



2012 Minerals Yearbook

EGYPT

THE MINERAL INDUSTRY OF EGYPT

By Mowafa Taib

Egypt was a significant supplier of fuel minerals and some industrial minerals to the world in 2012; it was Africa's second-ranked producer of natural gas after Algeria and the fifth-ranked producer of crude oil after Nigeria, Angola, Algeria, and Libya. Egypt was Africa's second-ranked crude steel producer after South Africa and the world's eighth-ranked producer of direct-reduced iron (DRI). Egypt was among the world's top producers of cement, gold, nitrogen fertilizer, and phosphate rock. Mineral commodities produced by companies in Egypt included such metals as aluminum, crude steel, DRI, ferroalloys, gold, ilmenite, iron ore, manganese, secondary copper, steel, and tin. The country was also a significant producer of such industrial and fuel minerals as ammonia, barite, basalt, bentonite, coal, coke, dolomite, feldspar, fluor spar, granite, gypsum, kaolin, limestone, marble, phosphate rock, quartz, salt, sand and gravel, sandstone, silica sand, soda ash, sulfur, talc, and urea (table 1; BP p.l.c., 2013, p. 8, 22; Midrex Technologies, Inc., 2013, p. 7; van Oss, 2013).

Minerals in the National Economy

In 2012, the Egyptian economy grew at a rate of 2.2% in real terms compared with revised 1.8% in 2011. The sluggish growth in 2012 was because of weak performance in virtually all economic sectors following the January 25th Revolution in 2011 and continued political instability in the country. At 2011–12 prices, the share of the crude oil, natural gas and other extracted minerals in the Egyptian economy was 16.5% of the gross domestic product (GDP), and that of the manufacturing sector, which included the cement, fertilizer, and iron and steel industries, amounted to 15.5% of the GDP; construction accounted for 4.4% of the GDP. The mining sector, including the extraction of hydrocarbons, contracted at a rate of 0.2% in 2012 whereas the construction and the manufacturing sectors' growth rates were 4.5% and 2.4%, respectively (Central Bank of Egypt, 2013, p. 104).

The flow of foreign direct investment (FDI) into Egypt increased by 480% to about \$2.8 billion in 2012 compared with a revised \$483 million in 2011; despite the increase in 2012, however, FDI inflows remained much less than in previous years, which averaged \$8.5 billion per year in the period from 2007 to 2010. Most of the FDI flows to Egypt went to the petroleum sector (about 76%) and industry (4%). The flow of FDI out of Egypt decreased by 66% to \$211 million in 2012 from \$626 million in 2011 (United Nations Conference on Trade and Development, 2013, p. 213).

Government Policies and Programs

The draft of the new mining law, which was prepared by the Egyptian Mineral Resources Authority (EMRA) with the help of the International Finance Corp. (IFC) of the World Bank Group in 2008, was still awaiting Parliamentary and Presidential

approval as of yearend 2012. The new law was intended to address problems associated with the current mining law, which is based on law No. 66 of 1953 and law No. 86 of 1956, which had been amended only twice (in 1957 and 1964). Investment law No. 8 of 1997 provided the legal framework for several mining companies that were established in the country in the early 2000s. The law protects investments in the country against nationalization and provides incentives for investing in mining and in the manufacturing of fertilizer and petrochemicals in the country's free trade zones.

The Government designated gold production and natural gas processing, treatment, and transportation projects as strategic projects for the development of the mineral industry. In 2010, the Egyptian Mineral Resources Scientists Council of the Ministry of Petroleum developed a long-term mining strategy for the country. The national strategy is focused on developing the resources of the phosphate rock deposits in the Western Desert and the Al Wadi Al Gadid in the southeast, and the mineral resources of the Sinai Peninsula (Egyptian Mineral Resources Authority, 2013a, b; Ministry of Petroleum, 2013).

Production

Notable increases in mineral commodity production in 2012 compared with that of 2011 included the increase in ferrosilicon production by about 50%; phosphate rock, by 31%; gold, by 29%; cement, by about 26%; steel wire, by 15%, and hot-rolled steel, by 10%. Notable decreases in mineral commodity production in 2012 compared with that of 2011 included the decrease in refined copper production, by 98%; feldspar, by 96%; urea, by 24%; ammonia, by 16%; and natural gas liquids, by 12% (table 1).

Structure of the Mineral Industry

Egypt's metals, industrial minerals, and mineral fuel industries were managed by the Ministry of Petroleum through five independently managed entities—Egyptian General Petroleum Corp. (EGPC), Egyptian Natural Gas Holding Co. (EGAS), Egyptian Petrochemical Holdings Co. (ECHEM), EMRA, and Ganoube El Wadi Holding Co. (Ganope). The EGPC managed the exploration for and the production, refining, marketing, and distribution of crude oil. The EGAS administered the country's natural gas activities, including the exploration for and the marketing, processing, production, treatment, and transportation of natural gas. Ganope was responsible for all natural gas and crude oil activities in Upper Egypt. The ECHEM carried out all petrochemical operations in the country. The EMRA was responsible for conducting geologic mapping and mineral exploration and for issuing mining permits. The EMRA held shares in three mining companies—El Wadi Al Gadid Company for Mineral Resources and Oil Shale (Wadico), Egyptian Company for Mineral Resources (ECMR), and

Abu Tartur Phosphate Co. ECMR created Quartz Misr, which was a joint venture with local investors to exploit quartz deposits in the Eastern Desert of Egypt. ECMR was also a partner with Centamin p.l.c. of the United Kingdom in the development of the Sukari gold mine project. ECMR and Gippsland Ltd. of Australia were 50-50 partners in Tantalum Egypt J.S.C., which was a joint-venture company formed to develop the Abu Dabbab and the Nuweibi tantalum-tin-feldspar deposits. ECMR was looking for local and international partners to explore for and produce bentonite, calcium carbonate, feldspar, fluorspar, granite, gypsum, ilmenite, iron oxide pigments, marble, phosphate rock, quartz, silica sand, talc, tantalum, and vermiculite (Egyptian Company for Mineral Resources, 2013).

The Holding Company for Metallurgical Industries was an Egyptian joint-stock holding company (E.J.S.C.) organized to operate under the provisions of the Public Enterprise law. Its affiliates included Aluminium Co. of Egypt (Egyptalum), Delta Steel Mill Co., Egyptian Co. for Metallic Construction, Egyptian Copper Works Co., Egyptian Ferroalloys Co., Egyptian Iron and Steel Co. (Hadisob), El Nasr Coke and Chemicals Co., El Nasr Forging Co., El Nasr Mining Co., El Nasr Pipes and Fittings Co., and the General Co. for Ceramics and Porcelain.

El Nasr Mining produced several mineral commodities, including ball clay, barite, clay, feldspar, fluorspar, gypsum, ilmenite, iron ore (iron oxide), kaolin, magnesite, manganese, phosphate rock, quartz, and talc. The company exported mineral commodities from its three export ports at Abu Ghusun, Hamrawein, and Safaga on the Red Sea (El Nasr Mining Co., 2013; Metallurgical Industries Co., 2013).

The Industrial Development Authority (IDA) of the MTI was responsible for issuing licenses to build cement, fertilizer, and steel plants as well as for regulating the cement, fertilizer, and steel markets. The IDA also was responsible for ensuring the presence of a sufficient supply of cement, reinforcement bar, and other building materials in the local markets.

The cement and steel markets had both state-owned and private producers but were dominated by private companies. Several international cement companies had cement production operations in Egypt, including Cementos La Union S.A. of Spain, Cimentos de Portugal, SGPS, S.A. (Cimpor) of Portugal, Holcim Ltd. of Switzerland, Italcementi Group of Italy, Lafarge S.A. of France, TITAN Group of Greece, and Vicat Group of France. ASEC Cement was a listed Egyptian company that owned and operated cement plants in Algeria, Egypt, Iraq, Sudan, and Syria (table 2).

Mineral Trade

In 2012, the value of Egypt's total exports decreased to \$29.4 billion from \$31.6 billion in 2011. The value of petroleum products exports, which accounted for 30% of total exports, decreased to about \$8.8 billion from \$9.2 billion in 2011. The volume of crude oil and petroleum products exports decreased by about 11% to 104,200 barrels per day (bbl/d) in 2012 from 116,500 bbl/d in 2011. Most of the decrease was in the volume of crude oil exports, which decreased by about 21% to 38,100 bbl/d in 2012 from 48,000 bbl/d in 2011 and 62,700 bbl/d in 2010. The volume of natural gas exports

decreased by 29% to about 6.6 billion cubic meters in 2012 from 10.0 billion cubic meters in 2011. The value of exports of chemicals, nitrogen, phosphate-based fertilizers, and phosphate rock combined decreased to about \$1.2 billion from about \$1.3 billion in 2011; gold exports decreased to \$1.3 billion from about \$1.7 billion in 2011; and iron and steel exports decreased to \$324 million from \$511 million in 2011. Italy was the top recipient of Egyptian exports followed by India, the United States, Saudi Arabia, Turkey, France, Spain, and Japan. Egyptian imports from the United States decreased in value to \$4.4 billion from \$6.2 billion in 2011, and U.S. imports from Egypt were valued at \$1.4 billion compared with 3.0 billion in 2011 (Organization of the Petroleum Exporting Countries, 2013, p. 94, 96; United Nations Statistics Division, 2013; U.S. Census Bureau, 2013).

Egyptian imports increased by 12% to \$69.9 billion from \$62.2 billion in 2011. The value of hydrocarbon products imports totaled \$12.9 billion and accounted for 18% of the value of total imports. The value of semifinished iron and steel products imports increased to \$1.6 billion from \$1.1 billion in 2011, and that of other iron and steel products imports increased to about \$1.2 billion from \$1.1 billion in 2011. The volume of exports of finished and semifinished steel products decreased to 262,000 metric tons (t) from 557,000 t in 2011, and that of imports increased to 3.6 million metric tons (Mt) from 2.6 Mt in 2011. Ingots and semifinished steel imports increased in tonnage to 1.6 Mt from 1.0 Mt. The country imported 4.2 Mt of iron ore and 2 Mt of scrap compared with 4.3 Mt and 2.6 Mt, respectively, in 2011 (United Nations Statistics Division, 2013; World Steel Association, 2013).

Commodity Review

Metals

Copper and Gold.—In 2012, the Sukari Gold Mine Co. mined 6.4 Mt of ore, processed 4.5 Mt of ore, and produced 8,175 kilograms (kg) (reported as 262,828 troy ounces) of gold compared with 6.3 Mt of ore mined, 3.6 Mt of ore processed, and 6,305 kg (reported as 202,699 troy ounces) of gold produced in 2011. The Sukari gold mine is located about 23 kilometers (km) southwest of Marsa Alam in Egypt's eastern desert and was the first modern large-scale operating gold mine in Egypt. The Sukari Mine began as an open pit and, in 2011, it consisted of an open pit mine and an underground mine. The grade of the ore mined underground was 8.96 grams per metric ton (g/t) gold in 2012 compared with 13.31 g/t gold in 2011. The Sukari deposit's proved and probable mineral reserves were estimated to be 314 t (10.1 million troy ounces) of gold. The mine's measured and indicated resources were estimated to be about 408 t (13.13 million troy ounces) and 72 t (2.3 million troy ounces) of inferred resources. Centamin, which operated the mine, had projected an 18-year life for the mine (Centamin p.l.c., 2013, p. 5, 8).

On October 30, the Egyptian Administrative Court ruled that Centamin's contract with ECMR to produce gold from the Sukari Mine was invalid and canceled Centamin's 30-year mine exploitation contract with the Government. Centamin appealed the court ruling and applied to suspend the enforcement of

the decision during the appeal process. In March 2013, the Supreme Administrative Court approved Centamin's request and allowed the continuation of operations at the Sukari Mine during the appeal period (Centamin p.l.c., 2013, p. 4).

The Hamash gold mine, which is located 100 km west of Marsa Alam in southeastern Egypt, produced 465 kg of gold in 2010 and 60 kg of gold in 2009 (the latest years for which comprehensive data were publicly available). The mine used a heap-leach production method and was operated by Hammash Misr for Gold Mines, which was a 50-50 joint venture between Cypriot Matz Holdings of Cyprus and EMRA. Hammash Misr was also involved with the Abu Tarda gold mine and the Um Eliga gold mine. Gold production from the Hamash gold mine is not included in the 2011 and 2012 production figures for gold in table 1 because the company did not release any data in the past 2 years (table 1; Hammash Misr for Gold Mines, 2013).

Gippsland Ltd. moved forward with exploration works at eight gold prospects and one copper-nickel prospect in the Wadi Allaqi region, which is located 250 km southeast of Aswan in the Eastern Desert. Gippsland's drilling program identified several mineralization areas, including at Seiga, which had an estimated inferred gold resource of 2,635 kg (Gippsland Ltd., 2012, p. 7).

Gippsland completed drilling operations at the Abu Swayel prospect, which was a copper-nickel prospect located 160 km southeast of Aswan. The company identified a copper-nickel mineralization zone, including chalcopyrite, which varied in thickness from 4 to 18 meters (m) alongside historical sites that were mined by the ancient Egyptians (Gippsland Ltd., 2012, p. 7).

In 2012, Alexander Nubia International Inc. (ANI) of Canada held two exploration concessions—the Abu Marawat and the Fitiri concessions—which are located in the Eastern Desert and together cover a total land area of 2,772 square kilometers (km²). The Abu Marawat gold-copper-zinc-silver project was a concession that ANI won in an international competitive auction from Centamin Egypt in 2008. ANI drilled 79 diamond drill holes and estimated the Abu Marawat's mineral resource to be 12.3 t (reported as 397,000 troy ounces) of gold. The inferred mineral resource was 2.9 Mt grading 1.75 g/t gold, 29.3 g/t silver, 0.77% copper, and 1.15% zinc. The Hamama volcanogenic massive sulfide (VMS) deposit is situated within the Abu Marawat concession, which is located in Egypt's part of the Arabian Shield (a historical copper and gold mining zone) (Alexander Nubia International Inc., 2013).

Iron and Steel.—Production of continuously cast steel increased to 6.6 Mt in 2012 from about 6.5 Mt in 2011. Most of the steel production (91.6%) was carried out by electric arc furnaces (EAFs), and the remaining 8.4%, by oxygen-blown converters. Production of hot-rolled steel products increased to about 7.3 Mt compared with about 6.6 Mt in 2011; of this amount, 86% was long products and 14% was flat products. Al Ezz Steel Rebars S.A. (Ezzsteel) was the leading steel producer in North Africa and had the capacity to produce 5.8 million metric tons per year (Mt/yr) of iron and steel products. Ezzsteel, which completed the construction of its newest steel mill in Suez in 2011, produced 3.6 Mt of long

products and 1 Mt of flat products in 2012 (Al Ezz Steel Rebars S.A., 2013).

Suez Steel Co. (Solb Misr) was the second largest steel company in Egypt in terms of production capacity, which was 2.6 Mt/yr of iron and steel products. The company produced billets, DRI, steel reinforcing bar (rebar), and wire rods and coils (Suez Steel Co., 2013).

Egyptian Steel Group, which was created in 2010 to produce iron and steel products, depended on billet from the local market and on imports to feed its 300,000 metric ton per year (t/yr) rebar mill in Port Said. The group operated a second mill that produced 250,000 t/yr of wired steel in Alexandria. Egyptian Steel was seeking \$573 million to finance construction of steel mills in Ain Sokhna and Beni Swief that would add 1.7 Mt/yr of rebar and 1 Mt/yr of billet to the company's production capacity by 2015. The company was building two EAF plants that would be fed with scrap and would each have the capacity to produce 850,000 t/yr of billet (Egyptian Steel Group, 2013).

Tantalum and Tin.—In 2012, Tantalum Egypt J.S.C., which was a 50-50 joint venture of ECMR and Tantalum International Pty Ltd. (a wholly owned subsidiary of Gippsland), was seeking to raise \$225 million to fund phase 1 of the Abu Dabbab tantalum-tin-feldspar project and the Nuweibi tantalum-niobium-feldspar project, which are located in southeastern Egypt near the Red Sea coast. The combined measured, indicated, and inferred resources of the Abu Dabbab deposit were estimated to be 44.5 Mt grading 250 g/t tantalum pentoxide (Ta₂O₅) and 0.143% tin (Sn) at a cutoff grade of 100 g/t Ta₂O₅. The measured resources were estimated to be 15.2 Mt at a grade of 290 g/t Ta₂O₅ and 0.143% Sn. The indicated mineral resources were estimated to be 17.3 Mt of Ta₂O₅ grading 250 g/t and 0.078% Sn, and the inferred mineral resources were estimated to be 12 Mt grading 200 g/t Ta₂O₅ and 0.03% Sn. The total proved and probable ore reserves at the Abu Dabbab deposit were estimated to be 33.18 Mt grading 252 g/t Ta₂O₅ and 0.1312% tin oxide (Gippsland Ltd., 2013a).

The Nuweibi deposit, which is located 17 km southwest of the Abu Dabbab project, contained 98 Mt of tantalum-niobium-feldspar mineral resources at a cutoff grade of 100 g/t Ta₂O₅. The indicated resource was 48 Mt grading 147 g/t Ta₂O₅ and 90 g/t niobium pentoxide (Nb₂O₅), and the inferred resource was 50 Mt grading 138 g/t Ta₂O₅ and 95 g/t Nb₂O₅. The resource tonnage of the Nuweibi deposit was more than double that of the Abu Dabbab deposit, but the average Ta₂O₅ grade was 43% lower than that of Abu Dabbab. Given the amounts of identified resources (measured, indicated, and inferred) contained in the Abu Dabbab and the Nuweibi deposits, Gippsland expected that the company would rank among the world's leading producers of tantalum for many years to come (Gippsland Ltd., 2013c).

Based on a bankable feasibility study for the Abu Dabbab project that was completed in 2011, Tantalum Egypt planned to produce 420,000 kilograms per year (kg/yr) (925,000 pounds per year) of high-purity tantalum synthetic concentrate, known as SynCon (a tantalum concentrate that contains 55% Ta₂O₅) and 2,300 t/yr of tin metal in concentrate in phase 1 of the project. In phase 2, the company expected to produce up to 2.4 Mt/yr of feldspar (Gippsland Ltd., 2012).

In March, the company commenced tin production at Abu Dabbab following the completion of a study on the development of the Abu Dabbab's alluvial tin deposits. The tin plant was expected to produce between 600 and 660 t/yr of tin contained in concentrate (Gippsland Ltd., 2013b).

In February 2013, a group of four Egyptian banks—Bank Audi, Banque du Caire, Banque Misr, and Commercial International Bank—agreed to finance the Abu Dabbab tantalum-tin-feldspar project. The project was promoted as producing conflict-free tantalum as distinguished from tantalum produced in conflict areas, such as in the Democratic Republic of the Congo [Congo (Kinshasa)]. The project was expected to make Egypt a major world producer of tantalum.

Industrial Minerals

Barite, Bentonite, and other Oilfield Minerals.—Rasheed Performance Minerals Group (RPM) operated several barite and bentonite mines and other oilfield chemical processing plants in Egypt. RPM owned two barite mills that had a combined capacity of 100,000 t/yr. RPM was building a third barite mill and a concentration plant that was expected to begin production in 2013. Bentonite mines operated by RPM are located about 110 km southwest of Alexandria; the company also operated a bentonite processing plant at the Borg El Arab Industrial Development Zone, which is located 65 km southwest of Alexandria. The plant used both locally produced and imported bentonite. The 225,000-t/yr-capacity processing plant included blending, chemical and mechanical activation, drying, sieving, milling, and packaging. RPM also produced organoclays and organophyllic lignite for oilfield drilling operations (Rasheed Performance Minerals Group, 2013).

Cement.—According to the latest Arab Union of Cement and Building Materials (AUCBM) statistics, Egypt produced 55.2 Mt of cement in 2012. The AUCBM listed 15 producers of cement in the country. Cement and clinker capacity amounted to 65 Mt/yr and 61.8 Mt/yr, respectively (Arab Union of Cement and Building Materials, 2013).

Construction of a greenfield cement plant by Arab National Cement Co. (ANCC), which was located 200 km south of Cairo in the Governorate of El Minya, continued during 2012. The plant was expected to have the capacity to produce 1.5 Mt/yr of clinker and 2.0 Mt/yr of cement. The plant was owned by ASEC Cement (45% interest). Other shareholders included Misr Qena Cement (13.9%), Hayel Saeed Group of Yemen (30.7%), Investment Fund for Developing Countries of Denmark (9.2%), and others (1.2%). ASEC Cement also owned a 27.55% stake in Misr Qena Cement, which is located at El Quseir in the Governorate of Qena. The plant had been producing about 2 Mt/yr of cement since 2010 (ASEC Cement, 2013).

Nitrogen.—Ten companies produced a combined total of about 2.95 Mt of ammonia (N content) in Egypt in 2012. Abu Qir Fertilizer & Chemical Industries Co. was the leading producer of ammonia in Egypt; it was responsible for about 26% of the country's total production, followed by Egyptian Fertilizers Co. (18%) and Egypt Basic Industries Corp. (EBIC) (16%). Other producers included Alexandria Fertilizers Co. (AlexFert), Egyptian Chemical Industries KIMA

ASWAN, EL Delta Company for Fertilizers and Chemical Industries (ASMEDA), El Nasr Fertilizers and Chemicals Co. (SEMADCO), Helwan Fertilizer Co., and MISR Fertilizer Production Co. S.A.E. (MOPCO). Six companies produced about 3.7 Mt of urea in 2012. Egyptian Fertilizers was the leading producer of ammonia and accounted for about 31% of the country's total production, followed by Abu Qir Fertilizer & Chemical Industries Co. (27%), AlexFert (18%), Helwan Fertilizer Co. (17%), ASMEDA (11%), and MOPCO (6%) (Arab Fertilizer Association, 2013, p. 23, 28).

In March, production at MOPCO's urea plant at the Rehab Industrial Free Zone in Damietta resumed following a 4-month stoppage because of protests, which claimed that the plant violated environmental regulations and adversely affected the environment in the surrounding residential and tourist areas. In January, a committee made of experts and academic professionals concluded that the MOPCO plant was entirely benign to the environment and recommended the resumption of operations and continuation of expansion plans. Soon after, an Administrative Court overruled the Government's decision to halt work and expansion activity in favor of the MOPCO plant and rejected the lawsuit by local civic groups (Abd Al-Fatah, 2012).

MOPCO moved forward with building two additional urea trains at the Rehab Industrial Free Zone to triple its urea production capacity to 1.95 Mt/yr from 650,000 t/yr. MOPCO's wholly owned subsidiary Egyptian Nitrogen Products Company S.A.E. obtained a \$1.05 billion loan from a consortium of local banks to finance the expansion plan. Agrium Inc. of Canada, which held a 26% interest in MOPCO, was expected to acquire 507,000 t/yr of the urea output and 39,000 t/yr of net trade ammonia after the expansion work is completed. Most of Agrium's share of the output would be sold through a subsidiary of Agrium Europe (Agrium Inc., 2011, p. 3).

Orascom Construction Industries S.A.E. (OCI) of Egypt had a majority ownership in nitrogen fertilizer plants at Ain Al-Sokhna near the city of Suez through its subsidiaries—Egypt Basic Industries Corp. (EBIC) and Egyptian Fertilizer Co. (EFC). The EBIC plant at Ain Al-Sokhna was 60% owned by OCI and had the capacity to produce 0.7 Mt/yr of anhydrous ammonia. The plant had a dedicated 8-km pipeline from the plant to a bulk liquid export jetty on the Suez Canal. EFC's plant, which was 100% owned by OCI, completed a debottlenecking project that increased the production capacity to 1.6 Mt/yr of urea from 1.3 Mt/yr. OCI produced ammonia, granulated urea, and nitrates in Algeria, Egypt, the Netherlands, and the United States. The company, which was the world's leading producer of melamine (67% nitrogen), had the capacity to produce 2.2 Mt/yr of anhydrous ammonia, 2.8 Mt/yr of granular urea, 1.35 Mt/yr of calcium ammonium nitrate, 0.75 Mt/yr of methanol, and 0.25 Mt/yr each of melamine and urea ammonium nitrate (Orascom Construction Industries S.A.E., 2013).

Phosphate Rock.—In 2012, the gross weight of phosphate rock produced in Egypt amounted to 6.2 Mt, which was an increase of 31% compared with that of 2011. Most of the production (69%) was carried out by El Nasr Mining, which was the main producer of phosphate rock in Egypt. The company produced 4.3 Mt of phosphate rock from the

East El Sebaáya Mine, the West El Sebaáya Mine, and the Red Sea Mine at El Quseir. El Nasr Mining owned two export ports on the Red Sea—Hamrawein Port and Abu Ghusun Port (Arab Fertilizer Association, 2013, p. 37; El Nasr Mining Co., 2013).

Phosphate Misr Co. S.A.E (PMC) was the country's second-ranked producer of phosphate rock; it operated the New Valley phosphate rock mines, which are located on the Abu Tartur plateau at equal distance (650 km) from Cairo and the Port of Safaga on the Red Sea. The phosphate ore is spread across the Abu Tartur plateau, which covers 1,200 km². The results of 375 drill holes in a 120-km² area of the plateau indicated that some 750 Mt of phosphate rock reserves could be mined. In 2012, PMC produced 1.7 Mt of phosphate rock (27% of the country's total production) compared with 346,000 t in 2011. PMC had the capacity to produce 2.5 Mt/yr at yearend 2012 (Arab Fertilizer Association, 2013, p. 37; Phosphate Misr Co., 2013).

El Wataneya for Mining and Quarries was the third-ranked producer of phosphate rock in Egypt. El Wataneya produced 215,000 t of phosphate rock compared with 205,000 t in 2011. The company explored for and exploited phosphate rock in the Nile Valley, the Red Sea, and the Eastern and Western Desert areas. El Wataneya owned 16 phosphate rock deposits in the Nile Valley, which covers 300 km². El Wataneya reported acquiring seven Government-owned mines in East El Sebaáya. Among these mines, the El Kelh Mine had been operating for 2 years, and the Nagae Mine was just at the beginning of its operations; the capacity of each of these mines was 2.5 Mt/yr (Arab Fertilizer Association, 2013, p. 37; El Wataneya for Mining and Quarries, 2013).

Salt.—El Nasr Salines Co., which operated two facilities at Burj Al-Arab in Alexandria and Sebika in El-Arish, completed both phases of its expansion plan at both facilities. In the first phase, salt production capacity at Burj Al-Arab was increased to 1.2 Mt /yr from 300,000 t/yr. In the second phase of expansion, the company's salt production capacity at Sebika was increased to 2 Mt/yr. El-Mex Salines Co., which operated two salt deposits in Alexandria and Port Said, had the capacity to produce about 1.8 Mt/yr of salt, including 1.4 Mt/yr at El-Mex Salines in Alexandria and 350,000 t/yr at the Port Said facility (El-Mex Salines Co., 2013; El Nasr Salines Co., 2013).

Mineral Fuels

Natural Gas.—According to the Organization of Arab Petroleum Exporting Countries, Egypt's proved natural gas reserves at the end of 2012 were estimated to be 2,186 billion cubic meters and to account for 1.14% of the world's total natural gas reserves. The volume of marketed natural gas produced in 2012 was 58.8 billion cubic meters, or 1.7% of the world's total production, which was less than the 61.3 billion cubic meters produced in 2011. Most of Egypt's natural gas production came from Mediterranean Sea blocks where 78% of the country's gas reserves are located. The remaining reserves are located in the Western Desert (10%), the Gulf of Suez (8%), and the Nile Delta (4%). In 2012, 29 natural gas discoveries were reported in Egypt compared

with 21 discoveries in 2011 (Organization of Arab Petroleum Exporting Countries, 2013, p. 14, 20, 22, 34, 36).

Egypt had three operational liquefied natural gas (LNG) trains. The first train was located at Damietta in the Eastern Nile Delta and was operated by CEPSA. The second train was located in Idku in the Western Nile Delta and was operated by Egyptian LNG [a joint venture of BG Egypt, EGAS, EGPC, Gaz de France, and Petroliam Nasional Berhad (Petronas) of Malaysia]. Trains 1 and 2 had the capacity to produce a combined output of 7.2 Mt/yr. The third LNG train was located in the Mediterranean Gas Complex at Port Said and was jointly operated by BP Egypt and Eni S.p.A. of Italy. BG Egypt drilled 16 consecutive positive wells in the West Delta Deep Marine (WDDM) concession. In July, the company commenced natural gas production from Block 8b of the WDDM concession, which is located about 90 km offshore the Nile Delta. BG Egypt planned to drill nine wells in 2013 and 2014 for the development of the Block 9a section of the WDDM concession (BG Group, 2013a, b).

Egypt had been exporting natural gas to Israel and Jordan by pipeline but recently the flow of gas had been disrupted several times because of attacks by armed groups on natural gas pipelines in the northern part of the Sinai Peninsula. In April, the Government terminated the supply of natural gas to Israel and canceled its 2005 contract with Israel under which Egypt had agreed to supply Israel with natural gas for 20 years. The reason of the termination was disagreement about the natural gas sale price. In 2012, Egypt's natural gas exports amounted to 6.6 billion cubic meters, 85% of which was transported by LNG carrier and the remaining 15% was transported by pipeline. LNG exports decreased significantly to 5.6 billion cubic meters from about 9.2 billion cubic meters in 2011 and 15.5 billion cubic meters in 2008. Natural gas exports by pipeline to Jordan and Israel increased to 1.0 billion cubic meters in 2012 from 0.85 billion cubic meters in 2011, but the export level remained much lower than the peak year of 2009 (5.75 billion cubic meters) (Cable News Network, 2012; Organization of Arab Petroleum Exporting Countries, 2013, p. 98, 100).

Petroleum.—In 2012, 57 oil discoveries were reported in Egypt, which was equal to the number of oil discoveries in 2011; the number of active rigs, however, decreased to 48 in 2012 from 71 rigs in 2011. Crude oil production averaged 571,500 bbl/d in 2012, which was slightly more than the average production of 566,000 bbl/d in 2011. Consumption of crude oil was estimated to have been 742,500 bbl/d in 2012 and 751,100 bbl/d in 2011. Egypt's crude oil production came from the Eastern Desert, the Gulf of Suez, the Mediterranean Sea, the Nile Delta, the Sinai Peninsula, and the Western Desert. The proved crude oil reserves of Egypt were estimated to be 4.2 billion barrels (Organization of Arab Petroleum Exporting Countries, 2013, p. 8, 28; Organization of the Petroleum Exporting Countries, 2013, p. 25, 46).

Egypt, which was the leading African country in terms of the volume of petroleum products output, had an installed refining capacity of 992,400 bbl/d of crude oil at its nine petroleum refineries and planned to increase its petroleum refining capacity by an additional 600,000 bbl/d by 2016. The country's output of

refined petroleum products decreased slightly to 552,600 bbl/d from 554,100 bbl/d in 2011 (Organization of Arab Petroleum Exporting Countries, 2013, p. 38).

Egyptian Refinery Co. was a partnership company of state-owned Cairo Oil Refining Co. (CORC) (40%), G.S. Engineering and Construction Corp. of the Republic of Korea (30%), and Mitsui and Co. of Japan (30%) that was created to build a \$3.7 billion hydrocracking and coking refinery. The new refinery, which would take 4 years to build, would be located next to the existing CORC refinery within the Mostorod Petroleum Complex (about 20 km northeast of Cairo). The new refinery would produce lighter petroleum products, such as diesel and liquefied petroleum gas in a more efficient fashion and emit less sulfur dioxide to the environment. Refinery products from both the new refinery and the upgraded existing refineries would be offtaken by EGPC and delivered to consumption points in Cairo. The private equity company of Citadel Group was a majority stakeholder (85% interest), and EGPC held the remaining share (15% interest). The African Development Bank, the European Investment Bank, and the International Finance Corp. were among the banks that were financing the proposed Egyptian Refining Co. project (Egyptian Refining Co., 2013).

Outlook

The mineral industry in Egypt is likely to grow in the near future owing to two main factors. The first one is the country's abundant mineral resources—especially its resources of crude oil, gold, natural gas, phosphate rock, and tantalum. The other factor is the increased demand for cement, rebar, and other construction materials. Recent political and social unrest in the country following the January 25th Revolution in 2011 created uncertainty about the country's investment climate among local, regional, and international investors. Some investors in the mineral sector are waiting for the final outcome of the court ruling on Centamin's case for the Sukari gold mine as well as the approval of a new Constitution and the election of a new Parliament and President in 2014. For Egypt, achieving political stability and safety, passing of the draft mining law by the Parliament, reducing bureaucracy, and enhancing transparency are essential factors to bring economic growth and investment back to the country.

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TABLE 1
EGYPT: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity ²	2008	2009	2010	2011	2012
METALS					
Aluminum, metal:					
Primary	260	265	359	394 ^r	400 ^e
Secondary	110	170	180	180	180
Total	370	395	539	574	580
Copper, refined, secondary ^e	4	4 ^{r,3}	4	4 ^{r,3}	4
Gold kilograms	--	95	9,847	6,304 ^{r,4}	8,148 ⁴
Iron and steel:					
Iron ore and concentrate, gross weight	1,780	2,314 ^r	3,329 ^r	3,930 ^r	4,000 ^e
Fe content (50%)	890	1,157	1,664	1,965	2,000
Metal:					
Pig iron	900	800	600	600	550
Direct-reduced iron	2,643 ^r	3,051 ^r	2,965 ^r	2,932 ^r	3,068
Steel, crude	6,198	5,500	6,700	6,486	6,627
Rolled, hot	6,766	6,352	7,939	6,588	7,265
Rolled, wired	851	915	865	970	1,113
Ferrous alloys:^e					
Ferromanganese	30	30	37	30	30
Ferrosilicon	59	47 ^r	26 ^r	52 ^r	78
Manganese ore:					
Gross weight	120 ^r	120 ^{r,e}	160 ^r	108 ^r	110
Mn content	40 ^r	40 ^{r,e}	37 ^r	36 ^r	40
Tin metric tons	--	--	--	--	400
Titanium, ilmenite ^e	88 ³	88	11 ³	11	11
INDUSTRIAL MINERALS					
Barite ^e metric tons	1,556 ³	1,100	3,600	8,053 ^{r,3}	8,000
Cement, hydraulic, all types	39,800	46,900	44,592	43,884	55,200
Clays:					
Bentonite	32	29 ^r	33 ³	18 ^r	20
Kaolin ^e	523 ³	523	304 ³	304	304
Feldspar, crude metric tons	168,673 ^r	5,953 ^r	3,808 ^r	102,114 ^r	4,000
Fluorspar ^e do.	550	500	500	500	500
Gypsum	456	735	942	966 ^r	1,000 ^e
Iron oxide pigments	26 ³	30	30	30	30
Lime ^e	1,000	800	800	800	800
Nitrogen:^e					
Ammonia, N content	2,500	1,790	3,000	3,500	2,950
Urea, N content	2,000	1,120	2,310 ³	2,225 ³	1,684 ³
Phosphate:					
Phosphate rock	5,523	6,227	3,435	4,746 ^r	6,236
P ₂ O ₅ content	1,657	1,868	1,030	1,400	1,835

See footnotes at end of table

TABLE 1—Continued
EGYPT: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity ²	2008	2009	2010	2011	2012
Sodium compounds:					
Salt	2,952	2,703 ^r	2,460	2,884 ^r	3,000 ^e
Soda ash ^e	50	50	50	50	50
Sodium sulfate ^e metric tons	2,500	2,500	2,500	2,500	2,500
Stone, sand and gravel:					
Basalt thousand cubic meters	235	--	243	245	245 ^e
Dolomite	108	93	117	120	120 ^e
Granite, dimension stone thousand cubic meters	4	59	480	480 ^e	480 ^e
Limestone ^e do.	35,570 ³	1,914 ³	1,910	2,000	2,000
Marble blocks ^e do.	284	284	1,400	1,400	1,400
Quartz	8	34	54	35	35
Sand:^e					
Industrial sand (glass sand)	384	410	401	400	400
Sand and gravel	440	266	910	900	900
Sandstone ^e	217 ³	453 ³	400	400	400
Sulfur:					
Elemental, byproduct	24	32	28	29	30
Sulfuric acid, S content ^e	200	220	220	220	220
Talc, soapstone, pyrophyllite ^e	69 ³	44	48	48	48
Vermiculite metric tons	7,560	4,650	2,865	2,093 ^r	2,100 ^e
MINERAL FUELS AND RELATED MATERIALS					
Coal, bituminous ^e	360	300	300	300	300
Coke	1,439	886	1,184	916 ^r	1,200
Gas, natural:					
Gross production million cubic meters	61,000	62,100	61,600	62,100 ^r	60,100
Dry do.	40,000	47,205 ^r	46,215 ^r	46,540 ^r	45,000
Natural gas liquids thousand 42-gallon barrels	59,933	57,670	57,962	39,785	35,077
Petroleum:					
Crude, including condensate do.	260,975 ^r	266,450 ^r	264,625 ^r	265,355 ^r	265,720
Refinery products:					
Liquefied petroleum gas do.	6,862	5,986	5,986	5,694	5,840
Gasoline do.	29,054	29,164	28,698	24,054	28,580
Kerosene and jet fuel do.	12,520	11,607	13,104	13,797	14,272
Distillate fuel oil do.	65,481	62,233	62,926	56,648	54,130
Residual fuel oil do.	63,620	61,393	59,386	59,605	61,210
Lubricants do.	1,900	2,600	2,600	2,600	2,600
Asphalt ^e do.	5,600	3,200	5,600	5,600	5,600
Other do.	46,446	44,569	38,072	34,249	29,468
Total do.	231,483	220,752	216,372	202,247	201,700

^eEstimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through February 10, 2014.

²In addition to those listed, Egypt produced a number of commodities for which data were unavailable, including gemstones; mica; a number of metals, such as lead (which was produced from recycled material) and zinc; and manufactured mineral commodities, such as carbon black and glass.

³Reported figure.

⁴Does not include gold production from the Hamash gold mine.

TABLE 2
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum	Aluminium Co. of Egypt (Egyptalum) (Government, 80%, and private interests, 20%)	Nag Hammadi	266.
Aluminum, secondary	Egyptian Copper Co. (Holding Company for Metallurgical Industries)	Alexandria	50.
Do.	Arab Aluminium Co. S.A.E.	Ismaelia	15.
Do.	Egyptian Aluminium Products Co. (Alumisir)	Cairo	12.
Do.	Egyptian Metal Works	do.	NA.
Do.	General Metals Co.	do.	6.
Do.	Helwan Company for Non-Ferrous Industries	Helwan	45.
Do.	Al Saad Aluminium Co.	Mostorod	10.
Do.	Al Qantara for Ferrous Metals Co.	Suez	25.
Barite	El-Nasr Mining Co. (Holding Company for Metallurgical Companies, 100%)	NA	NA.
Do.	Rasheed Performance Minerals Group (RPM)	Borg El Arab Industrial Development Zone	100.
Bentonite	do.	do.	225.
Carbon black	Alexandria Carbon Black Co. (Egyptian Holding Co. for the Chemical Industry, 49%; Inco-Bharat, 36%; Grasim Industries 15%)	do.	20.
Cement	Egyptian Cement Co. (Lafarge S.A., 54%; private interests, 26%; Holcim Ltd., 20%)	70 kilometers east of Cairo	10,000.
Do.	Amirya Cement Co. [Cimentos de Portugal, SGPS, S.A. (Cimpor)]	do.	4,450.
Do.	Assuit Cement Co. (Cemex Egypt)	Assiut	4,752.
Do.	Arab Swiss Engineering Co. (ASEC) (Suez Cement Co., 68.7%)	Helwan	3,615.
Do.	Al-Arish Cement (Ministry of Defense)	Al-Arish	NA.
Do.	TITAN Cement Egypt (TITAN Cement Co., 100%)	Alexandria and Beni Suef	3,300.
Do.	Suez Cement Co. (Cements Français S.A., 54.2%)	Suez	4,200.
Do.	Helwan Cement Co. (Suez Cement Co., 98.69%)	Helwan	4,500.
Do.	Torah Portland Cement Co. (Suez Cement Co., 66.12%)	Torah	4,625.
Do.	Alexandria Portland Cement Co. (Government, 77%, and private interests, 23%)	El Mex	800.
Do.	National Cement Co. (Government, 77%, and private interests, 23%)	El Tabbin	3,100.
Do.	Misr Beni Suef Cement Co.	Beni Suef	2,800.
Do.	Misr Qena Cement Co. (ASEC cement, 45%)	Qena	2,000.
Do.	ASEC Minya Cement Co. (ASEC Cement, 45%; Hayel Saeed Group, 30.7%; Misr Qena Cement, 13.9%; Investment Fund for Developing Countries, 9.2%; others, 1.2%)	El Minya	2,000.
Do.	Sinai Cement Co. (Vicat Group)	Sinai	1,500.
Do.	South Valley Cement Co.	do.	1,400.
Do.	Sinai White Cement Co.	do.	410.
Do.	Arabian Cement Co. (Cementos La Union S.A.)	Ain El Sokhna	5,000.
Coke	El Nasr Coke and Chemicals Co. (Government, 100%)	Helwan	1,400.
Copper, refined	Egyptian Copper Works Co. (Holding Company for Metallurgical Industries)	Hagar el Nowatia Rmal, Alexandria	130.
Ferrosilicon	Egyptian Ferroalloys Co.	Idfo, Aswan	50.
Fertilizers, nitrogenous	Abu Qir Fertilizer & Chemical Industries Co. [Private and public interests, 80.9%, and Egyptian General Petroleum Corp. (EGPC), 19.1%]	Abu Qir A	565 (ammonia), 365 (urea).
Do.	do.	Abu Qir B	876 (urea).
Do.	do.	Abu Qir C	330 (ammonia), 640 (urea).

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Fertilizers, nitrogenous— Continued		Alexandria Fertilizers Co. (AlexFert) (private, 80%, and Abu Qir Fertilizer & Chemical Industries Co., 20%)	Alexandria	730 (ammonia), 720 (urea).
Do.		Egypt Basic Industries Corp. (EBIC) [Orascom Construction Industries S.A.E. (OCI), 100%]	Suez	725 ammonia.
Do.		Egyptian Chemical Industries KIMA ASWAN (Chemical Industries Holding Co., 55.7%; public organizations, 39.2%; private investors, 5.5%)	Aswan	330 (ammonia), 600 (nitric acid), 800 (ammonium nitrate).
Do.		Egyptian Fertilizers Co. [Orascom Construction Industries S.A.E. (OCI), 100%]	Ain Al Sokhna, Suez	800 (ammonia), 1,300 (urea).
Do.		EL Delta Company for Fertilizers and Chemical Industries (ASMEDA) (Government, 100%)	Talkha, Mansoura	400 (ammonia), 297 (nitric acid), 570 (urea).
Do.		El Nasr Fertilizers and Chemicals Co. (SEMADCO) (Government, 100%)	Attaka, Suez	132 (ammonia), 193 (nitric acid), 200 (ammonium nitrate).
Do.		Helwan Fertilizer Co. (private)	Free zone, Helwan	438 (ammonia), 700 (urea).
Do.		Misr Fertilizer Production Co. S.A.E. (MOPCO) [Egyptian Petrochemical Holdings Co. (ECHEM), 30.75%; Agrium Inc., 26%; National Investment Bank, 12.82%; Egyptian Natural Gas Holding Co. (EGAS), 7.62%; others, 22.81%]	Free zone, Damietta	876 (ammonia), 1425 (urea).
Fertilizers, phosphatic		Abu Zaabal Fertilizers and Chemicals (private, 100%)	Qalyubiyah	730 (superphosphate), 60 (phosphoric acid).
Do.		Egyptian Financial and Industrial Co. (private, 100%)	Kafr El Zayat	900 (superphosphate).
Do.		do.	Assuit	750 (superphosphate).
Do.		Polyserve for Fertilizers and Chemicals (private, 100%)	Cairo	320 (superphosphate).
Do.		Suez Company for Fertilizers Production (Egyptian Financial and Industrial Co., 99.8%)	Ain Al-Sokhna	300 (superphosphate), 20 (dicalcium phosphate).
Fluorspar	metric tons	Egyptian Company for Mineral Resources (ECMR)	NA	4,500.
Gold	kilograms	Sukari Gold Mine Co. [Centamin p.l.c., 50%, and Egyptian Company for Mineral Resources (ECMR), 50%]	Sukari gold mine	10,000.
Do.	do.	Hammash Misr for Gold Mines (Cyriot Matz Holdings, 50% and Egyptian Company for Mineral Resources (ECMR), 50%)	Hamash gold mine	500.
Ilmenite		El Nasr Mining Co.	NA	120.
Do.		Misr Quarried Development Co.	NA	NA.
Do.		Egyptian Company for Mineral Resources (ECMR)	NA	NA.
Iron:				
Ore		Egyptian Iron and Steel Co. (Government, 100%)	El-Gedida Mine, El Bahariya	1,200.
Oxide		El Nasr Mining Co. (Holding Company for Metallurgical Industries, 100%)	Mines near Sinai and Aswan	150.
Methanol		El Delta Co. for Fertilizers & Chemical Industries	Talkha	24.
Natural gas	million cubic meters	Egyptian General Petroleum Corp. (EGPC) (Government, 100%)	Abu Madi	3,800.
Do.	do.	do.	Badreddin-3	3,000.
Do.	do.	do.	Abu Qir/Naf	1,900.
Do.	do.	do.	Ras Shukheir	1,600.
Do.	do.	Grupo Khalda (Repsol YPF, S.A., 50%; Apache Oil Co., 40%; Samsung Corp., 10%)	Khalda	24.
Petroleum:				
Crude	million 42-gallon barrels	Gulf of Suez Oil Co. [Egyptian General Petroleum Corp. (EGPC), 50%, and BP Amoco, 50%]	October, Suez Gulf	45.
Do.	do.	do.	El Morgan, Suez Gulf	27.

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum—Continued:				
Crude—Continued	million 42-gallon barrels	Belayim Petroleum Co. [Egyptian General Petroleum Corp. (EGPC), 50%, and International Egyptian Oil Co., 50%]	Belayim, Suez Gulf	65.
Do.	do.	Suez Oil Company [Egyptian General Petroleum Corp. (EGPC), 50%; Deminex SA, 25%; Repsol YPF S.A., 25%]	Ras Budran, Suez Gulf	15.
Pipeline	do.	Arab Petroleum Pipeline Co. (Governments of Egypt, 50%; Saudi Arabia, 15%; Kuwait, 15%; United Arab Emirates, 15%; Qatar, 5%)	Ain al-Sokhna to Sidi Kir	875.
Refined	do.	Cairo Petroleum Refining Co. (Government, 100%)	Mostorod	52.
Do.	do.	do.	Tanta	12.
Do.	do.	Alexandria Petroleum Co. (Government, 100%)	Alexandria	46.
Do.	do.	El Nasr Petroleum Refining Co. (Government, 100%)	Suez	25.
Do.	do.	do.	Wadi Feiran, Sinai	4.
Do.		Ameriya Petroleum Refining Co. (Government, 100%)	Ameriya	27.
Do.		Suez Petroleum Processing Co. (Government, 100%)	Suez	25.
Do.		Middle East Oil Refinery [Egyptian General Petroleum Corp. (EGPC), 78%; Petroleum Projects and Technical Consultations Co. (Petrojet), 10%; others, 12%]	Sidi Kerir	36.
Phosphate rock		El Nasr Mining Co. (Holding Company for Metallurgical Industries, 100%)	Mines at East El Sabaáya, West El Sabaáya, and El Quseir	4,500.
Do.		Phosphate Misr Co. S.A.E.	Abu Tartur	2,500.
Do.		El Wataneya for Mining and Quarries	Aswan	2,100.
Quartz		El Nasr Mining Co. (Holding Company for Metallurgical Industries, 100%)	NA	235.
Do.		Misr Quarried Development Co.	Attaka Mountain	NA.
Do.		Egyptian Company for Mineral Resources (ECMR)	Branice near Marsa Alam	NA.
Salt		El Nasr Salines Co.	Burj Al-Arab	300.
Do.		do.	Sebika	2,000.
Do.		El-Mex Salines Co.	El Mex	1,400.
Do.		do.	Port Said	350.
Steel:				
Crude		Ezz El-Dekheila Steel Co. (EZDK) [Al Ezz Steel Rebars S.A. (Ezzsteel), 53.2%]	Alexandria	2,200.
Do.		Egyptian Iron and Steel Co. (Hadislob) (Government, 100%)	Helwan steel plant	600.
Manufactured		Ezz El-Dekheila Steel Co. (EZDK) [Al Ezz Steel Rebars S.A. (Ezzsteel), 53.2%]	Alexandria	3,000.
Do.		Beshay Steel Group	Sadat City	2000.
Do.		Al Ezz Flat Steel Co.	Suez	1,000.
Do.		Egyptian Iron and Steel Co. (Hadislob) (Government, 100%)	Helwan steel plant	1,000.
Do.		Al Ezz Steel Rebars S.A. (Ezzsteel)	Sadat City	1,000.
Do.		Al Ezz Rolling Mills	Tenth of Ramadan City	500.
Do.		Delta Steel Mill Co.	Qalyubiya	200.
Do.		Kandil Steel	Tenth of Ramadan City	1,000.
Do.		Suez Steel Co. (Solb Misr)	Suez	2,600.
Do.		National Port Said Steel	Port Said	400.
Do.		Misr National Steel Co.	Heliopolis	360.
Do.		Kouta Steel Group	Port Said	360.
Do.		Egyptian Steel Group	do.	300.
Do.		do.	Alexandria	250.

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Sulfuric acid	Abu Zaabal Fertilizers and Chemicals (Private, 100%)	Qalyubiyah	350.
Do.	Egyptian Financial and Industrial Co. (Private, 100%)	Kafr El Zayat	175.
Do.	do.	Assuit	210.
Do.	Suez Company for Fertilizers Production (Egyptian Financial and Industrial Co., 99.8%)	Ain Al-Sukhna	425.
Do.	El-Nasr Co. for Fertilizer & Chemical Industries (SEMADCO)	Attaka	90.
Do.	Middle East Oil Refinery (MIDOR)	Amreya free zone	65.
Talc	El Nasr Mining Co.	Aswan	50.
Do.	TAS Flowrance Group	do.	NA.
Do.	Egyptian Company for Mineral Resources (ECMR)	Southeastern Desert	NA.
Tin	metric tons Tantalum Egypt J.S.C. [Tantalum International Pty Ltd., 50%, and Egyptian Company for Mineral Resources (ECMR), 50%]	Abu Dabbab	660.

Do., do. Ditto. NA Not available.