Iran’s hydrocarbon sector, which included the production of natural gas and oil, the refining of crude oil, and the distribution of hydrocarbons, was a significant facet of the country’s economy. According to the Central Bank of the Islamic Republic of Iran (2010, p. 7), crude oil production averaged about 3.6 million barrels per day in 2009. According to BP p.l.c. (2010, p. 9), Iran was the world’s fourth ranked producer of crude oil and condensate (natural gas liquids) and accounted for about 5.3% of the world’s output. Iran held 15.8% of proved worldwide natural gas reserves and 10.3% of proved oil reserves. The country also was estimated to account for more than 1% of the world’s output of cement and fluor spar (table 1; BP p.l.c., 2010, p. 6, 9, 22; Miller, 2010; van Oss, 2010).

Minerals in the National Economy

Iran had an extensive mineral production and processing industry. Production, processing, transportation, and sales of crude oil and natural gas accounted for a notable portion of the country’s gross domestic product. Cement and steel also were significant components of the domestic mineral industry. In 2009, the Government continued to subsidize several segments of the economy, including the electricity, mineral fuel, and natural gas sectors. Legislation to end the subsidies was expected to be approved by Parliament in 2010 (Pomeroy, 2010).

Government Policies and Programs

The Mining Code of 1998, which was based on Articles 44 and 45 of Chapter 4 of the 1978 Constitution of the Islamic Republic of Iran, and various amendments to the Mining Code, regulated the mining sector. The Petroleum Act of 1987 clarified the Government’s authority in the oil sector.

Production

Based on estimates of mineral commodity production, significant increases in output in 2009 compared with that of 2008 were estimated for cement, gypsum, natural gas, and zinc ore. Notable decreases in production were reported for chromite and estimated for industrial sand.

Significant changes in output in 2008 compared with that of 2007 were reported for bauxite, bentonite, and chromite (and estimated for diatomite, gold, lead, manganese, and zinc). Notable decreases in production in 2008 compared with that of 2007 were reported for fluor spar, mica, and salt (and estimated for boron, pig iron, and silver). Data on estimated mineral production in Iran are in table 1.

Structure of the Mineral Industry

The Ministry of Industries and Mines administered all mining, smelting, and refining industries except the oil and gas sectors, which were administered by the Ministry of Petroleum. Basic geologic exploration and most initial evaluations of the Nation’s mineral resources (except hydrocarbons) were performed by the Geological Survey of Iran.

Most of the country’s more-than-3,000 active mines were privately owned. The Government, primarily through Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), controlled many of the larger capacity mining and mineral-processing companies, especially those that produced aluminum, ammonia, coal, copper, iron and steel, natural gas, petroleum, salt, and sulfur. National Iranian Oil Co. was responsible for natural gas and crude oil production. In 2009, the Government continued to divest some of its interest in mineral-sector companies.

Mineral Trade

The Central Bank of the Islamic Republic of Iran (2009b, p. 13; 2010, p. 13) reported that hydrocarbons accounted for about 75% of the total value of exports in 2009. Hydrocarbon exports were valued at about $59 billion1 in 2009 compared with $95 billion in 2008. The decrease was attributed to a decline in international demand for crude oil, which resulted in a decreased international price of oil and a decline in Iranian crude oil exports. Crude oil exports accounted for most of the hydrocarbon exports. Shipments of Iranian crude oil to China, India, and Japan accounted for about 48% of Iranian crude oil and natural gas exports, based on value (Central Bank of the Islamic Republic of Iran, 2009b, p. 13; 2010, p. 13; United Nations, undated).

For Iranian year 1387 (the period from March 21, 2008, to March 20, 2009), which was the latest period for which data were available, liquefied petroleum gases accounted for 2.8% of total exports; methanol and ethylene glycol, 1%; aluminum, copper, and zinc metal and articles, 0.8%; iron and steel, 0.7%; light oils and products, 0.6%; cement, ceramics, and stone, 0.5%; ammonia, 0.4%; and sulfur, 0.2%. In comparison, crude oil and natural gas exports accounted for about 81% of total Iranian exports in year 1387; imports of gasoline were valued at $3 billion and accounted for about 4.5% of imports (Central Bank of the Islamic Republic of Iran, 2009a, p. 63, 67, 68).

Commodity Review

Metals

Aluminum.—Fata S.p.a. of Italy continued work on the 147,000-metric-ton-per-year (t/yr)-capacity Hormozgan aluminum complex (Hormozal) at Bandar Abbas, which was expected to begin production in 2010. The CITIC

Where necessary, values have been converted from Iranian rials (RI) to U.S. dollars (US$) at the average exchange rate of RI 9,752=US$1.00 for 2009 and RI 9,638=US$1.00 for 2008.
International Cooperation Company, Ltd. of China and China Aluminium International Engineering Corporation Ltd. (Chalieco) consortium worked on the construction of a 276,000-tpy-capacity aluminum smelter for Aluminum Jonub Co. (also known as Jonub Aluminum Co. or South Aluminum Co.), which was a joint venture of state-owned IMIDRO and Ghadir Investment Co. (which was a subsidiary of Bank Saderat of Iran) (Iranian Mines and Mining Industries Development and Renovation Organization, 2009a; 2010).

**Chromium.**—In 2008, Rohit Ferro-Tech Ltd. of India secured 49% equity interest in Rohit Persia Mines and Industries PJSC, which was formed to acquire chromite ore deposits in Iran to develop. Rohit Persia, however, deferred the acquisition of properties; instead, Rohit Ferro-Tech imported chromite ore from Iran in 2009 (Rohit Ferro-Tech Ltd., 2009, 4; 2010, p. 44).

**Copper.**—National Iranian Copper Industries Co. (NICICO) proposed significant increases in Iran’s refined copper production by 2014. Projects underway in 2009 included the construction of a new smelter at Sungun, the expansion of the Khatoonabad smelter, the construction of a 5,000-tpy-capacity solvent extraction-electrowon plant at Miduk, and a new 100,000-tpy-capacity copper refinery at Khatoonabad. NICICO planned to increase the capacity of several domestic copper mines to concentrate ore. Construction of new copper mines also was underway (Iranian Mines and Mining Industries Development and Renovation Organization, 2009b; National Iranian Copper Industries Co., undated a-c).

**Gold.**—In 2009, the joint venture of Persian Gold plc of Ireland (70%) and DORSA Pardazeh Co. (30%) completed the technical work required for the application for a discovery certificate for the Dalli prospect. Another Persian Gold joint venture continued to wait for a positive response from the Government on the previously filed application for a discovery certificate for the Chah-e-Zard prospect. The joint ventures had acquired the required foreign investment approvals but could not proceed with the projects without discovery certificates (Persian Gold plc, 2010a, b).

**Iron and Steel.**—IMIDRO proposed to divest 40% equity interest in Khouzestan Oxin Steel Co., which was a rolling mill that was located in Ahvaz, and 30% interest in South Kaveh Steel Co. (Kaveh Jonub Steel), which was building direct-reduced iron (DRI) modules and a steel plant at Bandar Abbas, Hormozgan Province. The DRI plant was expected to be completed by 2011, and the electric arc furnace facility, by 2013. Eight new iron and steel projects were under construction in various Provinces, which included a number of additional 850,000-tpy-capacity DRI plants that were being built for NISCO (Metal Bulletin, 2010; Midrex Technologies, Inc., 2010, p. 9).

**Zinc.**—Mehdiabad Zinc Co., which was a joint venture of IMIDRO, Itok GmbH of Austria, and Union Resources Ltd. of Australia, developed the Mehdiabad zinc deposit. In 2006, Mobin Mining and Construction Co. was awarded a contract by Iranian Minerals Production and Supply Co. (IMPASCO), which was a subsidiary of IMIDRO, to remove overburden and mine oxide ore at the Mehdiabad Mine. In late 2006, IMIDRO notified Union Resources that it had terminated several agreements concerning the Mehdiabad joint venture because of alleged breaches of contract and that the project’s exploitation license was not going to be transferred to Mehdiabad Zinc. Union Resources disputed the notice of termination and had attempted to resolve the issue since 2006. In April 2009, Union Resources filed a claim for the effective expropriation of Union Resources’ interest in the Mehdiabad project against a political risk insurance policy that Union Resources held from the Export Finance and Insurance Corp. (EFIC) of Australia. In October, the EFIC declared that it did not consider that the Mehdiabad situation was an expropriation and denied the claim (Union Resources Ltd., 2009; 2010, p. 4; Mobin Mining and Construction Co., undated).

**Mineral Fuels**

**Natural Gas and Petroleum.**—Most of the country’s hydrocarbon production activity was located in the southwest, both offshore and onshore. About 40 fields were producing and several other fields were under development. The renovation of existing crude oil refineries at Abadan, Arak, Bandar Abbas, Esfahan, Lavan, and Tehran and the construction of new hydrocarbon refineries at Abadan, Bandar Abbas, Kermanshah, Shiraz, and Tabriz, and in Golestan Province, were expected to ease the domestic demand for imported gasoline. International sanctions and the global economic crisis, however, had adversely affected the availability of financing for oilfield development and oil refinery construction (MEED, 2009; U.S. Energy Information Administration, 2009).

**Outlook**

The Government is continuing with the planned reduction of its direct-controlling interest in the economy. In the recent past, however, quasi-governmental organizations have acquired a significant proportion of the shares in companies that the Government had divested.

Numerous production-capacity expansion projects and mineral commodity development projects are planned or underway in Iran’s mineral sector; however, most large-scale mineral resource development programs are dependent on the availability of scarce Government funding. The availability of international funding for capital-intensive development of mineral-related projects by Government-controlled and private companies operating in Iran is impaired, in part, by sanctions imposed by the United States and by the Iranian Government’s nuclear program, which had attracted additional international sanctions.

About 56% of Iranian crude oil production was exported in 2009. As long as the Government subsidizes the price of energy, domestic demand for crude oil and natural gas is expected to continue to increase, which may require that Iran forgo income-generating hydrocarbon exports in order to meet domestic demand. Development of identified natural gas and oil resources is expected to continue in Iran, subject to funding constraints and limitations imposed by existing (2009) economic sanctions (Central Bank of the Islamic Republic of Iran, 2010, p. 7; U.S. Department of the Treasury, Office of Foreign Assets Control, 2010).
References Cited


Union Resources Ltd., 2009, Mehdiabad project—Political risk insurance claim: Brisbane, Australia, Union Resources Ltd. press release, October 2, 2 p.

Union Resources Ltd., 2010, Quarterly activities statement for period ended 31 December 2009: Brisbane, Australia, Union Resources Ltd. press release, January 29, 6 p.


<table>
<thead>
<tr>
<th>Commodity</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
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<td>METALS</td>
<td></td>
<td></td>
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</tr>
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<td>Aluminum:</td>
<td></td>
<td></td>
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<td>Bauxite, gross weight</td>
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<td>215,981</td>
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<td>250,000</td>
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<td>Arsenic, orpiment and realgar, concentrates</td>
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<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>Copper:</td>
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<td></td>
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<tr>
<td>Mine output:</td>
<td></td>
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</tr>
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<td>Ore mined (0.6% to 1.2% Cu):</td>
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<td>260,000</td>
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<td>731,000</td>
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<td>201,000</td>
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<td>200</td>
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<td>400</td>
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<td>Iron and steel:</td>
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<td>Ore and concentrate:</td>
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<td>26,244</td>
<td>31,538</td>
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<td></td>
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<td>Pig iron</td>
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<td>2,000</td>
<td>2,572</td>
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<td>Direct-reduced iron</td>
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<td>6,900</td>
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<td>7,500</td>
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<td>Ferrochromium</td>
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<td>7,000</td>
<td>8,000</td>
<td>8,000</td>
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<td>Ferrosilicon</td>
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<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
<td>45,000</td>
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<tr>
<td>Steel, crude, ingots and castings</td>
<td>9,400</td>
<td>9,800</td>
<td>10,100</td>
<td>9,960</td>
<td>10,000</td>
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<td>Lead:</td>
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<td></td>
</tr>
<tr>
<td>Mine output, concentrate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>43,000</td>
<td>47,000</td>
<td>40,000</td>
<td>53,000</td>
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<td>Pb content</td>
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<td>24,000</td>
<td>20,000</td>
<td>26,905</td>
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<td>Refinery output, includes secondary</td>
<td>68,000</td>
<td>75,000</td>
<td>70,000</td>
<td>75,000</td>
<td>75,000</td>
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<td></td>
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<tr>
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<td>125,000</td>
<td>103,441</td>
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<td>42,000</td>
<td>35,000</td>
<td>40,000</td>
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<td>Molybdenum, mine output, concentrate:</td>
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<tr>
<td>Gross weight</td>
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<td>4,600</td>
<td>6,644</td>
<td>6,597</td>
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<td>3,700</td>
<td>3,700</td>
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<td>25</td>
<td>20</td>
<td>15</td>
<td>15</td>
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<tr>
<td>Zinc:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mine output, concentrate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
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<td>300,000</td>
<td>190,000</td>
<td>130,000</td>
<td>150,000</td>
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<tr>
<td>Zn content</td>
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<td>164,000</td>
<td>100,000</td>
<td>69,267</td>
<td>80,000</td>
</tr>
<tr>
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<td>140,000</td>
<td>90,000</td>
<td>60,000</td>
<td>65,000</td>
</tr>
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<td>INDUSTRIAL MINERALS</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asbestos:</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Concentrate (3% to 8% marketable fiber)</td>
<td>40,000</td>
<td>40,000</td>
<td>--</td>
<td>--</td>
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<td>1,300</td>
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<td>Barite</td>
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<td>230,000</td>
<td>249,495</td>
<td>226,590</td>
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See footnotes at end of table.
**TABLE 1—Continued**  
IRAN: PRODUCTION OF MINERAL COMMODITIES\(^1,2\)

(Metric tons unless otherwise specified)

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<thead>
<tr>
<th>Commodity</th>
<th>2005(^4)</th>
<th>2006(^4)</th>
<th>2007(^4)</th>
<th>2008(^4)</th>
<th>2009(^4)</th>
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<tr>
<td>Boron, borax</td>
<td>1,660</td>
<td>2,000</td>
<td>1,603</td>
<td>1,020</td>
<td>1,000</td>
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<tr>
<td>Cement, hydraulic</td>
<td>32,650</td>
<td>35,000</td>
<td>41,000</td>
<td>44,400</td>
<td>50,000</td>
</tr>
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<td><strong>Clays:</strong></td>
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<td></td>
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</tr>
<tr>
<td>Bentonite</td>
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<td>254,084</td>
<td>375,898</td>
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<tr>
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<td>550,000</td>
<td>550,000</td>
<td>530,000</td>
<td>530,000</td>
</tr>
<tr>
<td>Kaolin</td>
<td>311,501</td>
<td>310,000</td>
<td>350,000</td>
<td>320,000</td>
<td>320,000</td>
</tr>
<tr>
<td>Diatomite</td>
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<td>1,500</td>
<td>300</td>
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</tr>
<tr>
<td>Feldspar</td>
<td>286,033</td>
<td>290,000</td>
<td>512,261</td>
<td>501,821</td>
<td>500,000</td>
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<td><strong>Fluorspar:</strong></td>
<td>64,601</td>
<td>65,000</td>
<td>68,192</td>
<td>61,592</td>
<td>65,000</td>
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<td>Gemstones, turquoise(^c)</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>19,000</td>
<td>19,000</td>
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<td><strong>Gypsum:</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Industrial or glass sand (quartzite and silica) do.</td>
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<td>20,000</td>
<td>20,000</td>
<td>19,000</td>
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<td>Lime do.</td>
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<td>112,229</td>
<td>115,987</td>
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<td>Mica</td>
<td>705</td>
<td>--</td>
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<td><strong>Nepheline syenite</strong></td>
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<td>2,000,000</td>
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<td>670,000</td>
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<td>1,300,000</td>
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<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td><strong>Phosphate rock:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ore</td>
<td>324,166</td>
<td>325,000</td>
<td>330,000</td>
<td>325,000</td>
<td>330,000</td>
</tr>
<tr>
<td>P(_2)O(_5) content(^d)</td>
<td>40,000</td>
<td>40,000</td>
<td>40,500</td>
<td>37,000</td>
<td>39,000</td>
</tr>
<tr>
<td><strong>Pigments, mineral, natural iron oxide, ochre(^e)</strong></td>
<td>2,500</td>
<td>2,600</td>
<td>2,600</td>
<td>2,600</td>
<td>2,600</td>
</tr>
<tr>
<td>Pumice and related volcanic materials do.</td>
<td>1,500</td>
<td>1,400</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Salt</td>
<td>2,009,195</td>
<td>2,000,000</td>
<td>2,564,871</td>
<td>2,158,280</td>
<td>2,200,000</td>
</tr>
<tr>
<td>Soda ash(^f)</td>
<td>130,000</td>
<td>130,000</td>
<td>140,000</td>
<td>140,000</td>
<td>140,000</td>
</tr>
<tr>
<td>Sodium compound, caustic soda(^g)</td>
<td>22,000</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td><strong>Stone:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction and building, crushed(^h)</td>
<td>25,000</td>
<td>25,000</td>
<td>26,000</td>
<td>25,000</td>
<td>25,000</td>
</tr>
<tr>
<td><strong>Dimension and decorative:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granite do.</td>
<td>1,000</td>
<td>1,000</td>
<td>1,100</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Marble, blocks and slabs(^i) do.</td>
<td>4,000</td>
<td>4,000</td>
<td>4,200</td>
<td>4,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Travertine, blocks do.</td>
<td>1,400</td>
<td>1,400</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Total do.</td>
<td>6,400</td>
<td>6,400</td>
<td>6,800</td>
<td>6,500</td>
<td>6,500</td>
</tr>
<tr>
<td>Dolomite do.</td>
<td>600</td>
<td>600</td>
<td>650</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Limestone do.</td>
<td>50,000</td>
<td>50,000</td>
<td>55,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Strontium, celestite</td>
<td>672</td>
<td>1,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Sulfates, natural:(^j)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum potassium sulfate (alum)</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>600,000</td>
<td>600,000</td>
<td>600,000</td>
<td>600,000</td>
<td>600,000</td>
</tr>
<tr>
<td><strong>Sulfur:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Byproduct of petroleum and natural gas</td>
<td>1,400,000</td>
<td>1,400,000</td>
<td>1,500,000</td>
<td>1,500,000</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Byproduct of metallurgical processing, S content of acid</td>
<td>60,000</td>
<td>60,000</td>
<td>70,000</td>
<td>70,000</td>
<td>70,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,460,000</td>
<td>1,460,000</td>
<td>1,570,000</td>
<td>1,570,000</td>
<td>1,570,000</td>
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<tr>
<td><strong>Talc</strong></td>
<td>70,600</td>
<td>70,000</td>
<td>90,889</td>
<td>89,110</td>
<td>90,000</td>
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</table>

See footnotes at end of table.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
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<tbody>
<tr>
<td>Coal</td>
<td>1,898</td>
<td>2,000</td>
<td>2,000</td>
<td>1,800</td>
<td>1,900</td>
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<tr>
<td>Coke</td>
<td>1,020</td>
<td>1,184</td>
<td>1,200</td>
<td>1,300</td>
<td>1,300</td>
</tr>
<tr>
<td>Gas, natural:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross</td>
<td>150,000</td>
<td>160,000</td>
<td>170,000</td>
<td>175,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Dry</td>
<td>100,000</td>
<td>105,000</td>
<td>112,000</td>
<td>116,000</td>
<td>131,000</td>
</tr>
<tr>
<td>Plant liquids</td>
<td>85,000</td>
<td>90,000</td>
<td>150,000</td>
<td>140,000</td>
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</tr>
<tr>
<td>Petroleum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude</td>
<td>1,493,000</td>
<td>1,487,000</td>
<td>1,470,000</td>
<td>1,490,000</td>
<td>1,300,000</td>
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<tr>
<td>Refinery products:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Liquefied petroleum gases</td>
<td>48,000</td>
<td>47,000</td>
<td>53,000</td>
<td>55,000</td>
<td>56,000</td>
</tr>
<tr>
<td>Motor gasoline</td>
<td>100,000</td>
<td>103,000</td>
<td>103,000</td>
<td>102,000</td>
<td>105,000</td>
</tr>
<tr>
<td>Jet fuel</td>
<td>7,000</td>
<td>8,000</td>
<td>7,900</td>
<td>8,000</td>
<td>8,100</td>
</tr>
<tr>
<td>Kerosene</td>
<td>50,000</td>
<td>49,000</td>
<td>51,000</td>
<td>49,000</td>
<td>50,000</td>
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<tr>
<td>Distillate fuel oil</td>
<td>120,000</td>
<td>185,000</td>
<td>187,000</td>
<td>196,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Residual fuel oil</td>
<td>170,000</td>
<td>175,000</td>
<td>168,000</td>
<td>178,000</td>
<td>180,000</td>
</tr>
<tr>
<td>Other</td>
<td>20,000</td>
<td>16,000</td>
<td>17,000</td>
<td>19,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Total</td>
<td>515,000</td>
<td>583,000</td>
<td>586,900</td>
<td>607,000</td>
<td>619,000</td>
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</tbody>
</table>

1Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. 2Revised. 3Zero.
4Table includes data available through October 29, 2010.
5Data are for Iranian years ending March 20 of that stated, except data for alumina, natural gas, natural-gas-plant liquids, and petroleum, which are for Gregorian calendar years.
6In addition to commodities listed, the following may have been produced, but information is inadequate to estimate output: antimony, bromine, crude construction materials (such as sand and shell), ferromolybdenum, hafnium oxide, ilmenite, selenium, silicomanganese, uranium, zeolite, and zirconium metal.
7Includes gold recovered from the Mouteh gold mine and from the Sarcheshmeh copper complex.
8Includes marble and travertine.
9Includes marmarite.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies and major equity owners</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumina</td>
<td>Iran Alumina Co. (Government)</td>
<td>Northeast of Jajarm, Khorasan Province</td>
<td>280</td>
</tr>
<tr>
<td>Aluminum</td>
<td>Iran Aluminium Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), majority interest, and a joint venture of Industrial Development Investment Co. and a subsidiary of Mehr Finance &amp; Credit Institution, 40%]</td>
<td>Arak, Markazi Province</td>
<td>190</td>
</tr>
<tr>
<td>Do.</td>
<td>Almahdi Aluminium Corp. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), 59.34%, and International Development Corp., 20.78%]</td>
<td>Bandar Abbas, Hormozgan Province</td>
<td>110</td>
</tr>
<tr>
<td>Bauxite</td>
<td>Iran Alumina Co. (Government)</td>
<td>Jajarm Mine, about 15 kilometers northeast of Jajarm</td>
<td>500</td>
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<tr>
<td>Cement</td>
<td>Abadeh Cement Co.</td>
<td>Abadeh, Fars Province</td>
<td>175</td>
</tr>
<tr>
<td>Do.</td>
<td>Abyek Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Abyek, Qazvin Province, 80 kilometers northwest of Tehran</td>
<td>5,100</td>
</tr>
<tr>
<td>Do.</td>
<td>Anarak Special Cement Co.</td>
<td>Anarak, Markazi Province</td>
<td>500</td>
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<tr>
<td>Do.</td>
<td>Ardestan Cement Co.</td>
<td>Namin, Ardebel Province</td>
<td>1,050</td>
</tr>
<tr>
<td>Do.</td>
<td>Behbahan Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Behbahan, Khuzestan Province</td>
<td>960</td>
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<tr>
<td>Do.</td>
<td>Benvid White Cement Co. (Bank Melli Iran Investment Co.)</td>
<td>Benvid, Esfahan Province</td>
<td>175</td>
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<tr>
<td>Do.</td>
<td>Bojnourd Cement Plant (Fars &amp; Khouzestan Cement Co.)</td>
<td>About 37 kilometers from Bojnourd, Khorasan Province</td>
<td>700</td>
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<tr>
<td>Do.</td>
<td>Bushehr Cement Co. (Dashtestan Cement)</td>
<td>Borazjan, Bushehr Province</td>
<td>1,000</td>
</tr>
<tr>
<td>Do.</td>
<td>Darab Cement Co. [General public (Justice shares), 50%, and Bank Melli Iran Investment Co., 29%]</td>
<td>About 190 kilometers southeast of Shiraz, Fars Province</td>
<td>1,100</td>
</tr>
<tr>
<td>Do.</td>
<td>Doroud Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Doroud, Lorestan Province</td>
<td>1,400</td>
</tr>
<tr>
<td>Do.</td>
<td>Ekbatan Cement Co. (Espandar Cement Investment Co.)</td>
<td>Ekbatan, Tehran Province</td>
<td>175</td>
</tr>
<tr>
<td>Do.</td>
<td>Estahban Cement Co.</td>
<td>20 kilometers west of Estahban, Fars Province</td>
<td>350</td>
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<tr>
<td>Do.</td>
<td>Fars Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Shiraz, Fars Province</td>
<td>2,000</td>
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<tr>
<td>Do.</td>
<td>Fars Nov Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>About 65 kilometers southeast of Shiraz, Fars Province</td>
<td>1,000</td>
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<tr>
<td>Do.</td>
<td>Firozkoh</td>
<td>Firozkoh</td>
<td>1,100</td>
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<tr>
<td>Do.</td>
<td>Ghaen Cement Co. (Cement Investment and Development Co., 26%, and Bank Melli Iran Investment Co., 14%)</td>
<td>Qaeyn (Ghaen), Khorasan Province</td>
<td>770</td>
</tr>
<tr>
<td>Do.</td>
<td>Gharb Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Kermanshah, Kermanshah Province</td>
<td>700</td>
</tr>
<tr>
<td>Do.</td>
<td>Hegmatan Cement Co. (Tehran Cement Co., 79%)</td>
<td>East of Razan, Hamedan Province</td>
<td>1,000</td>
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<tr>
<td>Do.</td>
<td>Hormozgan Cement Co. (OMID Investment Co.)</td>
<td>About 75 kilometers west of Bandar Abbas</td>
<td>2,200</td>
</tr>
<tr>
<td>Do.</td>
<td>Ilam Cement Co. (Tehran Cement Co., 47%)</td>
<td>Northeast of Ilam, Ilam Province</td>
<td>700</td>
</tr>
<tr>
<td>Do.</td>
<td>Isfahan Cement Co.</td>
<td>Esfahan, Esfahan Province</td>
<td>1,100</td>
</tr>
<tr>
<td>Do.</td>
<td>Karoon Cement Co.</td>
<td>Near Masjed Soleyman, Khozestan Province</td>
<td>1,100</td>
</tr>
<tr>
<td>Do.</td>
<td>Kavir Kashan Cement Co. (Espandar Cement Investment Co.)</td>
<td>Near Kashan, Esfahan Province</td>
<td>660</td>
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<tr>
<td>Do.</td>
<td>Kerman Cement Co. (Bank Melli Iran Investment Co., 38%)</td>
<td>Kerman, Kerman Province</td>
<td>1,260</td>
</tr>
<tr>
<td>Do.</td>
<td>Khash Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Khash, Sistan va Baluchestan Province</td>
<td>730</td>
</tr>
<tr>
<td>Do.</td>
<td>Khazar Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>About 80 kilometers northwest of Qazvin, Qazvin Province</td>
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<tr>
<td>Do.</td>
<td>Khouzestan Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Ramhormoz, Khozestan Province</td>
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</tr>
<tr>
<td>Do.</td>
<td>Kohkiloye Yasuj Cement (State Retirement Organization and Fars &amp; Khouzestan Cement Co.)</td>
<td>Behbeh, near Deh Dasht, Kohkiloye, Kohgiluyeh va Bowyer Ahmad Province</td>
<td>240</td>
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<td>Kordestan Cement Co. (Ghadir Investment Co.)</td>
<td>North of Bijar, Kurdistan Province</td>
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<td>Do.</td>
<td>Lar-e Sabzevar Cement Co.</td>
<td>Sabzevar, Khorasan Province</td>
<td>1,100</td>
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<tr>
<td>Do.</td>
<td>Loshan Cement Co. (Tehran Cement Co., 66%)</td>
<td>Loshan, Gilan Province</td>
<td>100</td>
</tr>
<tr>
<td>Do.</td>
<td>Mazandaran Cement Co. (Bank Melli Iran Investment Co., 60%)</td>
<td>Neka, Mazandaran Province</td>
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<tr>
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<td>Neyriz White Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Neyriz, Fars Province</td>
<td>160</td>
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<td>Do.</td>
<td>Omran Anarak Cement Co.</td>
<td>Delijan, Markazi Province</td>
<td>1,030</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies and major equity owners</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement—Continued</td>
<td>Qeshm Cement Co.</td>
<td>Qeshm Island, Hormozgan Province</td>
<td>250</td>
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<td>Sarooj Bushehr International Co.</td>
<td>Kangan, Bushehr Province</td>
<td>1,600</td>
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<td>Saveh Grey Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Saveh, Markazi Province</td>
<td>2,200</td>
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<tr>
<td>Do.</td>
<td>Saveh White Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Saveh, Markazi Province</td>
<td>350</td>
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<td>Do.</td>
<td>Sepahan Cement Co. (Ghadir Investment Co.)</td>
<td>Mobarekeh, Esfahan Province</td>
<td>2,300</td>
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<td>Do.</td>
<td>Shahrour Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Shahroud, Semnan Province</td>
<td>600</td>
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<tr>
<td>Do.</td>
<td>Shargh Cement Co. (Ghadir Investment Co.)</td>
<td>Mashhad, Khorasan Province</td>
<td>1,600</td>
</tr>
<tr>
<td>Do.</td>
<td>Shemal Cement Co. (Bank Melli Iran Investment Co., 59%)</td>
<td>Pardis, Tehran Province</td>
<td>880</td>
</tr>
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<td>Soufian Cement Co. (Fars &amp; Khouzestan Cement Co. and Social Security Organization Investment Co.)</td>
<td>About 33 kilometers northwest of Tabriz, East Azerbaijan Province</td>
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<tr>
<td>Do.</td>
<td>Tehran Cement Co. (Ghadir Investment Co.)</td>
<td>Tehran, Tehran Province</td>
<td>6,000</td>
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<tr>
<td>Do.</td>
<td>Urmiia Cement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Orumiyeh, West Azerbaijan Province</td>
<td>740</td>
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<tr>
<td>Do.</td>
<td>Urumieh White Cement Co.</td>
<td>do.</td>
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<td>Do.</td>
<td>Yazd Bohrouk Cement Co.</td>
<td>Yazd, Yazd Province</td>
<td>1,100</td>
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<td>Do.</td>
<td>Zanjancement Co. (Fars &amp; Khouzestan Cement Co.)</td>
<td>Zanjan, Zanjan Province</td>
<td>600</td>
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<td>Do.</td>
<td>Zarveh Torbat Cement Co.</td>
<td>Torbat-Heydareh, Khorasan Province</td>
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<tr>
<td>Chromite</td>
<td>Faryab Mining Co.</td>
<td>Faryab Mine and processing plant, Minab, Hormozgan Province</td>
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<tr>
<td>Do.</td>
<td>Esfandaghe Mines Co.</td>
<td>Abdasht Mine, Kerman Province; Suqan (Saboughan) Mine, Kerman Province; Processing plant at Esfandaghe, Kerman Province</td>
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<td>Do.</td>
<td>NA</td>
<td>Furumad Mine, Shahrud, Semnan Province; Gaft processing plant, Semnan Province</td>
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<tr>
<td>Do.</td>
<td>NA</td>
<td>Mir Mahmud Mine, Mayami, Semnem Province</td>
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<tr>
<td>Do.</td>
<td>NA</td>
<td>Dumak Mine, Zahedan, Sistan va Baluchestan Province</td>
<td>2</td>
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<tr>
<td>Coke</td>
<td>Isfahan Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)]</td>
<td>Plant about 40 kilometers southwest of Esfahan, Esfahan Province</td>
<td>900</td>
</tr>
<tr>
<td>Do.</td>
<td>Zarand Iranian Steel Co.</td>
<td>Zarand, Kerman Province</td>
<td>400</td>
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<tr>
<td>Copper:</td>
<td></td>
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</tr>
<tr>
<td>Concentrate</td>
<td>National Iranian Copper Industries Co. (NICICO) [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)]</td>
<td>Sarcheshmeh Mine, south of Rafsanjan, Kerman Province</td>
<td>670</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Sungun copper mine, East Azerbaijan Province</td>
<td>150</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Miduk copper mine, Kerman Province</td>
<td>150</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Qa'eh Zari Mine, about 120 kilometers southwest of Birjand, Khorasan Province</td>
<td>10</td>
</tr>
<tr>
<td>Do.</td>
<td>Private cooperatives</td>
<td>Chah Musa Mine and Qa'eh Sukhteh, Semnan</td>
<td>5</td>
</tr>
<tr>
<td>Smelter output</td>
<td>National Iranian Copper Industries Co. (NICICO) [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)]</td>
<td>Smelter, Sarcheshmeh copper complex, south of Rafsanjan, Kerman Province</td>
<td>145</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Smelter near Khatoonabad, Kerman Province</td>
<td>80</td>
</tr>
<tr>
<td>Refined metal</td>
<td>do.</td>
<td>Refinery, Sarcheshmeh copper complex, south of Rafsanjan, Kerman Province</td>
<td>210</td>
</tr>
<tr>
<td>Do.</td>
<td>do.</td>
<td>Electrowon plant, Sarcheshmeh copper complex, south of Rafsanjan, Kerman Province</td>
<td>14</td>
</tr>
<tr>
<td>Gemstones, turquoise</td>
<td>NA</td>
<td>Neyshabour Mine, Khorasan Province</td>
<td>6</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
## Gold:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies and major equity owners</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ore</td>
<td>Iran Gold Co.</td>
<td>Muteh Mine (Chah Khaton and Senjedeh pits), Esfahan Province, and Kuh-e-Zar Mine, Semnan Province</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>Artisanal placer operations</td>
<td>Neyshabur area, Khorasan Province</td>
<td>NA</td>
</tr>
<tr>
<td>Metal</td>
<td>National Iranian Copper Industries Co. (NICICO)</td>
<td>Sarcheshmeh copper complex, south of Rafsanjan, Kerman Province</td>
<td>500</td>
</tr>
</tbody>
</table>

### Iron and steel:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies and major equity owners</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron ore</td>
<td>Iran Central Iron Ore Co. (National Iranian Steel Co. (NISCO), 100%)³</td>
<td>Choghart Mine, Bafgh, Yazd Province</td>
<td>7,400</td>
</tr>
<tr>
<td></td>
<td>Chadormalu Mining and Industrial Co. [Omid Investment Management Corp., 37%; Mines and Metals Development Investment Co., 15%; Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), 8%]</td>
<td>Chadormalu Mine, 80 kilometers north of Bafgh, Yazd Province</td>
<td>6,500</td>
</tr>
<tr>
<td></td>
<td>Sangan Iron Ore Co. (National Iranian Steel Co., 100%)³</td>
<td>Sangan (Songun) Mine, about 140 kilometers southeast of Torbat-e-Heydariyeh, Khorasan Province</td>
<td>2,000</td>
</tr>
<tr>
<td>Iron</td>
<td>About 20 small privately owned mines</td>
<td>NA</td>
<td>1,000 z</td>
</tr>
<tr>
<td>Cast iron</td>
<td>Zagros Steel Co. (Government, majority interest)</td>
<td>Foundry in Kurdistan Province</td>
<td>70</td>
</tr>
<tr>
<td>Iron metal</td>
<td>Mobarekeh Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), majority interest; Social Security Organization, 10%; a subsidiary of Mehr Finance &amp; Credit Institution, 5%, and the Steel Employees Fund, 5%]</td>
<td>Direct-reduction iron plant (Midrex® process) about 50 kilometers southwest of Esfahan, Esfahan Province</td>
<td>4,000</td>
</tr>
<tr>
<td></td>
<td>Khouzestan Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), majority interest]</td>
<td>Direct-reduction iron plant (HYL I, Midrex®, and Purofer processes), Ahwaz, Khuzestan Province</td>
<td>3,200</td>
</tr>
<tr>
<td></td>
<td>Hormozgan Steel Complex [National Iranian Steel Co. (NISCO), and partners]</td>
<td>Direct-reduction iron plant (Midrex® process)</td>
<td>850</td>
</tr>
<tr>
<td>Steel</td>
<td>Isfahan Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)]³</td>
<td>Direct-reduction iron plant (Ghaem process) about 40 kilometers southwest of Esfahan, Esfahan Province</td>
<td>600</td>
</tr>
<tr>
<td>Steel, crude</td>
<td>Mobarekeh Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), majority interest; Social Security Organization, 10%; a subsidiary of Mehr Finance &amp; Credit Institution, 5%, and the Steel Employees Fund, 5%]</td>
<td>Plant about 50 kilometers southwest of Esfahan, Esfahan Province</td>
<td>4,200</td>
</tr>
<tr>
<td></td>
<td>Khouzestan Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO), majority interest]</td>
<td>Plant at Ahwaz, Khuzestan Province</td>
<td>2,600</td>
</tr>
<tr>
<td></td>
<td>Isfahan Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)]³</td>
<td>Plant about 40 kilometers southwest of Esfahan, Esfahan Province</td>
<td>2,200</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
<table>
<thead>
<tr>
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<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron and steel—Continued</td>
<td>Khorasan Steel Co. [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)](^1) majority interest, and a Government pension fund, 40%</td>
<td>Plant at Neyshabur, Khorasan Province</td>
<td>650</td>
</tr>
<tr>
<td>Steel, crude—Continued</td>
<td>Do. Vian Steel Melting and Casting Co.</td>
<td>Plant, about 42 kilometers of Hamadan, Hamadan Province</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>Do. Meibod (Maybod) Steel Co. (Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)), 50%</td>
<td>About 15 kilometers southwest of Meybod, Yazd Province</td>
<td>300</td>
</tr>
<tr>
<td>Magnesite</td>
<td>Birjand Refractory Mining Co. (Iranian Refractories Procurement &amp; Production Co.)</td>
<td>Hoz Sefid, Shirkuhak, and Torshak Mohammadi Mines, about 50 kilometers southeast of Birjand, South Khorasan Province</td>
<td>NA</td>
</tr>
<tr>
<td>Natural gas</td>
<td>National Iranian Oil Co. (Government, 100%)</td>
<td>Associated gas from company oilfields</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Do. Pars Oil and Gas Co. (National Iranian Oil Co., 100%)(^1)</td>
<td>South Pars gasfields, offshore</td>
<td>32 *</td>
</tr>
<tr>
<td>Petroleum: Crude</td>
<td>National Iranian Oil Co. (Government, 100%)</td>
<td>Onshore oilfields include the Agha Jari, the Ahwaz-Asmari, the Bangestan, the Hakimeh, the Gachsaran, the Karanj, the Marun, the Pazyran, and the Rag-e-Safid. Offshore oilfields include the Abouzarr, and the Salman</td>
<td>1,400</td>
</tr>
<tr>
<td></td>
<td>Do. National Iranian Oil Co. and buyback contract joint venture of Shell Iran Nowrooz/Soroosh Development (70%), JJI S&amp;N B.V. (20%), and Iranian Offshore Engineering &amp; Construction Co. (10%)</td>
<td>Nowrooz and Soroosh fields, offshore</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Do. National Iranian Oil Co. and buyback contract joint venture of Total S.A. (55%) and Eni SpA (45%)</td>
<td>Doroud field, offshore</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Do. National Iranian Oil Co. and buyback contract joint venture of Total S.A. (70%) and PETRONAS Carigali International Sdn Bhd (30%)</td>
<td>Sirri A and E fields, offshore</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Do. National Iranian Oil Co. and buyback contract joint venture of Total S.A. (60%) and Naftiran Intertrade Co. (40%)</td>
<td>Darquain field, onshore</td>
<td>17</td>
</tr>
<tr>
<td>Refined</td>
<td>National Iranian Oil Refining and Distribution Co. (NIORDC) (Government, 100%)</td>
<td>Refineries at Abadan, Arak, Bandar Abbas, Esfahan, Kermanshah, Lavan, Shiraz, Tabriz, and Tehran</td>
<td>1,728</td>
</tr>
<tr>
<td>products</td>
<td>Do. National Iranian Oil Co. and buyback contract joint venture of Total S.A. (60%) and Naftiran Intertrade Co. (40%)</td>
<td>About 35 kilometers northeast of Bafgh, Yazd Province</td>
<td>500</td>
</tr>
<tr>
<td>Phosphate rock</td>
<td>Esfordi Phosphate Complex (Iran Minerals Production &amp; Supply Co.)(^1)</td>
<td>Daregaz placer and Kahnuj titanium dioxide processing plant</td>
<td>NA</td>
</tr>
<tr>
<td>Titanium, ilmenite</td>
<td>Kahnuj pilot plant [Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO)](^1)</td>
<td>Saghhand Mine, about 125 kilometers northeast of Yazd, Yazd Province</td>
<td>50 *</td>
</tr>
<tr>
<td>Uranium</td>
<td>Atomic Energy Organization of Iran (Government)</td>
<td>Gchine Mine, near Bandar Abbas, Hormozgan Province</td>
<td>21 *</td>
</tr>
<tr>
<td>Zinc: Ore</td>
<td>Iran Zinc Mine Development Co.</td>
<td>Angouran open pit mine, Dandi, Zanjan Province</td>
<td>500 *</td>
</tr>
<tr>
<td></td>
<td>Do. BAMA Co. (IranKooh)</td>
<td>Irankouh complex (Gooshfili and Tappeh Sorkh open pit mines, about 20 kilometers southeast of Esfahan, Esfahan Province, and Kolah Darvazeh Mine, south of Esfahan, Esfahan Province)</td>
<td>190 *</td>
</tr>
<tr>
<td></td>
<td>Do. Bafgh Mining Co.</td>
<td>Kushk Mine, Yazd Province</td>
<td>120 *</td>
</tr>
<tr>
<td></td>
<td>Do. Beroner Tehran Co.</td>
<td>Emarat Mine, about 25 kilometers southwest of Arak, Markazi Province</td>
<td>100 *</td>
</tr>
</tbody>
</table>

See footnotes at end of table.
### Table 2—Continued

**IRAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2009**

(Thousand metric tons unless otherwise specified)

<table>
<thead>
<tr>
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<th>Annual capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc—Continued:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refined metal</td>
<td>Bafgh Zinc Co. (Iran Zinc Mine Development Co.)</td>
<td>West of Bafgh, Yazd Province</td>
<td>30</td>
</tr>
<tr>
<td>Do.</td>
<td>Qeshm Zinc Smelter Co. (affiliate of Calcimine Co.)</td>
<td>Kaveh Industrial Zone, Qeshm Island, Hormozgan Province</td>
<td>20</td>
</tr>
<tr>
<td>Do.</td>
<td>Calcimine Co. (Iran Zinc Mine Development Co.)</td>
<td>Dandi (Angouran) plant, Zanjan Province</td>
<td>18</td>
</tr>
<tr>
<td>Do.</td>
<td>Faravari Mavad Madani Iran Co. (Iran Zinc Mine Development Co.)</td>
<td>Dandi, Zanjan Province</td>
<td>18</td>
</tr>
<tr>
<td>Do.</td>
<td>Bandar Abbas Zinc Production Co. (affiliate of Calcimine Co.)</td>
<td>Bandar Abbas, Hormozgan Province</td>
<td>13</td>
</tr>
</tbody>
</table>

1 Estimated. Do., do. Ditto. NA. Not available.
2 About 3,000 mines that are located in Iran are active. About 65% of the active mines and quarries produce building and construction materials, such as aggregate, sand, and stone.
3 Data was augmented by input from the Iranian National Committee of the World Mining Congress.
4 Government owned.
5 Recovered from Sar Chemesh copper plant slimes.
6 A subsidiary of state-owned Iranian Mines and Mining Industries Development and Renovation Organization (IMIDRO).
7 May include basic sediment and condensate.
8 Held 95% equity interest.
9 Includes lead and zinc ores.