

# Mineral Industry Surveys

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## LEAD IN SEPTEMBER 2003

Domestic mine production, based on the net quantity of lead recovered from concentrate, increased by 3% in September compared with production in August. Secondary refinery production decreased by about 1% in September, and reported consumption increased by about 1% compared with production and consumption in the previous month.

According to Platts Metals Week published quotations for September, the average North American producer price and the average London Metal Exchange cash price (U.S. dollars) increased by 0.18% and 4.98%, respectively.

The pace of demand for lead in North America slowed in September, failing to accelerate as expected after the summer lull. Shipments of replacement and original equipment starting-lighting-ignition (SLI) batteries continued at a slower rate, decreasing by 1.6% and 5.7%, respectively, year-on-year, compared with 2002. Some of the decline in shipments was attributed to an increase in imports of finished SLI batteries. In Europe, overall lead demand was poor, also failing to accelerate in its usual end-of-summer manner. Battery sales in some European countries were reported to be down by as much as 10% thus far in 2003 compared with the same period in 2002. Some of the decrease in demand was attributed to an increase in battery life that has, effectively, slowed the rate of demand for replacement batteries. Imports of finished batteries also have continued to grow in Europe (CRU International Ltd., 2003).

Lead available for purchase from the National Defense Stockpile (NDS) under the fiscal year 2003 Annual Materials Plan (AMP) was exhausted in August. Thus, no sales were transacted in September.

The Defense National Stockpile Center announced the fiscal year 2004 (October 2003 through September 2004) AMP for materials held in the NDS. In that AMP, the maximum quantity of lead planned for sale will be 54,431 metric tons (t) (60,000 short tons), the same as the fiscal year 2003 quantity (U.S. Defense National Stockpile Center, 2003).

Doe Run Resources Corp., St. Louis, MO, reportedly has indicated that it will offer only about 150,000 t of primary lead in 2004. The company does not plan to make up for the

production lost from closure of its Glover, MO, smelter-refinery by increasing output at its Herculaneum, MO, facility. Doe Run announced in mid-September that it planned to close Glover indefinitely, effective December 1, 2003 (Ryan's Notes, 2003).

All lead and zinc production was to be halted at the Porto Vesme primary smelting complex, in Sardinia, Italy, beginning October 1, 2003. Speculation was that the complex would be shut down for at least 6 months. Swiss-based Glencore International AG, operator of the complex, continued its attempts to resolve the issue of high electric power costs at Porto Vesme, a major factor in the decision to close the smelting complex. The complex includes a Kivcet lead smelter with a production capacity of 100,000 metric tons per year (t/yr), and an Imperial Smelting Furnace with a lead capacity of 40,000 t/yr (Platts Metals Week, 2003).

Canadian Zinc Ltd. received approval from local authorities to proceed with underground development of a polymetallic lead-zinc-copper-silver mine, as well as construction of a metallurgical pilot plant at the Prairie Creek project in Canada's Northwest Territories. Prairie Creek, formerly known as the Cadillac property, was financed to within months of startup in the early 1980s when the collapse of silver prices halted its opening. Overall, Prairie Creek hosts a mineral resource of 11.9 million metric tons, grading 12.5% zinc, 10.1% lead, 0.4% copper, and 161 grams per metric ton silver (Northern Miner, 2003).

## References Cited

- CRU International Ltd., 2003, Market Commentary: CRU Monitor—Lead, October, p. 2.
- Northern Miner, 2003, Canadian Zinc puts Prairie Creek on fast track: Northern Miner, v. 89, no. 32, September 29, p. B1.
- Platts Metals Week, 2003, Porto Vesme to halt all lead, zinc output Oct. 1: Platts Metals Week, v. 74, no. 39, September 29, p. 1.
- Ryan's Notes, 2003, Doe Run reduces 2004 Pb sales: Ryan's Notes, v. 9, no. 39, September 29, p. 4.
- U.S. Defense National Stockpile Center, 2003, FY 2004 annual materials plan announced: Fort Belvoir, VA, U.S. Defense National Stockpile Center news release, October 1, 2 p.

TABLE 1  
SALIENT LEAD STATISTICS IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content, unless otherwise specified)

	2002		2003		
	Year	January - September	August	September	January - September
<b>Production:</b>					
Mine (recoverable)	440,000	335,000	38,000	39,100	345,000
Primary refinery	262,000	NA	NA	NA	NA
<b>Secondary refinery:</b>					
Reported by smelters/refineries	1,100,000	806,000	91,700 <sup>r</sup>	91,100	827,000
Estimated	--	8,130	926 <sup>r</sup>	921	8,360
Recovered from copper-base scrap <sup>e</sup>	13,500	11,300	1,250	1,250	11,300
Total secondary	1,120,000	826,000 <sup>r</sup>	93,900 <sup>r</sup>	93,300	847,000
<b>Stocks, end of period:</b>					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	105,000	82,800	84,000 <sup>r</sup>	83,300	83,300
<b>Imports for consumption:</b>					
Ore and concentrates	6	3	--	NA	-- <sup>2</sup>
Refined metal	210,000	159,000	7,710	NA	128,000 <sup>2</sup>
<b>Consumption:</b>					
Reported	1,440,000	1,140,000	111,000 <sup>r</sup>	112,000	994,000
Undistributed <sup>c</sup>	--	113,000	11,000 <sup>r</sup>	11,100	98,300
Total	1,440,000	1,250,000	122,000 <sup>r</sup>	123,000	1,090,000
<b>Exports:</b>					
Ore and concentrates	241,000	208,000	54,800	NA	148,000 <sup>2</sup>
Bullion	256	95	207	NA	576 <sup>2</sup>
Wrought and unwrought lead	43,200	24,100	28,500	NA	75,500 <sup>2</sup>
TEL/TML preparations, based on lead compounds	516	325	36	NA	445 <sup>2</sup>
Exports (gross weight): Scrap	106,000	78,400	7,140	NA	63,100 <sup>2</sup>
Platts Metals Week North American producer price (cents per pound)	43.56	43.60	43.70	43.78	43.64

<sup>e</sup>Estimated. <sup>r</sup>Revised. NA Not available. -- Zero.

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

<sup>2</sup>Includes data for January - August only; September 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>2002:</b>				
September	43.47	420.92	270.50	1.556330
December	43.54	443.22	279.41	1.586295
Year	43.56	452.29	301.96	1.503145
<b>2003:</b>				
July	43.76	514.38	317.10	1.622100
August	43.70	496.16	311.29	1.593862
September	43.78	520.90	322.44	1.615476

Source: Platts Metals Week.

TABLE 3  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP<sup>1</sup>

(Metric tons, gross weight)

Item	Stocks	Net	Consumption	Stocks
	August 31, 2003			receipts
Battery-lead	19,400 <sup>r</sup>	95,600	93,500	21,400
Soft lead	W	W	W	W
Drosses and residues	1,860 <sup>r</sup>	3,980	3,970	1,870
Other <sup>2</sup>	1,910 <sup>r</sup>	2,280	2,650	1,540
Total	23,100 <sup>r</sup>	102,000	100,000	24,800
Percent change from preceding month	XX	+0.3	-2.1	+7.3

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

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

<sup>2</sup>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 SEPTEMBER 2003<sup>1</sup>

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	66,600	--	--
Remelt lead	W	W	W
Antimonial lead	23,800	W	W
Other <sup>2</sup>	W	W	--
Total lead-base	91,100	44	354

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

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

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

TABLE 5  
CONSUMPTION OF LEAD IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content)

Uses	2002		2003		
	Year	January - September	August	September	January - September
Metal products:					
Ammunition, shot and bullets	57,600	32,800	3,330	3,850	27,600
Brass and bronze, billet and ingots	2,730	1,170	315	307	1,320
Cable covering, power and communication and calking lead, building construction	3,550	2,370	342	323	3,470
Casting metals	34,800	5,730	447	447	4,030
Sheet lead, pipes, traps and other extruded products	27,900	14,400	1,420 <sup>r</sup>	1,170	11,500
Solder	6,450	1,320	170	169	1,590
Storage batteries, including oxides	1,190,000	1,020,000	100,000	101,000	891,000
Terne metal, type metal, and other metal products <sup>2</sup>	24,600	1,000	4	19	64
Total metal products	1,350,000	1,080,000	106,000	108,000	940,000
Other oxides and miscellaneous uses	86,200	60,400	4,730 <sup>r</sup>	4,750	53,400
Total reported	1,440,000	1,140,000	111,000 <sup>r</sup>	112,000	994,000
Undistributed consumption <sup>c</sup>	--	113,000	11,000 <sup>r</sup>	11,100	98,300
Grand total	1,440,000	1,250,000	122,000 <sup>r</sup>	123,000	1,090,000

<sup>c</sup>Estimated. <sup>r</sup>Revised. -- Zero.

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

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

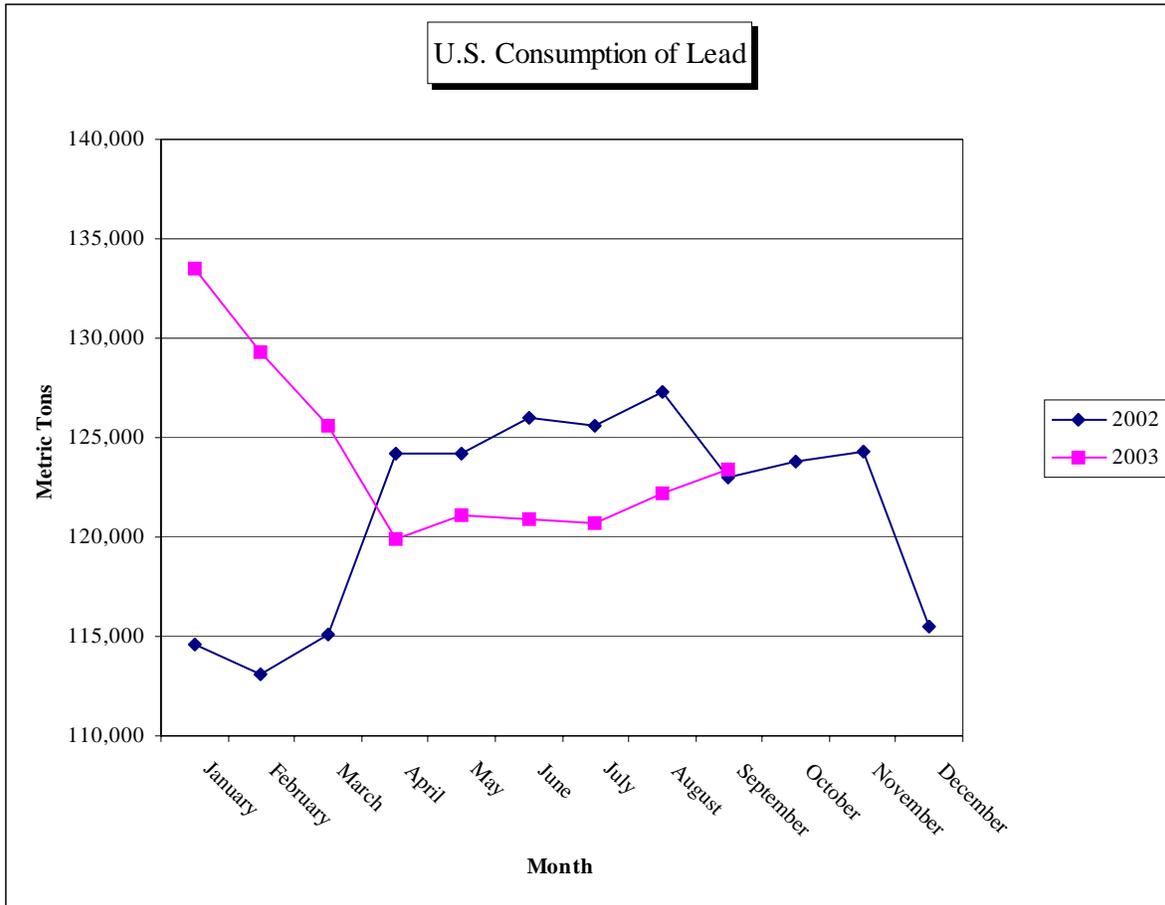


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS,  
AND CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons, lead content)

Type of material	Stocks	Net receipts	Consumption	Stocks
	August 31, 2003			September 30, 2003
Soft lead	39,800	63,700	64,300	39,200
Antimonial lead	30,200	26,500	26,700	30,100
Lead alloys	W	21,100	21,100	W
Copper-base scrap	W	71	68	W
Total	84,000 <sup>†</sup>	111,000	122,000	83,300

<sup>†</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>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<sup>1</sup>

(Metric tons)

	2002		2003		
	Year	August	July	August	January - August
	Lead content:				
Ore and concentrates	241,000	42,900	23,800	54,800	148,000
Bullion	256	--	--	207	576
Materials excluding scrap	43,200	3,470	6,140	28,500	75,500
TEL/TML preparations, based on lead compounds	516	30	33	36	445
Total	285,000	46,400	29,900	83,600	225,000
Gross weight: Scrap	106,000	8,800	6,420	7,140	63,100

-- Zero.

<sup>1</sup>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<sup>1</sup>

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	2002		2003			2002		2003		
	Year	January - August	July	August	January - August	Year	January - August	July	August	January - August
Ore, matte, etc.:										
Other	6	3	--	--	--	6	3	--	--	--
Total	6	3	--	--	--	6	3	--	--	--
Base Bullion:										
Other	--	--	--	--	1	--	--	--	--	1
Total	--	--	--	--	1	--	--	--	--	1
Pigs and bars:										
Australia	43,700	22,400	--	--	10,100	2,630	2,630	--	--	--
Canada	172,000	108,000	11,200	7,450	121,000	172,000	108,000	11,200	7,450	121,000
China	28,200	28,200	--	--	1	28,200	28,200	--	--	1
Germany	185	185	--	--	--	185	185	--	--	--
Mexico	7,460	4,200	391	234	6,470	7,460	4,200	391	234	6,470
Other	246	166	--	33	115	94	14	--	33	115
Total	251,000	163,000	11,600	7,710	138,000	210,000	143,000	11,600	7,710	128,000
Reclaimed scrap, including ash and residues	--	--	--	--	--	--	--	--	--	--
Grand total	251,000	163,000	11,600	7,710	138,000	210,000	143,000	11,600	7,710	128,000

-- Zero.

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

Source: U.S. Census Bureau.