



2015 Minerals Yearbook

CAMEROON [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF CAMEROON

By James J. Barry

Mineral production was a small part of Cameroon's economy. The major mineral commodities produced were aluminum, crude and refined petroleum, and pumice and pumicite. In 2015, Cameroon was the eighth-ranked producer of pumice and pumicite in the world, accounting for 2.1% of global production. In 2015, real gross domestic product (GDP) increased by 5.8% compared with 5.9% in 2014. The oil sector represented about 5.1% of real GDP. In 2015, crude petroleum was Cameroon's main export commodity and was projected to account for about 39% of total exports, by value (International Monetary Fund, 2015, p. 25; National Institute of Statistics, 2016, p. 2, 10; Crangle, 2017).

Cameroon's mineral resources, including petroleum resources, belong to the Government. Prospecting, exploration, and development activities for all mineral deposits are regulated by law and require a license or permit. The mining sector in the country is governed by the provisions set forth in the Mining Code, which was established by law No. 001–2001 of 16 April 2001. The law was amended by Decree No. 2002/848/PM of 26 March 2002, which detailed the rules for the application of the law. Further amendments and supplements are law No. 2010/011 of 29 July 2010, Decree No. 2014/1882/PM of 4 July 2014, and Decree No. 2014/2349/PM of 1 August 2014. Exploration and exploitation licenses were issued subject to the Government of Cameroon having a right to receive a 10% free-carried interest in the share capital of the project operating company (Bissou, Bamenjo, and Koagne, 2014, p. 13–14). The principal Government organizations regulating the upstream oil and gas sector were the Ministry of Mines and the state oil and gas company Société National des Hydrocarbures (SNH). The Minister of Mines granted all licenses and authorizations and regulated petroleum operators. The SNH was created in 1980 by Decree No. 80/086 of 12 March 1980. It was the entity responsible for developing and monitoring petroleum activity in the country and managing the state's interest in the oil sector. The Petroleum Code was established by law No. 99/013 of 22 December 1999; the terms of application of the Petroleum Code were set forth in Decree No. 2000/465 of 30 June 2000. Decree No. 2008/012 of 17 January 2008 amended and supplemented certain provisions of Decree No. 80/086 of 12 March 1980, which extended the scope of the SNH to the development of natural gas. Law No. 2012/006 of 19 April 2012 regulates and promotes the development of the downstream gas sector. It repealed previous law No. 2002/13 of 30 December 2002 (Republic of Cameroon, 2012; Freshfields Bruckhaus Deringer LLP, 2013).

Production

In 2015, the main mineral commodities produced in Cameroon were aluminum, cement, and crude petroleum. Other minerals produced in the country included clay, diamond, gold,

granite, gypsum, kyanite, lime, limestone, marble, natural gas, pozzolanic materials, quartzite, refined petroleum products, sand and gravel, sapphire, and silica sand. In 2015, reported production of crude petroleum increased by 27% compared with that of 2014; cement production, by an estimated 23%; gold production, by an estimated 20%; and natural gas production, by 18%. Diamond production, as reported by the Kimberley Process Certification Scheme, decreased by 40% in 2015 compared with that of 2014, and production of aluminum metal decreased by an estimated 35% in 2015 (table 1).

Structure of the Mineral Industry

Cameroon's mineral-processing facilities were mostly privately owned. Notable companies included the Cimenteries du Cameroun, which produced cement, clay, limestone, pozzolanic materials, and sand, and Compagnie Camérounaise de l'Aluminium (Alucam), which produced aluminum. On December 31, 2014, Rio Tinto Alcan Inc. of Canada divested its 46.67% interest in the Alucam smelter, which was located in Edea. The Government, which also held a 46.67% interest, assumed Rio Tinto's interest; the remainder was held by the Agence Française de Développement (5.6%) and the employees (1.1%). By yearend 2015, the Government had still not found a new partner to assume the interest left by Rio Tinto. State-owned companies with mineral-related activities included the SNH, which was involved in hydrocarbon exploration and production in various joint ventures with multinational oil companies, and the Société Nationale de Raffinage (SONARA), which refined crude petroleum (Business in Cameroon, 2016). Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Bauxite and Alumina.—Canyon Resources Ltd. of Australia held a 75% interest in a joint venture with Aluvance plc of the United Kingdom for the Birsok project, which is located in an emerging bauxite region of Cameroon and contiguous with the large Minim Martap bauxite deposit in the Adamawa region. In February, Canyon executed a memorandum of understanding (MOU) with Bolloré Africa Logistics Cameroon to determine the logistics and transportation plans that would be necessary for the project. Bolloré was the operator of the Camrail rail line and the Doula Port. One of the key, initial results to come from the MOU was the determination that the existing rail would be able to accommodate bulk transport of bauxite without the need for upgrades. In June, Canyon commenced drilling under the Birsok and Mandoum permits that make up the Birsok project. Based on continued positive test results, Canyon expected that the project could be developed into a major direct-shipping ore (DSO) operation, producing 2 to 3 million metric tons per year (Mt/yr)

(Aluvance plc, 2015a; Canyon Resources Ltd., 2015a, p. 7, 9, 11; 2015b; 2016, p. 2).

Iron Ore.—Caminex SA, which was a wholly owned subsidiary of International Mining & Infrastructure Corporation plc of the United Kingdom, held four exploration permits for iron ore—the Akonolinga, Ngoa, and Nkout projects located in southern Cameroon and the Ntem project located in southwestern Cameroon. In October, the company completed a scoping study of the Ntem project, determining it to be economically viable. When it reaches full production, the project was expected to produce 4 Mt/yr of iron ore. A prefeasibility study of the Nkout project was underway, and production from Nkout was expected to be 35 Mt/yr. Owing to the low global price of iron ore during the past several years, however, both projects were placed on care-and-maintenance status. The Akonolinga and the Ngoa deposits were in early exploration stages (International Mining and Infrastructure Corp., 2015a, b).

Aluvance continued developing the wholly owned Bikoula project, completing social and environmental baseline studies in the first quarter of 2015. The company projected mining to begin by 2017; the project had an initial Joint Ore Reserves Committee (JORC)-compliant inferred mineral resource of 45 million metric tons (Mt) and 44% iron content. In April, the company was awarded an exploration license for the DSO Ndjele project in southern Cameroon. Initial grab samples indicated iron content up to about 65% for the project, which was located on existing transportation infrastructure that would be conducive to getting the ore to port (Aluvance plc, 2015b; 2016, p. 18, 20, 21).

In 2015, the West African Minerals Corp. of the British Virgin Islands continued exploration activities on its South Sanaga license area. In January, the company completed a maiden inferred mineral resource estimate, with a total inferred resource of 82.9 Mt at 32.1% iron with a 25% iron cutoff grade. The persistent low price of iron ore and weakened demand for iron ore from China led the company to reduce the lease size under its exploration permit and to commence a scoping study on the possibility of opening a steel production facility in Cameroon to process the Sanaga iron ore (West African Minerals Corp., 2015a–c).

Sundance Resources Ltd. of Australia continued the development of the Mbalam-Nabeba iron ore project, which straddles the border of Cameroon and the Republic of the Congo [Congo (Brazzaville)]. The goal of the project was to mine 35 Mt/yr of iron ore from deposits in both countries for a minimum of 25 years. Contracts were signed in June 2014 to construct the project's port and rail infrastructure between Mota Engil Africa and Sundance. In October 2015, Sundance announced that, owing to the low iron ore prices, China Gezhouba Group Company of China failed to sign the contract to construct the port and rail infrastructure. Without the contract in place, the project was temporarily suspended; however, both Sundance and the Government expressed their desire to continue with the development of the project (Sundance Resources Ltd., 2014, p. 1, 4, 33; 2016; Mining-technology.com, 2016).

The Mbalam-Nabeba iron ore project was covered under the following three permits: Exploration Permit

92 located in Cameroon's East Province and owned by Cam Iron SA (a 90%-owned subsidiary of Sundance); and the Nabeba-Barnegod mining permit and the Ibanga exploration permit, both located in the Sangha Province of Congo (Brazzaville) and owned by Congo Iron SA (an 85%-owned subsidiary of Sundance). The iron ore project contained high-grade hematite and low-grade itabirite deposits that Sundance planned to exploit in two stages. Stage one anticipated the production of the near-surface high-grade hematite DSO at a rate of 35 Mt/yr for at least 10 to 12 years, with estimated reserves of 436.3 Mt at an average grade of 62.6% iron. Stage two envisaged the production of the hard, lower grade itabirite that underlies the DSO at a rate of 35 Mt/yr for an additional 15 years or more, and which would require beneficiation to produce a concentrate grading 66% to 68% iron. Mineral reserves had not yet been estimated from the itabirite resources for stage two. These resources (indicated and inferred) were estimated to total 4.05 billion metric tons at an average grade of 36.3% iron (Sundance Resources Ltd., 2014, p. 1, 4, 16–18).

Industrial Minerals

Cement.—In 2015, estimated consumption of cement was 2.8 Mt, yet the country produced only an estimated 1.6 Mt. To meet the country's increasing demand for cement, CimENTS de L'Afrique (CIMAF) of Morocco opened a new 0.5-Mt/yr plant in early 2015 in Douala. In August, the Dangote Group of Nigeria opened a 1.5-Mt/yr grinding plant in Douala. Dangote planned to double the company's capacity in Cameroon with a second plant to be constructed in Yaounde by 2018 (Cemnet, 2015; Daily Post, 2015; Dangote Cement, 2016, p. 36).

Mineral Fuels

Petroleum.—In September, Tower Resources Cameroon S.A., a wholly owned subsidiary of Tower Resources plc of the United Kingdom, was awarded a 100% interest in the Thali Block in the shallow-water Rio del Rey Basin. Thali currently had three discovery wells—two for gas and one for oil. Seven million barrels of subcommercial oil had been discovered in the block. Tower was planning to acquire three-dimensional seismic data in 2016 to better define the reserves. With positive data, Tower expected drilling to commence in 2017 or 2018 (Société Nationale des Hydrocarbures, 2015; Tower Resources plc, 2016).

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TABLE 1
CAMEROON: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2011	2012	2013	2014	2015 ^c
METALS					
Aluminum metal, primary	69,000	52,000	75,000	93,000	60,000
Gold, mine output, Au content ^{e,3}	1,600	1,500	1,600	1,500	1,800
INDUSTRIAL MINERALS					
Cement, hydraulic	1,146,000	1,275,000	1,400,000 ^c	1,300,000	1,600,000
Clay	13,223	8,922	12,107	22,042 ^r	22,000
Diamond ³	700 ^{e,r}	799 ^r	2,722 ^r	3,718	2,245 ⁴
Granite	3,821	2,615	1,754	NA ^r	NA
Kyanite	NA	324,900	220,350	220,000 ^c	220,000
Lime	1,157	1,251	1,200	1,200 ^c	1,200
Limestone	182,926	164,936	143,463	130,149 ^r	143,000
Marble	11,983	5,959	10,134	NA ^r	NA
Pozzolana, ash for cement	424,202	400,205	363,655	297,592 ^r	300,000
Quartzite	NA	149	3,950	4,000 ^c	4,000
Sand	169,383	209,756	143,517	136,453	142,000
Sapphire	NA	1	8	NA ^r	NA
MINERAL FUELS AND RELATED MATERIALS					
Natural gas	NA	2,533	5,365 ^r	10,809 ^r	12,761 ⁴
Petroleum					
Crude	21,610 ^r	22,376 ^r	24,275 ^r	27,501 ^r	34,974 ⁴
Refinery products:					
Gasoline	3,403	3,557	3,753	3,975 ^r	4,000
Jet kerosene	2,744	2,871	3,029	3,212 ^r	3,200
Diesel fuel	6,568	6,867	7,251	7,686 ^r	7,700
Fuel oil	2,559	2,678	2,827	2,999 ^r	3,100
Liquefied petroleum gas	244	255	267	278 ^r	290
Total	15,518	16,228	17,127	18,149 ^r	18,300

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

¹Table includes data available through January 5, 2017.

²In addition to the commodities listed, a variety of industrial minerals and construction materials, such as aggregate, gravel, gypsum, and other types of stone, may have been produced, but available information was inadequate to make reliable estimates of output.

³From artisanal mining.

⁴Reported figure.

TABLE 2
CAMEROON: STRUCTURE OF THE MINERAL INDUSTRY IN 2015

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location	Annual capacity
Aluminum	Compagnie Camerounaise de l'Aluminium (Alucam) (Government, 93.4%; Agence Française de Développement (AFD), 5.6%; Alucam staff, 1%)	Smelter at Edea	100
Cement	Cimenteries du Cameroun (LafargeHolcim, 55%; Government, 43%; Cimenteries du Cameroun staff, 2%)	Plant at Bonaberi near Douala	1,600
Do.	do.	Grinding plant at Figuil	100
Do.	Ciments de L'Afrique (CIMAF)	Plant at Bonaberi near Douala	500
Do.	Dangote Group	Grinding plant in Douala	1,500
Clay	Cimenteries du Cameroun (LafargeHolcim, 55%; Government, 43%; Cimenteries du Cameroun staff, 2%)	Figuil	NA
Diamond	carats Artisanal miners	Various locations	12,000 ^c
Gold	kilograms do.	do.	2,000 ^c
Limestone	Cimenteries du Cameroun (LafargeHolcim, 55%; Government, 43%; Cimenteries du Cameroun staff, 2%)	Figuil	275
Petroleum:			
Crude	Société National des Hydrocarbures (SNH), and various other companies	Offshore and onshore	NA
Refined	barrels per day Société Nationale de Raffinage (SONARA) (Government)	Refinery at Limbe	45,000
Pozzolan ash	Cimenteries du Cameroun (LafargeHolcim, 55%; Government, 43%; Cimenteries du Cameroun staff, 2%)	Figuil	NA
Sand	Cimenteries du Cameroun (LafargeHolcim, 55%; Government, 43%; Cimenteries du Cameroun staff, 2%)	do.	NA

^cEstimated. Do. do. Ditto. NA Not available.