

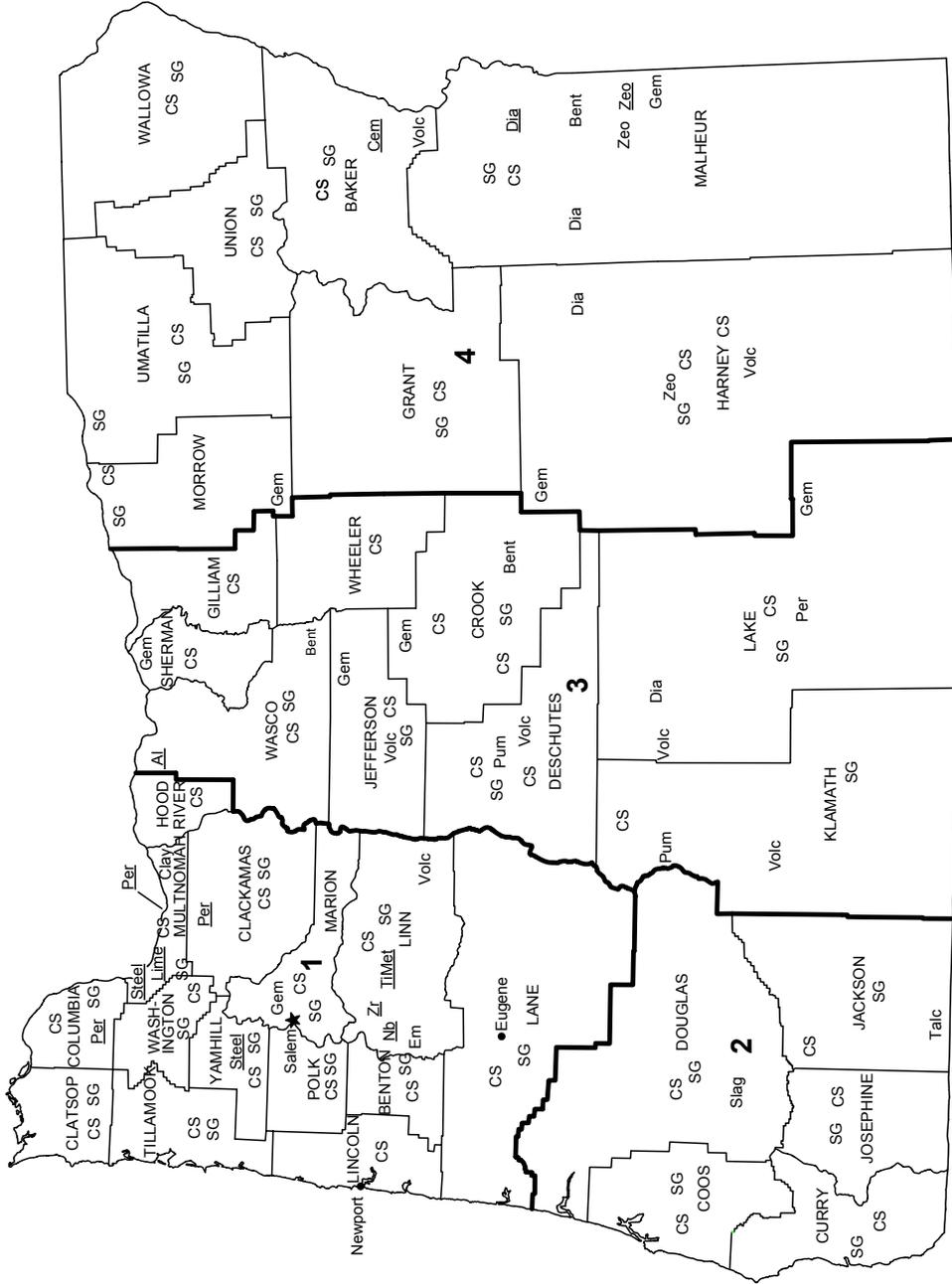
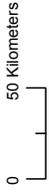
OREGON

LEGEND

- County boundary
- ★ Capital
- City
- 1 — Crushed stone/sand and gravel districts

MINERAL SYMBOLS
(Major producing areas)

Al	Aluminum plant
Bent	Bentonite
Cem	Cement plant
Clay	Common clay
CS	Crushed stone
Dia	Diatomite
Dia	Diatomite plant
Em	Emery
Gem	Gemstone
Lime	Lime plant
Nb	Columbium (niobium) plant
Per	Perlite
Per	Perlite plant
Pum	Pumice and pumicite
SG	Construction sand and gravel
Slag	Slag
Steel	Steel plant
Talc	Talc minerals
TiMet	Titanium metal plant
Volc	Volcanic cinder
Zeo	Zeolites
Zeo	Zeolite plant
Zr	Zirconium plant



THE MINERAL INDUSTRY OF OREGON

In 2002, the estimated value¹ of nonfuel mineral production for Oregon was \$320 million, based upon preliminary U.S. Geological Survey (USGS) data. This was a 5% increase from that of 2001² and followed a 2% increase from 2000 to 2001. The State rose to 34th from 36th in rank among the 50 States in total nonfuel mineral production value, of which Oregon accounted for about 1% of the U.S. total.

Industrial minerals accounted for all of Oregon's nonfuel raw mineral and material production. In 2002, crushed stone and construction sand and gravel, by value, remained the State's two leading nonfuel mineral commodities, followed by portland cement, diatomite, and lime (descending order of value). The former two accounted for nearly 70% of Oregon's total nonfuel mineral value, while all five combined represented about 96% of the State's total raw nonfuel mineral economy. Increases in the production and values of crushed stone and construction sand and gravel more than balanced out decreases in those of portland cement and lime, resulting in the net increase in value for the year.

In 2001, portland cement showed the largest increase in value, about \$5 million, followed by increases in the values of construction sand and gravel, crushed stone, and pumice and pumicite (descending order of change), which more than offset a significant decrease in lime. The value of gemstones increased by 37% (table 1).

Based upon USGS estimates of the quantities of raw minerals produced in the United States during 2002, Oregon remained second in perlite, third in diatomite and zeolites, and fifth in talc. The State was fourth, while nearly tied for third, in gemstones (by value); decreased to second from first among six States that produce pumice and pumicite; and produced significant quantities of construction sand and gravel and crushed stone (descending order of value). During 2000 and 2001 no emery was produced in Oregon. The Nation's sole emery producer was limited in its ability to operate its claims beginning in 2000 owing to a long forest fire season, but production resumed in 2002. Raw steel was produced in Oregon but was processed from materials obtained from other domestic and foreign sources. Aluminum had been similarly produced up until 2001. Production ceased by the end of 2000 owing to escalated energy costs in the western and northwestern United States; in 2000, Oregon had ranked 13th of 14 primary aluminum-producing States.

The following narrative information was provided by the Oregon Department of Geology and Mineral Industries.³ No new nonfuel mineral discoveries were announced, and there were very few changes in nonfuel mineral activity in Oregon in 2002. Among the changes was the acquisition by local investors of the former Bristol Silica quarry near Gold Hill in Jackson County. Commencement of operations was planned for 2003. The initial market for the silica product will be a fiber cement siding producer in White City. Advanced Aggregates, a producer of crushed stone and landscaping material from a marble quarry in Jackson County, acquired a guillotine and a bridge saw and began the production and marketing of sawn and split face blocks. Globe Metallurgical, Inc., a silicon metal producer in Springfield, remained idle owing to regional power shortages and depressed aluminum production in the region. Globe's primary market had been aluminum alloy producers.

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon 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 2002 USGS mineral production data published in this chapter are preliminary estimates as of July 2003 and are expected to change. For some mineral commodities, such as construction sand and gravel, crushed stone, and portland cement, estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Specialist contact information may be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals/contacts/comdir.html>; alternatively, specialists' names and telephone numbers may be obtained by calling USGS information at (703) 648-4000 or by calling the USGS Earth Science Information Center at 1-888-ASK-USGS (275-8747). All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

²Values, percentage calculations, and rankings for 2001 may differ from the Minerals Yearbook, Area Reports: Domestic 2001, Volume II, owing to the revision of preliminary 2001 to final 2001 data. Data for 2002 are preliminary and are expected to change; related rankings may also change.

³Ronald Geitgey, Economic/Industrial Minerals Geologist with the Oregon Department of Geology and Mineral Industries, authored the text of the State mineral industry information provided by that agency.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN OREGON^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2000		2001		2002 ^p	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	227	632	237	662	237 ^e	662 ^e
Gemstones	NA	856	NA	1,170	NA	1,240
Sand and gravel, construction	16,500	97,000	17,300	99,200	18,500	108,000
Stone, crushed	20,800	98,900	20,800	100,000	23,200	114,000
Zeolites metric tons	(3)	NA	(3)	NA	(3)	NA
Combined values of cement (portland), clays (bentonite), diatomite, emery (2002), lime, perlite (crude), pumice and pumicite, and talc (crude)	XX	102,000	XX	103,000	XX	96,200
Total	XX	299,000	XX	305,000	XX	320,000

^eEstimated. ^pPreliminary. NA Not available. XX Not applicable.

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

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Withheld to avoid disclosing company proprietary data.

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

Kind	2000				2001			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	2	W	W	\$5.28	2	W	W	\$4.60
Calcareous marl	1	100	\$338	3.38	1	122	\$437	3.58
Shell	1	W	W	9.10	1	W	W	4.69
Granite	6	W	W	4.06	6	W	W	3.96
Traprock	178 ^r	17,800 ^r	83,900 ^r	4.72 ^r	148	16,200	80,200	4.94
Volcanic cinder and scoria	2 ^r	W	W	5.83	1	W	W	4.52
Miscellaneous stone	24 ^r	1,400 ^r	6,670 ^r	4.76 ^r	26	3,060	13,600	4.44
Total or average	XX	20,800	98,900	4.75	XX	20,800	100,000	4.83

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

¹Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

TABLE 3
OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS, BY USE¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 1/2 inch):			
Macadam	140	\$496	\$3.54
Riprap and jetty stone	225	1,160	5.15
Filter stone	108	439	4.06
Other coarse aggregates	511	2,700	5.29
Total or average	984	4,800	4.87
Coarse aggregate, graded:			
Concrete aggregate, coarse	178	731	4.11
Bituminous aggregate, coarse	194	900	4.64
Bituminous surface-treatment aggregate	23	95	4.13
Railroad ballast	137	666	4.86
Other graded coarse aggregates	171	1,080	6.29
Total or average	703	3,470	4.93
Fine aggregate (-3/8 inch):			
Stone sand, bituminous mix or seal	W	W	5.56
Screening, undesignated	67	239	3.57
Other fine aggregates	157	1,230	7.85
Total or average	224	1,470	6.57
Coarse and fine aggregates:			
Graded road base or subbase	4,950	26,700	5.40
Unpaved road surfacing	526	2,420	4.60
Crusher run or fill or waste	563	3,270	5.81
Roofing granules	W	W	5.84
Other coarse and fine aggregates	1,020	4,770	4.69
Total or average	7,050	37,200	5.28
Other construction materials	7	23	3.29
Chemical and metallurgical, cement manufacture	(2)	(2)	3.62
Unspecified:³			
Reported	6,440	30,200	4.69
Estimated	4,000	18,000	4.58
Total or average	10,400	48,300	4.65
Grand total or average	20,800	100,000	4.83

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

¹Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

²Withheld to avoid disclosing company proprietary data; included in "Grand total."

³Reported and estimated production without a breakdown by end use.

TABLE 4
OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2001, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1 1/2 inch) ²	603	2,930	W	W	W	W
Coarse aggregate, graded ³	391	2,150	W	W	W	W
Fine aggregate (-3/8 inch) ⁴	140	1,020	W	W	--	--
Coarse and fine aggregates ⁵	4,140	24,700	1,250	5,300	516	2,430
Other construction materials	--	--	7	23	--	--
Chemical and metallurgical ⁶	--	--	--	--	--	--
Unspecified: ⁷						
Reported	3,720	16,900	673	2,850	914	4,040
Estimated	3,200	15,000	450	2,100	160	730
Total	12,200	62,300	2,850	12,600	1,670	7,520
			District 4		Unspecified districts	
	Quantity	Value	Quantity	Value		
Construction:						
Coarse aggregate (+1 1/2 inch) ²	W	W	--	--		
Coarse aggregate, graded ³	W	W	--	--		
Fine aggregate (-3/8 inch) ⁴	W	W	--	--		
Coarse and fine aggregates ⁵	437	1,730	708	3,030		
Other construction materials	--	--	--	--		
Chemical and metallurgical ⁶	W	W	--	--		
Unspecified: ⁷						
Reported	152	1,820	983	4,580		
Estimated	140	650	--	--		
Total	2,370	10,300	1,690	7,610		

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregates.

³Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregates.

⁴Includes screening (undesignated), stone sand (bituminous mix or seal), and other fine aggregates.

⁵Includes crusher run (select material or fill), graded road base or subbase, roofing granules, unpaved road surfacing, and fine aggregates.

⁶Includes cement manufacture.

⁷Reported and estimated production without a breakdown by end use.

TABLE 5
 OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2001, BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregates and concrete products ²	3,980	\$24,000	\$6.03
Asphalt concrete aggregates and other bituminous mixtures	1,800	11,300	6.25
Road base and coverings	4,530	25,900	5.72
Fill	859	2,970	3.46
Snow and ice control	4	29	7.25
Other miscellaneous uses	410	2,330	5.68
Unspecified: ³			
Reported	3,240	18,600	5.74
Estimated	2,500	14,000	5.62
Total or average	17,300	99,200	5.72

¹Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

²Includes plaster and gunite sands.

³Reported and estimated production without a breakdown by end use.

TABLE 6
OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2001, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products ²	2,570	14,600	654	4,930	445	3,060
Asphaltic concrete aggregates and road base materials	4,230	23,800	738	5,700	746	4,680
Fill	695	2,210	95	447	29	203
Snow and ice control	--	--	--	--	--	--
Other miscellaneous uses	392	2,190	19	133	(3)	(3)
Unspecified: ⁴						
Reported	2,760	16,800	--	--	--	--
Estimated	1,600	9,000	140	890	280	1,700
Total	12,300	68,600	1,640	12,100	1,500	9,690
	District 4		Unspecified districts			
	Quantity	Value	Quantity	Value		
Concrete aggregates and concrete products ²	315	1,440	--	--		
Asphaltic concrete aggregates and road base materials	610	2,990	--	--		
Fill	25	98	15	16		
Snow and ice control	4	29	--	--		
Other miscellaneous uses	--	--	--	--		
Unspecified: ⁴						
Reported	288	1,470	185	306		
Estimated	470	2,400	--	--		
Total	1,710	8,440	200	323		

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes plaster and gunite sands.

³Less than 1/2 unit.

⁴Reported and estimated production without a breakdown by end use.