

South Australia's Major Operating/Approved Mines Resource Estimates and Production Statistics



Government of South Australia
Department for Energy and Mining

Prepared by DEM 04/04/2019

Major Operating/Approved Mines	Commodity	Status	Total Resource (unless otherwise stated)	Ore Reserve	Contained Commodity (from Resource)	Annual Production
Olympic Dam - BHP Group Olympic Dam Operations Pty Ltd www.bhp.com	Cu-U-Au-Ag	Operating	9730 Mt(OC sulfide) at 0.62% Cu, 0.2 kg/t U ₃ O ₈ , 0.27 g/t Au, 1.0 g/t Ag 997 Mt (UG sulfide) at 1.68% Cu, 0.49 kg/t U ₃ O ₈ , 0.64 g/t Au, 4 g/t Ag <i>Annual Report 2018</i>	500 Mt (UG sulfide) at 1.98% Cu, 0.58 kg/t U ₃ O ₈ , 0.72 g/t Au, 4.0 g/t Ag 35 Mt (low grade) at 1.15% Cu, 0.37 kg/t U ₃ O ₈ , 0.51 g/t Au, 3 g/t Ag <i>Annual Report 2018</i>	(Total Resource, OC sulfide) 60,326,000 t Cu 1,946,000 t U ₃ O ₈ 84,463,000 oz Au 312,826,000 oz Ag Total Resource (UG sulfide) 16,749,600 t Cu 488,530 t U ₃ O ₈ 20,514,748 oz Au 128,217,177 oz Ag <i>(MRD estimate from published resource)</i> (reserve, UG sulfide) 9,900,000 t Cu 290,000 t U ₃ O ₈ 11,574,000 oz Au 64,300,000 oz Ag <i>(MRD estimate)</i>	2018: 147,400 t Cu (cathode), 3736 t UOC, 103,813 oz Au, 951,000 oz Ag <i>Annual Report 2018</i>
Prominent Hill - OZ Minerals Prominent Hill Operations Pty Ltd www.ozminerals.com	Cu-Au-Ag	Operating	130 Mt (copper resource) at 1.4% CuEq, 1.1% Cu, 0.6 g/t Au and 3 g/t Ag 20 Mt (gold resource) at 0.7% CuEq, 0.1% Cu, 1.2 g/t Au and 2 g/t Ag <i>ASX release 12/11/18</i>	69 Mt at 1.3% CuEq, 1.0% Cu, 0.6 g/t Au and 3.0 g/t Ag <i>ASX Release 12/11/18</i>	copper resource 1,500,000 t Cu, 2,400,000 oz Au and 12,000,000 oz Ag gold resource 19,000 t Cu, 790,000 oz Au, 1,000,000 oz Ag <i>ASX Release 12/11/18</i> 660,000 t Cu, 1,300,000 oz Au, 6,000,000 oz Ag <i>ASX Release 12/11/18</i>	2018: 110,111 t Cu, 130,856 oz Au and 702,703 oz Ag (in conc.) <i>qtr rpt Dec 2018</i>
Carrapateena - OZ Minerals Carrapateena Pty Ltd www.ozminerals.com	Cu-Au-Ag	Under construction	46 Mt (sub-level cave) at 1.4% Cu, 0.7 g/t Au, 7.9 g/t Ag 541 Mt (block cave) at 0.6% Cu, 0.3 g/t Au, 1.7 g/t Ag <i>ASX Release 6/03/2019</i>	79 Mt (probable) at 1.8% Cu, 0.7 g/t Au, 8.5 g/t Ag <i>ASX Release 24/08/2017</i>	Total (sub-level & block cave) 3,883,000 t Cu, 5,753,000 oz Au, 55,000,000 oz Ag <i>ASX Release 6/03/2019</i> (reserve) 1,400,000 t Cu, 1,800,000 oz Au, 22,000,000 oz Ag <i>ASX Release 24/08/2017</i>	4.25 Mtpa 20 year life:65,000 tpa Cu, 67,000 tpa Au first ore q4 2019 <i>qtr rpt Sept 2018</i>
Kanmantoo - Hillgrove Resources Limited www.hillgroveresources.com.au	Cu-Au-Ag	Operating	24 Mt at 0.6% Cu, 0.1 g/t Au, 1.3 g/t Ag <i>Annual Report 2018</i>	1.5 Mt at 0.6% Cu, 0.1 g/t Au, 1.2 g/t Ag <i>Annual Report 2018</i>	Resource: 150,000 t Cu, 77,161 oz Au and 1,003,103 oz Ag <i>Annual Report 2018</i> Reserve: 9000 t Cu, 4822 oz Au and 57,871 oz Ag <i>Annual Report 2018</i>	2018: 22,584 t Cu, 6003 oz Au, 161,592 oz Ag (in conc) <i>Annual Report 2018</i>
Hillside - Rex Minerals Ltd www.rexminerals.com.au	Cu-Au	ML granted (PEPR pending)	337 Mt at 0.6% Cu, 0.14 g/t Au <i>ASX release 25/5/15</i>	82 Mt at 0.62% Cu, 0.16 g/t Au <i>ASX release 25/5/15</i>	(resource) 1 967 600 t Cu 1 416 240 oz Au <i>ASX release 25/5/15</i> (reserve) 509 262 t Cu 431 504 oz Au <i>ASX release 25/5/15</i>	proposed: 6 Mtpa for 35 000 t Cu, 24 000 oz Au as Cu-Au conc, first 12 years <i>Ext Feas Study May 2015</i>
Middleback Range - SIMEC Mining www.simec.com/mining	Fe ₂ O ₃ , Fe ₃ O ₄	Operating	Hematite 183.3 Mt at 56.7% Fe Magnetite 179.0 Mt at 36.6% DTR and 34.8% Fe beneficiated hematite stockpile 57.4 Mt at 45.9% Fe <i>ASX release 19/08/15</i>	Hematite reserves 23.1 Mt at 57.9% Fe, 5.8% SiO ₂ , 2.8% Al ₂ O ₃ , 0.05% P Magnetite reserves 61.9 Mt at 39.6% DTR and 38.3% Fe, 19.9% SiO ₂ Beneficiated hematite stockpile 15.9 Mt (52% recovery)61.0% Fe <i>ASX release 19/08/15</i>	Resource: 103 900 000 t Fe (hematite) 62 300 000 t Fe (magnetite) 26 300 000 t Fe (stockpile) <i>(MRD estimate)</i> Reserve: 13 300 000 t Fe (hematite) 23 700 000 t Fe (magnetite) <i>(MRD estimate)</i>	2018: ~8 Mt iron ore
Cairn Hill - Cu-River Mining Australia Pty Limited	Fe ₃ O ₄ , Cu, Au	Care and Maint.	11.4 Mt at 49.5% Fe (magnetite) 0.4% Cu and 0.1 g/t Au	6.9 Mt at 51.2% Fe, 0.43% Cu, 0.13 g/t Au (Phase 1 pit area 28/12/09)	5 643 000 t Fe <i>(MRD estimate)</i>	2016-17:~0.6 Mt magnetite concentrate, ramping up to 3 Mtpa by 2018

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Peculiar Knob – Southern Iron Pty Ltd (Subject to Deed of Company Arrangement) <i>www.simec.com/mining</i>	Fe ₂ O ₃	Care and Maint.	Southern Iron (Peculiar Knob and Hawks Nest) Hematite resources 34.2 Mt at 61.0% Fe, 9.75% SiO ₂ , 1.1% Al ₂ O ₃ , 0.05% P <i>2014 ore statement</i>	Southern Iron (Peculiar Knob and Hawks Nest) Hematite reserves 19.7 Mt at 61.8% Fe, 0.03% P (as at June 2014, no reserve declared June 2015) <i>2014 ore statement</i>	Southern Iron Hematite contained resource 25,200,000 t Fe <i>(MRD estimate)</i> no reserve declared June 2015	2012–2015: 8.2 Mt iron ore <i>qtr rpt June & Dec 2015</i>
Central Eyre Iron Project – Iron Road Limited <i>www.ironroadlimited.com.au</i>	Fe ₃ O ₄	ML granted (PEPR pending)	4 510 Mt (meas. ind. & inf.) at 16.0% Fe, 53.0% SiO ₂ , 13.0% Al ₂ O ₃ , 0.08% P and 3.5% LOI <i>ASX release 27/02/15</i>	3 681 Mt (prov. and prob.) at 15.07% Fe, 53.7% SiO ₂ , 12.06% Al ₂ O ₃	~721 600 000 t Fe (resource) <i>(MRD estimate)</i> ~554 700 000 t Fe (reserve)	~21.5 Mtpa, 67% Fe conc. +25 year mine life
Wilgerup – Centrex Metals Limited <i>www.centremetals.com.au</i>	Fe ₂ O ₃	PEPR Approved	13.3 Mt (ind.) at 57.7% Fe, 4.9% SiO ₂ , 2.8% Al ₂ O ₃ , 5.1% LOI, 0.5% P <i>Annual Report 2015</i>		7 616 400 t Fe <i>(MRD estimate)</i>	proposed: 1–1.5 Mtpa
Four Mile – Quasar Resources P/L	U	Operating	Four Mile 9.8 Mt at 0.33% U ₃ O ₈ Four Mile Northeast 7.5 Mt (inf.) at 0.30% U ₃ O ₈		Four Mile 32 000 t U ₃ O ₈ Four Mile Northeast 22 680 t U ₃ O ₈	2016: 1690 t UOC
Beverley – Heathgate Resources P/L <i>www.heathgate.com.au</i>	U	Operating	Beverley: 7.7 Mt at 0.27% U ₃ O ₈ Beverley North: 2.2 Mt at 0.18% U ₃ O ₈		Beverley: 21 000 t U ₃ O ₈ Beverley North: 4000 t U ₃ O ₈ (0.15m% GT cut-off) <i>(MRD estimate)</i>	N/A
Honeymoon – Boss Resources Ltd <i>www.bossresources.com.au</i>	U	Care and Maint.	52.4 Mt at 620 ppm U308 (includes Honeymoon re-start area, Gould's Dam & Jason's) <i>ASX Release 25/02/19</i>	3.64 Mt (prob) at 0.063% U <i>ASX Release 31/12/12</i>	32,500 t U308 (resource) (Total Honeymoon project) <i>ASX Release 25/02/19</i> 2688 t U (reserve) <i>ASX Release 31/12/12</i>	proposed restart–400tpa for 12mths, stage2 –900tpa, stage3 –1450 tpa <i>ASX Release 31/05/17</i>
Jacinth–Ambrosia – Iluka Resources Limited <i>www.iluka.com</i>	HM	Operating	208.5 Mt material for 5.7 Mt in situ HM, 48.7% zircon, 26.4% ilmenite, 4.5% rutile <i>ASX release 20/02/2017</i>	Ambrosia 56.5 Mt at 3.5% HM, in situ HM – 2 Mt at 52.6% zircon, 23.6% ilmenite, 4.8% rutile. Jacinth 45.8 Mt at 4.3% HM, in situ HM – 2 Mt at 46.9% zircon, 31% ilmenite, 4.2% rutile <i>ASX release 20/02/2018</i>	2 766 200 t zircon, 1 502 400 t ilmenite, 257 272 t rutile, (of total resource) <i>ASX release 20/02/2017</i> (reserve) 1 961 778 t zircon, 739 715 t ilmenite, 177 262 t rutile <i>ASX release 20/02/2017</i>	2018: 289 100 t zircon, 38 000 t rutile, 121 700 t ilmenite <i>qtr rpt Dec 2018</i>
Mindarie – Murray Zircon Pty Ltd <i>www.murrayzircon.com.au</i>	HM	Rehab.		48.1 Mt material at 3.7% HM for 1.8 Mt in situ HM, 19.9% zircon, 48.9% ilmenite, 5.0% rutile & 6.5% leucoxene <i>Website 01/01/16</i>	(reserve) 358 200 t zircon, 880 200 t ilmenite, 90 000 t rutile, 117 000 t leucoxene	N/A
Challenger – WPG Resources Ltd (Administrators Appointed) <i>www.wpgresources.com.au</i>	Au	Care and Maint.	1 621 000 t at 6.99 g/t Au <i>ASX release 29/09/17</i>	537 200 t at 5.60 g/t Au <i>ASX release 29/09/17</i>	364 000 oz Au (resource) <i>ASX release 29/09/17</i> 96 700 oz Au (reserve) <i>ASX release 29/09/17</i>	2017–18: 35 000 oz Au <i>qtr rpt</i>
White Dam – Exco Resources Ltd <i>www.whsp.com.au</i> Washington H. Soul Pattinson–owner (through subsidiary Exco)	Au	Operating	5.42 Mt at 0.97 g/t Au <i>website 11/08/2017</i>	5.4 Mt at 1.04g/t gold	169 400 oz Au (resource) <i>website 11/08/2017</i> 181 000 oz Au (reserve) <i>(PEPR 01/01/2012)</i>	2018: ~8400 oz Au
Portia – Benagerie Gold Pty Ltd (100%subsidiary of Havilah Resources) <i>www.havilah-resources.com.au</i>	Au	Care and Maint.	720,000 t at 2.9 g/t Au (inf.)	53,200 oz Au <i>(PEPR 17/12/2014)</i>	67,000 oz Au	2018: 10,200 oz Au
Tarcoola – WPG Resources Ltd (Administrators Appointed) <i>www.wpgresources.com.au</i>	Gold	Care and Maint.	1 600 000 t at 1.7 g/t Au <i>ASX Release 21/09/2017</i>	567 200t at 3.0 g/t Au <i>ASX Release 21/09/2017</i>	87 600 oz Au <i>ASX Release 21/09/2017</i> 54 300 oz Au <i>ASX Release 21/09/2017</i>	2017–18: 17 000 oz Au

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Beltana – Perilya Limited <i>www.perilya.com.au</i>	Zn	Care and Maint.	Total resource 972 000 t at 29.8% Zn, (ind.) 375 600 t at 32.6% Zn (2009 remaining) 308 000 at 28% Zn	Stockpile depleted by 2011/12		N/A
Angas – Terramin Australia Limited	Pb, Zn, Cu, Au, Ag	Care and Maint.	0.91 at 4.2% Zn and 1.7% Pb <i>Annual Report 2017</i>			N/A <i>sept qtr rpt 2013</i>
Leigh Creek – Alinta Energy Group <i>www.alintaenergy.com</i>	Coal	Rehab.	900 Mt coal (upper series, middle series and lower series)	40 Mt coal (reserves to 2009)		2016 (final): 0.6 Mt coal
Uley – Quantum Graphite Operations Pty Ltd (Subject to Deed of Company Arrangement)	graphite	Care and Maint.	4.54 Mt at 11.63% TGC (3.5% cutoff) <i>ASX release 14/5/15</i>	2.917 Mt at 12.1% TGC <i>ASX Release 14/5/15</i>	520 000 t TGC (resource) 353 618 t TGC (reserve) <i>ASX Release 14/5/15</i>	nil
Campoona – Archer Exploration Limited <i>www.archerexploration.com.au</i>	graphite	ML granted (PEPR pending)	8.55 Mt at 9.0% TGC <i>ASX release 06/08/14</i>		770 800 t (meas. ind. & inf.) TGC <i>ASX release 06/08/14</i>	campaign mine up to 10,000 tpa graphite concentrate over 16 year mine life
Kookaburra Gully – Lincoln Minerals Limited <i>www.lincolnminerals.com.au</i>	graphite	ML granted (PEPR pending)	2.03 Mt at 15.2% TGC (5% cutoff grade) <i>ASX release 27/11/17</i>	1.34 Mt(probable) at 14.6% TGC (8.5% cut-off) <i>ASX release 27/11/17</i>	308,560 t TGC 195,640 t TGC	proposed: Up to 40 000tpa TGC (up to 98%) <i>ASX Release 27/04/17</i>

Blank fields indicate parameters that have not been published by the company

*Expansion underway or in approvals stage

** Annual production published in company reports or reported to DEM if not published

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