



australian mineral statistics

september quarter 2007



07

12 december 2007

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data sources

The statistics in this publication are obtained from several sources, as follows.

- » The bulk of mine production data (other than petroleum) is obtained from companies, published company reports and ABARE estimates. Data are supplemented where necessary by information from state mines departments (or their equivalents).
- » Petroleum production and sales are based on data obtained from the Resources Division of the Australian Government Department of Resources, Energy and Tourism.
- » Smelter and refinery production data are provided by companies operating the major smelters and refineries.
- » Trade data are obtained from official ABS compiled statistics, supplemented by ABARE estimates where necessary.
- » Price information is from published sources.

The assistance of the organisations supplying data is gratefully acknowledged by ABARE.

note on mine production data

In most instances, data refer to actual mine output. However, in a small number of cases, despatches or sales data are used as proxies for production.

Quantities of minerals produced are reported in terms of the product in which they leave each mine site. This includes various stages of ore dressing, processing and elementary smelting where these are carried out in an associated plant at, or near, the mine. The output is recorded as ore where no treatment is undertaken at the mine, or as a concentrate where ore dressing operations are carried out.

definitions

definitions and explanations

Small discrepancies in totals are generally due to the rounding of components.

zero is used to denote nil or a negligible amount.

p denotes a preliminary figure.

s denotes an ABARE estimate.

common abbreviations and conversions

kg	kilogram	2.20462 lb (pounds)
t	tonne	1000 kilograms
kt	kilotonne	1000 tonnes
Mt	megatonne	1 000 000 tonnes
mtu	metric ton unit	10 kilograms
c	metric carat	
L	litre	1.761 pints
kL	kilolitre	1000 litres
ML	megalitre	1 000 000 litres
Mm ³	million cubic metres	1 000 000 cubic metres
bbL	barrel	159 litres
oz	troy ounce	0.031 kilograms
\$m	million dollars (Australian)	
fob	free on board	
for	free on rail	
fot	free on truck	
cif	cost, insurance and freight	

main features

overview

prices

The index of export prices of Australian minerals resources (export unit returns) declined by 5 per cent in the September quarter 2007 from that in the June quarter. Prices for energy minerals increased by less than 1 per cent, while metals and related minerals prices declined by 7 per cent as global supply increased and uncertainty surrounding the outlook for the US economy persisted. A 37 per cent decline in nickel prices and a 2 per cent appreciation of the Australian dollar were significant contributors to the overall fall in the index of export prices.

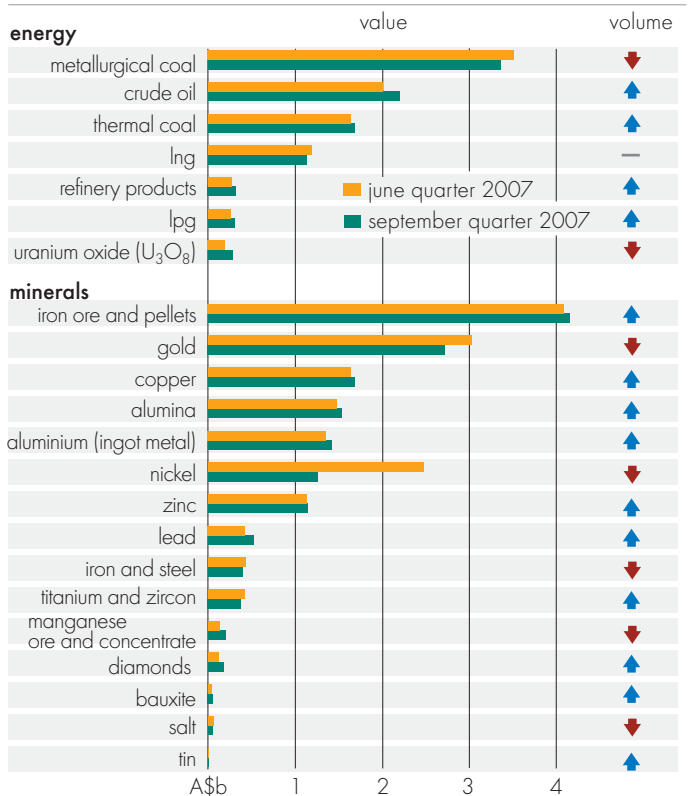
The September quarter 2007 index of export prices also was 5 per cent lower than it was in the September quarter 2006, with higher world prices for mineral commodities (up 1 per cent year on year) more than offset by a decline in energy commodity prices (down 13 per cent). The main contributor to lower energy commodity prices was lower metallurgical coal contract prices.

exports

Earnings from mineral resources exports fell to \$26.4 billion in the September quarter 2007, a decrease of \$0.9 billion or 3.4 per cent compared with the previous quarter. Contributing to the fall in export earnings were the negative effects of a stronger Australian dollar and weaker metals and related minerals prices.

The commodities that recorded significant increases in export earnings were: crude oil, up \$188 million (9 per cent) to \$2197 million; lead, up \$100 million (24 per cent) to \$525 million; uranium oxide, up \$87 million (44 per cent) to \$285 million; manganese ore, up \$70 million (51 per cent) to \$206 million; thermal coal, up 48 million (3 per cent) to \$1687 million; and

Australian energy and mineral exports



iron ore and pellets, up \$65 million (2 per cent) to \$4157 million. The higher earnings for these commodities reflect higher export volumes for crude oil, lead and iron ore and pellets and higher prices for uranium oxide, manganese and thermal coal.

The commodities that recorded significant declines in export earnings in the September quarter 2007 were: nickel, down \$1214 million (49 per cent) to \$1260 million; refined gold, down \$307 million (10 per cent) to \$2723 million; LNG, down \$59 million (5 per cent) to \$1130 million; and metallurgical coal, down \$159 million (4 per cent) to \$3362 million.

The large decline in the value of nickel exports reflected a 37 per cent fall in prices and lower production. The value of gold exports declined in line with lower export volumes and lower Australian denominated gold prices. The lower earnings from metallurgical coal exports reflected the full effects of lower contract prices and the negative effect on earnings of the appreciation of the Australian dollar.

production

Production results were mixed in the September quarter, with around half of Australia's major minerals and energy commodities recording production increases. Production increases were observed for refined silver (12 per cent); diamonds (10 per cent); rutile concentrate (8 per cent) and natural gas (5 per cent). Higher refined silver production was the result of improved performance at Nyrstar's Port Pirie smelter in South Australia. Rutile concentrate production increased as Iluka Resources' Douglas mine in Victoria continued to approach full production capacity after being commissioned in early 2007.

The increase in diamond production reflected higher output during the quarter at Rio Tinto's Argyle mine in Western Australia. Production from the Argyle mine has fluctuated as the company makes the transition from opencut mining to underground mining.

Significant declines in production occurred in refined nickel class 2 (25 per cent); refined nickel class 1 (24 per cent); refined copper (20 per cent); silver mine (17 per cent); and refined gold (15 per cent). Lower production of refined nickel class 1 and class 2 was the result of planned maintenance at BHP Billiton's Yabulu refinery in Queensland. Refined copper declined because of lower production from BHP Billiton's Olympic Dam. Refined gold production fell because of lower secondary production using gold scrap sourced from overseas.

Energy and mineral projects commissioned in the September quarter included: the North Wambo longwall in New South Wales; Frances Creek iron ore mine in the Northern Territory; Lady Annie copper mine in Queensland; Jaguar base metals mine in Western Australia; Otway gas project in Victoria; Puffin North East oil field in the Northern Territory; Koolan Island iron ore project in Western Australia; Bronzewing gold mine in Western Australia; and Project Magnet (iron ore) in South Australia. These projects are expected to begin to approach full production capacity during the December quarter (see December issue of ABARE's quarterly journal, *Australian Commodities*, for further details and information on major minerals and energy projects).

commodity highlights

energy

oil

In the September quarter, Australia's oil production totalled 4.8 gigalitres, a 9 per cent decrease from the June quarter and 17 per cent lower than in the September quarter 2006. The lower oil production reflects a combination of equipment failure, maintenance and natural field decline. At the Santos operated Mutineer-Exeter field, September quarter production was down as a result of equipment failure and planned maintenance. It is anticipated that full production at the field will resume in the December quarter. Production at the Cooper Basin oil field in South Australia and at Cossack Pioneer field was lower as a result of natural field decline. Some of these production losses were partly offset by increased production from the Enfield and Laminara-Corallina fields located off the coast of north west Australia.

coal

The value of Australia's exports of black coal declined by 2 per cent in the September quarter as lower metallurgical coal exports more than offset a rise in thermal coal exports. The lower value from metallurgical coal exports reflected the full effects of lower contract prices, while higher thermal coal exports reflected the full effect of higher thermal coal contract prices.

uranium

Earnings from uranium oxide exports increased by 44 per cent in the September quarter compared with the June quarter, as higher received prices more than offset lower export volumes.

minerals

iron ore

Iron ore production was lower in the September quarter 2007 than in the June quarter owing to train derailments and maintenance. Derailments adversely affected Rio Tinto's Hamersley operations and Portman Mining's Koolyanobbing operations, both in Western Australia. Rio Tinto's Robe River operations, also in Western Australia, were negatively affected by maintenance at the Cape Lambert port during the quarter. Export earnings from iron ore and pellets declined in the September quarter primarily because of lower export volumes.

gold

Gold mine production declined slightly in the September quarter compared with the June quarter owing to the recent mothballing of a number of gold operations and declining production at operations that are scheduled to cease mining over the next several years as their resources are depleted. Refined gold production declined in the September quarter from June quarter production because of lower secondary production using gold scrap

sourced from overseas. Export earnings from gold declined in the September quarter as a result of lower export volumes and a stronger Australian dollar.

copper

Copper mine production was lower in the September quarter 2007 than in the June quarter because of lower production from a number of Australia's largest copper mines. Production from Rio Tinto's Northparkes mine in New South Wales was lower owing to declining ore grades in the E46 block cave as the resource approaches the end of its life ahead of the commissioning of the E48 block cave. Lower production from BHP Billiton's Olympic Dam in South Australia mine was attributable to the mining of lower grade ores. Refined copper production was lower as a result of reduced production from Olympic Dam and Xstrata's Townsville Copper Refinery. Production at Olympic Dam was adversely affected by lower grade ores from the mine and unplanned maintenance. Despite lower production in the September quarter, export earnings from copper increased, reflecting higher export volumes and export prices.

nickel

Nickel mine production remained relatively unchanged in the September quarter 2007 compared with the June quarter. However, production of refined nickel class 1 and class 2 declined by 24 per cent and 25 per cent respectively because of planned maintenance at BHP Billiton's Yabulu refinery. The value of nickel exports declined significantly in the September quarter, reflecting a 37 per cent fall in prices and a 13 per cent fall in export volumes.

zinc/lead/silver

Zinc, lead and silver mine production declined in the September quarter compared with the June quarter as production declined at a number of mines. A fire at Xstrata's Mount Isa lead/zinc concentrator in Queensland in late September is not expected to affect concentrates production until the December quarter. In the September quarter, Jabiru Metals commissioned its Jaguar zinc/copper/silver mine in Western Australia. However, higher production from the mine is not expected until subsequent quarters.

Export earnings from zinc and lead increased during the September quarter reflecting higher export volumes and higher export prices for lead. Silver export earnings declined in the quarter because of lower export volumes and prices.

mineral sands

Production of ilmenite concentrate, rutile concentrate and titanium dioxide pigment increased in the September quarter compared with the June quarter as a number of recently commissioned mines continued to ramp up to production capacity. These operations include Iluka Resource's Douglas operations in Victoria [rutile and zircon]; Matilda Minerals' Tiwi Island operations in the Northern Territory [rutile and zircon]; and Bemax's Murray Basin operations in New South Wales [leucoxene, ilmenite and rutile]. Titanium dioxide production was higher, supported by improved performance at Tiwest's Kwinana pigment plant in Western Australia.

Export earnings from ilmenite concentrate and leucoxene concentrate were higher in the September quarter as higher export volumes more than offset lower export prices. Earnings from rutile concentrate, synthetic rutile and titanium dioxide pigment were lower because of lower export volumes and prices.

contribution of the minerals sector to Australian output

The minerals sector – including mining and processing – is a substantial contributor to the Australian economy, accounting for 8.9 per cent of gross domestic product in 2006-07. In particular, the sector provides employment and significant infrastructure development in remote and regional areas.

The contribution of the minerals sector to the economies of Australia's states and territories is varied, reflecting differences in mineral endowment and the development of these resources. For example, the minerals sector makes a significant contribution to the economies of Western Australia and Queensland, which are well endowed with mineral resources.

Western Australia is the largest producer of iron ore, gold and nickel – commodities that have all recorded significant increases in price over the past year. Queensland is the largest producer of coal and base metals (copper and zinc) and New South Wales is the second largest producer of coal, gold and copper.

ABARE's most recent forecasts of minerals production, exports and prices for 2007-08, and analysis of key factors affecting the outlook for minerals and energy commodities, were published in the December issue of ABARE's quarterly journal, *Australian Commodities*, released on 6 December 2007.

contribution of the minerals sector to Australian output industry gross value added ^a 2006-07

	value A\$m	share %
mining ^b	48 751	5.1
mineral processing		
petroleum, coal and chemical product	11 973	1.3
nonmetallic mineral product	5 303	0.6
metal product	18 840	2.0
total mineral processing	36 116	3.8
total mining and mineral processing	84 867	8.9
Australian total, all sectors	952 723	100.0

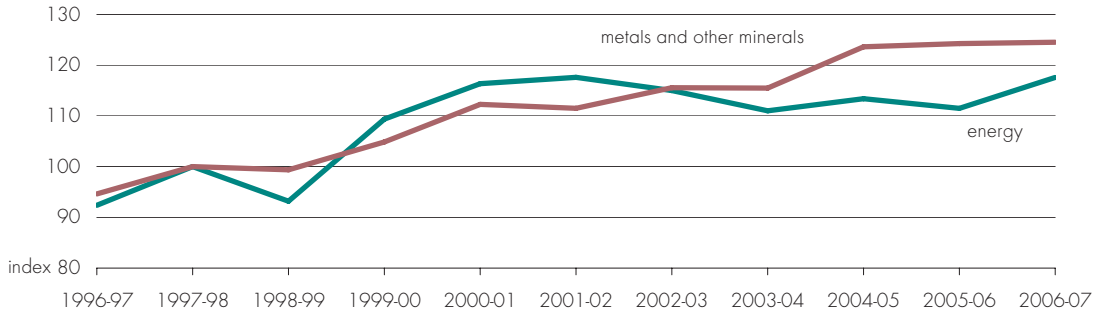
^a Chain volume measures, reference year 2004-05.

^b Includes services to mining and energy minerals.

resource sector indicators

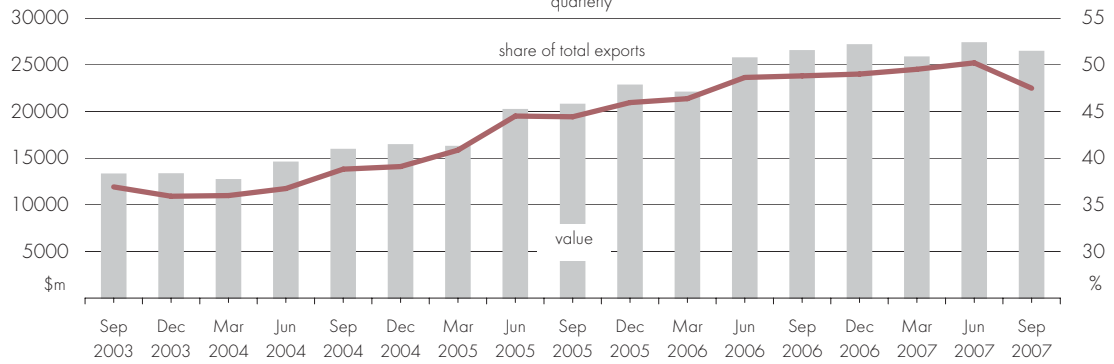
mine production – Australia

base: 1997-98 = 100



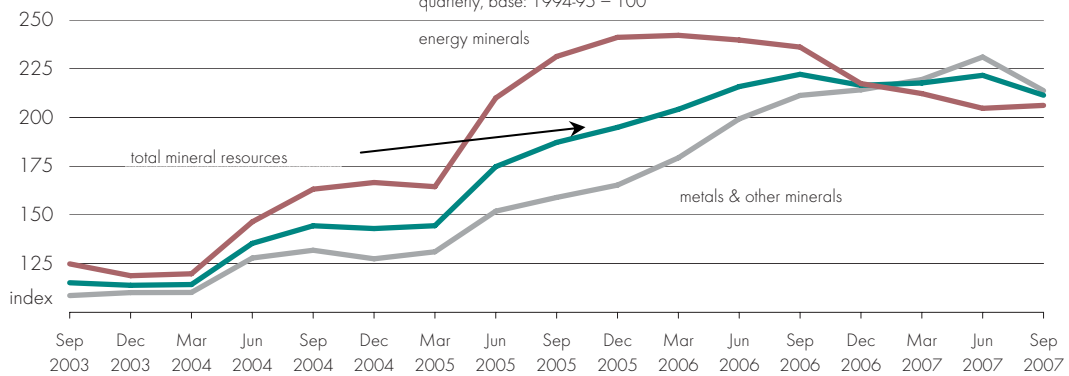
mineral resources exports

quarterly



export unit returns

quarterly, base: 1994-95 = 100



1 production summary

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p			2007-08 p	
				June	June	July	Aug.	Sept.	June
Bauxite	kt	60 874	62 684	15 370	15 986	15 789	15 288	15 621	15 456
Alumina	kt	17 826	18 506	4 492	4 588	4 800	4 447	4 671	4 810
Aluminium (ingot metal)	kt	1 912	1 957	476	491	493	483	489	493
Coal									
Black, raw	Mt	398	409	102	104	104	98	103	105 s
Black, salable	Mt	307	324	79	81	83	77	82	83 s
Brown as	Mt	68	72	na	na	na	na	na	na
Copper									
Mine bs	kt	936	859	234	216	210	220	213	198
Blister c	kt	404	389	100	86	92	108	103	80
Refined s	kt	461	435	113	98	105	119	113	90
Diamonds	'000 ct	25 354	24 632	7 539	8 393	8 132	3 582	4 524	4 980
Gold									
Mine bs	t	250	251	60	62	65	61	63	60
Refined	t	380	360	110	83	87	92	99	84
Iron									
Iron ore and concentrate s	kt	263 815	287 653	69 894	72 088	72 491	67 296	75 778	74 202
Iron and steel s	Mt	7 866	8 010	1 995	2 021	2 006	1 982	2 001	2 058
Lead									
Mine bs	kt	762	642	169	167	152	166	157	155
Bullion c	kt	141	114	27	34	23	25	32	34
Refined	kt	234	191	63	24	59	47	60	53
Manganese s	kt	4 088	5 071	1 138	1 244	1 252	1 229	1 345	1 355
Nickel									
Mine bs	kt	186	192	45	47	51	47	47	46
Intermediate	kt	74	57	12	14	16	15	13	13
Refined, class 1	kt	105	104	23	27	28	23	25	19
Refined, class 2	kt	10	15	3	2	3	5	4	3
Petroleum, field									
Crude oil and condensate s	ML	24 315	28 555	5 467	7 665	7 295	6 558	7 037	6 744
LPG (naturally occurring)	ML	4 722	4 550	1 208	1 293	1 143	1 037	1 077	1 145
Natural gas	Mm ³	38 016	39 304	10 207	10 275	9 810	9 042	10 177	10 642
Petroleum, total refinery	ML	36 274	38 795	8 605	9 087	10 001	9 558	10 149	10 313
Salt s	kt	11 467	11 209	3 032	2 477	3 072	2 680	2 980	2 990
Silver									
Mine bs	t	2 218	1 674	456	393	340	474	467	387
Refined	t	655	618	183	141	165	156	155	174
Tin									
Mine bs	t	1 805	2 061	330	262	656	586	558	391
Refined s	t	736	321	163	106	97	68	50	0
Titanium									
Ilmenite concentrate s	kt	2 185	2 403	588	632	598	597	577	580
Leucoxene concentrate	kt	87	174	34	41	48	34	52	41
Rutile concentrate s	kt	184	277	51	69	68	65	75	81
Synthetic rutile s	kt	711	721	155	183	181	171	186	183
Titanium dioxide pigment s	kt	208	207	51	49	55	51	52	53
Uranium oxide (U ₃ O ₈)	t	9 974	9 594	1 642	2 127	2 715	2 081	2 670	2 567
Zinc									
Mine bs	kt	1 380	1 382	340	324	352	324	382	389
Refined	kt	446	496	113	121	129	119	127	127
Zircon concentrate	kt	442	565	116	125	139	137	163	148

a Quarterly data are not available. b Total metallic content of minerals produced. c Metallic content. p Preliminary. s ABARE estimate. na Not available.

Sources: Australian Bureau of Statistics, Canberra; Coal Services Pty Limited; Queensland Government, Department of Natural Resources and Mines; ABARE.

2 volume of mine production indexes ^a

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Energy minerals	109.4	116.4	117.6	115.0	111.0	113.4	111.5	117.6
Metals and other minerals	104.9	112.3	111.5	115.6	115.5	123.6	124.2	124.5
Total minerals	107.4	114.5	114.9	115.2	113.3	118.6	118.0	120.9

^a Uranium included with energy.

Note: ABARE revised the method for calculating production indexes in October 1999. The indexes are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

3 exports summary

	Unit	2005-06	2006-07 ^p	Quarter						
				2005-06		2006-07 ^p			2007-08 ^p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Bauxite	kt	5 639	5 700	1 462	1 363	1 433	1 329	1 575	2 191	
Alumina ^a	kt	14 499	15 054	3 622	3 698	4 091	3 546	3 719	3 998	
Aluminium (ingot metal)	kt	1 617	1 638	400	434	402	404	398	448	
Coal, black										
Metallurgical	Mt	120.48	131.91	30.46	32.77	31.56	32.55	35.03	34.70	
Thermal	Mt	110.82	111.68	29.29	27.34	28.21	28.58	27.54	27.56	
Copper ^{bs}	kt	790	698	181	170	178	183	167	181	
Diamonds ^{cs}	'000 ct	25 354	24 632	7 539	8 393	8 132	3 582	4 524	4 980	
Gold ^{bs}	t	315.24	399.74	93.40	92.82	93.12	96.00	117.79	107.94	
Iron										
Iron ore and pellets	kt	239 380	257 368	61 744	64 230	67 331	58 624	67 183	69 034	
Iron and steel	kt	2 428	2 648	668	633	674	678	663	618	
Lead ^{bs}	kt	756	635	180	155	180	157	142	158	
Manganese ore										
and concentrate	kt	3 215	4 667	1 255	1 087	1 224	1 107	1 248	1 192	
Nickel ^{ds}	kt	198	215	46	51	59	52	52	45	
Petroleum										
Crude oil and other										
refinery feedstock	ML	13 026	15 963	2 386	4 063	4 216	3 951	3 733	4 024	
LNG	Mt	12.50	15.20	3.60	3.45	3.90	3.95	3.90	3.90	
LPG	ML	2 800	2 824	656	731	814	593	686	788	
Refinery products	ML	2 102	1 762	311	505	440	395	421	527	
Salt	kt	10 776	10 749	2 920	2 389	2 964	2 575	2 821	2 396	
Tin ^b	t	1 556	1 867	313	221	433	663	550	569	
Titanium										
Ilmenite concentrate	kt	722	999	303	270	312	248	169	224	
Leucoxene concentrate	kt	86	123	28	28	23	46	26	47	
Rutile concentrate	kt	169	307	43	67	80	77	82	87	
Synthetic rutile ^s	kt	472	508	96	140	131	112	126	131	
Titanium dioxide pigment	kt	177	171	49	44	39	40	48	45	
Uranium oxide (U ₃ O ₈)	t	10 253	9 519	1 760	1 856	3 005	1 725	2 933	2 486	
Zinc ^b	kt	1 328	1 321	335	305	349	293	374	387	
Zircon concentrate	kt	438	555	116	124	137	143	152	152	

continued

3 exports summary continued

	Unit	2005-06	2006-07 ^p	Quarter						
				2005-06		2006-07 ^p			2007-08 ^p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Bauxite	\$m	127	153	35	30	38	41	44	59	
Alumina ^a	\$m	5 262	6 224	1 494	1 550	1 710	1 484	1 480	1 534	
Aluminium (ingot metal)	\$m	4 788	5 648	1 397	1 457	1 384	1 449	1 358	1 417	
Coal, black										
Metallurgical	\$m	17 003	15 035	4 131	4 063	3 739	3 716	3 517	3 362	
Thermal	\$m	7 206	6 762	1 845	1 705	1 704	1 715	1 639	1 687	
Copper ^e	\$m	5 653	6 520	1 820	1 631	1 703	1 544	1 642	1 682	
Diamonds ^{cs}	\$m	836	726	227	208	199	194	125	183	
Gems, other than diamonds	\$m	59	48	11	14	9	16	9	14	
Gold, refined	\$m	7 089	10 320	2 436	2 399	2 362	2 529	3 030	2 723	
Iron										
Iron ore and pellets	\$m	12 854	15 519	3 546	3 909	4 016	3 502	4 092	4 157	
Iron and steel	\$m	1 674	1 743	446	421	447	444	431	401	
Lead ^e	\$m	1 296	1 579	354	328	395	431	425	525	
Manganese ore										
and concentrate	\$m	424	482	143	113	124	109	136	206	
Nickel ^{es}	\$m	3 457	8 381	1 018	1 650	2 060	2 197	2 474	1 260	
Petroleum										
Crude oil and other										
refinery feedstock	\$m	6 638	8 318	1 379	2 316	2 070	1 922	2 009	2 197	
LNG	\$m	4 416	5 222	1 290	1 362	1 396	1 275	1 189	1 130	
LPG	\$m	1 002	1 038	237	288	275	218	257	303	
Refinery products	\$m	1 195	1 098	201	342	252	229	275	322	
Salt	\$m	229	239	65	54	62	60	62	53	
Silver, refined	\$m	197	221	65	48	54	52	67	51	
Tin ^e	\$m	12	25	2	2	5	9	8	9	
Titanium										
Ilmenite concentrate	\$m	76	113	33	31	33	28	20	22	
Leucoxene concentrate	\$m	25	35	6	11	7	10	8	9	
Rutile concentrate	\$m	138	259	36	56	66	64	74	66	
Synthetic rutile ^s	\$m	321	361	67	97	91	78	96	82	
Titanium dioxide pigment	\$m	441	408	121	108	96	97	107	101	
Uranium oxide (U ₃ O ₈)	\$m	546	660	115	125	194	142	198	285	
Zinc ^e	\$m	2 540	4 306	1 004	970	1 208	999	1 129	1 147	
Zircon concentrate	\$m	398	478	104	112	123	130	113	101	
Other mineral resources ^f	\$m	5 212	4 665	2 039	1 046	1 258	1 083	1 278	1 280	
Total mineral resources ^g	\$m	91 115	106 591	25 670	26 447	27 082	25 770	27 292	26 369	
Total merchandise	\$m	154 425	169 555	42 337	43 074	43 558	40 109	42 814	43 182	
Total goods and services	\$m	196 274	215 800	52 761	54 167	55 250	52 033	54 350	55 516	

^a Includes aluminium hydroxide. ^b Metallic content of all ores, concentrates, intermediate products (where applicable) and refined metal. ^c Unsorted and sorted. ^d Includes metal content of ores and concentrates, intermediate products and nickel metal. ^e Value of all ores, concentrates, intermediate products (where applicable) and refined metal. ^f Derived as the difference between total mineral resources exports, below, and the sum of the above items. ^g Total mineral resource exports on an ABARE balance of payments basis. ^p Preliminary. ^s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

4 mineral resources export unit returns ^a

	Quarter							
	2005-06			2006-07 ^p			2007-08 ^p	
	Dec.	Mar.	June	Sep.	Dec.	Mar.	June	Sep.
Energy minerals	241.1	242.1	239.7	236.1	217.4	212.2	204.7	206.2
Metals and other minerals	165.3	179.3	199.3	211.3	214.2	219.5	231.0	213.8
Total mineral resources	194.9	204.2	215.9	222.1	216.5	217.7	221.6	211.4

^a Base: 1994-95 = 100. ^p Preliminary.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

5 imports summary

	Unit	2005-06	2006-07 p	Quarter							
				2005-06		2006-07 p				2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.		
Quantity											
Diamonds a	'000 ct	4 098	3 430	918	822	1 002	789	817	800		
Iron ore	kt	5 026	4 722	1 467	1 265	1 683	757	1 017	1 098		
Ingot steel	kt	2 191	2 317	530	617	530	657	512	489		
Ferroalloys	kt	57	87	15	38	17	14	17	17		
Petroleum											
Crude oil and other refinery feedstock	ML	24 416	25 341	6 006	5 921	6 230	6 600	6 590	6 769		
Refinery products	ML	15 124	18 268	4 936	4 188	4 462	4 377	5 242	4 796		
Phosphate rock	kt	655	469	198	123	146	55	145	93		
Value											
Diamonds a	\$m	403	397	106	91	98	106	102	104		
Gold b	\$m	4 800	5 309	1 946	1 163	1 320	1 290	1 537	1 882		
Iron ore	\$m	222	338	67	72	117	60	89	84		
Ingot steel	\$m	2 075	2 479	452	539	610	721	608	563		
Ferroalloys	\$m	123	116	31	28	35	22	30	33		
Petroleum											
Crude oil and other refinery feedstock	\$m	12 820	13 361	3 553	3 528	3 061	3 196	3 575	3 766		
Refinery products	\$m	8 761	8 584	2 880	2 169	2 021	1 905	2 489	2 251		
Phosphate rock	\$m	42	32	13	8	8	4	11	7		
Silver	\$m	33	98	14	28	23	42	4	4		
Other	\$m	637	985	183	240	204	371	171	227		
Total	\$m	29 916	31 699	9 244	7 867	7 498	7 718	8 616	8 921		

a Includes sorted and unsorted, gem and industrial diamonds, and diamond dust and powder. **b** Refined and unrefined bullion. **p** Preliminary.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

6 private mineral exploration expenditure

	Unit	2005-06	2006-07 p	Quarter					
				2005-06		2006-07 p			
				Mar.	June	Sep.	Dec.	Mar.	June
Energy									
Petroleum									
Onshore	\$m	355.8	498.2	82.0	95.4	107.8	144.5	110.3	135.6
Offshore	\$m	906.1	1 727.3	191.6	284.4	380.8	400.0	350.0	596.5
Total	\$m	1 261.9	2 225.5	273.6	379.8	488.6	544.5	460.3	732.1
Coal	\$m	166.4	193.2	41.5	46.7	50.5	60.0	38.8	43.9
Uranium	\$m	56.1	114.1	10.1	18.3	24.7	27.6	24.3	37.5
Total energy	\$m	1 484.4	2 532.8	325.2	444.8	563.8	632.1	523.4	813.5
Metals and other minerals									
Copper	\$m	139.5	234.5	24.6	46.7	52.7	53.5	51.2	77.1
Diamonds	\$m	22.6	26.9	4.4	4.6	8.6	10.2	3.3	4.8
Gold	\$m	399.6	455.9	90.0	110.5	104.3	125.0	103.6	123.0
Iron ore	\$m	161.3	285.4	32.4	49.7	70.1	72.5	54.0	88.8
Mineral sands	\$m	29.2	37.3	5.6	7.2	7.7	10.8	9.5	9.3
Nickel, cobalt	\$m	146.0	181.1	29.3	36.0	39.8	42.8	40.6	57.9
Silver, lead and zinc	\$m	71.2	139.4	14.8	25.5	26.3	34.1	33.5	45.5
Other	\$m	48.8	46.8	11.0	12.2	9.9	11.7	10.5	14.7
Total metals and other minerals	\$m	1 018.2	1 407.3	212.1	292.4	319.4	360.6	306.2	421.1
Total expenditure	\$m	2 502.6	3 940.1	537.3	737.2	883.2	992.7	829.6	1 234.6

Sources: Australian Bureau of Statistics, Canberra; ABARE.

7 mineral resources prices

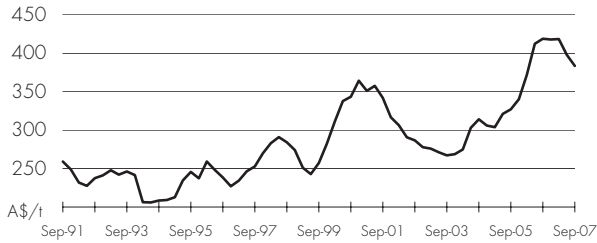
	alumina avg export unit value A\$/t	aluminium (high grade) LME cash US\$/t	gold London AM fix US\$/oz	iron ore ^a avg export unit value A\$/t	thermal coal avg export unit value A\$/t	metallurgical coal avg export unit value A\$/t	crude oil ^b world trade wtd ave US\$/bbl	uranium ^c Industry spot price US\$/lb
2004-05	311.47	1 806.85	422.49	35.54	59.55	86.12	41.18	22.20
2005-06	362.90	2 244.69	526.95	53.70	65.02	141.13	57.25	36.79
2006-07	413.41	2 692.18	638.56	60.30	60.55	113.98	59.45	81.17
2006								
July	416.22	2 512.71	633.09	61.41	62.65	127.13	67.76	47.50
August	425.52	2 459.93	631.56	60.33	62.45	122.69	68.89	48.50
September	414.47	2 472.88	600.15	61.01	61.95	122.02	60.45	54.00
October	423.93	2 654.59	586.65	60.40	61.41	121.22	54.20	60.00
November	414.95	2 702.80	626.83	59.78	60.49	118.35	53.89	63.00
December	414.11	2 813.08	629.51	58.75	59.24	115.91	56.89	72.00
2007								
January	408.95	2 809.30	630.35	58.91	59.17	114.66	50.77	75.00
February	421.36	2 832.20	664.60	60.59	62.51	112.52	53.65	85.00
March	425.15	2 761.73	655.89	59.56	58.63	114.95	58.70	95.00
April	399.45	2 814.79	680.01	60.58	59.88	101.45	63.67	113.00
May	402.64	2 794.69	668.31	61.49	59.52	99.77	63.91	125.00
June	391.27	2 677.45	655.71	60.63	59.05	100.01	66.89	136.00
July	370.50	2 732.91	665.27	59.81	58.23	92.69	72.87	120.00
August	400.82	2 515.77	664.53	61.84	62.89	97.46	69.48	90.00
September	379.09	2 391.25	710.65	58.80	62.66	100.40	73.88	85.00
	copper (high grade) LME cash US\$/t	lead LME cash US\$/t	zinc (high grade) LME cash US\$/t	silver ^d London fix US\$/troy oz	nickel LME cash US\$/t	ilmenite ^e avg export unit value A\$/t	rutile ^f avg export unit value A\$/t	zircon ^g avg export unit value A\$/t
2004-05	3 151.00	964.08	1 170.95	694.94	14 957.03	99.29	717.20	746.27
2005-06	5 062.00	1 061.35	2 117.81	927.82	15 487.81	105.92	816.59	908.63
2006-07	7 086.78	1 694.20	3 672.41	1 274.16	37 942.21	112.89	845.61	861.55
2006								
July	7 712.10	1 052.38	3 339.86	1 123.24	26 586.19	122.56	904.12	1 140.23
August	7 695.66	1 174.14	3 347.30	1 217.77	30 707.50	102.25	917.18	1 143.75
September	7 602.36	1 332.86	3 403.02	1 167.69	30 130.71	115.71	897.06	1 110.04
October	7 500.39	1 531.14	3 822.95	1 155.86	32 702.95	116.41	889.23	1 102.17
November	7 029.14	1 624.52	4 382.23	1 293.11	32 113.86	112.34	871.69	1 158.22
December	6 691.78	1 730.00	4 415.14	1 336.05	34 585.28	90.24	848.17	1 202.45
2007								
January	5 669.61	1 666.68	3 786.66	1 283.86	36 806.59	117.07	937.98	1 167.70
February	5 676.45	1 777.10	3 309.50	1 391.00	41 184.25	123.20	872.17	1 118.49
March	6 452.48	1 914.05	3 271.30	1 318.43	46 324.77	109.26	861.21	1 121.02
April	7 766.47	2 000.95	3 557.47	1 373.84	50 266.84	112.76	808.14	1 051.13
May	7 682.17	2 100.64	3 830.29	1 314.64	52 179.05	85.20	803.33	1 070.32
June	7 475.88	2 425.98	3 603.26	1 314.43	41 718.57	149.96	796.70	1 049.30
July	7 977.05	3 089.50	3 546.91	1 290.93	33 425.68	101.32	746.81	1 071.78
August	7 513.50	3 119.45	3 244.73	1 236.32	27 606.82	96.45	795.01	1 057.47
September	7 648.98	3 226.55	2 896.40	1 283.35	29 537.50	na	769.10	1 045.24

^a Lump and fines. ^b US Department of Energy, *Energy Information Administration*. ^c Average of weekly restricted spot price published by The Ux Consulting Company. ^d London fix rate from May 2001; Handy and Harman, commercial bar, minimum 99.9 per cent prior to May 2001. ^e Bulk grade only after January 1992. ^f Bagged only after August 1999. ^g Based on all grades, bagged only from September 1999. ^{na} Not available.

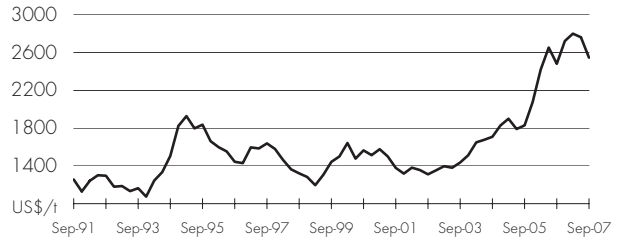
Sources: Australian Bureau of Statistics, Canberra; London Metal Exchange; London Bullion Market Association; The Ux Consulting Company; US Department of Energy; ABARE.

mineral resources prices, ended September quarter 2007

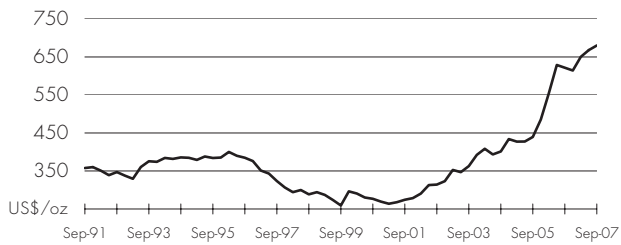
alumina



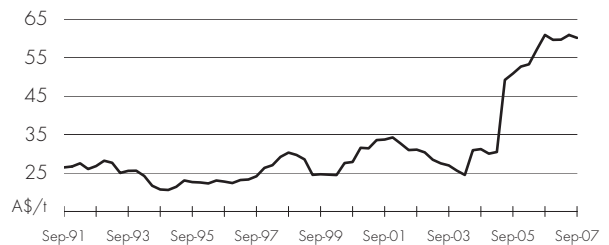
aluminium



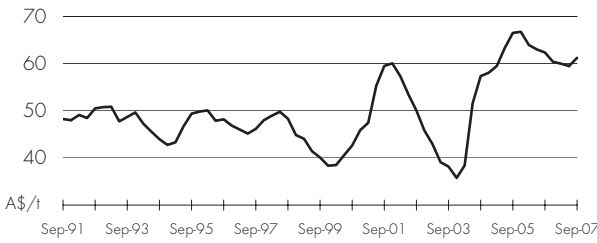
gold



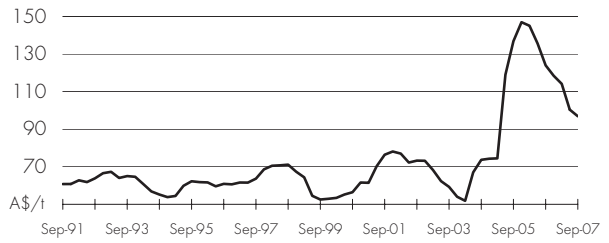
iron ore



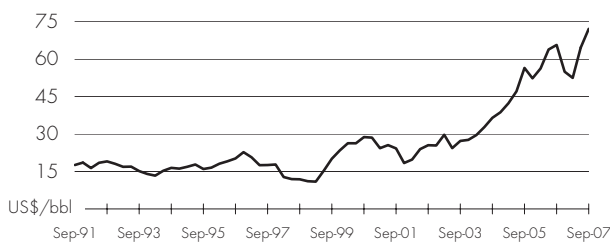
thermal coal



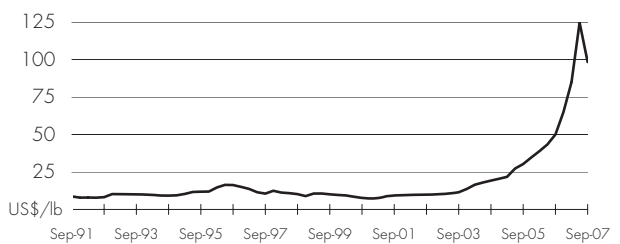
metallurgical coal



crude oil

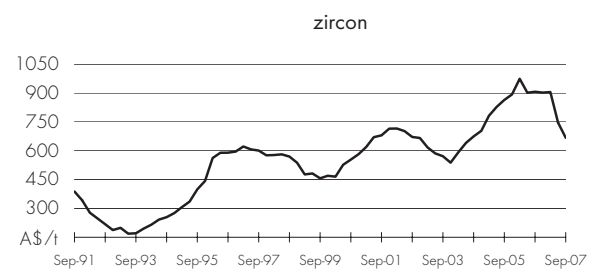
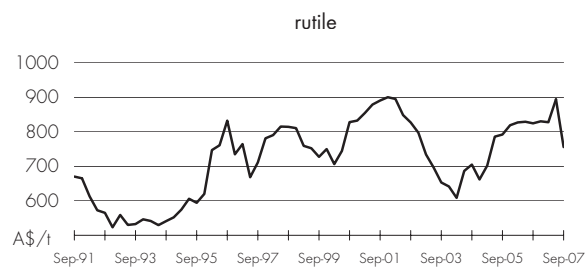
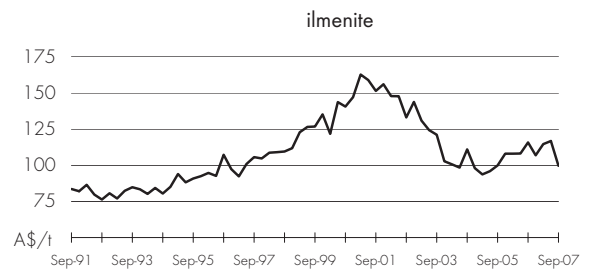
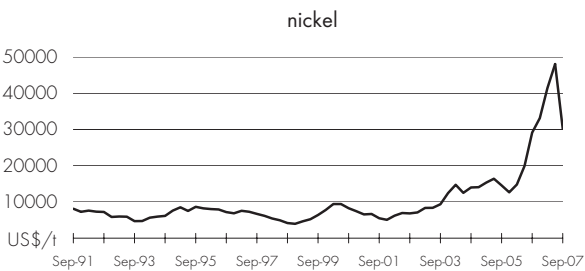
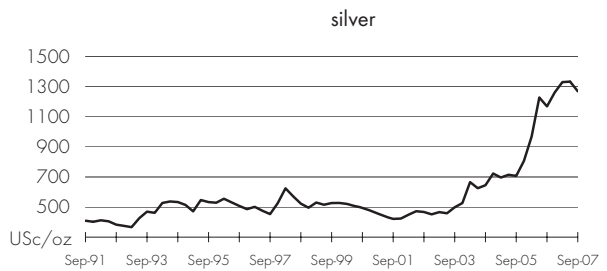
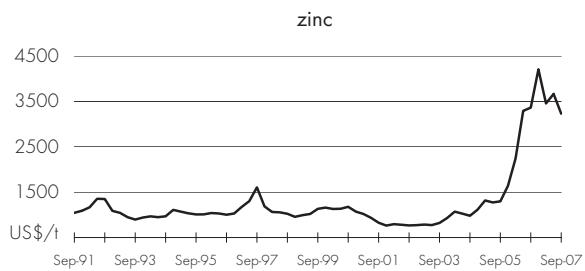
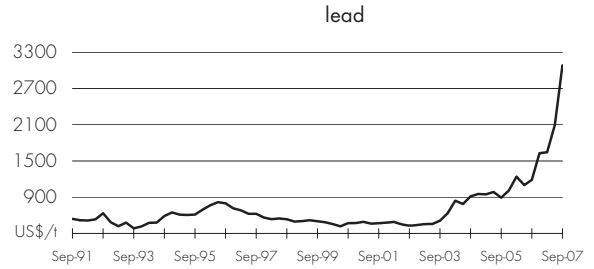
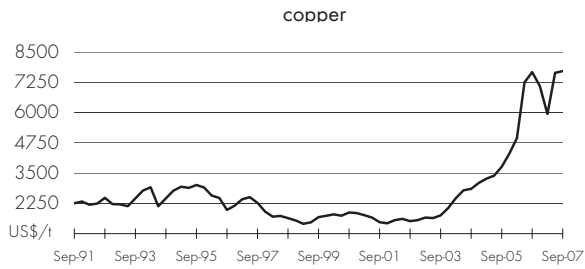


uranium



mineral resources prices, ended September quarter 2007

continued



Sources: Australian Bureau of Statistics, Canberra; London Metal Exchange; London Bullion Market Association; The Ux Consulting Company; US Department of Energy, Energy Information Administration ; ABARE

8 aluminium

Unit	2005-06	2006-07 ^p	Quarter						
			2005-06	2006-07 ^p			2007-08 ^p		
			June	Sep.	Dec.	Mar.	June	Sep.	
Production									
Mine									
Bauxite									
Queensland	kt	16 158	16 969	3 855	4 085	4 487	4 272	4 125	4 095
Western Australia	kt	39 284	41 363	10 215	10 738	10 290	9 925	10 409	10 211
Northern Territory	kt	5 432	4 352	1 300	1 162	1 012	1 091	1 087	1 149
Australia	kt	60 874	62 684	15 370	15 986	15 789	15 288	15 621	15 456
Alumina content	kt	22 728	23 224	5 669	5 873	5 893	5 703	5 756	5 698
Smelter and refinery									
Alumina	kt	17 826	18 506	4 492	4 588	4 800	4 447	4 671	4 810
Aluminium (ingot metal)	kt	1 912	1 957	476	491	493	483	489	493
Exports									
Quantity									
Bauxite ^a	kt	5 639	5 700	1 462	1 363	1 433	1 329	1 575	2 191
Alumina ^{bc}	kt	14 499	15 054	3 622	3 698	4 091	3 546	3 719	3 998
Aluminium (ingot metal)									
Chinese Taipei	kt	187	153	51	43	41	30	38	51
Indonesia	kt	93	78	20	19	20	18	21	20
Japan	kt	542	634	128	186	154	157	136	163
Korea, Rep. of	kt	240	213	64	55	52	53	53	68
Malaysia	kt	87	92	21	18	22	25	27	25
Thailand	kt	192	200	48	45	52	51	51	55
Other	kt	276	268	69	66	60	70	72	66
Total	kt	1 617	1 638	400	434	402	404	398	448
Value									
Bauxite ^a	\$m	127	153	35	30	38	41	44	59
Alumina ^{bc}	\$m	5 262	6 224	1 494	1 550	1 710	1 484	1 480	1 534
Aluminium (ingot metal)	\$m	4 788	5 648	1 397	1 457	1 384	1 449	1 358	1 417
Imports									
Quantity									
Bauxite	kt	11	10	5	1	1	2	5	2
Alumina ^b	kt	1	11	0	2	2	4	3	3
Aluminium (ingot metal)	kt	6	3	1	1	1	1	1	1
Value									
Bauxite	\$m	3	3	1	0	0	1	1	0
Alumina ^b	\$m	2	12	0	3	3	3	3	3
Aluminium (ingot metal)	\$m	20	11	5	3	3	3	3	3
Prices									
Alumina ^d	A\$/t	363	413	412	419	418	418	398	384
Aluminium									
LME cash ^e	US\$/t	2 245	2 692	2 653	2 482	2 723	2 801	2 762	2 547
Australia ^d	A\$/t	2 962	3 449	3 490	3 358	3 446	3 586	3 411	3 164

^a Bauxite export quantities are not available prior to September quarter 2004. Bauxite export values up to and including June quarter 2004 are ABARE estimates. ^b Includes aluminium hydroxide. ^c Country details confidential. ^d Average export unit value. ^e High grade. ^p Preliminary. ^s ABARE estimate.
Sources: Australian Bureau of Statistics, Canberra; London Metal Exchange; ABARE.



	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Mine									
Black coal, raw									
Underground	Mt	86.72	91.58	22.52	23.47	22.94	21.07	24.11	25.89 s
Opencut	Mt	311.65	317.49	79.40	80.35	81.51	76.53	79.10	79.31 s
New South Wales	Mt	161.14	169.72	41.38	43.73	43.62	40.79	41.57	46.07
Queensland	Mt	226.53	228.80	57.86	57.44	58.19	54.17	59.00	56.44 s
Western Australia a	Mt	6.30	6.18	1.58	1.55	1.55	1.55	1.55	1.58
South Australia a	Mt	3.80	3.60	0.95	0.89	0.89	0.91	0.91	0.96
Tasmania a	Mt	0.60	0.77	0.15	0.20	0.20	0.18	0.18	0.16
Australia	Mt	398.37	409.07	101.92	103.81	104.45	97.60	103.21	105.21 s
Black coal, salable									
Underground	Mt	67.30	74.17	17.29	18.99	18.52	17.06	19.60	20.71 s
Opencut	Mt	239.90	249.78	61.29	62.29	64.87	60.44	62.19	62.55 s
New South Wales	Mt	124.61	130.70	32.51	33.57	33.29	31.70	32.14	35.57
Queensland	Mt	171.90	182.98	43.40	45.18	47.57	43.19	47.05	45.00 s
Western Australia a	Mt	6.30	6.10	1.58	1.53	1.53	1.53	1.53	1.58
South Australia a	Mt	3.80	3.60	0.95	0.89	0.89	0.91	0.91	0.96
Tasmania a	Mt	0.58	0.56	0.15	0.11	0.11	0.17	0.17	0.15
Australia	Mt	307.19	323.95	78.59	81.27	83.38	77.50	81.79	83.26 s
Brown coal b									
Victoria s	Mt	67.74	71.88	na	na	na	na	na	na
Exports									
Quantity									
Metallurgical coal, high quality									
Brazil	Mt	3.17	3.05	0.79	0.71	0.86	0.75	0.73	0.90
China	Mt	2.22	2.41	0.17	0.50	0.50	1.04	0.36	0.28
Chinese Taipei	Mt	3.31	3.47	0.91	1.04	0.82	0.74	0.88	0.76
European Union 25	Mt	19.32	20.20	4.94	5.42	5.11	4.34	5.33	5.78
India	Mt	13.63	16.30	3.51	4.37	3.92	3.79	4.22	4.87
Japan	Mt	23.87	25.45	7.05	6.25	5.90	6.54	6.76	5.56
Korea, Rep. of	Mt	6.58	6.25	1.22	1.40	1.50	1.80	1.55	1.68
Other	Mt	5.39	5.72	1.48	1.44	1.66	1.43	1.19	1.37
Total	Mt	77.48	82.84	20.06	21.14	20.27	20.42	21.01	21.19
Metallurgical coal, other c									
Chinese Taipei	Mt	4.41	4.57	0.80	1.10	0.93	1.31	1.23	0.84
European Union 25	Mt	4.73	4.34	1.30	1.02	1.08	1.01	1.23	1.41
India	Mt	2.77	3.27	0.74	0.82	0.85	0.78	0.81	1.16
Japan	Mt	20.35	23.41	4.97	5.55	5.27	6.19	6.40	6.64
Other	Mt	10.74	13.49	2.58	3.13	3.16	2.84	4.35	3.46
Total	Mt	42.99	49.07	10.40	11.63	11.30	12.13	14.02	13.51
Total metallurgical coal	Mt	120.48	131.91	30.46	32.77	31.56	32.55	35.03	34.70
Thermal coal									
Chinese Taipei	Mt	13.21	16.23	3.57	3.72	4.11	4.26	4.15	4.09
European Union 25	Mt	2.32	3.73	0.81	0.60	1.14	0.76	1.22	0.09
Japan	Mt	59.33	58.64	14.33	14.24	14.34	15.13	14.93	16.25
Korea, Rep. of	Mt	20.24	15.06	5.27	4.00	3.64	4.12	3.30	4.11
Other	Mt	15.74	18.01	5.31	4.77	4.98	4.32	3.94	3.02
Total	Mt	110.82	111.68	29.29	27.34	28.21	28.58	27.54	27.56

continued

9 coal continued

	Unit	2005-06	2006-07 ^p	Quarter					
				2005-06	2006-07 ^p			2007-08 ^p	
				June	Sep.	Dec.	Mar.	June	Sep.
Exports									
Quantity									
Other coal	Mt	1.17	0.80	0.20	0.35	0.28	0.00	0.17	0.20
Coke ^d	Mt	na	na	na	na	na	na	na	na
Value									
Metallurgical coal									
High quality	\$m	12 203	11 012	3 031	3 010	2 796	2 749	2 458	2 309
Other quality	\$m	4 800	4 023	1 100	1 053	943	967	1 059	1 054
Total metallurgical coal	\$m	17 003	15 035	4 131	4 063	3 739	3 716	3 517	3 362
Thermal coal	\$m	7 206	6 762	1 845	1 705	1 704	1 715	1 639	1 687
Other coal	\$m	80	48	20	23	15	0	10	12
Total coal	\$m	24 290	21 845	5 996	5 790	5 458	5 431	5 166	5 062
Coke	\$m	59	80	25	14	13	25	28	40
Imports									
Quantity									
Coke	Mt	0.05	0.04	0.02	0.01	0.02	0.01	0.01	0.01
Value									
Coke	\$m	4	6	2	2	2	1	1	1
Prices ^e									
Metallurgical coal									
High quality	A\$/t	157.49	132.94	151.10	142.38	137.95	134.59	116.99	108.95
Other	A\$/t	111.65	81.98	105.77	90.56	83.50	79.73	75.58	78.00
Thermal coal	A\$/t	65.02	60.55	63.00	62.36	60.39	59.99	59.49	61.22

^a Quarterly data derived from annual ABARE estimates. ^b Quarterly data not available. ^c Country details confidential for various time periods for Brazil, Chinese Taipei, Dem. Peoples Rep. of Korea, Italy, Pakistan and Republic of Korea - commencing from October 1996. ^d Quantity details not available from August 2003. ^e Average export unit value. ^p Preliminary. ^s ABARE estimate. ^{na} Not available.

Sources: Australian Bureau of Statistics, Canberra; Coal Services Pty Limited; Queensland Government, Department of Natural Resources and Mines; ABARE.

10 copper

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Mine s									
Copper ore and concentrate	kt	2 826	3 060	737	756	763	768	773	773
Copper content of all minerals produced									
New South Wales a	kt	204	195	53	52	53	46	45	39
Queensland a	kt	399	338	96	82	85	86	84	84
Western Australia a	kt	97	114	23	32	25	27	29	32
South Australia	kt	204	183	55	42	40	54	48	34
Tasmania	kt	32	29	8	8	7	7	7	9
Australia a	kt	936	859	234	216	210	220	213	198
Smelter and refinery									
Blister copper (primary) b	kt	404	389	100	86	92	108	103	80
Refined copper (primary) s	kt	461	435	113	98	105	119	113	90
Exports									
Quantity									
Copper concentrate									
China c	kt	581	394	157	111	133	95	54	143
India	kt	494	493	82	135	71	137	148	146
Japan	kt	391	414	88	94	124	86	110	113
Korea, Rep. of	kt	68	115	12	36	15	34	29	61
Other	kt	100	77	22	42	35	0	0	10
Total	kt	1 635	1 493	360	418	379	352	342	472
Refined copper									
Chinese Taipei	kt	76	88	21	8	27	25	27	24
Indonesia	kt	30	17	5	3	7	4	3	2
Japan	kt	6	2	2	1	0	1	0	0
Singapore	kt	7	5	3	1	0	3	0	0
Thailand	kt	65	40	13	12	12	9	8	8
Other	kt	130	138	38	27	27	44	40	22
Total	kt	314	290	80	53	72	86	79	57
Copper content of all primary materials exported ds	kt	790	698	181	170	178	183	167	181
Value									
Copper concentrate	\$m	3 492	3 910	1 048	1 091	1 056	846	916	1 168
Refined copper	\$m	2 161	2 610	772	539	647	698	725	513
Total	\$m	5 653	6 520	1 820	1 631	1 703	1 544	1 642	1 682
Prices e									
LME cash	US\$/t	5 062	7 087	7 251	7 670	7 098	5 941	7 637	7 715
Australia	A\$/t	6 842	9 063	9 832	10 150	9 263	7 617	9 221	9 122

a Includes copper cathode and copper precipitate. b Copper content. c Excludes Hong Kong. d Copper content of all ores and concentrates, slags, residues, intermediate products, refined copper, copper powder and flakes. e Based on LME cash, midday, high grade, 25 tonne warrants. p Preliminary. s ABARE estimate. Sources: Australian Bureau of Statistics, Canberra; London Metal Exchange; ABARE.

11 diamonds and other gemstones

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Diamonds									
Northern Territory	'000 ct	14	10	2	4	5	0	0	0
Western Australia	'000 ct	25 339	24 622	7 537	8 389	8 127	3 582	4 524	4 980
Australia	'000 ct	25 354	24 632	7 539	8 393	8 132	3 582	4 524	4 980
Exports									
Quantity									
Diamonds									
Unsorted s	'000 ct	25 226	24 359	7 510	8 371	8 116	3 566	4 306	4 960
Sorted									
Gem	'000 ct	126	272	28	22	16	16	218	20
Industrial a	'000 ct	2	1	0	0	0	0	1	0
Total s	'000 ct	25 354	24 632	7 539	8 393	8 132	3 582	4 524	4 980
Value									
Diamonds									
Unsorted s	\$m	685	602	192	173	168	161	100	147
Sorted									
Gem	\$m	151	124	35	35	31	33	25	36
Industrial a	\$m	0	0	0	0	0	0	0	0
Total s	\$m	836	726	227	208	199	194	125	183
Opals									
Rough	\$m	13	12	3	4	3	3	2	3
Cut and polished	\$m	37	29	7	9	6	9	6	9
Total	\$m	50	41	10	13	8	12	7	12
Sapphires									
Rough	\$m	1	1	0	0	0	0	0	0
Total	\$m	1	1	0	0	0	0	0	0
Other gemstones b	\$m	8	7	1	1	1	3	1	2
Total gemstones	\$m	59	48	11	14	9	16	9	14
Imports									
Quantity									
Diamonds									
Unsorted	'000 ct	1	0	0	0	0	0	0	1
Sorted									
Gem	'000 ct	1 641	421	95	88	116	116	101	135
Industrial a	'000 ct	126	158	8	15	71	35	37	95
Dust and powder	'000 ct	2 330	2 850	816	719	815	637	680	569
Value									
Diamonds									
Unsorted	\$m	1	0	0	0	0	0	0	0
Sorted									
Gem	\$m	398	392	104	90	96	104	101	103
Industrial a	\$m	2	3	1	1	1	1	0	1
Dust and powder	\$m	3	2	1	1	1	0	0	0
Total	\$m	403	397	106	91	98	106	102	104

a Excludes dust, powder and unsorted diamonds. b Includes cut and polished sapphires from 1 July 2000. p Preliminary. s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; ABARE; Department of Minerals and Energy, Western Australia; Department of Minerals and Energy, Northern Territory.

12 gold

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Mine s									
Gold content of all minerals produced									
New South Wales	t	29	34	7	7	8	9	9	9
Victoria	t	6	7	1	1	2	2	1	1
Queensland	t	22	21	5	6	5	5	5	6
Western Australia	t	165	162	41	41	43	39	39	38
South Australia	t	7	7	2	2	1	2	2	1
Tasmania	t	7	4	1	1	1	1	1	1
Northern Territory	t	14	17	3	3	4	4	5	4
Australia	t	250	251	60	62	65	61	63	60
Refinery									
Primary									
Australian origin	t	209	208	49	51	54	53	50	51
Overseas origin	t	66	55	13	14	16	13	12	14
Secondary									
Australian origin	t	7	5	1	2	1	1	1	1
Overseas origin	t	99	92	47	16	15	25	36	18
Total	t	380	360	110	83	87	92	99	84
Exports									
Quantity									
Refined and unrefined bullion									
China	t	1	0	0	0	0	0	0	0
Hong Kong, China	t	1	0	0	0	0	0	0	0
India	t	127	184	30	43	42	34	65	39
Japan	t	18	12	4	2	6	4	0	3
Korea, Rep. of	t	5	4	1	1	1	1	1	0
Middle East	t	3	23	2	0	5	8	10	21
United Arab Emirates	t	3	23	2	0	5	8	10	21
Singapore	t	13	18	3	5	5	4	5	0
Switzerland	t	3	37	0	0	6	15	16	24
Thailand	t	33	24	6	7	3	7	7	4
United Kingdom	t	101	71	41	22	21	19	9	15
Other	t	10	28	6	13	5	5	5	2
Total	t	315	400	93	93	93	96	118	108
Value									
Refined	\$m	7 089	10 320	2 436	2 399	2 362	2 529	3 030	2 723
Imports									
Value									
Refined and unrefined bullion	\$m	4 800	5 309	1 946	1 163	1 320	1 290	1 537	1 882
Prices									
London AM fix	US\$/oz	527	639	629	622	614	650	668	680
Australia	A\$/oz	707	814	843	822	799	829	805	804

p Preliminary. s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; London Bullion Market Association; ABARE.

13 iron

	Unit	2005-06	2006-07 p	Quarter						
				2005-06		2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Production										
Iron ore and concentrate a										
Western Australia s	kt	258 394	281 117	68 617	70 835	70 804	65 505	73 973	71 954	
South Australia	kt	3 490	4 698	873	1 078	1 150	1 189	1 282	1 574	
Tasmania	kt	1 931	1 838	405	175	537	602	524	607	
Australia s	kt	263 815	287 653	69 894	72 088	72 491	67 296	75 778	74 202	
Iron content s	kt	163 850	186 074	43 379	44 725	45 184	46 039	50 126	47 066	
Iron and steel bs	kt	7 866	8 010	1 995	2 021	2 006	1 982	2 001	2 058	
Exports										
Quantity										
Iron ore and pellets										
Pellets, sinters and briquettes	kt	1 083	718	219	75	113	335	195	288	
Fines	kt	168 414	183 134	44 039	45 152	48 420	41 555	48 006	48 810	
Lump and run of mine	kt	69 884	73 517	17 486	19 003	18 798	16 734	18 981	19 937	
Total iron ore and pellets										
China c	kt	123 489	135 288	31 556	32 435	36 703	30 810	35 340	36 236	
Chinese Taipei	kt	8 880	9 818	2 464	2 520	2 407	2 333	2 559	2 662	
European Union 25	kt	9 384	7 602	2 300	2 026	2 109	1 797	1 669	1 729	
Japan	kt	72 313	75 091	19 376	19 538	19 002	16 826	19 724	20 572	
Korea, Rep. of	kt	24 705	28 973	5 945	7 525	6 863	6 806	7 780	7 786	
Other	kt	610	597	104	187	247	52	111	49	
Total	kt	239 380	257 368	61 744	64 230	67 331	58 624	67 183	69 034	
Iron content	kt	148 882	159 978	38 377	39 945	41 831	36 450	41 752	42 926	
Steel										
Iron and steel	kt	2 428	2 648	668	633	674	678	663	618	
Scrap	kt	1 876	1 333	420	223	405	234	470	300	
Value										
Iron ore and pellets										
Pellets, sinters and briquettes	\$m	87	42	20	1	6	23	12	21	
Fines	\$m	8 269	10 145	2 320	2 525	2 650	2 280	2 690	2 711	
Lump and run of mine	\$m	4 499	5 332	1 206	1 384	1 359	1 199	1 390	1 426	
Total	\$m	12 854	15 519	3 546	3 909	4 016	3 502	4 092	4 157	
Steel										
Iron and steel	\$m	1 674	1 743	446	421	447	444	431	401	
Scrap	\$m	467	607	166	105	177	122	203	154	
Total	\$m	2 141	2 350	612	526	624	566	634	555	
Imports										
Quantity										
Iron ore d	kt	5 026	4 722	1 467	1 265	1 683	757	1 017	1 098	
Iron and steel	kt	2 191	2 317	530	617	530	657	512	489	
Ferroalloys	kt	57	87	15	38	17	14	17	17	
Value										
Iron ore d	\$m	222	338	67	72	117	60	89	84	
Iron and steel	\$m	2 075	2 479	452	539	610	721	608	563	
Ferroalloys	\$m	123	116	31	28	35	22	30	33	
Total	\$m	2 420	2 933	550	640	762	804	728	679	
Prices										
Japanese negotiated e	USc/dltu	62.72	74.63	74.63	74.63	74.63	74.63	81.73	81.73	

a For use in iron and steel making; includes pellets for Tasmania. **b** Includes recovery from scrap. **c** Excludes Hong Kong. **d** Includes limonite ore used in the production of refined nickel products. **e** Indicative price: Australian hematite fines to Japan (fob), per dry long tonne unit, for Japanese fiscal year commencing 1 April. **p** Preliminary. **s** ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

14 lead

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p				2007-08 p
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Mine s									
Lead ore and concentrates	kt	1 063	908	238	235	212	242	218	215
Lead content of all minerals produced									
New South Wales	kt	109	91	26	28	27	16	20	20
Queensland	kt	531	415	115	106	85	112	112	112
Western Australia	kt	62	74	17	19	24	23	9	8
Tasmania	kt	28	29	6	7	7	7	8	8
Northern Territory	kt	31	33	6	7	9	8	8	8
Australia	kt	762	642	169	167	152	166	157	155
Smelter and refinery									
Refined lead (primary) b	kt	234	191	63	24	59	47	60	53
Domestic despatches									
Refined lead	kt	28	26	7	8	5	6	7	7
Exports									
Quantity									
Lead concentrate									
China	kt	249	166	49	46	61	43	16	19
European Union 25	kt	58	54	21	11	16	15	12	13
Japan	kt	64	53	21	16	10	10	16	5
Korea, Rep. of	kt	132	117	39	20	34	36	26	26
Other	kt	0	33	0	9	5	0	19	6
Total	kt	502	422	130	102	126	104	89	70
Lead bullion c									
United Kingdom	kt	140	112	20	37	36	21	18	46
Total	kt	140	112	20	37	36	21	18	46
Refined lead									
Chinese Taipei	kt	9	5	2	0	3	1	1	2
India	kt	33	41	10	9	10	12	10	7
Indonesia	kt	13	6	4	3	2	1	1	1
Korea, Rep. of	kt	24	42	8	8	12	12	10	12
Thailand	kt	29	12	7	2	3	2	4	4
Other	kt	135	109	34	21	25	33	31	30
Total	kt	244	215	65	43	55	62	56	57
Lead content of all primary materials exported ds	kt	756	635	180	155	180	157	142	158
Value									
Lead concentrate	\$m	711	855	207	187	202	233	232	175
Lead bullion	\$m	235	268	44	79	82	57	50	154
Refined lead	\$m	350	457	104	62	111	140	143	195
Total	\$m	1 296	1 579	354	328	395	431	425	525
Prices									
LME cash e	US\$/t	1 061	1 694	1 100	1 186	1 629	1 646	2 096	3 084
Australia f	A\$/t	1 775	2 347	1 937	1 759	2 311	2 535	2 785	3 716

a Metallic content. b Includes lead content of lead alloys from primary sources. c Includes a substantial precious metal content, mainly silver. d Lead content of all ores, concentrates, slags, residues, bullion, and refined lead. e Based on LME cash, midday, standard grade, minimum 25 tonne warrants. f Pasmenco Metals, 99.97-99.99 per cent, fob/for Port Pirie. p Preliminary. s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; London Metal Exchange; ABARE.

15 manganese

	Unit	2005-06	2006-07 p	Quarter						
				2005-06		2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Production										
Manganese ore and concentrate										
Western Australia s	kt	1 056	1 217	370	301	273	328	315	313	
Northern Territory	kt	3 032	3 854	768	943	979	901	1 031	1 043	
Australia s	kt	4 088	5 071	1 138	1 244	1 252	1 229	1 345	1 355	
Manganese content s	kt	1 962	2 434	546	597	601	590	646	651	
Exports a										
Quantity										
Manganese ore and concentrate	kt	3 215	4 667	1 255	1 087	1 224	1 107	1 248	1 192	
Value										
Manganese ore and concentrate	\$m	424	482	143	113	124	109	136	206	
Prices										
Japanese negotiated b	US\$/mtu	3.98	3.00	3.00	3.00	3.00	3.00	2.70	2.70	
	A\$/t	256.19	183.51	193.39	190.53	187.38	183.53	156.17	153.16	

a Quarterly data derived from annual ABARE estimates to June quarter 2004. ABS data from September quarter 2004. b Indicative price: high grade ore (48 per cent Mn) to Japan for Japanese fiscal year commencing 1 April. p Preliminary. s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

16 nickel

	Unit	2005-06	2006-07 p	Quarter						
				2005-06		2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Production as										
Mine										
Nickel content										
Western Australia	kt	186	192	45	47	51	47	47	46	
Australia	kt	186	192	45	47	51	47	47	46	
Smelter and refinery										
Intermediate nickel	kt	74	57	12	14	16	15	13	13	
Refined nickel, class 1 b	kt	105	104	23	27	28	23	25	19	
Refined nickel, class 2 c	kt	10	15	3	2	3	5	4	3	
Exports s										
Quantity										
Nickel d	kt	198	215	46	51	59	52	52	45	
Value										
Ores and concentrates	\$m	646	1 275	154	202	349	327	396	234	
Intermediate products e	\$m	500	1 656	195	322	405	489	439	268	
Refined nickel, class 1 b	\$m	2 149	4 916	611	1 055	1 195	1 202	1 463	681	
Refined nickel, class 2 c	\$m	161	534	58	71	110	178	176	78	
Total	\$m	3 457	8 381	1 018	1 650	2 060	2 197	2 474	1 260	
Imports										
Value										
Primary nickel products f	\$m	128	257	49	41	77	54	84	57	
Prices										
LME cash g	US\$/t	15 488	37 942	19 925	29 141	33 134	41 439	48 055	30 190	
	A\$/t	20 778	48 353	26 759	38 558	43 116	52 813	57 908	35 678	

a Details of production of nickel metal, matte, oxide, sinter and nickel-cobalt sulphide are not available. b Products with a nickel content of 99 per cent or more. Includes electrolytic nickel, pellets, briquettes and powder. c Products with a nickel content of less than 99.8 per cent. Includes ferronickel, nickel oxides and oxide sinter. d Includes metal content of ores and concentrates, intermediate products and nickel metal. e Includes matte and speiss for further refining. f Includes matte, sinter and intermediate products; ferronickel, unwrought nickel metal and alloys and scrap. g Average cash settlement price for melting grade refined nickel. p Preliminary. s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; International Nickel Study Group; London Metal Exchange; ABARE.

17 petroleum

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Field									
Crude oil s	ML	17 246	21 151	3 921	5 763	5 402	4 776	5 211	4 768
Condensate s	ML	7 069	7 404	1 547	1 902	1 894	1 782	1 826	1 977
Total s	ML	24 315	28 555	5 467	7 665	7 295	6 558	7 037	6 744
Production rate s	'000 bbl/day	425	499	382	536	510	458	492	471
LPG	ML	4 722	4 550	1 208	1 293	1 143	1 037	1 077	1 145
Ethane a	Mm ³	456	581	120	128	112	89	253	124
Natural gas a	Mm ³	38 016	39 304	10 207	10 275	9 810	9 042	10 177	10 642
Refinery									
Refinery input	ML	36 895	39 465	8 677	9 340	10 394	9 874	9 857	9 845
Refinery output									
LPG	ML	1 125	1 387	270	348	385	343	311	341
Automotive gasoline	ML	16 528	17 732	4 059	4 412	4 529	4 263	4 528	4 708
Aviation gasoline	ML	119	119	31	31	33	23	33	26
Aviation turbine fuel	ML	5 216	5 332	1 235	1 319	1 449	1 277	1 288	1 295
Kerosine	ML	12	2	2	1	0	0	1	1
Heating oil	ML	102	86	41	39	12	16	20	33
Automotive diesel oil	ML	10 154	11 055	2 226	2 315	2 659	2 908	3 173	3 133
Industrial and marine diesel fuel	ML	31	21	5	5	7	5	5	5
Fuel oil (excl. refinery fuel)	ML	1 048	942	263	247	219	216	260	225
Lubricating oil basestock	ML	163	146	39	35	41	31	39	35
Bitumen	ML	831	1 356	237	210	459	352	336	331
Other products	ML	946	616	195	127	210	123	156	180
Total	ML	36 274	38 795	8 605	9 087	10 001	9 558	10 149	10 313
Sales									
LPG									
Automotive use b	ML	2 564	2 335	547	591	579	561	603	582
Total	ML	4 050	4 038	996	1 090	938	940	1 070	1 118
Automotive gasoline									
Lead replacement c	ML	15	0	0	0	0	0	0	0
Premium unleaded	ML	1 867	1 819	422	427	475	467	449	458
Regular unleaded	ML	15 962	15 892	3 887	4 040	4 069	3 938	3 845	3 905
Other unleaded d	ML	1 204	1 539	288	324	380	415	421	508
Total	ML	19 048	19 251	4 597	4 792	4 923	4 820	4 716	4 871
Aviation gasoline	ML	86	90	22	23	22	21	23	23
Aviation turbine fuel	ML	5 359	5 837	1 394	1 487	1 519	1 416	1 416	1 477
Kerosine	ML	27	32	8	6	2	13	11	11
Heating oil	ML	25	15	9	5	1	3	5	4
Automotive diesel oil	ML	15 804	17 028	4 077	4 131	4 419	4 156	4 322	4 407
Industrial and marine diesel fuel	ML	19	15	5	5	5	2	3	3
Fuel oil	ML	1 586	1 513	376	373	371	394	375	383
Lubricating oil and greases	ML	451	421	115	107	108	103	104	110
Bitumen	ML	805	808	203	162	240	226	180	150
Other products	ML	973	699	230	230	233	173	63	64
Total	ML	48 234	49 746	12 033	12 409	12 781	12 267	12 288	12 622

continued

17 petroleum continued

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p			2007-08 p	
				June	Sep.	Dec.	Mar.	June	Sep.
Exports									
Quantity									
Crude oil and other refinery feedstock									
China	ML	404	518	98	100	104	206	108	0
Chinese Taipei	ML	346	446	0	105	215	7	119	125
Japan	ML	2 201	1 957	387	466	466	543	481	646
Korea, Rep. of	ML	2 725	3 873	408	647	1 243	1 394	588	1 275
New Zealand	ML	465	1 045	71	340	68	237	400	147
Singapore	ML	3 110	3 731	557	1 297	1 072	669	712	521
United States	ML	297	190	0	92	99	0	0	0
Other	ML	3 478	4 183	865	1 016	949	895	1 324	1 311
Total	ML	13 026	15 963	2 386	4 063	4 216	3 951	3 733	4 024
LNG	Mt	12.50	15.20	3.60	3.45	3.90	3.95	3.90	3.90
LPG	ML	2 800	2 824	656	731	814	593	686	788
Refinery products									
Automotive gasoline	ML	714	771	122	243	200	134	195	253
Aviation turbine fuel	ML	127	120	0	27	43	23	27	30
Diesel fuel d	ML	419	288	4	87	55	90	56	71
Fuel oil	ML	490	209	89	32	60	73	44	84
Aviation gasoline	ML	85	81	32	56	10	8	7	31
Lubricants	ML	179	231	42	39	57	50	85	51
Other products	ML	89	62	20	22	15	17	8	7
Total	ML	2 102	1 762	311	505	440	395	421	527
Ships' and aircraft stores									
Aviation turbine fuel	ML	1 893	1 893	473	473	473	473	473	473
Fuel oil	ML	259	252	64	64	63	63	63	63
Other products	ML	11	11	3	3	2	2	3	6
Total	ML	2 163	2 156	540	540	539	538	539	542
Value									
Crude oil and other refinery feedstock									
	\$m	6 638	8 318	1 379	2 316	2 070	1 922	2 009	2 197
LNG	\$m	4 416	5 222	1 290	1 362	1 396	1 275	1 189	1 130
LPG	\$m	1 002	1 038	237	288	275	218	257	303
Refinery products									
Automotive gasoline	\$m	419	468	83	150	108	78	132	153
Aviation turbine fuel	\$m	80	74	0	17	27	13	16	18
Diesel fuel d	\$m	238	188	4	64	34	54	36	50
Fuel oil	\$m	215	84	42	13	24	29	19	33
Aviation gasoline	\$m	54	69	21	48	8	7	6	20
Lubricants	\$m	139	157	36	32	37	35	54	37
Other products	\$m	52	57	14	17	14	13	12	11
Total	\$m	1 195	1 098	201	342	252	229	275	322
Total	\$m	13 251	15 676	3 108	4 309	3 993	3 644	3 730	3 953
Ships' and aircraft stores									
Aviation turbine fuel	\$m	1 206	1 176	328	326	276	284	290	293
Fuel oil	\$m	107	108	29	29	27	26	26	26
Other products	\$m	9	11	3	3	2	2	3	6
Total	\$m	1 322	1 295	360	358	305	312	320	326

continued

17 petroleum continued

	Unit	2005-06	2006-07 ^p	Quarter						
				2005-06	2006-07 ^p				2007-08 ^p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Imports										
Quantity										
Crude oil and other refinery feedstock										
Indonesia	ML	3 929	3 391	982	551	885	1 119	836	1 020	
Malaysia	ML	3 976	3 716	924	585	905	947	1 279	1 245	
Middle East										
Qatar	ML	0	106	0	0	0	106	0	0	
Saudi Arabia	ML	1 602	1 147	325	190	354	389	214	157	
United Arab Emirates	ML	863	2 971	325	876	489	592	1 013	1 057	
Other	ML	199	118	0	76	42	0	0	0	
Total Middle East	ML	2 664	4 342	649	1 142	885	1 087	1 227	1 214	
New Zealand	ML	638	636	156	92	99	173	271	431	
Papua New Guinea	ML	2 386	2 059	404	472	472	572	543	529	
Singapore	ML	829	846	168	160	282	185	219	160	
Viet Nam	ML	6 708	6 710	1 841	2 057	1 652	1 745	1 256	1 469	
Other	ML	3 286	3 643	882	861	1 051	773	958	702	
Total	ML	24 416	25 341	6 006	5 921	6 230	6 600	6 590	6 769	
Refined products										
LPG	ML	599	748	257	177	254	78	239	270	
Automotive gasoline	ML	3 687	2 914	1 020	547	823	830	714	525	
Aviation turbine fuel	ML	817	1 045	224	262	177	292	314	389	
Diesel fuel ^d	ML	6 122	5 419	1 823	1 311	1 342	1 113	1 652	1 524	
Fuel oil	ML	1 418	1 363	309	290	269	353	451	290	
Lubricants	ML	370	365	95	99	81	93	92	93	
Other products	ML	2 111	6 414	1 209	1 502	1 516	1 616	1 780	1 705	
Total	ML	15 124	18 268	4 936	4 188	4 462	4 377	5 242	4 796	
Value										
Crude oil and other refinery feedstock										
	\$m	12 820	13 361	3 553	3 528	3 061	3 196	3 575	3 766	
Refined products										
LPG	\$m	198	261	85	65	85	27	84	101	
Automotive gasoline	\$m	2 342	1 873	753	407	481	496	489	345	
Aviation turbine fuel	\$m	527	668	161	191	108	173	196	252	
Diesel fuel ^d	\$m	4 071	3 465	1 375	954	819	636	1 057	999	
Fuel oil	\$m	569	536	144	123	101	129	183	127	
Lubricants	\$m	418	495	124	132	118	125	120	112	
Other products	\$m	637	1 285	237	298	308	320	359	316	
Total	\$m	8 761	8 584	2 880	2 169	2 021	1 905	2 489	2 251	
Total	\$m	21 581	21 945	6 432	5 697	5 082	5 101	6 064	6 017	
Prices										
Dubai	US\$/bbl	58.30	60.66	65.35	66.40	57.63	54.03	64.58	70.33	
West Texas intermediate	US\$/bbl	64.22	63.30	70.41	70.42	59.96	58.02	64.79	75.35	
Brent	US\$/bbl	62.44	63.48	69.53	69.62	59.68	56.80	67.81	75.06	
Tapis	US\$/bbl	66.72	69.32	73.77	75.43	63.32	63.55	74.99	79.64	
World trade weighted average	US\$/bbl	57.25	59.45	63.87	65.70	54.99	52.50	64.62	72.15	
	A\$/bbl	76.80	75.77	85.78	86.93	71.56	66.91	77.87	85.27	

^a Commercial sales plus field and plant usage. ^b This is a minimum level and includes only direct sales by the oil industry. The data do not include volumes sold to distributors etc. which are subsequently used or sold for automotive use. ^c Leaded petrol phased out as at 1 January 2002. Lead replacement petrol (LRP) introduced as at 1 January 2002. ^d Includes automotive diesel oil and industrial and marine diesel fuel. ^e Data not available from January to December 2002 due to confidentiality restrictions. ^p Preliminary. ^s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; Department of Resources, Energy and Tourism, Canberra; US Department of Energy, *Energy Information Administration*; Tokyo Commodity Exchange; ABARE.

18 petroleum production, by basin

	Crude oil ML	Condensate ML	Total crude oil and condensate		LPG (naturally occurring) ^a	Ethane ^a	Natural gas ^a
			ML	'000 bbl/day	ML	Mm ³	Mm ³
June quarter 2007							
Adavale	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amadeus	13.0	0.0	13.0	0.9	0.0	0.0	126.3
Bonaparte	252.0	98.5 s	350.5 s	24.5 s	0.0	0.0	0.0
Bowen-Surat	6.2	5.2	11.4	0.8	6.3	0.0	131.8
Canning	0.6	0.0	0.6	0.0	0.0	0.0	0.0
Carnarvon							
Barrow Island	94.5	0.0	94.5	6.6	0.0	0.0	500.6
North West Shelf	1 392.4 s	1 342.4	2 734.8 s	191.1 s	412.4	0.0	5 956.8
Other	1 835.7 s	31.4	1 867.0 s	130.5 s	0.0	0.0	223.5
Cooper-Eromanga							
Queensland	202.6	37.7	240.3	16.8	0.0	0.0	0.0
South Australia	246.8	63.8	310.6	21.7	124.4	60.3	860.4
Gippsland	965.1	246.2	1 211.3	84.7	533.7	192.3	2 304.7
Otway	0.0	0.5	0.5	0.0	0.0	0.0	6.9
Perth	201.7	0.5	202.3	14.1	0.0	0.0	66.5
Total	5 210.5 s	1 826.2 s	7 036.7 s	491.8 s	1 076.8	252.6	10 177.4
September quarter 2007 ^p							
Adavale	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Amadeus	13.2	0.0	13.2	0.9	0.0	0.0	91.8
Bonaparte	343.4	32.8 s	376.2 s	26.3 s	0.0	0.0	0.0
Bowen-Surat	2.6	5.4	8.0	0.6	6.7	0.0	168.5
Canning	1.1	0.0	1.1	0.1	0.0	0.0	0.0
Carnarvon							
Barrow Island	93.4	0.0	93.4	6.5	0.0	0.0	502.8
North West Shelf	1 171.8 s	1 510.1	2 681.9 s	187.4 s	429.5	0.0	6 187.0
Other	1 582.7 s	44.0	1 626.7 s	113.7 s	0.0	0.0	198.9
Cooper-Eromanga							
Queensland	212.9	40.2	253.2	17.7	0.0	0.0	0.0
South Australia	298.4	59.4	357.9	25.0	137.3	66.5	906.5
Gippsland	860.1	283.9	1 144.0	80.0	571.6	57.2	2 497.5
Otway	0.0	0.3	0.3	0.0	0.0	0.0	5.1
Perth	187.9	0.7	188.7	13.2	0.0	0.0	81.6
Total	4 767.6 s	1 976.9 s	6 744.4 s	471.4 s	1 145.1	123.7	10 641.7
2006-07							
Adavale	0.0	0.0	0.0	0.0	0.0	0.0	7.7
Amadeus	52.6	0.0	52.6	0.9	0.0	0.0	509.4
Bonaparte	1 469.7	394.0 s	1 863.7 s	32.6 s	0.0	0.0	0.0
Bowen-Surat	21.0	21.2	42.2	0.7	24.3	0.0	554.1
Canning	2.4	0.0	2.4	0.0	0.0	0.0	0.0
Carnarvon							
Barrow Island	389.7	8.5	398.1	7.0	0.0	0.0	1 937.3
North West Shelf	5 849.7 s	5 692.2	11 541.9 s	201.7 s	2 067.3	0.0	23 802.9
Other	7 043.9 s	134.2	7 178.1 s	125.4 s	0.0	0.0	1 145.2
Cooper-Eromanga							
Queensland	791.3	166.8	958.2	16.7	0.0	0.0	0.0
South Australia	1 116.1	238.6	1 354.7	23.7	550.5	249.2	3 542.1
Gippsland	3 598.1	743.8	4 341.9	75.9	1 907.8	331.7	7 415.9
Otway	0.0	1.8	1.8	0.0	0.0	0.0	76.6
Perth	816.4	2.6	819.0	14.3	0.0	0.0	313.1
Total	21 150.9 s	7 403.7 s	28 554.6 s	498.9 s	4 550.0	580.9	39 304.2

^a Commercial sales plus field and plant usage. ^p Preliminary. **s** ABARE estimate.

Sources: Department of Resources, Energy and Tourism, Canberra; ABARE.

19 sales of petroleum products, by state marketing area

	NSW ^a	Vic.	QLD	WA	SA	Tas.	NT	Aust.
	ML	ML	ML	ML	ML	ML	ML	ML
September quarter 2007 p								
LPG ^b								
Automotive use ^c	147	264	64	47	55	3	2	582
Total	324	433	159	84	93	17	7	1 118
Automotive gasoline								
Premium unleaded	139	103	112	56	26	16	5	458
Regular unleaded	1 223	1 009	846	408	287	94	37	3 905
Other unleaded ^d	183	94	170	40	19	2	0	508
Total	1 546	1 205	1 129	505	333	112	42	4 871
Of which sales to retailers	1 217	971	782	405	254	53	22	3 704
Aviation gasoline	4	3	7	5	1	0	2	23
Aviation turbine fuel	672	221	318	163	57	7	39	1 477
Kerosine	1	2	7	1	0	0	0	11
Heating oil	2	1	0	0	1	1	0	4
Automotive diesel oil	948	702	1 306	941	269	89	152	4 407
Of which sales to retailers	321	285	300	178	67	9	22	1 183
Industrial and marine diesel fuel	2	0	2	0	0	0	0	3
Fuel oil ^e	118	77	25	42	0	3	118	383
Lubricating oil and greases	30	25	30	15	7	2	2	110
Bitumen	27	29	70	8	9	3	3	150
Other products ^f	30	10	18	3	3	0	1	64
Total	3 704	2 708	3 070	1 766	775	234	365	12 622
2006-07								
LPG ^b								
Automotive use ^c	632	975	311	173	220	20	5	2 335
Total	1 163	1 497	622	316	353	66	21	4 038
Automotive gasoline								
Premium unleaded	590	393	428	218	108	66	16	1 819
Regular unleaded	4 962	4 041	3 504	1 662	1 202	393	129	15 892
Other unleaded ^d	545	347	482	98	61	7	0	1 539
Total	6 097	4 780	4 413	1 978	1 371	465	146	19 251
Of which sales to retailers	4 945	3 784	3 085	1 690	1 049	215	56	14 825
Aviation gasoline	16	15	27	17	6	2	8	90
Aviation turbine fuel	2 376	1 085	1 099	881	194	31	171	5 837
Kerosine	5	4	20	2	0	1	1	32
Heating oil	5	3	1	0	3	3	0	15
Automotive diesel oil	3 617	2 753	4 890	3 727	1 133	360	547	17 028
Of which sales to retailers	1 225	1 105	1 078	672	258	39	35	4 412
Industrial and marine diesel fuel	8	0	6	0	0	0	0	15
Fuel oil ^e	484	252	103	168	0	19	486	1 513
Lubricating oil and greases	109	92	119	59	29	7	5	421
Bitumen	177	180	279	98	52	17	5	808
Other products ^f	98	497	75	18	10	1	1	699
Total	14 155	11 158	11 655	7 264	3 151	972	1 392	49 746

^a Includes Australian Capital Territory. ^b Includes sales for petrochemical feedstock. ^c This is a minimum level and includes only direct sales by the oil industry. The data do not include volumes sold to distributors etc. which are subsequently used or sold for automotive use. ^d Includes proprietary brand and other blends. ^e Excludes refinery fuel. ^f Sales of LPG for petrochemical feedstock are included in LPG sales. ^p Preliminary.
Source: Department of Resources, Energy and Tourism, Canberra.

20 phosphate

	Unit	2005-06	2006-07 ^p	Quarter					
				2005-06	2006-07 ^p			2007-08 ^p	
				June	July	Aug.	Sept.	Oct.	Nov.
Production									
Single superphosphate as	kt	1 309	938	395	246	291	111	290	186
Imports									
Quantity									
Phosphate rock									
China	kt	86	23	19	1	0	22	1	1
Morocco	kt	405	340	147	104	127	17	92	50
Nauru	kt	0	27	0	0	0	0	27	27
Togo	kt	48	0	0	0	0	0	0	0
Other	kt	116	79	31	18	18	17	25	15
Total	kt	655	469	198	123	146	55	145	93
Phosphates									
Diammonium b	kt	202	83	56	0	0	54	29	6
Monammonium c	kt	528	443	98	50	11	239	143	21
High analysis d	kt	310	166	51	6	3	50	107	0
Value									
Phosphate rock	\$m	42	32	13	8	8	4	11	7
Phosphates									
Diammonium b	\$m	74	32	20	0	0	19	13	3
Monammonium c	\$m	190	182	35	19	4	89	69	9
High analysis d	\$m	59	54	11	2	1	11	40	0
Prices									
Australia e	A\$/t	16.17	14.75	14.69	15.11	17.40	12.98	13.53	13.38

a Single superphosphate manufactured from imported phosphate rock; P₂O₅ equivalent: 21 per cent. **b** P₂O₅ equivalent: 46 per cent. **c** P₂O₅ equivalent: 50 per cent. **d** P₂O₅ equivalent: 48 per cent. **e** Average import unit value. **p** Preliminary. **s** ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

21 salt

	Unit	2005-06	2006-07 ^p	Quarter					
				2005-06	2006-07 ^p			2007-08 ^p	
				June	July	Aug.	Sept.	Oct.	Nov.
Production									
Queensland s	kt	0	na	0	na	na	na	na	na
Western Australia as	kt	10 834	na	2 875	2 310	2 905	na	na	na
South Australia b	kt	633	na	157	167	167	na	na	na
Australia cs	kt	11 467	11 209	3 032	2 477	3 072	2 680	2 980	2 990
Exports									
Quantity									
Bulk, bagged and table	kt	10 776	10 749	2 920	2 389	2 964	2 575	2 821	2 396
Value									
Bulk, bagged and table	\$m	229	239	65	54	62	60	62	53
Prices									
Australia d	A\$/t	21.29	22.24	22.33	22.73	21.08	23.33	22.04	21.98

a Sales. **b** Six monthly reporting. **c** Excludes Victoria. **d** Average export unit value. **p** Preliminary. **s** ABARE estimate. **na** Not available.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

22 silver

	Unit	2005-06	2006-07 ^p	Quarter						
				2005-06		2006-07 ^p			2007-08 ^p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Production										
Mine s										
Silver content of all minerals produced										
New South Wales	t	96	81	23	25	23	14	19	13	
Queensland	t	1 862	1 347	373	315	253	400	379	300	
Western Australia	t	103	85	23	17	24	17	27	42	
South Australia	t	34	28	7	7	8	6	7	7	
Tasmania	t	86	96	24	21	22	27	26	16	
Northern Territory	t	38	38	7	9	10	10	9	9	
Australia	t	2 218	1 674	456	393	340	474	467	387	
Refinery										
Refined silver	t	655	618	183	141	165	156	155	174	
Exports										
Quantity										
Refined silver bullion	t	482	431	114	95	104	106	126	94	
Value										
Refined silver ^a	\$m	197	221	65	48	54	52	67	51	
Imports										
Value										
Refined silver bullion	\$m	33	98	14	28	23	42	4	4	
Prices										
World ^b	US\$/oz	928	1 274	1 229	1 170	1 262	1 331	1 334	1 270	
Australia ^c	A\$/kg	399	520	528	496	526	542	515	480	

^a Includes refined bullion, powder, unwrought silver and semi manufactured forms. ^b London Bullion Market Association, fixed rate. ^c Pasmenco Metals, fob/fot Port Pirie. ^p Preliminary. ^s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; London Bullion Market Association; ABARE.

23 tin

	Unit	2005-06	2006-07 ^p	Quarter					
				2005-06	2006-07 ^p			2007-08 ^p	
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Mine									
Tin content of all minerals									
Queensland ^s	t	282	1 912	213	202	607	556	548	391
Western Australia ^s	t	590	149	117	60	49	30	10	0
Tasmania	t	933	0	0	0	0	0	0	0
Australia ^s	t	1 805	2 061	330	262	656	586	558	391
Smelter and refinery									
Refined tin (primary) ^s									
	t	736	321	163	106	97	68	50	0
Domestic despatches ^s									
Tin concentrate									
	t	788	196	156	80	65	40	11	na
Tin content									
	t	590	147	117	60	49	30	8	na
Exports									
Quantity									
Tin concentrate									
	t	2 186	3 172	79	370	731	1 105	966	669
Refined tin									
	t	395	36	260	1	2	28	6	181
Tin content of primary materials exported ^{bs}									
	t	1 556	1 867	313	221	433	663	550	569
Value									
Tin concentrate									
	\$m	9	25	0	2	5	9	8	6
Refined tin									
	\$m	3	0	2	0	0	0	0	3
Total									
	\$m	12	25	2	2	5	9	8	9
Imports									
Quantity									
Refined tin									
	t	618	574	105	134	182	137	121	126
Value									
Refined tin									
	\$m	6	8	1	1	2	2	2	2
Prices									
LME ^c									
	US\$/t	7 403	11 455	8 529	8 653	10 335	12 729	14 103	14 983

^a Primary and secondary. ^b Tin content of tin ores and concentrates and refined tin. ^c LME official close. ^p Preliminary. ^s ABARE estimate. ^{na} Not available.
Sources: Australian Bureau of Statistics, Canberra; London Metal Exchange; ABARE.

24 titanium minerals

	Unit	2005-06	2006-07 p	Quarter					
				2005-06	2006-07 p				2007-08 p
				June	Sep.	Dec.	Mar.	June	Sep.
Production									
Ilmenite concentrate									
New South Wales s	kt	55	179	27	43	32	39	64	47
Queensland s	kt	165	177	44	51	43	39	43	45
Western Australia	kt	1 965	2 046	516	538	521	518	469	487
Northern Territory	kt	0	1	0	0	0	0	0	0
Australia s	kt	2 185	2 403	588	632	598	597	577	580
Leucoxene concentrate									
New South Wales s	kt	14	69	13	10	18	11	29	23
Victoria	kt	0	1	0	0	0	0	1	0
Western Australia	kt	74	104	20	31	29	22	22	18
Northern Territory	kt	0	1	0	0	0	0	0	0
Australia s	kt	87	174	34	41	48	34	52	41
Rutile concentrate									
New South Wales s	kt	2	56	2	15	16	12	13	16
Victoria	kt	0	22	0	0	0	6	16	18
Queensland s	kt	70	71	16	21	16	17	17	20
Western Australia	kt	112	124	32	33	35	29	27	26
Northern Territory	kt	0	2	0	0	1	1	1	1
Australia s	kt	184	277	51	69	68	65	75	81
Synthetic rutile s	kt	711	721	155	183	181	171	186	183
Titanium dioxide pigment s	kt	208	207	51	49	55	51	52	53
Exports									
Quantity									
Ilmenite concentrate a	kt	722	999	303	270	312	248	169	224
Leucoxene concentrate	kt	86	123	28	28	23	46	26	47
Rutile concentrate s	kt	169	307	43	67	80	77	82	87
Synthetic rutile s	kt	472	508	96	140	131	112	126	131
Titanium dioxide pigment	kt	177	171	49	44	39	40	48	45
Value									
Ilmenite concentrate a	\$m	76	113	33	31	33	28	20	22
Leucoxene concentrate	\$m	25	35	6	11	7	10	8	9
Rutile concentrate s	\$m	138	259	36	56	66	64	74	66
Synthetic rutile s	\$m	321	361	67	97	91	78	96	82
Titanium dioxide pigment	\$m	441	408	121	108	96	97	107	101
Prices b									
Ilmenite concentrate									
Bulk	A\$/t	106	113	108	116	107	115	117	100
Leucoxene concentrate									
Bulk	A\$/t	226	249	204	348	258	196	230	166
Bagged	A\$/t	537	679	666	738	677	688	639	628
Rutile concentrate									
Bagged	A\$/t	897	861	933	907	867	884	802	769
Titanium dioxide pigment	A\$/t	2 486	2 391	2 490	2 473	2 454	2 402	2 253	2 245

a From January 1992, bulk only. b Average export unit value. p Preliminary. s ABARE estimate. na Not available.

Sources: Australian Bureau of Statistics, Canberra; ABARE.

25 uranium

Unit	2005-06	2006-07 p	Quarter						
			2005-06	2006-07 p			2007-08 p		
			June	Sep.	Dec.	Mar.	June	Sep.	
Production									
Mine									
Uranium oxide (U ₃ O ₈)	t	9 974	9 594	1 642	2 127	2 715	2 081	2 670	2 567
Uranium (U content)									
South Australia	t	4 062	3 674	887	868	893	912	1 001	1 021
Northern Territory	t	4 396	4 461	505	935	1 409	853	1 264	1 156
Australia	t	8 458	8 135	1 392	1 804	2 302	1 765	2 264	2 177
Exports a									
Quantity									
Uranium oxide (U ₃ O ₈)	t	10 253	9 519	1 760	1 856	3 005	1 725	2 933	2 486
Value									
Uranium oxide (U ₃ O ₈)	\$m	546	660	115	125	194	142	198	285
Prices									
Uranium oxide (U ₃ O ₈)									
Industry spot b	US\$/lb	36.79	81.17	43.33	50.00	65.00	85.00	124.67	98.33
Australia c	A\$/kg	53.24	69.28	65.37	67.40	64.61	82.43	67.54	114.50

a Country details not available. b Average of weekly restricted spot price, published by The Ux Consulting Company. c Average export unit value. p Preliminary.
Sources: Australian Bureau of Statistics, Canberra; The Ux Consulting Company; ABARE.

26 zircon

Unit	2005-06	2006-07 p	Quarter						
			2005-06	2006-07 p			2007-08 p		
			June	Sep.	Dec.	Mar.	June	Sep.	
Production									
Zircon concentrate									
New South Wales s	kt	0	37	0	4	11	10	12	12
Victoria	kt	0	49	0	0	0	13	35	39
Queensland s	kt	52	56	12	15	13	13	15	20
Western Australia	kt	390	416	105	106	113	98	99	73
Northern Territory	kt	0	7	0	0	2	3	2	3
Australia s	kt	442	565	116	125	139	137	163	148
Exports									
Quantity									
Zircon concentrate s	kt	438	555	116	124	137	143	152	152
Value									
Zircon concentrate s	\$m	398	478	104	112	123	130	113	101
Prices a									
Zircon concentrate									
All grades - bagged	A\$/t	1 055	1 111	1 113	1 130	1 147	1 130	1 058	1 059

a Average export unit value. p Preliminary. s ABARE estimate.
Sources: Australian Bureau of Statistics, Canberra; ABARE.

27 zinc

	Unit	2005-06	2006-07 ^p	Quarter						
				2005-06		2006-07 ^p			2007-08 ^p	
				June	Sep.	Dec.	Mar.	June	Sep.	
Production										
Mine ^s										
Zinc ore and concentrates	kt	2 564	2 585	634	607	667	605	706	698	
Zinc content of all minerals produced										
New South Wales	kt	178	147	44	42	45	27	33	35	
Queensland	kt	855	843	212	203	204	212	224	224	
Western Australia	kt	113	151	32	22	48	25	56	58	
South Australia	kt	0	4	0	0	0	0	4	13	
Tasmania	kt	89	97	23	22	20	25	29	25	
Northern Territory	kt	144	140	30	34	36	35	36	35	
Australia	kt	1 380	1 382	340	324	352	324	382	389	
Smelter and refinery										
Refined zinc (primary)	kt	446	496	113	121	129	119	127	127	
Domestic despatches										
Refined zinc	kt	78	87	21	21	25	19	22	21	
Exports										
Quantity										
Zinc concentrates										
Belgium-Luxembourg	kt	10	51	0	13	11	14	13	26	
China	kt	198	425	38	70	93	56	206	204	
Germany	kt	30	36	10	0	31	6	0	0	
Japan	kt	375	315	78	115	77	49	75	72	
Korea, Rep. of	kt	504	344	134	64	111	77	91	79	
Netherlands	kt	384	284	108	89	80	58	56	97	
Spain	kt	120	257	9	50	84	61	63	44	
Other	kt	201	236	70	41	43	78	74	48	
Total	kt	1 821	1 948	447	441	531	398	578	568	
Refined zinc										
Chinese Taipei	kt	77	79	20	16	25	18	21	19	
Hong Kong, China	kt	127	103	34	37	24	22	19	19	
Indonesia	kt	11	17	4	5	4	3	4	4	
Malaysia	kt	32	17	3	4	3	7	3	4	
New Zealand	kt	13	12	4	2	3	3	3	3	
United States	kt	10	5	10	0	5	0	0	0	
Other	kt	118	141	26	18	27	46	50	63	
Total	kt	388	374	100	83	92	99	100	111	
Zinc content of all primary materials exported ^{as}	kt	1 328	1 321	335	305	349	293	374	387	
Value										
Zinc concentrates	\$m	1 542	2 599	614	609	771	514	705	692	
Refined zinc	\$m	998	1 707	390	361	437	485	424	455	
Total	\$m	2 540	4 306	1 004	970	1 208	999	1 129	1 147	
Prices										
LME cash ^b	US\$/t	2 118	3 672	3 292	3 363	4 207	3 456	3 664	3 229	
Australia ^c	A\$/t	2 874	4 952	4 341	4 675	5 362	5 160	4 611	4 341	

^a Zinc content of all ores, concentrates, slags, residues, intermediate products, refined zinc, zinc powders, flakes and dust. ^b LME cash, midday, registered brands, minimum 98 per cent, 25 tonne warrants. ^c EZ Industries, Prime Western, 98.5 per cent. ^p Preliminary. ^s ABARE estimate.

Sources: Australian Bureau of Statistics, Canberra; London Metal Exchange; ABARE.