2010–2011 Minerals Yearbook

OREGON [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

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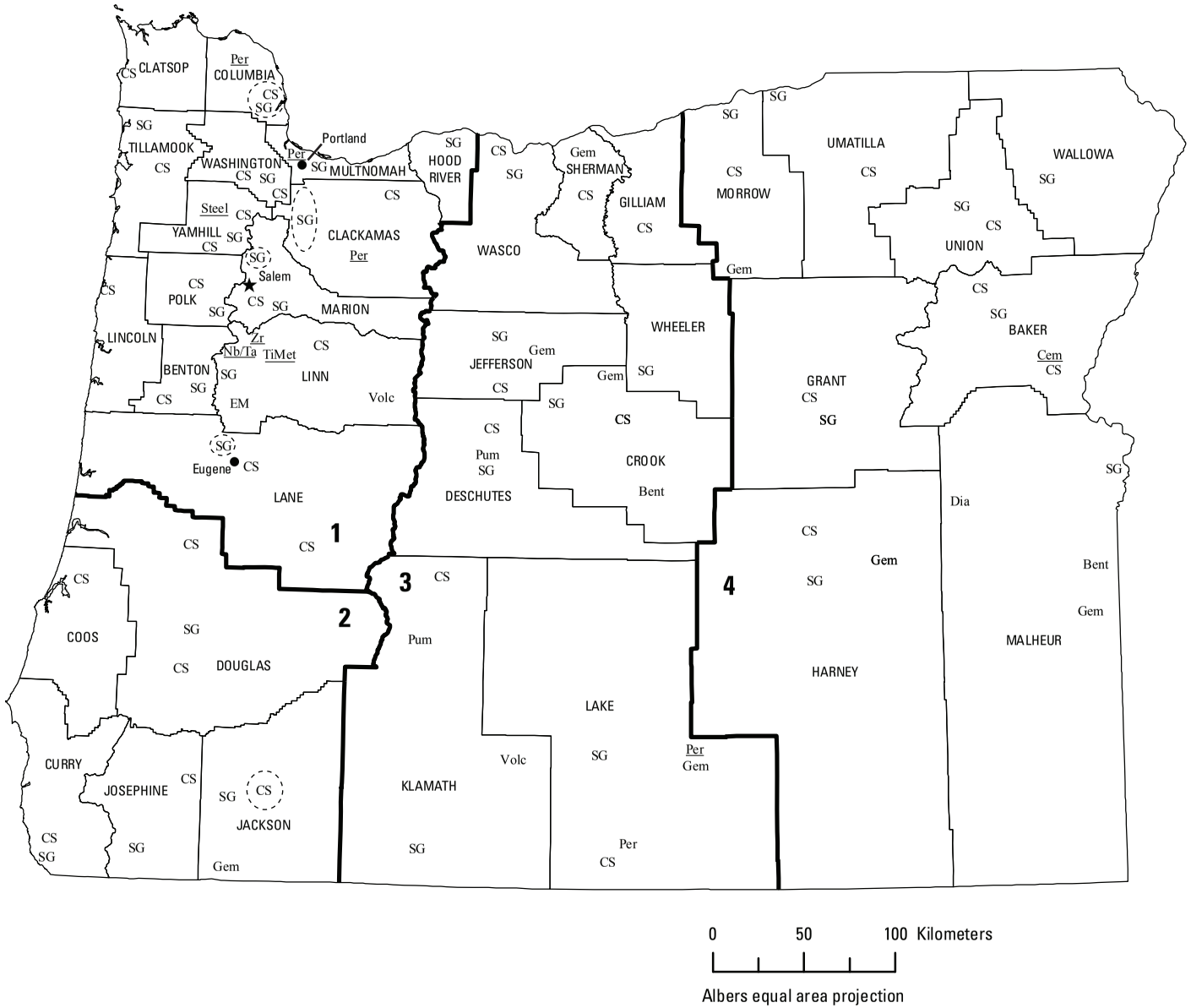
OREGON



LEGEND

- County boundary
- ★ Capital
- ● City
- 1 Crushed stone/sand and gravel district boundary

MINERAL SYMBOLS
(Principal producing areas)

Bent	Bentonite
Cem	Cement plant
CS	Crushed stone
Dia	Diatomite
EM	Emery
Gem	Gemstones
Nb/Ta	Niobium (columbium) and tantalum plant
Per	Perlite
Per	Perlite plant
Pum	Pumice and pumicite
SG	Construction sand and gravel
Steel	Steel plant
TiMet	Titanium metal plant
Volc	Volcanic cinder
Zr	Zirconium plant
(dashed circle)	Concentration of mineral operations

0 50 100 Kilometers

Albers equal area projection

Source: Oregon Department of Geology and Mineral Industries/U.S. Geological Survey (2010–11).

The Mineral Industry of Oregon

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Oregon Department of Geology and Mineral Industries for collecting information on all nonfuel minerals.

In 2011, Oregon's nonfuel mineral production[1] was valued at $305 million, based upon annual U.S. Geological Survey (USGS) data. This was essentially unchanged from the State's total nonfuel mineral value of $307 million in 2010, which followed a $5.5 million (2%) decrease from 2009. The State declined in rank to 37th among the 50 States in total nonfuel mineral production value from 35th in 2010. On a per capita basis, the State ranked 40th in 2011 with a value of $79; the national average was $240.

Oregon's leading mineral commodities in 2010 and 2011, in descending order of production value, were crushed stone, construction sand and gravel, portland cement, diatomite, and crude perlite. The top five mineral commodities continued to account for more than 95% of the State's total nonfuel raw mineral production value in both 2010 and 2011. Crushed stone and construction sand and gravel accounted for 68% of Oregon's total nonfuel mineral production value in 2010 and in 2011, down slightly from 70% in 2009. Oregon continued to produce bentonite, emery, gemstones, lime, and pumice and pumicite, and began producing common clay in 2011 for the first year since 2008.

In 2011, the production value of crushed stone and sand and gravel increased by 1% and decreased by 3%, respectively, from the previous year (table 1). However, in production quantity, crushed stone decreased by 1% while sand and gravel increased by 14%. The other three leading commodities remained flat or decreased slightly in production value, except diatomite, which had a 9% drop in production value, although it was the only one of these three with an increase in production quantity of almost 15%. Overall, the decrease in sand and gravel and diatomite production values had the most effect on the change in Oregon's production value in 2011.

In 2010, the production value of construction aggregates also decreased, with crushed stone production quantity and value decreasing only slightly (less than 1%) while sand and gravel production fell by 7% and production value by 10%. The other three leading mineral commodities all increased in production quantity and production value over the previous year. Of those three, perlite had the most significant increases of close to 40% in both production quantity and value. The decrease in sand and gravel value alone was the largest contributing factor in the decrease in the State's production value in 2010.

There was some volatility in the production quantity and value of the remainder of Oregon's mineral commodities in 2010 and 2011. Bentonite saw 14% to 20% increases in both production quantity and value in each year. Common clay, which had not been produced since 2008, was produced in a high enough quantity and by enough producers so that production data could be published (see table 1). Emery production quantity and value more than doubled in 2010 from 2009, but with a significant decrease in production quantity and value in 2011 from 2010, the 2011 production value ended below that in 2009. Gemstones increased only modestly in production value in 2011, by about 7%, and had decreased only slightly in 2010. Lime was up by almost 20% in both production quantity and value in 2010, but was relatively unchanged in 2011 in both areas. Pumice and pumicite had a significant drop in production value in 2010, close to 50%, and had a less significant drop in production quantity, but in 2011 the production value and quantity more than doubled to reach levels higher than in 2009. Overall, the total value of all mineral commodities with production values that cannot be individually published went up about 5% in 2011 compared with a 1% decrease in 2010.

In 2011, Oregon became the sole chromite-mining State after the startup of an operation to recover foundry-grade chromite from heavy-mineral sands, and remained the only State with reported emery production (production data withheld—company proprietary data). In 2011, the State rose to first from second in the production quantity of pumice and pumicite among seven producing States. It remained second in the quantity of perlite out of six producing States, and third in diatomite quantity out of four producing States. Among other commodities ranked by quantity produced in 2011, the State ranked eighth of 11 producing States in bentonite, 20th of 39 producing States in common clay, 25th of 50 producing States in crushed stone, 28th of 35 producing States in portland cement, and 30th of 33 producing States in masonry cement. These ranks changed only slightly from 2010, except for sand and gravel; the 14% increase in production quantity was enough to shift Oregon significantly upwards from 27th of the 50 producing States in 2010 to 18th in 2011.

[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the 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 USGS mineral production data published in this chapter are those available as of May 2013. Data in this report are rounded to three significant digits and percentages are calculated from unrounded data. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at http://minerals.usgs.gov/minerals.

TABLE 1

NONFUEL RAW MINERAL PRODUCTION IN OREGON[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	--	--	--	--	194	538
Gemstones, natural	NA	1,220	NA	1,050	NA	1,130
Sand and gravel, construction	12,200	102,000	11,400	93,000	13,000	90,400
Stone, crushed	15,500 r	118,000 r	15,500	117,000	15,300	118,000
Combine values of cement (portland), clays (bentonite), diatomite, emery (crude), lime, perlite (crude), pumice and pumicite, and values indicated by symbol W	XX	91,500	XX	96,400	XX	95,400
Total	XX	313,000 r	XX	307,000	XX	305,000

[r]Revised. NA Not available. XX Not applicable.

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

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

TABLE 2

OREGON: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE[1]

Type	2009				2010				2011			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Granite	11	448 r	$3,390 r	$7.57	11	362	$2,460	$6.78	8	355	$2,630	$7.42
Traprock	98	6,890 r	56,500 r	8.20	105	7,700	63,200	8.21	106	8,230	66,400	8.07
Sandstone and quartzite[2]	--	--	--	--	1	16	93	5.78	1	21	172	8.39
Volcanic cinder and scoria	2	4	30	7.48	4	18	71	3.94	--	--	--	--
Miscellaneous stone	73 r	8,160 r	57,800 r	7.09	70	7,380	51,000	6.92	68	6,710	48,800	7.28
Total or average	XX	15,500 r	118,000 r	7.60	XX	15,500	117,000	7.56	XX	15,300	118,000	7.71

[r]Revised. XX Not applicable. -- Zero.

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

[2]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3
OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2010, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	22	305
Filter stone	43	450
Other coarse aggregate	207	1,700
Coarse aggregate, graded:		
Concrete aggregate, coarse	250	2,010
Bituminous aggregate, coarse	847	5,610
Bituminous surface-treatment aggregate	17	221
Railroad ballast	241	2,300
Other graded coarse aggregate	W	W
Fine aggregate (-⅜ inch):		
Stone sand, concrete	106	636
Stone sand, bituminous mix or seal	110	844
Screening, undesignated	68	471
Other fine aggregate	W	W
Coarse and fine aggregates:		
Graded road base or subbase	2,740	18,300
Unpaved road surface	435	2,460
Crusher run or fill or waste	309	1,850
Roofing granules	W	W
Other coarse and fine aggregates	429	4,050
Other construction materials	W	W
Agricultural, agricultural limestone	W	W
Special, asphalt fillers or extenders	W	W
Unspecified:[2]		
Reported	3,900	31,300
Estimated	6,140	45,500
Total	15,500	117,000

W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Reported and estimated production without a breakdown by end use.

TABLE 4
OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2011, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	58	602
Filter stone	15	286
Unspecified coarse aggregate	139	1,020
Coarse aggregate, graded:		
Concrete aggregate, coarse	129	1,490
Bituminous aggregate, coarse	234	2,030
Bituminous surface-treatment aggregate	237	2,180
Railroad ballast	246	2,300
Unspecified graded coarse aggregate	W	W
Fine aggregate (-⅜ inch):		
Stone sand, concrete	15	180
Stone sand, bituminous mix or seal	143	1,830
Screening, undesignated	52	284
Unspecified fine aggregate	21	147
Coarse and fine aggregates:		
Graded road base or subbase	2,170	16,200
Unpaved road surface	152	1,310
Terrazzo and exposed aggregate	11	106
Crusher run or fill or waste	68	423
Roofing granules	W	W
Unspecified coarse and fine aggregates	426	2,880
Unspecified and other construction materials	54	526
Agricultural, agricultural limestone	W	W
Special, asphalt fillers or extenders	W	W
Other miscellaneous uses and specified uses not listed	65	501
Unspecified:[2]		
Reported	5,490	40,000
Estimated	5,200	40,700
Total	15,300	118,000

W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits.
[2]Reported and estimated production without a breakdown by end use.

TABLE 5

OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2010, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	67	645	29	314	W	W
Coarse aggregate, graded[3]	222	2,320	57	480	92	783
Fine aggregate (-⅜ inch)[4]	123	1,180	44	304	W	W
Coarse and fine aggregates[5]	1,610	12,300	623	4,740	459	3,420
Other construction materials	W	W	7	80	--	--
Agricultural[6]	W	W	--	--	--	--
Special[7]	W	W	--	--	--	--
Unspecified:[8]						
Reported	1,830	15,400	569	4,790	459	3,660
Estimated	4,330	31,700	773	5,780	648	5,590
Total[9]	8,480	65,900	2,100	16,500	1,710	13,900

Use	District 4		Unspecified district	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch)[2]	W	W	95	743
Coarse aggregate, graded[3]	W	W	777	4,590
Fine aggregate (-⅜ inch)[4]	W	W	95	554
Coarse and fine aggregates[5]	W	W	1,080	5,360
Other construction materials	--	--	--	--
Agricultural[6]	--	--	--	--
Special[7]	--	--	--	--
Unspecified:[8]				
Reported	961	7,440	83	48
Estimated	351	2,330	35	146
Total[9]	1,820	14,100	2,170	11,400

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

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

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

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

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

[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

[6]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

[7]Includes mine dusting or acid water treatment, whiting or whitening substance, and other fillers or extenders.

[8]Reported and estimated production without a breakdown by end use.

[9]District totals may not add up to the published State total, owing to revisions made after the production of the table and (or) proprietary data being withheld.

TABLE 6

OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2011, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	109	834	16	256	71	574
Coarse aggregate, graded[3]	231	2,380	W	W	298	2,700
Fine aggregate (-⅜ inch)[4]	93	1,250	W	W	W	W
Coarse and fine aggregates[5]	1,700	12,600	318	2,420	408	3,360
Other construction materials	--	--	W	W	W	W
Agricultural[6]	W	W	--	--	--	--
Special[7]	W	W	--	--	--	--
Other miscellaneous uses and specified uses not listed[8]	--	--	--	--	W	W
Unspecified:[9]						
Reported	2,630	21,700	926	7,170	315	2,450
Estimated	3,200	25,200	678	5,260	396	3,060
Total	8,300	66,600	2,100	16,300	1,650	13,700

Use	District 4		Unspecified	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch)[2]	13	220	2	20
Coarse aggregate, graded[3]	W	W	62	376
Fine aggregate (-⅜ inch)[4]	W	W	--	--
Coarse and fine aggregates[5]	170	1,140	247	1,520
Other construction materials	W	W	--	--
Agricultural[6]	--	--	--	--
Special[7]	--	--	--	--
Other miscellaneous uses and specified uses not listed[8]	--	--	--	--
Unspecified:[9]				
Reported	W	W	1,400	7,090
Estimated	845	6,550	77	597
Total	1,470	11,800	1,790	9,610

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

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

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

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

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

[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

[6]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

[7]Includes mine dusting or acid water treatment, whiting or whitening substance, and other fillers or extenders.

[8]Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.

[9]Reported and estimated production without a breakdown by end use.

TABLE 7
OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products[2]	1,830	$14,800	$8.09
Asphaltic concrete aggregates and other bituminous mixtures	272	1,760	6.47
Road base and coverings	1,860	14,400	7.74
Fill	337	1,360	4.04
Other miscellaneous uses[3]	6	54	9.00
Unspecified:[4]			
Reported	3,640	32,300	8.87
Estimated	3,480	28,300	8.13
Total or average	11,400	93,000	8.16

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes plaster and gunite sand.
[3]Includes railroad ballast, and snow and ice control.
[4]Reported and estimated production without a breakdown by end use.

TABLE 8
OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products[2]	2,100	$15,900	$7.57
Asphaltic concrete aggregates and other bituminous mixtures	424	2,560	6.04
Road base and coverings[3]	1,540	10,700	6.95
Fill	339	1,160	3.42
Other miscellaneous uses[4]	17	208	12.24
Unspecified:[5]			
Reported	5,890	40,600	6.89
Estimated	2,730	19,300	7.07
Total or average	13,000	90,400	6.95

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes plaster and gunite sands.
[3]Includes road and other stabilization (cement).
[4]Includes filtration, railroad ballast, and snow and ice control.
[5]Reported and estimated production without a breakdown by end use.

TABLE 9
OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	1,510	12,300	W	W	14	146
Asphaltic concrete aggregates and road base materials	1,260	9,980	261	1,970	169	1,370
Fill	W	W	W	W	25	137
Other miscellaneous uses[3]	--	--	--	--	2	9
Unspecified:[4]						
Reported	W	W	W	W	76	646
Estimated	4,130	26,400	944	10,800	1,210	13,000
Total[5]	6,900	48,600	1,210	12,700	1,500	15,300

	District 4		Unspecified districts	
	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	W	W	--	--
Asphaltic concrete aggregates and road base materials	436	2,870	--	--
Fill	29	110	--	--
Other miscellaneous uses[3]	W	W	--	--
Unspecified:[4]				
Reported	W	W	70	152
Estimated	1,090	12,000	--	--
Total[5]	1,740	16,200	70	152

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes plaster and gunite sands.
[3]Includes railroad ballast, and snow and ice control.
[4]Reported and estimated production without a breakdown by end use.
[5]District totals may not add up to the published State total, owing to revisions made after the production of the table and (or) proprietary data being withheld.

TABLE 10
OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	W	W	W	W	21	206
Asphaltic concrete aggregates and road base materials[3]	W	W	W	W	70	498
Fill	310	1,030	1	5	10	41
Other miscellaneous uses[4]	1	30	11	134	1	12
Unspecified:[5]						
Reported	3,590	31,700	479	4,510	44	366
Estimated	1,430	10,100	372	2,620	522	3,680
Total	8,060	64,100	1,150	9,450	668	4,800

	District 4		Unspecified districts	
	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	126	1,010	--	--
Asphaltic concrete aggregates and road base materials[3]	671	3,430	158	610
Fill	18	81	--	--
Other miscellaneous uses[4]	4	31	--	--
Unspecified:[5]				
Reported	28	235	1,760	3,760
Estimated	411	2,900	--	--
Total	1,260	7,680	1,910	4,370

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes plaster and gunite sands.
[3]Includes road and other stabilizaiton (cement).
[4]Includes railroad ballast, and snow and ice control.
[5]Reported and estimated production without a breakdown by end use.