



Anthropogenic contamination of ground water in the area of newly dry bottom of the Aral Sea

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One can judge about the degree of anthropogenic pressure upon underground in the area of the newly dry bottom of the Aral Sea based on the presence and concentration of chemical and organic contamination in it. Water samples taken from 42 holes and 12 surface sources are analyzed to identify the presence of heavy metals, pesticides and other contaminants. The most remarkable contamination is that by nitrates (50-124 mg/l, and even up to 620mg/l in Lake Sudochoye). Elevated concentrations of cobalt (1 mg/l), cadmium (0.9 mg/l), lead, fluorine, strontium (10.5 mg/l), manganese (0.2 mg/l), zinc, molybdenum in underground water. Most likely, the accumulation of heavy metals, fluorine, strontium is a result of their presence mainly in nitrogen and phosphate fertilizers. Relatively mobile compounds have migrated to the area of the newly dry bottom, while less mobile accumulate close to the irrigation zone.