

Field Transect: WR001, Palaeoproterozoic Lead-Zinc- Copper-Sulphide Metallogenesis in Aravali-Delhi Orogenic Belt, South Central Rajasthan

Geological Significance:

The Rajasthan state in NW India is the main repository of medium to large Pb-Zn ore deposits that occur in diverse tectonic settings. The three main deposits are:

- The Zawar Pb-Zn belt (in Udaipur district) forms southern part of the rift-related type Aravalli sequence. The Pb-Zn mineralization is stratabound and confined to dolomite and its variants. Sphalerite and galena are the main ore minerals for zinc and lead respectively that are associated with minor recoverable amounts of cadmium and silver.
- Bethumbi-Rajpura-Dariba Zn-Pb Belt (in Rajsamand district) forms a sickle shaped structure. Major prospects occur within a tight, overturned synform that truncates against an ENE- WSW fault. Sphalerite, galena, chalcopyrite and pyrite form the main sulphide ore minerals.
- The Agucha Pb-Zn deposit, (in Bhilwara district) occurs within an intracratonic metasedimentary basin that lies well within the Archaean gneissic rocks. The major ore minerals are sphalerite, galena, pyrrhotite with subordinate amount of arsenopyrite, lollingite, chalcopyrite and pyrite. The silver bearing phases are generally associated with galena.

International Attraction:

- Pb-Zn ore deposits in Rajasthan occur in different tectonic settings.
- The three main deposits with working mining sites at Zawar (south of Udaipur), Rajpura-Dariba-Sindesar (north of Udaipur) and Agucha (central Rajasthan) cumulatively constitute over 400 million ton of Pb-Zn ore of economic significance.
- They provide a full spectrum of sediment-hosted mineralization.
- The Agucha Zn-Pb deposit is a world class deposit having resource & reserves of 150 million ton and is largest single sphalerite-rich sulphide body

Duration: 4 Days

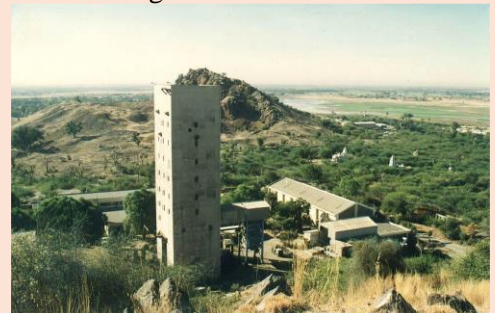
Date of Excursion: Pre Congress

Max. Participants: 20

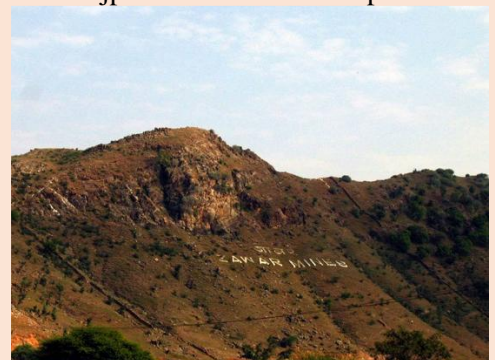
GEOHERITAGE SITES:



Agucha Zn-Pb mine.

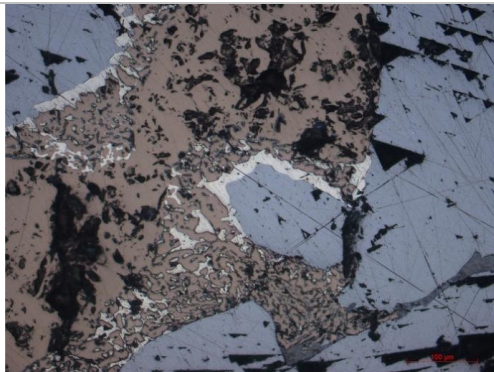


Rajpura-Dariba Pb-Zn deposit.



Zawar Pb-Zn mines

Geological Field Photographs:



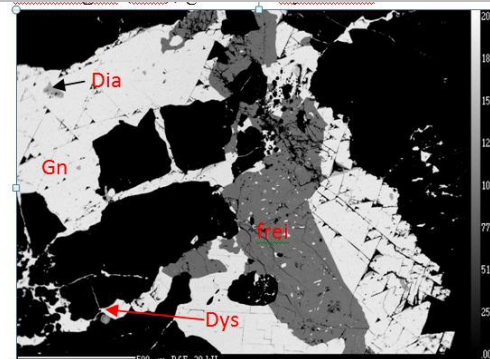
Deformation in Bomdila metasediments



Gossan of Rajpura-Dariba.



Old working, Rajpura-Dariba gossan.



Ripple marks in sandstone, Lower Gondwana, Pinjoli – Sessa section

GEOTOURIST SITES



Wall of used retorts,
Zawar



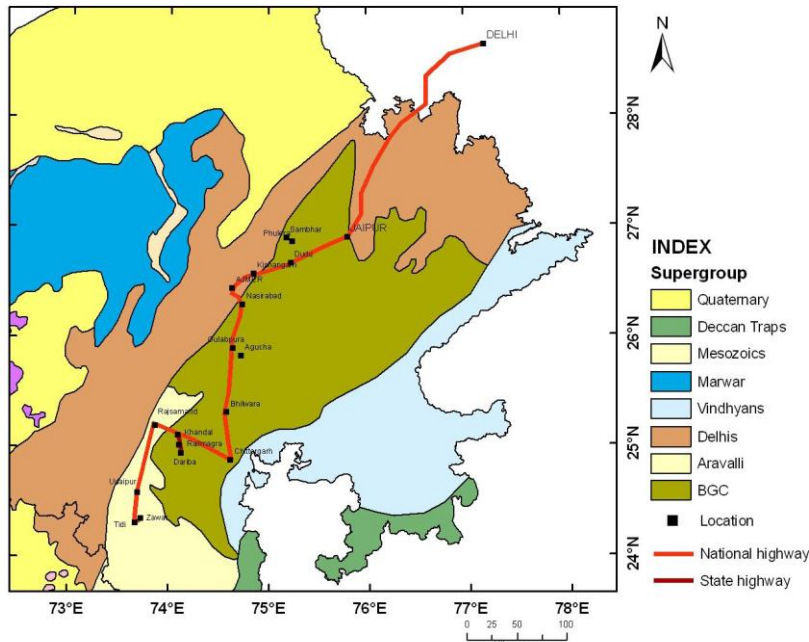
Udaipur Lake.



Amer & Nahargarh Fort, Jaipur



Night view of Udaipur lake and
palace.



Zn-Pb mineralization in Zawar, Rajpura-Dariba, Agucha, Rajasthan.