



# 2014 Minerals Yearbook

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## CROATIA

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# THE MINERAL INDUSTRY OF CROATIA

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Croatia is a moderately developed country located in the western part of the Balkan Peninsula. It has been a European Union (EU) member state since 2013, when it became only the second country from the former Republic of Yugoslavia after Slovenia to accede to the Union. Croatia has the longest coastline of the six countries bordering the Adriatic Sea and therefore among the Balkan countries, the largest offshore exclusive economic zone (EEZ) suitable for mineral fuel exploration.

The country produced a limited number of mineral commodities, none of which were produced in a quantity that was significant on a world or regional scale. Mineral resources included clays, dolomite, fertilizers, gypsum, limestone, natural gas, petroleum, and salt. Crude petroleum and natural gas extraction and refining remained the major economic activities of Croatia's mineral industry. The first international rounds of offshore and onshore hydrocarbon exploration licensing were launched in 2014. Crude steel output continued to increase after production restarted at ABS Sisak in 2013. Cement output remained flat owing to stagnation in domestic construction activity. The country remained reliant on mineral commodity imports for the bulk of its industrial and energy needs. Most industrial mineral output was consumed by the domestic market, particularly by the construction sector (European Commission, 2011, p. 3; Agency for Investments and Competitiveness, 2013; Mačević and Manovelo, 2014b; European Commission, 2015c; Rajal and Santic, 2015, p. 59; U.S. Department of State, 2015, p. 6; World Steel Association, 2015, p. 2).

## Minerals in the National Economy

In 2014, Croatia's economy continued to contract, albeit at a slower rate than in 2013. The country's gross domestic product (GDP) decreased by 0.4% in real terms in 2014 following a 0.9% decrease in the previous year. The nominal GDP in 2014 was \$57.2 billion, a slight decrease from \$57.9 billion (revised) in 2013. Croatia's economy experienced 6 consecutive years of recession since 2009, during which time the GDP decreased by 13% on a cumulative basis in the aftermath of the global economic downturn of 2008. The country's ongoing recession was primarily owing to lower domestic business investment and lower domestic demand for goods and services. The construction sector contributed negatively to economic growth, while industrial production made a positive contribution. Croatia's current account balance remained positive in 2014, albeit at 0.1% of the GDP, which was lower than in 2013. The trade deficit decreased to 15.4% of GDP as a result of higher exports of goods and services, particularly exports to other EU member states, and lower petroleum imports (by value) owing to the significant decrease in petroleum prices globally in the second half of 2014. Foreign direct investment (FDI) in 2014 increased threefold compared with 2013 (European

Commission, 2015a, p. 86; International Monetary Fund, 2015, p. 4, 25; World Bank, The, 2015a; 2015b, p. 2).

The mineral industry was an important but contracting component of Croatia's national economy, generating about 5.6% of the gross value added in 2012 (the last year for which comprehensive data were available) compared with 5.3% in 2011. Among its components, the manufacture of coke and refined petroleum products accounted for 2.2%; the manufacture of fabricated metal products, except machinery and equipment, 1.4%; mining and quarrying, 0.7%; the manufacture of other nonmetallic mineral products, 0.7%; the manufacture of chemicals and chemical products, 0.4%; and the manufacture of base metals, 0.2%. The gross value added of the manufacture of coke and refined petroleum products increased by 12.2%; that of the manufacture of fabricated metal products, except machinery and equipment, by 2.6%; and that of mining and quarrying, by 2.4%, respectively, compared with that of 2011. On the other hand, the gross value added of the manufacture of base metals decreased by 9.8%; that of the manufacture of chemicals and chemical products, by 3.5%; and that of the manufacture of other nonmetallic mineral products, by 0.8%, respectively, compared with that of 2011. As of December 2013, the mining and quarrying sector comprised 386 registered and 291 active business enterprises and employed 5,262 people compared with 430 registered and 290 active enterprises and 5,593 employees in 2012 (Croatian Bureau of Statistics, 2013, p. 81, 141; 2014, p. 85, 147, 211–213).

## Government Policies and Programs

The minerals industry in Croatia is regulated by the Mining Department of the Energy and Mining Directorate and the Croatian Hydrocarbon Agency. The Mining Department regulates and oversees all activities related to nonfuel minerals. It is responsible for issuing licenses for exploration and extraction of all minerals except for mineral fuels, for issuing building permits for mining facilities and plants, and for granting approvals for mining concessions. The Croatian Hydrocarbon Agency, which was established in February 2014 in accordance with the Act on the Establishment of the Hydrocarbon Agency, is authorized to issue tenders and permits for onshore and offshore exploration and exploitation of petroleum and natural gas resources. It also monitors the fulfillment of contractual obligations by permit holders and reports results to the European Commission. Finally, the Agency is responsible for documenting the hydrocarbon potential of Croatia (Croatian Hydrocarbon Agency, 2014; Directorate for Energy and Mining, 2014; Rajal and Santic, 2015, p. 58).

The Concession Act of 2012 (passed in November 2012), the Mining Act of 2013 (passed in April 2013), which replaced the Mining Act of 2009, and the Hydrocarbons Exploration and Exploitation Act (Hydrocarbons Act) of 2013

(passed in July 2013) are the principal laws governing all mineral extraction activities in Croatia in accordance with the Hydrocarbons Licensing Directive and the Carbon Capture and Geological Storage (CCS) Directive of the EU. The Mining Act of 2013 defines the criteria, conditions, and requirements for obtaining authorization to explore for and produce mineral commodities in Croatia. It establishes a public tendering procedure that is open to all interested entities, as required by the nondiscrimination clauses of the Hydrocarbons Licensing Directive. The Concession Act of 2012 defines the conditions of public-private partnership projects. It establishes a clear distinction between concession and public procurement contracts. The Hydrocarbon Act governs all onshore and offshore activities related to natural gas and petroleum in Croatia. Hydrocarbon exploration and extraction are regarded as two separate rights, as is the case with all other minerals; however, the tender procedure awards successful bidders an exploration license and an automatic right to a concession in the case of discovery (European Bank for Reconstruction and Development, 2013, p. 6; Maćešić and Manovelo, 2013; Rajal and Santic, 2015, p. 58).

The Act on Strategic Investment Projects of November 2013 sets up a one-stop shop to incentivize investment into sectors of national importance, including energy and utilities. The law specifies detailed investment, technology, and employment criteria for private, public, or public-private partnership projects to qualify as being of strategic importance and to receive financial support from the Government. It establishes a streamlined administrative process for expedited issuance of permits for such projects by excluding lower level administrative bodies from the approval process. The Act on Amendments to the Act on Strategic Investment Projects of December 2014 defines potential strategic projects as projects that could be implemented on state-owned properties. It establishes a procedure of public invitation to tender to select strategic investors. The new act also authorizes the Agency for Investments and Competitiveness to perform administrative oversight of projects (Maćešić and Manovelo, 2014c; Rajal and Santic, 2015, p. 59, 60; U.S. Department of State, 2015, p. 12).

The amended Gas Markets Act of February 2014 defines the new role of the wholesale supplier of natural gas in Croatia as the supplier of public suppliers at a regulated price. In April 2014, the state-owned electricity utility company HEP d.d. became the new wholesale natural gas supplier until 2017, replacing Prirodni plin d.o.o., which was the gas trading and import business arm of Croatia's primary mineral fuel producing company INA-Industrija nafte d.d. (European Bank for Reconstruction and Development, 2014, p. 6; Rajal and Santic, 2015, p. 57).

## Production

The production of most mineral commodities increased in 2014 compared with their production levels in 2013. The mineral commodities for which output increased significantly in 2014 included bentonite, for which output increased by about 36%; silica sand, by 25%; crude steel, by 24%; sulfur, by 22%; rolled aluminum, by 20%; dimension stone, by 15%; lime, by 11%; nitrogen, by 10%; and sand and gravel, by 9%.

Salt production decreased by 22%. Mineral fuels, including natural gas and petroleum, were produced, but their output levels were not sufficient to wholly meet domestic fuel demand. Crude petroleum output in 2014 decreased by 10% compared with 2013, and natural gas output decreased by 3% (table 1; Croatia.eu, 2014; European Commission, 2014a, p. 82).

In 2014, total mining and quarrying production (by volume) decreased by 6.4%; mining support services activities, by 5.6%; and energy, by 6.2%, while manufacturing output (by volume) increased by 3.1%. The manufacture of coke and refined petroleum products decreased by 13.2%; the manufacture of fabricated metal products, except machinery and equipment, by 5.9%; and the extraction of crude petroleum and natural gas, by 5.7%. The manufacture of basic metals increased by 8.7%; the manufacture of chemicals and chemical products, by 2.8%; and the manufacture of nonmetallic mineral products, by 0.9%. Mineral fuels including petroleum, natural gas, and condensate were estimated to have accounted for most of the total value of mineral production in Croatia. Industrial minerals, including construction stone, dimension stone, and carbonate mineral raw materials for industrial processing, made up only a small share of total mineral output (by value) (Lismore-Scott, 2013; Croatian Bureau of Statistics, 2015b, p. 17, 18).

## Structure of the Mineral Industry

All mineral producers were wholly privately owned, except for mineral fuel producer INA-Industrija nafte d.d. (INA) and fertilizer producer Petrokemija d.d. INA was jointly owned by the Government (44.84%), Magyar Olaj-és Gázipari (MOL) Group of Hungary (49.08%), and others (6.08%). Petrokemija was jointly owned by the Government (43.8%), pension funds (27.6%) and others (28.6%). The leading mineral production companies were aluminum producers TLM–TVP d.o.o. and TLM–TPP d.o.o., each of which was owned by Fintrust Holding GmbH of Austria; iron and steel producers ABS Sisak d.o.o. (owned by Danieli Group of Italy), and Adria Steel Ltd. (owned by Techcom GmbH of Germany); and cement producers Cemex Hrvatska d.d. (owned by CEMEX S.A.B. de C.V. of Mexico) and Holcim (Hrvatska) d.o.o. (owned by Holcim Ltd. of Switzerland) (table 2; Petrokemija d.d., 2014b, p. 2; INA-Industrija nafte d.d., 2015c).

## Mineral Trade

Croatia's imports continued to exceed its exports, but the country's trade deficit decreased by 11.1% to \$9.1 billion in 2014. The ratio of exports to imports increased to 0.605 from 0.581 in 2013. Total exports increased by 9.0% to \$13.8 billion in 2014, whereas total imports increased by 4.5% to \$22.9 billion. Mineral fuels and lubricants remained Croatia's second leading import category (by value). Mineral commodity exports were insignificant to the economy, with the exception of coke and refined petroleum products, in large part owing to the loss of competitiveness experienced by the country's minerals industry from 2008 to 2012, the years immediately preceding Croatia's accession to the EU (European Commission, 2014b, p. 26; Croatian Bureau of Statistics, 2015a).

In 2014, Croatia imported about HRK11.2 billion (\$1.95 billion)<sup>1</sup> worth of mining and quarrying products, including crude petroleum and natural gas, which was a decrease of 32% compared with that of 2013. The country exported about HRK1.0 billion (\$174 million) worth of mining and quarrying products in 2014, which was a decrease of 19.2% compared with that of 2013. Imports of nonmetallic mineral products increased by 7.6% to HRK2.3 billion (\$400 million) in 2014. Imports of base metals decreased by 1.8% in 2014 to HRK7.0 billion (\$1.2 billion), and imports of fabricated metal products, except machinery and equipment, by 0.7% to HRK4.3 billion (\$748 million) compared with 2013. Exports of fabricated metal products except machinery and equipment increased by 1.2% to HRK5.0 billion (\$870 million); that of nonmetallic mineral products, by 3.4% to HRK3.0 billion (\$522 million); and base metals, by 9.4% to HRK2.9 billion (\$504 million) (Croatian Bureau of Statistics, 2015a).

Mineral fuel imports amounted to HRK24.2 billion (\$4.2 billion) in 2014, which was a decrease of 10.6% compared with 2013, whereas mineral fuel exports were worth HRK10.6 billion (\$1.8 billion), which was an increase of 4.6% compared with 2013. Imports and exports of coke and refined petroleum products were significant in terms of their effect on the national economy and on domestic energy consumption. Imports of coke and refined petroleum products were valued at about HRK9.4 billion (\$1.6 billion), which was an increase of 26% compared with 2013, and accounted for 7.2% of total imports. Exports of coke and refined petroleum products amounted to HRK7.1 billion (\$1.2 billion), which was a decrease of 6.7%, and made up 9% of total exports (Croatian Bureau of Statistics, 2015a).

Other EU member states continued to be Croatia's leading trade partners, accounting for 63.9% of its exports and 76.4% of its imports in 2014. Croatia's exports to the EU member states increased by 12.7% and imports from the EU member states increased by 8.0% in 2014 compared with 2013. Italy accounted for 13.9% of Croatia's exports, followed by Bosnia and Herzegovina (11.8%), Slovenia (11.4%), Germany (11.2%), and Austria (6.1%). In terms of imports, Germany had the biggest share (15.1%), followed by Italy (14.3%), Slovenia (10.8%), Austria (8.7%), and Hungary (6.6%) (Croatian Bureau of Statistics, 2015a).

Croatia's exports to the United States were valued at \$462.6 million in 2014. Mineral exports to the United States included, in order of value, stone, sand, and cement, \$9.9 million; petroleum products, except fuel oil, \$4.6 million; precious metals, \$2.8 million; finished metal shapes, \$1.2 million; and iron and steel, \$507,000. Croatia's imports from the United States were valued at \$339.6 million. Mineral imports from the United States included, in order of value, coal, \$184.8 million; finished metal shapes, \$2.2 million; precious metals, \$629,000; and petroleum products, except fuel oil, \$526,000 (U.S. Census Bureau, 2015a, b).

<sup>1</sup>Where necessary, values have been converted from Croatian kuna (HRK) to U.S. dollars (US\$) at an average rate of HRK0.17= US\$1.00 for 2014.

## Commodity Review

### Metals

**Aluminum.**—TLM–TVP was a niche producer of aluminum rolled products and TLM–TPP was a niche producer of aluminum extrusion products. The majority ownership of TLM–TVP was sold by Hypo Alpe-Adria-Bank International AG (HAA) of Austria to EURIS Handel GmbH of Austria (which was a subsidiary of Fintrust Holding GmbH) in August 2012 following a restructuring program undertaken in 2011. The company operated the 100,000 metric tons per year (t/yr) capacity aluminum rolled-product plant at Sibenik in southern Croatia, which produced about 70,000 t/yr of hot- and cold-rolled goods, such as hot-rolled strips, cold-rolled sheets and strips, circles, and thin strips as well as aluminum foil for the construction, packaging, and distribution industries. In 2010, TLM–TVP completed a two-stage mill upgrade at the plant that added a constant-force ironing roll to the thin-strip mill and upgraded the intermediate foil mill exit table. TLM–TPP produced standard tubes, bars, and profiles, and its aluminum extrusion plant at Sibenik had a production capacity of 10,000 t/yr. About 80% of TLM–TVP and TLM–TPP's total output was exported (Parkegate Ltd., 2010; Georgiev, 2012; Fintrust Holding GmbH, 2013).

**Iron and Steel.**—Croatia's total crude steel production increased in 2014, but sharply decreased in the final quarter of the year. The 29.6% decrease in output registered in the fourth quarter compared with the same period in 2013 was the largest decrease recorded among 65 countries that accounted for 98% of global steel production (Pavic, 2014; World Steel Association, 2015, p. 2).

Croatia's two leading steel producers were ABS Sisak, owned by the Danieli Group since June 2012, and Adria Steel, owned by Techcom GmbH since July 2013. ABS Sisak's plant at Sisak, where operations were restarted in 2013 and whose mill was revamped with partial financing provided by the European Bank for Reconstruction and Development, produced semifinished steel products that were transported to ABS' main facilities at Udine, Italy; Germany; and other European markets. Adria Steel's exports to Algeria, which was one of the company's main sales markets, were reduced in 2013 and 2014 following Croatia's accession to the EU owing to the absence of formal adoption of Euro-Mediterranean Association Agreements between the EU and Algeria by the Government of Croatia. At the end of 2014, a dispute over new employment contracts raised the possibility that Adria Steel would declare bankruptcy for the third time in 2015 (Daskalovic, 2013a, b; Stainless Steel World, 2013; Pavic, 2015).

### Industrial Minerals

**Cement.**—Total cement consumption in Croatia and the neighboring countries of Bosnia and Herzegovina and Montenegro decreased by 1.5% to reach 2.8 million metric tons (Mt) in 2014 according to estimates by global cement producer CEMEX. Cemex Hrvatska continued to be the largest cement producer in Croatia with a total installed capacity of

2.4 million metric tons per year (Mt/yr), although this was down from 2.6 Mt/yr in 2013. Of its three cement plants, which are located in Sveti Juraj, Sveti Kajo, and Kolovoz on the Dalmatian coast, the company operated only its biggest plant, Sveti Juraj, owing to inventory levels. Cemex Hrvatska achieved its highest level of output of ready-mix concrete from its eight ready-mix concrete facilities. In 2014, the company continued to contest in court the master plans for development designed by the cities of Kastela and Solin, which the company stated would adversely affect mining concessions it has held in nearby areas since September 2005 (CEMEX S.A.B. de C.V., 2015a, p. 6, 125; 2015b, p. 75).

Holcim (Hrvatska)'s cement and clinker sales decreased by about 11% in 2014. The company operated at a loss for the sixth consecutive year since the economic downturn of 2008 owing to a decrease in demand for cement used in building construction and other civil construction projects. Holcim (Hrvatska) expected to return to profitability in 2015 through the sale, closure, or leasing of its unprofitable concrete-producing assets (Global Cement, 2014, 2015).

Nexe Grupa d.d., which was the owner of the cement and other building materials producer Nasicecement d.d., declared bankruptcy in February 2013. The company's prebankruptcy settlement plan for recapitalization was approved by its creditors in June 2014 (Global Cement, 2013; Insight Information Services, 2014).

**Nitrogen.**—Petrokemija, whose fertilizer output included ammonia, calcium ammonium nitrate, nitric acid, NPK fertilizers, and urea, produced about 1.1 Mt of fertilizers in 2014, an increase of 0.7% compared with 2013. About 79% of the company's output was exported, particularly to such European countries as Austria, France, Germany, Spain, and Turkey. Exports decreased by 1.8% in 2014 compared with 2013, while domestic sales decreased by 13.1%. Petrokemija's plants operated below capacity owing to lower sales volume and a decrease in revenue caused by the significant decrease in global prices for fertilizer in 2014. The company has not produced carbon black since 2009 owing to a lack of adequate demand for the product (Petrokemija d.d., 2014b, p. 33; 2015a, p. 1; 2015b, p. 6).

Petrokemija launched a recapitalization program in 2013 and a restructuring process in 2014 to increase capital funds for investment and to achieve operational profitability. The Government's ownership share in the company decreased from 50.6% to 43.8% in 2013. According to the "Program of Restructuring and Financial Consolidation of Petrokemija Plc. from 2014–2018," Petrokemija would focus on three main product groups with an annual production volume of 1.05 Mt/yr, increase productivity by 35%, achieve cost reduction in the procurement of strategic raw materials, modernize its ammonia plant to reduce energy consumption by 10%, and access the open market in natural gas to obtain a lower average price for gas. The company's objective was to achieve a sustainable profit margin of 10% by 2018 (Petrokemija d.d., 2014a, p. 2; 2014c, p. 2, 5, 6).

### **Mineral Fuels**

In 2013 (the latest year for which data were available), Croatia's gross inland energy consumption was supplied by

petroleum (41%), followed by natural gas (29%), coal (9%), hydropower (9%), and biomass (6%). Hydropower sources provided almost one-half of electricity generation. The country was dependent on energy imports for about 53% of its needs. The Government's Strategy of Energy Development of October 2009 sought to increase the share of power generation by renewable energy sources to 20% by 2020; their share was 16.7% in 2012, which was above the Government's interim target (European Bank for Reconstruction and Development, 2013, p. 12; European Commission, 2014a, p. 82; 2015b, p. 79, 80).

**Natural Gas and Petroleum.**—Domestic production of crude petroleum, which was primarily based in the regions of Slavonia and Podravina, provided about 19% of Croatia's petroleum consumption. Domestic production of natural gas covered about 65% of domestic consumption (Croatia.eu, 2014; European Commission, 2015b, p. 79, 80).

INA, which was a medium-sized, Croatia-based petroleum and gas company with operations also in Angola and Egypt, was involved in natural gas and petroleum exploration and production, petroleum refining, and petroleum products distribution. Its hydrocarbon exploration and production activities were conducted both offshore in the Adriatic Sea and onshore in the Pannonian basin. In 2014, the company reported onshore reserves of 167.7 million barrels (Mbbbl) of oil equivalent and onshore production of 24,060 barrels per day (bbl/d) of oil equivalent. Its offshore reserves in the North Adriatic Sea were 27.2 Mbbbl of oil equivalent, and its offshore production amounted to 11,140 bbl/d. INA's total onshore production in 2014 was 8,900 bbl/d of crude oil, which was an increase of 3.7% compared with 2013, 2,100 bbl/d of condensate (a decrease of 11.3% compared with 2013), and 29.7 million cubic meters of natural gas (a decrease of 8.9% compared with 2013). The company's offshore production in Croatia amounted to 25.5 million cubic meters of natural gas (INA-Industrija nafte d.d., 2015a, p. 13, 14, 15).

In 2014, INA drilled eight new exploration wells—all onshore. The company reported that two oil wells and five natural gas wells had yielded positive results. In November INAgip, which was a joint operating company of INA and Eni of Italy, finished development of the Ika JZ gasfield in the Adriatic Sea and began test production. Production from the Ika JZ field was expected to mitigate the decline of gas production from other fields offshore. In July, EDINA, which was a joint operating company of INA and Edison, began gas production at the Izabela gas field. In September, INA delayed a decision on whether to close its Sisak refinery, which along with the company's larger Rjeka refinery operated at a loss owing in part to lower demand for refinery products in the Balkan region. The company's two largest shareholders, MOL Group of Hungary and the Government of Croatia, were unable to reach an agreement on the refineries issue (Kuzmanovic, 2014; INA-Industrija nafte d.d., 2015a, p. 13, 15, 16; 2015b, p. 11, 12).

The Government launched the first international offshore licensing round in April 2014 for exploration of 29 blocks of between 1,000 and 1,600 square kilometers (km<sup>2</sup>) each in Croatia's territorial waters in the North, Central, and South Adriatic Sea, covering a total area of approximately 36,800 km<sup>2</sup>.

The application period closed in November 2014 and selections were expected in January 2015. The Government subsequently launched the first international onshore licensing round in July 2014 for the exploration of six blocks in the continental regions of Drava, East Slavonia, and Sava, covering an area of approximately 15,000 km<sup>2</sup>. The application period would close in February 2015 and licenses were to be awarded in March 2015. Licenses would be granted for a maximum of 30 years, which covered both the exploration phase of up to 5 years and the production phase. The royalty rate to be paid by a company that entered into a production-sharing agreement for hydrocarbons with the Government was set at 10% (Maćešić and Manovelo, 2014a, b; Rajal and Santic, 2015, p. 59).

## Outlook

Croatia is expected to remain a modest producer of a limited number of mineral commodities in the near future. Increases in metal and industrial mineral output could materialize as the country's aluminum, cement, nitrogen, and steel production facilities are modernized, but this is also contingent on increased demand for such commodities in both Croatia and its main export markets in Europe. Mineral fuels are expected to remain the most economically significant output of Croatia's minerals industry; however, the country's refinery products output may decrease substantially if either of INA's unprofitable refineries is closed. Expected offshore and onshore hydrocarbon exploration in 2015 has the potential to turn the country into a significant mineral fuels producer. The planned liquefied natural gas terminal on the island of Krk in the North Adriatic Sea and the Ionian-Adriatic natural gas pipeline are expected to establish Croatia as a key chain in the Balkan and European energy supply corridors. The planned Plomin C 500-megawatt coal-fired thermal powerplant in Istria is likely to generate additional demand for construction aggregates in the coming years and for coal upon completion in 2019 (Maćešić and Manovelo, 2014a; Rajal and Santic, 2015, p. 60, 61).

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TABLE 1  
CROATIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity	2010	2011	2012	2013	2014
<b>METALS</b>					
Aluminum:					
Alloys	20,974	36,988	41,772	33,692	34,000 <sup>c</sup>
Semimanufactures: <sup>c</sup>					
Extruded	6,000	8,000	8,000	8,000	8,000
Rolled	50,000	60,000	69,924 <sup>2</sup>	161,763 <sup>r,2</sup>	193,832
Total <sup>3</sup>	56,000	68,000	77,924 <sup>r</sup>	169,763 <sup>r</sup>	201,832
Steel:					
Crude, from electric furnaces <sup>c</sup>	95,000	96,000	1,000	135,000 <sup>r</sup>	167,000
Semimanufactures, hot rolled <sup>c</sup>	94,704 <sup>r</sup>	95,908 <sup>r</sup>	1,016 <sup>r</sup>	110,602 <sup>r</sup>	137,000
<b>INDUSTRIAL MINERALS</b>					
Cement:					
Portland cement thousand metric tons	2,682	2,577	2,154	2,333	2,345
Other hydraulic cement do.	93	105	100	103	100 <sup>c</sup>
Total hydraulic cement <sup>3</sup> do.	2,775	2,682 <sup>r</sup>	2,254 <sup>r</sup>	2,436	2,445
Clays:					
Bentonite	--	--	--	24,129	32,751
Ceramic clay	97,237	67,914	86,303	69,619	70,000 <sup>c</sup>
Clinker thousand metric tons	2,116	2,072	1,999	2,210	2,226
Gypsum and anhydrite, crude	197,606	167,518	182,557	114,450	120,055
Lime thousand metric tons	240	254	207	185	205
Nitrogen, N content of ammonia do.	361	368	342	343	376
Pumice and related materials, volcanic tuff <sup>c</sup> do.	15	15	20	20	20
Salt, all sources	66,835	55,963	46,000	42,502	33,039
Sand and gravel, excluding glass sand thousand metric tons	3,500 <sup>c</sup>	4,003	3,683	3,199	3,497
Silica sand (quartz, quartzite, glass sand)	240,919	227,437	106,276	102,070	127,276
Stone:					
Crushed and brown thousand metric tons	13,270	13,033	11,152	12,409	12,989
Dimension stone	1,200,000 <sup>c</sup>	1,400,000 <sup>c</sup>	1,028,230	973,784	1,115,535
Sulfur, byproduct of petroleum	6,834	7,254	17,411	15,902	19,384
<b>MINERAL FUELS AND RELATED MATERIALS</b>					
Natural gas, gross production million cubic meters	2,727	1,872	2,013	1,862	1,804
Petroleum:					
Crude, gross weight, includes condensate thousand 42-gallon barrels	5,344	4,929	4,605	4,605	4,142
Refinery products:					
Distillate fuel oil do.	9,750	8,437	13,790	12,799 <sup>r</sup>	11,500 <sup>c</sup>
Residual fuel oil do.	5,788	4,868	3,363	3,032 <sup>r</sup>	2,700 <sup>c</sup>
Jet fuel do.	752	942	776	870 <sup>r</sup>	780 <sup>c</sup>
Liquefied petroleum gases do.	2,854	2,482	1,865	1,965 <sup>r</sup>	1,800 <sup>c</sup>
Motor gasoline do.	10,940	8,710	10,841	10,041 <sup>r</sup>	9,000 <sup>c</sup>
Other products do.	5,256	5,400 <sup>c</sup>	5,600 <sup>c</sup>	5,700 <sup>c</sup>	5,100 <sup>c</sup>
Total do.	35,340	30,839	36,235	34,407 <sup>r</sup>	30,900 <sup>c</sup>

<sup>c</sup>Estimated; estimated data are rounded to no more than three significant digits. <sup>r</sup>Revised. do. Ditto. -- Zero.

<sup>1</sup>Table includes data available through August 6, 2015.

<sup>2</sup>Reported figure.

<sup>3</sup>Data may not add to totals shown because of independent rounding.

TABLE 2  
CROATIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum, semimanufactures		TLM-TVP d.o.o. (Fintrust Holding GmbH, 100%)	Sibenik	100 <sup>e</sup>
Do.		do.	do.	10
Do.		Top-Tvornica Olovni Proizvoda Aluminijskih d.d.	Sveta Nedjelja	NA
Do.		Ivanal d.o.o.	Sibenik	3
Carbon black <sup>1</sup>	metric tons	Petrokemija d.d. (Government, 43.8%; pension funds, 27.6%; others, 28.6%)	Plant at Kutina	32,000
Cement		Cemex Hrvatska d.d. (CEMEX S.A.B. de C.V., 100%)	Plants at Sveti Juraj, Sveti Kajo, and Kolovoz	2,400
Do.		Holcim (Hrvatska) d.o.o. (Holcim Ltd., 100%)	Plant at Koromacno	1,000
Do.		Calucem d.o.o (CALUCEM Group)	Plant at Pula	NA
Do.		Tvornica Cementa Umag d.o.o. (Istramineral Umag d.o.o., 100%)	Cement plant at Umag	350
Do.		Nasicecement d.d. (Nexe Grupa d.d.)	Nasice	680
Fertilizer, of which:				
Ammonia		Petrokemija d.d. (Government, 43.8%; pension funds, 27.6%; others, 28.6%)	Plant at Kutina	450
Calcium ammonium nitrate		do.	do.	400
Nitric acid		do.	do.	415
NPK fertilizer		do.	do.	600
Urea		do.	do.	500
Natural gas	million cubic meters	INA-Industrija nafte d.d. (MOL Group, 49.08%; Government, 44.84%; others, 6.08%)	Natural gasfields at Ika JZ, Izabela, Molve, offshore platforms in the Adriatic Sea, and other locations	2,000 <sup>e</sup>
Petroleum:				
Crude	thousand 42-gallon barrels per day	do.	Oilfields at Kalinovac, Sandrovac, Struzec, Zutica, and other locations	25 <sup>e</sup>
Refined	do.	do.	Refinery at Rijeka (Urinj)	90,370
Do.	do.	do.	Refinery at Sisak	44,000
Salt	metric tons	Solana Pag d.d.	Pag Island (marine salt)	15,000
Do.	do.	Small producers	Ston, Nin	5,000
Steel, crude		ABS Sisak d.o.o. (Danieli Group, 100%)	Plant at Sisak	324
Do.		Adria Steel Ltd. (Techcom GmbH, 100%) <sup>2</sup>	Plant at Split	50

<sup>e</sup>Estimated. Do., do. Ditto. NA Not available.

<sup>1</sup>No carbon black has been produced in Croatia since 2009.

<sup>2</sup>Previously known as Zeljezara Split d.d. Stopped production in 2009. Production resumed in 2013.