

December 2008

U.S. EPA REGION 3



Former Mohr Orchard North Whitehall Township Lehigh County, Pennsylvania

History of USEPA Investigation

As a resident of the area covered by the United States Environmental Protection Agency's (EPA) investigation of the Former Mohr Orchard, located in Schnecksville, PA you may be aware of the discovery of the metal lead in private drinking water wells.

Resident finds arsenic in soil — The investigation into soil and water contamination was triggered when a resident had their soil tested and elevated levels of arsenic were found. The resident then contacted the Agency for Toxic Substances and Disease Registry (ATSDR) which in turn notified EPA.

EPA responds — EPA quickly initiated a plan to randomly sample soil across the study area and well water from about 67 properties.

Lead is found—Results from the initial well water samples were received on Wednesday 5 November indicating that elevated levels of lead were present in about 46 wells. The range of lead results went from non-detect to 604 parts per billion (ppb). EPA immediately set a site specific action level of 11 ppb as the level at which an emergency bottled water would be provided.

Safe supply of water provided—By Thursday evening the well owners were notified of the test results and bottled water was delivered to each household. With the water, an information sheet was also dropped off. In the information sheet was advice on using the bottled water for drinking and cooking. In addition to the notifications to the affected households, EPA met with and briefed the North Whitehall Township supervisors on Thursday afternoon and prepared a press release that was dis-

tributed to the media on Friday morning. Notifications were also made to state and federal elected representatives.

All wells to be tested—As soon as EPA received the initial lead contamination results, plans were put in place to test all private wells within the established boundaries of the Former Mohr Orchard site. A mailing list was developed using information from North Whitehall Township. The list included over 1000 addresses of 868 properties which potentially have private wells. EPA developed access agreements and a well survey form that has been sent to the well owners. In addition, the forms were made available at the North Whitehall Township

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Health Information and Advice Available from State and Federal Agencies

The federal ATSDR and the Pennsylvania Department of Health (PADOH) are the two agencies that EPA consults for health advice regarding the Former Mohr Orchard site. Based on the preliminary drinking water results, ATSDR and PADOH recommend following a protocol at the Former Mohr Orchard site that includes:

- Sampling for total lead at the drinking water tap and using EPA's site-specific screening number of 11 ppb total lead. This advice would ensure the evaluation of actual levels of ingestion exposures. Some of the homes with initial elevated lead results in their private wells will be resampled, and additional private wells in the site area

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Building and can be downloaded from the EPA's website www.epaosc.org/former_mohr_orchard. As soon as the access agreements are received, homeowners will be contacted so a sampling team can be scheduled to collect well water for analysis. EPA's own laboratory, in Fort Meade, Maryland, as well as a contracted lab, are geared up to analyze the samples with a turnaround time of about seven days. Once results are sent back to the team in Schnecksville, homeowners will be informed of the data. As with the first round of testing, those homeowners whose well water exceeds the lead limit of 11 ppb will be supplied with bottled water.

Pennsylvania Offers Information on Water Treatment Systems

Since lead was discovered during the initial round of water well testing on the Former Mohr Orchard site, many homeowners have asked about water filter systems and whether the filters they have are designed to remove lead. PADEP has published the "Citizen's Guide to Home Drinking Water Treatment Devices" that provides detailed information on a variety of systems that can be used to clean well water. While PADEP and EPA cannot endorse a specific brand or manufacturer of treatment systems, this guide helps explain the attributes and technology each type of treatment system has. Included in the guide is information about different contaminants; installation and maintenance; a list of organizations providing assistance and information on treatment devices; and Pennsylvania State Maximum Contaminant Levels (MCLs).



To view this guide on the internet go to: <http://www.epaosc.org/sites/4324/files/padepcitizenguide-drinkingwater.pdf>

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will be identified for sampling.

- ATSDR and PADOH support EPA's decision to provide bottled or other alternate drinking water to affected residents for cooking, drinking, and baby-formula preparation where the results are above the 11 ppb lead screening level until the situation is further evaluated and/or remedied.
- Residents can continue to safely use their well water for other household uses such as bathing, showering, and washing clothes and dishes. As an extra precautionary step, families with young children or pregnant women may wish to do a final rinse of their dishwasher-cleaned dishes or baby bottles with their alternative water supply.
- Consistent with statewide childhood blood lead screening guidelines, ATSDR and PADOH recommend families contact their family physicians regarding obtaining a blood lead test for children five years old and younger. Young children are more vulnerable to lead poisoning, and affected children may not show any obvious symptoms. This advice would be especially recommended in homes where the drinking water is above 11 ppb total lead or there are other environmental exposures to lead.

ATSDR and PADOH will continue to stay actively involved in reviewing additional information for this site as it becomes available.

ATSDR and PADOH are available to consult with concerned residents and/or their health professionals about their health questions. Concerned residents may contact: **ATSDR Region 3 (Lora Werner 215-814-3141 or via email at lkw9@cdc.gov) or PADOH (Dr. Mark White 717-265-8878 or Barbara Allerton 717-265-8884).**

What's Next?

As EPA gathers data from the hundreds of wells being tested, residents have asked questions about what steps may be taken in the future to assure the safety of the area's water supply. Any actions that EPA takes must be based on valid sampling results. If it is determined that the lead in the area's water is coming from a specific type of environmental contamination, EPA may provide a filter system for your well. Another solution may be extending public water to the area. This decision is not one that is made by EPA alone. The public, local and state governments would be part of the decision making process.



One way to identify the source of the lead is to drill exploratory wells and take soil borings that are designed to evaluate the direction of groundwater flow and at what depth lead is found.

This type of information can not be determined from residential well sampling. If concentrated areas of lead are found in the groundwater and or soil, further investigation may provide a way to isolate, treat or remove the source.

Answers to Questions

USEPA has received many questions from area residents. Here are some of the most common questions and answers.

Question – My well has not been tested, should I continue to drink the water?

Answer – Both the PADOH and the ATSDR recommend that if you live within the Former Mohr Orchard site boundaries, you and your family should use bottled water for drinking and cooking. EPA is supplying bottled water free of charge to those households whose well water has been tested and showed levels of lead or arsenic above the action levels set for the site. Unfortunately, bottled water

can not be distributed to households where their water has not been analyzed and shown to have elevated levels of lead and or arsenic.

Question – Is bottled water the only solution to having a safe water supply?

Answer – No. In the short term, bottled water is the quickest way to provide safe water to a household. As the source of the contamination becomes more defined, a decision may be made to install filter systems between a homeowner's well and the house plumbing system. This would also be done free of charge. However, future maintenance of the system may be the responsibility of the homeowner. Another solution would be to connect to a public water system but this is a decision that involves study, funding and community and government acceptance.

Question – Is the water in my child's school safe to drink?

Answer – Schools in the area have their own water systems that are regulated by the State of Pennsylvania. Frequent testing is performed and the results are reported to the state. You may want to contact your child's school for information about their water systems and test results.

Question – Can the EPA test water from the faucets that we drink out of?

Answer – It is important that the water sample be taken as close to the well as possible. Because local water is slightly acidic, lead can leach from lead based solder and brass fittings. Lead from the household plumbing would give a false reading causing test results to be higher than the actual levels found in the well. In addition, EPA's response authority is related to an environmental (outside the home) source of lead.

Question – How long have we been drinking water that is contaminated?

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Answer – Until your well is tested, we do not know if there is any lead or arsenic of concern. If results from your well test reveal contamination we only know that it is currently contaminated. EPA is asking homeowners who may have tested for lead and or arsenic in the past to share their test results with us. This could help determine how long this situation has existed. However we may never know when the contamination started. The main goal is make sure everyone's water is safe to drink.

Question – Can the contamination be cleaned up?

Answer – Until the source of the contamination is found, there is presently no way to predict if, when and how it can be cleaned up. While the testing of private wells will give EPA a piece of the puzzle, additional testing needs to be conducted. These tests may include drilling wells specifically designed to determine the direction of groundwater flow. In addition, these wells will allow for testing at various levels below the surface so we can see at what depth the contamination resides. Finally, soil borings may be installed to see if there are concentrations of contamination in the ground. Once data is gathered from these types of tests, a plan to address the contamination would be developed.

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