

GEOLOGICAL REPORT ON THE EXPLORATION FOR LEAD AND ZINC ORES, DEVPURA BLOCK, PUR-BANERA BELT, DISTRICT BHILWARA: RAJASTHAN

EXECUTIVE SUMMARY

1.0 LOCATION

Devpura block is 12 kms. South of Bhilwara, a district headquarter in the State of Rajasthan. It is 270 kms, south of Jaipur, which is capital of the State. The block is located at Latitude -25°26'00", Longitude-74°38'00" and falls in Survey of India Topo sheet No.45 K/11.

2.0 GEOLOGY AND STRUCTURE

The Litho units of Devpura block are part of the Bhilwara Supergroup of the Archaean age. The local geological setting is as follows:

Recent	Soil & Alluvium
A R C H A E A N	<p>Quartz-biotite-muscovite-garnet schist</p> <p>Quartz-magnetite-amphibole-Biotite schist</p> <p style="text-align: center;">Calc gneiss</p> <p>-----</p>
Bhilwara Supergroup (3.2 to 2.5 billion years)	

The lithounits of Devpura block have been affected by polyphase deformation, which has resulted in a large synformal fold plunging in NE direction, which forms the temple hill. The litho-units constitute a steeply plunging isoclinal syncline, the eastern limb of which is overturned. The general trend of formations is NNE-SSW with dips ranging from 45°-65° mostly towards east. The dominating joint is bedding joint.

3.0 MINERALISATION

Lead-zinc mineralization in Devpura block is litho-structurally controlled. The main host rock is quartz-magnetite-amphibolite-biotite schist. Along foliation of the host rock, concentration of mineralization is observed. The ore minerals are sphalerite and galena associated with pyrrhotite and magnetite. Due to the folded nature of strata, the mineralization is observed in both the limbs. Accordingly, the mineralization observed in the hanging wall side and footwall side has been designated as 'Hanging Wall Lode' and 'Footwall Lode'. The mineralization is in the form of disseminations, stringers and fracture filling.

4.0 QUANTUM OF WORK DONE

MECL has carried out detailed Surveying & Geological Mapping covering 1.00 Sq. Km area, 4446.00 m of drilling in 26 boreholes, Exploratory mining (vertical shaft sinking of 2 Nos. involving 114.50m and driving and cross cutting of 1736.0m completed in the block. 6963 Nos. of primary samples (drill core & mine), 282 Nos. of composite samples are analysed. Petrographic and ore microscopic of 197 samples and 2 Nos. of bulk samples for ore beneficiation were also carried out. Based on the above data and earlier data of GSI, an exploration report was submitted by MECL.

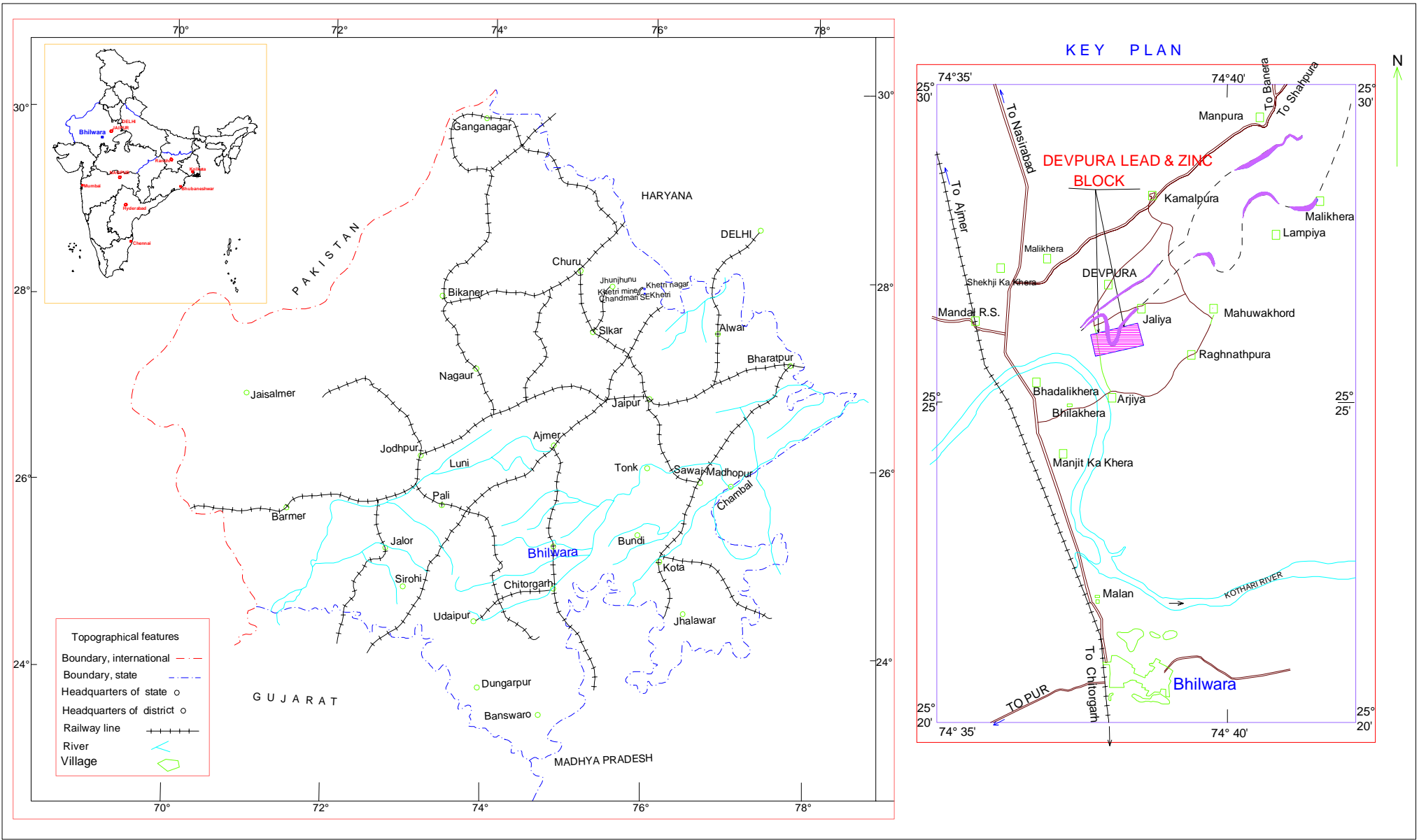
5.0 ORE RESERVE ESTIMATION

A total of 11.50 million tones of lead-zinc ore reserves with 0.48% Pb and 2.57% Zn (TMC 3.05%) were identified at 2% cut-off grade. The reserves when computed at 3% cut-off grade reduced to 5.16 million tones with 0.64% Pb & 3.16% Zn (TMC 3.80%). The reserves at 2% cut-off grade computed with the help of cross sections when compared with those computed with the help of level plan method indicate that level plan wise reserves are 23% more than that of reserves computed with cross section method.

The Deposit has been classified as Category 'D' of UNFC 332.

The Total Cost of Exploration is Rs. 321.59 Lakhs.

LOCATION MAP OF DEVPURA BLOCK



LEVEL PLAN AT 450 mRL

LEVEL PLAN AT 450 mRL

