

# Mineral Industry Surveys

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## LEAD IN JULY 2014

Domestic mine production (recoverable) of lead in July was 30,500 metric tons (t). Average daily mine production in June was 985 t, essentially unchanged from that in June. Year-to-date lead mine production was 9% greater than during the same period in 2013 owing to increased production in all of the lead-producing States—Alaska, Idaho, and Missouri.

Secondary refinery production of lead in July was slightly greater than that of the previous month, and year-to-date production was 4% less than that in the same period in 2013. The decline in secondary production during the first 7 months of the year was partially owing to the ongoing temporary shutdown of Exide Technologies' lead refinery in Vernon, CA (90,000-metric-ton-per-year capacity), that began in mid-March 2014. (See Lead in June 2014.)

Total imports of lead for consumption declined by 42% in July 2014 from those in the previous month, but imports during the first 7 months of 2014 were 15% greater than those in the same period of 2013. Total exports of lead, exclusive of scrap, increased by 52% in July from those of the previous month owing to an increase in exports of lead in ore and concentrates. Year-to-date total exports were 74% greater than those in the same period in 2013. The increase was primarily owing to increased exports of lead contained in concentrates, the majority of which went to China, and correlated with the closure of Doe Run Resources Corp.'s (St. Louis, MO) primary lead smelter in Herculaneum, MO, at yearend 2013.

The Platts Metals Week average North American Market price for lead in July 2014 was \$1.11 per pound, a 4% increase from that of the previous month and 5% greater than that in July 2013. The London Metal Exchange Ltd. (LME) cash price for lead in July 2014 averaged \$2,189 per metric ton, 4% greater

than that in the previous month and 7% greater than in July 2013. The Platts average U.S. used lead-acid batteries price in July 2014 was \$0.394 per pound, essentially unchanged from that in June and 4% more than that in July 2013. Global LME lead stocks at the end of July 2014 were 215,550 t, 11% more than those at the end of June 2014 and 8% greater than those at the end of July 2013.

### Update

The Battery Council International reported that 104.8 million lead-acid automotive batteries were shipped by North American producers during the first 10 months of 2014, a slight increase from shipments during the same period in 2013. Shipments of replacement lead-acid automotive batteries (87.4 million) increased slightly, and shipments of original equipment lead-acid automotive batteries (17.4 million) increased by 8% from those during the same period of 2013 (Battery Council International, 2014).

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### Reference Cited

Battery Council International, 2014, BCI 2014 monthly shipment report: Chicago, IL, Battery Council International, December, 20 p.

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

(Metric tons, lead content, unless otherwise specified)

	2013		2014		
	January– December <sup>p</sup>	January– July	June	July	January– July
<b>Production:</b>					
Mine (recoverable)	331,000	193,000	29,600	30,500	210,000
<b>Secondary refinery:</b>					
Reported by smelters/refineries	1,170,000	678,000	92,300	94,700	649,000
Estimated	11,700	6,780	932	957	6,560
Recovered from copper-base scrap <sup>e</sup>	15,000	8,750	1,250	1,250	8,750
Total secondary	1,190,000	694,000	94,500	96,900	664,000
Consumption of refined lead, apparent <sup>e, 2</sup>	1,750,000	1,010,000	146,000	131,000	988,000
Stocks, end of period, consumers and secondary smelters	69,300	93,400	66,600	62,500	62,500
<b>Imports for consumption:</b>					
Base bullion	1,900	1,570	48	32	249
Refined metal	500,000	312,000	59,800	34,800	360,000
<b>Exports:</b>					
Ore and concentrate	215,000	81,700	23,000	40,000	160,000
Bullion	349	349	198	302	914
Wrought and unwrought lead	48,200	30,000	6,450	4,860	34,800
TEL/TML preparations, based on lead compounds	1,610	1,060	77	57	592
Scrap (gross weight)	34,900	20,000	3,260	2,480	19,000
Platts Metals Week North American Producer price (cents per pound)	114.77	114.83	NA	NA	NA
Platts Metals Week North American Market price (cents per pound)	NA	NA	106.91	110.68	107.16

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. NA Not available.

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

<sup>2</sup>Smelter production plus imports for consumption minus domestic exports plus stock change.

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

	North American Producer <sup>1</sup>	North American Market <sup>2</sup>	London Metal Exchange cash		Used lead-acid batteries <sup>3</sup>
	¢/lb	¢/lb	¢/lb	\$/t	¢/lb
<b>2013:</b>					
July	114.42	NA	92.89	2,047.90	37.80
August	114.88	NA	98.56	2,172.86	37.75
September	114.56	NA	94.71	2,088.00	36.63
October	114.65	NA	95.75	2,111.03	36.40
November	114.58	NA	94.80	2,089.77	37.25
December	114.73	NA	96.74	2,132.66	37.40
January–December	114.77	NA	97.15	2,141.84	38.00
<b>2014:</b>					
January	114.78	108.39	97.45	2,148.47	39.75
February	114.65	107.15	95.71	2,110.05	39.63
March	114.45	104.67	93.27	2,056.24	39.25
April	105.67	105.67	94.60	2,085.56	38.70
May	NA	106.62	95.11	2,096.71	39.00
June	NA	106.91	95.39	2,102.92	39.25
July	NA	110.68	99.28	2,188.79	39.40
January–July	NA	107.16	95.83	2,112.68	39.28

NA Not available.

<sup>1</sup>Platts Metals Week North American Producer price.

<sup>2</sup>Platts Metals Week North American Market price. Reflects the LME lead cash price plus the Platts premium for 99.97% lead.

<sup>3</sup>Platts Metals Week assessment for used lead-acid automotive batteries (50% lead) picked up in U.S. Midwest, suitable for delivery to secondary smelters within 30 days.

Source: Platts Metals Week.

TABLE 3  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN JULY 2014<sup>1</sup>

(Metric tons, gross weight)

Item	Stocks	Net receipts	Consumption	Stocks
	June 30, 2014			July 31, 2014
Battery-lead	46,400	83,900	85,700	44,700
Other <sup>2</sup>	4,580	2,330	2,400	4,520
Total	51,000	86,300	88,100	49,200
Percent change from preceding month <sup>3</sup>	XX	+0.2	+4.7	-3.6

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 soft lead, solder, drosses and residues, 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 JULY 2014<sup>1</sup>

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	73,100	--	--
Remelt lead	W	--	--
Antimonial lead	20,900	W	W
Other <sup>2</sup>	744	158	390
Total lead-base	94,700	158	390

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>Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5  
U.S. APPARENT CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons)

Period	Production <sup>2</sup>	Imports <sup>3,4</sup>	Exports <sup>3,4</sup>	Stock change during period	Apparent consumption <sup>5</sup>
2013: <sup>P</sup>					
July	106,000	34,300	4,210	(9,830)	146,000
August	109,000	32,900	3,480	(2,120)	141,000
September	108,000	41,300	4,180	(4,060)	150,000
October	112,000	39,300	3,820	(8,080)	156,000
November	111,000	38,700	2,940	(4,200)	151,000
December	104,000	35,900	1,650	4,270	134,000
January–December	1,300,000	500,000	41,600	11,800	1,750,000
2014:					
January	92,700	66,600	1,430	(1,280)	159,000
February	91,700	30,200	2,360	4,390	115,000
March	97,900	49,800	5,440	5,410	137,000
April	96,300	62,500	6,650	(417)	152,000 <sup>r</sup>
May	94,500	56,200	4,970	(1,700)	148,000
June	94,500	59,800	6,010	2,630	146,000
July	96,900	34,800	4,520	(4,060)	131,000
January–July	664,000	360,000	31,400	4,980	988,000

<sup>P</sup>Preliminary. <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>Monthly data include secondary refined lead an estimate for primary refined lead.

<sup>3</sup>Import and export data are for Harmonized Tariff Schedule of the United States (HTS) codes 7801.10.0000, 7801.91.0000, 7801.99.9030, 7801.99.9050.

<sup>4</sup>Source: U.S. Census Bureau.

<sup>5</sup>Smelter production plus imports for consumption minus domestic exports plus stock change.

TABLE 6  
U.S. EXPORTS OF LEAD, BY CLASS<sup>1</sup>

(Metric tons unless otherwise specified)

	2013		2014		
	Year	January–July	June	July	January–July
Lead content:					
Ore and concentrates	215,000	81,700	23,000	40,000	160,000
Bullion	349	349	198	302	914
Wrought and unwrought lead	48,200	30,000	6,450	4,860	34,800
TEL/TML preparations, based on lead compounds	1,610	1,060	77	57	592
Total	265,000	113,000	29,700	45,200	196,000
Gross weight, scrap	34,900	20,000	3,260	2,480	19,000
Spent lead-acid batteries, used for starting engines (units)	26,300,000	14,700,000	2,130,000	2,130,000	14,300,000

<sup>1</sup>Data are rounded to more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 7  
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	2013		2014		
	Year	January– July	June	July	January– July
Ore, matte, etc; Canada	18	--	--	--	--
Base bullion:					
Canada	--	--	--	--	45
Mexico	148	148	48	32	80
Venezuela	1,750	1,430	--	--	124
Total	1,900	1,570	48	32	249
Pigs and bars:					
Australia	46,800	46,600	--	--	--
Belgium	1,440	1,440	--	--	--
Brazil	887	887	--	--	--
Canada	257,000	156,000	22,600	22,700	156,000
China	441	--	--	--	23
Chile	4,220	2,650	--	--	2,930
Dominican Republic	440	440	--	--	125
Ecuador	2,020	218	1,110	283	6,100
France	11,900	11,600	69	69	205
Guatemala	639	419	--	--	--
India	1,020	774	223	--	9,440
Israel	4,190	2,150	290	500	1,380
Kazakhstan	4,980	--	11,900	1,180	37,200
Korea, Republic of	2,200	1,000	4,500	92	12,900
Mexico	111,000	62,600	8,480	8,020	73,600
Nigeria	400	400	--	--	--
Peru	39,600	16,600	5,800	--	45,300
Russia	5,220	5,220	2,650	1,280	11,400
Sri Lanka	1,030	525	--	--	323
United Kingdom	2,370	2,130	377	727	2,310
Venezuela	980	149	92	--	405
Other	383	189 <sup>r</sup>	--	--	114
Total	500,000	312,000	59,800	34,800	360,000
Grand total	502,000	313,000	59,800	34,900	360,000

<sup>r</sup>Revised. -- 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.