The Mineral Industries of Central Europe

Czech Republic, Hungary, Poland, and Slovakia

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The Czech Republic, Hungary, Poland, and Slovakia, which are the most economically dynamic countries of the former centrally planned economy areas of Europe and Central Eurasia, joined the European Union (EU) on May 1, 2004. The denationalization of the iron and steel sectors continued in the Central European region. Mining in these countries continued to undergo rationalization to meet market economy norms and had a much-reduced share of industrial production and of the gross domestic product (GDP) than it had during the years of central economic planning when Government policies dictated mineral self-sufficiency at all costs.

CZECH REPUBLIC

The Czech Republic was an important Central European producer of heavy industrial goods manufactured by the country’s chemical, machine building, and toolmaking industries. Steelmaking, the mining and processing of industrial minerals, and the production of construction materials continued to be of domestic and regional importance.

Minerals in the National Economy

In 2006, the Czech Republic’s real GDP increased by 6.4% compared with that of 2005. The value of industrial production increased by 11.2% compared with that of 2005; the value of mining and quarrying increased by about 2.5%, of which the mining and quarrying of mineral fuels and nonmineral fuels increased by 0.6% and 7.2%, respectively. In 2006, mining and quarrying constituted 1.4% of the Czech economy’s net value of output and a 2.5% share in the value of industrial output (GEOFOND, 2007, p. 18, 28; Czech Statistical Office, 2008).

Government Policies and Programs

The Government continued programs of economic development that were consonant with the EU’s criteria for newly admitted and applicant countries. The country’s memberships in the International Monetary Fund, the Organisation for Economic Co-operation and Development (OECD), the World Bank, and the World Trade Organization, as well as participation in the General Agreement on Tariffs and Trade, were largely an outcome of the Czech Republic’s full orientation toward Western European political and economic values.

Three constituent Acts compose the country’s mining law, which forms the foundation of the Government’s mining and other mineral-related policies. These are Act No. 61/1988 Coll., On Mining Activity, Explosives, and State Mining Administration (Authority/Sedenka), as amended; and the Czech National Council Act No. 62/1988 Coll., On Geological Works, as amended. The Mining Act classifies minerals as either “reserved” or “unreserved.” The “reserved” category refers to mineral deposits that, apart from immediate market considerations, are determined to be necessary for the development of the national economy (GEOFOND, 2004, p. 10, 11).

Other provisions in the Mining Act (law) address issues of licensing and Federal and regional compliance with environmental regulations during the exploration and exploitation of mineral deposits and the reclamation of mined-out areas. These regulations compose the environmental law of 1997 (Act No. 125/1997), which became in force on January 1, 1998. The environmental law focuses on reducing the volume of waste, on the collection of waste by category, and on recycling. The law adopts the main provisions of EU and OECD regulations and the Basel Convention. The catalog of wastes is compatible with the European Catalogue of Wastes of the EU.

Production

In 2006, the Czech Republic reported production increases for such major metals as iron, steel, and steel semimanufactures. The estimated output of secondary refined metals (with the exception of lead, which reported a production increase) remained at about their same levels of production as in 2005 (table 1). Positive growth in the construction materials sector included the output of common sand and gravel, dimension stone, glass sand, and limestone. Production of gypsum continued to decrease; the production of coal increased, however. Among mineral fuels, production decreases were reported for natural gas and crude petroleum.

Structure of the Mineral Industry

Table 2 presents information on the significant mineral production facilities of the Czech Republic.

Commodity Review

Metals

The Czech Republic’s metals sector produced a broad range of base metals and semimanufactures from imported ores and secondary materials (scrap). Although interest in gold mining continued in some parts of the Czech Republic, other metals reportedly were depleted. According to official data, with the exception of gold, the country’s metallic mineral deposits as of

1Deceased.
December 31, 2006, were not economic (GEOFOND, 2007, p. 309-373).

Copper.—The Czech Republic’s sources of copper were entirely based on secondary materials and imports. In 2006, the Czech Republic remained a net exporter of copper waste and scrap, which amounted to 49,058 metric tons (t) and was an increase of about 2% compared with net copper scrap exports in 2005 (GEOFOND, 2007, p. 330).

Gold.—Gold was the only metal for which resource and reserve estimates were available. According to the Czech Geological Survey, as of December 31, 2006, total resources of gold were estimated to be about 240 t; reserves were about 84 t (GEOFOND, 2007, p. 369).

Iron and Steel.—All the raw materials consumed by the country’s steel industry—iron ore and concentrate, and pellets and agglomerate—were imported. The steel industry operated eight steel plants with a collective capacity to produce almost 11 million metric tons per year (Mt/yr) of steel. The main steel producers were, in order of crude steel production capacity, the Czech Steel (Edelstahl a.G., 1,700 Mt), Pragstahl (900 Mt), and Zelezarne vitkovice (ZV), a subsidiary of the Evraz Group of Russia, 900 Mt), and accounted for more than 87% of the country’s total crude steel production capacity.

In 2006, the iron and steel industry remained the dominant constituent of the country’s metalurgical sector. The output of pig iron increased by more than 12% compared with that of 2005; crude steel production fell by about 12% (table 1). GEOFOND’s trade data for 2006 indicate that total imports of iron ore and concentrates amounted to about 8 million metric tons (Mt), or about 17% more than total imports of these commodities in 2005. Ukraine (about 48%) and Russia (about 45%) accounted for the major share of the Czech Republic’s imports of iron ore and concentrate. Net imports of pig iron amounted to about 132,000 t, which was an increase of about 81% compared with those of 2003. Net exports of iron and steel scrap amounted to about 936,000 t, which was a decrease of about 31% compared with those of 2005. Germany, which remained the principal importer of iron and steel scrap from the Czech Republic, imported 830,000 t of iron and steel scrap in 2006 (GEOFOND, 2007, p. 314).

Lead and Zinc.—Imports constituted the Czech Republic’s sources of lead and zinc. In 2006, net imports of unwrought lead and zinc amounted to 57,495 t and 34,434 t, respectively. Germany and Poland, respectively, were the Czech Republic’s principal suppliers of lead and zinc (GEOFOND, 2007, p. 337, 344).

Industrial Minerals

The Czech Republic was well endowed with and produced a broad range of industrial minerals that met most domestic construction and chemical industry requirements, as well as those for export. The availability of these mineral resources at the recent (2002 to 2006) average rate of mining ranged from about 46 years for gem-grade pyrope ore to about 1,535 years for gypsum. Such corrective additives as clays, loams, loess, sands, and shales needed by the country’s cement industry to regulate the content of aluminum oxide (Al₂O₃), iron oxide (Fe₂O₃), and silicon oxide (SiO₂) during clinker production were reported to have a combined mine life of about 1,416 years. Limestone, kaolin, and glass sand (in order of deposit sizes) were the industrial minerals that had the largest resources suitable for exploitation (GEOFOND, 2007, p. 167, 168).

Among industrial minerals, dimension stone and sand and gravel output increased by about 2% and 1%, respectively, compared with that of 2005. The output of diatomite rose by 39% compared with that of 2005. Although dolomite production declined by about 2.4% in 2006 compared with that of 2005, net imports during the year amounted to 428,377 t, which was an increase of 22% compared with that of 2005 (table 1).

Mineral Fuels and Related Materials

Coal.—Bituminous or hard coal occurs mainly in the Upper Silesian Basin. Of the resources in this region, only about 15% is located in the Czech Republic; the balance of the resources is located in Poland. In addition to bituminous coal, the Czech Republic differentiates two types of lower rank coal—brown coal and lignite. The Czech Republic’s brown coal deposits are worked in the northwestern part of the country in the Bohemian brown coal basins. The major brown coal basins are found in the Krusne hory Mountains region and cover an area of 1,900 square kilometers (km²). Coal also is mined in the Cheb, the Sokolov, and the Zitava basins. In 2006, the production of bituminous coal increased by about 1.9% compared with that of 2005, and production of brown coal and lignite increased by almost 1% during this period (table 1). In 2006, imports of bituminous coal amounted to almost 2 Mt; net exports were more than 4.5 Mt, or about 14% more than those in 2005 (GEOFOND, 2007, p. 129-148).

Natural Gas.—Natural gas production declined by about 58% compared with that of 2005; this decline tracks a substantial decline in the output of petroleum during the same period and suggests that the decline of natural gas output pertained mainly to the associated gas portion of natural gas production. In 2006, net imports of natural gas amounted to 9,675 million cubic meters, of which about 75% was imported from Russia. Total resources of natural gas as of December 31, 2006, were estimated to be about 48 billion cubic meters; exploitable reserves were put at more than 28 billion cubic meters (GEOFOND, 2007, p. 162).

Petroleum.—In 2006, the Czech Republic produced about 15% less petroleum than in 2005 (table 1). Russia remained the country’s main supplier of petroleum, having accounted for about 67% of the total petroleum imports in 2005 (about 7.8 Mt) and 2006 (about 7.7 Mt). The Czech Republic’s petroleum resources as of December 31, 2004, amounted to about 32.3 Mt, of which about 2.1 Mt was categorized as exploitable reserves (GEOFOND, 2007, p. 154).

Uranium.—In 2006, mine output and concentrator production of uranium declined by about 9% and 12%, respectively, compared with their output levels in 2005 (table 1). Domestic sources of uranium were able to meet only 47% (2005 data) of the fuel requirements of the Dukavany and the Temelin nuclear power plants.
powerplants; the balance of the uranium required by these plants was imported. All uranium was sent abroad for processing. The TVEL Co. of Russia and the Westinghouse Corp. of the United States were the suppliers of fabricated nuclear fuel for the Dukavany and the Temelin plants, respectively. TVEL was scheduled to replace Westinghouse as the supplier of nuclear fuel to Temelin in 2010 (GEOFOND, 2007, p. 125).

**Outlook**

The Czech Republic is expected to continue to rely on imports of natural gas and petroleum, given the country’s limited resources of these energy minerals. Import reliance on base and precious metals also will continue, although demand is not expected to increase significantly owing to the fairly high technological level of the Czech Republic’s fabrication and service sectors. In these sectors, material input per unit of output is expected to continue to decline from the high level of material input in production during the country’s central economic planning period.

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**HUNGARY**

Bauxite remained the only major nonfuel mineral produced in Hungary that was significant in terms of European mineral production. In 2006, Hungary maintained production of modest amounts of fossil fuels, industrial minerals, and metals. Despite substantial production of bauxite and alumina, Hungary’s production of primary aluminum remained modest owing to limited domestic sources of energy. The production of coal, natural gas, and petroleum was sufficient to satisfy only about one-third of the country’s annual energy needs.

**Minerals in the National Economy**

In 2006, mining and quarrying and the production of basic metals, industrial mineral products, and coke and refinery products accounted for 17% of the value of industrial production. The total value of industrial production, which increased by 5.9% compared with that of 2005, constituted 25.4% of Hungary’s gross domestic product (GDP). The GDP increased by almost 4% compared with that of 2005. Investment in mining and quarrying in 2006, however, declined by about 14% (Hungarian Central Statistical Office, 2007a, p. 18, 22, 24).

**Government Policies and Programs**

The Government based its regulatory policies for mining and geologic survey work on provisions in the Mining Law of 1993 (Act No. XLVIII). Section 50 of the Mining Law was the basis for Governmental Decree No. 132/1993, which constitutes the legislative underpinning for the Hungarian Geological Survey. The Mining Law and related decrees and codes established the legislative bases for estimating reserves, determining environmental risks associated with mining, and providing the geologic and technical information needed to outline tender conditions.

Government agencies that are responsible for enforcing existing environmental protection laws and regulations include the Ministry of the Environment and Regional Planning (KTM) and the Hungarian Mining Office (MBH). The KTM is authorized to help only in the enforcement of existing environmental legislation prescribed by other ministries of the Government. With respect to mining and minerals, Hungary’s Ministry of Industry and Commerce has the primary responsibility for establishing environmental regulatory standards. The chief responsibility of the MBH is that of a certifying agency, which can review only technical developmental and operational plans. These plans are required to include provisions that pertain to environmental protection and land restoration by responsible entities.

**Production**

In 2006, the output levels of metal ores and metals did not significantly vary from the output levels of 2005. Minor increases in production were reported for bauxite, pig iron, and crude steel (table 3). The production results for industrial minerals in 2006 were mixed. Production decreases were reported for bentonite, gypsum, and common and foundry sands compared with their respective output levels in 2005; increases were reported for the output of dolomite, gravel, limestone, and silica (glass) sand. With the exception of crude petroleum, Hungary reported modest output increases of fossil fuels (table 3).

**Structure of the Mineral Industry**

Table 4 presents information about the major mineral facilities in Hungary.

**Commodity Review**

**Metals**

To meet its economic requirements, Hungary continued to depend on imports of most metals (ores and concentrates and billets). In 2006, the value of Hungary’s imports of nonferrous metals exceeded exports by about 48%. Similarly, iron and steel imports exceeded exports by about 97%. Bauxite mining and refining to alumina and manganese mining (manganese carbonate and oxide ores mined at Urkut) remained the only major metal mining and processing operations in Hungary. Gallium was produced as a byproduct of alumina refining.

**Bauxite and Alumina and Aluminum.—Bakoni Bauxitbanya Kft. [Bakony Bauxite Mines Ltd., a subsidiary of Magyar Aluminium Ltd. (MAL)] mined bauxite in the Bakony District. Hungary’s total resources of bauxite as of December 31, 2003, were estimated to be about 39 million
metric tons (Mt) with a range of 47% to 52% Al₂O₃, 20% to 25% Fe₂O₃, and 6% to 8% SiO₂. About one-third of the bauxite was mined by the open pit method; the balance was mined underground at the Fenyofo and the Halimba Mines. In 2006, bauxite production rose slightly by about 1% compared with that of 2005; the production of primary aluminum increased by almost 11% (table 3). In early 2006, owing to high energy costs, MAL closed down the Inota aluminum smelter and brought into production two secondary aluminum furnaces (Magyar Aluminium Ltd., 2007).

**Gold**.—Carpathian Gold Corp. of Canada continued to explore for gold in northern Hungary. Carpathian’s four exploration licenses covered an area of about 134 square kilometers (km²). In 2006, exploration work proceeded in the Tokaj Mountains on the Mad-Kiralhegy and the Sarospatak-Kiralhegy license areas and on the Fuzerradvany concession in the Matra Mountains. The company’s Kanasvar license (located near the old Lahoca gold deposit) encompassed an area of about 2.45 km² (Carpathian Gold Corp., 2007, p. 4, 7, 25).

**Iron and Steel**.—In 2006, Hungary’s production of pig iron showed slight gains (0.045%) compared with that of 2005; the output of crude steel increased by about 3.4% during the same period (table 3). Major activities at Dunaferr Dunai Vasmu Rt.’s (Dunaferr Co. Ltd.’s) integrated steel mill included the upgrading of the No. 1 blast furnace and the No. 3 coke battery, which would maintain production at 2006 levels (Dunaferr Co. Ltd., 2006a, b).

**Manganese**.—In 2006, the output of mainly manganese carbonate ore at the Urkut Mine in the Bakony Mountains amounted to about 50,000 metric tons (t), which was about the output level of 2005. Hungary’s manganese ore was used to produce mainly blast furnace ferromanganese (table 3).

**Industrial Minerals**

Hungary produced a broad range of industrial minerals that included aggregates, bentonite, kaolin, and perlite. Such industrial minerals as construction aggregates and cement continued to play an important role in Hungary’s economy, especially in the modernization of the country’s infrastructure. Highway construction planned through 2008 would continue to be an important element in the development of the country’s infrastructure.

**Mineral Fuels**

In 2006, Hungary reported a decline of about 7% in crude petroleum production compared with that of 2005. Domestic output of natural gas increased by almost 3% during the same period (table 3). Because of limited domestic resources (about 22 Mt), most petroleum (9 Mt) continued to be imported from Russia via the Friendship pipeline. Similarly, a substantial and increasing amount of natural gas was imported from Russia through Russia’s gas-main network. In 2006, Hungary’s imports of natural gas and petroleum increased by about 43% and 25%, respectively (Hungarian Central Statistical Office, 2007b, p. 253).

Hungary classifies its coals into three categories—hard coal (bituminous), brown coal, and lignite. Brown coal and lignite were mined, for the most part, to fuel the country’s thermal electric power stations. Lignite was mined by open pit at the Bukkabrány and the Visonta Mines; the output from these mines was used entirely at the Matra electric powerplant. In 2006, the combined output of lignite and brown coal increased by about 3% compared with that of 2005 (table 3).

**Outlook**

Hungary will continue to rely on imports of natural gas and petroleum and most metals. The need to develop modern infrastructure that conforms to EU standards is expected to stimulate an increase in the consumption of construction-related industrial minerals and base metals.

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**POLAND**

Poland is endowed with significant mineral resources, which include bituminous coal, copper and lead-zinc ores, salt, silver, and sulfur. In 2006, the country’s reserve base of copper amounted to more than 5% of the world total (Edelstein, 2008). Although world reserves of elemental sulfur in 2006 were not available, Poland’s production of sulfur represented almost 2% of total world output (Ober, 2008). Resources of coal and salt were considered to be of world significance; Poland’s share of global reserves of silver amounted to about 19% (Brooks, 2008). The latest available inventory of the country’s mineral resources indicated net gains in geologically documented resources, mainly for bituminous coal, ceramic clays, coal bed methane, and sulfur (table 7).

In 2006, after Russia, Poland remained the leading producer of copper in Europe and Central Eurasia and remained among the top 10 world mine producers of copper (Edelstein, 2008). Poland also continued to be among the leading world producers of nitrogen (in ammonia), salt, silver, and sulfur. In Europe and Central Eurasia, the country was a significant producer of lead and zinc and a leading producer of lime. According to the most recent data available (2004), Poland accounted for about 2% of the total world output of bituminous coal (Główny Urząd Statystyczny, 2007a, p. 567; U.S. Energy Information Administration, 2007; Smith, 2008; Tolcin, 2008).
Minerals in the National Economy

According to the International Monetary Fund (2007), Poland’s real gross domestic product (GDP) registered a growth of 6.1% compared with that of 2005; industrial production in constant prices increased by about 9.2% compared with that of 2005. During the same period, the value of output of the mining and quarrying sector in constant prices declined by about 1.2%. In 2006, the value of the gross output of industry represented about 22% of the GDP; the value of mining and quarrying output was 2.5% of the GDP (Główny Urząd Statystyczny, 2007a, p. 464).

Government Policies and Programs

The Government of Poland remained fully committed to privatizing the country’s industry. The latest available data (2005) report that of the 2,209 mining enterprises, 16 were state-owned, and the balance came under various privatization regimes (Główny Urząd Statystyczny, 2007a, p. 478; Ney and Smakowski, 2007, p. ix). Steel trade issues and efforts to restructure and privatize Poland’s steel industry continued to be among the leading mineral industry concerns during the year.

Production

In 2006, among the major metals, production increases were reported for aluminum, copper (in ore and smelter), pig iron and crude steel, and hot-rolled steel semimanufactures. Output decreased for refined zinc (table 5). Among the major industrial minerals, production increases were reported for, among others, bentonite, cement (hydraulic), gypsum, and salt; production decreases were reported for kaolin and soda ash. Compared with output levels in 2005, production declines in 2006 were reported for natural gas and petroleum (table 5).

Although Poland was a leading European producer and processor of nonfuel minerals and mineral fuels, Poland still depended heavily on imports to meet demand. According to the Mineral and Energy Economy Research Institute of Poland’s Academy of Sciences, of the 121 mineral commodities that were reviewed, 56 (40%) were in the category of total import dependence. Additionally, seven mineral commodities, or about 6% of the total, were in the category of import dependence of more than 50% (Ney and Smakowski, 2007, p. xi-xvii).

Structure of the Mineral Industry

Limited-liability companies, joint-stock companies, and partnerships constituted about 80%, 11%, and 4%, respectively, of the total mining enterprises. Table 6 provides information on the major mineral facilities in Poland.

Commodity Review

Metals

Aluminum and Bauxite and Alumina.—Poland’s primary aluminum, which was produced in Konin by Aluminium Konin-Impexmetal S.A. (Konin), was based entirely on imported alumina. Alumina imports in 2005 (the latest year for which trade data were available) amounted to about 145,000 metric tons (t) and were chiefly used in primary aluminum production (table 8). A small amount (less than 15%) was used in the nonmetallurgical sphere (cement, chemicals, glass, and refractories).

In 2006, the production of primary aluminum metal increased by about 6% compared with that of 2005. Imports of aluminum and aluminum products increased by about 6% during the same period (table 8). Exports of aluminum and aluminum products during the same period rose by about 16% (table 9). Apparent consumption in 2005 declined by about 16% (Ney and Smakowski, 2007, p. xi-xvii). In 2006, Zaklady Metali Lekkich SA, which produced aluminum semimanufactures, announced plans to allocate about $65.2 million to purchase aluminum semimanufactures operations in Germany—a major market for aluminum products used in the construction sector (Metals Insider, 2006d, p. 6).

Cadmium.—Because of its association with sphalerite (zinc-iron sulfide), cadmium in Poland was produced as a byproduct of lead and zinc mining and processing operations in the Silesia-Krakow region. Cadmium reserves as of December 31, 2005, amounted to 66,450 t (contained cadmium), of which 21,990 t (contained cadmium) was being worked (Ney and Smakowski, 2007, p. 69).

Copper.—All copper ore in Poland was mined by Kombinat Gorniczo Hutniczy Miedzi (KGHM) Polska Miedz S.A. (KGHM, S.A.), which was a major world copper mining, beneficiation, smelting, and refining complex in the Lubin area. KGHM accounted for about 3.4% of world mine copper production in 2006. Using the room and pillar method, the ore was worked at the Lubin, the Polkowice-Sieroszewice, and the Rudna Mines at five deposits at depths that ranged from 600 to 1,200 meters (about 1,900 to 3,700 feet). Chalcocite was the principal mineral in the ore; smaller amounts of bornite and chalcopyrite also were present. The mineralization is mainly in a shale horizon, but extends also into overlaying carbonate and underlying sandstone layers. As of December 31, 2005, total copper resources amounted to almost 2.0 billion metric tons (Gt), which contained about 39 million metric tons (Mt) of copper. Resources that were under exploitation amounted to about 1.6 Gt of ore that contained about 34 Mt of copper (table 7).

The Rudna Mine was the leading copper ore producer. The concentrator at Rudna processed Rudna ores, as well as some ores from the Polkowice-Sieroszewice Mine. Annual output by the Polkowice-Sieroszewice Mine and concentrator amounted to about 9.2 Mt/yr of ore and 450,000 t/yr of concentrate. The Lubin Mine accounted for about 7.5 Mt/yr of ore to produce about 465,000 t/yr of concentrate (Ney and Smakowski, 2007, p. 139).

In 2006, Poland’s production of copper (in ore) increased by about 9% compared with that of 2005. The recovery of copper in concentrate increased by about 7% compared with that of 2005. The estimated total output of primary smelter copper registered an increase of about 1% in 2006. The total output of electrolytically refined copper (primary and secondary) decreased by about 1% compared with that of 2005 (table 5).
Trade data for 2005 show that Poland’s net exports of unwrought refined copper and copper alloys increased by about 3.2% compared with that of 2004. In 2005 (the latest year for which data were available), Germany, France, China, and Austria (in order of the value of imports) were the principal importers of copper from Poland (table 9; Ney and Smakowski, 2007, p. 139).

In late 2005, KGHM officials indicated that the company must develop new copper deposits given that the current deposits in Poland face depletion in 11 years. To ensure the availability of future supplies of copper ore and concentrate, KGHM reported looking at additional investments in the Democratic Republic of the Congo [Congo (Kinshasa)], Peru (Rio Blanco copper project), and the Philippines (Metals Insider, 2005, 2006a; Mining Journal, 2005). Although in 2006 Poland continued to study investment possibilities in Peru, high global copper prices forced KGHM’s retreat from its investment projects in Congo (Kinshasa). According to KGHM officials, the company would turn their efforts to developing more cost-effective domestic deposits (Creamer’s Media Mining Weekly, 2006; Metals Insider, 2006c, p. 13; Reuters, 2006). Activities in Poland’s copper sector included a contract agreement concluded by KGHM and Netherlands trading house Traficura Beheer for KGHM’s delivery of 3,000 t of copper products valued at about $39 million. KGHM also signed a contract valued at $317 million that called for supplying cathodes to German firms MKM Mansfelder Kupfer and Messing GmbH (Metals Insider, 2006a, p. 11; 2006b, p. 10).

Gold.—In 2006, Poland’s gold production continued to be based almost entirely on the country’s copper mining operations. The gold content of the copper concentrates produced by KGHM was reported to be about 1 gram per metric ton (g/t); total reserves were determined to be about 50 t (Ney and Smakowski, 2004, p. 202). In 2006, KGHM’s copper refineries continued to increase the output of byproduct gold. The gold was recovered at KGHM’s 550-kilogram-per-year precious metals plant (Boliden, Klado method), which was a division within the Glogow smelter and refinery. The amount of gold recovered at Glogow has varied with the proportion of ores produced at the three mines, each of which has a different average gold content. Poland’s annual domestic consumption of gold during the 2001 to 2005 period ranged from about 352 kilograms (kg) to 595 kg (table 5; Ney and Smakowski, 2007, p. 210).

Iron and Steel.—In 2006, the total output of pig iron and crude steel increased by about 18% and 8%, respectively, compared with that of 2005 (table 5). Poland depended on imported iron ores and concentrates, and on such alloying materials as manganese ore and chromite to produce the ferroalloys that were needed by the steel industry. According to the latest available trade data (2005), imports of iron ore and concentrate declined by almost 38% compared with those of 2004. Imports of such semifinished products as flat-rolled and stainless steel products, however, increased by more than 25% (table 8).

Facility expansion projects in 2006 included the acquisition of a new wire mill by P.P. Huta “Zawiercie” valued at $40 million. The installation of the new mill was scheduled for completion in mid-2008 and would comprise a 4-stand reduction mill and a 10-stand wire rod block with a capacity to produce 150 metric tons per hour of product with diameters ranging from 5 to 25 millimeters (PR Newswire, 2006).

Lead and Zinc.—Poland worked 3 of the 21 known lead-zinc deposits in the Silesia-Krakow area, which hosted about 41 Mt of ore of the country’s total resource of about 180 Mt of lead and zinc ore. Lead and zinc also were recovered from copper ore mined by KGHM in the Lubin region. About 33% of total mined lead came from copper mining and processing. Despite the presence of sphalerite in KGHM’s copper deposits, the low zinc content of the ore made metal recovery uneconomical to implement (Ney and Smakowski, 2007, p. 506). In 2006, total mine production of lead in ore declined by about 19% compared with that of 2005; zinc in concentrate increased by 8%. The total output of refined lead (primary and secondary) in 2006 increased by about 8% compared with that of 2005 (table 5). In 2005, the total volume of refined lead imports rose by 3% (table 8). In 2006, total refined zinc output (smelter and electrolytic) declined by about 2% compared with that of 2005.

Silver.—In 2006, Poland remained among the major world producers of silver and accounted for more than 6% of world mine production (Brooks, 2008). Copper and, to a lesser extent, lead and zinc mining were Poland’s domestic sources of primary silver, which was associated with these ores. The country’s copper mining, smelting, and refining complex, which was operated by KGHM in the Lubin area, produced about 98% of the country’s byproduct silver. In 2005 (the latest year for which data were available), exports of silver fell sharply by 53%. The top three importers of Polish silver in 2006 were (in descending order of value) the United Kingdom, Germany, and Belgium (Główny Urzad Statystyczny, 2007b, p. 261).

Industrial Minerals

Poland produced a broad range of industrial minerals that included calcareous and silicate rocks and aggregates, clays, feldspar, gypsum, magnesite, salt, and sulfur, which served the needs of the country’s chemical and construction industries. Poland remained among the leading world producers of lime, nitrogen (in ammonia), salt, and sulfur (Kostick, 2008; Kramer, 2008; Miller, 2008; Ober, 2008).

Mineral Fuels

Coal.—In 2006, bituminous coal production declined by about 2% compared with that of 2005. In 2005, the country’s net exports of bituminous coal and anthracite were about 8% less than those in 2004 (Ney and Smakowski, 2007, p. 506). Germany, Austria, the United Kingdom, and France (in order of volume) were the major importers of Polish coal (Ney and Smakowski, 2007, p. 232).

The Upper Silesian, the Lower Silesian, and the Lubin Basins have exploitable resources that amounted to 43,321 Mt of coal in 132 deposits. The Upper Silesian Basin represents the major portion of the country’s total reserves, hosting about 79% of the total in 110 deposits (Ney and Smakowski, 2004, p. 224).

Natural Gas and Petroleum.—Poland depended on imports to meet its needs for oil and gas. In 2005, Poland’s imports

6.6 U.S. GEOLOGICAL SURVEY MINERALS YEARBOOK—2006
of petroleum increased by almost 2% compared with those of 2004 (table 8). The Russian Federation remained Poland’s chief supplier of hydrocarbons which, in 2005 (in terms of volume), supplied about 98% and 64%, respectively, of Poland’s imports of petroleum and natural gas (Ney and Smakowski, 2007, p. 191, 339).

**Outlook**

Poland is expected to remain an important world supplier of copper, salt, and sulfur and a major supplier of coal, lead, and zinc to the European market. The country, however, will continue to rely on imports of natural gas and petroleum and iron ore and concentrate. As domestic sources of nonferrous metals become exhausted (2015 and beyond), Poland will increasingly depend on imports of commodities.

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**SLOVAKIA**

Slovakia was a modest regional producer of a variety of minerals. Aluminum and steel production formed the dominant elements of the country’s metals sector. Steel production largely was based on imported raw materials and that of aluminum was based entirely on imported bauxite. Small quantities of copper, gold, lead, and zinc also were produced; the commercial deposits of these minerals have been virtually depleted. Industrial mineral production included that of barite, clays, magnesite, and salt. Slovakia’s production of mineral fuels comprised brown coal and lignite and minor quantities of gas and petroleum (table 10).

**Minerals in the National Economy**

The economy of Slovakia continued to develop towards a full market system. The need to denationalize the state’s commercial assets and to reduce subsidies to the public sector expeditiously was tempered by policies promulgated to maintain social stability that often resulted in increased public sector employment and uneven economic performance. In 2006, Slovakia’s real gross domestic product (GDP) increased by 8.5%. The total value of industrial production in 2006 grew at a rate of 9.8% compared with that of 2005; the value of mining and quarrying declined by 9.7% and constituted 0.5% of the GDP in 2006 (Statistical Office of the Slovak Republic, 2007, p. 3, 5, 11).

**Production**

In 2006, Hydro Aluminium AS (Hydro) of Norway acquired a controlling 55.3% share of Slovalco A.S., which was Slovakia’s sole producer of primary aluminum. In 2006, aluminium output declined by about 1.2% compared with that of 2005; the production of primary aluminum during the same period increased by more than 13%. About 16% of total sales of aluminum metal was consumed domestically; the balance was exported. Italy and Poland were the major importers of Slovakia’s aluminum. Slovalco reported the completion of modernization in the casthouse (Slovalco A.S., 2006, p. 25). Activities in the aluminum sector in 2006 included plans announced by Alcan Inc. of Canada to invest $35 million to build a new aluminum extrusion plant in Slovakia that would produce products for the construction sector. Completion of the extrusion plant was projected for the first half of 2007 (Metals Insider, 2006, p. 8).

Major activities in gold exploration continued to center on work undertaken by the Tournigan Gold Corp. of Canada at Kremnica. Tournigan’s preliminary assessment of the deposit indicated resources at Kremnica to amount to 23.6 million metric tons of ore at an average grade of 1.37 grams per metric ton (g/t) gold and 11.36 g/t silver. The company indicated that
a decision to commission a full feasibility study would be made before the end of 2008 (Tournigan Gold Corp., 2008, p. 9, 10).

**Outlook**

Slovakia is expected to continue to produce modest amounts of industrial minerals and mineral fuels. With the possible exception of gold, metal mining has practically ceased owing to depletion of economic reserves. Aluminum and ferrous metals will continue to be produced from imported ores and concentrates. The country will remain dependent on imports of energy carriers and metals for its industrial needs.

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### TABLE 1

**CZECH REPUBLIC: PRODUCTION OF MINERAL COMMODITIES**

(Metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum, metal, secondary</td>
<td>20,000</td>
<td>20,000</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Copper, refined, secondary</td>
<td>13,000</td>
<td>12,000</td>
<td>15,000</td>
<td>14,000</td>
<td>14,000</td>
</tr>
<tr>
<td>Gold, metal</td>
<td>kilograms</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Iron and steel, metal: Pig iron</td>
<td>4,840</td>
<td>5,200</td>
<td>5,385</td>
<td>4,562</td>
<td>5,131</td>
</tr>
<tr>
<td>Ferroalloys, total electric furnace</td>
<td>do.</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Steel, crude</td>
<td>do.</td>
<td>6,512</td>
<td>6,800</td>
<td>7,033</td>
<td>6,189</td>
</tr>
<tr>
<td>Semimanufactures, hot rolled</td>
<td>do.</td>
<td>5,489</td>
<td>5,338</td>
<td>6,947</td>
<td>5,423</td>
</tr>
<tr>
<td>Lead, metal, secondary</td>
<td>25,000</td>
<td>26,000</td>
<td>25,000</td>
<td>25,000</td>
<td>26,100</td>
</tr>
<tr>
<td>Silver</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Uranium: Mine output, U content</td>
<td>477</td>
<td>458</td>
<td>435</td>
<td>420</td>
<td>383</td>
</tr>
<tr>
<td>Concentrate production, U content</td>
<td>465</td>
<td>452</td>
<td>412</td>
<td>409</td>
<td>358</td>
</tr>
<tr>
<td>Zinc, metal, secondary</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>INDUSTRIAL MINERALS Cement, hydraulic</td>
<td>thousand metric tons</td>
<td>3,217</td>
<td>3,465</td>
<td>3,709</td>
<td>3,978</td>
</tr>
<tr>
<td>Bentonite</td>
<td>do.</td>
<td>174</td>
<td>199</td>
<td>201</td>
<td>186</td>
</tr>
<tr>
<td>Kaolin</td>
<td>do.</td>
<td>3,650</td>
<td>4,155</td>
<td>3,862</td>
<td>3,882</td>
</tr>
<tr>
<td>Other</td>
<td>do.</td>
<td>564</td>
<td>554</td>
<td>649</td>
<td>671</td>
</tr>
<tr>
<td>Diamond, synthetic</td>
<td>carats</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Diatomite</td>
<td>28,000</td>
<td>41,000</td>
<td>33,000</td>
<td>38,000</td>
<td>53,000</td>
</tr>
<tr>
<td>Dolomite</td>
<td>314,000</td>
<td>416,000</td>
<td>345,000</td>
<td>419,000</td>
<td>409,000</td>
</tr>
<tr>
<td>Feldspar</td>
<td>401,000</td>
<td>421,000</td>
<td>488,000</td>
<td>472,000</td>
<td>487,000</td>
</tr>
<tr>
<td>Fertilizer materials: Nitrogenous, N content</td>
<td>250,000</td>
<td>251,000</td>
<td>271,000</td>
<td>270,000</td>
<td>270,000</td>
</tr>
<tr>
<td>Phosphoric, P2O5 content</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Potassic, K2O content</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Mixed</td>
<td>75,000</td>
<td>36,000</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Gemstones, crude, pyrope-bearing rock</td>
<td>52,000</td>
<td>53,000</td>
<td>42,000</td>
<td>43,000</td>
<td>39,000</td>
</tr>
<tr>
<td>Graphite</td>
<td>16,000</td>
<td>9,000</td>
<td>5,000</td>
<td>3,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Gypsum and anhydrite, crude</td>
<td>108,000</td>
<td>104,000</td>
<td>71,000</td>
<td>25,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Lime, hydrated and quicklime</td>
<td>thousand metric tons</td>
<td>1,120</td>
<td>1,251</td>
<td>1,264</td>
<td>1,223</td>
</tr>
<tr>
<td>Nitrogen, N content of ammonia</td>
<td>215,000</td>
<td>235,000</td>
<td>250,000</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Sand and gravel: Common sand and gravel</td>
<td>thousand cubic meters</td>
<td>8,268</td>
<td>9,109</td>
<td>8,664</td>
<td>9,080</td>
</tr>
<tr>
<td>Foundry sand</td>
<td>thousand metric tons</td>
<td>476</td>
<td>714</td>
<td>831</td>
<td>807</td>
</tr>
<tr>
<td>Glass sand</td>
<td>do.</td>
<td>853</td>
<td>904</td>
<td>829</td>
<td>920</td>
</tr>
</tbody>
</table>

See footnotes at end of table.

### References Cited


## TABLE 1—Continued

CZECH REPUBLIC: PRODUCTION OF MINERAL COMMODITIES

(Metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDUSTRIAL MINERALS—Continued</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basalt, for casting</td>
<td>14,000</td>
<td>13,000</td>
<td>12,000</td>
<td>12,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Dimension stone</td>
<td>thousand cubic meters</td>
<td>285,000</td>
<td>244,000</td>
<td>273,000</td>
<td>288,000</td>
</tr>
<tr>
<td>Limestone and other calcareous</td>
<td>thousand metric tons</td>
<td>10,186</td>
<td>10,236</td>
<td>10,568</td>
<td>10,190</td>
</tr>
<tr>
<td>Building stone</td>
<td>thousand cubic meters</td>
<td>10,600</td>
<td>12,459</td>
<td>13,177</td>
<td>14,092</td>
</tr>
<tr>
<td>Sulfur, byproduct, all sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfuric acid</td>
<td>40,000</td>
<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
</tr>
<tr>
<td>MINERAL FUELS AND RELATED MATERIALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bituminous</td>
<td>thousand metric tons</td>
<td>14,097</td>
<td>13,382</td>
<td>14,648</td>
<td>12,728</td>
</tr>
<tr>
<td>Brown and lignite</td>
<td>do.</td>
<td>49,335</td>
<td>50,390</td>
<td>48,290</td>
<td>49,125</td>
</tr>
<tr>
<td>Coke</td>
<td>do.</td>
<td>3,536</td>
<td>3,556</td>
<td>3,538</td>
<td>3,500</td>
</tr>
<tr>
<td>Fuel briquets from brown coal</td>
<td>do.</td>
<td>302</td>
<td>314</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Gas:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactured, all types</td>
<td>million cubic meters</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>Natural, marketed</td>
<td>do.</td>
<td>91</td>
<td>131</td>
<td>175</td>
<td>356</td>
</tr>
<tr>
<td>Petroleum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As reported</td>
<td>thousand metric tons</td>
<td>253</td>
<td>310</td>
<td>299</td>
<td>306</td>
</tr>
<tr>
<td>Converted</td>
<td>thousand 42-gallon barrels</td>
<td>1,620(^{r})</td>
<td>1,984</td>
<td>1,880(^{r})</td>
<td>1,920</td>
</tr>
<tr>
<td>Refinery products</td>
<td>do.</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
</tr>
</tbody>
</table>

\(^{r}\)Estimated; estimated data are rounded to no more than three significant digits. \(^{1}\)Revised. -- Zero.

\(^{1}\)Table includes data available through November 2007.

\(^{2}\)In addition to the commodities listed, arsenic, dolomite, illite, sodium compounds, talc, and zeolite are produced, but available information is inadequate make reliable estimates of output.

\(^{3}\)Reported figure.

\(^{4}\)Includes gas produced from coal mines. Gross output of natural gas is not reported but is believed to exceed reported marketed output by an inconsequential amount.

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**Note:**

- Table includes data available through November 2007.
- In addition to the commodities listed, arsenic, dolomite, illite, sodium compounds, talc, and zeolite are produced, but available information is inadequate make reliable estimates of output.
- Estimated data are rounded to no more than three significant digits.
- Revised data may have been adjusted for consistency or revisions in methodology. -- Zero.
### TABLE 2
**CZECH REPUBLIC: STRUCTURE OF THE MINERAL INDUSTRY IN 2006**

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facilities¹</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aluminum, secondary</strong></td>
<td>Alcan Decin Extrusions s.r.o.</td>
<td>Decin, northern Bohemia</td>
<td>40,000</td>
</tr>
<tr>
<td>do.</td>
<td>Kovohute Mnisek a.s.</td>
<td>Mnisek</td>
<td>70,000</td>
</tr>
<tr>
<td>Bentonite</td>
<td>Keramost a.s.</td>
<td>Most</td>
<td>250</td>
</tr>
<tr>
<td><strong>Cement</strong></td>
<td>Ceskomoravský Cement a.s.</td>
<td>Kraluv dvur</td>
<td>350</td>
</tr>
<tr>
<td>do.</td>
<td>Heidelberger Cement, 82.8%</td>
<td>Mokra</td>
<td>1,400</td>
</tr>
<tr>
<td>do.</td>
<td>do.</td>
<td>Radotin</td>
<td>750</td>
</tr>
<tr>
<td>Do.</td>
<td>Cizkovicka Cementarna a.s. (Lafarge Group, 85%)</td>
<td>Cizkovicka</td>
<td>980</td>
</tr>
<tr>
<td>do.</td>
<td>Holcim (Cesko) a.s.</td>
<td>Prague</td>
<td>1,000</td>
</tr>
<tr>
<td>Do.</td>
<td>Cement Hranice a.s. (Dyckerhoff, 98%)</td>
<td>Hranice</td>
<td>850</td>
</tr>
<tr>
<td>Do.</td>
<td>Cemex Ostrava a.s. (Cemex Hranice, 95%)</td>
<td>Ostrava</td>
<td>400</td>
</tr>
<tr>
<td>Clay</td>
<td>Ceske Lupkove Zavody a.s.</td>
<td>Nove Straseci (refactory clay)</td>
<td>120</td>
</tr>
<tr>
<td>do.</td>
<td>Chlumcianske Keranicka Zavody a.s.</td>
<td>Chlumcany (kaolin)</td>
<td>30</td>
</tr>
<tr>
<td>do.</td>
<td>Kolin Hubany a.s. (WBB Minerals, 94%)</td>
<td>Podborany</td>
<td>100</td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bituminous</td>
<td>OKD a.s. Ostrava</td>
<td>Ostrava-Karvina, north Moravia</td>
<td>20,000</td>
</tr>
<tr>
<td>Brown</td>
<td>Severoceske Doly a.s.</td>
<td>Chomutov</td>
<td>14,000</td>
</tr>
<tr>
<td>do.</td>
<td>Morecka Uhelna Spolecnost a.s.</td>
<td>Most</td>
<td>17,000</td>
</tr>
<tr>
<td>do.</td>
<td>Sokolovska Uhelna a.s.</td>
<td>Sokolov</td>
<td>30,000</td>
</tr>
<tr>
<td>Lignite</td>
<td>Lignit Hodonin s.r.o.</td>
<td>Hodonin, south Moravia</td>
<td>1,000</td>
</tr>
<tr>
<td>Gold</td>
<td>Kovohute Pribram Nastupicka a.s.</td>
<td>Pribram</td>
<td>9</td>
</tr>
<tr>
<td>Graphite</td>
<td>Grafrovce doly Stare Mesto s.r.o.</td>
<td>Stare Mesto</td>
<td>10</td>
</tr>
<tr>
<td>Lead, metal, secondary, refined</td>
<td>Kovohute Pribram Nastupicka a.s.</td>
<td>Pribram</td>
<td>29</td>
</tr>
<tr>
<td><strong>Natural gas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>million cubic meters</td>
<td>Gasfields in Brno and Ostrava regions, of which:</td>
<td></td>
<td>500²</td>
</tr>
<tr>
<td></td>
<td>Ceska Naftarska Spol s.r.o.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moravske Naftove Doly a.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OKD Dulni Pruzkum a Bezpcenost a.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UNIGEO a.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude</td>
<td>Oilfields around Hodonin, of which:</td>
<td></td>
<td>160²</td>
</tr>
<tr>
<td></td>
<td>Ceska Naftarska Spol s.r.o.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moravske Naftove Doly a.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UNIMASTER s.r.o</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refinery</td>
<td>Kolin, Kralupy, Pardubice, and Litvinov</td>
<td>Bohemia</td>
<td>200</td>
</tr>
<tr>
<td>thousand 42-gallon barrels per day</td>
<td>Nova Hut s.p. (Mittal Steel Ostrava)</td>
<td>Kunice-Ostrava</td>
<td>3,800</td>
</tr>
<tr>
<td>Do.</td>
<td>Zelezarny Vitkovice (ZV) (Evraz Group)</td>
<td>Vitkovice-Ostrava</td>
<td>900</td>
</tr>
<tr>
<td>Do.</td>
<td>Trinecke Zelezarny (Trinecke Iron and Steel Works)</td>
<td>Trinec</td>
<td>3,000</td>
</tr>
<tr>
<td>Do.</td>
<td>Poldi Hutte s.r.o. (Scholz Edelstahl A.G.)</td>
<td>Kladno-Prague</td>
<td>1,700</td>
</tr>
<tr>
<td>Do.</td>
<td>Zelezarny Bila Cerkev</td>
<td>Hradek-Rokycany</td>
<td>300</td>
</tr>
<tr>
<td>Do.</td>
<td>Zelezarny Veseli, a.s.</td>
<td>Veseli and Moravou</td>
<td>300</td>
</tr>
<tr>
<td>Do.</td>
<td>Zelezarny Chomutov s.p.</td>
<td>Chomutov</td>
<td>350</td>
</tr>
<tr>
<td>Do.</td>
<td>Bohumin Iron and Steel Works</td>
<td>Bohumin</td>
<td>400</td>
</tr>
<tr>
<td><strong>Titanium dioxide</strong></td>
<td>Precheza A.S</td>
<td>Precheza</td>
<td>25</td>
</tr>
<tr>
<td>Uranium</td>
<td>DIAMO s.p.</td>
<td>Straz pod Ralskem</td>
<td>2</td>
</tr>
</tbody>
</table>

¹Names and locations of mines and crude oil refineries are identical.

²Annual capacity listed is total for all deposits, mines, or companies that produce the commodity.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>METALS</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Aluminum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bauxite, gross weight</td>
<td>720</td>
<td>666</td>
<td>647</td>
<td>535</td>
<td>538</td>
</tr>
<tr>
<td>Alumina, gross weight, calcined basis</td>
<td>220 (do. 300</td>
<td>300</td>
<td>270</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>Metal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>35,000 (do. 76,000 31,000</td>
<td>34,000</td>
<td>34,400</td>
<td>34,000</td>
<td>34,400</td>
</tr>
<tr>
<td>Secondary</td>
<td>75,000 (do. 50,000 30,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Total</td>
<td>110,000 (do. 84,000 84,400</td>
<td>81,000</td>
<td>84,400</td>
<td>84,400</td>
<td>84,400</td>
</tr>
<tr>
<td>Copper, metal, refined including secondary</td>
<td>10,000 (do. 84,000 10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Gallium</td>
<td>5,400 (do. 5,500 5,500</td>
<td>5,500</td>
<td>5,500</td>
<td>5,500</td>
<td></td>
</tr>
<tr>
<td>Iron and steel, metal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pig iron</td>
<td>1,334 (do. 1,333 1,350</td>
<td>1,329</td>
<td>1,335</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ferroalloys,do.</td>
<td>1,900 (do. 8,000 8,000</td>
<td>8,000</td>
<td>8,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude</td>
<td>2,141 (do. 1,983 1,957</td>
<td>1,962</td>
<td>2,029</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semimanufactures, rolled only</td>
<td>1,900 (do. 1,803 1,844</td>
<td>1,850</td>
<td>1,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INDUSTRIAL MINERALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cement, hydraulic</td>
<td>3,510 (do. 3,573 3,580</td>
<td>3,349</td>
<td>3,349</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clays:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw</td>
<td>3,700 (do. 87,029 9,280</td>
<td>9,000</td>
<td>6,600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processed,do.</td>
<td>1,400 (do. 42,000 3,700</td>
<td>3,700</td>
<td>2,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaolin, raw and washed</td>
<td>4,300 (do. 13,250 7,530</td>
<td>7,000</td>
<td>7,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gypsum and anhydrite</td>
<td>72,200 (do. 62,000 55,000</td>
<td>55,000</td>
<td>30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lime, calcined,do.</td>
<td>500 (do. 500 500</td>
<td>500</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen, N content of ammonia, do.</td>
<td>238 (do. 232 274</td>
<td>275</td>
<td>275</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perlite</td>
<td>140,000 (do. 59,530 65,100</td>
<td>65,000</td>
<td>71,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand and gravel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gravel</td>
<td>29,138 (do. 35,000 33,544</td>
<td>33,500</td>
<td>34,483</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common,do.</td>
<td>12,000 (do. 12,000 12,500</td>
<td>12,800</td>
<td>11,634</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundry</td>
<td>152,000 (do. 162,600 138,200</td>
<td>138,000</td>
<td>120,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>317,000 (do. 225,300 163,900</td>
<td>164,000</td>
<td>251,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimension, all types</td>
<td>5,626 (do. 5,500 5,000</td>
<td>5,000</td>
<td>5,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolomite</td>
<td>4,196 (do. 4,398 7,200</td>
<td>7,200</td>
<td>7,933</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limestone</td>
<td>7,152 (do. 2,459 3,014</td>
<td>3,014</td>
<td>3,257</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfur, byproduct, elemental, all sources</td>
<td>52,000 (do. 51,000 50,000</td>
<td>50,000</td>
<td>50,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfuric acid</td>
<td>80,000 (do. 80,000 80,000</td>
<td>80,000</td>
<td>80,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talc</td>
<td>500 (do. -- --</td>
<td>--</td>
<td>80,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MINERAL FUELS AND RELATED MATERIALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bituminous</td>
<td>660 (do. 667 260</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown</td>
<td>4,570 (do. 4,128 2,495</td>
<td>1,426</td>
<td>1,431</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lignite</td>
<td>7,574 (do. 8,564 8,470</td>
<td>8,154</td>
<td>8,467</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12,804 (do. 13,359 11,225</td>
<td>9,580</td>
<td>9,898</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coke, metallurgical,do.</td>
<td>650 (do. 650 650</td>
<td>650</td>
<td>650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas, natural, marketed</td>
<td>3,353 (do. 3,010 3,200</td>
<td>3,159</td>
<td>3,246</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peat, agricultural use,do.</td>
<td>150 (do. 200 200</td>
<td>200</td>
<td>200</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See footnotes at end of table.
### TABLE 3—Continued

HUNGARY: PRODUCTION OF MINERAL COMMODITIES

(Metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MINERAL FUELS AND RELATED MATERIALS</strong>—Continued</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As reported thousand metric tons</td>
<td>1,050</td>
<td>1,133</td>
<td>1,100</td>
<td>948</td>
<td>886</td>
</tr>
<tr>
<td>Converted thousand 42-gallon barrels</td>
<td>8,011</td>
<td>8,640</td>
<td>8,400</td>
<td>7,200</td>
<td>6,800</td>
</tr>
<tr>
<td>Refinery products:</td>
<td>do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. *Revised. -- Zero.

Table includes data available through November 2007.

*In addition to the commodities listed, diatomite and a variety of industrial minerals and construction materials, such as common clay, are also produced, but available information is inadequate to make reliable estimates of output.*

*Reported figure.*

*Hungary is believed to produce some blast ferromanganese.*

*Excludes refinery fuel and losses.*
TABLE 4
HUNGARY: STRUCTURE OF THE MINERAL INDUSTRY IN 2006
(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumina</td>
<td>Magyar Aluminium Ltd. (MAL)</td>
<td>Ajka Timfoldgyar plant, about 120 kilometers southwest of Budapest near Lake Balaton</td>
<td>400</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Almasfuzito Timfoldgyar plant near the Czech Republic border, 63 kilometers northwest of Budapest</td>
<td>240</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Moson-Magyarovar plant, in northwestern corner of Hungary, about 12 kilometers from Austrian and Czechoslovak borders</td>
<td>30</td>
</tr>
<tr>
<td>Aluminum, primary</td>
<td>do.</td>
<td>Inota plant, near Varpalota, 75 kilometers southwest of Budapest</td>
<td>46</td>
</tr>
<tr>
<td>Bauxite</td>
<td>Magyar Aluminium Ltd. (MAL) (owns and operates Bakony Bauxite Mines Ltd.)</td>
<td>Bakony District, extending roughly 100 kilometers northeast along Lake Balaton</td>
<td>1,500</td>
</tr>
<tr>
<td>Cement</td>
<td>Belpafatvalvi Cement es Meszicipari Rt [Heidelberger &amp; Schwenk (Germany) and Hungarian Group]</td>
<td>Belapatfalva, near Miskolc, 125 kilometers northeast of Budapest</td>
<td>1,100</td>
</tr>
<tr>
<td>Do.</td>
<td>Beremend Cement es Meszicipari Rt [Heidelberger &amp; Schwenk (Germany), 100%]</td>
<td>Beremend, 45 kilometers south of Pecs</td>
<td>1,090</td>
</tr>
<tr>
<td>Do.</td>
<td>Dunai Cement es Meszum Kft [Heidelberger &amp; Schwenk (Germany), 100%]</td>
<td>Vac, 50 kilometers north of Budapest</td>
<td>1,200</td>
</tr>
<tr>
<td>Do.</td>
<td>Hejocsabai Cement es Meszicipari Rt [Holderbank (Germany) and Hungarian Group]</td>
<td>Hejoscaba, 150 kilometers northeast of Budapest</td>
<td>1,450</td>
</tr>
<tr>
<td>Do.</td>
<td>Labatlanı Cementipari kft [Holderbank (Germany), 100%]</td>
<td>Labatlan, 20 kilometers north of Tatabanya</td>
<td>550</td>
</tr>
<tr>
<td>Clays</td>
<td>Agyag-Asvany Kft [Navan Resources PLC (Ireland)]</td>
<td>Felsoeteny, one underground and two open pit mines and a 5,000-metric-ton-per-year processing plant. Products are ball clay, kaolin, and refractory clay</td>
<td>35</td>
</tr>
<tr>
<td>Coal:</td>
<td>Magyar Szenhanyaszati Troszt (MSZT) (Hungarian Coal Mining Trust)</td>
<td>Tatabanya and Oroslzany coal mining region, 45 kilometers west of Budapest</td>
<td>8,900</td>
</tr>
<tr>
<td>Bituminous and lignite</td>
<td>do.</td>
<td>Mecsk coal mining region, near Pecs and Komlo, north of the Yugoslav border</td>
<td>3,100</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Borsod coal mining region, 130 kilometers northeast of Budapest</td>
<td>5,200</td>
</tr>
<tr>
<td>Lignite</td>
<td>do.</td>
<td>Thorez opencast mine at Visonta, 80 kilometers northeast of Budapest</td>
<td>7,000</td>
</tr>
<tr>
<td>Manganese</td>
<td>Orszagos Erc-es Asvanybanyak (National Ore and Mineral Mines)</td>
<td>Uırk manganese ore mines, 120 kilometers southwest of Budapest</td>
<td>160</td>
</tr>
<tr>
<td>Natural gas</td>
<td>million cubic feet</td>
<td>Hungarian Oil and Gas Co. (MOL) Szeged and Algyo gasfields, southern Hungary</td>
<td>152,000</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Hajduszososzo gasfields, 180 kilometers east of Budapest</td>
<td>50,000</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Smaller gasfields are Szank, Kardoskut, Bekes, Berefurdo, and others</td>
<td>39,000</td>
</tr>
<tr>
<td>Perlite</td>
<td>Perlit 92 Kft [Navan Resources PLC (Ireland) and Hungarian Group]</td>
<td>Palhaza, northeastern Hungary; open pit mine and processing plant</td>
<td>150</td>
</tr>
<tr>
<td>Petroleum:</td>
<td>Hungarian Oil and Gas Co. (MOL)</td>
<td>Szeged-Algyo Field, near Romanian-Yugoslav border; 50% of total capacity</td>
<td>7</td>
</tr>
<tr>
<td>Crude</td>
<td>Subsidiaries of Hungarian Oil and Gas Co. (MOL), of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do.</td>
<td>do. Danube Petroleum Refining Co.</td>
<td>Szazhalombatta</td>
<td>55</td>
</tr>
<tr>
<td>Do.</td>
<td>do. Tisza Petroleum Refining Co.</td>
<td>Leninauros</td>
<td>22</td>
</tr>
<tr>
<td>Do.</td>
<td>do. Zala Petroleum Refining Co.</td>
<td>Zalaegerszeg</td>
<td>4</td>
</tr>
<tr>
<td>Silica</td>
<td>Uhev-Asvany Kft. [Navan Resources PLC (Ireland) and Hungarian Group]</td>
<td>Mine and plant at Fehevaresugo</td>
<td>660</td>
</tr>
<tr>
<td>Steel</td>
<td>Dunaferr Dunai Vasmu Rt</td>
<td>60 kilometers south of Budapest</td>
<td>1,400</td>
</tr>
<tr>
<td>Do.</td>
<td>OAM-Ozdi Acelmuev Kft</td>
<td>120 kilometers northeast of Budapest</td>
<td>360</td>
</tr>
<tr>
<td>Do.</td>
<td>DAM-Diosgyori Acelmuev es Kereskedelmi Kft</td>
<td>Diosgyor, 145 kilometers northeast of Budapest</td>
<td>850</td>
</tr>
</tbody>
</table>
### TABLE 5
POLAND: PRODUCTION OF MINERAL COMMODITIES

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity²</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>METALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aluminum, metal:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>metric tons</td>
<td>49,125</td>
<td>45,371</td>
<td>45,807</td>
<td>54,508</td>
</tr>
<tr>
<td>Secondary²</td>
<td>do.</td>
<td>9,700</td>
<td>11,900</td>
<td>12,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Total²</td>
<td>do.</td>
<td>58,825</td>
<td>57,300</td>
<td>57,800</td>
<td>66,500</td>
</tr>
<tr>
<td><strong>Cadmium, metal, primary</strong></td>
<td>do.</td>
<td>440</td>
<td>375</td>
<td>356</td>
<td>408</td>
</tr>
<tr>
<td><strong>Copper:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ore:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>metric tons</td>
<td>29,705</td>
<td>29,992</td>
<td>31,800</td>
<td>32,019</td>
</tr>
<tr>
<td>Cu content</td>
<td>metric tons</td>
<td>568,000</td>
<td>570,000</td>
<td>590,000</td>
<td>614,800</td>
</tr>
<tr>
<td>Concentrate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>metric tons</td>
<td>1,935</td>
<td>1,756</td>
<td>2,054</td>
<td>1,977</td>
</tr>
<tr>
<td><strong>Gold, mine output, Au content</strong></td>
<td>kilograms</td>
<td>296</td>
<td>356</td>
<td>527</td>
<td>530</td>
</tr>
<tr>
<td><strong>Iron and steel:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pig iron:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For foundry use²</td>
<td></td>
<td>52</td>
<td>132</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>For steel production</td>
<td></td>
<td>5,245</td>
<td>5,500</td>
<td>6,200</td>
<td>4,477</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5,297</td>
<td>5,632</td>
<td>6,400</td>
<td>4,677</td>
</tr>
<tr>
<td><strong>Ferroalloys:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blast furnace, ferromanganese</td>
<td>metric tons</td>
<td>600</td>
<td>1,000</td>
<td>46,900</td>
<td>45,000</td>
</tr>
<tr>
<td>Electric furnace:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ferrochromium</td>
<td>do.</td>
<td>100</td>
<td>200</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Ferrosilicomanganese</td>
<td>do.</td>
<td>7,500</td>
<td>5,000</td>
<td>29,600</td>
<td>25,000</td>
</tr>
<tr>
<td>Ferrosilicon</td>
<td>do.</td>
<td>41,800</td>
<td>92,700</td>
<td>83,500</td>
<td>80,000</td>
</tr>
<tr>
<td>Total</td>
<td>do.</td>
<td>50,000</td>
<td>98,900</td>
<td>150,000</td>
<td>145,000</td>
</tr>
<tr>
<td><strong>Steel, crude:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From open hearth furnaces</td>
<td></td>
<td>169</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td>From oxygen converters</td>
<td></td>
<td>5,531</td>
<td>6,070</td>
<td>6,865</td>
<td>4,927</td>
</tr>
<tr>
<td>From electric furnaces</td>
<td></td>
<td>2,667</td>
<td>3,040</td>
<td>3,713</td>
<td>3,409</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8,367</td>
<td>9,110</td>
<td>10,578</td>
<td>8,336</td>
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<tr>
<td><strong>Semimanufactures:</strong></td>
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<tr>
<td>Hot rolled</td>
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<td>6,372</td>
<td>6,720</td>
<td>7,605</td>
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<tr>
<td>Cold rolled</td>
<td></td>
<td>1,349</td>
<td>1,533</td>
<td>1,600</td>
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<tr>
<td>Pipe</td>
<td></td>
<td>309</td>
<td>309</td>
<td>310</td>
<td>380</td>
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<tr>
<td><strong>Lead:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mine output:</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Pb content of Pb-Zn ore</td>
<td>do.</td>
<td>73,500</td>
<td>74,000</td>
<td>51,000</td>
<td>78,000</td>
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<tr>
<td>Pb content of Cu ore</td>
<td>do.</td>
<td>46,900</td>
<td>36,000</td>
<td>36,000</td>
<td>37,800</td>
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<tr>
<td>Total</td>
<td>do.</td>
<td>120,400</td>
<td>110,000</td>
<td>87,000</td>
<td>115,800</td>
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<tr>
<td><strong>Concentrate:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>do.</td>
<td>85,000</td>
<td>100,200</td>
<td>110,200</td>
<td>110,000</td>
</tr>
<tr>
<td>Pb content</td>
<td>do.</td>
<td>56,600</td>
<td>54,700</td>
<td>60,200</td>
<td>60,000</td>
</tr>
<tr>
<td><strong>Metals:</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smelter:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Primary</td>
<td>do.</td>
<td>29,400</td>
<td>25,000</td>
<td>25,000</td>
<td>20,000</td>
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<tr>
<td>Secondary</td>
<td>do.</td>
<td>44,700</td>
<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
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<tr>
<td>Total</td>
<td>do.</td>
<td>74,100</td>
<td>70,000</td>
<td>70,000</td>
<td>65,000</td>
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<tr>
<td>Refined, primary and secondary</td>
<td>do.</td>
<td>65,800</td>
<td>55,563</td>
<td>55,932</td>
<td>62,455</td>
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See footnotes at end of table.
TABLE 5—Continued

POLAND: PRODUCTION OF MINERAL COMMODITIES

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<tr>
<td><strong>METALS—Continued</strong></td>
<td></td>
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<tr>
<td>Platinum-group metals, average content of slimes:&lt;sup&gt;4,5&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Palladium</td>
<td>12</td>
<td>10&lt;sup&gt;6&lt;/sup&gt;</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Platinum</td>
<td>20&lt;sup&gt;6&lt;/sup&gt;</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Selenium</td>
<td>68</td>
<td>78&lt;sup&gt;6&lt;/sup&gt;</td>
<td>83</td>
<td>83</td>
<td>83</td>
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<tr>
<td>Silver, mine output, Ag content</td>
<td>1,222</td>
<td>1,237&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,344</td>
<td>1,306&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,300</td>
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<tr>
<td>Zinc:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mine output</td>
<td>171,200</td>
<td>174,700&lt;sup&gt;6&lt;/sup&gt;</td>
<td>170,000&lt;sup&gt;6,6&lt;/sup&gt;</td>
<td>150,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>160,000&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>Concentrate output</td>
<td>152,200</td>
<td>153,900&lt;sup&gt;6&lt;/sup&gt;</td>
<td>140,300&lt;sup&gt;6&lt;/sup&gt;</td>
<td>117,200&lt;sup&gt;6&lt;/sup&gt;</td>
<td>126,000&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>Metal, refined, including secondary</td>
<td>158,900</td>
<td>154,200</td>
<td>131,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>137,300&lt;sup&gt;6&lt;/sup&gt;</td>
<td>134,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>INDUSTRIAL MINERALS</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barite, beneficiated</td>
<td>2,700</td>
<td>3,030&lt;sup&gt;6&lt;/sup&gt;</td>
<td>3,183</td>
<td>2,357&lt;sup&gt;6&lt;/sup&gt;</td>
<td>2,143&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>Cement:</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Clinker</td>
<td>8,812</td>
<td>8,525&lt;sup&gt;6&lt;/sup&gt;</td>
<td>9,600&lt;sup&gt;6,6&lt;/sup&gt;</td>
<td>9,500&lt;sup&gt;6&lt;/sup&gt;</td>
<td>11,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Hydraulic</td>
<td>10,948</td>
<td>11,653</td>
<td>12,837</td>
<td>12,646</td>
<td>14,688</td>
</tr>
<tr>
<td>Portland</td>
<td>10,000</td>
<td>10,700</td>
<td>11,700&lt;sup&gt;6,6&lt;/sup&gt;</td>
<td>11,400&lt;sup&gt;6&lt;/sup&gt;</td>
<td>13,200&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Clays and clay products, crude:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bentonite</td>
<td>26,200</td>
<td>31,648</td>
<td>66,143</td>
<td>86,331&lt;sup&gt;6&lt;/sup&gt;</td>
<td>93,880&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Fuller's earth</td>
<td>26,200</td>
<td>4,200&lt;sup&gt;6&lt;/sup&gt;</td>
<td>4,700&lt;sup&gt;6&lt;/sup&gt;</td>
<td>5,000&lt;sup&gt;6,6&lt;/sup&gt;</td>
<td>5,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Fire clay</td>
<td>128</td>
<td>144</td>
<td>137</td>
<td>156</td>
<td>187</td>
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<tr>
<td>Kaolin:</td>
<td>252</td>
<td>170</td>
<td>191</td>
<td>214</td>
<td>200</td>
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<tr>
<td>Crude</td>
<td>114</td>
<td>136</td>
<td>191</td>
<td>115</td>
<td>110</td>
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<tr>
<td>Beneficiated</td>
<td>1,000</td>
<td>700</td>
<td>1,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Feldspar:</td>
<td>219,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>289,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>336,900&lt;sup&gt;6&lt;/sup&gt;</td>
<td>350,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>350,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Gypsum and anhydrite:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural:</td>
<td></td>
<td></td>
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<tr>
<td>Gypsum rock</td>
<td>867</td>
<td>1,031&lt;sup&gt;6&lt;/sup&gt;</td>
<td>971&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,100&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Anhydrite</td>
<td>280</td>
<td>297</td>
<td>301</td>
<td>243</td>
<td>262</td>
</tr>
<tr>
<td>Total</td>
<td>1,147</td>
<td>1,328&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,272&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,243&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,362&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Synthetic gypsum</td>
<td>1,134&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,094&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,250&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Grand total</td>
<td>2,281&lt;sup&gt;6&lt;/sup&gt;</td>
<td>2,422&lt;sup&gt;6&lt;/sup&gt;</td>
<td>2,522&lt;sup&gt;6&lt;/sup&gt;</td>
<td>2,243&lt;sup&gt;6&lt;/sup&gt;</td>
<td>2,362&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Lime, hydrated and quicklime</td>
<td>1,865</td>
<td>1,955</td>
<td>2,086&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,688&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,700&lt;sup&gt;6&lt;/sup&gt;</td>
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<td>Magnesite:</td>
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<tr>
<td>Ore, crude</td>
<td>24,000&lt;sup&gt;3&lt;/sup&gt;</td>
<td>30,000&lt;sup&gt;3&lt;/sup&gt;</td>
<td>52,000&lt;sup&gt;3&lt;/sup&gt;</td>
<td>50,000&lt;sup&gt;3&lt;/sup&gt;</td>
<td>50,000&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>Concentrate</td>
<td>22,100&lt;sup&gt;3&lt;/sup&gt;</td>
<td>27,200&lt;sup&gt;3&lt;/sup&gt;</td>
<td>57,900&lt;sup&gt;3&lt;/sup&gt;</td>
<td>50,000&lt;sup&gt;3&lt;/sup&gt;</td>
<td>50,000&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>Calcined</td>
<td>100&lt;sup&gt;3&lt;/sup&gt;</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Nitrogen, N content of ammonia</td>
<td>1,362</td>
<td>1,912&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,985&lt;sup&gt;6&lt;/sup&gt;</td>
<td>1,985&lt;sup&gt;6&lt;/sup&gt;</td>
<td>2,100&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>Salt:</td>
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<tr>
<td>Rock</td>
<td>839</td>
<td>848</td>
<td>1,099</td>
<td>1,123</td>
<td>1,130</td>
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<tr>
<td>Other</td>
<td>2,719</td>
<td>3,812</td>
<td>4,043</td>
<td>3,762</td>
<td>3,825</td>
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<tr>
<td>Total</td>
<td>3,558</td>
<td>4,660</td>
<td>5,142</td>
<td>4,885</td>
<td>4,955</td>
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<tr>
<td>Sand, excluding glass sand:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Aggregates:</td>
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<td></td>
</tr>
<tr>
<td>Mine output</td>
<td>66,722</td>
<td>78,945&lt;sup&gt;6&lt;/sup&gt;</td>
<td>81,398&lt;sup&gt;6&lt;/sup&gt;</td>
<td>80,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>80,000&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>Processed</td>
<td>62,799</td>
<td>71,376&lt;sup&gt;6&lt;/sup&gt;</td>
<td>73,028&lt;sup&gt;6&lt;/sup&gt;</td>
<td>70,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>70,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Foundry sand</td>
<td>628</td>
<td>666&lt;sup&gt;6&lt;/sup&gt;</td>
<td>606&lt;sup&gt;6&lt;/sup&gt;</td>
<td>650&lt;sup&gt;6&lt;/sup&gt;</td>
<td>650&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Filling sand</td>
<td>6,553&lt;sup&gt;6&lt;/sup&gt;</td>
<td>5,843&lt;sup&gt;6&lt;/sup&gt;</td>
<td>5,945&lt;sup&gt;6&lt;/sup&gt;</td>
<td>6,000&lt;sup&gt;6&lt;/sup&gt;</td>
<td>6,000&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Lime-sand brick production sand</td>
<td>411</td>
<td>483</td>
<td>540</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Silica:</td>
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<tr>
<td>Glass:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Construction, flat</td>
<td>550&lt;sup&gt;6&lt;/sup&gt;</td>
<td>644&lt;sup&gt;6&lt;/sup&gt;</td>
<td>696&lt;sup&gt;6&lt;/sup&gt;</td>
<td>650&lt;sup&gt;6&lt;/sup&gt;</td>
<td>650&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>Technical</td>
<td>53&lt;sup&gt;6&lt;/sup&gt;</td>
<td>53&lt;sup&gt;6&lt;/sup&gt;</td>
<td>69&lt;sup&gt;6&lt;/sup&gt;</td>
<td>70&lt;sup&gt;6&lt;/sup&gt;</td>
<td>70&lt;sup&gt;6&lt;/sup&gt;</td>
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</table>

See footnotes at end of table.
### TABLE 5—Continued

**POLAND: PRODUCTION OF MINERAL COMMODITIES**

(Thousand metric tons unless otherwise specified)

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<tr>
<th>Commodity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<td><strong>INDUSTRIAL MINERALS—Continued</strong></td>
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<td></td>
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</tr>
<tr>
<td><strong>Silica</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass—Continued:</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Commercial</td>
<td>83 †</td>
<td>89 †</td>
<td>98 †</td>
<td>100 †</td>
<td>100 †</td>
</tr>
<tr>
<td>Packing</td>
<td>970 †</td>
<td>968 †</td>
<td>1,108 †</td>
<td>1,000 †</td>
<td>1,000 †</td>
</tr>
<tr>
<td><strong>Silica ores:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass sand, marketable</td>
<td>1,235</td>
<td>1,402</td>
<td>1,479 †</td>
<td>1,500 †</td>
<td>1,500 †</td>
</tr>
<tr>
<td>Quartz and quartz crystal, marketable metric tons</td>
<td>27,000</td>
<td>32,800 †</td>
<td>37,100 †</td>
<td>35,000 †</td>
<td>35,000 †</td>
</tr>
<tr>
<td>Quartzite, refractory, marketable do.</td>
<td>32,000</td>
<td>115,400</td>
<td>108,000 †</td>
<td>100,000 †</td>
<td>100,000 †</td>
</tr>
<tr>
<td>Quartz schist, marketable do.</td>
<td>3,000</td>
<td>2,800</td>
<td>9,000 †</td>
<td>9,000 †</td>
<td>9,000 †</td>
</tr>
<tr>
<td><strong>Sodium compounds, n.e.s.:</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbonate (soda ash), 98%</td>
<td>1,054</td>
<td>1,050</td>
<td>1,167</td>
<td>1,189</td>
<td>1,177</td>
</tr>
<tr>
<td>Caustic soda (96% NaOH)</td>
<td>395</td>
<td>427</td>
<td>452</td>
<td>391 †</td>
<td>462</td>
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<tr>
<td><strong>Stone, mine output:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimension stone</td>
<td>1,074 †</td>
<td>2,052 †</td>
<td>2,282 †</td>
<td>2,300 †</td>
<td>2,300 †</td>
</tr>
<tr>
<td>Dolomite</td>
<td>1,585</td>
<td>1,815</td>
<td>1,986</td>
<td>1,834</td>
<td>2,013</td>
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<tr>
<td><strong>Limestone:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For lime production</td>
<td>10,306</td>
<td>11,379 †</td>
<td>11,000 †</td>
<td>10,000 †</td>
<td>10,000 †</td>
</tr>
<tr>
<td>For non-lime end use</td>
<td>23,233</td>
<td>23,747</td>
<td>23,233 †</td>
<td>24,607</td>
<td>29,299</td>
</tr>
<tr>
<td><strong>Road stone</strong></td>
<td>269</td>
<td>172</td>
<td>155</td>
<td>150</td>
<td>150 †</td>
</tr>
<tr>
<td><strong>Sulfur:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native, Frasch</td>
<td>760</td>
<td>762</td>
<td>821</td>
<td>802</td>
<td>800</td>
</tr>
<tr>
<td><strong>Byproduct:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From metallurgy</td>
<td>275</td>
<td>275 †</td>
<td>275 †</td>
<td>275 †</td>
<td>275 †</td>
</tr>
<tr>
<td>From petroleum</td>
<td>180</td>
<td>175 †</td>
<td>175 †</td>
<td>175 †</td>
<td>175 †</td>
</tr>
<tr>
<td>Total</td>
<td>455</td>
<td>450 †</td>
<td>450 †</td>
<td>450 †</td>
<td>450 †</td>
</tr>
<tr>
<td>From gypsum †</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td>1,225</td>
<td>1,222</td>
<td>1,281</td>
<td>1,262</td>
<td>1,260</td>
</tr>
<tr>
<td><strong>MINERAL FUELS AND RELATED MATERIALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon black</td>
<td>16,900</td>
<td>18,500 †</td>
<td>36,400 †</td>
<td>35,000 †</td>
<td>35,000 †</td>
</tr>
<tr>
<td><strong>Coal:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bituminous</td>
<td>103,546</td>
<td>103,016</td>
<td>101,230</td>
<td>97,903</td>
<td>95,220</td>
</tr>
<tr>
<td>Lignite and brown</td>
<td>58,210</td>
<td>60,919</td>
<td>61,197</td>
<td>61,136</td>
<td>60,844</td>
</tr>
<tr>
<td>Total</td>
<td>161,756</td>
<td>163,935</td>
<td>162,427</td>
<td>159,039</td>
<td>156,064</td>
</tr>
<tr>
<td>Coke, coke oven</td>
<td>8,787</td>
<td>10,111</td>
<td>7,752</td>
<td>8,518 †</td>
<td>9,735</td>
</tr>
<tr>
<td>Fuel briquets, all grades</td>
<td>50 †</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Gas:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural million cubic meters</td>
<td>5,259</td>
<td>5,315</td>
<td>5,630 †</td>
<td>5,742</td>
<td>5,650</td>
</tr>
<tr>
<td>Manufactured:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Town gas do.</td>
<td>6 †</td>
<td>4</td>
<td>5</td>
<td>11 †</td>
<td>10</td>
</tr>
<tr>
<td>Coke oven gas do.</td>
<td>3,752</td>
<td>4,245</td>
<td>4,216</td>
<td>3,545 †</td>
<td>4,101</td>
</tr>
<tr>
<td>Generator gas † do.</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Total do.</td>
<td>4,058</td>
<td>4,549</td>
<td>4,521</td>
<td>3,856 †</td>
<td>4,400 †</td>
</tr>
<tr>
<td>Peat, fuel and agricultural</td>
<td>300 †</td>
<td>430</td>
<td>509</td>
<td>500 †</td>
<td>500 †</td>
</tr>
<tr>
<td><strong>Petroleum:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude, as reported</td>
<td>721</td>
<td>765</td>
<td>886</td>
<td>849</td>
<td>797</td>
</tr>
<tr>
<td>Refinery products</td>
<td>17,540</td>
<td>16,886</td>
<td>17,000 †</td>
<td>16,000</td>
<td>16,000</td>
</tr>
</tbody>
</table>

---

* Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. † Revised. -- Zero.

1Table includes data available through November 2007.

2In addition to the commodities listed, antimony and germanium, which are associated with polymetallic deposits, and cobalt and nickel, which are associated with copper ores, are produced in quantities that so far have not warranted further recovery.

3Reported figure.

4Based on official Polish estimates.

5Estimates based on reported platinum- and palladium-bearing final (residual) slimes and their average Pt and Pd content from electrolytic copper refining.

6Includes building gypsum, as well as an estimate for gypsum used in the production of cement.
# TABLE 6

**POLAND: STRUCTURE OF THE MINERAL INDUSTRY IN 2006**

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aluminum</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>Aluminium Konin-Impexmetal S.A.</td>
<td>Konin</td>
<td>55.</td>
</tr>
<tr>
<td></td>
<td>Zaklady Metali Lekkich SA &quot;Kety&quot;</td>
<td>Kety</td>
<td>NA.</td>
</tr>
<tr>
<td></td>
<td>Zaklady Metalurgiczne &quot;Trzebinia&quot;</td>
<td>Trzebinia</td>
<td>NA.</td>
</tr>
<tr>
<td><strong>Barite</strong></td>
<td>Przedsiębiorstwo Hondlowo Usługowe R&amp;S Spolka Jawna</td>
<td>Boguszow, Stanislawow</td>
<td>3.</td>
</tr>
<tr>
<td><strong>Cement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zaklady Cementowo-Wapienicze Gorazdz S.A.</td>
<td>Chorula</td>
<td>1,800 clinker, 2,400 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Ozarow&quot; S.A.</td>
<td>Ozarow</td>
<td>2,200 clinker, 2,400 cement.</td>
</tr>
<tr>
<td></td>
<td>Kombinat Cementowo-Wapienickzy Warta S.A.</td>
<td>Działoszyn</td>
<td>1,440 clinker, 2,640 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Małogoszcz&quot; S.A.</td>
<td>Małogoszcz</td>
<td>1,840 clinker, 1,800 cement.</td>
</tr>
<tr>
<td></td>
<td>Zaklady Cementowo-Wapieniczce Nowiny S.A.</td>
<td>Siktowka</td>
<td>785 clinker, 1,070 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Strzelce Opolskie&quot; S.A.</td>
<td>Strzelce Opolse</td>
<td>1,257 clinker, 1,630 cement.</td>
</tr>
<tr>
<td></td>
<td>Kombinat Cementowo-Wapienickzy &quot;Kujawy&quot; S.A.</td>
<td>Bielawy</td>
<td>900 clinker, 1,000 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Rudniki&quot; S.A.</td>
<td>Rudniki</td>
<td>840 clinker, 1,470 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Wierzbica&quot; S.A.</td>
<td>Wierzbica</td>
<td>739 clinker, 1,000 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Nowa Huta&quot; S.A.</td>
<td>Krakow</td>
<td>290 clinker, 1,100 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Rejowiec&quot; S.A.</td>
<td>Rejowiec</td>
<td>600 clinker, 845 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Odra&quot; S.A.</td>
<td>Opole</td>
<td>433 clinker, 800 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Warszawa&quot;</td>
<td>Warszawa (Warsaw)</td>
<td>600 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Groszowice&quot; S.p. z.o.o.</td>
<td>Opole</td>
<td>304 clinker, 425 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Polecement-Saturn&quot;</td>
<td>Wojkowice</td>
<td>400 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Wiek&quot;</td>
<td>Ogrodzieniec</td>
<td>710 clinker, 240 cement.</td>
</tr>
<tr>
<td></td>
<td>Fabrika Cementu &quot;Wysoka&quot;</td>
<td>Lazy</td>
<td>304 clinker, 425 cement.</td>
</tr>
<tr>
<td></td>
<td>Cementownia &quot;Wejhorowie&quot;</td>
<td>Wejhorowo</td>
<td>42 clinker, 45 cement.</td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthracite</td>
<td>Zaklad Wydobywczro</td>
<td>Lower Silesia</td>
<td>200.</td>
</tr>
<tr>
<td></td>
<td>Przetwornicy Antracytu Walbrzych-Gaj</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bituminous</td>
<td>Inclued:</td>
<td>Of which:</td>
<td>140,000.</td>
</tr>
<tr>
<td></td>
<td>Bytomska Spolka Weglowa S.A.</td>
<td>Upper Silesia (9 mines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rudzka Spolka Weglowa S.A.</td>
<td>do. (6 mines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gliwicka Spolka Weglowa S.A.</td>
<td>do. (7 mines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Katowicki Holding Weglowy S.A.</td>
<td>do. (11 mines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nadwisianska Spolka Weglowa S.A.</td>
<td>do. (8 mines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rybnicka Spolka Weglowa S.A.</td>
<td>do. (5 mines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jaszczebska Spolka Weglowa S.A.</td>
<td>do. (6 mines)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seven independent mines</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wybrzyskie Kopalnie Wega</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kamiennego</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KWK &quot;Nowa Ruda&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KWK &quot;Bogdanka&quot; S.A.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See footnotes at end of table.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coal—Continued:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lignite</strong></td>
<td></td>
<td></td>
<td>75,000.³</td>
</tr>
<tr>
<td><strong>Includes:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KWK &quot;Belchatow&quot;</td>
<td></td>
<td>Belchatow</td>
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</tr>
<tr>
<td>KWK &quot;Turow&quot;</td>
<td></td>
<td>Turow</td>
<td></td>
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<tr>
<td>KWK &quot;Konin&quot;</td>
<td></td>
<td>Konin</td>
<td></td>
</tr>
<tr>
<td>KWK &quot;Adamow&quot;</td>
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<td>Adamow</td>
<td></td>
</tr>
<tr>
<td>KWK &quot;Sieniawa&quot;</td>
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<td>Sieniawa</td>
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<tr>
<td><strong>Coke</strong></td>
<td></td>
<td></td>
<td>12,000.³</td>
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<tr>
<td><strong>Includes:</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Kokstownicze im. Powstancow Sl.</td>
<td>Upper Silesia</td>
<td>Upper Silesia</td>
<td></td>
</tr>
<tr>
<td>Kombinat Koksowniczy &quot;Przyjazn&quot;</td>
<td></td>
<td>do.</td>
<td></td>
</tr>
<tr>
<td>Huta im. Sendzimira</td>
<td></td>
<td>do. (Krakow)</td>
<td></td>
</tr>
<tr>
<td>Huta &quot;Czestochowa&quot;</td>
<td></td>
<td>do. (Czestochowa)</td>
<td></td>
</tr>
<tr>
<td>Zaklady Koksownicze &quot;Walbrzych&quot;</td>
<td></td>
<td>Lower Silesia</td>
<td></td>
</tr>
<tr>
<td><strong>Copper:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ore, gross weight (1.2%–2.2% Cu)</td>
<td>Kombinat Gorniczo Hutniczy Miedzi (KGHM) Polska Miedz S.A. (KGHM, S.A.)</td>
<td>Lubin Mine, Lubin-Glogow District</td>
<td>7,000.</td>
</tr>
<tr>
<td>Do.</td>
<td></td>
<td></td>
<td>9,200.</td>
</tr>
<tr>
<td>Do.</td>
<td></td>
<td></td>
<td>11,000.</td>
</tr>
<tr>
<td>Concentrate, gross weight (25.2%–25.9% Cu)</td>
<td></td>
<td></td>
<td>465.</td>
</tr>
<tr>
<td>Do.</td>
<td></td>
<td></td>
<td>450.</td>
</tr>
<tr>
<td>Metal, refined</td>
<td></td>
<td></td>
<td>700.</td>
</tr>
<tr>
<td>Feldspar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric furnace (FeSiMn, FeMn, FeCr, FeSi)</td>
<td>Huta &quot;Laziska&quot; S.A.</td>
<td>Upper Silesia at Laziska Gome</td>
<td>170.</td>
</tr>
<tr>
<td>Blast furnace (FeMn)</td>
<td>Huta &quot;Pokoj&quot; S.A.</td>
<td>Upper Silesia, Ruda Slaska</td>
<td>90.</td>
</tr>
<tr>
<td>Gypsum and anhydrite</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Includes:</td>
<td></td>
<td></td>
<td>1,400.³</td>
</tr>
<tr>
<td>Zaklady Przemyslu Gipsowego &quot;Dolina Nidy&quot;</td>
<td>Southeaster Poland, Gacki</td>
<td>Southeastern Poland, Gacki</td>
<td></td>
</tr>
<tr>
<td>Zaklady Gipsowy &quot;Stawiany&quot;</td>
<td></td>
<td>Southeastern Poland, Szarbowk</td>
<td></td>
</tr>
<tr>
<td>Kopalnia Anhydrytu &quot;Nowy Lad&quot;</td>
<td>KGHM &quot;Polska Miedz&quot; S.A.</td>
<td>Lower Silesia, Niwince</td>
<td></td>
</tr>
<tr>
<td>Helium</td>
<td></td>
<td></td>
<td>3.</td>
</tr>
<tr>
<td>Kaolin</td>
<td>KSM &quot;Surmin-Kaolin&quot; S.A.</td>
<td>Lower Silesia, Nowogrodzieck</td>
<td>50.</td>
</tr>
<tr>
<td>Lead-zinc:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentrate</td>
<td>Zaklady Gorniczo-Hutnicze (ZGH) &quot;Boleslaw&quot;</td>
<td>Mines and concentrators at Olkusz and Pomorznay, Bukowno region</td>
<td>60 lead, 160 zinc.</td>
</tr>
<tr>
<td>Metal:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pb, refined</td>
<td>Huta Cynku &quot;Miasteczko Slaskie&quot;</td>
<td>Refinery at Miasteczko Slaskie</td>
<td>60.</td>
</tr>
<tr>
<td>Do.</td>
<td>Huta Metali Niezelaznych &quot;Szopienice&quot;</td>
<td>Katowice</td>
<td>35.</td>
</tr>
<tr>
<td>Zn, refined</td>
<td>Huta Cynku &quot;Miasteczko Slaskie&quot;</td>
<td>Imperial Smelter at Miasteczko Slaskie</td>
<td>60.</td>
</tr>
<tr>
<td>Do.</td>
<td>Zaklady Metalurgiczny &quot;Silesia&quot; (input from Huta &quot;Miasteczko Slaskie&quot;)</td>
<td>Refinery at Katowice</td>
<td>30.</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
### TABLE 6—Continued  
POLAND: STRUCTURE OF THE MINERAL INDUSTRY IN 2006\(^1\)  

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lime</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Zaklady Przemyslu Wapienniczego</strong></td>
<td>Kieleckie County, Swietokrzyskie Mountains</td>
<td>4,500.(^1)</td>
<td></td>
</tr>
<tr>
<td>Trzuskawica</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slaskie Zaklady Przemyslu Wapienniczego Opolowap S.A.</td>
<td>Opole County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Przemyslu Wapienniczego Bukowa</td>
<td>Kieleckie County, Swietokrzyskie Mountains</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kombinat Cementowo-Wapienniczcy Kujawy S.A.</td>
<td>Bydgoskie County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Cementowo-Wapienniczce Gorazdze S.A.</td>
<td>Opole County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Cementowo-Wapienniczce Nowiny</td>
<td>Kieleckie County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produkcyno-Handlowo-Uslugowe Wapno-Sabinow Wojcieszowskie Zaklady Przemyslu Wapienniczego Sp. z.o.o.</td>
<td>Czestochowa County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Przemyslu Wapienniczego w Suliewie</td>
<td>Piotrkowskie County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklad Wapienniczy w Plazie</td>
<td>Katowickie County</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Natural gas</strong></td>
<td>million cubic meters</td>
<td>Ministry of Mining and Energy</td>
<td>4,900.</td>
</tr>
<tr>
<td>Gasfields at pre-Carpathian foothills; Carpathian Mountains Lowlands, near Ostrow Wielkopolski, Poznan, and Trzebnica, north of Wroclaw</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nitrogen:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ammonia (NH(_3))</strong></td>
<td>Includes:</td>
<td>Of which:</td>
<td>2,400.(^3)</td>
</tr>
<tr>
<td>Zaklady Azotowe &quot;Pulawy&quot; S.A.</td>
<td>Pulawy in eastern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Azotowe &quot;Kedzierzyn&quot; S.A.</td>
<td>Kedzierzyn in Upper Silesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Azotowe &quot;Wloclawek&quot; S.A.</td>
<td>Wloclawek in central Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Azotowe S.A. w Tarnowie</td>
<td>Tarnow in southern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Azotowe S.A. w Chorzowie</td>
<td>Chorzow in Upper Silesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zaklady Chemiczne &quot;Police&quot;</td>
<td>Police in northwest Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fertilizer (N)</strong></td>
<td>do.</td>
<td>do.</td>
<td>1,700.</td>
</tr>
<tr>
<td><strong>Petroleum:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Crude</strong></td>
<td>Includes:</td>
<td>Of which:</td>
<td>200.(^3)</td>
</tr>
<tr>
<td>Polskie Gornicstwo Naftowe i Gazownictwo Warszawa</td>
<td>Oilfields in northern and northwestern lowlands; sub-Carpathian region and Carpathian Mountains</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predsiebiorstwo Poszukiwan i Do. Exploatacji Rpy i Gazu &quot;Petrobaltic&quot;</td>
<td>Baltic Sea Shelf</td>
<td>100.</td>
<td></td>
</tr>
<tr>
<td><strong>Refined</strong></td>
<td>Includes:</td>
<td>Of which:</td>
<td>13,500(^3)</td>
</tr>
<tr>
<td>Petrochimia-Plock</td>
<td>Plock in central Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rafineria &quot;Gdansk&quot;</td>
<td>Gdansk in northern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rafineria &quot;Chechowice&quot;</td>
<td>Czechowice in southern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rafineria &quot;Trzebinia&quot;</td>
<td>Trzebinia in southern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rafineria &quot;Gorilice&quot;</td>
<td>Gorilice in southern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rafineria &quot;Jedlice&quot;</td>
<td>Jedlicze in southern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podkarpackie Zaklady Rafyneryljne w Jasle</td>
<td>Jaslo in southern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salt, all types</strong></td>
<td>Includes:</td>
<td>Of which:</td>
<td>6,500.(^3)</td>
</tr>
<tr>
<td>Inowrocławskie Kopalnie Soli S.A.</td>
<td>Gora, Mogilno I, and Mogilno II Mines at Inowrocław in central Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kopalnia Soli &quot;Klodawa&quot;</td>
<td>Klodawa in central Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kopalnia Soli &quot;Wieliczka&quot;</td>
<td>Wieliczka in southern Poland, near Krakow, mining deposits at Barycz and Wieliczka</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kopalnia Soli &quot;Bochnia&quot;</td>
<td>Southern Poland, mines at the Lezkowice and Siedlec-Moszczenica-Lapczyc deposit. Not known to have operated in 1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KGHM &quot;Polska Miedz&quot; S.A.</td>
<td>Sierszowice in southwestern Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kopalnia Wegla Kamiennego &quot;Debiensko&quot;</td>
<td>Debiensko, Upper Silesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Janikowskie Zaklady Sodowe &quot;Janikosoda&quot; S.A.</td>
<td>Janikowo in central Poland</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See footnotes at end of table.
### TABLE 6—Continued

**POLAND: STRUCTURE OF THE MINERAL INDUSTRY IN 2006**¹

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>Includes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta Metali Niezelaznych 'Szopienice'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KGHM &quot;Polska Miedz&quot; S.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Katowice</td>
<td></td>
<td>80.³</td>
</tr>
<tr>
<td></td>
<td>Refinery at Glogow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver</td>
<td>KGHM &quot;Polska Miedz&quot; S.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zaklady Metalurgiczne Trzebinia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refined from dore produced by the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Szopienice Pn-Zn smelter-refinery</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>largely from KGHM-sold slimes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel</td>
<td>Crude and semimanufactures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Includes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta Katowice S.A.</td>
<td>Plant at Dobrowa Gornicza, producing pig iron, crude steel, hot-rolled products, and cast steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta im. T. Sendzimir S.A.</td>
<td>Steelworks at Krakow, producing pig iron, crude steel, hot-rolled products, cold-rolled products, pipes, and cast iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.P. Huta &quot;Zawierciu&quot;</td>
<td>Steelworks at Zawierciu, producing crude steel, hot-rolled products, cast iron, and cast steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta Czestochowa S.A.</td>
<td>Steelworks at Czestochowa, producing pig iron, crude steel, hot-rolled sheets, pipes, and cast iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Ostrowiec&quot; S.A.</td>
<td>Steelworks at Ostrowiec-Swietokrzyski, producing crude steel, and hot-rolled products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.P. Huta &quot;Labedy&quot;</td>
<td>Steelworks at Gliwice, producing crude steel and hot-rolled products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Luczyn-Warszawa&quot; Sp. z o.o.</td>
<td>Steelworks in Warsaw, producing crude steel, hot-rolled products, and cold-rolled strip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta Florian S.A.</td>
<td>Steelworks in Swietokrzyski, producing crude steel, hot-rolled products, and cold-rolled strip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Stalowa Wola&quot; S.A.</td>
<td>Steelworks at Stalowa Wola, producing crude steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Jednosci&quot; S.A.</td>
<td>Steelworks at Siemianowice Slaskie, producing crude steel, hot-rolled products, and pipes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Batory&quot; S.A.</td>
<td>Steelworks at Chorzow, producing crude steel, hot-rolled products, and pipes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.P. Huta &quot;Baildon&quot;</td>
<td>Steelworks in Katowice, producing crude steel, hot-rolled products, cold-rolled strip, and cast steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Malapanew&quot; S.A.</td>
<td>Steelworks at Ozimek, producing crude steel and cast steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Zabrze&quot; S.A.</td>
<td>Steelworks at Zabrze, producing crude steel, cast iron, and cast steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Zygmunt&quot; S.A.</td>
<td>Steelworks at Bytom, producing crude steel, cast iron, and crude steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semimanufactures only</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta Cedler S.A.</td>
<td>Steelworks in Sosnowiec, producing hot-rolled products, cold-rolled strip, and cast iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.P. Huta &quot;Kosciuszko&quot;</td>
<td>Steelworks at Chorzow, producing hot-rolled products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Pokoj&quot; S.A.</td>
<td>Steelworks at Ruda Slaska, producing hot-rolled products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Andrzej&quot; S.A.</td>
<td>Steelworks at Zawadzkie, producing pipes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Ferrum&quot; S.A.</td>
<td>Steelworks in Katowice, producing pipes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.P. Huta &quot;Bobrek&quot;</td>
<td>Steelworks in Bytom, producing pig iron, hot-rolled products, and cast iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huta &quot;Buczek&quot; S.A.</td>
<td>Steelworks in Sosnowiec, producing pipes and cast iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.P. Huta &quot;1 Maja&quot;</td>
<td>Steelworks in Gliwice, producing hot-rolled products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zaklad Wielkopiecowy &quot;Szczecin&quot; Sp. z o.o.</td>
<td>Steelworks at Szczecin, producing pig iron</td>
<td></td>
</tr>
</tbody>
</table>

See footnotes at end of table.
### TABLE 6—Continued

**POLAND: STRUCTURE OF THE MINERAL INDUSTRY IN 2006**¹

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur</td>
<td>Includes:</td>
<td></td>
<td>5,700,³</td>
</tr>
<tr>
<td></td>
<td>P.P. Kopalne i Zaklady Przetworcze</td>
<td>Operations at Tarnobrzeg, mining the Jeziorko-Siarki “Siarkopol” Grebow-Wydza deposit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Siarki “Siarkopol”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.P. Kopalnic i Zaklady Chemiczne</td>
<td>Operations at Grzybow, mining the Osiek and Grzybow-Gacki deposits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Siarki “Siarkopol”</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹The data presented in this table were compiled, in large measure, from information provided in the Minerals Yeabook of Poland (Bilans Gospodarki Surowcami Mineralnymi w Polsce Na Tle Gospodarki Swiatowej 1995-2003) prepared and published by the Department of Mineral and Energy Policy, Mineral and Energy Economy Research Centre of the Academy of Science of Poland, The Ministry of Environmental Protection, Natural Resources, and Forestry. Additionally, very valuable information and criticism was provided by Mr. Krystof Galos and other members of his academic department.

²The production of barite at the "Boguszow" Barite Mine was stopped in 1997 because of large-scale area flooding and its future status is uncertain.

³Annual capacity listed is total for all deposits, mines, or companies that produce the commodity.

⁴In order of size.
### TABLE 7
POLAND: RESOURCES OF MAJOR MINERALS IN 2005

(Million metric tons of ore unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Number of deposits</th>
<th>Geologically documented resources</th>
<th>Annual percentage change of total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Exploited</td>
<td>Total</td>
</tr>
<tr>
<td><strong>METALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>14</td>
<td>6</td>
<td>1,985</td>
</tr>
<tr>
<td>Lead and zinc</td>
<td>21</td>
<td>3</td>
<td>171</td>
</tr>
<tr>
<td><strong>INDUSTRIAL MINERALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials for chemicals:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfur, native</td>
<td>18</td>
<td>5</td>
<td>525</td>
</tr>
<tr>
<td>Rock salt</td>
<td>19</td>
<td>5</td>
<td>80,165</td>
</tr>
<tr>
<td>Barite</td>
<td>5</td>
<td>--</td>
<td>6</td>
</tr>
<tr>
<td>Potassium-magnesium salts</td>
<td>5</td>
<td>1</td>
<td>669</td>
</tr>
<tr>
<td>Raw materials for construction:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chalk</td>
<td>196</td>
<td>55</td>
<td>198</td>
</tr>
<tr>
<td>Clay:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argillaceous material for ceramics</td>
<td>1,209</td>
<td>311</td>
<td>3,987</td>
</tr>
<tr>
<td>Bentonite</td>
<td>8</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>Ceramic</td>
<td>29</td>
<td>6</td>
<td>145</td>
</tr>
<tr>
<td>Refractory</td>
<td>17</td>
<td>3</td>
<td>57</td>
</tr>
<tr>
<td>Kaolin</td>
<td>14</td>
<td>2</td>
<td>215</td>
</tr>
<tr>
<td>Dolomite</td>
<td>11</td>
<td>4</td>
<td>353</td>
</tr>
<tr>
<td>Feldspar ore</td>
<td>8</td>
<td>2</td>
<td>94</td>
</tr>
<tr>
<td>Gypsum and anhydrite</td>
<td>15</td>
<td>4</td>
<td>261</td>
</tr>
<tr>
<td>Magnesite</td>
<td>6</td>
<td>1</td>
<td>13.3</td>
</tr>
<tr>
<td>Sand and gravel:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filling sand</td>
<td>32</td>
<td>10</td>
<td>4,600</td>
</tr>
<tr>
<td>Moulding sand</td>
<td>78</td>
<td>12</td>
<td>350</td>
</tr>
<tr>
<td>Quartz sand for brick and concrete</td>
<td>159</td>
<td>46</td>
<td>719</td>
</tr>
<tr>
<td>Gravel aggregates</td>
<td>5,118</td>
<td>1,893</td>
<td>14,637</td>
</tr>
<tr>
<td>Silica:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass sand</td>
<td>30</td>
<td>8</td>
<td>599</td>
</tr>
<tr>
<td>Quartz, veined</td>
<td>7</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Quartzite, refractory</td>
<td>19</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Stone:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone for construction and road use</td>
<td>567</td>
<td>236</td>
<td>8,230</td>
</tr>
<tr>
<td>Limestone and marl for lime and cement use</td>
<td>178</td>
<td>38</td>
<td>18,110</td>
</tr>
<tr>
<td><strong>MINERAL FUELS AND RELATED MATERIALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bituminous</td>
<td>132</td>
<td>46</td>
<td>43,321</td>
</tr>
<tr>
<td>Lignite</td>
<td>76</td>
<td>10</td>
<td>13,724</td>
</tr>
<tr>
<td>Gas:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural billion cubic meters</td>
<td>260</td>
<td>180</td>
<td>151</td>
</tr>
<tr>
<td>Coal methane do.</td>
<td>48</td>
<td>20</td>
<td>86</td>
</tr>
<tr>
<td>Petroleum do.</td>
<td>86</td>
<td>67</td>
<td>22</td>
</tr>
<tr>
<td>-- Zero.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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Sources: Central Statistical Office of Poland, 2005, Statistical Yearbook of Industry; Polish Academy of Sciences, 2004, Minerals Yearbook of Poland; Concise Statistical Yearbook of Poland.
### TABLE 8
**POLAND: IMPORTS OF SELECTED MINERAL COMMODITIES**

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>METALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum and articles thereof</td>
<td>310</td>
<td>374</td>
<td>354</td>
<td>520</td>
<td>551</td>
</tr>
<tr>
<td>Chromite</td>
<td>26</td>
<td>9</td>
<td>11</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Cobalt, matte, oxide, and scrap</td>
<td>86</td>
<td>71</td>
<td>88</td>
<td>70</td>
<td>159</td>
</tr>
<tr>
<td>Iron ore and concentrate</td>
<td>7,709</td>
<td>6,957</td>
<td>8,950</td>
<td>10,932</td>
<td>6,789</td>
</tr>
<tr>
<td>Lead:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentrates, Pb content</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Refined</td>
<td>12</td>
<td>33</td>
<td>32</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>Manganese, ore and concentrate</td>
<td>44</td>
<td>15</td>
<td>10</td>
<td>205</td>
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<tr>
<td>Steel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flat-rolled, nonalloy semimanufactures</td>
<td>2,535</td>
<td>2,357</td>
<td>NA</td>
<td>2,862</td>
<td>3,602</td>
</tr>
<tr>
<td>Stainless and articles thereof</td>
<td>84</td>
<td>91</td>
<td>NA</td>
<td>144</td>
<td>163</td>
</tr>
<tr>
<td>Pipes and hollow profiles</td>
<td>289</td>
<td>344</td>
<td>NA</td>
<td>415</td>
<td>442</td>
</tr>
<tr>
<td>Zinc, metal refined</td>
<td>NA</td>
<td>8</td>
<td>12</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td><strong>INDUSTRIAL MINERALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alumina</td>
<td>135</td>
<td>123</td>
<td>146</td>
<td>151</td>
<td>145</td>
</tr>
<tr>
<td>Barite</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Bauxite</td>
<td>38</td>
<td>50</td>
<td>69</td>
<td>82</td>
<td>62</td>
</tr>
<tr>
<td>Bentonite</td>
<td>65</td>
<td>68</td>
<td>94</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cement:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinker</td>
<td>251</td>
<td>67</td>
<td>70</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cement</td>
<td>347</td>
<td>654</td>
<td>719</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Feldspar</td>
<td>144</td>
<td>168</td>
<td>155</td>
<td>NA</td>
<td>NA</td>
</tr>
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<td>Flourspar</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Glass</td>
<td>466</td>
<td>549</td>
<td>534</td>
<td>707</td>
<td>759</td>
</tr>
<tr>
<td>Graphite, natural and synthetic</td>
<td>55</td>
<td>61</td>
<td>63</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Gypsum and abhydrite</td>
<td>23</td>
<td>46</td>
<td>104</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Kaolin, washed</td>
<td>61</td>
<td>70</td>
<td>72</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Mineral fertilizers</td>
<td>1,426</td>
<td>1,609</td>
<td>1,875</td>
<td>1,999</td>
<td>1,648</td>
</tr>
<tr>
<td><strong>MINERAL FUELS AND RELATED MATERIALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal, including briquets</td>
<td>1,903</td>
<td>2,768</td>
<td>2,560</td>
<td>2,335</td>
<td>3,372</td>
</tr>
<tr>
<td>Natural gas: million cubic meters</td>
<td>8,325</td>
<td>7,775</td>
<td>8,721</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Petroleum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude</td>
<td>17,513</td>
<td>17,872</td>
<td>17,448</td>
<td>17,309</td>
<td>17,641</td>
</tr>
<tr>
<td>Refined</td>
<td>2,318</td>
<td>2,501</td>
<td>2,039</td>
<td>3,155</td>
<td>3,599</td>
</tr>
</tbody>
</table>

*Revised. NA Not available. -- Zero.

TABLE 9

POLAND: EXPORTS OF SELECTED MINERAL COMMODITIES

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>METALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum and articles thereof</td>
<td>230</td>
<td>264</td>
<td>319</td>
<td>332</td>
<td>385</td>
</tr>
<tr>
<td>Cadmium metric tons</td>
<td>198</td>
<td>49</td>
<td>428</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cobalt, matte, oxide, and scrap</td>
<td>14</td>
<td>1</td>
<td>--</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Copper:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refined copper and copper alloys</td>
<td>233</td>
<td>288</td>
<td>277</td>
<td>282</td>
<td>291†</td>
</tr>
<tr>
<td>Copper manufactures</td>
<td>143</td>
<td>123</td>
<td>121</td>
<td>177</td>
<td>163</td>
</tr>
<tr>
<td>Lead:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentrates, Pb content</td>
<td>56</td>
<td>58</td>
<td>52</td>
<td>54</td>
<td>NA</td>
</tr>
<tr>
<td>Metal, refined</td>
<td>10</td>
<td>21</td>
<td>32</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>Silver and articles thereof</td>
<td>1,094</td>
<td>1,135</td>
<td>1,254</td>
<td>683</td>
<td>319</td>
</tr>
<tr>
<td>Steel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pig iron</td>
<td>41</td>
<td>3</td>
<td>16</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Steel, crude</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Flat-rolled, nonalloy semimanufactures</td>
<td>2,219</td>
<td>2,151</td>
<td>NA</td>
<td>2,694</td>
<td>2,148</td>
</tr>
<tr>
<td>Pipes and hollow profiles</td>
<td>202</td>
<td>35</td>
<td>NA</td>
<td>184</td>
<td>188</td>
</tr>
<tr>
<td>Zinc:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentrate, Zn content</td>
<td>16</td>
<td>34</td>
<td>35</td>
<td>27†</td>
<td>39†</td>
</tr>
<tr>
<td>Metal and articles thereof</td>
<td>92</td>
<td>89</td>
<td>80</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>INDUSTRIAL MINERALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cement</td>
<td>897</td>
<td>478</td>
<td>264</td>
<td>769</td>
<td>602</td>
</tr>
<tr>
<td>Glass</td>
<td>682</td>
<td>662</td>
<td>697</td>
<td>803</td>
<td>872</td>
</tr>
<tr>
<td>Salt</td>
<td>376</td>
<td>343</td>
<td>423</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sulfur</td>
<td>774</td>
<td>600</td>
<td>534</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>MINERAL FUELS AND RELATED MATERIALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthracite and bituminous</td>
<td>23,032</td>
<td>22,626</td>
<td>20,128</td>
<td>19,700</td>
<td>19,371</td>
</tr>
<tr>
<td>Lignite</td>
<td>15</td>
<td>42</td>
<td>37</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Coke and semicoke</td>
<td>3,924</td>
<td>4,226</td>
<td>5,267</td>
<td>5,258</td>
<td>4,524</td>
</tr>
<tr>
<td>Petroleum, refined</td>
<td>2,523</td>
<td>2,446</td>
<td>1,389</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

†Revised. NA Not available. -- Zero.

### TABLE 10
SLOVAKIA: PRODUCTION OF MINERAL COMMODITIES

(Metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>METALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aluminum:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alumina</td>
<td>111,618</td>
<td>132,089</td>
<td>156,893</td>
<td>162,483</td>
<td>160,507</td>
</tr>
<tr>
<td>Aluminum ingot, primary</td>
<td>146,958</td>
<td>165,290</td>
<td>175,000</td>
<td>--</td>
<td>158,400</td>
</tr>
<tr>
<td><strong>Copper:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mine output, concentrate, Cu content</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smelter, primary and secondary thousand metric tons</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Refined, primary and secondary</td>
<td>8,100</td>
<td>5,800</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Gallium, metal kilogram</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold, metal</td>
<td>53</td>
<td>50</td>
<td>50</td>
<td>109</td>
<td>100</td>
</tr>
<tr>
<td><strong>Iron and steel:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Iron ore:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight thousand metric tons</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Metal content</td>
<td>95</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentrate, gross weight</td>
<td>326</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Steel, crude thousand metric tons</strong></td>
<td>4,275</td>
<td>4,709</td>
<td>4,564</td>
<td>4,242</td>
<td>5,094</td>
</tr>
<tr>
<td>Semimanufactures</td>
<td>3,500</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>INDUSTRIAL MINERALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barite, concentrate</td>
<td>25,820</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cement, hydraulic thousand metric tons</td>
<td>3,141</td>
<td>3,147</td>
<td>3,158</td>
<td>3,499</td>
<td>3,593</td>
</tr>
<tr>
<td><strong>Clays:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bentonite</td>
<td>66,128</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaolin</td>
<td>33,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refractory</td>
<td>3,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceramic</td>
<td>55,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolomite thousand metric tons</td>
<td>1,357</td>
<td>1,250</td>
<td>1,117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gypsum and anhydrite, crude</td>
<td>121,700</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lime, hydrated and quicklime thousand metric tons</td>
<td>911</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesite, concentrate</td>
<td>930,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen, N content of ammonia</td>
<td>410,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perlite</td>
<td>18,630</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salt</td>
<td>97,400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand and gravel thousand cubic meters</td>
<td>1,399</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stone:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limestone and other calcareous stones for cement thousand metric tons</td>
<td>3,694</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crushed stone thousand cubic meters</td>
<td>4,715</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talc</td>
<td>2,290</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zeolites</td>
<td>28,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MINERAL FUELS AND RELATED MATERIALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal, brown and lignite thousand metric tons</td>
<td>3,401</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coke</td>
<td>3,401</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metallurgical</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unspecified</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas, manufactured, coke oven million cubic meters</td>
<td>206</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Crude:</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>As reported thousand metric tons</td>
<td>53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Converted thousand 42-gallon barrels</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refinery products</td>
<td>40,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Estimates; estimated data are rounded to no more than three significant digits. Revised. -- Zero.

Table includes data available through November 2007.

In addition to the commodities listed, arsenic, diatomite, feldspar, illite, sodium compounds, sulfur, and sulfuric acid are produced, but available information is inadequate to make reliable estimates of output.

Reported figure.

May include some FeCrSi and FeNi, if any was produced.
### TABLE 11

**SLOVAKIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2006**

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies¹</th>
<th>Location of main facilities¹</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>ZSNP Aluminum Works (Slovalco A.S.)</td>
<td>Ziar and Hronom, central Slovakia</td>
<td>108</td>
</tr>
<tr>
<td>Antimony:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ore</td>
<td>Liptovska Dubrava</td>
<td>Central Slovakia</td>
<td>50</td>
</tr>
<tr>
<td>Do.</td>
<td>Pezinok</td>
<td>Western Slovakia</td>
<td>50</td>
</tr>
<tr>
<td>Smelter</td>
<td>Vajskova</td>
<td>Central Slovakia</td>
<td>2²</td>
</tr>
<tr>
<td>Cement</td>
<td>Lietavska Lucka, Stupava, and Turna</td>
<td>Slovakia</td>
<td>5,400</td>
</tr>
<tr>
<td>Coal:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown</td>
<td>Hornonitranske Bane, a.s.</td>
<td>Prievidza, central Slovakia</td>
<td>3,500</td>
</tr>
<tr>
<td>Do.</td>
<td>Bana Dolina, a.s.</td>
<td>Vlky Krtis, southern Slovakia</td>
<td>500</td>
</tr>
<tr>
<td>Lignite</td>
<td>Bana Zhorie, a.s.</td>
<td>Holic, western Slovakia</td>
<td>400</td>
</tr>
<tr>
<td>Copper:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ore</td>
<td>Slovinky, Hodrusa-Hamre, and Rudnany</td>
<td>Central Slovakia</td>
<td>500</td>
</tr>
<tr>
<td>Refinery</td>
<td>Krompachy</td>
<td>do.</td>
<td>2²</td>
</tr>
<tr>
<td>Gallium</td>
<td>kilograms</td>
<td>ZSNP Aluminum Works (Slovalco A.S.)</td>
<td>Ziar and Hronom, central Slovakia</td>
</tr>
<tr>
<td>Iron:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ore</td>
<td>Nizsa Slana and Rudnany</td>
<td>Central Slovakia</td>
<td>1,600</td>
</tr>
<tr>
<td>Concentrate</td>
<td>do.</td>
<td>do.</td>
<td>1,300</td>
</tr>
<tr>
<td>Lead-zinc, ore</td>
<td>Banska Stiavnica</td>
<td>do.</td>
<td>200</td>
</tr>
<tr>
<td>Magnesite</td>
<td>SMZ a.s., Jelsava</td>
<td>Eastern Slovakia</td>
<td>350</td>
</tr>
<tr>
<td>Do.</td>
<td>Slovmag a.s., Lubenik</td>
<td>Central Slovakia</td>
<td>150</td>
</tr>
<tr>
<td>Petroleum, refinery</td>
<td>Bratislava, Dubova</td>
<td>Slovakia</td>
<td>NA³</td>
</tr>
<tr>
<td>Salt</td>
<td>Solitary a.s., Presov</td>
<td>Eastern Slovakia</td>
<td>150</td>
</tr>
<tr>
<td>Steel, crude</td>
<td>U.S. Steel Kosice</td>
<td>Eastern Slovakia, Kosice</td>
<td>4,000</td>
</tr>
<tr>
<td>Do.</td>
<td>Zelezjarne Podbrezova a.s.</td>
<td>Slovakia, Podbrezova</td>
<td>600</td>
</tr>
</tbody>
</table>

¹All mining companies are Government owned.

²Names and locations of mines and crude oil refineries are identical.

NA Not available.