

## **DETAILED PROFILE OF KEY MINERALS OF ANDHRA PRADESH**

### **I. LIMESTONE**

Limestone is the chief raw material in cement industry. It is also used as flux in metallurgical industry. High-grade limestones are used in chemical, alkaline, sugar, paper, glass and leather tanning industry.

Andhra Pradesh is the leading producer of cement in the country. The state is endowed with extensive deposits of limestone ranging in age from Archaean to Tertiary. Significant deposits of cement and flux grade limestones are confined to the Late Proterozoic Narji Limestone (Kurnool Group) in the Kurnool and Palnad sub-basins, Putnur Limestone (Penganga Group) in the Pakhal Basin and Shahbad Formation (Sedam Sub-group) in the Bhima Basin. These formations are spread over in the districts of Cuddapah, Kurnool, Mahbubnagar, Nalgonda, Guntur, Krishna, Adilabad, Karimnagar and Ranga Reddy. Minor deposits occur in Archaean, Gondwana and inter-trappean (Deccan Traps) formations in parts of Khammam, Nellore, Visakhapatnam and West Godavari districts.

#### **Anantapur District**

Cement grade Narji limestone is exposed in Tadpatri area near Talaricheruvu and Urachintala. Deposits of high-grade tuffaceous limestone (calctufa) are reported from Kona Uppalapadu, Kona Rameswaraswamy temple, Vengannapalle and Cherlopalle. A reserve of 0.30 Mt in Kona Uppalapadu and Kona Rameswaraswamy temple areas was estimated and the limestone is mined for use in textile mills.

#### **Cuddapah District**

Cement grade Narji limestone is located in Jammalamadugu, Koduru-Niduzuvvi, Ponnatola-Talamanchipatnam, Yerraguntla and Kamalapuram. The limestone occurring at Yerraguntla is being used by the CCI for its cement plant. A reserve of 0.70 Mt high-grade limestone (calctufa) upto a depth of 10 m is available at Ippatlavillage.

#### **Guntur District**

Large deposits of cement and flux grade limestone occur in the Palnad area in the vicinity of Piduguralla, Dachepalle, Karempudi and Macherla. These are being used by a number of cement plants and lime kilns in the area. The DMG, Andhra Pradesh investigated the limestone around Piduguralla R.F., Sitaramapuram and Gurrulagutta and some of these areas are under the lease-hold of ACC. At the instance of state Govt. and SAIL, GSI carried out assessment of cement, SMS and BF grade limestones

in Pondugula-Ramapuram and Pillutla-Piduguralla areas and established significant reserves.

#### **Krishna District**

Both cement and flux grade limestone associated with the Narji Limestone is located in this district. Cement grade limestone deposits are at Budavada, Jayantipuram, Ravirala and Vedadri. These deposits support many cement plants in the area. In Jaggayyapeta, assessment of flux grade limestone was undertaken by GSI for Visakhapatnam Steel Plant.

#### **Kurnool District**

Extensive deposits of cement grade limestone are found associated with the Narji Formation. Important areas are Owk-Bhogasamudram, Paniam, Banaganapalle-Betamcherla area, Sivaramapuram-Malyala

area, Koilkuntla, Yennakondla and Jaladurgam. In Ankireddipalli, GSI estimated both flux grade and cement grade limestone deposits.

Cement grade limestone containing 42-53% CaO, <2% of MgO, <16% of SiO<sub>2</sub> Al<sub>2</sub>O<sub>3</sub> ranging between 2 to 4% and Fe<sub>2</sub>O<sub>3</sub> <5% is exposed as a narrow band of 1.5 to 2 km width and roughly 25 km length from Sivaramapuram in south to east of Malyala in north trending NE-SW direction.

High-grade limestone (calc-tufa) deposits are found in the Vempalle Formation in the proximity of dolerite sills in Malkapuram area. These are found in an area extending over 9 km x 3 to 4 km. The limestone is of chemical grade. These deposits were investigated by GSI. Another deposit is found in Pedda Malkapuram.

### **Visakhapatnam District**

Within the high-grade metamorphites of the Eastern Ghat Supergroup, crystalline limestone (mostly magnesium) occurs as minor lenses at Borra and nearby areas. A fairly big band of crystalline limestone occurring at Nimmalapadu is under exploitation by M/s Birla Periclase Ltd., for extraction of magnesium from sea water.