

Vapor Intrusion Investigation near 415 W. Washington Street Ann Arbor, Michigan



The Michigan Department of Environment, Great Lakes, and Energy (EGLE), in collaboration with the Michigan Department of Health and Human Services (MDHHS), and the Washtenaw County Health Department (WCHD), is conducting a vapor intrusion investigation near 415 W Washington Street in Ann Arbor. Samples taken at and around the 415 W Washington property indicate contamination from chlorinated chemicals are present in groundwater. These chemicals can form vapors which have the potential to enter into buildings. This is known as vapor intrusion. EGLE is planning to collect soil gas and indoor air samples in adjacent buildings to determine if vapor intrusion is a problem. Results from the sampling will let us know if vapor intrusion is occurring and if measures for preventing further exposure are necessary.

There is a known release on the property related to these tanks and they were removed from the ground in 1992. Petroleum contamination remains from this release; however chlorinated compounds are not generally associated with a petroleum release.

An updated environmental investigation by the city began in September 2021 as part of a plan for the redevelopment of the property. Chlorinated compounds including trichloroethylene (TCE), perchloroethylene (PCE), 1,1-dichloroethane, 1,1,1-trichloroethane, and chloroform were identified in groundwater on the 415 W Washington property and in sampling points east (along Third St) and south (along W Liberty St) of the property. Further investigation was completed in May 2022 to try to determine the source of this contamination.

Background and History

The source of chlorinated chemical groundwater contamination is not known at this time. The property at 415 W Washington Street is owned by the city of Ann Arbor and is also known as The Parks and Recreation Garage Site. The site formerly had two underground storage tanks, both of which were used for storing petroleum products (diesel and gasoline).

Soil Gas and Indoor Air Sampling Details

EGLE will be evaluating adjacent properties to assess whether harmful vapors are entering homes. Before sampling, EGLE will be asking for signed permission to enter a home or property. EGLE will collect sub-slab vapor samples, which are air samples under a building, and indoor air samples.

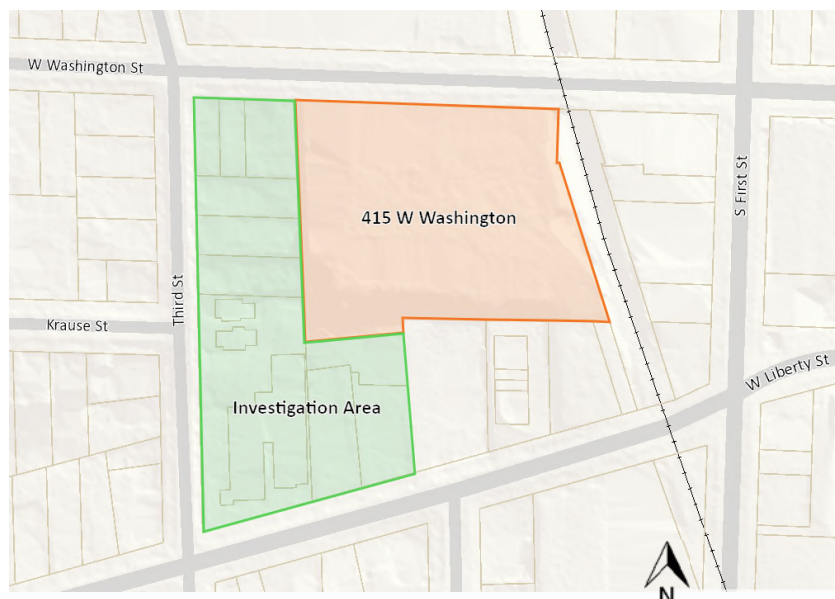


Figure 1: Investigation area

Vapor Intrusion Investigation near 415 W. Washington Street Ann Arbor, Michigan



Sub-slab vapor sampling involves drilling a small hole in a discrete location through the floor, installing an air valve, and collecting an air sample from beneath the building. Indoor air sampling involves leaving a metal cannister in the building for a set period of time and then retrieving the cannister for analysis. Multiple sampling events are usually necessary to account for variability and to ensure the sampling is representative.

Health Risks

Health risks are different for each person and each chemical. Individual health risk depends on how much of the chemical someone breathed in, how long they were breathing it, how their body reacts to it, and their general health. Exposure to contamination above screening levels do not necessarily mean that health effects will occur but that actions should be taken to reduce the exposure.

The screening levels used by EGLE and the health departments to evaluate vapor intrusion are set below levels that might cause unhealthy effects on the most vulnerable individuals (including pregnant women and fetuses). They are based on the most current scientific research and include added safety factors that are used to give a conservative baseline.

Who to Contact

Technical or General Questions:

EGLE Jackson District Office:

Chris Matthewson, Project Manager

matthewsonc@michigan.gov

517-285-7316

Andrea Munoz-Hernandez, Ph.D.,

District Supervisor

munozhernandez@micahigan.gov

517-599-7525

Vapor Intrusion Website:

www.michigan.gov/vaporintrusion

Health-Related Questions:

MDHHS

Alex Rafalski, Toxicologist

rafalskia@michigan.gov

517-881-1046

WCHD

Kristen Schweighofer, Environmental Health Director

schweighoferk@washtenaw.org

734-222-3968



Figure 2: Sub-slab sampling point



Figure 3: Indoor air sampling cannister