

**Microhole Drilling and Instrumentation**

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**Abstract**

At Los Alamos, we have embarked upon a broad-based technology integration and development program. Our goal is to demonstrate the feasibility of obtaining geotechnical information in the subsurface by combining miniaturized conventional drilling technologies with contemporary electronics and advanced sensors assembled in very small-diameter borehole instrumentation packages. Using this approach, we expect to achieve a substantial reduction in the cost of oil and gas exploration and to increase the quantity and quality of subsurface data by using instruments specifically designed for data acquisition in microholes drilling at critical locations.