



2009 Minerals Yearbook

CONGO (BRAZZAVILLE)

THE MINERAL INDUSTRY OF CONGO (BRAZZAVILLE)

By Philip M. Mobbs

The partial recovery of international oil prices in 2009 from the lows of late 2008 resulted in an expansion of the economy (which was an estimated 6.8% annual increase in the gross domestic product) of the Republic of the Congo, also known as Congo (Brazzaville). The petroleum sector output was estimated to account for about 93% of the country's exports and about 70% of Government revenues in 2009. In terms of the volume of its output, Congo (Brazzaville) ranked eighth among African crude oil producers in 2009 (Banque des États de l'Afrique Centrale, 2010a, b; BP p.l.c., 2010, p. 9; International Monetary Fund, 2010, p. 22, 23).

In September 2009, Presidential elections resulted in a reorganization of the Government, which included the formation of the Ministère des Mines et de la Géologie from the former Ministère des Mines, des Industries Minières et de la Géologie. Mining is regulated by the Code Minier (law No. 4-2005).

Congo (Brazzaville) was a candidate country of the Extractive Industries Transparency Initiative and was a participant in the Kimberley Process Certification Scheme (KPCS). Decree No. 2008-337 established procedures to implement the KPCS in Congo (Brazzaville). Decree No. 2008-338 established the Bureau d'Expertise, d'Evaluation et de Certification des Substances Minérales Précieuses [Bureau for Assay, Evaluation, and Certification of Precious Minerals].

The petroleum sector is regulated by the Code des Hydrocarbures (law No. 24-1994). In December 2008, Decree No. 2008-15 established new procedures for awarding oil and gas exploitation licenses.

Production

Most of Congo (Brazzaville)'s hydrocarbons were produced from offshore fields. Most of the natural gas produced was flared because of the lack of gas-gathering infrastructure.

The notable increases in crude oil and refined petroleum output in 2009 were attributable to production from new oilfields and the rehabilitation of the crude oil refinery of state-owned Congolaise de Raffinage (CORAF). Liquid petroleum gas (butane and propane) production also increased with the rehabilitation of the Nkossa platform gas plant that had been damaged in 2007 in an explosion and fire. In 2009, international demand for diamond was adversely affected by the global economic crisis, which resulted in the significant decrease in diamond output (table 1).

Structure of the Mineral Industry

The mineral sector is under the jurisdiction of the Ministère des Mines et de la Géologie. In recent years, mining activity has been accomplished primarily through small-scale domestic operations. International mining companies showed increased interest in mineral occurrences in Congo (Brazzaville), especially diamond, ferrous and precious metals, and potash,

which resulted in the issuance of a number of exploitation, exploration, and prospecting licenses.

The hydrocarbon sector was administered by the Ministère des Hydrocarbures. State-owned Société Nationale des Pétroles du Congo (SNPC) manages the Government's interest in petroleum and natural gas, and international oil companies operate many of the oilfields (table 2).

Commodity Review

Metals

Copper, Lead, and Zinc.—NGEx Resources Inc. of Canada, which was formed in 2009 after the merger of Canadian Gold Hunter Corp. and Sanu Resources Ltd., mapped, sampled, and prospected on the Kingouala license (which included the Kikompa copper, the Matatolo lead-zinc, the Moutele lead-zinc, the Ngouma copper, the Nkabi copper, and the Pieme lead-zinc prospects) and the Reneville license. NGEx planned to begin surface geophysics and drilling programs at Pieme and Reneville in 2010. The Société de Recherche et d'Exploitation Minière, which was a subsidiary of Gerald Metals, Inc. of the United States (90% equity interest) and the Government (10%), was exploring the Boko Songo copper and Yanga Koubanza lead-zinc prospects in Bouenza Department. A Chinese venture was reportedly reopening some of the past-producing mines in southern Congo (Brazzaville) (NGEx Resources Inc., 2010, p. 6).

Gold.—Compagnie Minière du Chaillu, which was a subsidiary of Mexivada Mining Corp. of Canada, continued its exploration of the Ngouaka-Bangadi gold prospect on the Malambani permit in Niari Department. The company also held gold exploration or prospecting rights to the Bitsandou, the Camp Socobois, and the Mbinda permits in Niari Department. La Société Congo Trading and Development, which was a subsidiary of a Chinese company, started exploration for diamond and gold in the Camp Sneb, the Doumani, and the Vouka areas.

Iron Ore.—Many of the iron ore deposits in Congo (Brazzaville) had been explored in the early 1970s or mid-1980s, but had been inactive until the past few years. In 2009, most of the current iron ore exploration programs in Congo (Brazzaville) were at an early stage, such as airborne geophysics, initial drilling, geochemical sampling, and reconnaissance geologic mapping.

In 2009, Congo Iron S.A., which was a subsidiary of Sundance Resources Ltd. of Australia (85% interest) and Congo Mining Investments SA (15%), completed geologic mapping and sampling programs on the Mt. Nabela iron ore prospect in Sangha Department in northwest Congo (Brazzaville). Congo Iron planned to drill the prospect in 2010. Congo Mining Ltd., which was a subsidiary of Geominex Resources Ltd. of the United Kingdom, was searching for partners to assist with the exploration of the Balondo prospect in Sangha Department and

the Mayoko-Moussondji prospect in Niari Department. Core Mining Congo S.A.R.L., which was a subsidiary of Core Mining Ltd. of the United Kingdom, was exploring the Avima project in Sangha Department and planned to drill the prospect in 2010. The Avima iron ore deposits were located about 460 kilometers (km) northeast of Libreville, Gabon.

DMC Iron Congo S.A.R.L., which was subsidiary of DMC Mining Ltd. of Australia, continued its exploration of the Mayoko project, which was located near an existing railroad in Niari Department about 300 km northeast of Pointe Noire. Assays of samples of the itabirite (a banded-iron rock) from several deposits of the project ranged from 32% to 49% iron content (DMC Mining Ltd., 2010).

Xstrata plc of Switzerland agreed to fund ongoing exploration of the Zanaga iron ore prospect in return for 50% equity interest in Jumelles Ltd. of the United Kingdom, which was associated with Mining Projects Development Congo S.A. (MPD). MPD was the local operating company for the Zanaga project, which was located about 300 km northeast of Pointe Noire in Lekoumou Department.

Magnesium.—MagMetals Inc., which was a division of MagIndustries Corp. of Canada, planned to start a feasibility study for a magnesium smelter after MagMinerals Inc. (which also was a division of MagIndustries) completed its Kouilou potash processing facility. MagMetals' proposed 60,000-metric-ton-per-year (t/yr)-capacity magnesium smelter was expected to be built adjacent to the Kouilou plant (MagIndustries Corp., 2008; 2010, p. 9).

Industrial Minerals

Diamond.—In Niari Department, Compagnie Minière du Chaillu resumed its exploration of the Lepandza and the Ngouaka diamond prospects on the Malambani permit and explored the Vourapa prospect on the Camp Socobois permit. Compagnie Minière du Chaillu also held the Bitsandou, the Mbinda, and the Nzambi diamond prospecting permits.

Potash.—In 2008, MagMinerals was granted a 25-year potash mining license, which was known as the Mengo exploitation permit, for the Kouilou project. MagMinerals (90%) and the Government of Congo (Brazzaville) (10%) established MagMinerals Potasses Congo S.A. (MPC) to operate the potash project.

In 2009, EniCongo S.A. was contracted to supply natural gas for the MPC potash project, and the installation of a 25-km natural gas pipeline to Mengo from Djeno was started in September. Also in 2009, MagMinerals acquired Potasse du Congo SARL, which held the Loango, the Makola, and the Tchizalamou exploration permits that surrounded the Mengo permit. Potasse du Congo had acquired much of MagMineral's original 2,265-square-kilometer (km²) Makola exploration permit that had expired when the 136-km² Mengo exploitation permit was issued. The initial phase of the Kouilou project, which included a solution-mining operation and a 600,000-t/yr-capacity potash fertilizer facility, was expected to begin production in 2012 (ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH, 2009, p 2-3; MagIndustries Corp., 2009; 2010, p. 3-7).

Sintoukola Potash S.A. acquired the Sintoukola potash exploration license, which was located about 55 km northwest of Point Noire. Elemental Minerals Ltd. of Australia originally held 75% of the equity in Sintoukola Potash S.A. with partners Les Etablissements Congolais MGM, 10%; Saurus Resources, 10%; and Tanaka Resources (Proprietary) Ltd., 5%. By January 2010, Elemental Minerals increased its equity interest in Sintoukola Potash to 93%; MGM retained 5% interest; and Tanaka, 2%. Elemental expected to begin exploration drilling in early 2010.

Mineral Fuels

Petroleum.—Total Exploration & Production Congo operated nine oilfields in Congo (Brazzaville). Aided by a full year of production from the new Moho-Bilondo field, Total increased its net share of crude oil production in the country in 2009 by nearly 19% to about 37 million barrels per year (Mbbbl/yr). The Moho-Bilondo oilfield was the most prolific oilfield in Congo (Brazzaville) in 2009, supplanting the M'Boundi field. The joint venture of Total Exploration (65%) and Eni Congo S.A. continued the development of the Libondo oilfield, which was expected to produce up to 3 Mbbbl/yr. The field was scheduled to be commissioned in 2011 (Total S.A., 2010, p. 12, 20).

Eni's share of production (in barrels of oil equivalent¹) in Congo (Brazzaville) reached 36 Mbbbl/yr in 2009 compared with about 31 Mbbbl/yr in 2008. The increase was attributable to production from the Awa/Paloulou field, increased production from the Ikalou-Ikalou Sud fields, and 25% to 35% of the output of the Kouakouala, the M'Boundi, and the Pointe Indienne fields that had been secured with the acquisition of Burren Energy PLC in 2008 (Eni SpA, 2009, p. 35; 2010, p. 42).

At mid-year, the joint venture of Murphy Oil Corp. of the United States, PA Resources AB of Sweden, and SNPC started production from the Azurite field. In October, Congorep started production from a steam-injection facility that was installed on the MOAB platform of the Emeraude field. The additional recovery from the MOAB platform was expected to exceed 900,000 barrels per year. Also at mid-year, Etablissements Maurel & Prom S.A. withdrew from a joint venture with Prestoil Kouilou and SNPC on the Tilapia field; production subsequently ceased (Etablissements Maurel & Prom, 2009; Perenco Group, 2009).

Outlook

Despite the continued decline in production from older oilfields, the petroleum sector is expected to remain the cornerstone of the country's economy for the immediate future in part because of new oilfields coming onstream. By 2010, output from Total's offshore Moho-Bilondo field, which started production in 2008, is expected to account for nearly 30% of the country's crude oil output, and the deepwater Azurite field is expected to account for about 10% of national oil production.

The redevelopment of the coastal potash deposits is expected to result in the resumption of potash production in 2012.

¹One barrel of oil equivalent is roughly equivalent to 170 cubic meters of natural gas.

Additionally, successful diamond and metal exploration could lead to the development of additional mineral resources, which would allow some diversification of the national economy.

References Cited

- Banque des États de l'Afrique Centrale, 2010a, CONGO—Principaux indicateurs économiques, financiers et sociaux [CONGO—Key economic and financial indicators]: Yaoundé, Cameroon, Banque des États de l'Afrique Centrale, 1 p. (Accessed April 22, 2010, at <http://www.beac.int/stateco/depiefcng.pdf>.)
- Banque des États de l'Afrique Centrale, 2010b, CONGO—Tableau des opérations financières de l'Etat [CONGO—Table of state financial operations]: Yaoundé, Cameroon, Banque des États de l'Afrique Centrale, 1 p. (Accessed April 22, 2010, at <http://www.beac.int/stateco/deofecng.pdf>.)
- BP p.l.c., 2010, BP statistical review of world energy June 2010: London, United Kingdom, BP p.l.c., 45 p.
- DMC Mining Ltd., 2010, DMC increases exploration target size at Mayoko by 30% to 0.9 – 1.3 billion tonnes: West Perth, Australia, January 12, 4 p.
- Eni SpA, 2009, Form 20-F—2008: U.S. Securities and Exchange Commission, 169 p.
- Eni SpA, 2010, Form 20-F—2009: U.S. Securities and Exchange Commission, 168 p.
- ERCOSPLAN Ingenieuresellschaft Geotechnik und Bergbau mbH, 2009, Updated reserve and resource estimate for MagMinerals Kouilou potash project—Republic of Congo: Erfurt, Germany, ERCOSPLAN Ingenieuresellschaft Geotechnik und Bergbau mbH, June 10, 144 p.
- Etalissements Maurel & Prom, 2009, Entrée de Maurel & Prom en offshore en tant qu'opérateur [Maurel & Prom as offshore operator]: Paris, France, Etalissements Maurel & Prom, June 17, 1 p.
- International Monetary Fund, 2010, Republic of Congo—Second review under the three-year arrangement under the poverty reduction and growth facility—Staff report: Washington, DC, International Monetary Fund country report no. 10/54, February, 47 p.
- MagIndustries Corp., 2008, MagMetals signs technology license agreement with Hydro: Toronto, Ontario, Canada, MagIndustries Corp., June 26, 2 p.
- MagIndustries Corp., 2009, MagMinerals Potasses Congo—The first 11 kilometers of pipe for the gas pipeline arrived in Pointe-Noire: Toronto, Ontario, Canada, MagIndustries Corp., September 30, 3 p.
- MagIndustries Corp., 2010, Annual report 2009: Toronto, Ontario, Canada, MagIndustries Corp., 53 p.
- NGEx Resources Inc., 2010, Annual report—December 31, 2009: Vancouver, British Columbia, Canada, NGEx Resources Inc., 16 p.
- Perenco Group, 2009, Production starts from MOAB platform, Republic of Congo: London, United Kingdom, Perenco Group, October 15, 1 p.
- Total S.A., 2010, Form 20-F—2009: U.S. Securities and Exchange Commission, 139 p.

TABLE 1
CONGO (BRAZZAVILLE): ESTIMATED PRODUCTION OF MINERAL COMMODITIES^{1,2}

Commodity ³		2005	2006	2007	2008	2009
Cement	metric tons	100,000	100,000	100,000	105,000 ^r	110,000
Diamond	carats	-- ⁴	-- ⁴	22,000 ⁵	110,000 ⁵	68,000 ⁵
Gold, mine output, Au content	kilograms	120	100	100	100	100
Lime	metric tons	400	400	400	400	400
Liquid petroleum gas ^{5,6}	thousand 42-gallon barrels	766	2,960	1,016	1,610	2,469
Petroleum:						
Crude ⁵	do.	92,550	93,261	80,692 ^{r,5}	85,037	99,348
Refined	do.	3,000	3,500	3,500	2,500	3,000

^rRevised. do. Ditto. -- Zero.

¹Estimated data are rounded to no more than three significant digits.

²Table includes data available through January 20, 2010.

³In addition to the commodities listed, crude construction materials (for example, clay, sand and gravel, and stone) were produced, but available information is inadequate to make reliable estimates of output. Natural gas is also produced, but output is flared, reinjected, or vented.

⁴No official diamond production was reported, although there may have been artisanal production.

⁵Reported figure.

⁶Includes butane and propane.

TABLE 2
CONGO (BRAZZAVILLE): STRUCTURE OF THE MINERAL INDUSTRY IN 2009

(Thousand 42-gallon barrels unless otherwise specified)

Commodity		Major operating companies and and major equity owners	Location of main facilities	Annual capacity ^c
Cement	metric tons	Société Nouvelle des Ciments du Congo (Société National Chinoise des Travaux des Ponts et Chaussées, 56%, and Government, 44%)	Loutete	250,000
Diamond	carats	Artisanal production	Kouilou, Lekoumou, Likouala, Niari, and West Cuvette Departments	50,000
Gold	kilograms	do.	Various locations	100
Liquefied petroleum gas		Total Exploration & Production Congo, 53.5%; Chevron Overseas (Congo) Ltd., 31.5%; Société Nationale des Pétroles du Congo (SNPC), 15%	Nkossa platform, offshore	3,000
Petroleum:				
Crude		do.	Moho-Bilondo field, offshore	32,000
Do.		Total Exploration & Production Congo, 65%, and Eni Congo S.A., 35%	Kombi, Likalala, Tchibeli, and Tchibouela fields, offshore	25,000
Do.		Eni Congo S.A., 74%; Korea National Oil Co., 11%; Société Nationale des Pétroles du Congo (SNPC), 8.8%	M'Boundi field, onshore	20,000
Do.		Total Exploration & Production Congo, 53.5%; Chevron Overseas (Congo) Ltd., 31.5%; Société Nationale des Pétroles du Congo (SNPC), 15%	Nkossa and Nsoko fields, offshore	18,000
Do.		Eni Congo S.A., 35.75%; Société Nationale des Pétroles du Congo (SNPC), 35%; Chevron Overseas (Congo) Ltd., 29.25%	Kitina field, offshore	15,000
Do.		Murphy Oil Corp., 50%; PA Resources AB, 35%; Société Nationale de Recherche et d'Exploration Pétrolière (SNPC), 15%	Azurite field, offshore	12,000
Do.		Total Exploration & Production Congo, 55.25%; Eni Congo S.A., 29.75%; Société Nationale des Pétroles du Congo (SNPC), 15%	Sendji and Yanga fields, offshore	9,500
Do.		Eni Congo S.A., 65%, and Total Exploration & Production Congo, 35%	Zatchi field offshore	7,600
Do.		Eni Congo S.A., 65%, and Société Nationale des Pétroles du Congo (SNPC), 35%	Djambala, Foukanda, and Mwafi fields, offshore	7,300
Do.		Eni Congo S.A., 50%, and Total Exploration & Production Congo, 50%	Loango field, offshore	6,500
Do.		Likouala S.A., 65%, and Eni Congo S.A., 35%	Likouala field, offshore	3,800
Do.		CMS NOMECONO Congo [Société Nationale de Recherche et d'Exploration Pétrolière (SNPC), 50%; Perenco Group, 25%; Nuevo Congo Co., 18.75%; Kuwait Foreign Petroleum Exploration Co. (K.S.C.), 6.25%]	Yombo field, offshore	3,600
Do.		Congorep [Perenco Group, 51%, and Société Nationale des Pétroles du Congo (SNPC), 49%]	Emeraude field, offshore	3,500
Do.		Eni Congo S.A., 100%	Ikalou/Ikalou Sud fields, offshore	3,000
Do.		Total Exploration & Production Congo, 65%, and Eni Congo S.A., 35%	Tchendo field, offshore	3,000
Do.		Eni Congo S.A., 90%	Awa/Paloukou field, offshore	1,700
Do.		Eni Congo S.A., 75%	Kouakouala field, onshore	500
Do.		Prestoil Kouilou and Société Nationale des Pétroles du Congo (SNPC)	Tilapia field, ¹ offshore	100

See footnotes at end of table.

TABLE 2—Continued
 CONGO (BRAZZAVILLE): STRUCTURE OF THE MINERAL INDUSTRY IN 2009

(Thousand 42-gallon barrels unless otherwise specified)

Commodity	Major operating companies and and major equity owners	Location of main facilities	Annual capacity ^e
Petroleum—Continued:			
Crude—Continued	Société Africaine Oil Corp.	Pointe-Indienne field, onshore	50
Refined product	Congolaise de Raffinage (CORAF) [Société Nationale des Pétroles du Congo (SNPC), 100%]	Pointe Noire	7,600

^eEstimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto.

¹Production suspended in 2009.

