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Mineral Industry Surveys

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LEAD IN APRIL 2011

Domestic mine production (recoverable) of lead in April was estimated to be 32,500 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in April was 1,080 t, 14% higher than that in March. Secondary refinery production of lead in April increased by 2% from that of the previous month. Secondary refined lead production for the year through April 2011 was 4% higher than that in the corresponding period of 2010.

Total imports of lead for consumption in March 2011 were 26% greater than those in the previous month. Total imports of lead for consumption through March 2011 were 11% greater than those in the same period in the previous year. Canada (82%) and Mexico (18%) were the principal sources of imported refined lead for the first quarter 2011. Total exports of lead, exclusive of scrap, in March 2011 were 67% higher than those in the previous month. China and Canada were the leading destinations for ore and concentrates exports through March 2011. Total exports of lead, exclusive of scrap, for the year through March 2011 were 40% less than those in the same period in the previous year. Total exports of spent lead-acid batteries for the year through March 2011 were 48% greater than those during the corresponding period of 2010.

The average Platts Metals Week North American producer price for lead in April 2011 was $1.23 per pound, up slightly from that of the previous month and 11% higher than that in April 2010. The London Metal Exchange (LME) cash price of lead in April 2011 averaged $2,741 per metric ton, up 5% from that of the previous month and 21% higher than that in April 2010. Global LME lead stocks at the end of April 2011 were 310,250 t, 10% higher than those at the end of March 2011 and 70% greater than those at month-end April 2010.

In mid-April, Johnson Controls Inc. (Milwaukee, WI), a leading producer of lead-acid batteries for automobiles, announced that it was increasing the prices of its batteries that were sold in North America by an average of 5% to 9%. The company stated that the action was necessary to offset increases in raw material (primarily lead) and delivery costs. The increased delivery costs were partially attributed to more stringent safety standards that were implemented by the U.S. Department of Transportation. The last time that the company increased battery prices was in 2008 (Johnson Controls, Inc., 2011).

In April, the U.S. Environmental Protection Agency (EPA) proposed updates to the air toxic standards that covered secondary lead smelters. The amendments would strengthen the current standards that were issued by the EPA in 1997. The EPA estimated that the changes would reduce lead and arsenic emissions from secondary smelters by about 63% when compared to current levels. The amendments would allow facilities to choose the most practical and cost-effective emissions control technology or techniques to reduce lead and arsenic emissions in order to achieve compliance with the new emissions limit. The new limit for allowable emissions of lead would be one-tenth the current limit. The EPA was planning to accept public comments for 45 days after the proposal was published in the Federal Register and was under court order to issue a final rule by yearend 2011 (U.S. Environmental Protection Agency, 2011).

Based on information presented at its meeting in April, the International Lead and Zinc Study Group (ILZSG) forecast that global lead mine production in 2011 would be 4.46 million metric tons (Mt), about 8% greater than that of the previous year owing to increased mine output in Australia, China, India, Ireland, Mexico, and Russia. Global refined lead production was forecast to be 10.2 Mt in 2011, nearly a 6% increase from that in 2010. Much of this growth was attributed to increased Chinese refined lead production and production from new plants in India and Mexico. Global demand for refined lead in 2011 was forecast to rise by 6% from that of 2010, to 10.0 Mt, owing to increased lead usage in China for lead-acid batteries used in automobiles and electric bicycles. ILZSG predicted that the global supply of refined lead would exceed demand during the remainder of 2011, creating a lead surplus of 123,000 t by yearend (International Lead and Zinc Study Group, 2011).

References Cited

International Lead and Zinc Study Group, 2011, ILZSG spring 2011 meetings—Forecasts: Lisbon, Portugal, International Lead and Zinc Study Group press release, April 14, 4 p.

Johnson Controls, Inc., 2011, Johnson Controls announces price increase for lead-acid batteries: Milwaukee, WI, Johnson Controls, Inc. news release, April 13, 2 p.

U.S. Environmental Protection Agency, 2011, Proposed amendments to the air toxics standard for secondary lead smelting: Washington, DC, U.S. Environmental Protection Agency news release, April 29, 5 p.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES[1]

(Metric tons, lead content, unless otherwise specified)

	2010		2011		
	Year[p]	January-April	March	April	January-April
Production:					
Mine (recoverable)	365,000	126,000	29,500 [r]	32,500	114,000
Secondary refinery:					
Reported by smelters/refineries	1,120,000	367,000	93,300 [r]	95,400	383,000
Estimated	13,000	3,670	933 [r]	954	3,830
Recovered from copper-base scrap[e]	15,000	5,000	1,250	1,250	5,000
Total secondary	1,140,000	375,000	95,500 [r]	97,600	392,000
Consumption:					
Reported	1,360,000	450,000	115,000 [r]	114,000	460,000
Undistributed[e]	40,900	13,500	3,450 [r]	3,430	13,800
Total	1,410,000	464,000	118,000 [r]	118,000	474,000
Stocks, end of period, consumers and secondary smelters	67,400	50,300	53,200 [r]	55,300	55,300
Imports for consumption:					
Base bullion	602	146	54	NA	132 [2]
Refined metal	271,000	92,400	28,600	NA	76,000 [2]
Exports:					
Ore and concentrate	299,000	55,000	9,960	NA	20,000 [2]
Bullion	199	--	5,820	NA	13,100 [2]
Wrought and unwrought lead	83,300	25,100	--	NA	-- [2]
TEL/TML preparations, based on lead compounds	1,180	329	143	NA	303 [2]
Scrap (gross weight)	43,500	22,800	2,080	NA	5,070 [2]
Platts Metals Week North American producer price (cents per pound)	108.91	110.75	121.37	122.50	121.59

[e]Estimated. [p]Preliminary. [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-March only; April 2011 data were not available at time of publication.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price	London Metal Exchange cash		Sterling exchange rate
	¢/lb	$/metric ton	£/metric ton	$/£
2010:				
April	110.88	2,264.48	1,526.82	1.483130
May	109.46	1,882.18	1,285.55	1.464105
June	105.49	1,703.39	1,154.71	1.475168
July	95.11	1,836.40	1,201.59	1.528305
August	95.79	2,074.77	1,324.67	1.566257
September	102.24	2,183.69	1,403.42	1.555982
October	114.73	2,379.01	1,500.04	1.585957
November	120.48	2,376.10	1,548.70	1.597918
December	120.58	2,411.93	1,509.42	1.597918
January-December	108.91	2,147.81	1,393.44	1.544861
2011:				
January	121.26	2,600.89	1,647.63	1.578565
February	121.21	2,586.05	1,603.29	1.612960
March	121.37	2,623.25	1,623.09	1.616209
April	122.50	2,740.61	1,675.09	1.636088
January-April	121.59	2,637.70	1,637.28	1.610956

Source: Platts Metals Week.

TABLE 3

CONSUMPTION OF PURCHASED LEAD-BASE SCRAP[1]

(Metric tons, gross weight)

Item	Stocks March 31, 2011	Net receipts	Consumption	Stocks April 30, 2011
Battery-lead	17,400 r	88,100	86,700	18,800
Soft lead	W	W	W	W
Drosses and residues	W	W	W	W
Other[2]	868	5,320	5,240	953
Total	18,200 r	93,400	91,900	19,700
Percent change from preceding month[3]	XX	-3.1	-4.5	+8.1

rRevised. 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.

[3]Based on unrounded data; preceding monthly data may have been revised.

TABLE 4

LEAD, TIN, AND ANTIMONY RECOVERED FROM

LEAD-BASE SCRAP IN APRIL 2011[1]

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	52,300	--	--
Remelt lead	W	--	--
Antimonial lead	13,200	(2)	(2)
Other[3]	30,000	(2)	(2)
Total lead-base	95,400	130	259

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

-- Zero.

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

[2]Withheld to avoid disclosing company proprietary data; included in "Total."

[3]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)

Use	2010		2011		
	January-December	January-April	March	April	January-April
Metal products:					
Ammunition, shot and bullets	71,400	24,100	6,530	6,410	25,200
Brass and bronze, billet and ingots	991	974	281	281	1,120
Cable covering, power and communication and caulking lead, building construction	7,430	2,270	930 r	925	2,980
Casting metals	16,000	3,760	1,220	1,230	4,860
Sheet lead, pipes, traps and other extruded products	28,000	9,370	2,240 r	2,380	9,060
Solder	14,600	2,710	670	670	2,680
Storage batteries, including oxides	1,190,000	394,000	99,900 r	99,500	402,000
Terne metal, type metal, and other metal products[2]	16,400	5,050	1,230 r	1,230	5,050
Total metal products	1,340,000	442,000	113,000 r	113,000	452,000
Other oxides and miscellaneous	23,100	7,790	1,850	1,830	7,460
Total reported	1,360,000	450,000	115,000 r	114,000	460,000
Undistributed[e]	40,900	13,500	3,450 r	3,430	13,800
Grand total	1,410,000	464,000	118,000 r	118,000	474,000

[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 bearing metals, foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

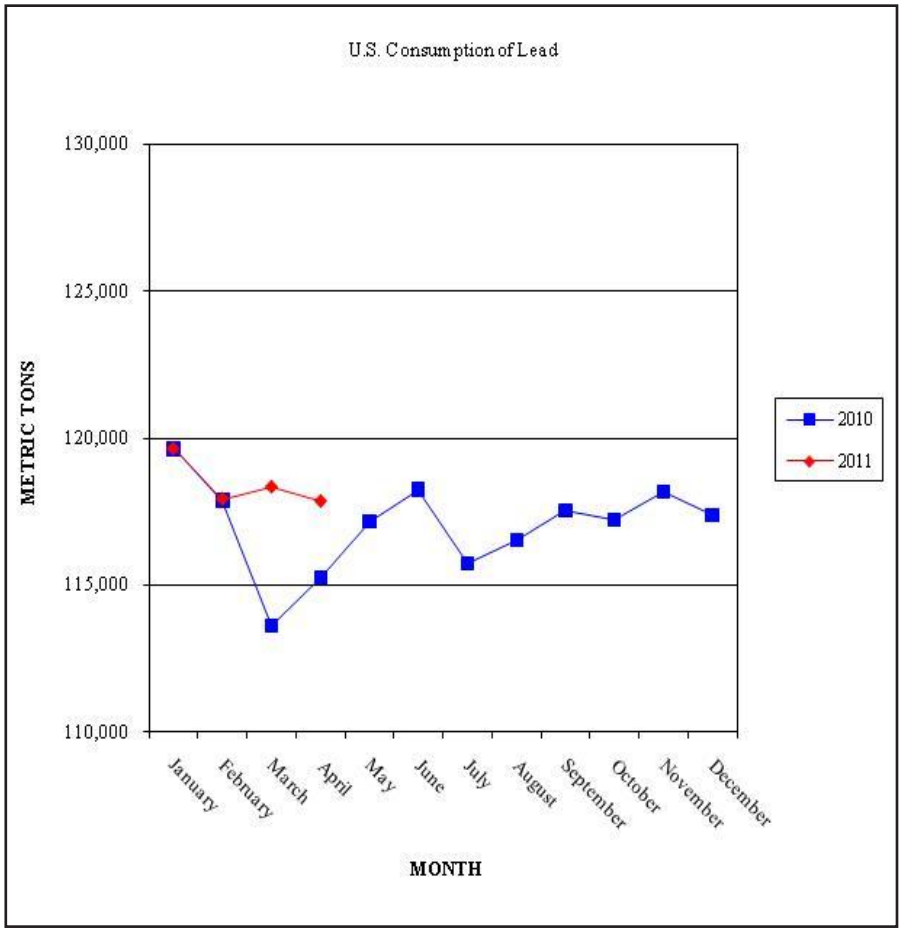

TABLE 6

CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD[1]

(Metric tons, lead content)

Type of material	Stocks March 31, 2011	Net receipts	Consumption	Stocks April 30, 2011
Soft lead	32,000	73,300	71,600	33,800
Antimonial lead	11,500 r	22,600	22,300	11,900
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	53,200 r	116,000	114,000	55,300

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

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

TABLE 7

U.S. EXPORTS OF LEAD, BY CLASS[1]

(Metric tons unless otherwise specified)

	2010		2011		
	Year	January-March	February	March	January-March
Lead content:					
Ore and concentrates	299,000	34,000	6,570	9,960	20,000
Bullion	199	--	--	--	--
Materials excluding scrap	83,300	21,100	2,810	5,820	13,100
TEL/TML preparations, based on lead compounds	1,180	206	126	143	303
Total	384,000	55,300	9,510	15,900	33,400
Gross weight, scrap	43,500	19,100	1,660	2,080	5,070
Spent lead-acid batteries, used for starting engines (units)	15,300,000	3,410,000	1,750,000	1,400,000	5,040,000

-- Zero.

[1]Data are rounded to more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN[1]

(Metric tons, lead content)

	2010		2011		
Country of origin	Year	January-March	February	March	January-March
Ore, matte, etc., Canada	411	--	--	--	--
Base bullion:					
Canada	404	--	--	18	18
Mexico	159	89	18	36	114
Other	38	38	--	--	--
Total	602	127	18	54	132
Pigs and bars:					
Canada	237,000	59,500	18,100	22,300	62,300
Mexico	29,400	7,590	4,590	6,130	13,400
Other	4,880	19	71	239	348
Total	271,000	68,300	22,700	28,600	76,000
Grand total	272,000	68,400	22,800	28,700	76,200

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

Source: U.S. Census Bureau.