THE MINERAL INDUSTRY OF

UGANDA

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The contribution of Uganda's mineral production to the nation's primarily agricultural-based economy increased in 1996. Prior to the economic and political upheaval of 20 years ago, the Ugandan mineral sector had accounted for 30% of the gross domestic product (GDP). In 1994-95, the last year for which data were available, agriculture accounted for 47% of the GDP compared with the minerals sector's approximately 2% to 4%. However, given the Government's encouragement, the mineral sector was expanding rapidly.

Under the Constitution enacted on October 8, 1995, the Parliament was authorized to make laws regarding mineral production, royalties, and abandoned mine reclamation. The current mining law was the Mining Act of 1964. However, during 1996, a new mining code was being considered. The mineral industry was also regulated by the Investment Code, 1991 of January 25, 1991. The Uganda Investment Authority, the government agency responsible for investment promotion, operated a one-stop center to facilitate investment ventures. Uganda was also a member of the Multilateral Investment Guarantee Agency (Mining Journal [London], 1996).

The Central Bank's monopoly on gold purchases had been abolished in 1994. This action may have assisted gold exports reaching 5,067 kilograms (kg) in 1996 and 3,093 kg in 1995, compared with 225 kg in 1994 and 104 kg in 1993. Some of the increased gold exports may have been originally mined in Zaïre and brought into Uganda.

Mineral industry activities were administered by the Ministry of Natural Resources. The Department of Geological Survey and Mines in the Ministry's Directorate of Energy and Mineral Development issued mineral rights including prospecting licenses; exclusive prospecting licenses; location licenses; mining leases; mineral dealer licenses, such as precious metals dealer, diamond dealer, goldsmith, and mineral exporter; and water rights. The Department of Geological Survey and Mines also maintained a sizeable mineral-resource data base including concession, geologic, geochemical, geophysical, and topographic maps.

The Government was also interested in having private investors reopen closed mines, such as the Kilembe copper mine, the Sukulu phosphate operations, the Kikagati tin mine, the Mwerasandu tin mine, the Bjordal tungsten mine, the Kirwa tungsten mine, and the Ruhija tungsten mine (Onyango, 1997). Additional Ugandan mineral resources reported to have the potential to attract commercial investment include diatomite, dimension stone, iron ore, gold, gypsum, mica, nickel, phosphate, salt, and vermiculite (Hester and others, 1996). Many deposits had been the sites of small-scale operations prior to the 1980's.

Small-scale mining activity was encouraged especially for beryl and columbite-tantalite in the pegmatites in the southwest. The Ministry, faced with an expanding demand for construction material, was appraising the nation's industrial minerals resources. Government policies included the promotion of private investment in the mineral industry, environmental protection, and advocating the technical and managerial development of the current and potential mineral industry workforce (Sendaula, 1997).

Mineral operations were primarily in the southeast and southwest of the country. Exclusive prospecting licenses (EPL's) were staked all over the country. However, in the north and northwest, there was an active antigovernmental rebellion underway, significantly impeding exploration activity. The region was subject to aerial bombing raids from Sudan (Ugandanews, 1996). The Lord's Resistance Army, long regarded by the Government as a minor local annoyance, swarmed into Uganda from rebel bases in Sudan during February 1996. By midyear, road traffic into Gulu began to travel in convoys with military escort. The West Nile Bank Front returned to the northwest from encampments in Sudan and Zaïre. Landmines were becoming ubiquitous. Additional frontier region attacks were mounted by Salaf Tabliq Islamic militants and operating in the border region near Kasese were the Allied Democratic Forces, a rebel organization encompassing the groups mentioned above along with former Zaïrean Army, Burundi, and Rwandan personnel (United Nations, 1996).

In the northeast near Kaabong, the exploration trenching on Branch Energy (Uganda) Ltd.'s gold concession became embroiled in Karimojong clan politics. Some pastoral clans protested that the Government had effectively surrendered their wealth to foreigners, resulting in an inconclusive September 1996 investigation of Branch Energy (Uganda)'s operations by a Parliament committee. Branch Energy (Uganda) was not affiliated with the company Branch Energy Ltd. that was acquired by DiamondWorks Ltd. of Canada in October 1996 (Info-Mine, 1996).

Fifty companies held 125 EPL's or special exclusive prospecting licenses (SEPL's) including Branch Energy (Uganda); Glencar Explorations plc of Ireland; International Roraima Gold Corp., a subsidiary of Roraima Mining Co. Ltd. of Canada; Nickelfields Ltd., a subsidiary of Pacific Vangold Mines Ltd. of Canada; Pangea Goldfields (Uganda) Ltd.; Rift Resources Ltd. of Canada; and Tusker Exploration Ltd. Gold exploration permits accounted for 80% of the outstanding EPL's and SEPL's at yearend 1996.

Twenty-two operators held 59 location licenses (mining licenses for small-scale operations). However, one company alone held 25 iron ore licenses. Thirteen location licenses had been issued for gold production. Crude construction mineral production such as brick clay, sand, and stone did not require a license from Department of Geological Survey and Mines.

Ten companies held 13 mining leases with almost 40% of the leases designated as limestone extraction operations. There were three tin mining leases, one copper/cobalt mining lease, and one gold mining lease at yearend.

The Shumuk Group launched Uganda's entrance into the secondary aluminum market with the opening of the Shumuk Aluminum Rolling Mill in Kampala during 1996. The mill would allow scrap aluminum, traditionally exported to Kenya, to be remelted and processed in Uganda. However, the 4,200-metric-ton-per-year (t/yr) capacity plant had not started production by yearend.

Financing for the Kasese cobalt project was secured during 1996. The project, to be operated by Kasese Cobalt Co. Ltd. (KCCL), proposed to recover cobalt from Kilembe Mine concentrates stockpiled near the Kasese railhead in southwestern Uganda. Kasese Cobalt Co. was a joint venture of Banff Resources Ltd. of Canada and the state-owned Kilembe Mines Ltd. Estimated to cost $110 million, the project was to be funded by Banff; Banff's majority stakeholder, La Source Group of France; and Kilembe Mines, and supplemented by financing by the European Investment Bank; the International Finance Corp.; and Proparco of France. Commonwealth Development Corp., an original member of the financial consortium, withdrew its support in December 1996.

Construction of the KCCL plant was scheduled for mid-1997. Bioleaching of the concentrates, solvent extraction, and electrowinning were not expected to begin until 1998. Plans were to process approximately 820,000 metric tons of concentrates assaying 1.38% cobalt to recover approximately 1,000 t/yr of cobalt cathode. Operations were expected to extend over an 11- to 12-year period, generating approximately 5% of world cobalt production annually and placing Uganda among the top 10 cobalt producers of the world. KCCL was also preparing a 90,000-t/yr limestone quarry and studying the reopening of the original Kilembe Mine, in which Banff had 65% interest.

Gold was recovered by artisanal miners in the northeast and along the western border. There had been a significant increase in international exploration activity since the United Nations Development Programme's (UNDP's) Mineral Investment Promotion began in 1992. International Roraima had acquired 20 EPL's. Exploration activity during 1996 included geologic mapping, soil sampling, geophysical surveys, and trenching. Seventeen of the permits were ventures with ISCOR Ltd. of South Africa.

The financial problems of GHK Resources Ltd. of Canada resulted in slower than expected exploration activity on nickel EPL 4150, adjacent to the Kilembe sulfide belt. In December, Pacific Vangold optioned three permits from GHK, including EPL 4150. Pacific Vangold drilled the Kafunzo nickel-cobalt prospect in southwestern Uganda and also authorized B.A.S.M. Resources Corp. of Canada to explore on EPLs held by Pacific Vangold's local subsidiaries, Equatorial Resources Ltd. and Nickelfields.

The Government (51%) and the Madvhani Group of Uganda (49%) were working toward a 1997 recommissioning of the 25,000-t/yr-capacity Steel Corp. of East Africa Ltd. in Jinja. The Steel Rolling Mills, a 21,000-t/yr-capacity electric arc steelworks in Jinja was having problems obtaining scrap feed. Downstream steel operations in Uganda include BM Technical Services in Mbarara, a 20,000-t/yr-capacity rolling mill and the Sembule Steel Mills in Kampala, a 20,000-t/yr-capacity rolling operation.

The Rawal Group of Industries had acquired the Government's Uganda Cement Industries cement plant in Hima during 1994. The Rawal Group began the renovation of the electrostatic precipitator in 1996 to reduce dust emission at the renamed Hima Cement Industries. The company planned to continue production from the 600-metric-ton-per-day (t/d) capacity No. 2 line after the refractory lining was replaced. Refurbishment of the 300-t/d-capacity No.1 line, out of production since a fire in 1979, was proposed for 1997.

In November 1996, Rawal Group notified the government that it considered the limestone reserves sold with the cement plant to have been significantly smaller than represented in the sale documents. Based on the alleged misrepresentation, Rawal Group indicated its unwillingness to pay the balance of approximately $5.5 million[1] owed to the Government for the plant. Additionally, the armed conflict in eastern Zaire threatened the market for about 15% of the company's sales.

During December 1995, the state-owned Uganda Cement Corp.'s Tororo plant was purchased by Corrugated Sheets Ltd. of Mombassa, Kenya. As Tororo Cement Industries, the overhauled mill was grinding clinker brought in from Hima or imported from Tanzania. A 750-t/d-capacity kiln was proposed for restoration.

The proposed development of the Sukulu phosphate (apatite) resource near Tororo estimated by the Government to contain 300 million metric tons of phosphate at an average grade of 13.1% P_2O_5 was deferred. Gujarat State Fertilizers Co. Ltd. of India (GSFC) and the state-owned Uganda Development Corp. had planned to construct a 200,000-t/yr-capacity triple superphosphate fertilizer plant at Tororo. However GSFC withdrew reportedly after a study indicated that the envisioned project was not feasible (The Monitor, 1997).

The Uganda People's Defense Forces, the government's military branch, operated National Enterprises Corp's Lime Dura. During 1996, the 2,400-t/yr-capacity hydrated lime producer was seeking funding to expand its 3-quarry mining operation.

The formation of Uganda Salt Enterprises Ltd., a joint venture of Israeli Salt Enterprises Ltd. (75%) and the Uganda Development Corp. (25%) was announced in May 1996 (Nabeta, 1996). Uganda Salt proposed to process imported salt

[1]Where necessary, values have been converted from Uganda shillings (USh) to U.S. dollars at the yearend rate of USh1017=US$1.00.

to produce 80,000-t/yr iodized salt at a plant near the Namanve railroad station, northeast of Kampala. Uganda Salt also commissioned a feasibility study of producing salt from Lake Katwe. However, Uganda Development Corp. was having difficulty securing government funding for the joint venture. Additionally, the Kasese district government and the Lake Katwe town government were contesting the ownership of Lake Katwe.

The East African Glass Works renovation was expected to stimulate the local demand for silica sand. The rehabilitation of the bottle plant by Muljibal Madhvani & Co. Ltd. was funded by a loan from the African Development Bank.

During March 1996, the Government canceled the production sharing agreement it had on Block 2 in the southwest of the country with Uganda General Works and Engineering Corp. (UGWEC), an affiliate of the International Resources Development Group of the United States. UGWEC had been unable to finance the exploration program originally scheduled to start up in June 1995. In December 1996, the concession was awarded to Heritage Oil and Gas Ltd., a London-based, Bahamian company.

The Government's Road Sector Development Program was initiated in 1996. This 10-year $1.5 billion project was intended to reconstruct 4,000 kilometers (km) of road and repair the nation's 30,000-km road network, positioning Uganda as a transportation conduit for Central African trade. Roads were emphasized in lieu of the railroad because of the lack of international financing available. The aging rolling stock and track of the Uganda Railways Corp. resulted in increased maintenance expenses. The railway connected Kasese, Kampala, and Tororo with the port of Mombassa, Kenya, and there was a rail ferry from Port Bell, near Kampala to Mwanza, Tanzania, with connections to Dar Es Salaam, Tanzania.

With its booming economy, Uganda had been subject to electric power deficits since the early 1990's. In addition to domestic demand, the Uganda Electricity Board (UEB) was saddled with a long-term contract to supply 30-megawatts (MW) to Kenya. Power was generated by the 160-MW-capacity Owen Falls hydroelectric dam, supplemented by smaller generation facilities near Kabale and the rehabilitated 10-MW Mubuku hydroelectric power station near Kasese in the southwest. UEB also obtained power from diesel plants near Arua, Kampala, Kitgum, Mbale, Moroto, Moyo, and Nebbi.

The Chinese company SIETCO had been awarded the Owen Falls II contract in 1992. The project proposed to expand the Owen Falls plant from 160 to 180 MW and construct a 102-MW hydroelectric station downstream from the Owen Falls Dam by 1997. In 1996, the project completion date had slipped to 1999, and in September the UEB removed SIETCO as project manager.

Nile Independent Power Co., a joint venture of AES Corp. of the United States and Madhvani International of South Africa agreed to build a privately owned 290-MW hydroelectric generating plant on the Victoria Nile (The Indian Ocean Newsletter, 1997). Construction was not scheduled until 1997and power was not expected to be available to the Uganda grid until 2003.

Uganda has a rapidly expanding economy, despite the unrest in the Central African region and the rebellion in northern Uganda. Its mineral resources are relatively under explored and underdeveloped.

The Mineral Development Promotion Program ended in June 1996. The program had been set up with UNDP's assistance during 1992 to assist with mineral information dissemination and to facilitate the development of the nation's numerous, but relatively small mineral occurrences. A legacy of the program is that Ugandan mineral industry is expected to continue to diversify through the turn of the century. Increases in mineral exports and mineral industry activity should augment the country's foreign exchange revenues and attract additional international interest and investment in the nation's mineral industry. However, further growth of energy-intensive mineral processing may be limited during the next 5 to 6 years by the UEB's power problems.

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Major Sources of Information

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TABLE 1
UGANDA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity		1992	1993	1994	1995	1996 e/
Cement, hydraulic		50,000 e/	50,000 e/	42,000 r/	85,000 r/	150,000
Columbium-tantalum	kilograms	35	452	435	1,842	2,000
Gold	do.	(3/) r/	291 r/	1,627 r/	1,506 r/	2,954 4/
Gypsum		396	308	201	1,538	3,000
Iron ore		33 r/	-- r/	-- r/	7 r/ 4/	200 4/
Lime, hydrated and quick		100 r/	1,024 r/	163 r/	970	1,000
Limestone e/		45,000	46,000	38,000	78,000	135,000
Phosphate minerals, apatite		-- r/	-- r/	-- r/	20 r/	-- 4/
Salt, evaporated		10 r/	10 r/	10 r/	10 r/	10
Steel		20,000	20,000	10,000	12,000	12,000
Tin, mine output, Sn content		2 r/	3 r/	3 r/	43 r/	(3/) 4/
Tungsten, mine output, W content		16 r/	5 r/	12 r/	17 r/	-- 4/

e/ Estimated. r/ Revised.

1/ Includes data available through July 31, 1997.

2/ In addition to the commodities listed, the following are presumably produced but information is inadequate to estimate output: clay, copper content of slag, corundum, garnet, gemstones, gravel, kaolin, ruby, sand, and vermiculite.

3/ Less than 1 unit.

4/ Reported.