

Geothermal and hydrological regime across the western Nankai Trough inferred from closely-spaced heat flow measurements

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In Sep. 1999, an intensive heat flow survey was carried out by NEDO across the Nankai accretionary complex off Cape Muroto. We obtained 67 new heat flow data. The preliminary results are : 1) Very high and variable heat flow on the trough axis (up to 250 mW/m²), 2) gradual landward decrease in heat flow, which implies no regional fluid flow in the accretionary prism except the trough axis and the deformation front, 3) a localized high heat flow anomaly near the deformation front, from which the width and velocity of the pore fluid along the thrust is estimated as 9m and 4.1E-8 m/s, respectively.