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Different Rank Objects of Searches for Oil and Gas, Pacific Region

The main hopes and the positive results of searches for oil and gas in the Pacific region are related to the numerous basins and oil-gas accumulation zones of the continental margins. Three global belts of oil-gas generation and accumulation are established. They contain more 100 oil-gas basins (OGB) containing about 10% of world hydrocarbon reserves.

The peculiarities and hydrocarbon resources of these three belts (Asian-Pacific, Northern and Southern - American) are closely linked to the history of formation and geological structure of corresponding zones of joining the continents and oceans. Such zones are the island-arched (Western Pacific), Nevadian (Northern American), and Andian (Southern American) margins. These margins, along with the general properties of the Pre-Pacific margins, are characterized by their individual peculiarities controlling the principal features of the different rank oil-gas-bearing objects - from a belt (systems of OGB) to oil-gas accumulation zones and fields.

The Cenozoic OGB are of widespread occurrence on the Pre-Pacific margins. They are differed in resources, number and parameters of oil-accumulation zones, size and types of large oil and gas accumulations. The maximum number of oil-accumulation zones (an average of 15) is characteristic of the island-arched margin. The maximum values of regional concentrations and zonal densities of hydrocarbons (to 1.5 million t/km²) are characteristic of the OGB of the Nevadian margin.

Differences are particularly considerable at a zonal level. Such the objects, having minimum areas and minimum number of fields in the zones of the Nevadian basins, stands out on the size and concentration of oil-gas resources. It determines differences in the size of local hydrocarbon accumulations for the OGB of the Pre-Pacific margins; the largest of them also are associated with the Nevadian basins.