



VERTEX
Environmental Inc.

CASE STUDY
TCA

Remediation Success Gets a Direct Push



Background

As part of a real estate transaction, our client was required to remediate groundwater impacted with the chlorinated ethanes 1,1,1-Trichloroethane and 1,1-Dichloroethane.

Solution

Vertex was brought on board to design and implement an in-situ remediation program that would save both time and money by reducing contamination levels with optimal efficiency. Responsibilities included:

- Securing all relevant permits
- Monitoring pre and post-injection treatment parameters
- Minimizing our client's capital and operational expenditures

Effectiveness of the remediation project was maximized through the use of "reductive dechlorination" – a process designed to enhance the natural chemical breakdown already occurring on-site. Through a grid of 27 temporary injection points, our experts employed the direct push method to inject multiple reactive compounds into the ground under moderate pressure.

Benefit

Vertex's specialized in-situ approach resulted in the successful creation of a reactive zone that showed a 74% reduction in measurable levels of chlorinated ethanes after a single injection with no on-going operational costs. Additional monitoring demonstrated consistently low ORP and neutral pH in groundwater, which facilitates additional chemical reduction and bioremediation.



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