

# PROBING INTO THE FUTURE

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## OVERVIEW

The U.S. Environmental Protection Agency's National Enforcement Investigations Center (NEIC) collaborated with Region 8 and their Superfund Technical Assessment and Response Team (START) contractor, URS Corporation, to install multiple deep groundwater monitoring wells using NEIC's AMS Power Probe Model 9600EC. NEIC's Power Probe uses advanced direct-push, dual-tube technology, which allows for the installation of deep groundwater monitoring wells and also allows for the collection of 2- or 4-foot soil core samples while probing to the desired depth. The NEIC Power Probe, with its dual-tube system permits discrete sampling at varying depths, maintains the structural integrity of the borehole, and allows for rapid installation of fully functioning groundwater monitoring wells.



The truck-mounted PowerProbe is equipped with mobile phone connectivity for on-site technical support (see photo below)



**Word of the Day: Fursching**  
A combination of fishing and cursing. Typically occurs when attempting to retrieve tools inadvertently dropped into 40-foot wells or bore holes.



## SUMMARY

NEIC and URS efforts resulted in the successful installation of several groundwater monitoring wells, ranging from 46 to 52 feet deep, as well as the collection of approximately six 4-foot soil cores from each borehole from depths between 26 to 50 feet. The ongoing collaboration supports the environmental investigation/monitoring of the tetrachloroethylene (TCE) plume in Denver, CO, and the possible effect on the surrounding neighborhood.

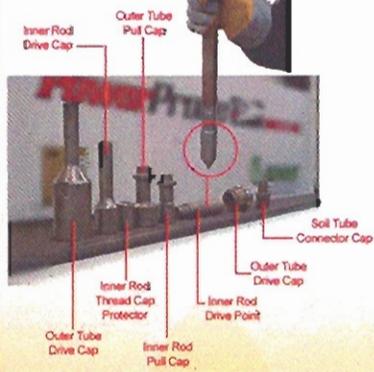
The Power Probe is also capable of soil gas and/or ground water sampling without the installation of wells. This is accomplished using the inner drive rods only with special tips and sample collection through the core of the inner rod.



The clear tube (belowright) is a 4-foot soil core sampling tube. The tube may be capped at both ends and shipped to the laboratory for analysis, or cut, on site, where samples are bagged.



Photo #8: When setting wells, bentonite is added to prevent cross-contamination between zones.



### Summary of Process:

- 1 & 2 - Setup and alignment of probe
- 3 - Seat Core Tube into outer drive tip
- 4 & 5 - Advance lead string
- 6 - Add inner and outer strings to continue probing
- 7 & 8 - Set well



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