

BACKGROUND

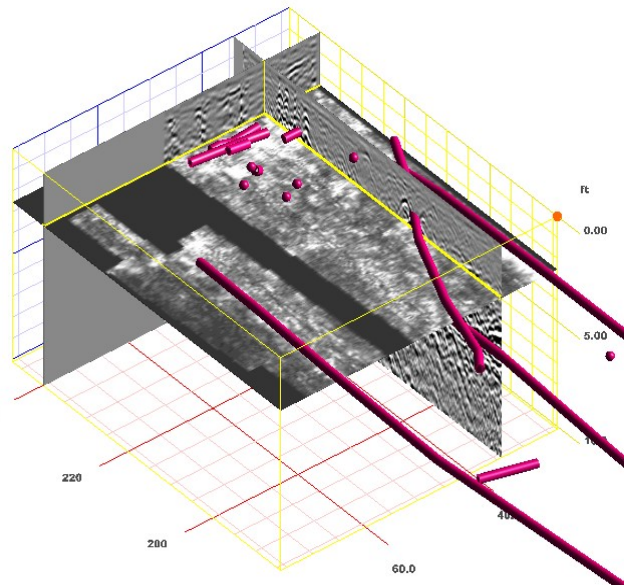
O'Brien and Gere Engineers, Inc., primary contractor for Knolls Atomic Power Laboratory (KAPL), requested a GPR survey to map and locate suspected buried utilities or other cultural features. A water treatment facility was planned for construction in a portion of an existing parking area at KAPL in West Milton, NY. A series of three water/wastewater lines are suspected to traverse the parking area in the vicinity of the proposed water treatment facility. These utilities have been generally located using historic maps, however, accurate locations or whether the lines still existed was required.



Above: Aerial photo of site.

SCOPE

A total of 27 TerraVision II® swaths were performed over the parking area. The total length of the GPR swaths is 3,890 linear feet resulting in approximately 21,005 square feet of coverage. Three separate water service lines were detected, ranging from 4 to 9 feet in depth. An electric line that cut across the survey area and varied in depth from 2-5 feet was also detected. A possible drain line and trench were discovered, as well as several other cultural features interpreted beneath the pavement surface which include possible old roadbed, vehicle ramp and old foundation.



Above: 3D view of subsurface utilities detected at varying depths throughout survey area.

METHODOLOGY

The UIT 14 channel TerraVision II® system was employed at the project site. GPS and GPR data were collected together and recorded with the UIT DAS system. The data was interpreted using the SPADE™ proprietary software and final results were presented on a CAD map.