

## Near surface exploration at mud volcano area in Matsudai, Tokamachi City, Niigata Japan- Introduction and surface wave method -

# Yoshinori Sanada[1]; Jamhir Safani[2]; Adam J. O'Neill[3]; Kyosuke Onishi[4]; Toshiyuki Yokota[5]; Tomochika Tokunaga[6]; Kazuhiro Tanaka[7]

[1] Dept. of Civil and Earth Resources Eng., Kyoto Univ.; [2] Civil & Earth Resources Eng., Kyoto Univ.; [3] Civil & Earth Res. Eng., Kyoto Univ.; [4] Civil & Earth Res. Eng., Kyoto Univ.; [5] Institute for Geo-Resources and Environment, AIST; [6] Dept. Environmental Studies, Univ. Tokyo; [7] Earth Sci., Yamaguchi Univ

Near surface surveys, seismic method and GPR, were carried out at mud volcano area in Matsudai, Tokamachi City, Niigata Japan. The aim of these surveys are to reveal near subsurface structures, mud pot, mud path bed rock etc. The surface wave method provides the S velocity distribution around 20m depth. GPR provides high resolution shallower structures. These results indicate mud pot and bed rock distribution, and are consisted with the reports of resistivity survey and boreholes performed before.

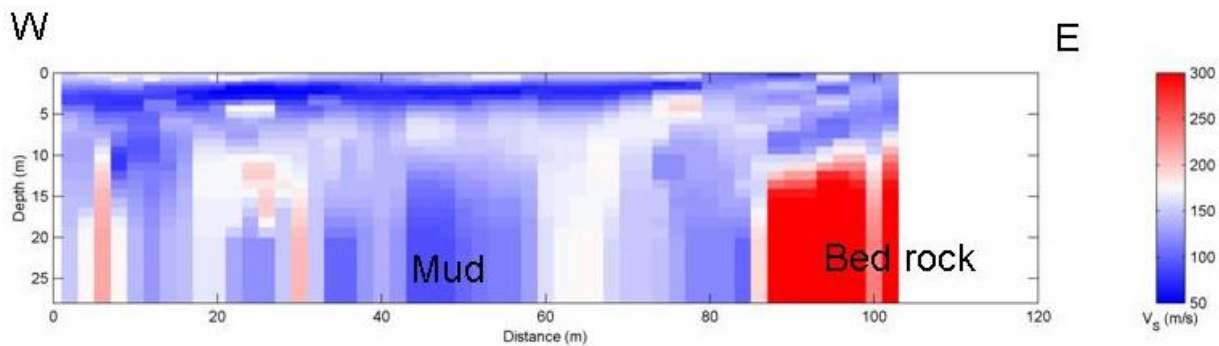


Fig.1 S velocity distribution from surface seismic survey at survey line-1.