

From: David De Courcy Bower <david.decourcybower@erm.com>

Sent: Wednesday, August 19, 2020 5:20 PM

To: Martin, Steven L - DNR <StevenL.Martin@wisconsin.gov>; Ales, Stephen M - DNR <Stephen.Ales@wisconsin.gov>

Cc: Andrew Corcoran <Andrew.Corcoran@erm.com>; Andrew DeWitt <Andrew.DeWitt@erm.com>

Subject: BRRTS#02-13-580723 - Former Spice Room - Utility Sampling

Steve,

As discussed with Steve Ales, the WDNR requested evaluation of vapor migration within subsurface utilities corridors in the vicinity of Building 43. This sampling and testing is proposed to evaluate if concentrations of VOCs, specifically TCE, are present within the sewers. The investigation will follow procedures presented in DOD ESTCP Project ER-201505 – see attached procedures. Vapor samples will be collected from up to 7 storm sewer manholes at the proposed locations presented on Figure 1. Although available utility maps reviewed to date do not indicate that sanitary sewers utilities are located beneath Building 43, one or two additional vapor samples may be collected from other utility corridors (e.g., sanitary sewers) if they are identified as potential pathways during field inspection of the corridors.

The sample results will be used to determine the spatial distribution of VOCs (if present) in storm sewers and utilities near Building 43. If the VOC concentrations exceed the sewer screening concentrations, then further testing may be recommended to delineate the extent of vapors and/or additional monitoring may be required as part of the SVE Operation and Maintenance Plan to be prepared.

We would like to complete this sampling next week, so please let us know if you have any questions,

Also, I will be on vacation next week. Could you please Cc Andrew Corcoran if you have questions or comments on the SVE RADR : Andrew.corcoran@erm.com

Regards,

David

David de Courcy-Bower
Partner

ERM

700 W. Virginia Street | Ste. 601 | Milwaukee, WI 53204

T 414-977-4705 | **M** 414-335-0877

E david.decourcybower@erm.com | **W** www.erm.com

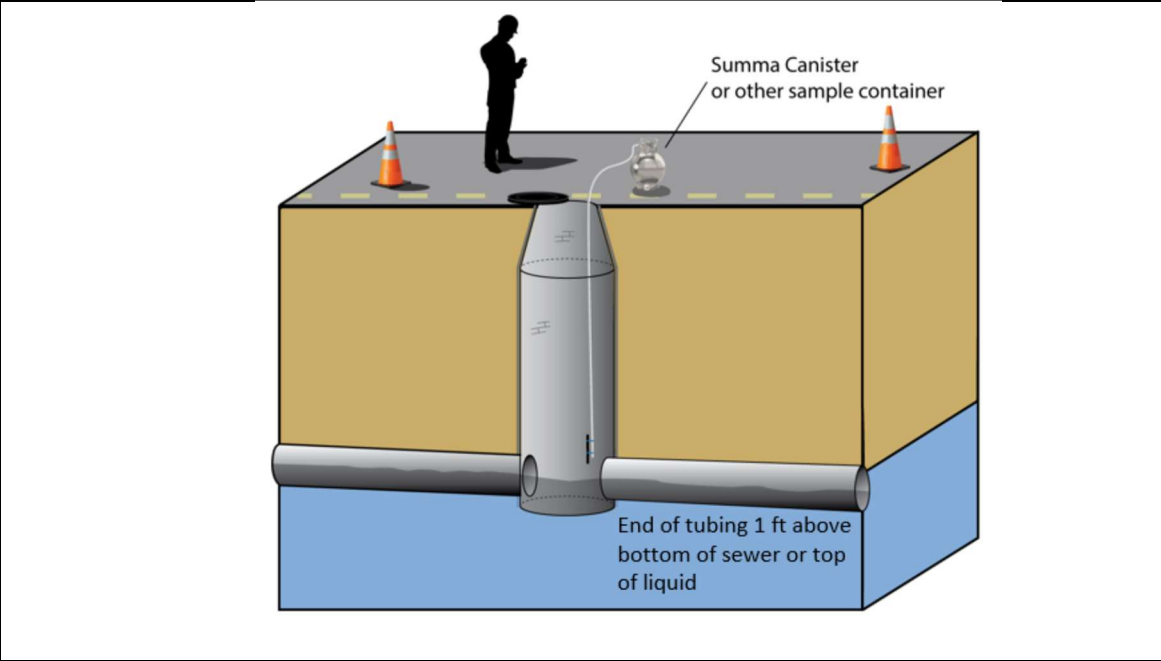
"The Business of Sustainability"

This message contains information which may be confidential, proprietary, privileged, or otherwise protected by law from disclosure or use by a third party. If you have received this message in error, please contact us immediately and take the steps necessary to delete the message completely from your computer system. Thank you.

Please visit ERM's web site: <http://www.erm.com>. To find out how ERM manages personal data, please review our [Privacy Policy](#)

Sewer Sample Collection Procedure

- Samples will be collected between 9 am and 3 pm, when baseline flow in sewers is relatively low. Samples will not be collected within 48 hours of a rainfall event of more than 0.1 inches.
- Opening of manhole covers will be minimized prior to sampling by threading measurement or sampling equipment through vent holes, or opening covers just enough to insert the equipment into the manhole.
- A water level meter or weighted string will be used to measure the distance from the access point to the bottom of the sewer/utility tunnel or the depth to any liquid (whichever is shallower).
- A grab vapor sample will be collected from a depth of one foot above the bottom or liquid level using nylon or Teflon tubing extended through the access point.
- Using a gas-tight syringe (-60cc), purge three tubing volumes prior to sample collection at a rate of approximately 0.1 liter per minute. 1/4- inch diameter tubing (3/16-inch inside diameter) has a volume of 5.43 ml/ft).
- Record the identification numbers for the canister along with the initial canister pressure on the vacuum in the field notebook or field sampling form. A canister with a significantly different pressure than originally recorded by the testing laboratory will not be used for sampling.
- Connect the tubing from the sampling port to the canister using Swagelok® compression fittings.
- Open the canister valve. Record the time (beginning of sampling) and the canister pressure on the vacuum gauge.
- Take a photograph of the canister and the area surrounding the canister.
- Stop sample collection after the scheduled duration of sampling (approximately 8 minutes at a flow setting of 1 lpm), but when the canister still has at least -3 inches Hg vacuum. Record the final vacuum pressure.
- Disconnect the tubing from the canister and replace the protective brass plug.
- Attach identification tags (sample name, time/date of sampling, etc.) to the canister as directed by the laboratory.
- Place the canister and other laboratory supplied equipment in the packaging provided by the laboratory.
- Complete the chain of custody form, making sure to include the identification number for each canister, and the initial and final canister pressures.
- Ship samples to the laboratory within one business day of sample collection via overnight delivery.



Vapor Sample Collection from Sewer