



Region 7

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Fact Sheet

April 2011

Testing at the Compass Plaza Well Trichloroethylene (TCE) Site, Rogersville, Missouri

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 is currently sampling private drinking water wells at no cost to the well owner at the Compass Plaza Well TCE site in Rogersville, Missouri. The purpose of the sampling is to determine if TCE contamination exists in private drinking water wells.

BACKGROUND

In March 2010, the Missouri Department of Natural Resources (MDNR) Public Drinking Water Branch (PDWB) found TCE in two non-community wells and one irrigation well on the western edge of Rogersville, Missouri. In response to these detections, MDNR's Superfund Section initiated a combined Preliminary Assessment/Site Investigation (PA/SI) and started coordination with EPA and Greene County Resource Management. Ongoing sampling by all three agencies has found detectable concentrations of TCE in 13 of the 210 wells sampled. Out of the 13 wells with detections, 5 drinking water wells had TCE concentrations above the maximum contaminant level (MCL) of 5 parts per billion (ppb).

- The MCL is the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.
- A way to visualize five ppb in water is to think of it as five drops in one billion drops of water or about five drops of water in a swimming pool.

In August 2010, EPA installed 5 water supply treatment systems at the private residences that had TCE contamination above the MCL. All water supply treatment systems have been tested and are effectively removing TCE from these households.

THE CONTAMINATION

TCE is a chemical which is used as a solvent to remove oils and grease from metal products. TCE is a colorless liquid with an odor similar to ether, and is a manufactured substance which does not occur naturally in the environment. Long-term exposure to this chemical at elevated levels is suspected of causing cancer, as well as problems of the liver and weakening of the immune system.

It is unknown how long TCE contamination has been present at the site. Response actions are being conducted in the area to address the potential for exposure and to determine the source of the contamination.

In December 2010, EPA, in cooperation with MDNR, Greene County Resource Management and the Natural Resource Conservation Service, plugged a well with high concentrations of TCE. Plugging the well, helped protect groundwater resources by reducing the potential of TCE spreading further into the drinking water aquifer. These same agencies also oversaw the construction of a new drinking water well at the same location. The newly installed well was designed and constructed to prevent TCE

contamination from having a direct pathway from the upper aquifer to the lower aquifer. Reducing contaminant movement between the upper and lower aquifer is particularly important at sites with underlying, complex geology.

SITE GEOLOGY

Southern Missouri is known for its unique karst (a special type of landscape that is formed by the dissolving of soluble rocks, including limestone and dolomite) geology. This karst subsurface is characterized by caves, sinkholes, losing streams and springs. Sinkholes and losing streams create pathways in which contamination can enter the groundwater from the surface. Once the contamination is in the groundwater, the faults, fractures and voids below the surface allow the contamination to move in directions other than the expected groundwater flow. This unpredictable movement of water below the surface often requires extensive groundwater investigations to determine where contamination entered the system and where it will eventually be detected.

ONGOING INVESTIGATIONS

Investigations to identify possible source areas and exposure pathways for TCE are currently being conducted by MDNR, EPA and Greene County Resource Management.

In addition, EPA plans to continue sampling private drinking water wells at no cost to the well owner. Well owners may be approached by EPA sampling contractors, or they may contact EPA to request that their well be sampled.

Whole-house carbon filtration systems are available at no cost to the residential well owners that have been identified as having TCE contamination above the MCL and for those residents that may be impacted in the future.

If you are interested in having your well sampled, please have details regarding the well construction (well depth, casing depth, pump depth, date of construction, etc.) available when you call:

Doug Ferguson

U.S. EPA Region 7
901 N. 5th Street
Kansas City, KS 66101
Phone: 913-551-7221 or
Toll Free: 1-800-223-0425
ferguson.doug@epa.gov

ADDITIONAL INFORMATION

Detailed site information is available at the following locations during regular business hours:

Rogersville City Hall

211 East Center Street
Rogersville, Missouri 65742

Rogersville Public Library

100 West Clinton Street
Rogersville, Missouri 65742

For more information, please contact:

Pamela Houston

Environmental Protection Agency
Office of Public Affairs
901 N. 5th Street
Kansas City, Kansas 66101
Phone: 913-551-7699
Toll free: 800-223-0425
houston.pamela@epa.gov

You may also obtain additional information at the following website:

www.epaossc.org/compassplaza