

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
West Vermont Drinking Water Contamination Site - Removal Polrep  
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V

**Subject:** POLREP #9  
Final Report  
West Vermont Drinking Water Contamination Site  
B5UJ  
Indianapolis, IN  
Latitude: 39.7720520 Longitude: -86.2294990

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**From:** Shelly Lam, On-Scene Coordinator  
**Date:** 9/26/2016  
**Reporting Period:** April 16 - September 15, 2016

**1. Introduction**

**1.1 Background**

<b>Site Number:</b>	B5UJ	<b>Contract Number:</b>	EPS50905
<b>D.O. Number:</b>	167	<b>Action Memo Date:</b>	5/13/2010
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Time-Critical
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	11/8/2011	<b>Start Date:</b>	11/8/2011
<b>Demob Date:</b>	8/15/2016	<b>Completion Date:</b>	9/15/2016
<b>CERCLIS ID:</b>	INN000510429	<b>RCRIS ID:</b>	INR000130385
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

**1.1.1 Incident Category**

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Incident Category:  
Groundwater plume site

**1.1.2 Site Description**

The following sections provide information on the site location, description of threat, and removal assessment results.

**1.1.2.1 Location**

The site is a Residential Area bounded by West Vermont Street to the south, Holt Road to the east, West Michigan Street to the north, and North Rybolt Avenue to the west in Indianapolis, Marion County, Indiana. The site consists of 23 homes that rely upon private drinking water wells as their only sources of water.

**1.1.2.2 Description of Threat**

In 2009, the Marion County Public Health Department (MCPHD) identified homes in the West Vermont-Cossell Road neighborhood that obtained drinking water from private wells. MCPHD sampled the wells and detected vinyl chloride in drinking water at three residences at concentrations above the Removal Management Level (RML) (January 2015) of 1.9 micrograms per liter (µg/L) and Maximum Contaminant Level (MCL) of 2 µg/L in groundwater used as a drinking water source

Vinyl chloride is a hazardous substance, as defined by section 101(14) of CERCLA. According to the Agency for Toxic Substances and Disease Registry, the effects of drinking high levels of vinyl chloride are unknown. However, the U.S. Department of Health and Human Services has determined that vinyl chloride is a known carcinogen. In addition to ingestion of contaminated water, there is potential exposure via inhalation of vinyl chloride vapors from use of contaminated water for cooking, showering, and bathing. Breathing vinyl chloride for long periods of time can result in permanent liver damage, immune reactions, nerve damage, and liver cancer.

**1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

See previous Pollution Reports (PolRep).

**2. Current Activities**

**2.1 Operations Section**

**2.1.1 Narrative**

On May 1, 2015, the U.S. Environmental Protection Agency (EPA) approved an action memorandum to conduct a time-critical removal action to connect residential properties to a municipal drinking water supply; properly abandon private drinking water wells; conduct sub-slab and indoor air sampling at residential properties; perform vapor mitigation, as necessary; and transport and dispose off-site any hazardous substances, pollutants and contaminants at a CERCLA-approved disposal facility in accordance with U.S. EPA's Off-Site Rule (40 Code of Federal Regulations [CFR] § 300.440).

**2.1.2 Response Actions to Date**

During the reporting period, EPA conducted sampling for vapor intrusion at three homes. A summary of those results is below. EPA compared results to Vapor Intrusion Screening Levels (VISL) using a Target Risk for Carcinogens of  $1 \times 10^{-5}$  and a Target Hazard Quotient (THQ) for Non-Carcinogens of 3, except for TCE, which had a THQ of 1.

- Tetrachloroethene (PCE) was found in the sub-slab the three homes sampled. Concentrations in those homes ranged from 49 to 600 micrograms per cubic meter (µg/m<sup>3</sup>). The VISL for PCE in sub-slab is 3,600 µg/m<sup>3</sup>.
- PCE was detected in the indoor air of the three homes sampled at concentrations ranging from 0.59 to 57 µg/m<sup>3</sup>. The VISL for PCE in indoor air is 110 µg/m<sup>3</sup>.
- Vinyl chloride was detected in the indoor air of one home at a concentration of 2.6 µg/m<sup>3</sup>. The VISL for vinyl chloride in indoor air is 1.7 µg/m<sup>3</sup>.

Volatile organic compounds (VOC) were detected below the VISL in the indoor air of two homes. After three sampling events, EPA determined that those homes did not meet the requirements of a complete vapor intrusion pathway.

Vinyl chloride was above the VISL in the indoor air at one home, although PCE was below the VISL in indoor air. Both PCE and vinyl chloride were higher in the indoor air sample than the sub-slab sample. Vapor intrusion follows gas diffusion characteristics, where the vapors move from areas of higher concentration to lower concentration. Therefore, the sub-slab concentration should be higher than the indoor concentration. The home had many chemical containers that could not be removed during the sampling event; as such, elevated VOC concentrations in indoor air are likely due to indoor air sources. EPA concluded that the home did not meet the requirements of a complete vapor intrusion pathway after three sampling events.

**2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

Enforcement strategies are contained in a confidential Enforcement Addendum to the Action Memorandum.

**2.1.4 Progress Metrics**

Progress metrics include waste generated during assessment activities and previous removal actions.

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Non-hazardous liquids	Liquid	2,310 gallons	008531239JJK	NA	Apollos Water
Non-hazardous liquids	Liquid	1,400 pounds	012065653JJK	NA	EQIS Transfer & Processing

Non-hazardous liquids	Liquid	2,500 pounds	098955	NA	EQIS Transfer & Processing
Non-hazardous liquids	Liquid	3,200 pounds	098552	NA	EQIS Transfer & Processing
Non-hazardous liquids	Liquid	165 gallons	014166998JJK	NA	Waste Management Twin Bridges RDF
Non-hazardous soil	Solid	1,150 pounds	083035	NA	EQIS Transfer & Processing
Non-hazardous soil	Solid	9,600 pounds	098692	NA	EQIS Transfer & Processing
Non-hazardous soil	Solid	5,600 pounds	014166998JJK	NA	Waste Management Twin Bridges RDF
Non-hazardous soil	Solid	13 drums	12630	NA	Southside Landfill
Treatment system carbon	Solid	420 pounds	11956975	NA	Waste Management Twin Bridges RDF

<b>Regional Metrics</b>			
This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	Not Applicable (NA)	
	Cubic yards of contaminated sediments removed and/or capped	NA	
	Gallons of oil/water recovered	NA	
	Acres of soil/sediment cleaned up in floodplains and riverbanks	NA	
Stand Alone Assessment	Number of contaminated residential yards cleaned up	NA	
	Number of workers on site	5	
Contaminant(s) of Concern	Arsenic, chromium, cadmium		
<b>Oil Response Tracking</b>			
Estimated volume	Initial amount released	NA	
	Final amount collected	NA	
CANAPS Info	FPN Ceiling Amount	NA	
	FPN Number	NA	
	Body of Water affected	NA	
<b>Administrative and Logistical Factors (Place X where applicable)</b>			
	Precedent-Setting HQ Consultations (e.g., fracking, asbestos)	Community challenges or high involvement	Radiological
X	More than one PRP	Endangered Species Act / Essential Fish Habitat issues	Explosives
	AOC	Historic preservation issues	X Residential impacts
	UAO	X NPL site	Relocation
	DOJ involved	Remote location	X Drinking water impacted
	Criminal Investigation Division involved	Extreme weather or abnormal field season	X Environmental justice
	Tribal consultation or coordination or other issues	Congressional involvement	X High media interest
	Statutory Exemption for \$2 Million	X Statutory Exemption for 1 Year	Active fire present
	Hazmat Entry Conducted – Level A, B or C	Incident or Unified Command established	Actual air release (not threatened)
<b>Green Metrics</b>			
Metric	Amount	Units	
Diesel Fuel Used	NA	gallons	
Unleaded Fuel Used	199.249	gallons	
Alternative/E-85 Fuel Used	NA	gallons	
Electricity from electric company	NA	kWh	

Electric Company Name and Account #	NA	
Electricity from sources other than the electric company	NA	kWh
Solid waste reused	NA	
Solid waste recycled	NA	
Water Used	NA	gallons

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

The site was placed on the National Priorities List (NPL) in September 2016. Additional activities will be conducted by EPA's remedial program.

#### 2.2.1.1 Planned Response Activities

Not applicable (NA)

#### 2.2.1.2 Next Steps

NA

### 2.2.2 Issues

None.

## 2.3 Logistics Section

NA

## 2.4 Finance Section

### 2.4.1 Narrative

The costs below represent contractor costs for this removal action only. Past costs are not represented.

#### Estimated Costs \*

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$860,000.00	\$666,873.57	\$193,126.43	22.46%
START	\$35,000.00	\$28,879.96	\$6,120.04	17.49%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	<b>\$895,000.00</b>	<b>\$695,753.53</b>	<b>\$199,246.47</b>	<b>22.26%</b>

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

EPA's On-Scene Coordinator (OSC) was the overall safety officer. The Emergency and Rapid Response Services (ERRS) contractor prepared a Health and Safety Plan for the site.

### 2.5.2 Liaison Officer

NA

### 2.5.3 Information Officer

See previous PolReps.

## 3. Participating Entities

### 3.1 Unified Command

NA

### 3.2 Cooperating Agencies

Indiana Department of Environmental Management  
MCPHD  
Citizens Energy Group

## 4. Personnel On Site

The following personnel were on-site during the reporting period:

Role	# Personnel
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EPA OSC	1
START Contractor	2

## 5. Definition of Terms

µg/L	micrograms per liter
µg/m <sup>3</sup>	micrograms per cubic meter
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
ERRS	Emergency and Rapid Response Services
MCL	Maximum Contaminant Level
MCPHD	Marion County Public Health Department
NA	Not applicable
NPL	National Priorities List
OSC	On-Scene Coordinator
PCE	Tetrachloroethene
PolRep	Pollution Report
PRP	Potentially Responsible Parties
RML	Removal Management Level
START	Superfund Technical Assessment and Response Team
THQ	Target Hazard Quotient
VISL	Vapor Intrusion Screening Level
VOC	Volatile Organic Compounds

## 6. Additional sources of information

### 6.1 Internet location of additional information/report

Refer to [www.epaosc.org/westvermont](http://www.epaosc.org/westvermont) or <http://epa.gov/region5/cleanup/cossellvermont/index.html> for additional information.

### 6.2 Reporting Schedule

No additional PolReps will be submitted.

## 7. Situational Reference Materials

NA

POLREP #9 Last Updated 9/26/2016