



2012 Minerals Yearbook

NETHERLANDS

THE MINERAL INDUSTRY OF THE NETHERLANDS

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In 2012, the Netherlands' gross domestic product (GDP) was \$773.1 billion, which was a decrease of 0.6% compared with that of the previous year. The Netherlands was a significant producer of nitrogen and salt, accounting for about 1.3% and 1.7% of world production, respectively. The main emphasis of the Dutch mineral industry was on trade and processing. In 2012, the Netherlands was a significant regional producer of natural gas and petroleum for the European market and a major transshipment center for mineral products that entered and left continental Europe. In 2012, the Port of Rotterdam was the busiest port in Europe in terms of the value and the volume of the cargo handled at the port (Apodaca, 2013; Kostick, 2013; Port of Rotterdam Authority, 2013, p. 6, 14; U.S. Central Intelligence Agency, 2013).

Minerals in the National Economy

The Staatstoezicht op de Mijnen [State Supervision of Mines] (SodM) is the agency within the Ministerie van Economische Zaken [Ministry of Economic Affairs] that oversees the production of minerals in the Netherlands and the Netherlands Continental Shelf. The agency is responsible for drafting and enforcing mining laws, mine safety, and mineral production regulations.

The mineral sector was dominated by natural gas and petroleum production, of which about 40% was from offshore fields. Mining was limited to the extraction of limestone, peat, and sand and gravel by quarrying and solution mining of salt in the eastern and northern areas of the country. In the nonfuel mineral sector, the Netherlands was engaged principally in downstream activities, including the chemical and metallurgical industries, which used mainly imported ores and industrial minerals (table 1; Staatstoezicht op de Mijnen, 2009).

Production

In 2012, crude steel production decreased by about 1% and pig iron production decreased slightly compared with production in 2011. The principal mineral commodities that were produced in the Netherlands were primary aluminum, cadmium, cement, crude petroleum, iron and steel, natural gas, nitrogen, salt, and refined zinc. Rotterdam remained important as a shipping and storage center. In 2012, the throughput (imports and exports) of the following mineral commodities were the most important in terms of total volume: crude petroleum, 98.3 million metric tons (Mt); mineral oil products, 81.8 Mt; iron ore and scrap, 32.7 Mt; and coal, 25.3 Mt (table 1; Port of Rotterdam Authority, 2013, p. 3).

Structure of the Mineral Industry

Mineral industry facilities in the Netherlands were mostly privately owned, although the Government continued to be involved in the energy sector through the regulation and

oversight of petroleum and natural gas operations. Table 2 is a list of the major mineral industry facilities.

Commodity Review

Metals

Aluminum.—Zeeland Aluminium Co. BV (ZALCO), which was located in Vlissingen, filed for bankruptcy in December 2011. The company sold its anode facility to Century Aluminum Co. of the United States, which created Century Aluminium Vlissingen BV with these assets. Century expected to have the anode plant producing in 2013 with a projected production of 75,000 metric tons per year (t/yr); in the future, the production capacity of the plant was expected to be expanded to 145,000 t/yr. The rest of ZALCO was purchased by UTB Holding BV which restarted production of billets and rolling slabs of aluminum alloy at its foundry; the foundry was expected to be fully operational by mid-2013. ZALCO reported that its smelter was decommissioned as it was no longer viable for production (Century Aluminum Co., 2013a, b; Zeeland Aluminium Co. B.V., 2013).

Iron and Steel.—Tata Steel Group (Tata), which was the owner of Tata Steel Europe Ltd., announced in its annual report for 2011 that the Ijmuiden steel plant had begun a 5-year improvement program that was focused on enhancing production capacity, improving reliability, and reducing cost. Tata completed a second trial of the ULCOS Hisarna pig iron project at the plant. ULCOS (which stands for ultra-low carbon dioxide steelmaking) was a consortium of 48 European companies and organizations that had developed a process to produce iron that reduces carbon dioxide emissions by eliminating the need to pelletize iron ore and to produce coke from coal. Ijmuiden Tata Steel Europe Ltd. was previously known as Corus Group, but the name was changed officially in September 2010 (Noordhollandsdagblad, 2012; Tata Steel Group, 2012, p. 25).

Mineral Fuels

Petroleum.—Zeeland Refinery NV planned to upgrade the distillate hydrocracker at its refinery in Vlissingen, and contracted with a unit of Foster Wheeler AG's global engineering and construction group to do the upgrade. When completed, the project will maximize the throughput of the distillate hydrocracker by debottlenecking its reaction and fractionation sections. The work was slated to be completed by 2014 (Oil and Gas Journal, 2012).

Outlook

Public and private investment in the development of natural gas fields and the distribution of natural gas are likely to

increase. The Netherlands is a leading natural gas distribution center in Europe, and this will likely continue as the Netherlands is expected to continue to be an exporter of natural gas in the region.

The Port of Rotterdam is expected to continue to be a leading European port, particularly in terms of container traffic, and to play a significant role in European trade.

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TABLE 1
NETHERLANDS: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2008	2009	2010	2011	2012
METALS					
Aluminum, metal, primary	317,000	300,000	300,000	300,000	110,000
Cadmium, metal, primary	527	490	560	570	560
Iron and steel:					
Pig iron, including blast-furnace ferroalloys (if any)	5,998,000	4,601,000	5,799,000	5,943,000	5,909,000
Steel:					
Crude	6,880,000	5,194,000	6,651,000	6,937,000	6,867,000
Semimanufactures	6,800,000 ^e	5,100,000	6,523,000	6,765,000	6,700,000 ^e
Lead, metal, refined, secondary ^e	16,000	16,000	17,000	17,000	17,000
Zinc, metal, primary	239,500	224,000	254,000	261,000	257,000
INDUSTRIAL MINERALS					
Cement, hydraulic ^e	2,700	2,700	2,700	2,700	2,700
MINERAL FUELS AND RELATED MATERIALS					
Gas, dry natural:					
Gross	83,846	78,919	88,668	80,731	80,787
Marketed	83,733	78,891	88,660	80,731	80,787
Petroleum:					
Crude	12,230	9,302	7,300	8,121	8,212
Refinery products:					
Liquefied petroleum gas	15,189	16,018	16,534	16,500	16,500 ^e
Gasoline, motor	59,442	60,037	63,145	63,000	63,000 ^e
Naphtha and white spirit ^e	90,000	90,000	90,000	NA	NA
Kerosene and jet fuel	50,868	46,484	51,794	51,700	51,700 ^e
Refinery fuel and loss ^e	30,000	30,000	30,000	NA	NA
Diesel oil	153,492	153,556	159,031	159,000	159,000 ^e
Residual fuel oil	55,626	54,800	63,218	63,000	63,000 ^e
Unspecified	116,999	121,416	101,653	100,000	100,000 ^e
Total	571,616	572,311	575,375 ^f	453,000	453,000 ^e

^eEstimated; data are rounded to no more than three significant digits; may not add to totals shown. ^fRevised. NA Not available. do. Ditto.

¹Table includes data available through July 31, 2013.

²In addition to the commodities listed, the Netherlands produced magnesium compounds, nitrogen, salt, sodium compounds, and construction materials, such as limestone, peat, and sand and gravel, as well as sulfur, elemental byproduct of metallurgy and of petroleum and natural gas, but output was not reported, and information was not available to make reliable estimates of output.

TABLE 2
NETHERLANDS: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum:				
Primary		Aluminum Delfzijl BV (Basemet B.V., a division of Klesch and Co. Ltd., 100%)	Smelter at Delfzijl	165
Secondary		Alumax Recycling BV	Smelter at Kerkade	50
Do.		Zeeland Aluminium Co. BV (ZALCO) (UTB Holding B.V. 100%)	Plant at Flushing (Vlissingen)	230
Cadmium	metric tons	Nyrstar NV (Zinifex Ltd. and Umicore NV) ¹	Plant at Budel	650
Calcium carbonate, ground		Omya Netherlands BV	Plant at Moerdijk	500
Cement		Eerste Nederlandse Cement Industrie NV (HeidelbergCement Group, 100%)	Plants at IJmuiden, Maastricht, and Rotterdam	3,700
Do.		Cementfabriek IJmuiden BV	Three plants at IJmuiden	1,600
Do.		Cementfabriek Rozenburg BV	Two plants at Rozenburg	920
Limestone		Ankerpoort NV (Lhoist SA, 100%)	Mines at Maastricht and Winterswijk	600
Magnesia		Nedmag Industries Mining & Manufacturing BV	Plant at Veendam	130
Do.		MAF Magnesite BV	Plant at Schiedam	40
Natural gas	million cubic meters	Nederlandse Aardolie Maatschappij BV (NAM) (Exxon Mobil Corp., 50%, and Royal Dutch Shell plc., 50%)	Groningen, Leeuwarden, Assen, and other onshore gasfields and several offshore wells in the North Sea	225
Petroleum:				
Crude	42-gallon barrels per day	BP p.l.c., ConocoPhillips Co., and Chevron Corp.	766 wells (204 producing), including the following North Sea fields: Haven, Helder, Helm, Hoorn, Kotter, Logger, and Rijn	83,500
Do.	do.	Nederlandse Aardolie Maatschappij BV (NAM) (Exxon Mobil Corp., 50%, and Royal Dutch Shell plc, 50%)	Onshore fields: Berkel, DeLier, Ijsselmonde, Meerkapelle, Pernis, Pinacke, Rotterdam, Schoonebeck, West, Werkendam, and Zoetemeer	20,500
Do.	do.	Veoba Oil and Gas Netherlands BV	Hanze field, North Sea	31,500
Refinery		Several companies, of which the four major ones are:	Refineries, including:	1,230,500
Do.		Netherlands Refining Co. (BP p.l.c., 69%, and Chevron Corp., 31%)	Rotterdam	(446,000)
Do.		Shell Nederland Raffinaderij BV	Pernis	(374,000)
Do.		Esso Nederland BV	Rotterdam	(175,000)
Do.		Total Raffinaderij Nederland NV	Vlissingen	(150,000)
Salt		Akzo Nobel Salt BV (Akzo Nobel NV, 100%)	Mines, of which:	4,100
Do.		do.	Hengelo	(2,100)
Do.		do.	Delfzijl	(2,000)
Sand, silica		Sigrano Nederland NV (Sibelco Group)	Mines and plants at Heerlin and Maastricht	500
Do.		Lieben Minerals BV	Mines at South Limburg	150
Sodium:				
Carbonate, synthetic		Brunner Mond Group BV	Plant at Delfzijl	380
Sulfate, synthetic		do.	do.	600
Steel		Tata Steel Europe Ltd. (Tata Steel Group)	Plant at IJmuiden	7,000
Zinc		Nyrstar NV (Zinifex Ltd. and Umicore NV) ¹	Plant at Budel	260
Do., do. Ditto.				

¹ Nyrstar NV is an independent publicly traded company formed from the combined zinc and lead smelting and alloying business of Zinifex Ltd. and the zinc smelting and alloying business of Umicore NV.