

Mineral Industry Surveys

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LEAD IN APRIL 2020

Domestic mine production (recoverable) of lead in April 2020 was 19,900 metric tons (t). Average daily mine production in April 2020 was 664 t, 11% less than that in the previous month and 19% less than that in April 2019. Total secondary refined lead production in April 2020 was 86,100 t, 11% less than that in the previous month and in April 2019 (fig. 1; tables 1, 2).

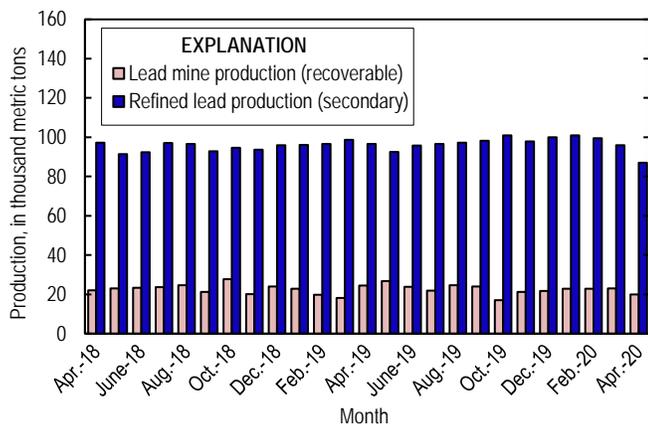


Figure 1. U.S. production of lead from April 2018 through April 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through April 2020 were 52,600 t, 22% more than those for the same period in 2019. Leading destinations in April 2020 were Italy (54%), Republic of Korea (27%), and Canada (18%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in April 2020 was 74.9 cents per pound, 5% less than that in the previous month and 15% less than that in April 2019 (table 3). The Platts Metals Week average North American Market price for lead in April 2020 was 82.6 cents per pound,

6% less than that in the previous month and 16% less than that in April 2019.

The North American premium to the LME cash price in April 2020 averaged 7.67 cents per pound, 8% less than that in March 2020 and 19% less than that in April 2019 (fig. 2, table 3).

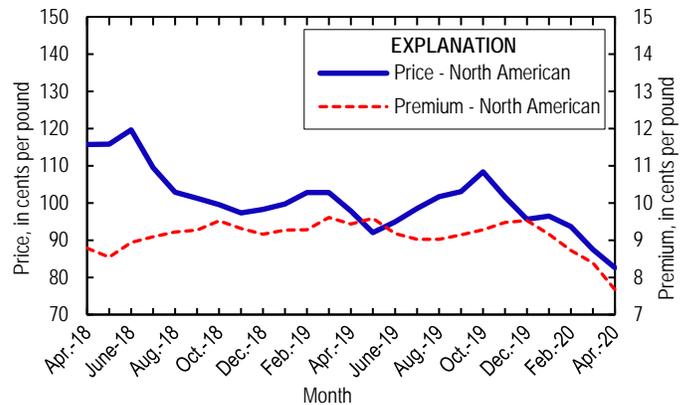


Figure 2. Average monthly North American price and premium for refined lead metal from April 2018 through April 2020. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in April 2020 was 32.5 cents per pound, 7% less than that in March 2020 and 3% less than that in April 2019 (table 3).

Most secondary lead is recovered from used lead-acid batteries. Global LME lead stocks at the end of April 2020 were 73,650 t, 4% more than those at the end of March 2020 and essentially unchanged from those at the end of April 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– April	March	April	January– April
Production:					
Mine (recoverable)	266,000	85,300	23,100	19,900	88,700
Secondary refinery, reported by smelters/refineries	1,170,000	388,000	95,900	86,100	382,000
Consumption of refined lead, apparent ^{e, 3}	1,640,000	559,000	128,000	126,000	520,000
Imports for consumption:					
Ore and concentrate	8	--	(4)	--	(4)
Bullion	75	75	114	55	169
Unwrought	501,000	184,000	33,400	41,100	143,000
Exports:					
Ore and concentrate	259,000	43,200	20,200	14,800	52,600
Bullion (gross weight)	1,230	34	303	54	593
Unwrought (gross weight)	25,500	13,500	1,460	1,290	5,620
Platts Metals Week North American Market					
price (cents per pound)	99.91	100.77	87.50	82.59	90.04

^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:			
April	25,200	24,500	96,600
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
January–April	91,200	88,700	382,000

^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:				
April	97.80	88.37	1,948.26	33.65
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
January–April	90.05	81.56	1,798.03	35.12

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 APRIL 2020¹

(Metric tons, gross weight)

Item	Stocks March 31, 2020	Net receipts	Consumption	Stocks April 30, 2020
Battery-lead	W	53,600	53,200	W
Other ²	W	5,900	5,980	W
Total	7,280	59,500	59,100	7,600
Percent change from preceding month ³	XX	-16.0	-14.3	4.3

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 APRIL 2020¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	71,400	--	--
Remelt lead	W	--	--
Antimonial lead	14,100	W	W
Other ²	W	W	--
Total lead-base	86,100	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				
April	96,600	55,100	918	151,000
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
January–April	382,000	143,000	5,620	520,000

^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– April	March	April	January– April
Ores and concentrate (lead content)	259,000	43,200	20,200	14,800	52,600
Bullion	1,230	34	303	54	593
Unwrought:					
Refined lead	9,450	8,400	65	30	291
Refined lead containing antimony as the principal alloying element	651	261	48	62	187
Lead alloys	13,700	3,760	1,270	1,100	4,800
Other	1,620	1,050	83	92	341
Total	25,500	13,500	1,460	1,290	5,620
Wrought:					
Bars, rods, profiles, and wire	615	240	43	30	228
Pipes and tubes, including fittings	167	12	(3)	--	6
Plates, sheets, strip, foil	3,460	1,480	163	144	843
Other	2,360	500	189	257	933
Total	6,600	2,230	396	430	2,010
Powders and flakes	297	148	42	6	104
Tetraethyl lead and tetramethyl lead	507	325	11	22	83
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	8,710,000	2,140,000	1,430,000	8,160,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,100	13,600	3,870	4,450	16,400

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

(Metric tons, lead content)

	2019 ²		2020		
	January– December	January– April	March	April	January– April
Australia	--	--	8,040	--	8,040
Canada	52,400	13,300	968	2,700	5,300
China	62,300	3,760	1,430	--	1,430
Dominican Republic	34	29	--	--	4
Indonesia	5	--	--	--	--
Italy	23,400	7,360	--	8,030	16,000
Japan	25,100	164	118	4,050	4,170
Korea, Republic of	51,300	6,590	9,570	--	13,500
Laos	11	11	--	--	--
Mexico	24,700	8,110	95	--	196
Netherlands	15,000	3,900	--	--	4,000
Thailand	3,390	--	--	--	--
Vietnam	1,760	10	--	--	17
Total	259,000	43,200	20,200	14,800	52,600

-- 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– April	March	April	January– April
Ores and concentrate (lead content)	8	--	(3)	--	(3)
Bullion (lead content)	75	75	114	55	169
Unwrought:					
Refined lead	406,000	150,000	27,500	36,800	119,000
Refined lead containing antimony as the principal alloying element (lead content)	27,000	9,260	1,800	1,690	6,990
Lead alloys (lead content)	23,200	5,890	2,010	963	5,960
Other (lead content)	44,000	19,000	2,050	1,710	11,000
Total	501,000	184,000	33,400	41,100	143,000
Wrought:					
Bars, rods, profiles, and wire	3,420	542	125	393	882
Pipes and tubes, including fittings	77	48	9	--	10
Plates, sheets, strip, foil	1,770	522	162	247	659
Other	2,770	1,370	153	118	552
Total	8,030	2,480	448	758	2,100
Powders and flakes	315	130	--	20	97
Tetraethyl lead and tetramethyl lead	139	35	77	46	182
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	528,000	123,000	383,000	20,300	3,520,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	589	261	75	574
Other lead waste and scrap (lead content)	2,100	572	125	72	763

-- 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– April	March	April	January– April
Refined lead:					
Argentina	4,300	1,390	627	292	1,700
Australia	--	--	2,910	1,400	4,780
Brazil	9,920	1,800	1,870	2,560	6,560
Burma	1,400	--	200	100	300
Canada	159,000	56,900	9,790	8,280	41,300
China	101	--	--	275	--
Colombia	801	801	349	--	624
Dominican Republic	50	50	--	--	--
Ecuador	19,800	7,230	450	500	2,950
Germany	50	50	--	--	--
Hong Kong	200	--	--	--	--
India	4,090	1,640	568	691	3,520
Indonesia	--	--	--	--	76
Israel	2,200	555	--	--	575
Kazakhstan	17,800	972	--	--	--
Korea, Republic of	76,000	39,800	--	14,600	16,500
Mexico	96,700	36,000	7,460	5,860	25,700
Nigeria	994	--	647	573	2,090
Panama	400	--	--	--	--
Peru	3,030	1,350	400	--	1,230
Russia	6,070	--	1,950	1,340	10,100
South Africa	20	20	--	--	--
Sri Lanka	--	--	--	--	200
Thailand	1,250	1,010	96	50	146
United Kingdom	404	196	196	197	491
Venezuela	2,080	529	--	--	24
Total	406,000	150,000	27,500	36,800	119,000
Other unwrought lead:³					
Argentina	2,080	821	--	--	--
Bolivia	183	--	--	--	--
Brazil	276	--	30	63	173
Canada	86,800	31,400	5,490	4,020	22,800
China	2	--	--	--	--
Costa Rica	19	19	--	--	--
Ecuador	378	134	125	22	147
Germany	1	--	--	--	--
India	321	73	38	19	131
Korea, Republic of	14	--	--	--	--
Mexico	2,700	1,580	63	184	429
Paraguay	49	--	--	--	--
Peru	221	--	--	--	--
Russia	(4)	(4)	--	--	--
Sweden	11	--	--	--	--
Taiwan	(4)	--	--	--	--
United Kingdom	1,040	63	87	--	87
Venezuela	185	54	26	52	105
Total	94,300	34,100	5,860	4,360	23,900
Grand total	501,000	184,000	33,400	41,100	143,000

-- 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.

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

(Metric tons)

Period	United States	Asia	Europe	Total
2019:				
April	--	22,075	52,350	74,425
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

-- Zero.

Source: London Metal Exchange, Ltd.