

JORDAN

By Neil Scott

Interesting times lie ahead for the troubled giant of the Jordanian minerals sector, the state-controlled Jordan Phosphate Mining Co. (JPMC). It is to be privatised, along with the Arab Potash Co. (APC). At one time, the government had considered a joint venture or management contract for JPMC, but it has now opted for offering a substantial shareholding and management control. With losses of US\$180.5 million reported in 2000, JPMC has embarked on a number of cost cutting and maintenance measures to improve the company's performance ahead of privatisation, due at the end of 2002. The government has itself stepped in by reducing the royalty payment on phosphate rock production from US\$5/t to US\$2/t.

The reasons for JPMC's poor performance over the past year are attributable to the untimely coincidence of low demand and falling prices for phosphate and fertiliser, high operating costs and staff burden, transportation difficulties, and technical problems associated with ore processing at Eshidiya, JPMC's flagship resource. It presently supplies 2.5 Mt/y of phosphate rock to its own phosphoric acid complex, as well as to two joint ventures: Indo-Jordan Chemicals Co.'s phosphoric acid plant located adjacent to the mine, and Nippon-Jordan Fertilizer Co.'s NPA/DAP plant at Aqaba. Eshidiya has proven and possible reserves of 1,200 Mt and is expected to replace production from JPMC's two other phosphate mines at El Hassa and Al Abiad by 2005. JPMC had ambitious expansion plans (Stage III) for Eshidiya but, with the withdrawal of Norsk Hydro from a phosphoric acid and NPK fertiliser joint venture last year, which had been expected to take much of this increased output, these plans are presumably on hold.

Fortunes at APC are rosier: with profits of US\$41.5 million in 2000, it generates about

11% of Jordan's export earnings. Its operations on the Dead Sea involve the solar evaporation of carnallite-rich brines to recover muriate of potash or potassium chloride. Production in 2000 was 1.94 Mt and is forecast to rise to 2.4 Mt in 2003 - to be achieved by converting two new carnallite ponds from the existing salt pond. A decision on the expansion plan is expected in 2002. APC has entered into three major joint venture projects, all of which are due to start production in 2002. These are:

- Jordan Bromine Co. (JBC), established in 1998 in a 50-50 joint venture between APC and Albemarle Holdings of the US. It will produce 50,000 t/y of elemental bromine and four other bromide and chloride products. A plant is under construction at Safi at a cost of US\$150 million. A facility for flame retardant production is also being developed.
- APC has a 55% interest in Jordan Magnesia Co. A magnesia plant is being constructed that will produce 50,000 t/y of dead-burned magnesia and 10,000 t/y of magnesium hydroxide and caustic calcined magnesia, based on magnesium chloride brine pumped from the APC potash operations. The project cost is US\$101 million.
- Kemira Arab Potash Co. is a 50-50 partnership with Finland's Kemira Agro Oy. A 150,000 t/y NOP (potassium nitrate) plant and 75,000 t/y dicalcium phosphate animal feed supplement plant is being constructed at a cost of US\$106 million.

Last year, APC acquired full control of Jordan Saffi Salt Co., which produced 25,000 t of high-grade table salt and 260,000 t of industrial salt (less than a quarter of its reported capacity) in 2000.

Jordan is an important producer of ground calcium carbonate (GCC) from high purity limestone. Jordan Minerals Establishment has increased the capacity of its Amman plant to 150,000 t/y of coated GCC and micronised products, while Jordan Carbonate Co. produces 250,000 t/y of coated and uncoated grades for the Middle East market. Jordan also has a major cement industry in which the French company Lafarge has a majority interest. Production is 3.5 Mt/y, one third of which is exported, principally to the Middle and Far East. There are proposals for expansion to 4.5 Mt/y.

One of the most exciting and potentially important mineral projects in Jordan is El Lajjun oil shale deposit. With a resource of 1,160 Mt containing 112 Mt of oil, its development would play an important part in

providing for Jordan's growing energy requirements. It had been under option to Suncor Energy, but with its decision last year to withdraw from the project and focus on its Canadian operations, this opportunity is now available for other participants.

In an initiative to diversify production away from industrial minerals, the government has formulated a new policy that offers incentives for oil and gas exploration. This has resulted in the signing of Memoranda of Understanding for production-sharing agreements by Canadian, Australian and UK companies. Details of the initiative and other mineral investment opportunities are available on the Natural Resources Authority website ([http://www.nra.gov.jo](#)). Of particular interest are potential projects based on silica sand (glass), gypsum, tripoli, zeolite, and dimension (ornamental) stone.