P-wave velocity anisotropy of the Hidaka metamorphic rocks

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We measured velocity anisotropy of Hidaka metamorphic rocks and obtained modified Thomosen's parameter (Tsvankin 1997) for orthorhombic weakly anisotropic media. P- and S-wave velocities were measured along the axis perpendicular to the foliation plane (z), along the lineation(x) and perpendicular to xz-plane (y). We also measured 45-degrees P-wave velocity xy, yz and zx planes in some samples. We observed quite good correlation between velocity anisotropy and the preferred orientation of horblend and biotite in rocks. We calculated reflection coefficients of lower crust in Hidaka area for various incident angles. The results indicate that observed anisotropy in rocks does not affect the results of underground structure revealed by seismic explorations.