



2013 Minerals Yearbook

NETHERLANDS

THE MINERAL INDUSTRY OF THE NETHERLANDS

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The Netherlands is not a large country, as it ranks 133d in terms of surface area and 61st in terms of population size worldwide. The country's economic performance, however, is important to the world economy, as the country's gross domestic product (GDP) based on purchasing power parity was \$696.3 billion in 2013, which made it the 24th-ranked economy in the world and the 7th-ranked economy in the European Union. The Netherlands had a very open economy and, according to the Dutch Government, had enacted structural reforms in the past few years that created conditions for economic growth. The country also invested in knowledge and innovation to help redress the effects of the global economic slowdown that began in 2008. The Netherlands Bureau for Economic Policy Analysis (CPB) estimated that the Dutch budget deficit would be 4.5%, or 28 billion euros (about \$36.7 billion¹), in 2013. The Dutch economy was expected to recover slowly, with GDP growth of 1.25% in 2013. According to research by the CPB, the Netherlands earns 30% of its national income from the export of goods and services. In 2013, the value of exports was \$555.6 billion, which made the Netherlands the eighth-ranked exporter of goods in the world in terms of value. The Netherlands also was a significant importer of goods and services; the country imported \$489 billion worth of goods and services in 2013, making it the world's 11th-ranked importer of goods (Netherlands Enterprise Agency, 2014; U.S. Central Intelligence Agency, 2014).

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, about 40% of which 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, 2012, p. 10, 13).

Production

In 2013, the principal mineral commodities that were produced in the Netherlands were primary aluminum

(production of which decreased by 54% compared with that of 2012), cadmium (increased by an estimated 7.1%), crude petroleum and crude steel (decreased by 2.2% each), pig iron, (decreased by 3.7%), and refined zinc (increased by 7.1%) (table 1).

Rotterdam was an important shipping and storage center. In 2012 (the latest year for which data were available), the throughput of imports and exports of the following mineral commodities were the most important in terms of total volume: crude petroleum, 91.1 million metric tons (Mt); mineral oil products, 81.6 Mt; iron ore and scrap, 35.9 Mt; and coal, 30.7 Mt (Port of Rotterdam Authority, 2014, p. 2).

Structure of the Mineral Industry

As of 2013, the Netherlands was host to about 6,300 foreign companies, including Cisco Systems Inc., Microsoft Corp., and Nike Inc. of the United States; BASF SE and Siemens AG of Germany; Yakult Honsha Co., Ltd. of Japan; and Saudi Arabia Basic Industries Corp. (Sabic) of Saudi Arabia. Foreign companies had made direct investments worth \$589 billion. In 2012, the Netherlands was the world's 10th-ranked recipient of foreign investment in the world. Dutch-based multinationals, such as AkzoNobel NV, Heineken NV, ING NV, Koninklijke Philips N.V., KPN NV, Royal Dutch Shell plc, and Unilever NV, also made substantial foreign investments abroad. 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 (Netherlands Enterprise Agency, 2014). Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Aluminum.—Aluminum production in the Netherlands decreased by 54% compared with that of 2012 owing to the closure of the Zeeland Aluminium Co. BV (ZALCO) smelter. In 2013, ZALCO sold its anode facility to Century Aluminum Co. (Century) of the United States, which created Century Aluminium Vlissingen BV with these assets. Century started producing carbon anodes in November 2013 with a total capacity of 150,000 metric tons per year. Century planned to use these anodes to produce aluminum at its plant in Iceland. 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 fully operational by mid-2013 (Century Aluminum Co., 2013, 2014; Zeeland Aluminium Co. BV, 2014).

In December 2013, Aluminum Delfzijl BV (ALDEL) filed for bankruptcy at the court of Groningen. ALDEL stated that

¹Where necessary values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at an average exchange rate of EUR0.783=US\$1.00 for 2013.

it had been struggling with increasing power prices and their differentials between the Netherlands and surrounding countries. ALDEL also stated that shared efforts between the company, the unions, and governmental institutions about this and other issues had not resulted in a solution; therefore, filing for bankruptcy was necessary (Aluminum Delfzijl BV, 2013).

Iron and Steel.—Tata Steel Group (Tata) of India, which was the owner of Tata Steel Europe Ltd., stated in its annual report for 2013 that its Ijmuiden steel plant was going through a 5-year improvement program that was focused on enhancing production capacity, improving reliability, and reducing cost. Tata reported that at the end of the improvement program the total capacity of the plant would increase from 7.2 million metric tons per year (Mt/yr) of crude steel to 7.7 Mt/yr. Tata Steel Europe was part of the ultra-low carbon dioxide emission steelmaking (ULCOS) consortium, which is 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 (Tata Steel Group, 2014, p. 12, 23–24).

Zinc.—Nyrstar NV stated that its Budel plant had increased its production to 275,000 metric tons in 2013. Nyrstar reported that the increased production was owing to an improvement of its electrolysis processes. The company stated that installations and processes at the Budel plant would be updated throughout 2014 and 2015 with the aim of being able to handle a wider range of concentrates (Nyrstar NV, 2014a, p. 56; 2014b).

Mineral Fuels

Petroleum.—Zeeland Refinery NV upgraded the distillate hydrocracker at its refinery in Vlissingen and contracted with a unit of Foster Wheeler AG of Switzerland's global engineering and construction group to complete the project. When completed, the project was expected to 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

The Netherlands is a leading natural gas distribution center in Europe, and the country is expected to expand its infrastructure

to increase the volume of natural gas exports 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 continue to play an important role in European trade.

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TABLE 1
NETHERLANDS: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2009	2010	2011	2012	2013
METALS					
Aluminum, metal, primary	300,000	300,000	300,000	110,000	50,000
Cadmium, metal, primary	490	560	570	560	600
Iron and steel:					
Pig iron, including blast-furnace ferroalloys (if any)	4,601,000	5,799,000	5,943,000	5,909,000	5,686,000
Steel:					
Crude	5,194,000	6,651,000	6,937,000	6,867,000	6,714,000
Semimanufactures	5,100,000	6,523,000	6,765,000	6,739,000 ^r	6,580,000
Lead, metal, refined, secondary ^c	16,000	17,000	17,000	17,000	17,000
Zinc, metal, primary	224,000	254,000	261,000	257,000	275,000
INDUSTRIAL MINERALS					
Cement, hydraulic	2,342 ^r	2,138 ^r	2,318 ^r	2,500 ^{e,r}	2,500 ^e
MINERAL FUELS AND RELATED MATERIALS					
Gas, dry natural:					
Gross	78,919	88,668	80,731	80,787	80,796
Marketed	78,891	88,660	80,731	80,787	80,796
Petroleum:					
Crude	9,302	7,300	8,121	8,212	8,055
Refinery products:					
Liquefied petroleum gas	16,018	16,534	16,500	17,958 ^r	18,000 ^e
Gasoline, motor	60,037	63,145	63,000	59,495 ^r	60,000 ^e
Naphtha and white spirit ^c	90,000	90,000	-- ^r	-- ^r	--
Kerosene and jet fuel	46,484	51,794	51,700	55,991 ^r	56,000 ^e
Refinery fuel and loss ^c	30,000	30,000	-- ^r	-- ^r	--
Diesel oil	153,556	159,031	159,000	151,511 ^r	152,000 ^e
Residual fuel oil	54,800	63,218	63,000	55,918 ^r	56,000 ^e
Unspecified	121,416	101,653	100,000	104,755 ^r	105,000 ^e
Total	572,311	575,375	453,000	445,628 ^r	447,000 ^e

^eEstimated; data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through May 28, 2014.

²In addition to the commodities listed, the Netherlands produced magnesium compounds, nitrogen, salt, sodium compounds, sulfur (as an elemental byproduct of metallurgy and of petroleum and natural gas), and construction materials, such as limestone, peat, and sand and gravel, but available information was inadequate to make reliable estimates of output.

TABLE 2
NETHERLANDS: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(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 ¹ (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) ²	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, Ijselmonde, Meerkapelle, Pernis, Pinacke, Rotterdam, Schoonebeck, West, Werkendam, and Zoetemeer	20,500
Do.	do.	Veba Oil and Gas Netherlands BV	Hanze field, North Sea	31,500
Refinery	do.	Several companies, of which the four major ones are:	Refineries, including:	1,230,500
Do.	do.	Netherlands Refining Co. (BP p.l.c., 69%, and Chevron Corp., 31%)	Rotterdam	(446,000)
Do.	do.	Shell Nederland Raffinaderij BV	Pernis	(374,000)
Do.	do.	Esso Nederland BV	Rotterdam	(175,000)
Do.	do.	Zeeland Refinery NV (Total Nederland NV, 55%, and LUKOIL 45%)	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 Minëralen 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	7,200
Zinc		Nyrstar NV (Zinifex Ltd. and Umicore NV) ²	Plant at Budel	275

Do., do. Ditto.

¹Aluminum Delfzijl BV filed for bankruptcy on December 30, 2013.

²Nyrstar NV is an independent publicly traded company formed from the combined lead and zinc smelting and alloying business of Zinifex Ltd. and the zinc smelting and alloying business of Umicore NV.