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The Characteristics of fine-grained sedimentary of the Chang-7 Member in YanChang Formation of southwestern Ordos Basin

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SUMMARY

Abstract

In order to study the distribution rule and major controlling factors of the fine-grained system.Based on the analyses of massive date about well drilling,well logging,with core description,,geochemical testing, through comprehensive study the characteristics of lake evolution and climate change,it was discussed in this paper the changes of salinity,redox condition and productivity as well as the enrichment mechanisms of organic matter.The results show that during the deposition of the Chang7 Menber, the climate was warm and moist, then was formed the large-area semi-deep to deep lacustrine,and development of organic-rich shale..The enrichment of organic matter was mainly controlled by the lake basin and sandbody architecture. During the deposition of the Chang7_3 Menber, lake water invaded rapidly, lake depth and scope sharply increased.Because of the salinity difference, the circulation between upper surface water and lower water in deep lake was restrained, then large-area anoxic environment was formed in deep lake ,which was favorable for the development of organic-rich shale.

Key words: fine-grained sediment;organic-rich shale;Member Chang7; Ordos Basin

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