

# Mineral Industry Surveys

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## LEAD IN MAY 2012

Domestic mine production (recoverable) of lead in May was estimated to be 27,600 metric tons (t). Average daily mine production in May was 892 t, slightly less than that in April. Secondary refinery production of lead in May increased slightly from that of the previous month. Year-to-date production of secondary refined lead was slightly less than that in the corresponding period of 2011.

Total imports of lead for consumption in May were slightly less than those in the previous month but 6% greater than those in the same period in the previous year. Canada (76%) and Mexico (17%) were the principal sources of imported refined lead for the first 5 months of the year. Total exports of lead, exclusive of scrap, in May were more than twice as much as those in the previous month, owing primarily to an increase in exports of lead contained in ore and concentrates. China and Canada were the leading destinations for ore and concentrates exports through May. Total exports of lead, exclusive of scrap, for the year through May were slightly less than those in the same period in the previous year.

The average Platts Metals Week North American producer price for lead in May 2012 was \$1.14 per pound, slightly lower than that of the previous month and 9% lower than that in May 2011. The London Metal Exchange (LME) cash price of lead in May 2012 averaged \$1,999 per metric ton, 3% less than that of the previous month and 17% lower than that in May 2011. Global LME lead stocks at the end of May 2012 were 348,175 t,

3% lower than those at the end of March 2012 but 9% greater than those at month-end May 2011.

### Update

In June, The Doe Run Co. (St. Louis, MO) decided that it would not proceed with plans to build a new primary lead electrowinning plant near its current primary refinery in Herculaneum, MO. The primary lead refinery operating in Herculaneum is the only primary plant operating in the United States and will be closed by yearend 2013 as part of an agreement Doe Run made with the U.S. Environmental Protection Agency in 2010. The new plant would have used a wet chemical process instead of heat-based smelting to extract lead from concentrates with a substantial reduction in air emissions. The process had never been used for primary lead production, but the company had successfully operated a demonstration plant in southeastern Missouri since 2007 (Doe Run Co., The, 2012).

### Reference Cited

Doe Run Co., The, 2012, The Doe Run Company decides not to build new technology plant—Company will focus on exploration, mining, and secondary metal production: St. Louis, MO, The Doe Run Co. news release, July 24, (Accessed August 1, 2012, at <http://www.doerun.com/DoeRunDecidesNotToBuildNewTechnologyPlant/tabid/235/language/en-US/Default.aspx>.)

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– May	April	May	January– May
<b>Production:</b>					
Mine (recoverable)	336,000	144,000	27,300 <sup>r</sup>	27,600	139,000
<b>Secondary refinery:</b>					
Reported by smelters/refineries	1,170,000	488,000	95,800	97,200	484,000
Estimated	11,700	4,880	1,020 <sup>r</sup>	972	4,910
Recovered from copper-base scrap <sup>c</sup>	15,000	6,250	1,250	1,250	6,250
Total secondary	1,190,000	499,000	98,000	99,400	495,000
<b>Consumption:</b>					
Reported	1,530,000	603,000	123,000 <sup>r</sup>	121,000	624,000
Undistributed <sup>c</sup>	45,800	18,100	3,620 <sup>r</sup>	3,630	18,700
Total	1,570,000	621,000	127,000 <sup>r</sup>	125,000	643,000
Stocks, end of period, consumers and secondary smelters	54,800	64,700	54,000 <sup>r</sup>	51,800	51,800
<b>Imports for consumption:</b>					
Base bullion	434	149	168	--	270
Refined metal	313,000	127,000	26,100	26,000	135,000
<b>Exports:</b>					
Ore and concentrate	223,000	50,900	3,040	12,000	47,600
Bullion	70	8	--	--	72
Wrought and unwrought lead	47,200	17,900	4,610	4,920	21,000
TEL/TML preparations, based on lead compounds	6,270	851	106	130	631
Scrap (gross weight)	31,100	10,200	2,390	2,810	11,700
Platts Metals Week North American producer price (cents per pound)	121.70	122.23	114.03	113.81	114.07

<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>				
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	1,345.68	1.579710
March	114.03	2,061.01	1,302.73	1.582068
April	114.03	2,062.67	1,287.68	1.601844
May	113.81	1,998.51	1,283.48	1.557100
January–May	114.07	2,068.34	1,313.85	1.574402

Source: Platts Metals Week.

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

(Metric tons, gross weight)

Item	Stocks	Net receipts	Consumption	Stocks
	April 30, 2012			May 31, 2012
Battery-lead	33,900 <sup>r</sup>	92,600	89,800	36,800
Soft lead	W	W	W	W
Drosses and residues	W	W	W	W
Other <sup>2</sup>	4,260	2,440	2,580	4,130
Total	38,200 <sup>r</sup>	95,100	92,300	40,900
Percent change from preceding month <sup>3</sup>	XX	+3.3	+1.1	+7.2

<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 MAY 2012<sup>1</sup>

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	82,700	--	--
Remelt lead	W	--	--
Antimonial lead	13,000	(2)	(2)
Other <sup>3</sup>	1,460	(2)	(2)
Total lead-base	97,200	148	257

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– May	April	May	January– May <sup>2</sup>
<b>Metal products:</b>					
Ammunition, shot and bullets	69,300	31,200	5,500	5,530	29,100
Brass and bronze, billet and ingots	1,660	1,410	283	283	1,420
Cable covering, power and communication and caulking lead, building construction	8,410	3,650	231	231	2,190
Casting metals	14,600	6,060	872 <sup>r</sup>	872	5,370
Sheet lead, pipes, traps and other extruded products	26,800	11,400	2,140	2,160	10,500
Solder	6,400	3,590	531	531	2,660
Storage batteries, including oxides	1,360,000	530,000	109,000 <sup>r</sup>	108,000	554,000
Terne metal, type metal, and other metal products <sup>3</sup>	16,400	6,300	1,570 <sup>r</sup>	1,220	6,470
<b>Total metal products</b>	<b>1,500,000</b>	<b>594,000</b>	<b>121,000<sup>r</sup></b>	<b>118,000</b>	<b>612,000</b>
Other oxides and miscellaneous	26,500	9,280	2,490	2,550	12,100
<b>Total reported</b>	<b>1,530,000</b>	<b>603,000</b>	<b>123,000<sup>r</sup></b>	<b>121,000</b>	<b>624,000</b>
Undistributed <sup>e</sup>	45,800	18,100	3,620 <sup>r</sup>	3,630	18,700
<b>Grand total</b>	<b>1,570,000</b>	<b>621,000</b>	<b>127,000<sup>r</sup></b>	<b>125,000</b>	<b>643,000</b>

<sup>e</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>May include revisions to previous months' data.

<sup>3</sup>Includes lead consumed in bearing metals, foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

U.S. Consumption of Lead

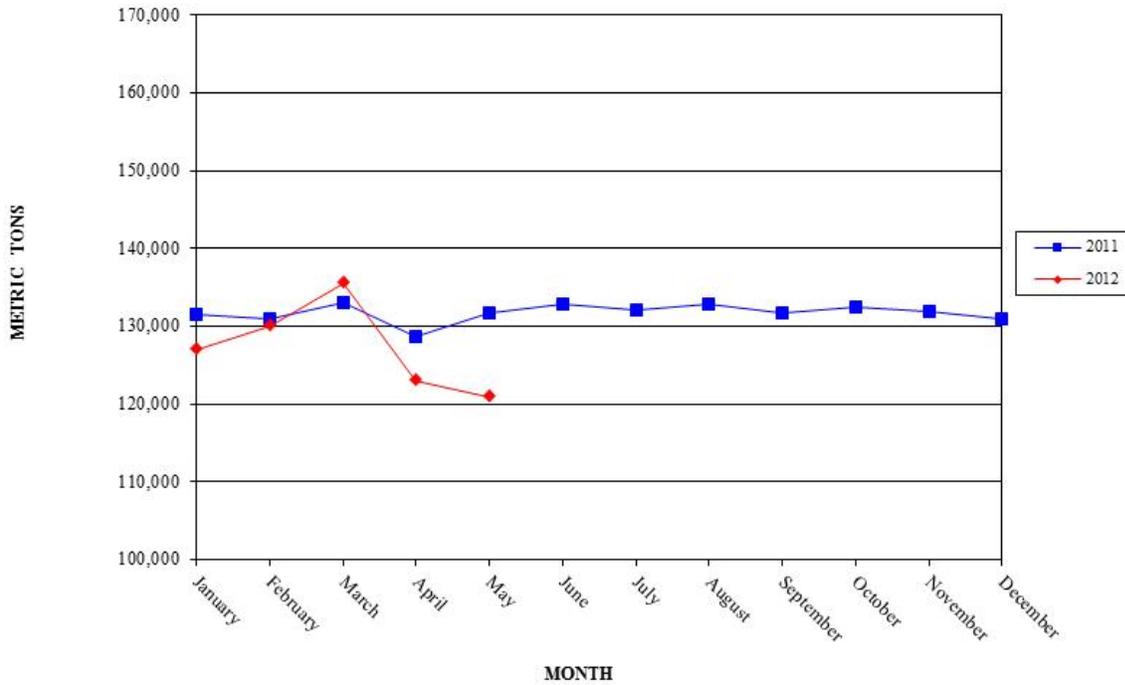


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons, lead content)

Type of material	Stocks April 30, 2012	Net receipts	Consumption	Stocks May 31, 2012
Soft lead	33,800	74,500	76,400	31,900
Antimonial lead	18,700 <sup>r</sup>	32,400	34,700	16,400
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	54,000 <sup>r</sup>	117,000	121,000	49,700

<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– May	April	May	January– May
Lead content:					
Ore and concentrates	223,000	50,900	3,040	12,000	47,600
Bullion	70	8	--	--	72
Wrought and unwrought lead	47,200	17,900	4,610	4,920	21,000
TEL/TML preparations, based on lead compounds	6,270	851	106	130	631
Total	277,000	69,600	7,750	17,000	69,300
Gross weight, scrap	31,100	10,200	2,390	2,810	11,700
Spent lead-acid batteries, used for starting engines (units)	25,400,000	8,930,000	1,520,000	1,830,000	9,640,000

-- 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)

Material and country of origin	2011		2012		
	January– December	January– May	April	May	January– May
Ore, matte, etc.	--	--	--	--	--
Base bullion:					
Canada	35	35	--	--	--
Mexico	199	114	168	--	270
Venezuela	200	--	--	--	--
Total	434	149	168	--	270
Pigs and bars:					
Canada	250,000	103,000	20,700	21,700	103,000
China	32	--	--	--	5,000
Mexico	56,000	23,500	4,930	3,450	22,800
Other	7,560	866	475	851	4,490
Total	313,000	127,000	26,100	26,000	135,000
Grand total	314,000	127,000	26,200	26,000	135,000

-- 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.