

TABLE 15.—Stone sold or used by producers, by kinds

| 1959 | |
|----------|------------|
| Quantity | Value |
| 48,042 | \$576,338 |
| 37,992 | 267,742 |
| 3,160 | |
| 45,939 | 368,276 |
| 3,871 | |
| 41,130 | 75,443 |
| 3,384 | |
| 58,457 | 1,287,799 |
| 988,354 | 4,791,958 |
| (4) | (4) |
| 508,699 | 13,458,238 |
| (4) | (4) |
| (4) | (4) |
| (4) | (4) |
| 578,372 | 29,551,832 |
| 175,425 | 47,802,028 |
| 133,882 | 49,089,827 |

Confidential data.
 Confidential data.
 Lenses, filter beds, ter-
 uses.
 sold at \$14,949,555 and
 sold at \$14,485,668 and

s

| Quantity | Value |
|----------|---------|
| 5,335 | \$7,643 |
| 1,431 | 2,357 |
| (3) | (3) |
| 371 | 971 |
| 2,130 | 2,595 |
| 433 | 985 |
| 4,317 | 4,813 |
| 1,207 | 1,597 |
| 65 | 60 |
| 87 | 103 |
| 47 | 59 |
| 215 | 333 |
| 27 | 28 |
| (3) | (3) |
| 643 | 549 |
| 219 | 208 |
| 181 | 800 |
| 401 | 797 |
| 6,879 | 11,571 |
| 32,134 | 49,090 |

Confidential data.

Orange, Placer, San
 sold to avoid disclosing

| Year | Granite | | Basalt and related rocks (traprock) | | Limestone ¹ | |
|------|------------|-------------|-------------------------------------|-------------|------------------------|--------------|
| | Short tons | Value | Short tons | Value | Short tons | Value |
| 1955 | 2,724,342 | \$3,420,057 | 1,923,351 | \$2,547,821 | 12,472,285 | \$21,075,656 |
| 1956 | 3,899,350 | 5,155,292 | 1,966,581 | 2,339,318 | 14,115,070 | 22,118,105 |
| 1957 | 12,744,413 | 10,564,922 | 1,952,417 | 2,431,926 | 14,102,264 | 22,511,933 |
| 1958 | 3,649,390 | 5,347,679 | 1,498,912 | 1,738,570 | 14,408,695 | 22,583,791 |
| 1959 | 4,343,101 | 5,432,902 | 1,772,035 | 2,727,699 | 16,136,874 | 24,383,955 |
| Year | Sandstone | | Other stone ² | | Total | |
| | Short tons | Value | Short tons | Value | Short tons | Value |
| 1955 | 2,937,537 | \$4,886,507 | 4,650,806 | \$5,234,343 | 24,708,321 | \$37,164,384 |
| 1956 | 2,917,916 | 4,833,877 | 9,684,453 | 11,662,000 | 32,583,370 | 46,108,652 |
| 1957 | 4,222,211 | 6,679,968 | 8,329,954 | 11,402,340 | 41,351,259 | 53,591,089 |
| 1958 | 3,933,245 | 5,687,984 | 8,933,057 | 12,987,471 | 32,423,299 | 48,345,495 |
| 1959 | 2,758,317 | 4,506,303 | 7,123,555 | 12,038,968 | 32,133,882 | 49,089,827 |

¹ Excludes limestone and oystershell used in cement and lime as follows: 1955, 10,977,552 tons, \$16,431,434; 1956, 12,259,540 tons, \$17,354,910; 1957, 11,860,832 tons, \$16,489,192; 1958, 12,351,907 tons, \$16,421,501; 1959, 13,663,360 tons, \$16,628,498.

² Includes light-colored volcanics, schist, serpentine, river boulders, and such other stone as cannot properly be classed in any main group; also marble (1955-59) and slate (1958-59).

Strontium Minerals.—A few tons of celestite mined from a deposit in the Fish Creek Mountains, San Diego County, were converted to various strontium compounds in the producer's Los Angeles chemical plant.

Sulfur.—Recovery of byproduct sulfur from oil-refinery gases was slightly lower than in 1958 but was roughly proportional to refinery crude throughput. Mainly as the result of continued modernization in two refineries, recovery in the San Francisco Bay region gained significantly. Refineries in the Los Angeles area still accounted for about 60 percent of California's recovered sulfur production but the yield was appreciably lower than in 1958. The drop may have resulted from greater selectivity of low-sulfur crude oils for cracking, fostered by Los Angeles County's new smog regulations.

Recovery of sulfur dioxide from stack gases at the Selby smelter in Contra Costa County was appreciably less than in 1958, presumably because the plant was inactive for part of the year because of a strike.

Sulfur ore was mined at five properties: two in Lake County and one each in Alpine, Inyo, and Kern Counties. Most of the shipments were from the Leviathan mine, Alpine County, where crude ore was transported to a Nevada copper-leaching operation for sulfuric-acid manufacture. All sulfur ore, other than that from the Leviathan mine, was produced for agriculture. Total shipments exceeded the 1958 figures, but the average sulfur content was less, resulting in a lower per-ton value.

Talc, Soapstone, and Pyrophyllite.—The tonnages of these minerals produced and shipped rose 14 and 20 percent, respectively, over 1958. Total direct sales to consumers, however, declined two-thirds from the previous year, owing principally to the use of substitute materials. Except for a few tons of crude talc mined at the Ganim property near Tower House, Shasta County, all of 1959 California talc

ies—Continued

in order of value

stone, sodium car-
 bonate, sodium sulfate,
 lithium minerals,
 clays, petroleum,
 cinder, manganese
 natural gas, feldspar,
 copper, lead, zinc,
 cesium compounds,
 gem stones, stron-

clays, stone, gold,

gravel, natural-gas
 gas, gypsum, clays,
 cesium compounds,
 natural gas, sand and

natural-gas liquids,
 oil, stone, mercury,

gravel, mercury,
 magnesite, petro-

gravel, clays, potas-

stone, copper, gold,
 talc, silver, lead,

silver, gem stones,

and volcanic cinder,

gravel, stone,
 stone, natural gas,

manganese ore, stone,

oil, stone, clays,
 cesium, manganese ore,

mercury, gold, silver,
 gravel, barite, stone,

gold, gem stones,

natural-gas liquids,
 gypsum,

platinum, silver,

ded with "Undis-
 cernment low-grade

value indicated by

mines was
 products. A
 Fremont for
 company.
 state mineral
 oystershell
 y that were
 international

Airport. The company had dredged oystershell in other parts of the bay for use as a source of lime.

At Emeryville, open-hearth steel furnaces were closed by the steel strike, but the Niles plant continued operating when the union local signed a contract extension. The latter plant was forced to delay completion of its blast furnace when a fourth open-hearth required additional fabricating facilities. Grinding plants in Berkeley, Emeryville, and Oakland processed crude barite for drilling muds and paint. The Berkeley plant also custom ground various other nonmetallic minerals received from mines outside the county. Another Emeryville plant produced the State's entire output of iron-oxide pigments, most synthetically manufactured.

Alpine.—The **Leviathan mine**, near Markleeville, was the source of crude sulfur ore used in making sulfuric acid at the producer's copper-leaching plant in Nevada. Shipments were 4 percent below the previous year, owing to curtailed copper output at company smelters as a result of a labor strike.

Nearly 900 tons of sand and decomposed granite were produced and used for road maintenance in the county by crews of the California Division of Highways.

Amador.—The Ione area was the source of sand produced for glass manufacture and of clays dug for use in refractory brick, stoneware, pottery, and other heavy clay products. Quartzite was quarried in the area for use of refractory brick. County road crews prepared paving gravel and crushed miscellaneous stone for road maintenance. Some dimension stone, used for building and rubble, was obtained from a quarry near Volcano.

California's only active lignite mine, near Ione, yielded an appreciably larger tonnage than in 1958. The crude material was processed at Buena Vista to recover montan wax and other byproducts. The Rancheria drift mine near Sutter Creek, and several small stream-gravel washing plants, yielded a few ounces of gold. A lode prospect near Pioneer was the source of gold ore from which gold and silver were recovered.

Butte.—Dry-natural-gas production from fields in the county rose nearly 15 percent above 1958. The Wild Goose field was the State's third largest producer, with a 17-percent increase in volume output. The Durham and Perkins Lake fields also had increased output, but the yield from the Chico and Llano Seco fields dropped below the 1958 figures. The three wells in the Schohr Ranch field, shut in during the previous year, produced in 1959.

Pits near Chico, Gridley, and Oroville were the principal sources of sand and gravel, dug for structural and paving use, and for railroad ballast. Stone was quarried and crushed for riprap and paving by crews and contractors of State and county road agencies.

Stream gravels on the south fork of the Feather River yielded a few ounces of gold and silver. Old tailings on the El Dorado property at Feather Falls were reworked to recover gold and silver. A small tonnage of chromite ore, produced at the Lambert mine in 1957, was shipped to a grinding plant near San Francisco. A magnetometer survey and a core drilling program were carried out on an iron-ore prospect in the Sterling City area, but no ore was mined.