Commonwealth of Virginia

Blalock, Susan <susan.blalock@deq.virginia.gov>

Fwd: FW: Pollution Report #3 11184 Bristol Air - Progress Report - completion of 6 week field data collection

1 message

Blalock, Susan <susan.blalock@deq.virginia.gov> Thu, Nov 4, 2021 at 2:25 PM
To: Susan Blalock <susan.blalock@deq.virginia.gov>

From: 11184BristolAir@response.epa.gov <11184BristolAir@response.epa.gov>
Sent: Monday, November 1, 2021 11:19 AM
To: Bartos.Myles@epa.gov; towle.michael@epa.gov; r3_rrc@epa.gov; crystal.bazyk@deq.virginia.gov; stacy.bowers@deq.virginia.gov; jeff.hurst@deq.virginia.gov; james.stanley@deq.virginia.gov; charles.turner@deq.virginia.gov; Gene.Nance@tetratech.com; lkw9@cdc.gov; linden.melissa@epa.gov; gfu6@cdc.gov; kvm4@cdc.gov; bsorah@bristoltn.org; wwitcher@bristoltn.org; mquickel@bristoltn.org; Alvin.Pratt@tn.gov; Martie.Carpenter@tn.gov; Spurlin.Steve@epa.gov; CityManager@bristolva.org; wallace.mcculloch@bristolva.org; Soscia.Gina@epa.gov; Amanda.L.Davis@tn.gov; cole.devine@tetratech.com; Joseph.George@tn.gov; willard.erinm@epa.gov
Subject: Pollution Report #3 11184 Bristol Air - Progress Report - completion of 6 week field data collection

Attached is a Pollution Report (POLREP) regarding:

USEPA Region III
11184 Bristol Air
Shakesville Rd, Bristol, VA

To view this POLREP, please open the attachment.

For additional information regarding this site,
please visit the website by clicking on this link:
http://response.epa.gov/11184BristolAir

11184BristolAir_polrep_3.pdf
266K

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
11184 Bristol Air - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: **POLREP #3**
Progress Report - completion of 6 week field data collection
11184 Bristol Air

Bristol, VA
Latitude: 36.6029424 Longitude: -82.1539850

To: Michael Towle, EPA
R3 RRC, US EPA R3
Crystal Bazyk, Virginia DEQ
Lora W, ATSDR
Melissa Linden, EPA
BIll Sorah, Bristol, Tennessee
Martie Carpenter, Tennessee DEC
Steve Spurlin, EPA R4
Randall Eads, Bristol, Virginia
Amanda Davis, Tennessee DEC

From: Myles Bartos, OSC
Date: 10/6/2021
Reporting Period: July 1st through July 30th , 2021

1. Introduction

1.1 Background

Site Number:	B3AR	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	
Response Lead:	EPA	**Incident Category:**	Removal Assessment
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	6/7/2021	**Start Date:**	5/25/2021
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

This incident is a removal site evaluation at the location continued and numerous odor complaints are occurring. The complaints include a description of various chemical smells and related health effects.

1.1.2 Site Description

The Site currently includes a large geographic area at/near the Virginia and Tennessee border. Both Virginia and Tennessee have a City of Bristol which are immediately adjacent to each other across the border. Both cities are experiencing significant odor complaints from residential, commercial, and government property owners.

1.1.2.1 Location

The Site is located in the Cities of Bristol, Virginia and Bristol, Tennessee

1.1.2.2 Description of Threat

The potential threats posed by this Site are still currently unknown. Ambient air monitoring and sampling has detected several compounds, including volatile organics and odor causing compounds, at low levels during various periods of the day. Typically the levels have risen at night. Initial review of the monitoring data and sampling data does not show duration or concentrations that would trigger a cleanup action within the removal program. Monitoring is ongoing as part of the removal site evaluation.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

EPA and VADEQ began coordinating in January of 2021. EPA provided technical assistance related to the odor complaints and potential sampling options.

The Virginia Department of Environmental Quality (VADEQ) has collected numerous air samples related to the odor complaints. Volatile organic compounds (VOCs) have been detected in several of the samples collected. The samples were collected at a variety of locations. They vary in both duration and location.

Beginning in June of 2021 (see "operations section" of POLREP #2) and ending in July, as described in the "operations" section of this POLREP, air monitoring occurred in multiple areas of the Cities of Bristol, Virginia and Bristol, Tennessee. The monitoring detected both odor causing compounds and VOCs in the ambient air. Additionally, air samples were collected for laboratory analysis.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

See above and below.

IMPORTANT UPDATE/CLARIFICATION: In POLREP #1 the site was incorrectly listed as "Time Critical". This term applies to Superfund (removal) cleanup actions. There are three designations: emergency response, time critical, and non-time critical. This "site" is not classified as a superfund cleanup site. It is being evaluated as part of a removal site evaluation (RSE) by the removal program which resides in the Superfund program. The "Time Critical" reference was a clerical error by the OSC.

2.1.2 Response Actions to Date

EPA mobilized to the Site during the week of June 30th to continue air monitoring within the communities. After reviewing data collected to date, the OSC adjusted the locations for monitoring to increase the geographical coverage and to gather data in additional areas that have high odor complaints. This is consistent with the overall strategy discussed amongst the participating agencies. Two of the previous locations (locations #2 and #3) were removed and relocated to new areas. EPA obtained written access from each of the salient property owners.

Location #1 remained functional and an additional meter was added. One Honeywell Single Point Monitor (SPM) with a (amine family) Chemcassette® that detects Ammonia was installed.

The new locations are as follows:

Location #4. Commercial property. One Honeywell Single Point Monitor (SPM) with a (hydride family) Chemcassette® that detects H2S was installed. Additionally an AreaRAE with Volatile Organic Compound (VOC), Ammonia, and Oxygen sensors was installed. The monitoring was initiated on July 1st.

Location #5. Residential property. This location is the same property as Location #1 but the monitor was physically distanced from the monitor at Location #1. Location #1 had the most frequent and consistent VOC readings but was outside of a garden shed/barn that contained lawn equipment. The second location was to verify that the contents of the shed (lawn and garden equipment) had no influence on the monitor readings. An AreaRAE with Volatile Organic Compound (VOC) was installed. The monitoring was initiated on July 1st.

Location #6. Residential property. One Honeywell Single Point Monitor (SPM) with a (hydride family) Chemcassette® that detects H2S was installed. Additionally, an AreaRAE with Volatile Organic Compound (VOC), Ammonia, and Oxygen sensors was installed. The monitoring was initiated on July 1st.

All of the monitoring locations continue to include telemetry capability. The monitors were observed and tested for functionality (bump tests and calibrations as necessary). All personnel demobilized on July 1st.

START visited the Site routinely throughout the reporting period to perform routine maintenance on the monitors. This included "bump" testing the monitors (except the SPM flex monitors that don't have that option) to ensure the monitor responds to a known concentration of chemical. If a monitor failed the bump test , the monitor is re-calibrated using appropriate span gases and zeroing techniques. The monitor is then retested. If it fails again, the sensor is replaced or inactivated (if a new sensor is not available at the time).

July 7th, 2021

START returned to Location #1/5 to conduct bump testing. The AreaRAE at Location #1 had tubing that ran from the monitor inside the shed, to a point outside the shed. This keeps the monitor out of weather but allows for ambient air from outside the shed to be monitored. The tubing had disconnected from the unit. START reconnected it. START bump tested AreaRAE's at both locations and both passed for VOCs. The AreaRAE at Location #5 failed for ammonia. An attempt to recalibrate the sensor failed and it was deactivated. START replaced the amine tape for ammonia on the SPM at Location #1 and restarted monitoring.

The following geographic area was monitored using handheld devices :

- Along Meadowcrest Drive, Bristol, VA (near Millburn Drive). No odor was observed in this area. All readings between 0-10 ppb. (July 7)

July 8th, 2021

The following geographic area was monitored using handheld devices :

START conducted mobile air monitoring using a MultiRAE Pro and Flame Ionization Detector (FID) along Milburn Drive, Bristol, VA. MultiRAE VOC readings were 30-40 ppb and methyl mercaptan was 0.0 ppm. FID readings were at background levels. No odors were observed.

6:41 START conducted mobile air monitoring using a MultiRAE Pro and FID along Meadowcrest Drive, Bristol, VA. MultiRAE VOC readings were 30-40 ppb and methyl mercaptan was 0.0 ppm. FID readings were at background levels. No odors were observed.

6:50 START conducted mobile air monitoring using a MultiRAE Pro and FID along East Valley Drive near the intersection with Kings Mill Pike, Bristol, VA. MultiRAE VOC readings were 30-40 ppb and methyl mercaptan was 0.0 ppm. FID readings were at background levels. No odors were observed.

7:01 START conducted mobile air monitoring using a MultiRAE Pro and FID on Kings mill Pike, Bristol, VA. MultiRAE VOC readings were 40 ppb and methyl mercaptan was 0.0 ppm. FID readings were at background levels.

7:08 START observed odors while driving down Booher Road near VA/TN State line. START stopped and conducted mobile air monitoring using a MultiRAE Pro and FID. MultiRAE VOC readings were 30 ppb and methyl mercaptan was 0.0 ppm. FID readings observed up to 0.3 ppm.

7:15 START observed odors while driving at the intersection of Booher Road and Booher Springs Road. START stopped and conducted mobile air monitoring using a MultiRAE Pro and FID. MultiRAE VOC readings were 50 ppb and methyl mercaptan was 0.1 ppm. FID readings observed up to 13 ppm.

7:16 START conducted mobile air monitoring at Location #2 (pumping station) using a MultiRAE Pro and FID. Odors were observed. MultiRAE VOC readings were 50-60 ppb and methyl mercaptan was 0.1 ppm. FID readings observed up to 3 ppm.

7:22 START conducted mobile air monitoring along Florida Ave, Bristol, TN using a MultiRAE Pro and FID. A slight odor was observed at the intersection of Florida Ave. and Pine Street. MultiRAE VOC readings were 40-50 ppb and methyl mercaptan was 0.1 ppm. FID readings observed at background, except at the intersection of Pine Street, which had 0.2 ppm.

7:35 START conducted mobile air monitoring along E. Mary Street. MultiRAE VOC readings were 40-50 ppb and methyl mercaptan was 0.1 – 0.2 ppm. FID readings observed at background to 0.2 ppm. A slight odor was observed.

8:02 START arrived onsite at Location #4. Mobile air monitoring results near the AreaRAE (#4) with MultiRAE and FID were 40-50 ppb VOC, methyl mercaptan was 0.1 ppm, and TVA FID readings were observed at background. The tubing that connected the intake to the AReaRAE had disconnected. This resulted in readings being taken at elevations lower than the breathing zone, however, the meter still had unfettered access to ambient air and the readings should not be negatively affected. START reconnected the tubing The bump test results for AreaRAE #4 were low. START re-zeroed and recalibrated the AreaRAE #4.

8:43 START arrived at Location # 1 and 5 to download the weather data. AreaRAE #5 had a PID Lamp error. START shut down AreaRAE #5 and restarted to clear the fault. AreaRAE #5 VOC reading was 40 ppb. Mobile air monitoring results near the AreaRAE #4) with MultiRAE and FID were 40 ppb VOC, methyl mercaptan was 0.1 ppm, and FID readings were observed at background. AreaRAE #1 in the shed was reading 0 ppb VOCs. Mobile air monitoring results in the shed with MultiRAE and FID were 40 - 50 ppb VOC and FID readings were observed at background.

9:35 START arrived at Location #6 to bump test the AreaRAE. Bump test results for VOCs and NH_3 were successful.

July 10, 2021

DEQ onsite at Location #1 and noted a tape failure (ammonia) for the SPM.

DEQ onsite at Location #6 to turn AreaRAE back on (power cord had been disconnected)

July 11, 2021

START arrived at Location #1 to replace the SPM NH_3 cassette, which had broken. The cassette was replaced and observed to be operating properly. Both AreaRAEs were reading 0 ppb VOCs. START conducted mobile air monitoring at AreaRAE locations #1 and #5 using a MultiRAE Pro and observed readings between 0 to 50 ppb outdoors and in the vicinity of the AreaRAEs, with levels dropping lower after the instrument warmed up. VOCs in the shed (Location #1) were observed at 80-110 ppb. VOCs observed at the AreaRAE #1 intake were 0-10 ppb.

19:00 START observed odors while driving past the intersection of Woodland Circle and Kings Mill Pike, Bristol, VA. START conducted mobile air monitoring along Meadowcrest Drive using a MultiRAE Pro. After the MultiRAE warmed up, VOC readings of 10-20 ppb were observed. Odors dissipated.

19:18 START conducted mobile air monitoring along Kings Mill Pike, west of Monarch Drive in Bristol, VA. VOC readings were observed at 10-20 ppb. Slight odors were observed.

NOTE: Odors observed by START personnel were perceived to be consistent with landfill odors. While this is subjective, EPA personnel onsite also noted odors which were perceived to be consistent with landfills.

July 22, 2021

EPA took offline and retrieved all monitoring equipment and demobilized.

GENERAL:

EPA, VADEQ, ATSDR, TDEC, and both cities of Bristol routinely communicated regarding the status of the monitoring and sampling. All parties looked for anomalies, trends and and concentrations of concern as it relates to the each agencies area of authority and/or responsibility.

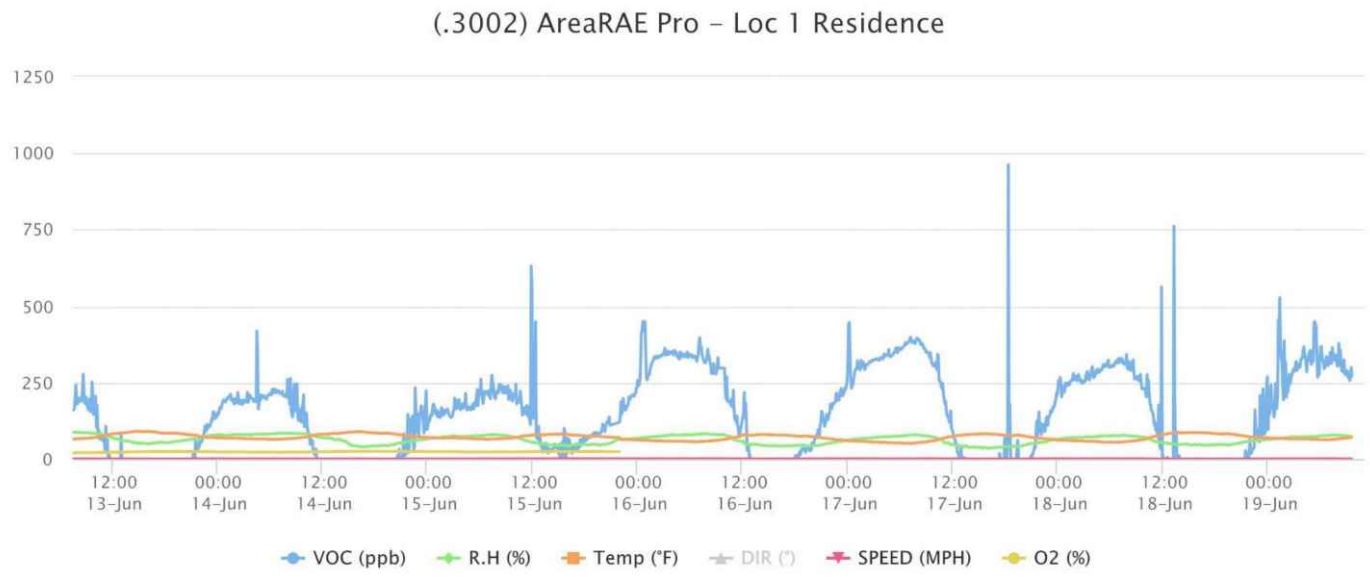
EPA attended a Bristol, Virginia City Council meeting On July 13th. The OSC attended virtually. DEQ representatives attended in person.

During both POLREP #2 and the current reporting period, monitoring was conducted 24 hours per day for 7 days per week. The only exceptions were during periods of monitor maintenance (bump test, calibration, Chemcassette replacement, etc), sensor failure, or power failure. This effort is part of the Removal Site Inspection used to gather information on the presence and/or release of hazardous substances and is being used as part of the Removal Site Evaluation being conducted.

The OSC and other stakeholders viewed the data routinely to look for concentrations above various thresholds and reference values. Odors, both strong and slight, were observed by field personnel and were routinely reported by the community. The odors would typically increase during the nighttime hours until tapering off by mid morning.

The OSC and other stakeholders also reviewed the air sampling data provided by VADEQ. The air samples were collected over a period of approximately 8-24 hours (+/-). This was dependent on which sampling equipment was available at the time. The 24 hour samples provide data for exposure over a complete day where the 8 hour samples can provide a worst case scenario (based on concentrations rising over night). Both data sets will be utilized in the assessment.

Samples were initiated when data trends were observed. For example, in the graph below there were "trends" overnight on June 13th and 14th with VOCs starting to rise around 22:00 and declining back towards zero by 12:00 the next day. Consequently, air samples were collected on June 15th and June 18th. Collection of the air samples were initiated in the evening for two of the three samples collected these days.



The VOC monitors provide total VOC concentrations but does not identify individual compounds. The air samples collected for laboratory analysis will provide the specific VOCs detected. Specific volatile organic compounds were detected in the air samples. The following air samples were collected by DEQ during the reporting period:

Location 1

07/16/2021, 8 hour sampler (Canister # 408) - Sample start time 2340 hours. Sample stop time 0850 hours. Total run time 9 hours 10 minutes.

Location 4:

07/08/2021, 24 hour sampler (Canister # 402) - Sample start time 1735 hours. Sample stop time 2105 hours. Total run time 27 hours 30 minutes.

07/15/2021, 8 hour sampler (Canister # 401) - Sample start time 2115 hours. Sample stop time 0615 hours. Total run time 9 hours.

Location 5:

07/08/2021, 8 hour sampler (Canister # S107) - Sample start time 2030 hours. Sample stop time 0545 hours. Total run time 10 hours 15 minutes.

Location 6:

07/06/2021, 8 hour sampler (Canister # 542) - Sample start time 2120 hours. Sample stop time 00710 hours. Total run time 10 hours 30 minutes.

07/14/2021, 24 hour sampler (Canister # 405) - Sample start time 1845 hours. Sample stop time 0040 hours on 07/16/2021. Total run time 29 hours 55 minutes.

EPA evaluated the concentrations of samples against various reference values for the removal program and did not identify any duration and concentration that would require immediate action under the EPA removal program. The evaluation will continue as additional sampling data is received and the data set can be evaluated as a whole.

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

None identified.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

EPA will compile the data from air monitoring and air sampling into a data summary report. The data will be organized by date, location, and chemical that was monitored for.

The final data set will be compared against removal management levels (RMLs) as part of EPAs Removal Site Evaluation (RSE) as described in 40 CFR 300.410. After completion of the RSE, EPA will evaluate whether the criteria for initiation of a removal action as described in 40 CFR 300.415 are met. Additionally, even if no further action is warranted by the removal program, EPA will forward the findings to other salient programs at EPA and other Agencies. This includes EPA Site Assessment, Enforcement Compliance and Assurance Division, ATSDR, VADEQ, and TDEC. These decisions will be included in future POLREPs.

The EPA will continue to engage the various agencies and programs that are salient to the site. Additionally, the EPA will continue to respond to questions and concerns from the community.

2.2.1.1 Planned Response Activities

None identified

2.2.1.2 Next Steps

Assemble data summary report.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

United States Environmental Protection Agency (EPA)
Agency for Toxic Substance and Disease Registry (ATSDR)
Virginia Department of Environmental Quality (VADEQ)

3.2 Cooperating Agencies

City of Bristol Virginia
City of Bristol Tennessee
Tennessee Department of Environment and Conservation (TDEC)

4. Personnel On Site

EPA
Superfund Technical Assistance and Response Team (START)
VADEQ

5. Definition of Terms

FID: Flame Ionization Detector

PID: Photo Ionization Detector

Site inspection (SI): An on-site investigation to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.

SPM: Single Point Monitor.

VOC: Volatile Organic Compound

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.