

MINNESOTA DEEP TEST PROTOCOL PROJECT



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ABSTRACT

Commonwealth Cultural Resource Group, Inc. was contracted by the Minnesota Department of Transportation Cultural Resources Unit (CRU) to develop a deep testing protocol to discover buried archaeological sites. Three primary methods were evaluated for their efficacy in finding buried sites and included 1) geophysical survey methods (resistivity, magnetometry, and ground penetrating radar), 2) a combined coring and augering procedure, and 3) backhoe trenching. These methods were applied to six different geological and archaeological settings by separate and independent field teams. Reports of each method's findings were independently prepared without knowledge of the results of other methods. Based on an evaluation of success in discovering buried archaeological resources and the relative costs for implementation, each method was then subjected to cost/benefit analysis.

The proposed protocol employs backhoe trenching as the primary means of finding buried archaeological sites and is explicitly multi-disciplinary in its geoarchaeological approach to landscape reconstruction. The protocol ensures that multiple, independent lines of evidence can explain the presence or absence of archaeological sites. The protocol also advances recommendations for evaluating the National Register eligibility of buried archaeological sites. As with site identification, the approach advocated for site evaluation is geoarchaeological, involving methodologies of both earth and archaeological sciences. A two-step evaluation process is proposed. The first step aims to reconstruct in detail the geoarchaeological setting of the site. The second step uses the data collected in step one to develop and execute an archaeological research strategy to gather sufficient and appropriate information to fully evaluate the site's significance and integrity.

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