



The behavior of acoustic waves in the lakes bottom sediments.

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Seismic studies are used for various tasks, such as the study of the bottom sediments properties, finding sunken objects, reconstruction the reservoir history, etc. Multiple acoustic waves are an enormous obstacle in obtaining full seismic record. Multiples from the bottom of a body of water (the surface of the base of water and the rock or sediment beneath it) and the air-water surface are common in lake seismic data. Multiple reflections on the seismic cross-sections are usually located on the double distance from the air/water surface. However, sometime multiple reflections from liquid deposits cannot be generated or they reflected from the deeper horizons. It is observed the phenomenon of changes in reflectance of the water/weakly consolidated sediments acoustic boundary under the influence of the acoustic wave. This phenomenon lies in the fact that after the first acoustic impact and reflection of acoustic wave for some time the reflectance of this boundary remains close to 0. This event on a cross-section can explain by the short-term changes in the properties of bottom sediments under the influence of shock? acoustic wave, with a further reduction of these properties to the next wave generation (generation period of 2 seconds). Perhaps in these deposits occurs thixotropic process. The paper presents the seismic acoustic cross-sections of Lake Balkhash (Kazakhstan), Turgoyak (Russia).

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