### THE MINERAL INDUSTRY OF

# TAJIKISTAN

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Tajikistan continued to be a substantial regional producer of primary aluminum, although its entire alumina supply must be imported. The country also mined a number of metals, including antimony, bismuth, copper, gold, lead, mercury, molybdenum, silver, tungsten, and zinc; a variety of industrial minerals; and mineral fuels, including coal, natural gas, petroleum, and uranium.

In mid-1992, a civil war began with some of the most intense fighting in 1992-93. Peace negotiations between the factions, begun in 1994, resulted in a peace agreement that was finalized on June 27, 1997, in Moscow. The need for reconstruction of damaged infrastructure resulting from this conflict is great (World Bank for Reconstruction and Development, 1998).

The Tajik aluminum plant (Tadaz) in Tursunzade in the southwestern part of the country had an apparent capacity to produce about 520,000 metric tons per year (t/yr) of primary aluminum; it was one the largest primary aluminum plants in the former Soviet Union (FSU). Practically the entire output of aluminum at Tadaz was exported.

Tadaz was a major consumer of the country's electric power production, consuming about 40% of total production. After the Russian Federation, Tajikistan had the second largest hydroelectric power resources among the countries of the FSU. Hydroelectric power accounted for about 75% of total energy produced by the country and was also exported to neighboring countries (U.S. Department of Commerce, 1997, p. 10).

Antimony and mercury concentrates were produced at the Anzob mining and beneficiation complex. Ore mined at the Dzhizhikrutskoye antimony and mercury deposit was the principal feedstock for Anzob. The antimony concentrates were exported for further processing to the Kadamzhay antimony plant in Kyrgyzstan, the FSU's major producer of antimony metal and compounds. Tajikistan planned to produce antimony domestically at the Isfara hydrometallurgical plant, which was expanded to produce 500 t/yr of antimony metal (Interfax Mining and Metals Report, 1997).

Gold production was an important part of Tajikistan's economy, and the country had created a number of joint ventures

to develop its gold resources. Tajikistan also has large silver resources, but there has been no large-scale development of these resources.

Tajikistan potentially could supply more of its own gas and oil needs. During the Soviet period, Tajikistan was producing almost 200,000 t/yr of oil and 200 million cubic meters per year of gas, but production has fallen precipitously since the breakup of the Soviet Union, causing the country to be more import reliant.

Tajikistan is well endowed with a number of mineral resources, including antimony, gold, silver, and uranium. However, mineral development, along with other economic development, has been seriously hampered by the instability caused by the civil war. Nevertheless, despite the resulting problems and the concomitant issues of economic and political stability, Tajikistan has succeeded in attracting investment in its gold mining industry. Also, the country retained a large aluminum-producing industry, which was trading with and being supplied by western firms. Investment in these mineral industries and the development of other mineral industries could provide for increased revenues from Tajikistan's mineral sector. However, Tajikistan's distant location from world markets and major transport arteries will result in transport and infrastructure development costs being factors affecting the viability of mineral development.

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

#### **References Cited**

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- U.S. Department of Commerce, 1997, Commercial overview of Tajikistan: BISNIS, March, 24 p.
- World Bank for Reconstruction and Development, 1998, World Bank to support reconstruction efforts in Tajikistan: World Bank for Reconstruction and Development news release no. 98/1627/ECA, 2 p.

#### TABLE 1 TAJIKISTAN: PRODUCTION OF MINERAL COMMODITIES 1/

#### (Metric tons unless otherwise specified)

Commodity		1994	1995	1996	1997	1998
Aluminum, primary		235,000	232,000	198,300	206,400	196,300
Antimony, metal content of concentrate e/		1,000	1,000	1,000	1,200	1,200
Cement		200,000	100,000	50,000	36,400	17,700
Coal		100,000	30,000	20,000	17,000	16,000
Gold	kilograms	1,500 e/	1,500 e/	1,450	2,550	3,000
Lead, metal content of concentrate e/		1,200	1,000	800	800	800 2/
Mercury, metal content of concentrate e/		70	65	65	65	60
Natural gas	million cubic meters	35,700	32,300	35,200	41,600	32,400
Petroleum, crude		30,000	30,000	30,000	26,000	19,400
Silver, metal content of concentrate						5

e/Estimated.

1/ Table includes data and estimated based on information available through December 17, 1999. The country produces a number of other mineral commodities not listed in the table for which information was inadequate to derive estimates.

2/ Reported figure.

#### TABLE 2 TAJIKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 1998

(Metric tons unless otherwise specified)

Commodity	Major operating companies	Location of main facilities	Annual capacity e/
Aluminum	Tajik aluminum plant	Tursunzade	500,000.
Antimony	Anzob mining and beneficiation complex	Dzhizhikrutskoye deposit	2,000.
Do.	Isfara hydrometallurgical plant	Isfara	500.
Bismuth	Leninabad mining and beneficiation complex	Yuzhno-Yangikanskiy deposit	25.
Do.	Isfara hydrometallurgical plant	Isfara	500.
Coal	· · · ·		300,000 total.
Do.	Shurabskoye brown coal	Shurab region	NA.
Do.	Fan-Yagnobskoye hard coal, deposits	Pyandzh region	NA.
Copper	Leninabad mining and beneficiation complex	Yuzhno-Yangikanskiy deposit	NA.
Gold	Zeravshan Gold Company (ZGC)	Jilau and Taror deposits	2.5.
Do.	Darvaz joint venture (JV)	Yakh-Su field	2.
Do.	Aprelevka joint venture (JV)	Aprelevka deposit	0.2.
Do.	Vostokredmet refinery	Chkalovsk	NA.
Lead	Leninabad mining and metallurgical complex	Yuzhno-Yangikanskiy deposit	2,500.
Mercury	Anzob mining and beneficiation complex	Dzhizhikrutskoye deposit	150.
Molybdenum	Leinabad mining and beneficiation complex	Yuzhno-Yangikanskiy deposit	NA.
Petroleum and natural gas			200,000 (petroleum) total.
-			200,000,000 cubic meters
			(natural gas) total.
Do.	16 oil-gas deposits under exploration, including: Ravatskoye, Ayritanskoye, Madaniyatskoye	Fergana depression	NA.
Do.	Shaambary Beshtentyakskoye, Uzunkhorskoye, Kichik-Belskoye	Southern Tajik depression	NA.
Silver	Adrasman mining and beneficiation complex	Bolshoy Kanimansur deposit	NA
Vanadium pentoxide	Vostokredmet plant	Chkalovsk	350,000.
Uranium	Adrasman, Maylisu, Taboshar, Usugai deposits	northern Tajikistan	NA.
Do.	Vostokredmet processing plant	Chkalovsk	NA.
Zinc	Leninabad mining and beneficiation complex	Yuzhno-Yangikanskiy deposit	NA.

e/ Estimated. NA Not available.