

Appendix 1

Summary reports for operating mines in Queensland

The following section presents detailed information for each of Queensland's significant operating mines. Mineral deposits are presented in alphabetic order. Each mineral deposit report contains information about the location, commodities, size classification, production, resources/reserves, mining styles, tenures, host rocks, mineral deposit models, mineralisation ages and other comments.

The resource information recorded does not duplicate resources documented as reserves or under any other resource classification. For example, if a published 'measured, indicated and inferred resource' includes the 'proved and probable ore reserves', these reserves are not recorded. However, if published reserves are in addition to the published resources they are recorded separately. Open file information sources such as company annual reports, quarterly reports and stock exchange announcements have been used, where available, to ensure current information is captured. Most resource and reserve figures are in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC code), which is included as **Appendix 9**. Some older resource figures are not in accordance with the JORC code. Individual summary reports indicate whether or not the resource and reserve figures are JORC compliant. All sources used are referenced wherever possible.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

504532 ABLATIO QUARRY

OPERATING MINE

Descriptive Location: EAST OF AIR FORCE ROAD, SOUTH OF GOLD MINE RD, HELIDON.

1:100 000 sheet Number and Name: 9342 HELIDON

Grid Reference: Zone 56 411960 mE 6956693 mN Latitude -27.5105 Longitude 152.1086 Date Recorded: 4/December/2015

Other Names for Deposit / Mine

Ablatio Sandstone 1

Commodities	Size	Size Definition
BUILDING STONE	VERY SMALL	<100 000 tonnes BLST
SANDSTONE	SMALL	10 000 - 100 000 tonnes SST

Production Details

Period: 1-Jul-1997 to 30-Jun-2014

SANDSTONE 33,260.6 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 50007	100.00%	BONDZULIC BROS PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

CLARENCE-MORETON BASIN

Helidon Sandstone / TRIASSIC to TRIASSIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

Comments

Albatio Pty Ltd was set up by the Anglican Church to secure a source of sandstone for restoration of St Johns Cathedral in Brisbane. The company also produces sandstone for the domestic and overseas markets.

In 2013 Bondzulich Brothers bought off Ablatio quarry, but retained the name and website.

Web Page

<http://www.ablstone.com.au/>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

481011 ALIMB

OPERATING MINE

Descriptive Location: 74 KM NORTH-WEST OF CHARTERS TOWERS, 110KM WEST OF TOWNSVILLE.

1:100 000 sheet Number and Name: 8058 HILLGROVE

Grid Reference: Zone 55 371621 mE 7831524 mN

Latitude -19.6071 Longitude 145.7758

Date Recorded: 7/February/2017

Other Names for Deposit / Mine

Hillgrove Dolomite

Mitchell

Surprise

The Pauleeson

Commodities

EARTHY LIME / DOLOMITE (AGRICULTURAL)

Size

SMALL

Size Definition

10 000 - 100 000 tonnes ELIM

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

EARTHY LIME / DOLOMITE (AGRICULTURAL) 116,018.4 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1993		

1996	to	1999	Mined by bull dozer and loader from open cut.
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Mining Operations

OPEN CUT MINING

Comments

Previous opencutting has been rehabilitated.

Tenure Type/Number	SHARE	Company Name/Surname
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ML 10043	100.00%	KELMAS PTY. LTD.
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ML 10044	100.00%	ALIMB PTY. LIMITED
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Host Rock/Cover Sequences

Structural Unit

NULLA BASALT PROVINCE

Formation Name/Age

Allingham Formation / LATE TERTIARY to LATE TERTIARY

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

DOLOMITE DEPOSIT

Mineralisation Age

ORE

PLIOCENE

Comments

Web Page

Queensland Minerals

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38241 ANDOOM

OPERATING MINE

Descriptive Location: 18.6 KM NNW OF WEIPA AIRSTRIP.

1:100 000 sheet Number and Name: 7272 WEIPA

Grid Reference: Zone 54 590422 mE 8613766 mN

Latitude -12.5384 Longitude 141.8323

Date Recorded: 4/December/2015

Other Names for Deposit / Mine

Andoom Bauxite Mine

Ne Weipa

Commodities

BAUXITE

Size

LARGE

Size Definition

>200 000 000 tonnes BX

Production Details

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
BR 10183	2012	RIO TINTO PLC	2012 ANNUAL REPORT.	RIO TINTO PLC, LONDON. REPORTED TO AUSTRALIAN STOCK EXCHANGE, MARCH 2013; RIO TINTO LTD, MELBOURNE

Major Mining Related Events

Year Commenced	Year Completed	Comments
2003	to 2004	As part of the NeWeipa Expansion project this resource was developed. A beneficiation plant and new power station were constructed at the site.

Mining Operations

Comments

SURFACE MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 7024	100.00%	RTA WEIPA PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

KARUMBA BASIN

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

DETAILED OREBODY MODEL

LATERITIC BAUXITE

Mineralisation Age

ORE

CENOZOIC

Comments

In 2003, Comalco commenced its \$230 million NE Weipa expansion project and constructed a 9.5Mt per annum beneficiation plant and power station at Andoom. Construction was completed by the end of 2004 and the plant was commissioned.

Andoom ore is now mined and treated separately, increasing Comalco's capacity to meet customer requirements. Note that Andoom production and resources are reported in the figures for the Weipa Bauxite Mine.

Prior to 2004, bauxite ore from Andoom was blended with ore from the Weipa mine to produce the final bauxitic product.

Web Page

www.riotintoalcan.com

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

36967 BAAL GAMMON

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 6.4KM WEST OF HERBERTON, 65KM SW OF CAIRNS.

1:100 000 sheet Number and Name: 7963 ATHERTON

Grid Reference: Zone 55 322254 mE 8077569 mN

Latitude -17.3805 Longitude 145.3269

Date Recorded: 7/March/2016

Other Names for Deposit / Mine

Commodities	Size	Size Definition
TIN	MEDIUM	1 000 - 100 000 tonnes SN
COPPER	SMALL	500 - 50 000 tonnes CU
SILVER	SMALL	5 - 500 tonnes AG
INDIUM		
LEAD	VERY SMALL	<1000 tonnes PB
ZINC	VERY SMALL	<200 tonnes ZN

Production Details

Period: 1-Jan-1892 to 31-Dec-1949 6,201 tonnes HARD ROCK ORE (OR REEF)

CASSITERITE 88.4 tonnes

Published Reserves/Resources

BR 10071 Published in 2012

BAAL GAMMON

INDICATED MINERAL RESOURCE 1,979,000 tonnes Ore @

33.00 g/t SILVER **FOR** 65,307 Kilograms SILVER

0.80 % COPPER **FOR** 15,832 Tonnes COPPER

Comments/Cut Off Factor: 0.2% Cu cutoff.

note that the tin and indium grades were reported in earlier resource statement

BR 10071 Published in 2012

BAAL GAMMON

INFERRED MINERAL RESOURCE 31,000 tonnes Ore @

18.00 g/t SILVER **FOR** 551 Kilograms SILVER

0.60 % COPPER **FOR** 183 Tonnes COPPER

Comments/Cut Off Factor: 0.2% Cu cutoff

note that tin and indium grades were stated in earlier resource calculations

BR 10071 Published in 2012

BAAL GAMMON

PROBABLE ORE RESERVE 317,000 tonnes Ore @

90.00 g/t SILVER **FOR** 28,530 Kilograms SILVER

2.80 % COPPER **FOR** 8,876 Tonnes COPPER

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10071	2012	KAGARA MINING	OPPORTUNITY TO ACQUIRE KAGARA LIMITED'S NORTH QUEENSLAND ASSETS	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 14 SEPTEMBER 2012 KAGARA MINING, PERTH.

Major Mining Related Events

Year Commenced	Year Completed	Comments

Mining Operations

OPEN CUT MINING

UNDERGROUND MINING METHODS

ADITS

Comments

Tenure Type/Number	SHARE	Company Name/Surname
ML 20388	100.00%	BAAL GAMMON COPPER PTY LTD

Host Rock/Cover Sequences

Structural Unit

HODGKINSON PROVINCE

Formation Name/Age

Hodgkinson Formation / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

INTRUSIVE-RELATED (PORPHYRY-RELATED)

DETAILED OREBODY MODEL

TIN VEINS (CORNISH-TYPE)

Mineralisation Age

ORE

LATE CARBONIFEROUS

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Comments

In 2006, North Queensland Metals Ltd commenced a feasibility study to re-evaluate the Baal Gammon deposit. A JORC compliant resource estimate was calculated and baseline environmental studies and preliminary evaluation work have commenced.

In July 2007, North Queensland Metals announced a probable ore reserve for the deposit. In May 2008, the company announced that the project will proceed to development.

Drilling results announced in April 2007 included 4.05m at 8.5% Cu, 1.18% Sn, 224g/t Ag and 642g/t In from 36.85m, 7.4m at 3.36% Cu, 1.24% Sn, 97g/t Ag and 264g/t In from 39m, and 5m at 5.16% Cu, 0.21% Sn, 128g/t Ag and 337g/t In from 33m.

The mine is expected to process 500 000t over a seven year mine life to produce ~20 000t of Cu-Sn-Ag-In concentrate per year. A review of the mine design in the June 2009 quarter indicated that a smaller higher grade pit is feasible.

February 2011: Monto Minerals purchased the Baal Gammon deposit as part of a larger suite of tin prospective ground in North Queensland.

In 2012 Monto Mins reported a larger than anticipated high grade zone identified within the Baal Gammon resource - 829kT @ 2.5% Cu, 96g/t Ag, 0.4% Sn & 96g/t In (BR9802). These results are based on Kagara 28 hole drilling programme concluded 30 Oct 2011.

In September 2011 Kagara commenced open pit mining and are processing Baal Gammon ore at their nearby 500,000tpa Mt Garnet copper processing facility. Under the terms of BG MRA Kagara will pay the NSR to Monto within 5 days of receipt of payment from the Sept 2011 (cont.) product (Concentrate) buyer. Kagara at present generally sell concentrate from Mt Garnet facility on a monthly basis. (BR9802). Kagara is responsible for all costs with respect to Baal Gammon mine development and operations.

In May 2011, Kagara Ltd announced that it had formed a strategic alliance with Monto Minerals to mine Baal Gammon copper ore, with the ore to be treated at Kagara's Mount Garnet plant. In 2012 a resource update was reported to ASX (BR9802)

Mine development is to start immediately following approvals and ore processing is targeted to start by October 2011. Kagara will investigate the potential to construct a tin extraction circuit at Mount Garnet.

This mine is in the United North Australia group of mines. The orebody is adjacent to a stanniferous, quartz porphyry intrusive, locally rich in tourmaline.

In January 2012 Monto Minerals reported a revised combined (indicated and inferred) resource of 2.8 Mt @ 0.966% Cu, 0.199% Sn, 18 g/t Ag and 39 g/t In. Later resources no longer reported tin and indium.

Web Page

www.montominerals.com, www.spmining.com.au/

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

478932 **BALCOOMA**

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 33 KM NORTH-WEST OF GREENVALE, 120KM SSW OF MOUNT GARNET, 215KM NW OF TOWNSVILLE.

1:100 000 sheet Number and Name: 7860 CONJUBOY

Grid Reference: Zone 55 258920 mE 7922870 mN Latitude -18.7718 Longitude 144.7130 Date Recorded: 30/January/2017

Other Names for Deposit / Mine

Golden Creek
Boys 5
Monte Carlo
I-35
Scots Find
West Boyds Creek Prospect
Dry River

Commodities	Size	Size Definition
COPPER	MEDIUM	50 000 - 250 000 tonnes CU
ZINC	SMALL	200 - 200 000 tonnes ZN
LEAD	SMALL	1000 - 100 000 tonnes PB
GOLD	SMALL	0.5 - 5 tonnes AU
SILVER	SMALL	5 - 500 tonnes AG

Production Details

Period: 1-Jul-2010 to 30-Jun-2016

COPPER	METAL	38,454.0 tonnes
GOLD	METAL	255.7 kilograms
SILVER		40,834.2 kilograms
LEAD	METAL	7,799.0 tonnes
ZINC	METAL	106,524.0 tonnes

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Published Reserves/Resources

BR 10071 Published in 2012

BALCOMA UNDERGROUND MAIN CU

INFERRED MINERAL RESOURCE 53,000 tonnes Ore @
0.70 % COPPER **FOR** 371 Tonnes COPPER
4.00 g/t SILVER **FOR** 212 Kilograms SILVER

BR 10071 Published in 2012

BALCOMA UNDERGROUND MAIN CU

MEASURED MINERAL RESOURCE 235,000 tonnes Ore @
2.90 % COPPER **FOR** 6,815 Tonnes COPPER
13.00 g/t SILVER **FOR** 3,055 Kilograms SILVER

BR 10071 Published in 2012

BALCOOMA - POLYMETALLIC

INDICATED MINERAL RESOURCE 568,000 tonnes Ore @
5.60 % ZINC **FOR** 31,808 Tonnes ZINC
33.00 g/t SILVER **FOR** 18,744 Kilograms SILVER
1.90 % LEAD **FOR** 10,792 Tonnes LEAD
1.20 % COPPER **FOR** 6,816 Tonnes COPPER
0.30 g/t GOLD **FOR** 170 Kilograms GOLD

BR 10071 Published in 2012

BALCOOMA - POLYMETALLIC

INFERRED MINERAL RESOURCE 575,000 tonnes Ore @
3.10 % ZINC **FOR** 17,825 Tonnes ZINC
24.00 g/t SILVER **FOR** 13,800 Kilograms SILVER
1.50 % COPPER **FOR** 8,625 Tonnes COPPER
1.20 % LEAD **FOR** 6,900 Tonnes LEAD
0.30 g/t GOLD **FOR** 172 Kilograms GOLD

BR 10071 Published in 2012

BALCOOMA - POLYMETALLIC

MEASURED MINERAL RESOURCE 389,000 tonnes Ore @
5.70 % ZINC **FOR** 22,173 Tonnes ZINC
26.00 g/t SILVER **FOR** 10,114 Kilograms SILVER
1.90 % LEAD **FOR** 7,391 Tonnes LEAD
1.10 % COPPER **FOR** 4,279 Tonnes COPPER

BR 10071 Published in 2012

BALCOOMA - POLYMETALLIC

PROBABLE ORE RESERVE 27,000 tonnes Ore @
9.20 % ZINC **FOR** 2,484 Tonnes ZINC
5.30 % LEAD **FOR** 1,431 Tonnes LEAD
35.00 g/t SILVER **FOR** 945 Kilograms SILVER
0.60 % COPPER **FOR** 162 Tonnes COPPER
0.00 g/t GOLD

BR 10071 Published in 2012

BALCOOMA UNDERGROUND CU

PROBABLE ORE RESERVE 130,000 tonnes Ore @
1.60 % COPPER **FOR** 2,080 Tonnes COPPER
8.00 g/t SILVER **FOR** 1,040 Kilograms SILVER
0.02 g/t GOLD **FOR** 3 Kilograms GOLD

BR 10071 Published in 2012

BALCOOMA UNDERGROUND CU

PROVED ORE RESERVE 64,000 tonnes Ore @
2.50 % COPPER **FOR** 1,600 Tonnes COPPER
13.00 g/t SILVER **FOR** 832 Kilograms SILVER
0.05 g/t GOLD **FOR** 14 Kilograms GOLD

BR 10071 Published in 2012

BALCOOMA UPPER LENS CU

INDICATED MINERAL RESOURCE 124,000 tonnes Ore @
1.30 % COPPER **FOR** 9,100 Tonnes COPPER
5.00 g/t SILVER **FOR** 620 Kilograms SILVER

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10071	2012	KAGARA MINING	OPPORTUNITY TO ACQUIRE KAGARA LIMITED'S NORTH QUEENSLAND ASSETS	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 14 SEPTEMBER 2012 KAGARA MINING, PERTH.

Major Mining Related Events

Year Commenced	Year Completed	Comments
2004	to 2005	Mining activities commenced with prestrip in December 2004.

Operating Mine Life: 2005 to 2008 Kagara Zinc Ltd commenced open cut mining in 2005/06.

Mining Operations	Comments
OPEN CUT MINING	Open cut to base of oxidation with decline planned from pit floor. Pit wall stability problems due to host rock schistosity causing slope failures.

Tenure Type/Number	SHARE	Company Name/Surname
ML 1393	100.00%	SNOW PEAK MINING PTY LTD
ML 30156	100.00%	SNOW PEAK MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
THALANGA PROVINCE	Balcooma Metavolcanic Group / LATE CAMBRIAN to EARLY ORDOVICIAN

Deposit Model

GENERAL OREBODY MODEL	VOLCANIC HOSTED MASSIVE SULPHIDE
DETAILED OREBODY MODEL	VMS - KUROKO STYLE (NORANDA, FELSIC TO INTERMED VMS TYPE)

Mineralisation Age

ORE	LATE CAMBRIAN to EARLY ORDOVICIAN
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Comments

Carpentaria Exploration Company Pty Ltd identified the Balcooma gossans in 1978. In 1979, the first drillhole intersected massive sulphides.

The Balcooma deposit consists of four separate stratigraphic units containing massive sulphide mineralisation with three types of massive mineralisation recorded - magnetite, pyrite-chalcopyrite and sphalerite-galena-pyrite.

In January 2009, Kagara announced that it had suspended development and mining at the Balcooma polymetallic underground mine. The underground copper deposit is unaffected.

In March 2006, Kagara Zinc Ltd purchased the Thalanga treatment plant, which will be used to treat ore from Balcooma from around September 2006. At July 2006, total reserves and resources at Balcooma were 3.965Mt at 3.5% Cu, 15g/t Ag and 0.36g/t Au.

Open cut mining commenced at Balcooma in 2005/06. The high-grade supergene ore was processed through the new copper circuit at Mount Garnet. Mining changed to the low-grade ore of the Balcooma North orebody in the September 2006 quarter.

Production in the September 2006 quarter totalled 79,408t at 2.2% Cu and 13,646t at 2.41g/t Au. Separate production figures have not been recorded for the mine.

Development declines for the Balcooma polymetallic orebody and the Balcooma copper deposits encountered development ore and stoping of the copper deposit was to commence in the September 2009 quarter.

The Balcooma open pit will continue to produce copper ore until September 2009, after which all copper ore production will be mined from underground. The decline advanced to 1510m from the portal in the March 2009 quarter.

In 2007/08, ore from Balcooma was treated at the Mount Garnet and Thalanga processing plants.

Snow Peak Mining under Consolidated Tin Mines management re-commenced mining at Balcooma in December 2013 and processing of the copper ore and polymetallic ore at the Mount Garnet plant re-commenced in March 2014 following the re-commissioning of the Mount Garnet processing plant in February 2014. The ore was trucked to Townsville for export. The mine transitioned to care and maintenance in early September 2015

Between 2007 and 2010 Balcooma open cut produced 265107 t of copper concentrate, 35735 t of lead concentrate, and 243131 zinc concentrate for 64795 t of Cu Metal, 603.6kg Au, 60402 kg Ag, 22261 t of lead metal and 123049 t of zinc metal (BR6187).

Web Page

www.kagara.com.au

Queensland Minerals

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486766 BEACHMERE SANDS

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 2KM N OF BEACHMERE AND 50KM NORTH OF BRISBANE.

1:100 000 sheet Number and Name: 9543 BRISBANE

Grid Reference: Zone 56 506080 mE 7002960 mN

Latitude -27.0956 Longitude 153.0613

Date Recorded: 17/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
SILICA SAND	LARGE	>2 500 000 tonnes SIS
FOUNDRY SAND	VERY SMALL	<1 000 tonnes SF

Production Details

Period: 1-Jun-2013 to 30-Jun-2016

SILICA SAND	27,564.2 tonnes
FOUNDRY SAND	800.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 50156	100.00%	PACIFIC SILICA PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MODERN COASTAL DEPOSITS	

Deposit Model

GENERAL OREBODY MODEL	DUNE DEPOSIT
DETAILED OREBODY MODEL	DUNE DEPOSIT SILICA SAND

Mineralisation Age

ORE	CENOZOIC
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Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

610262 BEAUDESERT QUARRY

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 14.6 KM WSW OF BEAUDESERT

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 486187 mE 6908689 mN Latitude -27.9467 Longitude 152.8596 Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Gosford

Commodities	Size	Size Definition
SANDSTONE	SMALL	10 000 - 100 000 tonnes SST

Production Details

Period: 1-Jul-2001 to 30-Jun-2016

SANDSTONE 31,043.3 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		

Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 50171	100.00%	GOSFORD QUARRIES (PROPERTIES) PTY LIMITED

Host Rock/Cover Sequences

Structural Unit

CLARENCE-MORETON BASIN

Formation Name/Age

Woogaroo Subgroup / LATE TRIASSIC to EARLY JURASSIC

Deposit Model

Mineralisation Age

ORE

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

518225 BEDROCK SILICA

OPERATING MINE

Descriptive Location: 45KM W OF TOWNSVILLE, ALONG HARVEYS RANGE ROAD.

1:100 000 sheet Number and Name: 8159 ROLLINGSTONE

Grid Reference: Zone 55 434263 mE 7852830 mN

Latitude -19.4177 Longitude 146.3739

Date Recorded: 7/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
SILICA SAND	SMALL	1 000 - 1 000 000 tonnes SIS

Production Details

Period: 1-Jul-2000 to 30-Jun-2016

SILICA SAND 40,407.4 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

SURFACE MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 10241	100.00%	BEDROCK LANDSCAPES SUPPLIES (QLD) PTY LTD
ML 10245	100.00%	BEDROCK LANDSCAPES SUPPLIES (QLD) PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

KENNEDY IGNEOUS ASSOCIATION

Speed Creek Granodiorite/2 / EARLY PERMIAN to EARLY PERMIAN

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

Mineralisation Age

ORE

PALAEOZOIC

Silica sand.

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

38297 BIANCA

OPERATING MINE

Descriptive Location: 13.5KM NW OF ALMADEN.

1:100 000 sheet Number and Name: 7863 CHILLAGOE

Grid Reference: Zone 55 242214 mE 8089997 mN Latitude -17.2605 Longitude 144.5754 Date Recorded: 4/December/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
MARBLE	SMALL	10 000 - 100 000 tonnes MARB
BUILDING STONE	VERY SMALL	<100 000 tonnes BLST

Production Details

Period: 1-Jul-2001 to 30-Jun-2015

MARBLE 12,269.9 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

UNDERGROUND MINING METHODS

PITS

DREDGING

SURFACE MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 5184	50.00%	S & A PTY. LTD.
ML 5184	50.00%	D & G SPRALJA PTY LTD

Host Rock/Cover Sequences

Structural Unit

HODGKINSON PROVINCE

Formation Name/Age

Chillagoe Formation / EARLY SILURIAN to EARLY DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

INTRUSIVE-RELATED (PORPHYRY-RELATED)

DETAILED OREBODY MODEL

MARBLE DEPOSIT

Mineralisation Age

ORE

CARBONIFEROUS

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507793 BORAL BRICKS IPSWICH

OPERATING MINE

Descriptive Location: 7.5KM EAST OF IPSWICH.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 483642 mE 6943629 mN Latitude -27.6312 Longitude 152.8342 Date Recorded: 4/December/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BRICK CLAY	MEDIUM	200 000 - 20 000 000 tonnes BKCX

Production Details

Period: 1-Jul-1996 to 30-Jun-2015

BRICK CLAY 2,655,561.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
----------------	----------------	----------

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 4583	100.00%	BORAL BRICKS PTY LTD
ML 4622	100.00%	BORAL BRICKS PTY LTD
ML 50116	100.00%	BORAL BRICKS PTY LTD
ML 50117	100.00%	BORAL BRICKS PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CLARENCE-MORETON BASIN	Raceview Formation / RHAETIAN to RHAETIAN

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE TRIASSIC to JURASSIC

Comments

Web Page

www.boral.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507506 BORAL DARRA

OPERATING MINE

Descriptive Location: ADJACENT TO IPSWICH MOTORWAY DARRA.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 496189 mE 6950812 mN Latitude -27.5664 Longitude 152.9614 Date Recorded: 19/May/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BRICK CLAY	SMALL	2 000 - 200 000 tonnes BKCY

Production Details

Period: 1-Jul-1999 to 30-Jun-2010

BRICK CLAY 71,144.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 1100	100.00%	BORAL BRICKS PTY LTD

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> OXLEY BASIN	Darra Formation / LATE TERTIARY to LATE TERTIARY

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age	
ORE	TERTIARY

Comments

Web Page

www.boral.com.au

Queensland Minerals

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479602 BOWEN SALTWORKS

OPERATING MINE

Descriptive Location: ADJACENT TO BOWEN TOWNSHIP, 160KM SE TOWNSVILLE.

1:100 000 sheet Number and Name: 8557 BOWEN

Grid Reference: Zone 55 627875 mE 7785651 mN Latitude -20.0216 Longitude 148.2225 Date Recorded: 4/December/2015

Other Names for Deposit / Mine

Cheetham Salt Bowen

Commodities	Size	Size Definition
BRINE SALT		

Production Details

Period: 1-Jul-1997 to 30-Jun-2000

BRINE SALT 20,000.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1925		The Bowen salt works began in 1925 and were originally operated by the Bowen Salt Company. In 1981 Cheetham Salt Ltd purchased the operation from Central Queensland Salt.

Mining Operations	Comments
SURFACE MINING METHODS	Series of evaporative ponds.

Tenure Type/Number	SHARE	Company Name/Surname
Currently untenured mineral deposit		

Host Rock/Cover Sequences	Formation Name/Age
Structural Unit	

Deposit Model

Mineralisation Age

Comments

Sea water is pumped into a series of evaporative ponds, increasing in salinity as it is moved through the pond system. When the salinity is highest, the water is moved to the crystallisation pond where salt crystals form and are harvested.

Once harvested the salt is washed in a concentrated brine to remove the impurities. After about 1 year the salt is crushed to the correct grain size. The plant is classed as a 15000t field, but has harvested up to 29000t per year.

In 2012 RIDLEY stated that they are investigating feasibility of sale of Bowen site for redevelopment (BR9806, p.17)

Web Page

www.cheethamsalt.com.au; www.ridley.com.au

Queensland Minerals

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507510 BRITTAINS

OPERATING MINE

Descriptive Location: 2.8KM W OF STRATHPINE, ON NORTHERN OUTSKIRTS OF BRISBANE.

1:100 000 sheet Number and Name: 9443 CABOOLTURE

Grid Reference: Zone 56 496076 mE 6978377 mN Latitude -27.3176 Longitude 152.9603 Date Recorded: 4/December/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BRICK CLAY	MEDIUM	200 000 - 20 000 000 tonnes BKCY

Production Details

Period: 1-Jul-1996 to 30-Jun-2014

BRICK CLAY 1,147,079.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 1106	100.00%	BORAL BRICKS PTY LTD
ML 1171	100.00%	BORAL BRICKS PTY LTD
ML 50183	100.00%	BORAL BRICKS PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
PETRIE BASIN	Petrie Formation / PALEOCENE to EOCENE

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE EOCENE to OLIGOCENE

Comments

Web Page

www.boral.com.au

Queensland Minerals

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489413 BROLGA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 16 KM NORTH-WEST OF CANOONA, CENTRAL QUEENSLAND.

1:100 000 sheet Number and Name: 8951 RIDGELANDS

Grid Reference: Zone 56 224979 mE 7450625 mN

Latitude -23.0300 Longitude 150.3165

Date Recorded: 14/February/2017

Other Names for Deposit / Mine

Brolga 1

Brolga 2

Commodities	Size	Size Definition
NICKEL	SMALL	250 - 25 000 tonnes NI
COBALT	SMALL	10 - 1 000 tonnes CO

Production Details

Period: 1-Jul-1969 to 30-Jun-1970	20,727 tonnes HARD ROCK ORE (OR REEF)
NICKEL	8,382.0 tonnes
Period: 1-Jul-1993 to 30-Jun-1994	200,405 tonnes HARD ROCK ORE (OR REEF)
COBALT	275.0 tonnes
NICKEL	3,141.0 tonnes
Period: 1-Jul-1994 to 30-Jun-1995	222,249 tonnes HARD ROCK ORE (OR REEF)
COBALT	333.0 tonnes
NICKEL	3,707.0 tonnes
Period: 1-Jul-1995 to 30-Jun-1996	2,897 tonnes HARD ROCK ORE (OR REEF)
COBALT	5.0 tonnes
NICKEL	41.0 tonnes
Period: 1-Jul-2013 to 30-Jun-2016	332,172 tonnes HARD ROCK ORE (OR REEF)
NICKEL	4,909.6 tonnes
COBALT	247.7 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1969 to 1970	1970	Deposit first worked but mining ceased due to metallurgical difficulties.
1973 to 1973	1973	Deposit re-evaluated but found to be uneconomic.
1992 to 1996	1996	Deposit mined to supplement ore imported for the Yabulu refinery as a result of the closure of the Greenvale mine.
2012		Deposit re-opened to supplement imported ore for Palmer Nickel & Cobalt Refinery in Townsville

Mining Operations

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 2728	100.00%	STRATEGIC MINERALS CORPORATION N.L.
ML 5866	80.00%	QNI RESOURCES PTY LTD
ML 5866	20.00%	QNI METALS PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MARLBOROUGH PROVINCE	Princhester Serpentinite / NEOPROTEROZOIC to EARLY PALAEOZOIC

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	LATERITIC NICKEL

Mineralisation Age

ORE	CENOZOIC
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Queensland Minerals

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Comments

In 2012 QNI secured approval to mine 400000t annually and commenced mining in Nov 2012 with an estimated mine life of up to 12 years. In 2013 an Environmental Management Plan was prepared to progress a Stage 2 development of the site, to reflect the proposal to increase the scale of mining operations. Currently ore is hauled by B-double trucks to the nearby Glen Geddes rail siding and stockpiled, prior to transport to the Palmer Nickel and Cobalt Refinery in Townsville (BR10252).

The Brolga - Stage 2 development involves a significant expansion of mining activities at the site to increase nickel ore production to (maximum) 900000 TPA (Stage 1 was 400000 TPA (BR10252).

QNI Resources (Mr Michael Fitzsimmons) clarified in telephone conversation 24/11/2015 that they export to quite a few countries but mostly to Korea, United States and Japan. They are unable to provide a detailed breakdown because they also import (2015 cont.) product from other countries for processing with the product extracted from their operating mine (ML5866).

Web Page

Queensland Minerals

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489464 **BRY LEASE**

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 82KM SW OF OPALTON, ADJACENT TO MAYNE RIVER.

1:100 000 sheet Number and Name: 7350 TONKORO

Grid Reference: Zone 54 610927 mE 7390288 mN Latitude -23.5940 Longitude 142.0872 Date Recorded: 7/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
GYPSUM	SMALL	5 000 - 5 000 000 tonnes GYP

Production Details

Period: 1-Jul-1997 to 30-Jun-2016

GYPSUM 75,258.1 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 95209	100.00%	CONNOLLY	Brian Malcolm

Host Rock/Cover Sequences

Structural Unit

EROMANGA BASIN

Formation Name/Age

Winton Formation / LATE CRETACEOUS to LATE CRETACEOUS

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

DETAILED OREBODY MODEL

EVAPORITE DEPOSIT

Mineralisation Age

ORE

CRETACEOUS

Comments

Web Page

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507515 **BUCHANAN**

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 24.2KM SSE OF HOME HILL, IN THE HEADWATERS OF WANGARATTA CREEK.

1:100 000 sheet Number and Name: 8358 AYR

Grid Reference: Zone 55 551070 mE 7802854 mN

Latitude -19.8697 Longitude 147.4878

Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Inkerman

Commodities	Size	Size Definition
EARTHY LIME / DOLOMITE (AGRICULTURAL)	SMALL	10 000 - 100 000 tonnes ELIM

Production Details

Period: 1-Jan-1972 to 31-Dec-1978

EARTHY LIME / DOLOMITE (AGRICULTURAL) 14,164.0 tonnes

Period: 1-Jul-1997 to 30-Jun-2016

EARTHY LIME / DOLOMITE (AGRICULTURAL) 65,703.2 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1972	to 1978	Mined by the Inkerman Lime Company.

Mining Operations	Comments
OPEN CUT MINING	Open cut is "T-shaped".

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 1044	33.00%	TAMA	GIUSEPPE
ML 1044	33.00%	TAMA	ROSETTA
ML 1044	33.00%	TAMA	ROBERT ANDREW
ML 1045	33.00%	TAMA	GIUSEPPE
ML 1045	33.00%	TAMA	ROSETTA
ML 1045	33.00%	TAMA	ROBERT ANDREW

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
KENNEDY IGNEOUS ASSOCIATION	Cud-BUR / CARBONIFEROUS to CARBONIFEROUS

Deposit Model
GENERAL OREBODY MODEL RESIDUAL DEPOSIT
DETAILED OREBODY MODEL ENRICHED LIME DEPOSIT

Mineralisation Age
ORE CARBONIFEROUS to CENOZOIC

Comments

Web Page

Queensland Minerals

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481276 CALCIUM NORTH

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 4.5KM WNW OF CALCIUM, 40KM S OF TOWNSVILLE

1:100 000 sheet Number and Name: 8258 MINGELA

Grid Reference: Zone 55 479046 mE 7826532 mN Latitude -19.6563 Longitude 146.8001 Date Recorded: 16/February/2017

Other Names for Deposit / Mine

Ryan Lime

Commodities	Size	Size Definition
LIMESTONE	SMALL	100 000 - 2 000 000 tonnes LST

Production Details

Period: 1-Jan-1926 to 31-Dec-1969	LIMESTONE	OTHER	35,000.0 tonnes
Period: 1-Jan-1969 to 31-Dec-1994	LIMESTONE	OTHER	366,000.0 tonnes
Period: 1-Jun-2006 to 30-Jun-2016	LIME		168,040.6 tonnes
	LIMESTONE	OTHER	474.7 tonnes

Published Reserves/Resources

CALCIUM NORTH
INFERRED MINERAL RESOURCE 1,000,000 tonnes Ore @
 1,000,000 Tonnes LIMESTONE

Letter from Greg Cochrane, David Mitchell Ltd (28/06/1999) estimated resources as 1 to 2Mt.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1926	to 1994	Ryan Lime Company commenced mining operations in 1926 continuing until 1969 when Calcium Products P/L took over and continued mining until 1994.
1994	to 1995	David Mitchell (North Qld) Pty Ltd acquired the leases in 1994. Mining ceased in 1995 and the kilns burned limestone trucked from the Christmas Creek deposit near Greenvale.
2006		Mining recommenced.

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 5978	100.00%	HY-TEC INDUSTRIES (QUEENSLAND) PTY LTD
ML 5984	100.00%	HY-TEC INDUSTRIES (QUEENSLAND) PTY LTD
ML 10151	100.00%	HY-TEC INDUSTRIES (QUEENSLAND) PTY LTD

Host Rock/Cover Sequences	Formation Name/Age
Structural Unit BURDEKIN BASIN	Burdekin Formation / MIDDLE DEVONIAN to MIDDLE DEVONIAN

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age	
ORE	Limestone.

Comments

These quarries, just to the north of the Calcium quarries, began operation in 1926 under the auspices of the Ryan Lime Company. From 1926 until 1969, over 35,000 tonnes of limestone was produced.

Calcium Products Pty Ltd took over operation of the quarries in 1969, and until 1994 had produced over 366,000 tonnes of limestone.

Unimin Australia held the leases for a while and rehabilitated the open cut workings.

BM Webb Quarries Pty Ltd now hold the leases.

The limestone forms a series of hills that have been worked extensively for agricultural and chemical grade limestone.

Web Page

Queensland Minerals

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493633 CANNINGTON

OPERATING MINE

Descriptive Location: 76 KM SOUTH-WEST OF MCKINLAY, 195KM SE OF MT ISA.

1:100 000 sheet Number and Name: 7054 SELWYN

Grid Reference: Zone 54 491720 mE 7582016 mN

Latitude -21.8658 Longitude 140.9199

Date Recorded: 30/January/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
SILVER	GIANT	>10 000 tonnes AG
LEAD	LARGE	2 500 000 - 5 000 000 tonnes PB
ZINC	MEDIUM	200 000 - 2 000 000 tonnes ZN

Production Details

Period: 1-Jul-1997 to 30-Jun-1998

SILVER		380,548.0 kilograms
LEAD	METAL	80,846.0 tonnes
ZINC	CONCENTRATE	41,932.0 tonnes

Period: 1-Jul-1998 to 30-Jun-2016

SILVER		18,921,297.6 kilograms
LEAD	METAL	4,131,595.8 tonnes
ZINC	METAL	1,222,440.7 tonnes

Published Reserves/Resources

BR 10471 Published in 2016

CANNINGTON OC SULPHIDES

INDICATED MINERAL RESOURCE 6,300,000 tonnes Ore @
 56.00 g/t SILVER **FOR** 352,800 Kilograms SILVER
 2.55 % LEAD **FOR** 160,650 Tonnes LEAD
 1.76 % ZINC **FOR** 110,880 Tonnes ZINC

BR 10471 Published in 2016

CANNINGTON OC SULPHIDES

MEASURED MINERAL RESOURCE 14,000,000 tonnes Ore @
 85.00 g/t SILVER **FOR** 1,190,000 Kilograms SILVER
 3.38 % LEAD **FOR** 473,200 Tonnes LEAD
 2.20 % ZINC **FOR** 308,000 Tonnes ZINC

BR 10471 Published in 2016

CANNINGTON UG SULPHIDES

INDICATED MINERAL RESOURCE 17,000,000 tonnes Ore @
 140.00 g/t SILVER **FOR** 2,380,000 Kilograms SILVER
 4.06 % LEAD **FOR** 690,200 Tonnes LEAD
 2.77 % ZINC **FOR** 470,900 Tonnes ZINC

Comments/Cut Off Factor: Mineralisation at A\$100/t averages 85g/tAg, 88%Pb and 81%Zn.

Probable 3.3Mt @ 227g/t Ag, 5.87% Pb & 3.71% Zn. Metal recovery Ag at 85%, Pb at 88%, Zn at 81%

BR 10471 Published in 2016

CANNINGTON UG SULPHIDES

INFERRED MINERAL RESOURCE 8,400,000 tonnes Ore @
 101.00 g/t SILVER **FOR** 848,400 Kilograms SILVER
 3.56 % LEAD **FOR** 299,040 Tonnes LEAD
 2.04 % ZINC **FOR** 171,360 Tonnes ZINC

Comments/Cut Off Factor: Mineralisation at A\$100/t averages 85g/tAg, 88%Pb and 81%Zn.

Reserve Life is 6.5 years (June 2016)

BR 10471 Published in 2016

CANNINGTON UG SULPHIDES

MEASURED MINERAL RESOURCE 50,000,000 tonnes Ore @
 190.00 g/t SILVER **FOR** 9,500,000 Kilograms SILVER
 5.11 % LEAD **FOR** 2,555,000 Tonnes LEAD
 3.45 % ZINC **FOR** 1,725,000 Tonnes ZINC

Comments/Cut Off Factor: Mineralisation at A\$100/t averages 85g/tAg, 88%Pb and 81%Zn.

Includes Proved 17Mt @ 202g/t Ag, 5.73% Pb & 3.69% Zn; Metal recovery Ag at 85%, Pb at 88%, Zn at 81%

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10471	2016	SOUTH 32 LTD	SOUTH 32 ANNUAL REPORT 2016	HTTP://WWW.SOUTH32.NET/INVESTORS-MEDIA/REPORTS-AND-PRESENTATIONS

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Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1990		1992	Discovered by BHP Minerals Pty Ltd in June 1990. Discovery not announced until December 1991.
1993		1994	Detailed feasibility study in early 1993. Excavation of exploration decline commenced in August 1993.
1995		1996	Development approved. Site works continued.

Operating Mine Life: 1997 to 2026 First production ore trucked to the surface in May 1997. Full production commenced mid-1998. 20 year mine life as of March 2006.

Mining Operations	Comments
UNDERGROUND MINING METHODS	
DECLINED SHAFTS/DRIVES	
SHAFTS	
STOPING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 90059	100.00%	SOUTH32 CANNINGTON PROPRIETARY LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
KURIDALA-SELWYN DOMAIN	Mount Norna Quartzite? / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENT-HOSTED PB-ZN (BROKEN HILL TYPE)

Mineralisation Age

ORE	PALAEOPROTEROZOIC	<1677+/-9 Ma
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Comments

The deposit occurs within a sequence of garnetiferous psammite within a migmatitic quartzo-feldspathic terrain beneath approximately 10-60m of overlying Cretaceous and Recent sediments. Currently the world's largest single mine producer of silver. The sequence strikes north and is cut by two major NW-trending structures. The Trepell Fault separates the low-grade Northern and deeper, high-grade Southern zones of the deposit. The Hamilton Fault forms the southern limb of the deposit. The "Cannington Growth Project" was approved in 2003, allowing for underground development into the Northern zone and improvements to be made to mine site facilities.

BHP Billiton reported average Metallurgical recovery figures in Annual Report 2011: Ag 87%; Pb 89%; Zn 70% (BR9765). UG sulphide operation extent for proved ore reserves is 12.5m sectional x 15m vertical & probable ore reserves is 25m sect. x 2m vert. In 2011 BHP Billiton reported that at Cannington additional mineral resources were identified due to additional drilling and also as part of an open-pit project study currently undertaken (BR9765).

In 2016 South32 stated that Ag and Pb production decreased by 5% due to a temporary reduction in mill throughput, but conversely an increase in the average Zn ore grade resulted in record annual Zn production (9% increase) (BR10471)

2016: South32 concluded that an investment decision to potentially extend the life of the Cannington mine will not be required before the end of this decade (BR10471).

In 2015 South 32 announced that with declining grades the paste plant will play a critical role in minimising the impact of grade decline in the underground mine by increasing mining rates. Also silver and lead production is expected to decline over the next two years although this will be partly offset by an increase in zinc ore grades and production. (BR10428).

There has been no announcement from the company in respect of the potential open-cut resource although an EIS (environmental impact statement) process has been completed to progressively convert part of the current underground mining operation to an open-cut mining operation. Processing throughput would increase to approximately 4 Mtpa with an average annual concentrate production of 415,000 t.

As of July 2014, Cannington had a reserve life of 9 years, although Cannington is was scheduled to cease operations in 2020. Mine life is extended by means of an open cut mine over the shallower northern underground operations.

Web Page

<http://www.south32.net/>

Queensland Minerals

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38085 CAPE FLATTERY

OPERATING MINE

Descriptive Location: 30.2 KM ESE OF MUNBURRA, 200KM NNW OF CAIRNS.

1:100 000 sheet Number and Name: 7968 CAPE FLATTERY

Grid Reference: Zone 55 314215 mE 8342269 mN

Latitude -14.9880 Longitude 145.2722

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Cape Flattery Silica Mine
Stanton
Turner
Spalenka

Commodities	Size	Size Definition
SILICA SAND	LARGE	>2 500 000 tonnes SIS

Production Details

Period: 1-Jan-1968 to 31-Dec-1993	
SILICA SAND	14,800,000.0 tonnes
Period: 1-Jul-1994 to 30-Jun-2014	
SILICA SAND	27,637,728.1 tonnes
Period: 1-Jul-2001 to 30-Jun-2016	
FOUNDRY SAND	9,021,274.9 tonnes
Period: 1-Jul-2007 to 30-Jun-2014	
SILICA SAND	818,459.6 tonnes

Published Reserves/Resources

BR 5696 Published in 1998

CAPE FLATTERY

PROVED ORE RESERVE

99.00 % SILICA SAND **FOR** 200,000,000 Tonnes SILICA SAND

This resource quoted on 2012 website (C-2001)

STANTON+TURNER+CAPE FLATTERY

INDICATED MINERAL RESOURCE

1,000,000,000 Tonnes SILICA SAND

Comments/Cut Off Factor: Indicated resource pers. comm. Alex Temperley 1999.

Indicated from drilling results. Pers.Comm. 16/2/1999 from Alex Temperley by phone 07 4051 5099. This figure of the indicated resource is an estimate only of silica sand.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 5696	1998	DEPARTMENT OF MINES AND ENERGY, QUEENSLAND	QUEENSLAND MINERALS AND ENERGY REVIEW, 1997-98.	

Major Mining Related Events

Year Commenced	Year Completed	Comments
1968	to 1991	

Mining Operations

Comments

SURFACE MINING METHODS
DREDGING

Tenure Type/Number	SHARE	Company Name/Surname
ML 2806	100.00%	CAPE FLATTERY SILICA MINES PTY LTD
ML 2965	100.00%	CAPE FLATTERY SILICA MINES PTY LTD
ML 7069	100.00%	CAPE FLATTERY SILICA MINES PTY LTD
ML 40048	100.00%	CAPE FLATTERY SILICA MINES PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

MODERN COASTAL DEPOSITS

Deposit Model

GENERAL OREBODY MODEL	DUNE DEPOSIT
DETAILED OREBODY MODEL	DUNE DEPOSIT SILICA SAND

Mineralisation Age

ORE PLEISTOCENE

Queensland Minerals

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Comments

The Cape Flattery-Cape Bedford dunefield is ~580 square km in area and occupies a low-lying coastal plain, interspersed with numerous dune lakes and swamps.

The sand is devoid of vegetation, unconsolidated and consists of subangular to subrounded quartz grains of high chemical purity. Heavy mineral content ranges from a trace to ~ 0.75%.

The average analysis of the sand exported is 99.7% SiO₂, 0.15% Al₂O₃, 0.012% Fe₂O₃, nil CaO, 0.04% MgO and 0.08% loss on ignition.

Web Page

<http://www.c fsm.com.au/>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507499 CAPRICORN SANDSTONE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 2.7KM SE OF STANWELL.

1:100 000 sheet Number and Name: 8950 MOUNT MORGAN

Grid Reference: Zone 56 228790 mE 7398433 mN

Latitude -23.5017 Longitude 150.3443

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Stanwell

Scotsman'S Folly

Commodities

BUILDING STONE

SANDSTONE

Size

SMALL

SMALL

Size Definition

100 000 - 2 000 000 tonnes BLST

10 000 - 100 000 tonnes SST

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

SANDSTONE

185,470.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number

SHARE

Company Name/Surname

ML 7341

100.00%

CAPRICORN STONE PRODUCTS PTY LTD

ML 80102

100.00%

CAPRICORN STONE PRODUCTS PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

SURAT BASIN

Precipice Sandstone / EARLY JURASSIC to EARLY JURASSIC

Deposit Model

Mineralisation Age

Comments

High grade sandstone material used as wall cladding, pavers and restoration grade stone. Sandstone is also supplied for retaining walls, landscaping products and cut to order for commercial projects.

The Stanwell reserve holds millions of cubic metres of dimension stone and has a probable mine life well into the next century. The quarry was established in the late 1800s. Quarrymen used bars and black powder to extract stone manually then.

In 1994 the main quarries were re-opened. Fantani chainsaws were used to trench the stone. The stone was then under drilled, plugged and feathered to extract sandstone in large blocks. Since 2000 drilling and diamond wire were utilised to open up new areas of the reserve. Rose Hill was the source of restoration stone for the 4th stage of restoration of Parliament House in the Brisbane CBD as in various other prominent historical buildings in Sydney (Law Court, Central Railway Station, 2 Cathedrals).

Web Page

<http://capricornsandstone.com.au/>

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485888 CAPRICORN SAPPHIRE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 8.2KM EAST OF SAPPHIRE, ANAKIE AREA.

1:100 000 sheet Number and Name: 8451 RUBYVALE

Grid Reference: Zone 55 582004 mE 7407292 mN

Latitude -23.4422 Longitude 147.8028

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Policeman'S Run
Policeman'S Run North
Nardoo
Nunan One One Three
Nunan One One Four
Nunan One One Five
Staines Four

Commodities	Size	Size Definition
SAPPHIRE	LARGE	>10 tonnes SAPP

Production Details

Period: 1-May-2005 to 30-Jun-2005	
SAPPHIRE	234,609.0 carats
Period: 1-Jul-2005 to 30-Jun-2006	
SAPPHIRE	2,063,716.0 carats
Period: 1-Jul-2015 to 30-Jun-2016	
SAPPHIRE	1,098,324.0 australian dollars

Published Reserves/Resources

BR 10508 Published in 2016

NORTHERN FLATS

INFERRED MINERAL RESOURCE 641,000 tonnes Ore @
8,005,000 Carats SAPPHIRE

JORC 2012; grade 10 carats per tonne

BR 10508 Published in 2016

NORTHERN FLATS

MEASURED MINERAL RESOURCE 5,373,165 tonnes Ore @
107,463,293 Carats SAPPHIRE

JORC 2004; grade: 20 carats per tonne

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10508	2016	RICHLAND RESOURCES LIMITED	RICHLAND RESOURCES LTD JORC RESOURCE ESTIMATE UPDATE FOR CAPRICORN SAPPHIRE MINE, 22 JUNE 2016	HTTP://WWW.RICHLANDRESOU RCESLTD.COM/CAPRICORNSAPP HIRE/

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Operating Mine Life: 2005 to 2010 Current reserves give a mine life of 5.3 years as at March 2005.

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 70419	100.00%	CAPRICORN SAPPHIRE PTY LTD
ML 70447	100.00%	CAPRICORN SAPPHIRE PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CAINOZOIC ALLUVIAL & COLLUVIAL DEPOSITS	Qa-QLD / QUATERNARY to QUATERNARY

Deposit Model

GENERAL OREBODY MODEL	ALLUVIAL PLACER
DETAILED OREBODY MODEL	ALLUVIAL/ELUVIAL GEMSTONES

Mineralisation Age

ORE	CENOZOIC
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Comments

The sapphire-bearing gravels are 1 to 3m thick and lie beneath an average of 9m of overburden.

The sapphires of the Cainozoic deposits of the Anakie fields are thought to be derived from the Hoy Basalt of presumed Tertiary age. The Hoy Basalt is represented by at least 60 remnants of vent plugs intruding the Retreat Granite.

Nardoo is the largest sapphire resource in Queensland and Australis Mining Operations Pty Ltd planned to produce 4160kg of sapphire per year. However, the company was placed in administration in October 2005.

The EPA suspended the mine's environmental authority in April 2006. Richland Resources Limited commenced operations at the Capricorn sapphire (Nardoo) mine in April 2015.

In June 2016 Richland Resources updated the resource estimate as follows; Northern Flats, JORC 2012 inferred 641 000 t at 10 carats per tonne using the same cut-off grade as the mining operation.

The Northern Flats area has an estimated average sapphire-bearing gravel thickness of 1.5 m with an average overburden of approximately 4m.

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493442 CEDARS MINE

OPERATING MINE

Descriptive Location: APPROX 10KM SW OF YARRAMAN, KINGAROY AREA, 130KM NW OF BRISBANE.

1:100 000 sheet Number and Name: 9244 KINGAROY

Grid Reference: Zone 56 389416 mE 7026257 mN Latitude -26.8809 Longitude 151.8866 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Margries Lease
Yarraman
Lizzie

Commodities	Size	Size Definition
BENTONITE	MEDIUM	200 000 - 20 000 000 tonnes BENT

Production Details

Period: 1-Jan-1937 to 31-Dec-1938	
BENTONITE	130.0 tonnes
Period: 1-Jan-1940 to 31-Dec-1942	
BENTONITE	442.0 tonnes
Period: 1-Jul-1996 to 30-Jun-2016	
BENTONITE	138,066.0 tonnes

Published Reserves/Resources

BENTONITE
INFERRED MINERAL RESOURCE
200,000 Tonnes BENTONITE

Comments/Cut Off Factor: Estimated resource (pers. comm. David Douglas, March 1999).

Estimated resource at March 1999 by David Douglass (pers.com.).

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Operating Mine Life: 1985 to 2021 Mining lease holders reported in February 2001 that sufficient material existed for 20 years of mining.

Mining Operations	Comments
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OPEN CUT MINING
UNDERGROUND MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 6610	100.00%	PCP DOUGLASS PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MAIN RANGE VOLCANIC SUBPROVINCE	Main Range Volcanics/s / EARLY TERTIARY to LATE TERTIARY

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	LATERITIC KAOLIN

Mineralisation Age

ORE	TERTIARY
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Comments

Clay minerals have formed through the weathering and alteration of acid volcanic sediments, probably deposited in a lacustrine environment.

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40335 CEMENT MILLS

OPERATING MINE

Descriptive Location: 41.9KM ENE OF INGLEWOOD, 175KM SW OF BRISBANE.

1:100 000 sheet Number and Name: 9141 INGLEWOOD

Grid Reference: Zone 56 352805 mE 6864476 mN

Latitude -28.3376 Longitude 151.4983

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Gore Quarry

Commodities	Size	Size Definition
LIMESTONE	MEDIUM	2 000 000 - 10 000 000 tonnes LST

Production Details

Period: 1-Jan-1915 to 31-Dec-1969

LIMESTONE CRUSHED ROCK 1,140,000.0 tonnes

Period: 1-Jul-1998 to 30-Jun-2016

LIMESTONE CRUSHED ROCK 570,967.9 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1915	to 1936	Mined by Queensland Cement & Lime Co.
1944	to 1969	Mined by A.C.F. & Shirley Fertilizers.
1998		Mined by Equipment & Machinery Sales Pty Ltd.

Mining Operations

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 50143	100.00%	SOUTH QUEENSLAND LIME PTY. LTD.
ML 50224	100.00%	SOUTH QUEENSLAND LIME PTY. LTD.

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
TEXAS SUBPROVINCE	Texas beds / EARLY CARBONIFEROUS to EARLY CARBONIFEROUS

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age

ORE	LATE DEVONIAN to EARLY CARBONIFEROUS
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Comments

The limestone is grey to light grey and strongly jointed. Individual lenses are up to 450m long by 90m wide. It has been mined since 1915. The current operator is Equipment & Machinery Sales Pty Ltd.

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45523 CHRISTMAS CREEK LIMESTONE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 20.7 KM NNW OF CLARKE RIVER HOMESTEAD, 150KM WNW OF TOWNSVILLE.

1:100 000 sheet Number and Name: 7959 CLARKE RIVER

Grid Reference: Zone 55 324096 mE 7892072 mN Latitude -19.0565 Longitude 145.3283 Date Recorded: 16/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
LIMESTONE	SMALL	100 000 - 2 000 000 tonnes LST
LIME		
AGGREGATE		

Production Details

Period: 1-Jul-1996 to 30-Jun-2016
LIMESTONE OTHER 718,002.6 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1975	to 1975	Mined to supply ballast for the abandoned Greenvale railway line.
1996	to 2003	Mining by David Mitchell Ltd with primary crushed limestone trucked 265km to Calcium (near Woodstock) where it is burnt in kilns to produce quick lime.
2003	to 2005	David Mitchell Ltd acquired by Unimin Pty Ltd. Mining operations continued.
2005		Zinaback Pty Ltd acquired deposit and currently screening dumps to obtain material before restarting work in the open cut.

Mining Operations	Comments
OPEN CUT MINING	Open cut has been mined to southern boundary of the mining lease.

Tenure Type/Number	SHARE	Company Name/Surname
ML 1445	100.00%	ZINABACK PTY. LTD.

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CAMEL CREEK SUBPROVINCE	Perry Creek Formation / LATE ORDOVICIAN to SILURIAN

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age

ORE	ORDOVICIAN to SILURIAN	Fossiliferous limestone dipping ~30deg east, several caves formed in limestone adjacent to current mining. Intruded by several andesitic dykes.
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Comments

The limestone consists mainly of massive, recrystallised calcilitite with local development of bioclastic calcarenite and calcirudite. It has supplied ballast for the Greenvale railway line and limestone for lime production.

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477119 CLAYPAVE

OPERATING MINE

Descriptive Location: 7 KM EAST OF IPSWICH, 25KM WEST OF BRISBANE.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 483110 mE 6946583 mN

Latitude -27.6045 Longitude 152.8288

Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Hudsons No 1

Commodities

BRICK CLAY

Size

MEDIUM

Size Definition

200 000 - 20 000 000 tonnes BKC Y

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

BRICK CLAY

552,679.0 tonnes

Published Reserves/Resources

CLAY-SHALE INFERRED MINERAL RESOURCE

7,000,000 Tonnes BRICK CLAY

Comments/Cut Off Factor: Resource estimate from Claypave Pty Ltd. (2004)

Resource estimate from Leon Burgess-Dean, Research and Development Manager, Claypave Pty Ltd

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Operating Mine Life: 2004 to 2104 Estimated 100 years of clay resource remaining in existing mining leases at current extraction rates of 70 000 tonnes clay per year (pers comm Claypave Pty Ltd).

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 4553	100.00%	CLAYPAVE PTY LTD
ML 4556	100.00%	TRANSPACIFIC WASTE MANAGEMENT PTY LTD
ML 4559	100.00%	CLAYPAVE PTY LTD
ML 4642	100.00%	JAFFAS QLD PTY LTD
ML 4714	100.00%	CLAYPAVE PTY LTD
ML 50070	100.00%	CLAYPAVE PTY LTD
ML 50077	100.00%	CLAYPAVE PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

BOOVAL BASIN

Redbank Plains Formation / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE

TERTIARY

Comments

Web Page

www.claypave.com

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504531 COMERFORD SANDSTONE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: EAST OF AIR FORCE ROAD, SOUTH OF GOLD MINE RD, HELIDON

1:100 000 sheet Number and Name: 9342 HELIDON

Grid Reference: Zone 56 412022 mE 6956494 mN

Latitude -27.5123 Longitude 152.1092

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Bexton Quarry
Paradise Bush Rocks Quarry
Sandstone 1

Commodities

BUILDING STONE
SANDSTONE

Size

VERY SMALL
SMALL

Size Definition

<100 000 tonnes BLST
10 000 - 100 000 tonnes SST

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

SANDSTONE

39,423.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 7246	100.00%	BEXTON INVESTMENTS PTY LTD

Host Rock/Cover Sequences

Structural Unit

CLARENCE-MORETON BASIN

Formation Name/Age

Woogaroo Subgroup / LATE TRIASSIC to EARLY JURASSIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

TRIASSIC to JURASSIC

Comments

Comerford Sandstone Pty Ltd operates a large quarry from which blocks are cut by trenching and extracted for processing in the company's processing facility on site. The company markets its products both domestically and overseas.

A shipment of sandstone tiles was sent to Japan in 1990 and contracts have been supplied since for resort projects and housing estates.

Export destinations include Hong Kong, Indonesia, Malaysia, Korea, Taiwan, Canada and the United States of America.

It has also supplied contracts in Queensland for various projects including the Sheraton Mirage, Port Douglas; Quay West Hotel, Brisbane; and Arundel Hills Country Club, Gold Coast.

Ownership of quarry changed to Bexton Investments Pty Ltd in June 2009.

Web Page

<http://www.comerfordsandstone.com.au/>

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478957 CONJUBOY DIATOMITE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 45KM NW OF GREENVALE, 6.8 KM NE OF CONJUBOY HOMESTEAD, 200KM SW OF CAIRNS.

1:100 000 sheet Number and Name: 7860 CONJUBOY

Grid Reference: Zone 55 269869 mE 7935032 mN Latitude -18.6632 Longitude 144.8183 Date Recorded: 11/January/2016

Other Names for Deposit / Mine

Melinga

Commodities	Size	Size Definition
DIATOMITE	LARGE	>2 000 000 tonnes DIAT

Production Details

Period: 1-Jul-2009 to 30-Jun-2015

DIATOMITE 15,697.0 tonnes

Published Reserves/Resources

BR 9510 Published in 2003

CONJUBOY
INFERRED MINERAL RESOURCE 200,000,000 cubic metres Ore @
200,000,000 Cubic Metres DIATOMITE

Includes defined resource of >20 million m3 of diatomite-bearing material.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9510	2003	PRENTICE, P.	AUSTRALIAN DIATOMACEOUS EARTH JOINT VENTURE.	IN SIEMON, J.E., MARINELLI, J.F. & BERRY, M.V. (EDS) AUSTRALIAN INDUSTRIAL MINERALS CONFERENCE, THE FUTURE FOR NATURAL AND RECYCLED MINERALS AND ROCKS, EXTENDED ABSTRACTS. AUSTRALIAN INSTITUTE OF GEOSCIENTISTS BULLETIN 38, 39-42.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
MDL 325	20.00%	DIATOMACEOUS EARTH INVESTMENTS PTY LTD
MDL 325	80.00%	GREENVALE SILICON PTY LTD
ML 10279	20.00%	DIATOMACEOUS EARTH INVESTMENTS PTY LTD
ML 10279	80.00%	GREENVALE SILICON PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

MCBRIDE BASALT PROVINCE

TQ1d-QLD / LATE TERTIARY to QUATERNARY

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

DIATOMITE DEPOSIT

Mineralisation Age

ORE

TERTIARY

Comments

This deposit was discovered during BMR-GSQ mapping in the 1950s. The diatomite is kaolinitic and intercalated with claystone and sandstone.

The diatomite has a porosity of 74.36%, bulk dry density of 0.67g/cm³ and grain density of 2.26g/cm³. It consists mainly of the cylindrical diatom Melosira.

Production of diatomite commenced in 2010.

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42403 CORALIME

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 4.5KM NE OF MT GARNET.

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 303147 mE 8048054 mN

Latitude -17.6456 Longitude 145.1444

Date Recorded: 16/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
LIMESTONE	SMALL	100 000 - 2 000 000 tonnes LST
MARBLE	VERY SMALL	<10 000 tonnes MARB

Production Details

Period: 1-Jul-2000 to 30-Jun-2016

LIMESTONE CRUSHED ROCK 286,203.8 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		
1971	to 1979	First mined by Adams Enterprises Pty Ltd.		

Operating Mine Life: 1979 to 2026 Acquired by Miriwinni Pulverised Lime Pty Ltd which has operated the deposit continuously producing crushed lime for agricultural use. Expected 30 years remaining (March 2001)

Mining Operations	Comments
OPEN CUT MINING	Two opencuts 250m apart. Main opencut is 150m diameter and ~20m deep. Second opencut is slightly smaller.

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 4023	33.00%	WILKINS	Maxwell John
ML 4023	33.00%	WILKINS	Robert James
ML 4023	33.00%	WILKINS	Russell Ross
ML 20013	33.00%	WILKINS	Maxwell John
ML 20013	33.00%	WILKINS	Robert James
ML 20013	33.00%	WILKINS	Russell Ross
ML 20530	33.00%	WILKINS	Maxwell John
ML 20530	33.00%	WILKINS	Robert James
ML 20530	33.00%	WILKINS	Russell Ross

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> HODGKINSON PROVINCE	Chillagoe Formation / EARLY SILURIAN to EARLY DEVONIAN

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age	
ORE	SILURIAN to EARLY DEVONIAN

Comments
The marble is structureless and extensively recrystallised, being in most places a fine-grained marble.

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507688 **CORK**

OPERATING MINE

Descriptive Location: 110KM SW OF WINTON, 2 KM SW OF MAIN GYPSUM MINING OPERATION.

1:100 000 sheet Number and Name: 7352 TULMUR

Grid Reference: Zone 54 607011 mE 7463403 mN Latitude -22.9340 Longitude 142.0436 Date Recorded: 19/May/2015

Other Names for Deposit / Mine

Cork No 4

Commodities	Size	Size Definition
GYPSUM	SMALL	5 000 - 5 000 000 tonnes GYP

Production Details

Period: 1-Jul-2006 to 30-Jun-2014

GYPSUM 141,263.6 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		

Mining Operations	Comments
SURFACE MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
ML 95261	100.00%	ZINABACK PTY. LTD.

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> TERTIARY SEDIMENTARY BASINS	Old Cork beds / EARLY TERTIARY to EARLY TERTIARY

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	EVAPORITE DEPOSIT

Mineralisation Age	
ORE	TERTIARY

Comments

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504552 CORK GYPSUM

OPERATING MINE

Descriptive Location: 110KM SW OF WINTON, 340KM SOUTH OF MT ISA.

1:100 000 sheet Number and Name: 7352 TULMUR

Grid Reference: Zone 54 609004 mE 7465008 mN

Latitude -22.9193 Longitude 142.0630

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Winton Gypsum

Commodities	Size	Size Definition
GYPSUM	SMALL	5 000 - 5 000 000 tonnes GYP

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

GYPSUM 190,883.2 tonnes

Published Reserves/Resources

BR 6194 Published in 1999

CORK DEPOSITS 1,2,3 AND 4 INFERRED MINERAL RESOURCE

2,000,000 Tonnes GYPSUM

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 6194	1999	SMART J V	GYPSUM	MINERAL INFORMATION LEAFLET NO 26 QUEENSLAND DEPARTMENT OF MINES AND ENERGY

Major Mining Related Events

Year Commenced Year Completed Comments

Mining Operations	Comments
SURFACE MINING METHODS	Surface excavations using front-end loader to 1m depth.

Tenure Type/Number	SHARE	Company Name/Surname
ML 95102	100.00%	ZINABACK PTY. LTD.
ML 95106	100.00%	ZINABACK PTY. LTD.
ML 95298	100.00%	ZINABACK PTY. LTD.
ML 95510	100.00%	ZINABACK PTY. LTD.

Host Rock/Cover Sequences

Structural Unit

TERTIARY SEDIMENTARY BASINS

Formation Name/Age

Old Cork beds / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

EVAPORITE DEPOSIT

Mineralisation Age

ORE

TERTIARY

Comments

The deposits comprise unconsolidated gypsum crystals in beds up to 2m thick within sediments of probable Tertiary age. The gypsum is exposed over a wide area in small gullies and on the edges of incised plateaux. The gypsum is suitable for agricultural use. The origin of the gypsum is unclear, but it was probably the remnants of a shallow salt lake formed in the Tertiary on the Cretaceous Winton Formation.

The deposit forms 2 to 3m high, flat hillocks above lower ground due to more resistance to erosion. Pale yellow-white earthy calcareous soil contains gypsum rosettes up to 40mm in diameter. There appears to be large area of gypsum-bearing ground.

The deposit is mined by Zinaback Pty Ltd. The product is sold for agricultural purposes.

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501301 CRACOW

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 3.21KM W OF CRACOW, 174.89KM SE OF GLADSTONE.

1:100 000 sheet Number and Name: 8947 CRACOW

Grid Reference: Zone 56 225128 mE 7200217 mN

Latitude -25.2892 Longitude 150.2703

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Klondyke
 Royal Standard
 Klondyke North
 Cracow Gold Mine
 Crown Shoot
 Royal Shoot

Commodities	Size	Size Definition
GOLD	MEDIUM	5 - 50 tonnes AU
SILVER	SMALL	5 - 500 tonnes AG

Production Details

Period:	1-Jul-1932	to	30-Jun-1933	8 tonnes HARD ROCK ORE (OR REEF)
	GOLD		BULLION	0.2 kilograms
Period:	1-Jan-1936	to	31-Dec-1942	6,916 tonnes HARD ROCK ORE (OR REEF)
	GOLD		FINE	77.0 kilograms
	SILVER			16.1 kilograms
Period:	1-Jan-1949	to	31-Dec-1952	4,353 tonnes HARD ROCK ORE (OR REEF)
	SILVER			4.2 kilograms
	GOLD		FINE	27.5 kilograms
Period:	1-Jul-2004	to	30-Jun-2016	
	GOLD		FINE	28,669.4 kilograms
	SILVER			21,854.6 kilograms
Period:	1-Jul-2014	to	30-Jun-2015	
	GOLD		BULLION	2,261.3 kilograms

Published Reserves/Resources

BR 10462 Published in 2016

CRACOW UNDERGROUND

INDICATED MINERAL RESOURCE 1,000,000 tonnes Ore @
 6.53 g/t GOLD **FOR** 6,530 Kilograms GOLD

Comments/Cut Off Factor: 2.8g/t Au cutoff.

Royal, Crown, Klondyke North, Sovereign, Kilkenny, Tipperary, Empire, Roses Pride, Phoenix, Stockpiles.
 Includes probable reserves of 0.56 Mt at 5.12 g/t Au at 3.5% cut-off.

BR 10462 Published in 2016

CRACOW UNDERGROUND

INFERRED MINERAL RESOURCE 1,080,000 tonnes Ore @
 5.15 g/t GOLD **FOR** 5,562 Kilograms GOLD

Comments/Cut Off Factor: 2.8g/t Au cutoff.

Royal, Crown, Klondyke North, Sovereign, Kilkenny, Tipperary, Empire, Roses Pride, Phoenix, Stockpiles.

BR 10462 Published in 2016

CRACOW UNDERGROUND

MEASURED MINERAL RESOURCE 340,000 tonnes Ore @
 10.57 g/t GOLD **FOR** 3,593 Kilograms GOLD

Comments/Cut Off Factor: 2.8g/t Au cutoff.

Royal, Crown, Klondyke North, Sovereign, Kilkenny, Tipperary, Empire, Roses Pride, Phoenix, Stockpiles.
 Includes proved reserves 0.50Mt @ 6.11g/t Au

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10462	2016	EVOLUTION MINING LIMITED	ASX ANNOUNCEMENT: ANNUAL MINERAL RESOURCES AND ORE RESERVES STATEMENT	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 21 APRIL 2016. EVOLUTION MINING LIMITED, MELBOURNE.

Queensland Minerals

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Major Mining Related Events

Year Commenced	Year Completed	Comments
1875		Gold first discovered in the Cracow region.
1932	to 1933	First period of mining of the Klondyke veins.
1936	to 1942	
1949	to 1952	
1996	to 2000	Joint venture between Newcrest Mining Ltd and Sedimentary Holdings NL (now part of Lion Selection Group) commenced in 1996. Strategy of drilling >100m below old workings delineated major lode system beneath historical workings in 1999.
2001	to 2002	A comprehensive feasibility study was completed in July 2002.

Operating Mine Life: 2003 to 2011 Decline commenced in October 2003 to access resources. Seven year mine life as of October 2004. The proposed mining method is uphole bench stoping with waste rock fill. Estimated cost of project ~A\$90m.

Mining Operations	Comments
DECLINED SHAFTS/DRIVES	Exploration decline was constructed to better define resources. The Royal, Crown and Klondyke North shoots are mined from the decline access. The portal is to the east of the Royal shoot.
SHAFTS	Old workings shallow and generally less than 25m deep.
PITS	
UNDERGROUND MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
ML 3219	100.00%	LION MINING PTY LTD
ML 80088	100.00%	LION MINING PTY LTD
ML 80089	100.00%	LION MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
AUBURN SUBPROVINCE	Camboon Volcanics / LATE CARBONIFEROUS to EARLY PERMIAN

Deposit Model

GENERAL OREBODY MODEL	EPITHERMAL VEINS/PIPE/STOCKWORK
DETAILED OREBODY MODEL	EPITHERMAL PRECIOUS METAL
	LOW SULPHIDATION EPITHERMAL

Mineralisation Age

ORE	EARLY PERMIAN	Veins commonly bifurcate.
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Comments

Sedimentary Holdings NL, in a joint venture with Newcrest Mining Ltd, discovered significant extensions to a lode system beneath historical workings 2km west of previous operations at Golden Plateau.

Mineralisation in the Klondyke lode, 150-400m below surface, is a low sulphidation epithermal system formed in and around a major fault zone. One or more multiphase quartz-adularia-chalcedony lodes are enclosed by stockwork veining in altered volcanics. The core zone of the mineralisation (Royal Shoot and Crown Shoot) is currently being mined. The Royal orebody was the main ore source for the first two years of production.

The company gave development approval in August 2002. Mining commenced in 2005 with decline access for mining the high-grade Royal, Crown and Klondyke North shoots.

The mineralisation is amenable to conventional cyanide leach extraction after fine grinding, with average recoveries of 94.3% of the gold. Drilling to the south of the Kilkenny resource in 2008 resulted in the discovery of a new zone of high-grade gold mineralisation. Resource definition drilling produced encouraging results from the Roses Pride and Empire structures.

An exploration decline was commenced at Kilkenny in the first half of 2009. The mine is now held by Evolution Mining Limited (since 2011).

In 2011 Evolution Mining emerged as operator of the Cracow operations after a merger of Conquest and Catalpa. Evolution mining achieved increases at the Kilkenny, Roses Pride and Coronation ore bodies, but decreased the overall reserve estimates.

The ore reserves have been reported above cut-off grade of 3.0 g/t Au and based on a gold price of A\$1350 per ounce and a gold recovery of 93%. Mining depletion and a narrowing of some lode structures was also taken into account by Evolution (2012).

The individual Crown shoot resources (Jun 2012) include measured resource 73000t at 9.4g/t Au, inferred resource 380000t at 4.5g/t Au; including a proved reserve of 32000t at 12.2g/t Au and a probable reserve of 3000t at 1.0g/t Au (BR10019).

The individual Klondyke North resources (Jun 2012) include a combined (measured, indicated and inferred) resource 418000t at 4.7g/t Au, ; including a proved reserve of 400t at 5.7g/t Au and a probable reserve of 158000t at 4.4g/t Au (BR10019).

In Dec 2010 resource definition continued to validate Kilkenny, Phoenix, Tipperary & Empire shoots: Significant intercepts: KKU051: 21.1m @ 3.8g/t Au from 340m; KKU054: 10.6m @ 13g/t Au from 119m; KKU062: 9.7m @ 11g/t Au from 278m

Dec2010 (cont): KKU053: 2.0m @ 20g/t Au from 101m; KKU060: 4.8m @ 7.7g/t from 179.7m (BR9605).

Queensland Minerals

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Web Page

www.evolutionmining.com.au

Queensland Minerals

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42412 DALCOUTH

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 12KM NNE OF MT GARNET, 90KM SW OF CAIRNS.

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 304114 mE 8055769 mN

Latitude -17.5759 Longitude 145.1542

Date Recorded: 20/May/2015

Other Names for Deposit / Mine

Dalcoath
Dividend
Blue Jacket

Commodities	Size	Size Definition
TIN	SMALL	100 - 1 000 tonnes SN

Production Details

Period: 1-Jan-1940 to 31-Dec-1973 52 tonnes HARD ROCK ORE (OR REEF)
CASSITERITE 0.8 tonnes
Period: 1-Jul-2012 to 30-Jun-2013
TIN 5.1 tonnes

Published Reserves/Resources

BR 10173 Published in 2012

DALCOUTH
INFERRED MINERAL RESOURCE 102,400 tonnes Ore @
0.34 % TIN **FOR** 348 Tonnes TIN

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10173	2012	MGT RESOURCES LIMITED	MGT RESOURCES PROSPECTUS	REPORT TO THE AUSTRALIAN STOCK EXCHANGE. 15 OCTOBER 2012, MGT RESOURCES LIMITED

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
UNDERGROUND MINING METHODS	
SHAFTS	
ADITS	
SURFACE MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
ML 4349	100.00%	MGT MINING LIMITED
ML 20547	100.00%	MGT MINING LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
HODGKINSON PROVINCE	Hodgkinson Formation / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL	INTRUSIVE-RELATED (PORPHYRY-RELATED)
DETAILED OREBODY MODEL	TIN VEINS (CORNISH-TYPE)

Mineralisation Age

ORE LATE CARBONIFEROUS

Comments

Rich, tin-bearing chloritic lodes were worked close to a basic dyke.
2013: The more outstanding hits included 4m grading 2.24% tin from 19m depth. 8m grading 1.1% tin from 11m depth. 8m at 0.56% tin from 38m depth. 6m at 1.2% tin from 42m depth. 3m at 1.78% tin from 16m depth. and 3m at 1.68% tin from 57m depth.

Web Page

<http://www.mgt.net.au/>

Queensland Minerals

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479740 DINGO DAM

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 88 KM NORTH-WEST OF CHARTERS TOWERS, 95KM WEST OF TOWNSVILLE.

1:100 000 sheet Number and Name: 8059 EWAN

Grid Reference: Zone 55 362592 mE 7845570 mN

Latitude -19.4796 Longitude 145.6908

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Verde Tinto
Circular Laterite
Lucky Break

Commodities	Size	Size Definition
NICKEL	SMALL	250 - 25 000 tonnes NI
COBALT	SMALL	10 - 1 000 tonnes CO
IRON	VERY SMALL	<5 000 tonnes FE
MAGNESITE	VERY SMALL	<10 000 tonnes MS

Production Details

Period: 30-Jun-2014 to 30-Jun-2016 89,241 tonnes HARD ROCK ORE (OR REEF)
COBALT 0.1 tonnes
NICKEL 1,637.0 tonnes

Published Reserves/Resources

BR 9088 Published in 2009

CIRCULAR LATERITE

INDICATED MINERAL RESOURCE 850,000 tonnes Ore @
0.72 % NICKEL **FOR** 6,120 Tonnes NICKEL
0.04 % COBALT **FOR** 340 Tonnes COBALT

Comments/Cut Off Factor: 0.30% Ni cutoff

BR 9088 Published in 2009

DINGO DAM

MEASURED MINERAL RESOURCE 640,700 tonnes Ore @
0.82 % NICKEL **FOR** 5,253 Tonnes NICKEL
0.06 % COBALT **FOR** 384 Tonnes COBALT

Comments/Cut Off Factor: 0.30% Ni cutoff

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9088	2009	METALLICA MINERALS LIMITED	QUARTERLY REPORT TO 31 MARCH 2009.	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. METALLICA MINERALS LTD, BRISBANE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
2006		Metallica Minerals underwent a scoping study over the area and also produced a trial heap leach plant for the prospect.

Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 10324	100.00%	NORNICO PTY LTD
ML 10332	100.00%	NORNICO PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CHARTERS TOWERS PROVINCE	Argentine Metamorphics / NEOPROTEROZOIC to CAMBRIAN

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	LATERITIC NICKEL

Mineralisation Age

ORE	CENOZOIC	Laterite.
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Queensland Minerals

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Comments

Metallica Minerals completed a scoping study on the Lucky Break Prospect in 2006 and defined a resource. In July 2007, Metallica announced that Metals Finance Corporation will proceed with the \$20 million development of the project.

The annual processing rate is expected to be 250,000t of nickel laterite feed for combined vat and heap leach nickel extraction. The heap leach pads will be reusable.

Annual production is forecast at 1600t of contained nickel in a carbonate intermediate product (40% Ni) for an extraction of 85% Ni with rapid leach times of around 3 months. Local acid supply will be from Sun Metals.

The minimum mine life will be 4 years, based on the Dingo Dam and Circular Laterite nickel deposits containing ~8200t of nickel metal to a maximum depth of 35m.

The Lucky Break Project is currently on hold until a suitable acid price is secured and MFC is completing a detailed review of the project in light of the current economic climate, with a view to recommencing development of the project early in 2010.

July 2010 Metallica reports on completed revised definitive feasibility study (DFS) with a positive result. A joint venture agreement with Metals Finance is established. Ore throughput 60000tpa @aver Ni 1.3%, Ni recovery ~85%, Acid consumption (BR9598)

July 2010 (cont): 420Kg/t ore, Life of operation 5.8yrs, acid price 88\$/t, Nickel price 10.16A\$/lb. The modelled project results in cumulative production of approx 3800t of Ni during 5-6yrs life of operations. (BR9598)

Metallica announced a nickel ore sales and royalty agreement with Queensland Nickel who have extracted nickel ore from the deposit in January 2015. A high-grade section of the Dingo Dam deposit has been moved to the Yabulu Refinery awaiting processing

Web Page

<http://www.metallicaminerals.com.au>; www.metalsfinance.com

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

38223 DUCIE-WENLOCK

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 50KM NNE WEIPA AIRPORT, 595KM NW OF CAIRNS.

1:100 000 sheet Number and Name: 7373 AGNEW

Grid Reference: Zone 54 618686 mE 8648366 mN

Latitude -12.2246 Longitude 142.0911

Date Recorded: 7/March/2016

Other Names for Deposit / Mine

Ducie
Dulhunty

Commodities

BAUXITE

Size
LARGE

Size Definition

>200 000 000 tonnes BX

Production Details

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 7031	100.00%	ALCAN SOUTH PACIFIC PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
KARUMBA BASIN	Bulimba Formation / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	LATERITIC BAUXITE

Mineralisation Age

ORE	CENOZOIC
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Comments

In 1956, Aluminium Laboratories Ltd carried out exploration in EPM 53, between the Wenlock and Ducie Rivers, and determined an inferred resource of about 150Mt of bauxite grading 12.5% silica and 52% alumina in the crude state.

The bauxite was not considered to be of commercial grade and more drilling was required to delineate areas with a lower silica content, as well as beneficiation testing. The results of exploration carried out after ML 7031 was granted are confidential.

In 2004, Alcan carried out a drilling program to better define the bauxite resources in the area.

The Ducie-Wenlock resource was combined with the Weipa Resource reported by Rio Tinto from 2009 onwards (BR 9569).

Web Page

<http://www.riotintoalcan.com/>

Queensland Minerals

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478664 EAST END

OPERATING MINE

Descriptive Location: 6KM E OF BRACEWELL, BAJOOL AREA, 30KM NW OF GLADSTONE.

1:100 000 sheet Number and Name: 9050 BAJOOL

Grid Reference: Zone 56 291979 mE 7357939 mN

Latitude -23.8765 Longitude 150.9570

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
LIMESTONE	LARGE	>10 000 000 tonnes LST
CLAY	MEDIUM	200 000 - 20 000 000 tonnes CY

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

LIMESTONE CRUSHED ROCK 35,772,779.6 tonnes

CLAY 4,579,083.3 tonnes

Published Reserves/Resources

EAST END INFERRED MINERAL RESOURCE

120,000,000 Tonnes LIMESTONE

Resource estimate 20th April, 1999, pers com. Mr Len Walker.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1964		Mining commenced at this location.
2003		Cement Australia (company formed from merger)

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname	
ML 3631	100.00%	CEMENT AUSTRALIA (EXPLORATION) PTY LTD	
ML 3659	100.00%	CEMENT AUSTRALIA (EXPLORATION) PTY LTD	
ML 80002	100.00%	CEMENT AUSTRALIA (EXPLORATION) PTY LTD	
ML 80009	51.00%	POPENIA	William John
ML 80009	41.00%	POPENIA	Walter John
ML 80009	8.00%	ZAKARIAN	Gaguik
ML 80127	100.00%	CEMENT AUSTRALIA (EXPLORATION) PTY LTD	
ML 80156	100.00%	CEMENT AUSTRALIA (EXPLORATION) PTY LTD	

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

MOUNT HOLLY SUBPROVINCE

Erebus beds / SILURIAN to EARLY DEVONIAN

Deposit Model

GENERAL OREBODY MODEL SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL LIMESTONE DEPOSIT

Mineralisation Age

ORE SILURIAN to EARLY DEVONIAN

Comments

Cement Australia has applied for ML 80156 to cover a planned south-east extension to the quarry. This lease covers an inferred resource of 80Mt limestone and mining is anticipated to commence by 2014.

East End is the largest limestone mining operation in Queensland. Limestone and clay are mined from the Lower Devonian Erebus beds from a large open cut and transported 12km by a Queensland Rail constructed rail link loop to the Fisherman's Landing Plant

The quarry supplies limestone for cement manufacture at Cement Australia (Queensland) Ltd's processing plant 12km north of Gladstone. 2012 existing mine infrastructure includes rail loops & railways to Gladstone, a rail loading plant.

Web Page

<http://www.cemaust.com.au/>

Queensland Minerals

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508995 EIDSVOLD SILTSTONE

OPERATING MINE

Descriptive Location: 13.91 KM SE OF EIDSVOLD, 269.08 KM NW OF BRISBANE.

1:100 000 sheet Number and Name: 9147 EIDSVOLD

Grid Reference: Zone 56 320332 mE 7180780 mN Latitude -25.4791 Longitude 151.2127 Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
SANDSTONE	VERY SMALL	<10 000 tonnes SST

Production Details

Period: 1-Jul-2002 to 30-Jun-2016

SANDSTONE 2,535.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 80091	100.00%	EIDSVOLD SILTSTONE PTY LTD
ML 80106	100.00%	EIDSVOLD SILTSTONE PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MULGILDIE BASIN	Evergreen Formation / EARLY JURASSIC to EARLY JURASSIC

Deposit Model

GENERAL OREBODY MODEL SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

Comments

A small tile cutting and landscaping rock producer. Waste material being used for road base and tumbled into pebbles for landscaping creating effectively a zero waste mining operation.

Web Page

www.eidsvoldsiltstone.com

Queensland Minerals

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494046 ELOISE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 157 KM EAST OF MT ISA, 56.4 KM ESE OF CLONCURRY

1:100 000 sheet Number and Name: 7056 CLONCURRY

Grid Reference: Zone 54 497980 mE 7683016 mN

Latitude -20.9533 Longitude 140.9806

Date Recorded: 25/January/2017

Other Names for Deposit / Mine

Eloise Deeps - Lode B
Levuka Lode - Lode B
Lode A
40 Lode
42 Lode
45 Lode

Commodities	Size	Size Definition
COPPER	MEDIUM	50 000 - 250 000 tonnes CU
GOLD	SMALL	0.5 - 5 tonnes AU
SILVER	SMALL	5 - 500 tonnes AG

Production Details

Period:	1-Jul-1996	to	30-Jun-2001	2,353,692 tonnes SULPHIDE ORE
	COPPER		METAL	95,106.0 tonnes 4.04 percent
	SILVER			25,548.9 kilograms 10.85 grams per tonne
	GOLD		FINE	1,636.8 kilograms 0.69 grams per tonne
Period:	1-Jul-2001	to	30-Jun-2002	551,590 tonnes SULPHIDE ORE
	COPPER		METAL	16,173.0 tonnes
	GOLD		BULLION	266.3 kilograms
Period:	1-Jul-2002	to	30-Jun-2005	
	COPPER		CONCENTRATE	55,143.4 tonnes
	SILVER			3.4 kilograms
	GOLD		FINE	649.8 kilograms
Period:	1-Jul-2005	to	30-Jun-2016	
	COPPER		METAL	112,765.0 tonnes
	GOLD		FINE	2,031.9 kilograms
	SILVER			22,976.8 kilograms

Published Reserves/Resources

BR 9807 Published in 2009

ELOISE

INDICATED MINERAL RESOURCE 2,816,000 tonnes Ore @
3.10 % COPPER **FOR** 87,296 Tonnes COPPER
9.80 g/t SILVER **FOR** 27,596 Kilograms SILVER
0.80 g/t GOLD **FOR** 2,252 Kilograms GOLD

Comments/Cut Off Factor: Includes probable reserves of 2.4Mt at 2.6% Cu, 9.3g/t Ag and 0.7g/t Au.

A 2016 resource is quoted but not confirmed as JORG compliant

BR 9807 Published in 2009

ELOISE

INFERRED MINERAL RESOURCE 400,000 tonnes Ore @
3.00 % COPPER **FOR** 12,000 Tonnes COPPER
10.90 g/t SILVER **FOR** 4,360 Kilograms SILVER
1.00 g/t GOLD **FOR** 400 Kilograms GOLD

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9807	2009	BREAKAWAY RESOURCES LIMITED	ANNUAL REPORT 2009	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 2009. BREAKAWAY RESOURCES LIMITED, PERTH.

Queensland Minerals

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Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1986		1992	Discovery (BHP Minerals Ltd) from aeromagnetic anomaly. Eloise North (Maronan) discovered 4 years later in 1992.
1995		2003	Mined by Amalg Resources N.L. with production beginning in May 1996. Amalg merged with Breakaway Resources Ltd.
2004			Barmenco Investments Pty Ltd acquired the deposit in February 2004. Breakaway Resources retain a 30% net profit royalty.
2008		2010	Under care and maintenance
2011			restart of mining operations (Breakaway Resources)

Mining Operations

DECLINED SHAFTS/DRIVES

UNDERGROUND MINING METHODS

STOPPING

Comments

At 1072m depth in 2005/06.

Tenure Type/Number	SHARE	Company Name/Surname
ML 90064	100.00%	FMR INVESTMENTS PTY LIMITED
ML 90080	100.00%	FMR INVESTMENTS PTY LIMITED
ML 90086	100.00%	FMR INVESTMENTS PTY LIMITED
ML 90155	100.00%	FMR INVESTMENTS PTY LIMITED

Host Rock/Cover Sequences

Structural Unit

SOLDIERS CAP DOMAIN

Formation Name/Age

Toole Creek Volcanics / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

HYDROTHERMAL VEINS/PIPE/STOCKWORK

DETAILED OREBODY MODEL

IRON-OXIDE CU-AU (-U-REE)

Mineralisation Age

ORE

MESOPROTEROZOIC

Ar40/Ar39 age dating constrains mineralisation to ~1530 to 1514 Ma (EGRU newsletter 2000).

Comments

Eloise is a blind deposit concealed by 60 to 70m of sediments of the Eromanga Basin, on the eastern margin of the Mount Isa Inlier.

The mineralisation comprises high-grade chalcopyrite + pyrrhotite hosted by mafic silicate alteration localised on a major shear zone (Levuka Shear Zone). Alteration and mineralisation are controlled by both ductile and brittle structures.

Recent drilling at Eloise Deeps has identified another mineralised body (the Eastern Lode) to the east of the B Lode. This has increased resources, extending the mine life.

Breakaway Resources Ltd sold the mine to Barmenco Investments Pty Ltd (now FMR Investments Pty Ltd) in February 2004, but retained a 30% net profit royalty interest in the mine and surrounding lease areas.

At the end of 2006, production was at 100m below the surface, with the deposit drilled to 200m below the production level. Exploration below the currently known mineralised extent is continuing.

Increased resource and reserve estimates announced in July 2008 provide a 4 to 5 year mine life. A A\$3M expansion has commenced to increase throughput to about 740,000tpa.

The mill was successfully recommissioned in May 2011 (BR9774).

A 2016 resource was mentioned, but no confirmation was given if the resource is valid or what category the resource would be assigned to a specific category. The resource is 2.3 Mt at 2.1 % copper

Following a rock failure in a portion of the main production stope in late 2008, Breakaway Resources Ltd announced that it would take 2-3 months to carry out remedial action.

In view of low copper prices, the mine owner FMR Investments Pty Ltd decided to cease all mining operations and place the mine on temporary care and maintenance in late 2008. The mine reopened in January 2011.

Details of the ore reserves and mine life are not available. Minotaur Exploration Ltd have stated that the Eloise deposit is now known to have an original resource prior to mining of 10 Mt at 3.2% copper and 0.7 g/t gold.

Web Page

<http://www.minotaurexploration.com.au/> ; <http://www.fmrinvestments.com.au/>

Queensland Minerals

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38227 **ELY**

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 24.9KM NORTH OF WEIPA AIRSTRIP, 590KM NW OF CAIRNS.

1:100 000 sheet Number and Name: 7273 PENNEFATHER RIVER

Grid Reference: Zone 54 596622 mE 8622566 mN

Latitude -12.4586 Longitude 141.8891

Date Recorded: 19/January/2017

Other Names for Deposit / Mine

Alcan
Ely South
Stormont
Egmont
Ely North
Ely East

Commodities	Size	Size Definition
BAUXITE	SMALL	100 000 - 100 000 000 tonnes BX

Production Details

Period: 1-Jul-2006 to 30-Jun-2014

BAUXITE 36,441,343.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
BR 9569	2009	RIO TINTO PLC	2009 ANNUAL REPORT.	RIO TINTO PLC, LONDON. HTTP://WWW.RIOTINTO.COM/SHAREHOLDERS/219_REPORTS.ASP

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 7031	100.00%	ALCAN SOUTH PACIFIC PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
KARUMBA BASIN	Bulimba Formation / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	LATERITIC BAUXITE

Mineralisation Age

ORE	CENOZOIC
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Comments

Bauxite occurs as pisolites in a soft grained matrix. The pisolites range in diameter from 2 to 25mm and, in the better grade areas, are typically well rounded.

The bauxite varies in colour from light buff to brown in the high alumina material to a darker red brown in the more ferruginous and usually high silica material.

In 1998, Alcan entered into an exchange agreement with Comalco for the joint development of the Ely bauxite. The deposit was incorporated into Comalco's Weipa mine plan, with mining forecast for 2010.

However, Rio Tinto Aluminium Weipa (formally Comalco) commenced mining in January 2007 in order to meet Alcan's needs for bauxite at the Gladstone alumina refinery (with a 25 year mine life).

In October 2007 Rio Tinto took over Alcan Inc and formed a subsidiary called Rio Tinto Alcan, combining Alcan's and Rio Tinto Aluminium's operations and resources.

Web Page

www.riotinto.com/riotintoalcan/

Queensland Minerals

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493673 **EMPIRE**

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: ~3KM W OF CRACOW, ~175KM SE OF GLADSTONE.

1:100 000 sheet Number and Name: 8947 CRACOW

Grid Reference: Zone 56 224300 mE 7202000 mN Latitude -25.2730 Longitude 150.2625 Date Recorded: 20/May/2015

Other Names for Deposit / Mine

Cracow Gold Mine Group

Commodities	Size	Size Definition
GOLD	SMALL	0.5 - 5 tonnes AU

Production Details

Published Reserves/Resources

BR 10019 Published in 2012

EMPIRE

INFERRED MINERAL RESOURCE 474,000 tonnes Ore @

6.10 g/t GOLD **FOR** 2,891 Kilograms GOLD

474000t at 6.1g/t Au (recorded at main site 501301)

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10019	2012	EVOLUTION MINING LIMITED	EVOLUTION MINING MINERAL RESOURCE STATEMENT - JUNE 2012	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 25 SEPTEMBER 2012. EVOLUTION MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced Year Completed Comments

Mining Operations	Comments
UNDERGROUND MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
ML 80089	100.00%	LION MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit

AUBURN SUBPROVINCE

Formation Name/Age

Camboon Volcanics / LATE CARBONIFEROUS to EARLY PERMIAN

Deposit Model

Mineralisation Age
ORE EARLY PERMIAN

Comments

The company gave development approval in August 2002. Mining commenced in 2005 with decline access for mining the high-grade Royal, Crown and Klondyke North shoots.

The mineralisation is amenable to conventional cyanide leach extraction after fine grinding, with average recoveries of 94.3% of the gold.

Drilling to the south of the Kilkenny resource in 2008 resulted in the discovery of a new zone of high-grade gold mineralisation.

Resource definition drilling produced encouraging results from the Roses Pride and Empire structures.

The mine is now held by Evolution Mining Limited (since 2011). Production figures are reported in the Cracow Gold Mine site.

Production from ML80089 reported against Cracow Gold Mine SI #501301

Web Page

www.evolutionmining.com.au

Queensland Minerals

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493561 EMU APPLE CREEK

OPERATING MINE

Descriptive Location: 47 KM SOUTH WEST OF CARMILLA, ON OLD BRUCE HIGHWAY, 280KM NW OF GLADSTONE.

1:100 000 sheet Number and Name: 8753 CONNORS RANGE

Grid Reference: Zone 55 710906 mE 7547899 mN Latitude -22.1612 Longitude 149.0452 Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
EARTHY LIME / DOLOMITE (AGRICULTURAL)	MEDIUM	100 000 - 1 000 000 tonnes ELIM

Production Details

Period: 1-Jul-2008 to 30-Jun-2016

EARTHY LIME / DOLOMITE (AGRICULTURAL) 12,402.0 tonnes

Published Reserves/Resources

Company Report 28305 Published in 1996

INFERRED MINERAL RESOURCE 103,531 tonnes Ore @
103,531 Tonnes EARTHY LIME / DOLOMITE (AGRICULTURAL)

Comments/Cut Off Factor: At 87% neutralising value.

Includes 73950t at 80 to 90% neutralising value; 29580t at 90% neutralising value).

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 4776	75.00%	CQ DOLOMITE PTY LTD
ML 4776	25.00%	MACEGATE PTY LIMITED
ML 4783	75.00%	CQ DOLOMITE PTY LTD
ML 4783	25.00%	MACEGATE PTY LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CONNORS SUBPROVINCE	Mount Benmore Volcanics / EARLY PERMIAN to EARLY PERMIAN

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	ENRICHED LIME DEPOSIT

Mineralisation Age

ORE	CENOZOIC
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Comments

Earthy lime has formed through the decomposition of andesites in the Camboon Volcanics.

Web Page

Queensland Minerals

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486727 ENTERPRISE

OPERATING MINE

Descriptive Location: WESTERN CENTRAL HIGH DUNES OF NTH STRADBROKE ISLAND, 45KM EAST OF BRISBANE.

1:100 000 sheet Number and Name: 9542 BEENLEIGH

Grid Reference: Zone 56 545236 mE 6949957 mN Latitude -27.5734 Longitude 153.4583 Date Recorded: 6/February/2017

Other Names for Deposit / Mine

Herring-Enterprise

Commodities	Size	Size Definition
RUTILE	LARGE	>500 000 tonnes RUT
ZIRCON	LARGE	>1 000 000 tonnes ZIR
ILMENITE	MEDIUM	5 000 000 - 10 000 000 tonnes IM
MONAZITE	VERY SMALL	<200 tonnes MZ

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

RUTILE	778,427.0 tonnes
ZIRCON	752,686.0 tonnes
ILMENITE	19,462,922.0 tonnes
LEUCOXENE	7,800.0 tonnes

Published Reserves/Resources

BR 8476 Published in 2006

ENTERPRISE - DREDGE

INDICATED MINERAL RESOURCE 205,200,000 tonnes Ore @	
0.33 % ILMENITE	FOR 685,368 Tonnes ILMENITE
0.09 % RUTILE	FOR 188,784 Tonnes RUTILE
0.08 % ZIRCON	FOR 160,056 Tonnes ZIRCON

Comments/Cut Off Factor: 0.8% heavy minerals cut off.

BR 8476 Published in 2006

ENTERPRISE - DREDGE

MEASURED MINERAL RESOURCE 761,800,000 tonnes Ore @	
0.46 % ILMENITE	FOR 3,473,808 Tonnes ILMENITE
0.12 % RUTILE	FOR 937,014 Tonnes RUTILE
0.10 % ZIRCON	FOR 792,272 Tonnes ZIRCON

Comments/Cut Off Factor: 0.8% heavy minerals cut off. Includes proved 355.8Mt at 0.96% & probable 190.5Mt at 0.8%.

BR 8476 Published in 2006

ENTERPRISE - DRY MINE

INDICATED MINERAL RESOURCE 31,800,000 tonnes Ore @	
0.52 % ILMENITE	FOR 166,632 Tonnes ILMENITE
0.16 % RUTILE	FOR 50,880 Tonnes RUTILE
0.13 % ZIRCON	FOR 39,750 Tonnes ZIRCON

Comments/Cut Off Factor: 0.9% heavy minerals cut off.

BR 8476 Published in 2006

ENTERPRISE - DRY MINE

INFERRED MINERAL RESOURCE 22,200,000 tonnes Ore @	
0.61 % ILMENITE	FOR 135,642 Tonnes ILMENITE
0.17 % RUTILE	FOR 37,518 Tonnes RUTILE
0.14 % ZIRCON	FOR 31,746 Tonnes ZIRCON

Comments/Cut Off Factor: 1.0% heavy minerals cut off.

BR 8476 Published in 2006

ENTERPRISE - DRY MINE

MEASURED MINERAL RESOURCE 45,800,000 tonnes Ore @	
0.62 % ILMENITE	FOR 282,128 Tonnes ILMENITE
0.17 % RUTILE	FOR 77,860 Tonnes RUTILE
0.14 % ZIRCON	FOR 65,952 Tonnes ZIRCON

Comments/Cut Off Factor: 0.9% heavy minerals cut off. Includes proved 26.3Mt at 1.41% and probable 11.6Mt at 1.33%.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 8476	2006	CONSOLIDATED RUTILE LIMITED	ANNUAL REPORT 2006.	CONSOLIDATED RUTILE LIMITED, BRISBANE.

Major Mining Related Events

Year Commenced	Year Completed	Comments

Queensland Minerals

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Mining Operations

Comments

OPEN CUT MINING

DREDGING

Tenure Type/Number	SHARE	Company Name/Surname
ML 1103	100.00%	STRADBROKE RUTILE PTY LTD
ML 1105	100.00%	STRADBROKE RUTILE PTY LTD
ML 1117	100.00%	STRADBROKE RUTILE PTY LTD
ML 1119	100.00%	STRADBROKE RUTILE PTY LTD
ML 1120	100.00%	STRADBROKE RUTILE PTY LTD
ML 1130	100.00%	STRADBROKE RUTILE PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

MODERN COASTAL DEPOSITS

Deposit Model

GENERAL OREBODY MODEL

DUNE DEPOSIT

DETAILED OREBODY MODEL

DUNE DEPOSIT HEAVY MINERALS

Mineralisation Age

ORE

HOLOCENE to PLEISTOCENE

Comments

Consolidated Rutile operates two heavy minerals sands mines on North Stradbroke Island. The sands are mined via a floating dredge on an artificial pond. The dredge uses a rotating cutter to loosen sands for processing and a floating concentrator.

The heavy minerals are then separated using a gravity separation process through a series of water-fed spirals. The ilmenite is then separated using wet high intensity magnetic separators.

An average of five 1800t loads of mineral concentrates are transported weekly by barge to the dry mill located at Pinkenba for final separation.

In 2009 Sibelco acquired all CRL assets.

Web Page

<http://www.sibelco.com.au>

Queensland Minerals

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493641 ERNEST HENRY

OPERATING MINE

Descriptive Location: 38KM NE OF CLONCURRY IN NORTH-WEST, 125KM EAST OF MT ISA.

1:100 000 sheet Number and Name: 7057 CLONAGH

Grid Reference: Zone 54 469270 mE 7739476 mN

Latitude -20.4429 Longitude 140.7054

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
COPPER	GIANT	>2 000 000 tonnes CU
GOLD	LARGE	50 - 150 tonnes AU
MAGNETITE	LARGE	>1 000 000 tonnes MT
COBALT	VERY SMALL	<10 tonnes CO
MOLYBDENUM	VERY SMALL	<50 tonnes MO
URANIUM	VERY SMALL	<100 tonnes U
RARE EARTH ELEMENTS	VERY SMALL	<1 tonne REE

Production Details

Period: 1-Jul-1997 to 30-Jun-2016	132,003,343 tonnes HARD ROCK ORE (OR REEF)
COPPER METAL	1,483,556.0 tonnes
GOLD BULLION	51,586.9 kilograms
GOLD FINE	1,590.0 kilograms
SILVER	14,121.2 kilograms
Period: 1-Jan-2011 to 30-Dec-2014	
IRON	778,801.0 tonnes

Published Reserves/Resources

BR 10502 Published in 2016

ERNEST HENRY UNDERGROUND

INDICATED MINERAL RESOURCE 71,000,000 tonnes Ore @
 1.15 % COPPER **FOR** 816,500 Tonnes COPPER
 0.59 g/t GOLD **FOR** 41,890 Kilograms GOLD

Comments/Cut Off Factor: not quoted in 2014

Includes probable reserve of 53.3Mt at 1.0% Cu, 0.52g/t Au. Probable reserve within combined meas and ind resource. As at 31 Dec 2014.

BR 9808 Published in 2011

ERNEST HENRY UNDERGROUND

INDICATED MINERAL RESOURCE
 19,880,000 Tonnes MAGNETITE

Calculated from 71 Mt at 28% magnetite

BR 10502 Published in 2016

ERNEST HENRY UNDERGROUND

INFERRED MINERAL RESOURCE 9,000,000 tonnes Ore @
 1.10 % COPPER **FOR** 99,000 Tonnes COPPER
 0.50 g/t GOLD **FOR** 4,500 Kilograms GOLD

Comments/Cut Off Factor: not quoted in 2014

BR 9808 Published in 2011

ERNEST HENRY UNDERGROUND

INFERRED MINERAL RESOURCE
 3,380,000 Tonnes MAGNETITE

Calculated from 13 Mt at 26% magnetite

BR 9808 Published in 2011

ERNEST HENRY UNDERGROUND

MEASURED MINERAL RESOURCE
 1,280,000 Tonnes MAGNETITE

Calculated from 4 Mt at 32% magnetite

BR 10502 Published in 2016

ERNEST HENRY UNDERGROUND

MEASURED MINERAL RESOURCE 16,100,000 tonnes Ore @
 1.29 % COPPER **FOR** 207,690 Tonnes COPPER
 0.67 g/t GOLD **FOR** 10,787 Kilograms GOLD

Comments/Cut Off Factor: not quoted in 2014

Includes proved reserve of 11Mt at 1.14% Cu, 0.59g/t Au. Probable reserve within combined meas and ind resource. As at 31 Dec 2014.

Resource figures listed above are JORC compliant.

Queensland Minerals

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Published Reference ID	Year	Author	Title	Source
BR 10502	2016	EVOLUTION MINING LIMITED	MINERAL RESOURCES AND ORE RESERVES STATEMENT - DEC 2015 (UPDATED 24 AUGUST 2016)	HTTP://EVOLUTIONMINING.COM.AU/RESERVESRESOURCES/ 24 AUGUST 2016. EVOLUTION MINING LIMITED, MELBOURNE.
BR 9808	2011	XSTRATA PLC	XSTRATA MINERAL RESOURCES AND ORE RESERVES AS AT 31 DECEMBER 2011.	WWW.XSTRATA.COM/CONTENT/ASSETS/PDF/X_RESERVES_RESOURCES

Major Mining Related Events

Year Commenced	Year Completed	Comments
1991	to 1991	Ernest Henry copper-gold deposit discovered in 1991.

Operating Mine Life: 1997 to 2012 First ore produced in 1997. Mining by Ernest Henry Mining Pty Ltd with commercial production commencing in May 1998. Mine life is 8 years as at December 2004. Mine life may extend with underground development.

Mining Operations

OPEN CUT MINING

Comments

The processing facility for this mine is one of the largest mills and floation cells in the world. Open cut was 180m deep in June 2000, planned to be 1,300m in diameter at 570m deep when mining completed. Open cut will become a lake.

Tenure Type/Number	SHARE	Company Name/Surname
ML 2671	100.00%	ERNEST HENRY MINING PTY LTD
ML 90041	100.00%	ERNEST HENRY MINING PTY LTD
ML 90072	100.00%	ERNEST HENRY MINING PTY LTD
ML 90075	100.00%	ERNEST HENRY MINING PTY LTD
ML 90085	100.00%	ERNEST HENRY MINING PTY LTD
ML 90100	100.00%	ERNEST HENRY MINING PTY LTD
ML 90107	100.00%	ERNEST HENRY MINING PTY LTD
ML 90116	100.00%	ERNEST HENRY MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit

CONSTANTINE DOMAIN

Formation Name/Age

Mount Fort Constantine Volcanics / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

BRECCIA-HOSTED

DETAILED OREBODY MODEL

IRON-OXIDE CU-AU (-U-REE)

Mineralisation Age

ORE

MESOPROTEROZOIC

~1510 to 1500 Ma. Ore is mainly hosted in an infill-supported hydrothermal breccia that grades to veining at the margins. Ore largely composed of magnetite, calcite, pyrite, biotite, K-feldspar, chalcopyrite, garnet, barite, fluorite, quartz & molybdenite

Queensland Minerals

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Comments

The mineralisation at Ernest Henry is developed in a SE dipping, S to SSE plunging body of altered and variably brecciated felsic volcanic rocks. The ore assemblage of the primary zone is dominated by chalcopyrite within a magnetite-carbonate gangue. Copper and gold ratios are very consistent throughout the deposit. Gold occurs in the chalcopyrite crystal lattice. Supergene mineralisation is complex, with copper occurring as native copper, bornite, chalcocite and secondary chalcopyrite.

Ernest Henry produces copper concentrates (containing gold) that are trucked to Mount Isa for smelting or sent to Townsville for export. In 2005/06, Cu and Au head grades were 24% lower, in line with the mine plan.

In November 2007, Barmenco was awarded the contract to develop a 3.2km decline at the mine as part of Xstrata's plan to convert the mine to an underground operation.

On 3 December 2009, Xstrata announced approvals for a total investment of US\$542 million to extend the life of the Ernest Henry mine until at least 2024. The open pit operations will be converted to underground and a magnetite extraction plant constructed

Construction of the underground mine commenced in the first half of 2010, with first production in late 2011 and full scale operation from early 2013. First underground ore mining from the access decline commenced Dec 2012

Construction of the magnetite plant commenced in the first half of 2010, with commissioning by the beginning of 2011. Magnetite was produced until a business review resulted in the suspension of magnetite production in July 2013.

First shipment of magnetite ore from Ernest Henry to the Asian steel industry was reported in the media (North West Star, 15 June 2011).

Stockpiles at Ernest Henry mine were set to produce 1.2Mt of magnetite concentrate per year

In 2012 Xstrata reported that Cu in concentrate production at Ernest Henry increased by 34% compared to 2010 to reach a total of 100300t. Production from the final high grade ore zone of the open pit operation and processing stockpiled ore boosted volumes

In 2012 project is ongoing to convert mining operations into an underground mine (BR9789). XSTRATA recognised improved ore grades at Ernest Henry largely offsetting lower head grades at other international operations.

In 2012 Xstrata reported that the open cut ore reserve was depleted by 17Mt of ore @ 1.0%Cu, 0.5g/t Au. Mining of the open cut fully depleted the reserves and resources by December 2011 (BR9808).

In August 2016 Evolution has acquired a 30% stake in Glencore's Ernest Henry operation: Evolution will also acquire 100% of future gold production and 30% of future Cu and Ag production under an agreed 11-year life-of-mine model.

magnetite resources will be mined and probably end up on a stockpile.

In late 2013 Glencore reported a current expected mine life of 13 years (within the life of the current mining tenure, due to expire in 2026 (BR10304). Even though magnetite is no longer reported as a resource material containing some of the 2011

Web Page

<http://www.glencorexstrata.com/>

Queensland Minerals

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43683 FAIRCHANCE

OPERATING MINE

Descriptive Location: 12.0 KM SE OF MOUNT MOLLOY.

1:100 000 sheet Number and Name: 7964 RUMULA

Grid Reference: Zone 55 329834 mE 8146350 mN

Latitude -16.7596 Longitude 145.4035

Date Recorded: 16/February/2017

Other Names for Deposit / Mine

Fair Chance

The Bluff

Yalkula

Mount Molloy Lime

Commodities

LIMESTONE

Size

SMALL

Size Definition

100 000 - 2 000 000 tonnes LST

Production Details

Period: 1-Jan-1900 to 31-Dec-1995

LIMESTONE CRUSHED ROCK 60,800.0 tonnes

Period: 1-Jul-2000 to 30-Jun-2015

LIMESTONE CRUSHED ROCK 166,721.8 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID Year Author Title Source

Major Mining Related Events

Year Commenced	Year Completed	Comments
1900	to 1957	Intermittent quarrying for use as flux in the Mount Molloy copper smelter.
2000		Quarried for crushed limestone by MJ Wilkins.

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 4828	33.00%	WILKINS	Maxwell John
ML 4828	33.00%	WILKINS	Robert James
ML 4828	33.00%	WILKINS	Russell Ross

Host Rock/Cover Sequences

Structural Unit

HODGKINSON PROVINCE

Formation Name/Age

Hodgkinson Formation/1 / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

LIMESTONE DEPOSIT

Mineralisation Age

ORE

MIDDLE DEVONIAN

Comments

This deposit has been sporadically quarried since the turn of the century, at which time the limestone was used in the Mount Molloy copper smelter. The deposit comprises a solitary bluff of pale grey recrystallised limestone.

The limestone is pure, amorphous, and retains no evidence of bedding.

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479535 FAR FANNING

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 100 KM SOUTH-WEST OF TOWNSVILLE.

1:100 000 sheet Number and Name: 8158 DOTSWOOD

Grid Reference: Zone 55 434215 mE 7825170 mN

Latitude -19.6676 Longitude 146.3724

Date Recorded: 1/February/2017

Other Names for Deposit / Mine

Dotswood Gold Project

Dotswood

Commodities	Size	Size Definition
GOLD	MEDIUM	5 - 50 tonnes AU
SILVER	VERY SMALL	<5 tonnes AG

Production Details

Period: 1-Jan-1865 to 31-Dec-1908		3,756 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	79.6 kilograms
Period: 1-Jul-1986 to 30-Jun-1987		360,000 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	335.9 kilograms
Period: 1-Jul-1999 to 30-Jun-2000		
GOLD	BULLION	29.5 kilograms
Period: 1-Jul-2000 to 30-Jun-2001		
GOLD	FINE	176.4 kilograms
SILVER		64.0 kilograms
Period: 1-Jul-2001 to 30-Jun-2002		66,283 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	294.6 kilograms 4.25 grams per tonne
Period: 1-Jul-2002 to 30-Jun-2003		74,535 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	396.1 kilograms 5.15 grams per tonne
Period: 1-Jul-2004 to 30-Jun-2005		
GOLD	BULLION	714.0 kilograms
Period: 1-Jul-2005 to 30-Jun-2006		
GOLD	FINE	3.6 kilograms
SILVER		3.9 kilograms

Published Reserves/Resources

BR 10503 Published in 2009

FAR FANNING

INDICATED MINERAL RESOURCE 2,835,036 tonnes Ore @

1.83 g/t GOLD **FOR** 5,188 Kilograms GOLD

Comments/Cut Off Factor: Cutoff Grade of 0.5 g/t Au

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10503	2009	NORTH QUEENSLAND METALS LTD	ASX ANNOUNCEMENT: DOTSWOOD UPDATE	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 06 OCTOBER 2009. NORTH QUEENSLAND METALS LTD, BRISBANE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
1866	to 1909	Gold first located in 1866 with most production occurring between 1895 and 1908.
1866	to 1866	Discovery of gold at Far Fanning by T. Cook.
1927	to 1927	Battery repaired and recommissioned.
1986	to 1987	Heap leach mining operation of oxide ore by North Queensland Co between June 1986 and September 1987.
2000	to 2005	Mining by SMC Resources Ltd commenced January 2000 but wet weather stopped operations until June 2000. Mining ceased in underground operations in April 2005
2003	to 2003	Underground operation commenced in the June quarter, 2003, to mine a remnant block in the western end of the main pit. The decline intersected ore in September 2003.
2003	to 2003	At the end of the March quarter, 2003, open cut operation were completed.

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Mining Operations

OPEN CUT MINING

UNDERGROUND MINING METHODS

DECLINED SHAFTS/DRIVES

Comments

Planned to be 50m deep with a strip ratio of 6:1 (waste:ore).

Spiral decline commenced during the March quarter 2003.
Decline has accessed ore on two level only before being abandoned due to bad ground conditions.

Tenure Type/Number	SHARE	Company Name/Surname
ML 1349	100.00%	BUSH OASIS PTY LTD
ML 1350	100.00%	BUSH OASIS PTY LTD
ML 1351	100.00%	BUSH OASIS PTY LTD
ML 1437	100.00%	BUSH OASIS PTY LTD
ML 1438	100.00%	BUSH OASIS PTY LTD

Host Rock/Cover Sequences

Structural Unit

BURDEKIN BASIN

Formation Name/Age

Julia Formation / LATE DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

MESOTHERMAL VEINS/PIPE/STOCKWORK

STOCKWORK

DETAILED OREBODY MODEL

MESOTHERMAL VEINS, MAGMATIC-RELATED

Mineralisation Age

ORE

CARBONIFEROUS to PERMIAN

Similar vein mineral assemblage as Ravenswood mineralisation.

Comments

Quartz veins with or without pyrite, chalcopyrite, sphalerite, calcite and potassium feldspar are principally hosted by quartz arenite. Ore lenses vary from 2m-20m in width and 10m-200m in length and are clustered along a known strike length of 1.7km.

Mineralisation at Far Fanning consists of multiple generations of quartz veins developed within a high level, brittle shear zone. The reverse faulting has displaced bedding across the structure forming a kink fold which hosts most mineralisation.

In the second quarter of 2009, North Queensland Metals trucked low-grade oxide ore (2-3g/t Au) to Pajingo for processing. The ore was easy to treat, despite increasing viscosity, raising reagent consumption slightly and adding coarser gold to the circuit.

Drilling in the June 2009 quarter delineated shallowly plunging mineralised zones and extensions, including narrow high-grade veins surrounded by lower grade disseminated mineralisation hosted by permeable sandstone.

Intersections included 6.9m at 6.14g/t Au from 116.5m, 5.5m at 5.07g/t Au from 74m and 0.4m at 69.4g/t Au from 152.1m.

North Queensland Metals Ltd concluded an option agreement to purchase the mine in early 2009. Commencement of mining is targeted for late 2010, pending the results of a feasibility study.

Web Page

Queensland Minerals

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483529 FLINDERS

OPERATING MINE

Descriptive Location: IMMEDIATELY SOUTH OF FLINDERS RAIL STATION, 22.5KM S OF IPSWICH, 45KM WEST OF BRISBANE.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 472141 mE 6922137 mN Latitude -27.8250 Longitude 152.7171 Date Recorded: 8/December/2015

Other Names for Deposit / Mine

Area 181 & 188

Commodities	Size	Size Definition
EARTHY LIME / DOLOMITE (AGRICULTURAL)	LARGE	>1 000 000 tonnes ELIM

Production Details

Period: 1-Jan-1937 to 31-Dec-1960	
EARTHY LIME / DOLOMITE (AGRICULTURAL)	91,834.0 tonnes
Period: 1-Jan-1961 to 31-Dec-1973	
EARTHY LIME / DOLOMITE (AGRICULTURAL)	70,618.0 tonnes
Period: 1-Jul-1999 to 30-Jun-2015	
EARTHY LIME / DOLOMITE (AGRICULTURAL)	53,672.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	Shallow opencuts into hillside.

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 50138	1.00%	GILMOUR	Gordon Wallace
ML 50138	1.00%	GILMOUR	Jessie Helen Mary
ML 50138	98.00%	FLINDERS TRADING PTY LTD	

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
AMBERLEY BASIN	Flinders Dolomite / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	DOLOMITE DEPOSIT

Mineralisation Age

ORE	EOCENE
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Comments

The dolomite is a medium-to coarse-grained mixture of carbonates containing 60% dolomite, 30% ankerite and a small amount of manganiferous siderite that overlies the Walloon Coal Measures.

Part of the Flinders dolomite deposit was mapped and tested with a program of 78 drillholes totalling 867m. The dolomite extends along a low meridional ridge over a length of about 5km and a width of 1km.

The average thickness of dolomitic material is 10m, under 0.9m of soil and clay. A bed of palygorskite clay underlies much of the dolomite.

Web Page

www.flinderstrading.com/product_description.htm

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

480042 FLYING COW

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 14.7 KM SE OF FORSAyth.

1:100 000 sheet Number and Name: 7660 FORSAyth

Grid Reference: Zone 54 785021 mE 7932366 mN

Latitude -18.6805 Longitude 143.7021

Date Recorded: 20/May/2015

Other Names for Deposit / Mine

Ropewalk

Commodities	Size	Size Definition
GOLD	SMALL	0.5 - 5 tonnes AU
SILVER	VERY SMALL	<5 tonnes AG
COPPER	VERY SMALL	<500 tonnes CU

Production Details

Published Reserves/Resources

BR 9705 Published in 2011

FLYING COW
INFERRED MINERAL RESOURCE 16,300 tonnes Ore @
31.00 g/t GOLD **FOR** 505 Kilograms GOLD

Based on surface outcrop and interpreted continuity to 50m depth.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9705	2011	ALTIUS MINING LIMITED	PROSPECTUS FOR INITIAL PUBLIC OFFERING.	ALTIUS MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

SHAFTS

ADITS

UNDERGROUND MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 3418	100.00%	AUSTRALIA UNITED MINING LIMITED

Host Rock/Cover Sequences

Structural Unit

ETHERIDGE PROVINCE

Formation Name/Age

Lane Creek Formation / PALAEOPROTEROZOIC to
PALAEOPROTEROZOIC

Deposit Model

Mineralisation Age

Comments

This prospect was not field checked. It was delineated from rock chip samples that gave an average assay of 18.6g/t Au.

Gold mineralisation was identified in two of seven costeans where a width of 1.53 m gave an average assay of 0.5 g/t Au and 3.72 g/t Ag and a width of 1m gave an average assay of 0.5g/t Au and 3.00g/t Ag.

Percussion drill samples taken from the 34 to 36 m level gave a best average assay of 24.9g/t Au and 84g/t Ag. Mineralisation in this drillhole comprises unoxidised pyritised pyrrhotite.

The mineralisation was thought to represent an inverted "u", suggesting a saddle reef. Samples from the best mineralised interval of the core hole (35.1 to 36.15 m) assayed 0.34% Cu, 1.2g/t Au and 17g/t Ag (CR 10874).

Six percussion holes (294 m) were drilled to test the palaeoplacer potential of Mesozoic sediments in the area; results were discouraging.

A down-hole applied potential survey returned ambiguous results (CR 12020).

Altius Mining commenced underground mining of the Flying Cow lode in 2009. Raises were constructed in the upper level and are being extended to the surface. A lower level adit was under construction in early 2011.

Ore has been stockpiled to supply a nearby processing mill.

Web Page

www.altiusmining.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

543331 FLYING HORSE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: NORTH OF MOUNT ISA, 400M WEST OF MOUNT KELLY WORKINGS

1:100 000 sheet Number and Name: 6758 MAMMOTH MINES

Grid Reference: Zone 54 305450 mE 7799075 mN

Latitude -19.8948 Longitude 139.1416

Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Flying Horse Deeps

Flying Horse Extended

Commodities	Size	Size Definition
COPPER	MEDIUM	50 000 - 250 000 tonnes CU

Production Details

Period: 1-Jul-2007 to 30-Jun-2015

COPPER METAL 31,638.5 tonnes

Published Reserves/Resources

BR 10433 Published in 2015

FLYING HORSE/ MK OXIDE ORE

INDICATED MINERAL RESOURCE 630,000 tonnes Ore @
0.44 % COPPER **FOR** 2,772 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

BR 10433 Published in 2015

FLYING HORSE/ MK OXIDE ORE

INFERRED MINERAL RESOURCE 10,000 tonnes Ore @
0.34 % COPPER **FOR** 34 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

BR 10433 Published in 2015

FLYING HORSE/ MK OXIDE ORE

MEASURED MINERAL RESOURCE 840,000 tonnes Ore @
0.51 % COPPER **FOR** 4,284 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff.

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

BR 10433 Published in 2015

FLYING HORSE/ MK SULPHIDE ORE

INDICATED MINERAL RESOURCE 5,750,000 tonnes Ore @
0.85 % COPPER **FOR** 49,300 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

BR 10433 Published in 2015

FLYING HORSE/ MK SULPHIDE ORE

INFERRED MINERAL RESOURCE 4,010,000 tonnes Ore @
0.77 % COPPER **FOR** 30,800 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff

Mount Kelly (MK) resource figures included here

BR 10433 Published in 2015

FLYING HORSE/ MK SULPHIDE ORE

MEASURED MINERAL RESOURCE 950,000 tonnes Ore @
1.16 % COPPER **FOR** 11,020 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

BR 10433 Published in 2015

FLYING HORSE/MK TRANSITION ORE

INDICATED MINERAL RESOURCE 1,420,000 tonnes Ore @
0.61 % COPPER **FOR** 8,662 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

BR 10433 Published in 2015

FLYING HORSE/MK TRANSITION ORE

INFERRED MINERAL RESOURCE 60,000 tonnes Ore @
0.56 % COPPER **FOR** 560 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

BR 10433 Published in 2015

FLYING HORSE/MK TRANSITION ORE

MEASURED MINERAL RESOURCE 890,000 tonnes Ore @
0.63 % COPPER **FOR** 5,607 Tonnes COPPER

Comments/Cut Off Factor: 0.3% Cu cutoff.

Mount Kelly (MK) resource figures included here. Incorporating mining depletion to end of December 2014.

Resource figures listed above are JORC compliant.

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Published Reference ID	Year	Author	Title	Source
BR 10433	2015	CST MINING GROUP LIMITED	EXPLORE THE ROAD TO SUCCESS - ANNUAL REPORT 2015	ANNOUNCEMENT TO THE STOCK EXCHANGE OF HONG KONG LIMITED, 30 DECEMBER 2015. CST MINING GROUP LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
2007	to 2010	Pre-mining stripping commenced in 2007 (CopperCo)
2010		CST Mining Ltd took over mining and exploration operations in 2010

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 5446	100.00%	CST MINERALS LADY ANNIE PTY LIMITED
ML 5448	100.00%	CST MINERALS LADY ANNIE PTY LIMITED

Host Rock/Cover Sequences

Structural Unit

MOUNT OXIDE DOMAIN

Formation Name/Age

Paradise Creek Formation / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

HYDROTHERMAL VEINS/PIPE/STOCKWORK

DETAILED OREBODY MODEL

PROTEROZOIC STRUCTURALLY-CONTROLLED COPPER-GOLD

Mineralisation Age

ORE

MESOPROTEROZOIC

Comments

Copper mineralisation is controlled by a series of subparallel, en echelon shear zones that trend west-north-west and are associated with a splay off the Mount Kelly Fault.

The Flying Horse and Flying Horse Extended oxide resource estimates have been combined and include proved and probable reserves of 1.741 Mt at 0.75% Cu.

Deeper drilling beneath the oxide copper resource in late 2007 returned intercepts of 11m at 3.57% Cu from 132m, 21m at 2.86% Cu from 77m, 15m at 1.86% Cu from 81m, 34m at 1.02% Cu from 254m, 6m at 1.37% Cu from 106m and 20m at 0.79% Cu from 127m.

Drill intersections announced in April 2008 included 48m at 1.31% Cu from 124m, 60m at 1% Cu from 122m, 24m at 2.57% Cu from 221m and 13m at 3.21% Cu from 203m (including 6m at 6.42% Cu from 204m).

Pre-mining stripping continued in late 2008.

CopperCo went into voluntary administration in November 2008. Cape Lambert Iron Ore Ltd purchased CopperCo's assets in June 2009.

An Initial Public Offering to form a new company to manage the Lady Annie project is planned.

The Flying Horse and Mt Kelly resource estimates have been combined in the 2010 CST mining Ltd resource estimates.

CST Mining resumed mining and exploration at Lady Annie project in September 2010 (CST is registered in the Hong Kong Exchanges: Code 985). New resources for Flying Horse and Mount Kelly reported together in this site.

Mining at Lady Annie ceased in January 2016 due to low prices. In June 2016 the name CST Mining was changed to NetMind Financial Holdings Limited.

Web Page

<http://www.cstmining.com>

Queensland Minerals

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42456 GENERAL GORDON

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 20.9KM NNE OF MT GARNET.

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 305806 mE 8063864 mN

Latitude -17.5030 Longitude 145.1709

Date Recorded: 6/February/2017

Other Names for Deposit / Mine

Glenlinedale

Commodities	Size	Size Definition
TIN	SMALL	100 - 1 000 tonnes SN
TUNGSTEN	VERY SMALL	<5 tonnes W
BISMUTH	VERY SMALL	<50 tonnes BI
COPPER	VERY SMALL	<500 tonnes CU
LEAD	VERY SMALL	<1000 tonnes PB
ZINC	VERY SMALL	<200 tonnes ZN
FLUORITE	VERY SMALL	<50 tonnes FL

Production Details

	4,692 tonnes KNOWN HISTORIC PRODUCTION
CASSITERITE	323.1 tonnes
Period: 1-Jul-2007 to 30-Jun-2016	
TIN	14.2 tonnes

Published Reserves/Resources

Company Report 13808 Published in 1984

INFERRED MINERAL RESOURCE 7,000 tonnes Ore @
1.00 % CASSITERITE **FOR** 70 Tonnes CASSITERITE

Tonnage ranges from 7-10 000 t @ 1-1.5% Cst.

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1886	to 1887	
1960	to 1960	
1970	to 1970	
1972	to 1972	
1977	to 1981	
1983	to 1985	

Mining Operations

Mining Operations	Comments
OPEN CUT MINING	
UNDERGROUND MINING METHODS	
PITS	
SHAFTS	
ADITS	

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 4190	100.00%	CHAPMAN	Lance Thomas

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
HODGKINSON PROVINCE	Hodgkinson Formation / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL	INTRUSIVE-RELATED (PORPHYRY-RELATED)
DETAILED OREBODY MODEL	TIN VEINS (CORNISH-TYPE)

Mineralisation Age

ORE	LATE CARBONIFEROUS
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Comments

Web Page

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A Summary of Major Mineral Resources, Mines and Projects, 2016

494053 GEORGE FISHER NORTH

OPERATING MINE

Descriptive Location: 19.2KM N OF MT ISA.

1:100 000 sheet Number and Name: 6756 MOUNT ISA

Grid Reference: Zone 54 340820 mE 7726465 mN

Latitude -20.5539 Longitude 139.4730

Date Recorded: 9/March/2016

Other Names for Deposit / Mine

Hilton North

George Fisher

Commodities	Size	Size Definition
ZINC	GIANT	>5 000 000 tonnes ZN
LEAD	GIANT	>5 000 000 tonnes PB
SILVER	LARGE	5 000 - 10 000 tonnes AG

Production Details

Published Reserves/Resources

BR 10427 Published in 2015

GEORGE FISHER NORTH (L72)

INDICATED MINERAL RESOURCE 98,000,000 tonnes Ore @

7.60 % ZINC **FOR** 7,448,000 Tonnes ZINC

48.00 g/t SILVER **FOR** 4,704,000 Kilograms SILVER

3.00 % LEAD **FOR** 2,940,000 Tonnes LEAD

Comments/Cut Off Factor: A\$69/t net smelter return

Includes probable reserves of 35Mt at 6.8% Zn, 3.2% Pb and 53g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

GEORGE FISHER NORTH (L72)

INFERRED MINERAL RESOURCE 98,000,000 tonnes Ore @

7.00 % ZINC **FOR** 6,860,000 Tonnes ZINC

50.00 g/t SILVER **FOR** 4,900,000 Kilograms SILVER

3.00 % LEAD **FOR** 2,940,000 Tonnes LEAD

Comments/Cut Off Factor: A\$69/t net smelter return

As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

GEORGE FISHER NORTH (L72)

MEASURED MINERAL RESOURCE 39,800,000 tonnes Ore @

8.41 % ZINC **FOR** 3,347,180 Tonnes ZINC

60.60 g/t SILVER **FOR** 2,411,880 Kilograms SILVER

3.58 % LEAD **FOR** 1,424,840 Tonnes LEAD

Comments/Cut Off Factor: A\$69/t net smelter return

Includes proved reserves of 19.8Mt at 7.19% Zn, 3.48% Pb and 59g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10427	2015	GLENCORE	GLENCORE RESOURCES & RESERVES AS AT 31 DECEMBER 2014.	HTTP://WWW.GLENCORE.COM/ASSETS/INVESTORS/DOC/REPORT_S_AND_RESULTS/2014/GLEN-2014-RESOURCES-RESERVES-REPORT.PDF

Major Mining Related Events

Year Commenced	Year Completed	Comments
1996	to 1996	Underground drilling and development mining carried out as part of the first feasibility study.
1997	to 1997	Second stage feasibility study commenced.
1998	to 1998	MIM announced board approval to mine the deposit. Development of the underground mine commenced mid-1998.

Operating Mine Life: 1999 to 2009 MIM commenced mining in 1999 after an investment of A\$243M. Currently a ten year mine plan (from 1999) that is likely to be extended with further exploration.

Mining Operations	Comments
UNDERGROUND MINING METHODS	The ore will be hoisted up the Hilton mine shaft.

Tenure Type/Number	SHARE	Company Name/Surname
ML 8058	100.00%	MOUNT ISA MINES LIMITED

Host Rock/Cover Sequences

Structural Unit

LEICHHARDT RIVER DOMAIN

Formation Name/Age

Urquhart Shale / PALAEOPTEROZOIC to PALAEOPTEROZOIC

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Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENT-HOSTED PB-ZN (SEDEX ZN-PB, SHALE-HOSTED ZN-PB)

Mineralisation Age

ORE	PALAEOPROTEROZOIC	1652+-7 Ma.
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Comments

The George Fisher North mineralisation was discovered in 1948 following the recognition of jasper and ironstone gossans that overlie the mineralisation.

The deposit is similar to the Proterozoic shale-hosted style of deposits at Mount Isa and Hilton (George Fisher South). Orebodies occur as stacked stratiform lenses hosted by laminated, pyritic carbonaceous siltstones and separated by barren mudstones.

Production from George Fisher North is included with production for the Black Star (Mount Isa) mine.

Mine production for L72 and P49 for the period January 2014 to December 2014 totalled 3.9Mt at 3.3% Pb, 7.3% Zn and 64g/t Ag. The mine plan results in a mine life to 2029 (BR10427).

Web Page

www.glencore.com

Queensland Minerals

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45325 GEORGE FISHER SOUTH

OPERATING MINE

Descriptive Location: 17.3 KM N MOUNT ISA.

1:100 000 sheet Number and Name: 6756 MOUNT ISA

Grid Reference: Zone 54 340820 mE 7724565 mN

Latitude -20.5711 Longitude 139.4728

Date Recorded: 19/January/2016

Other Names for Deposit / Mine

Hilton

Handlebar Hill

Commodities	Size	Size Definition
ZINC	LARGE	2 000 000 - 5 000 000 tonnes ZN
LEAD	LARGE	2 500 000 - 5 000 000 tonnes PB
SILVER	LARGE	5 000 - 10 000 tonnes AG
COPPER	VERY SMALL	<500 tonnes CU
ANTIMONY	SMALL	50 - 5 000 tonnes SB
INDIUM	VERY SMALL	<0.5 tonnes IN

Production Details

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Published Reserves/Resources

BR 10427 Published in 2015

GEORGE FISHER SOUTH (P49)

INDICATED MINERAL RESOURCE 21,000,000 tonnes Ore @
93.00 g/t SILVER **FOR** 1,953,000 Kilograms SILVER
7.80 % ZINC **FOR** 1,638,000 Tonnes ZINC
4.70 % LEAD **FOR** 987,000 Tonnes LEAD

Comments/Cut Off Factor: A\$69/t net smelter return

Includes probable reserves of 5.73 Mt at 5.9% Zn, 4.5% Pb and 90g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

GEORGE FISHER SOUTH (P49)

INFERRED MINERAL RESOURCE 23,000,000 tonnes Ore @
90.00 g/t SILVER **FOR** 2,070,000 Kilograms SILVER
7.00 % ZINC **FOR** 1,190,000 Tonnes ZINC
5.00 % LEAD **FOR** 850,000 Tonnes LEAD

Comments/Cut Off Factor: A\$69/t net smelter return

As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

GEORGE FISHER SOUTH (P49)

MEASURED MINERAL RESOURCE 25,600,000 tonnes Ore @
105.00 g/t SILVER **FOR** 2,688,000 Kilograms SILVER
7.86 % ZINC **FOR** 2,012,160 Tonnes ZINC
5.15 % LEAD **FOR** 1,318,400 Tonnes LEAD

Comments/Cut Off Factor: A\$69/t net smelter return

Includes proved reserves of 8.9 Mt at 5.72% Zn, 4.6% Pb and 93.8g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

HANDLEBAR HILL O/C (OXIDE)

INDICATED MINERAL RESOURCE 100,000 tonnes Ore @
65.00 g/t SILVER **FOR** 6,500 Kilograms SILVER
4.10 % LEAD **FOR** 4,100 Tonnes LEAD
0.40 % ZINC **FOR** 400 Tonnes ZINC

Comments/Cut Off Factor: A\$25/t net smelter return.

As at 31 Dec 2014. Resource figures from Glencoe Plc website.

BR 10427 Published in 2015

HANDLEBAR HILL O/C (OXIDE)

MEASURED MINERAL RESOURCE 490,000 tonnes Ore @
88.80 g/t SILVER **FOR** 43,512 Kilograms SILVER
8.52 % LEAD **FOR** 41,748 Tonnes LEAD
0.37 % ZINC **FOR** 1,813 Tonnes ZINC

Comments/Cut Off Factor: A\$25/t net smelter return.

Includes proved reserves of 0.49Mt at 0.37% Zn, 8.52% Pb and 88.8g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

HANDLEBAR HILL O/C (PRIMARY)

INDICATED MINERAL RESOURCE 3,600,000 tonnes Ore @
6.10 % ZINC **FOR** 219,600 Tonnes ZINC
35.00 g/t SILVER **FOR** 126,000 Kilograms SILVER
2.00 % LEAD **FOR** 72,000 Tonnes LEAD

Comments/Cut Off Factor: A\$25/t net smelter return.

Includes probable reserves of 0.8Mt at 7.4% Zn, 2.3% Pb and 38g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

HANDLEBAR HILL O/C (PRIMARY)

INFERRED MINERAL RESOURCE 800,000 tonnes Ore @
5.00 % ZINC **FOR** 60,000 Tonnes ZINC
30.00 g/t SILVER **FOR** 24,000 Kilograms SILVER
2.00 % LEAD **FOR** 24,000 Tonnes LEAD

Comments/Cut Off Factor: A\$25/t net smelter return.

As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

HANDLEBAR HILL O/C (PRIMARY)

MEASURED MINERAL RESOURCE 1,600,000 tonnes Ore @
7.77 % ZINC **FOR** 124,320 Tonnes ZINC
40.60 g/t SILVER **FOR** 64,960 Kilograms SILVER
2.56 % LEAD **FOR** 40,960 Tonnes LEAD

Comments/Cut Off Factor: A\$25/t net smelter return.

Includes proved reserves of 0.22Mt at 9.5% Zn, 2.36% Pb and 31.4g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

Resource figures listed above are JORC compliant.

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BR 10427	2015	GLENCORE	GLENCORE RESOURCES & RESERVES AS AT 31 DECEMBER 2014.	HTTP://WWW.GLENCORE.COM/ASSETS/INVESTORS/DOC/REPORTS_AND_RESULTS/2014/GLEN-2014-RESOURCES-RESERVES-REPORT.PDF

Major Mining Related Events

Year Commenced	Year Completed	Comments
1947	to 1947	Outcropping mineralisation found by S.R. Carter.
1966	to 1975	Shaft excavation.
1987	to 1989	Trial production commenced in June 1987 and 100000t of ore was raised by December 1987. Trial bench stoping commenced in March 1989. The first sublevel open stope began production in November 1989.
1989	to 2003	Mining by Mount Isa Mines Limited. Most ore was treated at the Hilton concentrator and the concentrates sent to Mount Isa for treatment.
2003		Mount Isa Mines Ltd was taken over by Xstrata Plc.

Mining Operations

Comments

UNDERGROUND MINING METHODS
SHAFTS
STOPING
OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 8058	100.00%	MOUNT ISA MINES LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
LEICHHARDT RIVER DOMAIN	Urquhart Shale / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENT-HOSTED PB-ZN (SEDEX ZN-PB, SHALE-HOSTED ZN-PB)

Mineralisation Age

ORE	PALAEOPROTEROZOIC	1652+-7 Ma.
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Comments

Production from Hilton (George Fisher South) began in 1987. The ore is processed at Mount Isa and production figures are included in those from the Black Star (Mount Isa) Mine.

The Hilton orebodies occur in the same rock-type as Mount Isa but are more faulted, jointed, and cross-cut by intrusive dykes.

In June 2007, Xstrata announced that it will open cut the Handlebar Hill deposit after drilling confirmed a 4.3Mt reserve. Development was placed on care and maintenance in February 2009.

In 2012 Xstrata reported commissioning of 40000t/a Zn-Pb deposit during the second half of 2011 (BR9789).

Mine production for L72 and P49 for the period January 2014 to December 2014 totalled 3.9Mt at 3.3% Pb, 7.3% Zn and 64g/t Ag. The mine plan results in a mine life to 2029 (BR10427).

Web Page

www.xstrata.com

Queensland Minerals

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478923 GLEN EAGLE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 22.0 KM E OF MINNAMOOKLA HOMESTEAD.

1:100 000 sheet Number and Name: 7961 CASHMERE

Grid Reference: Zone 55 322853 mE 7991987 mN Latitude -18.1538 Longitude 145.3254 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Gleneagle
Glen Eagle Extended No.2
Pallkarra Diatomaceous Earth
Glen Eagle Extended

Commodities	Size	Size Definition
DIATOMITE	LARGE	>2 000 000 tonnes DIAT

Production Details

Period: 1-Jul-2013 to 30-Jun-2016
DIATOMITE 1,014.0 tonnes

Published Reserves/Resources

Company Report 33907 Published in 2003 **GLEN EAGLE**
INFERRED MINERAL RESOURCE 22,000,000 tonnes Ore @
10,000,000 Tonnes DIATOMITE

Comments/Cut Off Factor: Grades ~70% silica.
Geological estimate only.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 20341	100.00%	TOBLER	Kenneth Arthur
ML 20407	100.00%	TOBLER	Kenneth Arthur
ML 20471	100.00%	TOBLER	Kenneth Arthur

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
WALLAROO BASALT PROVINCE	

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	DIATOMITE DEPOSIT

Mineralisation Age

ORE	CENOZOIC
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Comments

Diatomite is exposed beneath basalt in creek banks. The unit dips south-westerly. Samples assayed up to 51ppm V, 59ppm Zr, 130ppm Ba, 42ppm Zn, 20ppm Cr, 11ppm Ni, 42ppm S, 41ppm Sr, 16ppm Cu and 27ppm Pb.

The diatomite comprises 68.2% silica, 16.3% alumina, 4.08% ferric oxide, 0.93% lime, 0.57% magnesia, 0.5% TiO₂ and 0.2% K₂O (ERMS 33907). It could be used as a siliceous fertiliser or soil amendment to improve plant growth and soil properties.

Web Page

Queensland Minerals

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496687 GOONDICUM CRATER

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: GOONDICUM CRATER, 23KM SE OF KALPOWER, 112KM SSE OF GLADSTONE.

1:100 000 sheet Number and Name: 9148 MONTO

Grid Reference: Zone 56 339248 mE 7251381 mN Latitude -24.8440 Longitude 151.4091 Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Goondicum Industrial Minerals Mine
Goondicum Crater Ilmenite

Commodities	Size	Size Definition
ILMENITE	SMALL	5 000 - 5 000 000 tonnes IM
APATITE		
FELDSPAR	LARGE	>100 000 tonnes FS
TITANOMAGNETITE	LARGE	>1 000 000 tonnes TITMAG
PLATINUM	VERY SMALL	<0.5 tonnes PT
PALLADIUM	VERY SMALL	<0.5 tonnes PD

Production Details

Period: 1-Jul-2004 to 30-Jun-2009

ILMENITE	4,460.8 tonnes
MAGNETITE	914.0 tonnes
APATITE	1,626.5 tonnes
FELDSPAR	3,661.4 tonnes

Period: 1-Jul-2007 to 30-Jun-2008

ILMENITE	14,042.0 tonnes
APATITE	5,270.0 tonnes
FELDSPAR	2,252.0 tonnes
TITANOMAGNETITE	3,986.0 tonnes

Period: 1-Jul-2015 to 30-Jun-2016

ILMENITE	4,084.0 tonnes
APATITE	524.0 tonnes

Published Reserves/Resources

BR 10498 Published in 2016

GOONDICUM ML80044

INDICATED MINERAL RESOURCE 31,300,000 tonnes Ore @
6.10 % ILMENITE **FOR** 1,909,300 Tonnes ILMENITE
1.80 % APATITE **FOR** 563,400 Tonnes APATITE

BR 10498 Published in 2016

GOONDICUM ML80044

INFERRED MINERAL RESOURCE 30,900,000 tonnes Ore @
6.30 % ILMENITE **FOR** 1,946,700 Tonnes ILMENITE
1.60 % APATITE **FOR** 494,400 Tonnes APATITE

BR 10498 Published in 2016

GOONDICUM ML80141

INDICATED MINERAL RESOURCE 15,600,000 tonnes Ore @
5.10 % ILMENITE **FOR** 795,600 Tonnes ILMENITE

BR 10498 Published in 2016

GOONDICUM ML80141

INFERRED MINERAL RESOURCE 12,300,000 tonnes Ore @
5.20 % ILMENITE **FOR** 639,600 Tonnes ILMENITE

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10498	2016	MELIOR RESOURCES INC	MELIOR RESOURCES INC. UPDATED NI 43-101 REPORT (17 OCTOBER 2016)	HTTP://WWW.MELIORRESOURC ES.COM/WP-CONTENT/UPLOAD S/2016/10/MLR-UPDATED-NI4310 1-PRESS-RELEASE-17-10-16-FINA L.PDF

Queensland Minerals

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Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1992		1992	Discovery: Mining leases granted in late 1999.
2001		2001	July 2001, Monto Minerals NL (Monto) has entered into an agreement with Monadelphous Group Ltd (Monadelphous) to finalise the Feasibility Study, secure funding and develop the Goondicum Crater Project.
2003		2003	Monto Minerals NL are in the process of developing a wet gravity and magnetic separation plant. John Holland Development and Investment Pty Ltd entered a Project Cooperation Agreement with Monto Minerals NL to construct the plant.
2004		2004	Monto Minerals \$6 million test sorting plant commenced production in March 2004 processing 20t ore per hour. The plant produced the first 650 tonne bulk sample in June 2004 which was trucked to the Ipswich washing facility.
2004		2004	First sale of bulk sample of apatite made in June 2004. Apatite was sold for fertiliser production.
2005		2008	First bulk sample of feldspar shipped to a customer in the Philippines. The 108 tonne sample arrived in Manila for trialling in glass bottle production. Mine closed in 2008.

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 80044	100.00%	GOONDICUM RESOURCES PTY LTD
ML 80075	100.00%	GOONDICUM RESOURCES PTY LTD

Host Rock/Cover Sequences

Structural Unit

WANDILLA PROVINCE

CAINOZOIC ALLUVIAL & COLLUVIAL DEPOSITS

Formation Name/Age

Goondicum Gabbro / LATE CRETACEOUS to LATE CRETACEOUS

Qa-QLD, Qr-YARROL/SCAG / QUATERNARY to QUATERNARY

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

DETAILED OREBODY MODEL

ALLUVIAL/ELUVIAL HEAVY MINERAL ACCUMULATION

GENERAL OREBODY MODEL

MAFIC VOLCANIC RELATED DEPOSIT

DETAILED OREBODY MODEL

STRATIFORM MAFIC-ULTRAMAFIC FE-TI-V (BUSHVELD FE-TI-V)

Mineralisation Age

ORE

LATE CRETACEOUS to CENOZOIC

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Comments

As at June 2005, the project had proved reserves of 300,000t ilmenite, 570,000t feldspar and 110,000t apatite and probable reserves of 3,100,000t ilmenite, 1,550,000t feldspar and 225,000t apatite.

Five resource types have been recognised within the area: oxide gabbros, eluvial deposits, tertiary alluvials, alluvial channel deposits and flood plain deposits.

Mining activities commenced in the March 2007 quarter and ore was stockpiled for commissioning of the processing plant. The plant was dry commissioned in June 2007 and wet commissioning commenced in August 2007.

Unfortunately the plant failed to meet Stage 1 capacity due to flaws in the design of the feed preparation area. PricewaterhouseCoopers was appointed as voluntary administrators in August 2008. The mine was placed on care and maintenance in September 2008.

The mine was officially opened in November 2007 and stockpiles of ilmenite, feldspar, apatite and titanomagnetite were established and production rates were increased gradually.

The plant was expected to achieve design capacity during the March 2008 quarter. Construction of the feldspar processing plant at Dakiel, 25km from Goondicum, was completed during the December quarter and commissioned during January.

The first consignment of ilmenite (3150t) was shipped from Gladstone to South Korea in January 2008.

Belridge Enterprises Ltd acquired the Goondicum mine project in May 2009 and has completed a feasibility study aimed at redevelopment. The ore feed rate will be doubled to 3.5Mtpa through a redesigned feed preparation area and processing plant.

In 2011 Belridge Enterprises reported the Indicated plus Measured resource estimated at 51 Mt, averaging 4.1 per cent ilmenite, 1.9 per cent apatite and 2.5 per cent titanomagnetite in an AusIMM 8th International Heavy Minerals Conference Paper (BR10003).

Plans in late 2012 were to export 7000t per month (mostly to Japan) with an expected mine life of 25 years. An additional source of revenue is phosphorus based apatite, by-product of the ilmenite production, currently sold to a fertiliser company in NSW.

In June 2013 Belridge was forced to temporarily cease operations at the mine, due to the fall in ilmenite prices.

In March 2009, the historic data was used to build a detailed block model in Micromine covering the entire mining lease. Important difference between old and new modelling is re-classification of material types: clay-sand (CS), deco gabbro (DG) and new (2009 cont.) distinction between colluvium (CL) and clay-sand (CS). The CL is drainage related and very clay-rich type restricted to gullies. CS is a decomposed gabbro with a degree of clay content; it is gradational with the DG.

In November 2012 Belridge dispatched a shipment of 6500t of concentrate to Korea (as reported in the Central Telegraph on the 9th of Nov 2012). An intend of exporting another 8000t to Japan was also reported in the same source.

Melior Resources purchased the holding company of Goondicum in May 2014. After a seven month A\$ 7.6M refurbishment Goondicum commenced site commissioning in early April 2015. The mine was put back on care and maintenance in August 2015.

Melior has updated the resources in 2015, but excluded titanomagnetite and feldspar figures, noted in previous resource estimates in 2011 (BR10003) and 2005 (BR7699). Previous resources included 574 000 t of titanomagnetite (BR10003) and (cont.) 2519760 t of feldspar (BR7699).

Web Page

<http://www.meliorresources.com>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

588517 GOSFORD QUARRY

OPERATING MINE

Descriptive Location: EAST OF AIR FORCE ROAD, NORTH OF GOLD MINE RD, HELIDON.

1:100 000 sheet Number and Name: 9342 HELIDON

Grid Reference: Zone 56 412040 mE 6956903 mN

Latitude -27.5086 Longitude 152.1094

Date Recorded: 14/January/2015

Other Names for Deposit / Mine

Ablatio Sandstone 2

Cathedral Quarry

Commodities	Size	Size Definition
BUILDING STONE	VERY SMALL	<100 000 tonnes BLST
SANDSTONE	SMALL	10 000 - 100 000 tonnes SST

Production Details

Period: 1-Jul-1997 to 30-Jun-2014

SANDSTONE

31,260.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 50199	100.00%	GOSFORD QUARRIES (PROPERTIES) PTY LIMITED

Host Rock/Cover Sequences

Structural Unit

CLARENCE-MORETON BASIN

Formation Name/Age

Helidon Sandstone / TRIASSIC to TRIASSIC

Deposit Model

Mineralisation Age

ORE

Comments

Albatro Pty Ltd was set up by the Anglican Church to secure a source of sandstone for restoration of St Johns Cathedral in Brisbane. The company also produces sandstone for the domestic and overseas markets.

In 2011 Gosford Pty bought the the northern portion of Ablatio quarry from Ablatio Pty Ltd and the Anglican Church.

Web Page

<http://www.gosfordquarries.com.au/>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

512806 GREAT AUSTRALIA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 106 KM E OF MOUNT ISA, 1.8 KM S OF CLONCURRY

1:100 000 sheet Number and Name: 7056 CLONCURRY

Grid Reference: Zone 54 449036 mE 7708687 mN

Latitude -20.7206 Longitude 140.5105

Date Recorded: 22/January/2016

Other Names for Deposit / Mine

Great Australia Mine
Great Australian
Great Australia Lode
Main Lode

Commodities	Size	Size Definition
COPPER	SMALL	500 - 50 000 tonnes CU
GOLD	VERY SMALL	<0.5 tonnes AU

Production Details

Period: 1-Jan-1868 to 31-Dec-1946		34,510 tonnes HARD ROCK ORE (OR REEF)
COPPER	METAL	2,736.5 tonnes 7.90 percent
Period: 1-Jan-1938 to 31-Dec-1942		284 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	0.5 kilograms 1.70 grams per tonne
Period: 1-Jan-1953 to 31-Dec-1968		2,448 tonnes HARD ROCK ORE (OR REEF)
COPPER	METAL	118.9 tonnes 4.90 percent
Period: 1-Jul-1996 to 30-Jun-2002		
COPPER	PLATE	10,097.9 tonnes
Period: 1-Jul-2010 to 1-Jun-2015		
GOLD	METAL	14.3 kilograms
COPPER	METAL	8,923.6 tonnes
Period: 1-Jul-2012 to 30-Jul-2014		
COPPER	PRECIPITATE	4,407.7 tonnes

Published Reserves/Resources

BR 10184 Published in 2012

GREAT AUSTRALIA

INDICATED MINERAL RESOURCE 1,400,000 tonnes Ore @
1.53 % COPPER **FOR** 21,420 Tonnes COPPER
0.13 g/t GOLD **FOR** 182 Kilograms GOLD

Comments/Cut Off Factor: 0.5% Cu cutoff

BR 10184 Published in 2012

GREAT AUSTRALIA

INFERRED MINERAL RESOURCE 800,000 tonnes Ore @
1.57 % COPPER **FOR** 12,560 Tonnes COPPER
0.14 g/t GOLD **FOR** 112 Kilograms GOLD

Comments/Cut Off Factor: 0.5% Cu cutoff.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10184	2012	EXCO RESOURCES LTD	MARKET RELEASE: QUEENSLAND EXPLORATION UPDATE; 2012 FIELD PROGRAMME HAS COMMENCED	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 20 APRIL 2012. EXCO RESOURCES LTD, PERTH.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1867	to	1868	The deposit was discovered by Ernest Henry in 1867 and was first worked in 1868, resulting in the establishment of Cloncurry. Henry engaged a Cornish captain and 30 miners to work the mine, but these soon departed.
1869	to	1884	The mine was worked spasmodically.
1884	to	1884	The Cloncurry Copper Mining and Smelting Company was floated in 1884 and purchased the mine from Ernest Henry. Two charcoal-fired water jacket furnaces were erected in 1884 and 200 to 300 men were initially employed.
1885	to	1889	The workforce employed declined and only 3700t of ore was treated before operations ceased in 1889 due to the low copper price.
1889	to	1906	The mine was idle.
1906	to	1908	The Queensland Exploration Company commenced cleaning out the old workings in 1906 and carried out exploratory work in 1907. Two reverberatory furnaces were erected and the old water jacket furnaces were refurbished.
1909	to	1913	The company had overcapitalised and had to close the mine in 1909. However, it kept the pumps running.
1914	to	1918	The Mount Elliott Company purchased the mine in 1914. Its subsidiary, the Dobbin and Cloncurry Copper Mines Ltd, carried out development and produced cupriferos limestone flux for the Mount Elliott smelters. The mine was abandoned in 1918.
1920	to	1923	Worked by tributers.
1937	to	1946	Worked by tributers.
1996	to	2000	Open cut mining and SX-EW treatment by Great Australia Copper Mining Company (Cloncurry Mining Company NL).
2000	to	2006	Operations by Nullabor Mining.
2006	to	2011	Acquired by Exco Resources NL.
2011			Property was acquired by CopperChem and mining commenced, under a royalty agreement with Exco Resources NL.

Mining Operations

Comments

SHAFTS

UNDERGROUND MINING METHODS

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 90065	100.00%	COPPERCHEM LIMITED

Host Rock/Cover Sequences

Structural Unit

CONSTANTINE DOMAIN

SOLDIERS CAP DOMAIN

Formation Name/Age

Corella Formation / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Staveley Formation/2br / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

DETAILED OREBODY MODEL

HYDROTHERMAL VEINS/PIPE/STOCKWORK

PROTEROZOIC STRUCTURALLY-CONTROLLED COPPER-GOLD

Mineralisation Age

ORE

MESOPROTEROZOIC

sulphide and oxide zone minerals listed

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Comments

Mineralisation occurs at the intersection of north and north-east trending structures. Ore occurs in two, structurally discrete bodies, ~900m apart, referred to as the Main and Paddock Lodes. The Orphan Shear deposit occurs 150m NE of the Main Lode. Both structures are mineralised to widths of 5 to 6m. The mineralised zone is >20m wide at the intersection and extends for 150 to 200m northerly. Two main ore types recorded - oxidised ore; and chalcopyrite-pyrite-dolomite ore below 60m depth. The Great Australia copper deposit was discovered in 1867 and worked intermittently up to 1946. From 1996 to 2002, Cloncurry Mining Company and later Nullabor Mining produced cathode copper plate via a SX-EW plant near the Great Australia open cut. This treatment plant and associated mining leases were acquired by Exco Resources NL in 2006. A scoping study was completed in March 2007 over the Great Australian Mine and surrounding prospects. In 2012 Exco Resources was taken over by Washington H Soul Pattinson & Co Ltd. A copper concentrate plant to treat the sulphide ore commenced operation in the third quarter of 2011. In 2012 the levels of native copper present in the ore have impacted the plants performance and the company has commenced mining the Orphan Shear, located 150m along strike to the NE of the Great Australia open pit to improve Cu-sulphide production. CopperChem Ltd commenced mining of oxide ore (under a royalty arrangement with Exco Resources Ltd) in the first half of 2011. In May 2013 CopperChem announced a non-JORC reserve and resource on their webpage: the uncatagorised reserves for GAM are 60000 t at 1.4% Cu and 0.1 g/t Au and the uncatagorised resources are 3 Mt at 1.06% Cu and 0.08 g/t Au (BR10368).

Web Page

www.excoresources.com.au, www.copperchem.com.au/

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

610264 GREAT NORTHERN

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: GREAT NORTHERN SAPPHIRE MINE, 4.2 KM ENE OF SAPPHIRE

1:100 000 sheet Number and Name: 8451 RUBYVALE

Grid Reference: Zone 55 577488 mE 7405008 mN

Latitude -23.4631 Longitude 147.7587

Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
SAPPHIRE	MEDIUM	1 - 10 tonnes SAPP
ZIRCONIUM		

Production Details

Period: 1-Jul-1998 to 30-Jun-2004

SAPPHIRE

8,140,387.0 australian dollars

Period: 1-Jul-2011 to 30-Jun-2016

SAPPHIRE

4,285,709.0 australian dollars

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 1824	100.00%	GREAT NORTHERN MINING PTY LTD
ML 2185	100.00%	GREAT NORTHERN MINING PTY LTD
ML 6858	100.00%	GREAT NORTHERN MINING PTY LTD
ML 6867	100.00%	GREAT NORTHERN MINING PTY LTD
ML 6890	100.00%	GREAT NORTHERN MINING PTY LTD
ML 6891	100.00%	GREAT NORTHERN MINING PTY LTD
ML 6892	100.00%	GREAT NORTHERN MINING PTY LTD
ML 7142	100.00%	GREAT NORTHERN MINING PTY LTD
ML 7145	100.00%	GREAT NORTHERN MINING PTY LTD
ML 7159	100.00%	GREAT NORTHERN MINING PTY LTD
ML 7166	100.00%	GREAT NORTHERN MINING PTY LTD
ML 70305	100.00%	GREAT NORTHERN MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit

CAINOZOIC ALLUVIAL & COLLUVIAL DEPOSITS

Formation Name/Age

Qa-QLD / QUATERNARY to QUATERNARY

Deposit Model

Mineralisation Age

ALLUVIUM

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

37975 GREENWOOD

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 51.2KM EAST OF CLONCURRY, 169.2KM EAST OF MOUNT ISA.

1:100 000 sheet Number and Name: 7056 CLONCURRY

Grid Reference: Zone 54 499660 mE 7714675 mN

Latitude -20.6673 Longitude 140.9967

Date Recorded: 15/February/2017

Other Names for Deposit / Mine

Greenwood No 2

Commodities	Size	Size Definition
LIMESTONE	MEDIUM	2 000 000 - 10 000 000 tonnes LST

Production Details

Period: 1-Jul-2003 to 30-Jun-2015

LIMESTONE METALLURGICAL ORE 789,648.8 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
2003	to 2006	Limestone produced from ML 2722 for use as flux in Mount Isa smelters.
	2003	Limestone mainly produced from ML 2721. No production figures available.

Mining Operations

PITS

OPEN CUT MINING

Comments

Tenure Type/Number	SHARE	Company Name/Surname
ML 2721	100.00%	MOUNT ISA MINES LIMITED
ML 2722	100.00%	MOUNT ISA MINES LIMITED
ML 2723	100.00%	MOUNT ISA MINES LIMITED
ML 2724	100.00%	MOUNT ISA MINES LIMITED

Host Rock/Cover Sequences

Structural Unit

EROMANGA BASIN

Formation Name/Age

Toolebuc Formation / EARLY CRETACEOUS to EARLY CRETACEOUS

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

LIMESTONE DEPOSIT

Mineralisation Age

ORE

CRETACEOUS

Comments

MLs 2721, 2722, 2723 and 2724 (Greenwood Nos 1 to 4, respectively) are held by Mount Isa Mines Ltd. Limestone is quarried for use as a flux in the Mount Isa smelters.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

45114 GRO-FAST

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 8.7 KM WSW OF MALANDA, ATHERTON TABLELAND, SOUTH OF CAIRNS.

1:100 000 sheet Number and Name: 8063 BARTLE FRERE

Grid Reference: Zone 55 342476 mE 8077227 mN Latitude -17.3852 Longitude 145.5172 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Tropical Peat

Commodities	Size	Size Definition
PEAT		

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

PEAT 27,167.5 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

SURFACE MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 4317	100.00%	TABLELAND PEAT PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

ATHERTON BASALT PROVINCE

Atherton Basalt / LATE TERTIARY to QUATERNARY

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

CENOZOIC

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

610266 GUNNAWARRA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 12.8 KM WSW OF GUNNAWARRA HOMESTEAD, 120 KM SOUTH OF CAIRNS.

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 290299 mE 8012052 mN Latitude -17.9697 Longitude 145.0198 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
DOLOMITE (CHEMICAL GRADE)	SMALL	2 000 - 2 000 000 tonnes DO

Production Details

Period: 1-Jul-2013 to 30-Jun-2016

DOLOMITE (CHEMICAL GRADE) 48,538.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 20540	100.00%	MIRIWinni LIME PTY LTD

Host Rock/Cover Sequences

Structural Unit

MCBRIDE BASALT PROVINCE

Formation Name/Age

Depression Basalt / QUATERNARY to QUATERNARY

Deposit Model

Mineralisation Age

ORE

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

493994 GURULMUNDI

OPERATING MINE

Descriptive Location: 4 KM SOUTH EAST OF GURULMUNDI, 30KM NORTH OF MILES, 315KM WEST OF BRISBANE.

1:100 000 sheet Number and Name: 8945 GULUGUBA

Grid Reference: Zone 56 207673 mE 7071434 mN Latitude -26.4473 Longitude 150.0686 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Australian Bentonite Mine

Ausben No.1

Commodities	Size	Size Definition
BENTONITE	MEDIUM	200 000 - 20 000 000 tonnes BENT

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

BENTONITE 1,120,096.6 tonnes

Published Reserves/Resources

INFERRED MINERAL RESOURCE

12,000,000 Tonnes BENTONITE

Of this resource there is 3 Mt of premium grade sodium bentonite. pers comm D Carmichael.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced Year Completed Comments

Mining Operations

OPEN CUT MINING

Comments

Tenure Type/Number	SHARE	Company Name/Surname
ML 5907	100.00%	SIBELCO AUSTRALIA LIMITED
ML 5909	100.00%	SIBELCO AUSTRALIA LIMITED
ML 50058	100.00%	SIBELCO AUSTRALIA LIMITED

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

SURAT BASIN

Orallo Formation / EARLY CRETACEOUS to EARLY CRETACEOUS

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE

JURASSIC

Comments

Three bentonite seams occur with a combined thickness of 6m. Production averages 40,000 to 100,000tpa. Unimin Australia Ltd produce sodium bentonite for local and export industrial and feedstock markets.

Web Page

<http://www.sibelco.com.au/>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

39124 HEY POINT

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 2.3KM W OF WEIPA AIRSTRIP

1:100 000 sheet Number and Name: 7272 WEIPA

Grid Reference: Zone 54 596000 mE 8592000 mN

Latitude -12.7350 Longitude 141.8843

Date Recorded: 12/May/2016

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BAUXITE	SMALL	100 000 - 100 000 000 tonnes BX

Production Details

Published Reserves/Resources

BR 10236 Published in 2012

HEY POINT

INFERRED MINERAL RESOURCE 3,800,000 tonnes Ore @
2,500,000 Tonnes BAUXITE

Comments/Cut Off Factor: 55.3 per cent Alumina (Al₂O₃) and 9.8 per cent Silica (SiO₂).

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10236	2012	CAPE ALUMINA PTY LTD	2012 ANNUAL REPORT	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 24 OCTOBER 2012. CAPE ALUMINA PTY LTD, BRISBANE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
EPM 15054	100.00%	GREEN COAST RESOURCES PTY LTD
ML 20611	100.00%	GREEN COAST RESOURCES PTY LTD

Host Rock/Cover Sequences

Structural Unit

KARUMBA BASIN

Formation Name/Age

Bulimba Formation / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

DETAILED OREBODY MODEL

LATERITIC BAUXITE

Mineralisation Age

Comments

The Hey Point bauxite deposit was sold to Racle Resources Pty Ltd in November 2012 by Cape Alumina Pty Ltd (BR 10237).

The Hey Point deposit is within the Bulimba Formation and has the potential for development as a small-scale, direct-shipping bauxite project (BR 10237).

DSO mining operations started in May 2016.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

504553 HUGHENDEN GYPSUM

OPERATING MINE

Descriptive Location: 8 KM WEST OF HUGHENDEN, 310KM WEST OF TOWNSVILLE.

1:100 000 sheet Number and Name: 7756 HUGHENDEN

Grid Reference: Zone 55 196505 mE 7694799 mN

Latitude -20.8220 Longitude 144.0842

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Burdekin Lime Company Gypsum

Dino 4

Dino 5

Dino 1

Dino 2

Dino 3

Commodities	Size	Size Definition
GYPSUM	SMALL	5 000 - 5 000 000 tonnes GYP

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

GYPSUM 284,746.0 tonnes

Published Reserves/Resources

BR 6194 Published in 1999

INFERRED MINERAL RESOURCE

400,000 Tonnes GYPSUM

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 6194	1999	SMART J V	GYPSUM	MINERAL INFORMATION LEAFLET NO 26 QUEENSLAND DEPARTMENT OF MINES AND ENERGY

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
SURFACE MINING METHODS	Two small areas have been scraped for material to <1m depth.

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 10238	100.00%	WIEBEN	Sydney
ML 10239	100.00%	WIEBEN	Sydney
ML 90089	100.00%	WIEBEN	Sydney

Host Rock/Cover Sequences

Structural Unit

EROMANGA BASIN

Formation Name/Age

Toolebuc Formation / EARLY CRETACEOUS to EARLY CRETACEOUS

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	EVAPORITE DEPOSIT
DETAILED OREBODY MODEL	ENRICHED LIME DEPOSIT

Mineralisation Age

ORE QUATERNARY

Comments

The Burdekin Lime Company Pty Ltd is mining a series of gypsum-veined earthy lime deposits occurring in a 10km long, narrow corridor of Cretaceous Toolebuc Formation.

The material is used as a soil conditioner in agriculture, mainly for cane growing and peanuts.

This is not a pure gypsum deposit but rather an earthy lime deposit with gypsum veining. Screening of the material allows a higher grade gypsum product to be produced.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

486374 IVERAGH

OPERATING MINE

Descriptive Location: 2.4KM SE OF TANNUM SANDS, 20KM SE OF GLADSTONE.

1:100 000 sheet Number and Name: 9150 GLADSTONE

Grid Reference: Zone 56 335764 mE 7347980 mN

Latitude -23.9715 Longitude 151.3858

Date Recorded: 14/February/2017

Other Names for Deposit / Mine

Tannum Sands

Tannum Silica Sand

Commodities

SILICA SAND

Size

LARGE

Size Definition

>2 500 000 tonnes SIS

Production Details

Period: 1-Jul-1991 to 30-Jun-2016

SILICA SAND

2,559,097.3 tonnes

Published Reserves/Resources

BR 5696 Published in 1998

IVERAGH

PROVED ORE RESERVE

4,000,000 Tonnes SILICA SAND

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 5696	1998	DEPARTMENT OF MINES AND ENERGY, QUEENSLAND	QUEENSLAND MINERALS AND ENERGY REVIEW, 1997-98.	

Major Mining Related Events

Year Commenced	Year Completed	Comments
1991		Mining by Queensland Cement Ltd commenced in 1991.

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 3664	100.00%	CEMENT AUSTRALIA (EXPLORATION) PTY LTD

Host Rock/Cover Sequences

Structural Unit

MODERN COASTAL DEPOSITS

Formation Name/Age

Qhcb-YARROL/SCAG / QUATERNARY to QUATERNARY

Deposit Model

GENERAL OREBODY MODEL

DUNE DEPOSIT

DETAILED OREBODY MODEL

DUNE DEPOSIT SILICA SAND

Mineralisation Age

ORE

CENOZOIC

Comments

Silica sand for the manufacture of cement clinker. Mining from a large pit in an old beachridge barrier system.

Web Page

<http://www.cemaust.com.au>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

503698 JEEBROPILLY

OPERATING MINE

Descriptive Location: 7KM SW OF IPSWICH

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 464405 mE 6941004 mN Latitude -27.6545 Longitude 152.6391 Date Recorded: 20/May/2015

Other Names for Deposit / Mine

Jeebropilly Bentonite

Commodities	Size	Size Definition
BENTONITE	SMALL	2 000 - 200 000 tonnes BENT

Production Details

Period: 1-Jul-1998 to 30-Jun-2010	
BENTONITE	68,268.0 tonnes
Period: 1-Jul-2000 to 30-Jun-2004	
GRAVEL	2,146.0 tonnes
Period: 1-Jul-2004 to 30-Jun-2005	
CLAY	938.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 4677	100.00%	JEEBROPILLY COLLIERIES PTY LTD
ML 4689	100.00%	JEEBROPILLY COLLIERIES PTY LTD
ML 4710	100.00%	JEEBROPILLY COLLIERIES PTY LTD
ML 50132	100.00%	JEEBROPILLY COLLIERIES PTY LTD
ML 50133	100.00%	JEEBROPILLY COLLIERIES PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CLARENCE-MORETON BASIN	Walloon Subgroup / MIDDLE JURASSIC to MIDDLE JURASSIC

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE	JURASSIC
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Comments

Calcium magnesium bentonite was recovered as a byproduct from the Jeebropilly open-cut coal mine and has been stockpiled for processing and sale.

Web Page

<http://www.newhopecoal.com.au>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

486400 KENNEDY CREEK

OPERATING MINE

Descriptive Location: 70 KM SW OF SARINA, 295KM NW OF GLADSTONE.

1:100 000 sheet Number and Name: 8654 NEBO

Grid Reference: Zone 55 701674 mE 7566935 mN Latitude -21.9904 Longitude 148.9534 Date Recorded: 16/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
EARTHY LIME / DOLOMITE (AGRICULTURAL)	LARGE	>1 000 000 tonnes ELIM

Production Details

Period: 1-Jul-2008 to 30-Jun-2015

EARTHY LIME / DOLOMITE (AGRICULTURAL) 9,423.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		

Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 70293	75.00%	CQ DOLOMITE PTY LTD
ML 70293	25.00%	MACEGATE PTY LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CONNORS SUBPROVINCE	Lizzie Creek Volcanics / EARLY PERMIAN to EARLY PERMIAN

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	ENRICHED LIME DEPOSIT

Mineralisation Age

ORE CENOZOIC

Comments

Earthy lime formed by in-situ weathering of andesites.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

588110 KILKENNY NORTH

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: ~3KM W OF CRACOW, ~175KM SE OF GLADSTONE.

1:100 000 sheet Number and Name: 8947 CRACOW

Grid Reference: Zone 56 224250 mE 7200840 mN

Latitude -25.2835 Longitude 150.2617

Date Recorded: 22/May/2015

Other Names for Deposit / Mine

Crocow Gold Mine Group

Commodities	Size	Size Definition
GOLD	SMALL	0.5 - 5 tonnes AU

Production Details

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
BR 10019	2012	EVOLUTION MINING LIMITED	EVOLUTION MINING MINERAL RESOURCE STATEMENT - JUNE 2012	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 25 SEPTEMBER 2012. EVOLUTION MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 80089	100.00%	LION MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit

AUBURN SUBPROVINCE

Formation Name/Age

Camboon Volcanics / LATE CARBONIFEROUS to EARLY PERMIAN

Deposit Model

Mineralisation Age

ORE

EARLY PERMIAN

Comments

The ore reserves have been reported above cut-off grade of 3.0 g/t Au and based on a gold price of A\$1350 per ounce and a gold recovery of 93%. Mining depletion and a narrowing of some lode structures was also taken into account by Evolution (2012).

The mineralisation is amenable to conventional cyanide leach extraction after fine grinding, with average recoveries of 94.3% of the gold.

An exploration decline was commenced at Kilkenny in the first half of 2009. The mine is now held by Evolution Mining Limited (since 2011).

In Dec 2010 resource definition continued to validate Kilkenny, Phoenix, Tipperary & Empire shoots: Significant intercepts: K KU051:

21.1m @ 3.8g/t Au from 340m; K KU054: 10.6m @ 13g/t Au from 119m; K KU062: 9.7m @ 11g/t Au from 278m

Dec2010 (cont): K KU053: 2.0m @ 20g/t Au from 101m; K KU060: 4.8m @ 7.7g/t from 179.7m (BR9605).

The ore reserves have been reported above cut-off grade of 3.0 g/t Au and based on a gold price of A\$1350 per ounce and a gold recovery of 93%. Mining depletion and a narrowing of some lode structures was also taken into account by Evolution (2012).

Web Page

www.evolutionmining.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

588056 KULTHOR

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: ~30 KM ESE OF CHATSWORTH HS, ~195KM SE OF MT ISA.

1:100 000 sheet Number and Name: 7053 TOOLEBUC

Grid Reference: Zone 54 453900 mE 7556400 mN Latitude -22.0966 Longitude 140.5531 Date Recorded: 22/May/2015

Other Names for Deposit / Mine

Osborne Project

Commodities	Size	Size Definition
COPPER	MEDIUM	50 000 - 250 000 tonnes CU
GOLD	MEDIUM	5 - 50 tonnes AU

Production Details

Published Reserves/Resources

BR 9977 Published in 2012

KULTHOR UNDERGROUND

INDICATED MINERAL RESOURCE 4,500,000 tonnes Ore @

1.50 % COPPER **FOR** 67,500 Tonnes COPPER

1.00 g/t GOLD **FOR** 4,500 Kilograms GOLD

Comments/Cut Off Factor: 1.2% equiv Cu cut-off

BR 9977 Published in 2012

KULTHOR UNDERGROUND

INFERRED MINERAL RESOURCE 5,400,000 tonnes Ore @

1.30 % COPPER **FOR** 70,200 Tonnes COPPER

0.90 g/t GOLD **FOR** 4,860 Kilograms GOLD

Comments/Cut Off Factor: 1.2% equiv Cu cut-off

BR 9977 Published in 2012

KULTHOR UNDERGROUND

MEASURED MINERAL RESOURCE 2,900,000 tonnes Ore @

1.70 % COPPER **FOR** 49,300 Tonnes COPPER

1.00 g/t GOLD **FOR** 2,900 Kilograms GOLD

Comments/Cut Off Factor: 1.2% equiv Cu cut-off

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9977	2012	IVANHOE AUSTRALIA LIMITED	MARKET RELEASE: IVANHOE AUSTRALIA - UPGRADE TO MINERAL RESOURCE OVER 60% INCREASE IN CONTAINED METAL AT KULTHOR RESULTS ARE EXPECTED TO EXTEND OSBORNE MINE LIFE	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 19 SEPTEMBER 2012. IVANHOE AUSTRALIA LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
2012		Ivanhoe Australia commenced production late 2012

Mining Operations

UNDERGROUND MINING METHODS
DECLINED SHAFTS/DRIVES

Comments

Tenure Type/Number	SHARE	Company Name/Surname
ML 90158	100.00%	CHINOVA RESOURCES OSBORNE PTY LTD

Host Rock/Cover Sequences

Structural Unit

KURIDALA-SELWYN DOMAIN

Formation Name/Age

Starcross Formation / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

Mineralisation Age

ORE MESOPROTEROZOIC dating at Osborne believed to be valid for this deposit too

Comments

kulthor is a blind deposit beneath +100 m of Mesozoic sediments. Much of the mineralisation is hosted by and overprints banded quartz-magnetite-apatite ironstones developed within the host sequence of metamorphic, igneous and metasomatic rocks.

Web Page

www.chinovaresources.com/

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

493528 **KUNWARARA**

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 60 KM NORTH-WEST OF ROCKHAMPTON.

1:100 000 sheet Number and Name: 8952 PRINCHESTER

Grid Reference: Zone 56 211246 mE 7466216 mN

Latitude -22.8870 Longitude 150.1855

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Oldman North

Commodities	Size	Size Definition
MAGNESITE	LARGE	>10 000 000 tonnes MS

Production Details

Period: 1-Jul-1992 to 30-Jun-1993	1,951,677 cubic metres SOIL/REGOLITH
MAGNESITE	224,638.0 tonnes
Period: 1-Jul-1993 to 30-Jun-1994	2,475,725 cubic metres SOIL/REGOLITH
MAGNESITE	278,409.0 tonnes
Period: 1-Jul-1994 to 30-Jun-1995	2,500,000 cubic metres SOIL/REGOLITH
MAGNESITE	260,000.0 tonnes
Period: 1-Jul-1995 to 30-Jun-1996	MAGNESITE
	287,251.0 tonnes
Period: 1-Jul-1996 to 30-Jun-1997	2,400,000 cubic metres SOIL/REGOLITH
MAGNESITE	209,040.0 tonnes
Period: 1-Jul-1997 to 30-Jun-1998	2,310,000 cubic metres SOIL/REGOLITH
MAGNESITE	317,000.0 tonnes
Period: 1-Jul-1998 to 30-Jun-1999	2,290,000 cubic metres SOIL/REGOLITH
MAGNESITE	278,000.0 tonnes
Period: 1-Jul-1999 to 30-Jun-2000	MAGNESITE
	398,001.0 tonnes
Period: 1-Jul-2000 to 30-Jun-2001	MAGNESITE
	495,082.0 tonnes
Period: 1-Jul-2001 to 30-Jun-2002	2,169,950 cubic metres SOIL/REGOLITH
MAGNESITE	601,233.0 tonnes
Period: 1-Jul-2002 to 30-Jun-2003	2,730,895 cubic metres SOIL/REGOLITH
MAGNESITE	447,261.0 tonnes
Period: 1-Jul-2003 to 30-Jun-2016	MAGNESITE
	6,239,030.0 tonnes

Published Reserves/Resources

BR 9837 Published in 2004

KG1

MEASURED MINERAL RESOURCE 18,500,000 tonnes Ore @
6,200,000 Tonnes MAGNESITE

Includes proved reserves of 4.2Mt for 1.3Mt magnesite.

BR 9837 Published in 2004

KG2

MEASURED MINERAL RESOURCE 15,000,000 tonnes Ore @
5,300,000 Tonnes MAGNESITE

Includes proved reserves of 5.8Mt for 2.3Mt magnesite and probable reserves of 6.4Mt for 2.0Mt magnesite.

BR 9837 Published in 2004

KG3

INDICATED MINERAL RESOURCE 1,700,000 tonnes Ore @
600,000 Tonnes MAGNESITE

BR 9837 Published in 2004

KG3

MEASURED MINERAL RESOURCE 5,200,000 tonnes Ore @
1,600,000 Tonnes MAGNESITE

Includes proved reserves of 5.0Mt for 1.6Mt magnesite.

BR 9837 Published in 2004

OLDMAN NORTH

INDICATED MINERAL RESOURCE 11,400,000 tonnes Ore @
3,600,000 Tonnes MAGNESITE

Includes probable reserves of 10.9Mt for 3.4Mt magnesite.

Resource figures listed above are JORC compliant.

Queensland Minerals

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Published Reference ID	Year	Author	Title	Source
BR 9837	2004	AUSTRALIAN MAGNESIUM CORPORATION LIMITED	AUSTRALIAN MAGNESIUM CORPORATION LIMITED ANNUAL REPORT JUNE 2004	AUSTRALIAN MAGNESIUM CORPORATION LIMITED

Major Mining Related Events

Year Commenced	Year Completed	Comments
1985	to 1985	The presence and commercial potential of the magnesite nodules was discovered by Queensland Metals in 1985.
Operating Mine Life: 1991 to 2097 Mining by Queensland Magnesia (Operations) Pty Ltd.		
1997	to 1997	Major investment in mine and plant to expand capacity and reduce costs; Entry into the calcined magnesia markets - magnesia sales reach 200000tpa
2003	to 2003	Completed construction of an air pulsed gravity separator, which produces a final magnesite product without additional processing at KG1.
2004		A new company, QMAG Ltd, was formed to be the holding company of magnesite and magnesia assets.

Mining Operations

Mining Operations	Comments
OPEN CUT MINING	Ore is mined on four 3m benches by conventional earth moving equipment.
SURFACE MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
MDL 344	40.00%	QMC (KUNWARARA) PTY LIMITED
MDL 344	10.00%	QMC REFMAG PTY LTD
MDL 344	50.00%	QMCH PTY LTD
ML 5868	40.00%	QMC (KUNWARARA) PTY LIMITED
ML 5868	10.00%	QMC REFMAG PTY LTD
ML 5868	50.00%	QMCH PTY LTD
ML 5869	40.00%	QMC (KUNWARARA) PTY LIMITED
ML 5869	10.00%	QMC REFMAG PTY LTD
ML 5869	50.00%	QMCH PTY LTD
ML 80067	40.00%	QMC (KUNWARARA) PTY LIMITED
ML 80067	10.00%	QMC REFMAG PTY LTD
ML 80067	50.00%	QMCH PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
HERBERT CREEK BASIN	Kunwarara Magnesite / TERTIARY to TERTIARY

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	NODULAR MAGNESITE

Mineralisation Age

ORE	TERTIARY to QUATERNARY
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Comments

The deposit is considered to be the world's largest cryptocrystalline magnesite deposit. Kunwarara is situated in a shallow freshwater sedimentary basin in which extensive flat lying sheets of loosely consolidated freshwater sediments were deposited during the Tertiary and Quaternary. Sheet-like magnesite deposits were developed within the upper portions of these sediments due to weathering and erosion of nearby serpentinite and subsequent enrichment through diagenesis. In February 2009, QMAG announced major production cuts at Kunwarara to reduce inventories and conserve cash. Contract mining ceased at Kunwarara and the Parkhurst processing plant was reduced to 30% of its capacity. Production is expected to remain at these levels until the middle of 2009. In September 2010 QMAG commenced mining at the Yaamba magnesite deposit. Initial open-cut mining involves partial processing (screening) of the ore before transporting to the KG1 plant for beneficiation.

Web Page

www.qmag.com.au; www.am-technologies.com.au

Queensland Minerals

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547365 LAS MINERALE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 15KM W OF CLONCURRY

1:100 000 sheet Number and Name: 6956 MARRABA

Grid Reference: Zone 54 433720 mE 7713966 mN

Latitude -20.6724 Longitude 140.3636

Date Recorded: 15/February/2017

Other Names for Deposit / Mine

Las Minerale Central
Las Minerale East
Las Minerale North Offset
Las Minerale West
Southern Siltstone

Commodities

	Size	Size Definition
COPPER	LARGE	250 000 - 2 000 000 tonnes CU
COBALT	MEDIUM	1 000 - 20 000 tonnes CO
GOLD	SMALL	0.5 - 5 tonnes AU
MAGNETITE	SMALL	50 000 - 500 000 tonnes MT

Production Details

Period: 1-Jul-2014 to 30-Jun-2016

COPPER	METAL	359.1 tonnes
GOLD	METAL	5.2 kilograms

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Published Reserves/Resources

BR 10567 Published in 2016

MAGNETITE ONLY RESOURCE ROCKLA

INDICATED MINERAL RESOURCE 100,000 tonnes Ore @
19.60 % MAGNETITE **FOR** 19,600 Tonnes MAGNETITE

Comments/Cut Off Factor: cut off at 10% magnetite

BR 10567 Published in 2016

MAGNETITE ONLY RESOURCE ROCKLA

INFERRED MINERAL RESOURCE 177,900,000 tonnes Ore @
15.10 % MAGNETITE **FOR** 26,862,900 Tonnes MAGNETITE

Comments/Cut Off Factor: cut off at 10% magnetite

BR 10567 Published in 2016

MAGNETITE ONLY RESOURCE ROCKLA

MEASURED MINERAL RESOURCE 300,000 tonnes Ore @
11.40 % MAGNETITE **FOR** 34,200 Tonnes MAGNETITE

Comments/Cut Off Factor: cut off at 10% magnetite

BR 10567 Published in 2016

ROCKLANDS OPEN CUT

INDICATED MINERAL RESOURCE 9,400,000 tonnes Ore @
6.70 % MAGNETITE **FOR** 629,800 Tonnes MAGNETITE
0.35 % COPPER **FOR** 32,900 Tonnes COPPER
0.03 % COBALT **FOR** 2,368 Tonnes COBALT
0.10 g/t GOLD **FOR** 940 Kilograms GOLD

Comments/Cut Off Factor: 0.2% Cu equivalent cutoff

BR 10567 Published in 2016

ROCKLANDS OPEN CUT

INFERRED MINERAL RESOURCE 200,000 tonnes Ore @
4.90 % MAGNETITE **FOR** 9,800 Tonnes MAGNETITE
0.36 % COPPER **FOR** 720 Tonnes COPPER
0.02 % COBALT **FOR** 40 Tonnes COBALT
0.14 g/t GOLD **FOR** 28 Kilograms GOLD

Comments/Cut Off Factor: 0.2% Cu equivalent cutoff

BR 10567 Published in 2016

ROCKLANDS OPEN CUT

MEASURED MINERAL RESOURCE 38,400,000 tonnes Ore @
5.80 % MAGNETITE **FOR** 1,102,000 Tonnes MAGNETITE
0.64 % COPPER **FOR** 245,760 Tonnes COPPER
0.03 % COBALT **FOR** 11,865 Tonnes COBALT
0.14 g/t GOLD **FOR** 5,376 Kilograms GOLD

Comments/Cut Off Factor: 0.2% Cu equivalent cutoff

BR 10567 Published in 2016

ROCKLANDS UNDERGROUND

INDICATED MINERAL RESOURCE 7,000,000 tonnes Ore @
1.20 % MAGNETITE **FOR** 84,000 Tonnes MAGNETITE
0.92 % COPPER **FOR** 64,400 Tonnes COPPER
0.03 % COBALT **FOR** 1,799 Tonnes COBALT
0.23 g/t GOLD **FOR** 1,610 Kilograms GOLD

Comments/Cut Off Factor: 0.8% Cu equivalent cutoff

BR 10567 Published in 2016

ROCKLANDS UNDERGROUND

INFERRED MINERAL RESOURCE 400,000 tonnes Ore @
1.30 % MAGNETITE **FOR** 5,200 Tonnes MAGNETITE
0.75 % COPPER **FOR** 3,000 Tonnes COPPER
0.26 g/t GOLD **FOR** 104 Kilograms GOLD
0.02 % COBALT **FOR** 99 Tonnes COBALT

Comments/Cut Off Factor: 0.8% Cu equivalent cutoff

BR 10567 Published in 2016

ROCKLANDS UNDERGROUND

MEASURED MINERAL RESOURCE 1,300,000 tonnes Ore @
2.00 % MAGNETITE **FOR** 26,000 Tonnes MAGNETITE
1.36 % COPPER **FOR** 17,680 Tonnes COPPER
0.04 % COBALT **FOR** 475 Tonnes COBALT
0.22 g/t GOLD **FOR** 286 Kilograms GOLD

Comments/Cut Off Factor: 0.8% Cu equivalent cutoff

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Published Reference ID	Year	Author	Title	Source
BR 10567	2016	CUDECO LIMITED	QUARTERLY REPORT ENDING 31ST MARCH 2016; ROCKLANDS GROUP COPPER PROJECT	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 29 APRIL 2016. CUDECO LIMITED, GOLD COAST.

Major Mining Related Events

Year Commenced	Year Completed	Comments

Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 90177	100.00%	CUDECO LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MITAKOODI DOMAIN	Overhang Jaspilite / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL	HYDROTHERMAL VEINS/PIPE/STOCKWORK
DETAILED OREBODY MODEL	IRON-OXIDE CU-AU (-U-REE)

Mineralisation Age

ORE	MESOPROTEROZOIC
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Comments

Cudeco now plans to drill out the high-grade bonanza zones down to 250m depth at Las Minerale and Rocklands South.

In August 2006, CuDeco announced that drilling results had extended the total known length of the mineralised zone at Las Minerale to 850m. Drillhole DORC 111 intersected 38m at 1.82% Cu from 47m and 42m at 1.10% Cu from 196m.

In September 2006, CuDeco announced that drillhole DORC 123 had intersected 57m at 2.02% Cu from 69m, including 29m at 3.13% Cu from 75m and 27m at 0.4g/t Au from 77m. Hold DORC 124 intersected 17m at 2.15% Cu from 32m and 11m at 0.6g/t Au from 34m. A Sub Audio Magnetic survey indicated a total interpreted mineralised trend length of 3600m for the Las Minerale prospect.

Significant native copper mineralisation has been intersected in altered dolerite and clays and in massive quartz-carbonate breccias.

On 17 July 2006, CuDeco (the renamed Australian Mining Investments) reannounced the inferred resource as 25Mt @ 1.57% Cu, 818ppm Co and 0.2g/t Au, with an "exploration target" of 40 to 50Mt at similar grades outside of and below the resource zone.

Copper-cobalt-gold mineralisation occurs associated with magnetite alteration in a shear zone along the contact of a metavolcanic unit and a metavolcanic-metapelite unit.

In November 2006, CuDeco announced that drilling had identified new zones of copper mineralisation, with the discovery of zones subparallel to Las Minerale. The main Las Minerale zone appears to be dipping 80 to 85 degrees to the west at 150m depth.

Visual sulphide mineralisation in core includes pyrrhotite, pyrite, chalcopyrite and chalcocite associated with quartz and carbonates in K-feldspar-magnetite altered dolerite and massive quartz-carbonate-actinolite rock.

Drill intersections included 47m at 0.92% Cu from 65m, 19m at 1.37% Cu from 117m and 23m at 5.17% Cu from 137m (including 17m at 6.78% Cu).

Resource infill drilling continued in 2008. Intersections included 133m at 6.13% Cu from 3m, including 118m at 6.84% Cu from 18m and 28m at 15.31% Cu from 34m. Wide zones of cobalt mineralisation have also been intersected.

Drilling continued in 2009. Results announced for the June 2009 quarter included 59m at 8.32% Cu, 146m at 7.02% Cu, 117m at 5.35% Cu, 71m at 4.88% Cu, 14m at 7.19% Cu, 20m at 5.11% Cu, 82m at 4.99% Cu and 11m at 8.78% Cu.

Deep core drilling along strike and under Las Minerale confirmed the existence of a significant mineralised structure running subparallel to and south of Las Minerale. A 75m mineralised intersection included 50m with chalcopyrite.

Deep drilling has confirmed that the Las Minerale zone extends for >470m down dip.

Cudeco in 2011 reported updated resource figures of a combined measured and indicated resource of 30.3Mt @ 1.70% CuEq. Estimates are based on all 3793 drill holes (306671.2m) including 305 diamond holes (69521.0m) and 1458 Rc holes (225207.5m) (BR9701).

In September 2010 CuDeCo reports a mining and processing costs assessment by independent metallurgical and mining consultants completed, based on processing of initial 30.9Mt @ 1.24% Cu Eq resource (389,000 t Cu) for 3MtPa process facility (BR9581)

September 2010: Total resource for Rocklands of 1029 Mt copper equivalent (see resource figures (BR9581).

In December 2015 CuDeco reported a Rocklands maiden reserve estimate: Total ore reserve of 28Mt @ 0.9% spec_CuEq (0.71% Cu, 0.14g/t Au, 357ppm Co, 6.7% Mag), including a high grade ore reserve of 10Mt @ 1.61% Spec_CuEq (BR10432).

In 2014 CuDeco has arranged with Glencore Plc to supply 20,000 t of ore from Rocklands for toll-treatment at its Ernest Henry processing plant, and the results reported as surpassing expectations (BR10330).

2014 CuDeco mined wide zones of direct shipping ore in Las Minerale from high grade oxide and sulphide ore which was crushed and stockpiled for shipping to China smelters (BR10334).

In Dec 2014 CuDeco received assay results from selected sample of copper/gold concentrate produced from recently completed 22000 tonne bulk ore processing trail. Copper in concentrate = 37.6% Cu. Gold in concentrate = 8.5 g/t Au (BR10332).

In addition to the mining at Las Minerale in 2014, preliminary mining has been carried out at the Rocklands South orebody that displays similar mineralisation characteristics to Las Minerale (previously known as Double Oxide)

In 2014 open cut mining commenced at Las Minerale. The excavation is designed to access 5000 t of coarse native copper to be used for the commissioning of the Rocklands three stage crushing circuit and the ore stockpiled pending completion of the plant.

Web Page

www.cudeco.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

482234 LAVA PLAINS

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 26.9 KM N OF CONJUBOY HOMESTEAD.

1:100 000 sheet Number and Name: 7861 SAINT RONANS

Grid Reference: Zone 55 263014 mE 7960070 mN

Latitude -18.4363 Longitude 144.7563

Date Recorded: 25/May/2015

Other Names for Deposit / Mine

Thai Mine
Scott'S Mine

Commodities	Size	Size Definition
SAPPHIRE	MEDIUM	1 - 10 tonnes SAPP

Production Details

Period: 1-Jan-1985 to 31-Dec-1993

SAPPHIRE 393,000.0 australian dollars

Period: 1-Jul-2004 to 30-Jun-2013

SAPPHIRE 66,252.0 australian dollars

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
SURFACE MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
ML 10314	100.00%	MT ROSEY MINING COMPANY PTY LTD

Host Rock/Cover Sequences

Structural Unit

CAINOZOIC ALLUVIAL & COLLUVIAL DEPOSITS

Formation Name/Age

Qa-QLD / QUATERNARY to QUATERNARY

Deposit Model

GENERAL OREBODY MODEL

ALLUVIAL PLACER

DETAILED OREBODY MODEL

ALLUVIAL/ELUVIAL GEMSTONES

Mineralisation Age

ORE

CENOZOIC

Comments

Gem quality sapphires have been mined for more than 20 years from the Wyandotte Creek area. Sapphires have been recovered from alluvial wash and from colluvium on adjacent hill slopes. The sapphires are derived from Cainozoic basalt and pyroclastic units.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

481369 LIGHTHOUSE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: ~15 KM NNE OF EINASLEIGH. LIGHTHOUSE QUARTZ BLUFFS, NEAR GRANITE KNOBS

1:100 000 sheet Number and Name: 7761 MOUNT SURPRISE

Grid Reference: Zone 55 201335 mE 7963841 mN Latitude -18.3944 Longitude 144.1733 Date Recorded: 25/May/2015

Other Names for Deposit / Mine

Lighthouse Extended
Lighthouse Bluffs

Commodities

LUMP SILICA

Size

LARGE

Size Definition

>1 000 000 tonnes SIL

Production Details

Published Reserves/Resources

BR 9836 Published in 2012

LIGHTHOUSE

INFERRED MINERAL RESOURCE 1,830,000 tonnes Ore @
1,830,000 Tonnes SILICA

Resource figures listed above are JORC compliant.

Published Reference ID

BR 9836

Year

2012

Author

SOLAR SILICON
RESOURCES GROUP PTE
LTD

Title

LIGHTHOUSE SILICA QUARTZ
(VIDEO ON WEBPAGE -
FEBRUARY 2012)

Source

HTTP://WWW.SSRG.COM.SG/LIG
HTHOUSE

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number

ML 30209

SHARE

100.00%

Company Name/Surname

SOLAR SILICON RESOURCES GROUP PTE. LTD.

Host Rock/Cover Sequences

Structural Unit

ETHERIDGE PROVINCE

Formation Name/Age

Einasleigh Metamorphics / PALAEOPROTEROZOIC to
PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

MESOTHERMAL VEINS/PIPE/STOCKWORK

VEIN

DETAILED OREBODY MODEL

ROCK SILICA

Mineralisation Age

Comments

2011: The Singapore based company Solar Silicon Resources Group Pte have taken over ownership and commenced mining in 2011 and the current mining capacity is 1000 tonnes a day. Processing is a simple acid wash to clean the surface. the crushed lump silica 2011 (cont): is trucked to Townsville for export. The quartz is suitable for use as feedstock for silicon smelters, epoxy molding components, industrial fillers, fused quartz glass and LCD glass substrates.

201(2): Solar Silicon is currently involved in a joint venture collaboration agreement to commercialise its new "one pass direct conversion" of the high-grade quartz to solar-grade silicon with one a major manufacturer of photovoltaic solar panels in China In 2012 a JORC resource was displayed in a video on <http://www.ssr.com.sg/lighthouse>: The two prominent hills contain quartz of 99.8% SiO2 with a JORC resource (unspecified lvl -> inferred) of 1.83Mt; with an estimate of further resources of 3-5Mt .

Calcifer Industrial Minerals were granted a ML in 2009 and carried out a feasibility study, geochemical tests and preparations for plant construction on site; Loose qtz was screened, washed and stockpiled, a tailings dam was built; An ML extension is appl

Web Page

<http://www.ssr.com.sg/lighthouse>

Queensland Minerals

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504551 LOCKYER SANDSTONE QUARRY

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: SEVENTEEN MILE RD, HELIDON

1:100 000 sheet Number and Name: 9342 HELIDON

Grid Reference: Zone 56 415211 mE 6954952 mN

Latitude -27.5265 Longitude 152.1414

Date Recorded: 13/February/2017

Other Names for Deposit / Mine

Regent

Commodities	Size	Size Definition
BUILDING STONE	SMALL	100 000 - 2 000 000 tonnes BLST
SANDSTONE	MEDIUM	100 000 - 1 000 000 tonnes SST

Production Details

Period: 1-Jul-2004 to 30-Jun-2016

SANDSTONE 372,655.2 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 50182	100.00%	HELIDON SANDSTONE INDUSTRIES PTY LTD
ML 50282	100.00%	HELIDON SANDSTONE INDUSTRIES PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

CLARENCE-MORETON BASIN

Woogaroo Subgroup / LATE TRIASSIC to EARLY JURASSIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

LATE TRIASSIC to EARLY JURASSIC

Comments

The quarry has small to moderate resources, with suitable fine to medium-grained sandstone of good colour limited to a single bed ~2-3m thick sandwiched between 3-4m of weathered coarse sandstone and unsuitable coarse sandstone.

The lease is now held and operated by Helidon Sandstone Industries Pty Ltd.

This quarry was developed in 1986/87 by Lockyer Sandstone Pty Ltd, part of a consortium of companies (Australian Stone Consultants Pty Ltd and Resort Development Consultants Pty Ltd) that based their operations in Gatton.

In 1989, the Gatton processing plant was relocated to Lot 92, near Seventeen Mile Road, north-east of Helidon following a restructure of the company. Sandstone blocks were extracted from two separate faces developed on opposite sides of a gully.

Cut blocks were processed into tiles, thin slabs, blocks (split face), crazy paving and monumental stone.

Web Page

www.sandstoneathelidon.com

Queensland Minerals

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43621 LORENA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 14.8 KM EAST OF CLONCURRY, 115KM EAST OF MT ISA.

1:100 000 sheet Number and Name: 7056 CLONCURRY

Grid Reference: Zone 54 463421 mE 7708936 mN

Latitude -20.7187 Longitude 140.6487

Date Recorded: 3/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
GOLD	SMALL	0.5 - 5 tonnes AU
COBALT	VERY SMALL	<10 tonnes CO
COPPER	VERY SMALL	<500 tonnes CU

Production Details

Period: 1-Jan-1990 to 31-Dec-1990	4,880 tonnes HARD ROCK ORE (OR REEF)
GOLD BULLION	168.8 kilograms 34.60 grams per tonne
Period: 1-Jul-1996 to 30-Jun-2000	
GOLD BULLION	76.6 kilograms

Published Reserves/Resources

BR 10379 Published in 2014

LORENA - A LODE

INDICATED MINERAL RESOURCE 110,800 tonnes Ore @
9.50 g/t GOLD **FOR** 1,052 Kilograms GOLD

Comments/Cut Off Factor: 2.0g/t Au cut off

BR 10379 Published in 2014

LORENA - A LODE

MEASURED MINERAL RESOURCE 68,700 tonnes Ore @
7.60 g/t GOLD **FOR** 522 Kilograms GOLD

Comments/Cut Off Factor: 2.0g/t Au cut off

BR 10379 Published in 2014

LORENA - B LODE

INDICATED MINERAL RESOURCE 3,100 tonnes Ore @
8.30 g/t GOLD **FOR** 25 Kilograms GOLD

Comments/Cut Off Factor: 2.0g/t Au cut off

BR 10379 Published in 2014

LORENA - B LODE

INFERRED MINERAL RESOURCE 20,600 tonnes Ore @
7.70 g/t GOLD **FOR** 158 Kilograms GOLD

Comments/Cut Off Factor: 2.0g/t Au cut off

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10379	2014	MALACHITE RESOURCES	ANNUAL REPORT 2014	ANNOUNCEMENT TO THE AUSTRALIAN STOCK EXCHANGE OCTOBER 2014. MALACHITE RESOURCES LTD

Major Mining Related Events

Year Commenced	Year Completed	Comments
1990 to 2000		Mined by Lorena Mines Pty Ltd.
2000 to 2001		Placed on care and maintenance.

Mining Operations	Comments
OPEN CUT MINING	Excavated by Lorena Mines Pty Ltd
UNDERGROUND MINING METHODS	Old workings

Tenure Type/Number	SHARE	Company Name/Surname
ML 7147	100.00%	VOLGA ELDERBERRY PTY LTD
ML 90192	100.00%	VOLGA ELDERBERRY PTY LTD
ML 90193	100.00%	VOLGA ELDERBERRY PTY LTD
ML 90194	100.00%	VOLGA ELDERBERRY PTY LTD
ML 90195	100.00%	VOLGA ELDERBERRY PTY LTD
ML 90196	100.00%	VOLGA ELDERBERRY PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
SOLDIERS CAP DOMAIN	Staveley Formation / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Deposit Model

GENERAL OREBODY MODEL	HYDROTHERMAL VEINS/PIPE/STOCKWORK
DETAILED OREBODY MODEL	PROTEROZOIC STRUCTURALLY-CONTROLLED COPPER-GOLD

Mineralisation Age

ORE	MESOPROTEROZOIC
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Comments

Gold mineralisation occurs within strongly quartz-calcite veined and silicified dolomitic shales of the Toole Creek Volcanics near the contact with the overlying Corella Formation.

2013: Malachite Resources intend to ship the entirely refractory ore concentrate to Tasmania for BIOX processing. This failed since BCD went into receivership in 2014.

In March 2016 Malachite Resources announced an agreement with Ore Processing Services Pty Limited (OPS) to establish and operate a mobile mineral processing plant at the Lorena gold mine.

OPS are required to both complete the Lorena concentrator plant and to simply a modular CIL circuit to provide an end to end mineral processing plant capable of producing gold dore on site, which should produce around 35 000 oz (850 kg)

(cont.) of recovered gold in an eighteen month production period from the open cut deposit (BR10504).

Web Page

<http://www.malachite.com.au>

Queensland Minerals

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41019 MARULE LIME

OPERATING MINE

Descriptive Location: 22KM WNW OF CHILDERS

1:100 000 sheet Number and Name: 9347 CHILDERS

Grid Reference: Zone 56 407812 mE 7218997 mN

Latitude -25.1421 Longitude 152.0854

Date Recorded: 13/February/2017

Other Names for Deposit / Mine

Scarlett

Commodities	Size	Size Definition
LIMESTONE	SMALL	100 000 - 2 000 000 tonnes LST

Production Details

Period: 1-Jul-1997 to 30-Jun-2016

LIMESTONE CRUSHED ROCK 58,497.0 tonnes

Published Reserves/Resources

BR 3333 Published in 1990

MARULE LIME
INFERRED MINERAL RESOURCE 400,000 tonnes Ore @
400,000 Tonnes LIMESTONE

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 3333	1990	KROSCH, N.J.	QUEENSLAND MINERAL COMMODITY REPORT-LIMESTONE.	QUEENSLAND GOVERNMENT MINING JOURNAL, 91, 93-102.

Major Mining Related Events

Year Commenced	Year Completed	Comments
1928	to 1928	LEASE APPLIED FOR IN 1928
1984	to 1984	OPERATED BY HOWARD PORTLAND CEMENT CO PTY LTD TO PRODUCE LIMESTONE FOR AGRICULTURAL USE.
1997		Operated by KD Scarlett.

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 1248	100.00%	SCARLETT	Kevin Donn

Host Rock/Cover Sequences

Structural Unit
GYMPIE PROVINCE

Formation Name/Age
Gympie Group/1 / EARLY PERMIAN to EARLY PERMIAN

Deposit Model

GENERAL OREBODY MODEL RESIDUAL DEPOSIT

DETAILED OREBODY MODEL ENRICHED LIME DEPOSIT

Mineralisation Age

ORE PERMIAN to CARBONIFEROUS

Comments

Limestone grades 43.1-47.2% CaO, 0.5% MgO and 37.2% loss on ignition. The mine produces pulverised limestone for the local sugar cane farm market.

Web Page

Queensland Minerals

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504554 MAYNE RIVER

OPERATING MINE

Descriptive Location: 85KM S OF CORK GYPSUM

1:100 000 sheet Number and Name: 7350 TONKORO

Grid Reference: Zone 54 611434 mE 7392190 mN

Latitude -23.5768 Longitude 142.0920

Date Recorded: 13/February/2017

Other Names for Deposit / Mine

Eden Valley

Mayne River Gypsum

Mayne River Gypsum Sales

Mount Windsor Gypsum

Commodities

GYPSUM

Size

SMALL

Size Definition

5 000 - 5 000 000 tonnes GYP

Production Details

Period: 1-Jul-1997 to 30-Jun-2016

GYPSUM

108,106.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 95239	50.00%	COUPE	Geoffrey Ivan
ML 95239	50.00%	COUPE	Betty Marleen

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

CAINOZOIC SEDIMENTARY COVER

Deposit Model

GENERAL OREBODY MODEL

ALLUVIAL PLACER

Mineralisation Age

ORE

CENOZOIC

Comments

The Mayne River gypsum deposits occur in alluvium overlying the Winton Formation and have been worked in recent years. Mayne River Gypsum Sales Pty Ltd have worked deposits in the Winton Formation a further 80km to the SSW. - BR 6194.

The gypsum is produced in Winton and sold for agricultural purposes.

Web Page

Queensland Minerals

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493993 MILES

OPERATING MINE

Descriptive Location: 5KM SW OF MILES, 300KM WEST OF BRISBANE.

1:100 000 sheet Number and Name: 8944 MILES

Grid Reference: Zone 56 216430 mE 7044278 mN Latitude -26.6940 Longitude 150.1503 Date Recorded: 14/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BENTONITE	MEDIUM	200 000 - 20 000 000 tonnes BENT

Production Details

Period: 1-Jul-1995 to 30-Jun-2016

BENTONITE 138,360.1 tonnes

Published Reserves/Resources

BR 5762 Published in 1998

INFERRED MINERAL RESOURCE

3,300,000 Tonnes BENTONITE

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 5762	1998	NEDLANDS, W.A.		REGISTER OF AUSTRALIAN MINING 1998/99.

Major Mining Related Events

Year Commenced	Year Completed	Comments
1994		Mining operations started in 1994.

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 5910	100.00%	BIOCLAY PTY LTD
ML 5911	100.00%	BIOCLAY PTY LTD
ML 6960	100.00%	BIOCLAY PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
SURAT BASIN	Orallo Formation / EARLY CRETACEOUS to EARLY CRETACEOUS

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE JURASSIC

Comments

Bentonite quarry owned by Bioclay Pty Ltd. Sodium bentonite is produced for local and export industrial and feedstock markets. (2011) This bentonite is used primarily for stock feed and pet litter and is processed in a plant with a 20 000tpa capacity. Resources are claimed to be sufficient for next 20 years at current production rates.

Web Page

Queensland Minerals

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507505 MONIER DARRA

OPERATING MINE

Descriptive Location: ADJACENT TO IPSWICH MOTOR WAY AT DARRA.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 496873 mE 6950210 mN Latitude -27.5719 Longitude 152.9683 Date Recorded: 7/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BRICK CLAY	MEDIUM	200 000 - 20 000 000 tonnes BKCY

Production Details

Period: 1-Jul-1998 to 30-Jun-2016

BRICK CLAY 1,728,624.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 1102	100.00%	CSR BUILDING PRODUCTS LIMITED

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> OXLEY BASIN	Darra Formation / LATE TERTIARY to LATE TERTIARY

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age	
ORE	TERTIARY

Comments

Web Page

www.csr.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507503 MONIER IPSWICH

OPERATING MINE

Descriptive Location: 7.5KM E OF IPSWICH, 1.3KM S OF DINMORE.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 484112 mE 6946687 mN Latitude -27.6036 Longitude 152.8390 Date Recorded: 11/December/2015

Other Names for Deposit / Mine

Dinmore

Commodities	Size	Size Definition
BRICK CLAY	MEDIUM	200 000 - 20 000 000 tonnes BKCY

Production Details

Period: 1-Jul-1996 to 30-Jun-2015

BRICK CLAY 1,551,998.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 4552	100.00%	CSR BUILDING PRODUCTS LIMITED
ML 4604	100.00%	CSR BUILDING PRODUCTS LIMITED
ML 4639	100.00%	CSR BUILDING PRODUCTS LIMITED
ML 4640	100.00%	CSR BUILDING PRODUCTS LIMITED
ML 4706	100.00%	CSR BUILDING PRODUCTS LIMITED
ML 50028	100.00%	CSR BUILDING PRODUCTS LIMITED
ML 50144	100.00%	CSR BUILDING PRODUCTS LIMITED

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> BOOVAL BASIN	Redbank Plains Formation / EARLY TERTIARY to EARLY TERTIARY

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age	
ORE	TERTIARY

Comments

Web Page

www.csr.com.au

Queensland Minerals

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504526 MONTGOMERY

OPERATING MINE

Descriptive Location: 5.6 KM NORTH-WEST OF HELIDON, 90KM WEST OF BRISBANE.

1:100 000 sheet Number and Name: 9342 HELIDON

Grid Reference: Zone 56 411236 mE 6957780 mN

Latitude -27.5006 Longitude 152.1014

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Montgomery Sandstone Quarry

Commodities	Size	Size Definition
BUILDING STONE	SMALL	100 000 - 2 000 000 tonnes BLST
SANDSTONE	MEDIUM	100 000 - 1 000 000 tonnes SST

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

SANDSTONE

148,095.0 tonnes

Published Reserves/Resources

BR 6192 Published in 2000

MONTGOMERY SANDSTONE

INDICATED MINERAL RESOURCE

95,600 Tonnes SANDSTONE

Probable reserves and Indicated resources of sandstone as at December 1992.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 6192	2000	NEVILLE BJ, WILLMOTT WF, O'FLYNN ML, POTTER R	KEY RESOURCE AREAS FOR SANDSTONE BUILDING STONE, EXTRACTIVE MATERIALS AND EXPLOSIVES INDUSTRY HELIDON AREA (DRAFT).	DEPARTMENT OF MINES AND ENERGY KEY RESOURCE AREA REPORT NO.3

Major Mining Related Events

Year Commenced	Year Completed	Comments
1992		Australian Sandstone Industries Limited commenced operations around several old workings.

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 50016	100.00%	CHONGHERR INVESTMENTS LTD
ML 50213	100.00%	CHONGHERR INVESTMENTS LTD

Host Rock/Cover Sequences

Structural Unit

CLARENCE-MORETON BASIN

Formation Name/Age

Helidon Sandstone / TRIASSIC to TRIASSIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

LATE TRIASSIC to EARLY JURASSIC

Comments

The company is now called ChongHerr Investments Ltd. Blocks of about 10 tonnes each are cut and extracted from the quarry and transported by road to the company's processing facility at Archerfield in Brisbane or directly to the wharf for export.

Products include tiles, wall cladding and other architectural and decorative pieces as well as furniture and sculptures. Waste stone from quarrying is used for wall construction and landscaping purposes. Some stone is sold for monumental use also.

The company supplies stone and finished products to both domestic and export markets.

In early 1992, Australian Sandstone Industries Ltd moved its quarrying operations from ML 50013 to ML 50016 (Montgomery Quarry) and developed its operations around several old workings in a worked out section of Montgomery's gravel scrapings.

Web Page

www.asisandstone.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507797 MORETON DOLOMITE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 24.6KM SOUTH OF IPSWICH, ACCESS FROM VERALLS RD OFF LIMESTONE HILL RD.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 472039 mE 6921069 mN Latitude -27.8348 Longitude 152.7161 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Area 101 & 100
Peak Crossing No.2 Lease

Commodities	Size	Size Definition
EARTHY LIME / DOLOMITE (AGRICULTURAL)	SMALL	10 000 - 100 000 tonnes ELIM
BRICK CLAY	SMALL	2 000 - 200 000 tonnes BKCY
PALYGORSKITE		

Production Details

Period: 1-Jul-1998 to 30-Jun-2015	
EARTHY LIME / DOLOMITE (AGRICULTURAL)	34,862.0 tonnes
Period: 1-Jul-2003 to 30-Jun-2008	
CLAY	147,035.0 tonnes
Period: 1-Jul-2010 to 30-Jun-2015	
PALYGORSKITE	3,888.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	Shallow open cut pit

Tenure Type/Number	SHARE	Company Name/Surname
ML 50015	50.00%	TREVALLYN ENTERPRISES PTY. LIMITED
ML 50015	50.00%	MORETON DOLOMITE PTY LTD
ML 50036	50.00%	TREVALLYN ENTERPRISES PTY. LIMITED
ML 50036	50.00%	MORETON DOLOMITE PTY LTD
ML 50038	50.00%	TREVALLYN ENTERPRISES PTY. LIMITED
ML 50038	50.00%	MORETON DOLOMITE PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
AMBERLEY BASIN	Flinders Dolomite / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	DOLOMITE DEPOSIT

Mineralisation Age

ORE	TERTIARY
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Comments

At area B (portion 101) Newage carried out mapping and gridding (Nov 1990). 3 costeans were excavated across outcropping dolomite. By Jan 1991 22 RC and hammer holes (RC01-22) totalling 286m were drilled, which outlined a resource of agricultural-grade (cont.) dolomite, which was covered with a mining lease (ML50015). Mining started following granting of ML on 20 August 1991.

Web Page

Queensland Minerals

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41031 MOUNT BIGGENDEN

OPERATING MINE

Descriptive Location: 38.4KM ENE OF GAYNDAH; MOUNT BIGGENDEN MINE

1:100 000 sheet Number and Name: 9246 GAYNDAH

Grid Reference: Zone 56 397383 mE 7175130 mN

Latitude -25.5375 Longitude 151.9786

Date Recorded: 25/May/2015

Other Names for Deposit / Mine

Biggenden Quarry
 Mount Biggenden Magnetite Mine
 Biggenden Bismuth And Gold Mine
 Biggenden Bismuth Mine
 Mount Biggenden Mine
 Biggenden Gold And Bismuth Mine
 Mount Biggenden Bismuth Mine

Commodities	Size	Size Definition
MAGNETITE	MEDIUM	500 000 - 1 000 000 tonnes MT
GOLD	SMALL	0.5 - 5 tonnes AU
BISMUTH	SMALL	50 - 5 000 tonnes BI
AGGREGATE		
LIMESTONE	VERY SMALL	<100 000 tonnes LST
SILVER	VERY SMALL	<5 tonnes AG
COPPER	VERY SMALL	<500 tonnes CU
COBALT	VERY SMALL	<10 tonnes CO
MOLYBDENUM	VERY SMALL	<50 tonnes MO

Production Details

Period: 1-Jan-1890 to 31-Dec-1895			
GOLD	BULLION	224.4 kilograms	
BISMUTHINITE		309.7 tonnes	
Period: 1-Jan-1894 to 31-Dec-1894			
GOLD	BULLION	12.3 kilograms	
Period: 1-Jan-1901 to 31-Dec-1904			
BISMUTHINITE		18.8 tonnes	
Period: 1-Jan-1902 to 31-Dec-1902			
LIMESTONE	CRUSHED ROCK	203.2 tonnes	
Period: 1-Jan-1903 to 31-Dec-1903			
GOLD	BULLION	8.7 kilograms	
Period: 1-Jan-1909 to 31-Dec-1912			
BISMUTHINITE		224.9 tonnes	
GOLD	BULLION	1,251.6 kilograms	
COPPER	METAL	5.9 tonnes	
Period: 1-Jan-1931 to 31-Dec-1931			
GOLD	BULLION	0.0 kilograms	
Period: 1-Jan-1934 to 31-Dec-1938			
BISMUTHINITE		59.2 tonnes	
GOLD	BULLION	14.4 kilograms	0.60 grams per tonne
Period: 1-Jan-1942 to 31-Dec-1954			
MAGNETITE		18,622.3 tonnes	
Period: 1-Jan-1967 to 30-Jun-1999			
MAGNETITE		721,840.0 tonnes	
BISMUTHINITE		1,000.0 tonnes	
Period: 1-Jan-1975 to 31-Dec-1985			
AGGREGATE		500,000.0 tonnes	
Period: 1-Jul-1996 to 30-Jun-1999			
AGGREGATE		43,746.0 tonnes	

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Major Mining Related Events

Year Commenced		Year Completed	Comments
1888	to	1896	MacTaggart and party discovered bismuth mineralisation in 1888. The Biggenden Bismuth Company commenced mining in 1889. Treatment was by wet and dry magnetic separation. The mine closed in 1895 due to the lack of a market for the bismuth.
1897	to	1899	The Biggenden Mining Company commenced operations in 1898, with a focus on gold, due to the low bismuth prices. No production was reported.
1900	to	1907	Mining restarted under new management. Lack of water for the mill disrupted operations. Tailings were treated in 1903.
1908	to	1914	Purchased by International Mines Ltd. Ore concentrated on site; concentrates sent to Elliott Bros chemical works in Sydney. The mill was improved in 1909 but the mine closed in 1913. The mill was almost completely destroyed by fire in 1914.
1915	to	1931	Purchased by TJ Brady. The State Government investigated the deposit as a source of iron ore for pig iron production and carried out drilling in 1919; reserves were insufficient. The lease was under exemption up until 1931.
1931	to	1932	E Kimmerfeld reached an agreement with the lease holder and installed a plant to treat soil from below the lode outcrops for gold.
1933	to	1935	Bismuth Products Ltd acquired the leases at the end of 1933. A new mill and machinery were erected in 1934 and mining resumed. Bi-Au concentrates were shipped to OT Lempriere and Company in Sydney to produce refined Bi for medical purposes.
1936	to	1940	Operations were suspended in 1936 due to an overproduction of bismuth. Mining resumed in July 1937, but the mine closed again in 1938 due to low Bi prices. The mine was completely closed down and the machinery sold or removed in 1940.
1942	to	1959	Queensland Cement and Lime Company produced ironstone from the mill tailings and dumps. The material was trucked to Biggenden and railed to the Darra Cement Works in Brisbane for cement manufacture. Production ceased in 1955.
1951	to	1961	HB Trigger acquired some leases from Queensland Cement and Lime. Some testing was done with a view to producing magnetite for uranium ore processing at Rum Jungle. These leases were under exemption.
1961	to	1962	Leases held by Bonel brothers and Sanders brothers. Exploratory work only.
1965	to	1971	Commercial Minerals Pty Ltd installed plant and machinery in 1966 and commenced magnetite and by-product Bi production in 1967 from the open cut. Finely powdered magnetite was supplied to heavy media coal washing plants in Qld and NSW.
1972	to	1999	Commercial Minerals became a wholly-owned subsidiary of Steetley Industries Ltd. In 1976, a decline was excavated to provide access for underground mining on 9 levels. In 1999, mining ceased and the mine was closed.
1999			The mine was sold to a Maryborough firm (JS McIntyre) as a hard rock quarry. Biggenden Quarry crushes waste dump material to produce aggregate, road base, screenings, cement products and crusher dust.

Mining Operations

OPEN CUT MINING

Comments

Large open cut with two deeper zones of stoping/glory holes.

UNDERGROUND MINING METHODS

SHAFTS

DECLINED SHAFTS/DRIVES

Entrance sealed for safety.

ADITS

STOPING

Large block cave stopes exposed under walls of open cut.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 3679	50.00%	MCINTYRE	John Stewart
ML 3679	50.00%	MCINTYRE	Mary Josephine
ML 3683	50.00%	MCINTYRE	John Stewart
ML 3683	50.00%	MCINTYRE	Mary Josephine
ML 3684	50.00%	MCINTYRE	John Stewart
ML 3684	50.00%	MCINTYRE	Mary Josephine
ML 3685	50.00%	MCINTYRE	John Stewart
ML 3685	50.00%	MCINTYRE	Mary Josephine
ML 3688	50.00%	MCINTYRE	John Stewart
ML 3688	50.00%	MCINTYRE	Mary Josephine
ML 3692	50.00%	MCINTYRE	John Stewart
ML 3692	50.00%	MCINTYRE	Mary Josephine
ML 6604	50.00%	MCINTYRE	John Stewart
ML 6604	50.00%	MCINTYRE	Mary Josephine
ML 50039	50.00%	MCINTYRE	John Stewart
ML 50039	50.00%	MCINTYRE	Mary Josephine

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

GYMPIE PROVINCE

Gympie Group / EARLY PERMIAN to LATE PERMIAN

Deposit Model

GENERAL OREBODY MODEL

SKARN

DETAILED OREBODY MODEL

IRON SKARN

Mineralisation Age

ORE

LATE TRIASSIC

Comments

Small-scale Au and Bi mining has taken place at Mount Biggenden since the late 1880s. From 1967 to 1999, Commercial Minerals Pty Ltd produced magnetite for coal washing. J.S. McIntyre currently produces crushed aggregate from the waste dumps.

Magnetite skarn occurs in hornfelsed mafic volcanics and metasediments of the Gympie Group close to the contact with the Degilbo Granite. Bismuth, gold and molybdenite mineralisation occur in the skarn.

Fluid inclusions in prograde calcite and garnet have high homogenisation temperatures (500-550 degrees C) and high salinities (~30 wt% NaCl eq.) (BR 7110).

Fluid inclusions in sulphide-stage quartz and calcite have 300-400 degrees C homogenisation temperatures and lower salinities. Delta 18O and delta 13C of carbonates show depletion trends characteristic of skarn deposits (BR 7110).

Skarn paragenesis: 1) prograde garnet-clinopyroxene-magnetite-scapolite; 2) early retrograde epidote-hastingsite, followed by chlorite-calcite-actinolite-quartz-sulphides; 3) late-stage retrograde nontronite-calcite-quartz.

Web Page

Queensland Minerals

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43750 MOUNT CARBINE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 0.9 KM NORTH-NORTH-WEST OF MOUNT CARBINE, 75KM NW OF CAIRNS.

1:100 000 sheet Number and Name: 7964 RUMULA

Grid Reference: Zone 55 300599 mE 8172185 mN

Latitude -16.5239 Longitude 145.1316

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Mount Carbine Quarries

Commodities	Size	Size Definition
TUNGSTEN	LARGE	>10 000 tonnes W
TIN	VERY SMALL	<100 tonnes SN
AGGREGATE		
SILICA	SMALL	1 000 - 1 000 000 t SIO

Production Details

Period: 1-Jan-1972 to 31-Dec-1986	19,000,000 tonnes HARD ROCK ORE (OR REEF)
WOLFRAMITE	16,400.0 tonnes
CASSITERITE	7.8 tonnes
Period: 1-Jul-1997 to 30-Jun-2004	
AGGREGATE	239,082.0 tonnes
Period: 1-Jul-2000 to 30-Jun-2006	
AGGREGATE	243,320.0 tonnes
Period: 1-Jul-2007 to 30-Jun-2016	
SILICA	825,059.0 tonnes

Published Reserves/Resources

BR 9905 Published in 2012

MT CARBINE HARD ROCK

INDICATED MINERAL RESOURCE 18,100,000 tonnes Ore @

0.14 % WOLFRAMITE **FOR** 25,340 Tonnes WOLFRAMITE

Comments/Cut Off Factor: 0.14% WO3
in insitu hard rock

BR 9905 Published in 2012

MT CARBINE HARD ROCK

INFERRED MINERAL RESOURCE 29,300,000 tonnes Ore @

0.12 % TUNGSTIC OXIDE **FOR** 35,160 Tonnes TUNGSTIC OXIDE

Comments/Cut Off Factor: 0.12% WO3.

BR 9905 Published in 2012

MT CARBINE MAIN STOCKPILE

INDICATED MINERAL RESOURCE 12,000,000 tonnes Ore @

0.07 % WOLFRAMITE **FOR** 8,400 Tonnes WOLFRAMITE

Comments/Cut Off Factor: 0.07% WO3
in low grade stockpile (mineralised rock from previous mining operations)

BR 8902 Published in 2008

MT CARBINE TAILINGS DAM NO 4

INFERRED MINERAL RESOURCE 1,600,000 tonnes Ore @

0.11 % WOLFRAMITE **FOR** 1,760 Tonnes WOLFRAMITE

The resource includes around 400,000t of minus 75 micron material with an estimated grade of 0.3% WO3.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 8902	2008	ICON RESOURCES LTD	ICON RESOURCES LTD ANNUAL REPORT 2008	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 15 OCTOBER 2008. ICON RESOURCES LTD, SYDNEY.
BR 9905	2012	CARBINE TUNGSTEN LIMITED	CARBINE TUNGSTEN LIMITED ANNUAL REPORT 2012	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 01 OCTOBER 2012. CARBINE TUNGSTEN LIMITED, SYDNEY

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Major Mining Related Events

Year Commenced 1883	Year Completed	Comments Discovery.
1894	to 1906	Small scale mining.
1906	to 1917	Major underground mining by the Irvinebank Mining Co. Ten head stamper and jigs installed in June 1910. Mill expanded to 20 stamps in 1913.
1937	to 1942	Mining production related to World War II.
1950	to 1952	Mining production related to World War II.
1972	to 1986	Large scale open cut mining by Queensland Wolfram Pty Ltd ending in 1986.
2009		Icon Resources acquired rights to mine Mt Carbine. Test sampling of tailings & stockpile material completed and recovery circuit based around on X-ray sorter, Kelsey jigs and shaker tables established in 2011.

Mining Operations

Comments

OPEN CUT MINING

UNDERGROUND MINING METHODS

SHAFTS

ADITS

SURFACE MINING METHODS

DECLINED SHAFTS/DRIVES

~400m long

Tenure Type/Number	SHARE	Company Name/Surname
ML 4867	100.00%	MT CARBINE QUARRIES PTY LTD
ML 4919	100.00%	MT CARBINE QUARRIES PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

HODGKINSON PROVINCE

Hodgkinson Formation / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

INTRUSIVE-RELATED (PORPHYRY-RELATED)

DETAILED OREBODY MODEL

WOLFRAM VEINS

Mineralisation Age

ORE

EARLY PERMIAN

Stage 1

Queensland Minerals

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Comments

By the end of 2008, Icon Resources had carried out metallurgical testwork on composite tailings samples that indicated good recoveries with low levels of impurities.

High-grade scheelite and wolframite concentrates were sent to tungsten consumers for evaluation. Re-interpretation and evaluation of historical drill core confirmed zones of high-grade mineralisation beneath the current open cut and extensions to the NW.

The original resource before open cut mining was 28Mt at 0.1% wolframite, using a 0.03% cutoff (BR 937 - de Roo, 1988).

The old waste stockpiles are being used to produce construction aggregate by Mt Carbine Quarries Pty Ltd from 1987 to about 2010.

In June 2007, Republic Gold Ltd announced that it had signed a 3-month option to review the Mount Carbine leases with a view to making an offer to purchase. Republic did not proceed with the option.

In March 2008, Icon Resources Ltd announced that it had secured the rights to explore for and mine tungsten at Mount Carbine. The current quarry business will continue to operate.

Icon Resources acquired rights to mine Mt Carbine open cut, stockpiles and tailings dams in 2009. A maiden JORC Inferred resource was announced in October 2010: 113.6Mt at 0.06% WO₃ containing 68 800t of WO₃ for the primary hard rock res (BR9520).

In late March 2009, Icon Resources signed a non-binding MoU with Polymetals Group Pty Ltd whereby Polymetals can elect to develop and operate the Mt Carbine Tailings Project. Polymetals is also reviewing participating in the open pit project.

Resource modelling in the June 2009 quarter increased the target tonnage/grade at Mt Carbine to 55-60Mt at 0.07 to 0.09% WO₃ using uncut values. This excludes the potential of the extensive old workings in the hill abutting the north wall of the pit.

A scoping study commenced in August 2009. The main focus is firming the economics of deepening the existing pit to extract higher grade ore prior to a major cut back in the north pit wall.

In 2011 Icon Resources confirmed data for a 2010 resource estimate for the mineral deposit and a Inferred mineral Resource estimate of 39Mt at 0.14% WO₃. Additionally an approx 2Mt resource of fine-grained (sand-sized) material with 0.1% WO₃ from the (2011 cont); tailings dams was reported and a fines gravity circuit designed to recover 5000 mtu WO₃ per month from the tailings proceeded to be operational at the end of 2011. The main stockpile of 12Mt and the reject stockpile of over 4Mt were tested.

(2011 cont2): by bulk sampling (20000t) to yield an average grade of 0.075% WO₃. An X-Ray sorting facility has been tested in 2011 to separate barren rock from mineralised rock greatly reducing the feed of ore into the mills (BR9715)

(2011 cont3): Stockpile: Sorter feed 2Mt per year @ 0.075% WO₃ -> Mill feed reduced to 250kt/yr to produce ~10000mtu in WO₃ concentrate/per month. Hard rock reserve: Sorter feed @ 0.14% WO₃ -> Mill feed 250kt/pa at 1.1%WO₃ to produce 20000mtu/pm (BR9715).

In 2012 Carbine Tungsten Ltd was renamed from Icon Resources. They reported their first delivery of wolframite concentrate to Mitsubishi Unimetals Corp on the 28th June 2012 (BR9905).

Several zones of sheeted wolframite-, scheelite-, cassiterite- and molybdenite-bearing quartz and quartz-feldspar veins occur in a N-trending belt in an outlier of the thermal aureole of the S-type Mount Carbine Granite, which crops out 500m to the east.

Web Page

<http://www.carbinetungsten.com.au/>

Queensland Minerals

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41623 MOUNT CARLTON

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 13.3KM S OF STRATHBOGIE HOMESTEAD; 44.3KM NW OF COLLINSVILLE

1:100 000 sheet Number and Name: 8457 BOGIE

Grid Reference: Zone 55 559087 mE 7758276 mN

Latitude -20.2723 Longitude 147.5658

Date Recorded: 13/February/2017

Other Names for Deposit / Mine

V2 East
V2 Far East
Mount Carlton Project
Silver Hill
A39
Mount Carlton - Main Hill
Mount Carlton - Western Lodes
Area 39
V2 Hill

Commodities	Size	Size Definition
GOLD	MEDIUM	5 - 50 tonnes AU
SILVER	MEDIUM	500 - 5 000 tonnes AG
COPPER	MEDIUM	50 000 - 250 000 tonnes CU
ZINC	SMALL	200 - 200 000 tonnes ZN

Production Details

Period: 1-Jul-2013 to 30-Jun-2016

GOLD	METAL	8,399.1 kilograms
COPPER	METAL	6,040.0 tonnes
SILVER		165,541.1 kilograms

Published Reserves/Resources

BR 10501 Published in 2016

MT CARLTON - OC V2 (AU)

MEASURED MINERAL RESOURCE 80,000 tonnes Ore @
9.09 g/t GOLD **FOR** 727 Kilograms GOLD

Comments/Cut Off Factor: 0.35 g/t cut-off

BR 10501 Published in 2016

MT CARLTON - OC V2 (AU-AG)

INDICATED MINERAL RESOURCE 8,380,000 tonnes Ore @
3.09 g/t GOLD **FOR** 25,894 Kilograms GOLD

Comments/Cut Off Factor: 0.35g/t Au cut-off

Includes probable ore reserves of 4.62 Mt at 4.78 g/t Au;

BR 10501 Published in 2016

MT CARLTON - UG V2 (AU-AG)

INFERRED MINERAL RESOURCE 160,000 tonnes Ore @
5.35 g/t GOLD **FOR** 856 Kilograms GOLD

Comments/Cut Off Factor: 2.5g/t Au cut-off

Silver and copper values have not been reported in 2015

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10501	2016	EVOLUTION MINING LIMITED	ANNUAL REPORT 2016	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 23 OCTOBER 2016. EVOLUTION MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
2003	to 2012	Conquest acquired the Mount Carlton area from Xstrata in Oct 2003.
2012	to 2012	Evolution Mining acquired Mount Carlton; Development of Mount Carlton mine completed by 2012

Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 10343	100.00%	CONQUEST MINING PTY LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
BOWEN BASIN	Lizzie Creek Volcanics / EARLY PERMIAN to EARLY PERMIAN

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Deposit Model

GENERAL OREBODY MODEL	EPITHERMAL VEINS/PIPE/STOCKWORK	VEIN
DETAILED OREBODY MODEL	EPITHERMAL PRECIOUS METAL	HIGH SULPHIDATION EPITHERMAL

Mineralisation Age

ORE	PERMIAN
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Comments

In February 2010, Conquest announced that the definitive feasibility study had identified lower than expected commercial returns for the project.

The project would still be profitable but is not sufficiently robust to develop before offtake arrangements are finalised. A strategic review has commenced to consider alternative routes to production.

Part of the Mount Carlton Project. In October 2006, Conquest Mining announced that drilling had extended the strike length of the mineralised zone to 750m.

In January 2007, Conquest announced that drilling had located high-grade gold intersections that add significantly to the depth extent of the deposit, including 30m at 4.13g/t Au from 80m, 109m at 78.16g/t Au from 68m, and 44.7m at 4.8g/t Au from 98.3m.

In December 2006, Conquest announced that drilling results had continued to extend the zone of "significant mineralisation".

Intersections included 85m at 3.39g/t Au from 79m, indicating substantial depth potential.

Infill and extension drilling continued through the first half of 2007.

The deposit consists of 20 to 40m of relatively flat-lying dacite and andesite, with 5 to 60m of rhyodacite with gypsum veins and jarosite at the base. Dacitic volcanic breccias underlie the rhyodacite.

The definitive feasibility study confirmed a potential discrete high-grade silver pit at Area 39.

The study indicated two distinct mining areas, each with its own very different metal characteristics. The Main Pit will encompass a high Au-Cu mineral composition, whereas Area 39 (Silver Pit) is much lower in Au and Cu but has a very high Ag grade.

Drilling in 2008 extended the resource south and west. Intersections included 30m at 1222g/t Ag (including 12m at 2615g/t Ag), 23m at 188g/t Ag, 46m at 121g/t Ag, 21m at 5.25g/t Au, 40g/t Ag and 0.87% Cu, 5m at 9.01g/t Au, and 14m at 6.96g/t Au.

In April 2009, Conquest announced that its pre-feasibility study had demonstrated the economics of Silver Hill. A definitive feasibility study has been commissioned prior to a final decision to commence production and is on track for completion by November.

Production is likely to commence by 2011.

Deep drilling (400 to 700m) to explore for a possible porphyry host and/or second occurrence of mineralisation in the rhyodacite host beneath Silver Hill commenced in May 2009.

Trial grade control drilling in August 2009 returned intersections including 24m at 13.1g/t Au (including 4m at 62.9g/t Au), 44m at 10.1g/t Au (including 28m at 14.2g/t Au) and 40m at 11.7g/t Au (including 8m at 47.3g/t Au).

The main silicified zone crops out at a prominent ridge and disappears under a scree-covered slope to the east and west of the known resource area. The deposit comprises two zones - Main Hill and the Western Lodes.

Evolution has advanced construction of mine plant at the end of 2012.

In Nov 2010 Conquest mining reported significant new high-grade results from the V2 East area including: HC10RCD963 11.38m @ 6.77g/t Au, 9.2g/t Ag and 0.65% Cu; HC10RCD971 25.0m @ 3.29g/t Au, 10g/t Ag and 0.21% Cu.

In Dec 2010 new reserve figures for V2 pit and A39 pit were released on ASX (BR9540); Conquest Mining completed the Optimisation Study and approved the Mount Carlton mine development.

(Nov 2010 continued): HC10RCD973 5.73m @ 18.7g/t Au, 46.5g/t Ag and 4.62% Cu (BR9539).

Web Page

www.evolutionmining.com.au

Queensland Minerals

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43548 MOUNT COLIN

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 48.5 KM W OF CLONCURRY

1:100 000 sheet Number and Name: 6956 MARRABA

Grid Reference: Zone 54 400544 mE 7702356 mN

Latitude -20.7759 Longitude 140.0445

Date Recorded: 7/March/2016

Other Names for Deposit / Mine

Commodities	Size	Size Definition
COPPER	SMALL	500 - 50 000 tonnes CU
GOLD	SMALL	0.5 - 5 tonnes AU

Production Details

Period: 1-Jan-1963 to 31-Dec-1966 308 tonnes HARD ROCK ORE (OR REEF)
COPPER OTHER 24.4 tonnes 7.90 percent

Period: 1-Jul-2013 to 30-Jun-2015
COPPER METAL 6,376.0 tonnes
GOLD METAL 132.7 kilograms
SILVER 11.5 kilograms

Published Reserves/Resources

BR 10184 Published in 2012

MOUNT COLIN

INDICATED MINERAL RESOURCE 1,042,000 tonnes Ore @
3.04 % COPPER **FOR** 31,676 Tonnes COPPER
0.42 g/t GOLD **FOR** 437 Kilograms GOLD

Comments/Cut Off Factor: 1.25% Cu cutoff

BR 10184 Published in 2012

MOUNT COLIN

INFERRED MINERAL RESOURCE 880,000 tonnes Ore @
2.09 % COPPER **FOR** 18,392 Tonnes COPPER
0.41 g/t GOLD **FOR** 360 Kilograms GOLD

Comments/Cut Off Factor: 1.25% Cu cutoff

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10184	2012	EXCO RESOURCES LTD	MARKET RELEASE: QUEENSLAND EXPLORATION UPDATE; 2012 FIELD PROGRAMME HAS COMMENCED	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 20 APRIL 2012. EXCO RESOURCES LTD, PERTH.

Major Mining Related Events

Year Commenced	Year Completed	Comments

Mining Operations

DECLINED SHAFTS/DRIVES

Comments

Main shaft underlies at 70 degrees towards 010 degrees, open to >15m depth x 2m wide x 2.5m long. A second underlie shaft is ~8m west of the main shaft, it is fenced off, has a steel ladder in the opening. Old wire mesh partially covers the opening.

UNDERGROUND MINING METHODS

Short drives at 17m, 23m and 34m levels

STOPPING

Stoping carried out between the upper two levels.

Tenure Type/Number	SHARE	Company Name/Surname
ML 2640	100.00%	EXCO RESOURCES LIMITED

Host Rock/Cover Sequences

Structural Unit

MARY KATHLEEN DOMAIN

Formation Name/Age

Corella Formation / PALAEOPROTEROZOIC to
PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

HYDROTHERMAL VEINS/PIPE/STOCKWORK

DETAILED OREBODY MODEL

SHEAR ZONE-HOSTED HYDROTHERMAL

Mineralisation Age

ORE

PROTEROZOIC

Queensland Minerals

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Comments

A small-scale mining operation of the oxide resources was being run by Tennant, with a royalty payment being made to Matrix Metals Ltd

The lease is being transferred to Exco Resources NL under a tenement swap agreement. Exco plans further exploration.

The lode consists of a footwall calcsilicate, a clay seam, breccia and a hanging wall of silicified calcsilicate.

RC drilling results in early 2007 confirmed the presence of significant gold grades. Intersections included 11m at 3.45% Cu and 6.31g/t

Au from 7m, 16m at 3.47% Cu and 0.45g/t Au from 74m, and 36m at 4.03% Cu and 0.62g/t Au from 151m.

In Sept 2010 Exco reported best drill intersection from resource drilling: EMCDD034 17m @ 4.6% Cu & 1.34g/t Au. Geological interpretation and resource estimation is underway (BR9543).

Mining of oxide ore by CopperChem Ltd was completed in early 2011. In 2012 Exco Resources was taken over by Washington H Soul Pattinson & Co Ltd.

Web Page

www.excoresources.com.au; www.copperchem.com.au/

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

42563 MOUNT GARNET

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 1 KM SSW OF MOUNT GARNET, 100KM SW OF CAIRNS.

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 299814 mE 8043669 mN

Latitude -17.6849 Longitude 145.1126

Date Recorded: 11/December/2015

Other Names for Deposit / Mine

Mount Garnet Freehold

Commodities	Size	Size Definition
ZINC	SMALL	200 - 200 000 tonnes ZN
COPPER	SMALL	500 - 50 000 tonnes CU
SILVER	SMALL	5 - 500 tonnes AG
LEAD	VERY SMALL	<1000 tonnes PB

Production Details

Period: 1-Jan-1901 to 31-Dec-1903		100,000 tonnes HARD ROCK ORE (OR REEF)
COPPER	METAL	4,415.0 tonnes
SILVER		29,500.0 kilograms
Period: 1-Jan-2003 to 31-Dec-2003		209,598 tonnes HARD ROCK ORE (OR REEF)
ZINC	METAL	13,623.9 tonnes 6.50 percent
COPPER	METAL	8,383.9 tonnes 0.40 percent
Period: 1-Jul-2014 to 30-Jun-2015		
COPPER	METAL	622.0 tonnes

Published Reserves/Resources

BR 10071 Published in 2012

MT GARNET UNDERGROUND

INDICATED MINERAL RESOURCE 537,000 tonnes Ore @
 5.20 % ZINC **FOR** 27,924 Tonnes ZINC
 14.00 g/t SILVER **FOR** 7,518 Kilograms SILVER
 0.40 % COPPER **FOR** 2,176 Tonnes COPPER

BR 10071 Published in 2012

MT GARNET UNDERGROUND

INFERRED MINERAL RESOURCE 31,000 tonnes Ore @
 6.60 % ZINC **FOR** 2,046 Tonnes ZINC
 46.00 g/t SILVER **FOR** 1,426 Kilograms SILVER
 0.30 % COPPER **FOR** 93 Tonnes COPPER

BR 10071 Published in 2012

MT GARNET

MEASURED MINERAL RESOURCE 100,000 tonnes Ore @
 10.10 % ZINC **FOR** 10,100 Tonnes ZINC
 22.00 g/t SILVER **FOR** 2,200 Kilograms SILVER
 0.60 % COPPER **FOR** 600 Tonnes COPPER

previously labeled "Underground"

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10071	2012	KAGARA MINING	OPPORTUNITY TO ACQUIRE KAGARA LIMITED'S NORTH QUEENSLAND ASSETS	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 14 SEPTEMBER 2012 KAGARA MINING, PERTH.

Major Mining Related Events

Year Commenced	Year Completed	Comments
1882		Mount Garnet deposit discovered.
1898	to 1902	Main period of mining. Mining and smelter commenced operation in 1898.
1915	to 1917	Attempt to reopen mine as a zinc producer but failed.
2002	to 2003	Construction of treatment plant commenced in June 2002. Plant commissioned in February 2003. Mount Garnet deposit open cut between February and September 2003.
2003		Mount Garnet treatment plant continued to process ores from Balcooma, Surveyor and Dry River South.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Mining Operations

OPEN CUT MINING

UNDERGROUND MINING METHODS

SHAFTS

ADITS

Comments

Mining in 2003 extended the historic opencut workings. Stage 2 extension of pit to the north planned for 2006.

Underground mining planned from base of new open cut.

Removed by opencut mining.

Removed by opencut mining.

Tenure Type/Number	SHARE	Company Name/Surname
ML 4042	100.00%	SNOW PEAK MINING PTY LTD
ML 4043	100.00%	SNOW PEAK MINING PTY LTD
ML 4044	100.00%	SNOW PEAK MINING PTY LTD
ML 4130	100.00%	SNOW PEAK MINING PTY LTD
ML 20005	100.00%	SNOW PEAK MINING PTY LTD
ML 20016	100.00%	SNOW PEAK MINING PTY LTD
ML 20105	100.00%	SNOW PEAK MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

HODGKINSON PROVINCE

Chillagoe Formation / EARLY SILURIAN to EARLY DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

REPLACEMENT DEPOSIT

DETAILED OREBODY MODEL

LEAD-ZINC SKARN

Mineralisation Age

ORE

LATE CARBONIFEROUS

Early garnet-pyroxene skarn, retrograde phase brought mineralisation. Four main ore types - vein style (late overprint), disseminated (garnet or pyrrhotite skarn), pyrrhotite ore (brecciation associated), and magnetite associated ore.

Comments

Kagara Zinc Ltd completed expensive drilling and metallurgical studies and delineated a coherent zone of very high grade zinc sulphide mineralisation ~150m below the surface. Open cut mining was carried out in 2003.

Additional exploration was carried out in 2006. Drill intersections announced in June included 27.2m at 24.0% Zn, 0.4% Cu and 14g/t Ag from 147.25m. A tailings dam lift resulted in a cut back of the current open cut.

This will expose ~70 000t at 8.5% Zn, 0.5% Cu and 20g/t Ag and will be the last ore mined from the open cut. All future production is planned to come from underground development.

The processing plant at Mount Garnet is a central plant used to treat ore from Mount Garnet, Balcooma, Surveyor and Dry River South. It was upgraded in September 2004 and May 2005. A 30 000 tonnes per annum copper circuit was commissioned in March 2006.

In the June 2007 quarter, 425 000t of waste was removed from the open cut and 2000t of ore was stockpiled. Material from the Mount Garnet open cut will be processed in January to March 2008, from a stockpile of ~200,000t @ 6% Zn and .4% Cu.

The ore from the Mount Garnet open cut was being blended with Balcooma and Dry River South ores. From late 2008, it was blended with high-grade Mungana ore.

The Mt Garnet underground mine commenced stoping in Feb 2009 and to date has produced 71000 tonnes grading 9.5% zinc and 0.5% copper (BR 9353).

The ore zone is directly related with a garnetised limestone-argillite bed. Drilling has shown primary marmatitic ore associated with calcite-garnet hornfels containing magnetite, sphalerite, pyrrhotite and minor chalcopyrite and galena.

Web Page

www.kagara.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

580171 MOUNT GARNET PLANT

OPERATING MINE

Descriptive Location: 1KM SSW OF MOUNT GARNET

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 299758 mE 8043854 mN

Latitude -17.6832 Longitude 145.1121

Date Recorded: 26/May/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
ZINC	SMALL	200 - 200 000 tonnes ZN
LEAD	SMALL	1000 - 100 000 tonnes PB
COPPER	SMALL	500 - 50 000 tonnes CU
SILVER	SMALL	5 - 500 tonnes AG
GOLD	VERY SMALL	<0.5 tonnes AU
TIN	VERY SMALL	<100 tonnes SN

Production Details

Period: 1-Jul-2005 to 30-Jun-2010 1,354,427 tonnes HARD ROCK ORE (OR REEF)

COPPER METAL 42,185.0 tonnes

SILVER 13,600.0 kilograms

GOLD FINE 192.8 kilograms

Period: 2-Jul-2005 to 30-Jun-2010 2,221,901 tonnes HARD ROCK ORE (OR REEF)

ZINC METAL 185,125.0 tonnes

LEAD METAL 33,525.0 tonnes

COPPER METAL 19,425.0 tonnes

SILVER 67,120.0 kilograms

GOLD FINE 514.4 kilograms

Period: 1-Jul-2010 to 30-Jun-2011

COPPER METAL 6,740.0 tonnes

ZINC METAL 40,125.0 tonnes

LEAD METAL 1,040.0 tonnes

Period: 2-Jul-2010 to 30-Jun-2011

COPPER METAL 15,790.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
2003	to 2003	Treated Mount Garnet ore
2005	to 2008	Treated ore from Balcooma, Surveyor and Dry River South
2008	to 2009	Treated ore predominantly from Balcoma; blending of Mount Garnet underground ore with high grade Munguna ore (commenced September 2008)

Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 4042	100.00%	SNOW PEAK MINING PTY LTD
ML 4043	100.00%	SNOW PEAK MINING PTY LTD
ML 4044	100.00%	SNOW PEAK MINING PTY LTD
ML 4130	100.00%	SNOW PEAK MINING PTY LTD
ML 20005	100.00%	SNOW PEAK MINING PTY LTD
ML 20016	100.00%	SNOW PEAK MINING PTY LTD
ML 20105	100.00%	SNOW PEAK MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit Formation Name/Age

Deposit Model

Mineralisation Age

Queensland Minerals

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Comments

Remark for "production details": 2 sets of production figures reported: Production including Pb and Zn values were processed in the polymetallic plant, the other set of values originates from the copper plant circuit.

The copper and polymetallic processing plants at Mount Garnet are central plants used by Kagara Ltd to process ore from Mount Garnet, Balcooma, Surveyor and Dry River South.

The polymetallic plant was upgraded in September 2004 and May 2005. A 30,000tpa copper circuit was commissioned in March 2006. Production data from 2005 to 2010 is recorded at this site since the ore amounts were sourced from multiple locations and could not be separated easily. Individual records for production at Balcooma, Surveyor, Mount Garnet, Baal Gammon etc have been (cont.) quoted where identified, but were not added to the database to avoid duplication.

Web Page

www.kagara.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

486900 MOUNT HAY

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 8.5 KM NE OF WESTWOOD

1:100 000 sheet Number and Name: 8950 MOUNT MORGAN

Grid Reference: Zone 56 215558 mE 7392074 mN

Latitude -23.5567 Longitude 150.2137

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
THUNDER EGG	LARGE	>100 tonnes THEG

Production Details

Period: 1-Jan-1965 to 31-Dec-1978

THUNDER EGG 147,904.0 kilograms
RHYOLITE 53.8 tonnes

Period: 1-Jul-1996 to 30-Jun-2016

AGATE 1,564,073.0 australian dollars

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1964	to 1968	DIGGING OF GEMSTONES BY HAND.
1968		HEAVY MACHINERY PUT IN OPERATION AND QUARRYING BEGAN IN 1971 IN ML491.
1971		

Mining Operations	Comments
OPEN CUT MINING	
SURFACE MINING METHODS	
PITS	At least 6 areas of pitting.

Tenure Type/Number	SHARE	Company Name/Surname
ML 5817	100.00%	ARADON PTY LTD
ML 80090	100.00%	ARADON PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
UNDIFFERENTIATED MESOZOIC VOLCANICS	Mount Salmon Volcanics/t / LATE CRETACEOUS to LATE CRETACEOUS

Deposit Model

GENERAL OREBODY MODEL	DIATREME OR PYROCLASTIC-RELATED DEPOSITS
DETAILED OREBODY MODEL	ALLUVIAL/ELUVIAL GEMSTONES
GENERAL OREBODY MODEL	RESIDUAL DEPOSIT

Mineralisation Age

ORE	LATE CRETACEOUS
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Comments

Thunder egg deposits are confined to a single spherulitic rhyolite flow within a complex of acid volcanic plugs, flows and pyroclastics.
The Mount Hay Gemstone Tourist Park diggings are within ML 926.

Web Page

www.aradon.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

494086 MOUNT ISA COPPER MINE

OPERATING MINE

Descriptive Location: 1.3 KM WEST OF MOUNT ISA.

1:100 000 sheet Number and Name: 6756 MOUNT ISA

Grid Reference: Zone 54 341520 mE 7707565 mN

Latitude -20.7247 Longitude 139.4780

Date Recorded: 30/January/2017

Other Names for Deposit / Mine

Mount Isa
Enterprise
Black Rock
Mount Isa Deep Copper Mine
X41 Mine

Commodities	Size	Size Definition
COPPER	GIANT	>2 000 000 tonnes CU
COBALT	MEDIUM	1 000 - 20 000 tonnes CO
SILVER	SMALL	5 - 500 tonnes AG
ANTIMONY	VERY SMALL	<50 tonnes SB
GALLIUM	VERY SMALL	<0.1 tonnes GA

Production Details

Period: 1-Jan-1942 to 31-Dec-1996		
COPPER	OTHER	4,824,742.0 tonnes
Period: 1-Jul-1996 to 30-Jun-2001		14,030,698 tonnes HARD ROCK ORE (OR REEF)
COPPER	METAL	854,664.0 tonnes
SILVER		90,141.0 kilograms
COBALT		3,613.0 tonnes
ANTIMONY		59.0 tonnes
Period: 1-Jul-2001 to 30-Jun-2014		63,602,394 tonnes HARD ROCK ORE (OR REEF)
COPPER	METAL	2,110,083.0 tonnes
ANTIMONY		42.0 tonnes
COBALT		2,700.0 tonnes
SILVER		185,645.4 kilograms
Period: 1-Jul-2014 to 30-Jun-2016		
COPPER	METAL	239,966.0 tonnes
SILVER		22,627.1 kilograms

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Published Reserves/Resources

BR 10427 Published in 2015

ENTERPRISE MINE 3000 & 3500

INDICATED MINERAL RESOURCE 2,600,000 tonnes Ore @
2.62 % COPPER **FOR** 68,120 Tonnes COPPER

As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

ENTERPRISE MINE 3000 & 3500

INFERRED MINERAL RESOURCE 400,000 tonnes Ore @
2.30 % COPPER **FOR** 9,200 Tonnes COPPER

As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

ENTERPRISE MINE 3000 & 3500

MEASURED MINERAL RESOURCE 28,000,000 tonnes Ore @
2.92 % COPPER **FOR** 817,600 Tonnes COPPER

Includes proved reserves of 14.5Mt at 2.9% Cu and probable reserves of 0.9Mt at 2.57% Cu. As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

OPEN PIT

INDICATED MINERAL RESOURCE 82,000,000 tonnes Ore @
1.32 % COPPER **FOR** 1,082,400 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu.

As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

OPEN PIT

INFERRED MINERAL RESOURCE 138,000,000 tonnes Ore @
0.89 % COPPER **FOR** 1,228,200 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu.

As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

OPEN PIT

MEASURED MINERAL RESOURCE 48,000,000 tonnes Ore @
1.46 % COPPER **FOR** 700,800 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu.

As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

X41 MINE 1100 & 1900 OREBODIES

INDICATED MINERAL RESOURCE 15,200,000 tonnes Ore @
1.80 % COPPER **FOR** 273,600 Tonnes COPPER

Includes probable reserves of 12.6Mt at 1.81% Cu. As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

X41 MINE 1100 & 1900 OREBODIES

INFERRED MINERAL RESOURCE 7,100,000 tonnes Ore @
1.60 % COPPER **FOR** 113,600 Tonnes COPPER

As at 31 Dec 2014. Resource figure from Glencore Plc website.

BR 10427 Published in 2015

X41 MINE 1100 & 1900 OREBODIES

MEASURED MINERAL RESOURCE 30,900,000 tonnes Ore @
1.88 % COPPER **FOR** 580,920 Tonnes COPPER

Includes proved reserves of 6.1Mt at 1.91% Cu. As at 31 Dec 2014. Resource figure from Glencore website.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10427	2015	GLENCORE	GLENCORE RESOURCES & RESERVES AS AT 31 DECEMBER 2014.	HTTP://WWW.GLENCORE.COM/A SSETS/INVESTORS/DOC/REPORT S_AND_RESULTS/2014/GLEN-2014-RESOURCES-RESERVES-REPORT.PDF

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1927	to	1927	Surface drilling intersected 15m at 17% Cu in the Black Rock area.
1930	to	1930	Primary Cu first noted.
1941	to	1962	Black Rock secondary orebody mined intermittently for flux from underground.
1950	to	1950	500 orebody discovered.
1954	to	1954	1100/1900 orebodies discovered.
1957	to	1967	Black Rock mined by open cut. Produced 2.26 Mt at 3.9% Cu.
1962	to	1962	3000 orebody intersected by drilling.
1965	to	1965	3500 orebody intersected by drilling.
1987	to	1993	Development of 3000 orebody commenced in 1987 and mining started in 1993.
1997	to	1999	Mining of 3500 orebody commenced in 1997.
2000			The Enterprise (Mount Isa Deep Copper) Mine commenced production after an investment of A\$370M. It was Australia's deepest mine following the construction of a new internal shaft to a depth of 1800m.
2004			Development of the northern 3500 underground commenced. Expected \$36m investment. Ore production scheduled for 2006. Expected to extend copper orebody for 11 years.

Mining Operations

SHAFTS

UNDERGROUND MINING METHODS

OPEN CUT MINING

STOPING

Comments

Tenure Type/Number	SHARE	Company Name/Surname
ML 8058	100.00%	MOUNT ISA MINES LIMITED

Host Rock/Cover Sequences

Structural Unit

LEICHHARDT RIVER DOMAIN

Formation Name/Age

Urquhart Shale / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

BRECCIA-HOSTED

DETAILED OREBODY MODEL

BRECCIATED SEDIMENT-HOSTED COPPER

Mineralisation Age

ORE

MESOPROTEROZOIC

Mineralisation associated with peak to retrograde metamorphism of the Isan Orogeny (1550-1500Ma). Wilde & others (2007) suggest mineralisation was after initiation of the South Nicholson Basin.

Comments

The Mount Isa Cu orebodies are among the world's largest sediment-hosted Cu deposits. They occur exclusively in brecciated silica-dolomite host rocks adjacent to the Basement Contact Fault and give way to multiple Pb-Zn-Ag lodes away from the fault.

Mining is currently carried out on two orebodies - Enterprise and X41.

Wilde & others (2007 - BR 8258) have proposed a model whereby the copper ore formed by the reduction of oxidised basinal brines by the carbonaceous Urquhart Shale.

Wilde & others (2007) suggested that various radiometric ages are consistent with formation of the copper orebodies after initiation of the South Nicholson Basin.

Web Page

www.glencore.com

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

45327 MOUNT ISA SILVER-LEAD MINE

OPERATING MINE

Descriptive Location: 1.3 KM W MOUNT ISA.

1:100 000 sheet Number and Name: 6756 MOUNT ISA

Grid Reference: Zone 54 341520 mE 7707565 mN

Latitude -20.7247 Longitude 139.4780

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Black Star
Racecourse
Isa Mine
Mount Isa

Commodities	Size	Size Definition
SILVER	GIANT	>10 000 tonnes AG
ZINC	GIANT	>5 000 000 tonnes ZN
LEAD	GIANT	>5 000 000 tonnes PB
COPPER	SMALL	500 - 50 000 tonnes CU
CADMIUM	SMALL	50 - 5 000 tonnes CD
ANTIMONY	SMALL	50 - 5 000 tonnes SB
COBALT	SMALL	10 - 1 000 tonnes CO
SULPHUR		

Production Details

Period: 1-Jan-1931 to 31-Dec-1996

SILVER 13,941,000.0 kilograms
ZINC METAL 5,007,664.0 tonnes
LEAD METAL 5,738,407.0 tonnes

Period: 1-Jul-1996 to 30-Jun-2001

8,799,387 tonnes SULPHIDE ORE
SILVER 1,883,793.0 kilograms
ZINC METAL 895,282.0 tonnes
LEAD METAL 772,195.0 tonnes
COPPER METAL 5,191.0 tonnes
CADMIUM 3,000.0 tonnes
ANTIMONY 1,819.0 tonnes
COBALT 212.0 tonnes
SULPHUR 486,316.0 tonnes

Period: 1-Jul-1999 to 1-Jul-2000

2,986,462 tonnes HARD ROCK ORE (OR REEF)

LIMESTONE UNKNOWN 15,393.0 tonnes

Period: 1-Jul-2001 to 30-Jun-2016

59,254,499 tonnes SULPHIDE ORE
SILVER 4,230,843.2 kilograms
LEAD METAL 2,040,459.0 tonnes
ZINC METAL 4,197,171.0 tonnes
COPPER METAL 5,179.3 tonnes
COBALT 116.0 tonnes
CADMIUM 2,087.0 tonnes
ANTIMONY 747.0 tonnes
SULPHUR 353,278.0 tonnes

Period: 1-Jul-2008 to 30-Jun-2009

6,733,482 tonnes HARD ROCK ORE (OR REEF)

LIMESTONE UNKNOWN 120,828.0 tonnes

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Published Reserves/Resources

BR 10427 Published in 2015

BLACK STAR OPEN CUT

INDICATED MINERAL RESOURCE 2,200,000 tonnes Ore @
 45.00 g/t SILVER **FOR** 99,000 Kilograms SILVER
 3.40 % ZINC **FOR** 74,800 Tonnes ZINC
 2.60 % LEAD **FOR** 57,200 Tonnes LEAD

Comments/Cut Off Factor: A\$23/t net smelter return.

Indicated resources include probable reserves of 0.2Mt at 3.3% Zn, 2.4% Pb and 26g/t Ag and probable reserves of 13Mt at 4.4% Zn, 3.5% Pb and 62g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

BLACK STAR OPEN CUT

INFERRED MINERAL RESOURCE 1,500,000 tonnes Ore @
 6.00 % ZINC **FOR** 90,000 Tonnes ZINC
 60.00 g/t SILVER **FOR** 78,000 Kilograms SILVER
 3.00 % LEAD **FOR** 39,000 Tonnes LEAD

Comments/Cut Off Factor: A\$23/t net smelter return.

As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

BLACK STAR OPEN CUT

MEASURED MINERAL RESOURCE 12,600,000 tonnes Ore @
 60.00 g/t SILVER **FOR** 1,207,800 Kilograms SILVER
 5.30 % ZINC **FOR** 969,900 Tonnes ZINC
 4.04 % LEAD **FOR** 509,040 Tonnes LEAD

Comments/Cut Off Factor: A\$23/t net smelter return.

Measured and indicated resources include proved reserves of 4.77Mt at 5.31% Zn, 2.81% Pb and 38g/t Ag and probable reserves of 13Mt at 4.4% Zn, 3.5% Pb and 62g/t Ag. As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

ISA OPEN PIT

INDICATED MINERAL RESOURCE 200,000,000 tonnes Ore @
 56.00 g/t SILVER **FOR** 11,200,000 Kilograms SILVER
 3.40 % ZINC **FOR** 6,800,000 Tonnes ZINC
 2.70 % LEAD **FOR** 5,400,000 Tonnes LEAD

Comments/Cut Off Factor: A\$23/t net smelter return.

As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

ISA OPEN PIT

INFERRED MINERAL RESOURCE 130,000,000 tonnes Ore @
 50.00 g/t SILVER **FOR** 6,500,000 Kilograms SILVER
 3.00 % ZINC **FOR** 5,100,000 Tonnes ZINC
 2.00 % LEAD **FOR** 3,400,000 Tonnes LEAD

Comments/Cut Off Factor: A\$23/t net smelter return.

As at 31 Dec 2014. Resource figures from Glencore Plc website.

BR 10427 Published in 2015

ISA OPEN PIT

MEASURED MINERAL RESOURCE 46,100,000 tonnes Ore @
 80.70 g/t SILVER **FOR** 3,720,270 Kilograms SILVER
 4.09 % ZINC **FOR** 1,885,490 Tonnes ZINC
 3.94 % LEAD **FOR** 1,816,340 Tonnes LEAD

Comments/Cut Off Factor: A\$23/t net smelter return.

As at 31 Dec 2014. Resource figures from Glencore Plc website.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10427	2015	GLENCORE	GLENCORE RESOURCES & RESERVES AS AT 31 DECEMBER 2014.	HTTP://WWW.GLENCORE.COM/ASSETS/INVESTORS/DOC/REPORTS_AND_RESULTS/2014/GLEN-2014-RESOURCES-RESERVES-REPORT.PDF

Queensland Minerals

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Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1923		1923	John Campbell Miles discovered Ag-Pb mineralisation in outcrop. More than 100 lease applications were registered by the end of 1923.
1924		1924	Most of the leases were amalgamated under the control of Mount Isa Mines Ltd.
1931		2005	Production by Mount Isa Mines Ltd commenced in May 1931. Underground zinc-lead mining operations at Mount Isa ceased at the end of 2005.
2004			Black Star open cut waste material removal commenced in October 2004. Mining began in 2005 and will run for at least five years. The opencut will eventually be 350m deep, almost 1km long and 900m wide.

Mining Operations

UNDERGROUND MINING METHODS

SHAFTS

STOPPING

OPEN CUT MINING

Comments

Opencut workings (called Black Star) restarted in February 2005.

Tenure Type/Number	SHARE	Company Name/Surname
ML 8058	100.00%	MOUNT ISA MINES LIMITED

Host Rock/Cover Sequences

Structural Unit

LEICHHARDT RIVER DOMAIN

Formation Name/Age

Urquhart Shale / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

SEDIMENT-HOSTED PB-ZN (SEDEX ZN-PB,
SHALE-HOSTED ZN-PB)

Mineralisation Age

ORE

PALAEOPROTEROZOIC

Mineralisation dated at 1652 +/- 7Ma.

Comments

Tabular, bedding-parallel Ag-Pb-Zn orebodies occur in close proximity to but geologically distinct from the breccia-hosted massive to disseminated copper mineralisation.

The mineralisation occurs within fine to coarse (1mm to 1m) bedding-parallel sulphide- rich bands within shales and siltstones of the Urquhart Shale.

The sulphide bands constitute an orebody where they are grouped together in sufficient concentrations to meet criteria for an economic orebody.

Post-1987 production includes that from the George Fisher/Hilton Mines to the north.

In June 2004, Xstrata announced that it will go ahead with development of the Black Star open cut, with pre-strip mining expected to commence in the second half of the year. Planned pit depth is 200m.

Production from the Black Star orebody commenced in early 2005 at a rate of 1.5Mtpa for 5 years, based on a resource of 24.2Mt at 5.1% Zn, 2.7% Pb and 54g/t Ag, including a reserve of 8.4Mt at 5.2% Zn, 3.5% Pb and 60g/t Ag.

Mining ceased in the Mount Isa underground lead-zinc mine at the end of 2005. In late 2006, the first stage of an update and expansion of the Mount Isa zinc concentrator was completed, as well as a new zinc filter plant.

The production data (2001-2016) includes George Fisher North and George Fisher South. Metal produced is contained in 2 concentrates - 2688393 t lead concentrate (this figure only recorded to 2012) and 6439839 t zinc concentrate.

The Black Star Open Cut Resource is additional to the Mount Isa Open Pit Resource and was updated in July 2014.

A total of 3.3Mt at 3.9% Zn, 1.9% Pb and 47g/t Ag were depleted from the Ore Reserves in the 12 months to 31December 2014 due to ongoing mining operations from the Black Star Open Cut. The current LOM plan predicts the Ore Reserves to expire in Q3, 2016.

The Black Star Open Cut Resource has been removed from the Isa Open Pit and is reported separately. The Isa Open Pit Resource is exclusive of the Black Star Open Cut. The Isa Open Pit is located on Mining Lease ML8058 which expires on 30 November 2036.

Web Page

www.glencore.com

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

43470 MOUNT KELLY

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 90KM NORTH OF MOUNT ISA.

1:100 000 sheet Number and Name: 6758 MAMMOTH MINES

Grid Reference: Zone 54 305784 mE 7798925 mN

Latitude -19.8962 Longitude 139.1448

Date Recorded: 8/December/2015

Other Names for Deposit / Mine

Mount Kelly Workings

Commodities	Size	Size Definition
COPPER	SMALL	500 - 50 000 tonnes CU
GOLD	VERY SMALL	<0.5 tonnes AU

Production Details

Period: 1-Jan-1930 to 31-Dec-1958		2,520 tonnes OXIDE ORE	
COPPER	OTHER	164.7 tonnes	6.65 percent
Period: 1-Jul-1967 to 30-Jun-1968		107 tonnes OXIDE ORE	
COPPER	OTHER	4.6 tonnes	4.30 percent
Period: 1-Jul-2011 to 30-Jun-2015			
COPPER	PLATE	1,249.0 tonnes	

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1930 to 1939		Outcropping copper carbonates were discovered.
2010		CST mining commenced mining and exploration operations in September 2010.

Mining Operations	Comments
ADITS	
OPEN CUT MINING	
UNDERGROUND MINING METHODS	
DECLINED SHAFTS/DRIVES	
SHAFTS	
STOPING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 5435	100.00%	CST MINERALS LADY ANNIE PTY LIMITED
ML 5478	100.00%	CST MINERALS LADY ANNIE PTY LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MOUNT OXIDE DOMAIN	Paradise Creek Formation / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL	BRECCIA-HOSTED
DETAILED OREBODY MODEL	BRECCIATED SEDIMENT-HOSTED COPPER

Mineralisation Age

ORE	MESOPROTEROZOIC
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Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Comments

Oxide copper mineralisation is focused within the axial zone of a shallow plunging anticline where it is intersected by the NNW-trending Mount Kelly Fault and WNW-trending Spinifex thrust.

Remobilisation of minerals is evident away from the controlling structures along bedding planes and axial cleavage planes. Lower grade ore occurs as bedding-controlled disseminations but the higher grade ore occurs within breccias.

The oxide copper resource includes probable reserves of 85,000t at 0.7% Cu.

CopperCo went into voluntary administration in November 2008. Cape Lambert Iron Ore Ltd purchased CopperCo's assets in June 2009.

An Initial Public Offering to form a new company to manage the Lady Annie project is planned.

CST Mining resumed mining at Lady Annie in September 2010, with first copper cathode production in November 2010. (CST is registered in the Hong Kong Exchanges: Code 985). New resources for Flying Horse and Mount Kelly reported together.

Significant drilling results (Cu) announced by CST mining Ltd in Nov 2010 include: MTKC001 with 30m @ 1.26% Cu; MTKC169 with 40m @ 1.01% Cu; MTKC264 with 33m @ 1.33% Cu; MTKC270 with 29m @ 1.24% Cu; and MTKC299 with 18m @ 1.37% Cu (BR9536).

Significant drilling results (Au) announced by CST mining Ltd in Nov 2010 include: MTKC002 with 8m @ 1.63g/t Au; MTKC006 with 7m @ 1.19g/t Au; MTKC258 with 6m @ 1.44g/t Au; MTKC261 with 8m @ 5.58g/t Au; and MTKC293 with 23m @ 2.31g/t Au (BR9536).

Nov 2010 CST carried out diamond drilling to collect samples (560m) for metallurgical testwork to strengthen understanding of the amenability of the oxide mineralisation to be treated at the Mt Kelly SX-EW process plant. Results are expected in Q2 2011.

Web Page

<http://www.cstmining.com>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

40502 MOUNT MOSS

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 4.2 KM N OF EWAN, 100KM WEST OF TOWNSVILLE.

1:100 000 sheet Number and Name: 8059 EWAN

Grid Reference: Zone 55 378715 mE 7889270 mN Latitude -19.0858 Longitude 145.8471 Date Recorded: 3/June/2016

Other Names for Deposit / Mine

Iron Mountain Shaft
Titan Shaft
Willetts Pit

Commodities	Size	Size Definition
MAGNETITE	LARGE	>1 000 000 tonnes MT
LIMESTONE	SMALL	100 000 - 2 000 000 tonnes LST
COPPER	MEDIUM	50 000 - 250 000 tonnes CU
ZINC	SMALL	200 - 200 000 tonnes ZN
SILVER	VERY SMALL	<5 tonnes AG
LEAD	VERY SMALL	<1000 tonnes PB
SCANDIUM		

Production Details

Period: 1-Jul-2008 to 30-Jun-2015
 MAGNETITE 1,130,663.3 tonnes
 LIMESTONE CRUSHED ROCK 7,299.2 tonnes
 Period: 1-Jul-2011 to 30-Jun-2014
 MAGNETITE 55,167.0 tonnes

Published Reserves/Resources

BR 9656 Published in 2011

MOUNT MOSS			
INFERRED MINERAL RESOURCE 20,000,000 tonnes Ore @			
41.00 % IRON	FOR	8,200,000 Tonnes IRON	
0.35 % COPPER	FOR	70,000 Tonnes COPPER	
0.35 % ZINC	FOR	70,000 Tonnes ZINC	

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9656	2011	GEOLOGICAL SURVEY OF QUEENSLAND	QUEENSLAND'S METALLIFEROUS AND INDUSTRIAL MINERALS 2010.	GEOLOGICAL SURVEY OF QUEENSLAND, DEPARTMENT OF EMPLOYMENT, ECONOMIC DEVELOPMENT AND INNOVATION, BRISBANE.

Major Mining Related Events

Year Commenced	Year Completed	Comments

Mining Operations

UNDERGROUND MINING METHODS
PITS
SHAFTS
ADITS
OPEN CUT MINING

Comments

Tenure Type/Number	SHARE	Company Name/Surname
ML 10171	100.00%	MT MOSS MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CAMEL CREEK SUBPROVINCE	Perry Creek Formation / LATE ORDOVICIAN to SILURIAN

Deposit Model

GENERAL OREBODY MODEL	SKARN
DETAILED OREBODY MODEL	BASE METAL SKARN

Mineralisation Age

ORE

Queensland Minerals

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Comments

The Mount Moss area was explored by Jervois Mining NL for a zinc oxide resource. Drilling in 1990 returned a best intersection of 12m @ 19.1% Zn & 0.52% Cu from 78-90m depth. The weathered zone returned 78m @ 20.7g/t Sc, 0.24% Cu and 2.03% Zn from 36m.

The orebody has a zinc oxide and magnetite cap overlying a possible 1Mt sulphide resource.

Fourteen RAB holes were drilled into Willetts Knob to evaluate magnetite potential. It was concluded that the grade of iron intersected was not high enough for direct shipping without upgrading, probably by magnetic separation.

Curtain Bros (Qld) Pty Ltd has proposed an open cut mine at Mount Moss to export ~1Mt per annum of magnetite for processing at a steel mill in China. Lump magnetite could also be produced for coal washing.

The magnetite resource has been unofficially reported as 3.5Mt of magnetite ore (Courier Mail, March 25, 2007).

Web Page

www.mtmoss.com

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

41044 MOUNT RAWDON

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 16.5KM SE OF MOUNT PERRY

1:100 000 sheet Number and Name: 9247 MOUNT PERRY

Grid Reference: Zone 56 375555 mE 7204425 mN

Latitude -25.2713 Longitude 151.7641

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Swindon
Dawn
Sunrise
David
Locknager
Falcon
O.K.
Rainbow
Superman
The Summit
Day Dawn
Delia
Blind Man
Rio
Tail End
John'S Chance
Whitburn
St Johns Gully
Surveyor Gully
Fox Junior
Nuggety Gully

Commodities	Size	Size Definition
GOLD	LARGE	50 - 150 tonnes AU
SILVER	SMALL	5 - 500 tonnes AG
COPPER	VERY SMALL	<500 tonnes CU
ZINC	VERY SMALL	<200 tonnes ZN
LEAD	VERY SMALL	<1000 tonnes PB
BISMUTH	VERY SMALL	<50 tonnes BI

Production Details

Period:	1-Jan-1949	to	31-Dec-1953	763 tonnes HARD ROCK ORE (OR REEF)
	GOLD		BULLION	6.1 kilograms
				7.94 grams per tonne
Period:	2-Jan-1949	to	31-Dec-1950	
	GOLD		BULLION	2.0 kilograms
Period:	1-Jul-2000	to	30-Jun-2007	18,605,546 tonnes HARD ROCK ORE (OR REEF)
	GOLD		FINE	17,037.1 kilograms
	SILVER			36,523.8 kilograms
Period:	1-Jul-2007	to	30-Jun-2016	
	GOLD		FINE	27,728.2 kilograms
	SILVER			37,892.6 kilograms

Published Reserves/Resources

BR 10462 Published in 2016

MOUNT RAWDON

INDICATED MINERAL RESOURCE 50,580,000 tonnes Ore @
0.70 g/t GOLD **FOR** 35,406 Kilograms GOLD

Comments/Cut Off Factor: 0.20 g/t Au cut-off

Includes probable reserves of 33.92 Mt at 0.78g/t Au at 0.3g/t Au cut-off.

BR 10462 Published in 2016

MOUNT RAWDON

INFERRED MINERAL RESOURCE 5,000,000 tonnes Ore @
0.57 g/t GOLD **FOR** 2,850 Kilograms GOLD

Comments/Cut Off Factor: 0.20g/t Au cut-off

BR 10462 Published in 2016

MOUNT RAWDON

MEASURED MINERAL RESOURCE 510,000 tonnes Ore @
0.53 g/t GOLD **FOR** 270 Kilograms GOLD

Comments/Cut Off Factor: 0.20g/t Au cut-off

Includes proved reserves of 0.51Mt at 0.53g/t Au at 0.3g/t Au cut-off.

Resource figures listed above are JORC compliant.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Published Reference ID	Year	Author	Title	Source
BR 10462	2016	EVOLUTION MINING LIMITED	ASX ANNOUNCEMENT: ANNUAL MINERAL RESOURCES AND ORE RESERVES STATEMENT	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 21 APRIL 2016. EVOLUTION MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
1946	to 1948	Alluvial gold was discovered at Mount Rawdon by F.E. St John in 1946. A small gold rush followed.
1948	to 1949	Reef deposits were located in 1948 and several GMLs were taken up. WJ Johns erected a 3-head battery at the Rainbow mine in 1949 and crushed small ore parcels from the Rainbow, Dawn and Falcon. A 5-head battery was erected at the Sunrise.
1950	to 1950	Several lease holders combined to form the Mount Rawdon Gold Mining Syndicate, with F.C. Johns as manager. Ore from the Dawn and Sunrise was treated at the 3-head battery. The O.K. Mining Syndicate drill tested the O.K. lease.
1951	to 1953	The O.K. Mining Syndicate erected a 3-head battery in 1951 but did little work.
1951	to 1953	The Mount Rawdon Syndicate erected a 10-head battery on the Falcon lease, with tramlines to the Dawn and Sunrise mines. The old 3-head battery was dismantled for sale. Problems with the new battery led to disbanding of the Syndicate in 1953
1955	to 1955	Prospecting was carried out at the Dawn, Locknager and Sunrise but no gold was produced.
1978	to 1982	CB St John & R Briggs applied for mining leases and Departmental assistance. GSQ commenced investigations in 1978 but suspended all work after the lessees let an option to purchase to Samantha Exploration, which purchased the leases in 1982
1983	to 1997	Feasibility study carried out by Samantha Exploration NL and Placer Pacific Ltd.
1998	to 2001	Equigold NL purchased the leases 1998. A mine plan was completed in 1999 and the treatment plant constructed in 2000. Production commenced in 2001. Drilling of untested areas led to a redesign of the pit and an 80% increase in reserves.
2001	to 2016	11 year mine life as of Nov 2005. A second stage of ore crushing was added in 2002. A redesign of the open cut was completed in 2005, based on a cut-off grade of 0.5g/t Au.
2010	to 2017	Estimated mine life of ~8 years at ~100koz pa, with operation scheduled to continue until 2017 at current estimates
2010	to 2011	In September 2010 Newcrest assumed ownership of mine from Lihir Gold Ltd through merger.
2011		Evolution assumes 100% ownership in 2011 from Newcrest

Mining Operations

Mining Operations	Comments
OPEN CUT MINING	Now worked from one large opencut.
SHAFTS	Obliterated by recent mining.
ADITS	Obliterated by recent mining.
TRENCHES	Obliterated by recent mining.
PITS	Obliterated by recent mining.
UNDERGROUND MINING METHODS	Obliterated by recent mining.
STOPING	Obliterated by recent mining.

Tenure Type/Number	SHARE	Company Name/Surname
ML 1192	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 1203	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 1204	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 1206	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 1210	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 1231	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 1259	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 50119	100.00%	MT RAWDON OPERATIONS PTY LTD
ML 80095	100.00%	MT RAWDON OPERATIONS PTY LTD

Queensland Minerals

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Host Rock/Cover Sequences

Structural Unit

SOUTH EAST QLD VOLCANIC & PLUTONIC PROVINCE

Formation Name/Age

Aranbanga Volcanic Group / MIDDLE TRIASSIC to LATE TRIASSIC

Deposit Model

GENERAL OREBODY MODEL

INTRUSIVE-RELATED (PORPHYRY-RELATED)

DETAILED OREBODY MODEL

PORPHYRY-RELATED AURIFEROUS SUBVOLCANIC BRECCIAS AND VEINS

Mineralisation Age

ORE

LATE TRIASSIC

Comments

Gold mineralisation at Mount Rawdon is hosted by a sequence of interbedded subaerial pyroclastic flow, surge and ashfall deposits, intruded by coeval dacite bodies and irregular dacite, trachyandesite and trachyte dykes.

The bulk of the sequence consists of massive lapillistone. The gold occurs as microscopic fine grains within pyrite and sphalerite, which occur as disseminations and in irregular veinlets within the lapillistone and dacite intrusives.

The gold is coincident with a zone of phyllic alteration that has overprinted a more widespread, pervasive zone of chlorite-carbonate alteration. Three times more silver than gold is recovered from the ore.

The Mount Rawdon gold mine commenced production in 2001, based on a resource of 37.9Mt at 1.0g/t Au and 4.0g/t Ag. Capital cost was \$34.8 million. Mining is by open cut, with a strip ratio of 1.2:1.

Treatment is by fine grinding and carbon-in-leach in a 3.2Mt per annum plant. Cash costs are \$361 per ounce. The current pit will be extended to the north-east. Equigold NL is the owner and operator.

In 2008, Equigold merged with Lihir Gold Limited. Mining in the second half of 2008 concentrated on expanding the floor of the pit and making progress on a major cut back to enable access to additional ore.

Deep diamond drilling was carried out in the March 2008 quarter to test for higher grade feeder zones below the open cut. Intersections included 29m at 3.24g/t Au from 283m and 21.5m at 1.94g/t Au from 248m.

Volcaniclastics, dacite and trachyandesite in an inverted cone shaped orebody.

In Sept 2010 Newcrest took over operations after merger with Lihir Gold Ltd. The mine to date has produced 830000 ounces of gold since operations began in 2001 (by Equigold).

2010 Processing: The process plant consists of primary and secondary crushing, SAG and ball milling, followed by conventional CIL circuit. A total of 3.4Mt were milled in 2009. Grade of ore treated increased to 1.11g/t, with ore recovery at 91% (BR9608).

Mineralisation comprises electrum, pyrite, galena, sphalerite, chalcopyrite, bornite, pyrrotite, bismuth, bismuthinite, mathildite, hessite, limonite, chalcocite, hematite and malachite in a quartz gangue

In the March 2009 quarter, ore was sourced from the southern cut-back zone and the starter pit. Mill throughputs reduced marginally in the June 2009 quarter due to harder ores being treated. Material movements were lower due to difficult mining conditions

In 2011 Evolution acquired 100% of Mt Rawdon via Catalpa Resources and Conquest Mining merging and the concurrent acquisition of Newcrest Mining's Cracow and Mt Rawdon gold mines. 1Moz gold produced since commissioning.

In 2012 Evolution reported extension drilling results MRRC203815-3: 35.38m @ 1.19g/t Au & 3.21g/t Ag from 48m; MRRC203815-4: 37.14m @ 1.05g/t Au & 1.89g/t Ag from 48m; MRRC203815-4: 17.14m @ 1.89g/t Au & 3.48g/t Ag from 226m

2012 (cont.) MRRC203815-5: 12.86m @ 2.09g/t Au & 5.04g/t Ag from 8m; MRRC203815-5: 89.29m @ 0.98g/t Au & 2.18g/t Ag from 30m;

Web Page

<http://www.evolutionmining.com.au/projectsMtRawdon.html>

Queensland Minerals

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42567 MOUNT RUBY

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 18KM WNW OF RAVENSHOE.

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 321614 mE 8057469 mN

Latitude -17.5621 Longitude 145.3192

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
IRON	SMALL	5 000 - 5 000 000 tonnes FE
MAGNETITE	VERY SMALL	<50 000 tonnes MT
COPPER	VERY SMALL	<500 tonnes CU

Production Details

Period: 1-Jul-2014 to 30-Jun-2015 24,000 tonnes HARD ROCK ORE (OR REEF)
MAGNETITE 15,120.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

PITS

SHAFTS

Tenure Type/Number	SHARE	Company Name/Surname
EPM 14880	100.00%	KANGAROO MINERALS PTY LTD
ML 20414	100.00%	DEVELOPED IRON ORE PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

HODGKINSON PROVINCE

Hodgkinson Formation / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

INTRUSIVE-RELATED (PORPHYRY-RELATED)

DETAILED OREBODY MODEL

IRON SKARN

Mineralisation Age

ORE

LATE CARBONIFEROUS

Comments

Mt Ruby started operations in 2014 controlled by Developed Iron Ore Pty Ltd. This company changed its name to Mt Ruby Mines Pty Ltd in 2015.

Web Page

<http://tablelandsmining.com.au/>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507521 MOUNT SYLVIA

OPERATING MINE

Descriptive Location: 35KM SE OF TOOWOOMBA, NEAR GATTON.

1:100 000 sheet Number and Name: 9342 HELIDON

Grid Reference: Zone 56 417343 mE 6922244 mN

Latitude -27.8219 Longitude 152.1607

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Black Duck

Boot Hill

Commodities	Size	Size Definition
DIATOMITE	MEDIUM	200 000 - 2 000 000 tonnes DIAT

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

DIATOMITE 18,919.0 tonnes

BUILDING STONE 297.0 tonnes

AGGREGATE 29,087.0 tonnes

Published Reserves/Resources

MOUNT SYLVIA DIATOMITE INFERRED MINERAL RESOURCE

600,000 Tonnes DIATOMITE

Comments/Cut Off Factor: Estimated reserves from Mount Sylvania Diatomite Pty Ltd website.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1996		Mined by Mount Sylvania Diatomite Pty Ltd

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 5954	100.00%	MOUNT SYLVIA DIATOMITE PTY LTD
ML 5955	100.00%	MOUNT SYLVIA DIATOMITE PTY LTD
ML 5956	100.00%	MOUNT SYLVIA DIATOMITE PTY LTD
ML 5957	100.00%	MOUNT SYLVIA DIATOMITE PTY LTD
ML 5966	100.00%	MOUNT SYLVIA DIATOMITE PTY LTD
ML 50225	100.00%	MOUNT SYLVIA DIATOMITE PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MAIN RANGE VOLCANIC SUBPROVINCE	Main Range Volcanics / EARLY TERTIARY to LATE TERTIARY

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	DIATOMITE DEPOSIT

Mineralisation Age

ORE	TERTIARY
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Comments

Mount Sylvania Diatomite Pty Ltd operates the Mount Sylvania (Black Duck) mine. Diatomite crops out on both sides of a spur. The product is a massive, near white, relatively pure diatomite. It has a chalky appearance and is generally soft and friable.

Products include various grades of diatomite for soil conditioning, pet litter, potting mix, oil and beverage clarifying, industrial and domestic spillage absorbants, fillers, abrasives, insecticides and stock feeds.

The diatomite is overlain by basalt flows. Mount Sylvania Diatomite has been stockpiling overburden for use as road base, road aggregate and a source of basalt boulders. The basalt fines (palagonite) are a potential source of soil conditioner/fertiliser.

In 2012 the Mount Sylvania Diatomite website states a basalt resource of greater than 15Mt of "palagonite". The unique combination of smectite clays from the palagonite and fresh basalt has produced as a very effective road base (Unbound paving material)

Web Page

www.mtsylviadiatomite.com.au

Queensland Minerals

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42562 MOUNT VETERAN

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 13 KM NE OF MT GARNET, 90KM SW OF CAIRNS.

1:100 000 sheet Number and Name: 7962 RAVENSHOE

Grid Reference: Zone 55 305114 mE 8056669 mN

Latitude -17.5679 Longitude 145.1638

Date Recorded: 15/December/2015

Other Names for Deposit / Mine

Mount Fraser
Frazers
Summer Hills

Commodities

TIN

Size

MEDIUM

Size Definition

1 000 - 100 000 tonnes SN

Production Details

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
BR 10173	2012	MGT RESOURCES LIMITED	MGT RESOURCES PROSPECTUS	REPORT TO THE AUSTRALIAN STOCK EXCHANGE. 15 OCTOBER 2012, MGT RESOURCES LIMITED

Major Mining Related Events

Year Commenced	Year Completed	Comments
1906	to 1907	
1922	to 1922	

Mining Operations

OPEN CUT MINING
SHAFTS

Comments

Old workings now part of the open cut.

Tenure Type/Number

SHARE	Company Name/Surname
ML 4349 100.00%	MGT MINING LIMITED
ML 20547 100.00%	MGT MINING LIMITED

Host Rock/Cover Sequences

Structural Unit

HODGKINSON PROVINCE

Formation Name/Age

Hodgkinson Formation / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL	INTRUSIVE-RELATED (PORPHYRY-RELATED)
DETAILED OREBODY MODEL	TIN VEINS (CORNISH-TYPE)

Mineralisation Age

ORE LATE CARBONIFEROUS

Comments

The Mount Veteran mill was constructed in 1980 to treat hard-rock tin ores in the region. MGT Resources has upgraded the Mount Veteran plant to process hard rock ore at a rate of 70,000 t/a and re-commenced production from stockpiled ore in early 2013. 2013 after granting of ML20547, MGT Resources state a tin resource to support a 10 year mine life. Commissioning of stage 1 of the Mount Veteran tin Mill is complete and full production to commence by June 2013.

Web Page

<http://www.mgt.net.au/>

Queensland Minerals

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503318 MOUNT WATSON

OPERATING MINE

Descriptive Location: 24.3KM N OF MOUNT CUTHBERT MINE.

1:100 000 sheet Number and Name: 6858 ALSACE

Grid Reference: Zone 54 383586 mE 7813391 mN

Latitude -19.7717 Longitude 139.8888

Date Recorded: 30/January/2017

Other Names for Deposit / Mine

Watson
Watson Eastern Zone
Watson Western Zone
Watson Central Zone
Leichhardt

Commodities	Size	Size Definition
COPPER	MEDIUM	50 000 - 250 000 tonnes CU

Production Details

Period: 1-Jan-1966 to 31-Dec-1966		9 tonnes HARD ROCK ORE (OR REEF)
COPPER	OTHER	0.3 tonnes 3.30 percent
Period: 1-Jul-2007 to 30-Jun-2008		705,644 tonnes HARD ROCK ORE (OR REEF)
COPPER	PLATE	4,656.0 tonnes
Period: 1-Jul-2013 to 30-Jun-2016		
COPPER	METAL	5,466.0 tonnes

Published Reserves/Resources

BR 9965 Published in 2011

MOUNT WATSON OXIDE

INDICATED MINERAL RESOURCE 1,102,000 tonnes Ore @
0.90 % COPPER **FOR** 9,918 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu cutoff

BR 9965 Published in 2011

MOUNT WATSON OXIDE

INFERRED MINERAL RESOURCE 309,000 tonnes Ore @
0.80 % COPPER **FOR** 2,472 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu cutoff

BR 9965 Published in 2011

MOUNT WATSON OXIDE

MEASURED MINERAL RESOURCE 1,875,000 tonnes Ore @
1.00 % COPPER **FOR** 18,750 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu cutoff. Includes proved and probable reserves of 1.167Mt at 1.04% Cu.

BR 9965 Published in 2011

MOUNT WATSON PRIMARY

INFERRED MINERAL RESOURCE 2,150,700 tonnes Ore @
0.90 % COPPER **FOR** 19,356 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu cutoff

BR 9965 Published in 2011

MOUNT WATSON TRANSITIONAL

INDICATED MINERAL RESOURCE 1,463,000 tonnes Ore @
0.80 % COPPER **FOR** 11,704 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu cutoff

BR 9965 Published in 2011

MOUNT WATSON TRANSITIONAL

INFERRED MINERAL RESOURCE 492,000 tonnes Ore @
0.80 % COPPER **FOR** 3,936 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu cutoff

BR 9965 Published in 2011

MOUNT WATSON TRANSITIONAL

MEASURED MINERAL RESOURCE 694,000 tonnes Ore @
0.90 % COPPER **FOR** 6,246 Tonnes COPPER

Comments/Cut Off Factor: 0.5% Cu cutoff. Includes proved and probable reserves of 325,000t at 0.93% Cu.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9965	2011	CAPE LAMBERT IRON ORE LTD	DRILLING TO INCREASE MINE LIFE UNDERWAY AT LEICHHARDT COPPER PROJECT - AMENDMENT	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 15 APRIL 2011. CAPE LAMBERT IRON ORE LTD, PERTH.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Major Mining Related Events

Year Commenced	Year Completed	Comments
2007		Mining commenced in 2007. Matrix Metals will treat ore at nearby Mt Cuthbert (Leichhardt) plant.

Mining Operations

Comments

OPEN CUT MINING
PITS

Tenure Type/Number

SHARE

Company Name/Surname

ML 90154	100.00%	MALACO LEICHHARDT PTY LTD
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Host Rock/Cover Sequences

Structural Unit

KALKADOON-LEICHHARDT DOMAIN

Formation Name/Age

Surprise Creek Formation / PALAEOPROTEROZOIC to
PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL	BRECCIA-HOSTED	
DETAILED OREBODY MODEL	BRECCIATED SEDIMENT-HOSTED COPPER	
GENERAL OREBODY MODEL	RESIDUAL DEPOSIT	SUPERGENE ENRICHED

Mineralisation Age

ORE	PROTEROZOIC
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Comments

Mineralisation at Mount Watson is contained within the Surprise Creek Formation and is structurally controlled occurring along a prominent north-west fault zone in sheared and altered siltstone and carbonaceous slate.

The mineralisation is located at or near the contact between the siltstone and slate with quartzite. The dip of this mineralisation is north-east.

Mining commenced at Mount Watson in April 2007. Production of copper cathode using Mount Watson ore commenced at the Leichhardt (Mount Cuthbert) heap leach - SX/EW plant in July 2007 and the first copper was transported to Townsville in the same month.

The leaching performance of Mount Watson ore proved to be excellent. Mining of the orebody was planned to be a two-stage development with a potential mine life of 5 years.

Stage 1 reserves comprise 1.167Mt of proved and probable oxide ore at 1.04% Cu and 0.325Mt of proved and probable transitional ore at 0.93% Cu, using a 0.6% Cu cut-off.

In November 2008, Matrix Metals went into voluntary administration due to falling copper prices and debt.

Web Page

www.matrixmetals.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

481872 MOUNT WRIGHT

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 9.0KM NW OF RAVENSWOOD, 80KM SOUTH OF TOWNSVILLE.

1:100 000 sheet Number and Name: 8257 RAVENSWOOD

Grid Reference: Zone 55 482430 mE 7784035 mN

Latitude -20.0404 Longitude 146.8320

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Mother Lode
Mount Right
Mount Wright Extended
The Mother Lode

Commodities	Size	Size Definition
GOLD	MEDIUM	5 - 50 tonnes AU
SILVER	VERY SMALL	<5 tonnes AG
COPPER	VERY SMALL	<500 tonnes CU

Production Details

Period: 1-Jan-1917 to 31-Dec-1942		6,078 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	48.0 kilograms 7.50 grams per tonne
COPPER	MATTE	1.1 tonnes
Period: 1-Jul-1992 to 30-Jun-1993		104,000 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	521.6 kilograms 4.60 grams per tonne
Period: 1-Jul-2009 to 30-Jun-2016		
GOLD	FINE	16,824.9 kilograms
SILVER		5,554.7 kilograms

Published Reserves/Resources

BR 10444 Published in 2015

MOUNT WRIGHT INSITU

PROBABLE ORE RESERVE 411,000 tonnes Ore @

1.80 g/t GOLD FOR 739 Kilograms GOLD

Comments/Cut Off Factor: 2.3 g/t Au cut-off

BR 10444 Published in 2015

MOUNT WRIGHT INSITU

PROVED ORE RESERVE 1,644,000 tonnes Ore @

2.70 g/t GOLD FOR 7,195 Kilograms GOLD

Comments/Cut Off Factor: 2.3 g/t Au cut-off

BR 10444 Published in 2015

MOUNT WRIGHT STOCKPILES

PROBABLE ORE RESERVE 91,000 tonnes Ore @

2.40 g/t GOLD FOR 218 Kilograms GOLD

Comments/Cut Off Factor: 2.3 g/t Au cut-off

BR 10444 Published in 2015

MOUNT WRIGHT

INDICATED MINERAL RESOURCE 287,000 tonnes Ore @

3.30 g/t GOLD FOR 947 Kilograms GOLD

Comments/Cut Off Factor: 1.8 g/t Au cut-off

BR 10444 Published in 2015

MOUNT WRIGHT

INFERRED MINERAL RESOURCE 1,079,000 tonnes Ore @

3.10 g/t GOLD FOR 2,997 Kilograms GOLD

Comments/Cut Off Factor: 1.8 g/t Au cut-off

BR 10444 Published in 2015

MOUNT WRIGHT

MEASURED MINERAL RESOURCE 144,000 tonnes Ore @

3.90 g/t GOLD FOR 561 Kilograms GOLD

Comments/Cut Off Factor: 1.8 g/t Au cut-off

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10444	2015	RESOLUTE MINING LIMITED	A PROVEN GOLD PRODUCER > ANNUAL REPORT 2015	RESOLUTE MINING LIMITED, PERTH. HTTP://HTTP://WWW.RML.COM.AU/

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1917		1929	
1938		1942	
1992		1993	Open cut mining and block caving from adit by Carpentaria Gold Ltd. Ore mined from mineralised granite breccia.
1996		1997	Discovery of major mineralised system at 500m depth by Carpentaria Gold Ltd in December 1996.

Operating Mine Life: 2006 to 2015 Decision made to proceed with development of an underground mine accessed from a decline. Mining planned to occur in 2 stages with production from mid-2007 and an 8 year minelife.

Mining Operations	Comments
OPEN CUT MINING	
UNDERGROUND MINING METHODS	
ADITS	Adit allowed access below the open cut workings and block cave extraction of the orebody. The adit trends 338 degrees.
DECLINED SHAFTS/DRIVES	

Tenure Type/Number	SHARE	Company Name/Surname
ML 1338	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1435	100.00%	CARPENTARIA GOLD PTY. LTD.

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MACROSSAN IGNEOUS ASSOCIATION	Millaroo Granite / ORDOVICIAN to ORDOVICIAN
KENNEDY IGNEOUS ASSOCIATION	CPr-8257 / LATE CARBONIFEROUS to EARLY PERMIAN

Deposit Model

GENERAL OREBODY MODEL	INTRUSIVE-RELATED (PORPHYRY-RELATED)
DETAILED OREBODY MODEL	PORPHYRY-RELATED AURIFEROUS SUBVOLCANIC BRECCIAS AND VEINS

Mineralisation Age

ORE	LATE CARBONIFEROUS to LATE CARBONIFEROUS	Mother Lode & Main Lode. 40Ar/39Ar date on sericite alteration of ~306 Ma (Perkins & Kennedy, 1998).
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Comments

The Mother Lode deposit was first mined in 1917-1929. It consisted of disseminated sulphides and minor quartz-siderite-sulphide veins in altered and brecciated Millaroo Granite. Workings comprised 2 connected open cuts, 2 adits and a vertical shaft. The mine was reopened in 1938. Problems with the nature of the ore and a lack of available mineable ore led to the closure of the mine in 1942. Departmental drilling was carried out at Mount Wright in 1955-1956. Four diamond core holes were completed. Drilling focused on extensions of the Mother Lode. Only low-grade mineralisation averaging ~7.89g/t Au was intersected. Carpentaria Gold Pty Ltd mined the Mother Lode in 1992 and 1993 via its "Glory Hole" workings. The Mount Wright orebody is west of the Mother Lode and was discovered by Carpentaria Gold Pty Ltd in December 1996. It is a blind orebody occurring between 200 and 500 depth. It consists of gold-sulphides-sericite-siderite mineralisation hosted by brecciated and flow-banded rhyolite. The gold mineralisation at Mount Wright is associated with a Permo-Carboniferous rhyolite that intrudes the Early to Middle Ordovician Millaroo Granite in the eastern portion of the Ravenswood Batholith. The bulk of the mineralisation is hosted by altered and brecciated rhyolite with a small amount hosted by granite breccia. This mineralisation is thought to be a mineralised diatreme breccia lying above an originally volatile-charged rhyolite intrusive. Development work at Mount Wright began in June 2006. 67731t of ore @ 1.48g/t Au was mined in the 2006/07 financial year. Mount Wright began full scale production in June 2007. 474282t of ore @ 2.24g/t Au in 2007/08 (BR 8908). 547724t of ore @ 2.43g/t Au was mined in 2008/09 (BR 9413). Production from Mount Wright is included in the production from the Sarsfield open cut mine until Sarsfield stockpiles are depleted.

Web Page

<http://www.resolute-ltd.com.au/>

Queensland Minerals

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493348 MURGON

OPERATING MINE

Descriptive Location: 6 KM SOUTH-EAST OF MURGON

1:100 000 sheet Number and Name: 9245 MURGON

Grid Reference: Zone 56 397725 mE 7091975 mN

Latitude -26.2883 Longitude 151.9756

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Barambah Quarry
Moffatdale Limestone Deposit

Commodities	Size	Size Definition
LIMESTONE	MEDIUM	2 000 000 - 10 000 000 tonnes LST

Production Details

Period: 1-Jul-1954 to 30-Jun-1955		
LIMESTONE	OTHER	12.0 tonnes
Period: 1-Jul-1996 to 30-Jun-2016		
LIMESTONE	OTHER	1,574,843.4 tonnes

Published Reserves/Resources

BARAMBAH LIMESTONE QUARRY INDICATED MINERAL RESOURCE

3,000,000 Tonnes LIMESTONE

Resource from correspondence from Greg Cochrane (David Mitchell Ltd) dated 28/6/99

BR 5767 Published in 1977

BARAMBAH LIMESTONE INFERRED MINERAL RESOURCE 110,000 tonnes Ore @ 110,000 Tonnes LIMESTONE

Martin (1977) estimated reserves of 110,000t.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 5767	1977	MARTIN,J.E.	PART B - BARAMBAH LIMESTONE DEPOSITS, MURGON	GEOLOGICAL SURVEY OF QUEENSLAND, REPORT NO. 97.

Major Mining Related Events

Year Commenced	Year Completed	Comments
1954 to 1959		3 shallow pits excavated by T.R. Lowth
1996		Operated by Unimin Lime (NSW) Pty Ltd

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 50111	100.00%	SIBELCO LIME (NSW) PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
YARRAMAN SUBPROVINCE	Maronghi Creek beds / LATE DEVONIAN to EARLY CARBONIFEROUS

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age

ORE	DEVONIAN
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Comments

Massive medium grey limestone.
Unimin Australia Ltd's Murgon limestone and aggregate quarry averages some 80,000t of limestone production annually. In 2011 Unimin Australia and New Zealand adopt parent company name 'Sibelco'

Web Page

<http://www.sibelco.com.au/>

Queensland Minerals

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518220 NUBRIK NO 1

OPERATING MINE

Descriptive Location: 5.9KM EAST OF IPSWICH.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 482219 mE 6944128 mN Latitude -27.6267 Longitude 152.8198 Date Recorded: 15/December/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BRICK CLAY	MEDIUM	200 000 - 20 000 000 tonnes BKCXY

Production Details

Period: 1-Jul-1996 to 30-Jun-2010

BRICK CLAY 588,564.6 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 50115	100.00%	BOGSIDE MINING INDUSTRIES PTY LTD

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> IPSWICH BASIN	Tivoli Formation / CARNIAN to CARNIAN

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age	
ORE	MESOZOIC

Comments
Clay pit for Austral Bricks.

Web Page
www.australbrick.com.au

Queensland Minerals

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495594 NUMINBAH PERLITE

OPERATING MINE

Descriptive Location: MCPHERSON RANGE, 11 KM SOUTH-EAST OF BEECHMONT, 75KM SOUTH OF BRISBANE.

1:100 000 sheet Number and Name: 9541 MURWILLUMBAH

Grid Reference: Zone 56 524124 mE 6880239 mN Latitude -28.2033 Longitude 153.2458 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Agee

Commodities	Size	Size Definition
PERLITE	MEDIUM	200 000 - 2 000 000 tonnes PERL

Production Details

Period: 1-Jul-1993 to 30-Jun-2016

PERLITE 82,205.3 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

OPEN CUT MINING

Comments

180m long x 50m wide and cut into side of step ridge. Adit at base of cut.

ADITS

Small adit accessing perlite below open cut.

UNDERGROUND MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 5915	100.00%	X-CUT TUNNELLING PTY LTD

Host Rock/Cover Sequences

Structural Unit

LAMINGTON VOLCANIC SUBPROVINCE

Formation Name/Age

Lamington Group / EARLY TERTIARY to LATE TERTIARY

Deposit Model

GENERAL OREBODY MODEL

MAFIC VOLCANIC RELATED DEPOSIT

DETAILED OREBODY MODEL

VOLCANIC GLASS

Mineralisation Age

ORE

TERTIARY

Comments

The site has been mined periodically for around 30 years, with Australian Perlite holding the lease since the early 1980s. The perlite occurs at the margin of a rhyolite dome. Approximately 15-20 000t is kept proved ahead of mining.

The mine is currently owned by X-Cut Tunnelling Pty Ltd, which supplies perlite to Orica Chemnet's Banksmeadow plant in Sydney.

Expanded perlite is produced for filtration and the hydroponic and agricultural industries.

Web Page

Queensland Minerals

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493676 NYCHUM PERLITE

OPERATING MINE

Descriptive Location: 50KM NW OF CHILLAGOE, 145KM WEST OF CAIRNS.

1:100 000 sheet Number and Name: 7764 BELLEVUE

Grid Reference: Zone 55 213056 mE 8143076 mN

Latitude -16.7778 Longitude 144.3082

Date Recorded: 15/December/2015

Other Names for Deposit / Mine

Wrotham Perlite
Chillagoe Perlite
Wrotham Central

Commodities	Size	Size Definition
PERLITE	LARGE	>2 000 000 tonnes PERL

Production Details

Period: 1-Jul-1996 to 30-Jun-2013

PERLITE 46,319.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		
1986	to 1986	The perlite deposit was discovered by Eddie James in 1986 during a regional geochemistry survey but its presence had been noted previously by several geologists carrying out mapping in the region.		
1998		Mining commenced in 1998 with a perlite expansion plant designed and built near Mareeba.		

Mining Operations	Comments
OPEN CUT MINING	60 x 50 metres

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 20152	100.00%	MEYER	Ian Derek
ML 20369	100.00%	PERLCO PTY LIMITED	
ML 20370	100.00%	PERLCO PTY LIMITED	

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> KENNEDY IGNEOUS ASSOCIATION	Nychum Volcanics / EARLY PERMIAN to EARLY PERMIAN

Deposit Model	
DETAILED OREBODY MODEL	VOLCANIC GLASS
GENERAL OREBODY MODEL	MAFIC VOLCANIC RELATED DEPOSIT

Mineralisation Age	
ORE	EARLY PERMIAN

Comments
The perlite is fairly homogenous and formed as a crust on the rhyolite flow of the Nychum Volcanics. The perlite has a lower fusion point than most other perlite deposits in the world.

Web Page

Queensland Minerals

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493623 NYORA

OPERATING MINE

Descriptive Location: APPROX 15KM S OF KINGAROY, 140KM NW OF BRISBANE.

1:100 000 sheet Number and Name: 9244 KINGAROY

Grid Reference: Zone 56 385355 mE 7049115 mN

Latitude -26.6743 Longitude 151.8478

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Nyora 2

Nyora 4

Nyora 5

Commodities

KAOLIN / KAOLINITE

Size

MEDIUM

Size Definition

200 000 - 20 000 000 tonnes KAO

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

KAOLIN / KAOLINITE

105,431.3 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Operating Mine Life: 1992 to 2012 Mining commenced 1992 with export sales achieved in 1995.

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 5684	100.00%	SIBELCO AUSTRALIA LIMITED
ML 6621	100.00%	SIBELCO AUSTRALIA LIMITED
ML 50130	100.00%	SIBELCO AUSTRALIA LIMITED

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

TARONG BASIN

Tarong beds/k / CARNIAN to CARNIAN

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

DETAILED OREBODY MODEL

LATERITIC KAOLIN

Mineralisation Age

ORE

TERTIARY

Comments

Seventy percent of the kaolin produced from the Kingaroy kaolin deposits is used in the paper industry, mostly as coating clay. The remaining 30% is used in the paint and plastics industries.

Nyora kaolin has lower grit and higher brightness than kaolin from Winter's pit and is used as a filler grade. Nyora pit kaolin is overlain by silcrete, overlain by basalt. The kaolin is underlain by Tarong beds and coal.

This is one of several mines operated by Unimin Australia Ltd to supply kaolin for its Kingaroy processing plant. In 2011 Unimin Australia and New Zealand adopt parent company name 'Sibelco'

Web Page

<http://www.sibelco.com.au>

Queensland Minerals

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497864 O'DEA EXTENDED

OPERATING MINE

Descriptive Location: 30KM NE STANTHORPE, 130KM SW OF BRISBANE.

1:100 000 sheet Number and Name: 9341 WARWICK

Grid Reference: Zone 56 412674 mE 6858574 mN

Latitude -28.3962 Longitude 152.1086

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Elbow Valley
Warwick
O'Dea

Commodities	Size	Size Definition
LIMESTONE	SMALL	100 000 - 2 000 000 tonnes LST
MARBLE	SMALL	10 000 - 100 000 tonnes MARB
BUILDING STONE	VERY SMALL	<100 000 tonnes BLST

Production Details

Period: 1-Jul-1998 to 30-Jun-2016

LIMESTONE	CRUSHED ROCK	1,533,590.0 tonnes
MARBLE		14,944.0 tonnes
LIMESTONE	AGGREGATE / DECORATIVE AGGREGATE	220,117.0 tonnes

Published Reserves/Resources

BR 6096 Published in 1999

INFERRED MINERAL RESOURCE

850,000 Tonnes LIMESTONE

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 6096	1999	GREG COCHRANE		CORRESPONDANCE FROM DAVID MITCHELL LIMITED ON THE 28/06/1999.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 50083	100.00%	SIBELCO LIME (NSW) PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
SILVERWOOD PROVINCE	Rosenthal Creek Formation / DEVONIAN to DEVONIAN

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age

ORE DEVONIAN

Comments

In 2011 Unimin Australia and New Zealand adopt parent company name 'Sibelco'

Web Page

<http://www.sibelco.com.au>

Queensland Minerals

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44326 OAKLEIGH LIME

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 12.6 KM NE OF TEXAS, WEST OF STANTHORPE, 220KM SW OF BRISBANE.

1:100 000 sheet Number and Name: 9140 TEXAS

Grid Reference: Zone 56 331555 mE 6814700 mN

Latitude -28.7842 Longitude 151.2743

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Limestone Hills

Commodities	Size	Size Definition
LIMESTONE	LARGE	>10 000 000 tonnes LST

Production Details

Period: 1-Jul-2012 to 30-Jun-2016

LIMESTONE CRUSHED ROCK 754.4 tonnes

Published Reserves/Resources

BR 2818 Published in 1973

INFERRED MINERAL RESOURCE

2,400,000 Tonnes Per Vertical Metre LIMESTONE

3/06/1999, Mining to commence in near future.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 2818	1973	SIEMON, J.E.	LIMESTONE RESOURCES OF THE WARWICK-TEXAS AREA.	GEOLOGICAL SURVEY OF QUEENSLAND, REPORT 80.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 50145	100.00%	MUNRO	Charles Alexander

Host Rock/Cover Sequences

Structural Unit

TEXAS SUBPROVINCE

Formation Name/Age

Texas beds / EARLY CARBONIFEROUS to EARLY CARBONIFEROUS

Deposit Model

GENERAL OREBODY MODEL SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL LIMESTONE DEPOSIT

Mineralisation Age

ORE

LATE DEVONIAN to EARLY
CARBONIFEROUS

Limestone.

Comments

Four limestone bodies crop out along the northern flank of a fold structure between Orana and Tooliambi. The limestone contains some fossil fragments and irregular calcite and siderite veins. The bulk of the material is homogenous.

Web Page

Queensland Minerals

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497094 OLDMAN SOUTH

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 14 KM EAST-SOUTH-EAST OF KUNWARARA, 135KM NW OF GLADSTONE.

1:100 000 sheet Number and Name: 8952 PRINCHESTER

Grid Reference: Zone 56 219980 mE 7459730 mN Latitude -22.9470 Longitude 150.2694 Date Recorded: 9/December/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
MAGNESITE	LARGE	>10 000 000 tonnes MS

Production Details

Published Reserves/Resources

BR 9837 Published in 2004

OLDMAN SOUTH
MEASURED MINERAL RESOURCE 38,400,000 tonnes Ore @
11,600,000 Tonnes MAGNESITE

Includes probable reserves of 23.3Mt for 7.0Mt of magnesite.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 9837	2004	AUSTRALIAN MAGNESIUM CORPORATION LIMITED	AUSTRALIAN MAGNESIUM CORPORATION LIMITED ANNUAL REPORT JUNE 2004	AUSTRALIAN MAGNESIUM CORPORATION LIMITED

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
MDL 344	40.00%	QMC (KUNWARARA) PTY LIMITED
MDL 344	10.00%	QMC REFMAG PTY LTD
MDL 344	50.00%	QMCH PTY LTD
ML 5870	40.00%	QMC (KUNWARARA) PTY LIMITED
ML 5870	10.00%	QMC REFMAG PTY LTD
ML 5870	50.00%	QMCH PTY LTD
ML 80125	40.00%	QMC (KUNWARARA) PTY LIMITED
ML 80125	10.00%	QMC REFMAG PTY LTD
ML 80125	50.00%	QMCH PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
HERBERT CREEK BASIN	Kunwarara Magnesite / TERTIARY to TERTIARY

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	NODULAR MAGNESITE

Mineralisation Age

ORE	TERTIARY
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Comments

This is a resource extension of the Kunwarara magnesite deposit .
Magnesite has formed within river gravels and sands of a north-flowing palaeostream. Magnesite has been deposited from magnesium-rich groundwaters derived from the weathering of adjacent serpentinite basement and has grown to form accretionary nodules.

Web Page

www.qmag.com.au; www.am-technologies.com.au

Queensland Minerals

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38470 OOTANN

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 11KM SSW OF ALMADEN, 125KM WSW OF CAIRNS.

1:100 000 sheet Number and Name: 7863 CHILLAGOE

Grid Reference: Zone 55 249516 mE 8070765 mN

Latitude -17.4350 Longitude 144.6418

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Crotty Lime

Dml Lime Works

Commodities

LIMESTONE

Size

LARGE

Size Definition

>10 000 000 tonnes LST

LIME

SMALL

10 000 - 100 000 tonnes LIME

AGGREGATE

ROAD PAVEMENT GRAVEL

Production Details

Period: 1-Jan-1972 to 31-Dec-1975 17,896 tonnes HARD ROCK ORE (OR REEF)

BURNT LIME 32,575.0 tonnes

PULVERISED LIME 470.0 tonnes

Period: 1-Jul-1996 to 30-Jun-2000

LIME 91,023.0 tonnes

AGGREGATE 3,178.0 tonnes

LIMESTONE CRUSHED ROCK 8,169.0 tonnes

Period: 1-Jul-1997 to 30-Jun-2000

AGGREGATE 907.0 tonnes

Period: 1-Jul-2000 to 30-Jun-2001

AGGREGATE 372.0 tonnes

LIMESTONE CRUSHED ROCK 30,322.0 tonnes

Period: 1-Jul-2002 to 30-Jun-2003

LIMESTONE CRUSHED ROCK 7,142.0 tonnes

ROAD PAVEMENT GRAVEL 4,238.0 tonnes

Period: 1-Jul-2003 to 30-Jun-2016

LIMESTONE OTHER 42,356.4 tonnes

Published Reserves/Resources

OOTANN

INFERRED MINERAL RESOURCE 35,000,000 tonnes Ore @
35,000,000 Tonnes LIMESTONE

Sourced from Phoenix Lime website - www.phoenixlime.com.au (in 2010)

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1927	to 1981	Limestone mined to produce burnt lime.
1996	to 2001	Mined by David Mitchell Pty Ltd with most burnt lime supplying gold treatment operations at Kidston.

Mining Operations

Comments

OPEN CUT MINING

SURFACE MINING METHODS

PITS

Tenure Type/Number	SHARE	Company Name/Surname
ML 4788	100.00%	PHOENIX LIME PTY LTD
ML 4789	100.00%	PHOENIX LIME PTY LTD
ML 5079	100.00%	PHOENIX LIME PTY LTD
ML 5372	100.00%	PHOENIX LIME PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

HODGKINSON PROVINCE

Chillagoe Formation / EARLY SILURIAN to EARLY DEVONIAN

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Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

LIMESTONE DEPOSIT

Mineralisation Age

ORE

SILURIAN

Material mined is a medium to coarse grained marble ranging to limestone.

Comments

This is part of a 4km long by 2km wide belt of massive, partly recrystallised limestone. The limestone is mined selectively to avoid mudstone lenses and fractured infill. It is held by Phoenix Lime Pty Ltd (a wholly owned subsidiary of Metallica Minerals).

Phoenix Lime Pty Ltd is investigating the construction of a new lime kiln at the Ootann operation for the life span of the NORNICO nickel project. A comprehensive drilling program has been completed to establish a 10 year plus production plan.

Web Page

www.metallicaminerals.com.au

Queensland Minerals

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493678 OSBORNE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 32 KM ESE OF CHATSWORTH HS, 195KM SE OF MT ISA.

1:100 000 sheet Number and Name: 7053 TOOLEBUC

Grid Reference: Zone 54 457100 mE 7558086 mN

Latitude -22.0815 Longitude 140.5842

Date Recorded: 18/January/2017

Other Names for Deposit / Mine

Osborne Project
Trough Tank

Commodities	Size	Size Definition
COPPER	LARGE	250 000 - 2 000 000 tonnes CU
GOLD	MEDIUM	5 - 50 tonnes AU
MAGNETITE	LARGE	>1 000 000 tonnes MT

Production Details

Period: 1-Jul-1995 to 30-Jun-1999		6,218,000 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	4,045.4 kilograms
COPPER	METAL	157,590.0 tonnes
Period: 1-Jul-1999 to 30-Jun-2001		
GOLD	BULLION	2,393.9 kilograms
COPPER	METAL	93,745.0 tonnes
Period: 1-Jul-2001 to 30-Jun-2003		3,676,000 tonnes HARD ROCK ORE (OR REEF)
COPPER	METAL	93,256.0 tonnes
GOLD	BULLION	6,616.5 kilograms
Period: 1-Jul-2003 to 30-Jun-2016		
SILVER		77.2 kilograms
COPPER	METAL	275,387.0 tonnes
GOLD	METAL	6,679.4 kilograms

Queensland Minerals

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Published Reserves/Resources

BR 9984 Published in 2012

OSBORNE OPEN CUT

INDICATED MINERAL RESOURCE 200,000 tonnes Ore @

0.70 % COPPER **FOR** 1,400 Tonnes COPPER

0.60 g/t GOLD **FOR** 120 Kilograms GOLD

Comments/Cut Off Factor: 0.5% equiv Cu cut-off

BR 9984 Published in 2012

OSBORNE OPEN CUT

INFERRED MINERAL RESOURCE 100,000 tonnes Ore @

0.60 % COPPER **FOR** 600 Tonnes COPPER

0.60 g/t GOLD **FOR** 60 Kilograms GOLD

Comments/Cut Off Factor: 0.5% equiv Cu cut-off

BR 9984 Published in 2012

OSBORNE OPEN CUT

MEASURED MINERAL RESOURCE 2,200,000 tonnes Ore @

0.70 % COPPER **FOR** 15,400 Tonnes COPPER

0.60 g/t GOLD **FOR** 1,320 Kilograms GOLD

Comments/Cut Off Factor: 0.5% equiv Cu cut-off

These figures have not been updated since Chinova took over this tenement. The resource will be mined out by August 2015.

BR 9984 Published in 2012

OSBORNE UNDERGROUND

INDICATED MINERAL RESOURCE 800,000 tonnes Ore @

1.20 % COPPER **FOR** 9,600 Tonnes COPPER

0.90 g/t GOLD **FOR** 720 Kilograms GOLD

Comments/Cut Off Factor: 1.2% equiv Cu cut-off

BR 9984 Published in 2012

OSBORNE UNDERGROUND

INFERRED MINERAL RESOURCE 500,000 tonnes Ore @

1.20 % COPPER **FOR** 6,000 Tonnes COPPER

0.90 g/t GOLD **FOR** 450 Kilograms GOLD

Comments/Cut Off Factor: 1.2% equiv Cu cut-off

BR 9984 Published in 2012

OSBORNE UNDERGROUND

MEASURED MINERAL RESOURCE 2,100,000 tonnes Ore @

1.50 % COPPER **FOR** 31,500 Tonnes COPPER

0.90 g/t GOLD **FOR** 1,890 Kilograms GOLD

Comments/Cut Off Factor: 1.2% equiv Cu cut-off

BR 8653 Published in 2008

TAILINGS

INFERRED MINERAL RESOURCE 15,550,000 tonnes Ore @

35.00 % MAGNETITE **FOR** 5,442,500 Tonnes MAGNETITE

Comments/Cut Off Factor: Tailings grade 35-56% magnetite

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 8653	2008	COE, R. & EVANS, C.	BARRICK (OSBORNE) PTY LIMITED MAGNETITE PROJECT. INITIAL ADVICE STATEMENT FOR DEPARTMENT OF INFRASTRUCTURE AND PLANNING.	UNPUBLISHED REPORT, BARRICK (OSBORNE) PTY LIMITED, TOWNSVILLE.
BR 9984	2012	SRK CONSULTING	OSBORNE NI 43-101 TECHNICAL REPORT FOR OSBORNE COPPER-GOLD PROJECT LOCATED IN NORTHWEST QUEENSLAND REGION OF AUSTRALIA	HTTP://WWW.IVANHOEAUSTRALIA.COM/S/TECHNICALREPORTS.ASP, 2 NOVEMBER 2012. IVANHOE AUSTRALIA LIMITED, MELBOURNE.

Queensland Minerals

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Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1974	to	1974	Newmont first located a magnetic high geophysical feature.
1985	to	1988	CSR Limited entered into a joint venture with Shell Company of Australia.
1988	to	1993	Placer Exploration Ltd acquired the CSR Limited Mineral Exploration and Development Group. By mid 1993 Placer had undertaken >100km of exploration drilling and spent >\$15 million on resource evaluation.
1989	to	1989	Discovery (Placer Pacific Exploration Limited): 32m @ 5.8% Cu & 3.2g/t Au.
1994	to	1994	Development of the project commenced following feasibility study. Open pit mining commenced in August 1994, production commenced 1995.
1995	to	1995	Underground mining commenced in August 1995.
1996	to	1996	Open pit mining was completed in February 1996 and continued to supplement the mill from stockpiles. Underground production began in April 1996.
2004	to	2009	Projected mine life of 5 years underground. Mine acquired by Barrick Gold Corporation in March 2006.
2010	to	2010	Ivanhoe acquired Osborne and developed access to underground Kulthor through Osborne pit
2011			Refurbishment of Osborne plant facilities and underground access to Kulthor, Mining to commence in Q2 2012

Mining Operations

OPEN CUT MINING

Comments

Open cut 140m deep.

UNDERGROUND MINING METHODS

Panel stoping used in the upper part of the orebody and uphole bench stoping used at depth.

DECLINED SHAFTS/DRIVES

5m by 5.5m decline. Portal located in the wall of the open cut 80m below surface. The main decline has been developed to a depth of 880m below surface.

SHAFTS

Hoisting shaft 700m deep used to raise ore after primary crushing underground.

STOPING

Tenure Type/Number	SHARE	Company Name/Surname
ML 90040	100.00%	CHINOVA RESOURCES OSBORNE PTY LTD
ML 90158	100.00%	CHINOVA RESOURCES OSBORNE PTY LTD

Host Rock/Cover Sequences

Structural Unit

KURIDALA-SELWYN DOMAIN

Formation Name/Age

Starcross Formation / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

HYDROTHERMAL VEINS/PIPE/STOCKWORK

DETAILED OREBODY MODEL

IRON-OXIDE CU-AU (-U-REE)

Mineralisation Age

ORE

MESOPROTEROZOIC

Ore formation at 1595Ma fro U-Pb and Re-Os age dates. Closure temperature for mineralisation was 700 degrees centegrade.

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Comments

Osborne is a blind deposit beneath 20 to 40 m of Mesozoic sediments. Much of the mineralisation is hosted by and overprints banded quartz-magnetite-apatite ironstones developed within the host sequence of metamorphic, igneous and metasomatic rocks. Mineralisation is zoned from hematite to pyrrhotite bearing, and sulphides are commonly accompanied by a late generation of magnetite. Osborne is run by Barrick Gold Corporation after it acquired Placer Dome in March 2006. In 2010, Ivanhoe Australia Limited announced that it had reached an agreement to acquire the Osborne mine, processing plant and tenements from Barrick. Proposed production is ~770,000 tpa of magnetite concentrate (66-69% Fe). Osborne ore contains 30-55% magnetite. Osborne also has 15.55Mt of tailings grading 28-45% magnetite ready for reprocessing and an unqualified unmineralised ironstone resource. Osborne has letters of intent to purchase the magnetite from a range of organisations, including steel mills in Japan and China. Magnetite will also be supplied for coal washing. An additional water allocation is required from the Great Artesian Basin. In April 2008, the Coordinator-General declared the Osborne Magnetite Project a "significant project for which an Environmental Impact Statement is not required". Barrick proposes to recover magnetite as a by-product from Cu-Au ore mined at Osborne. 2012: All major refurbishment work at Osborne processing facility completed in DEC11. Underground development at Osborne & Kulthor is on schedule for Q1 2012. Sufficient ore is stockpiled (Feb 2012) to sustain mill throughput on production commencement. Chinova Resources Limited took over the operation of the mine. The mine is expected to cease operations in about August 2015, depleting all measured resources by then. The processing of ore from Starra 276 was finalised in August 2014.

Web Page

www.chinovaresources.com/

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

490997 PAJINGO - VERA-NANCY

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 72 KM SOUTH OF CHARTERS TOWERS, 38.6KM NE OF PAJINGO HOMESTEAD

1:100 000 sheet Number and Name: 8156 PAJINGO

Grid Reference: Zone 55 444065 mE 7727770 mN

Latitude -20.5480 Longitude 146.4634

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Vera-Nancy
 Vera
 Nancy
 Vera North
 Nancy North
 Vera South
 Venue
 Anne
 Zed
 Jandam
 Moonstar
 Sonia
 Bunty
 Bell Vein
 Pajingo Gold Mine - Vera-Nancy
 Anne West
 Jandam East

Commodities	Size	Size Definition
GOLD	MEDIUM	5 - 50 tonnes AU
SILVER	SMALL	5 - 500 tonnes AG

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

GOLD FINE 75,125.0 kilograms
 SILVER 69,964.3 kilograms

Published Reserves/Resources

BR 10462 Published in 2016

PAJINGO - OPEN PIT

INDICATED MINERAL RESOURCE 60,000 tonnes Ore @
 4.34 g/t GOLD **FOR** 260 Kilograms GOLD

Comments/Cut Off Factor: 0.75 g/t open pit

Incorporates Vera North Upper and Venue orebodies.

BR 10462 Published in 2016

PAJINGO - OPEN PIT

INFERRED MINERAL RESOURCE 90,000 tonnes Ore @
 2.30 g/t GOLD **FOR** 207 Kilograms GOLD

Comments/Cut Off Factor: 0.75 g/t open pit

Incorporates Vera North Upper and Venue orebodies.

BR 10462 Published in 2016

PAJINGO - UNDERGROUND

INDICATED MINERAL RESOURCE 630,000 tonnes Ore @
 7.91 g/t GOLD **FOR** 4,983 Kilograms GOLD

Comments/Cut Off Factor: 2.5g/t for UG reserves

Resource fig incorporates the Faith, Jandam, Sonia, Veracity, Zed East and Zed West orebodies. It excludes the Cindy orebody (subtracted from quoted fig) Includes probable reserves 0.39Mt @ 5.60g/t Au

BR 10462 Published in 2016

PAJINGO - UNDERGROUND

INFERRED MINERAL RESOURCE 1,670,000 tonnes Ore @
 6.82 g/t GOLD **FOR** 11,389 Kilograms GOLD

Comments/Cut Off Factor: 2.5 g/t for UG reserves

Resource fig incorporates the Faith, Jandam, Sonia, Veracity, Zed East and Zed West orebodies. It excludes the Cindy orebody (subtracted from quoted fig).

BR 10462 Published in 2016

PAJINGO - UNDERGROUND

MEASURED MINERAL RESOURCE 90,000 tonnes Ore @
 11.54 g/t GOLD **FOR** 1,038 Kilograms GOLD

Comments/Cut Off Factor: 2.5g/t for UG reserves

Resource fig incorporates the Faith, Sonia and Zed West orebodies; Includes proved reserves 0.17 Mt @ 6.82g/t Au

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10462	2016	EVOLUTION MINING LIMITED	ASX ANNOUNCEMENT: ANNUAL MINERAL RESOURCES AND ORE RESERVES STATEMENT	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 21 APRIL 2016. EVOLUTION MINING LIMITED, MELBOURNE.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Major Mining Related Events

Year Commenced	Year Completed	Comments
1995	to 1996	Vera North and Nancy orebodies discovered in 1995. A decline was constructed from the Cindy pit to Nancy and then along strike to Vera North in 1996. Second decline from Vera open cut connected to first. Discovery cost \$21.50 per ounce.
Operating Mine Life: 1995 to 2008 Mining commenced in 1995. As at June 2004, anticipated mine life was until 2008.		
1997	to 1997	Plant refurbished and recommissioned. Production commenced. Normandy Pajingo Pty Ltd formed as management company for Pajingo operations.
1998	to 1998	Discovery of Vera South orebody.
1999	to 2001	Major expansion of mill from 216 000tpa to 582 000tpa.
2002		Following takeover of Normandy Mining Ltd, project became fully owned by Newmont Mining Corporation. Mill throughput improved to 690 000tpa.
2010		Conquest takeover of North Queensland Metals in Oct 2010. Conquest assets incorporated in Evolution Mining in 2011

Mining Operations		Comments
OPEN CUT MINING		
STOPING		Bench mining has been used exclusively to develop to the bottom of the orebodies. Mining up has used the decline access.
UNDERGROUND MINING METHODS		Declines from Cindy and Vera open cuts and from Vera South.
Tenure Type/Number	SHARE	Company Name/Surname
ML 1575	40.00%	NQM GOLD 2 PTY LTD
ML 1575	60.00%	CQT GOLD AUSTRALIA PTY LTD
ML 10215	60.00%	NQM GOLD 2 PTY LTD
ML 10215	40.00%	CQT GOLD AUSTRALIA PTY LTD
ML 10246	60.00%	NQM GOLD 2 PTY LTD
ML 10246	40.00%	CQT GOLD AUSTRALIA PTY LTD
Host Rock/Cover Sequences		Formation Name/Age
<i>Structural Unit</i>		
DRUMMOND BASIN		Vera-Nancy Volcanics / LATE DEVONIAN to EARLY CARBONIFEROUS
Deposit Model		
GENERAL OREBODY MODEL		EPITHERMAL VEINS/PIPE/STOCKWORK
DETAILED OREBODY MODEL		EPITHERMAL PRECIOUS METAL
		LOW SULPHIDATION EPITHERMAL
Mineralisation Age		
ORE		CARBONIFEROUS
		K-Ar dating of alteration sericite from the nearby Scott Lode gave 342+/-5Ma (BR 6100), slightly younger than the host rocks.

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Comments

Exploration has defined extensions to the mineralisation at Anne, Zed, Sonia, Bunty and Moonstar.

The regional geology of the Pajingo area is poorly understood due to limited work and extensive cover. Vera-Nancy is hosted by a major structure striking south-east and dipping steeply to the south-west.

Fine gold and electrum occur in quartz and chalcedony veins enclosed by a halo of silicification and brecciation that is commonly strongly pyritic.

The Vera-Nancy structure hosts a number of orebodies. Mining has been carried out on the Nancy North, Nancy, Vera North, Venue, Vera, Vera South and Jandam orebodies.

The mine switched from contractor mining to owner mining in the December 2008 quarter.

North Queensland Metals Limited (60%) and Heemskirk Consolidated (40%) executed a Sale Purchase Agreement for the Pajingo Gold Mine and took control of the mine from 30 December 2007. Underground mining recommenced on 7 January 2008.

The first gold pour of 119kg of dore (~50% Au/50% Ag) was completed under the new operators at the end of January 2008. Upgraded resource figures were announced in March 2008, based on the Zed, Sonia and Bunty orebodies and the Bell Vein.

In the second quarter of July 2009, gold production was constrained by increased dilution on the current sequence of underground stopes.

This is being addressed by the introduction of more appropriate equipment and revised mining methods.

Oxide ore from NQM's Dotswood mine was introduced in the second quarter of 2009 to test the ability of the processing plant to handle higher throughput. Up to 200,000tpa could be brought in from new sources while maintaining annual throughput of >500,000t.

Sept 2010 Conquest Mining Ltd announced acquiring 40% interest in the Pajingo JV from Heemskirk Cons Ltd. (NQM, a subsidiary of Conquest holds 60% and manages the Pajingo operations)

Sept 2010 exploration on underground drilling on "Faith" and "Zed" orebodies continues to deliver impressive results: Average width and grade of Faith development channel samples to date is 2.3m @ 16.8g/t Au (BR9609).

Sept 2010: Start of open pit work delayed by environmental licence approval but is now ready to commence in mid-October. The pit is designed to extract a Probable Reserve of 118000t @ 2.75g/t for 10400oz Au (BR9609).

Drilling in 2010 confirmed the eastern extension of the current mining area at Jandam along strike. Potential also exists for the development of a new orebody below and to the west of the mined out Anne orebody.

Evolution sold Pajingo in August 2016 to Minjar Gold Pty Limited, including the surrounding tenements.

Web Page

www.nqm.com.au (old); www.evolutionmining.com.au (old) <http://www.minjargold.com.au/>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

588115 PHOENIX

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: ~3KM W OF CRACOW, ~175KM SE OF GLADSTONE.

1:100 000 sheet Number and Name: 8947 CRACOW

Grid Reference: Zone 56 224580 mE 7200400 mN Latitude -25.2875 Longitude 150.2649 Date Recorded: 15/December/2015

Other Names for Deposit / Mine

Cracow Gold Mine Group

Commodities	Size	Size Definition
GOLD	SMALL	0.5 - 5 tonnes AU

Production Details

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
BR 10019	2012	EVOLUTION MINING LIMITED	EVOLUTION MINING MINERAL RESOURCE STATEMENT - JUNE 2012	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 25 SEPTEMBER 2012. EVOLUTION MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

UNDERGROUND MINING METHODS

Tenure Type/Number

SHARE

Company Name/Surname

Currently untenured mineral deposit

Host Rock/Cover Sequences

Structural Unit

AUBURN SUBPROVINCE

Formation Name/Age

Camboon Volcanics / LATE CARBONIFEROUS to EARLY PERMIAN

Deposit Model

Mineralisation Age

ORE

EARLY PERMIAN

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

493683 PHOSPHATE HILL

OPERATING MINE

Descriptive Location: 51KM ESE OF DAJARRA, 138 KM SSE OF MOUNT ISA.

1:100 000 sheet Number and Name: 6854 DAJARRA

Grid Reference: Zone 54 392720 mE 7578666 mN

Latitude -21.8928 Longitude 139.9615

Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Duchess

Commodities	Size	Size Definition
PHOSPHATE ROCK (PHOSPHORITE)	MEDIUM	200 000 - 200 000 000 tonnes PHR
GYPSUM	SMALL	5 000 - 5 000 000 tonnes GYP

Production Details

Period: 1-Jan-1975 to 31-Dec-1978	
PHOSPHATE ROCK (PHOSPHORITE)	1,100,000.0 tonnes
Period: 1-Jul-1981 to 30-Jun-1982	
PHOSPHATE ROCK (PHOSPHORITE)	200,000.0 tonnes
Period: 1-Jul-2000 to 30-Jun-2016	
PHOSPHATE ROCK (PHOSPHORITE)	27,040,073.7 tonnes

Published Reserves/Resources

BR 7966 Published in 2006

PHOSPHATE HILL OPEN CUT

INDICATED MINERAL RESOURCE 26,000,000 tonnes Ore @
23.00 % PHOSPHATE **FOR** 5,980,000 Tonnes PHOSPHATE

BR 7966 Published in 2006

PHOSPHATE HILL OPEN CUT

INFERRED MINERAL RESOURCE 40,000,000 tonnes Ore @
20.10 % PHOSPHATE **FOR** 8,040,000 Tonnes PHOSPHATE

BR 7966 Published in 2006

PHOSPHATE HILL OPEN CUT

MEASURED MINERAL RESOURCE 61,000,000 tonnes Ore @
25.40 % PHOSPHATE **FOR** 15,494,000 Tonnes PHOSPHATE

Proved and probable reserves are 82Mt at 24.4% P2O5.

BR 7966 Published in 2006

PHOSPHATE HILL STOCKPILE

MEASURED MINERAL RESOURCE 600,000 tonnes Ore @
22.30 % PHOSPHATE **FOR** 133,800 Tonnes PHOSPHATE

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 7966	2006	BHP BILLITON PLC	BHP BILLITON PLC, ANNUAL REPORT 2006.	BHP BILLITON PLC, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
1966	to 1966	Phosphate deposits discovered by Broken Hill South and mined unsuccessfully.
1975	to 1978	First phase of phosphate mining by Queensland Phosphate Ltd (a WMC Ltd subsidiary).
1980	to 1983	WMC acquired the deposits through its acquisition of Broken Hill South. Mining resumed in 1981 but ceased in 1983 due to economic reasons.
1996	to 1998	Queensland Phosphate Ltd changed its name to WMC Fertilizers and announced decision to construct a major fertiliser project at Phosphate Hill. Construction commenced in 1997.
1999	to 2006	First di-ammonium fertiliser produced in December 1999. Ownership passed to BHP Billiton upon its acquisition of WMC.
2006		Incitec Pivot purchased Southern Cross Fertilizers (and the Phosphate Hill operation) from BHP Billiton in August 2006.

Mining Operations	Comments
OPEN CUT MINING	

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Tenure Type/Number	SHARE	Company Name/Surname
ML 5543	100.00%	SOUTHERN CROSS FERTILISERS PTY LTD
ML 5551	100.00%	SOUTHERN CROSS FERTILISERS PTY LTD

Host Rock/Cover Sequences

Structural Unit

GEORGINA BASIN

Formation Name/Age

Monastery Creek Phosphorite Member / MIDDLE CAMBRIAN to
MIDDLE CAMBRIAN

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

UPWELLING TYPE PHOSPHATE

Mineralisation Age

ORE

MIDDLE CAMBRIAN

Phosphorite lithologies are mainly detrital in character; consisting of sand-sized, peloidal and bioclastic, carbonate fluorapatite (francolite) framework grains within a siliceous or calcareous matrix, to form phosphatic grainstone or packstone.

Comments

Phosphatic marine sediment occurs in the Middle Cambrian and Middle Ordovician rocks of the Georgina Basin. The Middle Cambrian rocks host significant resources of phosphate rock, including that at Phosphate Hill.

Phosphate rock is mined and combined with sulphuric acid (supplied from Mount Isa) to produce phosphoric acid (with gypsum as a byproduct). Ammonia (produced from natural gas) is added to the phosphoric acid to form ammonium phosphate fertilisers.

Phosphate Hill is run by Southern Cross Fertilizers Pty Ltd, which was initially owned by WMC. Ownership passed to BHP Billiton when it acquired WMC. Incitec Pivot purchased Southern Cross Fertilizers in August 2006.

2012 (Southern Cross Fertilizers website) At this location there are two billion tonnes of phosphate rock including mining reserves of 103 million tonnes with an average grade of more than 23 per cent P₂O₅. Some 2.2 million tonnes rock is mined per year.

Web Page

www.pivot.com.au; www.chemicals-technology.com/projects/phosphatehill/; www.chemlink.com.au/phosphat.htm

Queensland Minerals

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493647 PORT ALMA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: PORT ALMA, 9 KM NORTH-EAST OF BAJOOL, 60KM NW OF GLADSTONE.

1:100 000 sheet Number and Name: 9050 BAJOOL

Grid Reference: Zone 56 267756 mE 7386990 mN

Latitude -23.6109 Longitude 150.7238

Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Abc

Cheetham Salt Port Alma

Cheetham Salt

Commodities

BRINE SALT

Size

Size Definition

Production Details

Period: 1-Jul-1997 to 30-Jun-2016

BRINE SALT

2,836,866.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

SURFACE MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
ML 5783	100.00%	CHEETHAM SALT LIMITED
ML 5784	100.00%	CHEETHAM SALT LIMITED
ML 5787	100.00%	CHEETHAM SALT LIMITED
ML 5790	100.00%	CHEETHAM SALT LIMITED
ML 5796	100.00%	CHEETHAM SALT LIMITED
ML 5798	100.00%	CHEETHAM SALT LIMITED

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

Deposit Model

Mineralisation Age

Comments

Sea water is pumped into ponds and gravity fed through evaporation pads to concentrate salt. Saline borewater is used sparingly to adjust the salinity. Salt produced for ICI is shipped to Botany Bay in NSW for the manufacture of caustic soda and chlorine.

Cheetham Salt holds all the mining leases in the Port Alma area for salt production and operates an extensive series of evaporative salt ponds covering approximately 100 square kilometres.

Salt is also supplied to Orica Australia Pty Ltd in Gladstone for the production of chlorine.

Web Page

<http://www.cheethamsalt.com.au>

Queensland Minerals

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493995 QUEENSLAND BENTONITE

OPERATING MINE

Descriptive Location: 36KM NW OF MILES AND 6KM WEST OF GURULMUNDI, 320 KM WEST OF BRISBANE.

1:100 000 sheet Number and Name: 8845 WANDOAN

Grid Reference: Zone 55 798945 mE 7075964 mN Latitude -26.4051 Longitude 149.9966 Date Recorded: 15/December/2015

Other Names for Deposit / Mine

Imto401

Commodities	Size	Size Definition
BENTONITE	MEDIUM	200 000 - 20 000 000 tonnes BENT

Production Details

Period: 1-Jul-1996 to 30-Jun-2015

BENTONITE 192,729.4 tonnes

Published Reserves/Resources

PROBABLE ORE RESERVE

10,000,000 Tonnes BENTONITE

Comments/Cut Off Factor: Estimate only. D Carmichael, personal comment, 2000.

Pers Comm D. Carmichael, 2000

PROVED ORE RESERVE

2,000,000 Tonnes BENTONITE

Comments/Cut Off Factor: Estimate only. D Carmichael, personal comment, 2000.

Pers Comm D. Carmichael, 2000.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 5909	100.00%	SIBELCO AUSTRALIA LIMITED

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

SURAT BASIN

Orallo Formation / EARLY CRETACEOUS to EARLY CRETACEOUS

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE

JURASSIC

Comments

Sodium bentonite is sold into a broad range of domestic and international markets that include exploration drilling, construction/civil, foundry, cat litter, stock feed, dam sealing, wine clarification plus other niche markets.

(2012) Amcol Australia Pty Ltd operates the Queensland Bentonite mine, which produces a high swelling sodium bentonite through its 80 000tpa processing plant.

Web Page

<http://www.amcolminerals.com.au/>

Queensland Minerals

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507795 RIVER OF GOLD

OPERATING MINE

Descriptive Location: ADJACENT TO PENINSULA DEVELOPMENT ROAD NEAR REEDY SAINT GEORGE 2ND CROSSING, S OF MAITLAND DC

1:100 000 sheet Number and Name: 7865 SOUTH PALMER RIVER

Grid Reference: Zone 55 255062 mE 8193053 mN

Latitude -16.3311 Longitude 144.7074

Date Recorded: 13/February/2017

Other Names for Deposit / Mine

River Of Gold Slate Mines

Commodities	Size	Size Definition
BUILDING STONE	VERY SMALL	<100 000 tonnes BLST
SLATE	VERY SMALL	<10 000 tonnes ST
SANDSTONE	VERY SMALL	<10 000 tonnes SST

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

SLATE 1,036.8 tonnes

SANDSTONE 1,690.5 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 20295	100.00%	LAKE	Victoria Marie

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

HODGKINSON PROVINCE

Hodgkinson Formation/am / EARLY DEVONIAN to LATE DEVONIAN

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

36003 RIVERTON

OPERATING MINE

Descriptive Location: 19.3KM E OF BONSHAW, 220KM SW OF BRISBANE.

1:100 000 sheet Number and Name: 9139 ASHFORD

Grid Reference: Zone 56 351305 mE 6788576 mN Latitude -29.0223 Longitude 151.4731 Date Recorded: 15/December/2015

Other Names for Deposit / Mine

Riverton Quarry

Commodities	Size	Size Definition
LIMESTONE	LARGE	>10 000 000 tonnes LST

Production Details

Period: 1-Jul-1982 to 30-Jun-1988	LIMESTONE	CRUSHED ROCK	206,377.0 tonnes
Period: 1-Jul-1998 to 30-Jun-1999	LIMESTONE	CRUSHED ROCK	84,227.0 tonnes
	LIMESTONE	AGGREGATE / DECORATIVE AGGREGATE	426.0 tonnes
Period: 1-Jul-2000 to 30-Jun-2015	LIMESTONE	CRUSHED ROCK	1,251,108.0 tonnes
Period: 2-Jul-2000 to 30-Jun-2007	MARBLE		407.0 tonnes
Period: 1-Jul-2004 to 30-Jun-2007	AGGREGATE		66,566.0 tonnes

Published Reserves/Resources

Company Report 7065 Published in 1979

INDICATED MINERAL RESOURCE

400,000,000 Tonnes LIMESTONE

Comments/Cut Off Factor: To 80m depth
to 80m depth.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1982 to 1988		Mining during this period produced limestone flux, agricultural limestone and other limestone products.
1997 to 2001		Quarried by Australian Limestone Pty Ltd
2001 to 2002		Quarried by David Mitchell (NSW) Pty Ltd
2002		Quarried by Unimin Lime (NSW) Pty Ltd

Mining Operations

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 50142	100.00%	SIBELCO LIME (NSW) PTY LTD
ML 50220	100.00%	SIBELCO LIME (NSW) PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
TEXAS SUBPROVINCE	Texas beds / EARLY CARBONIFEROUS to EARLY CARBONIFEROUS

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age

ORE DEVONIAN to CARBONIFEROUS

Comments

Three connected outcrops form this deposit. The limestone is light to dark grey in colour. Bulk surface samples gave average assays of 55.7% CaO, 0.2% MgO, 0.17% SiO₂, 0.01% Al₂O₃ and 0.01% Fe₂O₃.

Operated by Unimin Lime (NSW) Pty Ltd. In 2011 Unimin Australia and New Zealand adopted parent company name 'Sibelco'.

Web Page

<http://www.sibelco.com.au>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

532007 ROBIN

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 29.5KM EAST-NORTH-EAST OF MOUNT ISA

1:100 000 sheet Number and Name: 6856 MARY KATHLEEN

Grid Reference: Zone 54 372045 mE 7712328 mN Latitude -20.6840 Longitude 139.7715 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Robin Mine & The Big One

Commodities	Size	Size Definition
LIMESTONE	SMALL	100 000 - 2 000 000 tonnes LST

Production Details

Period: 1-Jan-1967 to 31-Dec-1976
LIMESTONE OTHER 531,986.0 tonnes
Period: 1-Jul-2015 to 30-Jun-2016
ROAD PAVEMENT GRAVEL 1,910.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		

Mining Operations	Comments
OPEN CUT MINING	Haul road down to tunnels, water in bottom of opencut
UNDERGROUND MINING METHODS	tunnels in bottom of opencut

Tenure Type/Number	SHARE	Company Name/Surname
ML 90042	100.00%	LAWLOR CONTRACTING PTY LTD

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> KALKADOON-LEICHHARDT DOMAIN	Corella Formation / PALAEOPROTEROZOIC to PALAEOPROTEROZOIC

Deposit Model	
GENERAL OREBODY MODEL	HYDROTHERMAL VEINS/PIPE/STOCKWORK
DETAILED OREBODY MODEL	VEIN CALCITE +/- CU

Mineralisation Age	
ORE	MESOPROTEROZOIC

Comments
The mined lens/pod was ~60m long by 50m wide. The mine was operating in 2002, but not for the production of limestone. Crushed rock (quartzite) was being quarried.
The limestone is granular and compact and forms a roughly cylindrical mass that has vertical walls and is slightly bulbous at depth (BR 6358).

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

485899 ROCHDALE BRICKWORKS

OPERATING MINE

Descriptive Location: ADJACENT TO GATEWAY MOTORWAY, ROCHDALE, BRISBANE CITY.

1:100 000 sheet Number and Name: 9542 BEENLEIGH

Grid Reference: Zone 56 511238 mE 6951727 mN

Latitude -27.5581 Longitude 153.1138

Date Recorded: 14/February/2017

Other Names for Deposit / Mine

Prebble
Red Stone
Bulimba Brickworks
The Austral Brick Company

Commodities	Size	Size Definition
BRICK CLAY	MEDIUM	200 000 - 20 000 000 tonnes BKC

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

BRICK CLAY 5,410,877.3 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 1151	100.00%	THE AUSTRAL BRICK CO. PTY LTD
ML 1152	100.00%	THE AUSTRAL BRICK CO. PTY LTD
ML 1156	100.00%	THE AUSTRAL BRICK CO. PTY LTD
ML 1165	100.00%	THE AUSTRAL BRICK CO. PTY LTD
ML 50165	100.00%	THE AUSTRAL BRICK CO. PTY LTD
ML 50189	100.00%	THE AUSTRAL BRICK CO. PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
IPSWICH BASIN	Tingalpa Formation / LATE TRIASSIC to LATE TRIASSIC

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE	TRIASSIC
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Comments

In 1958, Austral Brick Company Pty Ltd purchased and upgraded the Rochedale Brickworks, installing high capacity kilns in 1968, 1970 and 1972 as part of Rochedale's progressive upgrading, culminating in a \$16 million investment in 1984.

The new facilities gave the plant a capacity of 75 million bricks a year. In 1993 an additional \$20 million was invested, doubling its capacity and upgrading the plant to incorporate specialised paver production facilities.

Web Page

<http://www.australbrick.com.au>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

504499 ROSES PRIDE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 4.89KM NW OF CRACOW, 173.49KM SE OF GLADSTONE.

1:100 000 sheet Number and Name: 8947 CRACOW

Grid Reference: Zone 56 224305 mE 7202676 mN

Latitude -25.2669 Longitude 150.2626

Date Recorded: 8/December/2015

Other Names for Deposit / Mine

Rose Pride
Rose'S Pride

Commodities	Size	Size Definition
GOLD	SMALL	0.5 - 5 tonnes AU
SILVER	VERY SMALL	<5 tonnes AG

Production Details

Period: 1-Jul-2013 to 30-Jun-2015

GOLD	METAL	1,753.5 kilograms
SILVER		808.7 kilograms

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
BR 10019	2012	EVOLUTION MINING LIMITED	EVOLUTION MINING MINERAL RESOURCE STATEMENT - JUNE 2012	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 25 SEPTEMBER 2012. EVOLUTION MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
SHAFTS	
PITS	
TRENCHES	
UNDERGROUND MINING METHODS	Two levels at 15.5m and 39.5m. Ore won by stoping between levels and later on through to surface

Tenure Type/Number	SHARE	Company Name/Surname
ML 3229	100.00%	LION MINING PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
AUBURN SUBPROVINCE	Camboon Volcanics? / LATE CARBONIFEROUS to EARLY PERMIAN

Deposit Model

GENERAL OREBODY MODEL	BRECCIA-HOSTED
GENERAL OREBODY MODEL	EPITHERMAL VEINS/PIPE/STOCKWORK
GENERAL OREBODY MODEL	REPLACEMENT DEPOSIT

Mineralisation Age

ORE

Comments

Development of decline, operated by Evolution in 2012

Web Page

www.evolutionmining.com.au

Queensland Minerals

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610268 S&S MINING

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: ADJACENT TO MOTOR WAY AT DARRA, IPSWICH

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 494135 mE 6946395 mN Latitude -27.6064 Longitude 152.9406 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
SANDSTONE	VERY SMALL	<10 000 tonnes SST

Production Details

Period: 1-Jul-2014 to 30-Jun-2016

SANDSTONE 330.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 50278	100.00%	LAZAREVIC	Spasa

Host Rock/Cover Sequences

Structural Unit *Formation Name/Age*

Deposit Model

Mineralisation Age

ORE

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

512586 SARFIELD

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 0.9 KM ESE OF RAVENSWOOD.

1:100 000 sheet Number and Name: 8257 RAVENSWOOD

Grid Reference: Zone 55 489329 mE 7776932 mN

Latitude -20.1046 Longitude 146.8979

Date Recorded: 10/February/2016

Other Names for Deposit / Mine

Sarsfield Extended
 Oca
 Syc
 Area 4
 Area 5
 Prince Of Wales Reef
 Who'D A Thought It
 Louisa Reef
 Minnie Reef
 Nelson Reef
 Leader Reef
 Ajax Reef
 Argua Reef
 Buck Reef
 Big Reef
 Sarsfield (Historical)
 Satisfaction
 Sarsfield And Streak

Commodities	Size	Size Definition
GOLD	MEDIUM	5 - 50 tonnes AU

Production Details

Period: 1-Jan-1900 to 31-Dec-1909 536 tonnes KNOWN HISTORIC PRODUCTION
 GOLD BULLION 19.4 kilograms
 Period: 1-Jul-1996 to 30-Jun-2012
 GOLD FINE 52,921.3 kilograms
 SILVER 14,314.3 kilograms
 Period: 1-Jul-2000 to 30-Jun-2001
 GOLD BULLION 164.0 kilograms
 Period: 1-Jul-2001 to 30-Jun-2002
 GOLD BULLION 1,623.9 kilograms

Published Reserves/Resources

BR 10444 Published in 2015

SARFIELD - IN SITU

INDICATED MINERAL RESOURCE 20,384,000 tonnes Ore @
 0.70 g/t GOLD FOR 14,268 Kilograms GOLD

Comments/Cut Off Factor: 0.4 g/t Au cut-off

BR 10444 Published in 2015

SARFIELD - IN SITU

INFERRED MINERAL RESOURCE 22,192,000 tonnes Ore @
 0.70 g/t GOLD FOR 15,534 Kilograms GOLD

Comments/Cut Off Factor: 0.4 g/t Au cut-off

BR 10444 Published in 2015

SARFIELD - IN SITU

MEASURED MINERAL RESOURCE 16,185,000 tonnes Ore @
 0.80 g/t GOLD FOR 12,948 Kilograms GOLD

Comments/Cut Off Factor: 0.4 g/t Au cut-off

BR 10444 Published in 2015

SARFIELD - IN SITU

PROBABLE ORE RESERVE 18,640,000 tonnes Ore @
 0.70 g/t GOLD FOR 13,048 Kilograms GOLD

Comments/Cut Off Factor: 0.4 g/t Au cut-off

Reported as exclusive from resources

BR 10444 Published in 2015

SARFIELD - IN SITU

PROVED ORE RESERVE 28,450,000 tonnes Ore @
 0.80 g/t GOLD FOR 22,760 Kilograms GOLD

Comments/Cut Off Factor: 0.4 g/t Au cut-off

Includes stockpiles from both Mount Wright and Sarsfield. Reported as exclusive in resources

Resource figures listed above are JORC compliant.

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Published Reference ID	Year	Author	Title	Source
BR 10444	2015	RESOLUTE MINING LIMITED	A PROVEN GOLD PRODUCER > ANNUAL REPORT 2015	RESOLUTE MINING LIMITED, PERTH. HTTP://HTTP://WWW.RML.COM.AU/

Major Mining Related Events

Year Commenced	Year Completed	Comments
1996		Discovered by Carpentaria Gold adjacent to Nolans-Sarsfield mining operations.

Operating Mine Life: 2000 to 2010 Deposit acquired by Resolute in 2004 from Xstrata. Current mine plan has a 3 to 4 year mine life as at Jan 2006.

2001	The Nolan's Mining joint venture concluded in 2001.
2002	Sarsfield crushing and beneficiation plant and processing plant expansion was completed in August 2002, with commissioning work continuing.

Mining Operations

Mining Operations	Comments
OPEN CUT MINING	Opencut was developed as a pushback of the western wall of the Nolans-Sarfield pit.

Tenure Type/Number	SHARE	Company Name/Surname
ML 1337	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1379	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1380	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1394	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1417	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1418	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1574	100.00%	CARPENTARIA GOLD PTY. LTD.
ML 1682	100.00%	CARPENTARIA GOLD PTY. LTD.

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
PAMA IGNEOUS ASSOCIATION	Jessop Creek Granite / SILURIAN to DEVONIAN

Deposit Model

GENERAL OREBODY MODEL	MESOTHERMAL VEINS/PIPE/STOCKWORK
DETAILED OREBODY MODEL	MESOTHERMAL VEINS, MAGMATIC-RELATED

Mineralisation Age

ORE	CARBONIFEROUS
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Comments

The mineralisation is similar to the adjacent Nolan's deposit. Rock alteration and vein filling consists of multiple overprinting phases hosted by the Jessop Creek Tonalite.

Mining in the Sarsfield open cut completed by the end of Febuary 2009. Mill feed is being sourced from low-grade stockpiles and treated with Mount Wright ore until stockpiles are depleted.

Resolute Mining Ltd is undertaking a feasibility study into reopening the Sarsfield mine, based on an expansion of the open pit to extract newly defined resources based on a lower cut-off grade.

Web Page

<http://www.resolute-ltd.com.au/>

Queensland Minerals

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38268 SKARDON RIVER

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 83KM NORTH OF WEIPA, 630KM NW OF CAIRNS.

1:100 000 sheet Number and Name: 7274 MAPOON

Grid Reference: Zone 54 607421 mE 8686664 mN

Latitude -11.8787 Longitude 141.9863

Date Recorded: 7/January/2016

Other Names for Deposit / Mine

Commodities	Size	Size Definition
KAOLIN / KAOLINITE	MEDIUM	200 000 - 20 000 000 tonnes KAO
BAUXITE	SMALL	100 000 - 100 000 000 tonnes BX

Production Details

Period: 1-Jul-1998 to 30-Jun-1999	KAOLIN / KAOLINITE	150.0 tonnes
Period: 1-Jul-2002 to 30-Jun-2008	KAOLIN / KAOLINITE	5,616.0 tonnes

Published Reserves/Resources

BR 10169 Published in 2013

SKARDON RIVER BAUXITE

INDICATED MINERAL RESOURCE 32,100,000 tonnes Ore @
32,100,000 Tonnes BAUXITE

Comments/Cut Off Factor: 17%SiO2 cut-off

BR 10169 Published in 2013

SKARDON RIVER BAUXITE

INFERRED MINERAL RESOURCE 8,100,000 tonnes Ore @
8,100,000 Tonnes BAUXITE

Comments/Cut Off Factor: 17%SiO2 cut-off

BR 10169 Published in 2013

SKARDON RIVER BAUXITE

MEASURED MINERAL RESOURCE 29,900,000 tonnes Ore @
29,900,000 Tonnes BAUXITE

Comments/Cut Off Factor: 17%SiO2 cut-off

BR 9219 Published in 2009

SKARDON RIVER KAOLIN

INDICATED MINERAL RESOURCE 900,000 tonnes Ore @
78.00 % KAOLIN / KAOLINITE **FOR** 702,000 Tonnes KAOLIN / KAOLINITE

Comments/Cut Off Factor: Additional to reserves. 78% <45 micron in situ grade. Recovered grade not yet determined.
78% <45 micron in situ grade. Recovered grade not yet defined.

BR 9219 Published in 2009

SKARDON RIVER KAOLIN

INFERRED MINERAL RESOURCE 10,400,000 tonnes Ore @
65.00 % KAOLIN / KAOLINITE **FOR** 6,760,000 Tonnes KAOLIN / KAOLINITE

Comments/Cut Off Factor: Additional to reserves. >65% <45 micron in situ grade. Recovered grade not yet determined.
>65% <45 micron in situ grade. Recovered grade not yet defined.

BR 9219 Published in 2009

SKARDON RIVER KAOLIN

PROBABLE ORE RESERVE 2,100,000 tonnes Ore @
63.00 % KAOLIN / KAOLINITE **FOR** 1,323,000 Tonnes KAOLIN / KAOLINITE

Comments/Cut Off Factor: Reserve to 25m depth. 92% <45 micron in situ grade. 63% recovered grade.
Reserve to 25m depth. 92% <45 micron in situ grade. 63% recovered grade.

BR 9219 Published in 2009

SKARDON RIVER KAOLIN

PROVED ORE RESERVE 700,000 tonnes Ore @
65.00 % KAOLIN / KAOLINITE **FOR** 455,000 Tonnes KAOLIN / KAOLINITE

Comments/Cut Off Factor: Reserve to 25m depth. 95% <45 micron in situ grade. 65% recovered grade.
Reserve to 25m depth. 95% <45 micron in situ grade. 65% recovered grade.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10169	2013	GULF ALUMINA LIMITED	RESOURCE STATEMENT UPDATE; LETTER DATED 08 MARCH 2013	WWW.GULFALUMINA.COM.AU
BR 9219	2009	MINERALS CORPORATION LIMITED	ANNUAL REPORT 2009.	MINERALS CORPORATION LIMITED, SYDNEY.

Queensland Minerals

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Major Mining Related Events

Year Commenced	Year Completed	Comments
2000	to 2003	Assets acquired by Queensland Kaolin Ltd (subsidiary of Minerals Corporation Ltd) from Australian Kaolin Ltd on 29th June 2000 for \$6.5 million. Recommissioning of plant completed in May 2003.
2003		The first bulk shipment of kaolin came from the mine in April 2004. By June 2006, the company had more than 70 active customers.

Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
EPM 4068	20.00%	MINERALS CORPORATION LIMITED
EPM 4068	80.00%	GULF ALUMINA LIMITED
ML 6025	100.00%	GULF ALUMINA LIMITED
ML 40069	100.00%	GULF ALUMINA LIMITED
ML 40082	100.00%	GULF ALUMINA LIMITED

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

KARUMBA BASIN

Bulimba Formation / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

DETAILED OREBODY MODEL

LATERITIC KAOLIN

Mineralisation Age

ORE

CENOZOIC

Comments

This deposit comprises lenses of sandy kaolin within the pallid zone of a laterite weathering profile and are underlain by a weakly kaolinitic aquifer. The aluminium and iron contents are reportedly lower than in the Weipa deposits.

In September 2006, the project was independently valued at \$143.3 million. The resource base in ML 6025 is sufficient for a mine life of 100 years at a production rate of 150 000t per annum of kaolin product.

Production of bulk samples of 'Kaocem' (low carbon kaolin base cementitious products) commenced in June 2009. The first major sales order (\$1.6M) was received in July 2009.

Kaolin plant removed and construction of alumina plant and barge facilities commenced in 2013.

2013 resource update: The results show a JORC 62 mt at a higher grade and a JORC 84 mt with a lower but marketable grade product. Furthermore, exploration targets of 5-12 mt additional resources have also been identified at Skardon River.

2013 resource: Total Al₂O₃ recovery 50.3%; total SiO₂ 11.2% -> recovery 61.7%

The drilling program completed (Oct 2012) all planned 128 holes for a total of 484 metres. About 111 holes were drilled through bauxite & terminated in clays just beneath the bauxite. A total of 1,602 drill samples that are deemed 'bauxitic' were analysed

An unincorporated joint venture agreement signed with ACC EcoMinerals Limited during 2009 recognised Gulf Alumina as the joint holder of the Skardon River mining and exploration tenements with rights to explore for and develop all bauxite in the area.

(cont.) Operating quite independently, the objectives of the joint venture allow the sharing of common expenditure and to use the existing infrastructure. However, this joint venture arrangement was terminated in September 2011 when Gulf Alumina became

(cont.2) the sole holder of the mining and exploration tenements including the associated site infrastructure and improvements at Skardon River.

2012: JORC compliant resources estimation in excess of 50 million tonnes on Skardon River leases with potential for over 200 million tonnes of bauxite in total on all tenements

Web Page

www.gulfalumina.com.au

Queensland Minerals

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483642 SOUTHERN PACIFIC SANDS

OPERATING MINE

Descriptive Location: NE OF BEACHMERE, EAST OF CABOULTURE NEAR DECEPTION BAY, 42KM N OF BRISBANE.

1:100 000 sheet Number and Name: 9543 BRISBANE

Grid Reference: Zone 56 507816 mE 7003851 mN Latitude -27.0876 Longitude 153.0788 Date Recorded: 17/February/2017

Other Names for Deposit / Mine

Ningi Silica Sand

Commodities	Size	Size Definition
SILICA SAND	LARGE	>2 500 000 tonnes SIS

Production Details

Period: 1-Jul-1996 to 30-Jun-1997	
FOUNDRY SAND	4,323.0 tonnes
Period: 1-Jul-2000 to 30-Jun-2014	
SILICA SAND	171,268.6 tonnes
FOUNDRY SAND	231,585.3 tonnes

Published Reserves/Resources

BR 6110 Published in 1996	ML 50064 INFERRED MINERAL RESOURCE 750,000 Tonnes SILICA SAND
BR 6110 Published in 1996	ML 50088 INFERRED MINERAL RESOURCE 9,000,000 Tonnes SILICA SAND

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 6110	1996	WOODWARD-CLYDE	BEACHMERE SAND EXTRACTION ENVIRONMENTAL MANAGEMENT OVERVIEW STRATEGY FOR ML 50088 AND ML 50064	PACIFIC SILICA PTY LTD

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
SURFACE MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
MDL 260	100.00%	PACIFIC SILICA PTY LTD
MDL 261	100.00%	PACIFIC SILICA PTY LTD
ML 50064	100.00%	PACIFIC SILICA PTY LTD
ML 50088	100.00%	PACIFIC SILICA PTY LTD
ML 50140	100.00%	PACIFIC SILICA PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MODERN COASTAL DEPOSITS	Qhcb/4-QLD / QUATERNARY to QUATERNARY

Deposit Model

GENERAL OREBODY MODEL	DUNE DEPOSIT
DETAILED OREBODY MODEL	DUNE DEPOSIT SILICA SAND

Mineralisation Age

ORE	HOLOCENE	Dated at between 6 and 10,000 years old.
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Comments

Pacific Silica is a joint venture company between Wearnes International Ltd and two Brisbane families trading as Southern Pacific Sands. The company produces a range of processed sands. These sands are suitable for the foundry, construction, glass, specialty sands, filtration and golf course construction industries. The processing plant was expanded in 1999 to incorporate substantial wet and drying plants.

Web Page

www.southern-pacific-sands.com.au; www.wearnes.com

Queensland Minerals

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588114 SOVEREIGN

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: ~3KM W OF CRACOW, ~175KM SE OF GLADSTONE.

1:100 000 sheet Number and Name: 8947 CRACOW

Grid Reference: Zone 56 224600 mE 7201600 mN

Latitude -25.2767 Longitude 150.2653

Date Recorded: 7/January/2016

Other Names for Deposit / Mine

Cracow Gold Mine Group

Commodities

GOLD

Size

SMALL

Size Definition

0.5 - 5 tonnes AU

Production Details

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
BR 10019	2012	EVOLUTION MINING LIMITED	EVOLUTION MINING MINERAL RESOURCE STATEMENT - JUNE 2012	REPORT TO THE AUSTRALIAN SECURITIES EXCHANGE. 25 SEPTEMBER 2012. EVOLUTION MINING LIMITED, MELBOURNE.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

UNDERGROUND MINING METHODS

Tenure Type/Number

SHARE

Company Name/Surname

Currently untenured mineral deposit

Host Rock/Cover Sequences

Structural Unit

AUBURN SUBPROVINCE

Formation Name/Age

Camboon Volcanics / LATE CARBONIFEROUS to EARLY PERMIAN

Deposit Model

Mineralisation Age

ORE

EARLY PERMIAN

Comments

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

481465 STRATHPINE

OPERATING MINE

Descriptive Location: STRATHPINE

1:100 000 sheet Number and Name: 9443 CABOOLTURE

Grid Reference: Zone 56 496221 mE 6978885 mN Latitude -27.3130 Longitude 152.9618 Date Recorded: 29/May/2015

Other Names for Deposit / Mine

Strathpine 3
Strathpine 4

Commodities	Size	Size Definition
BRICK CLAY	SMALL	2 000 - 200 000 tonnes BKCY

Production Details

Period: 1-Jul-2005 to 30-Jun-2009

BRICK CLAY 65,685.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number SHARE Company Name/Surname

Currently untenured mineral deposit

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

PETRIE BASIN

Petrie Formation / PALEOCENE to EOCENE

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE

EOCENE to OLIGOCENE

Comments

Web Page

www.csr.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

493895 SUNSTATE SAND LEASES

OPERATING MINE

Descriptive Location: 62.2KM NNW OF MARYBOROUGH, SOUTH-EAST OF COONARR CREEK

1:100 000 sheet Number and Name: 9347 CHILDERS

Grid Reference: Zone 56 449514 mE 7234328 mN

Latitude -25.0056 Longitude 152.4997

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Coonarr Creek 2

Coonarr Creek 3

Commodities	Size	Size Definition
SILICA SAND	MEDIUM	1 000 000 - 2 500 000 tonnes SIS
FOUNDRY SAND	MEDIUM	1 000 000 - 2 500 000 tonnes SF

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

SILICA SAND 264,481.9 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
1996		Silica sand produced by Sunstate Sands Pty Ltd.

Mining Operations	Comments
SURFACE MINING METHODS	
PITS	

Tenure Type/Number	SHARE	Company Name/Surname
ML 1228	100.00%	EARTH COMMODITIES BUNDABERG PTY LTD
ML 1229	100.00%	EARTH COMMODITIES BUNDABERG PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MODERN COASTAL DEPOSITS	Qpcb-QLD / PLEISTOCENE to PLEISTOCENE

Deposit Model

GENERAL OREBODY MODEL	DUNE DEPOSIT
DETAILED OREBODY MODEL	DUNE DEPOSIT SILICA SAND

Mineralisation Age

ORE

Comments

High grade silica sand grading 99.5% SiO₂. The major contaminants are heavy minerals, principally leucoxene, rutile, zircon, tourmaline and andalusite. This resource is unusual because it can deliver material from below 250 microns up to 5mm.

Pleistocene beach ridge sands flanked by Holocene beach ridge barrier dunes on the seaward side. The eolian sands have been strongly leached producing a well developed podzolic soil profile with a A2 horizon 5m deep of clean white high purity silica sand.

Sunstate commenced mining in late 1996 to feed a pilot plant, which produced approximately 12,000 tonnes per annum of washed and dried sand, principally used in foundry and epoxy industries, architectural coatings, pool, and decorative finishes.

In 2006, Earth Commodities Pty. Ltd acquired Sunstate Sands (Aust) P/L as one of many mine and quarry sites, holding a number of Mining Leases and Mineral Development Leases at Coonarr Creek

Uses for silica sand: Swimming pool pebble, foundry sand, filter Sand, Specialised Dried Sands

Web Page

<http://www.ecbundaberg.com.au>; <http://www.earthcommodities.com.au>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

578043 TAIPAN

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 2.2KM SSW OF CLONCURRY

1:100 000 sheet Number and Name: 7056 CLONCURRY

Grid Reference: Zone 54 448168 mE 7708542 mN

Latitude -20.7219 Longitude 140.5022

Date Recorded: 8/January/2016

Other Names for Deposit / Mine

Commodities	Size	Size Definition
COPPER	SMALL	500 - 50 000 tonnes CU
GOLD	VERY SMALL	<0.5 tonnes AU

Production Details

Published Reserves/Resources

BR 10184 Published in 2012

TAIPAN

INFERRED MINERAL RESOURCE 1,460,000 tonnes Ore @

0.80 % COPPER **FOR** 11,680 Tonnes COPPER

0.10 g/t GOLD **FOR** 146 Kilograms GOLD

Comments/Cut Off Factor: 0.5% Cu cutoff.

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10184	2012	EXCO RESOURCES LTD	MARKET RELEASE: QUEENSLAND EXPLORATION UPDATE; 2012 FIELD PROGRAMME HAS COMMENCED	ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE, 20 APRIL 2012. EXCO RESOURCES LTD, PERTH.

Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 90065	100.00%	COPPERCHEM LIMITED

Host Rock/Cover Sequences

Structural Unit

CONSTANTINE DOMAIN

Formation Name/Age

Wiggle Waterhole Metagabbro / PALAEOPROTEROZOIC to
PALAEOPROTEROZOIC

Deposit Model

GENERAL OREBODY MODEL

HYDROTHERMAL VEINS/PIPE/STOCKWORK

DETAILED OREBODY MODEL

IRON-OXIDE CU-AU (-U-REE)

Mineralisation Age

ORE

MESOPROTEROZOIC

Comments

Mineralisation comprises a chalcopyrite-dominated sulphide vein stockwork in coarse to medium-grained magnetite-altered gabbroic volcanic rocks. Some occurs as semi-massive zones over several metres thickness within a broad, low-grade stockwork.

In 2012 Exco Resources was taken over by Washington H Soul Pattinson & Co Ltd.

In May 2013 CopperChem announced a non-JORC reserve and resource on their webpage: the uncatagorised reserves for Taipan are 72000 t at 1.51% Cu and 0.11 g/t Au and the uncatagorised resources are 2.22 Mt at 0.74% Cu and 0.11 g/t Au (BR10368).

Web Page

www.excoresources.com.au; <http://www.copperchem.com.au/cloncurry.htm>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

588840 TANBY

OPERATING MINE

Descriptive Location: 9KM SSE OF YEPPON, NORTH OF KINKA BEACH ROAD, 2.5KM EAST OF TANBY

1:100 000 sheet Number and Name: 9051 ROCKHAMPTON

Grid Reference: Zone 56 272184 mE 7430692 mN

Latitude -23.2171 Longitude 150.7738

Date Recorded: 7/January/2016

Other Names for Deposit / Mine

Tanby 2

Tanby 1

Commodities	Size	Size Definition
SILICA SAND	SMALL	1 000 - 1 000 000 tonnes SIS

Production Details

Period: 1-Jul-2005 to 30-Jun-2010

SILICA SAND 46,688.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname	Christian Name
ML 80147	25.00%	BARLOW	Robert
ML 80147	25.00%	BARLOW	Jeffrey Robert
ML 80147	25.00%	BARLOW	Stewart Darrell
ML 80147	25.00%	BARLOW	Elaine Florence

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

MODERN COASTAL DEPOSITS

Qpcb-QLD / PLEISTOCENE to PLEISTOCENE

Deposit Model

Mineralisation Age

ORE

Comments

Pleistocene beach ridge sands flanked by Holocene beach ridge barrier dunes on the seaward side.

Web Page

Queensland Minerals

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487699 TARAGOOLA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 10.5 KM SSE OF CALLIOPE, 25KM SW OF GLADSTONE.

1:100 000 sheet Number and Name: 9149 CALLIOPE

Grid Reference: Zone 56 321093 mE 7332730 mN

Latitude -24.1076 Longitude 151.2398

Date Recorded: 9/February/2017

Other Names for Deposit / Mine

Calliope
Marblestone 8

Commodities	Size	Size Definition
LIMESTONE	MEDIUM	2 000 000 - 10 000 000 tonnes LST
QUARRY ROCK		

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

LIMESTONE OTHER 9,721,204.8 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced Year Completed Comments

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 3594	100.00%	FROST ENTERPRISES PTY LTD
ML 3595	100.00%	FROST ENTERPRISES PTY LTD
ML 3596	100.00%	FROST ENTERPRISES PTY LTD
ML 3597	100.00%	FROST ENTERPRISES PTY LTD
ML 3598	100.00%	FROST ENTERPRISES PTY LTD
ML 3599	100.00%	FROST ENTERPRISES PTY LTD
ML 3600	100.00%	FROST ENTERPRISES PTY LTD
ML 3602	100.00%	FROST ENTERPRISES PTY LTD
ML 3603	100.00%	FROST ENTERPRISES PTY LTD
ML 3604	100.00%	FROST ENTERPRISES PTY LTD
ML 3605	100.00%	FROST ENTERPRISES PTY LTD
ML 3606	100.00%	FROST ENTERPRISES PTY LTD
ML 3608	100.00%	FROST ENTERPRISES PTY LTD
ML 3609	100.00%	FROST ENTERPRISES PTY LTD
ML 80036	100.00%	FROST ENTERPRISES PTY LTD

Host Rock/Cover Sequences

Structural Unit Formation Name/Age
CALLIOPE SUBPROVINCE Calliope beds/1 / SILURIAN to EARLY DEVONIAN

Deposit Model

GENERAL OREBODY MODEL SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL LIMESTONE DEPOSIT

Mineralisation Age

ORE EARLY DEVONIAN

Comments

Taragoola produces lime for cement, agriculture and other uses from an open cut operation run by Frost Enterprises Pty Ltd, a family-owned company established in Gladstone in 1966 to supply Queensland Alumina Ltd with raw limestone. The Taragoola quarry supplies varying grades of crushed limestone to state and local government departments and the construction, industrial and agricultural industries. The limestone is extracted by open cut and transported by off-highway 50t dump trucks to a 350t per hour crushing plant. The finished product is dispatched by road and rail to customers from Proserpine to Brisbane.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

493669 TESTAROSA CLAY

OPERATING MINE

Descriptive Location: SOUTH BRISBANE AREA

1:100 000 sheet Number and Name: 9542 BEENLEIGH

Grid Reference: Zone 56 526385 mE 6943550 mN

Latitude -27.6318 Longitude 153.2674

Date Recorded: 8/January/2016

Other Names for Deposit / Mine

Commodities

BRICK CLAY

AGGREGATE

Size

MEDIUM

Size Definition

200 000 - 20 000 000 tonnes BKC Y

Production Details

Period: 1-Jul-1998 to 30-Jun-2013

BRICK CLAY

1,201,720.9 tonnes

Published Reserves/Resources

Company Report 23040 Published in 1991

INFERRED MINERAL RESOURCE

2,000,000 Tonnes CLAY

Brick clay, shale.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number

SHARE

Company Name/Surname

ML 50035

100.00%

THE AUSTRAL BRICK CO. PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

BEENLEIGH SUBPROVINCE (BLOCK)

Neranleigh-Fernvale beds / DEVONIAN to CARBONIFEROUS

Deposit Model

GENERAL OREBODY MODEL

RESIDUAL DEPOSIT

DETAILED OREBODY MODEL

SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE

CENOZOIC

Comments

Web Page

<http://www.australbrick.com.au>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507511 THUNDERBIRD PARK

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 3.5KM NORTH OF MOUNT TAMBORINE.

1:100 000 sheet Number and Name: 9542 BEENLEIGH

Grid Reference: Zone 56 518178 mE 6913429 mN Latitude -27.9039 Longitude 153.1847 Date Recorded: 13/February/2017

Other Names for Deposit / Mine

Mount Tamborine Thunder Egg Park

Cedar Creek Thunder Egg Park

Commodities	Size	Size Definition
THUNDER EGG	MEDIUM	10 - 100 tonnes THEG

Production Details

Period: 1-Jul-1997 to 30-Jun-2004

THUNDER EGG 86,000.0 australian dollars

Period: 1-Jul-2015 to 30-Jun-2016

THUNDER EGG 78,750.0 australian dollars

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 5914	100.00%	FRETWOOD PTY LTD

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> IPSWICH BASIN	Chillingham Volcanics / LATE TRIASSIC to LATE TRIASSIC

Deposit Model	
GENERAL OREBODY MODEL	DIATREME OR PYROCLASTIC-RELATED DEPOSITS
DETAILED OREBODY MODEL	GEMSTONES IN DECOMPOSED/WEATHERED ROCK

Mineralisation Age	
ORE	TRIASSIC

Comments
Thunder eggs were discovered at Mount Tamborine in 1967. Thunderbird Park is a privately run fossicking and camping ground, with gem cutting and sale facilities on site. Resort accommodation, conference facilities and a restaurant are attached.

Web Page
www.thunderbirdpark.com

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

486592 ULAM MARBLE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: SOUTH WESTERN SLOPE OF MT MCCAMLEY, 15 KM SSW OF MARMOR, 60KM NW OF GLADSTONE.

1:100 000 sheet Number and Name: 9050 BAJOOL

Grid Reference: Zone 56 260793 mE 7365133 mN Latitude -23.8073 Longitude 150.6521 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Unnamed 612645
Bajool

Commodities	Size	Size Definition
LIMESTONE	MEDIUM	2 000 000 - 10 000 000 tonnes LST
MARBLE	SMALL	10 000 - 100 000 tonnes MARB
MAGNESITE	VERY SMALL	<10 000 tonnes MS

Production Details

Period: 1-Jul-1996 to 30-Jun-2016
LIMESTONE OTHER 2,818,273.3 tonnes
Period: 1-Jul-1999 to 30-Jun-2000
MAGNESITE 262.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
Major Mining Related Events				
Year Commenced	Year Completed	Comments		

Mining Operations	Comments
OPEN CUT MINING	
ADITS	
SHAFTS	

Tenure Type/Number	SHARE	Company Name/Surname	
ML 3638	100.00%	OMYA AUSTRALIA PTY LIMITED	
ML 3662	100.00%	OMYA AUSTRALIA PTY LIMITED	
ML 3663	100.00%	OMYA AUSTRALIA PTY LIMITED	
ML 3666	100.00%	OMYA AUSTRALIA PTY LIMITED	
ML 80014	100.00%	HOLLIER	William Edward
ML 80028	100.00%	OMYA AUSTRALIA PTY LIMITED	
ML 80167	100.00%	OMYA AUSTRALIA PTY LIMITED	

Host Rock/Cover Sequences	Formation Name/Age
<i>Structural Unit</i> MOUNT MORGAN SUBPROVINCE	Ginger Creek Member / MIDDLE DEVONIAN to MIDDLE DEVONIAN

Deposit Model	
GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age	
ORE	MIDDLE DEVONIAN

Comments
Marble is mined by Omya Australia Pty Ltd. It is sugary in texture and used as an industrial filler in plastics, paper and rubber. The beneficiated product must meet strict criteria relating to colour, particle size and acid insolubles.
The Bajool plant also produces stone dust for coal mines and agricultural lime.

Web Page

www.omya.com.au

Queensland Minerals

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43490 UNDILLA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 82 KM NORTH-EAST OF CAMOOWEAL, 17KM SW OF THORNTONIA, 130KM NORTH OF MT ISA.

1:100 000 sheet Number and Name: 6658 UNDILLA

Grid Reference: Zone 54 271211 mE 7831435 mN

Latitude -19.5989 Longitude 138.8187

Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Third One

Undilla Limestone Project

Commodities	Size	Size Definition
LIMESTONE	LARGE	>10 000 000 tonnes LST
ROAD PAVEMENT GRAVEL		

Production Details

Period: 1-Jul-1998 to 30-Jun-1999		
LIMESTONE	CRUSHED ROCK	18,092.6 tonnes
Period: 1-Jul-1999 to 30-Jun-2000		
LIMESTONE	CRUSHED ROCK	26,278.2 tonnes
Period: 1-Jul-2000 to 30-Jun-2001		
LIMESTONE	CRUSHED ROCK	28,601.9 tonnes
Period: 1-Jul-2001 to 30-Jun-2002		
LIMESTONE	CRUSHED ROCK	18,376.0 tonnes
Period: 1-Jul-2002 to 30-Jun-2003		
LIMESTONE	CRUSHED ROCK	297.1 tonnes
Period: 1-Jul-2004 to 30-Jun-2005		87,714 tonnes HARD ROCK ORE (OR REEF)
ROAD PAVEMENT GRAVEL		87,714.0 tonnes
Period: 1-Jul-2015 to 30-Jun-2016		
ROAD PAVEMENT GRAVEL		3,486.0 tonnes

Published Reserves/Resources

BR 8003 Published in 2003

UNDILLA LIMESTONE

INDICATED MINERAL RESOURCE 10,000,000 tonnes Ore @
10,000,000 Tonnes LIMESTONE

High grade limestone bed - Undilla

BR 8003 Published in 2003

UNDILLA LIMESTONE

MEASURED MINERAL RESOURCE 650,000 tonnes Ore @
650,000 Tonnes LIMESTONE

Limestone has a 53.4% CaO content.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 8003	2003	LAND AND RESOURCES TRIBUNAL QUEENSLAND	RE: APPLICATION FOR MINING LEASE NO. 90146 BY QUEENSLAND OCTANE PTY LTD.	PROCEEDINGS OF LAND AND RESOURCES TRIBUNAL QUEENSLAND HEARING. FROM WEBSITE HTTP://WWW.LRT.QLD.GOV.AU

Major Mining Related Events

Year Commenced	Year Completed	Comments

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 5564	100.00%	LAWLOR CONTRACTING PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
GEORGINA BASIN	V-Creek Limestone / MIDDLE CAMBRIAN to MIDDLE CAMBRIAN

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	LIMESTONE DEPOSIT

Mineralisation Age

ORE	MIDDLE CAMBRIAN
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Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

Comments

Lawler Contracting Pty Ltd was quarrying and crushing limestone on ML 5564 for use in neutralising acid mine drainage at Gunpowder. Queensland Octane Pty Ltd holds applications for ML 90146 and MDL 343, which surround ML 5564.

This company is investigating the feasibility of setting up a cement and lime plant at Mount Isa to utilise a high-grade limestone resource to the south of ML 5564.

The main applications of the limestone would be as a smelter fume and mine runoff neutraliser. Lime would be used mainly as a metallurgical reagent and to treat waste water.

Peak production could reach 500 000t per annum. Undilla Lime Pty Ltd will be the operators of the proposed quarry.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

501300 VANCE

OPERATING MINE

Descriptive Location: CENTRE OF NORTH STRADBROKE ISLAND, 45KM EAST OF BRISBANE.

1:100 000 sheet Number and Name: 9543 BRISBANE

Grid Reference: Zone 56 544913 mE 6959066 mN

Latitude -27.4912 Longitude 153.4547

Date Recorded: 9/December/2015

Other Names for Deposit / Mine

Commodities	Size	Size Definition
SILICA SAND	SMALL	1 000 - 1 000 000 tonnes SIS
RUTILE	SMALL	2 000 - 200 000 tonnes RUT
ZIRCON	SMALL	500 - 500 000 tonnes ZIR
ILMENITE	SMALL	5 000 - 5 000 000 tonnes IM
MONAZITE	VERY SMALL	<200 tonnes MZ

Production Details

Period: 1-Jul-2004	to	30-Jun-2015	
SILICA SAND			1,730,760.0 tonnes
Period: 2-Jul-2004	to	30-Jun-2005	
ILMENITE			899.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
2004		Consolidated Rutile Limited (CRL) transferred ML 1108 to Unimin to enable it to mine silica sand.

Mining Operations	Comments
SURFACE MINING METHODS	

Tenure Type/Number	SHARE	Company Name/Surname
ML 1108	100.00%	SIBELCO AUSTRALIA LIMITED

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
MODERN COASTAL DEPOSITS	Qpcb-QLD / PLEISTOCENE to PLEISTOCENE

Deposit Model

GENERAL OREBODY MODEL	DUNE DEPOSIT
DETAILED OREBODY MODEL	DUNE DEPOSIT SILICA SAND

Mineralisation Age

ORE	PLEISTOCENE
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Comments

Web Page

<http://www.unimin.com.au>

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

588041 WADLEY LEASE

OPERATING MINE

Descriptive Location: 24.6KM SOUTH OF IPSWICH, ACCESS FROM VERALLS RD OFF LIMESTONE HILL RD.

1:100 000 sheet Number and Name: 9442 IPSWICH

Grid Reference: Zone 56 472260 mE 6920892 mN Latitude -27.8364 Longitude 152.7183 Date Recorded: 10/February/2017

Other Names for Deposit / Mine

Area 103 & 104
Moreton Dolomite Extension
Jackson South Grid
Wadley Grid

Commodities	Size	Size Definition
EARTHY LIME / DOLOMITE (AGRICULTURAL)	SMALL	10 000 - 100 000 tonnes ELIM
BRICK CLAY	SMALL	2 000 - 200 000 tonnes BKCY
PALYGORSKITE		

Production Details

Period: 1-Jul-2001 to 30-Jun-2016
EARTHY LIME / DOLOMITE (AGRICULTURAL) 12,804.5 tonnes
Period: 1-Jul-2010 to 30-Jun-2016
PALYGORSKITE 5,113.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Mining Operations	Comments
OPEN CUT MINING	Shallow open cut pit

Tenure Type/Number	SHARE	Company Name/Surname
ML 50072	50.00%	TREVALLYN ENTERPRISES PTY. LIMITED
ML 50072	50.00%	MORETON DOLOMITE PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
AMBERLEY BASIN	Flinders Dolomite / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

Mineralisation Age

ORE	TERTIARY
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Comments

In 1992-93 the Wadley and Jackson South Grids were gridded and mapped by Newage. At Wadley 43 holes totalling 252m were drilled and Jackson 37 holes totalling 249m. Average depth 9 - 12m, with many holes ending in dolomite, suggesting extra potential. (cont.) Subsequently two MLs were applied for ML50072 & ML50073. ML50072 was ammended and granted covering both areas. According to Tucker (1996) the palygorskite resource potential is more difficult to evaluate: The 1994 drilling showed the palygorskite zone to have variable thickness, including being absent in places. Best intersections of palygorskite were in holes (Cont.) LR037 (12m thick) and LR049 (10m thick) (ERMS27583)

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

504528 WAGNERS SANDSTONE QUARRY

OPERATING MINE

Descriptive Location: SEVENTEEN MILE ROAD, HELIDON

1:100 000 sheet Number and Name: 9342 HELIDON

Grid Reference: Zone 56 417011 mE 6956036 mN

Latitude -27.5168 Longitude 152.1597

Date Recorded: 8/January/2016

Other Names for Deposit / Mine

Commodities	Size	Size Definition
BUILDING STONE	VERY SMALL	<100 000 tonnes BLST
SANDSTONE	SMALL	10 000 - 100 000 tonnes SST

Production Details

Period: 1-Jul-1996 to 30-Jun-2011

SANDSTONE 50,421.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Comments

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 50006	100.00%	J H WAGNER & SONS PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

CLARENCE-MORETON BASIN

Woogaroo Subgroup / LATE TRIASSIC to EARLY JURASSIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE

LATE TRIASSIC to EARLY JURASSIC

Comments

The company has progressively upgraded machinery and equipment at the quarry and its Toowoomba processing plant since 1988 to increase production of raw blocks and finished products.

Large blocks (each about 8 to 12t) are cut from benches using custom-made trenching machines. Blocks are separated from the quarry floor by more traditional methods using feathers and wedges and are transported to Toowoomba by truck for processing.

The company markets a range of products both domestically and overseas that includes, tiles, walling, pavers, masonry blocks, furniture, benchtops, landscaping rocks and monuments. Decorative items and special architectural pieces and other custom made Decorative items, special architectural pieces and custom-made items are also produced. The company has supplied sandstone for Jupiters Casino and Bond University on the Gold Coast, Hayman Island Resort, and for various restoration projects in Brisbane.

Export sales have been made to Japan and other countries.

This is probably one of the largest quarries in the Helidon area. JH Wagner and Sons Pty Ltd has been operating for >100 years, producing quality sandstone for the local market and has been exporting products since 1989.

Web Page

www.jhwagner.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

507720 WARBRICK

OPERATING MINE

Descriptive Location: 8 KM SOUTHWEST OF WARWICK, ALLORA

1:100 000 sheet Number and Name: 9241 ALLORA

Grid Reference: Zone 56 400235 mE 6870810 mN Latitude -28.2849 Longitude 151.9827 Date Recorded: 13/February/2017

Other Names for Deposit / Mine

Desert Extended
Desert

Commodities

BRICK CLAY

Size
SMALL

Size Definition

2 000 - 200 000 tonnes BKCY

Production Details

Period: 1-Jul-1996 to 30-Jun-2016

BRICK CLAY 43,000.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

OPEN CUT MINING

Comments

A series of open pit mining to extract clay. New and old workings lined up along a NW trend for about 600 metres.

Tenure Type/Number

ML 50065

SHARE

100.00%

Company Name/Surname

WARWICK BRICK WORKS PTY LTD

Host Rock/Cover Sequences

Structural Unit

CLARENCE-MORETON BASIN

Formation Name/Age

Marburg Subgroup / EARLY JURASSIC to MIDDLE JURASSIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

DETAILED OREBODY MODEL

SEDIMENTARY CLAY DEPOSITS

Mineralisation Age

ORE

JURASSIC

Comments

Open pit mining of clay, exposing a quarry face approximately 7 metres high and 600 metres long.

Web Page

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

38244 WEIPA

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 5.7KM WNW OF WEIPA AIRSTRIP, 575KM NW OF CAIRNS.

1:100 000 sheet Number and Name: 7272 WEIPA

Grid Reference: Zone 54 594822 mE 8599567 mN

Latitude -12.6666 Longitude 141.8732

Date Recorded: 19/January/2017

Other Names for Deposit / Mine

Weipa Bauxite Mine

Commodities	Size	Size Definition
BAUXITE	LARGE	>200 000 000 tonnes BX
KAOLIN / KAOLINITE	LARGE	>20 000 000 tonnes KAO

Production Details

Period: 1-Jan-1960 to 30-Jun-1996	
BAUXITE	223,115,000.0 tonnes
Period: 1-Jul-1986 to 30-Jun-1996	
KAOLIN / KAOLINITE	971,200.0 tonnes
Period: 1-Jul-1996 to 30-Jun-2016	
BAUXITE	319,804,394.0 tonnes
BAUXITE	2,392,676.0 tonnes

Published Reserves/Resources

BR 10426 Published in 2014

WEIPA BAUXITE

INDICATED MINERAL RESOURCE 1,320,000,000 tonnes Ore @
1,320,000,000 Tonnes BAUXITE

Comments/Cut Off Factor: At 51.4% alumina
Includes Weipa, Ely and Andoom.

BR 10426 Published in 2014

WEIPA BAUXITE

INFERRED MINERAL RESOURCE 490,000,000 tonnes Ore @
490,000,000 Tonnes BAUXITE

Comments/Cut Off Factor: At 52.0% alumina.
Includes Weipa, Ely and Andoom.

BR 10426 Published in 2014

WEIPA BAUXITE

MEASURED MINERAL RESOURCE 95,000,000 tonnes Ore @
95,000,000 Tonnes BAUXITE

Comments/Cut Off Factor: At 49.4% alumina
Includes Weipa, Ely and Andoom.

BR 10426 Published in 2014

WEIPA BAUXITE

PROBABLE ORE RESERVE 983,000,000 tonnes Ore @
98,300,000 Tonnes BAUXITE

Comments/Cut Off Factor: At 52.7% alumina
Includes Weipa, Ely and Andoom.

BR 10426 Published in 2014

WEIPA BAUXITE

PROVED ORE RESERVE 501,000,000 tonnes Ore @
501,000,000 Tonnes BAUXITE

Comments/Cut Off Factor: At 52.2% alumina
Includes Weipa, Ely and Andoom.

BR 5921 Published in 1998

WEIPA KAOLIN

PROBABLE ORE RESERVE 36,000,000 tonnes Ore @
36,000,000 Tonnes KAOLIN / KAOLINITE

BR 5921 Published in 1998

WEIPA KAOLIN

PROVED ORE RESERVE 12,000,000 tonnes Ore @
12,000,000 Tonnes KAOLIN / KAOLINITE

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10426	2014	RIO TINTO	2014 ANNUAL REPORT.	RIO TINTO PLC, LONDON. REPORTED TO AUSTRALIAN STOCK EXCHANGE, MARCH 2015; RIO TINTO LTD, MELBOURNE
BR 5921	1998	GILLIAN BESTER (EDITOR)		REGISTER OF AUSTRALIAN MINING 1998/99. RESOURCE INFORMATION UNIT.

Queensland Minerals

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Major Mining Related Events

Year Commenced	Year Completed	Comments
1955	to 1960	The extent and economic potential of the Weipa bauxite deposits were first recognised by HJ Evans in 1955. Commonwealth Aluminium Corporation Pty Ltd explored the deposits and SBML 1 was granted in 1958.

Operating Mine Life: 1961 to 2041 Mining and trial shipments began in 1961. The first commercial shipment of bauxite was made in 1963 and mining has been carried out continuously since then. Major upgrades of the mine were completed in 1998 and 2004.

1985	to	1996	Kaolin was mined as part of the Weipa operation.
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Mining Operations

Comments

SURFACE MINING METHODS

OPEN CUT MINING

Tenure Type/Number	SHARE	Company Name/Surname
ML 6024	100.00%	RTA WEIPA PTY LTD
ML 7024	100.00%	RTA WEIPA PTY LTD

Host Rock/Cover Sequences

Structural Unit

KARUMBA BASIN

Formation Name/Age

Bulimba Formation / EARLY TERTIARY to EARLY TERTIARY

Deposit Model

GENERAL OREBODY MODEL	RESIDUAL DEPOSIT
DETAILED OREBODY MODEL	LATERITIC BAUXITE
DETAILED OREBODY MODEL	LATERITIC KAOLIN

Mineralisation Age

ORE

CENOZOIC

Comments

operations. Production and resource figures provided by Comalco for Mining Lease 7024 and include both Weipa and Andoom. The kaolin mining operation closed down in 1996. In 2003 and 2004, Comalco erected a new beneficiation plant and power station at Andoom as part of its NE Weipa expansion project. Bauxite is now mined from Weipa East and Andoom as separate mining. By the end of 1956, it was established that the bauxite deposits in Weipa are very substantial and are of a grade suitable for the manufacture of alumina. Bauxite occurs within the topmost of four zones (laterite, mottled, pallid and "saprolite") recognised in the 20 - 30m thick weathering profile. The laterite zone comprises iron-cemented soil overburden about 0.5m thick (which is removed by ripping), and a 1 to 5m thick bauxite layer underlain by 1 to 2m of ironstone. The bauxite comprises loose pisolites that consist of gibbsite and boehmite with small amounts of kaolinite and quartz. Generally, the bauxite is poorly cemented or uncemented and mining is relatively easy. The matrix between the pisolites, although bauxitic, has a high silica content (up to 12% total silica) in the form of sand and silt size quartz grains. This is removed by wet screening to beneficiate the product. The ironstone layer consists of goethite and hematite nodules with varying amounts of kaolinite and quartz. It is much harder and is the cut-off for mining. Kaolin occurs in the pallid zone of the weathering profile and was mined from areas from which the overlying bauxite has been removed. The deposits are discontinuous clay lenses approximately 2 to 3km long, 300m wide and 4.5m in average thickness. They overlie a shallow quartz aquifer. Kaolin was mined for the production of premium quality coating clays. The crude kaolin ore contained 80 to 90% kaolinite, 5 to 20% quartz, 0.1 to 0.3% hematite, 1 to 2% anatase and 1 to 3% muscovite. Accessory minerals include zircon, tourmaline, leucoxene, rutile, ilmenite, goethite, sphene, siderite, magnetite, apatite, monazite, andalusite, staurolite, spinel and halloysite (Schaap, 1990).

Web Page

www.riotinto.com/riotintoalcan/

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501297 WILLOWS

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 2 KM SOUTH OF WILLOWS, WEST OF EMERALD, CENTRAL QLD.

1:100 000 sheet Number and Name: 8350 BOGANTUNGAN

Grid Reference: Zone 55 547272 mE 7381502 mN

Latitude -23.6765 Longitude 147.4636

Date Recorded: 13/February/2017

Other Names for Deposit / Mine

Willows Zeolite Mine
Robert One
Robert Two
Robert Three
Robert Four
Robert Five
Robert Six

Commodities	Size	Size Definition
ZEOLITE	MEDIUM	200 000 - 2 000 000 tonnes ZEOL

Production Details

Period: 1-Jul-1995 to 30-Jun-2016

ZEOLITE 20,931.4 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
MDL 337	100.00%	ZEOLITE AUSTRALIA PTY LIMITED
MDL 338	100.00%	ZEOLITE AUSTRALIA PTY LIMITED
ML 70214	100.00%	QLD ZEOLITE PTY LTD
ML 80078	100.00%	QLD ZEOLITE PTY LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
DRUMMOND BASIN	Ducabrook Formation / EARLY CARBONIFEROUS to EARLY CARBONIFEROUS

Deposit Model

GENERAL OREBODY MODEL SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

ORE EARLY CARBONIFEROUS

Comments

Zeolite has formed in altered, water-lain, ash-fall tuffs of the Early Carboniferous Ducabrook Formation. The sequence is gently folded, with no evident metamorphism.
In April 2000, Supersorb Minerals NL signed an agreement with Currumbin Sand and Gravel Pty Ltd to mine and process zeolite material from this site. Material is mined and transported to Daringa for processing. A crushing facility was constructed in 2001.
In June 2007, Supersorb divested itself of all its zeolite interests.

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610270 WILLOWS TWO

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 2.5 KM SOUTH OF WILLOWS, WEST OF EMERALD, CENTRAL QLD.

1:100 000 sheet Number and Name: 8350 BOGANTUNGAN

Grid Reference: Zone 55 548248 mE 7381262 mN Latitude -23.6787 Longitude 147.4732 Date Recorded: 13/February/2017

Other Names for Deposit / Mine

Robert Two

Commodities	Size	Size Definition
ZEOLITE	SMALL	2 000 - 200 000 tonnes ZEOL

Production Details

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

Tenure Type/Number	SHARE	Company Name/Surname
ML 70214	100.00%	QLD ZEOLITE PTY LTD

Host Rock/Cover Sequences

Structural Unit

DRUMMOND BASIN

Formation Name/Age

Ducabrook Formation / EARLY CARBONIFEROUS to EARLY CARBONIFEROUS

Deposit Model

Mineralisation Age

Comments

Zeolite has formed in altered, water-lain, ash-fall tuffs of the Early Carboniferous Ducabrook Formation. The sequence is gently folded, with no evident metamorphism.

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41596 WIRRALIE

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: 31.3KM NNW OF MOUNT COOLON

1:100 000 sheet Number and Name: 8355 MOUNT COOLON

Grid Reference: Zone 55 527164 mE 7665370 mN

Latitude -21.1125 Longitude 147.2616

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Commodities	Size	Size Definition
GOLD	MEDIUM	5 - 50 tonnes AU
SILVER	VERY SMALL	<5 tonnes AG

Production Details

Period: 1-Jan-1988 to 31-Dec-1993		5,840,000 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	13,374.5 kilograms
Period: 1-Jan-1999 to 31-Dec-1999		964,000 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	1,226.3 kilograms 1.30 grams per tonne
Period: 1-Jan-2000 to 31-Dec-2000		927,000 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	1,365.4 kilograms 1.22 grams per tonne
Period: 1-Jan-2001 to 31-Dec-2001		1,280,000 tonnes HARD ROCK ORE (OR REEF)
GOLD	BULLION	1,303.2 kilograms 1.16 grams per tonne
Period: 1-Jul-2006 to 30-Jun-2007		
GOLD	FINE	15.2 kilograms
SILVER		5.0 kilograms
Period: 1-Jul-2014 to 30-Jun-2016		
GOLD	FINE	108.3 kilograms

Published Reserves/Resources

BR 8127 Published in 2004

WIRRALIE OXIDE ORE

INDICATED MINERAL RESOURCE 1,670,000 tonnes Ore @
1.01 g/t GOLD **FOR** 1,686 Kilograms GOLD

Comments/Cut Off Factor: 0.7g/t Au cutoff

BR 8127 Published in 2004

WIRRALIE OXIDE ORE

INFERRED MINERAL RESOURCE 606,000 tonnes Ore @
1.04 g/t GOLD **FOR** 630 Kilograms GOLD

Comments/Cut Off Factor: 0.7g/t Au cutoff

BR 8127 Published in 2004

WIRRALIE OXIDE ORE

MEASURED MINERAL RESOURCE 2,158,000 tonnes Ore @
1.11 g/t GOLD **FOR** 2,395 Kilograms GOLD

Comments/Cut Off Factor: 0.7g/t Au cutoff

BR 8127 Published in 2004

WIRRALIE SULPHIDE ORE

INFERRED MINERAL RESOURCE 5,300,000 tonnes Ore @
2.33 g/t GOLD **FOR** 12,349 Kilograms GOLD

Comments/Cut Off Factor: 1.4g/t Au cutoff

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 8127	2004	ASHBURTON MINERALS LIMITED	2004 ANNUAL REPORT.	ASHBURTON MINERALS LIMITED, PERTH.

Queensland Minerals

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Major Mining Related Events

Year Commenced	to	Year Completed	Comments
1986	to	1986	Originally discovered by Australian Consolidated Minerals Ltd during follow-up of anomalous BLEG stream sediment sampling results.
1987	to	1992	Mining development by Australian Consolidated Minerals Ltd commenced in November 1987. Operations ceased in 1992.
1992	to	1992	Ross Mining NL acquired property.
1993	to	1993	Plant relocated to Yandan mine.
1998	to	1999	Ross Mining NL returned the treatment plant to Wirralie once the Yandan resource was exhausted.
1999	to	2001	Mining by Ross Mining NL with first gold from oxide ore poured in July 1999. Open pit mining ceased in June 2001. Stockpiles were treated before the mine was placed on long term care and maintenance in November 2001.
2003	to	2003	Ashburton Minerals Ltd bought the Drummond Basin Gold Project in August 2003, from Delta Gold Ltd, a subsidiary of Aurion Gold Ltd.
2004	to	2004	Ashburton Minerals Ltd was preparing a feasibility study and a resource estimate. The study was suspended in March 2004 to focus on the delineation of additional resources.
2005			Purchased tenure and commenced deeper drilling and stepping out from previous mining to successfully identify further resources.

Operating Mine Life: 2007 to 2010 Planned heap leach mining operation. Oxide resource has 3 year mine life. If sulphide resource mined then an additional 5 years mine life.

Mining Operations		Comments	
OPEN CUT MINING		Rehabilitation of the site is well underway; open cut mining ceased in June 2001. The three pits are called Pit A, Pit B, and the Deep Lead Pit. Pits A and B are separated by the north-east-trending Juggler Fault.	
Tenure Type/Number	SHARE	Company Name/Surname	
ML 1079	100.00%	SOLOMONS GOLD PTY LTD	
Host Rock/Cover Sequences		Formation Name/Age	
<i>Structural Unit</i> DRUMMOND BASIN		Mount Wyatt Formation / LATE DEVONIAN to EARLY CARBONIFEROUS	
Deposit Model			
GENERAL OREBODY MODEL		EPITHERMAL VEINS/PIPE/STOCKWORK	
DETAILED OREBODY MODEL		EPITHERMAL PRECIOUS METAL	LOW SULPHIDATION EPITHERMAL
Mineralisation Age			
ORE		CARBONIFEROUS to PERMIAN	
Comments			
Economic gold mineralisation occurs in a tabular body that is crudely conformable with the enclosing Late Devonian to early Carboniferous felsic volcanics and volcanoclastics.			
A network of quartz-chalcedony veins and quartz-matrix breccia veins of at least four generations cut the host rocks.			
Ashburton Minerals Ltd purchased the Drummond Basin Gold Project in August 2003 from Delta Gold Ltd, a subsidiary of Aurion Gold Ltd and sold it in 2005.			
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Queensland Minerals

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38524 WOLFRAM CAMP

OPERATING MINE, ACTIVE PROSPECT

Descriptive Location: WOLFRAM CAMP, 21KM NW OF DIMBULAH, 80KM WEST OF CAIRNS.

1:100 000 sheet Number and Name: 7863 CHILLAGOE

Grid Reference: Zone 55 283914 mE 8109969 mN

Latitude -17.0845 Longitude 144.9694

Date Recorded: 31/January/2017

Other Names for Deposit / Mine

Wolfram Camp Tungsten Mine

Wolfram Camp Tungsten Prospect

Commodities	Size	Size Definition
TUNGSTEN	MEDIUM	500 - 10 000 tonnes W
MOLYBDENUM	SMALL	50 - 5 000 tonnes MO
BISMUTH	SMALL	50 - 5 000 tonnes BI

Production Details

Period: 1-Jan-1893 to 31-Dec-1990

WOLFRAMITE 6,855.0 tonnes

MOLYBDENITE 135.0 tonnes

BISMUTHINITE 1,535.0 tonnes

Period: 1-Jul-2008 to 30-Jun-2016

MOLYBDENITE 82.4 tonnes

WOLFRAMITE 1,635.8 tonnes

Published Reserves/Resources

BR 10463 Published in 2015

WOLFRAM CAMP

INDICATED MINERAL RESOURCE 514,000 tonnes Ore @
0.23 % TUNGSTIC OXIDE **FOR** 1,182 Tonnes TUNGSTIC OXIDE

Molybdenum no longer reported

BR 10463 Published in 2015

WOLFRAM CAMP

INFERRED MINERAL RESOURCE 1,879,000 tonnes Ore @
0.31 % TUNGSTIC OXIDE **FOR** 5,824 Tonnes TUNGSTIC OXIDE

Molybdenum no longer reported

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 10463	2015	ALMONTY INDUSTRIES	ALMONTY ANNOUNCES THE FOLLOWING FILINGS: THE LOS SANTOS MINE NI 43-101 TECHNICAL REPORT DATED OCTOBER 31, 2015; THE WOLFRAM CAMP MINE NI 43-101 TECHNICAL REPORT DATED OCTOBER 31, 2015 AND THE VALTREIXAL PROJECT NI 43-101 TECHNICAL REPORT DATED OCTOBER 31.	WWW.ALMONTY.COM

Major Mining Related Events

Year Commenced	Year Completed	Comments
1888	to 1888	Discovery (Willie Joss).
1893	to 1990	Intermittent mining.
1971	to 1982	Mining concentrated on eluvial material.
1982	to 1990	Underground development commenced with 2 declines, New Forget-Me-Not and the Lane Decline.

Queensland Minerals

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Mining Operations

Comments

OPEN CUT MINING
 UNDERGROUND MINING METHODS
 PITS
 SHAFTS
 TRENCHES
 ADITS
 SURFACE MINING METHODS

Tenure Type/Number	SHARE	Company Name/Surname
EPM 8884	15.00%	TROPICAL METALS PTY LTD
EPM 8884	85.00%	WOLFRAM CAMP MINING PTY LIMITED
ML 4935	15.00%	TROPICAL METALS PTY LTD
ML 4935	85.00%	WOLFRAM CAMP MINING PTY LIMITED
ML 5117	15.00%	TROPICAL METALS PTY LTD
ML 5117	85.00%	WOLFRAM CAMP MINING PTY LIMITED
ML 20486	15.00%	TROPICAL METALS PTY LTD
ML 20486	85.00%	WOLFRAM CAMP MINING PTY LIMITED
ML 20534	15.00%	TROPICAL METALS PTY LTD
ML 20534	85.00%	WOLFRAM CAMP MINING PTY LIMITED

Host Rock/Cover Sequences

Structural Unit

KENNEDY IGNEOUS ASSOCIATION

Formation Name/Age

James Creek Granite / LATE CARBONIFEROUS to LATE CARBONIFEROUS

Deposit Model

GENERAL OREBODY MODEL	INTRUSIVE-RELATED (PORPHYRY-RELATED)	
DETAILED OREBODY MODEL	GREISEN	ENDO-GREISEN

Mineralisation Age

ORE	LATE CARBONIFEROUS
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Comments

This deposit occurs in the roof zone of a highly fractionated granite body capped by Hodgkinson Formation sediments and Featherbed Volcanics.

Mineralisation is confined to greisen zones and consists of irregular branching pipes, minor mineralised flat joints and irregular segregations. Wolframite is randomly distributed. Molybdenite is concentrated on the margins of pipes.

Queensland Ores Limited targeted wolframite-molybdenite in portions of alteration zones around the high-grade pipes, especially between the Lanes Decline and Victory workings.

Drilling results announced in October 2007 included 1m at 1.43% WO₃ and 0.79% MoS₂ from 60m, 2m at 0.55% WO₃ and 0.08% MoS₂ from 16m, 6m at 0.21% WO₃ and 0.08% MoS₂ from 2m, and 7m at 0.29% WO₃ and 0.26% MoS₂ from 29m.

Sulphide concentrates are being stockpiled and will be batch treated to extract molybdenite concentrate, rather than operate the molybdenite circuit continuously.

By the end of March 2008, construction work at the mine site was 95% complete. Commissioning of the treatment plant was completed and the first shipment of concentrates took place on 15 September 2008.

Queensland Ores Ltd (now Planet Metals Ltd) announced on November 2008 that the Wolfram Camp mine had suspended operations to conserve money as mining and metallurgical issues are being addressed.

April 2011: Wolfram Camp Mining Pty Ltd a wholly owned subsidiary of Planet Metals Ltd has been sold to Deutsche Rohstoff AG the sale includes the processing plant, the MLs and exploration permits held over the Wolfram Camp Tungsten-Molybdenum deposit.

Almonty Industries had acquired Wolfram Camp from Deutsche Rohstoffe AG in 2014 and mined the open cut primarily mining tungsten, and letting the molybdenum go to the tailings and waste dumps. In early 2016 the mine and open cut was put on care and

(cont.) maintenance. Molybdenum is no longer reported in the 2015 NI 43-101 resource figures. At the base of the open cut bismuth minerals as well as molybdenite were still commonly observed, but were not regarded feasible to recover.

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www.rohstoff.de

Queensland Minerals

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496707 YARRAMAN

OPERATING MINE

Descriptive Location: NORTH EASTERN CORNER OF NORTH STRADBROKE ISLAND, 45KM EAST OF BRISBANE.

1:100 000 sheet Number and Name: 9543 BRISBANE

Grid Reference: Zone 56 548959 mE 6962127 mN Latitude -27.4634 Longitude 153.4955 Date Recorded: 8/January/2016

Other Names for Deposit / Mine

Commodities	Size	Size Definition
ILMENITE	SMALL	5 000 - 5 000 000 tonnes IM
ZIRCON	SMALL	500 - 500 000 tonnes ZIR
RUTILE	MEDIUM	200 000 - 500 000 tonnes RUT
MONAZITE	VERY SMALL	<200 tonnes MZ

Production Details

Period: 1-Jul-2000 to 30-Jun-2009	
RUTILE	237,900.0 tonnes
ILMENITE	581,471.0 tonnes
Period: 2-Jul-2000 to 30-Jun-2012	
ZIRCON	263,871.0 tonnes

Published Reserves/Resources

BR 8476 Published in 2006

YARRAMAN - DREDGE

MEASURED MINERAL RESOURCE 238,100,000 tonnes Ore @	
0.28 % ILMENITE	FOR 676,204 Tonnes ILMENITE
0.12 % RUTILE	FOR 288,101 Tonnes RUTILE
0.09 % ZIRCON	FOR 219,052 Tonnes ZIRCON

Comments/Cut Off Factor: 0.6% heavy minerals cut off. Includes proved reserves of 125.6Mt at 0.69% heavy minerals.

BR 8476 Published in 2006

YARRAMAN - DRY MINE

INDICATED MINERAL RESOURCE 13,100,000 tonnes Ore @	
0.44 % ILMENITE	FOR 56,985 Tonnes ILMENITE
0.17 % RUTILE	FOR 22,270 Tonnes RUTILE
0.14 % ZIRCON	FOR 18,078 Tonnes ZIRCON

Comments/Cut Off Factor: 0.9% heavy minerals cut off.

BR 8476 Published in 2006

YARRAMAN - DRY MINE

INFERRED MINERAL RESOURCE 2,200,000 tonnes Ore @	
0.48 % ILMENITE	FOR 10,626 Tonnes ILMENITE
0.16 % RUTILE	FOR 3,542 Tonnes RUTILE
0.13 % ZIRCON	FOR 2,772 Tonnes ZIRCON

Comments/Cut Off Factor: 1.0% heavy minerals cut off.

BR 8476 Published in 2006

YARRAMAN - DRY MINE

MEASURED MINERAL RESOURCE 8,000,000 tonnes Ore @	
0.45 % ILMENITE	FOR 36,080 Tonnes ILMENITE
0.17 % RUTILE	FOR 13,200 Tonnes RUTILE
0.12 % ZIRCON	FOR 9,680 Tonnes ZIRCON

Comments/Cut Off Factor: 0.9% heavy minerals cutoff. Includes proved 5.6Mt at 1.07% and probable 7.1Mt at 0.96% heavy mineral

Resource figures listed above are JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 8476	2006	CONSOLIDATED RUTILE LIMITED	ANNUAL REPORT 2006.	CONSOLIDATED RUTILE LIMITED, BRISBANE.

Major Mining Related Events

Year Commenced	Year Completed	Comments

Operating Mine Life: 1999 to 2012 Dredge relocated to this mine in 1999 with operations commencing in Sept 1999.

Mining Operations	Comments
DREDGING	Floating dredge with spiral concentrators snaking through high dunes.

Tenure Type/Number	SHARE	Company Name/Surname
ML 1109	100.00%	STRADBROKE RUTILE PTY LTD
ML 1122	100.00%	STRADBROKE RUTILE PTY LTD

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Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

MODERN COASTAL DEPOSITS

Deposit Model

GENERAL OREBODY MODEL

DUNE DEPOSIT

DETAILED OREBODY MODEL

DUNE DEPOSIT HEAVY MINERALS

Mineralisation Age

ORE

CENOZOIC

Comments

Part of Consolidated Rutile Limited's North Stradbroke mineral sands mining operation. Heavy minerals sands are mined using a dredge on artificial ponds concentrated and taken by barge to Pinkenba at the mouth of the Brisbane River for final separation.

In 2009 Sibelco acquired all assets from Consolidated Rutile Ltd.

Web Page

<http://www.sibelco.com.au>

Queensland Minerals

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587965 **YUNGAN**

OPERATING MINE

Descriptive Location: 16.5KM E OF WARWICK

1:100 000 sheet Number and Name: 9341 WARWICK

Grid Reference: Zone 56 422387 mE 6880224 mN

Latitude -28.2014 Longitude 152.2092

Date Recorded: 8/January/2016

Other Names for Deposit / Mine

Malcolm Guy Yangan Quarry

Commodities	Size	Size Definition
SANDSTONE	SMALL	10 000 - 100 000 tonnes SST
BUILDING STONE	VERY SMALL	<100 000 tonnes BLST

Production Details

Period: 1-Jul-2007 to 30-Jun-2012

SANDSTONE 59,097.0 tonnes

Published Reserves/Resources

Resource figures listed above have been extracted from Company Annual reports or published literature.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 50163	50.00%	FREESPORT PTY LIMITED
ML 50163	50.00%	DENSYL SANDSTONE PTY LTD

Host Rock/Cover Sequences

Structural Unit

Formation Name/Age

CLARENCE-MORETON BASIN

Marburg Subgroup / EARLY JURASSIC to MIDDLE JURASSIC

Deposit Model

GENERAL OREBODY MODEL

SEDIMENT-HOSTED DEPOSIT

Mineralisation Age

Comments

Web Page

Queensland Minerals

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504525 ZACK'S

OPERATING MINE

Descriptive Location: SEVENTEEN MILE ROAD HELIDON, 6 KM NORTH-NORTH-EAST OF HELIDON, 85KM WEST OF BRISBANE.

1:100 000 sheet Number and Name: 9343 ESK

Grid Reference: Zone 56 416365 mE 6958093 mN Latitude -27.4981 Longitude 152.1533 Date Recorded: 8/February/2017

Other Names for Deposit / Mine

Rosa And Bondi Quarries

Pearson'S Quarry

Commodities	Size	Size Definition
BUILDING STONE	SMALL	100 000 - 2 000 000 tonnes BLST
SANDSTONE	MEDIUM	100 000 - 1 000 000 tonnes SST

Production Details

Period: 1-Jan-1991 to 31-Dec-1991	
SANDSTONE	4,200.0 tonnes
Period: 1-Jul-2002 to 30-Jun-2014	
SANDSTONE	87,715.1 tonnes

Published Reserves/Resources

BR 6192 Published in 2000

ZACK'S
INDICATED MINERAL RESOURCE
861,400 Tonnes SANDSTONE

Probable reserves and Indicated resources of sandstone as at 31st December 1992.

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
BR 6192	2000	NEVILLE BJ, WILLMOTT WF, O'FLYNN ML, POTTER R	KEY RESOURCE AREAS FOR SANDSTONE BUILDING STONE, EXTRACTIVE MATERIALS AND EXPLOSIVES INDUSTRY HELIDON AREA (DRAFT).	DEPARTMENT OF MINES AND ENERGY KEY RESOURCE AREA REPORT NO.3

Major Mining Related Events

Year Commenced	Year Completed	Comments
1991	to 1992	The Rosa quarry was re-opened in mid-1991 and worked for 6 months.

Mining Operations	Comments
OPEN CUT MINING	

Tenure Type/Number	SHARE	Company Name/Surname
ML 50013	100.00%	CHONGHERR INVESTMENTS LTD

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
CLARENCE-MORETON BASIN	Helidon Sandstone / TRIASSIC to TRIASSIC

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
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Mineralisation Age

ORE	LATE TRIASSIC to EARLY JURASSIC
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Comments

Quarry produced significant amounts of banded sandstone blocks.

Web Page

www.chongherr.com.au

Queensland Minerals

A Summary of Major Mineral Resources, Mines and Projects, 2016

481012 ZINABACK

OPERATING MINE

Descriptive Location: 72 KM NORTH-WEST OF CHARTERS TOWERS, 110KM WEST OF CAIRNS.

1:100 000 sheet Number and Name: 8058 HILLGROVE

Grid Reference: Zone 55 371907 mE 7830213 mN Latitude -19.6190 Longitude 145.7784 Date Recorded: 8/January/2016

Other Names for Deposit / Mine

Jubilee
Hillgrove Dolomite

Commodities	Size	Size Definition
EARTHY LIME / DOLOMITE (AGRICULTURAL)	MEDIUM	100 000 - 1 000 000 tonnes ELIM

Production Details

Period: 1-Jan-1993 to 31-Dec-1993	
EARTHY LIME / DOLOMITE (AGRICULTURAL)	177.0 tonnes
Period: 1-Jul-1996 to 30-Jun-2001	
EARTHY LIME / DOLOMITE (AGRICULTURAL)	5,231.0 tonnes
Period: 1-Jul-2008 to 30-Jun-2012	
EARTHY LIME / DOLOMITE (AGRICULTURAL)	64,205.3 tonnes

Published Reserves/Resources

Company Report 25397 Published in 1990 **ZINABACK**
INFERRED MINERAL RESOURCE
450,000 Tonnes EARTHY LIME / DOLOMITE (AGRICULTURAL)

Resource figures listed above are NOT JORC compliant.

Published Reference ID	Year	Author	Title	Source
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Major Mining Related Events

Year Commenced	Year Completed	Comments
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Mining Operations

OPEN CUT MINING

Comments

Each pit is approximately 50m x 50m and 6m deep.

Tenure Type/Number	SHARE	Company Name/Surname
ML 1694	100.00%	ZINABACK PTY. LTD.

Host Rock/Cover Sequences

Structural Unit	Formation Name/Age
NULLA BASALT PROVINCE	Allingham Formation / LATE TERTIARY to LATE TERTIARY

Deposit Model

GENERAL OREBODY MODEL	SEDIMENT-HOSTED DEPOSIT
DETAILED OREBODY MODEL	DOLOMITE DEPOSIT

Mineralisation Age

ORE	PLIOCENE	Flat bedded nodular material.
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Comments

The dolomite deposit in the main pit is under approximately 1.5 m of overburden, the dolomite body itself being approximately 2 m thick.
The dolomite ore material contains 94% carbonates with a ratio of approximately 2:1 for calcium carbonate to magnesite.

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