



# 2011 Minerals Yearbook

---

## GABON

---

# THE MINERAL INDUSTRY OF GABON

By Omayra Bermúdez-Lugo

Gabon's economy was largely dependent on the world demand for manganese and petroleum, which were the country's principal mineral commodities. For the period between 2008 and 2010, petroleum production alone accounted for about 50% of the gross domestic product, 60% of tax revenue, and 80% of exports. In 2011 the country ranked fourth among the world's leading producers of manganese, accounting for about 11% of world production. Other nonfuel mineral commodities produced in Gabon included cement, diamond, and gold. Identified mineral resources included iron ore, niobium (columbium), and phosphate rock (African Development Bank Group, 2011, p. 2; Corathers, 2012).

## Government Policies and Programs

The legislative framework for the mineral sector in Gabon is contained in the country's Mining Code under law No. 05–2000 as amended by law No. 008–2005. Under the Mining Code, all rights of ownership in and control of minerals in Gabon are vested in the state. The Ministère des Mines, du Pétrole et des Hydrocarbures is the Government agency responsible for the general administration and implementation of the law. The Direction Générale des Mines et de la Géologie is responsible for enforcing health and safety practices in the mineral sector and for ensuring that mining companies abide by the laws and regulations set forth by the Mining Code. Under the Mining Code, prospecting licenses are granted for a minimum period of 2 years or more but cannot be renewed; exploration licenses are granted for a period of 3 years and can be renewed twice. Mining rights can be obtained only by means of a mining permit or a mining license. Mining permits are granted for a period of 10 years and can be renewed as many times as necessary for an additional period of 5 years. Mining licenses are granted for a period of 25 years and can be renewed more than once for 10 years at a time (Droit-Afrique.Com, 2012).

## Production

In 2011, estimated production of metallurgical-grade manganese (44% to 46%) increased by 27% to 4.0 million metric tons (Mt) from a revised 3.2 Mt in 2010. Reported production of crude petroleum decreased slightly by 2% to 89,425 barrels (bbl) from 91,250 bbl in 2010. Data on mineral production are in table 1.

## Structure of the Mineral Industry

Most of the mineral industry facilities in Gabon are privately owned, although the Government held minority interests. Small amounts of gold were also produced in the Eteke region by artisanal miners. Table 2 is a list of major mineral industry facilities.

## Mineral Trade

Gabon's exports to the United States were valued at about \$4.6 billion in 2011 compared with \$2.2 billion in 2010. About 97% of these exports was petroleum, which was valued at \$4.4 billion, and about 2% was nonferrous metals, which were valued at \$98.5 million. Imports from the United States were valued at about \$204 million in 2011 compared with about \$243 million in 2010. These included nearly \$50 million worth of drilling and oilfield equipment; \$9.4 million worth of railway transportation equipment; \$6.6 million worth of excavating machinery; \$4.8 million worth of petroleum products; \$4.7 million worth of coal and other fuels; \$1.9 million worth of iron and steel products; and \$1.4 million worth of specialized mining equipment (U.S. Census Bureau, 2012a, b).

## Commodity Review

### Metals

**Gold.**—SearchGold Resources Inc. of Canada through its subsidiary Ressources Golden Gram Gabon SARL sold its remaining 27% interest in the Bakoudou-Magnima gold project to its joint-venture partner Managem International A.G. for \$800,000. The Bakoudou-Magnima project, which is located about 55 kilometers southwest of Franceville, was to be developed as an open pit mine with a capacity to produce about 1,200 kilograms per year. The mine's processing plant was commissioned during the fourth quarter of 2011, and the mine was expected to produce its first gold in early 2012 (SearchGold Resources Inc., 2012, p. 2–4).

**Manganese.**—Compagnie Minière de l'Ogooué S.A. (Comilog), which was a subsidiary of Eramet International S.A. of France, continued to work on the construction of the Moanda Metallurgical Complex (MMC). The MMC, which was to be located within the premises of the Moanda Mine, included the construction of a metal production plant with a capacity to produce 20,000 metric tons per year (t/yr) of manganese metal and 65,000 t/yr of silicomanganese metal. Moanda Mine was expected to reach production of 4 Mt of iron ore by yearend 2012, and the MMC was expected to begin production during the second half of 2013 (Eramet Group, 2012, p. 14).

Citic Dameng Holdings Ltd. (DAMENG) of China through its subsidiary Compagnie Industrielle et Commerciale des Mines de Huazhou (CICMHZ), held exploration and mining rights for the Bembele manganese mine project. The Bembele Mine is located in the town of Ndjole in northwestern Gabon's Moyen-Ogooue Province. CICMHZ had been granted exploration rights to the project in September 2006. The Bembele Mine and concentration plant were commissioned in 2010, and the first manganese ore was delivered to the Port of Libreville in March 2011. As of yearend, the mine had produced 340,100 metric tons of manganese ore. The mine, which was expected to produce

500,000 t/yr of manganese ore by 2012, employed about 200 people. CICMHZ planned to export the manganese ore to customers in China. Manganese ore reserves as reported by the company were estimated to be 18.54 Mt at an average grade of 31.59% manganese (Citic Dameng Holdings Ltd., 2010; 2011, p. 4; 2012, p. 4, 23, 30).

### **Industrial Minerals**

**Cement.**—Heidelberg Cement Group of Germany, which held a 75% interest in Société des Ciments du Gabon (Cimgabon), was the country's only cement producer. Cimgabon operated two cement grinding plants, one of which was located south of Libreville and the other of which was located in Franceville. The company also operated a clinker plant located east of Libreville.

### **Mineral Fuels**

**Petroleum.**—Crude petroleum was a key mineral fuel commodity to Gabon's economy. For more than two decades to 2011, the country had no national oil company and relied on foreign investors to conduct petroleum exploration and production activities. On August 24, 2011, under Decree No. 1017/PR/MMPH, the Government established the Société Nationale des Hydrocarbures du Gabon (SNHG). SNHG is tasked with overseeing all aspects of the petroleum sector, including the state's participation in petroleum and gas ventures (Gabon Oil Co., undated).

Addax Petroleum Corp. of Switzerland, Anglo-French company Perenco Group, Netherlands-based Royal Dutch Shell plc, and Total S.A. of France were among the companies that owned exploration and production operations in Gabon. Addax Petroleum held interest in five production-sharing contracts. The majority of the company's production came from the Koula, the Obangue, and the Tsiengui oilfields within the company's Awoun, Maghena, and Panthere NZE onshore concession areas, which covered an area of 3,362 square kilometers (km<sup>2</sup>). The company's offshore license covered an area of 22,707 km<sup>2</sup>, which included the Avouma, the Ebouri, the Etame, and the South Tchibala oilfields (Perenco Oil and Gas Inc., 2012; Addax Petroleum Corp., undated).

Total held exploration and production operations in Gabon through two locally incorporated companies, Total Gabon S.A. and its subsidiary Total Participations Pétrolières Gabon. In 2011, Total Participations Pétrolières Gabon produced a total of 58,000 barrels per day (bbl/d) of oil equivalent compared with 67,000 bbl/d in 2010 and 71,000 bbl/d in 2009. The decrease in production was a result of resource depletion. Under the Anguille field redevelopment project, the company planned to drill 21 development wells beginning in the second quarter

of 2012. The company was also in the process of analyzing two- and three-dimensional data for the deepwater offshore Diaba Block (U.S. Securities and Exchange Commission, 2012, p. 14–15, 19–20).

### **Outlook**

Government revenues from new manganese production are likely to increase in 2012 and again in 2013 as a result of the coming online of the Bembele Mine and the MMC. Despite these increases, revenues from the petroleum sector are likely to remain the driving force of economic growth in the short run. In the intermediate to long run, the role that petroleum plays in the country's economic development will depend on the investment that international petroleum companies make to increase production capacity at existing oilfields and (or) to bring new projects online to counterbalance the loss in production from maturing oilfields.

### **References Cited**

- Addax Petroleum Corp., [undated], Gabon—License areas: Geneva, Switzerland, Addax Petroleum Corp. (Accessed November 8, 2012, at <http://www.addaxpetroleum.com/operations/gabon>.)
- African Development Bank Group, 2011, Country strategy paper 2011–2015: Tunis–Belvedere, Tunisia, African Development Bank Group, August, 20 p.
- Citic Dameng Holdings Ltd., 2010, Global offering: Hong Kong, China, Citic Dameng Holdings Ltd., November 8, 13 p.
- Citic Dameng Holdings Ltd., 2011, 2010 annual report: Hong Kong, China, Citic Dameng Holdings Ltd., 115 p.
- Citic Dameng Holdings Ltd., 2012, 2011 annual report: Hong Kong, China, Citic Dameng Holdings Ltd., 124 p.
- Corathers, L.A., 2012, Manganese: U.S. Geological Survey Mineral Commodity Summaries 2012, p. 100–101.
- Droit-Afrique.Com, 2012, Code minier du Gabon—Loi no. 05-2000 du 12 Octobre 2000: Paris, France Droit-Afrique.Com, 27 p. (Accessed November 8, 2012, at <http://www.droit-afrique.com/images/textes/Gabon/Gabon - Code minier.pdf>.)
- Eramet Group, 2012, 2011 annual report: Paris, France, Eramet Group, 54 p.
- Gabon Oil Co., [undated], Extract from the Decree N°1017/PR/MMPH of August 24, 2011: Gabon Oil Co. (Accessed November 8, 2012, at <http://gabonoil.com/en/our-role/the-decree>.)
- Perenco Oil and Gas Inc., 2012, Perenco began operations in Gabon in 1992 with the acquisition of four offshore fields south of Port-Gentil: Perenco Oil and Gas Inc. (Accessed November 8, 2012, at <http://www.perenco.com/operations.html>.)
- SearchGold Resources Inc., 2012, Management discussion and analysis for the year ending December 31, 2011: Montreal, Quebec, Canada, SearchGold Resources Inc., 23 p.
- U.S. Census Bureau, 2012a, U.S. exports to Gabon from 2002 to 2011 by 5-digit end-use code: U.S. Census Bureau. (Accessed September 24, 2012, at <http://www.census.gov/foreign-trade/statistics/product/enduse/exports/c7550.html>.)
- U.S. Census Bureau, 2012b, U.S. imports from Gabon from 2002 to 2011 by 5-digit end-use code: U.S. Census Bureau. (Accessed September 24, 2012, at <http://www.census.gov/foreign-trade/statistics/product/enduse/imports/c7550.html>.)
- U.S. Securities and Exchange Commission, 2012, Form 20-F/A—Total S.A.: Washington, DC, U.S. Securities and Exchange Commission, 153 p.

TABLE 1  
GABON: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

Commodity <sup>2</sup>		2007	2008	2009	2010	2011
Cement and clinker: <sup>e</sup>						
Cement, hydraulic <sup>3</sup>	metric tons	228,601 <sup>4</sup>	230,000	250,000	250,000 <sup>r</sup>	200,000
Clinker	do.	185,109 <sup>4</sup>	190,000	200,000 <sup>r</sup>	160,000 <sup>r</sup>	160,000
Manganese:						
Metallurgical-grade ore, gross weight	thousand metric tons	3,200 <sup>e</sup>	3,150	1,992 <sup>r</sup>	3,201 <sup>r</sup>	4,070
Mn content	do.	1,532	1,441	881	1,416 <sup>r</sup>	1,872
Natural gas, gross <sup>e</sup>	million cubic meters	167 <sup>r,4</sup>	187 <sup>r,4</sup>	200 <sup>r</sup>	200 <sup>r</sup>	200
Petroleum:						
Crude	thousand 42-gallon barrels	83,950	85,775	83,950	91,250 <sup>r</sup>	89,425
Refinery products <sup>e</sup>	do.	6,000	6,000	4,251 <sup>r,4</sup>	6,780 <sup>r,4</sup>	7,000

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits. <sup>r</sup>Revised. do. Ditto.

<sup>1</sup>Table includes data available through October 10, 2012.

<sup>2</sup>In addition to the commodities listed, a variety of crude construction materials (clays, sand and gravel, and stone) is also produced, but output is not reported, and information is inadequate to make reliable estimates of output. The diamond production data series, which from 1990 to 2010 had been estimated in 500 carats per year, and the gold production data series, which from 2004 to 2010 had been estimated in 300 kilograms per year, have been eliminated from table 1 to reflect the lack of adequate information to make reliable estimates of output.

<sup>3</sup>Includes cement produced from imported clinker.

<sup>4</sup>Reported figure.

TABLE 2  
GABON: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement		Société des Ciments du Gabon (Cimgabon) (Heidelberg Cement Group through Scancem International ANS, 75%, and Government, 25%)	Cement-grinding plant at Owendo, south of Libreville	240,000.
Do.		do.	Cement-grinding plant at Franceville, southeastern Gabon	170,000.
Clinker		do.	Clinker plant at N'Toum, 40 kilometers east of Libreville	300,000.
Gold	kilograms	Artisanal miners	Eteke region	300 to 700.
Manganese		Compagnie Minière de l'Ogooué S.A. (Comilog) (Eramet International S.A., 67.25%; Government, 25.4%; other, 7.35%)	Open pit mine at Moanda	4,000,000 ore, gross weight.
Do.		do.	Sintering plant	600,000.
Do.		Compagnie Industrielle et Commerciale des Mines de Huazhou (CICMHZ) [Citic Dameng Holdings Ltd. (DAMENG)]	Bembele Mine, town of Ndjole in Moyen-Ogooué Province	500,000 ore.
Petroleum:				
Crude	thousand 42-gallon barrels	China Petrochemical Corp. (Sinopec) through Addax Petroleum Corp., 92%	Remboue oilfield	NA.
Do.	do.	China Petrochemical Corp. (Sinopec) through Addax Petroleum Corp., 92.5%, and Tullow Oil plc, 3.75%	Obangue oilfield	1,800.
Do.	do.	do.	Tsiengui oilfield	1,800.
Do.	do.	China Petrochemical Corp. (Sinopec) through Addax Petroleum Corp., 31.36%; Vaalco Energy Inc., operator, 28.07%; Sasol Petroleum International, 27.75%; Sojitz Corp., 2.98%; PetroEnergy Resources Corp., 2.34%; Tullow Oil plc, 7.5%	Etame marine block, offshore: Avouma oilfield	2,400.
Do.	do.	do.	South Tchibala	NA.
Do.	do.	do.	Ebouri oilfield	NA.
Do.	do.	do.	Etame oilfield	6,570.
Do.	do.	Bowleven plc, 100%	EOV Block	NA.

See footnotes at end of table.

TABLE 2—Continued  
 GABON: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Metric tons unless otherwise specified)

Commodity		Major operating companies and and major equity owners	Location of main facilities	Annual capacity
Petroleum—Continued:				
Crude—	thousand	Maurel & Prom S.A., 100%	Banio	NA.
Continued	42-gallon barrels			
Do.	do.	Maurel & Prom S.A., 85%; AIC-Petrofi Ltd., 7.5%; Tullow Oil plc, 7.5%	Onal	NA.
Do.	do.	do.	Omko	NA.
Do.	do.	Perenco Group, 56.25%; Tullow Oil plc, 25%; Orange-Nassau Energie B.V. (18.75%)	Tchatamba Marin oilfield	NA.
Do.	do.	do.	Tchatamba West oilfield	NA.
Do.	do.	do.	Tchatamba South oilfield	NA.
Do.	do.	Royal Dutch Shell plc, 94.3%	Toucan	NA.
Do.	do.	Total Gabon S.A., 100%	Anguille	NA.
Do.	do.	do.	Gonelle	NA.
Do.	do.	do.	Torpille	NA.
Do.	do.	Total Gabon S.A., 57.5%	Avocette	NA.
Do.	do.	Total Gabon S.A., 50%	Baudroie Nord	NA.
Do.	do.	Total Gabon S.A., 47.5%, and Royal Dutch Shell plc, 52.5%	Rabi Kounga	NA.
Do.	do.	Total Gabon S.A., 40%, and Royal Dutch Shell plc, 60%	Atora	NA.
Do.	do.	Total Gabon S.A., 50%, and Vaalco Energy Inc., 50%	Mutamba Iroru	NA.
Refinery products	do.	Société Gabonnoise de Raffinage (Total Gabon S.A., 58%; Government, 25%; other, 17%	Port Gentil	8,800.

Do., do. Ditto. NA Not available.