Dimock Residential Ground Water Site
Executive Summary of the Data Collection, Validation and Review Process
July 24, 2012

The objective of sampling was to determine whether any toxic substances were present in the residential drinking water wells at this site that may pose a threat to the health of persons ingesting, contacting or engaging in typical residential uses of the groundwater to the extent that an EPA Removal Action should be continued, expanded or terminated. The analytical protocols were selected based in part on contaminants that may be present due to natural gas exploration, drilling or hydraulic fracturing activities occurring in the region. Following EPA's Quality System, environmental data collected were thoroughly reviewed by both the laboratory and field team to ensure that decisions were based on data of known and documented quality. Information about EPA's Quality System can be found at the following website: http://www.epa.gov/quality/. The project sampling and analytical approach is included in the *Residential Well Sampling QA/QC Work Plan Dimock Residential Groundwater Site* Rev 01 February 29, 2012 (Sampling QA/QC Work Plan).

The sampling effort undertaken by EPA at Dimock was comprehensive and included, through May 2012, sampling at 64 homes and analysis for approximately 225 analytes (parameters) per sample. Furthermore, multiple samples were collected at each home to assess the water quality at the well, at the tap, and, where applicable, before and after any existing home water treatment system. In addition, quality control samples were collected as recommended by EPA's Quality System. Overall, the Agency collected and analyzed approximately 300 discrete samples, yielding over 67,000 individual analytical results.

Following laboratory analysis, results were validated for completeness by both an internal peer review process and a third party. In some instances, results were qualified to indicate the overall quality and acceptability in using those results. When analyzing samples, quality control checks are routinely completed at the various review levels to confirm the precision and accuracy of the result. When acceptance criteria are not met, results are qualified. More details on the criteria and review process are provided in the *Dimock Residential Ground Water Site Technical Summary of the Data Collection, Validation and Review Process* (Technical Summary) and associated referenced documents.

After releasing results to the initial set of residents, several items were raised by citizens during home visits, by the EPA site team and others which led to some process improvements. Those items related to consistency of the data qualifiers applied to analytical results during the review process and some modifications to analytical methods during the first round sampling event. Discussion of these and other issues are included in the Technical Summary.