



MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D. C. 20240



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Lead Industry, Monthly

LEAD INDUSTRY IN DECEMBER 1968

A large increase in primary smelter output more than offset declines in secondary plant production and metal imports, with the total new supply approximately balancing a reduced consumption, according to the Bureau of Mines, U.S. Department of the Interior.

Consumption of lead was 112,100 tons, a small decline, but 2 percent above the average monthly quantity. The preliminary total of 1,319,000 tons for the year represents a significant recovery from the 1967 slump and was only slightly below the 1966 record high.

Smelter output at primary plants reached the very high level of 55,100 tons with much of the increase attributable to start-up production at the new smelter of the Missouri Lead Operating Co. Production at secondary plants was 42,300 tons, a decline from the high quantities of recent months and the smallest since July. Mine production remained unchanged at 38,000 tons. General imports of metal declined to 20,400 tons with delivery curtailed after December 20 due to the East Coast dock strike.

Metal stocks remained at a very low operating level with 15,200 tons reported at primary plants and 83,400 tons at consumer and secondary plants.

Prepared February 28, 1969, in Mineral Resource Evaluation.

PNYC00006406

N11095

TABLE 1. - Salient Lead statistics in the United States
(Short tons)

	1967	1968		
		Jan.-Dec.	November	December
Supply:				
Refined lead produced at primary refineries-----	382,432	460,738	45,206	52,853
Antimonial lead produced at primary refineries (lead content)-----	16,891	17,113	2,042	1,373
Lead (as metal) imported-----	363,598	338,119	25,769	20,577
Lead recovered by secondary smelters:				
Reported-----	525,631	496,017	42,007	38,341
Estimated-----		36,000	3,000	3,000
Estimated lead recovered from copper-base scrap-----	17,795	18,000	1,500	1,500
Total new supply-----	1,306,347	1,365,987	120,128	119,134
Distribution:				
Reported consumption-----	1,260,516	1,281,592	111,933	108,554
Estimated undistributed consumption-----		37,500	3,600	3,600
Exports of lead materials excluding scrap-----	6,536	8,281	1,198	378
Total distribution-----	1,267,052	1,327,373	116,631	112,432
Lead-base and tin-base scrap consumed (by both primary and secondary smelters)-----	731,502	729,060	65,605	56,125
Secondary tin recovered 1/-----	25,387	7,655	648	521
Secondary antimony recovered 1/-----	23,664	19,056	1,549	1,382
Average price of lead (cents per pound)				
New York-----	14.00	13.21	13.00	13.00

1/ Final annual figures include metal recovered from all sources; monthly and preliminary data are from lead- and tin-base scrap only.

PNYC00006407

N11095.01

TABLE 2. - Production, shipments, and stocks of refined and antimonial lead, and stocks of raw material (Lead content) at primary refineries (Short tons)

	Stocks Nov. 30, 1962	Production			Ship- ments	Stocks Dec. 31, 1962
		1967 totals 1/	1968			
			Jan.-Dec. 2/	Dec. 3/		
Refined soft lead-----	11,073	382,432	440,732	53,543	4,52,000	11,073
Antimonial lead:						
(Gross weight)-----	4,353	13,608	13,576	1,526	2,138	4,353
Antimony content-----	265	1,717	1,463	213	209	265
Lead content 5/-----	4,093	14,891	17,113	1,373	2,270	4,093
Primary raw material-----	35,524					35,524
Secondary raw material-----	1,428					1,428
Material in process-----	44,927					44,927

1/ Includes 10,346 tons of lead, in refined and antimonial lead, recovered from scrap.

2/ Includes 8,277 tons of lead, in refined and antimonial lead, recovered from scrap.

3/ Includes 529 tons of lead, in refined and antimonial lead, recovered from scrap.

4/ Includes 533 tons consumed at plant of origin.

5/ Excludes antimonial lead produced from refined lead.

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N11095.02

TABLE 3. - Nine production of recoverable lead
(Short tons)

State	1968 Total	1964, Preliminary												Total
		January	February	March	April	May	June	July	August	September	October	November	December	
Alabama	4,771	4	66	4	50	106	295	355	233	231	290	290	290	1,960
California	1,135	1,659	1,480	1,480	1,381	1,381	1,381	1,381	1,381	1,381	1,381	1,381	1,381	1,381
Colorado	21,921	1,659	2,812	2,812	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043
Illinois	2,394	2,394	2,394	2,394	2,394	2,394	2,394	2,394	2,394	2,394	2,394	2,394	2,394	2,394
Kansas	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031
Kentucky	845	13,989	13,661	13,611	14,563	15,338	13,076	15,465	16,658	16,094	28,011	24,010	24,010	210,000
Missouri	158,649	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659
Montana	998	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659
Nebraska	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659	1,659
New York	2,721	142	137	127	121	105	114	108	99	101	118	110	110	1,330
Ohio	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653
Oklahoma	2,721	2,491	2,696	2,696	3,083	4,150	4,392	4,949	5,184	4,940	4,408	4,300	4,300	41,215
Virginia	3,430	276	274	274	274	274	274	274	274	274	274	274	274	274
Washington	2,762	1,135	95	74	115	85	50	100	84	80	50	60	60	1,030
Wisconsin	1,796	522	522	522	522	522	522	522	522	522	522	522	522	522
Other States	1,796	522	522	522	522	522	522	522	522	522	522	522	522	522
Total	316,931	22,142	22,229	22,081	23,263	28,741	26,875	24,354	30,860	29,218	42,093	37,069	37,061	374,166
Daily average 1/	860	753	761	711	642	567	696	641	799	746	1,120	1,062	1,061	960

1/ Withheld to avoid disclosing individual company confidential data; included with "Other States."
2/ Based on number of days in month without adjustment for Sundays and holidays.
3/ Includes tonnage that had to be withheld in certain States the first part of the year that are included in individual State totals above.

PNYC00006409

N11095.03

TABLE 1. - Receipts, consumption and stock changes of lead and tin scrap
by remelters, smelters, refiners, and other consumers of
purchased scrap in the United States in December 1962
(Short tons)

Item	Stocks Nov. 30, 1962	Net receipts	Consumption	Stocks Dec. 31, 1962
<u>Lead-base scrap</u>				
Battery lead plates-----	13,172	40,478	34,806	18,844
Solder-----	264	921	994	191
Common babbitt-----	377	1,045	1,058	364
Soft lead-----	1,620	2,860	3,019	1,461
Antimonial lead-----	1,014	861	543	1,332
Cable covering-----	837	1,887	1,943	781
Type metals-----	2,865	2,154	1,878	3,141
Drosses and residues-----	22,543	11,707	1/ 11,552	22,698
Total-----	48,092	61,913	55,793	54,212
Change from preceding month (percent)-----		-2.0	-14.5	-12.7
<u>Tin-base scrap</u>				
Tin pipe, etc.-----	15	13	11	17
Tin babbitt-----	28	6	13	21
Pewter-----	5	—	1	4
Drosses and residues-----	596	213	1/ 307	502
Total-----	644	232	332	544
Change from preceding month (percent)-----		-1.3	-15.7	-12.5

1/ Includes an estimated 3,700 tons of generated (not purchased) drosses.

PNYC00006410

N11095.04

TABLE 5. - Lead, tin, and antimony recovered from scrap in December 1968
(Short tons)

Product Recovered	Secondary Metal Content		
	Lead	Tin	Antimony
<u>Lead-base</u>			
Refined soft lead-----	9,357	---	---
Remelt lead-----	938	---	2
Antimonial lead-----	23,519	30	1,057
Cable lead-----	1,228	---	---
Lead-base babbitt-----	1,010	54	29
Solder-----	2,170	110	32
Type metals-----	1,574	91	129
Other (in copper-base alloy andterne metal)-----	34	5	---
Total lead-base-----	39,270	490	1,384
<u>Tin-base</u>			
Remelt tin-----	---	10	---
Tin-base babbitt-----	---	7	---
Other (in copper-base alloy,terne metal, etc.)-----	---	4	---
Total tin-base-----	---	21	---
Grand total-----	1/39,270	511	2/ 1,384

1/ Includes 529 tons recovered from scrap at primary refineries.

2/ Includes 16 tons recovered from scrap at primary refineries.

TABLE 6. - U.S. exports of lead, by class
(Short tons, lead content)

Class	1967	1968		
		Preliminary totals	Nov.	Dec.
Lead materials excluding scrap-----	6,536	3,281	1,198	372
Scrap-----	394	937	3	315
Total-----	6,930	9,218	1,201	693

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N11095.05

TABLE 7. - U.S. imports of lead, by type of material and by country of origin
(Short tons, lead content)

	General imports				Imports for consumption			
	1967		1968		1967		1968	
	Prelim. totals	December	Prelim. totals	November	Prelim. totals	November	Prelim. totals	December
Ore, matte, etc.:								
Australia	25,553	710	20,591	856	37,879	12,638	5,467	533
Bolivia	33,764	965	5,186	26	14,707	7,041	1,511	1,717
Canada	33,476	2,876	35,941	4,299	41,435	34,518	2,775	5,728
Colombia	561	1	1	---	892	112	---	---
Germany, West	4,371	---	---	---	---	---	---	---
Guatemala	197	---	---	---	36	98	---	---
Honduras	6,513	1,163	9,268	1,089	5,352	7,816	1,426	806
Mexico	314	19	239	14	410	299	33	50
Peru	36,724	295	13,975	1,404	40,321	30,188	2,940	4,493
Philippines	37	---	---	---	24	---	---	---
Republic of South Africa	359	607	---	---	176	835	---	175
Sweden	2,190	---	---	---	2,377	---	---	---
Other countries	---	505	---	34	6,119	---	1,028	1,151
Total	124,667	6,533	86,339	7,722	144,156	99,955	14,110	14,653
Base bullion:								
Belgium-Luxembourg	442	---	---	---	442	---	---	---
Canada	23	8	11	---	23	18	8	---
Mexico	95	---	54	---	20	1	---	---
Other countries	192	---	30	---	192	34	---	---
Total	752	8	95	---	677	33	8	---
Pigs and bars:								
Australia	53,156	1,232	46,919	1,232	53,156	46,919	6,113	1,232
Belgium-Luxembourg	23,281	200	18,449	200	23,281	19,119	300	400
Burma	2,548	---	---	---	2,548	---	---	---
Canada	37,238	6,155	60,161	5,817	37,238	60,161	5,817	6,155
France	8,202	442	4,604	442	8,202	4,604	---	442
Germany, West	49,077	83	20,711	111	49,077	19,711	111	83
Mexico	57,271	5,255	56,518	2,317	57,271	56,518	2,317	5,255
Morocco	2,413	---	---	---	2,413	---	---	---
Netherlands	878	---	205	---	878	205	---	---
Peru	70,377	6,752	75,103	6,752	70,377	75,103	6,752	6,752
Republic of South Africa	6,989	---	8,297	---	6,989	8,297	---	---
Sweden	3,507	---	3,868	---	3,507	3,868	---	---
United Kingdom	17,680	257	22,918	160	17,680	22,918	160	257
Yugoslavia	30,478	---	19,775	3,615	30,478	19,775	3,615	---
Other countries	703	1	391	---	703	391	---	---
Total	363,598	20,377	314,119	20,377	363,598	314,119	28,069	28,069
Reclaimed scrap, etc.:								
Pipes, sheets, shot, etc.	10,289	---	6,479	757	9,184	6,796	246	406
Grand total	498,706	33,047	411,012	33,047	498,706	441,296	40,193	35,716

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N11095.06

TABLE 8. - Consumer and secondary smelter stocks, receipts, and consumption of lead in refinery shapes and in copper-base scrap in December 1968
(Short tons, lead content)

Type of material consumed	Stocks November 30, 1968		Net receipts		Consumption		Stocks December 31, 1968		Change in stocks Nov. 30 to Dec. 31 (Percent)
	Quantity	Per-cent	Quantity	Per-cent	Quantity	Per-cent	Quantity	Per-cent	
Soft lead-----	45,490	54	87,572	64	72,103	69	40,959	49	-9.9
Antimonial lead---	28,597	34	34,287	32	29,306	27	33,578	40	+17.4
Lead alloys-----	9,089	11	3,022	3	3,792	3	8,319	10	-8.5
Copper-base scrap--	596	1	1,111	1	1,117	1	590	1	-1.0
Total-----	83,772	100	106,022	100	1/106,348	100	83,446	100	-0.1

1/ Excludes 2,101 tons of lead which went directly from scrap to fabricated products and 105 tons of lead contained in leaded zinc oxide production.

TABLE 9. - Consumption of lead in refinery shapes and in copper-base scrap, in December 1968 by class of product and type of material
(Short tons, lead content)

Class of product	Type of material consumed				Total
	Soft lead	Antimonial lead	Lead alloys	Copper-base scrap	
Metal products-----	40,441	27,885	3,757	1,117	73,230
Pigments-----	7,896	-----	-----	-----	7,896
Chemicals-----	21,981	-----	-----	-----	21,981
Miscellaneous-----	622	998	1	-----	1,621
Unclassified-----	1,163	423	34	-----	1,620
Total-----	72,103	29,306	3,792	1,117	1/ 106,348

1/ Excludes 2,101 tons of lead which went directly from scrap to fabricated products and 105 tons of lead contained in leaded zinc oxide production.

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N11095.07

TABLE 10. - Consumption of lead in the United States
(Short tons)

	1967	1968		
		Preliminary totals	November	December
Metal products:				
Ammunition-----	78,766	81,042	6,433	5,996
Bearing metals-----	19,561	18,971	1,233	1,433
Brass and bronze-----	20,467	19,791	1,555	1,522
Cable covering-----	63,037	53,316	4,365	4,700
Galiking lead-----	48,789	47,540	3,551	3,067
Casting metals-----	10,083	6,019	771	573
Collapsible tubes-----	11,299	9,014	805	633
Foil-----	5,145	6,151	575	530
Pipes, traps, and bends-----	20,124	19,320	1,322	1,337
Sheet lead-----	26,763	25,559	2,074	2,115
Solder-----	68,833	67,043	5,817	5,375
Storage battery grids, posts, etc.-----	229,287	239,630	24,047	21,201
Storage battery oxides-----	237,378	260,527	24,666	27,585
Ternite metal-----	1,620	1,427		
Type metal-----	22,554	26,167	2,190	1,542
Total-----	870,769	878,517	79,257	76,331
Pigments:				
White lead-----	8,087	5,857	243	411
Red lead and litharge-----	76,589	85,204	6,634	6,328
Pigment colors-----	13,041	14,163	1,151	1,059
Other 1/-----	5,473	3,426	121	203
Total-----	103,190	108,650	8,149	8,001
Chemicals:				
Gasoline antiknock additives-----	247,170	261,897	21,627	21,581
Miscellaneous chemicals-----	609	(2)	(2)	(2)
Total-----	247,779	261,897	21,627	21,581
Miscellaneous uses:				
Annealing-----	4,202	3,226	225	119
Calvanizing-----	1,854	1,402	104	138
Lead-plating-----	532	290	13	13
Weights and ballast-----	15,794	12,356	1,045	1,201
Total-----	22,382	17,274	1,387	1,471
Other uses unclassified-----	16,396	15,254	1,513	1,020
Total reported 3/-----	1,260,516	1,281,592	111,933	108,551
Estimated undistributed consumption-----		37,500	3,500	3,500
Grand total 3/-----	1,260,516	1,319,100	115,400	112,100
Daily average 4/-----	3,453	3,604	3,847	3,616

1/ Includes lead content of leaded zinc oxide production. 2/ Included in "Other uses" to avoid disclosing confidential data. 3/ Includes lead content of scrap used directly in fabricated products. 4/ Based on number of days in month without adjustment for Sundays or holidays.

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