



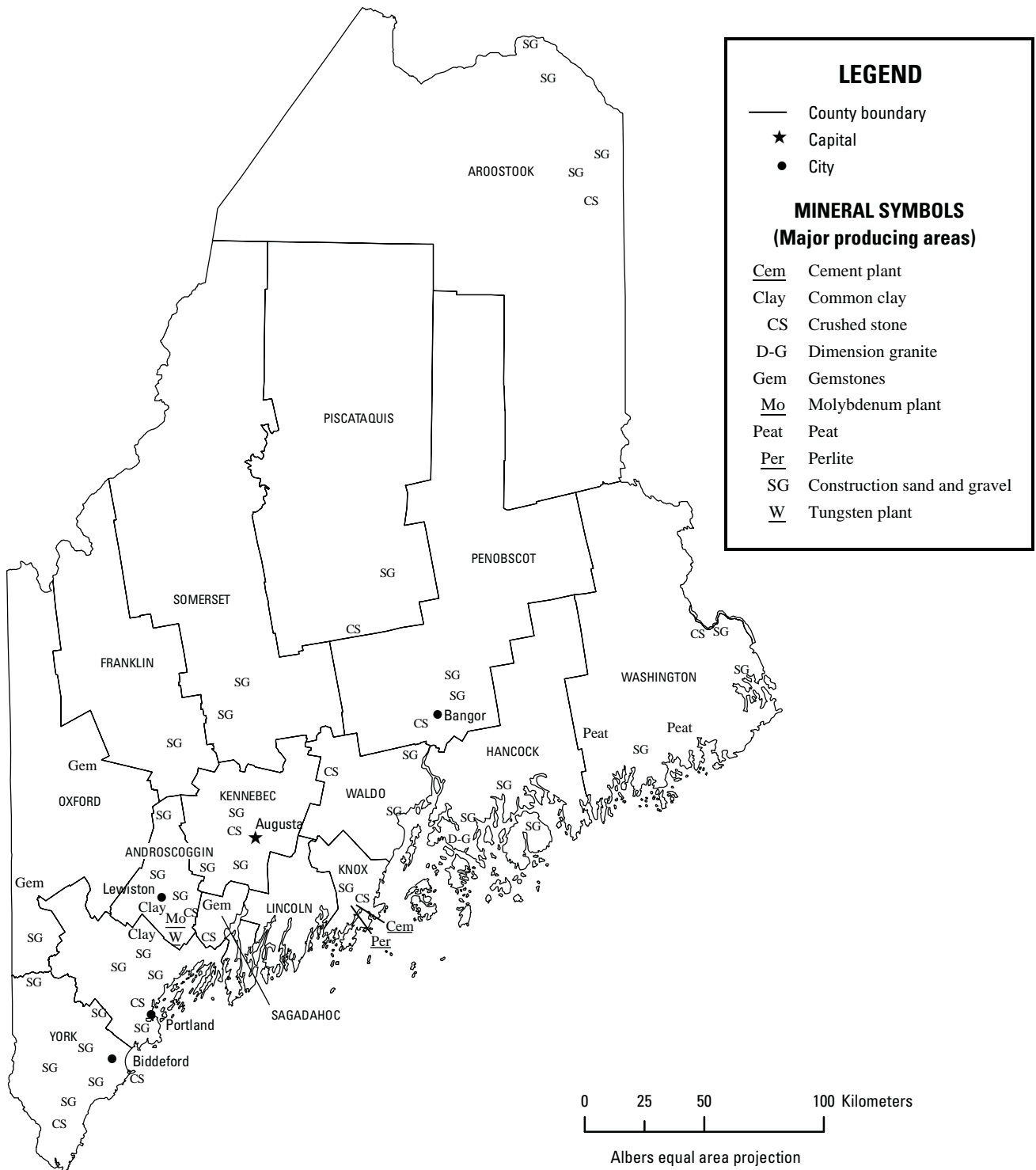
# 2006 Minerals Yearbook

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## MAINE

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Source: Maine Geological Survey/ U.S. Geological Survey (2006).

# THE MINERAL INDUSTRY OF MAINE

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

In 2006, Maine's nonfuel raw mineral production<sup>1</sup> was valued at \$158 million, based upon annual U.S. Geological Survey data. This was a \$17 million, or 12%, increase from that of 2005, which was up 19.5% from that of 2004. The large majority of the State's nonfuel mineral production resulted from the mining and production of construction minerals and materials—construction sand and gravel, portland cement, crushed stone, and dimension granite (descending order of value).

Construction sand and gravel and crushed stone accounted for 63% of Maine's total nonfuel raw mineral production value in 2006. All the State's nonfuel mineral commodities rose in value in 2006 except that of dimension stone which remained the same as in 2005. Increases in the values of crushed stone of \$6.8 million and construction sand and gravel of \$5 million led the State's increase in total value for the year (table 1). Smaller yet significant increases also took place in portland cement, masonry cement, and peat (in descending order of change).

In 2006, Maine rose to 6th in the production of peat following lower levels of production of recent past years and to 11th from 12th in the production of gemstones (based upon value). Additionally, significant quantities of construction sand and gravel were produced in the State.

The following narrative information was provided by the Maine Geological Survey<sup>2</sup> (MGS).

## Exploration Activities

Owing to increasing metal prices, the Maine Geological Survey received inquiries from mining companies for information regarding and the status of identified mineral deposits in the State. The only activity on State-owned land was related to the Alder Pond exploration claim. After more than 7 years of exploration work, International Paper Co. allowed

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<sup>1</sup>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 2006 USGS mineral production data published in this chapter are those available as of March 2008. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

<sup>2</sup>Robert G. Marvinney, Director and State Geologist, authored the text of the State mineral industry information provided by the Maine Geological Survey.

its claim on the 42-hectare (105-acre) Alder Pond prospect in Somerset County, northwestern Maine, to lapse. In 2006, a private party from Toronto, Ontario, Canada, subsequently staked a new claim on this property, beneath which a portion of a significant copper-lead-zinc-silver sulfide deposit extends, but no additional exploration activity was conducted on this claim during the year. This deposit, which was estimated to hold about 3.1 million metric tons of resources, was discovered in 1985.

In late 2006, geologists from Golden Hope Mines (Toronto) visited the MGS offices to collect information on the Big Hill deposit of Pembroke, Washington County, in eastern Maine which they had acquired. This deposit has been known since the 1960s and 1970s when a drilling program identified several high-grade silver intercepts. The copper-lead-zinc-silver mineralization is hosted in the mixed volcanic rocks of the Silurian Leighton Formation, which include rhyolitic and dacitic lapilli tuffs and basalt flows. The company planned to perform a geophysical survey in early 2007.

## Commodity Review

### *Industrial Minerals*

**Gemstones.**—The Mount Mica Mine in Paris, Oxford County, western Maine, was operated for gem tourmaline. This famous pegmatite deposit was discovered in 1820 and has been worked intermittently since that time. It is currently yielding multicolored tourmalines, including gemstock and crystal specimens for collectors. Other pegmatite minerals, such as quartz crystals, lapidary-grade masses of purple lepidolite mica, and occasional beryl crystals, typically also are recovered during the mining operation.

Other pegmatite deposits worked for gemstock and mineral specimens in 2006 included the Deer Hill amethyst mines in Stow, Oxford County (gemstock and specimens); Emmons Quarry and Noyes Mountain quarries in Greenwood, Oxford County (various collectible minerals); Fuller Mountain Quarry in Phippsburg, Sagadahoc County (beryl crystals); Georgetown tourmaline mine, Sagadahoc County; and Mount Marie Quarry in Paris, Oxford County (tourmaline, etc.). Production from these and other Maine pegmatites was generally in small quantities and sporadic, primarily for mineral collectors and lapidaries.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN MAINE<sup>1,2</sup>

(Thousand metric tons and thousand dollars)

Mineral	2004		2005		2006	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	49	W	50	W	48	W
Gemstones, natural	NA	268	NA	272	NA	275
Sand and gravel, construction	10,800	49,100	11,100	57,400	10,400	62,400
Stone, crushed	4,370	29,500	4,450 <sup>r</sup>	30,800 <sup>r</sup>	4,920	37,600
Combined values of cement [masonry (2004, 2006), portland], peat, stone (dimension granite), and values indicated by the symbol W	XX	39,300	XX	52,400	XX	57,400
Total	XX	118,000	XX	141,000	XX	158,000

<sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld values included in "Combined values" data.

XX Not applicable.

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

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

TABLE 2  
MAINE: CRUSHED STONE SOLD OR USED, BY KIND<sup>1</sup>

Kind	2005			2006		
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)
Limestone	5	1,940	\$12,500	5	1,850	\$12,900
Granite	6	1,730	12,400	7	2,220	17,900
Traprock	(2)	W	W	4	W	W
Quartzite	2	480 <sup>r</sup>	3,520 <sup>r</sup>	2	474	3,750
Slate	1	25	168	1	16	124
Miscellaneous stone	2	W	W	2	W	W
Total	XX	4,450 <sup>r</sup>	30,800 <sup>r</sup>	XX	4,920	37,600

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

<sup>2</sup>Sales/distribution yards.

TABLE 3  
MAINE: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2006, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
<b>Coarse aggregate (+1½ inch):</b>		
Riprap and jetty stone	W	W
Filter stone	24	218
Other coarse aggregate	20	131
Total	44	349
<b>Coarse aggregate, graded:</b>		
Concrete aggregate, coarse	(2)	(2)
Other graded coarse aggregate	45	387
<b>Fine aggregate (-¾ inch):</b>		
Stone sand, concrete	(3)	(3)
Screening, undesignated	(3)	(3)
Other fine aggregate	20	208
Total	48	346
<b>Coarse and fine aggregates:</b>		
Graded road base or subbase	(2)	(2)
Other coarse and fine aggregates	1,960	16,400
Chemical and metallurgical, cement manufacture	(2)	(2)
<b>Unspecified:<sup>4</sup></b>		
Reported	531	3,980
Estimated	1,400	11,000
Total	1,910	14,600
Grand total	4,920	37,600

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

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

<sup>2</sup>Withheld to avoid disclosing company proprietary data; included in "Grand total."

<sup>3</sup>Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>4</sup>Reported and estimated production without a breakdown by end use.

TABLE 4  
MAINE: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2006,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products	597	\$3,520	\$5.90
Asphaltic concrete aggregates and other bituminous mixtures	601	5,880	9.79
Road base and coverings <sup>2</sup>	1,880	10,800	5.77
Fill	836	3,380	4.04
Snow and ice control	360	2,060	5.73
Other miscellaneous uses <sup>3</sup>	28	191	6.72
<b>Unspecified:<sup>4</sup></b>			
Reported	934	5,870	6.29
Estimated	5,200	30,700	5.89
Total or average	10,400	62,400	5.98

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

<sup>2</sup>Includes road base and other stabilization (cement and lime).

<sup>3</sup>Includes filtration and railroad ballast.

<sup>4</sup>Reported and estimated production without a breakdown by end use.