

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Valley Pike VOC Site - Removal Polrep
 Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #1
 Initial
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:

From: Steven Renninger, On-Scene Coordinator

Date: 1/21/2014

Reporting Period: December 9, 2013 through January 17, 2014

1. Introduction

1.1 Background

Site Number:	C5U2	Contract Number:	
D.O. Number:		Action Memo Date:	10/29/2013
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	12/9/2013	Start Date:	12/9/2013
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of the MRP facility. Six groundwater grab samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells at the MRP facility in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at MRP. Three Geoprobe pre-packed monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers but contamination was highest in MW-3 located at the southwest corner of the MRP facility. PCE was detected at a concentration of 300 µg/L in MW-3. Higher concentrations of PCE in the shallow aquifer pointed to a shallow rather than a deep source of PCE.

Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at the Site. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of the MRP facility. The concentration of PCE was 14,000 µg/L in the laboratory-analyzed sample. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of the MRP facility and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of the MRP facility. Based on these groundwater sample results, the Ohio EPA SESI report concluded that the PCE source is east of sample location MW-14.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of the MRP facility. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the MRP facility, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of the MRP facility. Ohio EPA requested assistance from the EPA Removal Branch in evaluating options for addressing current and potential vapor intrusion risks at the Valley Pike VOC Site (aka Mullins Rubber Products Site).

On June 14, 2013, the Health Assessment Section of the ODH provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

Sub-Slab Screening Levels (residential properties):

PCE = 60 ppbv

TCE = 4 ppbv

Indoor Air Screening Levels (residential properties):

PCE = 6 ppbv

TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the MRP facility, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of the MRP facility into the adjacent residential area.

MRP is located approximately 1,300 feet north of the Dayton Mad River Well Field wellhead protection area (WHPA) area five-year time of travel delineation and 1,500 feet southeast of the Dayton Miami Well Field WHPA area five-year time of travel delineation. The closest production well is PW-06, approximately 2,650 feet south of the facility in the Mad River Well Field.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of the MRP facility is potentially being affected by PCE and/or TCE vapor intrusion.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of the MRP facility and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Reviewed historical Ohio EPA groundwater and soil gas sampling results.
- Oversaw the Ohio EPA Site Investigation Field Unit use a Geoprobe unit to collect eight grab groundwater samples and install 16 nested soil gas probes at 9 locations.
- Analyzed four groundwater samples collected by Ohio EPA personnel
- Collected nine soil gas samples from the Ohio EPA installed soil gas probes
- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site. PCE was documented in groundwater samples (PCE as high as 20,000 µg/L), soil gas samples (PCE as high as 30,000 ppbv), sub-slab samples (PCE as high as 8,200 ppbv), and indoor air samples (PCE as high as 32 ppbv). In addition, a second exposure pathway exists for vapor intrusion, as TCE was documented in the groundwater (TCE as high as 47 µg/L), in the soil gas (TCE as high as 5,600 ppbv), in the sub-slab (TCE as high as 160 ppbv), and in the indoor air (TCE as high as 0.92 ppbv) at the Site. Vapor intrusion is occurring at the Valley Pike VOC Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and poses an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA sampling results from 2013 have documented that vapor intrusion is occurring in the Riverside residential neighborhood located west and southwest of the MRP facility.

The sub-slab samples from four residential properties have PCE concentrations ranging from 930 to 8,200 ppbv, which exceeds the ODH residential sub-slab screening level of 60 ppbv. The indoor air samples from two residential properties have PCE concentrations ranging from 6.9 to 32 ppbv, which exceeds the ODH residential indoor air screening level of 6 ppbv. These results document a completed exposure pathway for PCE vapor intrusion.

The sub-slab samples from three residential properties have TCE concentrations ranging from 60 to 160 ppbv, which exceeds the ODH residential sub-slab screening level of 4 ppbv. The indoor air samples from three residential properties have TCE concentrations ranging from 0.44 to 0.92 ppbv, which exceeds the ODH residential indoor air screening level of 0.4 ppbv. These results document a completed exposure pathway for TCE vapor intrusion.

ODH Health Consultation - September 2013

On September 4, 2013, ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Letter Health Consultation to EPA. The Health Consultation assesses the data that EPA collected and discusses the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provides the following conclusions and recommendations:

Health Consultation Conclusions

1. A completed exposure pathway exists for vapor intrusion, as PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the soil gas, 8,200 ppb in the sub-slab soil gas, and 31 ppb in the indoor air at one residence. TCE has been detected as high as 47 ppb in the groundwater,

5,600 ppb in the soil gas, 160 ppb in the sub-slab soil gas, and 0.87 ppb in the indoor air at the same residential property.

2. VOCs in the sub-slab soil gas samples at the four residences sampled (two located on Rondowa Avenue, one on Hypathia Avenue, and one on Bushnell Avenue) located in the neighborhood southwest of the MRP facility were detected at levels that could affect indoor air quality. PCE levels in the sub-slab samples exceeded both screening and action levels.

3. Concentrations of PCE and TCE in the indoor air of one residence tested in July 2013 exceeded screening levels. The estimated total non-cancer hazard quotient is about 7. There is a potential but low cancer risk of 8×10^{-5} (8 in 100,000) for residents exposed over a lifetime.

4. More data is needed to conclude whether the vapor intrusion pathway could affect indoor air quality at other residential properties and harm people's health. At this time, only a few indoor air samples have been collected by EPA. Additionally, previous experience with vapor intrusion sites in the same general part of north Dayton have indicated potential for significant seasonal variation in soil gas levels under impacted homes.

Health Consultation Recommendations

1. Testing the indoor air of the other homes with high sub-slab results should be a priority. Other residences and businesses at risk of exposure via vapor intrusion pathway should have their sub-slab and indoor air sampled for PCE, TCE, and degradation products cis-1,2-DCE and vinyl chloride. Concurrent outdoor (ambient) air samples should also be collected. Sample collection during multiple seasons, including at least one sample in the winter, is recommended to characterize seasonal variability.

2. The home on Bushnell Avenue should be considered for mitigation to reduce or eliminate ongoing exposures to PCE and TCE in the indoor air. Occupied residences with sub-slab soil gas concentrations exceeding action levels should also be considered for mitigation.

3. The full extent of the VOC contamination, both in groundwater and soil gas, associated with the Valley Pike VOC site should be determined.

2.1.2 Response Actions to Date

On December 9, 2013, EPA opened a project office at 2049 Harshman Road, Riverside, Ohio. The EPA project office will be used to coordinate access agreements, sampling, resident meetings, and mitigation. On December 10, 2013, EPA conducted a public meeting at Stebbins High School. The public meeting was attended by approximately 200 residents. Local and state government officials were also in attendance. EPA explained the sampling results from the summer of 2013 and highlighted the following:

- There is a PCE and TCE groundwater plume beneath the residential neighborhood west and southwest of the MRP facility;
- Elevated concentrations of PCE and TCE were observed in the groundwater, soil gas, sub-slab and indoor air in the neighborhood;
- EPA requested residential properties interested in having their properties assessed and sampled for vapor intrusion to sign an access agreement
- If properties show vapor intrusion sampling results greater than the screening levels established by ODH, EPA will offer to install a vapor abatement system (similar to a radon system); and
- EPA established a local project office in the neighborhood, located at 2049 Harshman Road

Following the public meeting, EPA and EPA START scheduled approximately 34 properties to be sampled for vapor intrusion.

Week of December 16, 2013

EPA collected 8 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

The sub-slab and crawl space air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The SUMMA canisters for the sub-slab samples were connected to the stainless-steel sub-slab probes with Teflon® tubing. The samples are being analyzed for VOCs using EPA Method TO-15.

For sub-slab sampling, the sub-slab probes are being installed and the samples are being collected in accordance with the “*Standard Operating Procedures for the Construction and Installation of Permanent Sub-Slab Soil Gas Wells, #2082*,” (SOP No. 2082) dated March 29, 2007, under the EPA Response Engineering and Analytical Contract.

The crawl space samples are being collected by either placing the SUMMA canister within the crawl space and turning on the SUMMA canister, or by attaching the Teflon tubing to a PVC pipe and extending the pipe as far underneath the property as possible.

Week of December 23, 2013

No work was conducted on site.

Week of December 30, 2013

EPA collected 3 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

Analytical results were received from the 8 samples collected before Christmas. Of the 8 samples collected, 5 samples showed either sub-slab or crawl space PCE concentrations exceeding ODH PCE screening levels. The 5 properties are eligible to receive an EPA-installed sub-slab depressurization system (SSDS).

Week of January 6, 2014

EPA collected 13 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA and ERRS conducted meetings with the original 4 property owners which have sub-slab PCE concentrations greater than the ODH PCE sub-slab screening level. ERRS scheduled a walkthrough of each property with its SSDS contractor, the Environmental Doctor. The walkthrough will allow the Environmental Doctor to determine the layout and the cost estimate of the SSDS.

Week of January 13, 2014

No work was conducted on site.

As of January 21, 2014, the following are the up-to date vapor intrusion Site sampling numbers:

- 12 properties are eligible to receive a SSDS
- 0 properties currently have an installed SSDS (1st install is on 1/23/14)
- 67 properties are scheduled to be sampled
- 15 properties have results less than ODH screening levels
- 23 properties have signed an access agreement and are awaiting sample scheduling
- 4 properties have been sampled and have data pending from the laboratory
- 2 properties have denied EPA access to conduct vapor intrusion sampling

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

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

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

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2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Develop and implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation includes the MRP facility on the east, Pleasant Valley Avenue on the west (approximately 1,500 feet southwest of the MRP facility), Bushnell and Hypathia Avenues on the north and Valley Pike Road on the south. This area covers approximately 4 residential blocks and 75 residences.
3. If the ODH Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration (up to 75 residences). The abatement system will include installation of a SSDS or crawl space depressurization system, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ODH sub-slab and indoor air screening levels; and
4. Develop and implement a performance sample plan to confirm that ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a SSDS.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling. Efforts to include door-to-door and a future mailer.
2. Continue vapor intrusion sampling in the residential neighborhood (Phase1 area).

The following samples have been scheduled:

Week of January 20, 2014 -- 9 samples
 Week of January 27, 2014 -- 13 samples
 Week of February 3, 2014 -- 13 samples
 Week of February 10, 2014 -- 13 samples
 Week of February 17, 2014 -- 10 samples
 Week of February 24, 2014 -- 10 samples

3. Generate sample result letters and schedule meetings with residents to discuss sampling results.
4. Schedule SSDS design walk-through times and installation dates, as necessary.
5. Initiate SSDS installation on January 23, 2014
6. Conduct performance sampling, as necessary, 30 days and 180 days following SSDS installation.
7. Generate O&M Manuals for properties that have an SSDS installed.

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
 2049 Harshman Road
 Riverside, OH 45424
 937.237.7530

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Montgomery Co Health Dept, and ODH to update agencies on sample results.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. Set up and moderated the public meeting on December 10, 2013
3. Generated a project fact sheet
4. Went door-to-door in the neighborhood to get access agreements signed to allow EPA to conduct vapor intrusion sampling.
5. Set up a repository containing site information. The repository is located at:

Dayton Metro Library

6160 Chambersburg Road
Huber Heights, OH 45424

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office

2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
PHDMC
Ohio Department of Health

4. Personnel On Site

EPA OSC - 1
START (Weston Solutions/Dynamac) - 1
ERRS - 2

5. Definition of Terms

IA - indoor Air
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #2 will be issued in February 2014.

7. Situational Reference Materials

None.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #2
 Progress
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:
From: Steven Renninger, On-Scene Coordinator
Date: 3/17/2014
Reporting Period: January 18 through March 14, 2014

1. Introduction

1.1 Background

Site Number:	C5U2	Contract Number:	EP-S5-08-02
D.O. Number:	30281.0134	Action Memo Date:	10/29/2013
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	12/9/2013	Start Date:	12/9/2013
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	OEPA
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of the potential source area. Six groundwater grab samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells at the source area in the November 2010 sampling.

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In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at the source area. Three Geoprobe pre-packed monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers but contamination was highest in MW-3 located at the southwest corner of the source area. PCE was detected at a concentration of 300 µg/L in MW-3. Higher concentrations of PCE in the shallow aquifer pointed to a shallow rather than a deep source of PCE.

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In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at the Site. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of the source facility. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of the source area and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of the source area.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of the source area. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of the source area. Ohio EPA requested assistance from the EPA Removal Branch in evaluating options for addressing current and potential vapor intrusion risks at the Valley Pike VOC Site.

On June 14, 2013, the Health Assessment Section of the ODH provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

Sub-Slab Screening Levels (residential properties):

PCE = 60 ppbv

TCE = 4 ppbv

Indoor Air Screening Levels (residential properties):

PCE = 6 ppbv

TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of the source area into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of the source area is potentially being affected by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of the source area and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Reviewed historical Ohio EPA groundwater and soil gas sampling results.
- Oversaw the Ohio EPA Site Investigation Field Unit use a Geoprobe unit to collect eight grab groundwater samples and install 16 nested soil gas probes at 9 locations.
- Analyzed four groundwater samples collected by Ohio EPA personnel
- Collected nine soil gas samples from the Ohio EPA installed soil gas probes
- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and poses an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA sampling results from 2013 have documented that vapor intrusion is occurring in the Riverside residential neighborhood located west and southwest of the source area.

As of July 2013, the sub-slab samples from four residential properties have PCE concentrations ranging from 930 to 8,200 ppbv, which exceeds the ODH residential sub-slab screening level of 60 ppbv. The indoor air samples from two residential properties have PCE concentrations ranging from 6.9 to 32 ppbv, which exceeds the ODH residential indoor air screening level of 6 ppbv. These results document a completed exposure pathway for PCE vapor intrusion.

The sub-slab samples from three residential properties have TCE concentrations ranging from 60 to 160 ppbv, which exceeds the ODH residential sub-slab screening level of 4 ppbv. The indoor air samples from three residential properties have TCE concentrations ranging from 0.44 to 0.92 ppbv, which exceeds the ODH residential indoor air screening level of 0.4 ppbv. These results document a completed exposure pathway for TCE vapor intrusion.

ODH Health Consultation - September 2013

On September 4, 2013, ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Letter Health Consultation to EPA. The Health Consultation assesses the data that EPA collected and discusses the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provides the following conclusions and recommendations:

Health Consultation Conclusions

1. A completed exposure pathway exists for vapor intrusion, as PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the soil gas, 8,200 ppb in the sub-slab soil gas, and 31 ppb in the indoor air at one residence. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 160 ppb in the sub-slab soil gas, and 0.87 ppb in the indoor air at the same residential property.
2. VOCs in the sub-slab soil gas samples at the four residences sampled (two located on Rondowa Avenue, one on Hypathia Avenue, and one on Bushnell Avenue) located in the neighborhood southwest of the MRP facility were detected at levels that could affect indoor air quality. PCE levels in the sub-slab samples exceeded both screening and action levels.
3. Concentrations of PCE and TCE in the indoor air of one residence tested in July 2013 exceeded screening levels.

4. More data is needed to conclude whether the vapor intrusion pathway could affect indoor air quality at other residential properties and harm people's health. At this time, only a few indoor air samples have been collected by EPA. Additionally, previous experience with vapor intrusion sites in the same general part of north Dayton have indicated potential for significant seasonal variation in soil gas levels under impacted homes.

Health Consultation Recommendations

1. Testing the indoor air of the other homes with high sub-slab results should be a priority. Other residences and businesses at risk of exposure via vapor intrusion pathway should have their sub-slab and indoor air sampled for PCE, TCE, and degradation products cis-1,2-DCE and vinyl chloride. Concurrent outdoor (ambient) air samples should also be collected. Sample collection during multiple seasons, including at least one sample in the winter, is recommended to characterize seasonal variability.
2. The home on Bushnell Avenue should be considered for mitigation to reduce or eliminate ongoing exposures to PCE and TCE in the indoor air. Occupied residences with sub-slab soil gas concentrations exceeding action levels should also be considered for mitigation.
3. The full extent of the VOC contamination, both in groundwater and soil gas, associated with the Valley Pike VOC site should be determined.

2.1.2 Response Actions to Date

See POLREP 1 for December 2013 actions.

Week of January 20, 2014

EPA collected 10 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

The sub-slab and crawl space air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The SUMMA canisters for the sub-slab samples were connected to the stainless-steel sub-slab probes with Teflon[®] tubing. The samples are being analyzed for VOCs using EPA Method TO-15.

For sub-slab sampling, the sub-slab probes are being installed and the samples are being collected in accordance with the "*Standard Operating Procedures for the Construction and Installation of Permanent Sub-Slab Soil Gas Wells, #2082*," (SOP No. 2082) dated March 29, 2007, under the EPA Response Engineering and Analytical Contract.

The crawl space samples are being collected by either placing the SUMMA canister within the crawl space and turning on the SUMMA canister, or by attaching the Teflon tubing to a PVC pipe and extending the pipe as far into the crawl space as possible.

Week of January 27, 2014

EPA collected 13 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

Week of February 3, 2014

EPA collected 14 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed one sub-slab depressurization system (SSDS), also known as a vapor abatement system at a residential property.

Week of February 10, 2014

EPA collected 16 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

Week of February 17, 2014

EPA collected 9 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed two SSDSs in residential properties.

Week of February 24, 2014

EPA collected 11 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed one SSDS in a residential property.

Week of March 3, 2014

EPA collected 7 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed three SSDSs in residential properties.

Week of March 10, 2014

No vapor intrusion sampling was conducted this week.

EPA installed one SSDS in a residential property.

On a weekly basis, EPA, Public Health - Dayton & Montgomery County and ERRS are conducting meetings with property owners which are eligible to receive a SSDS. Sample results are reviewed by EPA and health questions answered by Public Health. To be eligible, the property needs to have a baseline sub-slab or crawl space or indoor air PCE and/TCE concentration which exceeds the ODH PCE and/or TCE screening levels. At the meeting, if the property owner agrees to accept an EPA-installed SSDS, ERRS immediately schedules a walk-through of each property with its SSDS contractor for SSDS design. The walk-through will allow the SSDS installation contractor to determine the layout and the cost estimate for installation of the SSDS.

As of March 14, 2014, the following are the up-to date vapor intrusion Site sampling numbers:

- 47 properties are eligible to receive a SSDS
- 8 properties currently have an installed SSDS
- 30 properties are scheduled to be sampled
- 55 properties have results less than ODH screening levels
- 17 properties have signed an access agreement and are awaiting sample scheduling
- 2 properties have been sampled and have data pending from the laboratory
- 10 properties have denied EPA access to conduct vapor intrusion sampling
- 17 properties are vacant and abandoned
- 84 properties are eligible for sampling but have yet signed an access agreement

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

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

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

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Develop and implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation includes the source area on the east, Pleasant Valley Avenue on the west (approximately 1,500 feet southwest of the source area), Bushnell and Hypathia Avenues on the north and Valley Pike Road on the south. This area covers approximately 4 residential blocks and 75 residences.
3. If the ODH Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a SSDS or crawl space depressurization system, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ODH sub-slab and indoor air screening levels; and
4. Develop and implement a performance sample plan to confirm that ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a SSDS.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling. Efforts to include door-to-door and a future mailer.
2. Continue vapor intrusion sampling in the residential neighborhood.
3. Generate sample result letters and schedule meetings with residents to discuss sampling results.
4. Schedule SSDS design walk-through times and installation dates, as necessary.
5. For residential properties where a SSDS was installed, conduct 30-day post installation proficiency air sampling.
6. Generate O&M Manuals for properties that have an SSDS installed.
7. During the week of March 24th, EPA to conduct a groundwater investigation in the neighborhood. Approximately 14 temporary wells will be installed and the groundwater sampled and analyzed for total VOCs.

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
 2049 Harshman Road
 Riverside, OH 45424
 937.237.7530

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County, and ODH to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. Planning to go door-to-door in the neighborhood to get access agreements signed to allow EPA to conduct vapor intrusion sampling (the week of March 17th)

3. Set up a repository containing site information. The repository is located at:

Dayton Metro Library

6160 Chambersburg Road
Huber Heights, OH 45424

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office

2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside

4. Personnel On Site

EPA OSC - 1
START (Weston Solutions/Dynamac) - 1
ERRS - 2
At-Home Radon Contractor

5. Definition of Terms

IA - indoor Air
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume

SS - sub-slab
TCE - trichloroethylene

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #3 will be issued in May 2014.

7. Situational Reference Materials

None.

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Valley Pike VOC Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #3
 Progress
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:

From: Steven Renninger, On-Scene Coordinator

Date: 5/19/2014

Reporting Period: March 15 through May 15, 2014

1. Introduction

1.1 Background

Site Number:	C5U2	Contract Number:	EP-S5-08-02
D.O. Number:	30281.0134	Action Memo Date:	10/29/2013
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	12/9/2013	Start Date:	12/9/2013
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	OEPA
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of the potential source area. Six groundwater grab samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells at the source area in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at the source area. Three Geoprobe pre-packed monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers but contamination was highest in MW-3 located at the southwest corner of the source area. PCE was detected at a concentration of 300 µg/L in MW-3. Higher concentrations of PCE in the shallow aquifer pointed to a shallow rather than a deep source of PCE.

Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at the Site. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of the source facility. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of the source area and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of the source area.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of the source area. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of the source area. Ohio EPA requested assistance from the EPA Removal Branch in evaluating options for addressing current and potential vapor intrusion risks at the Valley Pike VOC Site.

On June 14, 2013, the Health Assessment Section of the ODH provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

Sub-Slab Screening Levels (residential properties):

PCE = 60 ppbv

TCE = 4 ppbv

Indoor Air Screening Levels (residential properties):

PCE = 6 ppbv

TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of the source area into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of the source area is potentially being affected by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of the source area and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Reviewed historical Ohio EPA groundwater and soil gas sampling results.
- Oversaw the Ohio EPA Site Investigation Field Unit use a Geoprobe unit to collect eight grab groundwater samples and install 16 nested soil gas probes at 9 locations.
- Analyzed four groundwater samples collected by Ohio EPA personnel
- Collected nine soil gas samples from the Ohio EPA installed soil gas probes
- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and poses an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA sampling results from 2013 have documented that vapor intrusion is occurring in the Riverside residential neighborhood located west and southwest of the source area.

As of July 2013, the sub-slab samples from four residential properties have PCE concentrations ranging from 930 to 8,200 ppbv, which exceeds the ODH residential sub-slab screening level of 60 ppbv. The indoor air samples from two residential properties have PCE concentrations ranging from 6.9 to 32 ppbv, which exceeds the ODH residential indoor air screening level of 6 ppbv. These results document a completed exposure pathway for PCE vapor intrusion.

The sub-slab samples from three residential properties have TCE concentrations ranging from 60 to 160 ppbv, which exceeds the ODH residential sub-slab screening level of 4 ppbv. The indoor air samples from three residential properties have TCE concentrations ranging from 0.44 to 0.92 ppbv, which exceeds the ODH residential indoor air screening level of 0.4 ppbv. These results document a completed exposure pathway for TCE vapor intrusion.

ODH Health Consultation - September 2013

On September 4, 2013, ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Letter Health Consultation to EPA. The Health Consultation assesses the data that EPA collected and discusses the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provides the following conclusions and recommendations:

Health Consultation Conclusions

1. A completed exposure pathway exists for vapor intrusion, as PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the soil gas, 8,200 ppb in the sub-slab soil gas, and 31 ppb in the indoor air at one residence. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 160 ppb in the sub-slab soil gas, and 0.87 ppb in the indoor air at the same residential property.
2. VOCs in the sub-slab soil gas samples at the four residences sampled (two located on Rondowa Avenue, one on Hypathia Avenue, and one on Bushnell Avenue) located in the neighborhood southwest of the MRP facility were detected at levels that could affect indoor air quality. PCE levels in the sub-slab samples exceeded both screening and action levels.
3. Concentrations of PCE and TCE in the indoor air of one residence tested in July 2013 exceeded screening levels.

4. More data is needed to conclude whether the vapor intrusion pathway could affect indoor air quality at other residential properties and harm people's health. At this time, only a few indoor air samples have been collected by EPA. Additionally, previous experience with vapor intrusion sites in the same general part of north Dayton have indicated potential for significant seasonal variation in soil gas levels under impacted homes.

Health Consultation Recommendations

1. Testing the indoor air of the other homes with high sub-slab results should be a priority. Other residences and businesses at risk of exposure via vapor intrusion pathway should have their sub-slab and indoor air sampled for PCE, TCE, and degradation products cis-1,2-DCE and vinyl chloride. Concurrent outdoor (ambient) air samples should also be collected. Sample collection during multiple seasons, including at least one sample in the winter, is recommended to characterize seasonal variability.
2. The home on Bushnell Avenue should be considered for mitigation to reduce or eliminate ongoing exposures to PCE and TCE in the indoor air. Occupied residences with sub-slab soil gas concentrations exceeding action levels should also be considered for mitigation.
3. The full extent of the VOC contamination, both in groundwater and soil gas, associated with the Valley Pike VOC site should be determined.

2.1.2 Response Actions to Date

See POLREP 1 for actions between December 9, 2013 and January 17, 2014.
See POLREP 2 for actions between January 18 and March 14, 2014.

Week of March 17, 2014

EPA collected 15 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

The sub-slab and crawl space air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

For sub-slab sampling, the sub-slab probes are being installed and the samples are being collected in accordance with the "*Standard Operating Procedures for the Construction and Installation of Permanent Sub-Slab Soil Gas Wells, #2082*," (SOP No. 2082) dated March 29, 2007, under the EPA Response Engineering and Analytical Contract.

The crawl space samples are being collected by either placing the SUMMA canister within the crawl space and turning on the SUMMA canister, or by attaching the Teflon tubing to a PVC pipe and extending the pipe as far into the crawl space as possible.

EPA installed two sub-slab depressurization systems (SSDS), also known as a vapor abatement systems, at two residential properties.

Week of March 24, 2014

No vapor intrusion sampling was conducted this week.

EPA conducted a groundwater investigation in the neighborhood. A total of 14 temporary wells were installed and the groundwater was sampled and sent to a commercial laboratory for VOC analysis. The groundwater investigation will determine the extent of VOC contamination in the neighborhood groundwater and identify areas for future Vapor Intrusion sampling.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of March 31, 2014

No residential vapor intrusion sampling was conducted this week.

EPA installed three SSDSs, also known as a vapor abatement systems, at three residential properties.

Week of April 7, 2014

EPA collected 17 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of April 14, 2014

EPA collected 16 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed one SSDS, also known as a vapor abatement system, at one residential property.

Week of April 21, 2014

EPA collected 14 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of April 28, 2014

EPA collected 7 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of May 5, 2014

EPA collected 15 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed three SSDSs, also known as a vapor abatement systems, at three residential properties.

Week of May 12, 2014

EPA collected 15 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed one SSDS in one residential property.

On a weekly basis, EPA, Public Health - Dayton & Montgomery County and ERRS are conducting meetings with property owners which are eligible to receive a SSDS. Sample results are reviewed by EPA and health questions answered by Public Health. To be eligible, the property needs to have a baseline sub-slab or crawl space or indoor air PCE and/TCE concentration which exceeds the ODH PCE and/or TCE screening levels. At the meeting, if the property owner agrees to accept an EPA-installed SSDS, ERRS immediately schedules a walk-through of each property with its SSDS contractor for SSDS design. The walk-through will allow the SSDS installation contractor to determine the layout and the cost estimate for installation of the SSDS.

As of May 15, 2014, the following are the up-to date vapor intrusion Site sampling numbers:

- 364 total residential properties with Area of Concern (determined by groundwater investigation)
- 164 properties sampled
- 131 properties are eligible for sampling but have yet signed an access agreement
- 59 properties have results greater than ODH screening levels and are eligible for a SSDS
- 28 properties currently have an installed SSDS
- 84 properties have results less than ODH screening levels
- 29 properties are scheduled for baseline sampling
- 12 properties have signed an access agreement and are awaiting sample scheduling
- 12 properties have been sampled and have baseline data pending from the laboratory
- 14 properties have denied EPA access to conduct vapor intrusion sampling
- 24 properties are vacant and abandoned

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

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

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

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation includes the source area on the east, Broadmead Avenue on the west (approximately 1,500 feet southwest of the source area),
3. If the ODH Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a SSDS or crawl space depressurization system, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ODH sub-slab and indoor air screening levels; and
4. Develop and implement a performance sample plan to confirm that ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a SSDS.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling.
2. Continue vapor intrusion sampling in the residential neighborhood.
3. Generate sample result letters and schedule meetings with residents to discuss sampling results.
4. Schedule SSDS design walk-through times and installation dates, as necessary.
5. For residential properties where a SSDS was installed, conduct 30-day post installation proficiency air sampling.
6. Conduct upgrades to the SSDS, if necessary.
7. Generate O&M Manuals for properties that have an SSDS installed.
8. Schedule a public meeting at Stebbins High School during the month of July to explain to the public the status of the removal action.

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
2049 Harshman Road
Riverside, OH 45424
937.237.7530

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County, and ODH to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. EPA's Office of Public Affairs went door-to-door during the week of March 17th and obtained 40+ signed access agreements.

3. Set up a repository containing site information. The repository is located at:

Dayton Metro Library
6160 Chambersburg Road
Huber Heights, OH 45424

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office
2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 1
ERRS - 2
At-Home Radon Contractor - SSDS installer
Environmental Doctor Contractor - SSDS installer

5. Definition of Terms

IA - indoor Air
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #4 will be issued in July 2014.

7. Situational Reference Materials

None.

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Valley Pike VOC Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #4
 Progress
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:
From: Steven Renninger, On-Scene Coordinator
Date: 7/23/2014
Reporting Period: May 16 through July 18, 2014

1. Introduction

1.1 Background

Site Number:	C5U2	Contract Number:	EP-S5-08-02
D.O. Number:	30281.0134	Action Memo Date:	10/29/2013
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	12/9/2013	Start Date:	12/9/2013
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	OEPA
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of the potential source area for PCE and TCE groundwater contamination. Six groundwater samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells at the source area in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at the source area. Three Geoprobe monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers but contamination was highest in MW-3 located at the southwest corner of the source area. PCE was detected at a concentration of 300 µg/L in MW-3. Higher concentrations of PCE in the shallow aquifer pointed to a shallow rather than a deep source of PCE.

Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at the Site. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of the source facility. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of the source area and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of the source area.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of the source area. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of the source area. Ohio EPA requested assistance from the EPA Region 5 Emergency Response Branch in evaluating options for addressing current and potential vapor intrusion risks at the Valley Pike VOC Site.

On June 14, 2013, the Health Assessment Section of the ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

Sub-Slab Screening Levels (residential properties):

PCE = 60 ppbv

TCE = 4 ppbv

Indoor Air Screening Levels (residential properties):

PCE = 6 ppbv

TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of the source area into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of the source area is being affected by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site. A completed exposure pathway for PCE and TCE vapor intrusion has been documented at numerous residential properties.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and

southwest of the source area and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Reviewed historical Ohio EPA groundwater and soil gas sampling results.
- Oversaw the Ohio EPA Site Investigation Field Unit use a Geoprobe unit to collect eight groundwater samples and install 16 nested soil gas probes at 9 locations.
- Analyzed four groundwater samples collected by Ohio EPA personnel
- Collected nine soil gas samples from the Ohio EPA installed soil gas probes
- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and poses an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA sampling results from 2013 have documented that vapor intrusion is occurring in the Riverside residential neighborhood located west and southwest of the source area.

As of July 2013, the sub-slab samples from four residential properties have PCE concentrations ranging from 930 to 8,200 ppbv, which exceeds the ODH residential sub-slab screening level of 60 ppbv. The indoor air samples from two residential properties have PCE concentrations ranging from 6.9 to 32 ppbv, which exceeds the ODH residential indoor air screening level of 6 ppbv. These results document a completed exposure pathway for PCE vapor intrusion.

The sub-slab samples from three residential properties have TCE concentrations ranging from 60 to 160 ppbv, which exceeds the ODH residential sub-slab screening level of 4 ppbv. The indoor air samples from three residential properties have TCE concentrations ranging from 0.44 to 0.92 ppbv, which exceeds the ODH residential indoor air screening level of 0.4 ppbv. These results document a completed exposure pathway for TCE vapor intrusion.

ODH Health Consultation - September 2013

On September 4, 2013, ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Letter Health Consultation to EPA. The Health Consultation assessed the data that EPA collected and discussed the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provided the following conclusions and recommendations:

Health Consultation Conclusions

1. A completed exposure pathway exists for vapor intrusion, as PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the soil gas, 8,200 ppb in the sub-slab soil gas, and 31 ppb in the indoor air at one residence. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 160 ppb in the sub-slab soil gas, and 0.87 ppb in the indoor air at the same residential property.
2. VOCs in the sub-slab soil gas samples at the four residences sampled (two located on Rondowa Avenue, one on Hypathia Avenue, and one on Bushnell Avenue) located in the neighborhood southwest of the MRP facility were detected at levels that could affect indoor air quality. PCE levels in the sub-slab samples exceeded both screening and action levels.
3. Concentrations of PCE and TCE in the indoor air of one residence tested in July 2013 exceeded screening levels.

4. More data is needed to conclude whether the vapor intrusion pathway could affect indoor air quality at other residential properties and harm people's health. At this time, only a few indoor air samples have been collected by EPA. Additionally, previous experience with vapor intrusion sites in the same general part of north Dayton have indicated potential for significant seasonal variation in soil gas levels under impacted homes.

Health Consultation Recommendations

1. Testing the indoor air of the other homes with high sub-slab results should be a priority. Other residences and businesses at risk of exposure via vapor intrusion pathway should have their sub-slab and indoor air sampled for PCE, TCE, and degradation products cis-1,2-DCE and vinyl chloride. Concurrent outdoor (ambient) air samples should also be collected. Sample collection during multiple seasons, including at least one sample in the winter, is recommended to characterize seasonal variability.
2. The home on Bushnell Avenue should be considered for mitigation to reduce or eliminate ongoing exposures to PCE and TCE in the indoor air. Occupied residences with sub-slab soil gas concentrations exceeding action levels should also be considered for mitigation.
3. The full extent of the VOC contamination, both in groundwater and soil gas, associated with the Valley Pike VOC site should be determined.

2.1.2 Response Actions to Date

On December 9, 2013, the EPA Removal Action was initiated. An EPA Project Office was established at 2049 Harshman Road, Dayton, Ohio 45424. Between December 2013 and May 15, 2014, START conducted residential baseline sub-slab/indoor air sampling and ERRS initiated residential vapor abatement system (VAS) installations. EPA, local health department, and the City of Riverside representatives requested residents in the area of investigation to sign access agreements for EPA vapor intrusion sampling.

See POLREP 1 for actions between December 9, 2013 and January 17, 2014.

See POLREP 2 for actions between January 18 and March 14, 2014.

See POLREP 3 for actions between March 15 and May 15, 2014.

Week of May 19, 2014

EPA collected 12 residential vapor intrusion samples. The samples collected were either baseline samples or proficiency samples collected 30 days after VAS installation.

The sub-slab, crawl space, and indoor air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

EPA contractors installed VAS at two residential properties.

Week of May 26, 2014

EPA collected 13 residential vapor intrusion samples. The samples collected were either baseline samples or proficiency samples collected 30 days after the installation of VAS.

EPA installed VAS at two residential properties.

Week of June 2, 2014

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VASs were installed this week.

Week of June 9, 2014

EPA collected 9 residential vapor intrusion samples. The samples collected were either baseline

samples or proficiency samples collected 30 days after the installation of VASs.

EPA installed VAS at three residential properties.

Week of June 16, 2014

EPA collected 13 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VASs, or a resample collected from properties where baseline samples were previously collected during the winter.

On June 19, 2014, EPA OSC Renninger and local health department representative Tom Hut briefed City of Riverside Council on the status of the removal action. EPA informed Council of an expanded area of investigation between Hypathia Ave and Prince Albert Blvd based on recent groundwater sample results.

EPA installed VAS at two residential properties.

Week of June 23, 2014

EPA collected 8 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VASs, or resamples collected from properties where baseline samples were previously collected during the winter.

EPA installed VAS at two residential properties.

Week of June 30, 2014

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of July 7, 2014

EPA collected 14 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VASs, or resamples collected from properties where baseline samples were previously collected during the winter.

EPA installed VAS at four residential properties.

Week of July 14, 2014

EPA collected 9 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VASs, or resamples collected from properties where baseline samples were previously collected during the winter.

EPA installed VASs at two residential properties.

On July 16, 2014, EPA and ATSDR conducted a public meeting at Stebbins High School. The public meeting was attended by approximately 75 residents. Local and state government officials were also in attendance. EPA and ATSDR explained the sampling results from the summer of 2013 through July 2014 and highlighted the following:

- There is a PCE and TCE groundwater plume beneath the residential neighborhood west and southwest of the source area;
- Elevated concentrations of PCE and TCE were observed in the groundwater, soil gas, sub-slab and indoor air in the neighborhood;
- The area of investigation for the Valley Pike VOC Site expanded based on groundwater sampling data from March 2014. The area of investigation currently includes the area between Hypathia Ave, Valley Pike, Forest Home Ave, and Prince Albert Blvd;
- PCE and TCE concentrations in residential sub-slab and indoor air samples were observed to be significantly higher than sample data collected prior to December 2013;
- EPA requested residential property owners interested in having their properties assessed and sampled for vapor intrusion to sign an access agreement;
- If residential properties in the area of investigation show vapor intrusion sampling results greater than the screening levels established by ATSDR/ODH, EPA will offer to install a residential vapor abatement system and conduct 30 day proficiency sampling;
- ATSDR reviewed PCE and TCE health issues;

- EPA established a local project office in the neighborhood, located at 2049 Harshman Road.

Following the public meeting, EPA and EPA START scheduled approximately 15 additional residential properties to be sampled for vapor intrusion.

As of July 18, 2014, the following removal activities have been completed:

- 366 total residential properties with area of investigation (determined by groundwater investigation)
- 213 properties sampled
- 123 properties are eligible for sampling but have yet signed an access agreement
- 74 properties have results greater than ATSDR/ODH screening levels and are eligible for a VAS
- 50 properties currently have an installed VAS
- 47 properties have results less than ATSDR/ODH screening levels and laboratory detection limits
- 83 properties have PCE/TCE detections, but results less than ATSDR/ODH screening levels and are eligible for seasonal resampling
- 13 properties have denied EPA access to conduct vapor intrusion sampling
- 23 properties are vacant and abandoned

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

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

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

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation includes the source area on the east, Prince Albert Blvd on the west (approximately 1,500 feet southwest of the source area),
3. If the ATSDR/ODH Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a VAS, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ATSDR/ODH sub-slab and indoor air screening levels; and
4. Develop and implement a performance sample plan to confirm that ATSDR/ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a VAS.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor

intrusion sampling.

2. Continue vapor intrusion sampling in the residential neighborhood.
3. Generate sample result letters and schedule meetings with residents to discuss sampling results.
4. Schedule VAS design walk-through times and installation dates, as necessary.
5. For residential properties where a VAS was installed, conduct 30-day post installation proficiency air sampling.

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
2049 Harshman Road
Riverside, OH 45424
937.237.7530

The EPA Project Office will be closed from July 25-August 1.

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County, and ODH to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. EPA's Office of Public Affairs went door-to-door during the week of March 17th and obtained 40+ signed access agreements.

3. Set up a repository containing site information. The repository is located at:

Dayton Metro Library
6160 Chambersburg Road
Huber Heights, OH 45424

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office

2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities**3.1 Unified Command**

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside
ATSDR

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 1
ERRS - 2
At-Home Radon Contractor - VAS installer
Environmental Doctor Contractor - VAS installer

5. Definition of Terms

ATSDR - Agency for Toxic Substances and Disease Registry
IA - indoor Air
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene
VAS - Vapor Abatement System

6. Additional sources of information**6.1 Internet location of additional information/report**

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #5 will be issued in September 2014.

7. Situational Reference Materials

None.

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Valley Pike VOC Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #5
 Progress
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:
From: Steven Renninger, On-Scene Coordinator
Date: 10/28/2014
Reporting Period: July 19 through October 28, 2014

1. Introduction

1.1 Background

Site Number:	C5U2	Contract Number:	EP-S5-08-02
D.O. Number:	30281.0134	Action Memo Date:	9/16/2014
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	12/9/2013	Start Date:	12/9/2013
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	OEPA
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of a potential source area for PCE and TCE groundwater contamination. Six groundwater samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells area in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at MRP. Three Geoprobe monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers.

Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at MRP. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of MRP. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of MRP and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of MRP.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of MRP. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of MRP.

On June 14, 2013, the Health Assessment Section of the ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

ODH Sub-Slab Screening Levels (residential properties):

PCE = 60 ppbv

TCE = 4 ppbv

ODH Indoor Air Screening Levels (residential properties):

PCE = 6 ppbv

TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of MRP into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of MRP is being impacted by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site. A completed exposure pathway for PCE and TCE vapor intrusion has been documented at numerous residential properties.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of MRP and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Analyzed four groundwater samples
- Collected nine soil gas samples

- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and poses an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Since December 2013, EPA has been conducting a time critical removal action at the Site including air sampling at residences and if required, installation of a residential Vapor Intrusion mitigation system.

ODH Health Consultation - September 2013

On September 4, 2013, ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Letter Health Consultation to EPA. The Health Consultation assessed the data that EPA collected and discussed the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provided the following conclusions and recommendations:

Health Consultation Conclusions

1. A completed exposure pathway exists for vapor intrusion, as PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the soil gas, 8,200 ppb in the sub-slab soil gas, and 31 ppb in the indoor air at one residence. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 160 ppb in the sub-slab soil gas, and 0.87 ppb in the indoor air at the same residential property.
2. More data is needed to conclude whether the vapor intrusion pathway could affect indoor air quality at other residential properties and harm people's health. At this time, only a few indoor air samples have been collected by EPA. Additionally, previous experience with vapor intrusion sites in the same general part of north Dayton have indicated potential for significant seasonal variation in soil gas levels under impacted homes.

Health Consultation Recommendations

1. Testing the indoor air of the other homes with high sub-slab results should be a priority. Other residences and businesses at risk of exposure via vapor intrusion pathway should have their sub-slab and indoor air sampled for PCE, TCE, and degradation products cis-1,2-DCE and vinyl chloride. Sample collection during multiple seasons, including at least one sample in the winter, is recommended to characterize seasonal variability.
2. The full extent of the VOC contamination, both in groundwater and soil gas, associated with the Valley Pike VOC site should be determined.

2.1.2 Response Actions to Date

On December 9, 2013, the EPA Removal Action was initiated. An EPA Project Office was established at 2049 Harshman Road, Dayton, Ohio 45424. Between December 2013 and present, START conducted residential baseline sub-slab/indoor air sampling and ERRS initiated residential vapor abatement system (VAS) installations. EPA, local health department, and the City of Riverside representatives requested residents in the area of investigation to sign access agreements for EPA vapor intrusion sampling.

See POLREP 1 for actions between December 9, 2013 and January 17, 2014.

See POLREP 2 for actions between January 18 and March 14, 2014.

See POLREP 3 for actions between March 15 and May 15, 2014.

See POLREP 4 for actions between May 16 and July 18, 2014.

Week of July 21, 2014

EPA collected 10 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after VAS installation, or a seasonal resample.

The sub-slab, crawl space, and indoor air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

EPA contractors installed VAS at three residential properties.

Week of July 28, 2014

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of August 4, 2014

EPA collected 13 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA installed VAS at four residential properties.

In August 2014, ATSDR completed a revised Health Consultation for the Site. The Health Consultation assessed the data that EPA collected in 2014 and discussed the public health implications of exposure to VOCs from vapor intrusion from the Site. The 2014 Health Consultation provided the following conclusions and recommendations:

2014 ATSDR Health Consultation Conclusions

1. A completed exposure pathway exists for the inhalation of indoor air contaminants which are likely entering some area homes via vapor intrusion. PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the deep soil gas, 27,300 ppb in the sub-slab soil gas under area homes, and as high as 193 ppb in the indoor air in these homes. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 1,020 ppb in the sub-slab soil gas, and 4.36 ppb in the indoor air. The detection of PCE and TCE in the sub-slab soil gas under some of the homes to the west of the MRP facility indicates that vapor intrusion is likely occurring. The presence of PCE and TCE in the indoor air of some of these homes confirms there is a completed pathway of exposure linking some area residents to site-related PCE and TCE via the vapor intrusion route.
2. Being exposed to the levels of PCE measured in some homes in the community over the course of a lifetime could harm people's health.
3. Being exposed to the levels of TCE measured in some homes in the community over the course of a lifetime could harm people's health.
4. Only about half of the homes potentially impacted by contaminated groundwater have been sampled. Furthermore, many homes have only been sampled one time. Thus, there is a great deal of uncertainty regarding the true magnitude of exposure in the community.

2014 ATSDR Health Consultation Recommendations

1. Determine the full extent of the contaminant threat under the neighborhood by expanding the sub-slab and indoor air sampling in homes west and southwest of the likely source area on Valley Pike.
2. Sample residences at risk of contamination via the vapor intrusion route. To characterize seasonal variability, sample collection during multiple seasons, including at least one sample during the winter months, is recommended.

3. Mitigate the homes in the vicinity of the Valley Pike VOC plume that exceed health-based comparison values for PCE and TCE in order to reduce or eliminate ongoing exposures to elevated levels of PCE and TCE in the indoor air over the short term.

4. Identify and mitigate or eliminate the source of the PCE and TCE in the groundwater contaminant plume that currently underlies the community in order to eliminate the threat to area residents over the long term.

Week of August 11, 2014

EPA collected 20 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA installed VAS at three residential properties.

Week of August 18, 2014

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of August 25, 2014

EPA collected 16 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at one residential property.

Week of September 1, 2014

EPA collected 11 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at two residential properties.

EPA initiated planning for an October 2014 EPA Expanded Vapor Intrusion Investigation. Proposed locations for permanent groundwater monitoring wells around the commercial/industrial area northeast of the residential area of concern were identified.

Week of September 8 2014

EPA collected 9 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at two residential properties.

Week of September 15, 2014

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

EPA 12 Month Exemption Action Memo approved by Superfund Division Director on September 16, 2014. EPA sampling and mitigation work at the Site will continue past December 2014.

Week of September 22, 2014

EPA collected 11 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at two residential properties.

Week of September 29, 2014

EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at 1 residential properties.

Week of October 6, 2014

EPA installed 7 permanent groundwater monitoring wells as part of the October 2014 EPA Expanded

Vapor Intrusion Investigation.

Week of October 13, 2014

EPA sampled permanent groundwater monitoring wells as part of the October 2014 EPA Expanded Vapor Intrusion Investigation.

Week of October 20, 2014

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of October 28, 2014

EPA continued residential vapor intrusion sampling and VAS installation.

As of October 28, 2014, the following removal activities have been completed:

- 366 total residential properties with area of investigation (determined by groundwater investigation)
- 263 properties sampled
- 120 properties are eligible for sampling but have yet signed an access agreement
- 80 properties have results greater than ATSDR/ODH screening levels and are eligible for a VAS
- 70 properties currently have an installed VAS
- 47 properties have results less than ATSDR/ODH screening levels and laboratory detection limits (no further action)
- 83 properties have PCE/TCE detections, but results less than ATSDR/ODH screening levels and are eligible for seasonal resampling
- 13 properties have denied EPA access to conduct vapor intrusion sampling
- 23 properties are vacant and abandoned

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

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

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

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation includes the source area on the east near Hypathia Ave and Sagamore Ave on the west (approximately 1,500 feet southwest of the source area),
3. If the ATSDR/ODH Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a VAS, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway.

The vapor abatement mitigation system will be designed to control levels of VOCs to below ATSDR/ODH sub-slab and indoor air screening levels; and

4. Develop and implement a performance sample plan to confirm that ATSDR/ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a VAS.
5. Complete October 2014 EPA Expanded Vapor Intrusion Investigation, interpret and analyze data.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling.
2. Continue vapor intrusion sampling in the residential neighborhood.
3. Generate sample result letters and schedule meetings with residents to discuss sampling results. If sample results are > ODH screening levels for residences, install VAS.
4. For residential properties where a VAS was installed, conduct 30-day post installation proficiency air sampling

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
2049 Harshman Road
Riverside, OH 45424
937.237.7530

Residential air sampling will resume the week of October 27, 2014.

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. EPA's Office of Public Affairs went door-to-door during the week of March 17th and obtained 40+ signed access agreements.

3. Set up a repository containing site information. The repository is located at:

Dayton Metro Library

6160 Chambersburg Road
Huber Heights, OH 45424

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office

2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside
ATSDR

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 1
ERRS - 2
At-Home Radon Contractor - VAS installer
Environmental Doctor Contractor - VAS installer

5. Definition of Terms

ATSDR - Agency for Toxic Substances and Disease Registry
IA - Indoor Air
MRP - Mullins Rubber Products
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene
VAS - Vapor Abatement System

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #6 will be issued in December 2014.

7. Situational Reference Materials

None.

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Valley Pike VOC Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #6
 Progress
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:
From: Steven Renninger, On-Scene Coordinator
Date: 1/20/2015
Reporting Period: October 29, 2014 through January 16, 2015

1. Introduction

1.1 Background

Site Number:	C5U2	Contract Number:	EP-S5-08-02
D.O. Number:	30281.0134	Action Memo Date:	9/16/2014
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	12/9/2013	Start Date:	12/9/2013
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	OEPA
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of a potential source area for PCE and TCE groundwater contamination. Six groundwater samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells area in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

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Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at MRP. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of MRP. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of MRP and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of MRP.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of MRP. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of MRP.

On June 14, 2013, the Health Assessment Section of the ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

ODH Sub-Slab Screening Levels (residential properties):

PCE = 60 ppbv

TCE = 4 ppbv

ODH Indoor Air Screening Levels (residential properties):

PCE = 6 ppbv

TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of MRP into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of MRP is being impacted by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site. A completed exposure pathway for PCE and TCE vapor intrusion has been documented at numerous residential properties.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of MRP and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Analyzed four groundwater samples
- Collected nine soil gas samples

- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and posed an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Since December 2013, EPA has been conducting a time critical removal action at the Site including air sampling at residences and if required, installation of a residential Vapor Intrusion mitigation system.

ATSDR Health Consultation - October 2014

On October 29, 2014, the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Health Consultation to EPA for the Site (See Documents Section for Health Consultation). The Health Consultation assessed the data that EPA collected and discussed the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provided the following conclusions and recommendations:

2014 ATSDR Health Consultation Conclusions

1. A completed exposure pathway exists for the inhalation of indoor air contaminants which are likely entering some area homes via vapor intrusion. PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the deep soil gas, 27,300 ppb in the sub-slab soil gas under area homes, and as high as 193 ppb in the indoor air in these homes. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 1,020 ppb in the sub-slab soil gas, and 4.36 ppb in the indoor air. The detection of PCE and TCE in the sub-slab soil gas under some of the homes to the west of the MRP facility indicates that vapor intrusion is likely occurring. The presence of PCE and TCE in the indoor air of some of these homes confirms there is a completed pathway of exposure linking some area residents to site-related PCE and TCE via the vapor intrusion route.
2. Being exposed to the levels of PCE measured in some homes in the community over the course of a lifetime could harm people's health.
3. Being exposed to the levels of TCE measured in some homes in the community over the course of a lifetime could harm people's health.
4. Only about half of the homes potentially impacted by contaminated groundwater have been sampled. Furthermore, many homes have only been sampled one time. Thus, there is a great deal of uncertainty regarding the true magnitude of exposure in the community.

2014 ATSDR Health Consultation Recommendations

1. Determine the full extent of the contaminant threat under the neighborhood by expanding the sub-slab and indoor air sampling in homes west and southwest of the likely source area on Valley Pike.
2. Sample residences at risk of contamination via the vapor intrusion route. To characterize seasonal variability, sample collection during multiple seasons, including at least one sample during the winter months, is recommended.

3. Mitigate the homes in the vicinity of the Valley Pike VOC plume that exceed health-based comparison values for PCE and TCE in order to reduce or eliminate ongoing exposures to elevated levels of PCE and TCE in the indoor air over the short term.
4. Identify and mitigate or eliminate the source of the PCE and TCE in the groundwater contaminant plume that currently underlies the community in order to eliminate the threat to area residents over the long term.

2.1.2 Response Actions to Date

On December 9, 2013, the EPA Removal Action was initiated. An EPA Project Office was established at 2049 Harshman Road, Dayton, Ohio 45424. Between December 2013 and present, EPA-START conducted residential baseline sub-slab/indoor air sampling and ERRS contractor (EQM) initiated residential vapor abatement system (VAS) installations. EPA, local health department, and the City of Riverside representatives requested residents in the area of investigation to sign access agreements for EPA vapor intrusion sampling.

See POLREP 1 for actions between December 9, 2013 and January 17, 2014.

See POLREP 2 for actions between January 18 and March 14, 2014.

See POLREP 3 for actions between March 15 and May 15, 2014.

See POLREP 4 for actions between May 16 and July 18, 2014.

See POLREP 5 for actions between July 19 and October 28, 2014.

Week of October 29, 2014

EPA collected 9 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after VAS installation, or a seasonal resample.

The sub-slab, crawl space, and indoor air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

EPA contractors installed VAS at one residential property.

EPA determined it was necessary to expand the project boundary for residential sampling further west based on sampling results. The expanded area included Prince Albert Blvd between Broadmead Ave and Rondowa Ave.

EPA coordinated with Riverside City Council and Public Health – Dayton and Montgomery County (PHDMC) to inform residents of the expanded sampling area.

EPA sampled one additional permanent groundwater monitoring well as part of the October 2014 EPA Expanded Vapor Intrusion Investigation.

Week of November 3, 2014

EPA collected 16 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA installed VAS at two residential properties.

Week of November 10, 2014

EPA collected 10 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

Week of November 17, 2014

EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA coordinated with Riverside City Council regarding the expanded project boundary. Informational

letters were finalized and mailed to residents by Riverside City Council.

Week of November 24, 2014

EPA collected 4 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA finalized an updated fact sheet for the site, including information on the expanded project boundary and a list of Frequently Asked Questions (FAQs) and answers. The fact sheet was distributed to residents within the expanded area, the EPA Project Office, and Riverside City Council.

Week of December 1, 2014

EPA collected 2 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at one residential property.

EPA completed transportation and disposal for 36 drums of non-hazardous soil & water generated during the October 2014 EPA Expanded Vapor Intrusion Investigation.

Week of December 8, 2014

EPA collected 8 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA performed outdoor air monitoring around the site perimeter.

Week of December 15, 2014

EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of December 22, 2014

EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of December 29, 2014

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of January 5, 2015

EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of January 12, 2015

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

As of January 20, 2015, the following removal activities have been completed:

- 512 total residential properties with area of investigation (determined by groundwater investigation)
- 302 properties sampled
- 210 properties are eligible for sampling but have yet signed an access agreement
- 83 properties have results greater than ATSDR/ODH screening levels and are eligible for a VAS
- 75 properties currently have an installed VAS
- 197 properties have results less than ATSDR/ODH screening levels and laboratory detection limits (no further action)
- 17 properties have PCE/TCE detections, but results less than ATSDR/ODH screening levels and are eligible for seasonal resampling
- 14 properties have denied EPA access to conduct vapor intrusion sampling
- 22 properties are vacant and abandoned

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

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Non Hazardous Non Regulated Waste from monitoring well installation	Water/Soil	36 Drums (1800 Gallons)	104047	NA	Landfill

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation currently includes the residential area between Hypathia Ave on the east and Prince Albert Blvd Ave on the west. See Map in Documents Section.
3. If the ATSDR Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a VAS, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ATSDR/ODH sub-slab and indoor air screening levels; and
4. Develop and implement a performance sample plan to confirm that ATSDR/ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a VAS.
5. Complete October 2014 EPA Expanded Vapor Intrusion Investigation Report.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling.
2. Continue vapor intrusion sampling in the residential neighborhood.
3. Generate sample result letters and schedule meetings with residents to discuss sampling results. If sample results are > ATSDR screening levels for residences, install VAS with property owner permission.
4. For residential properties where a VAS was installed, conduct 30-day post installation proficiency air sampling

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
2049 Harshman Road
Riverside, OH 45424
937.237.7530

Residential air sampling will resume the week of January 20, 2015.

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. Set up a repository containing site information. The repository is located at:

Dayton Metro Library
6160 Chambersburg Road
Huber Heights, OH 45424

3. Latest EPA Fact Sheet is located in the Documents Section of this web site.
6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office
2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside
ATSDR

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 1
ERRS - 2
At-Home Radon Contractor - VAS installer
Environmental Doctor Contractor - VAS installer

5. Definition of Terms

ATSDR - Agency for Toxic Substances and Disease Registry
IA - Indoor Air
MRP - Mullins Rubber Products
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene
VAS - Vapor Abatement System

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #7 will be issued in March 2015.

7. Situational Reference Materials

None.

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Valley Pike VOC Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #7
 Progress
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:
From: Sonia Vega, On-Scene Coordinator
Date: 12/23/2015
Reporting Period: January 19 through December 23, 2015

1. Introduction

1.1 Background

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2.1.1 Narrative

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2. Being exposed to the levels of PCE measured in some homes in the community over the course of a lifetime could harm people's health.
3. Being exposed to the levels of TCE measured in some homes in the community over the course of a lifetime could harm people's health.
4. Only about half of the homes potentially impacted by contaminated groundwater have been sampled. Furthermore, many homes have only been sampled one time. Thus, there is a great deal of uncertainty regarding the true magnitude of exposure in the community.

2014 ATSDR Health Consultation Recommendations

1. Determine the full extent of the contaminant threat under the neighborhood by expanding the sub-slab and indoor air sampling in homes west and southwest of the likely source area on Valley Pike.
2. Sample residences at risk of contamination via the vapor intrusion route. To characterize seasonal variability, sample collection during multiple seasons, including at least one sample during the winter months, is recommended.

3. Mitigate the homes in the vicinity of the Valley Pike VOC plume that exceed health-based comparison values for PCE and TCE in order to reduce or eliminate ongoing exposures to elevated levels of PCE and TCE in the indoor air over the short term.
4. Identify and mitigate or eliminate the source of the PCE and TCE in the groundwater contaminant plume that currently underlies the community in order to eliminate the threat to area residents over the long term.

2.1.2 Response Actions to Date

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See POLREP 1 for actions between December 9, 2013 and January 17, 2014.

See POLREP 2 for actions between January 18 and March 14, 2014.

See POLREP 3 for actions between March 15 and May 15, 2014.

See POLREP 4 for actions between May 16 and July 18, 2014.

See POLREP 5 for actions between July 19 and October 28, 2014.

See POLREP 6 for actions between October 29, 2014 and January 16, 2015.

Week of January 19, 2015

EPA collected 12 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after VAS installation, or a seasonal resample.

The sub-slab, crawl space, and indoor air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

EPA contractors modified a VAS at one residential property.

Week of January 26, 2015

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of February 2, 2015

EPA collected 7 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA installed a VAS at one residential property.

Week of February 9, 2015

EPA collected 8 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA installed a VAS at one residential property.

Week of February 16, 2015

EPA installed VAS at two residential properties.

Week of February 23, 2015

EPA installed VAS at one residential property.

March 2 - April 3, 2015

The site was shut down during this time.

No residential vapor intrusion sampling was conducted, and no VAS were installed.

Week of April 6, 2015

EPA collected 10 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

Week of April 13, 2015

EPA collected 10 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of April 20, 2015

EPA collected 15 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of April 27, 2014

EPA collected 7 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed a VAS at one residential property.

Week of May 4, 2015

EPA collected 11 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed a VAS at one residential property.

Week of May 11, 2015

EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of May 18, 2015

EPA collected 3 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of May 25, 2015

EPA collected 3 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of June 1, 2015

EPA collected 6 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of June 8, 2015

EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of June 15, 2015

EPA collected 4 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of June 22, 2015

EPA collected 12 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed a VAS at one residential property.

Week of June 29, 2015

EPA collected 3 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed a VAS at one residential property.

Week of July 6, 2015

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of July 13, 2015

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of July 20, 2015

EPA collected 4 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed 2 VAS and modified 1 VAS at residential properties.

Week of July 27, 2015

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of August 3, 2015

EPA collected 4 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed a VAS at one residential property.

Week of August 10, 2015

EPA collected 4 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA held a meeting with Ohio EPA and Riverside City Council to provide a progress update on site activities.

Week of August 17, 2015

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of August 24, 2015

EPA collected 2 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed a VAS at one residential property.

Week of August 31, 2015

EPA collected 2 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of September 7, 2015

EPA collected 4 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

September 14 - October 2, 2015

The site was shut down during this time.

No residential vapor intrusion sampling was conducted, and no VAS were installed.

Week of October 5, 2015

EPA collected 3 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of October 12, 2015

EPA collected 1 residential vapor intrusion sample. The sample collected was a baseline sample.

Week of September 21, 2015

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

October 19 - November 27, 2015

The site was shut down during this time.

No residential vapor intrusion sampling was conducted, and no VAS were installed.

The Valley Pike VOC Site was reassigned to OSC Vega.

Week of November 30, 2015

EPA installed a VAS at one residential property.

Week of December 7, 2015

EPA collected 3 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

Week of December 14, 2015

EPA collected 8 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA modified a VAS at one residential property.

Week of December 21, 2015

EPA collected 4 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

As of December 23, 2015, the following removal activities have been completed:

- 541 total residential properties with area of investigation
- 416 properties sampled
- 134 properties are eligible for sampling but have yet signed an access agreement
- 92 properties have results greater than ATSDR/ODH screening levels and are eligible for a VAS
- 89 properties currently have an installed VAS
- 297 properties have results less than ATSDR/ODH screening levels and laboratory detection limits (no further action)
- 20 properties have PCE/TCE detections, but results less than ATSDR/ODH screening levels and are eligible for seasonal resampling
- 22 properties have denied EPA access to conduct vapor intrusion sampling
- 21 properties are vacant and abandoned

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

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
Non Hazardous Non Regulated Waste from monitoring well installation	Water/Soil	36 Drums (1800 Gallons)	104047	NA	Landfill

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation currently includes the residential area between Hypathia Ave on the east and Prince Albert Blvd Ave on the west. See Map in Documents Section.
3. If the ATSDR Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a VAS, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ATSDR/ODH sub-slab and indoor air screening levels; and
4. Develop and implement a performance sample plan to confirm that ATSDR/ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a VAS.
5. Complete October 2014 EPA Expanded Vapor Intrusion Investigation Report.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling.
2. Continue vapor intrusion sampling in the residential neighborhood.
3. Generate sample result letters and schedule meetings with residents to discuss sampling results. If sample results are > ATSDR screening levels for residences, install VAS with property owner permission.
4. For residential properties where a VAS was installed, conduct 30-day post installation proficiency air sampling and conduct final meeting with homeowners to present VAS Information Manual.

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
2049 Harshman Road
Riverside, OH 45424
937.237.7530

Residential air sampling will resume the week of January 4, 2016.

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. Set up a repository containing site information. The repository is located at:

Dayton Metro Library

6160 Chambersburg Road
Huber Heights, OH 45424

3. Latest EPA Fact Sheet is located in the Documents Section of this web site.

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office

2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside
ATSDR

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 1
ERRS - 2
At-Home Radon Contractor - VAS installer
Environmental Doctor Contractor - VAS installer

5. Definition of Terms

ATSDR - Agency for Toxic Substances and Disease Registry
IA - Indoor Air
MRP - Mullins Rubber Products
ODH - Ohio Department of Health

PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene
VAS - Vapor Abatement System

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #8 will be issued in January 2016.

7. Situational Reference Materials

None.

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Valley Pike VOC Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region V

Subject: POLREP #8
 Progress
 Valley Pike VOC Site

 Riverside, OH
 Latitude: 39.7975660 Longitude: -84.1320980

To:
From: Sonia Vega, On-Scene Coordinator
Date: 2/8/2016
Reporting Period: December 24, 2015 to February 8, 2016

1. Introduction

1.1 Background

Site Number:	C5U2	Contract Number:	EP-S5-08-02
D.O. Number:	30281.0134	Action Memo Date:	9/16/2014
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	12/9/2013	Start Date:	12/9/2013
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	OEPA
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of a potential source area for PCE and TCE groundwater contamination. Six groundwater samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells area in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at MRP. Three Geoprobe monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers.

Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at MRP. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of MRP. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of MRP and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of MRP.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of MRP. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of MRP.

On June 14, 2013, the Health Assessment Section of the ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

ODH Sub-Slab Screening Levels (residential properties):

PCE = 60 ppbv

TCE = 4 ppbv

ODH Indoor Air Screening Levels (residential properties):

PCE = 6 ppbv

TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of MRP into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of MRP is being impacted by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site. A completed exposure pathway for PCE and TCE vapor intrusion has been documented at numerous residential properties.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of MRP and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Analyzed four groundwater samples
- Collected nine soil gas samples

- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and posed an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Since December 2013, EPA has been conducting a time critical removal action at the Site including air sampling at residences and if required, installation of a residential Vapor Intrusion mitigation system.

ATSDR Health Consultation - October 2014

On October 29, 2014, the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Health Consultation to EPA for the Site (See Documents Section for Health Consultation). The Health Consultation assessed the data that EPA collected and discussed the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provided the following conclusions and recommendations:

2014 ATSDR Health Consultation Conclusions

1. A completed exposure pathway exists for the inhalation of indoor air contaminants which are likely entering some area homes via vapor intrusion. PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the deep soil gas, 27,300 ppb in the sub-slab soil gas under area homes, and as high as 193 ppb in the indoor air in these homes. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 1,020 ppb in the sub-slab soil gas, and 4.36 ppb in the indoor air. The detection of PCE and TCE in the sub-slab soil gas under some of the homes to the west of the MRP facility indicates that vapor intrusion is likely occurring. The presence of PCE and TCE in the indoor air of some of these homes confirms there is a completed pathway of exposure linking some area residents to site-related PCE and TCE via the vapor intrusion route.
2. Being exposed to the levels of PCE measured in some homes in the community over the course of a lifetime could harm people's health.
3. Being exposed to the levels of TCE measured in some homes in the community over the course of a lifetime could harm people's health.
4. Only about half of the homes potentially impacted by contaminated groundwater have been sampled. Furthermore, many homes have only been sampled one time. Thus, there is a great deal of uncertainty regarding the true magnitude of exposure in the community.

2014 ATSDR Health Consultation Recommendations

1. Determine the full extent of the contaminant threat under the neighborhood by expanding the sub-slab and indoor air sampling in homes west and southwest of the likely source area on Valley Pike.
2. Sample residences at risk of contamination via the vapor intrusion route. To characterize seasonal variability, sample collection during multiple seasons, including at least one sample during the winter months, is recommended.

3. Mitigate the homes in the vicinity of the Valley Pike VOC plume that exceed health-based comparison values for PCE and TCE in order to reduce or eliminate ongoing exposures to elevated levels of PCE and TCE in the indoor air over the short term.

4. Identify and mitigate or eliminate the source of the PCE and TCE in the groundwater contaminant plume that currently underlies the community in order to eliminate the threat to area residents over the long term.

2.1.2 Response Actions to Date

On December 9, 2013, the EPA Removal Action was initiated. An EPA Project Office was established at 2049 Harshman Road, Dayton, Ohio 45424. Between December 2013 and present, EPA-START conducted residential baseline sub-slab/indoor air sampling and ERRS contractor (EQM) initiated residential vapor abatement system (VAS) installations. EPA, local health department, and the City of Riverside representatives requested residents in the area of investigation to sign access agreements for EPA vapor intrusion sampling.

See POLREP 1 for actions between December 9, 2013 and January 17, 2014.

See POLREP 2 for actions between January 18 and March 14, 2014.

See POLREP 3 for actions between March 15 and May 15, 2014.

See POLREP 4 for actions between May 16 and July 18, 2014.

See POLREP 5 for actions between July 19 and October 28, 2014.

See POLREP 6 for actions between October 29, 2014 and January 16, 2015.

See POLREP 7 for actions between January 17 and December 23, 2015.

December 24, 2015 - January 3, 2016

The site was shut down during this time.

No residential vapor intrusion sampling was conducted, and no VAS were installed.

Week of January 4, 2016

EPA collected 2 residential vapor intrusion samples. The samples collected were either baseline samples or proficiency samples collected after VAS installation.

The sub-slab, crawl space, and indoor air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

EPA held one VAS Information Manual meeting with property owners following completion of post-VAS installation proficiency sampling.

Week of January 11, 2016

The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, no VAS were installed this week, and no meetings were held this week.

Week of January 18, 2016

EPA collected 2 residential vapor intrusion samples. The samples collected were either baseline samples or proficiency samples collected after the installation of a VAS.

Week of January 25, 2016

EPA collected 1 residential vapor intrusion sample. The sample was a proficiency sample collected after the installation of VAS.

EPA held 3 VAS Information Manual meetings with property owners following the completion of post-VAS installation proficiency sampling.

EPA met with contractors for the respondent named in the administrative order of consent to coordinate the upcoming transition of site work to the respondent's representatives. EPA attempted to schedule

proficiency sampling with all property owners whose homes require proficiency results. EPA attempted contact via telephone and documented the attempts.

Week of February 1, 2016

EPA collected 5 residential vapor intrusion samples. The samples collected were proficiency samples.

EPA held 2 VAS Information Manual meetings with property owners following completion of post-VAS proficiency sampling.

EPA prepared certified letters to all property owners whose homes require proficiency results. The certified letters state that homeowners must contact EPA prior to February 12, 2015 to schedule the sampling or the property file will be closed.

As of February 8, 2016, the following removal activities have been completed:

- 573 total properties with area of investigation
- 417 properties sampled, 353 within area of investigation
- 173 properties are eligible for sampling but have not yet signed an access agreement
- 92 properties have results greater than ATSDR/ODH screening levels and are eligible for a VAS
- 89 properties currently have an installed VAS
- 304 properties have results less than ATSDR/ODH screening levels and laboratory detection limits (no further action)
- 20 properties have PCE/TCE detections, but results less than ATSDR/ODH screening levels and are eligible for seasonal resampling
- 22 properties have denied EPA access to conduct vapor intrusion sampling
- 20 properties are vacant and abandoned

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

On January 8, 2016, Mullins Rubber Products, Inc. and Mullins Land Company, Inc. ("Respondents") and U.S. EPA agreed on an Administrative Order on Consent ("AOC") for the Valley Pike VOC Site in Riverside, OH. Under the AOC, the Respondents will perform required cleanup actions at the Site. All cleanup work performed by the Respondents will be done under U.S. EPA's oversight. Cleanup actions will include sampling of residential and commercial properties for vapor intrusion; installation of vapor abatement mitigations systems at residential properties, if needed; and installation and operation of a soil vapor extraction system at Respondents' facility to remove source contamination.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Non Hazardous Non Regulated Waste from monitoring well installation	Water/Soil	36 Drums (1800 Gallons)	104047	NA	Landfill

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;
2. Conduct vapor intrusion sampling (for VOCs) for post-VAS installation proficiency samples, including sub-slab and indoor air sampling techniques.
3. Document attempts to contact un-responsive homeowners to schedule outstanding sampling or meetings. Notify property owner via certified mail that property file will be closed if no response is received by February 12, 2016.
6. Transfer project files and transition site work to contractor for respondent. Tasks will include extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation currently includes the residential area between Hypathia Ave on the east and Prince Albert Blvd Ave on the west. See Map in Documents Section.

2.2.1.2 Next Steps

1. Continue post-VAS installation vapor intrusion sampling in the residential neighborhood.
2. Generate sample result letters and schedule meetings with residents to discuss sampling results. If sample results are > ATSDR screening levels for residences, install/modify VAS with property owner permission.
3. For residential properties where a VAS was installed, conduct 30-day post installation proficiency air sampling and conduct final meeting with homeowners to present VAS Information Manual.
4. Schedule meeting with city council members to update them on project status.
5. Schedule public meeting to update property owners and occupants on project status.
4. Transition remaining site work to contractor for respondent, including obtaining access agreements and scheduling baseline residential air sampling.

2.2.2 Issues

To schedule post-VAS installation proficiency sampling, or to schedule a VAS Information Manual meeting, please visit or the call EPA project office located at:

EPA Project Office
 2049 Harshman Road
 Riverside, OH 45424
 937.237.7530

Baseline samples and seasonal resamples will be temporarily placed on hold while the site work transitions to the contractor for the respondent.

2.3 Logistics Section

None.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County to update agencies on sample results.

Periodic meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs has completed the following:

1. Set up the following website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

2. Set up a repository containing site information. The repository is located at:

Dayton Metro Library

6160 Chambersburg Road
Huber Heights, OH 45424

3. Latest EPA Fact Sheet is located in the Documents Section of this web site.

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office

2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside
ATSDR

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 2
ERRS - 1
Environmental Doctor Contractor - VAS installer

5. Definition of Terms

ATSDR - Agency for Toxic Substances and Disease Registry
IA - Indoor Air
MRP - Mullins Rubber Products
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion

ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene
VAS - Vapor Abatement System

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

<http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html>

6.2 Reporting Schedule

POLREP #9 will be issued in March 2016.

7. Situational Reference Materials

None.