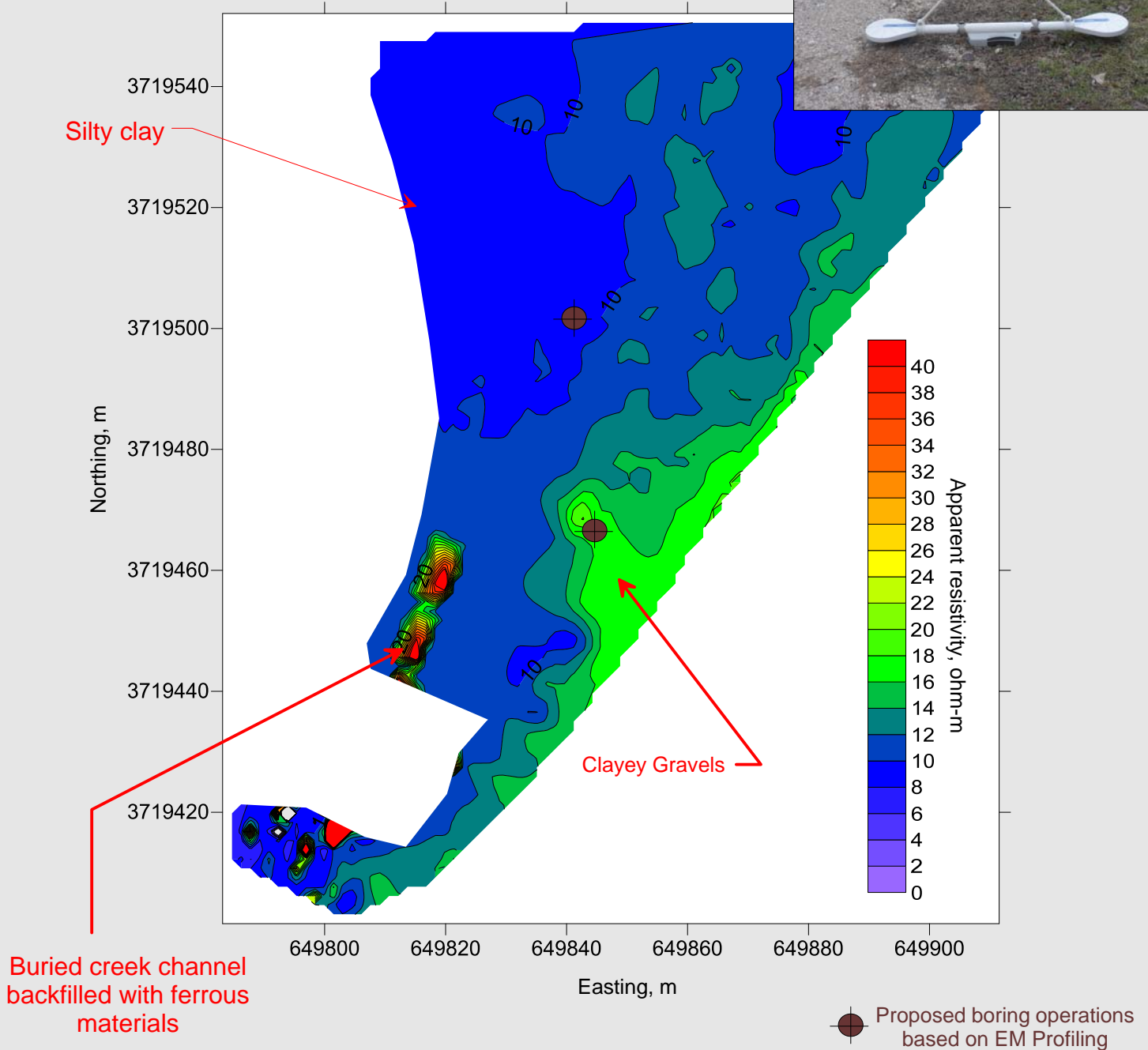


Electromagnetic (EM) Profiling

Approximately 1 acre field
Frequency - 9000 Hz



Purpose - To identify and map subsurface conditions prior to drilling operations

Solution - A new electromagnetic device (EMP-400 Profiler) is user friendly, lightweight, GPS controlled instrument enabling the user to collect extensive dataset over a relatively short period of time. Electromagnetic instrument of choice can be configured to simultaneously measure up to three frequencies between 1000 Hz and 16,000 Hz.

Findings - One of three frequency (9000 Hz) is shown to establish subsurface soil material changes prior to borings. Old buried creek channel identified at southwest quadrant of structure. Electrical resistivity changes reflect soil and/or moisture variations within the upper 5 to 10 feet below grade.