### THE MINERAL INDUSTRY OF

# **AZERBAIJAN**

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For more than a century, Azerbaijan has been an oil and gas producer and has had a petroleum refining industry. For metals, it was a producer of alunite, alumina, aluminum, copper and molybdenum ore, iron ore, and lead and zinc ore. The country produced many industrial minerals, the most important being bromine, clays, gypsum, iodine, limestone, marble, sand and gravel, decorative building stone, and precious and semiprecious stones.

In 1999, the country's most significant reserves in terms of value were its oil reserves; a large number of major foreign firms were involved in projects to develop these reserves. Azerbaijan's other mineral resources include such metals as aluminum in alunite, arsenic, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, tungsten, and zinc; such industrial minerals as barite, refractory-grade dolomite, gypsum, kaolin, limestone, pyrite, salt, decorative building stones, and zeolites; and such semiprecious stones as amethyst, andalusite, and garnet.

In 1999, Azerbaijan's gross domestic product and industrial output in constant prices increased by 7.4% and 3.5%, respectively, compared with those of 1998 (Interfax Statistical Report, 2000). One-third of total industrial output was produced by the extractive sector, which centered on oil and gas production (Inman, 2000). In 1999, capital investment in oil and gas extraction accounted for 34.1% of total capital investment compared with 69.3% in 1998 (State Statistical Committee of Azerbaijan Republic, [undated], Capital investment by industries of the economy, accessed January 22, 2001, at URL http://:www.statcom.baku-az.com//HTML/50.htm). Exports of mineral products in 1999 accounted for 78.6% and totaled \$730.6 million of total exports (State Statistical Committee of Azerbaijan Republic, [undated], Import and export of groups of goods in 1999, accessed on January 22, 2001, at URL http://www.statcom.baku-az.com//HTML/67.htm). In 1999, however, the extractive industries employed only 1.6% of the total work force (State Statistical Committee of Azerbaijan Republic, [undated], Employment by the kind of economic activity (thsd), accessed January 22, 2001, at URL http://www.statcom.baku-az.com/ HTML/12.htm).

In 1999, production of oil and gas increased compared with that of 1998; the entire increase in oil output was produced by the Azerbaijan International Operating Company (AIOC) consortium. The AIOC was the first major foreign oil development project in the country following independence and

the source of almost all increases in oil production in recent years. Azerbaijan remained import dependent for natural gas and was striving to achieve self-sufficiency by developing new gasfields in the Caspian Sea. Almost all natural gas was produced by the State Oil Company of Azerbaijan. Developing oil and gas resources in the Caspian Sea was complicated by unsettled legal issues regarding territorial claims of the Caspian littoral state and still unresolved issues that involve expanding the transport infrastructure, which included constructing new major oil and gas pipelines and other infrastructure expansion (Inman, 2000, p. 24; U.S. Energy Information Administration, May 2000, Azerbaijan—Oil, Country Analysis Brief, accessed January 23, 2001, at URL http://www.eia.doe/gov/emeu/cabs/azerbjan. html).

As of 1999, there were 15 offshore and 5 onshore production sharing agreements (PSA's) with 24 companies from 14 foreign countries participating in offshore development (Nanay, 2000). Azerbaijan's joint ventures (JV's) were all located onshore. The country had decided to abolish JV's and to convert them to PSA's in 2000 to encourage greater investment in these projects (U.S. Energy Information Administration, May 2000, Azerbaijan—Oil, Country Analysis Brief, accessed January 23, 2001, at URL http://www.eia.gov/emeu/cabs/azerbjan. html).

Although no official estimates exist for the country's total hydrocarbon reserves, virtually every major oil company in the world has taken an active interest in Azerbaijan. The country was concerned that it not rely solely on oil development, but instead achieve balanced development. For that reason, it has been making efforts to revive and develop its other industries, including its mining and metallurgical industries.

For more extensive coverage of the mineral industry of Azerbaijan, see the 1997 Minerals Yearbook, volume III, Mineral Industries of Europe and Central Eurasia.

#### **References Cited**

Inman, Stephanie, 2000, Economic indicators, in USACC investment guide to Azerbaijan 2000: Washington, DC, United States Azerbaijan Chamber of Commerce, p. 24.

Interfax Statistical Report, 2000, Azerbaijan's economy expands by 7.4% in 1999: Interfax Statistical Report, v. 9, issue 6, February 3-10, p. 15. Nanay, Julia, 2000, Onshore and offshore oil consortia, *in* USACC investment guide to Azerbaijan 2000: Washington, DC, United States Azerbaijan

Chamber of Commerce, p. 63.

## ${\bf TABLE}$ AZERBAIJAN: PRODUCTION OF MINERAL COMMODITIES 1/ 2/ 3/

(Metric tons unless otherwise specified)

Commodity		1995	1996	1997	1998	1999
Alumina		27,000 e/	5,000 e/	12,900	6,600	NA
Aluminum, primary		3,700	812	4,717	3,400	NA
Alunite		150,000 e/	100,000 e/	50,000		
Caustic soda		NA	33,000	23,000	25,000	25,000
Cement		196,000 r/	223,000	314,800	201,000	200,000
Iodine		4 e/	4 e/	5	NA	NA
Gypsum		2,000 e/	2,000 e/	2,000	3,300	3,000 e/
Iron ore, marketable		2,000 e/	2,000 e/	2,200	6,600	NA
Mineral fertilizers		2,000	2,000	10,000	1,000	NA
Natural gas	thousand cubic meters	6,600,000	6,304,000	5,963,900	5,590,000	6,000,000
Petroleum, crude		9,200,000	9,100,300	9,027,000	11,420,000	13,800,000
Salt		2,500 e/	2,500 e/	2,500	5,500	NA
Steel:						
Crude		12,000	2,725	24,607	8,300 r/	NA
Rolled		10,000	2,000	20,000 r/	3,000 r/	NA
Pipes		NA	3,100	13,000	3,100	NA
Sulfuric acid		NA	31,000	52,500	53,000	NA

e/ Estimated. r/ Revised. NA Not available. -- Zero.

 ${\small \textbf{TABLE 2}} \\ {\small \textbf{AZERBAIJAN: STRUCTURE OF THE MINERAL INDUSTRY IN 1999}} \\$ 

(Metric tons unless otherwise specified)

			Annual
Commodity	Major operating companies	Location of main facilities	capacity e/
Aluminum	Sumgait smelter	Sumgait	55,000.
Alumina	Gyandzha refinery	Ganca (formely Gyandzha)	100,000.
Alunite ore	Zaglik alunite mining directorate	Zaylik (formerly Zaglik)	600,000.
Cement	Karadag cement plant	Karadag	1,000,000 (total for both plants).
	Tauz cement plant	Tovuz (formerly Tauz)	
Iodine and bromine	Baku, Karadag, Neftechala plants	Process oil well brines at plants in Baku, Karadag,	NA.
		and Neftechala	
Iron ore, marketable	Dashkesan Mining Directorate	Dashkesan region	1,000,000.
Natural gas, processing	Karadag plant	Near Baku	NA.
Petroleum and natural	Azerbaijan International Operating	Production from 37 onshore deposits, including	300 million cubic meters of
gas 1/	Company (AIOC) for oil production	deposits on the Ashperon Peninsula and in the	natural gas.
		Izhnekurin Valley	
Do.	State Oil Company of Azerbaijan	do.	2,000,000 metric tons of crude
	(SOCAR) for natural gas production		petroleum and gas condensate.
Do.	do.	Production from 17 offshore fields	700 million cubic meters of
		with about 45% of natural gas produced from the	natural gas.
		Bakhar field and 50% of crude petroleum	
		produced from the Gunashli field	
Do.	do.	do.	8,000,000 metric tons of crude
			petroleum and gas condensate.
Petroleum, refined	Azernefteyag (formerly Baku) refinery	Baku	12,000,000. 2/
Do.	Azernefteyagandzhakh (formerly Novo-	do.	10,000,000. 2/
	Baku) refinery		
Steel	Azerboru production aamalgamation	Sumgait	800,000 (crude steel),
	, -	-	700,000 (rolled steel),
			540,000 (pipe, tubes).

e/ Estimated. NA Not available.

<sup>1/</sup> Table includes data and information available through January 25, 2001.

<sup>2/</sup> For some metals, which include copper, gold, lead, molybdenum, silver, and zinc, and for a number of industrial minerals that the country had produced, available information is inadequate to make reliable estimates of output levels.

<sup>3/</sup> Estimated data are rounded to no more than three significant digits.

<sup>1/</sup> For a listing of production-sharing agreements for oil and gas development, refer to the USACC Investment Guide to Azerbaijan 2000, United States-Azerbiajan Chamber of Commerce (USACC), Washington, DC.

<sup>2/</sup> Capacity for crude petroleum distillation.