

Neogene geological structure under Lake Nakaumi and Lake Shinjiko

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Lake Nakaumi and Lake Shinjiko are located in the Shinji Lowland between Shimane Peninsula and Chugoku mountainous district.

According to the past studies, stratigraphic correlation of Neogene in this area are compared by facies, biostratigraphy and radiometric age. However, it is not settled about these tectonic comparison, because continuous geological structure of Neogene is not yet elucidated in the Shinji Lowland.

The authors clarified geological structure for Neogene under the Lake Nakaumi basin and Lake Shinjiko basin, as a result of air-gun seismic reflection survey and drilling investigation. There is a gentle syncline of Neogene under Lake Shinjiko basin. Neogene geological structure is continuous between Shimane Peninsula and Chugoku mountainous district.

There is a homocline of Neogene under Lake Nakaumi basin. And there are two reverse faults in northern part. The strike of these faults is ENE-WSW direction, and the vertical offset is over 1,000m in total. It is judged that these faults have not moved since the Pliocene, because it is thought that these faults generated with the Shinji folding.