

XRD STUDIES ON FULLER'S EARTH, VIKARABAD - TANDUR AREA, TELANGANA, INDIA

Padala Ravikanth^{1*}, V.Sudarshan² and A. Narsing Rao¹

¹*Department of Geology, Osmania University, Hyderabad, Telangana, India*

²*Department of Applied Geochemistry, Osmania University, Hyderabad, Telangana, India*

**E-mail: ravikanth.geo1991@gmail.com*

Abstract

Mineralogical investigations have been carried out on fuller's earth samples with the help of X Ray Diffraction studies in Vikarabad – Tandur mining belt. The study area is in the Telangana state. The area predominantly exposes rocks of Peninsular Gneissic Complex (PGC) along with enclaves of schists, basic dykes of Bhima Group comprising upper Proterozoic sedimentary formations and a thin cover of Deccan Traps capped with Laterite. These deposits are in close association with carbonates and occur also in the Deccan traps as members of Intertrappean formations.

The XRD studies on thirteen samples revealed that the major mineralogical constituent of fuller's earth of the study area is found as Palygorskite. In addition Calcite, Quartz, Montmorillonite, Kaolinite and Tremolite are observed as accessory minerals in the samples collected from different mines.

Keywords: Fuller's Earth, XRD studies, Palygorskite, Deccan traps, Intertrappean formations, Vikarabad - Tandur, Telangana.