#### THE MINERAL INDUSTRIES OF

# DENMARK, THE FAROE ISLANDS, AND GREENLAND

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Denmark's mineral resources are concentrated mainly in natural gas and petroleum fields in the North Sea that have, together with renewable energy, made the country a net exporter of energy since 1996. Most of the mineral commodities produced in Denmark were exported with a majority shipped to European Union (EU) countries. Continued close cooperation with the other member countries of the EU is very important for Denmark because these countries remain the major export markets.

Although Denmark has no known economically exploitable reserves of metallic ores, it does have large reserves of nonmetallic materials, such as chalk, diatomaceous earth, limestone, and sand and gravel. Approximately one-third of the bedrock area in Denmark consists of chalk and limestone. Cement, chalk for paper filler, ground limestone, and lime,

including agricultural and burnt, are produced (table 1). Petroleum production continued to exceed consumption, which allowed Denmark to stay self-sufficient in petroleum. The structure of the Danish mineral industry is listed in table 2.

Denmark and Greenland were actively seeking to develop both area's nonfuel mineral resources, particularly in Greenland. Both were actively encouraging mineral exploration activities and provided support where possible. The hopes were that mining can once again become an important sector of the economy.

For more extensive coverage of the mineral industry of Denmark, the Faroe Islands, and Greenland, see the 1998 Minerals Yearbook, volume III, Mineral Industries of Europe and Central Eurasia.

## ${\bf TABLE~1} \\ {\bf DENMARK: PRODUCTION~OF~MINERAL~COMMODITIES~1/~2/}$

(Metric tons unless otherwise specified)

Commodity	1995	1996	1997	1998	1999 e/
Aluminum metal, secondary e/	14,000	14,500	14,000	14,000	14,000
Cement, hydraulic	2,584,000	2,628,528	2,683,039	2,600,000 e/	2,600,000
Chalk	366,000 e	359,378	427,634	425,000 e/	400,000
Clays: e/					
Fire clay	2,000	1,800	20 3/	20	20
Kaolin	3,500	3,000	3,000	2,500	2,500
Other	6,000	8,050	8,000	6,000	6,000
Moler, extracted thousand cubic meter	<u>ers</u> 186 3.	185	185	185	180
Gas:					
Manufactured e/ terajou	<u>les</u> 1,500	1,210 3/	1,500	1,500	1,500
Natural:					
Gross e/ million cubic mete		7,500	9,530	9,600	9,600
	<u>do.</u> 4,700	5,710	6,960	7,000 e/	7,000
Iron and steel metal, steel:					
Crude	654,000	737,000	787,000	805	700
Semimanufactures	631,000	621,000	625,000 e/	706	600
Lime, hydrated and quicklime	117,000 e	*	115,129	116,000 e/	115,000
Natural gas plant liquids e/ thousand 42-gallon barr		45,000	45,000	45,000	45,000
Nitrogen, N content of ammonia e/	1,600	1,600	1,600	1,600	1,600
Peat e/	205,000	204,465 3/	205,000	205,000	200,000
Petroleum:					
Crude thousand 42-gallon barr	els 67,858	78,795	83,950	84,000 e/	84,000
Refinery products: e/					
	do. 1,600	13,879 3/	1,600	1,600	1,600
	do. 32,000	31,247 3/	30,200	30,000	30,000
1	do. 1,200	1,666 3/	1,200	1,200	1,200
	<u>do.</u> 4				
	do. 1,800	1,800	1,800	1,800	1,800
	do. 100	93 3/	100	100	100
	do. 28,000	26,590 3/	28,000	28,000	28,000
	do. 1,700	2,880	1,600	1,600	1,600
	<u>do.</u> 300	300	300	300	300
	do. 13,500	15,951 3/	13,500	13,500	13,000
	<u>do.</u> 50				
	do. 3	59 3/	60	60	60
	do. 80,300 r/		78,400 r/	78,200 r/	77,700
Phosphates, crude, gross weight e/	1,200	1,200	1,200	1,200	1,200
Salt, all forms e/	603,326 3	600,000	600,000	600,000	600,000
Sand and gravel: e/					
Onshore	20,000	18,000	18,000	18,000	18,000
Offshore	5,000	5,000	5,000	5,000	500
Total	25,000	23,000	23,000	23,000	23,000
Of which, sand, industrial (sales)	50	50	50	50	50
Stone: e/					
Dimension (mostly granite)	25,000	27,198 3/	26,000	26,000	26,000
Limestone:					
Agricultural	826,000	695,380 3/	700,000	700,000	700,000
Industrial	250,000	250,000	250,000	250,000	250,000
Sulfur, byproduct	8,000 e	7,465	10,585	10,000 e/	10,000

e/ Estimated. r/ Revised. -- Zero.

<sup>1/</sup> Table includes data available through March 2000. Estimated data based on sales of domestically produced mineral commodities.

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

<sup>3/</sup> Reported figure.

## TABLE 2 DENMARK: STRUCTURE OF THE MINERAL INDUSTRY IN 1999

(Thousand metric tons unless otherwise specified)

		Major operating companies		Annual
Commodity		and major equity owners	Location of main facilities	capacity
Cement		Aalborg Portland A/S	Plant at Rordal	3,000
Chalk		A/S Faxe Kalkbrud	Quarries at Stevns and Sigerslev	250
Diatomite (moler)	thousand cubic meters	Dansk Moler Industri A/S (Damolin)	Quarries on Mors and Fur Islands	145
Kaolin		Aalborg Portland A/S Mine and plant on Bornholm Island		25
Lime		A/S Faxe Kalkbrud (Aalborg Portland Holding	Plant at Stubberup, near Fakse, on Zealand	200
		A/S)	Island	
Natural gas	million cubic meters	Maersk Olie og Gas A/S	Roar and Tyra Gasfields, Danish North Sea	2,550
Petroleum:				
Crude	barrels per day	Dansk Undergrunds Consortium	Dan, Gorm, Rolf, and Tyra, Danish North Sea	127,000
Refined	do.	A/S Dansk Shell	Fredericia	55,000
Do.	do.	Kuwait Petroleun Refining A/S	Gulfhavn	56,500
Do.	do.	Statoil A/S	Kalundborg	65,000
Salt		Dansk Salt I/S	Mine (brine) at Hvornum, plant at Mariager	600
Steel		Danish Steel Works Ltd.	Plant at Frederilsvaerk	750
		(Det Danske Stalvalsevaerk A/S)		
		(30% Government owned)		