

he California  
arious county  
f the Interior,

, sold or used,

1954	
Quantity	Value
14,412	\$102,544
62,901	203,818
5,064	-----
22,804	75,028
1,869	-----
1,938	4,242
155	-----
21,500	385,632
-----	
603,001	3,301,717
100,097	320,223
272,626	11,577,095
307,207	345,936
545	3,700
14,640	90,468
384,140	\$ 21,616,343
-----	
282,256	37,155,482
-----	
303,756	37,541,114

les, filter beds, ter-

,315 and 417,036 tons

and-contractor

Quantity	Value
25,326	\$51,080
5,243	66,188
3,295	5,681
52,691	2,038,911
26,564	1,192,598
16,698	7,082,300
98,526	743,987
61,050	247,147
24,199	1,283,994
18,600	123,600
35,413	4,391,194
14,863	1,301,997
69,147	86,613
1,950	1,543
35,593	35,485
01,054	890,256
2,208	3,529
92,016	2,377,586
303,756	37,541,114

ained to avoid dis-

TABLE 34.—Stone sold or used by producers, commercial and Government-and-contractor, 1950-54, by kinds

Year	Granite		Basalt and related rocks (traprock)		Marble	
	Short tons	Value	Short tons	Value	Short tons	Value
1950.....	1,834,060	\$1,690,722	1,293,030	\$1,371,622	4,410	\$80,212
1951.....	1,910,307	2,088,967	1,652,314	1,921,527	8,435	171,083
1952.....	1,903,866	1,979,756	1,996,836	2,524,972	7,168	137,664
1953.....	3,565,847	3,214,767	2,664,009	2,800,346	(1)	(1)
1954.....	3,012,041	3,480,586	2,129,545	2,786,035	(1)	(1)

  

Year	Limestone		Sandstone		Other stone <sup>1</sup>		Total	
	Short tons	Value	Short tons	Value	Short tons	Value	Short tons	Value
1950.....	1,061,040	\$2,819,555	1,698,020	\$1,777,982	5,874,070	\$6,258,339	11,764,630	\$13,998,432
1951.....	1,158,999	3,443,408	1,508,495	1,549,001	6,298,794	5,540,538	12,537,344	14,714,524
1952.....	1,631,369	4,033,208	1,029,084	1,290,141	7,806,607	7,731,349	14,374,930	17,697,085
1953.....	1,991,949	4,930,005	2,093,219	2,835,693	4,199,156	4,698,341	14,514,180	18,479,152
1954.....	11,044,061	21,434,189	2,703,599	3,723,255	4,414,510	6,117,049	23,303,756	37,541,114

<sup>1</sup> Figure withheld to avoid disclosure of individual company operations.

<sup>2</sup> Includes light colored volcanics, schist, serpentine, river boulders, and such other stone as cannot properly be classed in any main group, and marble (1954).

<sup>3</sup> Includes 9,567,191 tons of limestone valued at \$17,229,547 used in cement and lime.

**Strontium Minerals.**—Pan Chemical Co. produced a small tonnage of celestite in San Diego County.

**Sulfur.**—Sulfur-ore output for 1954 was the highest attained in the State, surpassing the former peak in 1953. The California production was solely from the Anaconda Copper Mining Co. Leviathan open-pit mine in Alpine County. The ore, which was shipped to Yerington, Nev., contained 30 percent sulfur and was used for sulfuric acid manufacture. Brimstone recovered as a byproduct in the liquid purification of gas by oil companies in Los Angeles County and hydrogen sulfide obtained at oil refineries in the refining process in Los Angeles and Contra Costa Counties contained a total of 93,908 long tons of sulfur. The American Smelting & Refining Co. recovered liquid sulfur dioxide as a byproduct of smelting sulfides ores at Selby, Contra Costa County. Sulfur paste and sludge from spent acid was shipped to chemical plants from oil refineries in Contra Costa County.

**Talc, Pyrophyllite, and Soapstone.**—Production of crude talc, pyrophyllite, and soapstone increased 6 percent in quantity and 7 percent in value over 1953. Of the total crude material mined in 1954 in California, 55,600 tons valued at \$642,500 was produced in San Bernardino County (talc and pyrophyllite), 48,500 tons valued at \$484,100 in Inyo County (talc), and the remaining 29,400 tons valued at \$84,600 in San Diego County (pyrophyllite), El Dorado County (soapstone), Mono County (pyrophyllite), Los Angeles County (soapstone), and Riverside County (pyrophyllite). Grinding mills were operated in Alameda County (talc and soapstone), Inyo County (talc, pyrophyllite, and soapstone), Los Angeles County (talc, pyrophyllite, and soapstone), San Diego County (pyrophyllite), and San Francisco County (talc and soapstone). Ground talc was used principally in ceramics, paint, rubber, toilet preparations, and



## as 1—Continued

## der of value

te, sand and gravel,  
manganese.  
sium compounds.  
quids, natural gas,  
te.  
magnesite, chromite,

ium.  
per, gold, iron ore,

ic.  
ic, volcanic cinder,

vel.  
leum.  
mercury, gold.

ite, manganese ore,

d and gravel, petro-

bromite, sand and

liquids, sand and

, silver.

ent low-grade stock-

San Francisco  
Mount Eden,  
evaporation.

the bay by  
Co. processed  
cal Division,  
and bromine  
nesia (with  
blomite at its

California Pot-  
& S Tile Co.  
ous clay from  
Niles. Sand  
at Irvington,  
Niles Sand &  
and Rhodes &  
ed principally  
operated open-  
bison-Walker  
prings. Raw

County by  
ent and the

*Hope Valley District.*—C. B. Lovestedt mined 398 tons of tungsten ore from the Alpine mine and shipped it to a custom mill for treatment. William C. Morrison worked the Valpine mine and shipped tungsten ore to several treatment plants. A DMEA exploration contract was also initiated at the Valpine mine in 1954. D. B. Lemaire operated a portable gravity mill for treating tungsten ores on a custom basis.

*Monitor (Mogul) District.*—Anaconda Mining Co. produced sulfur ore which contained about 30 percent sulfur, from the Leviathan open-pit mine near Markleville. The material was for consumption in the sulfuric acid plant of the company Yearington, Nev., acid-leaching copper operations.

*Amador.*—The Amador County Road Department and the California Division of Highways produced sand and gravel for paving purposes.

*Cosumnes River District.*—C. J. Lorentz operated a 1½-cubic-yard dragline excavator and a gasoline-powered Bodinson floating washing plant on the Lorentz claims, 7 miles northeast of Plymouth. Gold and silver were recovered from the gravel.

*East Belt District.*—Lagomarsino Bros. leased the Elephant (Union Flat) placer mine and hydraulicked 750 cubic yards of gravel; 3 ounces of gold was recovered. Garibaldi Bros. worked the Garibaldi placer mine, using a ¾-cubic-yard dragline excavator and trommel. Gold and silver were recovered from 3,000 cubic yards of stream gravel. Ray Blakeslee operated the Elkhorn mine and shipped concentrate and amalgam, containing gold and silver, recovered from the mine ore at a custom mill in Calaveras County. O. W. L. Mining Co. recovered gold and silver from ore amalgamated at the Red Hill-Peterson mine; concentrate containing gold and silver was shipped to a California smelter. A small tonnage of gold ore containing silver was shipped to a smelter from the Rising Sun mine.

*Mokelumne River District.*—Joseph C. Warren & Dudley Chambers worked gold-bearing gravel on the C. R. Brown property, using a power shovel and floating washing plant. K. & L. Mining Co. worked the Colorado drift mine and washed the gravel in a portable plant, recovering gold and silver. Glenn & J. G. Modrell produced gold and silver from gravel on the Brown property, operating a dragline dredge. H. H. Kreth crushed lava rock for roofing material.

*Mother Lode District.*—Charles E. Adair tested milling ore from the Italian mine and produced amalgam and concentrate containing gold and silver. Amador Silica Sand Co. produced some glass sand from mine tailings at Plymouth.

*West Belt District.*—Volo Mining Co. mined copper ore containing gold, silver, and lead from the Copper Hill mine 7 miles west of Plymouth. The ore was treated in the Volo mill in El Dorado County and the copper concentrate shipped to a Washington smelter. Gladding, McBean & Co., Pacific Clay Products Co., and Western Refractories Co. operated open pits for fire clay and miscellaneous clay. A new washing plant for separating white clay and glass sand was constructed as a joint operation of Gladding, McBean & Co. and Owens Illinois Glass Co. near Buena Vista. Calaveras Cement Co. utilized kaolin from a stockpile at the Kaolin & Fye open pit at Buena Vista for cement at its Calaveras County plant. Volcanic ash was quarried