

Mineral Industry Surveys

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LEAD IN JUNE 2004

Domestic mine production, based on the net quantity of lead recovered from concentrate, was 33,100 metric tons (t) in June, according to the U.S. Geological Survey. This was an increase of 6% from that of May. Mine production for the first 6 months of 2004 was 203,000 t, down by 11% compared with that of the same period in 2003. Secondary refinery production, 96,600 t, increased by 2% in June, and reported consumption, 115,000 t, rose by 1% compared with levels of the previous month. Secondary production for the first 6 months of 2004 was essentially unchanged compared with production in the first 6 months of 2003, and reported consumption rose by about 2% for the same periods.

According to the Platts Metals Week published quotations for June, the average North American producer price increased nominally to 53.88 cents per pound, and the average London Metal Exchange Ltd. (LME) cash price (U.S. dollars) increased to \$869.66 per metric ton, an 8% increase from the May price. These are significantly higher prices compared with June 2003 averages, up 24% and 86%, respectively. The LME June 2004 prices ranged from a low of \$801 per ton (June 11) to a high of \$925 per ton (June 21).

LME lead stocks continued to fall, dropping by about 14,000 t in June and finishing the month at 45,475 t.

In the United States, the lead market continued to be tight in June. Overall U.S. lead demand remained unusually strong during the second quarter of 2004 as a consequence of consumer needs and consumer attempts to build inventories owing to their concern over future metal availability (CRU International Ltd., 2004c). The year-on-year growth in North American shipments of starting-lighting-ignition (SLI) original equipment vehicle batteries and SLI replacement batteries in the first quarter of 2004 (Lead In May 2004) continued, with April up 2.25% for replacement batteries and 7.21% for original equipment batteries, according to Battery Council International (Platts Metals Week, 2004d). A major lead producer estimated that industrial lead-acid battery demand in the January to April period was also up by at least 10% year-on-year owing to higher capital spending as business confidence in the US economy grew (CRU International Ltd., 2004c).

For the first half of 2004, European lead demand was disappointing, the United Kingdom being an exception. It was believed a tight lead market in Spain was probably due in part to continuing problems at a significant supplier, Société des Fonderies de Plomb de Zellidja's lead smelter in Morocco, rather than a rise in lead demand (CRU International Ltd., 2004c).

In the Asian lead market, demand remained reasonably firm for June, but was lower than demand earlier in the year. China's lead exports reportedly fell in May to 28,725 t (from 41,113 t in April), and totaled 187,076 t for the first 5 months of the year. China's refined lead surplus was still expected to exceed 400,000 t for the year (CRU International Ltd., 2004a). Chinese smelters continued to dominate the spot market for lead concentrates, with treatment charges (TCs) remaining in the \$40 to \$60 per metric ton range, depending on quality. No other smelters were prepared to buy at these low terms; in Europe, TCs were more than \$160 per metric ton. Chinese lead concentrate imports rose by 38.5% in the first 5 months of 2004, to 258,852 t, compared with imports in the same period of 2003 (Western countries contributed 244,744 t.). Significant increases in imports of Western concentrates came from Peru and North America (principally the United States). Peru shipped 55,000 t during April, which should appear in China's June figures (CRU International Ltd., 2004b).

London-based Barclays Capital expects the lead market to move into a modest surplus in 2005 and that the LME cash price for lead would average \$822 per metric ton (37.3¢ per pound) in 2004 and progressively slip during the following years to \$790 per metric ton (35.8¢ per pound) in 2005, \$710 per metric ton (32.2¢ per pound) in 2006, and \$700 per metric ton (31.8¢ per pound) in 2007 (Barclays Capital, 2004). An analyst for Clayton Financial Service, Inc. was more bearish in the near term, forecasting lower lead prices on the back of a possible fund sell-off, and noting the first signs of a softening in the physical market in Asia (Platts Metals Week, 2004c).

Hitachi Ltd. expected to cease using lead-based solder in consumer electronic products ahead of the European Union's directive on the use of certain hazardous substances, with a

deadline in 2006. Hitachi reportedly confirmed that reliability and workability could be obtained by adding indium to commonly used “lead free” tin/silver/copper solders. Hitachi expected to stop using lead base solder at all its overseas plants and in procured parts by March 2005. Japan’s Mitsui Chemical Inc., Casio Computer Co., and Matsushita Electric Industrial Co. stopped using lead-base solder beginning in July 2002 (Platts Metals Week, 2004a). Also motivated by the European Union directive, Japanese engineering giant Kawasaki Heavy Industries announced that it would cease using lead in parts for products such as motorcycles and robots by 2007 (Platts Metals Week, 2004b).

The National Defense Stockpile aggregated cash disposal (sale) of lead in June, under the monthly Basic Ordering Agreement, DLA-Lead-005, was 3,850 t (4,245 short tons) at an approximate value of \$3,500,000. Sales of lead in the first 9 months of fiscal year 2004 (October 1, 2003, through June 30, 2004) totaled 39,117 t (43,118 short tons) (Defense National Stockpile Center, 2004).

Update

At the end of July, LME stocks dropped to 37,450 t from 45,475t at the end of June but were beginning to show signs of

leveling off. LME lead prices in July ranged from a low of \$895 per metric ton on July 14 to a high of \$1,039 per metric ton on July 30; for the last 4 days of the month, July 27 to July 30, LME lead prices were higher than zinc prices.

References Cited

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- Defense National Stockpile Center, 2004, Stockpile announces lead sales for June 2004: Fort Belvoir, VA, Defense National Stockpile Center news release, July 6, 1 p.
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- Platts Metals Week, 2004b, Kawasaki to stop using lead parts: Platts Metals Week, v. 75, no. 25, June 21, p. 7.
- Platts Metals Week, 2004c, Lead to slide from 2004 high: Platts Metals Week, v. 75, no. 26, June 28, p. 3.
- Platts Metals Week, 2004d, Replacement lead-acid battery shipments up: Platts Metals Week, v. 75, no. 27, July 5, p. 15.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2003		2004		
	Year ^p	January - June	May	June	January - June
Production:					
Mine (recoverable)	449,000	227,000	31,200	33,100	203,000
Primary refinery	245,000	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,140,000	557,000 ^r	92,200 ^r	94,400	555,000
Estimated	--	5,620 ^r	932 ^r	954	5,610
Recovered from copper-base scrap ^c	11,400	7,500	1,250	1,250	7,500
Total secondary	1,150,000	570,000 ^r	94,400 ^r	96,600	568,000
Stocks, end of period:					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	107,000	82,000 ^r	69,000 ^r	66,900	66,900
Imports for consumption:					
Ore and concentrates	6	1	--	NA	1 ²
Refined metal	175,000	108,000	19,700	NA	76,300 ²
Consumption:					
Reported	1,390,000	672,000 ^r	114,000	115,000	688,000
Undistributed ^c	--	20,800 ^r	3,520 ^r	3,570	21,300
Total	1,390,000	692,000 ^r	117,000 ^r	119,000	709,000
Exports:					
Ore and concentrates	253,000	70,000	13,100	NA	77,400 ²
Bullion	593	369	20	NA	44 ²
Wrought and unwrought lead	123,000	40,800	5,620	NA	41,800 ²
TEL/TML preparations, based on lead compounds	517	376	5	NA	175 ²
Exports (gross weight): Scrap	92,800	49,600	3,970	NA	26,700 ²
Platts Metals Week North American producer price (cents per pound)					
	43.76	43.58	53.68	53.88	51.55

^cEstimated. ^pPreliminary. ^rRevised. NA Not available. -- Zero.

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

²Includes 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	
2003:				
June	43.61	467.68	281.59	1.660876
December	44.30	691.69	394.89	1.751605
Year	43.76	514.62	313.88	1.634750
2004:				
April	53.51	753.21	418.05	1.801710
May	53.68	808.45	452.66	1.785995
June	53.88	869.66	475.77	1.827909

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP¹

(Metric tons, gross weight)

Item	Stocks	Net	Consumption	Stocks
	May 31, 2004	receipts		June 30, 2004
Battery-lead	12,100 [†]	97,500	97,200	12,400
Soft lead	W	W	W	W
Drosses and residues	1,860 [†]	1,460	1,470	1,850
Other ²	1,240 [†]	1,920	1,890	1,270
Total	15,200 [†]	101,000	101,000	15,600
Percent change from preceding month	XX	+2.2	+3.0	+2.3

[†]Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

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

²Includes 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 2004¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	70,200	--	--
Remelt lead	W	W	W
Antimonial lead	23,800	W	W
Other ²	W	W	--
Total lead-base	94,400	40	339

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

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

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

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES¹

(Metric tons, lead content)

Uses	2003		2004		
	Year ^p	January - June ^r	May	June	January - June
Metal products:					
Ammunition, shot and bullets	48,800	25,900	4,120	4,750	27,700
Brass and bronze, billet and ingots	2,810	1,610	251	308	1,900
Cable covering, power and communication and calking lead, building construction	4,790	2,920	395	421	2,290
Casting metals	31,700	16,700	2,780	2,780	16,700
Sheet lead, pipes, traps and other extruded products ³	25,900	11,900	1,880	2,040	11,600
Solder ³	6,310	784	171	152	824
Storage batteries, including oxides	1,170,000	561,000	97,400	98,000	586,000
Terne metal, type metal, and other metal products ²	23,200	7,620	1,270	1,260	7,610
Total metal products	1,310,000	629,000	108,000	110,000	655,000
Other oxides and miscellaneous uses	78,300	42,900	5,640 ^r	5,630	33,000
Total reported	1,390,000	672,000	114,000	115,000	688,000
Undistributed consumption ^c	--	20,800	3,520 ^r	3,570	21,300
Grand total	1,390,000	692,000	117,000 ^r	119,000	709,000

^cEstimated. ^pPreliminary. ^rRevised. -- Zero.

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

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

³A tabulation error in February has resulted in subtracting 535 metric tons from the "Solder" classification and adding the metal back into the "Sheet lead, pipes, traps and other extruded products" classification.

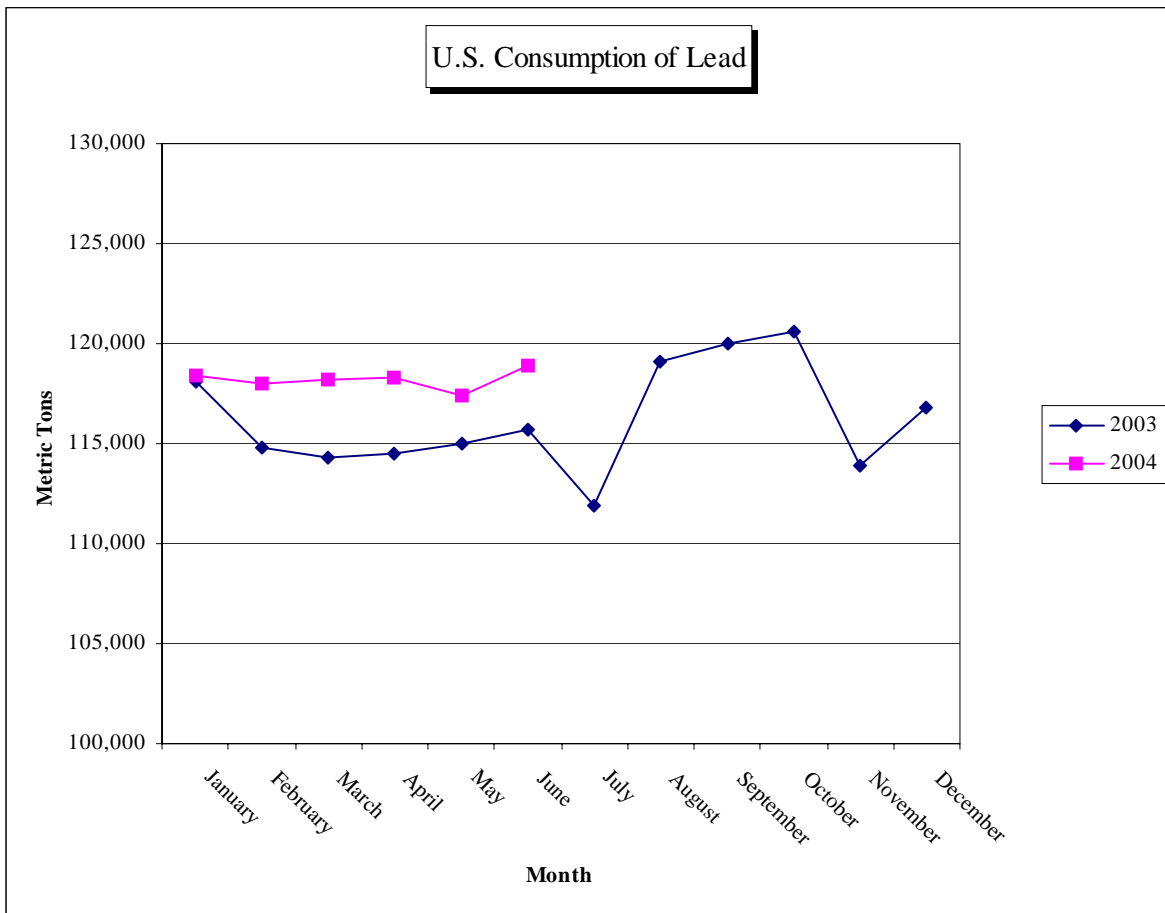


TABLE 6
 CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS,
 AND CONSUMPTION OF LEAD¹

(Metric tons, lead content)

Type of material	Stocks	Net receipts	Consumption	Stocks
	May 31, 2004			June 30, 2004
Soft lead	36,200	62,400	63,600	35,000
Antimonial lead	17,100	31,600	32,400	16,300
Lead alloys	W	19,000	19,000	W
Copper-base scrap	W	66	70	W
Total	69,000 ^r	113,000	115,000	66,900

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

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

TABLE 7
 U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons)

	2004				
	2003		April	May	January - May
	Year	May			
Lead content:					
Ore and concentrates	253,000	9,030	7,020	13,100	77,400
Bullion	593	26	--	20	44
Materials excluding scrap	123,000	8,710	4,030	5,620	41,800
TEL/TML preparations, based on lead compounds	517	166	11	5	175
Total	377,000	17,900	11,100	18,700	119,000
Gross weight: Scrap	92,800	8,780	5,120	3,970	26,700

-- Zero.

¹Data 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 ORIGIN¹

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	2003		2004			2003		2004		
	Year	January - May	April	May	January - May	Year	January - May	April	May	January - May
Base bullion:										
Argentina	5	--	--	--	--	5	--	--	--	--
Germany	1	--	--	--	--	1	--	--	--	--
Mexico	--	--	--	--	1	--	--	--	--	1
Total	6	--	--	--	1	6	--	--	--	1
Pigs and bars:										
Australia	10,100	10,100	--	--	--	107	--	1,890	3,520	5,410
Canada	167,000	83,800	11,900	13,600	62,600	167,000	83,800	11,900	13,600	62,600
China	1	--	--	--	2	1	--	--	--	2
Germany	--	--	42	40	169	--	--	42	40	169
Mexico	8,270	5,380	1,410	1,210	6,110	8,270	5,380	1,410	1,210	6,110
Other	259	58	71	1,340	1,860	259	58	197	1,340	1,990
Total	186,000	99,400	13,400	16,200	70,800	175,000	89,300	15,400	19,700	76,300
Grand total	186,000	99,400	13,400	16,200	70,800	175,000	89,300	15,400	19,700	76,300

-- Zero.

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

Source: U.S. Census Bureau.