MINERAL DEPOSITS AND PETROLEUM FIELDS
Western Australia — 2015

Age (Ma)

PHANEROZOIC
- Alluvial, shoreline, and eolian deposits
- Marine limestone, sandstone, and continental valley-fill deposits
- Marine and continental sedimentary rocks
- Marine and continental sedimentary rocks
- Marine and continental sedimentary and volcanic rocks

PROTEROZOIC
- Sandstone
- Sandstone and shale
- Sandstone
- Basalt
- Basalt
- Iron formation and shale
- Metavolcanic rocks
- Basic and ultrabasic intrusive rocks
- Metasedimentary rocks
- Granite and gneiss
- Gneiss
- Metamorphosed volcanic and basic intrusive rocks
- Metasedimentary rocks
- Granite and gneiss

ARCHEAN
- Basalt, dolerite, and sandstone
- Metamorphosed basic and volcanic and intrusive rocks
- Metamorphosed sedimentary and acid volcanic rocks
- Granite and gneiss

Major road
Formed road
Track
Railway, operating
Railway, proposed
Gas pipeline
Gas pipeline, proposed
Oil pipeline
City — PERTH
Townsite — population 10 000 – 15 000 — KARRATHA; 1000 – 10 000 — CARNARVON; less than 1000 — Wiluna, Carnegie, Warmun, Pardoo Roadhouse
Homestead
Aboriginal community
Locality
Watercourse, predominantly ephemeral
Paleodrainage, inactive or rarely active
Bathymetric contour, metres — 200 m
Reef
Outer limit of W.A. coastal waters
Mine or field, operating or under development — Sunrise Dam
Deposit or closed/historic mine or field — Brockman 1
Fault *
Normal fault; ticks on downthrown side *
Thrust; teeth on upthrust side *
Thrust reactivated as normal fault *
Horizontal relative displacement
* Broken lines indicate extrapolation beneath younger rocks

ALUMINA — All sites are Bauxite

BASE METAL
- Sb ..... Antimony
- Cu ..... Copper
- Pb ..... Lead
- Zn ..... Zinc

CONSTRUCTION MATERIAL — Dimension stone
- BlackGran .... Black Granite
- Dior ..... Diorite
- Dlt ..... Dolerite
- Gab ..... Gabbro
- Gran ..... Granite
- Marb ..... Marble
- OrbicGran .... Orbicular granite
- Qtze ..... Quartzite
- Sdst ..... Sandstone
- Slate ..... Slate
- All other construction materials

ENERGY
- Coal ..... Coal — undifferentiated
- Lignite ..... Lignite
- U ..... Uranium

INDUSTRIAL MINERAL
- Aglime ..... Agricultural lime
- Alu ..... Alunite
- And ..... Andalusite
- Ath ..... Anthophyllite
- Ap ..... Apatite
- As ..... Arsenic
- Asbs ..... Asbestos — chrysotile (serpentine)
- Asbr ..... Asbestos — crocidolite (riebeckite)
- Atta ..... Attapulgite
- Brt ..... Barite
- Ba ..... Barium
- Bent ..... Bentonite
- Brl ..... Beryl — undifferentiated
- Cal ..... Calcite
- Cali ..... Calcrete — caliche
- Cydo ..... Clay — dolomitic
- Cyfi ..... Clay — fireclay
- Cor ..... Corundum — undifferentiated
- Core ..... Corundum — emery
- Diat ..... Diatomite
- Dol ..... Dolomite
- Fel ..... Feldspar
- Fl ..... Fluorite
- Grt ..... Garnet
- Glt ..... Glauconite
- Gr ..... Graphite
- Gp ..... Gypsum
- Hem–MtO ..... Hematite — micaceous iron oxide
- Kln ..... Kaolin
- Ky ..... Kyanite
- Lsd ..... Limesand
- Lst ..... Limestone
- Lst–Lsd ..... Limestone — Limesand (undifferentiated)
- $MgCO_3$ ..... Magnesite
- MgSNi ..... Magnesite — nickel rich
- $MgCl_2$ ..... Magnesium chloride
- Mica ..... Mica
- Mnt ..... Montmorillonite
- Ochre ..... Ochre
- Peat ..... Peat
- Phos ..... Phosphate
- K_2O ..... Potash
- K ..... Potassium
- Qtza ..... Quartz — amethyst
- Qtz ..... Quartz — undifferentiated
- Salt ..... Salt
- Spn ..... Saponite
- SiO_2 ..... Silica
- Sisd ..... Silica Sand
- Spon ..... Spongolite
- St ..... Staurolite
- Tlc ..... Talc
- Vrm ..... Vermiculite

IRON — Fe unless otherwise indicated
- Fe ..... Iron
- Mag ..... Magnetite

PETROLEUM
- ..... Gas
- ..... Oil
- ..... Oil and gas

PRECIOUS METAL — Au unless otherwise indicated
- Au ..... Gold
- Pd ..... Palladium
- Pt ..... Platinum
- PGE ..... Platinum group elements
- Ag ..... Silver

PRECIOUS MINERAL
- Aga ..... Agate
- Brla ..... Beryl — aquamarine
- Brle ..... Beryl — emerald
- Clc ..... Chalcedony — undifferentiated
- Chert ..... Chert
- Cbe ..... Chrysoberyl
- Chrp ..... Chrysoprase
- Dmd ..... Diamond — undifferentiated
- Jasp ..... Jasper
- Mal ..... Malachite
- Mookaite ..... Mookaite (silicified radiolarite)
- Agam ..... Moss agate
- Mossopal ..... Moss opal
- Opalc ..... Opal — common
- Opalg ..... Opal — gem
- Prh ..... Prehnite
- Qtzr ..... Quartz — rose
- Qtzs ..... Quartz — smokey
- Srp ..... Serpentine
- TiEye ..... Tiger eye
- Toz ..... Topaz
- Tur ..... Tourmaline
- Vrs ..... Variscite
- Zeb ..... Zebra rock

SPECIALITY METAL — HM unless otherwise indicated
- Bi ..... Bismuth
- HM ..... Heavy minerals
- Lpd ..... Lepidolite
- Li ..... Lithium
- $MgCO_3$ ..... Magnesite
- Mg ..... Magnesium
- Nb ..... Niobium
- REE ..... Rare earth elements
- Spd ..... Spodumene
- Ta ..... Tantalum
- Th ..... Thorium
- Sn ..... Tin
- Zr ..... Zirconium

STEEL ALLOY METAL
- Cr ..... Chromium
- Co ..... Cobalt
- Mn ..... Manganese
- Mo ..... Molybdenum
- Ni ..... Nickel
- Ti ..... Titanium
- W ..... Tungsten
- V ..... Vanadium

INFRASTRUCTURE
- Refinery or smelter — Only selected plants shown
- Port, operating
- Port, proposed

SUMBA
WEST TIMOR
EAST TIMOR
JOINT PETROLEUM DEVELOPMENT AREA
TERRITORY OF ASHMORE AND CARTIER ISLANDS
INDONESIA
AUSTRALIA
COMMONWEALTH 'ADJACENT AREAS' BOUNDARY
TIMOR SEA
INDIAN OCEAN
WEST SHELF
NORTH WEST SHELF
GREAT SANDY DESERT
GIBSON DESERT
GREAT VICTORIA DESERT
NULLABOR PLAIN
GREAT AUSTRALIAN BIGHT
SOUTHERN OCEAN
NORTHERN TERRITORY
SOUTH AUSTRALIA
Tropic of Capricorn 23°26'30"

SEE INSET

INSET
SCALE 1:1 200 000
25 km

Government of **Western Australia**
Department of **Mines and Petroleum**
HON. BILL MARMION MLA
MINISTER FOR MINES AND PETROLEUM

Geological Survey of Western Australia
RICK ROGERSON
EXECUTIVE DIRECTOR

SCALE 1:3 000 000
0 100 200 300 400
KILOMETRES
ALBERS EQUAL AREA PROJECTION WITH CENTRAL MERIDIAN 121° AND STANDARD PARALLELS 17°30' AND 31°30'
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994 (GDA94)

Compiled by RW Cooper, PB Abeysinghe, CA Strong, and F Irimies 2015

Cartography by AK Francois

Edited by SR White

Geology generalized from Myers, JS and Hocking, RM 1998, Geological map of Western Australia, 1:2 500 000 (13th edition): Geological Survey of Western Australia

Information on mineral deposits held in MINEDEX database, Department of Mines and Petroleum, at February 2015. Only selected mines and deposits are labelled.

Up-to-date information on mines and mineral deposits in Western Australia, including their operating status, can be found online in the MINEDEX database at <www.dmp.wa.gov.au/minedex>.

Information on petroleum fields and significant petroleum discoveries in Western Australia (onshore and in State-controlled waters) is held in WAPIMS database, DMP. December 2014. Field data for offshore Commonwealth-controlled waters is up-to-date as of mid-2012; enquiries for the latest information on fields in offshore waters should be addressed to the National Offshore Petroleum Titles Administrator (NOPTA) at info@nopta.gov.au.

Topography from Landgate, 2011

This map is published in digital format (PDF) and is available online at <www.dmp.wa.gov.au/GSWApublications>
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