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The Mineral Industry of Algeria

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Note: In this chapter, information for 2017 is followed by information for 2018.

Algeria supplied the world with such mineral commodities as ammonia; crude petroleum; helium and other industrial gases such as hydrogen and nitrogen; methanol; natural gas; phosphate rock; refined petroleum products; and urea. In 2017, the country was the world's third-ranked producer of helium after the United States and Qatar; it accounted for 8.8% of the world's output and held 8.2 billion cubic meters of helium resources, including 1.8 billion cubic meters of proven reserves in 2017. Algeria accounted for about 2.0% of the world's pumice (pozzolan) output in 2017. Algeria was a significant importer of minerals and the world's ninth-ranked net importer of steel in 2017 (table 1; Banque d'Algérie, 2018, p. 124; World Steel Association, 2018b, p. 27; Crangle, 2019; Peterson, 2019).

Algeria was the world's ninth-ranked producer of natural gas, accounting for 2.5% of world output and 2.2% of total proven reserves in 2017; it was the third-ranked supplier of natural gas to Europe after Russia and Norway. Algeria's shale oil and gas resources were estimated to be the third largest in the world by volume after the United States and China; it was estimated to hold 4.3 trillion cubic meters of conventional natural gas, 20 trillion cubic meters of shale gas, and 5.7 billion barrels (Gbbl) of shale oil resources. The country was also the third-ranked crude petroleum producer in Africa after Nigeria and Angola. Algeria accounted for 1.7% of the world's crude petroleum and condensate production and held 12.2 Gbbl of proven crude petroleum reserves, which accounted for 0.7% of the world's total reserves (BP p.l.c., 2018, p. 12, 14, 16, 26, 28; Guthrie, 2018; U.S. Energy Information Administration, 2016, p. 1–2).

Minerals in the National Economy

Algeria's real gross domestic product (GDP) increased by 1.6% in 2017 compared with 3.3% in 2016. The nominal GDP was $167.4 billion. The nonfuel mineral sector contributed less than 1% to the GDP in 2017 and employed 32,000 people, including 7,115 employed in state-owned enterprises in 2017 compared with 7,153 in 2016. The hydrocarbon sector activity, which accounted for 19.1% of the GDP in 2017 compared with 17.4% of the GDP in 2016, decreased in real terms by 3.0% in 2017 compared with a revised increase of 7.7% in 2016. The decrease in the value of hydrocarbon sector activity in 2017 was mainly attributable to the decreased volume of hydrocarbon output during the year (Banque d'Algérie, 2018, p. 13, 17,108; Office National des Statistiques, 2019, p. 42; World Bank, The, 2019).

The legislative framework for the mineral sector in Algeria is provided by law No. 14–05 of February 24, 2014. The mining law guarantees parity for all investors, allows separate surface and underground mine tenure, ensures that disputes can be appealed to international arbitrators, gives incentives for importing equipment for mining operations, and provides custom-tariff exemptions and rebates on mineral extraction royalties. The royalties on mineral production ranged from 1.5% to 6%. Additionally, 2% of the profits go to a Government-held account for post-mining rehabilitation. With respect to the issuance of mining permits, the law no longer gives priority to state-owned companies over private companies, which had previously been mandated by ordinance No. 07–02 of March 1, 2007. Environmental laws applicable to the mineral industry include law No. 03–10 of July 19, 2003, and associated decrees and law No. 05–12 of September 4, 2005. The Government continued its golden share policy, which was initiated in 2010, concerning foreign investment in the country. The policy gives the Government majority ownership (that is, at least a 51% share) in the operation of new mineral sector ventures in the country as well as a seat on the company's board of directors, but not voting rights (Oxford Business Group, 2017, p. 99).

The mining sector is administered by the Ministère de l'Industrie et de Mines [Ministry of Industry and Mines (MIM)]. The MIM is responsible for regulating geologic and mining activities in the country through its respective agencies. Law No. 14 of February 24, 2014, assigns the Agence du Service Géologique de d'Algérie [Geological Survey Agency of Algeria] (ASGA) the responsibility of overseeing the country's geologic activities and research. The Agence Nationale des Activités Minières [National Agency for Mining Activity] (ANAM) is responsible for issuing mining and quarrying permits and promoting investment opportunities in the mining sector. ANAM issued 58 mining licenses in 2016 and 18 mining licenses in 2017. The licenses were for construction sands, granite, and limestone. The MIM was pursing economic diversity in the country by promoting investment in large-scale mining projects that involve exploration, mining, and processing of minerals considered strategic to Algeria, such as iron ore, phosphate rock, and zinc (Oxford Business Group, 2017, p. 91, 99−101; Agence Nationale des Activités Minières, 2018).

Algeria's hydrocarbon sector is regulated by ordinance No. 06–10 of July 29, 2006, which is a supplement to law No. 05–07 of April 28, 2005. The ordinance grants state-owned Sonatrach S.p.A. a 51% ownership of all hydrocarbon projects in the country. The Ministère de l'Energie [Ministry of Energy], which is responsible for the country's energy resources, had been focusing on increasing the participation of international petroleum companies (IOCs) in the petroleum and natural gas operations in Algeria by introducing amendments to the current hydrocarbon law and signing bilateral agreements with IOCs with specific terms that may vary from one project to another. Under the revised law (law No. 13–01 of February 20, 2013, which amended the hydrocarbon law No. 05–07 of April 28, 2005), taxes are assessed on profits rather than on revenue; this change is intended to make exploration

of smaller oilfields more viable. The Agence Nationale pour la Valorisation des Ressources en Hydrocarbures [National Agency for the Development of Hydrocarbon Resources] (ALNAFT) was created by executive decree No. 16–200 of July 2016 to promote investment in hydrocarbon exploration and to create a database for the country's natural gas and petroleum reserves. ALNAFT is responsible for issuing international bids for new crude petroleum and natural gas exploration (Agence Nationale pour la Valorisation des Ressources en Hydrocarbures, 2018; Guthrie, 2018).

Production

Most of the mineral production data for 2017 were estimated based on 2016 production levels owing to the unavailability of such data from Government sources. Production of sulfur compounds (sulfuric acid) was estimated to have increased in 2017 compared with that of 2016 by 400%; mined zinc, 60%; helium liquid, 51%; dolomite, 36%; limestone for cement, 16%; gypsum, 14%; and lime, 11%. Liquid helium production increased by 51%; gold, by 34%; and cement, by 22%. The increase in cement production was attributed to the implementation of the Government policy of increasing domestic capacity to eliminate the country's reliance on imports. Outputs of crude petroleum, natural gas, and most of refined petroleum products in 2017 were at about the same levels as those of 2016. Mineral commodities for which production decreased notably in 2017 compared with that of 2016 included iron ore, for which production decreased by 40%; raw steel, by 36%; nitrogen content of ammonia and urea, 26% and 30% respectively; barite, 23%; lubricants, 18%; marble block, 20%; phosphate rock (gross weight), 14%; methanol, 11%; and sand and super gasoline, by 10% each. Data on mineral production are in table 1.

Structure of the Mineral Industry

Algeria's hydrocarbon sector operations were conducted by state-owned Sonatrach and several international petroleum companies that were working in Algeria under production-sharing agreements with Sonatrach. In 2017, Sonatrach was responsible for 84% of the country's natural gas production; 78% of its condensate production; 72% of its liquefied petroleum gas (LPG) production, which is produced from petroleum fields; and 57% of its crude petroleum production. The remaining output was produced by international petroleum companies working in partnership with Sonatrach in Algeria. These included Anadarko Petroleum Corp. of the United States; BP Algeria, which was a subsidiary of BP p.l.c. of the United Kingdom; Compañía Española de Petróleos, S.A.U. (CEPSA) of Spain; Enel Group of Italy; Eni Oil Algeria Production BV of Italy; OAO Gazprom of Russia; Partex Oil and Gas Group of Portugal; Petroceltic International PLC of Ireland; Repsol YPF S.A. of Spain; Maersk Olie og Gas AS of Denmark; Statoil ASA of Norway; Talisman Energy Inc. of Canada; and Total Algeria S.p.A. of France (Sonatrach S.p.A., 2017; U.S. Energy Information Administration, 2019).

Manal Group was created in 2011 as a state-owned entity under the MIM to represent Government interests in Algeria's mining sector; it included Entreprise Nationale des Granulats, which produced gravel and pozzolan; Société des Mines de Phosphates S.p.A. (SOMIPHOS), which was the country's sole producer of phosphate rock; Société des Mines de Fer d'Algérie S.p.A. (SOMIFER), which produced iron ore; Enterprise Nationale du Marbre S.p.A. (ENAMARBRE), which produced marble; Enterprise Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A. (ENOF), which produced aggregate, barite, clay, and limestone; and Entreprise d'Exploitation des Mines d'Or S.p.A. (ENOR), which produced gold and silver. Manal Group also held minority interest, through its subsidiaries, in several joint ventures for production of barite, iron ore, kaolin, and zinc. Table 2 is a list of major mineral industry facilities (Ministère de l'Industrie et de Mines, 2018).

Mineral Trade

Algeria's total exports increased in value by 18% to $34.6 billion in 2017 from $29.3 billion in 2016. The value of hydrocarbon exports, which accounted for 96% of the country's total exports in 2017, increased to $33.2 billion from $27.9 billion in 2016. They included 193.4 million barrels (Mbbl) of crude petroleum valued at about $10.5 billion, 123.2 Mbbl of refinery products valued at $7.0 billion, 75.3 Mbbl of LPG valued at $3.0 billion, 26.7 Mbbl of condensate valued at $2.0 billion, 26.7 million cubic meters of liquefied natural gas (LNG) valued at $3.6 billion, and 38.1 billion cubic meters of natural gas valued at $7.3 billion. Nonfuel mineral exports included ammonium nitrate ($429 million), anhydrous ammonia ($138 million), urea ($42 million), phosphate rock ($69 million), methanol ($32 million), helium and hydrogen ($23 million each), zinc metal ($10 million), and other minerals ($7 million). Crude petroleum exports accounted for 31.5% of Algeria's total exports; refined petroleum products, 21.0%; natural gas, 21.9%; liquified natural gas (LNG), 10.8%; LPG, 9.0%; and condensate, 5.9%. Exports of chemicals (mostly ammonia and urea), which started in 2014, decreased in value to $68 million in 2017 from $112 million in 2016. The main recipients of Algeria's exports in 2017 were Italy (22.9%), Spain (16.1%), France (10.8%), the United States (7.9%), and Turkey (5.5%) (Banque d'Algérie, 2018, p. 121, 124; Ministère de l'Energie, 2018, p. 22).

Algeria's total exports to the United States, which were mainly hydrocarbon products, increased by about 6% to $3.8 billion in 2017 from $3.2 billion in 2016. Fuel oil exports increased to $2.3 billion from $2.1 billion in 2016; crude petroleum exports increased to $1.4 billion from $880 million in 2016. Exports of LPG decreased to $11 million from $20 million in 2016, and exports of other petroleum products decreased to about $44 million from $75 million in 2016 (U.S. Census Bureau, 2018b).

Algeria's total imports decreased slightly to $49.0 billion in 2017 from a revised $49.4 billion in 2016. The country's imports of ingot and semifinished and finished steel products decreased to 1.6 million metric tons (Mt) in 2017 from 5.5 Mt in 2016. They included 1.4 Mt of long products, 936,000 metric tons (t) of flat products, and 450,000 t of tubular products (Banque d'Algérie, 2018, p. 28; World Steel Association, 2018a, p. 60, 65, 70, 75; 2018b, p. 27).

Algeria's imports from the United States decreased by about 50% to $1.1 billion in 2017 from about $2.2 billion in 2016.

The main mineral-related export categories included drilling and oilfield equipment ($83 million), fuel oil ($45 million), iron and steel products ($26 million), excavation machinery ($21 million), and chemicals ($24 million) (U.S. Census Bureau, 2018a).

Commodity Review

Metals

Iron Ore and Iron and Steel.—IMETAL Group., the newly restructured state-owned company, operated the Annaba steel complex, which produced raw steel and other steel products at its electric arc furnace plant and mill in El Hadjar, Annaba Province. The Boukhadra and the Ouenza iron ore mines, which are located in Tebessa Province, were wholly owned and operated by the state-owned company Ferphos (table 2).

Algeria's raw steel production decreased to 415,000 t in 2017 from 650,000 t in 2016, or by 36%. Iron ore production, which was carried out solely by state-owned enterprises, increased to 1.3 Mt in 2017 from 826,000 t in 2016. The increase in iron ore output was attributed to changes in management at the Boukhadra and the Ouenza Mines and to increased Government funding for the mining operations by Ferphos. Steel production by Groupe Industriel Sider (Sider) was interrupted during 2016 owing to an insufficient supply of iron ore from the Boukhadra and the Ouenza Mines (table 1; Office National des Statistiques, 2018, p. 31; World Steel Association, 2018a, p. 2, 78, 81; 2019, p. 2).

Construction of phase 1 of Algerian Qatari Steel (AQS)'s $2 billion steel complex project, which began in 2015, was completed in 2017. Production from the first mill at the Bellara Industrial Zone in Jijel Province started in May. AQS was a joint venture of Qatar Steel International Co. of Qatar (49% interest), IMETAL Group (46%), and Fonds National de l'Investissement (FNI) (5%). The Government's 51% share was divided equally between IMETAL (46%) and FNI (5%). The complex was being built in two stages; phase 1 included a 2.5 million metric tons per year (Mt/yr) of direct-reduced iron (DRI) plant and steelworks plant with the capacity to produce 2 Mt/yr of steel products. When phase 2 is completed, the plant was expected to have the capacity to produce 4 Mt/yr of steel products. In 2016, AQS contracted Midrex Technologies, Inc. of the United States and its consortium partner, Paul Wurth S.A. of Luxembourg, to build a new 2.5-Mt/yr natural gas-based DRI plant; this plant was expected to start production in 2019 (Paul Wurth S.A., 2016; Algerian Qatari Steel, 2018; IMETAL Group, 2018; Midrex Technologies, Inc., 2018, p. 5, 13).

Tosyali Industrie du Fer et de l'Acier Algérie (Tosyali Algeria), which was owned by Tosyali Holding of Turkey, had been producing steel products at its iron and steel plant at Bethioua, Oran Province since 2013. Tosyali's plant in Algeria had the capacity to produce 1.6 Mt/yr of liquid steel using 1.4 Mt/yr of domestic and imported scrap iron and steel to produce steel billets and rebar. Tosyali signed a contract with Sinosteel Corp. of China in 2016 to build a pelletizing plant at its complex in Bethioua in Oran Province that would produce iron ore for the company's new DRI plant. Imported iron ore would be transferred from Arzew Port to the pellet plant. Tosyali's pelletizing plant, which would have the capacity to produce 4 Mt/yr of iron ore pellets for use by the company's 2.5 Mt/yr-capacity DRI plant, was being also built at Bethioua and expected to be completed in 2018 (Midrex Technologies, Inc., 2018, p. 5, 13; Tosyali Holding, 2018a, b).

Société Nationale du Fer et de l'Acier [National Iron and Steel Co. S.p.A. (Feraal)] was created by the Government in 2014 and owned by IMETAL (35%), Manal (25%), Groupe Industriel des Ciments d'Algérie (GICA) (20%), and Sonatrach (20%). In 2017, Feraal was exploring the best methods to develop the iron ore deposits at Gara Djebilet and Mecheri Abdelaziz in Tindouf Province, which are located in southwestern Algeria near the border with Mauritania. Iron ore resources at Gara Djebilet and Mecheri Abdelaziz were estimated by the Government to be more than 2.2 billion metric tons (Gt). The iron ore deposits at Gara Djebilet were estimated to host 1.5 Gt of iron ore grading 56% iron. The Mecheri Abdelaziz deposit is located east of Gara Djebilet and was estimated to host 700 Mt of iron ore grading 52% iron. The Government planned to begin production of between 15 and 20 Mt/yr of iron from the Gara Djebilet project by 2025. In March, Feraal signed a memorandum of understanding with Sinosteel Equipment and Engineering of China to conduct prefeasibility and feasibility studies for the development of an iron ore mine in the Gara Djebilet region. Feraal was planning to build a pilot plant at that site in 2018 (Algerian Press Service, 2015a; DKnews, 2017; Zait and Bidaoui, 2017, p. 27).

Lead and Zinc.—The Directorate of Mines of the MIM reported production of modest quantities of mined zinc in Algeria during 2015 through 2017. Zinc production came from restarting underground mining at the Ain Hamra zinc mine, which is located in Setif Province, and the Ghazaouet Mine in Tlemcen Province (table 2).

Western Mediterranean Zinc S.p.A. (WMZ) was a joint venture of Terramin Australia Ltd. (65%), state-owned ENOF (32.5%), and the ASGA (2.5%). The joint venture was formed in 2009 to develop the Tala Hamza lead and zinc project on the 125-square-kilometer Oued Amizour exploration permit, which is located 15 kilometers southwest of the Port of Bejaia in northeastern Algeria. As of yearend 2017, the total resource (measured, indicated, and inferred) at the Tala Hamza deposit was reported to be 68.6 Mt grading 1.2% lead and 4.6% zinc at a 2.5% zinc cutoff grade. Terramin expected the Tal Hamza zinc mine to be among the top 10 zinc mines in the world in terms of production capacity, with a mine life of 21 years (Terramin Australia Ltd., 2018, p. 3, 14, 20, 26).

Industrial Minerals

Cement.—Algeria's cement production increased to 28.65 Mt in 2017 from 23.54 Mt in 2016. The MIM projected that Algeria's cement output would increase to 40 Mt by 2020, of which between 12 Mt and 15 Mt would be for export. The GICA, which operated 12 cement plants and produced about 14 Mt in 2017, continued to implement its plan to increase its capacity to 20 Mt/yr by 2020. The increase was expected to come from the commissioning of two 1-Mt/yr-capacity plants at Beni Zireg (Bechar Province) and El Bayadah Province; a 2-Mt/yr-capacity plant at Sigus, Oum El Bouaghi Province; 2-Mt/yr-capacity expansions at the Ain El Kebira property (Setif Province) and the Oued Sly (Ech Chlef Province)

property; and a 1.5-Mt/yr-capacity expansion at Zahana (Djelfa Province). Cement imports decreased to 0.9 Mt in 2017 as more than 10 Mt/yr of additional capacity became available (table 1; Gueddouh, 2017; International Cement Review, 2017, p. 30–31; Zait, 2017, p. 3; Groupe Industriel des Ciments d'Algérie, 2018).

Nitrogen.—According the Ministry of Energy, Algeria's production of ammonia and urea was 2.2 Mt and 1.6 Mt (nitrogen content), which was a decrease of 25% and 30%, respectively, in 2017 compared with that of 2016. The decrease was attributed to the inability of Fertial S.p.A. to obtain a necessary export license from the Government. Production of ammonia and urea was carried out by Fertial and Sorfert Algérie S.p.A. Commercial production of ammonia and exports of urea by El Sharika El Djazairia El Omania lil Asmida S.p.A. (AOA), which were expected to begin in 2015, continued to be on hold in 2017 pending the outcome of a final agreement between Sonatrach and Suhail Bahwan Group (Holding) L.L.C. of Oman regarding the price and supply of natural gas by Sonatrach (table 1; Oxford Business Group, 2017, p. 91; Ministère de l'Energie, 2018, p. 18).

In 2017, Sorfert was the leading producer of ammonia and urea in Algeria. Sorfert was a joint venture of OCI N.V. of the Netherlands (51%) and Sonatrach (49%); it had the capacity to produce 1.60 Mt of ammonia and about 1.26 Mt of urea at its fertilizer complex in the Arzew Industrial Zone that included two plants. Sorfert planned to supply 1.1 Mt/yr of urea to the domestic market and 700,000 metric tons per year (t/yr) of ammonia for export, mainly to Western Europe, in 2018 (table 2; OCI N.V., 2018, p. 36).

Fertial was a joint venture of Grupo Villar Mir S.A.U. of Spain (66%) and Asmidal Group (34%) and had the capacity to produce 850,000 t/yr and 330,000 t/yr of ammonia at its plants in Arzew and Annaba, respectively. In 2017, Grupo Villar, which previously held a 66% majority interest in Fertial, had to sell 17% of its ownership to a local company, ETRHB Haddad Group, to comply with Government foreign direct investment laws (table 2; Grupo Villar Mir S.A.U., 2017).

AOA was a joint venture of Suhail Bahwan Group (51%) and Sonatrach (49%); it owned two plants for ammonia and urea in the Arzew Industrial Zone near Oran in northwestern Algeria. AOA had the capacity to produce 1.5 Mt/yr of ammonia and 2.6 Mt/yr of urea, and the entire output of urea was exported to countries in the Americas and Europe (Suhail Bahwan Group (Holding) L.L.C., 2018).

Phosphate Rock.—Most of the 1.1 Mt of phosphate rock produced at the Djebel Onk Mine in Tebessa Province by SOMIPHOS in 2017 was exported to countries in Europe (France, Greece, Italy, Poland, and Ukraine) and to Brazil, India, and Turkey. Algeria's output of phosphate rock, which had averaged 1.25 Mt/yr in the past 5 years, was relatively small compared with the country's estimated reserves of 2.2 Gt, which were the world third-ranked reserves after Morocco and China. Thus, the Government had set a target to increase the country's phosphate rock production capacity to 8 Mt/yr by 2022 and to 13 Mt/yr by 2025. In 2016, the Government signed an agreement with Indorama Corp. of Indonesia to develop a phosphate rock mine and to build two phosphate fertilizer plants at a total cost of $4.5 billion. The agreement, however, did not advance in 2017, and state-owned companies Asmidal and Manal signed another agreement with Radyolla Group of Saudi Arabia to develop phosphate rock resources at Djebel Onk. At the same time, the Government was negotiating with CITIC Group Corp. Ltd. and Wengfu Groups of China to develop a $6 billion phosphate mining project at the Bled El Hadba Mine in Tebessa Province and a fertilizer-processing complex in Skikda Province (table 1; Algerian Press Service, 2015b; Thomson Reuters, 2016; Oxford Business Group, 2017, p. 100; Zait and Bidaoui, 2017, p. 26; Ghanmi, 2018; Jasinski, 2019).

Mineral Fuels

Natural Gas and Petroleum.—Algeria's production of crude petroleum (including condensate) decreased by 2% to 470 Mbbl in 2017 from 480 Mbbl in 2016. Dry natural gas output increased by 4% to 96.6 billion cubic meters from 93.2 billion cubic meters during the same period. The number of producing wells in Algeria decreased to 1,847 in 2017 from 1,936 in 2016, and the number of wells completed increased to 332 from 292. The number of petroleum discoveries that were made in Algeria increased to 20 in 2017 from 17 in 2016, whereas natural gas discoveries decreased to 13 in 2017 from 16 (table 1; Organization of Arab Petroleum Exporting Countries, 2018, p. 20, 22; Organization of the Petroleum Exporting Countries, 2018, p. 29–30).

In September, Sonatrach announced its new strategy for 2030 (SH2030) to diversify the company's activity to include solar and wind energy as well as tapping into offshore and shale gas and petroleum resources. SH2030 was expected to create $67 billion in additional revenue by 2030. Sonatrach planned to reinvest one-half of its added revenue back into the company to enable it to become the world's fifth-ranked energy producer.

Sonatrach planned to begin initial shale gas production in 2022 and set a production target of 28.3 million cubic meters per day by 2025 based on favorable market conditions and the acquisition of production technology. Sonatrach, having settled profit-sharing disputes on crude petroleum and natural gas contracts with Total Group of France, announced that the two companies would work together on carrying out offshore and shale exploration projects in Algeria for the first time in the country's history (Chikhi and Markey, 2017; Chikhi, 2018).

Algeria's installed crude petroleum and condensate refining capacity remained at 651,000 barrels per day (bbl/d) in 2017. The country's largest refinery, which was owned by Société Nationale de Raffinage de Pétrole S.p.A. (a subsidiary of Sonatrach), was located in Skikda Province and had the capacity to refine about 355,000 bbl/d of crude petroleum and 122,000 bbl/d of condensate. Other petroleum refineries are located at Adrar (13,000 bbl/d), El Harrach (58,000 bbl/d), Arzew (81,000 bbl/d), and Hassi Messaoud (22,000 bbl/d). The Government was building four new 100,000-bbl/d-capacity refineries in Biskra, Ghardaia, Hassi Messaoud, and Tairet Provinces. Construction of the new refineries was expected to be completed by 2018 (table 2; Ministère de l'Energie, 2017; Organization of the Petroleum Exporting Countries, 2018, p. 38).

MINERAL INDUSTRY HIGHLIGHTS IN 2018

In 2018, the International Monetary Fund reported an increase of 1.4% in Algeria's real GDP, which was a slight increase

from the revised 1.3% rate of growth in 2017. The nominal GDP was $173.8 billion. Most of the data on Algeria's mining sector for 2018 were not officially updated owing to the political demonstrations in the country throughout 2019, the resignation of the President in April, and the election of a new President in December. Algeria, however, remained a world supplier of ammonia, crude petroleum, helium, natural gas, phosphate rock, refined petroleum, and urea. The country accounted for 2.4% of the world's total output of natural gas, 2.2% of LNG, 1.5% of crude petroleum and condensate, and 0.7% of the world's refinery throughput in 2018 (BP p.l.c., 2019, p. 18, 19, 26, 32; International Monetary Fund, 2019; World Bank, The, 2019).

Foreign direct investment into Algeria's hydrocarbon sector decreased by 21% to $1.1 billion in 2018 from $1.4 billion in 2017. The decrease was mainly in investments directed to exploration and development of hydrocarbon projects. The sources of the investments were, by region, Europe (72%), Asia (13%), North America (10%), and the Middle East (5%) (Ministre de L'Energie, 2019, p. 46).

Raw steel production increased by 382% in 2018 compared with that of 2017; urea, by 152%; estimated silver, by 150%; ammonia, by 127%; gold, 109%; normal gasoline, 22%; bitumen and distillate fuel oil, 17% each; common clay, 15%; tuff, 14%; crushed marble, 12%; sand, 11%; and limestone for cement, 10%. Production of total refined petroleum products decreased by 9% in 2018 compared with that of 2017; methanol, by 27%; liquid helium; by 13%; and kerosene including jet fuel, by 11% (table 1).

Hydrocarbon exports accounted for more than 90% of Algeria's total exports. The value of hydrocarbon exports increased by 17.6% to $39.0 billion in 2018 from $33.2 billion in 2017, whereas they decreased by 7.0% in volume. The volume of condensate and natural gas exports increased by 2.1% and 1%, respectively, whereas LNG exports decreased by 18.9%; crude petroleum, by 12.2%; refined petroleum products, 8.3%; and LPG, 4.5% (Ministre de L'Energie, 2019, p. 20).

Algeria joined the DRI-producing countries in the Middle East and North Africa region in 2018; its partial year output of 110,000 t came from the newly constructed 2.5 Mt/yr-capacity Tosyali plant at Bethioua. Another 2.5 Mt/yr-capacity DRI plant was being built by Midrex Technologies for AQS at the Bellara Industrial Zone and was expected to be completed in 2019. Algeria's raw steel production increased to 2.0 Mt in 2018 from a revised 415,000 t in 2017. Similarly, production of hot-rolled steel products increased to an estimated 2.85 Mt in 2018 from 1.95 Mt in 2017. The increase in raw steel and hot-rolled steel products was attributed to full-year production at the Algerian-Qatar joint-venture steel complex in Bellara Industrial Zone and at the Tosyali Algeria plant in Oran (Midrex Technologies, Inc., 2019, p. 9, 13; World Steel Association, 2019, p. 6, 8).

Algeria's production of ammonia increased by 127% in 2018 to 2.7 Mt from 1.2 Mt in 2017. Subsequently production of urea increased by 152% to about 3.5 Mt from about 1.4 Mt in 2017. The increase in ammonia and urea output was attributed to the resumption of exports by Fertial after receiving an export permit from the Government. Nitrogen gas production however, decreased by 31% to 78,000 t from 109,000 in 2017 (Oxford Business Group, 2017, p. 199; Ministre de l'Energie, 2019, p. 19).

There were no significant changes in production of natural gas, crude petroleum and condensate, and natural gas liquids in 2018. Crude petroleum production, including condensate, decreased to 459 Mbbl from 470 Mbbl, natural gas output slightly increased to 97.5 billion cubic meters from 96.6 billion cubic meter, and natural gas liquids decreased to 92.0 Mbbl to 92.7 Mbbl (table 1; Ministre de l'Energie, 2019, p. 8).

Sonatrach announced that it had made 30 hydrocarbon discoveries in 2018 compared with 33 discoveries in 2017. Fourteen discoveries were for crude petroleum, 9 for condensate, and 7 for natural gas. Sonatrach was developing several natural gas projects on its own and in partnership with foreign companies operating in Algeria. These projects included In Salah expansion with BP; Isarene (Ain Tsila) with Petroceltic and Enel S.p.A; the Menzel Ledjmet SE, the South West Gas project phase 1 (Tout gasfield), the South West Gas Project phase 2 (Ahnet gasfield) with Partex and Total, Hassi Ba Hamou, and Hassi Mouina); and the Tinhert gasfield in Iillizi basin. First gas from the Timimoun gasfield, which is located in southwestern Algeria, was announced in March 2018 by Total. The gasfield has the capacity to produce 1.8 billion cubic meters per year and was jointly operated by Sonatrach (51%), Total (37.75%), and Compañía Española de Petróleos, S.A. (Cepsa) (11.25%) (Total S.A., 2018; Ministre de l'Energie, 2019, p. 6, 10–11; Organization of Arab Petroleum Exporting Countries, 2019, p. 20, 22; Sonatrach S.p.A., 2019, p. 16–18; U.S. Energy Information Administration, 2019).

Outlook

Algeria, which had been a net importer of cement for decades, became a net exporter in 2018. The country also planned to become self-sufficient in steel production; it is expected to have 12 Mt/yr of production capacity by 2020. The Government continued its focus on developing the country's iron ore, phosphate rock, and zinc resources. Algeria expects to start producing between 15 Mt/yr and 20 Mt/yr of iron from the Gara Djebilet project by 2025 and to increase phosphate rock production to 8 Mt/yr by 2022 and 13 Mt/yr by 2025 from the current (2018) total production of 1.2 Mt/yr. The Ministry of Energy plans to modify the country's hydrocarbons law to allow for more active participation of foreign companies in Algeria's mineral sector as part of its plan to implement the SH2030 strategy, which includes starting crude petroleum and natural gas production from offshore and shale gasfields.

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TABLE 1
ALGERIA: PRODUCTION OF MINERAL COMMODITIES[1]

(Thousand metric tons, gross weight, unless otherwise specified)

Commodity[2]		2014	2015	2016	2017	2018
METALS						
Gold, mine, Au content	kilograms	85 e	106	102	137	286
Iron ore, mine:						
Gross weight		911	944	826 r	497	497
Fe content		483	500	438 r	263	263
Iron and steel						
Pig iron[e]		300	300	300	300	300
Raw steel		415	650	650	415	2,000 e
Silver, mine, Ag content	kilograms	16	20	20	20 e	50 e
Zinc:						
Mine, concentrate	metric tons	--	100	627	1,000 e	1,000 e
Alloys	do.	248	309	300 e	300 e	300 e
Smelter, primary	do.	6,976 r	7,086 r	3,101 r	--	--
INDUSTRIAL MINERALS						
Barite	metric tons	56,829	44,000	52,000	40,000 e	40,000 e
Cement, hydraulic		19,260 r	20,250 r	23,540 r	28,650	31,100
Clay:						
Bentonite	metric tons	30,800 r	34,400 r	37,100 r	35,600	36,000 e
Common clay	do.	12,467	12,390	13,000	13,000 e	15,000 e
Kaolin	do.	181,068	51,000	96,000	100,000 e	100,000 e
Diatomite	do.	2,415	2,350	2,500	2,500	2,500 e
Feldspar		230	155 r	168 r	168	170 e
Gypsum		1,360	1,770 e	2,200 r	2,500 e	2,500 e
Helium, liquids		431 r	419 r	356 r	538	469

See footnotes at end of table.

TABLE 1—Continued

ALGERIA: PRODUCTION OF MINERAL COMMODITIES[1]

(Thousand metric tons, gross weight, unless otherwise specified)

Commodity[2]		2014	2015	2016	2017	2018
INDUSTRIAL MINERALS—Continued						
Lime, hydraulic		49	24	45	50 e	50 e
Nitrogen, N content:						
Ammonia		1,360	1,770	1,320 r	984	2,235
Urea		420	760	902 r	633	1,596
Phosphate rock:						
Gross weight		1,418	1,289	1,275	1,100 e	1,200 e
P_2O_5 content e		415	380	375	330	340
Pumice and related materials, pozzolan		315	420	833	900 e	900 e
Salt, brine and sea		193	176	158	160 e	160 e
Sand and gravel, industrial, unspecified e		100	65	60	60	60
Stone, sand, and gravel, construction:						
Sand and gravel:						
Sand		4,797	2,840	3,000	2,700 e	3,000 e
Unspecified, aggregates, gravel[3]		101,102 r	166,500 r	160,000 r	170,000	180,000 e
Stone:						
Crushed:						
Dolomite	metric tons	60 e	22	22 r, e	30 e	30 e
Limestone, for cement		24,880	24,246	25,958	30,000 e	33,000 e
Marble, crushed marble rock		209 r	233 r	189 r	178	200 e
Dimension:						
Marble, block[4]		2 r	3 r	5 r	4	4 e
Tuff[5]		1,700	3,228	3,300	3,500 e	4,000 e
Other, size and shape unspecified, calcite		335	377	340	350 e	350
Sulfur, S content:						
Compounds, sulfuric acid		15 r	13 r	2 r	10 e	10 e
Byproduct, natural gas and petroleum	metric tons	110,000	110,000	110,000	100,000 e	100,000 e
MINERAL FUELS AND RELATED MATERIALS						
Methanol		108 r	102	102	91	66
Natural gas:						
Gross	million cubic meters	186,826 r	183,826 r	189,139 r	188,742	185,000 e
Dry basis	do.	83,296	83,041 r	93,152 r	96,600	97,500
Petroleum:						
Crude, including condensate	thousand 42-gallon barrels	485,085 r	470,850 r	480,340 r	469,755	459,170
Natural gas liquids	do.	94,900 r	97,820 r	95,265 r	92,710	91,980
Refinery:						
Bitumen	do.	1,000	1,000	1,214 r	1,214	1,415
Distillate fuel oil	do.	65,335 r	58,400 r	64,240 r	61,685	72,270
Gasoline:						
Normal	do.	23,360 r	22,265 r	22,265 r	21,900	26,645
Super	do.	10,105	10,105	10,105	9,075	9,000 e
Kerosene, including jet fuel	do.	15,695 r	11,680 r	12,775 r	13,140	11,680
Liquefied petroleum gas	do.	9,300 r	8,800 r	8,900 r	8,500	8,400
Lubricants	do.	770 r	810 r	840 r	690	700 e
Naphtha	do.	74,200 r	71,900 r	67,200 r	70,000 e	70,000 e
Residual fuel oil	do.	43,800 r	40,150 r	45,260 r	42,705	38,690
Total	do.	244,000 r	225,000 r	233,000 r	220,000 e	239,000 e

eEstimated. rRevised. do. Ditto. -- Zero.

[1]Table includes data available through December 17, 2019. All data are reported unless otherwise noted. Totals and estimated data are rounded to no more than three significant digits; may not add to totals shown.

[2]In addition to the commodities listed, secondary aluminum, secondary copper, secondary lead, caustic soda, fertilizer, fuller's earth, perlite, and rhyolite may have been produced, but available information was inadequate to make reliable estimates of output.

[3]Converted from m^3 by multiplying by 1.66.

[4]Converted from m^2 by multiplying by 0.03.

[5]Converted from m^3 by multiplying by 1.5.

TABLE 2
ALGERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Barite	Société Nationale de la Baryte (BARYTAL) S.p.A.	Draissa Mine, Bechar Province	100,000
Do.	Société des Mines de Baryte d'Algérie S.p.A. (SOMIBAR) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Amin Mimoun Mine, Khenchela Province	35,000
Do.	do.	Boucaid Mine, Tissemsilt Province	20,000
Do.	do.	Mellal Mine, Tlemcen Province	10,000
Do.	Société des Baryte SARL (SOBAR)	Mine at Chaabet Abou Fares, Tipaza Province	7,000
Cement:			
Portland	Lafarge Ciment de M'Sila (LafargeHolcim Ltd., 99.99%)	Plant in M'Sila Province	5,000,000
Do.	Lafarge Ciment d'Oggaz (LafargeHolcim Ltd., 99.99%)	Plant at Oggaz, Mascara Province	4,400,000
Do.	Lafarge Logistique Algérie (LLA) S.p.A.	Plant at Bab-Ezzouar	1,200,000
Do.	Entreprise des Ciments et Dérivés d'Ech—Cheliff [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant in Ech Cheliff Province	2,000,000
Do.	Société des Ciments Beni Saf [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and Pharoan Group, 35%]	Plant at Beni Saf, Ain Temouchent Province	1,200,000
Do.	Société des Ciments Zahana [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and ASEC Cement, 35%]	Plant at Zahana, Djefla Province	1,200,000
Do.	Société des Ciments d'Aïn-Touta [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Ain Touta, Batna Province	1,000,000
Do.	Société des Ciments d'Aïn-Kébira [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Ain El Kebira, Setif Province	1,000,000
Do.	Société des Ciments de Hamma-Bouziane [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Hamma-Bouziane, Constantine Province	1,000,000
Do.	Société des Ciments de Sour El Ghozlane [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and Buzzi Unicem S.p.A., 35%]	Plant at Sour El Ghozlane, Bouira Province	1,000,000
Do.	Société des Ciments de Hadjar Soud [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and Buzzi Unicem S.p.A., 35%]	Plant in Annaba Province	900,000
Do.	Société des Ciments de la Mitidja [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and LafargeHolcim Ltd. 35%]	Plant at Meftah, Blida Province	800,000
Do.	Société des Ciments Saïda [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Hassasna, Ain Temouchent Province	500,000
Do.	Tebessa Cement Company S.p.A.	Plant in Tebessa Province	500,000
Do.	Société des Ciments de l'Algérois [Groupe Industriel des Ciments d'Algérie (GICA)]	Plant in Rais-Hamidou, Tipaza Province	450,000
White	Ciment Blanc d'Algerie S.p.A. (LafargeHolcim Ltd., 100%)	Plant at Oggaz, Mascara Province	550,000
Clay:			
Bentonite	Société des Bentonites d'Algérie S.p.A. (BENTAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Mine at Hammam Boughrara, Tlemcen Province	18,000
Do.	do.	Mine in M'Sila Province	17,000
Do.	do.	Maghnia Mine, Tlemcen Province	16,000
Kaolin	SARL Faïenceries Algériennes	Mine at Adjerda, Chekfa, Jijel Province	95,000
Do.	Société des Kaolins d'Algérie S.p.A. (SOALKA) [Federal White Cement Ltd., 63%, and Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF), 37%]	El Milia Mine, Jijel Province	50,000
Do.	do.	Jebel Debbagh Mine, Guelma Province	15,000
Coke	IMETAL S.p.A. (Government, 100%)	El Hadjar, Annaba Province	1,200,000
Copper, cathode	Société Algérienne du Zinc S.p.A. (Entreprise Nationale de Métallurgie de Transformation des Métaux Non Ferreux, S.p.A., 100%)	Plant at Ghazaouet, Tlemcen Province	30,000
Diatomite	Société des Diatomees d'Algérie S.p.A. (DIATAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Tahalait quarry, Bir El Djir, Oran Province	2,000

See footnotes at end of table.

TABLE 2—Continued
ALGERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Dolomite		Société Algérienne des Granulats S.p.A. (ALGRAN)	Mine at Djebel Taioualet, Oum el Bouaghi Province	8,000
Feldspar		La Société des Feldspaths d'Algérie (SOFELD) [Entreprise des Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF), 57%, and Entreprise de la Céramique Ouest, 43%]	Mine at Ain Barbar, Annaba Province	200,000
Do.		Tufeal SARL	Mine at Bouaita, Tizi Ouzou Province	83,000
Fertilizer:				
Compound, nitrogen-phosphate-potassium		Fertial S.p.A. (Grupo Villar Mir S.A.U., 66%, and Asmidal Group, 34%)	Petrochemical complex at Arzew, Oran Province	150,000
Nitrogenous:				
Ammonia		Sorfert Algerie S.p.A. (OCI N.V., 51%, and Sonatrach S.p.A., 49%)	Arzew Industrial Zone, Oran Province	1,600,000
Do.		El Sharika El Djazairia El Omania lil Asmida S.p.A. (AOA) [Suhail Bahwan Group (Holding) L.L.C., 51%, and Sonatrach S.p.A., 49%]	do.[1]	1,460,000
Do.		Fertial S.p.A. (Grupo Villar Mir S.A.U., 49%; Asmidal Group, 34%; ETRHB Haddad Group, 17%)	Petrochemical complex at Arzew, Oran Province	850,000
Do.		do.	Petrochemical complex in Annaba Province	330,000
Ammonium nitrate		Fertial S.p.A. (Grupo Villar Mir S.A.U., 49%; Asmidal Group, 34%; ETRHB Haddad Group, 17%)	Petrochemical complex at Arzew, Oran Province	580,000
Urea		El Sharika El Djazairia El Omania lil Asmida S.p.A. (AOA) [Suhail Bahwan Group (Holding) L.L.C., 51%, and Sonatrach S.p.A., 49%]	Plant at Arzew,[1] Oran Province	2,555,000
Do.		Sorfert Algerie S.p.A. [Orascom Construction Industries, S.A.E. (OCI), 100%]	Plant at Arzew, Oran Province	1,260,000
Do.		Fertial S.p.A. (Grupo Villar Mir S.A.U., 66%, and Asmidal Group, 34%)	Petrochemical complex at Arzew, Oran Province	400,000
Phosphatic		do.	do.	280,000
Do.		do.	Plant in Annaba Province	300,000
Gold	kilograms	Entreprise d'Exploitation des Mines d'Or S.p.A. (ENOR) (Sonatrach S.p.A., 100%)	Amesmessa and Tirek Mines, Tamanrasset Province	500
Gypsum		32 private sector units and 13 public sector units	Batna, Bejaia, Biskra, Bouira, Chlef, Ghardaia, Mascara, Medbea, Milla, M'Sila, O.El Bouaghi, Oran, Setif, and Tiara Mines	2,000,000
Helium	nillion cubic meters	Helios S.p.A. (Sonatrach Valorisation Hydrocarbonés, 51%, and Helaps S.A., 49%)	GL1Z and GL3Z complexes, Arzew, Oran Province	17
Do.	do.	Helison Production S.p.A. (Linde AG, 50%, and Sonatrach S.p.A., 50%)	GL1K and GNL2K complexes, Skikda Province	25
Iron and steel:				
Iron:				
Direct-reduced		Algerian Qatari Steel (AQS) [Qatar Steel International, 49%; IMETAL Group, 46%; Fonds National de l'Investissement (FNI),	Bellara Industrial Zone, Jijel Province	2,500,000
Do.		6%], and Tosyali Industrie du Fer et de l'Acier Algérie (Tosyali Algerie) (Tosyali Holding, 50%)	Plant at ~~at~~ Bethioua, Oran Province	2,500,000
Ore		Ferphos S.p.A. (Government, 100%)	Ouenza Mine, Tebessa Province	1,200,000
Do.		do.	Boukhadra Mine, Tebessa Province	525,000
Do.		Société des Mines de Fer d'Algérie S.p.A. (SOMIFER)	Anini Mine, Setif Province	170,000
Do.		do.	Rouina Mine, Ain Defla Province	140,000
Do.		do.	Khanguet Mine, Tebessa Province	50,000
Steel:				
Products		EPE SIDER El Hadjar S.p.A. (IMETAL Group)	Cold-rolling mill at El Hadjar, Annaba Province	1,050,000
Do.		do.	Bar and wire rod mills at El Hadjar, Annaba Province	850,000
Do.		do.	Seamless tube mill at El Hadjar, Annaba Province	700,000

See footnotes at end of table.

TABLE 2—Continued
ALGERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Iron and steel:—Continued				
Steel:—Continued				
Products—Continued		Algerian Qatari Steel [Qatar Steel International, 49%; IMETAL Group, 46%; Fonds National de l'Investissement (FNI), 6%]	Mill at Bellara Industrial Zone, Jijel Province	600,000
Do.		EPE ALFAPIPE S.p.A. (IMETAL Group)	Welded tube plants in Annaba and Ghardaia Provinces	200,000
Do.		EPE FONDAL S.p.A. (IMETAL Group)	Foundry plants at El Harrach, Algiers Province; Gambetta, Oran Province; Tiaret Provinces	12,500
Raw		IMETAL Group (Government, 100%)	Hot-strip mill at El Hadjar, Annaba Province	1,800,000
Do.		Tosyali Industrie du Fer et de l'Acier Algérie (Tosyali Algeria) (Tosyali Holding, 50%)	Mill at Bethioua, Oran Province	1,600,000
Do.		Algerian Qatari Steel [Qatar Steel International, 49%; IMETAL Group, 46%; Fonds National de l'Investissement (FNI), 6%]	Bellara Industrial Zone, Jijel Province	600,000
Do.		IMETAL Group (Government, 100%)	Electric arc furnace plant at El Hadjar, Annaba Province	400,000
Lime		SODEPAC (ERCO Group)	Mine at Hassasna	93,000
Do.		Société de Chaux de l'Ouest	Mine in Oran Province	65,000
Do.		Unité Chaux de Chettaba (Société des Produits Dérivés de l'Est, 100%)	Mine at Chettaba	11,000
Methanol		Société Nationale de Pétrochimie S.p.A. (Sonatrach S.p.A., 100%)	Complexe CP 1Z, Arzew, Oran Province	113,000
Natural gas:				
Crude	million cubic meters	Sonatrach S.p.A.	Numerous gasfields, including Adrar, Hamra, Hassi R'Mel, and Sbaa	45,000
Do.	do.	Compañía Española de Petróleos, S.A.U. (CEPSA), 39%; Sonatrach S.p.A., 36%; Anadarko Petroleum Corp., 9%; Eni S.p.A., 5%; Maersk Olie og Gas AS, 5%; and Talisman Algeria, 2%	Ourhoud Field	22,000
Do.	do.	Statoil ASA, 49.5%: BP Algeria, 46%; Sonatrach S.p.A., 4.5%	In Amenas	6,270
Do.	do.	Sonatrach S.p.A., 35%; BP p.l.c., 33.15%; Statoil ASA, 31.85%	In Salah	6,900
Do.	do.	Sonatrach S.p.A., 35%; Total S.A., 35%; Repsol S.A., 30%	Tin Fouye Tabankort	5,640
	do.	Sonatrach S.p.A., 51%; Total S.A., 37.75%; Compañía Española de Petróleos, S.A.U. (CEPSA), 11.25%	Timimoun gasfield	1,800
Refined	do.	Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC)	RA1K refinery, Skikda Province	352,700
Liquefied	do.	do.	GL2Z complex, Azrew, Oran Province	17,820
Do.	do.	do.	GL1Z complex, Azrew, Oran Province	17,560
Do.	do.	do.	GL3Z complex, Azrew, Oran Province	5,576
Do.	do.	do.	GL1K complex, Skikda Province	6,942
Do.	do.	do.	GL2K complex, Arzew, Oran Province	2,992
Petroleum:				
Crude	42-gallon barrels per day	Sonatrach S.p.A.	About 50 oilfields, including Acheb West, Amassak/Tin-Yaguene, Draa Tamra, Edjeleh, El Borma, El Gassi, Gassi-Touil East, Guellala, Hassi Messaoud North and South, Ohanet North, Rhourde El Baguel, Tin-Fouye Tabankort, and Zarzaitine	1,700,000
Do.	do.	Sonatrach S.p.A., 25%; Anadarko Petroleum Corp., 25%; Lasmo Oil Ltd., 25%; Maersk Olie og Gas AS, 25%	Hassi Berkine oilfield	285,000
Do.	do.	Sonatrach S.p.A., 37.70%; Anadarko Petroleum Corp., 18.10%; ConocoPhillips Algeria, 16.90%; Eni Oil Algeria Ltd., Maersk Olie Algeriet, and Talisman Algeria, 9.10% each	El Merk oilfield, Ouargla Province	135,000
Refined	do.	Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC)	RA1K refinery, Skikda Province	355,300
Do.	do.	do.	RA1K refinery, Skikda Province (condensate)	122,200

See footnotes at end of table.

TABLE 2—Continued
ALGERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum:—Continued				
Refined—Continued	42-gallon barrels per day	Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC)	RA1Z refinery, Arzew, Oran Province	80,800
Do.	do.	do.	RA1G refinery, El Harrach, Algiers	58,100
Do.	do.	do.	RHM refinery, Hassi Messaoud, Ouargla Province	21,500
Do.	do.	Soralchin Refinery [Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC), 70%, and China National Petroleum Corp. (CNPC), 30%]	Refinery in Adrar Province	12,900
Phosphate rock		Société des Mines de Phosphates S.p.A. (SOMIPHOS) (Ferphos Group S.p.A)	Mine at Djebel Onk (Djemidjema and Kef Essenoun), Tebessa Province	1,600,000
Pumice, pozzolan		Entreprise Nationale de Fer et de Phosphate (Ferphos Group S.p.A.)	Mine at Beni Saf, Ain Temouchent Province	600,000
Do.		Société des Pouzzolanes et des Matériaux de Construction S.p.A.	Mine at Rockbet El Hassi	452,000
Salt, crude:				
Rock		Enterprise Nationale d'Exploitation des Carrières de Sels Industriels et Domestiques et Commercialisation des Sels (ENASEL) S.p.A.	Mine at El Outaya, Biskra Province	30,000
Sea		do.	Bethioua, Oran Province; El Meghaier, El Oued Province; Guergour Lamri, Setif Province; Ouled Zouai, Oum El Bouaghi Province; Sidi Bouziane, Relizane Province	400,000
Do.		Al Mallahate SARL	Chott Marouane Hamraia, El Oued Province	40,000
Silver, mine	kilograms	Entreprise d'Exploitation des Mines d'Or S.p.A. (ENOR) (Sonatrach S.p.A., 100%)	Amesmessa and Tirek Mines, Tamanrasset Province	100
Stone:				
Limestone		Mittal Steel Annaba SPA	Quarried at Oued N'hal	250,000
Marble:				
Blocks	cubic meters	Entreprise Nationale du Marbre S.p.A. (ENAMARBRE)	Quarries in Oran and Skikda Provinces	70,000
Do.	do.	SMS Bouhouita SARL	Quarries in Skikda Province	160
Crushed		Commercialisation du Marbre et de Dérivés de Marbre S.p.A. and Entreprise Nationale du Marbre S.p.A.	Quarries in Chlef, Oran, Skikda, Tizi Ouzou, and Tlemcen Provinces	17,000
Tuff		Six public sector units and 59 private units	Mines at Ain Temouchent, Tipaza, Tiaret	2,500,000
Do.		CITIC Construction Co. Ltd.	Mines at Annaba, Boumerdes, Sidi Bel Abbes, Mascara, Mostaganem, Oran, Relizane Provinces	1,000,000
Unspecified		Société Algérienne des Granulats S.p.A. (ALGRAN) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF)]	Aggregate quarries at Adrad, Oufarnou, Arzew, Ghedir, Gustar, Keddara, Oued Fodda, Teioueit, and Timezrit	3,000,000
Do.		Société des Diatomites d'Algérie S.p.A. (DIATAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF)]	Oggaz limestone quarry, near Sig	12,500
Do.		Société des Bentonites d'Algérie S.p.A. (BENTAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF)]	Limestone quarries near Beni Saf and M'Said	12,000
Sulfuric acid		Société Algérienne du Zinc (Enterprise Nationale de Métallurgie et de Transformation des Métaux Non Ferreux, 100%)	Plant at Ghazaouet	70,000
Do.		Fertial S.p.A. (Grupo Villar Mir S.A.U., 66%, and Asmidal Group, 34%)	Plants in Annaba and Oran Provinces	50,000
Zinc		EPE ALZINC S.p.A. (IMETAL Group)	Mine at Ghazaouet, Tlemcen Province	10,000
Do.		NA	Ain Hamra Mine, Setif Province	NA

Do., do. Ditto. NA Not available.

[1]Plant construction was completed but not in operation.