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The Mineral Industry of Congo (Kinshasa)

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The Democratic Republic of the Congo [Congo (Kinshasa)] played a globally significant role in the world's production of cobalt, copper, diamond, tantalum, and tin. In 2014, the country's share of the world's mined cobalt production amounted to 51%; tantalum, 17%; diamond, 13%; copper, 6%; refined cobalt, nearly 4%; and tin, 2%. Congo (Kinshasa) accounted for about 47% of the world's cobalt reserves. Crude petroleum production also played a significant role in the domestic economy. The country was not a globally significant consumer of minerals or mineral fuels (Cobalt Development Institute, 2015; Kimberley Process, 2015; Anderson, 2016; Brininstool, 2016; Papp, 2016; Shedd, 2016).

Minerals in the National Economy

The mining and mineral processing sector accounted for an estimated 20.9% of the gross domestic product (GDP) in 2013 (the latest year for which data were available), and the manufacturing sector, 22%. The copper mining subsector accounted for 13.5% of GDP; the cobalt mining subsector, 5%; the petroleum extraction subsector, 3.1%; the quarrying subsector, 2.9%; the diamond mining subsector, 0.8%; and other minerals, 0.7% (Banque Centrale du Congo, undated, p. 45).

More than 800,000 artisanal miners were estimated to be employed in diamond mining in Congo (Kinshasa) in 2014. In 2014, a survey of 1,088 mine sites was conducted in Katanga, Maniema, Nord-Kivu, and Sud-Kivu Provinces and the Ituri Interim Administration of Orientale Province. Gold mining was reported to employ about 176,000 miners; tin mining, about 32,000 miners; niobium and tantalum mining, about 7,000 miners; tungsten, nearly 1,400 miners; and other minerals including copper, manganese, and tourmaline, nearly 5,200 miners (Krawitz, 2014; Spittaels and others, 2014, p. 11).

Government Policies and Programs

The mining sector was governed by Law No. 007/2012 of July 11, 2002, which replaced Law No. 81–013 of April 2, 1981. The revised mining code encourages private sector development of the mineral industry; the principal role of the Government is to encourage and regulate the development of the industry. Mining rights are vested with the Government. At the end of 2014, the petroleum sector still was governed by Law No. 81–013 of April 2, 1981, and Law No. 86–008 dated December 27, 1986.

In 2014, the Government was considering a new mining code that would increase its free-carried and nondilutable share in mining projects to 15% from 5%. The Government's interest would increase by 5% up to 15% at each renewal of a mining permit. The proposed mining code would increase the corporate tax rate to 35% from 30%; increase royalty rates on cobalt and copper to 4% from 2%; and introduce a super profits tax rate of 50% that would apply to a mining operation when the price of the relevant commodity was 25% or greater than the price forecasted in the feasibility study. At yearend, the proposed mining code had not been submitted for approval by the Congolese Parliament (Bahamin, 2014; Brown, 2014; Chamber of Mines, 2015, p. 20).

In April 2013, the Government issued a decree that banned the export of cobalt and copper concentrates. Companies were given a 90-day moratorium to comply with the ban; the moratorium subsequently was extended until yearend. In January 2014, the Government extended the moratorium until 2015 because power shortages limited downstream processing of concentrates (Engineering & Mining Journal, 2014; Kavanagh, 2014).

Congo (Kinshasa) was a signatory to the Kimberley Process Certification Scheme, which is a certification system that became effective on January 1, 2003, to reduce the trade in conflict diamond. In 2014, an association of small-scale miners initiated several programs to reduce illegal exports of diamond in accordance with the Kimberley Process Certification Scheme (Chamber of Mines, 2015, p. 13).

In July 2010, the U.S. Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act, which contains provisions concerning the use of minerals to finance military operations in eastern Congo (Kinshasa). The U.S. Securities and Exchange Commission (SEC) issued regulations in final form in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act in August 2012 (U.S. Securities and Exchange Commission, 2012, p. 56274–56275).

Under the regulations, all companies registered with the SEC that sold products containing gold, tantalum, tin, or tungsten were required to disclose whether these minerals originated from Congo (Kinshasa) or adjoining countries. Companies that sold products containing gold, tantalum, tin, or tungsten that originated in Congo (Kinshasa) or adjoining countries were also required to submit annual reports to the SEC describing the due diligence measures taken to determine the source and custody of such minerals and to provide a description of the products manufactured or contracted to be manufactured that were not conflict free. The reports also were required to be published on the companies' Web sites (U.S. Securities and Exchange Commission, 2012, p. 56274).

In April 2014, a panel of the Court of Appeals for the D.C. Circuit mostly upheld the SEC's authority to implement the regulations in Section 1502 of the Dodd-Frank Act. The panel ruled that the regulations requiring companies to describe certain products as having been "not found to be DRC conflict free" were unconstitutional on First Amendment grounds. Subsequently, the Circuit Court of Appeals, sitting en banc, overruled part of the panel's ruling that struck down the disputed Section 1502 regulations. On November 18, 2014, the panel agreed to rehear arguments regarding First Amendment issues in the case (Seitzinger and Ruane, 2015).

In March 2011, the Government of Katanga Province and the International Tin Research Institute (ITRI) started the ITRI Tin Supply Chain Initiative (iTSCI), which is a traceability mechanism for domestically produced tantalum, tin, and tungsten to meet end users' requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act and Organisation for Economic Co-operation and Development due diligence guidelines. By the end of 2014, 232 mine sites were covered by iTSCI in Katanga Province, of which 144 were active (International Tin Research Institute, 2015b, p. 3).

In Maniema Province, 164 mine sites were covered by iTSCI at the end of 2014, of which 140 were active. Mine sites were covered in the Kalio, Pangi, and Punia Territories. In Sud-Kivu Province, 29 mine sites were covered at yearend, of which 26 were active. Mine sites were covered in the Idjwi, Kalehe, Mwenga, Uvira, and Walungu Territories. In Nord-Kivu Province, 15 mine sites were covered at yearend, all of which were active. Mine sites were covered in the Masisi Territory (International Tin Research Institute, 2015b, p. 3).

As of May 2014, armed groups reportedly were present at 591 mine sites in eastern Congo (Kinshasa). Armed groups reportedly engaged in illegal taxation of miners at 507 mine sites, and practiced forced labor at 46 mine sites (Spittaels and others, 2014, p. 21).

Production

In 2014, the production of niobium increased by 83%; gold, by an estimated 82%; tantalum, by an estimated 73%; tin, by 44%; refined copper and sulfuric acid, by 30% each; germanium, by an estimated 17%; zinc, by 14%; and mined cobalt, by an estimated 11%. Between 2010 and 2014, refined copper output increased by 241%; gold, by an estimated 158%; mined copper, by an estimated 145%; niobium, by an estimated 110%; and tantalum by an estimated 79%. In 2014, silver production decreased by 89%; tungsten, by an estimated 78%; cement, by 26%; and diamond, by 12%. Between 2010 and 2014, refined cobalt production decreased by 32% (table 1).

Structure of the Mineral Industry

La Générale des Carrières et des Mines (Gécamines), which was a state-owned company, produced cobalt and copper. Other cobalt and copper mining companies were privately owned; Gécamines held shares of between 5% and 40% in numerous operations. Private companies held majorty shares in the cement producers; Gécamines held a 49.73% share in Ciment et Matériaux du Katanga. The Government held an 80% share in the large-scale diamond producer Société Minière de Bakwanga (MIBA). Artisanal and small-scale miners accounted for most of the country's output of diamond, niobium, tantalum, tin, and tungsten. Artisanal and small-scale miners also played a significant role in the country's cobalt and gold mine production.

Mineral Trade

Total reported exports were valued at $10.9 billion in 2013, and imports, $10 billion. Copper accounted for 68% of the total value of the country's exports; cobalt, 17%; crude petroleum, 8%; diamond, 2%; and gold, 1%. Other mineral exports included germanium, niobium, tantalum, tin, tourmaline, and tungsten. Cobalt was exported to countries including China and Finland; copper, to countries including China and the United States; gold, to countries including the United Arab Emirates; and tin, to countries including Malaysia. Mineral fuels accounted for about 10% of total imports in 2013 (Banque Centrale du Congo, undated, p. 174–175).

In 2014, the share of copper and cobalt production that was refined prior to export was 86% and 5%, respectively. Additional cobalt and copper mine production was exported after processing to intermediate products, such as cobalt carbonate, cobalt hydroxide, and black copper. Most or all Congolese diamond, niobium, tantalum, tin, and tungsten production was exported prior to downstream processing (table 1).

Commodity Review

Metals

Cobalt, Copper, and Silver.—In 2014, output at the Tenke Fungurume Mine was 202,648 metric tons (t) of refined copper and 13,334 t of contained cobalt in hydroxide compared with 209,774 t of refined copper and 12,751 t of contained cobalt in 2013. Production exceeded the mine's rated capacity of 195,000 metric tons per year (t/yr) of refined copper; the rated capacity of cobalt in cobalt hydroxide was 15,000 t/yr. In 2015, sales volumes were expected to be 202,000 t of refined copper and 14,500 t of contained cobalt. Tenke Fungurume was a joint venture of Freeport McMoran Copper & Gold Inc. of the United States (56%), Lundin Mining Corp. of Canada (24%), and Gécamines (20%) (Lundin Mining Corp., 2015, p. 23).

In 2013, Mutanda Mining SPRL (Glencore plc of Switzerland, 69%, and Fleurette Properties Ltd., 31%) increased the capacity of its copper solvent extraction and electrowinning (SX-EW) plant at the Mutanda Mine to 200,000 t/yr from 110,000 t/yr in 2012. The capacity of cobalt in hydroxide was 23,000 t/yr. In 2014, output at Mutanda was 197,100 t of copper, of which about 196,300 t was refined. In 2013, production was 150,600 t of copper, of which about 142,500 t was refined. Cobalt output in concentrate and hydroxide increased to about 14,400 t in 2014 from 13,700 t in 2013 (Hack, 2013; Kibawa, 2014, 2015; Glencore plc, 2015, p. 13).

Katanga Mining Ltd. of Switzerland produced copper and cobalt at the KOV open pit mine, the KTO underground mines, and the Luilu refinery. In 2014, production was 157,016 t of refined copper and 2,784 t of cobalt metal compared with 87,479 t of refined copper and 2,297 t of cobalt metal in 2013. Katanga also produced 48,713 t of copper in concentrate in 2013; the company stopped concentrate sales in 2013 because of increased export taxes and capacity expansions at Luilu. In 2014, higher production was primarily attributable to increased ore mined at the KOV Mine. Output was limited by power supply interruptions (Katanga Mining Ltd., 2014, p. 6, 10–11; 2015, p. 6–9, 13).

At the end of 2014, Luilu's capacity of refined copper was 300,000 t/yr compared with 200,000 t/yr at the end of 2013. Katanga planned to produce 242,000 t of refined copper in 2015, 274,000 t in 2016, 286,000 t in 2017, and 301,000 t in 2018. Increased production would be partially attributable to the

opening of the T17 Underground Mine. Katanga also planned to increase its cobalt capacity to 13,000 t/yr; it was unclear whether the expansion was completed at yearend (Mistakidis, 2014, p. 10, 15; Tredway, 2014; Katanga Mining Ltd., 2015, p. 4).

Boss Mining SPRL [Eurasian Natural Resources Corp. Ltd. (ENRC) of the United Kingdom, 70%, and Gécamines, 30%] produced copper and cobalt at the Mukondo Mountain Mine and the Luita SX-EW plant. ENRC started mining at the Comide Mine in 2013. Total copper output at Boss and Comide was about 51,800 t in 2013; cobalt production at Boss was about 9,700 t in 2013. In 2014, total copper and cobalt production decreased by about 4% each. Refined copper production at Luita increased to 31,518 t in 2014 from 28,985 t in 2013 (Eurasian Natural Resources Corp. Ltd., 2014, p. 14; Kibawa, 2014, 2015).

ENRC produced 33,300 t of copper in concentrate at the Frontier Mine in 2013; production increased by an estimated 28% in 2014. Output was expected to increase subsequently to 80,000 t/yr. ENRC planned to invest more than $1 billion on increasing total production at its Congolese operation to 200,000 t/yr by 2017 (Bahamin, 2013; Eurasian Natural Resources Corp. Ltd., 2014, p. 14; Kibawa, 2014, 2015).

MMG Ltd. of China operated the Kinsevere Mine and SX-EW plant. The company produced 69,624 t of refined copper at Kinsevere in 2014 compared with 62,076 t in 2013; output exceeded the original nameplate capacity of 60,000 t/yr. The company planned to produce between 65,000 and 70,000 t of refined copper at Kinsevere in 2015 (MMG Ltd., 2015).

Gécamines operated the Kamfundwa, Kamoya Central, Kamoya South, Kilamusembu, and Shangalowe Mines. The company planned to increase its production to 100,000 t/yr by 2015. Actual production was about 16,000 t in 2014 compared with 40,706 t of copper in 2013. Refined copper production decreased to 11,559 t in 2014 from 15,456 t in 2013, and cobalt metal, to 75 t from a revised 470 t. Gécamines also operated the Luiswishi Mine, which had a capacity of 10,000 t/yr of copper and 4,000 t/yr of cobalt (Engineering & Mining Journal, 2013a; Kibawa, 2014, 2015).

Gécamines' and joint-venture partner Enterprise Generale Malta Forrest SPRL (EGMF) produced cobalt and copper at La Société pour le Traitement du Terril de Lubumbashi's (STL) Big Hill tailings treatment plant at Lubumbashi. STL's capacity was about 5,500 t/yr of cobalt and 3,500 t/yr of copper. Cobalt production was 5,076 t between September 2013 and August 2014 (Construire L'avenir, 2014).

Ruashi Mining SPRL (Jinchuan Group of China, 75%) produced cobalt and copper from the Ruashi Mine; refined copper and cobalt hydroxide were produced at the company's SX-EW plant. In 2014, production was 37,170 t of refined copper and 3,885 t of contained cobalt compared with 34,647 t of refined copper and 3,045 t of contained cobalt in 2013. Cobalt production increased because of new drying machinery that reduced moisture content and allowed the mine's output to be sold at higher prices. At yearend, reserves were 9.6 million metric tons (Mt) at grades of 2.28% copper and 0.43% cobalt (Jinchuan Group International Resources Co. Ltd., 2015, p. 12, 21).

In 2014, Jinchuan was engaged in reopening the Kinsenda Mine. The company planned to complete the processing plant in 2015; the beginning of production was delayed from 2015 to 2017 because of flooding of the underground mine works. Planned production was 24,000 t/yr of copper in concentrate. Jinchuan spent $193 million on reopening Kinsenda in 2014, most of which was allocated to mine and power station construction. Resources at Kinseda were estimated to be 21 Mt at a grade of 5.51% copper (Jinchuan Group International Resources Co. Ltd., 2015, p. 14, 19).

In 2014, Jinchuan completed a feasibility study of a new mine and SX-EW plant at the Musonoi project with favorable results. The company planned to produce 31,000 t/yr of refined copper and 10,000 t/yr of contained cobalt in hydroxide; it was unclear when mining would start. Resources at Musonoi were estimated to be 31.7 Mt at grades of 2.96% copper and 0.91% cobalt. The life of the mine could be more than 20 years. Capital expenditures were estimated to be no more than $400 million (Jarvis, 2015; Jinchuan Group International Resources Co. Ltd., 2015, p. 15, 19).

Jinchuan was engaged in a prefeasibility study of a new mine at the Lubembe project at the end of 2014. Resources at Lubembe were estimated to be 90.6 Mt at a grade of 1.96% copper (Jinchuan Group International Resources Co. Ltd., 2015, p. 15, 19).

The joint venture of Tiger Resources Ltd. of Australia (60%) and Gécamines (40%) mined copper at the Kipoi Central deposit; output amounted to 29,779 t in 2014. The companies produced 16,222 t copper in concentrate before shutting down the heavy media separation plant in September. Operations started at a new SX-EW plant in May; production of refined copper was 13,557 t by yearend. Tiger planned to produce at the SX-EW plant's full capacity of 25,000 t/yr in 2015. Plans to increase the plant's capacity to 50,000 t/yr were postponed until the refinancing of Tiger's debts, which was scheduled for 2015 (Modern Mining, 2015; Tiger Resources Ltd., 2015, p. 5, 7, 10).

Mawson West Ltd. of Australia operated the Dikulushi Mine near Lake Mweru in Katanga Province. In 2014, Mawson West produced 3,026 t of copper and 6,492 kilograms (kg) of silver compared with 20,948 t of copper and 60,431 kg of silver in 2013 as ore grades and volumes of ore processed decreased. In late 2014, the remaining life of the Dikulushi Mine was estimated to be about one year (Quinn, 2014; Mawson West Ltd., 2015, p. 6).

Mawson West planned to complete construction at the Kapulo project in the first quarter of 2015. Kapulo was likely to produce more than 19,400 t/yr of copper in concentrate from a new mine with an estimated life of about 6 years (Mawson West Ltd., 2015, p. 6).

Chemaf SPRL (a subsidiary of Shalina Resources Ltd. of the United Arab Emirates) produced copper and cobalt at the Etoile Mine and the Usoke Avenue copper SX-EW and cobalt carbonate plants. In 2014, Chemaf produced 15,223 t of refined copper compared with 19,124 t in 2013 and 19,150 t in 2012. Output of cobalt in carbonate and hydroxide increased to 2,006 t in 2014 from 1,170 t in 2013 and 1,278 t in 2012. By 2016, Chemaf planned to increase refined copper capacity to 50,000 t/yr from 31,500 t/yr, and cobalt capacity, to 6,000 t/yr from 2,400 t/yr (Engineering & Mining Journal, 2013a; Shalina Resources Ltd., 2015).

Black copper, which is an intermediate product that has a copper content of between 80% and 98%, was produced by numerous companies in Katanga Province. Some companies produced black copper from concentrate produced at their own mines and others sourced concentrate from artisanal miners. In 2014, Congo Dong Fang International Mining SPRL of China produced nearly 31,000 t of copper in black copper; Rubamin SPRL (a subsidiary of Rubamin Ltd. of India), about 12,000 t; and Huachin Mining (HK) Ltd. of Hong Kong, about 6,500 t (Kibawa, 2015).

CDM, La Minière de Kalumbwe Myunga (MKM), Minière du Katanga SPRL (Somika) of India, Shituru Mining Corp. SPRL, and other companies operated small copper refineries. Shituru Mining increased its production of refined copper to 30,437 t in 2014 from 22,636 t in 2013; MKM, to 25,118 t from 14,278 t; and Somika, to 12,114 t from 7,168 t. CNMC-Mabende Metal Leach SPRL and Compagnie Minière de Luisha started operations in 2014; the companies produced 12,870 t and 12,400 t, respectively. Somika's production capacity was 12,000 t/yr of refined copper and 8,000 t/yr of black copper. By 2015, the company planned to increase its production to 50,000 t/yr of copper, most of which was expected to be refined and black copper (Engineering & Mining Journal, 2013a; Kibawa, 2014, 2015).

In 2014, Somika produced about 1,400 t of cobalt; the company's production capacity was 3,000 t/yr of cobalt in hydroxide. Somika was considering the production of cobalt metal. CDM mined about 4,400 t of cobalt; and Metals Mines, about 1,800 t (Engineering & Mining Journal, 2013a; Kibawa, 2014, 2015).

At the end of 2014, Ivanhoe Mines Ltd. of Canada was engaged in a prefeasibility study of a new mine at its Kamoa project. The company completed a new preliminary economic assessment (PEA) in November 2013. Under the PEA, Ivanhoe planned to produce about 100,000 t/yr of copper in concentrate in the first phase of mining. Ivanhoe planned to start the second phase after 5 years of mining; output was likely to be 306,000 t/yr of blister copper. Capital costs in the first phase of the project were estimated to be $1.4 billion, and in the second phase, an additional $3.5 billion. Indicated resources were estimated to be 739 Mt at a grade of 2.67% copper. The estimated life of the mine was 30 years (Engineering & Mining Journal, 2013b; Northern Miner, 2013; Ivanhoe Mines Ltd., 2015).

Gold.—Artisanal and small-scale miners produced gold in the Ituri Interim Administration, Nord-Kivu Province, and Sud-Kivu Province in eastern Congo (Kinshasa). More than 98% of gold exports from artisanal production were undeclared. In 2014, production by artisanal miners in eastern Congo (Kinshasa) was estimated to be between 8,000 and 10,000 kilograms per year (kg/yr) of gold (Spittaels and others, 2014, p. 20).

Artisanal gold miners operated throughout the Ituri Interim Administration. In early 2014, gold mining in Djugu Territory employed 28,000 workers; Mambasa Territory, more than 8,000 workers; Irumu Territory, 6,300 workers; and Aru and Mahagi Territories, a combined total of 5,300 workers. Mining operations in Aru, Djugu, and Mahagi Territories was free from interference by armed groups. In Irumu and Mambasa Territories, Congolese military units interfered with mining operations (Spittaels and others, 2014, p. 21).

AngloGold Ashanti Ltd. of South Africa and Randgold Resources Ltd. of the United Kingdom started operations at the Kibali Mine in 2013. The companies produced 16,380 kg of gold in 2014 compared with 2,743 kg in 2013. Production was likely to be an average of 18,700 kg/yr during the next 12 years of the mine's life. Reserves at Kibali were estimated to be more than 370 t of contained gold (Projects in Progress, 2014; Randgold Resources Ltd., 2015, p. 6).

Banro Corp. of Canada operated the Twangiza Mine in Sud-Kivu Province; the company produced 3,054 kg of gold in 2014 compared with 2,569 kg of gold in 2013. In the second quarter of 2014, Banro increased the capacity of its processing plant to between 3,400 and 3,700 kg/yr. Output was expected to be between 3,100 and 3,400 kg in 2015. Reserves at Twangiza were estimated to be 22.4 Mt at a grade of 2.28 grams per metric ton (g/t) gold (Baines, 2013; Banro Corp., 2015a, p. 9–10; 2015b).

Banro started mining ore at the new Namoya Mine in Sud-Kivu Province in late December 2013. The company produced 569 kg of gold at Namoya in 2014; planned output was between 2,800 and 3,100 kg for 2015. Average production during the life of the mine was planned to be about 3,900 kg/yr of gold. Reserves at Namoya were estimated to be 20.5 Mt at a grade of 1.92 g/t gold. Banro also estimated that resources at the Lugushwa project were 88.1 Mt at a grade of 1.55 g/t gold; resources at the Kamituga project were estimated to be 7.26 Mt at a grade of 3.94 g/t gold. The company planned limited exploration at Kamituga and Lugushwa in 2015 (Banro Corp., 2015a, p. 8, 11–12; 2015b).

Semi-industrial gold mining operations in rivers in the Ituri Interim Administration were estimated to produce an additional 2,000 kg/yr of gold. Chinese companies involved in semi-industrial mining included Coomid, Fametal, and Gold Dragon Resources. On Concession 40 in the Ituri Interim Administration, which was held by AngloGold Ashanti and state-owned l'Office des Mines d'Or de Kilo-Moto (OKIMO), Chinese companies engaged in gold mining. Some of the operations were operating legally in permit areas held by OKIMO, and others were operating illegally in permit areas held by AngloGold Ashanti (Mthembu-Salter, 2015, p. 18).

In early 2014, Mwana Africa plc of the United Kingdom was considering the development of a new mine at its Zani Kodo project, which had estimated contained gold resources of nearly 93,000 kg. The first phase of mining could start at the rate of 1,200 kg/yr of gold in 2016, and the second phase, at the rate of 6,200 kg/yr in 2017. Zani Kodo was on hold at yearend, which could be attributable to low gold prices (Tassell, 2014; Mthembu-Salter, 2015, p. 11).

In October 2014, Armadale Capital plc of the United Kingdom completed a scoping study with favorable results of a new mine at its Mpokoto project. Armadale Capital planned to complete a feasibility study in 2015. Depending on the results of the study, the company could start construction in the second half of 2015 and mining in the first half of 2016. Production was likely to be about 800 kg/yr of gold during the estimated 9-year life of the mine. Resources were estimated to be 21 t of contained gold (Cornish, 2015).

Niobium (Columbium) and Tantalum.—National production of columbite-tantalite increased to 1,324 t in 2014 from 697 t in 2013. In the first half of 2014, mineral processing facilities in Katanga Province were producing columbite-tantalite at the rate of nearly 500 t/yr. Most niobium and tantalum in Katanga Province was produced from mixed cassiterite and columbite-tantalite ore. In the first half of 2014, mines in Malemba Nkulu Territory accounted for 67% of mixed cassiterite and columbite-tantalite production; Manono Territory 29%; and Nyunzu Territory, 4%. Miners in Dilolo Territory produced columbite-tantalite at the rate of more than 30 t/yr in the first half of 2014. Production increased in the Malemba Nkulu, Manono, and Nyunzu Territories in the first half of 2014 (Chamber of Mines, 2015, p. 8; International Tin Research Institute, 2015a).

Tin.—Artisanal and small-scale miners produced cassiterite in Katanga, Maniema, Nord-Kivu, and Sud-Kivu Provinces. Production of cassiterite increased to 10,756 t in 2014 from 7,567 t in 2013. In the first half of 2014, mineral processing facilities in Katanga Province were producing cassiterite at the rate of about 3,900 t/yr. The Mitwaba Territory accounted for about 900 t/yr of cassiterite output in Katanga Province in the first half of 2014; the Malemba Nkulu Territory, about 870 t/yr; the Lubudi Territory, about 500 t/yr; and the Bukama/Luena Territory, about 370 t/yr. Cassiterite was also produced from mixed cassiterite and columbite-tantalite ores in Katanga Province. Production increased in the Lubudi, Malemba Nkulu, and Mitwaba Territories in the first half of 2014. In Maniema Province, mines in Pangi Territory were producing at the rate of more than 1,400 t/yr in the first half of 2014, and the Punia Territory, nearly 300 t/yr (Chamber of Mines, 2015, p. 8; International Tin Research Institute, 2015a).

Mining Mineral Resources (MMR), which was a subsidiary of Somika, purchased cassiterite, columbite-tantalite, and wolframite from artisanal miners. In 2012, MMR and joint-venture partner Malaysian Smelting Corporation Berhad of Malaysia completed a new tin smelter in Lubumbashi with a capacity of 3,600 t/yr. At the end of 2014, production had not started because of the lack of a reliable power supply. African Smelting Group SPRL completed a new smelter at Sake in Nord-Kivu Province in 2013. In July 2014, the company received Government approval to smelt tin. It was unclear whether the plant was operating at yearend (Kabwelulu, 2014; Malaysian Smelting Corporation Berhad, 2014, p. 22; 2015, p. 20).

In late 2014, Alphamin Resources Corp. of Mauritius was considering the development of a new mine at the Mpama North deposit, which was part of the Bisie project in Nord-Kivu Province. Depending on the results of a feasibility study that Alphamin planned to complete by the end of 2015, mining could start at Mpama North by 2017. Planned production was about 13,500 t/yr of tin concentrate for the first 3 years of mining. Starting in 2020, Alphamin planned to produce about 15,000 t/yr of tin metal from a new smelter at Mpama North. Production of tin metal was likely to decrease to about 11,800 t/yr starting in 2024. Resources at Mpama North were estimated to be 4.01 Mt at a grade of 3.52% tin (Alphamin Resources Corp., 2014; 2015, p. 9–10).

Tungsten.—In recent years, wolframite was mined in Katanga, Nord-Kivu, and Sud-Kivu Provinces. National production of wolframite decreased to 25 t in 2014 from 115 t in 2013. Output decreased in Kyenze Sector in Katanga Province during the first half of 2014 (Chamber of Mines, 2015, p. 8; International Tin Research Institute, 2015a).

Industrial Minerals

Cement.—National cement production decreased to 329,505 t in 2014 from 446,610 t in 2013. HeidelbergCement AG of Germany held a 70% share in Interlacs and a 55% share in Cimenterie du Lukala (CILU), which had a combined capacity of about 500,000 t/yr. In 2014, CILU's actual production was only 64% of its target because of problems with aging equipment. Nova Cimangola of Angola held a 58% share in Cimenterie Nationale SARL, which had a capacity of 300,000 t/yr; the plant was shut down in 2014. In March, Forspak International of China opened a new plant with a capacity of 300,000 t/yr at Dolosie (Banque Centrale du Congo, 2015, p. 3; Construire L'avenir, 2015; International Cement Review, 2015).

Lucky Cement Ltd. of Pakistan and Groupe Rawji were engaged in a joint venture to build its new Nyuma Ya Akiba plant with a capacity of 1.26 million metric tons per year (Mt/yr). The companies planned to complete the plant at Songololo in Bas-Congo Province by 2016. PPC Ltd. of South Africa and Barnet Group planned to complete a new plant with a capacity of 1 Mt/yr in Bas-Congo Province by the fourth quarter of 2016. Nova Cimangola reportedly planned to expand the capacity of its plant to 1 Mt/yr; it was unclear when the project would be completed (International Cement Review, 2014, 2016).

Diamond.—Artisanal and small-scale miners accounted for most of the output of diamond in Congo (Kinshasa); the majority of artisanal and small-scale diamond mining was in Kasai-Occidental and Kasai-Oriental Provinces. In 2014, artisanal and small-scale diamond production totaled 14.7 million carats compared with nearly 16.7 million carats in 2013. Decreased production may be attributable to the Government's new system of issuing mining permits for artisanal miners that reduced the areas available for diamond mining (Research and Markets, 2014; Banque Centrale du Congo, [undated], p. 2).

MIBA mined mostly industrial and near-gem-quality diamond at Mbuji-Mayi in Kasai-Oriental Province. In 2014, MIBA's production from its alluvial deposits was 289,600 carats compared with 174,000 carats in 2013. The company faced numerous problems including illegal mining on its concession, insufficient financing for its expansion plans, and power supply interruptions (Chamber of Mines, 2015, p. 13).

In late 2014, Societe Anhui-Congo d'Investissment Minier SPRL (SACIM) (Anhui Foreign Economic Construction Group of China, 50%, and Government-owned Société Congolaise d'Investissment Minier, 50%) announced plans to restart production at the Tshibwe Mine in Kasai-Oriental Province. Production at Thsibwe was likely to be about 600,000 carats per year. The estimated cost of the project was $100 million, which

included road construction and a new hydroelectric power station (Africa Project Newsletter, 2014).

Nickel Mountain Group AB of Sweden held exploitation and small mining licenses for the Longatshimo River and the Tshikapa River projects. The development of the projects was put on hold in early 2013; Nickel Mountain spun off its Congolese assets into a separate company called African Diamonds AB in 2014 (Nickel Mountain Group AB, 2015, p. 1).

Mineral Fuels

Coal.—Gecamines reopened the Luena Mine in 2011 and produced small amounts of coal. In early 2014, the company was engaged in a feasibility study on a new coal-fired power station with a capacity of 500 megawatts. Depending on the results of the study, construction could start in 2015 and power generation, in 2017 (Crowley and Kavanagh, 2014).

Outlook

Cobalt and copper output in Congo (Kinshasa) are expected to increase in the near future. At least 7 companies planned to increase or start copper mining, and at least 4 planned to increase cobalt mining. Gold production is also likely to increase at the Kibali and the Namoya Mines. The Bisie project could increase tin mining starting in 2017 and restart tin refining in 2021. The opening of new plants is expected to result in increased cement production. Diamond mining could also increase because of the expansion at Tshibwe.

The development of these projects depends heavily upon political and economic stability and favorable conditions in world markets. The outlook for gold, niobium, tantalum, tin, and tungsten is particularly dependent upon political stability because of continued civil unrest in eastern Congo (Kinshasa) and upon international concerns about the reported use of minerals to finance military operations. Miners in areas with low levels of compliance with iTSCI are likely to face lower demand and prices for niobium, tantalum, tin, and tungsten.

References Cited

Africa Project Newsletter, 2014, Projects—Congo (Democratic Republic): Africa Project Newsletter, issue 234, November, p. 6.

Alphamin Resources Corp., 2014, Alphamin reports planned share offering: Port Louis, Mauritius, Alphamin Resources Corp. press release, December 5, 1 p.

Alphamin Resources Corp., 2015, Mining Indaba 2015—Cape Town: Africa Mining Investment Conference, Cape Town, South Africa, February 9–12, 2015, Presentation, 15 p.

Anderson, C.S., 2016, Tin: U.S. Geological Survey Mineral Commodity Summaries 2016, p. 174–175.

Bahamin, Poupak, 2013, A step back: Mining Journal, August 16, p. 20–27.

Bahamin, Poupak, 2014, Laws changing the lay of the land: Mining Journal, January 17, p. 25–27.

Baines, Julie, 2013, DRC views differ on gold: Mining Review Africa, no. 11, November, p. 40–44.

Banque Centrale du Congo, 2015, Bulletin mensuel d'informations statistiques: Kinshasa, Democratic Republic of the Congo, Banque Centrale du Congo, June, 74 p.

Banque Centrale du Congo, [undated], Rapport annuel 2013: Kinshasa, Democratic Republic of the Congo, Banque Centrale du Congo, 308 p.

Banro Corp., 2015a, Management's discussion and analysis for the year ended December 31, 2014: Toronto, Ontario, Canada, Banro Corp., 30 p.

Banro Corp., 2015b, Resources & reserves: Banro Corp. (Accessed September 8, 2015, at http://www.banro.com/s/Resources.asp.)

Brininstool, M.B., 2016, Copper: U.S. Geological Survey Mineral Commodity Summaries 2016, p. 54–55.

Brown, Nic, 2014, Strong supply line resists jams: Mining Journal, October 10, p. 19–28.

Chamber of Mines, 2015, Mining industry annual report 2014: Lubumbashi, Congo (Kinshasa), Chamber of Mines, 29 p.

Cobalt Development Institute, 2015, 2014 production statistics: Cobalt News, v. 15, no. 2, April, p. 3–5.

Construire L'avenir, 2014, Actualitie des societes: Construire L'avenir, no. 13, September, p. 2.

Construire L'avenir, 2015, Actualitie des societes: Construire L'avenir, no. 15, January, p. 2.

Cornish, Laura, 2015, Junior muscle pushes for Mpokoto's 1st gold in 2016: Mining Review Africa, issue 3, March, p. 22–25.

Crowley, Kevin, and Kavanagh, Michael, 2014, Gecamines seeks power plant by '17 for copper output gain: Bloomberg News, February 4. (Accessed September 7, 2015, at http://www.bloomberg.com/news/articles/2014-02-04/gecamines-seeks-power-plant-by-17-for-copper-output-gain.)

Engineering & Mining Journal, 2013a, Exploration and production: Engineering & Mining Journal, v. 214, no. 1, January, p. 59–64.

Engineering & Mining Journal, 2013b, Ivanhoe planning two-phased development for Kamoa: Engineering & Mining Journal, v. 214, no. 12, December, p. 28, 44.

Engineering & Mining Journal, 2014, Katanga—DRC's green pearl: Engineering & Mining Journal, v. 215, no. 2, February, p. 102–103.

Eurasian Natural Resources Corp. Ltd., 2014, Consolidated financial statements 2013: London, United Kingdom, Eurasian Natural Resources Corp. Ltd., 147 p.

Glencore plc, 2015, Corporate update and production report for the 12 months ended 31 December 2014: Baar, Switzerland, Glencore plc, 20 p.

Hack, Claire, 2013, Mutanda provides production highlight for Glencore in 2012: Metal Bulletin, no. 9290, February 18, p. 8.

International Cement Review, 2014, Reconstructing Congo: International Cement Review, July, p. 36–37.

International Cement Review, 2015, New additions on the map: International Cement Review, January, p. 17–27.

International Cement Review, 2016, In the starting blocks: International Cement Review, January, p. 16–28.

International Tin Research Institute, 2015a, iTSCi Democratic Republic of Congo (DRC) data summary—Q1 2012 to Q2 2014—Katanga, South Kivu & Maniema: London, United Kingdom, International Tin Research Institute, unpaginated.

International Tin Research Institute, 2015b, Status report DRC field operations—July–December 2014: London, United Kingdom, International Tin Research Institute, 20 p.

Ivanhoe Mines Ltd., 2015, Fact sheet: Vancouver, British Columbia, Canada, Ivanhoe Mines Ltd., 4 p.

Jarvis, Emily, 2015, Base metal mining at its finest: Africa Outlook, issue 23-24, January–February, p. 80–89.

Jinchuan Group International Resources Co. Ltd., 2015, Annual report 2014: Hong Kong, China, Jinchuan Group International Resources Co. Ltd., 176 p.

Kabwelulu, Martin, 2014, Arrete Ministeriel No. 274/Cab. Min/Mines/01/2014 du 04 Jul 2014 portant agrement au titre d'entite de traitment de cassiterite categorie a dans la Province du Nord-Kivu au profit de la societe African Smelting Group SPRL: Kinshasa, Democratic Republic of the Congo, Ministere des Mines, 3 p.

Katanga Mining Ltd., 2014, Management's discussion and analysis for the three months and years ended December 31, 2013 and 2012: Toronto, Ontario, Canada, Katanga Mining Ltd., 40 p.

Katanga Mining Ltd., 2015, Management's discussion and analysis for the three months and years ended December 31, 2014 and 2013: Toronto, Ontario, Canada, Katanga Mining Ltd., 37 p.

Kavanagh, Michael, 2014, Congo postpones ban on mineral exports amid power shortages: Bloomberg News, January 15. (Accessed September 4, 2015, at http://www.bloomberg.com/news/articles/2014-01-15/congo-postpones-ban-on-mineral-exports-because-of-power-shortage.)

Kibawa, E.K., 2014, Statisques des notes de debit relatives a la redevance miniere emises de Janvier a Decembre 2013: Lubumbashi, Democratic Republic of the Congo, Province du Katanga Bureau des Mines, 2 p.

Kibawa, E.K., 2015, Statisques des notes de debit relatives a la redevance miniere emises de Janvier a Decembre 2014: Lubumbashi, Democratic Republic of the Congo, Province du Katanga Bureau des Mines, 2 p.

Kimberley Process Certification Scheme, 2015, Annual global summary—2014 production, imports, exports and KPC counts: Kimberley Process Certification Scheme. (Accessed September 9, 2015, at https://kimberleyprocessstatistics.org/static/pdfs/public_statistics/2014/2014GlobalSummary.pdf.)
Krawitz, Avi, 2014, Development diamonds: Diamonds.net, July 11. (Accessed September 10, 2015, at http://www.diamonds.net/News/PrintArticle.aspx?ArticleID=47385& ShowArticle=ucAQXgbOb4aIYG6Ff7hvpco8djKRf1YP.)
Lundin Mining Corp., 2015, Management's discussion and analysis for the year ended December 31, 2014: Toronto, Ontario, Canada, Lundin Mining Corp., 46 p.
Malaysian Smelting Corporation Berhad, 2014, Annual report 2013: Kuala Lumpur, Malaysia, Malaysian Smelting Corporation Berhad, 180 p.
Malaysian Smelting Corporation Berhad, 2015, Annual report 2014: Kuala Lumpur, Malaysia, Malaysian Smelting Corporation Berhad, 190 p.
Mawson West Ltd., 2015, Management's discussion and analysis for the three and twelve months ended December 31, 2014: West Perth, Western Australia, Australia, Mawson West Ltd., 22 p.
Mistakidis, Telis, 2014, Glencore investor day—Copper: Glencore plc, December 10, 51 p. (Accessed August 19, 2015, at http://www.glencore.com/assets/media/doc/speeches_and_ presentations/glencore/2014/GLEN-Investor-Day-2014-Copper-final.pdf.)
MMG Ltd., 2015, Kinsevere Democratic Republic of Congo fact sheet: Hong Kong, China, MMG Ltd., 2 p.
Modern Mining, 2015, Tiger Resources to postpone Kipoi expansion: Modern Mining, v. 11, no. 1, January, p. 12.
Mthembu-Salter, 2015, Baseline study three—Production, trade and export of gold in Orientale Province, Democratic Republic of Congo: Paris, France, Organisation for Economic Co-operation and Development, 34 p.
Nickel Mountain Group AB, 2015, Annual report for the financial year 2014: Stockholm, Sweden, Nickel Mountain Group AB, 59 p.
Northern Miner, The, 2013, Ivanhoe outlines major copper mine at Kamoa: The Northern Miner, v. 99, no. 44, December 16–22, p. 19.
Papp, J.F., 2016, Tantalum: U.S. Geological Survey Mineral Commodity Summaries 2016, p. 166–167.
Projects in Progress, 2014, Randgold Resources and AngloGold Ashanti's Kibali gold mine: Projects in Progress, September, p. 71.
Quinn, Michael, 2014, Kapulo will carry forward: Mining Journal, September 12, p. 8.
Randgold Resources Ltd., 2015, 2014 Q4 report: Jersey, Channel Islands, United Kingdom, Randgold Resources Ltd., 24 p.
Research and Markets, 2014, Precious metals mining in the Democratic Republic of the Congo to 2020—A focus on the diamond industry: Research and Markets, August. (Accessed September 24, 2014, at http://www.researchandmarkets.com/research/4xs35b/ precious_metals.)
Seitzinger, M.V., and Ruane, K.A., 2015, Conflict minerals and resource extraction—Dodd-Frank, SEC regulations, and legal challenges: Washington DC, Congressional Research Service, Report No. R43639, April 2, 17 p.
Shalina Resources Ltd., 2015, Investors: Shalina Resources Ltd. (Accessed September 1, 2015, at http://www.shalinaresources.com/investors.html.)
Shedd, K.B., 2016, Cobalt: U.S. Geological Survey Mineral Commodity Summaries 2016, p. 52–53.
Spittaels, Steven, Matthysen, Ken, Weyns, Yannick, Hilgert, Filip, and Bulzomi, Anna, 2014, Analysis of the interactive map of artisanal mining areas in Eastern DR Congo—May 2014 update: Brussels, Belgium, International Peace Information Service, 30 p.
Tassell, Arthur, 2014, Mwana gears up for growth: Modern Mining, v. 10, no. 2, February, p. 26–31.
Tiger Resources Ltd., 2015, 2014 annual report: West Perth, Western Australia, Australia, Tiger Resources Ltd., 96 p.
Tredway, Garteh, 2014, Another elephant joins the herd: Mining Journal, August 15, p. 17–21.
U.S. Securities and Exchange Commission, 2012, 17 CFR parts 240 and 249b conflict minerals; final rule: Federal Register, v. 77, no. 177, September, p. 56274–56365.

TABLE 1
CONGO (KINSHASA): PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity[2]		2010	2011	2012	2013	2014
METALS						
Cobalt:						
Mine output, Co content[e, 3]		60,000	59,000 [r]	52,000	56,000 [r]	62,000
Metal, Co content[4]		4,222	3,103	3,021	2,777 [r]	2,859
Copper:						
Mine output, Cu content[e]		420,000	530,000	660,000	970,000	1,029,800 [5]
Refined		260,759	362,000	473,000	684,937 [r]	889,921
Germanium, mine output, Ge content[e]	kilograms	17,000	21,000	15,000	18,000	21,000
Gold, mine output, Au content[e]	do.	12,000	12,000	14,000	17,000	31,000
Niobium (columbium) and tantalum:						
Cassiterite concentrate:						
Gross weight		13,415	9,267	8,018	7,567 [r]	10,756
Nb content[e]		130	90	80	70 [r]	110
Ta content[e]		190	140	120	110 [r]	160
Columbite-tantalite concentrate:						
Gross weight		440 [6]	536 [6]	586 [6]	697 [r]	1,324
Nb content[e]		80	90	100	170 [r]	330
Ta content[e]		100	120	130	190 [r]	360
Silver, mine output, Ag content	kilograms	6,446	10,080	12,342	60,431	6,492
Tin, mine output, cassiterite concentrate:						
Gross weight		13,415 [6]	9,267 [6]	8,018 [6]	7,567 [r]	10,756
Sn content[e]		8,000	5,600	4,800	4,500 [r]	6,500
Tungsten, mine output, concentrate:						
Gross weight		45 [6]	87 [6]	71 [6]	115 [r]	25
W content[e]		21	41	35	55 [r]	12
Zinc, mine output, Zn content		10,362 [r]	14,944 [r]	11,571 [r]	12,806 [r]	14,584
INDUSTRIAL MINERALS						
Cement, hydraulic		489,745	457,761	413,181 [r]	446,610	329,505
Diamond:[7]						
Artisanal	thousand carats	16,964 [r]	17,601 [r]	19,154 [r]	16,653 [r]	14,663
Large-scale	do.	--	244 [r]	569	174 [r]	290
Total	do.	16,964 [r]	17,845 [r]	19,723 [r]	16,827 [r]	14,953
Stone, crushed		692,100 [r]	700,300 [r]	734,300 [r]	747,700 [r]	750,000 [e]
Sulfuric acid[e]		850,000	1,200,000	1,600,000	2,300,000	3,000,000
MINERAL FUELS AND RELATED MATERIALS						
Coal, bituminous		-- [e]	1,469	3,870	4,000 [e]	4,000 [e]
Petroleum, crude	thousand 42-gallon barrels	8,628	8,558	8,545	8,351	8,355

[e]Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. [r]Revised. do. Ditto. -- Zero.

[1]Table includes data available through September 11, 2015.

[2]In addition to the commodities listed, tourmaline and crude construction materials, including brick clay,were produced, but available information was inadequate to make reliable estimates of output.

[3]Includes mine production and reprocessed tailings.

[4]Salable refined production only; excludes white alloy and matte.

[5]Reported data.

[6]Reported exports.

[7]An estimated 20% of total diamond is gem quality; the majority of production is from artisanal mining.

TABLE 2
CONGO (KINSHASA): STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement	Cimenterie de Lukala (HeidelbergCement AG, 55%)	Lukala plant near Kinshasa	420,000.
Do.	Cimenterie Nationale SARL (Nova Cimangola, 58%)	Kimpese plant, 40 kilometers south of Kinshasa[1]	300,000.
Do.	Forspak International	Plant at Dolosie	300,000.
Do.	Ciment et Matériaux du Katanga [Enterprise Malta Forrest SPRL (EGMF), 50.27%, and Générale des Carrières et des Mines (Gécamines), 49.73%]	Lubudi plant, between Likasi and Kolwezi, Katanga Province	87,000.
Do.	Interlacs (HeidelbergCement AG, 70%)	Kabimba plant near Lubumbashi	50,000.
Do.	do.	Katana plant in Sud-Kivu Province[1]	25,000.
Copper and cobalt:			
Mine	Katanga Mining Ltd. [Glencore International AG, 75.2%, and Générale des Carrières et des Mines (Gécamines), 24.8%]	KOV and KTO Mines	250,000[e] copper; 8,000[e] cobalt.
Do.	Mutanda Mining SPRL (Glencore Xstrata plc, 69%, and Fleurette Properties Ltd.,31%)	Mutanda Mine	200,000[e] copper; 23,000[e] cobalt.
Do.	Tenke Fungurume Mining SARL [Freeport McMoran Copper & Gold Inc., 56%; Lundin Mining Corp., 24%; and Générale des Carrières et des Mines (Gécamines), 20%]	Tenke Fungurume Mine	195,000 copper in ore; 15,000 cobalt in ore.
Do.	Eurasian Natural Resources Corp. plc (ENRC)	Frontier Mine	80,000 copper.
Do.	Boss Mining SPRL [Eurasian Natural Resources Corp. plc, 70%, and Générale des Carrières et des Mines (Gécamines), 30%]	Mukondo Mountain Mine	40,000[e] copper; 10,000[e] cobalt.
Do.	Eurasian Natural Resources Corp. plc (ENRC)	Comide Mine	30,000[e] copper.
Do.	MMG Ltd.	Kinsevere Mine	70,000 copper.
Do.	La Générale des Carrières et des Mines (Gécamines)	Kamfundwa, Kamoya Central, Kamoya South, Kilamusembu, and Shangalowe Mines	50,000[e] copper; 2,500[e] cobalt.
Do.	Compagnie Minière du Sud Katanga [subsidiary of La Générale des Carrières et des Mines (Gécamines)]	Luiswishi Mine near Lubumbashi	10,000 copper; 4,000 cobalt.
Do.	Congo Dong Fang International Mining sprl	do.	45,000[e] copper; 4,400[e] cobalt.
Do.	Ruashi Mining SPRL [Metorex Group, 75% (subsidiary of Jinchuan Group)]	Ruashi Mine	38,000 copper; 5,000 cobalt.
Do.	Chemaf SPRL (subsidiary of Shalina Resources Ltd.)	Etoile Mine	31,500[e] copper; 2,400[e] cobalt.
Do.	Shituru Mining Corp. SPRL	Mines in Katanga Province	30,000[e] copper.
Do.	Tiger Resources Ltd., 60%, and La Générale des Carrières et des Mines (Gécamines), 40%	Kipoi Mine	25,000 copper.
Do.	Société Minière du Katanga SPRL (Somika)	do.	20,000[e] copper; 3,000 cobalt.
Do.	Anvil Mining Congo SARL (Mawson West Ltd., 90%)	Dikulushi Mine	20,000 copper.
Do.	La Société pour le Traitement du Terril de Lubumbashi (STL) [Enterprise Générale Malta Forrest SPRL (EGMF), 70%, and La Générale des Carrières et des Mines (Gécamines), 30%]	Big Hill tailings treatment plant at Lubumbashi	3,500 copper; 5,500 cobalt.
Do.	Metals Mines	Mines in Katanga Province	2,000[e] cobalt.
Black copper	Congo Dong Fang International Mining SPRL	Plant in Lubumbashi	30,000[e] copper.
Do.	Rubamin SPRL	Plant in Likasi	20,000 copper.
Do.	Société Minière du Katanga SPRL (Somika)	Plant near Lubumbashi	8,000 copper.
Do.	Huachin Metal Leach	Plant in Katanga Province	7,000[e] copper.

See footnotes at end of table.

TABLE 2—Continued
CONGO (KINSHASA): STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Copper and cobalt—Continued:				
Refinery		Katanga Mining Ltd.	Luilu plant	300,000 copper; 8,000 cobalt.
Do.		Mutanda Mining SPRL	Mutanda plant	200,000 copper.
Do.		Tenke Fungurume Mining SARL	Tenke Fungurume plant	195,000 copper.
Do.		MMG Ltd.	Kinsevere plant	70,000 copper.
Do.		Boss Mining SPRL	Luita plant near Lubumbashi	40,000 copper.
Do.		Ruashi Mining SPRL	Ruashi plant	38,000 copper.
Do.		Chemaf SPRL	Usoke plant in Lubumbashi	31,500 copper.
Do.		Congo International Mining Corp.	Plant in Katanga Province	30,000 copper.
Do.		Shituru Mining Corp. SPRL	do.	30,000 copper.
Do.		La Minière de Kalumbwe Myunga (MKM)	do.	26,000[e] copper.
Do.		Tiger Resources Ltd., 60%, and La Générale des Carrières et des Mines (Gécamines), 40%	Plant near Kipoi Mine	25,000 copper.
Do.		La Générale des Carrières et des Mines (Gécamines)	Shituru plant	21,600 copper.
Do.		do.	Fonderie Electrique de Panda cobalt plant	1,200 cobalt.
Do.		CNMC-Mabende Metal Leach SPRL	Plant at Lwisha	20,000 copper.
Do.		Compagnie Minière de Luisha	Plant in Katanga Province	13,000[e] copper.
Do.		Société Minière du Katanga SPRL (Somika)	Plant near Lubumbashi	12,000 copper.
Diamond	carats	Artisanal miners	Mines at Aketi in Orientale Province, at Bakongo, Bakwachimuna, and Tshibue in Kasai-Oriental Province, and at Tshikapa in Kasai-Occidental Province	20,000,000.[e]
Do.	do.	Société Minière de Bakwanga (MIBA) [Government, 80%, and Sibeka Group (which was owned by Mwana Africa plc, 20%)]	Mines at Mbuji Mayi in Kasai-Oriental Province	1,000,000.[e]
Do.	do.	Societe Congolaise d'Investissment Minier (SCIM) (Government, 80%)	Mine at Tshibwe[1]	600,000.
Germanium	kilograms	La Société pour le Traitement du Terril de Lubumbashi (STL)	Big Hill tailings treatment plant at Lubumbashi	20,000.
Gold	do.	Artisanal and small-scale miners	Mines in various locations, including:	10,000.[e]
Do.	do.	do.	Ituri Interim Administration	NA.
Do.	do.	do.	Katanga Province	NA.
Do.	do.	do.	Maniema Province	NA.
Do.	do.	do.	Nord-Kivu Provice	NA.
Do.	do.	do.	Sud-Kivu Provice	NA.
Do.	do.	Coomid, Fametal, and Gold Dragon Resources	Ituri Interim Administration	2,000.[e]
Do.	do.	AngloGold Ashanti, 45%, and Randgold Resources Ltd., 45%	Kibali Mine in Ituri District	18,700.
Do.	do.	Banro Corp.	Namoya Mine in Maniema Province	3,900.
Do.	do.	do.	Twangiza Mine in Sud-Kivu Province	3,100.
Niobium (columbium) and tantalum		Société Minière du Kivu (Simikivu) (GfE Metalle und Materialien GmbH of Germany, 70%)	Lueshe Mine[1]	1,440 pyrochlore.
Do.		Artisanal and small-scale miners	Mines in Malemba Nkulu Territory	310[e] columbite-tantalite.
Do.		do.	Mines in Manono Territory	140[e] columbite-tantalite.
Do.		do.	Mines in Dilolo Territory	35[e] columbite-tantalite.
Do.		do.	Mines in Nyunzu Territory	20[e] columbite-tantalite.

See footnotes at end of table.

TABLE 2—Continued
CONGO (KINSHASA): STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum, crude thousand 42-gallon barrels	Perenco REP (subsidiary of Perenco plc) and Congolaise des Hydrocarbures SARL	Kifuku, Kinkasi, Liawenda, Makelekese, Muanda, Nsiamfuma, and Tschiende onshore wells	5,480.
Do. do.	Muanda International Oil Co. (subsidiary of Perenco plc), 50%; Teikoku Oil Co. Ltd., 32.3%; ODS Ltd., 17.7%	Mibale, Motoba, and Tshiala offshore wells	3,650.
Silver kilograms	Anvil Congo Mining SARL	Dikulushi Mine	60,000.
Stone, crushed	Chemaf SPRL	Kilimasimba quarry near Lubumbashi	440,000.
Sulfuric acid	La Générale des Carrières et des Mines (Gécamines)	Sulfuric acid plants at Kolwezi and Shituru	NA.
Do.	Chemaf SPRL	Plant in Lubumbashi	36,000.
Tin:			
Mine	Artisanal and small-scale miners	Mines in Pangi Territory	1,500[e] cassiterite.
Do.	do.	Mines in Malemba Nkulu Territory	1,400[e] cassiterite.
Do.	do.	Mines in Mitwaba Territory	900[e] cassiterite.
Do.	do.	Mines in Manono Territory	600[e] cassiterite.
Do.	do.	Mines in Lubudi Territory	500[e] cassiterite.
Do.	do.	Mines in Kalehe Territory	350[e] cassiterite.
Do.	do.	Mines in Punia Territory	300[e] cassiterite.
Refinery	Malaysian Smelting Corporation Berhad and Mining Mineral Resources	Plant at Lubumbashi[1]	3,600.
Do.	African Smelting Group SPRL	Plant at Sake in Nord-Kivu Province	NA.
Tungsten	Artisanal and small-scale miners	Mines in Bukama/Luena Territory	160[e] wolframite.
Zinc	La Société pour le Traitement du Terril de Lubumbashi (STL)	Big Hill tailings treatment plant at Lubumbashi	15,000 zinc in zinc oxide.

[e]Estimated. Do., do. Ditto. NA Not available.
[1]Not operating at the end of 2014.