

**Structural materials.** The value in current dollars of all construction undertaken in Canada in 1975 was roughly \$28.1 billion, an increase of 14% over 1974. Production of structural materials, including cement, sand and gravel, stone, clay and clay products and lime, was valued at \$806.7 million in 1975, representing 6% of the total value of mineral production in Canada.

Canadian production of cement in 1975 was 11 million tons (10 million t), a reduction reflecting less construction in place and fewer concrete-intensive projects. Cement was produced in all provinces except Prince Edward Island with Ontario and Quebec accounting for 70% of the Canadian total. Current cement producing capacity is 16.6 million tons (15.1 million t) a year. During 1975 the following additions boosted the industry's capability: a new 500,000 tons-a-year (450 000 t/yr) kiln was brought on stream at the St. Constant, Que. plant of Canada Cement Lafarge Ltd.; an expansion program begun in 1973 at Lake Ontario Cement Limited's Picton, Ont. plant culminated in the start-up of a new 850,000 tons-a-year (770 000 t/yr) suspension preheater kiln system; and at Enshaw, Alta., Canada Cement netted an additional 200,000 tons a year (180 000 t/yr) on completion of a major modernization program.

Production of sand and gravel in 1975 was 225 million tons (204 million t) valued at \$260 million (Table 12.24). Sand and gravel must be quarried, screened, washed, stockpiled and transported in large volume to compensate for the low unit value received. Transportation and handling often double the plant cost, making it economically desirable to establish plants close to major consuming centres. Urban expansion has greatly accelerated the demand for sand and gravel, and as land use conflicts have intensified many pits and quarries have been overrun by growing communities. Sand and gravel are used as fill, as granular base course and finish course in highway construction and as aggregate in concrete and asphalt.

Production of stone in 1975 was 97 million tons (88 million t) valued at \$171 million (Table 12.25). Dimension stone, for use as building and ornamental stone, accounts for about 1% of total stone production. Crushed stone for use as aggregate in concrete and asphalt, as railroad ballast and road metal accounts for about 80% and the remainder is used in the metallurgical, chemical and allied industries.

Shipments of clay and clay products in 1975 were valued at \$70 million, about the same as the previous year (Table 12.26). Deposits of clay for use in the manufacture of papers, refractories, high quality whitewares and stoneware products are scarce in Canada. Consequently china clay (kaolin), fire clay, ball clay and stoneware clay are mostly imported. In Canada common clays and shales, higher in alkalis and lower in alumina than the other clays, are used to manufacture brick and tile products.

### 12.1.4 Mineral fuels

**Coal.** For production figures see Tables 12.4 and 12.8. For an outline of the industry see Chapter 13 Energy, Section 13.4.

*In the following paragraphs certain symbols are used when recording SI units to express metric equivalents: M = mega (million) or  $10^6$ , G = giga (billion) or  $10^9$ , and T = tera (trillion) or  $10^{12}$ . For example 96.6 million cubic metres will appear as 96.6 Mm<sup>3</sup>, and volumes such as 10.7 trillion cubic decimetres a day will be expressed as 10.7 Tdm<sup>3</sup>/d.*

**Oil and natural gas.** Canadian production of crude oil and natural gas liquids in 1975 declined for the second consecutive year to 620 million barrels (98.6 Mm<sup>3</sup>). Crude oil output, including synthetic crude oil from the Athabasca tar sands amounted to 525 million barrels (83.5 Mm<sup>3</sup>) or 1.4 million barrels a day (b/d) (220 000 m<sup>3</sup>/d) (Table 12.27). Gas plant production of natural gas liquids totalled 113 million bbl (18 Mm<sup>3</sup>) or 310,000 b/d (49 000 m<sup>3</sup>/d). Natural gas production rose slightly in 1975 to 3,086,792 million cubic feet (87 408 689 Mdm<sup>3</sup>) or 8,456 million cubic feet a day (239 447 Mdm<sup>3</sup>/d) (Table 12.28).