

## **The Interpretational Modulate System of Potential Fields "SAPFIR"**

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1. SAPFIR – an author's highly technological system integrating a means of mathematical treatment, of interpretation of geological, geophysical data and of mathematical modeling of ore deposits.
2. Unique algorithmic and the program means of the problem-oriented block of mathematical 2D and 3D modeling of any elements of potential fields ensure of the models construction of volumetric - inhomogeneous geological mediums of separate deposits, regions and provinces.
3. An initial information (the schedules, diagram, histograms, slits and maps, the plans of linking with each other horizons, table and the commentaries) is entered, systematized and kept as numerical and graphic modules in bank of geodata.
4. The results of treatment and interpretation of geodata are formed and removed on electronic and paper carriers with use of GIS-technologies means as prognostic maps, geological slits and maps, 3D of deposits models, blocks - diagrams of deposits.
5. The complex interpretation and modeling of geodata on region of Cocshetau-North-Tien Shan have let to decide a problem of the regional and local prognosis of perspective structures on a diamond discovery. Potentially perspective on diamonds lineations of a sublatitude direction with high-power blocks of exhausted lithosphere are chosen. By local prognosis the volumetric models of diatremes of analcite basalts of SaryTum and Trubca Radchenko are constructed and phases of their formation are selected.