

Tectonics of Pre-Cretaceous complexes of the northern regions of the West-Siberian basin

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Pre-Cretaceous cover complexes in the north of the West-Siberian plate (Nadym-Taz interfluvial area) are included into composition of the lower structural stage. Its stratification is proved by the series of regional seismic reflections. Two sub-stages are distinguished.

The lower (taphrogenic) sub-stage is spread in the northern part of interfluvial area and contains sediments of Late Paleozoic (?) – Early Triassic age. Seismic stratification indicates predominantly sediment formation, however, magmatogenic formations are also presented there. The thickness varies from hundreds to thousands meters. This is caused by the filling of sharply separated foundation relief with sub-stage sediments. The sub-meridian zoning is observed for distribution of thickness.

The upper sub-stage is spread over the whole territory of the interfluvial area and composed by terrigenous formations of the Lower Triassic – Upper Jurassic age. Their thickness varies from 500 to 4500 m and increases in the north direction.

A set of morpho-tectonic maps of the sub-stages boundaries, thickness maps and seismic profiles demonstrate non-uniformity of the lateral stage structure. This non-uniformity is shown by combination of quasi-uniform blocks and separating belt systems of blocks. The structure of former units is complicated of randomly oriented low- and medium-gradient zones. For the latter case, the echelon distribution of morpho-structures, separated by the zones with increased gradients, is predominant. Contrast distributions of thickness and lithologic characteristics are also typical for the belt systems.