

Mineral Industry Surveys

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LEAD IN AUGUST 2020

Domestic mine production (recoverable) of lead in August 2020 was 28,700 metric tons (t). Average daily mine production in August 2020 was 927 t, 10% more than that in the previous month and 17% more than that in August 2019. Total secondary refined lead production in August 2020 was 98,100 t, slightly less than that in the previous month and essentially unchanged from that in August 2019 (fig. 1; tables 1, 2).

7% more than that in the previous month and 5% less than that in August 2019.

The North American premium to the LME cash price in August 2020 averaged 8.70 cents per pound, 9% more than that in July 2020 and 4% less than that in August 2019 (fig. 2, table 3).

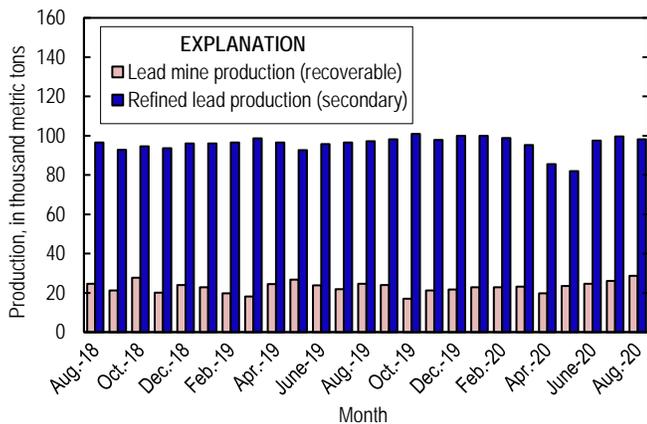


Figure 1. U.S. production of lead from August 2018 through August 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through August 2020 were 156,000 t, 16% more than those for the same period in 2019. The major destinations in August 2020 were China (43%), the Netherlands (31%), and the Republic of Korea (21%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in August 2020 was 87.8 cents per pound, 7% more than that in the previous month and 5% less than that in August 2019 (table 3). The Platts Metals Week average North American Market price for lead in August 2020 was 96.5 cents per pound,

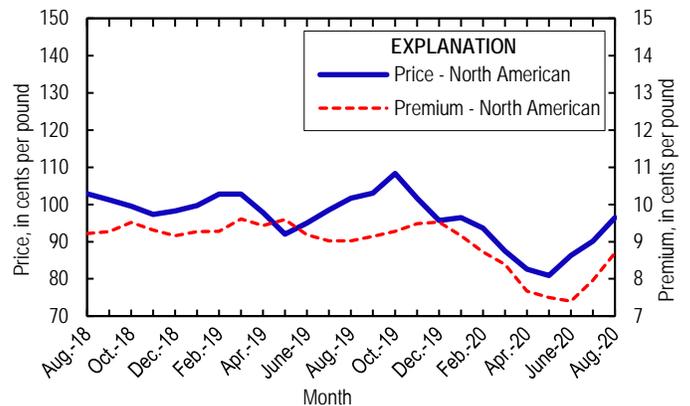


Figure 2. Average monthly North American price and premium for refined lead metal from August 2018 through August 2020. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in August 2020 was 33.2 cents per pound, slightly more than that in July 2020 and slightly less than that in August 2019 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of August 2020 were 124,900 t, 6% more than those at the end of July 2020 and 61% more than those at the end of August 2019 (table 11).

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TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2019 ²		2020		
	January– December	January– August	July	August	January– August
Production:					
Mine (recoverable)	266,000	182,000	26,100	28,700	192,000
Secondary refinery, reported by smelters/refineries	1,170,000	770,000	99,700 ^r	98,100	757,000
Consumption of refined lead, apparent ^{e, 3}	1,640,000	1,100,000	125,000 ^r	121,000	1,000,000
Imports for consumption:					
Ore and concentrate	8	8	--	--	(4)
Bullion	75	75	--	--	217
Unwrought	501,000	351,000	27,400	23,900	256,000
Exports:					
Ore and concentrate	259,000	134,000	32,100	37,400	156,000
Bullion (gross weight)	1,230	708	161	194	1,230
Unwrought (gross weight)	25,500	19,600	1,700	1,430	11,000
Platts Metals Week North American Market price (cents per pound)	99.91	98.78	90.16	96.48	89.25

^eEstimated. ^rRevised. -- Zero.

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

²May include revisions to previously published data.

³Smelter production plus imports for consumption minus domestic exports.

⁴Less than ½ unit.

TABLE 2
MINE AND SECONDARY REFINERY PRODUCTION OF LEAD
IN THE UNITED STATES¹

(Metric tons)

Period	Mine		Secondary refinery ^c
	Lead in concentrate	Recoverable	
2019:			
August	25,300	24,600	97,200
September	24,700	24,000	98,200
October	17,400	17,000	101,000
November	21,900	21,300	97,800
December	22,300	21,700	100,000
January–December	274,000	266,000	1,170,000
2020:			
January	23,500	22,800	100,000 ^r
February	23,500	22,900	98,800 ^r
March	23,700	23,100	95,300 ^r
April	20,300	19,800	85,500 ^r
May	24,200	23,500	82,000 ^r
June	25,300	24,600	97,500 ^r
July	26,900	26,100	99,700 ^r
August	29,600	28,700	98,100
January–August	197,000	192,000	757,000

^cEstimated. ^rRevised.

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

TABLE 3
MONTHLY AVERAGE LEAD PRICES

	North	London Metal Exchange		Used lead-acid
	American Market ¹	cash		batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2019:				
August	101.68	92.66	2,042.70	33.75
September	103.05	93.91	2,070.29	34.22
October	108.33	99.05	2,183.67	34.95
November	101.63	92.15	2,031.46	35.47
December	95.65	86.12	1,898.68	35.85
January–December	99.91	90.59	1,997.13	33.12
2020:				
January	96.46	87.30	1,924.69	36.75
February	93.63	84.90	1,871.75	36.44
March	87.50	79.11	1,744.14	34.78
April	82.59	74.91	1,651.53	32.50
May	80.90	73.40	1,618.16	32.25
June	86.32	78.92	1,739.86	32.00
July	90.16	82.20	1,812.15	32.50
August	96.48	87.78	1,935.20	33.16
January–August	89.26	81.07	1,787.18	33.80

¹Platts Metals Week North American Market price. Reflects the LME lead cash price plus the Platts premium for 99.97% lead.

²Platts 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 4
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN AUGUST 2020¹

(Metric tons, gross weight)

Item	Stocks July 31, 2020	Net receipts	Consumption	Stocks August 31, 2020
Battery-lead	W	77,100	76,800	W
Other ²	W	5,810	5,710	W
Total	6,510 ^r	83,000	82,500	6,940
Percent change from preceding month ³	XX	13.9	10.2	6.7

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

²Includes soft lead, solder, drosses and residues, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

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

TABLE 5
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN AUGUST 2020¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	81,300	--	--
Remelt lead	W	--	--
Antimonial lead	14,800	W	W
Other ²	W	W	--
Total lead-base	98,100	182	W

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

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

²Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6
U.S. APPARENT CONSUMPTION OF LEAD¹

(Metric tons)

Period	Production	Imports ^{2,3}	Exports ^{2,3}	Apparent consumption ⁴
2019: ^p				
August	97,200	58,500	1,130	154,000
September	98,200	45,300	1,290	142,000
October	101,000	35,500	2,360	134,000
November	97,800	28,700	1,460	125,000
December	100,000	40,200	805	140,000
January–December	1,170,000	501,000	25,500	1,640,000
2020:				
January	100,000 ^r	42,000	1,580	141,000
February	98,800 ^r	26,400	1,290	124,000 ^r
March	95,300 ^r	33,400	1,460	127,000 ^r
April	85,500 ^r	41,100	1,290	125,000 ^r
May	82,000 ^r	27,300	909	108,000 ^r
June	97,500 ^r	34,800	1,370	131,000 ^r
July	99,700 ^r	27,400	1,700	125,000 ^r
August	98,100	23,900	1,430	121,000
January–August	757,000	256,000	11,000	1,000,000

^pPreliminary. ^rRevised.

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

²Import 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.

³Source: U.S. Census Bureau.

⁴Smelter production plus imports for consumption minus domestic exports.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons, gross weight, unless otherwise specified)

	2019 ²		2020		
	January– December	January– August	July	August	January– August
Ores and concentrate (lead content)	259,000	134,000	32,100	37,400	156,000
Bullion	1,230	708	161	194	1,230
Unwrought:					
Refined lead	9,450	9,360	33	21	382
Refined lead containing antimony as the principal alloying element	651	397	21	64	346
Lead alloys	13,700	8,510	1,570	1,280	9,420
Other	1,620	1,280	72	71	881
Total	25,500	19,600	1,700	1,430	11,000
Wrought:					
Bars, rods, profiles, and wire	615	416	11	54	366
Pipes and tubes, including fittings	167	41	7	--	34
Plates, sheets, strip, foil	3,460	2,410	202	179	1,460
Other	2,360	1,190	138	195	1,620
Total	6,600	4,060	358	427	3,490
Powders and flakes	297	216	11	2	133
Tetraethyl lead and tetramethyl lead	507	401	10	3	119
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	18,000,000	2,810,000	2,410,000	17,000,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,100	26,100	4,330	3,690	33,100

-- Zero.

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

²May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 8
U.S. EXPORTS OF LEAD ORES AND CONCENTRATES, BY COUNTRY OR LOCALITY¹

(Metric tons, lead content)

	2019 ²		2020		
	January– December	January– August	July	August	January– August
Australia	--	--	--	--	15,700
Canada	52,400	35,100	1,430	1,840	11,700
China	62,300	26,000	10,700	16,200	33,900
Dominican Republic	34	29	--	--	4
Germany	--	--	--	--	8,060
Indonesia	5	--	--	--	--
Italy	23,400	15,500	--	--	16,000
Japan	25,100	9,570	5,380	--	9,550
Korea, Republic of	51,300	25,800	5,380	7,870	31,900
Laos	11	11	--	--	--
Mexico	24,700	16,500	7,950	23	8,160
Netherlands	15,000	5,340	--	11,500	19,500
Thailand	3,390	--	1,190	--	1,190
Vietnam	1,760	32	--	2	30
Total	259,000	134,000	32,100	37,400	156,000

-- Zero.

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

²May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 9
U.S. IMPORTS FOR CONSUMPTION OF LEAD, BY CLASS¹

(Metric tons, gross weight, unless otherwise specified)

	2019 ²		2020		
	January– December	January– August	July	August	January– August
Ores and concentrate (lead content)	8	8	--	--	(3)
Bullion (lead content)	75	75	--	--	217
Unwrought:					
Refined lead	406,000	288,000	23,800	18,100	214,000
Refined lead containing antimony as the principal alloying element (lead content)	27,000	17,900	1,430	1,620	13,200
Lead alloys (lead content)	23,200	14,500	1,120	1,020	11,000
Other (lead content)	44,000	30,300	1,090	3,170	18,700
Total	501,000	351,000	27,400	23,900	256,000
Wrought:					
Bars, rods, profiles, and wire	3,420	1,640	487	547	2,910
Pipes and tubes, including fittings	77	70	--	(3)	90
Plates, sheets, strip, foil	1,760	1,140	135	43	1,100
Other	2,770	1,970	234	262	1,310
Total	8,020	4,810	856	852	5,410
Powders and flakes	315	211	10	--	132
Tetraethyl lead and tetramethyl lead	139	88	29	19	243
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	528,000	341,000	25,300	188,000	3,860,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	1,220	200	191	1,220
Other lead waste and scrap (lead content)	2,100	1,260	130	255	1,320

-- Zero.

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

²May include revisions to previously published data.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF UNWROUGHT LEAD, BY COUNTRY OR LOCALITY¹

(Metric tons, lead content)

Material and country or locality of origin	2019 ²		2020		
	January– December	January– August	July	August	January– August
Refined lead:					
Argentina	4,300	2,720	--	--	1,800
Australia	--	--	1,010	--	9,190
Brazil	9,920	4,510	1,360	1,150	13,200
Burma	1,500	850	--	--	350
Canada	159,000	107,000	9,110	10,400	74,100
China	101	1	--	--	--
Colombia	801	801	101	--	900
Dominican Republic	50	50	--	--	26
Ecuador	19,800	15,000	625	400	5,690
Germany	50	50	--	--	--
Ghana	--	--	--	--	421
Hong Kong	100	--	--	--	--
India	4,090	3,540	--	--	3,760
Indonesia	--	--	--	--	76
Israel	2,200	1,650	--	--	1,270
Japan	--	--	--	299	299
Kazakhstan	17,800	16,600	6,670	--	6,670
Korea, Republic of	76,000	59,400	--	--	33,400
Mexico	96,700	67,800	4,860	4,650	45,400
Nigeria	994	397	--	1,120	4,560
Panama	400	400	--	--	--
Peru	3,030	1,350	50	120	1,400
Russia	6,070	3,700	--	--	10,100
South Africa	20	20	--	--	--
Sri Lanka	--	--	--	--	200
Thailand	1,250	1,160	--	--	192
United Kingdom	404	211	--	(4)	491
Venezuela	2,080	934	--	--	24
Total	406,000	288,000	23,800	18,100	214,000
Other unwrought lead:³					
Argentina	2,080	1,560	--	--	--
Bolivia	183	124	--	--	--
Brazil	276	--	--	35	208
Canada	86,800	56,800	2,910	5,460	39,700
China	2	2	--	--	--
Chile	--	--	299	--	299
Costa Rica	19	19	--	--	--
Denmark	--	--	(4)	--	(4)
Dominican Republic	--	--	--	--	306
Ecuador	378	334	--	111	274
France	--	--	--	--	30
Germany	1	1	--	--	--
Ghana	--	--	--	--	198
India	321	148	74	--	224
Korea, Republic of	14	5	--	10	10
Mexico	2,700	2,340	149	52	990
Paraguay	49	--	--	--	--
Peru	221	221	--	--	--
Russia	(4)	(4)	--	--	--
Sweden	11	11	--	--	--
Taiwan	(4)	(4)	--	--	--

See footnotes at end of table.

TABLE 10—Continued
 U.S. IMPORTS FOR CONSUMPTION OF UNWROUGHT LEAD, BY COUNTRY OR LOCALITY¹

(Metric tons, lead content)

Material and country or locality of origin	2019 ²		2020		
	January– December	January– August	July	August	January– August
<u>Other unwrought lead—Continued:³</u>					
United Kingdom	1,040	1,040	208	114	455
Venezuela	185	81	--	27	132
Total	94,300	62,700	3,640	5,810	42,800
Grand total	500,000	351,000	27,400	23,900	257,000

-- Zero.

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

²May include revisions to previously published data.

³Includes the lead content (Quantity 2) of Harmonized Tariff Schedule of the United States (HTS) codes 7801.91.0000, 7801.99.9030, 7801.99.9050. Excludes bullion.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 11
LONDON METAL EXCHANGE (LME) STOCKS OF LEAD, END OF PERIOD

(Metric tons)

Period	United States	Asia	Europe	Total
2019:				
August	--	30,875	46,650	77,525
September	--	27,425	42,075	69,500
October	--	27,400	42,675	70,075
November	--	26,250	40,875	67,125
December	--	26,050	40,150	66,200
2020:				
January	--	26,000	40,800	66,800
February	--	25,750	42,350	68,100
March	--	26,250	44,650	70,900
April	3,725	26,100	43,825	73,650
May	5,875	25,625	44,325	75,825
June	5,875	24,625	36,000	66,500
July	7,725	28,450	81,975	118,150
August	7,250	33,775	83,875	124,900

-- Zero.

Source: London Metal Exchange, Ltd.