# APPENDIX A

Information Sheets for Each Fund-lead P&T System

# REGION 1 INFORMATION SHEETS

## *Baird & McGuire Superfund Site*

Holbrook, MA (Region 1)
CERCLIS ID MAD001041987

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Melissa Taylor | Dorothy Allen | Don Dwight |
| One Congress Street 11th floor | MADEP | Metcalf & Eddy |
| Boston, MA 02114 | One Winter Street | 30 Harvard Mill Sq. |
| 617-918-1310 (phone) | Boston, MA 02108 | Wakefield, MA 01880 |
| 617-918-1291 (fax) | 617-292-5795 (phone) | 781-224-6286 (phone) |
| Taylor.MelissaG@epa.gov | 617-292-5530 (fax) | 781-224-6880 (fax) |
| | Dorothy.Allen@state.ma.us | Don_Dwight@metcalfeddy.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 7 |
| Date original ROD was signed: | 9/30/86 | Date of construction completion: | 4/1993 |
| Date of last modification to ROD: | | Date of operational and functional: | 4/1994 |
| Type of ROD: | Final | Expected date of turnover to state: | 4/2004 |
| Status of P&T system: | Operational | Expected date of completion: | 4/2023 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 80 |
| Approximate annual O&M costs: | $3,500,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $200,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 150 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | moderate/severe |

### Contaminants of Concern:

- Heavy metals
- LNAPL
- Pesticides
- Semi-volatile organic compounds (SVOC)
- Volatile organic compounds (VOCs)
- Arsenic, BTEX, PAHs

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

An LNAPL collection system is currently in place at the site that collects approximately 8 gal/day of pure product. The LNAPL is then shipped off site for incineration.

A full evaluation of the groundwater pump and treat system was just completed in January 2001 and is expected to be implemented within the next calendar year. The major recommendations of this evaluation are to move an extraction well from an area of limited plume contaminantion to the center of the contaminant plume; and the installation of an additional extraction well to address low concentrations of VOCs and aresenic found to the north of the main plume body.

## *Charles George Landfill Superfund Site*

Tyngsboro, MA (Region 1)
CERCLIS ID MAD003809266

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Elaine Stanley<br>One Congress Street, Suite 1100 (HBO)<br>Boston, MA 02114-2023<br>617-918-1332 (phone)<br>617-918-1291 (fax)<br>stanley.elainet@epa.gov | David Buckley<br>MADEP<br>One Winter Street<br>Boston, MA 02108<br>617-556-1184 (phone)<br>617-292-5530 (fax)<br>buckley.david@state.ma.us | David O'Connor<br>USACE North Central Residnet Office<br>50 McArthur Avenue, Box 689<br>Devens, MA 01432-4400<br>978-772-0148 (phone)<br>978-772-3104 (fax)<br>david.o'connor@nae02.usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 9 |
| Date original ROD was signed: | 3/23/88 | Date of construction completion: | 9/1998 |
| Date of last modification to ROD: | 9/26/98 | Date of operational and functional: | 9/1999 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2028 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 20 |
| Approximate annual O&M costs: | $450,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $200,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 30 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | moderate/severe |

### Contaminants of Concern:

Arsenic
BTEX
Chlorobenzene
Mercury
Tetrahydrofuran
1,4-Dioxane

### Treatment Processes:

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

### Comments:

This system pumps the effluent off-site to a POTW, via the municipal sewer system under a discharge permit. Ground water and leachate are "treated" or let's say, managed by adding an iron sequestering agent (citric acid) to keep iron from precipitating out and clogging the system and weekly biocide shocking to aid in minimizing bacterial growth in the system.

## *Eastern Surplus Company Superfund Site*

Meddybemps, ME (Region 1)
CERCLIS ID MED981073711

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Edward Hathaway<br>1 Congress Street, Suite 1100, mailcode: HBT<br>Boston, MA 02114<br>617-918-1372 (phone)<br>617-918-1291 (fax)<br>hathaway.ed@epa.gov | Rebecca Hewett<br>Maine DEP<br>17 State House Station<br>Augusta, ME 04333-0017<br>207-287-8554 (phone)<br>207-287-7826 (fax)<br>rebecca.l.hewett@state.me.us | Gordon Bullard<br>TTNUS<br>55 Jonspin Road<br>Wilmington, MA 01887<br>978-658-7899 (phone)<br>978-658-7870 (fax)<br>bullardg@ttnus.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 12 |
| Date original ROD was signed: | 9/28/00 | Date of construction completion: | 8/2001 |
| Date of last modification to ROD: | | Date of operational and functional: | 10/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2011 |
| Status of P&T system: | Being Installed | Expected date of completion: | 9/2007 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 30 |
| Approximate annual O&M costs: | $200,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $0 | Is plume migration controlled? | |
| Approximate pumping rate: | 20 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Methylene Chloride
PCE

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | yes |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

There is a limited system in place as part of a NTCRA to control plume migration. The ROD requires that the system be upgraded for groundwater restoration. The design will complete in May and final construction could occur this summer.

## *Groveland Wells Superfund Site*

Groveland, MA (Region 1)
CERCLIS ID MAD980732317

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Derrick Golden | Janet Waldron | Cinthia Mclane |
| One Congress Street - Suite 1100 (HBO) | MADEP | Metcalf & Eddy |
| Boston, MA 02114 | One Winter Street | 30 Harvard Mill Square |
| 617-918-1448 (phone) | Boston, MA 02108 | Wakefield, MA 01880 |
| 617-918-1291 (fax) | 617-556-1156 (phone) | 781-224-6377 (phone) |
| golden.derrick@epa.gov | 617-556-1118 (fax) | 781-245-6293 (fax) |
| | janet.waldron@state.ma.us | cindy_mclane@metcalfeddy.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 10 |
| Date original ROD was signed: | 9/9/91 | Date of construction completion: | 4/2000 |
| Date of last modification to ROD: | 11/15/96 | Date of operational and functional: | 5/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 4/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 4/2031 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 21 |
| Approximate annual O&M costs: | $500,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $50,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 140 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | |
| UV oxidation | yes |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *Kearsarge Metallurgical Corp.*

Conway, NH (Region 1)
CERCLIS ID NHD062002001

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Dick Goehlert<br>One Congress Street<br>Boston, MA 02114-2023<br>617-918-1335 (phone)<br>617-918-1291 (fax)<br>goehlert.dick@epa.gov | Paul Lincoln<br>NHDES<br>6 Hazen Drive<br>Concord, NH 03301<br>603-271-2911 (phone)<br>603-271-2456 (fax)<br>p_andrews@des.state.nh.us | Bette Nowack<br>Weston<br>1 Wall St.<br>Manchester, NH 03101<br>603-656-5400 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 14 |
| Date original ROD was signed: | 9/28/90 | Date of construction completion: | 9/1993 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1993 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2003 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2005 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 30 |
| Approximate annual O&M costs: | $250,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $30,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 42 gpm | Progress of aquifer restoration: | more than 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | moderate/moderate |

### Contaminants of Concern:

1,1,1-Trichloroethane
Trichloroethylene (TCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

Doug Sutton filled out this form based on a phone interview with Dick Goehlert.

The 2005 completion date is an estimate for 90% of the system. A few wells, pumping at a much lower rate will likely continue for longer

## *Keefe Environmental Systems*

Epping, NH (Region 1)
CERCLIS ID NHD092059112

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Cheryl Sprague<br>One Congress Street, Suite 1100<br>Boston, MA 02114-2023<br>617 918-1244 (phone)<br>617 918-1291 (fax)<br>Sprague.cheryl@epa.gov | Thomas Andrews<br>New Hampshire Department of Environmental Services<br>6 Hazen Drive<br>Concord, NH 03301-6527<br>603 271-2910 (phone)<br>601 271-2456 (fax)<br>Tandrews@des.state.nh.us | King Harvey<br>Woodard and Curran<br>41 Hutchins Drive<br>Portland, ME 04102<br>207 774-2112 (phone)<br>207 774-6635 (fax)<br>hking@woodardcurren.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 4 |
| Date original ROD was signed: | 3/21/88 | Date of construction completion: | 9/1993 |
| Date of last modification to ROD: | 6/8/90 | Date of operational and functional: | 9/1994 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2003 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2003 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 41 |
| Approximate annual O&M costs: | $200,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $5,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 20 gpm | Progress of aquifer restoration: | more than 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,2,3,4-Tetrachlorodibenzodioxin (TCDD)
1,2-Dichloroethene
Benzo(a)pyrene
Trans 1,2-Dichloroethylene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

In 1998 a vacuum enhanced extraction system (3 wells) was installed to faciliate voc removal in the hot zone.

State lead - with PRP settlement money.

## *Savage Well Municipal Water System*

Milford, NH (Region 1)
CERCLIS ID NHD980671002

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| RICHARD GOEHLERT | THOMAS ANDREWS | Joe Newton |
| ONE CONGRESS STREET | NHDES | CDM |
| BOSTON, MA 02114-2023 | 6 HAZEN DRIVE | Elm St |
| 617-918-1335 (phone) | CONCORD, NH 03301 | Milford, NH 03055 |
| 617-918-1291 (fax) | 603-271-2910 (phone) | 603-249-9840 (phone) |
| GOEHLERT.DICK@EPA.GOV | 603-271-2456 (fax) | 603-249-9851 (fax) |
| | t_andrews@des.state.nh.us | jnewton@cdm.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 4 |
| Date original ROD was signed: | 9/27/91 | Date of construction completion: | 3/1998 |
| Date of last modification to ROD: | 12/19/96 | Date of operational and functional: | 4/1999 |
| Type of ROD: | Final | Expected date of turnover to state: | 3/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 3/2009 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 38 |
| Approximate annual O&M costs: | $500,000 | Frequency of sampling: | 3 times per year |
| Costs related to monitoring: | $30,000 | Is plume migration controlled? | No |
| Approximate pumping rate: | 100 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
Chlorinated Solvents
Cis-1,2-dichloroethene
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

The system consists of a slurry wall with extraction and injection wells inside and outside sluury wall witha recharge gallery. there is an SVE syatem with air sparaging and carbon regeneration by steam. I also have 17 plus wells in the hot spot which i intend to use submesible pumps to effect a better remedy . advice on this new extraction system would be very beneficial.

i will not fill this out a third time

## *Silresim Chemical Corp.*

Lowell, MA (Region 1)
CERCLIS ID MAD000192393

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Chester Janowski<br>1 Congress Street, Suite 1100, HBO<br>Boston, MA 02114-2023<br>617-918-1324 (phone)<br>617-918-1291 (fax)<br>janowski.chet@epa.gov | Janet Waldron<br>MADEP<br>One Winter Street, 7th Floor<br>Boston, MA 02108<br>617-556-1156 (phone)<br>617-292-5530 (fax)<br>janet.waldron@state.ma.us | John Haley<br>Foster Wheeler Env. Corp.<br>133 Federal Street, 6th Floor<br>Boston, MA 02110<br>617-457-8200 (phone)<br>617-457-8498 (fax)<br>jhaley@fwec.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 31 |
| Date original ROD was signed: | 9/19/91 | Date of construction completion: | 11/1995 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1997 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2007 |
| Status of P&T system: | Operational | Expected date of completion: | 12/2017 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 47 |
| Approximate annual O&M costs: | $1,400,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $160,000 | Is plume migration controlled? | No |
| Approximate pumping rate: | 25 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found not sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

1,1,2,2-Tetrachloroethane
1,1-Dichloroethylene (DCE)
Acids
Benzo(b)fluoranthene
Methylphenol
Solid Propellants
Trans 1,2-Dichloroethylene
Volatile chlorinated organics

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

**Comments:**

Operations Contractor provides semi-annual status reports of the P&T system including recommendations for P&T improvements. Improvements to the source control approach are currently being evaluated and a ROD Amendment is anticipated.

# REGION 2 INFORMATION SHEETS

## *American Thermostat*

South Cairo, NY (Region 2)
CERCLIS ID NYD002066330

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Christos Tsiamis<br>290 Broadway<br>New York, NY 12233<br>212-637-4257 (phone)<br>212-637-3966 (fax)<br>tsiamis.christos@epa.gov | Joseph Yavonditte<br>NYSDEC<br>50 Wolf Road<br>Albany, NY 12233<br>518-457-9285 (phone)<br>518-457-7743 (fax)<br>jayavond@gw.dec.state.ny.us | Feeney Richard<br>Foster Wheeler Env. Corporation<br>1000 The American Road<br>Morris Plains, NJ 07950<br>973-630-8092 (phone)<br>973-630-8111 (fax)<br>RFeeney@fwenc.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 14 |
| Date original ROD was signed: | 6/29/90 | Date of construction completion: | 9/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2028 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 19 |
| Approximate annual O&M costs: | $1,175,000 | Frequency of sampling: | 12 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 70 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

### Contaminants of Concern:

1,2-Dichloropropane
Trichlorobenzene
Tetrachloroethylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

Based on cumulative long-term monitoring data, the system has currently been modified in order to optimize performance.

## *Bog Creek Farm LTRA*

Howell, NJ (Region 2)
CERCLIS ID NJD063157150

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Edward Finnerty<br>290 Broadway<br>New York, NY 10007<br>212 637 4367 (phone)<br>212-637-4393 (fax)<br>Finnerty.Ed@EPA.GOV | Craig Wallace<br>NJDEP<br>401 E State St.<br>Trenton, NJ 08625<br>609 984 2990 (phone)<br>609 633 2360 (fax)<br>Cwallace@DEP.STATE.NJ.US | George Paprocki<br>USACE<br>Ft. Monmouth<br>Eatontown, NJ 07703<br>732 389 3040 (phone)<br>732 389 1564 (fax)<br>George.B.Paprocki@nan02.USACE.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 33 |
| Date original ROD was signed: | 6/28/89 | Date of construction completion: | 5/1994 |
| Date of last modification to ROD: | | Date of operational and functional: | 8/1994 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2004 |
| Status of P&T system: | Operational | Expected date of completion: | 12/2024 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 9 |
| Approximate annual O&M costs: | $460,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $100,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 30 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
Trans 1,2-Dichloroethylene
Benzene and Toluene
2,4-Dimethylphenol
Phenol
copper, lead,zinc

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

The EPA will not meet the cleanup goal of 5ppb for benzene in the first ten years. The State's new criteria for benzene is 1ppb. This cleanup target may not be achievable, hence a 30 year remediation time (to the year 2024) was used as a default. The costs in #16 ($100,000) include sampling 9 monitoring wells and 33 extractions wells.

## *Brewster Wellfield*

Brewster, NY (Region 2)
CERCLIS ID 0202153

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Lisa Wong<br>290 Broadway<br>New York, NY 10007<br>212-637-4267 (phone)<br>212-637-3966 (fax)<br>wong.lisa@epa.gov | George Momberger<br>NYSDEC<br>50 Wolf Road<br>Albany, NY 12233<br>518-457-0927 (phone)<br>518-457-8989 (fax)<br>gfmomber@gw.dec.state.ny.us | Dawn Cermak<br>Sevenson Env.Services, Inc<br>Box 71A Route 518, Franklin Twsp<br>Princeton, NJ 08540<br>732-297-0432 (phone)<br>732-297-0441 (fax)<br>hawksister@earthlink.net |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 4 |
| Date original ROD was signed: | 9/30/86 | Date of construction completion: | 4/1997 |
| Date of last modification to ROD: | 12/2/96 | Date of operational and functional: | 9/1997 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2007 |
| Status of P&T system: | Operational | Expected date of completion: | 10/2007 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 16 |
| Approximate annual O&M costs: | $400,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $244,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 50 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,2-Dichloroethylene (DCE)
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

Qs #15 & 16: Breakdown of approximate annual O&M cost for long-term groundwater monitoring is of ballpark rough estimate.
Qs #25 & 26: 8 monitoring wells are monitored quarterly and 8 other monitoring wells are monitored annually (concurrent w/ one of the quarterly monitoring).

## *Circuitron*

East Farmingdale, NY (Region 2)
CERCLIS ID NYD981184229

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Sharon Trocher<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-3965 (phone)<br>212-637-3966 (fax)<br>trocher.sharon@epa.gov | Jeffrey Trad<br>NYSDEC<br>50 Wolf Road<br>Albany, NY 12233-7010<br>518-457-9285 (phone)<br>518-457-7743 (fax)<br>jetrad@gw.dec.state.ny.us | Shewen Bian<br>USACE, New York District<br>1900 Hempstead Turnpike, Suite 16<br>East Meadow, NY 11554<br>516-794-2913 (phone)<br>516-794-2975 (fax) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 9/30/94 | Date of construction completion: | 6/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 5/15/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 6/2010 |
| Status of P&T system: | Operational | Expected date of completion: | 6/2003 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 6 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 19 |
| Approximate annual O&M costs: | $480,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $45,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 80 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethylene (DCE)
Trichloroethylene (TCE)

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Doug Sutton completed this questionnaire based on a phone interview with Sharon Trocher.

1,1,1 TCA is primary contaminant of concem

The remedial action is expected to be complete before turnover to the state.

Monitoring frequency will soon decrease from quarterly to semi-annually or annually.

## *Claremont Polychemical Corp.*

Town of Oyster Bay, NY (Region 2)
CERCLIS ID NYD002044584

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Maria Jon<br>290 Broadway, 20th Floor<br>New York, NY 10007<br>212-637-3967 (phone)<br>212-637-4284 (fax)<br>Jon.Maria@epamail.epa.gov | Jeff Trad<br>NYSDEC<br>50 Wolf Road<br>Albany, NY 12218<br>518-457-9285 (phone)<br>518-457-7743 (fax)<br>jetrad@gw.dec.state.ny.us | Mark Kucera<br>U.S. Army Corps of Engineers<br>501 Winding Road<br>Old Bethpage, NY 11804<br>516-249-8912 (phone)<br>516-249-8928 (fax)<br>unknown@na.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 9/28/90 | Date of construction completion: | 12/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 2/2000 |
| Type of ROD: | Final | Expected date of turnover to state: | 2/2010 |
| Status of P&T system: | Operational | Expected date of completion: | 2/2020 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 14 |
| Approximate annual O&M costs: | $740,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 420 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
Toluene
Xylene
PCE

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

The date in #22 is an estimate.

## *Combe Fill South Landfill*

Chester Township, NJ (Region 2)
CERCLIS ID NJD94966611

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Pamela J. Baxter<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-4416 (phone)<br>212-637-4393 (fax)<br>baxter.pam@epamail.gov | Paula Walshe<br>NJDEP<br>401 East State St.<br>Trenton, NJ 08625<br>609-633-1119 (phone)<br>609-292-1975 (fax)<br>pwalshe@dep.state.nj.us | James Nash<br>Chapman, Inc.<br>25 West Highand Avenue<br>Atlantic Highlands, NJ 07716<br>732-291-7773 (phone)<br>732-291-7776 (fax) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 19 |
| Date original ROD was signed: | 9/23/86 | Date of construction completion: | 6/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2028 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 36 |
| Approximate annual O&M costs: | $920,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $480,000 | Is plume migration controlled? | No |
| Approximate pumping rate: | 121 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found not sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

1,4-Dichlorobenzene
Benzene
Carbon tetrachloride
Chlorobenzene
Chloroform
Ethylbenzene
Methylene Chloride
Toluene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | yes |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Combe Fill South is currently the subject of litigation.

## *Dover Municipal Well 4*

Dover, NJ (Region 2)
CERCLIS ID NJD980654131

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Diego Garcia<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-4947 (phone)<br><br>garcia.diego@epa.gov | Mary Lou Parra<br>NJDEP<br>401 East State Street<br>Trenton, NJ 08625<br>609-633-3618 (phone) | Kamala Morgan<br>USACE<br>601 East 12th Street<br>Kansas City, MO 64106<br>818-983-3577 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | |
| Date original ROD was signed: | 9/30/92 | Date of construction completion: | |
| Date of last modification to ROD: | | Date of operational and functional: | |
| Type of ROD: | Final | Expected date of turnover to state: | |
| Status of P&T system: | Predesign | Expected date of completion: | |
| Primary goal of system: | Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | |
| Approximate annual O&M costs: | | Frequency of sampling: | |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure

**Comments:**

Do not know if pump and treat will be used. May decide against it and may use well head treatment.

Light industrial site with many sources; trying to find sources.

No NAPL observed, but some may be down gradient and not addressed by addressor or by the state.

## *Garden State Cleaners/South Jersey Clothing Company*

Minotola, NJ (Region 2)
CERCLIS ID NJD053280160

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Brian Quinn<br>290 Broadway, 19th Floor<br>New York, NY 10007<br>212-637-4381 (phone)<br>212-637-4393 (fax)<br>quinn.brian@epa.gov | Akshay Parikh<br>N.J.D.E.P.<br>401 E. State Street, P.O. Box 413<br>Trenton, NJ 08625<br>609-777-0693 (phone)<br>609-633-2360 (fax)<br>APARIKH@dep.state.nj.us | Steven Gillespie<br>Sevenson Env. Services, Inc.<br>2749 Lockport Road<br>Niagara Falls, NY 14305<br>856-905-0782 (phone)<br>856-697-9187 (fax)<br>sevenson@voicenet.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 15 |
| Date original ROD was signed: | 9/26/91 | Date of construction completion: | 3/1999 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/2000 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2029 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 27 |
| Approximate annual O&M costs: | $500,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $125,000 | Is plume migration controlled? | No |
| Approximate pumping rate: | 300 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Currently being evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Trans 1,2-Dichloroethylene
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

First this questionaire only allowed one Cerclis ID to be entered, even though these are two separate sites being remediated under one ROD. The South Jersey Clothing Company. The pump and treat system has been recovering and treating groundwater with lower concentrations of TCE and PCE than expected. In addition, both
TCE and PCE have been detected in the furthest downgradient sentinel wells, implying that a portion of the plume has migrated beyond the current network of extraction wells. The USACE has been tasked by the USEPA to determine if there are additional sources of contamination downgradient of the original source areas and to determine more optimal locations of groundwater extraction wells. Additionally, the Army Corp, through their contractor, will review the treatment system design in an effort to optimize the treatment process and hydraulic capacity of the system.
ID is NJD980766828.

## *Higgins Farm*

Franklin Township, NJ (Region 2)
CERCLIS ID NJD981490261

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Pamela J. Baxter<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-4416 (phone)<br>212-637-4393 (fax)<br>baxter.pam@epamail.gov | NJDEP<br>401 East State St.<br>Trenton, NJ 08625 | Dawn Cermail<br>Sevenson Env. Service, Inc.<br>71A Route 518<br>Princeton, NJ 08540<br>732-297-0432 (phone)<br>732-297-0441 (fax)<br>hawksiyseter@earthlink.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 20 |
| Date original ROD was signed: | 9/30/92 | Date of construction completion: | 5/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 1/1999 |
| Type of ROD: | Final | Expected date of turnover to state: | 1/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2028 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 34 |
| Approximate annual O&M costs: | $1,000,000 | Frequency of sampling: | 3 times per year |
| Costs related to monitoring: | $800,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 30 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Acetone
Arsenic
Chloride
Chlorobenzene
Toluene
Xylene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | yes |
| Ion Exchange | yes |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

Site is currently the subject of litigation.
17: Designed for 100 gpm actually getting 30gpm
20: Month of O&F is an estimate
26: This represents an average. Some wells are sampled semi-annually and some quarterly
From Region 2 Hydrogeologist Rob Alvey--
Fractured rock site.
Stringent discharge permit.

## *Islip Municipal Landfill*

Islip, NY (Region 2)
CERCLIS ID NYD980506901

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Mark Dannenberg<br>290 Broadway<br>New York, NY 10007<br>212-637-4251 (phone)<br>212-637-3966 (fax)<br>dannenberg.mark@epa.gov | Carl Hoffman<br>NYSDEC<br>50 Wolf Road<br>Albany, NY 12233<br>518-457-9538 (phone)<br>518-457-4198 (fax)<br>crhoffma@gw.dec.state.ny.us | Paul DiMaria<br>Islip Resource Recovery Agency<br>401 Main Street<br>Islip, NY 11751<br>631-224-5644 (phone)<br>631-224-5645 (fax)<br>wfgraner@hotmail.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 6 |
| Date original ROD was signed: | 9/19/92 | Date of construction completion: | 9/1996 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1997 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2006 |
| Status of P&T system: | Operational | Expected date of completion: | 1/2003 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 24 |
| Approximate annual O&M costs: | $225,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $95,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 300 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Volatile organic compounds (VOCs)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *Lang Property Superfund Site*

Pemberton Township, NJ, NJ (Region 2)
CERCLIS ID NJD980505382

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Lawrence Granite<br>290 Broadway - 19th floor<br>New York, New York, NY 10007-1866<br>212-637-4423 (phone)<br>212-637-4393 (fax)<br>granite.larry@epamail.epa.gov | Thomas Ferrara<br>NJDEP<br>401 East State Street<br>Trenton, NJ 08625<br>609-292-4095 (phone)<br>609-633-2360 (fax) | Thomas Roche<br>U.S. Army Corps of Engineers<br>192 City Line Road<br>Browns Mills, NJ 08015<br>609-893-0983 (phone)<br>609-893-5415 (fax)<br>thomas.p.roche@usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 1 |
| Date original ROD was signed: | 9/29/86 | Date of construction completion: | 9/1995 |
| Date of last modification to ROD: | | Date of operational and functional: | 10/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2005 |
| Status of P&T system: | Operational | Expected date of completion: | 1/2005 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 8 |
| Approximate annual O&M costs: | $700,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $60,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 30 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

1,1-dichloroethene
1,1-dichloroethane
trichloroethene
tetrachloroethene
chromium

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

**Comments:**

--Question 17 asked for the approximate pumping rate. The treatment system was designed to pump and treat, and formerly operated at, 150 gpm. However, we have observed a significant reduction in ground water contaminant concentrations. As a result, we are now pumping at approximately 30 gpm.

--Question 18 asked for the number of ground water extraction wells. There are three extraction wells at the Site. Two of the three have been yielding clean water; therefore, they are presently shut down to allow for a period of monitoring under non-pumping conditions. Also, please note that to supplement the contaminant removal by the three extraction wells, three shallow ground water collection trenches were installed in summer 1996.
--Question 24 asked for the treatment processes which are used at the Site. We do have a metals precipitation unit and biological treatment units at the Site. However, we stopped using them due to a reduction in contaminant concentrations.
--The Lang Property Superfund site team has always emphasized quality. Our enhancement efforts to date have expedited the remediation and resulted in cost savings. If you have any questions on the above, please feel free to call me at 212-637-4423.

## *Lipari Landfill site*

Mantua Township, NJ (Region 2)
CERCLIS ID NJD980505416

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Ferdinand Cataneo<br>290 Broadway<br>New York City, NY 10007-1866<br>212-637-4428 (phone)<br>212-637-4393 (fax)<br>cataneo.fred@epa.gov | Michael Burlingame<br>NJDEP<br>P.O. Box 413<br>Trenton, NJ 08625-0413<br>609-292-1424 (phone)<br>609-292-1975 (fax)<br>mburling@dep.state.nj.us | Lee Anne Simmler<br>URS/Radian International<br>743 Mullica Hill Road<br>Glassboro, NJ 08028<br>856-582-6000 (phone)<br>856-582-6946 (fax)<br>lee_anne_simmler@urscorp.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 25 |
| Date original ROD was signed: | 9/30/85 | Date of construction completion: | 12/1992 |
| Date of last modification to ROD: | | Date of operational and functional: | 6/1993 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2019 |
| Status of P&T system: | Operational | Expected date of completion: | 12/2004 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 39 |
| Approximate annual O&M costs: | $2,500,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $30,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 125 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Benzene and Toluene
Bis(2-chloroethyl) ether
Xylene
1,2-Dichloroethane
Methylene Chloride
Phenol
Chromium
Lead
Zinc

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | yes |

### Comments:

The system has been evaluated and improved on an annual basis since it began operating in 1993. The most significant improvement was designed in April 1999 and constructed last year. The improvement converted the system to dual phase operation, which has doubled the rate of contaminated ground water extraction while providing for soil vapor/air extraction that has increased the rate of BTEX/VOC removal from the site containment by an order of magnitude.

In June 1999, the USACE Hazardous, Toxic, and Radioactive Waste Center of Expertise conducted a workshop on Lipari Landfill site system operation, maintenance, monitoring and optimization.

## *Mattiace Petrochemical*

Glen Cove, Nassau County, NY (Region 2)
CERCLIS ID NYD000512459

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Edward Als<br>290 Broadway<br>NYC, NY 10007-1866<br>212-637-4272 (phone)<br>212-637-3966 (fax)<br>als.ed@epa.gov | Michael Mason<br>NY State Department of Environmental Conservation<br>50 Wolf Road<br>Albany, NY 12233<br>518-457-9285 (phone)<br>518-457-7743 (fax)<br>mamason@gw.dec.state.ny.us | Karuppenan Subburamu<br>Foster Wheeler Env.Corp.<br>1000 the American Road<br>Morris Plains, NJ 07950<br>973-630-8518 (phone)<br>973-630-8111 (fax)<br>ksubburamu@fwenc.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 9 |
| Date original ROD was signed: | 6/27/91 | Date of construction completion: | 8/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1999 |
| Type of ROD: | Final | Expected date of turnover to state: | 3/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 8/2029 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 15 |
| Approximate annual O&M costs: | $700,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $50,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 10 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Aromatic VOCs
Chlorinated Aliphatics
Chlorinated Solvents
Ethylbenzene

Tetrachloroethylene, Trichloroethylene, Ethylbenzene, Toluene, Xylenes, Methylene Chloride, Dichlorobenzene, Acetone

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

Q#18. Of the 9 extraction wells, 3 extract almost 9 gallons/minute. The other 6 extract betw 1-2 gallons/minute.

Q#26. Wells were sampled twice in 1st year, will be sampled annually thereafter.

## *Metal TEC/Aerosystems*

Franklin, NJ (Region 2)
CERCLIS ID NJD002517472

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Dan Weissman<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-4384 (phone)<br><br>weissman.dan.epa.gov | Anton Navaragah<br>NJDEP<br>401 East State Street<br>Trenton, NJ 08625<br>609-777-0340 (phone) | |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | | Number of extraction wells: |
| Date original ROD was signed: | 9/27/90 | | Date of construction completion: |
| Date of last modification to ROD: | | | Date of operational and functional: |
| Type of ROD: | Final | | Expected date of turnover to state: |
| Status of P&T system: | Predesign | | Expected date of completion: |
| Primary goal of system: | | | Approximate downtime per year: |
| Presence of NAPLs | Observed | | Number of monitoring wells used: |
| Approximate annual O&M costs: | | | Frequency of sampling: |
| Costs related to monitoring: | | | Is plume migration controlled? |
| Approximate pumping rate: | | | Progress of aquifer restoration: |
| Result of previous evaluation of peformance/effectiveness: | | | Difficulty (due to social/political factors) of implementing minor/major changes: |

**Contaminants of Concern:**

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure

**Comments:**

Pump and treat is the selected remedy in the ROD. In RD contract to reconsider treatment approach at the site. If pump and treat is used at all, it would be adjunct to another remedy or would have a goal of containment.

## *Mohonk Road Industrial Plant Site*

High Falls, NY (Region 2)
CERCLIS ID NYD986950012

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Patrick Hamblin<br>290 Broadway, 20th Floor<br>New York, NY 10007-1866<br>212-637-3314 (phone)<br>212-637-3966 (fax)<br>hamblin.patrick@epa.gov | Michael Komoroske<br>NYSDEC<br>50 Wolf Road, Room 242<br>Albany, NY 12233-7010<br>518-457-3395 (phone)<br>518-457-4198 (fax)<br>mjkomoro@gw.dec.state.ny.us | Eric Hamilton<br>EarthTech<br>7870 Villa Park Drive, Suite 400<br>Richmond, VA 23228<br>804-515-8300 (phone)<br>804-515-8414 (fax)<br>e_hamilton@earthtech.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 3/31/00 | Date of construction completion: | 5/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 7/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 7/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 7/2031 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 17 |
| Approximate annual O&M costs: | | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 40 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Currently being evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethylene (DCE)
Trichloroethylene (TCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

This groundwater extraction and treatment system was constructed by the Region 2 Removal Program in May 2000 as a Non-Time Critical Removal Action to address the 'nearfield plume', and underwent shakedown until responsibility for the system was transferred to the remedial program in February 2001. For approximatey the next 5 months, the Remedial Program will be operate the system as a remedial action in order to complete shakedown activities. After this period, the system will be operated as a Long-Term Response Action (beginning July 2001). Additional groundwater extraction wells may be added to capture the 'farfield plume'.

## *Montgomery Township/Rocky Hill*

Montgomery Township, NJ (Region 2)
CERCLIS ID NJD980654164

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Monica Mahar<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-3942 (phone)<br><br>mahar.monica@epa.gov | Larry Quinn<br>NJDEP<br>401 East State Street<br>Trenton, NJ 08625<br>609-633-0766 (phone)<br><br>lquinn@dep.state.nj.us | Geoffrey McKenzie<br>CDM<br>107-F Corporate Blvd.<br>South Plainfield, NJ 07080<br>908-757-9500 (phone)<br><br>mckenziegm@cdm.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 6/27/88 | Date of construction completion: | 9/2003 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/2003 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2013 |
| Status of P&T system: | Design | Expected date of completion: | 9/2033 |
| Primary goal of system: | Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 40 |
| Approximate annual O&M costs: | $400,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $80,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 250 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Trichloroethylene (TCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This is actually two sites, Montgomery Township and Rocky Hill, that will share a single P&T system.
In litigation with PRP.

## *SMS Instruments*

Deer Park, NY (Region 2)
CERCLIS ID NYD001533165

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Mark Dannenberg | Joseph Yavonditte | Paul Hagerman |
| 290 Broadway | NYSDEC | CDM Federal |
| New York, NY 10007 | 50 Wolf Road | 125 Maiden Lane |
| 212-637-4251 (phone) | Albany, NY 12233 | New York, NY 10038 |
| 212-637-3966 (fax) | 518-457-9280 (phone) | 212-785-9123 (phone) |
| dannenberg.mark@epa.gov | 518-457-4198 (fax) | 212-785-6114 (fax) |
| | jayovond@gw.dec.state.ny.us | hagermanpr@cdm.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 2 |
| Date original ROD was signed: | 9/29/89 | Date of construction completion: | 6/1994 |
| Date of last modification to ROD: | | Date of operational and functional: | 6/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 6/2005 |
| Status of P&T system: | Operational | Expected date of completion: | 3/2004 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 18 |
| Approximate annual O&M costs: | $400,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $130,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 100 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Xylene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *Stanton Cleaners Area Groundwater Contamination Site*

Great Neck, NY (Region 2)
CERCLIS ID NYD047650197

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Damian Duda | Thomas Gibbons | Thomas Williams |
| 290 Broadway - 20th Floor | NYSDEC | Earth Tech |
| New York, NY 10007-1866 | 50 Wolf Road | 7870 Villa Park Drive - Suite 400 |
| 212-637-4269 (phone) | Albany, NY 12233 | Richmond, VA 23228 |
| 212-637-3966 (fax) | 518-457-3960 (phone) | 516-482-7162 (phone) |
| duda.damian@epa.gov | 518-457-4158 (fax) | 516-466-8396 (fax) |
| | tlgibbon@gw.dec.state.ny.us | twilliams@earthtech.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 3/31/99 | Date of construction completion: | 6/2001 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2011 |
| Status of P&T system: | Being Installed | Expected date of completion: | 9/2021 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 30 |
| Approximate annual O&M costs: | $270,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $120,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 90 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
DCE, BTEX, MTBE

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

An additional source control operation is currently being implemented through an ongoing soil vapor extraction system (SVE). The SVE system is expected to be in operation less than the time period estimated for the pump and treat system. Depending on the treatment efficiency of the pump and treat system, an innovative treatment technology for biological treatment may be introduced during the course of its active operation.

## *Syncon Resins*

Kearny, NJ (Region 2)
CERCLIS ID NJD064263817

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Pamela J. Baxter<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-4416 (phone)<br>212-637-4393 (fax)<br>baxter.pam@epamail.gov | Jeanette Abels<br>NJDEP<br>401 East State St.<br>Trenton, NJ 08625<br>609-292-4873 (phone)<br>609-633-2360 (fax)<br>jabels@dep.state.nj.us | John Sperber<br>LSR Levine and Fricke<br>P.O. Box 316<br>Closter, NJ 07624<br>201-750-6880 (phone)<br>201-750-6890 (fax)<br>spurber@webstan.net |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 3 |
| Date original ROD was signed: | 9/29/86 | Date of construction completion: | 4/1991 |
| Date of last modification to ROD: | 9/27/00 | Date of operational and functional: | 4/1991 |
| Type of ROD: | Final | Expected date of turnover to state: | 4/2001 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2028 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 3 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 0 |
| Approximate annual O&M costs: | $350,000 | Frequency of sampling: | 0 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 20 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found not sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Acetone
Benzene
Chlorobenzene
Ethylbenzene
Toluene
Xylene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | yes |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

18: Wells used for water control. Also, there is a trench and three sump wells located in areas that flood locally.

21: Date of 10/93 is provided. This would mean it has already been transferred to the state. 10/93 is not a possible response given the format of the webpage. 4/2001 is provided temporarily until more information is available.

27: A slurry wall is providing the control

## *Vestal Water Supply Well 1-1*

Vestal, NY (Region 2)
CERCLIS ID NYD980763767

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Sharon Trocher<br>290 Broadway<br>New York, NY 10007-1866<br>212-637-3965 (phone)<br>212-637-3966 (fax)<br>trocher.sharon@epa.gov | Jeffrey Trad<br>NYSDEC<br>50 Wolf Road<br>Albany, NY 12233-7010<br>518-457-9285 (phone)<br>518-457-7743 (fax)<br>jetrad@gw.dec.state.ny.us | Heidemarie Adenau<br>Foster Wheeler Env.Corporation<br>1000 The American Road<br>Morris Plains, NJ 07950<br>973-630-7197 (phone)<br>973-630-8025 (fax)<br>hadenau@fwenc.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 1 |
| Date original ROD was signed: | 6/27/86 | Date of construction completion: | 12/1993 |
| Date of last modification to ROD: | | Date of operational and functional: | 3/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 3/2005 |
| Status of P&T system: | Operational | Expected date of completion: | 3/2015 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 12 |
| Approximate annual O&M costs: | $180,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $30,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 450 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethylene (DCE)
1,2-Dichloroethylene (DCE)
Trichloroethylene (TCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *Vineland Chemical Co. Groundwater Treatment Plant*

Vineland, NJ (Region 2)
CERCLIS ID NJD002385664

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Matthew Westgate<br>290 Broadway 19th floor<br>New York City, NY 10007-1866<br>212 637-4422 (phone)<br>212 637-4429 (fax)<br>westgate.matthew@epamail.epa.gov | Craig Wallace<br>N.J. Dept. of Environmental Protection<br>401 East State Street CN413<br>Trenton, NJ 08625-0413<br>609 984-3727 (phone)<br>609 633-2360 (fax)<br>cwallac2@dep.state.nj.us | Gillespie Steve<br>Sevenson Env. Services<br>1405A North Mill Road<br>Vineland, NJ 08360<br>856 690-1758 (phone)<br>856 690-1759 (fax)<br>vineland@voicenet.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 13 |
| Date original ROD was signed: | 9/28/89 | Date of construction completion: | 4/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 6/2000 |
| Type of ROD: | Final | Expected date of turnover to state: | 6/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 6/2031 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 40 |
| Approximate annual O&M costs: | $4,000,000 | Frequency of sampling: | 52 times per year |
| Costs related to monitoring: | $750,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 1400 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Currently being evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | moderate/severe |

**Contaminants of Concern:**

Arsenic

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Currently we are pumping 700 gpm. Major modifications are required to increase plant flow to maximum flow rate -1400 gpm.

We are in the process of hiring a contractor, SAIC of Harrisburg, PA, through the Philadelphia District Army Corps of Engineers, to perform a "SmartSite" Optimization Study. Kickoff meeting is scheduled for March 1 2001. If you want to study this site and perform the optimization study, call me now at 212 637-4422.

## *Williams Property*

Swainton, Middle Township, NJ (Region 2)
CERCLIS ID NJD980529945

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Ferdinand Cataneo<br>290 Broadway<br>New York City, NY 10007-1866<br>212-637-4428 (phone)<br>212-637-4393 (fax)<br>cataneo.fred@epa.gov | Steve Wohleb<br>NJDEP<br>P.O. Box 413<br>Trenton, NJ 08625-0413<br>609-633-3970 (phone)<br>609-292-1975 (fax)<br>swohleb@dep.state.nj.us | Richard Talbot<br>TurnKey Env. Services, Inc<br>24 South Newton Street Road, Suite 1B<br>Newton Square, PA 19073<br>610-356-3790 (phone)<br>610-356-4780 (fax)<br>TurnKeyEnv@aol.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 2 |
| Date original ROD was signed: | 9/29/87 | Date of construction completion: | 1/1995 |
| Date of last modification to ROD: | | Date of operational and functional: | 1/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 1/2001 |
| Status of P&T system: | Operational | Expected date of completion: | 12/2002 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 18 |
| Approximate annual O&M costs: | $350,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 80 gpm | Progress of aquifer restoration: | more than 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Bis(2-chloroethyl) ether
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
Acetone
Isophorone
Methyl ethyl ketone (MEK)
Methyl isobutyl ketone (MIBK)
Xylene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | yes |
| UV oxidation | yes |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

At this time the plume appears to have been remediated except for low level PCE and TCE tailing. The pump and treat is expected to be shut down later this year with the system maintained in a "ready-to-run" state. Long term monitoring for possible rebound of contamination will follow. Resumption of operations would be triggered if rebound, as defined in a long-term testing plan,occurs.

Regarding Question #21, please note that the NJDEP has been running the p&t since operations began in January 1995.

# REGION 3 INFORMATION SHEETS

## *AIW Frank/Mid-County Mustang Site, OU#1*

Exton, PA (Region 3)
CERCLIS ID PAD004351003

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Charlie Root<br>1650 Arch Street (3HS21)<br>Philadelphia, PA 19103<br>215-814-3193 (phone)<br>215-814-3002 (fax)<br>root.charlie@epa.gov | Ragesh Patel<br>PADEP<br>Lee Park, Suite 6010 555 North Lane<br>Conshohocken, PA 19428<br>610-832-6161 (phone)<br>610-832-6260 (fax)<br>patel.ragesh@state.pa.us | Neil Teamerson<br>TetraTech NUS<br>600 Clark Avenue, Suite 3<br>King of Prussia, PA 19406<br>610-491-9688 (phone)<br>610-491-9645 (fax)<br>teamersonn@ttnus.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 5 |
| Date original ROD was signed: | 9/29/95 | Date of construction completion: | 11/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2031 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 15 |
| Approximate annual O&M costs: | $180,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $50,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 118 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

1,1,2,2-Tetrachloroethane
Trans 1,2-Dichloroethylene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

This Pump and Treat is only a few months old and there is not enough performance data to date to make any recomendations regarding optimization.

## *Berks Sand Pit*

Huffs Church, PA (Region 3)
CERCLIS ID PAD980691794

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Bruce Rundell | Elise Juers | Ed Kashdan |
| 1650 Arch Street | PADEP | Gannett Fleming |
| Philadephia, PA 19103-2087 | 909 Elmerton Av. | PO Box 80794 |
| 215-814-3317 (phone) | Harrisburg, PA 17110-8200 | Valley Forge, PA 19484 |
| 215-814-3015 (fax) | 717-705-4852 (phone) | 610-650-8101 (phone) |
| rundell.bruce@epa.gov | 717-705-4830 (fax) | 610-650-8190 (fax) |
| | juers.elise@a1.dep.state.pa.45 | ekashdan@GFnet.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 1 |
| Date original ROD was signed: | 9/29/88 | Date of construction completion: | 2/1995 |
| Date of last modification to ROD: | 2/2/94 | Date of operational and functional: | 2/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 2/2005 |
| Status of P&T system: | Operational | Expected date of completion: | 2/2003 |
| Primary goal of system: | Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 48 |
| Approximate annual O&M costs: | $150,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $25,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 90 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
1,1-Dichloroethylene (DCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

Maximum TCA and DCE concentrations in 1988 were 7,300 and 3,500 ppb, respectivly. By 1999 concentrations have been reduced to 470 ppb and 78 ppb for TCA and DCE respectively. This has been accomplished by maximizing pump rate with respect to contaminant concentrartions. Currently there is one area that is less responcive to the pumping system. A pilot scale fentons reagent injection study will be conducted in this area in the Spring of 2001. If successful oxidant injection will be used throughout the plume.

## *Butz Landfill*

Monroe Township, PA (Region 3)
CERCLIS ID PAD981034705

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Rom Roman<br>1650 Arch Street<br>Philadelphia, PA 19103-2087<br>215-814-3212 (phone)<br>215-814-3015 (fax)<br>roman.romuald@epa.gov | PADEP Paul Panek<br>PADEP<br>4530 Bath Pike<br>Bethlehem, PA 18017<br>610-861-2070 (phone)<br>610-861-2072 (fax)<br>panek.paul@dep.state.pa.us | Charles Huval<br>Koester Environmental Services<br>14649 Highway 41 N<br>Evansville, IN 47725<br>812-483-4516 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 6/30/92 | Date of construction completion: | 4/2001 |
| Date of last modification to ROD: | 8/27/99 | Date of operational and functional: | 4/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 4/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 4/2031 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 17 |
| Approximate annual O&M costs: | $250,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $125,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 90 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Diesel fuel
Trichlorobenzene
Vinyl Chloride

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

**Comments:**

Doug Sutton completed this questionnaire based on phone interviews with Rom Roman (RPM) and Bruce Rundell (hydrogeologist).

At the time of this survey, the site was to begin operation within a couple of weeks. Thus, many of the responses are estimates including costs, flow rates, and expected date of completion.

## *Croydon TCE*

Bristol Township, PA (Region 3)
CERCLIS ID PAD981035009

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Cesar Lee<br>1650 Arch St<br>Philadelphia, PA 19103<br>215-814-3205 (phone)<br>215-814-3205 (fax)<br>lee.cesar@epa.gov | Ewald Dave<br>PADEP<br>Lee Park, Suite 6010<br>Conshohocken, PA 19428<br>610-832-6200 (phone)<br>610-832-5950 (fax)<br>Ewald.David@dep.state.pa.us | Harish Mital<br>Tetra Tech, Inc.<br>Plaza 273, 56 West Main Street<br>Christiana, DE 19702<br>302-738-7551 (phone)<br>302-454-5988 (fax)<br>harish.mital@tetratech.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 6 |
| Date original ROD was signed: | 6/29/90 | Date of construction completion: | 3/1995 |
| Date of last modification to ROD: | | Date of operational and functional: | 3/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 3/2005 |
| Status of P&T system: | Operational | Expected date of completion: | 3/2025 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 7 |
| Approximate annual O&M costs: | $200,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $100,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 25 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,2-Trichloroethane
1,1-Dichloroethylene (DCE)
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
Trichloroethylene (TCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *CryoChem*

Earl Township, PA (Region 3)
CERCLIS ID PAD002360444

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Joseph McDowell<br>1650 Arch Street<br>Phila, PA 19103<br>215-814-3192 (phone)<br>215-814-3002 (fax)<br>mcdowell.joseph@epa.gov | Rich Morgan<br>PADEP<br>909 Elmerton Ave<br>Harrisburg, PA 17110<br>610-916-0122 (phone)<br>610-916-0100 (fax)<br>MORGAN.RICHARD@DEP.STATE.PA.US | Don Koch<br>ETA<br>9115 Guilford Road Suite 100<br>Columbia, MD 21046<br>410-461-9920 (phone)<br>410-750-8565 (fax)<br>dkoch@md.ccjm.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 9 |
| Date original ROD was signed: | 9/30/91 | Date of construction completion: | 2/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 6/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 6/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 6/2010 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 4 |
| Approximate annual O&M costs: | $125,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $40,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 60 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethylene (DCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *Greenwood Chemical Site*

Greenwood, VA (Region 3)
CERCLIS ID VAD003125374

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Philip Rotstein<br>1650 Arch Street<br>Philadelphia, PA 19103<br>215-814-3232 (phone)<br>215-814-3002 (fax)<br>rotstein.phil@epa.gov | Berry Wright<br>Department of Environmental Quality<br>629 E. Main Street<br>Richmond, VA 23219<br>804-698-4012 (phone)<br>804-698-4234 (fax)<br>bfwright@deq.state.va.us | Jeff Waters<br>CH2M Hill<br>1700 Market Street, Suite 1600<br>Philadelphia, PA 19103<br>215-563-4220 (phone)<br>215-563-3828 (fax)<br>jwaters@ch2m.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 5 |
| Date original ROD was signed: | 12/30/90 | Date of construction completion: | 11/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 11/2001 |
| Type of ROD: | Interim | Expected date of turnover to state: | 11/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 11/2020 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 34 |
| Approximate annual O&M costs: | $400,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $50,000 | Is plume migration controlled? | Not a goal |
| Approximate pumping rate: | 45 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1-Dichloroethane
Acetone
Arsenic
Benzene and Toluene
Naphthalene, Acetic Acid, 1,2-Dichloroethane, SVOC TICs, Dibutyl phthalate, 2,4,6,-Trichlorophenol

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | |
| UV oxidation | yes |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

Initial startup and testing of the pump and treat system began in November 2000. The system became fully operational in March 2001. Actual operational costs (O&M) not known at this time.

## *Havertown PCP OU2*

Havertown, PA (Region 3)
CERCLIS ID PAD002338010

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Gregory Ham<br>1650 Arch Street (3HS21)<br>Philadelphia, PA 19103-2029<br>215-814-3194 (phone)<br>215-814-3002 (fax)<br>ham.greg@epa.gov | April Flipse<br>PADEP<br>555 North Lane, Suite 6010<br>Conshohocken, PA 19428<br>610-832-5937 (phone)<br>610-832-6143 (fax)<br>Flipse.April@dep.state.pa.us | Lori Stoll<br>URS Corporation<br>200 Orchard Ridge Drive, Suite 101<br>Gaithersburg, MD 20878-1978<br>301-258-9780 (phone)<br>301-869-2043 (fax)<br>lori_stoll@urscorp.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 4 |
| Date original ROD was signed: | 9/30/91 | Date of construction completion: | 5/2001 |
| Date of last modification to ROD: | | Date of operational and functional: | 4/2002 |
| Type of ROD: | Interim | Expected date of turnover to state: | 4/2012 |
| Status of P&T system: | Being Installed | Expected date of completion: | 4/2033 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 15 |
| Approximate annual O&M costs: | $1,000,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $283,300 | Is plume migration controlled? | |
| Approximate pumping rate: | 45 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Benzene and Toluene
Dioxin (TCDD equivalents)
Pentachlorophenol (PCP)
Trichloroethylene (TCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | |
| UV oxidation | yes |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This system includes a 200 foot long collection trench and four oil/water extraction wells. There is free product (PCP/oil) being recovered from most of the wells.

## *Hellertown Manufacturing*

Bethlehem, PA (Region 3)
CERCLIS ID PAD002390748

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Cesar Lee | Meg Mustard | Jim Romig |
| 1650 Arch Street | PADEP | CDM Federal Corporation |
| Philadelphia, PA 19103 | 4530 Bath Pike | 993 Old Eagle School Road, Suite 408 |
| 215-814-3205 (phone) | Bethlehem, PA 18017 | Wayne, PA 19087 |
| 215-814-3205 (fax) | 610-861-2076 (phone) | 610-293-0450 (phone) |
| lee.cesar@epa.gov | 610-861-2072 (fax) | 610-293-1920 (fax) |
| | boyer.margaret@dep.state.pa.us | romigjm@cdm.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 1 |
| Date original ROD was signed: | 9/3/91 | Date of construction completion: | 9/1996 |
| Date of last modification to ROD: | | Date of operational and functional: | 3/1996 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2006 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2026 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 12 |
| Approximate annual O&M costs: | $350,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $150,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 50 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found not sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Benzene
Cis-1,2-dichloroethene
TCE and Vinyl chloride
Trans 1,2-Dichloroethylene
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Doug Sutton filled this out based on hand written notes of Cesar Lee.

## *North Penn Area 1*

Souderton, Montgomery County, PA (Region 3)
CERCLIS ID PAD096834494

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Maria de los A. Garcia<br>1650 Arch Street<br>Philadelphia, PA 19103<br>215-814-3199 (phone)<br>215-814-3002 (fax)<br>garcia.maria@epa.gov | April Flipse<br>Pennsylvania Department of Env. Protection<br>Lee Park, Suite 6010 555 North Lane<br>Conshohocken, PA 19428<br>610-832-5937 (phone)<br>610-832-6143 (fax) | Policarpio Mijares<br>U.S. Army Corps of Engineers<br>P.O. Box 1715<br>Baltimore, PA 21203<br>410-962-2782 (phone)<br>410-962-2318 (fax) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 1 |
| Date original ROD was signed: | 9/30/94 | Date of construction completion: | 7/1998 |
| Date of last modification to ROD: | 9/24/98 | Date of operational and functional: | 9/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2018 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 4 |
| Approximate annual O&M costs: | $100,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $25,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 2 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethylene (DCE)
Cis-1,2-dichloroethene
Trans 1,2-Dichloroethylene
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
Volatile organic compounds (VOCs)

### Treatment Processes:

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

### Comments:

The system in this site consists of an extraction system that discharges to a local wastewater treatment facility. There is no conventional treatment system at the site.

## *North Penn Area 6*

Lansdale, PA (Region 3)
CERCLIS ID PAD980926976

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Gregory Ham<br>1650 Arch Street (3HS21)<br>Philadelphia, PA 19103-2029<br>215-814-3194 (phone)<br>215-814-3002 (fax)<br>ham.greg@epa.gov | Robert Zang<br>Pennsylvania Dept. of Env. Protection<br>555 North Lane, Suite 6010<br>Conshohocken, PA 19428<br>610-832-6152 (phone)<br>610-832-6259 (fax)<br>Zang.Robert@state.pa.us | Ray Lees<br>It Corporation<br>1220 Ward Avenue, Suite 300<br>West Chester, PA 19380-3409<br>610-241-5000 (phone)<br>610-241-5050 (fax)<br>rlees@theitgroup.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 10 |
| Date original ROD was signed: | 8/10/00 | Date of construction completion: | 9/2002 |
| Date of last modification to ROD: | | Date of operational and functional: | 6/2003 |
| Type of ROD: | Final | Expected date of turnover to state: | 6/2013 |
| Status of P&T system: | Design | Expected date of completion: | 6/2033 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 30 |
| Approximate annual O&M costs: | $592,900 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $216,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 300 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Carbon tetrachloride
TCE and Vinyl chloride
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

This site consists of a groundwater plume covering an area approximately 3 square miles, with multiple identified sources. It will be done as a mixed work site (some wells installed and operated by EPA, some by PRPs). The first two wells are being done under a non-time critical removal action, the remainder as a remedial action.

## *Raymark*

Hatboro, PA (Region 3)
CERCLIS ID 0300894

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Deanna Moultrie<br>1650 Arch Street<br>Philadelphia, PA 19103<br>215-814-5125 (phone)<br>215-814-3002 (fax)<br>moultrie.deanna@epa.gov | David Minsker<br>PADEP<br>Lee Park Suite 6010 555 North Lane<br>Conshohocken, PA 19428<br>610-832-6193 (phone)<br>610-832-6143 (fax)<br>Minsker.David@dep.state.pa.us | Andy Hopton<br>CDM Federal Programs<br>993 Old Eagle School Road<br>Wayne, PA 19083<br>610-293-0450 (phone)<br>610-293-1920 (fax)<br>HoptonAP@cdm.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 2 |
| Date original ROD was signed: | 9/28/90 | Date of construction completion: | 1/1994 |
| Date of last modification to ROD: | | Date of operational and functional: | 6/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 1/2004 |
| Status of P&T system: | Operational | Expected date of completion: | 1/2014 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 0 |
| Approximate annual O&M costs: | $155,711 | Frequency of sampling: | 0 times per year |
| Costs related to monitoring: | $140,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 62 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Carbozol
Trichlorobenzene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

Originally, the time frame for aquifer restoration was 20 years from system startup but we are currently re-evaluating the effectiveness of the remedy and that time frame may change.

## *Saunders Supply Company*

Chuckatuck, VA (Region 3)
CERCLIS ID VAD003117389

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Andrew Palestini<br>1650 Arch Street<br>Philadelphia, PA 19103<br>215-814-3233 (phone)<br>215-814-3002 (fax)<br>palestini.andy@epa.gov | Thomas Modena<br>Virginia Department of Env.Quality<br>629 East Main Street<br>Richmond, VA 23219<br>804-698-4183 (phone)<br>804-698-4500 (fax)<br>tdmodena@deq.state.va.us | Marc Gutterman<br>U.S. Army Corps of Engineers<br>803 Front Street<br>Norfolk, VA 23510<br>757-441-7669 (phone)<br>757-441-7478 (fax)<br>Marc.D.Gutterman@nao02.usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 4 |
| Date original ROD was signed: | 9/27/96 | Date of construction completion: | 4/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 5/1999 |
| Type of ROD: | Final | Expected date of turnover to state: | 5/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 4/2008 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 10 |
| Approximate annual O&M costs: | $80,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $25,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 2 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

### Contaminants of Concern:

Arsenic
Pentachlorophenol (PCP)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

To clarify #19 above: The system was constructed by Removal because the plume was getting close to a drinking reservoir.

To clarify #30: The treatment plant is located on the PRP's property but the recovery wells and monitorong wells are located on the adjoining property. We placed piping and power in the utilities conduit trench for another recovery well. We have access to these wells and the conduit trench through an access agreement between the PRP and the owner of the adjoining property. However, any work outside of this area could be very difficult to implement because it would probably require another access agreement.

# REGION 4 INFORMATION SHEETS

## *ABC Cleaners*

Jacksonville, NC (Region 4)
CERCLIS ID NCD024644494

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Luis Flores<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8807 (phone)<br><br>flores.luis@epa.gov | Nile Testerman<br>NCDENR<br>401 Oberlin Road<br>Raleigh, NC 27605<br>919-733-2801 (phone)<br>919-733-4811 (fax)<br>nile.testerman@ncmail.net | |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | |
| Date original ROD was signed: | 1/26/93 | Date of construction completion: | |
| Date of last modification to ROD: | | Date of operational and functional: | |
| Type of ROD: | Final | Expected date of turnover to state: | |
| Status of P&T system: | Operational | Expected date of completion: | |
| Primary goal of system: | Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | |
| Approximate annual O&M costs: | | Frequency of sampling: | |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | | Difficulty (due to social/political factors) of implementing minor/major changes: | |

### Contaminants of Concern:

1,1-Dichloroethylene (DCE)
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
vinyl chloride

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

Douglas Sutton completed this form based on a phone interview with Luis Flores.

The site has been shut down for approximately 1 year.

The EPA and the previous site contractor are currently in litigation and additional site details could not be discussed.

## *American Creosote Works (DNAPL)*

Pensacola, FL (Region 4)
CERCLIS ID

### Contact Information

| | | |
|---|---|---|
| RPM<br>Mark Fite<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8927 (phone)<br><br>fite.mark@epa.gov | State Regulator<br>John Sykes<br>FDEP<br><br><br>850-488-019 (phone)<br>850-488-0190 (fax) | Contractor<br>Joe Findley<br>USACE, Mobile District<br><br>Mobile, AL<br>334-694-4012 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 8 |
| Date original ROD was signed: | 2/3/94 | Date of construction completion: | 9/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 5/2003 |
| Status of P&T system: | Operational | Expected date of completion: | 5/2003 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 4 |
| Approximate annual O&M costs: | $300,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | No |
| Approximate pumping rate: | 0.1 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Acenaphthene
Benzene
Dibenzofuran
Fluoranthene
Naphthalene
Pentachlorophenol (PCP)
carcinogenic PAHs

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

**Comments:**

Doug Sutton completed this form based on an interview with Mark Fite.

This system is a DNAPL recovery system that will be decommissioned in 2003. Therefore, the site will not be transferred to the state. A Fund-lead P&T solute recovery system will be installed in 2004.

Optimization is currently underway with USACE.

## *American Creosote Works (solute)*

Pensacola, FL (Region 4)
CERCLIS ID

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Mark Fite<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8927 (phone)<br><br>fite.mark@epa.gov | John Sykes<br>FDEP<br><br>850-488-0190 (phone) | Joe Findley<br>USACE, Mobile District<br><br>Mobile, AL<br>334-694-4012 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 2/3/94 | Date of construction completion: | 9/2004 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/2004 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2014 |
| Status of P&T system: | Predesign | Expected date of completion: | 9/2009 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 10 |
| Approximate annual O&M costs: | $452,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | 105 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Acenaphthene
Benzene
Dibenzofuran
Fluoranthene
Naphthalene
Pentachlorophenol (PCP)
carcinogenic PAHs

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | yes |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

Douglas Sutton completed this form based on a phone interview with Mark Fite.

This system is planned to address dissolved groundwater contamination in 2004 after the associated DNAPL recovery system is decommissioned.

Data provided here are estimates taken from the ROD.

## *Benfield Industries*

Hazelwood, NC (Region 4)
CERCLIS ID NCD981026479

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Jon Bornholm<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8820 (phone)<br><br>bornholm.jon@epa.gov | Nile Testerman<br>NCDENR<br>401 Oberlin Road<br>Raleigh, NC 27605<br>919-733-2801 (phone)<br>919-733-4811 (fax)<br>nile.testerman@ncmail.net | Chris Leggett<br>CMC<br><br>Newport, TN<br>423-625-0557 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 2 |
| Date original ROD was signed: | 7/31/92 | Date of construction completion: | 4/2001 |
| Date of last modification to ROD: | | Date of operational and functional: | 5/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 5/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 5/2021 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 8 |
| Approximate annual O&M costs: | $30,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $10,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 16 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Creosote and petroleum hydrocarbons

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

**Comments:**

This form was completed by Douglas Sutton based on a phone interview with Jon Bornholm.

Monitoring frequency is expected to drop from quarterly to annually.

## *Cape Fear Wood Preserving*

Fayetteville, NC (Region 4)
CERCLIS ID NCD003188828

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Jon Bornholm<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-3104<br>404-562-8820 (phone)<br>404-562-8788 (fax)<br>bornholm.jon@epa.gov | Nile Testerman<br>NCDENR<br>401 Oberlin Road<br>Raleigh, NC 27605<br>919-733-2901 (phone)<br>919-733-4811 (fax)<br>nile.testerman@ncmail.net | Ed Hicks<br>Black & Veatch<br>1145 Sanctuary Parkway, Suite 475<br>Alpharetta, GA 30004<br>770-521-8141 (phone)<br>770-751-8322 (fax)<br>hicksec@bc.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 7 |
| Date original ROD was signed: | 6/30/89 | Date of construction completion: | 9/2001 |
| Date of last modification to ROD: | 3/23/01 | Date of operational and functional: | 9/2002 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2011 |
| Status of P&T system: | Design/Not Installed | Expected date of completion: | 12/2009 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 25 |
| Approximate annual O&M costs: | $40,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $30,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 43 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Benzene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *Coleman Evans Wood Preserving*

Whitehouse, FL (Region 4)
CERCLIS ID FLD991279894

### Contact Information

| | | |
|---|---|---|
| RPM<br>Randall Chaffins<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8929 (phone)<br><br>chaffins.randall@epa.gov | State Regulator<br>John Sykes<br>FDEP<br><br>850-413-0066 (phone) | Contractor<br>Todd Trulock<br>USACE, Jacksonville District<br><br>Jacksonville, FL<br>904-232-1110 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | | Number of extraction wells: |
| Date original ROD was signed: | 9/25/86 | | Date of construction completion: |
| Date of last modification to ROD: | 9/25/97 | | Date of operational and functional: |
| Type of ROD: | Interim | | Expected date of turnover to state: |
| Status of P&T system: | Predesign | | Expected date of completion: |
| Primary goal of system: | Restoration | | Approximate downtime per year: |
| Presence of NAPLs | Observed | | Number of monitoring wells used: |
| Approximate annual O&M costs: | | | Frequency of sampling: |
| Costs related to monitoring: | | | Is plume migration controlled? |
| Approximate pumping rate: | | | Progress of aquifer restoration: |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | | Difficulty (due to social/political factors) of implementing minor/major changes: |

**Contaminants of Concern:**

Dioxin
Pentachlorophenol (PCP)

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure

**Comments:**

This form was completed by Douglas Sutton based on a phone interview with Randall Chaffins.

There are three RODs for this OU. The first is dated 1986 and the last is dated 1997.

As the system is in the pre-design stage, no information is availabe about system operations.

## *Elmore Waste Disposal*

Greer, SC (Region 4)
CERCLIS ID SCD980839542

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Ralph Howard<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8829 (phone)<br><br>howard.ralph@epa.gov | Lucas Berresford<br>SCDHEC<br>21 Bull Street<br>Columbia, SC 29201 | Ed Hicks<br>Black and Veatch<br><br>Atlanta, GA<br>770-751-7517 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 9 |
| Date original ROD was signed: | 4/26/93 | Date of construction completion: | 9/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2018 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 17 |
| Approximate annual O&M costs: | $180,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $18,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 30 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
Volatile organic compounds (VOCs)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

### Comments:

This form was completed by Douglas Sutton based on information gathered during the demonstration project and the RSE visit in 2000.

Treatment processes include GAC and discharge to the POTW.

## *FCX Statesville*

Statesville, NC (Region 4)
CERCLIS ID NCD095458527

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Ken Mallory<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8802 (phone)<br><br>mallory.ken@epa.gov | Nile Testerman<br>NCDENR<br>401 Oberlin Road<br>Raleigh, NC 27605<br>919-733-2801 (phone)<br>919-733-4811 (fax)<br>nile.testerman@ncmail.net | Ralph McKeen<br>Roy F. Weston<br><br>Atlanta, GA<br>770-263-5438 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 10 |
| Date original ROD was signed: | 9/27/93 | Date of construction completion: | |
| Date of last modification to ROD: | 9/30/96 | Date of operational and functional: | 5/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 5/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 5/2008 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 18 |
| Approximate annual O&M costs: | $150,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $40,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 20 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Pesticides
Volatile organic compounds (VOCs)
PCE

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This form was completed by Douglas Sutton based on information collected during the demonstration project. Data on the extraction, treatment, and monitoring systems were obtained from the report resultingn from the RSE conducted in 2000.

## *Miami Drum*

Hialeah, FL (Region 4)
CERCLIS ID FLD076027820

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Jim McGuire<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8911 (phone)<br><br>mcguire.jim@epa.gov | | |

### System Information and Data

| | | | | |
|---|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | | Number of extraction wells: | 40 |
| Date original ROD was signed: | 1/0/00 | | Date of construction completion: | 9/1992 |
| Date of last modification to ROD: | | | Date of operational and functional: | 9/1992 |
| Type of ROD: | Final | | Expected date of turnover to state: | 9/2002 |
| Status of P&T system: | Operational | | Expected date of completion: | |
| Primary goal of system: | Water supply | | Approximate downtime per year: | |
| Presence of NAPLs | Not present | | Number of monitoring wells used: | |
| Approximate annual O&M costs: | $1,000,000 | | Frequency of sampling: | |
| Costs related to monitoring: | | | Is plume migration controlled? | |
| Approximate pumping rate: | 104000 gpm | | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | | | Difficulty (due to social/political factors) of implementing minor/major changes: | |

**Contaminants of Concern:**

Trichloroethylene (TCE)

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Douglas Sutton completed this form based on a phone interview with Jim McGuire.

No current RPM is appointed to this site. Jim McGuire is the point of contact.

EPA Region 4 provides $1,000,000 per year to Dade County to operate 40 air strippers that have been installed to remediate aquifer and to treat water extracted from public well fields and used for water supply.

The total number of wells is not known but this number is likely similar to number of airstrippers (40).

## *Palmetto Wood*

Lexington, SC (Region 4)
CERCLIS ID SCD003362217

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Al Cherry<br>61 Forsyth Street, SW<br>Atlanta, GA 30303-8960<br>404-562-8807 (phone)<br><br>cherry.al@epa.gov | Keisha Long<br>SCDH<br>21 Bull Street<br>Columbia, SC 29201<br>803-896-4073 (phone) | Tim Eggert<br>CDM<br>2030 Powers Ferry Road, Suite 325<br>Atlanta, GA 30339<br>678-202-8912 (phone)<br>770-951-8910 (fax)<br>eggerttj@cdm.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 10 |
| Date original ROD was signed: | 9/30/87 | Date of construction completion: | 5/1997 |
| Date of last modification to ROD: | 8/4/93 | Date of operational and functional: | 1/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 5/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 5/2008 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 8 |
| Approximate annual O&M costs: | $300,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $25,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 130 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

Chromium

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

**Comments:**

This form was completed by Doug Sutton based on a phone interview with Al Cherry and Tim Eggert.

11 of 17 original wells have met clean-up standards

expected time to remediation completion is an estimate

treatment processes include pH adjustment and discharge to the POTW

# REGION 5 INFORMATION SHEETS

## *Arrowhead Refinery*

Hermantown, MN (Region 5)
CERCLIS ID MND980823975

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Darryl Owens<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-7089 (phone)<br><br>owens.darryl@epa.gov | Maureen Johnson<br>MPCA<br>520 Lafayette Road<br>St. Paul, MN 55155-4194<br>651-296-7353 (phone)<br><br>maureen.johnson@pca.state.mn.us | Gary Schroeher<br>Delta Environmental<br>2770 Cleveland Ave<br>Roseville, MN 55113-1127<br>651-639-9449 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 0 |
| Date original ROD was signed: | 9/30/86 | Date of construction completion: | 6/1993 |
| Date of last modification to ROD: | 2/9/94 | Date of operational and functional: | 7/1993 |
| Type of ROD: | Final | Expected date of turnover to state: | 7/2003 |
| Status of P&T system: | Operational | Expected date of completion: | 4/2004 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 18 |
| Approximate annual O&M costs: | $70,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $10,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 25 gpm | Progress of aquifer restoration: | more than 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

VOCs, PNAs, VC
Pentachlorophenol (PCP)

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

**Comments:**

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and on phone interviews with Darryl Owens and Maureen Johnson in 5/2001.

There are no extraction wells, but there is over 700 feet of trenches at a depth of 25 feet.

## *Better Brite Plating Co. Chrome and Zinc Shops*

Depere, WI (Region 5)
CERCLIS ID WIT560010118

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| John Peterson<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-353-1264 (phone)<br><br>peterson.john@epa.gov | Keld Lauredsen<br>WDNR<br>1125 Military Ave. Box 10448<br>Green Bay, WI 54307<br>920-492-5921 (phone)<br>920-492-5913 (fax)<br>lauredsenk@dnr.state.wi.us | |

### System Information and Data

| | | | | |
|---|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | | Number of extraction wells: | 0 |
| Date original ROD was signed: | 9/24/96 | | Date of construction completion: | 8/2000 |
| Date of last modification to ROD: | | | Date of operational and functional: | 4/1993 |
| Type of ROD: | | | Expected date of turnover to state: | 6/2006 |
| Status of P&T system: | Operational | | Expected date of completion: | 4/2030 |
| Primary goal of system: | Containment & Restoration | | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | | Number of monitoring wells used: | 14 |
| Approximate annual O&M costs: | $36,000 | | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $10,000 | | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 0 gpm | | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

**Contaminants of Concern:**

Chromium

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and on phone interviews with John Peterson and Keld Lauredsen.

This site consists of two different contaminant areas. The P&T system operated in the chrome shop from 1993 to 1999 and was moved to the zinc shop in 2000.

DNR provides the oversight; therefore, a contractor contact was not given.

The site has no extraction wells but has two trenches.

## *Douglass Road*

Mishawaka, IN (Region 5)
CERCLIS ID IND980607881

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Dion Novak<br>77 West Jackson Blvd.<br>Chicago, IL 60604-3507<br>312-886-4737 (phone)<br><br>Novak.Dion@epa.gov | Kevin Herron<br><br><br><br>317-234-0354 (phone) | Dan Plomb<br>CH2MHILL<br>135 S. 84th Street Suite 325<br>Milwaukee, WI 53214<br>414-272-2426 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 5 |
| Date original ROD was signed: | 5/3/96 | Date of construction completion: | 9/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 7/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2010 |
| Status of P&T system: | Installed | Expected date of completion: | 10/2030 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 36 |
| Approximate annual O&M costs: | $120,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $60,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 1000 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Arsenic
TCE and Vinyl chloride
Tetrahydrofuran
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

### Comments:

Site is currently operating at approximately 60%.

## *Duell and Gardner*

Dalton Township, MI (Region 5)
CERCLIS ID MID980504716

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Kyle Rogers<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-1995 (phone)<br><br>rogers.kyle@epa.gov | Walelign Wagaw<br>MDEQ<br>P.O. Box 30426<br>Lansing, MI 48909<br>517-373-9896 (phone) | Tim Gouger<br>USACE, Rapid Response<br>12565 West Center Road<br>Omaha, NE 68144-3869<br>402-293-2514 (phone)<br>402-291-8177 (fax)<br>Timothy.P.Gouger@nwo02.usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 2 |
| Date original ROD was signed: | 9/30/93 | Date of construction completion: | 7/2001 |
| Date of last modification to ROD: | 5/31/01 | Date of operational and functional: | 7/2001 |
| Type of ROD: | Interim | Expected date of turnover to state: | 7/2011 |
| Status of P&T system: | Installed | Expected date of completion: | 7/2007 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 25 |
| Approximate annual O&M costs: | | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | 80 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Anthracene
Carbozol
Chloromethane
N-N dimethylanaline, Gentin Violet

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and on a phone interview with Kyle Rogers in 5/2001.

One well is currently installed and pumping. Another well will be installed in July 2001 marking the beginning of O&F.

## *Eau Claire Municipal Wel Field*

Eau Claire, WI (Region 5)
CERCLIS ID WID980820054

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Sheri Bianchin<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-4745 (phone)<br><br>bianchin.sheri@epa.gov | | |

### System Information and Data

| | | | | |
|---|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | | Number of extraction wells: | 14 |
| Date original ROD was signed: | 3/31/88 | | Date of construction completion: | 6/1987 |
| Date of last modification to ROD: | 8/1/90 | | Date of operational and functional: | 3/1991 |
| Type of ROD: | | | Expected date of turnover to state: | |
| Status of P&T system: | Operational | | Expected date of completion: | |
| Primary goal of system: | | | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | | Number of monitoring wells used: | |
| Approximate annual O&M costs: | $175,000 | | Frequency of sampling: | |
| Costs related to monitoring: | | | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 4500 gpm | | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | | Difficulty (due to social/political factors) of implementing minor/major changes: | severe/severe |

**Contaminants of Concern:**

Trans 1,2-Dichloroethylene
Vernolate

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

This form was completed by Douglas Sutton based on information obtained from

1) www.epa.gov/R5Super/npl/wisconsin/WID980820054.htm

and

2) Information Paper #61: Contaminated Land and Brownfields Cleanup Programs
State of Wisconsin Legislative Bureau, 1/2001

The EPA RPM was not available for comment.

Reference on stated that as of 6/30/00 the EPA had spent
$5.9M dollars on the site and Wisconsin had spent $175K on the site. If the state assumes approximately 10% of the O&M costs and the site ran for approximately 9 years (up to 6/30/00) then this translates to an approximate O&M cost of $175K. This approximation is entered as the approximate O&M cost for item 15.

System goals appear to be both restoration and water supply.

## *La Salle Electrical Utilities*

La Salle, IL (Region 5)
CERCLIS ID ILD980794333

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Steve Padovani<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-353-6755 (phone)<br><br>padovani.steven@epa.gov | Rich Lang<br>IEPA<br>P.O. Box 1515<br>La Salle, IL 61301<br>815-223-6836 (phone)<br><br>epa4137@epa.state.il.us | Neil Brown<br>Ecology and Environment<br>33 N. Deerborne St.<br>Chicago, IL 60602<br>312-578-9243 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 0 |
| Date original ROD was signed: | 8/29/86 | Date of construction completion: | 2/1998 |
| Date of last modification to ROD: | 3/30/88 | Date of operational and functional: | 3/1994 |
| Type of ROD: | Final | Expected date of turnover to state: | 3/2004 |
| Status of P&T system: | Operational | Expected date of completion: | 3/2005 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 25 |
| Approximate annual O&M costs: | $230,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $50,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 20 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Transuranic wastes
PCB, TCA

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

**Comments:**

This form was completed by Douglas Sutton based information collected during the demonstration project in 4/2000 and on a phone interview with Steve Padovani in 4/2001.

There are no extraction wells, but there are 4 trenches.

Treatment processes include treatment with liquid and vapor phase carbon and discharge to the POTW.

## *Long Prairie Groundwater Contamination*

Long Prairie, MN (Region 5)
CERCLIS ID MND980904072

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Sheila Sullivan<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-5251 (phone)<br><br>sullivan.sheila@epa.gov | Mariam Horneff<br>MPCA<br>520 Lafayette Road<br>St. Paul, MN 55155-4194<br>651-296-7228 (phone) | Bill Bangsund<br>Barr Engineering<br><br>612-832-2738 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 9 |
| Date original ROD was signed: | 6/14/88 | Date of construction completion: | 11/1996 |
| Date of last modification to ROD: | | Date of operational and functional: | 8/1996 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2007 |
| Status of P&T system: | Operational | Expected date of completion: | 10/2015 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 22 |
| Approximate annual O&M costs: | $300,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $56,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 227 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Dichloroethylene
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
VC

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and on phone interviews with Sheila Sullivan and Mariam Horneff in 5/2001.

## *MacGillis and Gibbs/Bell Lumber & Pole*

New Brighton, MN (Region 5)
CERCLIS ID MND006192694

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Darryl Owens<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-7089 (phone)<br><br>owens.darryl@epa.gov | Nile Fellows<br>MPCA<br>520 Lafayette Road<br>St. Paul, MN 55155-4194<br>651-296-6300 (phone) | Larry Campbell<br>Black and Veatch<br><br>Chicago, IL |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 14 |
| Date original ROD was signed: | 9/30/91 | Date of construction completion: | 10/1999 |
| Date of last modification to ROD: | 9/22/94 | Date of operational and functional: | 10/1999 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 10/2029 |
| Primary goal of system: | Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 30 |
| Approximate annual O&M costs: | $300,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 60 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

**Contaminants of Concern:**

Chromium
Pentachlorophenol (PCP)
carcinogenic PAHs

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | yes |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

**Comments:**

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2001.

Data regarding the extraction, treatment, and monitoring systems was updated using information from the report generated from the RSE conducted in 2000.

## *Oconomowoc Electroplating*

Ashippun, WI (Region 5)
CERCLIS ID WID006100275

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Steve Padovani<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-353-6755 (phone)<br><br>padovani.steven@epa.gov | Paul Kozol<br>WDNR<br>3911 Fish Hatchery Road<br>Fitchburg, WI 53711<br>608-275-3301 (phone)<br>608-275-3338 (fax)<br>kozolp@dnr.state.wi.us | Craig Evans<br>USACE, St. Paul District<br>190 Fifth Street East<br>St. Paul, MN 55101-1638<br>651-290-5594 (phone)<br>651-290-5800 (fax)<br>Craig.O.Evans@mvp02.usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 5 |
| Date original ROD was signed: | 9/20/90 | Date of construction completion: | 9/1996 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1996 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2006 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2026 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 20 |
| Approximate annual O&M costs: | $471,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $70,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 30 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

### Contaminants of Concern:

Cadmium
Cyanide
Volatile organic compounds (VOCs)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This form was completed by Douglas Sutton based on information collected during the demonstration project inn 4/2000.

Data regarding the extraction, treatment, and monitoring systems were updated based on the report generated from the RSE conducted in 2000.

## *Onalaska Municipal Landfill*

Onalaska, WI (Region 5)
CERCLIS ID WID980821656

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Timothy Prendiville<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-5122 (phone)<br><br>prendiville.timothy@epa.gov | Dave Carper<br>WDNR<br>3550 Mormon Coulee Road<br>La Crosse, WI 54601<br>608-785-9973 (phone)<br>608-785-9990 (fax)<br>carped@dnr.state.wi.us | Jim Fisher<br>CH2MHill<br><br>Milwaukee, WI<br>414-272-1052 (phone)<br><br>jfisher1@ch2m.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 5 |
| Date original ROD was signed: | 8/14/90 | Date of construction completion: | 7/1994 |
| Date of last modification to ROD: | | Date of operational and functional: | 8/1995 |
| Type of ROD: | Final | Expected date of turnover to state: | 6/2004 |
| Status of P&T system: | Operational | Expected date of completion: | 7/2002 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 10 |
| Approximate annual O&M costs: | $200,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $80,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 560 gpm | Progress of aquifer restoration: | more than 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Benzo(a)pyrene
Trans 1,2-Dichloroethylene
Volatile chlorinated organics

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and a phone interview with Timothy Prendiville in 5/2001.

## *Ott/Story/Cordova Chem Co.*

Dalton Township, MI (Region 5)
CERCLIS ID MID060174240

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| John Fagiolo<br>77 West Jackson Blvd.<br>Chicago, IL 60604-3507<br>312-886-0800 (phone)<br><br>fagiolo.john@epa.gov | Lisa Summerfield<br>Michigan Dept. of Env.Quality<br>P.O. Box 30426<br>Lansing, MI 48909<br>517-335-3388 (phone)<br><br>summerfl@state.mi.us | Brain Bouwhuis<br>USACE-Detroit District<br>PO Box 629<br>Grand Haven, MI 49417<br>231-766-2007 (phone)<br>231-766-3287 (fax)<br>Brian.j.Bouwhuis@usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 10 |
| Date original ROD was signed: | 9/29/89 | Date of construction completion: | 2/1996 |
| Date of last modification to ROD: | 9/29/90 | Date of operational and functional: | 2/1996 |
| Type of ROD: | Final | Expected date of turnover to state: | 8/2010 |
| Status of P&T system: | Operational | Expected date of completion: | 8/2030 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 30 |
| Approximate annual O&M costs: | $2,400,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $250,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 700 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,2-Dichloroethane
1,2-Dichloroethylene (DCE)
Organophosphorus pesticides (4,4'-DDT, lindane)
Vapona
vinyl chloride

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | yes |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

### Comments:

This form was completed by Douglas Sutton based on a phone interview with John Fagiolo.

The subcontractor for this site is Carl Jager at Fishbeck Topmpson (231-766-9227).

With regard to the gpm, the actual gpm is 700, while the peak is 1200.

Another extraction well will be installed shortly.

## *Peerless Plating*

Muskegon Township, MI (Region 5)
CERCLIS ID MID006031348

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Mike Ribordy<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-4592 (phone)<br><br>ribordy.mike@epa.gov | | Mike Johnson<br>Tetra Tech<br><br>312-856-8796 (phone) |

### System Information and Data

| | | | | |
|---|---|---|---|---|
| Type of Fund-lead Site: | | | Number of extraction wells: | 6 |
| Date original ROD was signed: | 9/21/92 | | Date of construction completion: | 11/2000 |
| Date of last modification to ROD: | | | Date of operational and functional: | |
| Type of ROD: | Final | | Expected date of turnover to state: | |
| Status of P&T system: | Installed | | Expected date of completion: | |
| Primary goal of system: | Restoration | | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | | Number of monitoring wells used: | 6 |
| Approximate annual O&M costs: | $400,000 | | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | | | Is plume migration controlled? | |
| Approximate pumping rate: | 165 gpm | | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Cadmium
Trichloroethylene (TCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | yes |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

### Comments:

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and

www.epa.gov/R5Super/npl/michigan/MID006031348.htm

The RPM was not successfully contacted.

## *U.S. Aviex*

Howard Township, MI (Region 5)
CERCLIS ID MID980794556

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Ken Glatz<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-1434 (phone)<br><br>glatz.ken@epa.gov | Judy Gapp<br>MDEQ<br>P.O. Box 30426<br>Lansing, MI 48909<br>517-335-3391 (phone)<br>517-335-4887 (fax)<br>gappj@state.mi.us | Jack Brunner<br>Tetra Tech<br><br>312-856-8788 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 6 |
| Date original ROD was signed: | 9/7/88 | Date of construction completion: | 9/1993 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/1993 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2003 |
| Status of P&T system: | Operational | Expected date of completion: | 9/2003 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 30 |
| Approximate annual O&M costs: | $300,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | No |
| Approximate pumping rate: | 170 gpm | Progress of aquifer restoration: | 20% to 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
1,1-Dichloroethane
1,2-Dichloroethane
diethylether

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and on phone interviews with Ken Glatz and Judy Gapp.

## *Verona Well Field*

Battle Creek, MI (Region 5)
CERCLIS ID MID980793806

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Richard Boice<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-4740 (phone)<br><br>boice.richard@epa.gov | Beth O'Brien<br>MDEQ<br>P.O. Box 30426<br>Lansing, MI 48909<br>517-335-3908 (phone)<br><br>obrienea@state.mi.us | |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 6 |
| Date original ROD was signed: | 8/12/85 | Date of construction completion: | 6/1996 |
| Date of last modification to ROD: | | Date of operational and functional: | 6/1996 |
| Type of ROD: | Final | Expected date of turnover to state: | 6/2006 |
| Status of P&T system: | Operational | Expected date of completion: | Indefinite |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 2 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 10 |
| Approximate annual O&M costs: | $225,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 250 gpm | Progress of aquifer restoration: | more than 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

1,2-Dichloropropane
Tin
Trans 1,2-Dichloroethylene
Volatile chlorinated organics

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

**Comments:**

This form was completed by Douglas Sutton based on information collected during the demonstration project in 4/2000 and on phone interviews with Richard Boice and Beth O'Brien.

At times, NAPL is pulled in from offsite.

## *Wash King Laundry*

Pleasant Plains Township, MI (Region 5)
CERCLIS ID MID980701247

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Russell Hart<br>77 West Jackson Boulevard<br>Chicago, IL 60604-3507<br>312-886-4844 (phone)<br><br>hart.russell@epa.gov | Sally Beebe<br>MDEQ-ERD<br>P.O. Box 30426<br>Lansing, MI 48909<br>517-373-4110 (phone)<br>517-335-4887 (fax)<br>beebes@state.mi.us | Malcolm Pirnie<br><br>517-337-0111 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 5 |
| Date original ROD was signed: | 3/31/93 | Date of construction completion: | 4/2001 |
| Date of last modification to ROD: | 7/31/96 | Date of operational and functional: | 4/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 4/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 4/2021 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 23 |
| Approximate annual O&M costs: | $75,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $15,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 250 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | yes |
| other/not sure | |

**Comments:**

This form was completed by Douglas Sutton based on information collected during the demonstration project and a phone interview with Russell Hart.

There are 8 monitoring wells sampled quarterly and
14 monitoring wells sampled annually for a total of 46 samples per year. The 23 wells and semi-annual sampling were input to suggest 46 samples per year.

# REGION 6 INFORMATION SHEETS

## *American Creosote Works*

Winnfield, LA (Region 6)
CERCLIS ID LAD000239814

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Stacey Bennett<br>1445 Ross Avenue<br>Dallas, TX 75202-2733<br>214-665-6729 (phone)<br>214-665-6660 (fax)<br>bennett.stacey@epa.gov | Janaye Danage<br>Louisiana Dept.of Env.Quality<br>P.O. Box 82178<br>Baton Rouge, LA 70884-2178<br>225-765-0475 (phone)<br>225-765-0484 (fax)<br>janaye_d@deq.state.la.us | Bill Faught<br>CH2MHill<br>7600 W. Tidwell, Suite 400<br>Houston, TX 77040-5719<br>713-462-0161 (phone)<br>713-462-0165 (fax)<br>bfaught@ch2m.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 18 |
| Date original ROD was signed: | 4/28/93 | Date of construction completion: | 2/1997 |
| Date of last modification to ROD: | | Date of operational and functional: | 2/1997 |
| Type of ROD: | Final | Expected date of turnover to state: | 2/2027 |
| Status of P&T system: | Operational | Expected date of completion: | 2/2027 |
| Primary goal of system: | Containment | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 18 |
| Approximate annual O&M costs: | $360,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $360,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 5 gpm | Progress of aquifer restoration: | Not a goal |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

### Contaminants of Concern:

Chlorinated polyaromatic hydrocarbons (CPAHs)
Creosote and petroleum hydrocarbons

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | yes |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

The ROD states that the in-situ bioremediation and groundwater p&T as a long-term remedial action for this site. According to the ROD and the State Superfund Contract(SSC), the EPA will finance 90% of the in-situ bioremediation system and the GW pump and treat system until the ROD performance criteria are met. The SSC states that, "there are no technically-separable construction/operational functions associated specifically with groundwater pump and treat since this will occur incidentally with in-situ soil treatment. Therefore, the time limitation (10 years) stated in 40 CFR Section 300.435(f)(3) concerning the treatment of groundwater is not applicable." This is the reason why I did not put a date in which the pump and treatment system was deemed functional and operational, because this is not applicable for this site. What the ROD is saying in plain English is that the in-situ bioremediation treatment is the primary treatment. Until we reach the goals of the in-situ bioremediation, it will be impossible to determine whether groundwater goals are being met. The success of the groundwater P& T is actually predicated on the successful completion of the in-situ bioremediation treatment.

Also, note that the State (LDEQ) does not assume O& M, according to the ROD, until in-situ bioremediation is completed, which is 20 years from construction. After that time, th

A five-year review was completed in August 2000. We are currently in the process of taking additional sampling parameters and making adjustments to the plant to determine if

If you need more information, call me at (214)665-6729. Stacey Bennett, RPM Region 6

## *Bayou Bonfouca*

Slidell, LA (Region 6)
CERCLIS ID LAD980745632

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Katrina Coltrain | Rich Johnson | Lee Guillory |
| 1445 Ross Avenue | Louisiana Dept.of Env.Quality | USACE-New Orleans District |
| Dallas, TX 75202 | P.O. Box 82282 | P.O. Box 60267 |
| 214-665-8143 (phone) | Baton Rouge, LA 70884-2282 | New Orleans, LA 70160-0267 |
| 214-665-6660 (fax) | 225-765-0487 (phone) | 504-862-2934 (phone) |
| coltrain.katrina@epa.gov | 225-765-0435 (fax) | 504-862-2896 (fax) |
| | rich_j@deq.state.la.us | lee.a.guillory@mvn02.usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 44 |
| Date original ROD was signed: | 3/31/87 | Date of construction completion: | 7/2000 |
| Date of last modification to ROD: | 7/20/95 | Date of operational and functional: | 3/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 7/2003 |
| Status of P&T system: | Operational | Expected date of completion: | 7/2021 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 11 |
| Approximate annual O&M costs: | $402,000 | Frequency of sampling: | 12 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 22.5 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Indeno(1,2,3-cd)pyrene
Chrysene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

**Comments to Bayou Bonfouca:**

Note to questions:

#9--An ESD was signed on February 5, 1990 which made adjustments to the ROD. The ROD amendment only stated that the incinerator at Bonfouca would be used to treat soils from Southern Ship Superfund site.

#13 and 14-- The cost is estimated between 360K to 444K per year and is all attributable to LTRA.

#15--There are three arrays on site with 44 individual wells. Individually the wells pump at 1/4gpm. Each array is estimated at 5-10gpm. The pumping rate is dependent on the drawdown and is adjusted to maintain a -4fmsl.

#17--Array 2 was completed in 1991 and brought on line that same year. Based on the ESD and subsequent reports, new wells were constructed and completed in 2000.

#18--The EPA, along with LDEQ, will meet to determine O&F March 2001.

#20--The aquifer is not currently used and will unlikly be used in the future as a drinking water source due to insufficient yield. The ESD states that a risk based 10-4 to 10-6 level will be used or whatever is technologically feasible. The main objective of the system is to contain migration and prevent recontamination of the bayou.

#21--There is not planned down time for the system. The system is set up with bypass measures when maintenance is needed. The system is only shut down when there is a

#22--Treatment involves an oil/water separator, sand filter, oleophilic filter, granular activated carbon, and post aeration.

#24--The monitoring wells are monitored daily to ensure that the -4fmsl drawdown is maintained. These wells are surveyed once a month to monitor subsidence. The system is

#27 and #28--reports on the effectiveness of the system was done and resulted in the upgrades to the system and the installation of additional wells which was completed in 200

## *Cimarron Mining*

Carizozo, NM (Region 6)
CERCLIS ID NMD980749378

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Petra Sanchez<br>1445 Ross Ave. Suite 1200 6SF-LT<br>Dallas, TX 75202-2733<br>214-665-6686 (phone)<br>214-665-6660 (fax)<br>sanchez.petra@epa.gov | David Henry<br>New Mexico Env. Department<br>PO Box 26110 1190 St. Francis Drive<br>Santa Fe, NM 87505<br>214-827-0037 (phone)<br>214-827-2965 (fax)<br>david_henry@nmev.state.nm.us | Brian D. Jordan<br>USACE<br>4101 Jefferson Plaza NE<br>Albuquerque, NM 87109<br>505-342-3472 (phone)<br>505-342-3208 (fax)<br>brian.D.Joran@spao2.usace.army.mil |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 9/21/90 | Date of construction completion: | 4/1991 |
| Date of last modification to ROD: | | Date of operational and functional: | 12/1991 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2004 |
| Status of P&T system: | Operational | Expected date of completion: | Indefinite |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 4 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 3 |
| Approximate annual O&M costs: | $1,000,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $60,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 1 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found not sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | moderate/severe |

**Contaminants of Concern:**

Nitrate

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

**Comments:**

## *Geneva Industries*

Houston, TX (Region 6)
CERCLIS ID TXD980748453

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Ruben Moya<br>1445 Ross Ave., Suite 1200<br>Dallas, TX 75202<br>214-665-2755 (phone)<br>214-665-6660 (fax)<br>moya.ruben@epa.gov | James Sher<br>TNRCC<br>P.O.Box 13087<br>Austin, TX 78711-3087<br>512-239-2444 (phone)<br>512-239-2450 (fax)<br>JSher@tnrcc.state.tx.us | Sanjay Ramabhadran<br>Lockwood, Andrews & Newman Inc.<br>1500 Citywest<br>Houston, TX 77042<br>713-266-6900 (phone)<br>713-266-8971 (fax)<br>sanjay@lan-inc.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 13 |
| Date original ROD was signed: | 9/18/86 | Date of construction completion: | 4/1993 |
| Date of last modification to ROD: | | Date of operational and functional: | 7/1993 |
| Type of ROD: | Final | Expected date of turnover to state: | 1/2004 |
| Status of P&T system: | Operational | Expected date of completion: | 1/2004 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 52 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 13 |
| Approximate annual O&M costs: | $240,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $240,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 5 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

### Contaminants of Concern:

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
PCB, Benzene, Toluene, Chlorobenzene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

### Comments:

***NOTE***
The Geneva Superfund Site has remained "shutdown* due to contractual problems between contractor and sub-contractor. The amount of time site has been shutdown is now approximately 1 year.

## *City of Perryton Well #2*

Perryton, TX (Region 6)
CERCLIS ID TX0001399435

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Vincent Malott | Diane Poteet | Peter van Noort |
| 1445 Ross Avenue | TNRCC | CH2M Hill |
| Dallas, TX 75202 | P.O. Box 13087 | 5339 Alpha Road, Suite 300 |
| 214-665-8313 (phone) | Austin, TX 78711 | Dallas, TX 75240 |
| 214-665-6660 (fax) | 512-239-2502 (phone) | 972-980-2170 (phone) |
| malott.vincent@epa.gov | 512-239-2450 (fax) | 972-385-0846 (fax) |
| | dpoteet@tnrcc.state.tx.us | pvannoor@ch2m.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 1 |
| Date original ROD was signed: | 9/29/99 | Date of construction completion: | 8/2001 |
| Date of last modification to ROD: | | Date of operational and functional: | 8/2003 |
| Type of ROD: | Interim | Expected date of turnover to state: | 8/2013 |
| Status of P&T system: | Design | Expected date of completion: | 8/2023 |
| Primary goal of system: | Containment | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 10 |
| Approximate annual O&M costs: | $37,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | 150 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Carbon tetrachloride
Chloroform

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

The interim remedy for this site consists of operating a municipal well (currently inactive) together with an air stripper to begin mass removal with limited hydraulic control of the contaminant plume. The treated water will be supplied to the city water supply system. The final remedy for this site has yet to be selected pending completion of the RI/FS reports and a final site-wide ROD scheduled for FY2001. A ground water monitoring schedule will also be selected pending the final site-wide remedy. There are no indications of a DNAPL based on the site data. The O&F date was set at 2 years past the construction date in case additional remedial measures are selected in the final ROD.

## *Midland Products*

Ola, AR (Region 6)
CERCLIS ID ARD98074566

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Carlos Sanchez<br>1445 Ross Avenue<br>Dallas, TX 75202<br>214-665-8507 (phone)<br>214-665-6660 (fax)<br>sanchez.carlos@epa.gov | Clark McWilliams<br>Arkansas Dept.of Env.Quality<br>P.O. Box 8913<br>Little Rock, AR 72219<br>501-682-0850 (phone)<br>501-682-0565 (fax)<br>clarkm@adeq.state.ar.us | Russell Perry<br>IT Corp.<br>13111 NW Highway, Suite 310<br>Houston, TX 77040-6392<br>713-996-4400 (phone)<br>713-939-9546 (fax)<br>rperry@theitgroup.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 8 |
| Date original ROD was signed: | 3/24/88 | Date of construction completion: | 11/1993 |
| Date of last modification to ROD: | | Date of operational and functional: | 1/1994 |
| Type of ROD: | Final | Expected date of turnover to state: | 1/2004 |
| Status of P&T system: | Operational | Expected date of completion: | 1/2034 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 20 |
| Approximate annual O&M costs: | $180,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $60,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 3 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Anthracene
Fluoranthene
Naphthalene
Pentachlorophenol (PCP)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

**Comments:**

## *North Cavalcade Superfund Site*

Houston, TX (Region 6)
CERCLIS ID TXD980873343

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Camille Hueni<br>U.S. EPA Region 6, 1445 Ross Ave., 12th Floor, MC: 6SF-AP<br>Dallas, TX 75202-7233<br>214-665-2231 (phone)<br>214-665-6660 (fax)<br>hueni.camille@epa.gov | Uche Ikemba<br>TNRCC<br>P.O. Box 13087; Mail Code 143<br>Austin, TX 78711-3087<br>512-239-2595 (phone)<br>512-239-2449 (fax)<br>uikemba@tnrcc.state.tx.us | Frank Frey<br>Foster Wheeler Env.Corporation<br>1001 S. Dairy Ashford Street, Ste. 210<br>Houston, TX 77077<br>281-597-4821 (phone)<br>281-596-0308 (fax)<br>ffrey@fwenc.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 19 |
| Date original ROD was signed: | 6/28/88 | Date of construction completion: | 3/2001 |
| Date of last modification to ROD: | | Date of operational and functional: | 12/2005 |
| Type of ROD: | Final | Expected date of turnover to state: | 12/2005 |
| Status of P&T system: | Installed | Expected date of completion: | 12/2010 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 52 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 20 |
| Approximate annual O&M costs: | | Frequency of sampling: | 0 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | 19 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Acenaphthene
Acenaphthylene
Anthracene
Arsenic
Benzene and Toluene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
BTEX
Chrysene
Creosote and petroleum hydrocarbons
Dibenzofuran
DNAPL

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

### Comments:

The ground water treatment system has been out of operation since 1995 due to difficulties with DNAPL recovery. Prior to the system shut-down, the system treated 11,500,000 gallons of contaminated groundwater, and recovered 7,000 gallons of DNAPL.

The treatment system is undergoing modification and is expected to be complete and operational by March, 2001, at which time ground water monitoring will begin again (for this reason, information may have been entered as $o.oo). Once the system goes on-line, the pump & treat system will be further evaluated for remedial objectives.

Answers to questions 20-23 are unknown at this point; information was entered to allow form submittal.

## *Odessa Chromium #1*

Odessa, TX (Region 6)
CERCLIS ID TXD980867279

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Ernest Franke<br>1445 Ross Avenue<br>Dallas, TX 75202<br>214-665-8521 (phone)<br>214-665-6660 (fax)<br>franke,ernest@epamail.epa.gov | Uche Ikemba<br>Texas Natural Resource Commission<br>12100 Park Circle Bldg. D , P.O. Box 13087<br>Austin, TX 78711<br>512-239-2595 (phone)<br>512-239-2449 (fax)<br>uikemba@tnrcc.state.tx.us | William Brown<br>Pacific Western Technologies, Ltd.<br>575 Oak Ridge Turnpike,Suite B-4<br>Oak Ridge, TN 37830<br>865-483-0554 (phone)<br>865-483-8838 (fax)<br>pwtitd@usit.net |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 6 |
| Date original ROD was signed: | 3/18/88 | Date of construction completion: | 11/1993 |
| Date of last modification to ROD: | 11/23/99 | Date of operational and functional: | 12/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 12/2001 |
| Status of P&T system: | Operational | Expected date of completion: | 12/2001 |
| Primary goal of system: | Restoration | Approximate downtime per year: | 15 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 7 |
| Approximate annual O&M costs: | $500,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $8,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 60 gpm | Progress of aquifer restoration: | more than 80% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Chromium

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

**Comments:**

In-Situ Ferrous Sulfate treatment added by an ESD to the ROD had enhanced remedial efforts

## *Sprague Road Ground Water Plume*

Odessa, TX (Region 6)
CERCLIS ID TX0001407444

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Vincent Malott<br>1445 Ross Avenue<br>Dallas, TX 75202<br>214-665-8313 (phone)<br>214-665-6660 (fax)<br>malott.vincent@epa.gov | Diane Poteet<br>TNRCC<br>P.O. Box 13087<br>Austin, TX 78711<br>512-239-2502 (phone)<br>512-239-2450 (fax)<br>dpoteet@tnrcc.state.tx.us | Cristina Radu<br>Tetra Tech EMI<br>6121 Indian School Road NE, Suite 205<br>Albuquerque, TX 87110<br>505-881-3188 (phone)<br>505-881-3283 (fax)<br>raduc@ttemi.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 22 |
| Date original ROD was signed: | 9/29/00 | Date of construction completion: | 9/2002 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/2003 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2013 |
| Status of P&T system: | Design | Expected date of completion: | 9/2028 |
| Primary goal of system: | Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 50 |
| Approximate annual O&M costs: | $1,200,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $80,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 200 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Chromium

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | yes |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

This site consists of three separate chromium contaminant plumes originating from three different facilities. The plume size and chromium concentrations are different between all three plumes. Since the contaminant is a metal there is no DNAPL or LNAPL.

# REGION 7 INFORMATION SHEETS

## *Ace Services*

Colby, KS (Region 7)
CERCLIS ID KSD046746731

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Bob Stewart | Cynthia Randall | Gary Felkner |
| 901 N. 5th St | Kansas Dept of Health and Environment | Black & Veatch Special Projects Corp |
| Kansas City, KS 66101 | Forbes Field, Bldg 20 | 8400 Ward Parkway |
| 913-551-7654 (phone) | Topeka, KS 66620 | Kansas City, MO 64114 |
| 913-551-9654 (fax) | 785-291-3245 (phone) | 913-458-6583 (phone) |
| stewart.robert@epa.gov | 785-296-4823 (fax) | 913-458-9391 (fax) |
| | CRandal@kdhe.state.ks.us | felknerg@bv.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 12 |
| Date original ROD was signed: | 5/5/99 | Date of construction completion: | 9/2002 |
| Date of last modification to ROD: | | Date of operational and functional: | 9/2003 |
| Type of ROD: | Final | Expected date of turnover to state: | 9/2013 |
| Status of P&T system: | Design | Expected date of completion: | 9/2015 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 62 |
| Approximate annual O&M costs: | $500,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $50,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 800 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

Chromium

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | yes |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *Cleburn Street Well Site/OU2*

Grand Island, NE (Region 7)
CERCLIS ID NED981499312

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Mary Peterson<br>901 North 5th Street<br>Kansas City, KS 66101<br>913-551-7882 (phone)<br>913-551-7063 (fax)<br>peterson.mary@epa.gov | Ralph Martin<br>Nebraska Dept.of Env.Quality<br>1200 N Street, Suite 400 The Atrium<br>Lincoln, NE 68509-8922<br>402-471-3120 (phone)<br>402-471-2909 (fax)<br>ralph.martin@ndeq.state.ne.us | David Sanders<br>Black and Veatch Special Projects Corp.<br>6601 College Boulevard<br>Overland Park, KS 66211<br>913-458-6605 (phone)<br>913-458-0000 (fax)<br>SandersHD@bv.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 3 |
| Date original ROD was signed: | 6/7/96 | Date of construction completion: | 9/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 10/1999 |
| Type of ROD: | Final | Expected date of turnover to state: | 12/2009 |
| Status of P&T system: | Operational | Expected date of completion: | 12/2019 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 1 week |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 8 |
| Approximate annual O&M costs: | $100,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $25,000 | Is plume migration controlled? | Don't know |
| Approximate pumping rate: | 90 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

In order to evaluate the effectiveness of containment, the contractor has been tasked to perform pumping tests. These tests are currently planned to take place during the next quarterly sampling event which is scheduled for April 2001.

It is pertinent to note that significant progress is being made toward aquifer restoration. However, that progress has not been quantified to date.

## *Valley Park TCE Site - OU2*

Valley Park, MO (Region 7)
CERCLIS ID MOD98096834

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Steve Auchterlonie<br>901 N. 5th St.<br>Kansas City, KS 66101<br>913-551-7778 (phone)<br>913-551-7437 (fax)<br>auchterlonie.steve@epa.gov | Dave Mosby<br>MDNR - Superfund Unit<br>P.O. Box 176<br>Jefferson City, MO 65102-0176<br>573-751-1288 (phone)<br>573-751-7869 (fax)<br>nrmosbd@mail.dnr.state.mo.us | |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | |
| Date original ROD was signed: | 8/15/01 | Date of construction completion: | 1/2005 |
| Date of last modification to ROD: | | Date of operational and functional: | 1/2006 |
| Type of ROD: | Final | Expected date of turnover to state: | 1/2006 |
| Status of P&T system: | Predesign | Expected date of completion: | 1/2016 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | |
| Approximate annual O&M costs: | | Frequency of sampling: | |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

1,1,1-Trichloroethane
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

This project is only now completing the ROD in FY2001. Negotiations and consent decree lodging and entry will carry through 2002. Design is planned for 2003 and construction through mid 2005.

Part of the construction may be imlemented by the responsible parties, but we are planning for the main system to be fund-lead with MDNR using federal funds via a cooperative agreement.

# REGION 9 INFORMATION SHEETS

## *Modesto Superfund Site*

Modesto, CA (Region 9)
CERCLIS ID CAD981997752

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| David Seter<br>75 Hawthorne Street<br>San Francisco, CA 94105<br>415-744-2212 (phone)<br><br>seter.david@epa.gov | Emanuel Mensah<br>State of California, DTSC<br><br>916-255-3704 (phone) | Chris Lichens<br>Ecology and Environment<br><br>415-981-2811 (phone) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 1 |
| Date original ROD was signed: | 9/26/97 | Date of construction completion: | 7/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 5/2002 |
| Type of ROD: | Interim | Expected date of turnover to state: | 5/2012 |
| Status of P&T system: | Installed | Expected date of completion: | 5/2022 |
| Primary goal of system: | Containment | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 10 |
| Approximate annual O&M costs: | $300,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $25,000 | Is plume migration controlled? | #N/A |
| Approximate pumping rate: | 50 gpm | Progress of aquifer restoration: | #N/A |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

### Contaminants of Concern:

perchloroethylene

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

The answers to items 20-23 are estimates.

## *Muscoy*

San Bernadino, CA (Region 9)
CERCLIS ID CA1234

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Kim Hoang<br>75 Hawthorne Street<br>San Francisco, CA 94105<br>415-744-2370 (phone)<br>(fax)<br>hoang.kim@epa.gov | Yasser Aref<br>CalEPA Dept.of Toxic Substances Control<br>5796 Corporate Avenue<br>Cypress, CA 90630<br>714-484-5349 (phone) | Dwayne Duetcher<br>URS |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 5 |
| Date original ROD was signed: | 3/24/95 | Date of construction completion: | 10/2003 |
| Date of last modification to ROD: | | Date of operational and functional: | 10/2004 |
| Type of ROD: | Interim | Expected date of turnover to state: | 10/2014 |
| Status of P&T system: | Installed | Expected date of completion: | 10/2024 |
| Primary goal of system: | Containment | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 15 |
| Approximate annual O&M costs: | $1,100,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $100,000 | Is plume migration controlled? | |
| Approximate pumping rate: | 9000 gpm | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

### Contaminants of Concern:

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

### Comments:

Doug Sutton filled out this questionnaire based on notes he took during a conversation with Kim Hoang.

James Bye from the San Bernadino Water Department is familiar with the site and should be noted along with the state regulator and contractor

## *Newmark*

San Bernadino, CA (Region 9)
CERCLIS ID CAD981434517

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Kim Hoang<br>75 Hawthorne Street<br>San Francisco, CA 94105<br>415-744-2370 (phone)<br>(fax)<br>hoang.kim@epa.gov | Yasser Aref<br>CalEPA Dept Toxic Substances Control<br>5796 Corporate Ave.<br>Cypress, CA 90630<br>714-484-5349 (phone) | Dwayne Duetcher<br>URS |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 8 |
| Date original ROD was signed: | 8/4/93 | Date of construction completion: | 10/1998 |
| Date of last modification to ROD: | | Date of operational and functional: | 10/1998 |
| Type of ROD: | Interim | Expected date of turnover to state: | 10/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 10/2028 |
| Primary goal of system: | Containment | Approximate downtime per year: | |
| Presence of NAPLs | Don't know | Number of monitoring wells used: | 15 |
| Approximate annual O&M costs: | $900,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $100,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 12000 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Doug Sutton completed this questionnaire based on notes taken during a conversation with Kim Hoang.

A settlement in the near future may change the lead on this porject.

## *Selma Treating Co.*

Selma, CA (Region 9)
CERCLIS ID CAD29452141

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Michelle Lau<br>75 Hawthorne Street<br>San Francisco, CA 94105<br>415-744-2227 (phone)<br>415-744-2180 (fax)<br>lau.michelle@epa.gov | Chris Sherman<br>DPES<br>10151 Croyden Way, Suite 3<br>Sacramento, CA 95827<br>916-255-3706 (phone)<br>916-255-3697 (fax) | John Kirschbaum<br>USACE, Omaha District<br>12565 West Center Road<br>Omaha, NE 68144-3869<br>402-293-2525 (phone)<br>402-221-7838 (fax) |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 6 |
| Date original ROD was signed: | 9/24/88 | Date of construction completion: | 9/1998 |
| Date of last modification to ROD: | 6/30/01 | Date of operational and functional: | 10/1998 |
| Type of ROD: | Final | Expected date of turnover to state: | 10/2008 |
| Status of P&T system: | Operational | Expected date of completion: | 10/2008 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 0 weeks |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 20 |
| Approximate annual O&M costs: | $300,000 | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | $35,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 150 gpm | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/severe |

**Contaminants of Concern:**

Chromium

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Doug Sutton completed this questionnaire based on a phone interview with Michelle Lau, the RPM for the site.

Regarding items 27 and 29, a recent 5-year review found that the plume was controleed in the shallow aquifer but that additional monitoring is required to determine if it is controlled in the intermediate and deep aquifers.

The entry in item 22 is an estimate.

# REGION 10 INFORMATION SHEETS

## *Boomsnub/Airco / Site-Wide Ground Water OU*

Hazel Dell, WA (Region 10)
CERCLIS ID WAD009624453

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Debra Yamamoto | Dan Alexanian | Jerry DeMuro |
| 1200 Sixth Avenue - ECL-113 | Dept.of Ecology - SWRO | URS, Inc. |
| Seattle, WA 98101 | P.0. Box 47775 | 1500 Century Square, 1501 4th Ave, Suite 1500 |
| 206-553-7216 (phone) | Olympia, WA 98504 | Seattle, WA 98101 |
| 206-553-0124 (fax) | 360-407-6249 (phone) | 206-674-1800 (phone) |
| yamamoto.debbie@epa.gov | 360-407-6305 (fax) | 206-674-1801 (fax) |
| | dale461@ecy.wa.gov | Jerry_DeMuro@urscop.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 22 |
| Date original ROD was signed: | 2/3/00 | Date of construction completion: | 10/2000 |
| Date of last modification to ROD: | | Date of operational and functional: | 12/2001 |
| Type of ROD: | Final | Expected date of turnover to state: | 12/2011 |
| Status of P&T system: | Operational | Expected date of completion: | 10/2030 |
| Primary goal of system: | Containment & Restoration | Approximate downtime per year: | 3 weeks |
| Presence of NAPLs | Suspected | Number of monitoring wells used: | 80 |
| Approximate annual O&M costs: | $1,000,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $204,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 135 gpm | Progress of aquifer restoration: | Don't know |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | moderate/severe |

### Contaminants of Concern:

1,1,1-Trichloroethane
1,1-Dichloroethylene (DCE)
1,2-Dichloroethane
Trichlorethylene (TCE)/Tetrachloroelthylene (PCE)
Hexavalent Chromium
Total Chromium

### Treatment Processes:

| | |
|---|---|
| Metals precipitation | |
| Air stripping | yes |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | yes |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

Question #20) the O&F is not yet complete, construction of a sewer line will take place this year. When that is complete extraction rates will increase up to 240 GPM. The date of O&F is not known at this time.

Question #21) The State will take over 10 years from the above date.

Question #26) Ground water long term monitoring takes place twice a year. The extraction wells are sampled quarterly and special ground water sampling may take place monthly, e.g. sampling at the toe of the plume.

## *Bunker Hill Superfund Site*

Kellogg, ID (Region 10)
CERCLIS ID IDD048340921

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Carmella Grandinetti<br>1200 Sixth Avenue<br>Seattle, WA 98101<br>206-553-8696 (phone)<br>206-553-0124 (fax)<br>grandinetti.cami@epa.gov | Nick Zilka<br>Idaho Dept.of Env. Quality<br>1005 W. McKinley Avenue<br>Kellog, ID 83837<br>208-783-5781 (phone)<br>208-783-4561 (fax)<br>nzilka@nidlink.com | |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | |
| Date original ROD was signed: | 9/1/92 | Date of construction completion: | 12/2010 |
| Date of last modification to ROD: | | Date of operational and functional: | 12/2020 |
| Type of ROD: | Final | Expected date of turnover to state: | 12/2030 |
| Status of P&T system: | Predesign | Expected date of completion: | 12/2050 |
| Primary goal of system: | Restoration | Approximate downtime per year: | |
| Presence of NAPLs | Not present | Number of monitoring wells used: | 58 |
| Approximate annual O&M costs: | | Frequency of sampling: | 4 times per year |
| Costs related to monitoring: | | Is plume migration controlled? | |
| Approximate pumping rate: | | Progress of aquifer restoration: | |
| Result of previous evaluation of peformance/effectiveness: | Not evaluated | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Asbestos
Creosote
Lindane
Merphos
RDX (cyclonite)
Selenium
Volatile organic compounds (VOCs)

**Treatment Processes:**

Metals precipitation
Air stripping
Biological treatment
UV oxidation
Carbon adsorption
Filtration
Ion Exchange
Reverse Osmosis
Off-gas treatment
other/not sure yes

**Comments:**

Question #19) Date in the survey is not true, gave date to complete survey. See below for explanation.

Question #20) Date in the survey is not true, gave date to complete survey. See below for explanation.

Question #21 Date in the survey is not true, gave date to complete survey. See below for explanation.

Question #22 Date in the survey is not true, gave date to complete survey. See below for explanation.

Explanation:
The 1992 Record of Decision for the Bunker Hill non-populated areas included ground water Pump&treat as well as surface water controls and treatment. However, none of the ground or surface water quality activities have been implemented to date. The site was divided into 2 phases in 1995 when EPA and the Idaho Dept. of Env. Quality signed a State Superfund Contract. Phase 1, which includes source control measures is currently being implemented. Based on the impact that phase 1 source control measures have on site surface water and ground water, Phase 2 water quality activities (including an active pump and treat system) may or may not be necessary. A decision regarding the need for and extent of water quality remedial activities will be made in the future based on the results of ongoing surface water and ground water quality monitoring.

## *Commencement Bay, South Tacoma Channel, Well 12A*

Tacoma, WA (Region 10)
CERCLIS ID 981773849

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Kevin Rochlin<br>ECL-112, 1200 6th Avenue<br>Seattle, WA 98101<br>206-553-2106 (phone)<br>206-553-0124 (fax)<br>rochlin.kevin@epa.gov | | Tom Abbott<br>URS<br>2401 4th Avenue, Suite 1000<br>Seattle, WA 98121<br>206-674-1800 (phone)<br>206-674-1801 (fax)<br>abbot.thomas@urs.com |

### System Information and Data

| | | | | |
|---|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | | Number of extraction wells: | 5 |
| Date original ROD was signed: | 1/1/85 | | Date of construction completion: | 6/1988 |
| Date of last modification to ROD: | 1/1/87 | | Date of operational and functional: | 5/1988 |
| Type of ROD: | Final | | Expected date of turnover to state: | 1/2004 |
| Status of P&T system: | Operational | | Expected date of completion: | 1/2011 |
| Primary goal of system: | Containment & Restoration | | Approximate downtime per year: | 3 weeks |
| Presence of NAPLs | Observed | | Number of monitoring wells used: | 20 |
| Approximate annual O&M costs: | $300,000 | | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $25,000 | | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 150 gpm | | Progress of aquifer restoration: | less than 20% restored |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found not sufficient | | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

1,1,2,2-Tetrachloroethane
1,2-Dichloroethene
Cis-1,2-dichloroethene
TCE and Vinyl chloride
Trans 1,2-Dichloroethylene

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

## *McCormick & Baxter Creosoting Co.*

Portland, OR (Region 10)
CERCLIS ID OR009020603

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
| Alan Goodman<br>811 SW 6th Avenue, 3rd Floor<br>Portland, OR 97204<br>503-326-3685 (phone)<br>503-326-3399 (fax)<br>goodman.al@epa.gov | William Dana<br>Oregon Dept. Env. Quality<br>811 SW 6th Avenue<br>Portland, OR 97204<br>503-229-6530 (phone)<br>503-229-5830 (fax)<br>Dana.William.H@DEQ.State.OR.US | John Montgomery<br>Ecology and Environment<br>333 SW Fifth<br>Portland, OR 97204<br>503-248-5600 (phone)<br>503-248-5577 (fax)<br>JMontgomery@ene.com |

### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | State-lead w/ Fund $ | Number of extraction wells: | 6 |
| Date original ROD was signed: | 3/1/96 | Date of construction completion: | 3/1996 |
| Date of last modification to ROD: | 3/1/98 | Date of operational and functional: | 3/1996 |
| Type of ROD: | Final | Expected date of turnover to state: | 3/2006 |
| Status of P&T system: | Operational | Expected date of completion: | Indefinite |
| Primary goal of system: | Containment | Approximate downtime per year: | 5 weeks |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 25 |
| Approximate annual O&M costs: | $250,000 | Frequency of sampling: | 2 times per year |
| Costs related to monitoring: | $40,000 | Is plume migration controlled? | No |
| Approximate pumping rate: | 3 gpm | Progress of aquifer restoration: | Not a goal |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/minor |

**Contaminants of Concern:**

Arsenic
Chlorinated polyaromatic hydrocarbons (CPAHs)
Creosote/Pentachlorophenol (PCP)
Pentachlorophenol (PCP)

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | yes |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | yes |

**Comments:**

The site RPM says that a barrier system is being design to prevent the PAHs and PCP from discharging to the river. The barrier design will be completed this year or next. The site treatment processes also include NAPL/water separation and dissolved air flotation (DAF).

## *Wyckoff/Eagle Harbor Superfund Site*

Bainbridge Island, WA (Region 10)
CERCLIS ID WAD009248295

### Contact Information

| RPM | State Regulator | Contractor |
|---|---|---|
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### System Information and Data

| | | | |
|---|---|---|---|
| Type of Fund-lead Site: | EPA-lead | Number of extraction wells: | 8 |
| Date original ROD was signed: | 9/29/94 | Date of construction completion: | 2/1990 |
| Date of last modification to ROD: | | Date of operational and functional: | 2/1990 |
| Type of ROD: | Interim | Expected date of turnover to state: | 1/2024 |
| Status of P&T system: | Operational | Expected date of completion: | Indefinite |
| Primary goal of system: | Containment | Approximate downtime per year: | |
| Presence of NAPLs | Observed | Number of monitoring wells used: | 20 |
| Approximate annual O&M costs: | $500,000 | Frequency of sampling: | 1 times per year |
| Costs related to monitoring: | $20,000 | Is plume migration controlled? | Yes |
| Approximate pumping rate: | 80 gpm | Progress of aquifer restoration: | Not a goal |
| Result of previous evaluation of peformance/effectiveness: | Evaluated and found not sufficient | Difficulty (due to social/political factors) of implementing minor/major changes: | minor/moderate |

**Contaminants of Concern:**

Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Pentachlorophenol (PCP)
Polynuclear Aromatic Hydrocarbons

**Treatment Processes:**

| | |
|---|---|
| Metals precipitation | |
| Air stripping | |
| Biological treatment | yes |
| UV oxidation | |
| Carbon adsorption | yes |
| Filtration | yes |
| Ion Exchange | |
| Reverse Osmosis | |
| Off-gas treatment | |
| other/not sure | |

**Comments:**

The P&T system was constructed by the PRPs as part of an administrative order. When EPA took over operations of the system in 1993, it was in a severe state of disrepair. In the 1994 interim ROD, EPA determined that the system is not effective at hydraulic containment of L- and DNAPL, and a new pump & treat system and barrier wall was deemed appropriate (i.e., containment remedy). This remedy was never implemented, however, in February 2000, EPA signed a final ROD selecting thermal remediation, or steam injection, as the remedy for soil and groundwater. Steam injection remediation will begin with an onsite pilot study. The current pump & treat system will be used to treat extracted contaminants during the operation of this pilot study. Construction of the pilot system will begin summer 2001 and operation is anticipated to begin early 2002. If the pilot study is successful at meeting performance objectives, EPA will expand the system for full-scale cleanup. Therefore, optimization analysis is not applicable or appropriate for this pump & treat system. It should be noted that a sheet pile wall has been constructed around this site to significantly reduce migration of contaminants to Eagle Harbor and Puget Sound.