

Mineral Industry Surveys

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LEAD IN MAY 2020

Domestic mine production (recoverable) of lead in May 2020 was 23,600 metric tons (t). Average daily mine production in May 2020 was 760 t, 14% more than that in the previous month and 12% less than that in May 2019. Total secondary refined lead production in May 2020 was 82,600 t, 4% less than that in the previous month and 11% less than that in May 2019 (fig. 1; tables 1, 2).

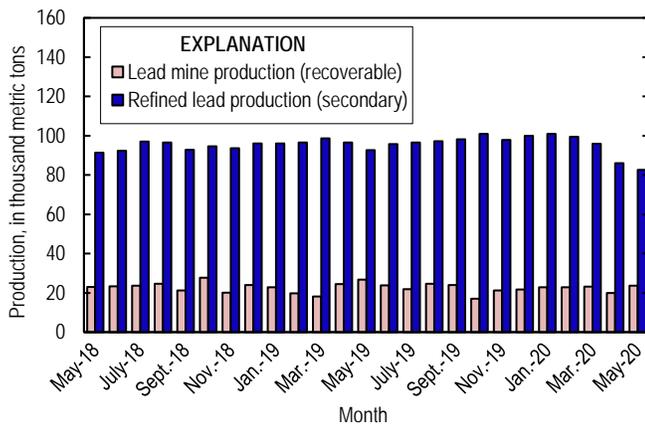


Figure 1. U.S. production of lead from May 2018 through May 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. In 2020, U.S. exports of lead in ores and concentrates through May were 74,700 t, 8% more than those for the same period in 2019. The destinations in May 2020 were Australia (35%), the Republic of Korea (23%), the Netherlands (18%), China (17%), and Canada (6%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in May 2020 was 73.4 cents per pound, slightly less than that in the previous month and 11% less than that in May 2019 (table 3). The Platts Metals Week average North American

Market price for lead in May 2020 was 80.9 cents per pound, slightly less than that in the previous month and 12% less than that in May 2019.

The North American premium to the LME cash price in May 2020 averaged 7.50 cents per pound, slightly less than that in April 2020 and 22% less than that in May 2019 (fig. 2, table 3).

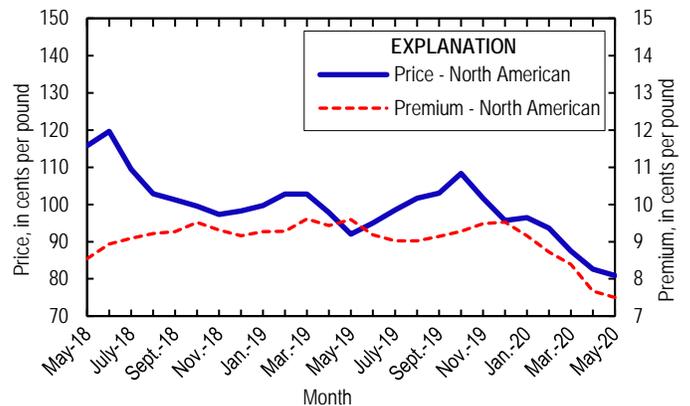


Figure 2. Average monthly North American price and premium for refined lead metal from May 2018 through May 2020. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in May 2020 was 32.25 cents per pound, essentially unchanged from that in April 2020 and in May 2019 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of May 2020 were 73,825 t, 3% more than those at the end of April 2020 and 9% more than those at the end of May 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– May	April	May	January– May
Production:					
Mine (recoverable)	266,000	112,000	19,900	23,600	112,000
Secondary refinery, reported by smelters/refineries	1,170,000	481,000	86,100	82,600	465,000
Consumption of refined lead, apparent ^{e, 3}	1,640,000	685,000	126,000	109,000	629,000
Imports for consumption:					
Ore and concentrate	8	8	--	--	(4)
Bullion	75	75	55	48	217
Unwrought	501,000	219,000	41,100	27,300	170,000
Exports:					
Ore and concentrate	259,000	69,400	14,800	22,200	74,700
Bullion (gross weight)	1,230	85	54	54	647
Unwrought (gross weight)	25,500	14,800	1,290	909	6,530
Platts Metals Week North American Market price (cents per pound)	99.91	99.01	82.59	80.90	88.21

^eEstimated. -- 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:			
May	27,400	26,700	92,600
June	24,500	23,900	95,800
July	22,600	21,900	96,600
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	101,000
February	23,500	22,900	99,500
March	23,700	23,100	95,900
April	20,500	19,900	86,100
May	24,200	23,600	82,600
January–May	115,000	112,000	465,000

^cEstimated.

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:				
May	91.99	82.40	1,816.64	32.25
June	94.96	85.78	1,891.04	31.38
July	98.54	89.52	1,973.50	33.65
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
January–May	88.22	79.93	1,762.05	34.54

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 MAY 2020¹

(Metric tons, gross weight)

Item	Stocks April 30, 2020	Net receipts	Consumption	Stocks May 31, 2020
Battery-lead	W	52,800	51,000	W
Other ²	W	5,860	5,890	W
Total	7,600	58,600	56,900	9,340
Percent change from preceding month ³	XX	-1.4	-3.8	22.9

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 MAY 2020¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	68,200	--	--
Remelt lead	W	--	--
Antimonial lead	13,800	W	W
Other ²	W	W	--
Total lead-base	82,600	W	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				
May	92,600	34,900	1,320	126,000
June	95,800	41,400	1,860	135,000
July	96,600	32,000	1,770	127,000
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	101,000	42,000	1,580	141,000
February	99,500	26,400	1,290	125,000
March	95,900	33,400	1,460	128,000
April	86,100	41,100	1,290	126,000
May	82,600	27,300	909	109,000
January–May	465,000	170,000	6,530	629,000

^pPreliminary.

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– May	April	May	January– May
Ores and concentrate (lead content)	259,000	69,400	14,800	22,200	74,700
Bullion	1,230	85	54	54	647
Unwrought:					
Refined lead	9,450	8,600	30	19	310
Refined lead containing antimony as the principal alloying element	651	261	62	26	213
Lead alloys	13,700	4,860	1,100	515	5,310
Other	1,620	1,070	92	349	691
Total	25,500	14,800	1,290	909	6,530
Wrought:					
Bars, rods, profiles, and wire	615	275	30	41	269
Pipes and tubes, including fittings	167	37	--	21	27
Plates, sheets, strip, foil	3,460	1,690	144	119	961
Other	2,360	545	257	229	1,160
Total	6,600	2,540	430	410	2,420
Powders and flakes	297	148	6	13	117
Tetraethyl lead and tetramethyl lead	507	347	22	7	89
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	10,900,000	1,430,000	1,450,000	9,610,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,100	17,100	4,450	4,170	20,600

-- 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– May	April	May	January– May
Australia	--	--	--	7,710	15,700
Canada	52,400	27,300	2,700	1,360	6,660
China	62,300	7,300	--	3,840	5,270
Dominican Republic	34	29	--	--	4
Indonesia	5	--	--	--	--
Italy	23,400	7,360	8,030	--	16,000
Japan	25,100	164	4,050	--	4,170
Korea, Republic of	51,300	14,900	--	5,210	18,700
Laos	11	11	--	--	--
Mexico	24,700	8,390	--	--	196
Netherlands	15,000	3,900	--	4,050	8,050
Thailand	3,390	--	--	--	--
Vietnam	1,760	14	--	--	17
Total	259,000	69,400	14,800	22,200	74,700

-- 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– May	April	May	January– May
Ores and concentrate (lead content)	8	8	--	--	(3)
Bullion (lead content)	75	75	55	48	217
Unwrought:					
Refined lead	406,000	179,000	36,800	24,300	143,000
Refined lead containing antimony as the principal alloying element (lead content)	27,000	12,000	1,690	1,260	8,250
Lead alloys (lead content)	23,200	7,030	963	647	6,610
Other (lead content)	44,000	21,500	1,710	1,090	12,100
Total	501,000	219,000	41,100	27,300	170,000
Wrought:					
Bars, rods, profiles, and wire	3,420	802	393	575	1,460
Pipes and tubes, including fittings	77	69	--	(3)	10
Plates, sheets, strip, foil	1,760	780	247	142	801
Other	2,770	1,520	118	102	655
Total	8,020	3,170	758	820	2,920
Powders and flakes	315	150	20	22	119
Tetraethyl lead and tetramethyl lead	139	48	46	12	194
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	528,000	242,000	20,300	48,300	3,570,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	751	75	81	655
Other lead waste and scrap (lead content)	2,100	748	72	70	833

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– May	April	May	January– May
Refined lead:					
Argentina	4,300	2,120	292	100	1,800
Australia	--	--	1,400	2,710	7,490
Brazil	9,920	3,010	2,560	2,060	8,610
Burma	1,500	400	100	50	350
Canada	159,000	69,000	8,280	6,400	47,700
China	101	1	275	--	--
Colombia	801	801	--	--	624
Dominican Republic	50	50	--	--	--
Ecuador	19,800	9,330	500	600	3,550
Germany	50	50	--	--	--
Ghana	--	--	--	223	223
Hong Kong	100	--	--	--	--
India	4,090	3,140	691	250	3,760
Indonesia	--	--	--	--	76
Israel	2,200	1,160	--	--	575
Kazakhstan	17,800	1,940	--	--	--
Korea, Republic of	76,000	39,800	14,600	6,100	22,600
Mexico	96,700	44,600	5,860	4,480	30,200
Nigeria	994	--	573	1,270	3,360
Panama	400	--	--	--	--
Peru	3,030	1,350	--	--	1,230
Russia	6,070	--	1,340	--	10,100
South Africa	20	20	--	--	--
Sri Lanka	--	--	--	--	200
Thailand	1,250	1,160	50	46	192
United Kingdom	404	196	197	--	491
Venezuela	2,080	529	--	--	24
Total	406,000	179,000	36,800	24,300	143,000
Other unwrought lead: ³					
Argentina	2,080	1,070	--	--	--
Bolivia	183	--	--	--	--
Brazil	276	--	63	--	173
Canada	86,800	37,200	4,020	2,500	25,300
China	2	--	--	--	--
Costa Rica	19	19	--	--	--
Ecuador	378	177	22	--	147
France	--	--	--	30	30
Germany	1	111	--	--	--
Ghana	--	--	--	198	198
India	321	--	19	18	150
Korea, Republic of	14	4	--	--	--
Mexico	2,700	1,830	184	249	678
Paraguay	49	--	--	--	--
Peru	221	--	--	--	--
Russia	(4)	(4)	--	--	--
Sweden	11	--	--	--	--
Taiwan	(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– May	April	May	January– May
United Kingdom	1,040	63	--	--	87
Venezuela	185	54	52	--	105
Total	94,300	40,500	4,360	2,990	26,900
Grand total	501,000	219,000	41,100	27,300	170,000

-- 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:				
May	--	20,600	48,800	69,400
June	--	19,050	46,700	65,750
July	--	27,850	50,650	78,500
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

-- Zero.

Source: London Metal Exchange, Ltd.