## THE MINERAL INDUSTRY OF HAWAII

In 1997, for the fourth consecutive year, Hawaii remained 43d among the 50 States in total nonfuel mineral production value, according to the U.S. Geological Survey (USGS). The estimated value for 1997 was nearly \$100 million, about a 9% decrease from that of 1996. This followed a 3.5% decrease from 1995 to 1996 (based on final 1996 data). The State accounted

<sup>1</sup>The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 1997 USGS mineral production data published in this chapter are estimates as of January 1998. Crushed stone and portland cement estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset, and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may also be retrieved over the Internet at http://minerals.er.usgs.gov/minerals/contacts/comdir.html/. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved by way of MINES FaxBack or over the Internet at http://minerals.er.usgs.gov/minerals/.

for somewhat less than 0.5% of the U.S. total nonfuel mineral production value.

Mining in Hawaii consisted mostly of the quarrying of stone to produce crushed stone and the extraction of sand and gravel from open pits, both for use by the State's construction industry. All of the State's portland cement, albeit from imported clinker, was produced at one grinding plant on the island of Oahu, Honolulu County. Hawaii's decrease in the value of nonfuel mineral production in 1997 is mostly attributable to a decrease in the value of crushed stone. Although the estimated value of portland cement increased by almost 4%, or about \$1.2 million (table 1), and construction sand and gravel increased by about 7%, crushed stone value decreased by 15%, or about \$11.5 million. Both crushed stone and portland cement have shown an overall decrease in value since both reached individual State highs in 1992. In 1992, about 9.5 million metric tons of crushed stone were produced at an estimated value of \$93.5 million and 520,000 tons of portland cement were produced at a value of almost \$54 million.

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## TABLE 1 NONFUEL RAW MINERAL PRODUCTION IN HAWAII 1/2/

(Thousand metric tons and thousand dollars unless otherwise specified)

	19	1995		1996		1997 p/		
Mineral	Quantity		Value	Quantity	Value	Quantity	Value	
Cement:								
Masonry	5		501	5	500 e/	5	520 e/	
Portland	357		35,500	312	32,000 e/	318	33,200 e/	
Gemstones	NA		W	NA	153	NA	129	
Sand and gravel, construction	405		4,030	W	W	W	W	
Stone, crushed	7,450	3/	73,500 3/	6,560	77,500	5,500	66,000	
Total 4/	XX		114,000	XX	110,000	XX	99,900	

- e/ Estimated. p/ Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable. 1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers). 2/ Data are rounded to three significant digits; may not add to totals shown.

- 3/ Excludes certain stones; data excluded to avoid disclosing company proprietary data.
  4/ Partial total, excludes values that must be concealed to avoid disclosing company proprietary data.

TABLE 2 HAWAII: CRUSHED STONE SOLD OR USED, BY KIND 1/

		1995				1996				
Kind	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value		
Limestone	7	1,190	\$10,300	\$8.64	6	1,030	\$10,500	\$10.22		
Granite			-		1	W	W	8.30		
Traprock	22	6,230	63,100	10.12	17	4,220	55,100	13.06		
Sandstone	(2/)	(2/)	(2/)	(2/)	1	W	W	10.53		
Volcanic cinder and scoria	4	29	166	5.72	2	W	W	2.94		
Miscellaneous stone	(2/)	(2/)	(2/)	(2/)	1	W	W	11.30		
Total	XX	7,450	3/ 73,500	3/ 9.87	XX	6,560	77,500	11.82		

- W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.
- 1/ Data are rounded to three significant digits; may not add to totals shown.
- 2/ Excludes miscellaneous stone and sandstone from State total to avoid disclosing company proprietary data.
- 3/ Excludes certain stones; data excluded to avoid disclosing company proprietary data.

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## TABLE 3 HAWAII: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1996, BY USE 1/2/

	Quantity (thousand	Value	Unit
Use	metric tons)	(thousands)	value
Coarse aggregate (+1 1/2 inch):		<b>#25</b> 6	¢1.c.00
Riprap and jetty stone Filter stone	16 87	\$256	\$16.00 13.43
		1,170	
Other coarse aggregate 3/	151	1,620	10.74
Coarse aggregate, graded:			
Concrete aggregate, coarse	1,830	26,600	14.51
Bituminous aggregate, coarse	200	2,050	10.25
Bituminous surface-treatment aggregate	115	1,580	13.74
Other graded coarse aggregate	W	W	12.00
Fine aggregate (-3/8 inch):			
Stone sand, concrete	860	12,800	14.94
Stone sand, bituminous mix or seal	284	2,470	8.68
Screening, undesignated	2	26	13.00
Coarse and fine aggregates:			
Graded road base or subbase	1,010	11,400	11.31
Unpaved road surfacing		W	2.39
Crusher run or fill or waste	706	5,880	8.32
Other construction materials 4/	40	363	9.08
Agricultural limestone	(5/)	(5/)	7.10
Chemical and metallurgical, cement manufacture	162	1,440	8.86
Unspecified: 6/		,	
Actual	(5/)	(5/)	14.45
Estimated	990	8,600	8.69
Total	6,560	77,500	11.82

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

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

<sup>2/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>3/</sup> Includes macadam.

<sup>4/</sup> Includes roofing granules.

<sup>5/</sup>Withheld to avoid disclosing company proprietary data; included in "Total."
6/ Includes production reported without a breakdown by end use and estimates for nonrespondents.