



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

JUL 26 2012

**ACTION MEMORANDUM**

**SUBJECT:** Approval and Funding for a Time-Critical Removal Action at the 57<sup>th</sup> and North Broadway Streets Site, Operable Unit 01, Wichita, Sedgwick County, Kansas

**FROM:** Eric Nold, Federal On-Scene Coordinator  
Planning and Preparedness South Section *Mary P. Peterson for*

**THRU:** Mary Peterson, Chief *Mary P. Peterson*  
Planning and Preparedness South Section

**TO:** Cecilia Tapia, Director  
Superfund Division

Site ID # 07EF



**I. PURPOSE**

The purpose of this Action Memorandum is to request approval and funding of the proposed time-critical removal action for the 57<sup>th</sup> and North Broadway Streets Site (Site), located in Wichita, Sedgwick County, Kansas. The general objective of the action will be to mitigate human exposure (via inhalation, dermal contact and ingestion) to tetrachloroethylene (PCE) at the Site through provision of a permanent alternate water supply by connecting two residences to the current municipal system.

**II. SITE CONDITIONS AND BACKGROUND**

CERCLIS ID#: KSD981710247  
Removal Category: Time-Critical  
Nationally Significant: No

**A. Site Description**

**1. Removal site evaluation**

An investigation of the residential area within the Site plume was conducted by the EPA during the week of March 12, 2012. The sampling was based on properties with private drinking water wells and located within 500 feet of the current groundwater plume. Approximately 43 residences were investigated. Of these, 19 were sampled and 24 were not sampled, based on one of three factors: vacant, refused access or were actually connected to city water. Out of the 19 residences



sampled only two showed PCE above the EPA's Maximum Contaminant Level of 5 micrograms per liter ( $\mu\text{g/L}$ ). The two affected residences are located at 5231 Arkansas and 756 West 46<sup>th</sup> Street. Confirmation sampling for these two residences was conducted on April 19, 2012, and the results were similar to the original results. The residents were contacted and were made aware of these results. The investigated area with sampling results is shown in Figure 1.

## **2. Physical location**

The Site is located in the northern region of the City of Wichita, Sedgwick County, Kansas. It is located on the diagonal that runs from the extension of West 58th Street North and Broadway Avenue to the southwest and extends to approximately West 46th Street North and Armstrong Drive. The area where this investigation is being conducted is known as the Riverview area.

## **3. Site characteristics**

The Site is primarily a ground water contamination site. The sources of contamination in this area have been determined to be several commercial operations at the upper end of the contaminant plume. The primary constituents of concern include trichloroethylene, PCE and vinyl chloride. The Site was listed on the National Priorities List on November 14, 1993.

## **4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant**

PCE has been detected in private well water samples collected by the EPA at this Site as high as 12  $\mu\text{g/L}$  which is above the MCL of 5  $\mu\text{g/L}$ . PCE is listed as a hazardous substance pursuant to 40 Code of Federal Regulations (CFR) § 302.4. As such, it is a hazardous substance as defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601(14).

## **5. NPL Status**

The Site was added to the National Priorities List (NPL) on November 14, 1993 and remedial activities are in progress.

## **6. Maps, pictures and other graphic representations**

See the attached map for general Site location (Figure 1).

## **B. Other Actions to Date**

### **1. Previous actions**

In mid 1990s, the EPA performed a removal action at the Site which supplied residents and businesses with bottled water until the installation of an alternative water supply line was completed. The Site was divided into two Operable Units (OUs): OU1 identified remedies site-wide, OU2 was for remedies in the Riverview area. OU2 was mainly to connect residents to the public water supply. The Record of Decision for OU1 was completed in September 1999 and included remedies for soil and ground water. The soil remedy used SVE and the ground water remedy used ground water

circulation wells, which use density-driven circulation (DDC) technology to provide treatment via in-well air stripping. Thirty-one well strippers were placed in the Riverview area and along 53rd Street. The remedies were completed in September 2002.

During the monitoring period from 2002 until 2007, it appeared that the source of the original plume had either been treated or had passed through the Site. However, a new PCE plume was discovered during investigations conducted in 2007 and 2008. Based on those investigations, the EPA determined that the new PCE plume is originating from an area north of the Midland property and Allen's Auto Salvage. Additional evaluations were conducted to determine the effectiveness of the DDC wells and the remedy as a whole. The final results and recommendations suggested that these wells were or have become ineffective. By 2008, all DDC wells were shut down for various reasons.

## **2. Current actions**

In 2010 and 2011, the EPA conducted both ground water and soil testing at the Allen Auto Salvage, the Midland area, along 53<sup>rd</sup> Street and south to the Riverview area. Additionally, more testing was conducted for residents that use their own private wells for water consumption. Riverview residents with private wells exceeding the PCE MCL are now being offered permanent connection to the municipal water system.

The EPA is currently evaluating other technologies such as groundwater extraction and treatment in an area south of 53<sup>rd</sup> Street to address the plume before it migrates farther south. Additionally, technologies to address contaminated soil and ground water at the Allen's property are being considered.

## **C. State and Local Authorities' Roles**

### **1. State and local actions to date**

The Kansas Department of Health and Environment (KDHE) has been assisting the EPA with document reviews and cooperating with the EPA during investigations.

### **2. Potential for continued state/local response**

The city of Wichita has a municipal water supply line available near both residential properties to be covered by this action. The City is supportive of this action and will coordinate with the EPA to allow connection to the City water supply.

## **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

Site conditions pose a significant threat to public health and welfare which meet the criteria for a response action under 40 CFR § 300.415(b)(2)(ii) of the NCP, which are described as follows:

### **300.415(b)(2)(ii) – Actual or potential contamination of drinking water supplies or sensitive ecosystems.**

Two of the private drinking water wells at this Site have been shown to contain PCE at concentrations exceeding health-based concentrations. PCE contamination above the MCL in these

drinking water wells was confirmed in May 2012; however, it is possible that residents have been drinking contaminated water for a longer period of time, in which case the threat to human health is increased. PCE levels detected in these wells ranged from 11 to 12 µg/L, while the MCL for PCE is 5 µg/L.

#### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this Site may present an imminent or substantial endangerment to public health or welfare, or the environment.

#### **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

##### **A. Proposed Actions**

##### **1. Proposed action description**

The proposed action is to permanently connect the two residences where PCE has been identified above the MCL in their private wells to the city of Wichita's municipal water system. This action would include all installation hardware (service lines, meters), but would not include any future operation and maintenance or utility bill costs. Currently, two residences meet this criterion. At both locations the private well will be capped off from the whole house system but will be plumbed to allow for continued outdoor use (i.e. lawn and garden watering).

Since this action will involve connecting residences to the municipal water system, there is no expectation of the need for off-site disposal.

##### **2. Contribution to remedial performance**

The time critical removal action on this NPL Site was requested by the remedial program and is consistent with ongoing remedial activities.

##### **3. Engineering Evaluation/Cost Analysis (EE/CA)**

Not applicable. This is a time-critical removal action.

##### **4. Applicable or relevant and appropriate requirements (ARARs)**

The NCP at 40 CFR § 300.415 requires that removal actions shall, to the extent practicable considering the exigencies of the situation, attain ARARs under federal environmental, state environmental or facility siting laws. The following ARARs have been identified as being potentially applicable for this action:

**Federal Applicable or Relevant and Appropriate Requirements**

Action/Prerequisite	Requirement	Citation
Drinking Water Quality	Treatment to achieve compliance with MCLs – Relevant and appropriate	40 CFR § 141

**State Applicable or Relevant and Appropriate Requirements**

A written request for state ARARs was sent to KDHE on June 30, 2012. KDHE responses will be considered when received.

**5. Project schedule**

This action can begin within two to four weeks of approval of this Action Memorandum. Connection to the municipal water system will be coordinated with local officials and plumbing subcontractors. This action is estimated to be completed within one week of initial mobilization.

**B. Estimated Costs**

The estimated costs associated with this removal action, which include costs for connection to the municipal water supply for the two residences, are as follows:

<u>Extramural Costs:</u>	
Removal Costs	\$16,164
Contingency	<u>2,000</u>
Removal Ceiling	\$18,164

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Refer to the enforcement section for a breakdown of these costs.

**VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

Delayed action may increase public health risks to the affected population through prolonged exposure to PCE in household-use water.

**VII. OUTSTANDING POLICY ISSUES**

None.

**VIII. ENFORCEMENT**

There were several potentially responsible parties (PRPs) for this site, all but one of which have settled with the EPA. The EPA continues to pursue the final PRP.

Based on the previous extramural costs calculation, an estimate of the EPA's intramural direct costs (\$5,000) and a regional indirect cost rate of 27.52 percent, the total EPA costs for this removal action, based on full-cost accounting practices, that will be eligible for cost recovery are estimated to be \$29,539.

Direct Extramural Costs	\$18,164
Direct Intramural Costs	5,000
EPA Indirect (27.52 percent of all costs)	<u>6,375</u>
Total Estimated EPA costs	\$29,539

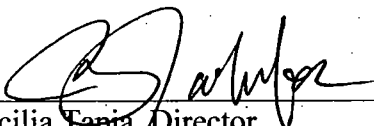
Direct costs include direct extramural and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost-accounting methodology effective October 2, 2000. These estimates do not include prejudgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

### IX. RECOMMENDATION

This decision document represents the selected removal action for the 57<sup>th</sup> and North Broadway Streets Site in Wichita, Kansas, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site meet the NCP section 300.415(b) criteria for a removal and I recommend your approval of the proposed removal action. The total removal ceiling, if approved, will be \$18,164. These funds will come from the special account for this Site.

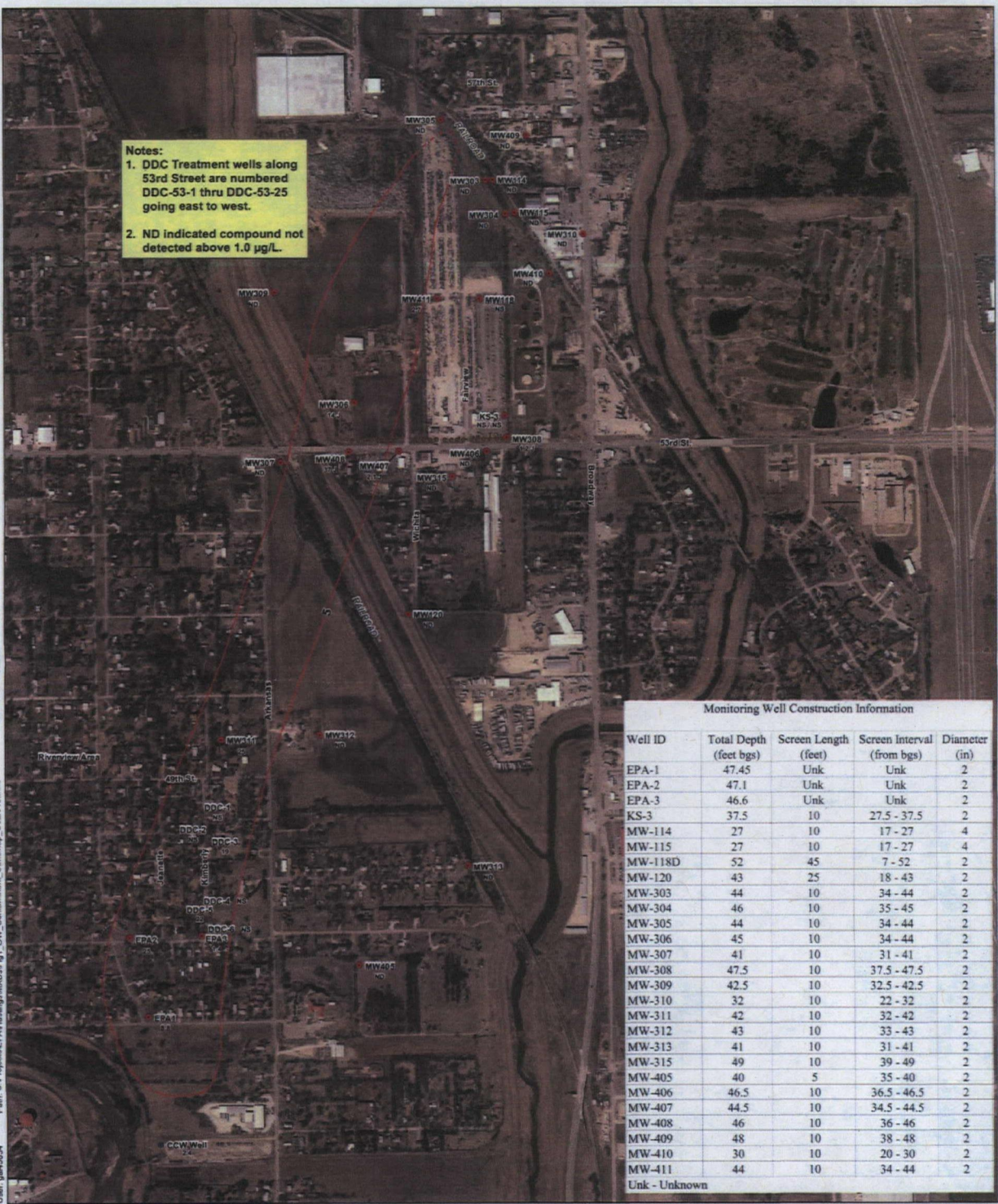
Approved:

  
\_\_\_\_\_  
Cecilia Tapia, Director  
Superfund Division

7-26-12  
\_\_\_\_\_  
Date

Attachment:  
Figure 1. Site Map

Date Saved: 12/28/2010 9:07:30 AM  
 Path: C:\Projects\EPA\Hastings\WQDFig1\_GW\_Contaminant\_ConcMap\_Oct2010.mxd  
 User: gal45834



**Notes:**  
 1. DDC Treatment wells along 53rd Street are numbered DDC-53-1 thru DDC-53-25 going east to west.  
 2. ND indicated compound not detected above 1.0 µg/L.

Monitoring Well Construction Information				
Well ID	Total Depth (feet bgs)	Screen Length (feet)	Screen Interval (from bgs)	Diameter (in)
EPA-1	47.45	Unk	Unk	2
EPA-2	47.1	Unk	Unk	2
EPA-3	46.6	Unk	Unk	2
KS-3	37.5	10	27.5 - 37.5	2
MW-114	27	10	17 - 27	4
MW-115	27	10	17 - 27	4
MW-118D	52	45	7 - 52	2
MW-120	43	25	18 - 43	2
MW-303	44	10	34 - 44	2
MW-304	46	10	35 - 45	2
MW-305	44	10	34 - 44	2
MW-306	45	10	34 - 44	2
MW-307	41	10	31 - 41	2
MW-308	47.5	10	37.5 - 47.5	2
MW-309	42.5	10	32.5 - 42.5	2
MW-310	32	10	22 - 32	2
MW-311	42	10	32 - 42	2
MW-312	43	10	33 - 43	2
MW-313	41	10	31 - 41	2
MW-315	49	10	39 - 49	2
MW-405	40	5	35 - 40	2
MW-406	46.5	10	36.5 - 46.5	2
MW-407	44.5	10	34.5 - 44.5	2
MW-408	46	10	36 - 46	2
MW-409	48	10	38 - 48	2
MW-410	30	10	20 - 30	2
MW-411	44	10	34 - 44	2
Unk - Unknown				

**Legend**

- Monitoring Well      NS Not Sampled
- DDC Treatment Well      ND Not Detected
- Public Supply Well
- 3.1 PCE Concentrations µg/L
- 5 PCE Isoconcentration Line, µg/L

Imagery Source: Sedgwick County, KS 2008

500 250 0 500 1,000 Feet



Figure 1  
 Groundwater Contaminant Concentration Map  
 October 2010  
 57th & North Broadway Site  
**BLACK & VEATCH**  
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