

Examples of Low Cost Single-Well Tracer Tests

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Abstract. Tracer tests generally provide the most accurate estimates of groundwater velocity; however, the cost and effort associated with traditional methods often preclude their use at low-budget sites. Drift-pumpback and point dilution single-well tracer tests, which generally require less effort than large-scale tracer tests, were conducted to inexpensively determine groundwater velocity. Distilled water was injected and the tracer breakthrough curves were characterized by the return to background concentrations of selected parameters. Tracer test results are presented and compared to groundwater velocity estimated by Darcy's Law. Potential limitations of these techniques are briefly identified.

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