

POLREP 1 – Removal Assessment – Initial POLREP
Dimock Residential Groundwater Site
Intersection of PA Routes 29 at 2024
Dimock, Susquehanna County, PA 18847

LATITUDE: 41°44'46.60" N; LONGITUDE: 75°53' 54.65" W

A. Situation (From 12/15/11 to 1/11/12)

- i. On December 15, 2011 the OSC became aware of the situation regarding a potential concern for the public health of the residents of Dimock due to the questionable nature of their drinking water quality. The OSC received background information in calls and meetings with HSCD and WPD managers over the next few days.
- ii. On December 19, EPA mobilized OSCs to the site to begin logistical preparations for sample collection. Plans were also being coordinated through the Region III Community Involvement Program to collect pertinent information through a door-to-door effort to facilitate potential future actions. Due to the potentially compromised data provided to date, the OSC determined that EPA should conduct its own sampling to support any long-term decisions with regard to protection of public health. Therefore, a draft sampling and analysis plan for collection of groundwater from home wells had been completed and being coordinated for comment.

B. Actions Taken

- i. On December 28, 2011, an ATSDR Record of Activity (AROA) was received by EPA Region 3. From some of the approximately 18 wells sampled, the AROA indicated elevated concentrations of some contaminants, including coliform bacteria, methane, ethylene glycol, bis(2-ethylhexyl) phthalate (DEHP), 2-methoxyethanol, aluminum, arsenic, lithium, manganese, sodium, and iron. Conclusions from the AROA include the following:
 - a. Not all the private wells in this data set were analyzed for organic constituents; however, those wells that were evaluated for organics indicated the presence of several glycols, including ethylene glycol, triethylene glycol, and diethylene glycol.
 - b. Arsenic was detected in all of the wells, ranging from 0.67 µg/L to 37 µg/L. The two highest levels of arsenic detected were 37 µg/L and 25 µg/L. Additionally, based on possible quality control issues, a potential health threat for the remaining wells cannot be disregarded. Additional characterization of the groundwater quality and a thorough review of any changes in concentration over time are required.

- c. Several other metals such as aluminum, lithium, manganese, sodium and iron were found in elevated concentrations, some exceeding EPA's secondary drinking water standard (SMCLs) for these contaminants.
 - d. EPA is concerned that there are data gaps for water quality in private wells in the site area. Further evaluation is needed for all potentially impacted private wells in the site area and for the treatment systems that are presently in use.
- ii. The OSC recommended that EPA conduct sampling in order for EPA to make long-term decisions with regard to protection of public health. Therefore, a draft sampling and analysis plan for collection of groundwater from home wells has been completed. In order to assess the threat to public health presented by the residential drinking water, EPA plans to sample for all contaminants of concern identified by earlier EPA studies on chemicals typically used in hydraulic fracturing operations and also those that are of concern to ATSDR. The OSC plans quick turnaround of laboratory analysis for analytes that have been indicated in earlier evaluations to be present in threatening concentration: thus, potentially reducing any exposure times to the public. The remainder of requested analysis will be processed in a normal time period.
- iii. On December 29, 2011, based upon discussions with the Region III Groundwater and Enforcement Branch, the AROA, and concurrence by the EPA Region III toxicologist with the AROA, the OSC began to evaluate whether a threat existed to "Actual or potential contamination of drinking water supplies or sensitive ecosystems" as provided at 40 CFR Part 300.415(a)(3)(b)(2)(ii). This investigation included: interviewing residents to gather information regarding their current drinking water supply status and information about their drinking water well.
- iv. Approximately 25 homes have been visited by an OSC/CIC team and well survey information has been gathered.
- v. On January 11, 2012, in consultation with EPA Headquarters, EPA Region III decided to prepare a formal Action Memorandum. The Action Memorandum would require EPA HQ concurrence.

C. Future Actions

- i. The OSC will continue to monitor the situation with regard to the public health of the residents in the site area and advise EPA management of any public health situations that may warrant EPA action.

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