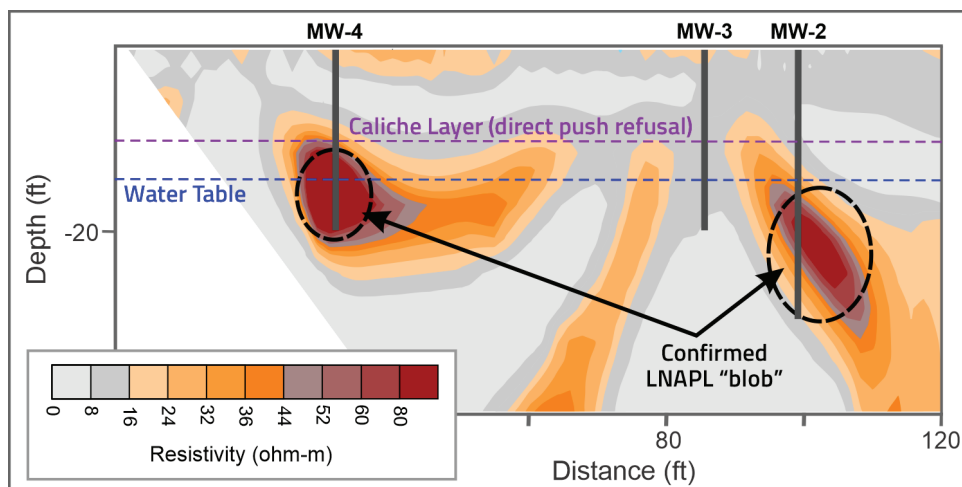


CASE STUDY

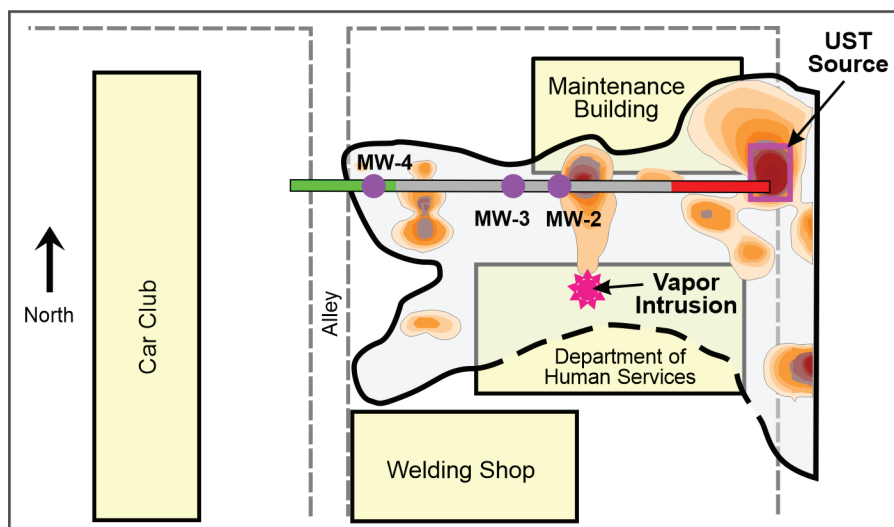
LOCATED SOURCES OF VAPOR INTRUSION

Gasoline vapors in an Oklahoma Human Services Building were causing illness to workers. Previous investigation via direct push did not locate the source of vapor intrusion and a vapor recovery trench failed to mitigate the problem.

Aestus used its GeoTrax Survey™ scanning technology to identify hollow stem auger drilling targets which confirmed the presence of fugitive LNAPL “blob” source zones below the direct push refusal zone on a thin layer of caliche, as well as a previously unknown fuel storage tank source near the adjoining maintenance building.



The plan view map below is an elevation slice from Aestus' 3D visualization model (@15 feet below the ground surface) and was generated using the GeoTrax CSM+™ process. This updated CSM (based on multiple lines of evidence) provided the State of Oklahoma with a “road map to remediation” and showed the distribution of LNAPL and remediation targets. The original source of the vapor intrusion (leaking UST) was located as well as the fugitive LNAPL source of vapor intrusion (orange impacted zone) located immediately adjacent to the building.



RESULTS

- ☑ GeoTrax Survey™ successfully located the sources of vapor
- ☑ GeoTrax Survey™ image shows LNAPL “blobs” submerged below the groundwater table
- ☑ Delineated vertical and horizontal extent of impacts
- ☑ Targeted drilling identified impacts and facilitated focused remediation at lower overall cost

MORE CERTAINTY & OPTIMAL OUTCOMES

Fiscally responsible and data driven water resource managers typically crave more certainty in their subsurface data. Integration of existing site data, Aestus' GeoTrax Survey™ electrical images, and targeted test well data resulted in a more complete understanding of the subsurface and allowed them to:

- ☑ Make better technical/business decisions
- ☑ Have clear road map for next steps
- ☑ Achieve project goals faster and cheaper

