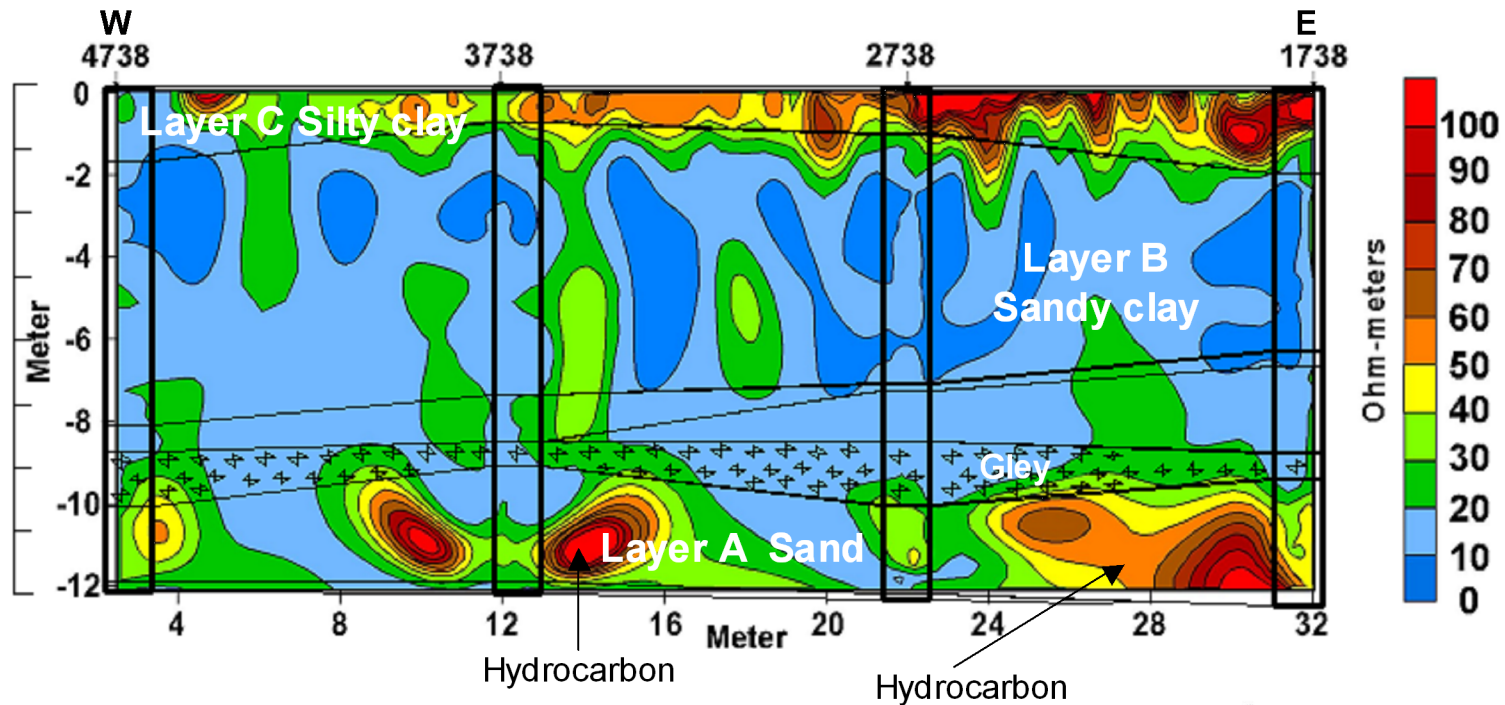


Direct Push Electrical Resistivity Tomography (ERT) to Delineate an LNAPL Plume



Study Site: Enid, Oklahoma

Objective: To define the geological controls on the distribution and location of LNAPL (hydrocarbon) in Enid, OK using electrical resistivity tomography (ERT) with the aid of sedimentological analysis

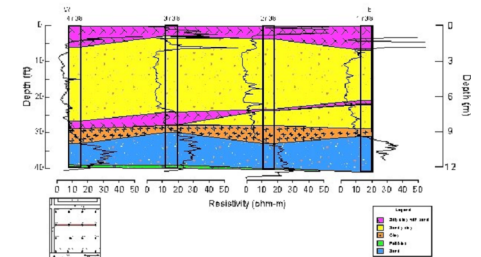
Conclusions: Data shows that there is a structural dome in the subsurface at the top of layer A along the western side of the site. This structural high corresponds with the LNAPL. LNAPL is normally thought to be a single plume; however, it was found in 1 to 2 meter amorphous 'blobs' shown on geoelectrical cross-sections. An overlay of a sedimentological cross-section labeled west to east is shown on top of one geoelectrical cross-section passing through the area of the dome. Drilling in the areas shown to have LNAPL 'blobs' revealed that there was indeed LNAPL at that location. ERT with the aid of sedimentological analysis delineated the LNAPL 'blobs.'

Instrument: SuperSting R8 with borehole cables

Survey Date: August, 2002

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Supporting data from direct push borehole logging system.



Picture shows the study site and gas station where LNAPL escaped.