

**APPLICATION OF MODERN COMPUTER TECHNOLOGIES FOR INVESTIGATION
OF SUBMARINE VOLCANIC CENTRE NEAR THE SOUTH-WESTERN COAST
OF SIMUSHIR ISLAND, THE KURILE ISLAND ARC**

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The paper provides results from application of authors' modern computer technology designed for interpretation of materials from complex geophysical investigation of submarine volcanic centre near the south-western coast of Simushir Island, the Kurile island arc. Estimated magnetic properties of rocks in natural deposits showed that the most magnetized is the part of the volcanic centre 6.13 within the depth interval 480 to 950 m, where productive magnetization is about 3 A/m. The authors suggest a subvertical direction of feeding channels and a solidified peripheral magmatic chamber at a depth of 2.5 km. The main ferromagnetic carriers of magnetization are single-domain and pseudo-single-domain poor anisotropic grains of titano-magnetite and magnetite. Besides, the authors created an interpolation 3D model of the causative magnetic body.

Keywords: modeling technology, submarine volcanic centre, the Kurile island arc.