Unconventional hydrocarbon resources occupy the lower part of the energy triangle structure , accounting for a large volume , most likely 80 % of all remaining hydrocarbon resources (Masters , 1979 ; Deming , 2001) . It would be advantageous to do additional monitoring of continuous hydrocarbon accumulations over large areas . Although the reserves of unconventional hydrocarbon are enormous , economical ly , they are difficult to explore by conventional techniques . Therefore unconventional petroleum geology and unconventional exploration techniques require further development .