MINERALS ▶ MINING ▶ MINES AND QUARRIES ▶ OLYMPIC DAM

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Olympic Dam

Resource Copper (Cu), Uranium (U), Silver (Ag), Gold (Au)

Company BHP

(http://www.bhp.com)

Status Operating

Mining operation

• Underground mine with more than 450 km of underground roads and tunnels

Automated train system hauls ore to surface crushing, storage and ore hoisting facilities

- Processing plan to extract high-quality copper concentrate from sulfide ore through a flotation process
- Fully integrated metallurgical complex with grinding and concentrating circuit, hydrometallurgical plant with solvent extraction circuits for copper and uranium, copper smelter and refinery, recovery circuit for precious metals

More information is available from the $\underline{BHP\ website}$ (https://www.bhp.com/our-businesses/minerals-australia/olympic-dam)

Location 560 km north of Adelaide in the State's Far North



Tenement Special Mining Lease SML1 **information**

Tenement information can be accessed via the <u>South Australian Resources Information Gateway (SARIG)</u> (https://map.sarig.sa.gov.au/Shortcut/Olympic%20Dam%20(Cu-U-Au-Ag))

Under Actions, select the Identify tool, and then click on the highlighted Olympic Dam on the map. To view the tenement information, under Olympic Dam SML click the dropdown next to the Tenement Label title.

The deposit

Olympic Dam is on the eastern margin of the Gawler Craton and is one of the world's most significant deposits of copper, gold, silver and uranium. The deposit is unconformably overlain by about 300 m of Neoproterozoic to Cambrian age, flat-lying sedimentary rocks of the Stuart Shelf. The deposit is hosted within the Olympic Dam Breccia Complex, occurring entirely within the Roxby Downs Granite.

Mineralisation is contained within a granite-hosted breccia complex. The principal copper-bearing minerals in the deposit are chalcopyrite, bornite and chalcocite, occurring as disseminated grains, veinlets and fragments with breccia zones. Gold typically occurs as extremely fine particles within and associated with the copper sulfide grains. Silver largely occurs in solid solution with the sulfide minerals.

More information about the Geology of the Olympic Dam deposit (https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/MESAJ023004-011.pdf) (PDF 5.1 MB)

estimates (https://www.bhp.com/investor-centre/annual-report-2018)

and

Resource Company released resource estimates and production statistics are available from the BHP Annual Report 2018

- refer to section 6.

production estimates

process

The Olympic Dam Mine operates under the Roxby Downs (Indenture Ratification) Act 1982 (https://www.legislation.sa.gov.au/LZ/C/A/ROXBY%20DOWNS%20(INDENTURE%20RATIFICATION)%20ACT%201982.aspx) and the Olympic Dam and Stuart Shelf Indenture (the Indenture) which is a Schedule to the Act.

BHP is proposing a significant increase of copper production at the Olympic Dam mine to up to 300,000 tonnes a year. The Minister for Energy and Mining and Minister for Planning have declared this proposal a major development under the <u>Development Act 1993</u> (https://www.legislation.sa.gov.au/LZ/C/A/DEVELOPMENT%20ACT%201993.aspx)

The following documents are available on the SA Planning Portal:

• Olympic Dam Resource Development Strategy (https://plan.sa_gov.au/state_snapshot/development_activity/major_projects/majors/olympic_dam_production_growth_plan) released on 14 February 2019

- Assessment stages and documentation for the previously proposed open-cut mine Olympic Dam Expansion (https://www.saplanningportal.sa.gov.au/current_planning_system/development_assessment/major_projects/ma/olympic_dam_expansion) , including:
 - Environmental Impact Statement (EIS)
 - BHP response document
 - Government assessment reports

News releases:

 Hon Dan van Holst Pellekaan MP, Minister for Energy and Mining State Government announces assessment guidelines to increase copper production at Olympic Dam (https://d3n8a8pro7vhmx.cloudfront.net/liberalpartyofaustralia/mailings/3708/attachments/original/05-19 BHP expansion corrected v2.pdf?1590046704)

Friday 22 May 2020

 Hon Dan van Holst Pellekaan MP, Minister for Energy and Mining, and Hon Stephan Knoll MP, Minister for Planning Proposed expansion of Olympic Dam declared a major development (https://d3n8a8pro7vhmx.cloudfront.net/liberalpartyofaustralia/mailings/2012/attachments/original/02-14_BHP.pdf?1550115973)

Thursday 14 February 2019

BHP

South Australian Government major development declaration for Olympic Dam

(https://www.bhp.com/media-and-insights/news-releases/2019/02/south-australian-government-major-development-declaration-for-olympic-dam)

Thursday 14 February 2019

Current **Environmental protection and monitoring programs (EPMPs)**

documents • Environmental management program

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890837.pdf)

(PDF 189 KB)

Environmental management manual

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890852.pdf)

(PDF 1 MB)

 Environmental management program - targets actions and major changes (https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890833.pdf)

(PDF 64 KB)

• Monitoring program - fauna

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890851.pdf) (PDF 42 KB)

Monitoring program - flora

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890849.pdf) (PDF 3 MB)

Monitoring program - airborne emissions

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890848.pdf) (PDF 956 KB)

• Monitoring program - Great Artesian Basin

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890846.pdf) (PDF 3 MB)

Monitoring program - environmental radiation

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890844.pdf) (PDF 521 KB)

Monitoring program - groundwater

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890841.pdf) (PDF 2 MB)

Monitoring program - waste

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890839.pdf) (PDF 5 MB)

Monitoring program - energy use and greenhouse gas emissions
 (https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890836.pdf)

(PDF 30 KB)

Monitoring program - social effects

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR3890835.pdf) (PDF 31 KB)

Closure management plan

 Closure management and rehabilitation plan for Olympic Dam (https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/image/DDD/PEPR4700340.pdf)
 (PDF 9 MB)

Compliance Reporting

Great Artesian Basin Wellfields Report 1 July 2018 - 30 June 2019 (PDF 3 MB)
 (https://energymining.sa.gov.au/ data/assets/pdf file/0010/351757/4258679 - ANNUAL COMPLIANCE R~ort 1 July 2018 30 June 2019.PDF)

Annual environmental protection and management program - Olympic Dam 1 July 2018 - 30 June 2019
 (https://energymining.sa.gov.au/ data/assets/pdf file/0004/351760/4258678 - EPMP COMPLIANCE REP~t - 1 July 2018 30 June 2019.PDF)

 (PDF 8 MB)

Historical documents and records are available via the South Australian Resources Information Gateway (SARIG)

(https://sarigbasis.pir.sa.gov.au/WebtopEw/ws/samref/sarig1/wci/ResultSet?

w=NATIVE%28%27TENEMENTS+ph+is+%27%27\$ML00001%27%27%29&sid=83712d08125042359ad620168f74b57d&upp=0&order=NATIVE%28%27TITLE%2Fascend%27%29&rpp=25&r=1&set=4&reorder=1).

Uranium incident reports

South Australia's uranium mines and processing facilities are required to report incidents involving the unplanned release of radioactive process materials, radioactive liquids or radioactive wastes associated with the physical and chemical processing of uranium ores, following standard criteria and procedures.

Olympic Dam uranium incident summary since 2003

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/olympic dam/olympic dam uranium incident reports)

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Back to summary of major mines and quarries

(https://energymining.sa.gov.au/minerals/mining/mines and quarries)

Mining

(https://energymining.sa.gov.au/minerals/mining)

Update on Mining Regulations 2020

(https://energymining.sa.gov.au/minerals/mining/update on mining regulations 2020)

Mining regulation in South Australia

(https://energymining.sa.gov.au/minerals/mining/mining_regulation_in_south_australia)

Public notices (mining)

(https://energymining.sa.gov.au/minerals/mining/public notices mining)

Approved PEPRs

(https://energymining.sa.gov.au/minerals/mining/approved_peprs)

Claims, leases, licences, private mines

(https://energymining.sa.gov.au/minerals/mining/claims, leases, licences, private mines)

Forms and fees

(https://energymining.sa.gov.au/minerals/mining/forms and fees)

Mineral royalties

(https://energymining.sa.gov.au/minerals/mining/mineral_royalties)

Financial assurance

(https://energymining.sa.gov.au/minerals/mining/financial_assurance)

Mines and quarries

(https://energymining.sa.gov.au/minerals/mining/mines_and_quarries)

Angas Zinc Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/angas zinc mine)

Beltana

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/beltana flinders zinc)

Beverley and Beverley North Uranium Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/beverley and beverley north mines)

Bluff Road Quarry

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/bluff road quarry)

Cairn Hill

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/cairn hill)

Campoona Graphite Project

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/campoona)

Carrapateena Project

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/carrapateena)

Challenger Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/challenger)

Four Mile Uranium Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/four mile uranium mine)

Hillside Project

(https://energymining.sa.gov.au/minerals/mining/mines_and_quarries/hillside_project)

Glenshera Sand Glass Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/glenshera sand mine)

Golden Grove Extractive Industries Zone

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/golden grove extractive industries zone)

Honeymoon Uranium Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/honeymoon uranium mine)

Jacinth and Ambrosia

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/jacinth and ambrosia)

Kanmantoo Bluestone Quarry

(https://energymining.sa.gov.au/minerals/mining/mines_and_quarries/kanmantoo_bluestone_quarry)

Kanmantoo Copper Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/kanmantoo copper mine)

Kookaburra Gully Graphite Project

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/kookaburra_gully_graphite_project)

Leigh Creek Coal Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/leigh creek coal mine)

Linwood Quarry

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/linwood quarry)

Middleback Ranges

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/middleback ranges)

Mindarie Mineral Sands Project A2 & C

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/mindare)

Olympic Dam

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/olympic dam)

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/olympic dam/olympic dam uranium incident reports)

Peculiar Knob Iron Ore Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/peculiar knob iron ore mine)

Penrice Mine

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/penrice mine)

Formocoidminemation, contact:

(https://energymining.sa.gov.au/minerals/mining/mines and quarries/portia)

For inquiries relating to this mining operation please contact: <u>Prominent Hill</u> Mining<u>្ពុខេត្តម្បៀងដីមេរ៉ាតូ sa.gov.au/minerals/mining/mines_and_quarries/prominent_hill)</u>

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Phone: +61 8 8429 2583 Tarcoola Gold Project

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