

Paper Number: 1946

Information-analytical basis for geological mapping of the ocean floor.

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At "VNIIOkeangeologia" (St. Petersburg, Russia) a vast array of primary information on the geology and ore genesis of the oceans - the data bank "Okeangeoresursy" has been compiled. In 1998, based on it, the first "Metallogenic Map of the World Ocean" (1: 15,000,000), editor of SI Andreev, and in 2000 the first "Geological Mineragenic Map of the World" (1: 15,000,000), Ch. Editor L.I. Krasny, which in a single legend described the continents and oceans, including the Arctic and Antarctica. Both maps show accumulations of FMN, CMC, DPS, phosphorites, and offshore placers. In 2008-2009 the first "Metallogenic Map of the World Ocean" (1: 15,000,000) was supplemented with data on gas hydrates, and then was named the "Mineragenic Map of the World Ocean" (1: 15,000,000). During the same time, we prepared the "Map of Nonconventional and New Types of Minerals in the West Pacific transition zone" (1: 15,000,000). In 2014, as part of the monograph "Metallogeny of Hydrothermal Sulfide Ores of the World Ocean" we published the "Map of Occurrence of Deep Sulphide Ores in the Oceans" (1: 25,000,000). Since 2011 we have been developing the data bank "VNIIOkeangeologia - DPS" for the Russian prospection area (RPA) deep-sea polymetallic sulphides on the MAR; on its basis in 2014 we constructed the "Geological-Tectonic Scheme of RPA-DSPS (the MAR)" (1: 5,000,000) which reflects the geochemical specialization of sulphide ores, the patterns of occurrence of their accumulations and their resources. The scheme is the first attempt of mapping the ocean on such a relatively large scale.

In the period 2009-2011, in the form of cadasters we systematized materials on the ore genesis in the Far Eastern Seas: of phosphates, barites, Fe-Mn formations, gas hydrates, volcanic and hydrothermal underwater activity. As part of the monograph "Geology and metallogeny of the Far Eastern seas of Russia. Solid minerals"(2012), we published the "Metallogenic Prediction Map of the Far Eastern Seas and Aleutian-Kuril Zone of the Pacific Ocean "(1: 7,000,000) with recommendations to search for deep sulphides in the Okhotsk Sea back-arc zone.

Conclusion: "VNIOkeangeologia" (St. Petersburg, Russia) possesses the initial data on geology and ore genesis of the World Ocean and the Western Pacific transition zone, which may be useful in the selection of the promising areas of application in the International Seabed Area and within the western periphery of the Pacific Ocean.

