

CASE HISTORY

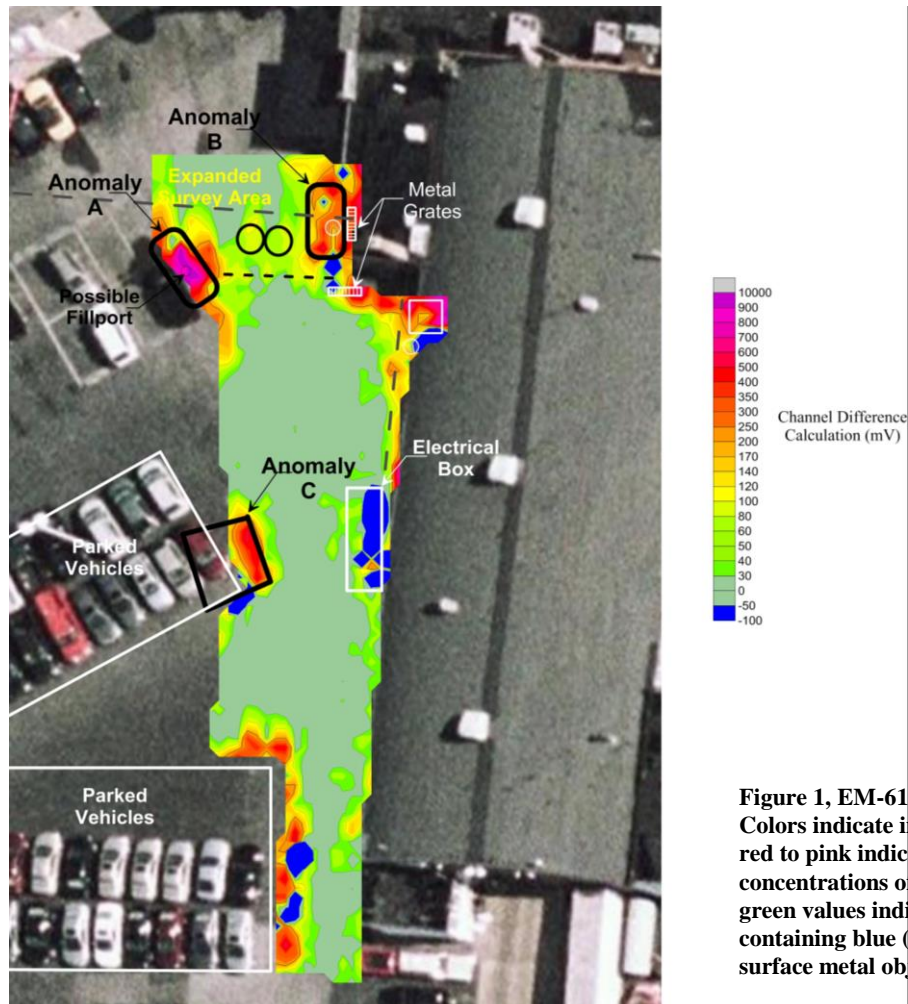
Search for Underground Storage Tanks on an Active Car Dealership

Challenge:

Recently, a car dealership in St. Louis Missouri was purchased by a national retail chain. However, prior to taking possession of the property, the retailer requested that a search for underground storage tanks (USTs) be conducted across a portion of the dealership that was believed to have contained USTs at one point in time. MUNDELL & ASSOCIATES, INC. (MUNDELL) was contacted to scan the 0.5 acre portion of the site for any tanks that may still be present.

Action:

To determine if any USTs were still present beneath the survey area, MUNDELL performed a high-resolution metal detection survey using a Geonics EM-61. Ground penetrating radar (GPR) was included as a supplemental method to further characterize any metallic objects detected.



Results:

In addition to metallic surface features and subsurface utilities, the EM-61 survey also revealed the presence of three unknown anomalous metallic features: *Anomalies A, B, and C*. These features were further examined using GPR, and were interpreted to consist of a possible UST, a small former fuel oil UST, and a former tank pit with scrap metal still present, respectively. Test pits conducted in these areas confirmed the interpretations.

Figure 1, EM-61 Channel Difference Map. Colors indicate instrument response: yellow to red to pink indicate progressively higher concentrations of subsurface metal, where green values indicate little to no metal. Areas containing blue (negative values) correspond to surface metal objects.