

LEAD INDUSTRY IN THE UNITED STATES IN 1958 *

From U. S. B. M. Preliminary Mineral Market Report No. 2870

New supplies of lead in the United States were about 280,000 tons in excess of consumer demand in 1958, according to the Bureau of Mines, United States Department of the Interior. Although a part of this excess entered Government stocks through barter and stockpile programs, the great majority of it remained in producers' and dealers' inventories. Producers' stocks of refined and antimonial lead alone increased 132 percent. Domestic mine and smelter production were reduced 21 and 13 percent, respectively, and consumption of lead in all forms declined 13 percent below the 1957 level. Imports, however, were about 11 percent above the 1953-1957 average. Other highlights of the year were the imposition of import quotas beginning October 1, curtailment of the barter program, and the completion of stockpile contracts for lead from domestic producers.

Production and producers' stocks: Output of recoverable lead from United States mines dropped 21 percent below 1957 to 266,000 short tons -- the lowest for any year since 1899. Production in the Western States declined 26 percent to 140,000 tons, that in the West Central States decreased 14 percent to 119,100 tons, and that of the States east of the Mississippi River dropped 32 percent to 6,800 tons.

Primary refineries cut production of refined lead 12 percent and antimonial lead 26 percent to 472,500 and 47,400 tons (lead content), respectively. Output of refined lead ranged from a high of 43,900 tons in January to a low of 34,300 tons in August and shipments to consumers from 21,100 tons in December to 41,900 tons in October. Shipments of refined lead for the year were approximately 110,000 tons under production and on December 31, refinery stocks totaled 185,900 tons. Producers' stocks of soft lead had totaled 21,900 tons at the end of 1955, at the end of 1956 -- 30,200 tons, and December 31, 1957 -- 74,200 tons. Stocks of antimonial lead varied less in the same period ranging from 9,100 at the end of 1955, to 11,800 tons at the end of 1958.

Secondary lead and copper smelters recovered 384,000 tons (partly estimated) of lead, as metal and in alloys during the year. Together with approximately 40,000 tons reclaimed from scrap by primary smelters and small quantities from foundries, about 425,000 tons was recovered or 13 percent less than in the preceding year. This was the lowest recovery rate since 1949, but again (for the 13th consecutive year) exceeded domestic mine production. Together then, primary and secondary plants in 1958 produced about 92 percent of the lead needed to meet consumer demand.

Consumption and consumers' stocks: Preliminary data indicate that domestic consumption of lead dropped about 13 percent below 1957 to total less than 1 million tons -- the lowest quantity consumed since 1949. Compared with 1957, lead consumed in batteries decreased 15 percent, in tetraethyl lead 11 percent, and dropped 31 percent in cable covering. These 3 largest lead-consuming items took 55 percent of all lead consumed in 1958; batteries accounted for 31 percent (32 percent in 1957), tetraethyl lead 16 percent (16 percent in 1957), and cable covering 8 percent (10 percent in 1957). Lead consumed in the 3 products was 540,500 tons or over 100,000 tons less than the 646,200 tons so used in 1957.

* For an exhaustive study of the lead industry and its outlook, the reader is referred to the American Metal Market of Mar. 14, 1959, Section 3, pages 26-29

Consumers' stocks of lead were highest on January 31 at 127,500 tons. There was a downward trend in the first 8 months and on August 31 consumers held 101,400 tons. At the end of December consumer and secondary smelter stocks of metal totaled 115,800 tons.

Prices: The New York price of lead was quoted at 13.00 cents a pound on January 1 and also on December 31. However, 11 changes during the year had reduced the price to 10.75 cents on August 13 and subsequent raises brought it again to 13.00 cents on October 14 where it remained through December 31. Average price for the year was 12.11 cents a pound.

Foreign trade: Import statistics for 1958 are incomplete at this time. However, in the first 11 months of the year, general imports totaled 524,400 tons of lead. Imports entering the United States in December under quotas were reported to be 37,200 tons. Together these indicate imports of 561,600 tons, or a quantity which may have been exceeded only in 1952.

Tariff: The duties on pig lead and lead content of ore and concentrates remained unchanged in 1958 at 1 1/16 cents and 3/4 cent per pound, respectively. The Tariff Commission reported its findings and recommendations on the lead-zinc "escape clause" action, April 24, 1958. Presidential action on the recommendations for increased duty rates and (or) limitations on imports was delayed pending action by the Congress on the Administration's Minerals Stabilization Plan. When Congress rejected the proposed legislation, the President issued a proclamation imposing quotas on lead and zinc imports beginning October 1, 1958. The quotas limited quarterly imports of lead in ores, concentrates, flue dust, and mattes to 33,080 short tons, and of lead in pigs, bars, bullion, dross, scrap and alloy form to 55,600 tons. These quantities are 80 percent of the average dutiable imports in these classifications during the base period, 1953-57.

LEAD INDUSTRY IN ARIZONA IN 1958

Lead production in Arizona in 1958 was practically the same as in 1957, with the Shattuck Denn Mining Corporation being the chief producer. The preliminary total production was estimated at 11,700 tons in 1958, as compared with 11,999 tons in 1957. According to preliminary reports, Arizona ranked fourth in lead production among the Western States.

TABLE I

SALIENT U. S. LEAD STATISTICS FOR 1956, 1957 AND 1958

ARIZONA UNITED STATES AND WORLD MINE PRODUCTION OF RECOVERABLE LEAD

Source: U. S. B. M.

Unit: Short Tons

	Year 1956	Year 1957	Preliminary 1958
Producers' Stocks Beginning of Period	89,443	97,043	143,916
U.S. Mine Production Recoverable Lead	352,826	333,493	265,920
Secondary Lead Recovered from Old & New Scrap	506,755	489,229	425,000
Imported Lead in Ore & Matte	196,452	197,831	195,327
Imported Lead in Pigs, Bars, and Bullion	262,654	324,279	359,619
Imported Lead in Reclaimed Scrap, etc.	20,738	9,247	5,024
TOTAL SUPPLY	1,428,868	1,451,122	1,394,806
Producers' Stocks at End of Period	97,043	143,916	185,913
Exported Lead in Ore, Matte & Base Bullion	1,055	906	1,012
Exported Lead in Pigs and Bars	4,628	4,339	1,359
Exported Lead in Scrap	2,136	885	1,015
SUB-TOTAL	104,862	150,046	189,299
NET APPARENT CONSUMPTION	1,324,006	1,301,076	1,205,507
REPORTED CONSUMPTION	1,209,717	1,138,115	958,376
Unaccounted For (Stockpiles etc.)	114,289	162,961	247,131
Production of Refined Primary Lead:			
From Domestic Ores & Base Bullion	349,188	347,675	472,456
From Foreign Ores & Base Bullion	193,084	185,858	
ARIZONA MINE PRODUCTION	11,999	12,441	11,700
WORLD MINE PRODUCTION	2,440,000	2,540,000	N.A.
U.S. MINE PROD. AS % OF REPORTED CONSUMPTION	29.17%	29.72%	27.75%
AVG. PRICE OF LEAD - N.Y. (E. & M. J.)	16.013¢	14.658¢	12.109¢

TABLE II

U. S. LEAD CONSUMPTION - YEARS 1956, 1957 & 1958

Source: U. S. B. M.

	1956	1957	Preliminary 1958
Metal Products:			
Ammunition	44,438	42,509	40,202
Bearing Metals	28,321	26,997	18,448
Brass & Bronze	27,063	24,491	19,646
Cable Covering	124,339	108,225	74,535
Calking Lead	64,970	65,634	66,234
Casting Metals	12,932	12,672	7,702
Collapsible Tubes	10,945	10,316	7,710
Foil	4,593	4,839	4,567
Pipes, Traps and Bends	28,028	24,739	21,776
Sheet Lead	30,249	27,474	24,682
Solder	75,290	70,684	57,241
Storage Battery Grids, Posts etc.	191,568	185,617	154,828
Storage Battery Oxides	179,203	175,398	152,845
Terne Metal	1,709	1,642	1,525
Type Metal	26,709	28,726	26,313
TOTAL	860,357	809,963	678,254
Pigments:			
White Lead	16,951	15,701	12,658
Red Lead & Litharge	79,199	78,323	63,816
Pigment Colors	13,866	12,449	11,853
Other <u>1/</u>	10,354	8,888	4,357
TOTAL	120,370	115,361	92,684
Chemicals:			
Tetraethyl Lead	191,990	177,001	158,302
Miscellaneous Chemicals	3,146	3,556	2,791
TOTAL	195,136	180,557	161,093
Miscellaneous Uses:			
Annealing	5,899	5,317	4,354
Galvanizing	1,658	1,354	1,067
Lead Plating	916	670	125
Weights & Ballast	7,250	7,526	5,887
TOTAL	15,723	14,867	11,433
Other Uses, Unclassified	18,131	17,367	14,912
TOTAL REPORTED <u>2/</u>	1,209,717	1,138,115	958,376

1/ Includes lead content of leaded zinc oxide production.2/ Includes lead content of scrap used directly in fabricated products.

TABLE III

GENERAL IMPORTS OF LEAD INTO UNITED STATES

Compiled from Records of the U. S. Dept. of Commerce - 1957-1958 - Short Tons

	<u>1957</u>	<u>Preliminary 1958</u>
Ore, Matte, etc. (lead content):		
Canada	25,193	21,763
Mexico	3,835	1,754
Guatemala	8,623	5,019
Honduras	2,955	3,323
Colombia	-	850
Ecuador	-	98
Peru	55,450	75,255
Bolivia	18,319	13,885
Chile	35	190
Argentina	974	46
Portugal	-	226
Philippines	783	1,084
Korea	246	311
Union of So. Africa	43,916	42,381
Australia	36,995	21,813
Other Countries	507	7,329
Total	<u>197,831</u>	<u>195,327</u>
Base Bullion:		
Canada	-	3
Peru	84	117
Chile	-	335
Mexico	-	5
Total	<u>84</u>	<u>460</u>
Pigs & Bars (lead content):		
Canada	28,607	41,929
Mexico	102,504	122,231
Peru	34,999	42,348
Bolivia	1,100	21
Chile	501	126
Denmark	1,916	1,452
United Kingdom	2,666	8,336
Netherlands	111	286
Belgium - Luxembourg	1,852	5,442
France	557	55
Germany - West	1,550	3,008
Spain	3,119	14,939
Yugoslavia	40,262	36,788
Morocco	9,018	9,760
Australia	95,517	72,898
Total	<u>324,279</u>	<u>359,619</u>
Reclaimed, Scrap, etc.	<u>9,247</u>	<u>5,024</u>
Pipes, sheet, shot, etc.	-	-
GRAND TOTAL IMPORTS	<u>531,441</u>	<u>560,430</u>
EXPORTS (Ore,Matte,Pigs,Bars & Scrap)	<u>6,130</u>	<u>3,386</u>

TABLE IV

WORLD USE OF LEAD

In Thousands of Short Tons

Source: American Metal Market of Mar. 14, 1959, Section 3, page 27.

	Aver. 1940-45	Aver. 1946-50	Aver. 1951-55	1956	1957	Prel. 1958
U. S. A.*	1,014	1,061	1,137	1,182	1,118	960
Latin America	53	66	66	66	88	
British Com'wlth						
U. K.*	343	366	368	401	391	376
Canada	56	59	62	68	60	46
Aust.-N. Z.	50	47	51	47	49	47
India	20	9	11	21	20	23
So. Africa	10	9	18	20	21	16
Total Br. Com'wlth	479	490	510	557	541	508
Western Europe (1)	385	308	535	627	661	
U.S.S.R & Satellites	107	139	253	359	379	
Japan & Other Far East	66	38	53	83	100	
Total World	2,104	2,102	2,554	2,874	2,887	

* U.S.A. and U.K. figures include secondary.

(1) Note tremendous increase in use of lead in Western Europe, corresponding to similar industrial growth shown by zinc and copper.

TABLE V

QUARTERLY IMPORT QUOTA MAXIMUMS
(In Pounds)

	Lead Bearing Ores	Lead Bullion, Etc.
Australia	10,800,000	23,680,000
Canada	13,440,000	15,920,000
Mexico	-	36,880,000
Peru	16,160,000	12,880,000
So. Africa	14,880,000	-
Yugoslavia	-	15,760,000
All other Foreign countries	6,560,000	6,080,000

TABLE VI

SHOWING TONNAGE OF UNNEEDED IMPORTS OF LEAD INTO UNITED STATES

	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	Preliminary <u>1958</u>
U. S. Mine Production	343,000	325,000	338,000	353,000	333,000	266,000
Secondary	487,000	481,000	502,000	507,000	489,000	425,000
Imports	548,000	438,000	442,000	480,000	522,000	620,000
Change in Stocks	47,000*	5,000*	51,000**	8,000*	47,000*	42,000*
Available Supply	1,331,000	1,239,000	1,333,000	1,332,000	1,297,000	1,269,000
Consumption	1,202,000	1,095,000	1,213,000	1,210,000	1,138,000	958,000
Unneeded Imports	129,000	144,000	120,000	122,000	159,000	311,000

Net unneeded Imports for the six years = 985,000 tons = 164,000 tons per year. As the government stockpiles took a great deal of lead during this six-year period, it is natural to assume that such disposal left room for the importation of enormous tonnages of lead for the domestic market.

* Denotes increase in stocks.

** Denotes decrease in stocks.

Arizona Department of Mineral Resources

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