

## Clay Mineralogy of Mukdadiya Formation in Shewasoor Area: Northeastern Kirkuk City, Iraq

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**Abstract :** 14 mudstone samples were collected within the sedimentary succession of Mukdadiya Formation (Late Miocene &dash; Early Pliocene) from Shewasoor area at Northeastern Iraq. The samples were subjected to laboratory studies including mineralogical analysis (using X-ray Diffraction technique) in order to identify the clay mineralogy of Mukdadiya Formation of both clay and non-clay minerals. The results of non-clay minerals are: quartz, feldspar and carbonate (calcite and dolomite) minerals. The clay minerals are: montmorillonite, kaolinite, palygorskite, chlorite, and illite by the major basal reflections of each mineral. The origins of these minerals are deduced also.

**Keywords :** Mukdadiya Formation, mudstone, clay minerals, XRD, Shewasoor

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