomagmatic mafic and ultramafic	 Stratabound sediment-hosted	 Skarn

For more information

	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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