

Mineral Industry Surveys

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LEAD IN OCTOBER 2003

Domestic mine production, based on the net quantity of lead recovered from concentrate, decreased by 3% in October compared with production in September. Secondary refinery production increased by 4% in October, and reported consumption remained essentially unchanged compared with production and consumption in the previous month.

According to Platts Metals Week published quotations for October, the average North American producer price and the average London Metal Exchange (LME) cash price (U.S. dollars) increased by 0.46% and 12.65%, respectively.

Demand for lead in North America remained static in October, showing no response to improving economic conditions in the United States during the third quarter of the year. Production of starting-lighting-ignition (SLI) batteries continued to be softened somewhat as a result of steadily increasing imports of finished SLI batteries. Industrial battery demand, however, began to show signs of a slow revival following the downturn in the telecommunications sector in the early 2000s. In Europe, overall lead demand remained poor, although a modest increase in sales of refined lead was reported by one producer. The status of the European lead market has been difficult to assess, given its changing share of the market resulting from the significant cuts in smelter production in 2003 and the rising imports of both refined lead and finished lead-acid batteries. LME stocks were expected to continue declining in the coming months as a result of a projected lead deficit in the Western World during 2004. LME stocks fell below 150,000 metric tons (t) in late October, declining by about 35,000 t since the beginning of the year—with the pace of the decline accelerating in the second half of the year. Historically, LME stock levels below 100,000 t have triggered increased consumer concern over the availability of lead (CRU International Ltd., 2003).

The National Defense Stockpile (NDS) aggregated cash disposal (sale) of lead in the first month of fiscal year 2004 (October 1, 2003 through September 30, 2004) under the Basic Ordering Agreement, DLA-Lead-005, was 340 t (375 short tons).

The National Defense Stockpile Market Impact Committee requested public comment on the potential market effect of

proposed disposals of lead from the NDS in fiscal years 2004 and 2005. The quantity of lead planned for sale under the Annual Materials Plan (AMP) announced for each of these fiscal years will be 54,431 t (60,000 short tons). The actual quantity of lead sold each fiscal year will be limited by the AMP or the remaining inventory. Total uncommitted lead inventory in the NDS as of October 31, 2003, was 100,914 t (111,239 short tons) (U.S. Department of Commerce, 2003).

The U.S. Environmental Protection Agency (EPA) recently proposed revisions for the definition of solid waste and its regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA). In the proposal, the EPA has attempted to identify certain recyclable waste materials and their related industries, wherein the materials have been generated and reclaimed in a continuous process within the respective industries. As such, these materials would not be subject to regulation under RCRA. Excluded from the EPA's proposed list of non-regulated recyclable materials were those processed by "Waste Management and Remediation Services"—an industry group that the EPA identifies to include secondary lead smelters. Currently, the spent lead-acid batteries recycled at these smelters are classified as having been "discarded" by the entity from which the smelters acquired them, thereby making the recycled batteries subject to RCRA regulations. However, inclusive in the EPA's proposed revisions was a request for industry comments on an optional, broader regulatory exclusion for legitimate recycling, with specific reference to lead recycling. This option could be included by the EPA in its final rule, and likely would encourage further recycling and reuse—while maintaining protection of human health and the environment (U.S. Environmental Protection Agency, 2003).

Canada's Teck Cominco Ltd. has agreed to purchase the Lennard Shelf zinc-lead mining assets of Western Metals Ltd. in the Kimberley region of Western Australia. Finalization of the sale was subject to completion by Western Metals of a suspension program placing the operations on care and maintenance by about the end of November 2003. According to a Teck Cominco official, the company will prepare a redevelopment plan for the Lennard Shelf assets to include a detailed review of reserves and resources, and generate an

exploration program to further define and expand reserves and resources. A decision to restart the two underground Lennard Shelf Mines (Kapok and Pillara) will depend on the results of the redevelopment plan as well as the status of the zinc market and monetary exchange rates. About 176,000 t of zinc and 70,000 t of lead in concentrate were produced from the mines in the year that ended June 30, 2003 (Mining Journal, 2003b).

Australia's Perth-based Kagara Zinc Ltd. has received final drill results from its Balcooma polymetallic deposit, part of the Mount Garnet project in Queensland. Lead concentrations ranging from 4.3% to 10.5% were reported. The data acquired from these latest drillings will now be included in a revised resource estimate for Balcooma. Earlier drill results had revealed lead concentrations ranging from 6.6% to 8.7% (Mining Journal, 2003a).

According to a United Nations official, the Trepca lead-zinc mining and smelting complex in Kosovo is expected to restart mining activities in some of the open pit mining areas by the end of 2003. The resumption of mining is necessary in order to generate sufficient revenue to begin extensive modernization of the complex. A transitional production period of up to 3 years

will be required to gather production and processing data, since the data generated prior to the closure of Trepca is not considered sufficient to satisfy potential foreign investment in the complex. Trepca was closed in 2000 following the conflict in what was the former Yugoslavia (Mining Journal, 2003c).

References Cited

- CRU International Ltd., 2003, Market Commentary: CRU Monitor—Lead, November, p. 2.
- Mining Journal, 2003a, Final Balcooma result: Mining Journal, v. 341, no. 8758, October 17, p. 305.
- Mining Journal, 2003b, Teck Cominco buys Lennard Shelf assets: Mining Journal, v. 341, no. 8758, October 17, p. 297.
- Mining Journal, 2003c, Trepca restart planned: Mining Journal, v. 341, no. 8758, October 17, p. 306.
- U.S. Department of Commerce, 2003, National Defense Stockpile market impact committee request for public comments on the potential market impact of proposed stockpile disposals in FY 2004 and FY 2005: Federal Register, v. 68, no. 200, October 16, p. 59581-59583.
- U.S. Environmental Protection Agency, 2003, Revisions to the definition of solid waste—Proposed rule: Federal Register, v. 68, no. 208, October 28, p. 61557-61599.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2002		2003		
	Year	January - October	September	October	January - October
Production:					
Mine (recoverable)	440,000	370,000	38,300 ^r	37,200	381,000
Primary refinery	262,000	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,100,000	902,000	91,100	94,800	922,000
Estimated	--	9,090	921	957	9,310
Recovered from copper-base scrap ^e	13,500	12,500	1,250	1,250	12,500
Total secondary	1,120,000	923,000	93,300	97,000	944,000
Stocks, end of period:					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	105,000	80,000	83,400 ^r	82,000	91,900
Imports for consumption:					
Ore and concentrates	6	6	5	NA	6 ²
Refined metal	210,000	179,000	10,800	NA	138,000 ²
Consumption:					
Reported	1,440,000	1,270,000	112,000	112,000	1,110,000
Undistributed ^e	--	125,000	11,100	11,100	109,000
Total	1,440,000	1,390,000	123,000	123,000	1,220,000
Exports:					
Ore and concentrates	241,000	228,000	43,600	NA	192,000 ²
Bullion	256	95	9	NA	585 ²
Wrought and unwrought lead	43,200	29,100	5,960	NA	81,500 ²
TEL/TML preparations, based on lead compounds	516	375	17	NA	463 ²
Exports (gross weight): Scrap	106,000	257,000	9,280	NA	72,400 ²
Platts Metals Week North American producer price (cents per pound)	43.56	43.57	43.78	43.98	43.67

^eEstimated. ^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 - September only; October 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	
2002:				
October	43.46	417.75	268.30	1.557459
December	43.54	443.22	279.41	1.586295
Year	43.56	452.29	301.96	1.503145
2003:				
August	43.70	496.16	311.29	1.593862
September	43.78	520.90	322.44	1.615476
October	43.98	586.82	349.47	1.679164

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP¹

(Metric tons, gross weight)

Item	Stocks	Net receipts	Consumption	Stocks
	September 30, 2003			October 31, 2003
Battery-lead	21,400	100,000	100,000	21,100
Soft lead	W	W	W	W
Drosses and residues	1,870	3,810	3,870	1,810
Other ²	1,540	2,530	2,530	1,540
Total	24,800	106,000	107,000	24,500
Percent change from preceding month	XX	+4.4	+6.6	-1.6

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 OCTOBER 2003¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	70,500	--	--
Remelt lead	W	W	W
Antimonial lead	23,500	W	W
Other ²	W	W	--
Total lead-base	94,800	44	356

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	2002		2003		January - October
	Year	January - October	September	October	
Metal products:					
Ammunition, shot and bullets	57,600	35,800	3,850	3,080	30,700
Brass and bronze, billet and ingots	2,730	1,300	307	292	1,460
Cable covering, power and communication and cabling lead, building construction	3,550	2,540	323	274	3,730
Casting metals	34,800	6,240	447	447	4,470
Sheet lead, pipes, traps and other extruded products	27,900	16,300	1,170	1,260	12,700
Solder	6,450	1,500	169	168	1,760
Storage batteries, including oxides	1,190,000	1,140,000	101,000	102,000	993,000
Terne metal, type metal, and other metal products ²	24,600	1,010	19	5	69
Total metal products	1,350,000	1,200,000	108,000	108,000	1,050,000
Other oxides and miscellaneous uses	86,200	63,600 ^r	4,750	4,750	58,100
Total reported	1,440,000	1,270,000	112,000	112,000	1,110,000
Undistributed consumption ^c	--	125,000	11,100	11,100	109,000
Grand total	1,440,000	1,390,000	123,000	123,000	1,220,000

^cEstimated. ^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.

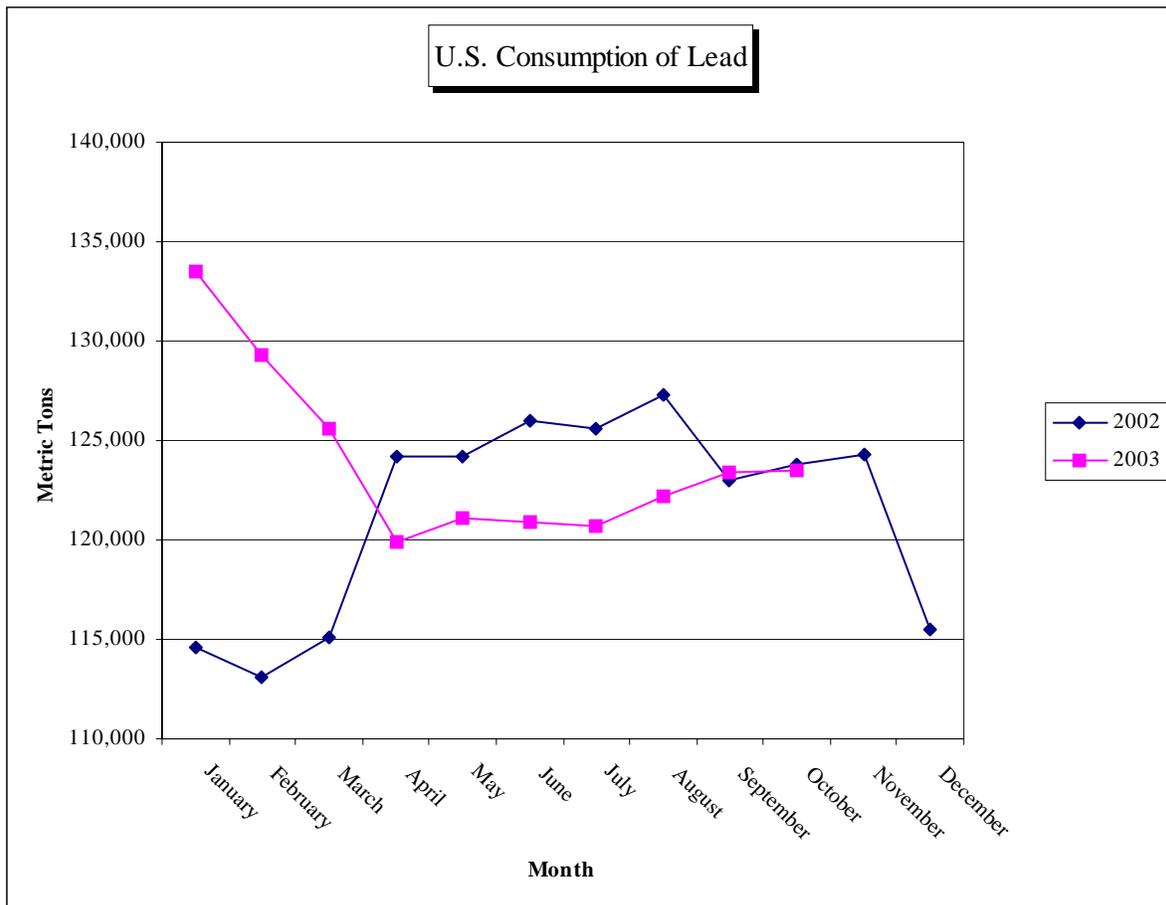


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS,
AND CONSUMPTION OF LEAD¹

(Metric tons, lead content)

Type of material	Stocks		Consumption	Stocks
	September 30, 2003	Net receipts		October 31, 2003
Soft lead	39,200	64,800	64,900	39,200
Antimonial lead	30,100	24,700	26,000	28,800
Lead alloys	W	21,200	21,200	W
Copper-base scrap	W	70	62	W
Total	83,400 ^r	111,000	112,000	82,000

^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)

	2003				
	2002		2003		
	Year	September	August	September	January - September
Lead content:					
Ore and concentrates	241,000	59,000	54,800	43,600	192,000
Bullion	256	--	207	9	585
Materials excluding scrap	43,200	3,820	28,500	5,960	81,500
TEL/TML preparations, based on lead compounds	516	18	36	17	463
Total	285,000	62,900	83,600	49,600	275,000
Gross weight: Scrap	106,000	7,380	7,140	9,280	72,400

-- 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				
	2002		2003			2002		2003		
	Year	January - September	August	September	January - September	Year	January - September	August	September	January - September
Ore, matte, etc.:										
Other	6	3	--	--	--	6	3	--	--	--
Total	6	3	--	--	--	6	3	--	--	--
Base bullion:										
Other	--	--	--	5	6	--	--	--	5	6
Total	--	--	--	5	6	--	--	--	5	6
Pigs and bars:										
Australia	43,700	22,400	--	--	10,100	2,630	2,630	--	--	--
Canada	172,000	122,000	7,450	10,300	131,000	172,000	122,000	7,450	10,300	131,000
China	28,200	28,200	--	--	1	28,200	28,200	--	--	1
Germany	185	185	--	--	--	185	185	--	--	--
Mexico	7,460	5,340	234	494	6,970	7,460	5,340	234	494	6,970
Other	246	245	33	11	127	94	91	33	11	127
Total	251,000	179,000	7,710	10,800	149,000	210,000	159,000	7,710	10,800	138,000
Reclaimed scrap, including ash and residues	--	--	--	--	--	--	--	--	--	--
Grand total	251,000	179,000	7,710	10,800	149,000	210,000	159,000	7,710	10,800	138,000

-- Zero.

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

Source: U.S. Census Bureau.