



## VYSOKOVOLTNOYE HEAP LEACH

### PONDS AND STACKING

#### BACKGROUND

In a continued partnership between Oxus Gold Plc and MAED Limited to develop a gold operation in Uzbekistan, the Vysokovoltnoye Gold-Silver Heap Leach plant was commissioned in 2005. The site is located near Zarafshan in the Navoiy Region of Uzbekistan in the Kyzylkum desert.



#### SCOPE OF WORK

The scope of work included both the design and construction management of the plant that was designed by MAED Limited in 2004. The plant was designed and built by MAED Limited to treat 1,000,000 tonnes of ore per annum at a gold grade of 1.4 grams per tonne and a silver grade of 68 grams per tonne.

It is a conventional conveyor-stacked heap leach system using grasshopper conveyors and a 15m self-propelled radial stacker.





## DESIGN AND CONSTRUCTION

The plant has a three-stage crushing circuit with a cement agglomeration drum and automatic feed system. Cement addition being 6 to 8 kg per tonne of ore feed.

The ore heaps are drip fed with a dilute cyanide solution which is contained in a three layered underpad lined collection system.

## EFFICIENCY

The pregnant solution is collected in a pond before being treated in a MAED designed CIS and Merrill Crowe purpose-built plant. The unique design enhances the efficiency of the plant in operational recovery in excess of 78%.

## OPTIMISATION

During the first year of operation 1.25 million tonnes of ore was stacked and approximately 50,000 oz of gold and 2.5 million oz of silver was successfully recovered. The duration for the project from concept to hot commissioning was eleven calendar months.

