

Interactive comment on “Satellite data interpretation of causes and controls on groundwater-seawater flow directions, Merseyside, UK: implications for assessing saline intrusions” by S. Mukherjee et al.

S. Mukherjee et al.

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I am thankful to the anonymous reviewer for pointing out some of the new findings of the paper under discussion. In fact a new trend has been successfully attempted to establish in this paper, which is supported by remote sensing as well as ground truthing. The Automatic Internal Average Relative Reflectance tool of ERDAS software has the proven potentiality to infer the hidden fault based on the soil moisture in the natural seepage areas. Discrete areas of red patches show that there is no continuous surface exposure of faults. It is not expected that faults will show its trace on surface in full length in an area of heavy rainfall like Liverpool, UK. The paper under discussion is definitely an achievement of Remote Sensing Application to identify hidden faults. The anonymous reviewer has not given any example of publication in peer-reviewed

journal using SPOT data and ERDAS software to minimise the claim of this paper. The author has already published similar type of work with international level experts of Department of Space, Government of India, in International Journal of Remote Sensing with high impact factor.

Reference:

Jaisawal, R. K., Mukherjee, S., and Krishnamurthy. J.: Role of Remote sensing and GIS techniques for generation of groundwater prospect zones towards rural development- an approach. Volume 24, Number 5/March 10, 2003 International Journal of Remote Sensing Taylor & Francis, 993-1008, 2003. Further the leading ground water scientists of USA found the technique useful:

Reference:

Parizek, R. R. and Gold, D. P.: Fracture trace and lineament analysis: application to groundwater resource characterization and protection [course notes]: National Ground water association, April 7-10,1997, Penn University, State college Pennsylvania, 1997.

I do not underestimate the quality of this work when it is supported by the scientific logic as well as world-class references of higher impact factor journals. I support my observations strongly on behalf of all co-authors and expect its publication soon.

Interactive comment on Hydrology and Earth System Sciences Discussions, 2, 887, 2005.

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