CONTENT

1 INTRODUCTION

Knowledge on the Plio-Pleistocene in the Lower Rhine Embayment (LRE) and adjacent areas is highly manifold (e.g. MEIJER 1998). The outstanding qualities of this large fluvial archive, as well as a long research history, have produced many results concerning climate change, fluvial architecture and many other topics from the Miocene onwards. Upper Pliocene and Lower Pleistocene sedimentary records have become world-famous. The LRE has, therefore, always played an important role in discussing the position of the T/Q-boundary. Still, many topics are a matter of debate.

Apart from boreholes, most of our knowledge is derived from the classical exposures near Venlo in the north and from the large-scale open-cast mines (Tagebaue) in the south. In the recent years, the continously changing conditions of exposure have provided good potential for new results, especially at Tagebau Hambach, but also in the area near Venlo. Moreover, investigations at Tagebau Inden have been scarce. Since research has been concentrated on the palaeontological record during the last few decades, investigations on lithostratigraphy have appeared to be promising.

This study attempts to integrate data from the mentioned regions into a lithostratigraphic and fluvial historical concept suitable for the whole LRE. Apart from petrographic and sedimentological investigations, data presented here encompass palaeomagnetic and multi-parameter rockmagnetic, palynological and geochemical studies.

Field work was carried out at Tagebau Inden, situated on Rur block, Tagebau Hambach on Erft block, and in the type area between Venlo and