

# Mineral Industry Surveys

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## LEAD IN JUNE 2002

Domestic mine production, based on the net quantity of lead recovered from concentrate, decreased by 8% in June compared with production in May. Secondary refinery production remained essentially unchanged in June compared with the previous month, and reported consumption increased by about 1% compared with consumption in May.

According to Platts Metals Week published quotations, the average North American producer price and the average London Metal Exchange (LME) cash price (U.S. dollars) decreased by 0.07% and 2.63%, respectively, in June.

The supply of lead in the world market continued to grow during June, as LME stocks increased to a level of nearly 187,000 metric tons (t), more than double the 90,000 t at the beginning of the year. A significant increase in producer stocks also was apparent. Exports of refined lead from China during the first quarter of the year increased by nearly 30% compared with the same period in 2001, and continued at an increased level during the first 2 months in the second quarter of 2002. Demand for lead remained soft in the European and North American markets, and there was no immediate upturn evident in the original equipment and replacement automotive battery sectors or in the telecommunications industrial battery sector (CRU International Ltd., 2002).

The National Defense Stockpile aggregated cash disposal (sale) of lead in June under the Basic Ordering Agreement, DLA-Lead-005, was 3,500 t (3,858 short tons). Sales of lead through the first 9 months of fiscal year 2002 (October 2001 through June 2002) totaled 21,459 t (23,655 short tons). The total included 5,000 t (5,512 short tons) sold under a Long-Term Solicitation of Offers issued in January 2002 by the Defense National Stockpile Center.

The U.S. Environmental Protection Agency issued a proposed rule that would modify the management requirements for used cathode ray tubes (CRTs) and processed CRT glass discarded from televisions, computer monitors, and other medical, automotive and appliance-type CRTs. The proposed rule would conditionally exclude these materials from the

definition of solid waste when they are recycled—thereby encouraging increased recycling and improved management of this rapidly growing waste stream. The estimated average quantity of lead in the CRTs of colored televisions and computer monitors is about 1.8 kilograms (U.S. Environmental Protection Agency, 2002).

Doe Run Resources Corp., St. Louis, MO, recently finalized an arrangement that would secure additional financing and enable the company to restructure its outstanding debt. The arrangement, submitted to bondholders, would allow the holders of notes due in 2003 and 2005 to either exchange the notes for new ones or return them for cash, at a reduced value. The offer to bondholders was scheduled to expire on July 9, 2002. According to a Doe Run spokesperson, successful completion of the offer would result in an approximate 45% reduction in the company's current debt (American Metal Market, 2002b; Ryan's Notes, 2002).

In Australia, Pasminco Ltd. completed the sale of its Broken Hill lead-zinc-silver mine in New South Wales to Australian miner, Perilya Ltd. As part of the sales agreement, supply contracts were formalized to continue the delivery of Broken Hill concentrates to Pasminco's Port Pirie lead smelter and Hobart zinc smelter. Perilya also announced that it had agreed to merge with Ranger Minerals Ltd. (Australia). The merger would ensure funding for the implementation of Perilya's operational plan for the Broken Hill Mine, a plan which includes an extension of the life of the mine to at least 2011. The proposed merger is subject to approval by Ranger shareholders, as well as agreement on several other conditions (Platts Metals Week, 2002).

BHP Billiton, Sydney, announced that it will close its Pering lead-zinc mine in South Africa at the end of 2002 rather than early 2004, as originally planned. According to a company spokesperson, the depressed market conditions necessitated that the closing date be accelerated. However, full production is anticipated to continue until the mine is closed. An average of 39,000 t of zinc concentrate and 6,000 t of lead concentrate

have been produced each year at the Pering Mine during the past 16 years (American Metal Market, 2002a).

In China, the Beijing-based Metallurgical Construction Corp. (MCC) signed a memorandum of understanding with the Pakistan Mineral Development Corp. (PMDC) to develop the Duddar lead-zinc deposit in the Baluchistan region, 130 kilometers northeast of Karachi. A final agreement is due to be signed by the fourth quarter of 2002. The deposit had been explored by Pasminco Ltd. in the 1990s, when a total resource of 14.3 million metric tons was defined, averaging 8.6% zinc and 3.2% lead. Upon completion of the necessary construction at the Duddar Mine and concentrator, PMDC anticipates annual production of about 60,000 t of zinc concentrate grading 54% zinc, and 10,000 t of lead concentrate grading 64% lead. According to a PMDC spokesperson, MCC will invest the capital necessary to complete the construction at Duddar, subsequently taking an 87% equity in the joint venture, and reducing this equity to 83% after 5 years (Metal Bulletin,

2002).

## References Cited

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- Ryan's Notes, 2002, Doe Run's restructuring program: Ryan's Notes, v. 8, no. 23, June 10, p. 6.
- U.S. Environmental Protection Agency, 2002, Hazardous waste management system—Modification of the hazardous waste program—Cathode ray tubes and mercury-containing equipment—Proposed rule: Federal Register, v. 67, no. 113, June 12, p. 40507-40528.

TABLE 1  
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons, lead content, unless otherwise specified)

	2001		2002		
	January - December	January - June	May	June	January - June
<b>Production:</b>					
Mine (recoverable)	450,000	223,000	39,300	36,100	225,000
Primary refinery	290,000	NA	NA	NA	NA
<b>Secondary refinery:</b>					
Reported by smelters/refineries	1,090,000	534,000	91,700 r/	91,400	535,000
Estimated	11,000	5,390	926 r/	923	5,390
Recovered from copper-base scrap e/	15,000	7,500	1,250	1,250	7,500
Total secondary	1,110,000	547,000	93,900 r/	93,600	548,000
<b>Stocks, end of period:</b>					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	86,100	90,900	82,000 r/	87,100	87,100
<b>Imports for consumption:</b>					
Ore and concentrates (lead content)	2,240	2,240	--	NA	-- 2/
Refined metal	271,000	129,000	19,000	NA	97,500 2/
<b>Consumption:</b>					
Reported	1,540,000	780,000 r/	129,000	131,000	749,000
Undistributed e/	153,000	77,100 r/	12,800 r/	12,900	74,100
Total	1,700,000	857,000 r/	142,000 r/	144,000	823,000
<b>Exports (lead content):</b>					
Ore and concentrates	181,000	22,900	8,180	NA	37,200 2/
Bullion	3,470	2,980	--	NA	95 2/
Wrought and unwrought lead	34,700	17,000	3,000	NA	12,000 2/
Ash and residues	14,200	323	--	NA	-- 2/
TEL/TML preparations, based on lead compounds	3,470	3,220	107	NA	215 2/
Exports (gross weight): Scrap	108,000	42,000	11,500	NA	46,000 2/
Platts Metals Week average North American producer price (cents per pound)	43.64	43.64	43.56	43.53	43.63

e/ Estimated. r/ Revised. NA Not available. -- Zero.

1/ Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

2/ Includes data for January - May only; June data were not available at time of publication.

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
<b>2001:</b>				
June	43.54	443.76	316.52	1.402010
December	43.66	482.84	335.01	1.441265
Year	43.64	453.58	300.08	1.515869
<b>2002:</b>				
April	43.63	471.99	327.11	1.442909
May	43.56	451.52	309.30	1.459814
June	43.53	439.65	296.32	1.483685

Source: Platts Metals Week.

TABLE 3  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP 1/

(Metric tons, gross weight)

Item	Stocks	Net receipts	Consumption	Stocks
	May 31, 2002			June 30, 2002
Battery-lead	9,090 r/	85,500	84,900	9,750
Soft lead	W	W	W	W
Drosses and residues	2,570 r/	4,050	4,050	2,570
Other 2/	1,890 r/	5,090	4,590	2,390
Total	13,600 r/	94,700	93,500	14,700
Percent change from preceding month	XX	-2.3	-4.8	+8.5

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 4  
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE  
SCRAP IN JUNE 2002 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	48,900	--	--
Remelt lead	W	W	W
Antimonial lead	18,300	W	W
Other 2/	W	W	--
Total lead-base	91,400	42	408

W Withheld to avoid disclosing company proprietary data; included in "Total."

-- Zero.

1/ Data are rounded to no more than three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5  
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons, lead content)

Uses	2001		2002		
	Year	January - June	May	June	January - June
<b>Metal products:</b>					
Ammunition, shot and bullets	38,500	21,300	3,970	4,100	22,900
Brass and bronze, billet and ingots	3,490	2,490 r/	271	174	2,290
Cable covering, power and communication and calking lead, building construction	3,770	967 r/	292	226	393
Casting metals	7,410	3,470	649 r/	650	3,910
Sheet lead, pipes, traps and other extruded products	21,800	11,600	1,650	1,660	9,290
Solder	1,560	861	151	178	904
Storage batteries, including oxides	1,400,000	708,000 r/	117,000 r/	116,000	668,000
Terne metal, type metal, and other metal products 2/	6,250	1,080	44	28	848
<b>Total metal products</b>	<b>1,480,000</b>	<b>750,000 r/</b>	<b>124,000 r/</b>	<b>123,000</b>	<b>709,000</b>
Other oxides and miscellaneous uses	59,000	29,300 r/	5,250 r/	7,320	39,600
<b>Total reported</b>	<b>1,540,000</b>	<b>780,000 r/</b>	<b>129,000 r/</b>	<b>131,000</b>	<b>748,000</b>
Undistributed consumption e/	153,000	77,100 r/	12,800 r/	12,900	74,800
<b>Grand total</b>	<b>1,700,000</b>	<b>857,000 r/</b>	<b>142,000 r/</b>	<b>144,000</b>	<b>823,000</b>

e/ Estimated. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

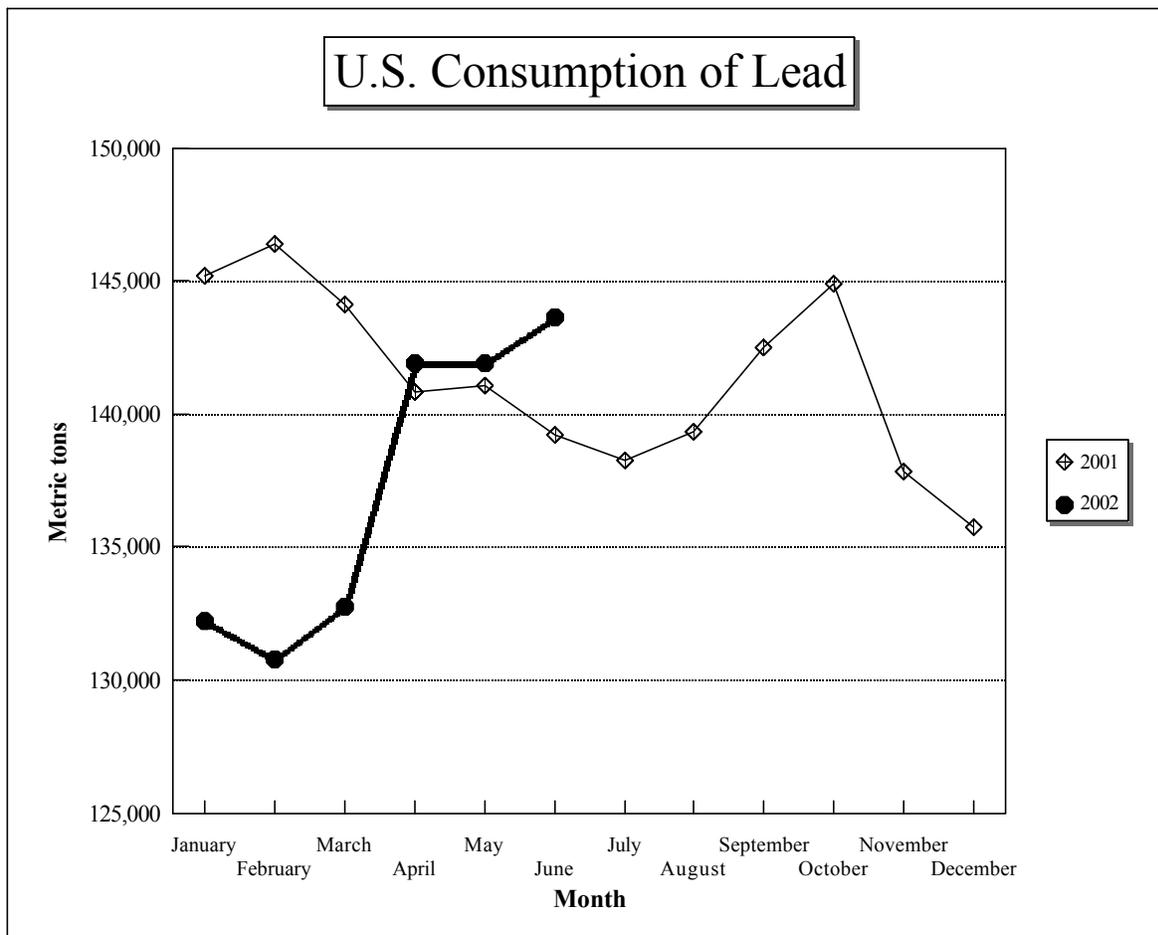


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND  
CONSUMPTION OF LEAD IN JUNE 2002 1/

(Metric tons, lead content)

Type of material	Stocks		Consumption	Stocks June 30, 2002
	May 31, 2002	Net receipts		
Soft lead	40,900 r/	77,700	74,300	44,200
Antimonial lead	29,600	28,000	29,000	28,600
Lead alloys	W	29,900	27,200	W
Copper-base scrap	W	22	24	W
Total	82,000 r/	136,000	131,000	87,100

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7  
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

Lead content:	2001		2002		
	Year	May	April	January -	
				May	May
Ore and concentrates	181,000	13,400	10,300	8,180	37,200
Bullion	3,470	3	13	--	95
Materials excluding scrap	34,700	2,780	1,920	3,000	12,000
Ash and residues	14,200	84	--	--	--
TEL/TML preparations, based on lead compounds	3,470	14	18	107	215
Total	237,000	16,200	12,300	11,300	49,500
Gross weight: Scrap	108,000	10,100	11,100	11,500	46,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	2001		2002			2001		2002		
	Year	January - May	April	May	January - May	Year	January - May	April	May	January - May
Ore, matte, etc.:										
Other	11,200	11,200	--	--	--	2,240	2,240	--	--	--
Total	11,200	11,200	--	--	--	2,240	2,240	--	--	--
Pigs and bars:										
Australia	18,300	3,190	6,040	--	13,800	18,600	7,500	1,540	--	2,630
Canada	167,000	86,500	18,200	18,200	72,100	167,000	86,500	18,200	18,200	72,100
China	53,100	18,700	--	7	19,400	56,300	21,900	6	7	19,400
Germany	120	81	24	37	110	120	81	24	37	110
Mexico	12,400	8,520	1,760	732	3,220	12,400	8,520	1,760	732	3,220
Peru	2,330	233	--	--	--	2,330	233	--	--	--
Other	3,260	279	152	--	155	14,500	4,030	--	--	3
Total	256,000	117,000	26,100	19,000	109,000	271,000	129,000	21,500	19,000	97,500
Reclaimed scrap, including ash and residues	203	203	--	--	--	203	203	--	--	--
Grand total	268,000	129,000	26,100	19,000	109,000	274,000	131,000	21,500	19,000	97,500

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.