

Mineral Industry Surveys

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LEAD IN NOVEMBER 2020

Domestic mine production (recoverable) of lead in November 2020 was 21,400 metric tons (t). Average daily mine production in November 2020 was 712 t, 8% less than that in the previous month and essentially unchanged from that in November 2019. Total secondary refined lead production in November 2020 was 98,400 t, slightly less from the previous month and from that in November 2019 (fig. 1; tables 1, 2).

2020 was 96.1 cents per pound, 7% more than that in the previous month and 5% less than that in November 2019.

The North American premium to the LME cash price in November 2020 averaged 9.25 cents per pound, slightly more than that in October 2020 and slightly less than that in November 2019 (fig. 2, table 3).

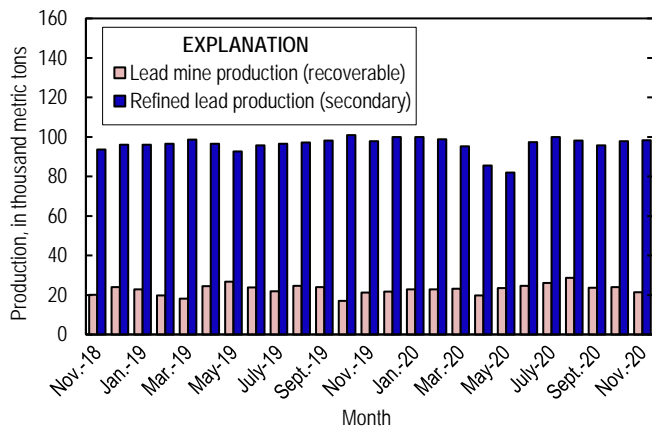


Figure 1. U.S. production of lead from November 2018 through November 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through November 2020 were 246,000 t, 4% more than those for the same period in 2019. The main destinations in November 2020 were China (57%), Japan (20%), Republic of Korea (14%), and Canada (8%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in November 2020 was 86.8 cents per pound, 8% more than that in the previous month and 6% less than that in November 2019 (table 3). The S&P Global Platts Metals Week average North American Market price for lead in November

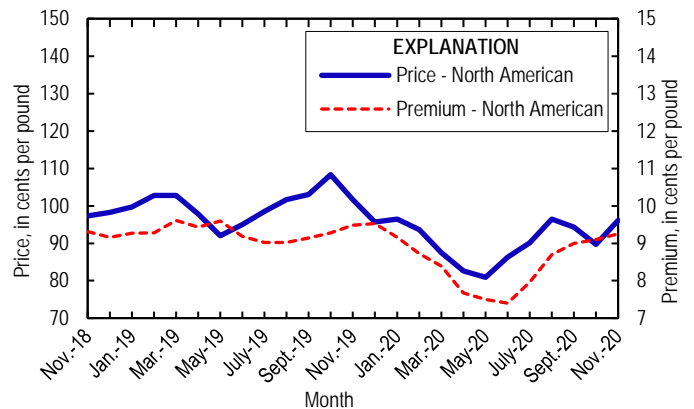


Figure 2. Average monthly North American price and premium for refined lead metal from November 2018 through November 2020. Source: S&P Global Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in November 2020 was 28.6 cents per pound, 9% less than that in October 2020 and 20% less than that in November 2019 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of November 2020 were 112,700 t, 9% less than those at the end of October 2020 and nearly double those at the end of November 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– November	October	November	January– November
Production:					
Mine (recoverable)	266,000	245,000	24,000	21,400	261,000
Secondary refinery, reported by smelters/refineries	1,170,000	1,070,000	97,800	98,400	1,050,000
Consumption of refined lead, apparent ^{e, 3}	1,640,000	1,500,000	146,000	125,000	1,390,000
Imports for consumption:					
Ore and concentrate	8	8	--	--	(4)
Bullion	75	75	--	--	313
Unwrought	501,000	461,000	49,300	28,500	358,000
Exports:					
Ore and concentrate	259,000	237,000	14,100	28,100	246,000
Bullion (gross weight)	1,230	1,130	297	497	2,070
Unwrought (gross weight)	25,500	24,700	1,260	1,430	15,100
Platts Metals Week North American Market price (cents per pound)	99.91	100.29	89.71	96.09	90.38

^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.

³Secondary refinery production plus imports for consumption of unwrought lead minus domestic exports of unwrought lead.

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:			
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
February	23,500	22,900	98,800
March	23,700	23,100	95,300
April	20,300	19,800	85,500
May	24,200	23,500	82,000
June	25,300	24,600	97,500
July	26,900	26,100	99,700
August	29,600	28,700	98,100
September	23,100	23,700	95,800
October	24,600	24,000	97,800
November	22,000	21,400	98,400
January–November	267,000	261,000	1,050,000

^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:				
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
September	94.34	85.34	1,881.36	33.98
October	89.71	80.61	1,777.07	31.50
November	96.09	86.84	1,914.48	28.63
January–November	90.38	81.94	1,806.40	33.13

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: S&P Global Platts Metals Week.

TABLE 4
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN NOVEMBER 2020¹

(Metric tons, gross weight)

Item	Stocks October 31, 2020	Net receipts	Consumption	Stocks November 30, 2020
Battery-lead	W	72,500	75,300	W
Other ²	W	5,840	5,780	W
Total	8,380	78,400	81,100	5,640
Percent change from preceding month ³	XX	-5.4	-1.5	-32.8

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 NOVEMBER 2020¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	80,500	--	--
Remelt lead	W	--	--
Antimonial lead	16,000	W	W
Other ²	W	W	--
Total lead-base	98,400	188	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				
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	42,000	1,580	141,000
February	98,800	26,400	1,290	124,000
March	95,300	33,400	1,460	127,000
April	85,500	41,100	1,290	125,000
May	82,000	27,300	909	108,000
June	97,500	34,800	1,370	131,000
July	99,700	27,400	1,700	125,000
August	98,100	23,900	1,430	121,000
September	95,800	24,300	1,420	119,000
October	97,800	49,300	1,260	146,000
November	98,400	28,500	1,430	125,000
January–November	1,050,000	358,000	15,100	1,390,000

^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)

Class	2019 ²		2020		
	January– December	January– November	October	November	January– November
Ores and concentrate (lead content)	259,000	237,000	14,100	28,100	246,000
Bullion	1,230	1,130	297	497	2,070
Unwrought:					
Refined lead	9,450	9,450	20	80	602
Refined lead containing antimony as the principal alloying element	651	598	22	34	489
Lead alloys	13,700	13,000	1,180	1,310	13,100
Other	1,620	1,570	46	12	957
Total	25,500	24,700	1,260	1,430	15,100
Wrought:					
Bars, rods, profiles, and wire	615	585	24	100	523
Pipes and tubes, including fittings	167	147	12	(³)	87
Plates, sheets, strip, foil	3,460	3,120	256	234	2,250
Other	2,360	2,110	128	194	2,230
Total	6,600	5,970	420	528	5,080
Powders and flakes	297	295	2	28	178
Tetraethyl lead and tetramethyl lead	507	489	8	9	141
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	25,300,000	2,670,000	2,630,000	25,000,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,100	35,400	3,780	3,210	44,300

-- 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)

Country or locality	2019 ²		2020		
	January– December	January– November	October	November	January– November
Australia	--	--	--	--	15,700
Canada	52,400	51,600	1,960	2,370	23,600
China	62,300	62,300	4,420	16,100	79,000
Dominican Republic	34	29	--	--	4
Germany	--	--	--	--	8,060
Indonesia	5	5	--	20	20
Italy	23,400	23,400	--	--	16,000
Japan	25,100	23,600	--	5,690	20,800
Korea, Republic of	51,300	46,100	--	3,870	46,400
Laos	11	11	--	--	--
Mexico	24,700	16,700	23	20	8,210
Netherlands	15,000	9,320	7,690	--	27,200
Thailand	3,390	2,870	--	--	1,190
Vietnam	1,760	623	--	--	30
Total	259,000	237,000	14,100	28,100	246,000

-- 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)

Class	2019 ²		2020		
	January– December	January– November	October	November	January– November
Ores and concentrate (lead content)	8	8	--	--	(3)
Bullion (lead content)	75	75	--	--	313
Unwrought:					
Refined lead	406,000	374,000	42,600	22,200	297,000
Refined lead containing antimony as the principal alloying element (lead content)	27,000	24,700	2,890	2,410	20,700
Lead alloys (lead content)	23,200	22,100	2,140	2,070	16,600
Other (lead content)	44,000	40,200	1,630	1,840	24,500
Total	501,000	461,000	49,300	28,500	358,000
Wrought:					
Bars, rods, profiles, and wire	3,420	3,180	559	845	4,560
Pipes and tubes, including fittings	77	72	1	--	96
Plates, sheets, strip, foil	1,760	1,640	35	69	1,240
Other	2,770	2,670	192	162	1,820
Total	8,020	7,560	787	1,080	7,720
Powders and flakes	315	266	51	--	183
Tetraethyl lead and tetramethyl lead	139	126	12	11	267
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	528,000	437,000	110,000	44,100	4,110,000 ⁴
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	1,940	229	207	1,860
Other lead waste and scrap (lead content)	2,100	1,640	292	300	2,120

-- 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.

⁴Referred to the U.S. Census Bureau for verification.

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– November	October	November	January– November
Refined lead:					
Argentina	4,300	3,920	--	--	1,800
Australia	--	--	2,020	4,720	15,900
Brazil	9,920	6,970	928	167	15,400
Burma	1,500	1,500	100	100	750
Canada	159,000	144,000	9,290	9,590	103,000
China	101	101	--	--	--
Colombia	801	801	--	--	900
Dominican Republic	50	50	26	52	130
Ecuador	19,800	18,000	500	401	6,990
Germany	50	50	--	--	--
Ghana	--	--	--	397	818
Hong Kong	100	100	--	--	--
India	4,090	3,640	--	--	3,760
Indonesia	--	--	--	--	76
Israel	2,200	2,200	589	--	2,050
Japan	--	--	--	--	299
Kazakhstan	17,800	17,800	6,510	--	13,200
Korea, Republic of	76,000	73,500	15,400	--	48,800
Mexico	96,700	89,700	5,830	5,320	61,700
Nigeria	994	597	355	1,180	7,090
Panama	400	400	--	--	--
Peru	3,030	2,550	--	250	1,850
Russia	6,070	4,890	1,070	--	11,200
South Africa	20	20	--	--	--
Sri Lanka	--	--	--	--	200
Thailand	1,250	1,250	--	--	192
United Kingdom	404	307	--	--	491
Venezuela	2,080	1,680	--	--	245
Total	406,000	374,000	42,600	22,200	297,000
Other unwrought lead:³					
Argentina	2,080	1,800	--	--	--
Bolivia	183	183	--	--	--
Brazil	276	127	--	--	208
Canada	86,800	80,200	5,960	6,220	57,300
Chile	--	--	--	--	299
Colombia	2	2	--	20	20
Costa Rica	19	19	--	--	--
Denmark	--	--	--	--	(4)
Dominican Republic	--	--	303	--	914
Ecuador	378	334	--	--	318
France	--	--	--	--	30
Germany	1	1	--	--	--
Ghana	--	--	--	--	198
India	321	284	284	--	576
Korea, Republic of	14	14	--	--	10
Mexico	2,700	2,660	33	48	1,160
Paraguay	49	--	--	--	--
Peru	221	221	--	--	--
Russia	(4)	(4)	--	(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– November	October	November	January– November
Other unwrought lead—Continued: ³					
United Kingdom	1,040	1,040	46	23	524
Venezuela	185	133	27	--	186
Total	94,300	87,000	6,660	6,320	61,800
Grand total	501,000	461,000	49,300	28,500	359,000

-- 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:				
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
September	6,825	34,350	95,825	137,000
October	6,325	33,600	84,475	124,400
November	4,425	33,200	75,075	112,700

-- Zero.

Source: London Metal Exchange, Ltd.