U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Aurora Groundwater Site - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VII

Subject: **POLREP #1**
Initial
Aurora Groundwater Site
B742
Aurora, NE
Latitude: 40.8583050 Longitude: -98.0162650

To:
From: Joe Davis, OSC
Date: 10/23/2013
Reporting Period: January 2012 through October 2013

1. Introduction

1.1 Background

Site Number:	B742	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	3/15/2012
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	12/12/2012	**Start Date:**	12/12/2012
Demob Date:		**Completion Date:**	
CERCLIS ID:	NEN000706271	**RCRIS ID:**	
ERNS No.:		**State Notification:**	Yes
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Time-Critical Removal

1.1.2 Site Description
Most communities across Nebraska at one time had access to a high-capacity grain storage facility owned and operated by the U.S. Department of Agriculture (USDA) in which carbon tetrachloride (CCl4) was used as a grain fumigant. These fumigation processes often resulted in a CCl4 release to groundwater. CCl4 and the products of its degradation (chloroform and dichloromethane) have been found to exert detrimental effects on human health and have been classified as potential carcinogens.

The former Aurora high-capacity grain storage facility was located at the northeast corner of the 1st Street and East 12th Road intersection in Aurora, Nebraska. Well sampling data collected from area drinking water wells indicate that CCl4 may have been released to groundwater during the operation of this facility. The contaminated residential drinking water wells associated with the Aurora Groundwater site are located primarily in the southeast of Aurora, Nebraska, with the identified contamination along East 12th Road southeast of the city.

Investigations by the U.S. Environmental Protection Agency and Nebraska Department of Environmental Quality have focused on determining the extent of groundwater contamination, comprehensively characterizing potential receptors (domestic and municipal wells), and evaluating probable source areas. Volatile organic compounds (VOC) were found in seven domestic wells east of town, outside city limits, and in one municipal well in northern Aurora. Concentrations of carbon tetrachloride (CCl4) were above federal maximum contaminant levels (MCL) of 5 micrograms per liter (µg/L) in five of the domestic wells. The municipal well contained low levels of the chlorinated solvent tetrachloroethene (PCE).

During a follow-up investigation, property owners were asked whether they had installed any in-home water treatment systems, and if so, samples were collected before (pre-) and after (post-) the treatment system. Two of the five previously sampled domestic wells contained CCl4 in the post-treatment sample at concentrations above the EPA MCL of 5µg/L. The samples collected indicated concentrations of 63µg/L, and 8.4µg/L respectively. In December, 2013, a plumbing contractor from Chapman, Nebraska, was contracted by the EPA to install whole house water treatment systems at two residences. Each whole house water treatment system consists of an in-line housing containing one sediment filter and an additional in-line housing containing one carbon filter. The purpose of this system is to filter sediment and reduce dissolved organics in groundwater prior to consumption or other domestic use.

In March 2014, confirmation samples collected at the two residences indicate that the whole house filtration system was effective at reducing CCl4 concentrations to levels below the EPA MCL of 5µg/L in the post-treatment water at one home. Samples collected from the second home indicate that CCl4 concentrations in post-treatment water are still above MCL (at 34µg/L). The EPA is planning to install an additional carbon filtration unit at the second home to further reduce CCl4 concentrations.

1.1.2.1 Location
Aurora, Hamilton County, Nebraska

1.1.2.2 Description of Threat
See Site Description

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
See Site Description

2. Current Activities

2.1 Operations Section

2.1.1 Narrative
On January 7, 2014, a plumbing contractor from Chapman, Nebraska, was contracted by the EPA to install whole house water treatment systems at two residences. Each whole house water treatment system consists of an in-line housing containing one sediment filter and an additional in-line housing containing one carbon filter. The purpose of this system is to filter sediment and reduce dissolved organics in groundwater prior to consumption or other domestic use.

2.1.2 Response Actions to Date
Installation of whole house water treatment systems at two residences.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
None at this time.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
No waste generated					

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities
The EPA is planning to install an additional carbon filtration unit at the second home to further reduce CCl4 concentrations.

2.2.1.2 Next Steps
Additional conformation sampling.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

Nebraska Department of Environmental Quality

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.