

## On the deformation features of mixed zone adjacent the fault gouge

# DIA CONSULTANTS CO.,LTD.,THE JAPAN ATOMIC POWER COMPANY, Osamu Hasegawa[1], Shigeru Niwa[2], Youichi Kitagawa[3], YUKIHIRO MORI[3]

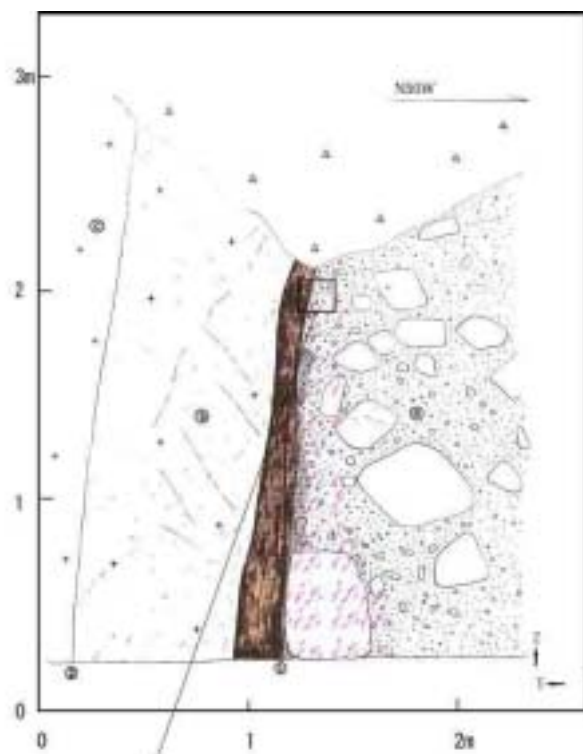
[1] DIA CONSULTANTS CO.,LTD., [2] DIA CONSULTANTS CO.,LTD., [3] JAPC

The fault gouge and surrounding materials are investigated from structural and mineralogical points of view to interpret the deformational phenomena along the fault plane. It is confirmed that there exists the mixed zone adjacent the fault gouge, which is composed of both materials drawn out from fault gouge and sediments in contact with fault plane. It is inferred that the mixed zone is the deformational structure which has been caused probably by rubbing together along the fault surface, at the moment of faulting. The mixed zone might be an index marker making sure of faulting activity, even if it is not to be able to identify the faulting influence zone at some fault outcrop.

We selected five well-studied active faults, that is Tsuruga fault, Nojima fault, Atera fault, Shimotsutagi fault and Sekiya fault. From these fault outcrops, we obtained the oriented-block samples including fault gouge and sediments for the detail observation, followed by the polarized-microscopic examination and the X-ray diffractive analysis.

In any case of above-mentioned five faults, it is identified that the mixed zone is occurred adjacent the fault gouge, accompanied with dragging and rotation of pebble in the young sediments which contact with the fault plane.

Furthermore, It is particularly significant to evaluate the relationship between the occurrence of mixed zone and the faulting characteristics in detail.



凡 例	
	黄土
	礫層
	基盤線全部
	基盤実質部
	新層ゴウジ
	引きずりや礫の混 雑がみられる部分
	混合ゾーン

- ①：新層ゴウジ
- ②：混合ゾーン
- ③：堆積物

0 10cm

図1 教養所層露頭スケッチ及び研習片スケッチ