

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Aspen Park Solvents - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VIII

Subject: POLREP #12
Aspen Park Solvents
08-6D
Conifer, CO
Latitude: 39.5414000 Longitude: -105.2936000

To: Taylor Bowker, US EPA R8

From: Pete Stevenson, OSC

Date: 4/10/2014

Reporting Period:

1. Introduction

1.1 Background

Site Number:	08-6D	Contract Number:	
D.O. Number:		Action Memo Date:	8/22/1995
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:		Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:		Start Date:	10/25/1994
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Removal Action

1.1.2 Site Description

1.1.2.1 Location

The Site is in a residential area called Aspen Park, which is in Jefferson County, Colorado, in the foothills of the Rocky Mountains.

1.1.2.2 Description of Threat

In October of 1994 EPA found carbon tetrachloride (CCl₄) at levels as high as 120,000 parts per billion (ppb) in residential wells.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On October 25, 1994, EPA initiated the Removal Action and began supplying bottled water to 33 residents. A Treatability Study was conducted by EPA's Emergency Response Team (ERT) to determine the best method of removing the CCl₄, which ranged from 6 to 99,000 ppb. Four air strippers and 29 carbon filters were installed on 33 homes. A thorough investigation was conducted by EPA and contractors (TAT and REAC) in 1995 and 1996. A source removal system was installed in March of 1997; it consisted of 4 pumping wells, 6 reinfiltration wells, a shallow tray air stripper system, and carbon polishing tanks. The current system has 2 pumping wells feeding the air stripper and has treated over 22.2 million gallons of water as of July 18, 2012. There are currently 29 residential carbon systems installed- 7 original systems were removed and 3 new systems were added, including 1 installed on a newly built house. All 4 air stripper systems have been converted to carbon-only systems.

The carbon tet plume has diminished greatly in both size and concentration. There are currently only three hot spots and the source area that show carbon tet concentrations > 5 ug/l. Plume maps for carbon tet over time have been prepared and are available on the website.

2.1.2 Response Actions to Date

The source area around Cornelius and Vosler Streets, where we are pumping and treating groundwater, continues to clean up slowly. We have pumped, treated and reinjected over 22.2 million gallons of contaminated water as of July 18, 2012.

The carbon absorption systems continue to work well. We found only three systems this year experiencing breakthrough of contaminant between the primary system and secondary carbon tank.

Compared to data from 2012, the average carbon tet concentration of all residential well samples decreased to 13.4 ug/L from 16.3 ug/L. After 18 years of treatment by individual home systems and 16 years of pumping and treating in the source area, the residential sampling results for carbon tet can be summarized as follows:

- 4 homes at non-detect
- 11 homes between 0 and 5 ug/L;
- 7 homes between 5 and 11 ug/L;
- 2 homes between 11 and 20 ug/L;
- 3 homes between 21 and 49 ug/L;
- 0 homes between 51 and 100 ug/L; and
- 1 home greater than 100 ug/L, with the highest at 315 ug/L.

The three contaminant hot spots outside the source area are undergoing additional treatment with automatic sprinklers set up on tri-pods. These five systems are set to run daily for two to five hours during the heat of the day to see if additional contaminant reduction can be achieved.

The air stripper developed a leak, and has gotten worse. **It was taken off line and the contaminated water was routed directly to the two large carbon filters. The carbon in these filters was changed out. The pump used to pump contaminated water from tank 1 to the carbon filters was upgraded to a 2 hp pump. The last 2" pump in use in the production wells was eliminated due to it burning out after only 6 weeks. The homeowner agreed to let us modify their home pumping system. It consisted of a three phase pump, an Automation Direct Drive, pressure switches, automatic shut off valves, and a diversion to the treatment plant. This system was installed and tested on April 3, 2014. After fine tuning of some of the parameters in the drive, the diversion, as well as the water supply to the house, is working well.**

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

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

Rebuild the air stripper due to water leaks.

Install a pressure switch at the homeowner diversion to keep pump from deadheading when the manual shut off on the water line to the treatment plant is closed. Develop and install a feedback loop to initiate production pump shut off upon infiltration system shutdown, tank 1 overflow, and/or treatment plant pump failure. Provide homeowner with as-built pump system diagram as well as instruction sheet describing operation and maintenance.

Continue running system until the last well is below 100 ug/l. Monitoring of the removal system and the affected homes should continue.

2.2.2 Issues

Carbon systems need monitoring, as they can slug contaminant at much higher concentrations into the homes once they saturate. Homeowners may also disconnect the systems. There is no one else willing to do this and pay for it.

Yearly sampling for plume monitoring should continue to verify continued downward trends in contaminant concentration.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

A cost update has been received and reviewed. The totals are as of 2/19/14.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$1,662,000.00	\$820,699.00	\$841,301.00	50.62%
REAC	\$323,400.00	\$162,005.00	\$161,395.00	49.91%
Intramural Costs				
Total Site Costs	\$1,985,400.00	\$982,704.00	\$1,002,696.00	50.50%

* 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

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

One OSC. Two ERRs as needed. ERT assists with yearly sampling.

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.