MAGNETIC SURVEYS

Magnetic surveys are conducted to measure variations in the earth’s magnetic field. Surveys may include measuring total intensity and/or vertical or horizontal gradient. Regional changes in the magnetic field are typically caused by geologic structure and local geologic changes, whereas, site specific localized variations can be caused by individual magnetic sources or metallic objects. Data can be obtained along predetermined profiles or more commonly in a grid pattern over the area of interest. These surveys can be performed by one person with portable handheld equipment relatively quickly. Magnetic data are typically depicted on a computer-generated contour map. Regional magnetic variations are manifested on a contour map as closely spaced contours, whereas, localized sources may form contour closures.

Magnetic surveys are typically performed to:

- Locate metallic underground storage tanks and utilities
- Delineate zones of buried metallic debris
- Determine boundaries and characterize landfills with metallic debris
- Locate certain archeologic, historic, and forensic remains
- Characterize certain geology and geologic structures