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2007 Minerals Yearbook

TURKEY

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The Mineral Industry of Turkey

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Turkey had a diverse mineral industry and was a leading producer of barite, bentonite, boron minerals, chromite, feldspar, kaolin, limestone, magnesite, marble, perlite, and pumice. Turkey also was a significant source of value-added processed mineral commodities, such as cement, ceramics, glass, and steel. The volume of hydrocarbons produced in Turkey was small, but the country was a significant crude oil and natural gas transit corridor.

Minerals in the National Economy

The mining and quarrying sector accounted for about 0.76% of the gross domestic product (GDP) (when calculated at 1998 producers' prices) in 2007, which was slightly up from 0.74% in 2006 (or 1.1% of the GDP when calculated at 1987 producers' prices). The construction sector accounted for 6.49% of the GDP in 2007 compared with 6.43% in 2006. Mining and quarrying occupied about 0.6% of the labor force, and the construction sector, about 5.8% (Türkiye İstatistik Kurumu, undated a-c).

Government Policies and Programs

Article 168 of the Constitution (1982) and the Mining Law of June 15, 1985 (Maden Kanunu, law No. 3213), declared that natural resources, such as minerals, belonged to the state and were not considered to be part of the land where they were found. Law No. 5177 of 2004 (the new mining law, which amended the 1985 mining law), the Regulation Concerning the Implementation of the Mining Law (which was issued in 2005), and the Mining Activities Permitting Regulation of 2005 also regulated mining activity in Turkey. The Government issued licenses to Turkish individuals or legal entities to explore for minerals or operate mines for a specific period of time. The Foreign Direct Investment Law of June 2003 (law No. 4875) authorized foreign investors to establish companies in Turkey that could hold mining rights under the Mining Law.

Maden İşleri Genel Müdürlüğü [General Directorate of Mining Affairs] of the T.C. Enerji ve Tabii Kaynaklar Bakanlığı [Ministry of Energy and Natural Resources] regulated the mining industry. T.C. Çevre ve Orman Bakanlığı [Ministry of Environment and Forestry] enforced the Environmental Law of 1983 (law No. 2872) and the Regulation on Environmental Impact Assessment of December 16, 2003. State-owned Eti Maden İşletmeleri Genel Müdürlüğü retained exclusive rights to explore for and develop boron deposits under law No. 2840 of 1983. Boron operations had been nationalized by law No. 2712 of 1978.

In general, mineral exports were not prohibited under either Export Regime Decree No. 95/7623 of 1995 or Amended Communique No. 96/31 of 2000 [Concerning Goods the Export of Which is Banned or Subject to Pre-Authorization]; the export of dual-use and sensitive goods, however, was administered by T.C. Başbakanlık Dış Ticaret Müsteşarlığı [Undersecretariat of Foreign Trade] under Communique No. 2003/12 of December 2, 2003. Dual-use and sensitive goods included machinery, material (such as high-tensile-strength metal alloys), and software that were usable for either civilian or military purposes.

Petroleum exploration and production were administered by the Ministry of Energy and Natural Resources under the Petroleum Law of 1954 (law No. 6326). The distribution, export, import, refining, and sale of petroleum were licensed under and regulated by the Petroleum Market Law of 2003 (law No. 5015). The distribution, export, import, and transmission of natural gas were regulated by the Natural Gas Market of 2001 (law No. 4646), as amended by law No. 5367 of 2005. The marketing of domestic and imported liquefied petroleum gases was regulated by the Liquefied Petroleum Gases (LPG) Market Law of 2005 (law No. 5307).

Turkey joined the Kimberley Process as a participant in 2007. To discourage the trade in conflict diamond, Kimberley Process participant nations (which accounted for about 98% of the international diamond trade) were prohibited from trading diamond with nonparticipant nations.

Production

The increased prices of minerals worldwide contributed to the notable increase in interest in mining and mineral processing activity in Turkey. Significant increases in production in 2007 were noted for numerous metal and industrial minerals, such as bentonite, boron, emery, ferrosilicon, gold, illite, iron ore, lead ore, manganese ore, onyx, silica sand, sodium sulfate, steel, and talc. Notable decreases in production in 2007 were confined mainly to industrial minerals, such as ammonia, diatomite, granite, olivine, peat, salt, sepiolite, and strontium.

In late 2007, Albuck Madencilik San. ve Tic. A.Ş. started mining bauxite in Mugla and ŞETAT Madencilik Gıda San. ve Tic. A.Ş. began producing magnesite from the Orhaneli region of Bursa Province where ŞETAT also produced chromite and olivine. Alkim Alkali Kimya A.Ş commissioned a renovated 80,000-metric-ton-per-year (t/yr)-capacity Bolluk Lake sodium sulfate plant at Cihanbeyli and a new 40,000-t/yr-capacity refined salt plant at the company's Koralkim facility at Dazkiri. European Nickel PLC of the United Kingdom suspended the mining of nickel laterite ore at the Çaldağ Mine pending the issuance of a forestry permit. Data on mineral production are in table 1 (Alkim Alkali Kimya A.Ş, undated a, b).

Structure of the Mineral Industry

The private sector dominated the country's industrial minerals and metals sectors. In 2007, 708 new mining and quarrying companies were established in Turkey, and 38 mining and quarrying companies were closed. Table 2 is a list of cement production facilities (Türkiye İstatistik Kurumu, 2008a).

In 2007, KOLİN İnşaat, Turizm San. ve Tic. A.Ş. renamed the Deveci iron ore operating company Hekimhan Madencilik İthalat İhracat San. ve Tic. A.Ş. KOLİN acquired the Deveci iron mines of Türkiye Demir ve Çelik İşletmeleri A.Ş. from the Government's Privatization Administration in 2006.

Mineral Trade

In 2007, total Turkish exports of goods were valued at about $107.2 billion compared with $85.5 billion in 2006. Of the total exports in 2007, iron and steel accounted for about $8.5 billion; mineral fuels, $5.1 billion; manufactured articles of iron and steel, $4.1 billion; jewelry and precious or semiprecious stones, $2.6 billion; aluminum and aluminum articles, $1.6 billion; building stone, $1.2 billion; glass and glassware, $828 million; borates and boron chemicals, more than $380 million; copper ore and concentrates, about $326 million; and chromium ore, $262 million (Türkiye İstatistik Kurumu, 2008b, table 4; İstanbul Maden ve Metallar İhracatçi Birlikleri Genel Sekreterliği, undated).

Total imports were valued at about $170 billion in 2007, of which mineral fuels accounted for about $33.9 billion, and iron and steel, about $16.2 billion. About 34% of the iron and steel imports was steel scrap (Türkiye İstatistik Kurumu, 2008b, table 5).

Commodity Review

Metals

Copper, Gold, Lead, Molybdenum, Silver, and Zinc.—Mining operations at the Kişladag open pit mine, which was owned by Eldorado Gold Corp. of Canada, were suspended in August because of a court injunction related to litigation concerning the mine's environmental certificate. Third party litigation to cancel the environmental certificate for Eldorado's development of the Efemcukuru underground gold project also was initiated in 2007. In April, after the expiration of a temporary injunction, Inmet Mining Corp. of Canada resumed onsite development work of the Cerattepe underground copper-zinc mine; however, third-party-initiated legal proceedings to cancel the operating license for the Cerattepe Mine continued (Eldorado Gold Corp., 2008, p. 16, 18; Inmet Mining Corp., 2008, p. 31).

Domestic and international exploration companies exploring in Turkey in 2007 included Aldridge Minerals Inc. of Canada, which continued to drill on the Yenipazar copper-gold-lead-silver-zinc property. Anatolia Minerals Development Ltd. continued work on the Çopler gold project and Ariana Resources plc of the United Kingdom explored the Demirci, the Ivrindi, the Kiziltepe, and the Sindirgi gold prospects. Ariana also explored the Ardala copper-gold property.

The joint venture of Cloudbreak Resources Ltd. of Canada and Anatolia Minerals Development initiated exploration on the Sarp-Ikiztepe copper-gold-molybdenum property. The joint venture of Dedeman Madencilik San. ve Tic. A.Ş. of Turkey and Eurasian Minerals Inc. of Canada drilled the Balya lead-silver-zinc property. Dedeman acquired the Akutuan property from Eurasian Minerals, and continued to drill the copper-lead-silver-zinc prospect. Eldorado Gold explored the Aydogon Tepe, the Bahcecik, the Dogancilar, the Kapikaya, the Kirazli, and the Kuscayiri properties in the Biga Peninsula and the Pontides regions.

Eurasian Minerals drilled the Akarca gold-silver project. The former joint venture of Eurasian Minerals and Turmenka Madencilik San. ve Tic. A.Ş. of Turkey drilled the Golcuk copper-silver prospect in 2007 before Turmenka withdrew from the project. The joint venture of Fronteer Development Group of Canada and Teck Cominco Ltd. of Canada drilled the Agi Dagi gold, the Halilaga copper-gold, and the Kirazli gold prospects. Fronteer Development also evaluated the Samli copper-gold property. Kefi Minerals Plc of Turkey explored the Artvin, the Derenin Tepe, and the Meyvali gold prospects.

Koza Altın İşletmeleri A.Ş. of Turkey explored the Karadağ and the Kaymaz gold prospects. Mediterranean Resources Ltd. of Canada drilled the Corak gold and the Tac copper-gold properties. Hatay Madencilik A.Ş. of Turkey completed a drill program on the Hatay license, after which the 25% interest in Hatay Madencilik held by Marakand Minerals Ltd. of the United Kingdom (a subsidiary of Oxus Gold PLC) was sold to KazakhGold Group Ltd. of Jersey. Nesko Maden Tic. San. A.Ş. of Turkey started exploration of the Kahramanmaras/Gooksun project. Nuinsco Resources Ltd. of Canada drilled the Berta copper-gold-zinc and the Elmalaan copper-zinc prospects.

The joint venture of Rio Tinto Group of Australia and the United Kingdom and Anatolia worked on the Torul and the Tunceli copper-gold-molybdenum prospects. The joint venture of Silvermet Inc. of Canada and Anatolia Minerals Development drilled the Tufanbeyli zinc prospect. Stratex International plc of the United Kingdom drilled the Altintepe gold, the Doğanbey gold, the Inlice gold, and the Muratdere copper-gold-molybdenum projects. The joint venture of Valhalla Resources Ltd. and Anatolia explored the Karagöz gold license area.

Nickel.—In 2007, European Nickel used stockpiled nickel laterite ore from the Çaldağ Mine to continue to export direct shipping ore. European Nickel suspended further development of the mine pending the issuance of a forestry permit.

Aldridge Minerals drilled at its Murat Dag nickel laterite project. Other companies working in the area included the joint venture of Lydian International Ltd. (formerly Dawson Creek Capital Corp.) and Newmont Overseas Exploration Ltd., which explored its Muratdag gold-nickel prospect, and Kefi Minerals, which started mapping and soil sampling at its Muratdag gold-nickel prospect.

Industrial Minerals

Boron.—In 2007, Eti Maden İşletmeleri Genel Müdürlüğü increased boron concentrate output by 11% owing in part to the expansion of operations that accompanied the startup of a new 325,000-t/yr-capacity borate ore concentrator and a new 100,000-t/yr colemanite (boron) grinding plant at Bigadiç. The new concentrator raised the Bigadiç plant's total concentration capacity to 975,000 t/yr. In 2007, Eti Maden also started a 14,000-t/yr-capacity sodium perborate plant expansion (which increased the company's total sodium perborate production capacity to 34,000 t/yr) and a 5-metric-ton-per-hour-capacity pilot plant that produced calcined tincal. Eti Maden patented the calcined tincal product and production process (Eti Maden İşletmeleri Genel Müdürlüğü, 2008, p. 48-50).

Nitrogen.—Istanbul Gubre Sanayi A.Ş. (IGSAŞ), which was acquired by Yildiz Yatirim İnşaat A.Ş. in 2004, suspended ammonia production in 2006. IGSAŞ continued to produce fertilizer in 2007, but used imported ammonia.

Soda Ash.—Rio Tinto continued its evaluation of the Kazan trona (soda ash) project. Rio Tinto was expected to begin trial mining of the deposit by solution mining in 2008.

Outlook

Turkey has significant resources of bentonite, boron, lignite, marble, and perlite. Although Turkey has numerous other mineral deposits, most international investor interest is focused on the development of high-value minerals, such as gold (Erscen, 1989). Administrative and legal difficulties, such as those that resulted in the former suspension of operations at the Ovacik gold mine; the unexpected delay of permission to construct the Çaldağ nickel mine's heap leach pads and processing plant; and the legal proceedings to cancel previously issued environmental certificates for the Efemcukuru gold development project and the Kişladag Mine, and the licenses for the Cerattepe copper and zinc project, could raise awareness of possible problems with mineral development projects in Turkey.

As a major energy transit corridor, Turkey could connect hydrocarbon producers in Asia with consumers in Europe. The Baku-Tbilisi-Ceyhan oil pipeline delivered crude oil from Azerbaijan to the export terminals of the Ceyhan oil docks on the Mediterranean. Crude oil from Iraq intermittently moved through Turkey to Ceyhan; throughput was limited by sabotage of various sections of the pipeline. Regular shipments of crude oil from Iraq are not expected to resume until the security situation in Iraq is resolved. Construction of the Trans Anatolian crude oil pipeline, which would connect Samsun on the Black Sea to Ceyhan, is expected to be completed in 2010. Natural gas from Azerbaijan, Iran, and Russia also is piped into Turkey.

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TABLE 1
TURKEY: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity		2003	2004	2005	2006	2007
METALS						
Aluminum		63,000	60,000	60,000 e	60,000 e	65,000 e
Antimony:e						
Ore, mine output:						
Gross weight		12,500	20,107 2	28,000	25,000 r	28,000
Sb content		650	900	1,400	1,250 r	1,400
Concentrates:						
Gross weight		2,000	3,000	5,000	4,500	5,000
Sb content		400	700	1,200	1,100	1,200
Bauxite and alumina						
Bauxite		364,306	365,836	475,349	771,227	921,369
Alumina, gross weight		162,174	169,991	112,558	150,117 r	163,455
Chromium, gross weight (34% to 43% chromic oxide)[3]		229,294	506,421	688,377	457,893	466,175
Copper:						
Mine output, exclusive of pyrite:[4]						
Gross weight		2,620,896	2,356,147	2,946,106	2,500,000 e	2,700,000 e
Cu content of ore[e]		58,000	49,000	54,000	46,000	49,000
Metal:[e]						
Smelter output, primary and secondary		30,400	34,700 2	27,600	30,000	30,000
Refined		45,000	64,000	95,000	106,000	105,000
Gold[e, 5]	kilograms	5,390 r, 2	3,260 r	4,170 r	8,040 r	9,920
Iron and steel:						
Iron ore:						
Gross weight	thousand metric tons	3,429	4,120	4,598	3,785 r	4,849
Fe content[e]	do.	1,830	2,200	2,450	2,000	2,600
Metal:						
Pig iron and ferroalloys:						
Cast iron[6]		181,080	213,210	178,395	121,956	264,808
Crude (pig) iron		5,693,764 r	5,835,889 r	6,371,084 r	5,952,106 r	6,235,537
Ferrochromium		35,393	28,701	26,043	67,975	69,730
Ferrosilicon[e]		7,000	--	4,000	2,000	5,000
Steel, crude including castings	thousand metric tons	18,298	20,478	20,960	23,300 e	25,700 e
Lead:						
Mine output, Pb and Pb-Zn ores:						
Gross weight		379,250	407,637	366,308 r	279,727 r	684,931
Pb content		17,500	18,650	17,000 r	13,000 r	32,000
Concentrates:[e]						
Gross weight		25,000	26,000	29,000	23,000	55,000
Pb content		16,000	17,000	15,500	12,000	30,000
Metal, refined[e]		6,000	6,000	6,000	6,000	6,000
Manganese ore, gross weight[7]		25,202 r	21,204 r	52,273 r	32,144 r	42,033
Mercury		--	--	--	--	65
Molybdenum, ore, gross weight		--	--	--	--	185
Nickel, mine output, Ni content[e]		640	40	1,000	1,500	--
Silver, mine output, Ag content[8]	kilograms	95,000	97,000 r	137,560 r	167,340 r	198,000 2
Zinc:[e]						
Mine output, Zn and Cu-Zn ore:						
Gross weight	thousand metric tons	930 2	765 2	1,000	1,500	1,800
Zn content	do.	38 r	38 r	41 r	69 r	80
Concentrates:						
Gross weight		90,000 r	90,000 r	96,000 r	160,000 r	188,000
Zn content		33,600	33,400	36,000	60,000	70,000
INDUSTRIAL MINERALS						
Aluminum sulfate, alunite		622 r	-- r	-- r	6,683 r	2,511
Barite, crude		119,648	134,504	157,179	161,993 r	184,041
Boron minerals:						
Run of mine		2,207,092	2,878,930	3,478,784	3,955,574	4,406,970
Concentrates		1,399,000	1,587,992	1,824,571	1,818,944	2,127,812
Refined borates		518,000	714,538	923,253	1,021,139	1,092,056

See footnotes at end of table.

TABLE 1—Continued
TURKEY: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity		2003	2004	2005	2006	2007
INDUSTRIAL MINERALS—Continued						
Cement, hydraulic	thousand metric tons	35,077	38,796	42,787	47,977	48,832
Clays:						
Bentonite		831,146	1,281,468 r	501,142 r	1,134,251 r	1,742,487
Kaolin		370,455	536,008	908,862 r	1,064,107 r	914,117
Other		2,387,371 r	3,626,625 r	1,962,072 r	3,034,560 r	2,871,145
Diatomite		36,303 r	1,324 r	44,122 r	45,420 r	33,135
Emery		15,402	7,902	9,378 r	13,899 r	19,108
Feldspar, run of mine		1,862,310	1,983,336	2,331,971	5,771,892 r	6,548,796
Fluorspar		718	-- r	-- r	-- r	--
Glass, crude	thousand metric tons	1,315	1,229	1,058	1,600 r, e	1,900 e
Graphite, run of mine[e]		942 [2]	1,000	100 r	300 r	400
Gypsum		2,354,234 r	2,300,703 r	3,500,864 r	4,369,771 r	3,241,177
Lime[e, 9]	thousand metric tons	3,300	3,400	3,400	3,600 r	3,600
Magnesium, magnesite, run of mine		3,224,278	3,732,952	2,372,206 r	2,088,033	2,100,000 e
Mica:						
Illite		--	--	--	27,898	57,774
Other		4,772	321	3,584	--	3,313
Nitrogen, N content of ammonia		279,790 r	329,444 r	304,617 r	91,665 r	--
Olivine		20,464	71,396	94,439	191,298	145,839
Peat		20,352	62,108	71,749	185,944	145,403
Perlite, run of mine		136,683	133,829	156,935	260,000 r, e	270,000 e
Pumice		895,616	1,035,975	1,860,037 r	3,515,644 r	3,995,423
Pyrites, cupreous, gross weight		1,103,872	765,432	800,000 e	900,000 e	900,000 e
Sepiolite, meerschaum[e]	kilograms	200	150	170	130	50
Silica sand, gross weight		3,098,668 r	2,073,725 r	1,729,525 r	2,608,260 r	4,997,694
Sodium compounds:						
Salt, NaCl, all types	thousand metric tons	2,243	2,158	2,253	2,800 e	1,500 e
Soda ash, trona	do.	835	846	869 r	891 r	947
Sodium sulfate, concentrates		556,575	523,285	809,187 r	226,014 r	1,120,968
Stone:						
Dolomite		1,158,539	2,109,362	10,636,615 r	14,621,691 r	15,672,171
Granite		106,169	125,030	160,930	320,069	252,354
Limestone, other than for cement	thousand metric tons	28,609	30,963	12,271 r	5,876 r	7,171
Marble	cubic meters	544,629	668,996	1,578,730 r	1,855,740 r	2,801,757
Onyx	do.	176	57	451	2,578	5,663
Quartz and quartzite		1,834,181 r	16,765,177 r	1,466,533 r	1,871,887 r	2,146,969
Travertine	cubic meters	198,730	601,068	696,545	1,017,672	995,065
Strontium minerals, celestite:[e]						
Run of mine		159,923 r, 2	127,947 r, 2	30,100 r, 2	10,500	6,700
Concentrates		96,000 r	77,000 r	18,000 r	6,300	4,200
Sulfur:[e]						
Byproduct:						
Petroleum		42,000	49,000 [2]	54,000 [2]	69,000 r	86,000
Other		46,000	19,000	20,000	20,000 r	20,000
S content of pyrites		28,000	20,000	20,000	20,000	20,000
Total		116,000	88,000	94,000	109,000	126,000
Talc		17,099 r	8,233 r	8,775 r	4,969 r	12,722
Titanium minerals, rutile, gross weight		2,000	4,900	12 e	--	20
Zeolite		156,877	192,240	249,572	121,014	104,138
MINERAL FUELS AND RELATED MATERIALS						
Asphalt, natural		217,759	738,915	1,761,500	2,220,400	2,000,000 e
Carbon black		6,754	32,686	26,820	51,788	40,379
Coal:						
Hard coal, run of mine	thousand metric tons	3,090	2,843	3,050	3,071	3,233
Lignite, run of mine	do.	43,749	43,754	55,626	61,006	70,606
Coke and semicoke	do.	2,543	2,855	2,800 e	3,261 r	3,337
Gas, natural, marketed	thousand cubic meters	275,947	344,196	483,525 r	306,136 r	287,501

See footnotes at end of table.

TABLE 1—Continued

TURKEY: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity		2003	2004	2005	2006	2007
MINERAL FUELS AND RELATED MATERIALS—Continued						
Petroleum:						
Crude	thousand 42-gallon barrels	16,980	16,270	16,500 e	15,300 r	15,000 e
Refinery products:						
Liquefied petroleum gas	do.	7,960	8,340	8,900 e	9,300 e	8,800 e
Gasoline	do.	28,800	27,350	30,300 e	30,800 e	33,900 e
Naphtha	do.	10,700	12,700	11,500 e	11,500 e	7,200 e
Jet fuel and Kerosene	do.	13,840	14,340	15,924 e	17,100 e	20,500 e
Distillate fuel oil[10]	do.	53,800	53,660	56,400 e	56,800 e	53,000 e
Lubricants	do.	1,960	2,050	2,400 e	2,300 e	2,100 e
Residual fuel oil	do.	38,600	40,270	42,100 e	38,600 r	36,200 e
Asphalt	do.	8,550	8,430	10,700 e	13,400 e	13,900 e
Unspecified[11]	do.	2,640	3,610	1,050 e	5,300 e	5,300 e
Total	do.	166,850	170,750	179,000 e	185,000 r, e	181,000 e

[e]Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. [r]Revised. Do., do. Ditto. -- Zero.

[1]Table includes data available through March 2, 2009. In addition to the commodities listed, large quantities of construction materials (clay, and sand and gravel) are quarried. Also mined are basalt, diabase, sandstone, serpentine, and slate for building stone; gypsum and limestone for cement manufacture; and garnet, iron oxide pigment, and tungsten, but available information is inadequate to make estimates of output.

[2]Reported figure.

[3]Approximately 70% of gross production is salable product.

[4]Copper mines produce a copper concentrate (of about 22% Cu) and a cupreous pyrite concentrate (of about 0.7% Cu). Copper is not recovered from the cupreous pyrite concentrate.

[5]Data include estimated content of Turkish copper refinery tankhouse slimes.

[6]Series formerly carried as pig iron.

[7]Does not include manganiferous iron ore from the Deveci Mine, production of which amounts to several hundred thousand metric tons per year and has a manganese content of between 3% and 5%.

[8]Includes estimated content of base-metals-refinery tankhouse slimes.

[9]Estimated sales only.

[10]Diesel fuel (gasoil) and special heating oil.

[11]Includes refinery fuel and losses.

TABLE 2
TURKEY: STRUCTURE OF THE CEMENT INDUSTRY IN 2007

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement			
Grey portland	Adana Çimento Sanayii ve Ticaret A.Ş. (Ordu Yardımlaşma Kurumu (OYAK) Çimento Grubu, 57%)	Adana, Adana Province	3,400
Do.	do.	İskenderun grinding plant, Iskenderun, Hatay Province	1,000
Do.	Afyon Çimento Sanayii Ticaret A.Ş. (Ciments Français S.A., 77%)	Afyon, Afyon Province	550
Do.	Akçansa Çimento Sanayi ve Ticaret A.Ş. (HeidelbergCement AG, 40%, and Sabancı Holding A.Ş., 40%)	Büyükçekmece plant, Buyukcekmece, Istanbul Province	2,800
Do.	do.	Çanakkale plant, about 11 kilometers northwest of Ezine, Canakkale Province	3,500
Do.	do.	Ladik plant, Ladik, Samsun Province	1,050
Do.	AS Çimento Sanayi ve Ticaret A.Ş.	Bucak, Burdur Province	3,200
Do.	Aşkale Çimento Sanayi ve Ticaret A.Ş.	Trabzon plant, Degirmendere, Trabzon Province	800
Do.	do.	Askale, Erzurum Province	720
Do.	Bakırçay Çimento Sanayii ve Ticaret A.Ş. (Kars Çimento San. ve Tic. A.Ş., 98%)	Poyracık, near Kınık, Izmir Province	12
Do.	Bartın Çimento Sanayii ve Ticaret A.Ş. (Sanko Holding A.Ş.)	Bartin plant, Bartin Province	400
Do.	Baştaş Çimento Sanayii A.Ş. (Vicat Group, 85%)	Elmadag, Ankara Province	1,500
Do.	Batıçim Batı Anadolu Çimento Sanayii A.Ş. (Orascom Construction Industries, 23%)	Bornova, İzmir Province	1,600
Do.	Batısöke Söke Çimento Sanayii ve Ticaret A.Ş. (Batıçim Batı Anadolu Çimento Sanayii A.Ş., 75%)	Soke, Aydin Province	1,300
Do.	Bolu Çimento Sanayii A.Ş. (Ordu Yardımlaşma Kurumu (OYAK) Çimento Grubu, 52%)	About 14 kilometers east of Bolu, Bolu Province	2,200
Do.	do.	Ankara grinding plant, Kazan, Ankara Province	800
Do.	Bursa Çimento Sanayii ve Ticaret A.Ş. (Bursa Çimento Fabrikası A.Ş., 98%)	Kestel, Bursa Province	2,850
Do.	Çimentaş İzmir Çimento Fabrikası Türk A.Ş. (Intercem SA, 67%, and Cementir Holding SpA, 29%)	Isıkkent, Izmir Province	2,600
Do.	do.	Trakya plant, Lalapasa, Edirne Province	1,300
Do.	Çimko Adıyaman Çimento ve Beton Sanayii ve Ticaret A.Ş.	About 18 kilometers southwest of Adiyaman, Adiyaman Province	1,350
Do.	Çimko Çimento ve Beton Sanayii Ticaret A.Ş.	Narlı plant,	3,300 [1]
Do.	Cimpor Yibitaş Çimento Sanayii ve Ticaret A.Ş. (Cimpor Internacional, SGPS, S.A., 99%)	Çorum plant, Corum, Corum Province	950
Do.	do.	Hasanoğlan grinding plant, Hasanoglan, Hasanoglan Province	725
Do.	do.	Nevşehir grinding plant, Kalaba, Nevsehir Province	300 [e]
Do.	do.	Samsun grinding plant, about 6 kilometers west of Samsun, Samsum Province	300 [e]
Do.	do.	Sivas plant, Sivas, Sivas Province	615
Do.	do.	Yozgat plant, Saraykoy, Yozgat Province	800
Do.	Çimsa Çimento Sanayii ve Ticaret A.Ş. (Sabancı Holding A.Ş., 47%)	Ankara grinding plant, Lalahan, Ankara Province	230
Do.	do.	About 20 kilometers northwest of Eskisehir, Eskisehir Province	1,800
Do.	do.	Near Agirnas, Kayseri Province	1,000
Do.	do.	Mersin plant, Yenitaskent, Mersin Province	2,300
Do.	do.	Niğde plant, Nigde, Nigde Province	1,200
Do.	Denizli Çimento Sanayi ve Ticaret A.Ş. (CRH plc, 50%, and Eren Holding A.S., 50%)	About 5 kilometers northwest of Kaklik, Denizli Province	2,500
Do.	Elazığ Çimento A.Ş. (Kars Çimento Sanayii ve Ticaret A.Ş., 94%, and Cimentas A.Ş., 65%)	Elazıg, Elazıg Province	900
Do.	Göltaş Göller Bölgesi Çimento Sanayii ve Ticaret A.Ş. (Sadecib S.A., 34%, and Göl Yatırım Holding A.Ş, 28%)	About 15 kilometers north-northwest of Isparta, Isparta Province	2,900
Do.	Kars Çimento Sanayii ve Ticaret A.Ş. (Cimentas A.Ş., 58%, and Alfacem Srl, 40%)	Bozkale, Kars Province	600
Do.	Konya Çimento Sanayii A.Ş. (Vicat Group, 81%)	Konya, Konya Province	1,600
Do.	Lafarge Aslan Çimento A.Ş. (Financiere Lafarge S.A., 97%)	Darica plant, Gebze, Kocaeli Province	2,880

See footnotes at end of table.

TABLE 2—Continued
TURKEY: STRUCTURE OF THE CEMENT INDUSTRY IN 2007

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement—Continued			
Grey portland—Continued			
Do.	Lafarge Ereğli Çimento Sanayii ve Ticaret A.Ş. (Lafarge Aslan Çimento A.Ş., 50%)	Karadeniz Ereğli plant, Kemer, Zonguldak Province	300
Do.	Limak Kurtalan Çimento Sanayii ve Ticaret A.Ş. (Limak Şirketler Grubu)	Şanlıurfa plant, about 14 kilometers north northwest of Sanliurfa, Sanliurfa Province	850
Do.	do.	Gaziantep plant, Gaziantep (Sehit Kamil), Gaziantep Province	1,089
Do.	do.	Kurtalan plant, Kurtalan, Siirt Province	900 e
Do.	Limak Madencilik Yapı Çimento Sanayii ve Ticaret A.Ş. (Limak Şirketler Grubu)	Ergani plant, Ergani, Diybakir Province	700 e
Do.	Limak - Istaç Inşaat Sanayi ve Ticaret A.Ş.	Bitlis plant, Bitlis Province	525 [1]
Do.	Mardin Çimento Sanayii ve Ticaret A.Ş. (Ordu Yardımlaşma Kurumu (OYAK) Çimento Grubu, 56%)	About 6 kilometers northeast of Mardin, Mardin Province	2,000
Do.	Nuh Çimento Sanayi A.Ş. (Nuh Ticaret ve Sanayi A.Ş., 43%)	Hereke, Kocaeli Province	5,817
Do.	Set Çimento Sanayi ve Ticaret A.Ş. (Set Çimento Group)	Ambarli grinding plant, Buyukcekmece, Istanbul Province	1,200
Do.	do.	Ankara plant, Ankara, Ankara Province	1,300
Do.	do.	Trakya plant, Pinarhisar, Kirklareli Province	800
Do.	do.	Balikesir, Balikesir Province	500
Do.	Traçim Çimento Sanayii ve Ticaret A.Ş. (Soyak Holding A.Ş. and TBS Taşıma Beton A.Ş).	Evrencik, Vise, Kirklareli Province	2,000 [1]
Do.	Ünye Çimento Sanayi ve Ticaret A.Ş. (Ordu Yardımlaşma Kurumu (OYAK) Çimento Grubu, 51%, and Nuh Çimento Sanayi A.Ş., 39%)	Unye, Ordu Province	2,600
Do.	Van Çimento A.Ş. (Orascom Construction Industries)	Edremit, Van Province	600 [2]
White	Adana Çimento Sanayii ve Ticaret A.Ş. (Ordu Yardımlaşma Kurumu (OYAK) Çimento Grubu, 57%)	Adana, Adana Province	325
Do.	Çimsa Çimento Sanayii ve Ticaret A.Ş. (Sabancı Holding A.Ş., 47%)	Mersin plant, Yenitaskent, Mersin Province	1,000 e

[e]Estimated. Do., do. Ditto.
[1]Under construction.
[2]Orascom is expected to sell the Van plant to the Lafarge Group in early 2008.