

CS06: BTEX Polishing at an Industrial Facility

SITE

Fuel Storage Area at the Verlite Industrial Facility, Tampa, FL
Facility ID 8625318

CONTAMINATION

BTEX and MTBE in groundwater

OBJECTIVE

The goal was to remove enough contaminants from the groundwater to obtain a No Further Action (NFA) for the site.

BACKGROUND

A leaking Underground Storage Tank (UST) had contaminated an area at the Verlite manufacturing facility. The two USTs were removed along with approximately 19 tons of impacted soil. Both Soil Vapor Extraction (SVE) and pump and treat systems were implemented to address the remaining groundwater contamination but could not get the site to closure.

REMEDIATION ACTIVITIES

An Air Sparge system installation was discussed, but due to the high cost it was decided to implement ISCO injections as a pilot feasibility test. One event of 2,200 gallons (2,400 pounds of activated 30% hydrogen peroxide equivalents) of EN Rx Reagent was injected into 4 wells- one recovery well, one injection well, and two monitoring wells. The event took place over two days and addressed both the tank pit and down gradient of the plume. The target wells are tabulated below.

MW-34 Former Tank Pit Area		
Date	Benzene	MTBE
6/13/2006	< 0.3	84
9/20/2006	92	200
12/4/2006	45	140
10/15/2007	1.5	57
8/11/2008	EN Rx Injection Event	
9/12/2008	< 0.3	< 0.5
11/12/2008	< 0.3	0.66
9/1/2009	< 0.3	0.52
GCTLs	1	20

MW-10 Down Gradient		
Date	Benzene	MTBE
6/13/2006	5.9	36
9/20/2006	64	41
12/4/2006	60	53
10/15/2007	4.4	13
8/11/2008	EN Rx Injection Event	
9/12/2008	2.0	10
11/12/2008	19	30
9/1/2009	< 0.3	4.1
GCTLs	1	20

All results in ug/L

GCTL = Groundwater Contaminant Target Level

PERFORMANCE RESULTS

The pilot event had successful results as demonstrated by a well in the former tank pit (MW-34) showing complete destruction of contaminants of concern. The down gradient well (MW-10) showed some temporary rebound for benzene and MTBE, which is a function of subsurface disturbance, but levels returned to below the GCTLs. Sampling was stopped due to scoring changes in the Florida Pre-Approval Program, however once the site was reopened, further site assessment and sampling have shown contaminant levels below GCTLs. The site was recommended for No Further Action Status and received an SRCO.