

Mineral Industry Surveys

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LEAD IN AUGUST 2002

Domestic mine production, based on the net quantity of lead recovered from concentrate, increased by 13% in August compared with revised production data for July. Secondary refinery production increased by 9% in August compared with the previous month, and reported consumption was up by about 1% compared with consumption in July.

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 0.16% and 5.17%, respectively, in August.

Demand for lead in the North American market increased slightly in August, due in part to an improved market for original equipment batteries, consistent with stronger sales of new vehicles in the United States. Replacement battery demand continued at a level pace. However, as a result of the higher temperatures experienced in the early summer months, there was some optimism that the need for such batteries would increase in the coming winter months. Demand for lead in the industrial battery sector remained weak as consumers waited for clearer signs of recovery in the U.S. economy. In Europe, demand for lead began to show some tentative signs of improvement as a few battery manufacturers began to rebuild lead inventories in anticipation of increased battery demand. Like the North American market, however, demand for industrial batteries in the telecommunications and uninterruptible power source markets remained weak (CRU International Ltd., 2002).

The National Defense Stockpile aggregated cash disposal (sale) of lead in August under the Basic Ordering Agreement, DLA-Lead-005, was 1,040 metric tons (t) (1,146 short tons). Sales of lead through the first 11 months of fiscal year 2002 (October 2001 through August 2002) totaled 25,556 t (28,171 short tons).

The U.S. Department of Housing and Urban Development (HUD) issued a notice of funding available for the agency's Lead Elimination Action Program. The program is authorized under HUD's fiscal year 2002 appropriations and is intended to pursue additional private sector resources needed to eliminate lead-based paint hazards in housing. Grants of 24 months

duration, totaling \$6.5 million, will be awarded on a competitive basis to non-profit and for-profit entities with fund raising and/or leveraging skills that can be directed toward mobilizing resources to address this hazard-elimination objective. Resources generated by awardees must be used and/or distributed to assist National, State, and local entities actively committed to lead hazard control in residential structures (U.S. Department of Housing and Urban Development, 2002).

Johnson Controls, Inc., Milwaukee, WI, a manufacturer of automotive lead-acid batteries, announced plans to purchase European battery manufacturer Varta AG's automotive battery division. Varta operates six battery plants and controls about 30% of the Western European automotive battery market. The sale of Varta to Johnson Controls is subject to approval by European antitrust authorities, the Varta Board of Directors, and shareholders. It is anticipated that the sale could be completed by the end of 2002 (Platts Metals Week, 2002; Ryan's Notes, 2002).

In Australia, Perth-based Kagara Zinc Ltd. reported further significant mineralization from a diamond-drilling program at its Dry River South base metals deposit in Queensland, a part of the company's Mt. Garnet project. Drill results showed zinc concentrations ranging from 5.7% to 21.4%, and lead concentrations ranging from 1.8% to 10.4%. Current resources at the Dry River South deposit are estimated at 760,000 t (Mining Journal, 2002).

Indian Lead Ltd., a significant privately owned secondary lead producer in India, will reopen its 20,000-metric-ton-per-year (t/yr) smelter at Thane, near Mumbai. Following financial difficulties, Indian Lead had been placed under the control of India's Board for Industrial & Financial Reconstruction. However, the company subsequently secured a strategic partner to invest in the plant and gained final approval of a rescue plan from the Government that allowed the plant to reopen. The company may also restart production at its nearby Wada unit, which has a capacity of 40,000 t/yr. According to an Indian Lead spokesperson, the availability of spent lead-acid batteries has improved in India, as a result of the Metal Scrap Trading

Corp's collection program that supplies the batteries to environmentally certified recyclers. Indian Lead is also equipped to process lead concentrates in its lead production (Metal Bulletin, 2002a).

In Japan, Toho Zinc Co., Ltd. and Mitsui Mining & Smelting Co., Ltd. announced the finalization of an agreement to consolidate their production. In April 2003, Mitsui will stop crude lead production at its Takehara smelter in Hiroshima, where it now produces 12,000 t/yr of crude lead from concentrates and 40,000 t/yr of refined lead. Instead, it will provide Toho's 120,000-t/yr Chigirishima smelter with sufficient feed, on a consignment basis, to produce 12,000 t/yr of crude lead for subsequent electrolytic refining at the Takehara facility. Mitsui's exit from primary lead processing at Takehara will enable it to begin secondary production there. Toho will benefit from the agreement by effectively lowering its operating costs at Chigirishima through increased utilization of its blast furnaces (Metal Bulletin, 2002b).

Canadian lead-acid battery recycler, Nova Pb, Inc., has received environmental approvals to recycle aluminum pot liners no longer needed at smelters. This new recycling activity will require the use of a rotary kiln previously devoted to lead smelting. As a result, Nova's lead smelting capacity will decrease to 50,000 t/yr from the current 100,000 t/yr. According to a Nova spokesperson, the company will remain in the lead recycling business and all current commercial commitments will be respected (American Metal Market, 2002b).

Update

Doe Run Resources Corp., St. Louis, MO, reported that bondholders received a bond exchange offer in October that would secure additional financing and enable the company to restructure its outstanding debt. The company anticipated finalizing the offer by the beginning of November. The bond exchange, if completed, would effectively reduce the company's

outstanding debt by 35% (American Metal Market, 2002a).

The International Lead and Zinc Study Group, at its annual meeting in Stockholm, Sweden, in early October, reported its outlook for lead in 2002. Worldwide demand for lead is expected to remain essentially unchanged because the decline in demand for batteries, particularly in the United States, is likely to be countered by a rise in demand for batteries and other lead products in Asia. Total output of refined lead worldwide is anticipated to decrease by about 1%. Production cutbacks in Europe, Japan, and the United States are likely to be nearly offset by increases in the production of refined lead in Australia, Canada, and the Republic of Korea. A modest excess of refined lead was anticipated in the industrialized world in 2002 (International Lead and Zinc Study Group, 2002).

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- Ryan's Notes, 2002, Lead and zinc—JCI buys Varta: Ryan's Notes, v. 8, no. 32, August 12, p. 4.
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TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons, lead content, unless otherwise specified)

	2001		2002		
	Year	January - August	July	August	January - August
Production:					
Mine (recoverable)	450,000	300,000	35,000 r/	39,600	302,000
Primary refinery	290,000	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,090,000	716,000	85,900 r/	93,900	715,000
Estimated	11,000	7,220	868 r/	948	7,210
Recovered from copper-base scrap e/	15,000	10,000	1,250	1,250	10,000
Total secondary	1,110,000	733,000	88,000 r/	96,100	735,000
Stocks, end of period:					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	86,100	87,200	86,400 r/	86,300	86,300
Imports for consumption:					
Ore and concentrates (lead content)	2,240	2,240	3	NA	3 2/
Refined metal	271,000	185,000	12,600	NA	135,000 2/
Consumption:					
Reported	1,590,000 r/	1,030,000 r/	130,000	132,000	1,010,000
Undistributed e/	-- r/	102,000 r/	12,900 r/	13,000	99,900
Total	1,590,000 r/	1,130,000 r/	143,000	145,000	1,110,000
Exports (lead content):					
Ore and concentrates	181,000	127,000	48,000	NA	106,000 2/
Bullion	3,470	3,170	--	NA	95 2/
Wrought and unwrought lead	34,700	24,700	2,420	NA	16,800 2/
Ash and residues	14,200	8,260	--	NA	-- 2/
TEL/TML preparations, based on lead compounds	3,470	3,290	36	NA	277 2/
Exports (gross weight): Scrap	108,000	72,800	6,880	NA	62,200 2/
Platts Metals Week average North American producer price (cents per pound)	43.64	43.64	43.54	43.47	43.60

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 - July only; August 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	
2001:				
August	43.66	482.59	335.79	1.437183
December	43.66	482.84	335.01	1.441265
Year	43.64	475.76 r/	330.05 r/	1.441488 r/
2002:				
June	43.53	439.65	296.32	1.483685
July	43.54	445.73	286.36	1.556518
August	43.47	422.67	275.02	1.536845

r/ Revised.

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP 1/

(Metric tons, gross weight)

Item	Stocks		Net receipts	Consumption	Stocks	
	July 31, 2002	r/			August 31, 2002	W
Battery-lead	17,400	r/	92,900	90,800	19,500	
Soft lead	W		W	W	W	
Drosses and residues	2,840	r/	4,550	4,620	2,780	
Other 2/	3,380	r/	3,790	4,640	2,530	
Total	23,600	r/	101,000	100,000	24,800	
Percent change from preceding month	XX		+1.7	+10.4	+4.9	

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 AUGUST 2002 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	48,600	--	--
Remelt lead	W	--	--
Antimonial lead	19,200	W	W
Other 2/	W	W	W
Total lead-base	93,900	45	455

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 r/	January - August	July	August	January - August
Metal products:					
Ammunition, shot and bullets	53,600	27,900	3,160	3,820	29,900
Brass and bronze, billet and ingots	2,590	2,410	215	195	1,020
Cable covering, power and communication and calking lead, building construction	3,900	2,640	247	220	2,210
Casting metals	24,100	4,930	652	651	5,220
Sheet lead, pipes, traps and other extruded products	24,800	15,400	1,650	1,630	12,600
Solder	6,120	1,130	203	162	1,270
Storage batteries, including oxides	1,390,000	933,000 r/	118,000 r/	118,000	904,000
Terne metal, type metal, and other metal products 2/	17,900	5,580 r/	72	78	1,000
Total metal products	1,530,000	993,000 r/	124,000 r/	125,000	957,000
Other oxides and miscellaneous uses	55,900	39,300 r/	6,480 r/	7,190	53,300
Total reported	1,590,000	1,030,000 r/	130,000	132,000	1,010,000
Undistributed consumption e/	--	102,000 r/	12,900 r/	13,000	99,900
Grand total	1,590,000	1,130,000 r/	143,000	145,000	1,110,000

e/ Estimated. r/ Revised. -- Zero.

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.

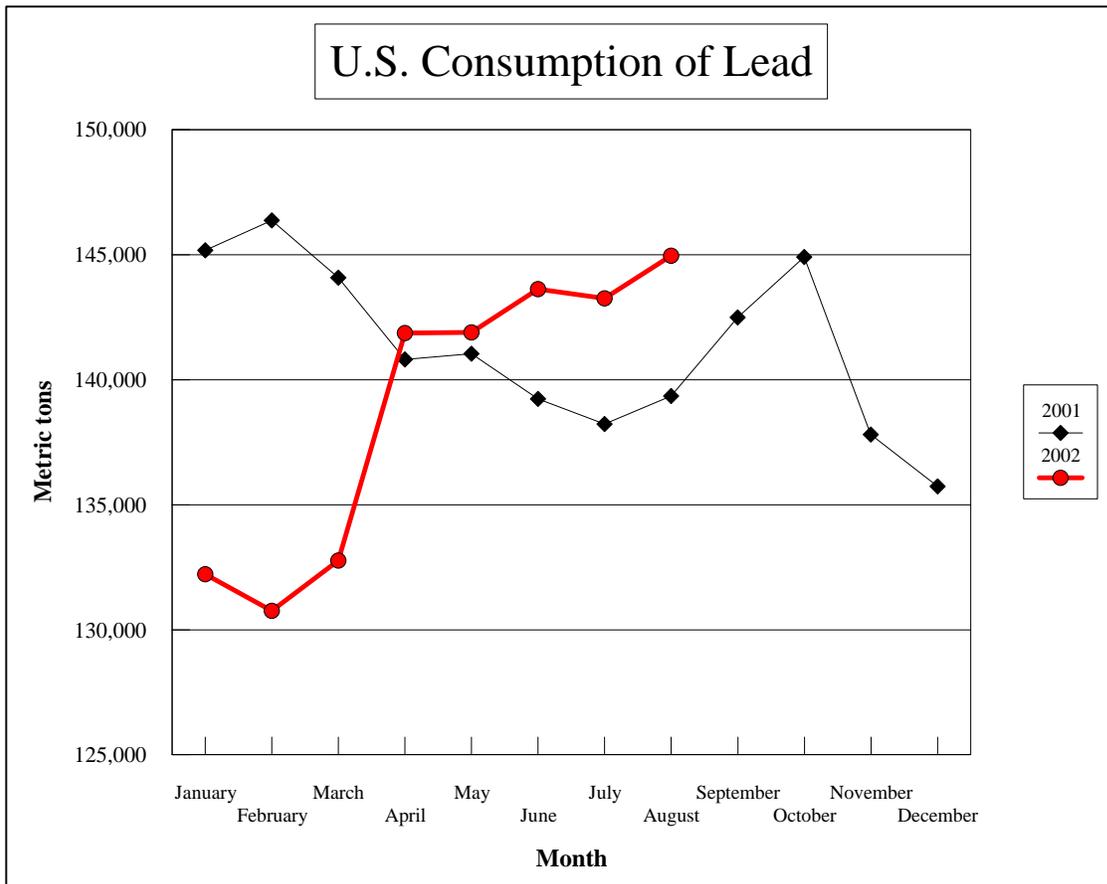


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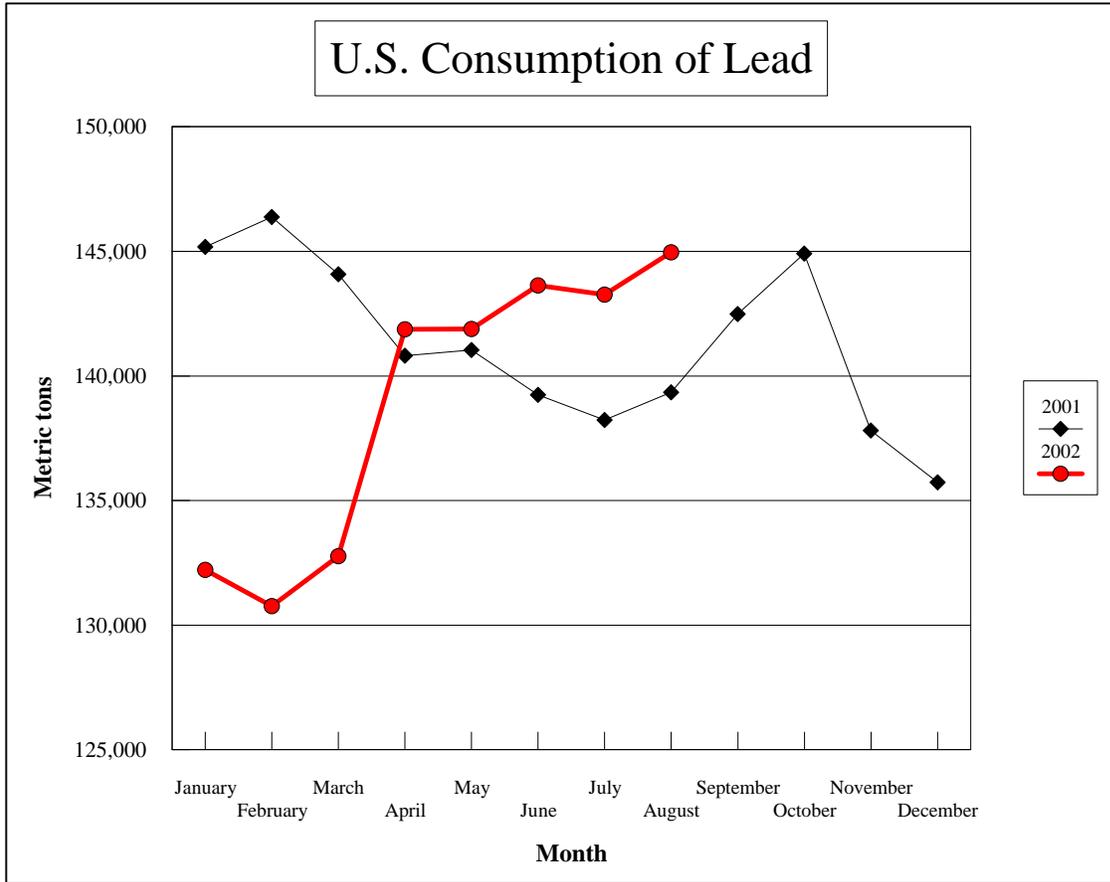


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND
CONSUMPTION OF LEAD IN AUGUST 2002 1/

(Metric tons, lead content)

Type of material	Stocks		Consumption	Stocks August 31, 2002
	July 31, 2002	Net receipts		
Soft lead	43,400	74,600	75,600	42,000
Antimonial lead	29,500 r/	29,600	28,900	30,200
Lead alloys	W	27,500	27,300	W
Copper-base scrap	W	17	8	W
Total	86,400 r/	132,000	132,000	86,300

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	July	June	July	January -
					July
Ore and concentrates	181,000	51,000	21,300	48,000	106,000
Bullion	3,470	34	--	--	95
Materials excluding scrap	34,700	2,530	2,380	2,420	16,800
Ash and residues	14,200	3,690	--	--	--
TEL/TML preparations, based on lead compounds	3,470	30	27	36	277
Total	237,000	57,300	23,700	50,500	124,000
Gross weight: Scrap	108,000	8,980	9,260	6,880	62,200

-- 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 - July	June	July	January - July	Year	January - July	June	July	January - July
Ore, matte, etc.:										
Australia	5,600	5,600	--	--	--	--	--	--	--	--
Other	5,590 r/	5,590 r/	--	3	3	2,240	2,240	--	3	3
Total	11,200	11,200	--	3	3	2,240	2,240	--	3	3
Pigs and bars:										
Australia	18,300	7,120	--	8,650	22,400	18,600	13,400	--	--	2,630
Canada	167,000	115,000	15,700	12,300	100,000	167,000	115,000	15,700	12,300	100,000
China	53,100	25,200	8,810	--	28,200	56,300	28,400	8,810	--	28,200
Germany	120	81	24	27	161	120	81	24	27	161
Mexico	12,400	8,910	148	255	3,620	12,400	8,910	148	255	3,620
Peru	2,330	1,230	--	--	--	2,330	1,230	--	--	--
Other	3,260	279	--	11	166	14,500	4,520	--	11	14
Total	256,000	158,000	24,700	21,300	155,000	271,000	171,000	24,700	12,600	135,000
Reclaimed scrap, including ash and residues	203	203	--	--	--	203	203	--	--	--
Grand total	268,000	169,000	24,700	21,300	155,000	274,000	174,000	24,700	12,600	135,000

r/ Revised. -- Zero.

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

Source: U.S. Census Bureau.