

# THE MINERAL INDUSTRY OF HAWAII

This chapter has been prepared under a Memorandum of Understanding between the U.S. Bureau of Mines, U.S. Department of the Interior, and the Department of Land and Natural Resources of the State of Hawaii for collecting information on all nonfuel minerals.

Hawaii remained 41st in the Nation in total nonfuel mineral value<sup>1</sup> in 1994, according to the U.S. Bureau of Mines (USBM). The estimated value for 1994 was \$137 million, a decrease of about 1% as compared with that of 1993. This followed a 7% decrease in 1993 from that of 1992. The State accounted for about 0.5% of the U.S. total value. In 1994, a decrease in the value of portland cement was significantly moderated by the increase in crushed stone. The State's decreased mineral value in 1993 mostly resulted from decreases in crushed stone and portland cement. Compared with 1993, the mineral commodity values for crushed stone and gemstones increased. Decreases occurred for both portland and masonry cements.

Based on USBM estimates of the quantities of

minerals produced in the United States during 1994, Hawaiian mines, compared with those in other States, were significant producers of crushed stone, while similar production of portland cement was achieved mostly at one manufacturing plant on the Island of Oahu, Honolulu County. Mining in the State consisted mostly of the quarrying of stone to produce crushed stone and the excavation of sand and gravel from open pits, both for use by the Islands' construction industry.

<sup>1</sup>The term value in this document refers to the monetary value of nonfuel minerals as represented by either mine shipments, mineral commodity sales, or marketable production as is applicable to the individual mineral commodities.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN HAWAII<sup>1</sup>

Mineral	1992		1993		1994 <sup>p</sup>		
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	
Cement:							
Masonry	thousand metric tons	7	\$1,421	7	\$880	6	\$764
Portland	do.	520	53,936	451	48,269	415	44,300
Stone (crushed) <sup>2</sup>	do.	<sup>9</sup> 9,525	<sup>9</sup> 93,500	8,456	81,412	<sup>8</sup> 8,700	<sup>8</sup> 84,000
Combined value of other industrial minerals		XX	( <sup>3</sup> )	XX	8,143	XX	8,300
Total		XX	<sup>4</sup> 148,857	XX	138,704	XX	<sup>5</sup> 137,000

<sup>a</sup>Estimated. <sup>p</sup>Preliminary. XX Not applicable.

<sup>1</sup>Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

<sup>2</sup>Excludes certain stones; data excluded to avoid disclosing company proprietary data.

<sup>3</sup>Value excluded to avoid disclosing company proprietary data.

<sup>4</sup>Partial total, excludes values that must be concealed to avoid disclosing company proprietary data.

<sup>5</sup>Data do not add to total shown because of independent rounding.

TABLE 2  
**HAWAII: CRUSHED STONE<sup>1</sup> SOLD OR USED BY PRODUCERS IN 1993, BY USE**

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
<b>Coarse aggregate (+1 1/2 inch):</b>			
Macadam	W	W	\$12.00
Riprap and jetty stone	18	\$191	10.61
Filter stone	35	316	9.03
Other coarse aggregate	W	W	15.88
<b>Coarse aggregate, graded:</b>			
Concrete aggregate, coarse	1,843	20,562	11.16
Bituminous aggregate, coarse	89	737	8.28
Bituminous surface-treatment aggregate	W	W	12.65
Other graded coarse aggregate	W	W	8.40
<b>Fine aggregate (-3/8 inch):</b>			
Stone sand, concrete	1,227	14,880	12.13
Stone sand, bituminous mix or seal	358	2,883	8.05
Screening, undesignated	80	716	8.95
Other fine aggregate	208	1,987	9.55
<b>Coarse and fine aggregates:</b>			
Graded road base or subbase	1,606	16,391	10.21
Unpaved road surfacing	67	418	6.24
<b>Terrazzo and exposed aggregate</b>			
Crusher run or fill or waste	986	6,202	6.29
Other coarse and fine aggregates	W	W	8.22
Other construction materials	1,571	13,112	8.35
Roofing granules	23	249	10.83
<b>Agricultural:</b>			
Agricultural limestone	(?)	(?)	16.54
Other agricultural uses	(?)	(?)	7.57
<b>Chemical and metallurgical:</b>			
Cement manufacture	291	2,121	7.29
<b>Special:</b>			
Other fillers or extenders	(?)	(?)	12.94
Other specified uses not listed	51	621	12.18
<b>Unspecified:<sup>3</sup></b>			
Actual	3	28	9.33
Total	8,456	81,412	9.63
Total <sup>5 6</sup>	9,321	81,412	8.73

W Withheld to avoid disclosing company proprietary data; included with "Other construction materials."

<sup>1</sup>Includes limestone, traprock, volcanic cinder and scoria; excludes miscellaneous stone.

<sup>2</sup>Withheld to avoid disclosing company proprietary data; included with "Other specified uses not listed."

<sup>3</sup>Includes production reported without a breakdown by use and estimates for nonrespondents.

<sup>4</sup>Data do not add to total shown because of independent rounding.

<sup>5</sup>One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.

<sup>6</sup>Total shown in thousand short tons and thousand dollars.

TABLE 3  
**HAWAII: CRUSHED STONE SOLD OR USED, BY KIND**

Kind	1991 <sup>1</sup>				1993 <sup>1</sup>			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	7	2,544	\$24,471	\$9.62	6	1,416	\$14,416	\$10.18
Traprock	15	7,210	69,698	9.67	14	6,848	65,244	9.53
Volcanic cinder and scoria	8	271	1,820	6.72	6	192	1,752	9.13
Total	XX	10,025	95,990	9.58	XX	8,456	81,412	9.63
Total <sup>3,4</sup>	XX	11,051	95,990	8.69	XX	9,321	81,412	8.73

<sup>1</sup>Revised. XX Not applicable.

<sup>2</sup>Excludes miscellaneous stone from State total to avoid disclosing company proprietary data.

<sup>3</sup>Data do not add to total shown because of independent rounding.

<sup>4</sup>One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.

<sup>5</sup>Total shown in thousand short tons and thousand dollars.