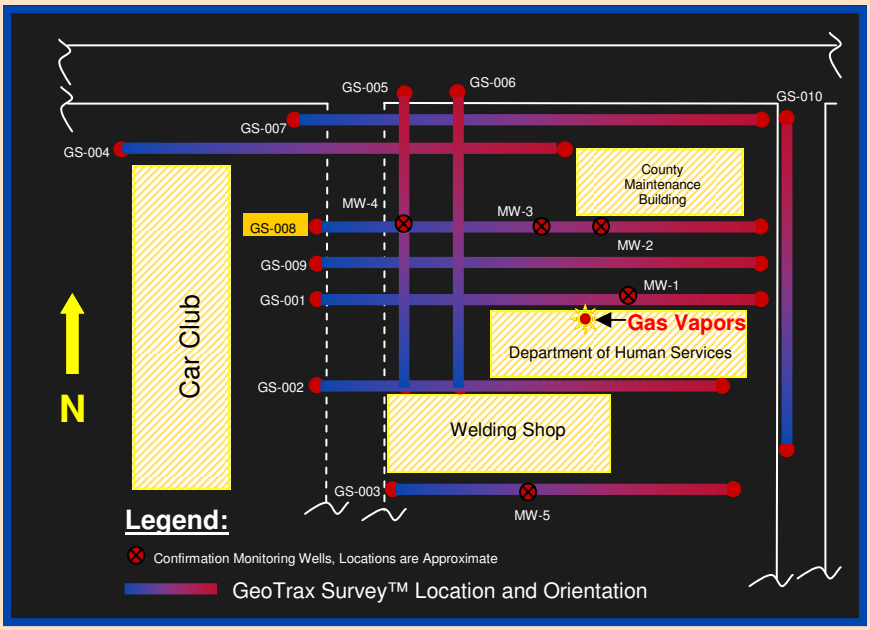
Locating Sources of Vapor Intrusion

GeoTrax Survey™ Case Study (Page 1 of 3)

GeoTrax Surveys™ and Confirmation Drilling Conducted Next to Building Where Vapor Intrusion Was Occurring

Plan View GeoTrax Survey™ Locations



Location of Gasoline Vapor Intrusion

Aestus used our GeoTrax Survey™ technology to assist the Oklahoma Corporation Commission in finding the sources of gasoline vapor that were intruding into the Human Services Building and causing illness to workers. A previous consultant drilled the site and was unable to locate the sources causing the vapor intrusion.

Aestus found the LNAPL "blob" sources using our proprietary GeoTrax Survey™ technology and these source were confirmed by drilling in the areas identified by Aestus. Every location identified by Aestus contained LNAPL-related contamination.

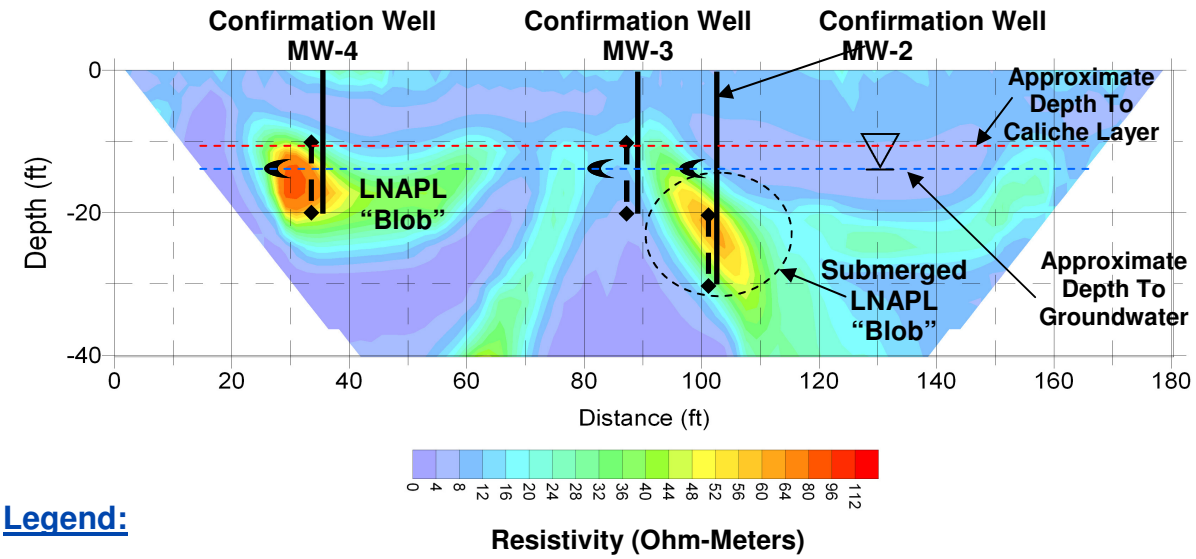
Contact Us: 1.888.GEO.TRAX or 970.278.4090 www.aestusllc.com

REV: 05-03-08

Locating Sources of Vapor Intrusion

GeoTrax Survey™ Case Study (Page 2 of 3)

GeoTrax Survey™ GS-008 (see location on Page 1 of 3)



Legend:

Depth where highest PID reading was detected

Indicates well screen interval

Bottom Line:

- ✓ Previous investigation via Geoprobe® had failed to locate the source of vapor intrusion; hit refusal on hard caliche layer at ~10 feet BGS.
- ✓ Subsequent installation of vapor recovery trench failed to mitigate gasoline vapor intrusion problem
- ✓ GeoTrax Survey™ successfully located the source (gasoline blobs) located just below what turned out to be a very thin caliche layer (~1-inch thick) as determined by drilling using larger hollow-stem auger rig
- ✓ This GeoTrax Survey™ image shows LNAPL "blobs" submerged below the water table

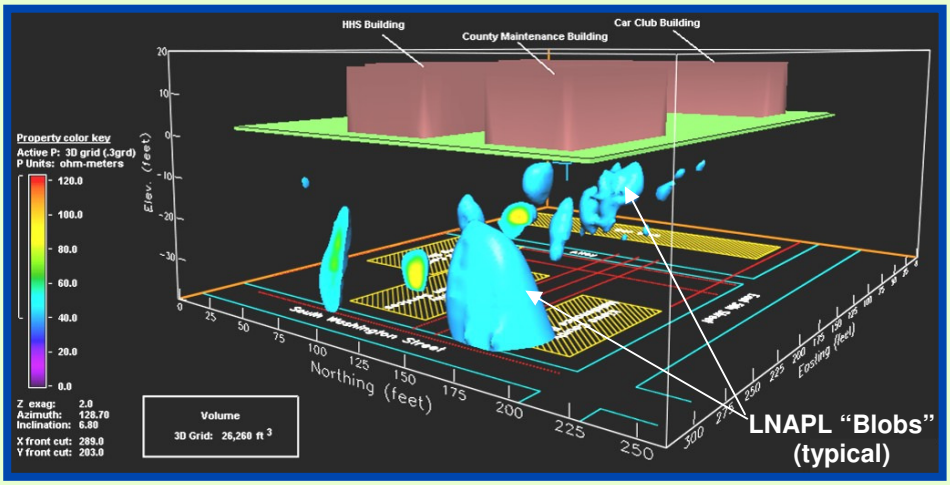
Contact Us: 1.888.GEO.TRAX or 970.278.4090 www.aestusllc.com

REV: 05-03-08

Locating Sources of Vapor Intrusion

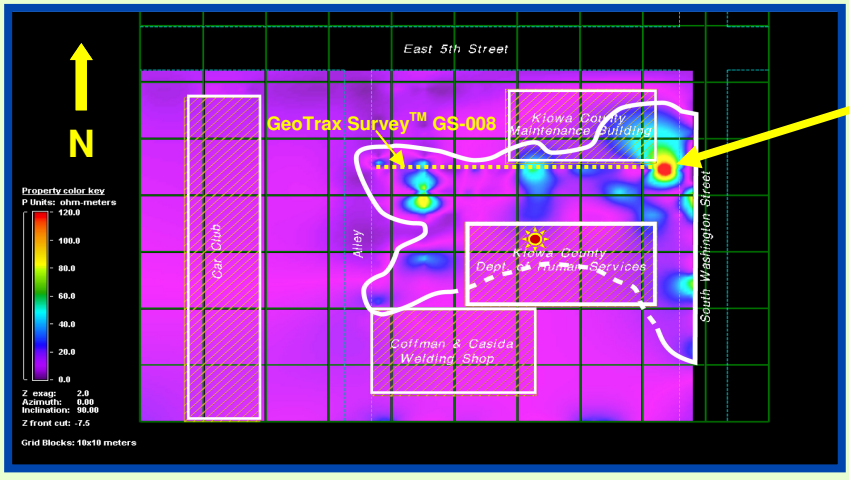
GeoTrax Survey™ Case Study (Page 3 of 3)

GeoTrax Survey™ Data Visualized Using 3-D Software



The 3-D representation above was generated using the data Aestus collected during our investigation. As seen, there are distinct LNAPL blobs and at least one of these blobs appears next to the County Maintenance Building. Further, these blobs were located below the existing water table and a hard soil layer (caliche).

2-D Plan View Slice (@15' BGS) - LNAPLs in Subsurface



The plan view map above was generated using the Aestus' data showing the distribution of LNAPL at 15 feet below the ground surface. The source of the vapor intrusion (leaking UST) was located using our survey data.

Contact Us: 1.888.GEO.TRAX or 970.278.4090

www.aestusllc.com

REV: 05-03-08