Queensland coal — mines and advanced projects

July 2017

Industry update

Resources

Queensland has a rich endowment of high-quality coal, with an inventory estimated in 2002, at approximately 34 billion tonnes (Bt) (raw in-situ), identified by government and industry exploration. At that time, metallurgical (coking and pulverised coal injection or PCI) coals accounted for approximately 8.7 Bt of the inventory, of which about 4 Bt were considered potentially suitable for open-cut mining. These estimates are currently being reviewed with an expectation that the State's coal inventory will have increased significantly, resulting from the increased level of coal exploration activity by private enterprise that occurred in Queensland since 2002.

Provinces

The Bowen Basin contains almost all of the State's hard coking coal, and is the most important coal-bearing province in Queensland. In addition to supplying all of the metallurgical coal currently mined within Queensland, mines operating within the basin also produce a wide range of thermal coal products, principally for export.

Oueensland coal exports also include high-volatile thermal coals mined from the Clarence-Moreton and Surat basins in the south-east of the State. Other thermal coals mined in Queensland include those within the Tarong and Callide basins which are used in mine-mouth, coal-fired power stations for electricity generation.

Projects

Tables 1 and 2 show 21 projects either under construction or in advance stages of developed with mining leases approved or in application. Byerwen the newest mine under construction will commence production in late 2017.

Production

Queensland mines produced 242.2 million tonnes (Mt) of saleable coal during 2015-16 which was marginally down on production during the previous financial year. This production was contributed to by 37 open cut mining operations, which accounted for more than 85 per cent of saleable production, and 13 underground mines.

During the period, 221.5 Mt, worth an estimated A\$21.45 billion (freeon-board basis), was exported to more than 30 destinations overseas, with markets in Asia accounting for about 85 per cent of sales. Royalties attributed to coal sales in 2015-16 amounted to around A\$1.59 billion, representing about 80 per cent of the royalties paid to the State during the period. A list of current operations is available in Table 3.

Exports

Exports continued to be dominated by metallurgical coals, accounting for 161.8 Mt, with the remaining 59.6 Mt of export sales comprised of thermal coals used for electricity generation and in industrial processes (see Figure 1). Additional domestic sales of thermal coal within Queensland amounted to 23.4 Mt.

Quick facts (2015-16)*

Saleable coal production	
Open-cut	209.5 Mt
Underground	32.7 Mt
Total	242.2 Mt
Coal exports	
Metallurgical	161.8 Mt
Thermal	59.7 Mt
Total	221.5 Mt
Operating coal mines	
Open-cut	37
Underground	13
Total	50

During 2015–16, Japan regained its long-held position as the State's most significant export destination, accounting for over 20 per cent of all coal exported from Queensland with 49.6 Mt sold to that country, comprised of about 31.7 Mt of metallurgical coal and 17.9 Mt of thermal coal.

Exports to China totalled 43.9 Mt during 2015-16, down from 52.9 Mt shipped during 2014–15. Other significant markets were India, Korea Singapore and Taiwan, which imported 34.5 Mt, 30.6 Mt, 13.8 Mt and 10.2 Mt respectively from Queensland coal producers during 2015–16.

Exploration

Coal exploration activity within Queensland, as measured by the number and coverage area of granted exploration tenure within the State, continued to decline from the previous financial year, with 625 granted EPCs remaining as at 30th June 2016 (compared with 800 at the end of the previous financial year) covering an area of about 131 000 km², (down from about 193 000 km²).

During 2015–16, the Australian Bureau of Statistics (ABS) estimated coal exploration expenditure by private companies within Queensland at A\$119.0 million compared with an estimated expenditure of A\$199.9 million for the previous year. (ABS 8412.0).

Further information:

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www.dnrm.qld.gov.au

Note: Coal statistics anoted in this brochure compiled by the Department of Natural Resources and Mines. for fiscal year 2015-16





Table 1: Queensland coal - New coal mines under construction or recently completed

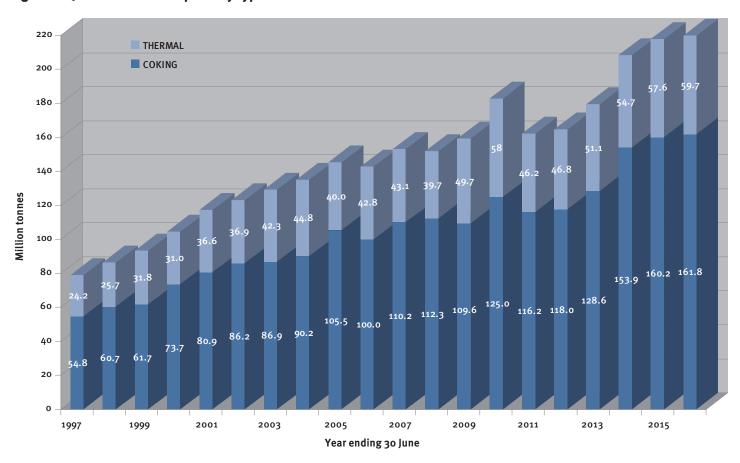
Name	Resource (Mt)	Coal type	Project overview	Principal contact
Eagle Downs Bowen Basin	100-500	•	Underground longwall mine – up to 7 Mt/a Construction on hold - site on care and maintenance. Aquila Resources Limited de- listed on ASX July 2014 following acquisition by consortium comprising Baosteel Resources Australia Pty Ltd and Aurizon Operations Limited	Eagle Downs Coal Management Pty Ltd Aquila Resources Limited www.eagledowns.com.au www.aquilaresources.com.au
Byerwen Bowen Basin	>500	•	Open-cut and underground mines – up to 10 Mt/a	Byerwen Coal Pty Ltd www.qcoal.com.au

Table 2: Queensland coal – Advanced export coal projects (Mining Lease either granted or under application)

Name	Resource (Mt)	Coal type	Project overview	Principal contact
Alpha Galilee Basin	>1000	•	Open-cut and underground longwall mines – 30 Mt/a	Hancock Coal Pty Ltd/GVK Resources (Singapore) PTE Ltd www.gvkhancockcoal.com
Broughton Bowen Basin	10-100	• •	Open-cut mine – ~2 Mt/a saleable coal	U&D Mining Industry (Australia) Pty Ltd www.udcoal.com.au
Bluff Bowen Basin	>10	•	Open-cut mine ~ 1.4 Mt/a run-of-mine (ROM) – Carabella Resources Ltd de-listed on ASX Feb 2014 following acquisition by Wealth Mining Pty Ltd (China Kingho Energy Group)	
Carmichael Coal Mine & Rail Project Galilee Basin	>1000	•	Open-cut mine(s) – up to 60 Mt/a	Adani Mining Pty Ltd www.adani.com
China Stone Galilee Basin	>1000	•	Open-cut and underground mines – up to 38 Mt/a saleable	Mac Mines Austasia Pty Ltd www.macmines.com
Colton Maryborough Basin	10-100	•	Open-cut mine – 0.5 Mt/a	New Hope Corporation Limited www.newhopegroup.com.au
Comet Ridge Bowen Basin	₹20	•	Open-cut mine – ~ 200 000 t saleable (~1.6 Mt/a ROM Fairhill Formation coal seams	Acacia Coal Limited www.acaciacoal.com.au
Galilee Coal Project Galilee Basin	>1000	•	Open-cut and underground mines – ~40 Mt/a (Sometimes referred to as the 'China First' or 'South Alpha' coal project)	Waratah Coal Pty Ltd www.waratahcoal.com
Kevin's Corner Galilee Basin	500-1000	•	Underground longwall and open-cut mines – 30 Mt/a	GVK Resources (Singapore) PTE Ltd through Hancock Galilee Pty Ltd www.gvkhancockcoal.com
Meteor Downs South Bowen Basin	10-100	•	Open-cut mine — 1.5 Mt/a	U&D Mining Industry (Australia) Pty Ltd www.udcoal.com.au
Minyango Bowen Basin	100-500	• •	Underground mine – multi longwall with bord and pillar – up to 7 Mt/a saleable	Caledon Resources www.caledon.com.au
Moorlands Bowen Basin	100-500	•	Open-cut mine – 1.7 Mt/a saleable Cuesta Coal Limited delisted on ASX in October 2016 following acquisition by Longluck Investment (Australia) Pty Ltd	
Moranbah South Bowen Basin	100-500	•	Underground mine – multi longwall with bord and pillar – up to 14 Mt/a saleable	Anglo American Metallurgical Coal Pty Ltd www.angloamerican.com.au
New Acland Mine expansion Clarence Moreton Basin	500-1000	•	Open-cut mine expansion – 4.8 Mt/a to 7.5 Mt/a (scope revised November 2012)	New Hope Corporation Limited www.newhopegroup.com.au
Olive Downs Bowen Basin	10-100	• • •	Open-cut mine – up to 2 Mt/a initially	Pembroke Resources Pty Ltd www.pembrokeresources.com.au
Red Hill Bowen Basin		•	Planned extension to longwall panels at Broadmeadow underground and possible establishment of a new underground mine	BHP Billiton Mitsubishi Alliance www.bhpbilliton.com
South Galilee Galilee Basin	>1000	•	Open-cut and underground mines – feasibility studies continuing, 15 Mt/a	Alpha Coal Management Pty Ltd www.southgalilee.com.au
Springsure Creek Bowen Basin	100-500	•	Underground mine – multi longwall – up to 5.5 Mt/a ROM when proposed by former proponent company Bandanna Energy Limited	Adamelia Resources Pty Ltd www.adamelia.com.au
Taroborah Bowen Basin	10-100	•	Open-cut mine initially ~ 2.5 Mt/a ROM	Shenhuo International Group Pty Ltd www.taroborah.com.au

• coking coal • PCI coal • thermal coal

Figure 1: Queensland coal exports by type





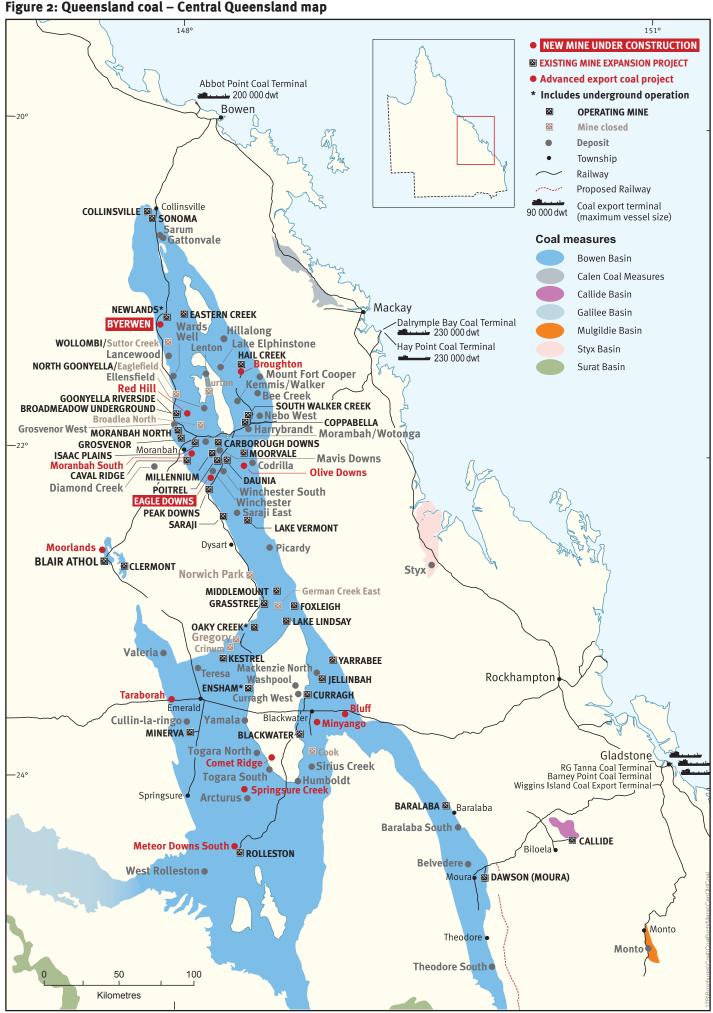


Figure 3: Queensland coal - Western-central Queensland map

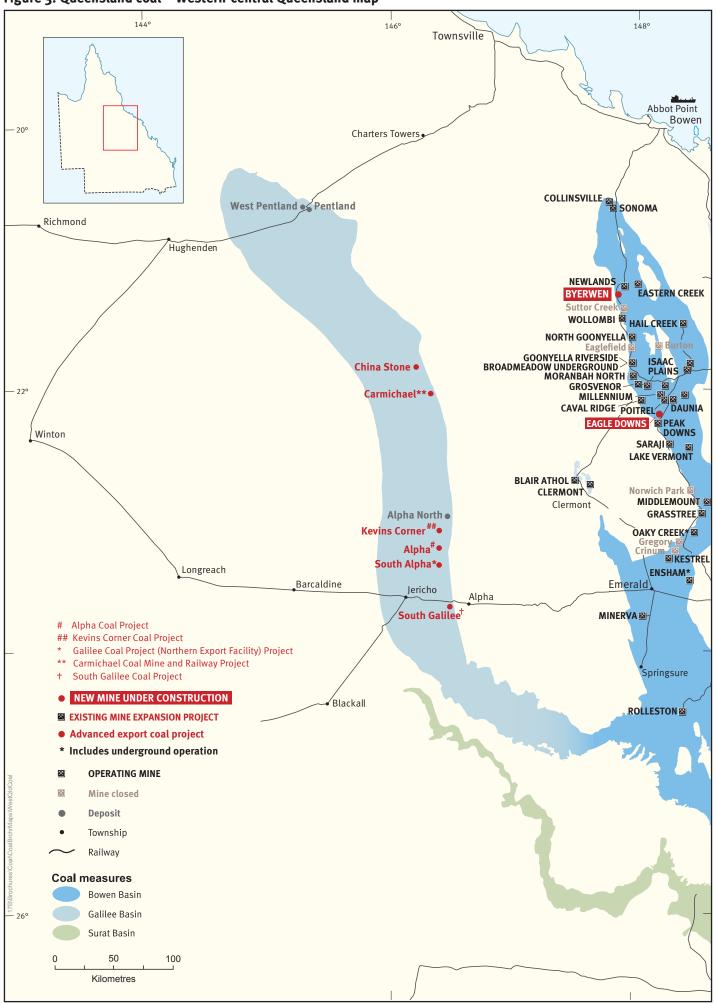


Figure 4: Queensland coal - South-east Queensland map

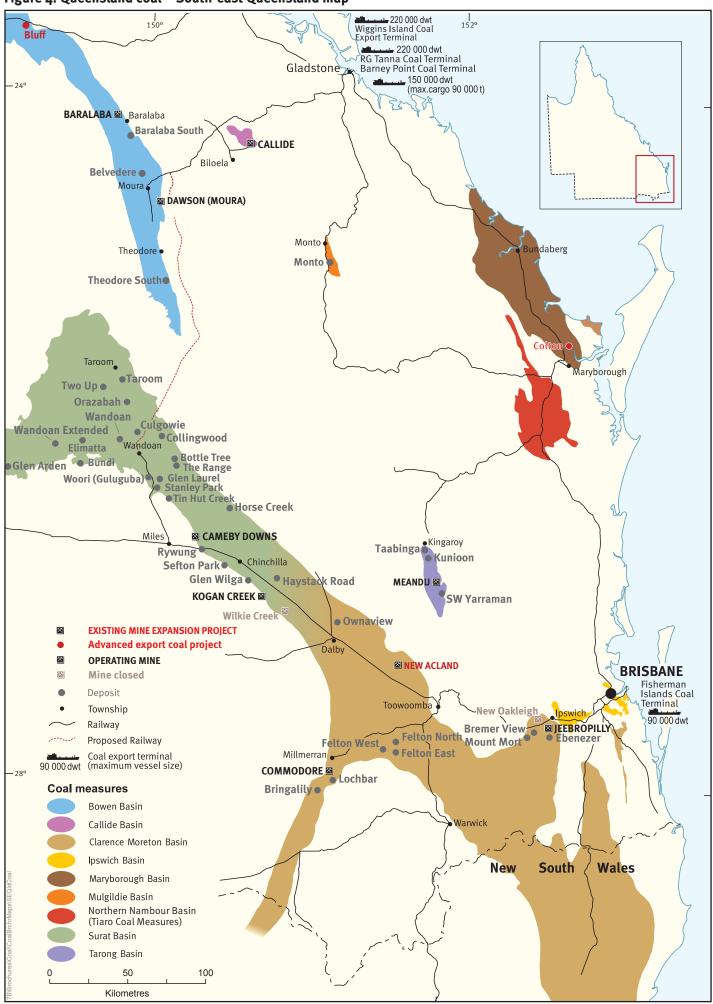


Table 3: Queensland coal – Operating mines 2015–16

Name	Saleable (t) 2015–16		Coa type		Comments	Principal Contact
Anglo American Metallurgical Coal Pty Ltd						www.angloamerican.com.au
Dawson (formerly Moura) Bowen Basin	8 676 608	•		•		
German Creek – Grasstree* Bowen Basin	7 900 809	•				
German Creek – Lake Lindsay Bowen Basin	4 388 407	•	•	•		
Moranbah North* Bowen Basin	4 670 419	•				
Grosvenor* Bowen Basin	860 561	•				
BHP Billiton Mitsubishi Alliance · BHP Billit	on Mitsui Coa	al F	ty L	td		www.bhpbilliton.com
Blackwater Bowen Basin	14 665 975	•		•		
Broadmeadow* Bowen Basin (production included in Goonyella Riverside)	-	•				
Caval Ridge Bowen Basin	7 209 422	•				
Daunia Bowen Basin	5 303 660	•	•	•		
Goonyella Riverside Bowen Basin production includes Broadmeadow underground)	17 974 553	•				
Crinum* Bowen Basin	2 630 318	•			Production ceased December 2015.	
Peak Downs Bowen Basin	9 953 571	•				
Poitrel Bowen Basin	3 496 334	•	•	•		
Saraji Bowen Basin	8 414 880	•				
South Walker Creek Bowen Basin	5 231 565		•	•		
New Hope Corporation Limited						www.newhopegroup.com.au
eebropilly Clarence Moreton Basin	667 177			•		
New Acland Clarence Moreton Basin	4 594 844			•		
Peabody Energy Australia Pty Ltd						www.peabodyenergy.com
Burton Bowen Basin	1 248 357	•		•	Ceased production in December 2016.	
Coppabella Bowen Basin	3 170 077		•	•		
Aiddlemount Bowen Basin	4 240 407		•	•		
Millennium Bowen Basin	3 888 103	•	•	•		
Moorvale Bowen Basin	2 213 675		•	•		
North Goonyella Bowen Basin	1 954 176	•			All production during 2015–16 from North Goonyella underground. Production from Eaglefield open-cut ceased.	
Rio Tinto Coal Australia Pty Limited						www.riotinto.com/australia/rio-tinto -coal-australia-4713.aspx
Hail Creek Bowen Basin	9 527 040	•				
Cestrel* Bowen Basin	3 680 346	•				
Underground coal mine Includes production from underground operation *** Includes production from Drake		•	cok	ing (coal ● PCI coal ● thermal coal	

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Table 3: Queensland coal - Operating mines 2015-16

Name	Saleable (t) 2015–16		oal ype		Comments	Principal Contact
Glencore Australia Holdings Pty Ltd						www.glencore.com
Clermont Bowen Basin	13 647 981			•		
Collinsville Bowen Basin	1 471 279	•		•		
Newlands Bowen Basin – Northern Underground*, Wollombi, Eastern Creek, Suttor Creek open-cut operations	6 005 233	•	•	•	Operations at the Northern Underground Mine ceased in late 2015.	
Oaky Creek Bowen Basin – Oaky Creek No.1*, Oaky North* mines	6 226 090	•				
Rolleston Bowen Basin	13 211 391			•		
• Jellinbah Group						www.jellinbah.com.au
Jellinbah Bowen Basin	5 242 308		•	•		
Lake Vermont Bowen Basin	8 970 878	•	•	•		
Yancoal Australia Ltd						www.yancoal.com.au
Cameby Downs Surat Basin	1 834 738			•		
Yarrabee Bowen Basin	2 908 241		•	•		
• Other companies operating coal mines in C	Queensland			_		
Baralaba Bowen Basin	469 932		•	•	Coal production ceased. Baralaba Coal Company Limited went into voluntary administration in July 2017.	Baralaba Coal Company Limited www.baralabacoalcompany.com.au
Blair Athol Bowen Basin	-			•	Acquired by Terracom in 2017. Due to start coal production in August 2017.	TerraCom Limited www.terracomresources.com
Callide and Boundary Hill Callide Basin	7 837 494			•		Batchfire Resources Pty Ltd www.batchfire.com.au
Carborough Downs* Bowen Basin	2 352 774	•		•	Fitzroy Queensland Resources Limited acquired Vale Australia's majority interest in the mine in December 2016.	
Commodore Clarence Moreton Basin	3 549 217			•		Millmerran Operating Company Pty Ltd www.intergen.com
Cook* Bowen Basin	634 463	•		•	Coal production ceased. Caledon Coal Pty Ltd went into voluntary administration in May 2017 following a flooding incident of the longwall panel in the Argo Seam in March 2017.	Caledon Coal Pty Ltd www.caledon.com.au
Curragh Bowen Basin	10 578 879	•	•	•		Wesfarmers Resources Limited www.wesresources.com.au
Ensham** Bowen Basin	4 916 295			•	Includes production from Ensham underground.	Ensham Resources Pty Ltd www.idemitsu.com.au
Foxleigh Bowen Basin	2 673 761		•	•		Realm Resources Limited www.realmresources.com.au
Isaac Plains Bowen Basin	231 025	•		•		Stanmore Coal Limited www.stanmorecoal.com.au
Kogan Creek Surat Basin	2 151 209			•		CS Energy Ltd www.csenergy.com.au
Meandu Tarong Basin	4 265 614			•		Stanwell Corporation Limited www.stanwell.com
Minerva Bowen Basin	2 111 503			•		Sojitz Corporation www.sojitz.com
Sonoma*** Bowen Basin	4 325 598	•		•		QCoal Pty Ltd www.qcoal.com.au
Total	242 177 187					

^{*} Underground coal mine

[•] coking coal • PCI coal • thermal coal

 $[\]begin{tabular}{ll} ** & Includes production from underground operation \\ \end{tabular}$

^{***} Includes production from Drake