

# Mineral Industry Surveys

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## LEAD IN FEBRUARY 2012

Domestic mine production (recoverable) of lead in February was 27,900 metric tons (t). Average daily mine production in February was 961 t, 4% higher than that in January 2012 and 9% higher than that in February 2011. Secondary refinery production of lead in February decreased slightly from that of the previous month and was 5% greater than that of February 2011.

Although total imports of lead for consumption in February 2012 were 33% less than those in the previous month, imports during the first 2 months of 2012 were 25% greater than during the same period of 2011. Canada and Mexico accounted for about 87% of the refined lead that was imported during the first 2 months of 2012. Exports of lead contained in ore and concentrates increased by nearly eightfold from those in the previous month. Shipments of ore and concentrates can change substantially from month to month owing to limited shipping periods for some lead-producing mines in Alaska. Exports of spent lead-acid batteries (used for starting engines) for the first 2 months were 24% greater than those in the same period of 2011, 83% of which went to Mexico.

The average Platts Metals Week North American producer price for lead in February 2012 was \$1.14 per pound, essentially unchanged from that of the previous month but 6% lower than that in February 2011. The London Metal Exchange (LME) cash price of lead in February 2012 was \$2,126 per metric ton, up slightly from that of the previous month but 18% lower than that in February 2011. Global LME lead stocks at the end of February 2012 were 369,950 t, slightly higher than those at the end of January 2012 and 26% greater than those at month-end February 2011.

In February, North American producer shipments of replacement lead-acid batteries for automobiles decreased by 8% to 7.63 million units from 8.30 million units in January 2012. Shipments of replacement lead-acid batteries were 10% less than those of February 2011, partially owing to the mild winter in the Northeast United States. Total North American producer shipments of original equipment (OE) lead-acid batteries for automobiles increased by 8% to 1.55 million units from 1.44 million units shipped in January 2012. Shipments of OE lead-acid batteries were 20% greater than those of February 2011. Total year-to-date North American producer shipments of lead-acid batteries decreased by nearly 7% compared with those during the same period in 2011 (Battery Council International, 2012).

### Update

During the first week of May, Doe Run Co. (St. Louis, MO) reported that it had begun the process of restarting its idled primary lead refinery in Herculaneum, MO. Continuous production was expected to begin a few days after restart. The refinery was closed for repairs on March 20 after an electrical fire forced power to the site to be shut down. Despite the downtime at the smelter, the company expected to produce 118,000 t of refined lead by yearend as originally planned (Fitzgerald, 2012).

### References Cited

- Battery Council International, 2012, BCI 2012 monthly shipment report: Chicago, IL, Battery Council International, May 8, 6 p.  
Fitzgerald, Daniel, 2012, Doe Run restarts Herculaneum smelter: American Metal Market, May 4. (Accessed May 4, 2012, via <http://www.amm.com>.)

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

(Metric tons, lead content, unless otherwise specified)

	2011		2012		
	January– December <sup>p</sup>	January– February	January	February	January– February
<b>Production:</b>					
Mine (recoverable)	336,000	58,300	28,700	27,900	56,500
<b>Secondary refinery:</b>					
Reported by smelters/refineries	1,170,000	194,000	99,600 <sup>r</sup>	98,500	196,000
Estimated	11,700	1,940	996 <sup>r</sup>	985	1,960
Recovered from copper-base scrap <sup>c</sup>	15,000	2,500	1,250	1,250	2,500
Total secondary	1,190,000	198,000	102,000 <sup>r</sup>	101,000	200,000
<b>Consumption:</b>					
Reported	1,530,000	231,000	119,000 <sup>r</sup>	118,000	237,000
Undistributed <sup>e</sup>	45,800	6,920	3,560 <sup>r</sup>	3,540	7,100
Total	1,570,000	237,000	122,000 <sup>r</sup>	122,000	244,000
Stocks, end of period, consumers and secondary smelters	54,800	52,400	58,700 <sup>r</sup>	61,100	61,100
<b>Imports for consumption:</b>					
Base bullion	434	78	101	--	101
Refined metal	313,000	47,400	35,400	23,900	59,200
<b>Exports:</b>					
Ore and concentrate	223,000	10,000	1,680	15,900	17,500
Bullion	70	--	27	23	51
Wrought and unwrought lead	47,200	7,270	3,430	3,860	7,300
TEL/TML preparations, based on lead compounds	6,270	160	140	151	290
Scrap (gross weight)	31,100	2,990	2,600	2,040	4,640
Platts Metals Week North American producer price (cents per pound)	121.70	121.24	114.17	114.29	114.23

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

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

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

	North American producer price ¢/lb	London Metal Exchange cash		Sterling exchange rate
		\$/metric ton	£/metric ton	\$/£
<b>2011:</b>				
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
May	124.83	2,419.54	1,482.37	1.632210
June	125.17	2,511.64	1,548.78	1.621686
July	128.94	2,682.04	1,879.73	1.426819
August	127.90	2,404.09	1,468.11	1.637541
September	125.74	2,297.90	1,668.27	1.377414
October	113.86	1,948.25	1,237.07	1.574886
November	113.73	1,981.59	1,252.77	1.581773
December	113.87	2,018.59	1,292.71	1.561520
January–December	121.70	2,401.20	1,548.94	1.550217
<b>2012:</b>				
January	114.17	2,093.74	1,349.68	1.551290
February	114.29	2,125.79	1,331.03	1.579710
January–February	114.23	2,109.40	1,340.36	1.565500

Source: Platts Metals Week.

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

(Metric tons, gross weight)

Item	Stocks		Consumption	Stocks
	January 31, 2012	Net receipts		February 29, 2012
Battery-lead	21,900 <sup>r</sup>	89,300	92,600	18,600
Soft lead	W	W	W	W
Drosses and residues	W	W	W	W
Other <sup>2</sup>	4,060	2,900	2,910	4,060
Total	25,900 <sup>r</sup>	92,200	95,500	22,700
Percent change from preceding month <sup>3</sup>	XX	-3.1	-0.8	-12.7

<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.

<sup>3</sup>Based on unrounded data; preceding monthly data may have been revised.

TABLE 4  
LEAD, TIN, AND ANTIMONY RECOVERED FROM  
LEAD-BASE SCRAP IN FEBRUARY 2012<sup>1</sup>

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	54,700	--	--
Remelt lead	W	--	--
Antimonial lead	9,900	(2)	(2)
Other <sup>3</sup>	33,900	(2)	(2)
Total lead-base	98,500	650	214

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

-- Zero.

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

<sup>2</sup>Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>3</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)

Use	2011		2012		
	January– December	January– February	January	February	January– February
Metal products:					
Ammunition, shot and bullets	69,300	12,300	5,900	5,700	11,600
Brass and bronze, billet and ingots	1,660	562	283	283	566
Cable covering, power and communication and caulking lead, building construction	8,410	1,160	764	728	1,490
Casting metals	14,600	2,380	1,230	1,240	2,470
Sheet lead, pipes, traps and other extruded products	26,800	4,920	2,030	2,070	4,100
Solder	6,400	1,340	532	532	1,060
Storage batteries, including oxides	1,360,000	202,000	105,000 <sup>r</sup>	104,000	209,000
Terne metal, type metal, and other metal products <sup>2</sup>	16,400	2,110 <sup>r</sup>	1,230 <sup>r</sup>	1,220	2,450
Total metal products	1,500,000	227,000	116,000 <sup>r</sup>	116,000	232,000
Other oxides and miscellaneous	26,500	3,800	2,210 <sup>r</sup>	2,250	4,460
Total reported	1,530,000	231,000	119,000 <sup>r</sup>	118,000	237,000
Undistributed <sup>6</sup>	45,800	6,920	3,560 <sup>r</sup>	3,540	7,100
Grand total	1,570,000	237,000	122,000 <sup>r</sup>	122,000	244,000

<sup>6</sup>Estimated. <sup>r</sup>Revised.

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

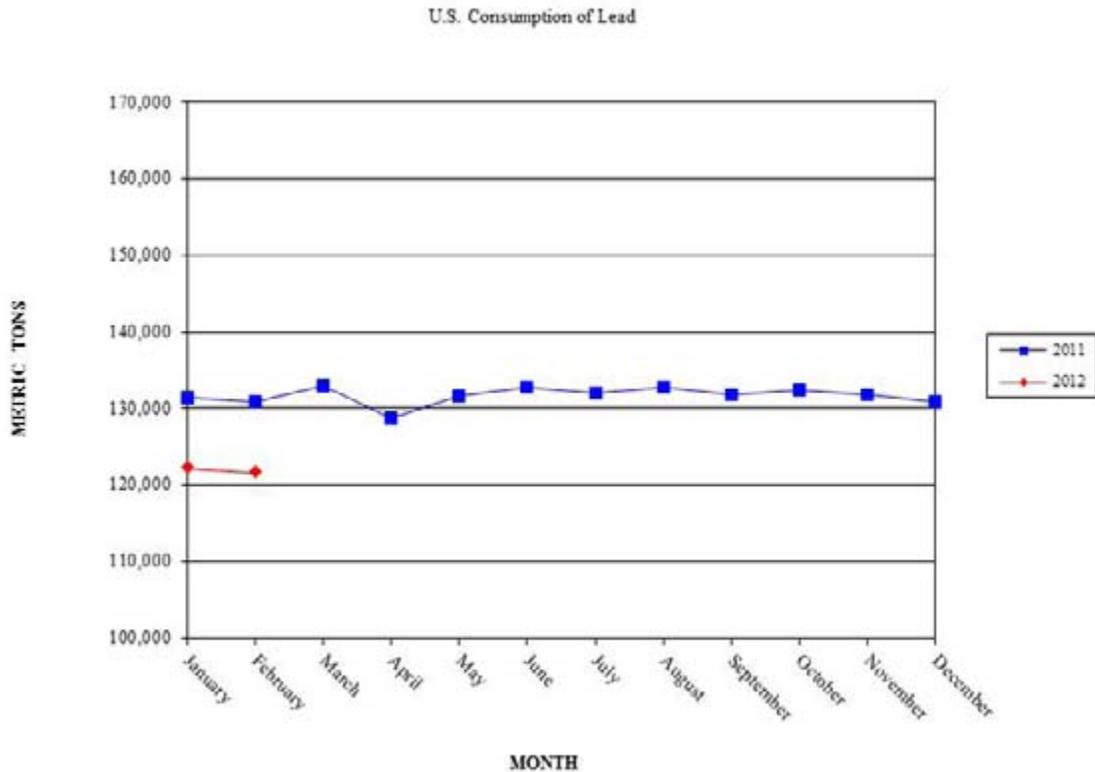


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons, lead content)

Type of material	Stocks		Consumption	Stocks
	January 31, 2012	Net receipts		February 29, 2012
Soft lead	35,400 <sup>r</sup>	75,300	74,700	36,000
Antimonial lead	13,900 <sup>r</sup>	27,500	25,700	15,600
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	58,700 <sup>r</sup>	120,000	118,000	61,100

<sup>r</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.

TABLE 7  
U.S. EXPORTS OF LEAD, BY CLASS<sup>1</sup>

(Metric tons unless otherwise specified)

	2011		2012		
	January– December	January– February	January	February	January– February
Lead content:					
Ore and concentrates	223,000	10,000	1,680	15,900	17,500
Bullion	70	--	27	23	51
Wrought and unwrought lead	47,200	7,270	3,430	3,860	7,300
TEL/TML preparations, based on lead compounds	6,270	160	140	151	290
Total	277,000	17,500	5,280	19,900	25,200
Gross weight, scrap	31,100	2,990	2,600	2,040	4,640
Spent lead-acid batteries, used for starting engines (units)	25,400,000	3,630,000	2,410,000	2,090,000	4,510,000

-- Zero.

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

(Metric tons, lead content)

Country of origin	2011		2012		
	January– December	January– February	January	February	January– February
Ore, matte, etc., Canada	--	--	--	--	--
<b>Base bullion:</b>					
Canada	35	--	--	--	--
Mexico	199	78	101	--	101
Venezuela	200	--	--	--	--
Total	434	78	101	--	101
<b>Pigs and bars:</b>					
Canada	250,000	40,000	23,200	19,100	42,300
China	32	--	5,000	--	5,000
Mexico	56,000	7,280	4,270	4,800	9,060
Other	7,560	109	2,870	46	2,910
Total	313,000	47,400	35,400	23,900	59,200
Grand total	314,000	47,500	35,500	23,900	59,300

-- 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.