



Paul D. Hagemeyer  
*Vice President - Regulatory Compliance*

January 20, 2012

Centers for Disease Control/Agency for Toxic Substances and Disease Registry  
Attn: MASO, MS-E11  
1600 Clifton Road, N.E.  
Atlanta, GA 30333

Thomas R. Frieden, Administrator  
Christopher J. Portier, Director  
Agency for Toxic Substances and Disease Registry  
4770 Buford Highway, NE  
Atlanta, GA 30341

RE:Information Quality Request for Correction of "ATSDR Health Consultation, Chesapeake ATGAS 2H Well Site, Leroy Hill Road, Leroy Township, Bradford County, Pennsylvania," November 4, 2011

Administrator Frieden, Director Portier and CDC/ATSDR Information Quality Team:

Chesapeake Energy ("Chesapeake") is submitting the enclosed Request for Correction in response to the above-referenced ATSDR Health Consultation ("the Consultation"). This Request for Correction is submitted as provided for in the Information Quality Act. The Consultation arises from ATSDR's investigation of a surface release of fluid from Chesapeake's ATGAS 2H well site in Bradford County, Pennsylvania on April 19, 2011. This incident has been thoroughly investigated by Chesapeake, the Pennsylvania Department of Environmental Protection ("PADEP"), and the United States Environmental Protection Agency ("EPA").

Under the Information Quality Act (also known as the Data Quality Act), as well as requirements adopted by the Office of Management and Budget, the Department of Health and Human Services, the Centers for Disease Control and ATSDR, all ATSDR publications are required to meet rigorous scientific standards involving accuracy, clarity, completeness, transparency, quality, objectivity, absence of bias, usefulness, and integrity, with extra attention and rigor applied with respect to scientific materials published about matters involving significant public, media, and regulatory attention. Congress has demanded – and the public has every right to expect – that all federal agencies, especially in matters of public

health, utilize the best available information and the soundest science. In the Consultation as issued, ATSDR fails to meet those critical requirements.

**1. The ATSDR patently ignored voluminous other sample results prepared by two environmental consultants, the PADEP, and the EPA.**

The ATSDR relied on a single sampling event with seven samples to come to its conclusions and recommendations. During the course of the investigation being overseen by the PADEP, at least 29 sampling events were conducted at the seven residential locations by the independent consulting firms, Groundwater & Environmental Services, Inc. (GES) and Scientific Applications International Corporation (SAIC), generating a total of 211 sample analyses. The PADEP and the EPA conducted additional water quality sampling events, generating three or four more sample analyses per well or approximately an additional 27 samples. Baseline water-quality samples were collected from these seven wells and analyzed prior to any drilling activity commencing, yielding a data set of seven samples collected in July through November, 2010, five to nine months prior to the April, 2011 release. This does not include the approximately 3,576 other sample analyses, field observations, and biological assays that were developed during the eight month investigation which followed the release. All of this information, including the data validation and interpretation were summarized in three reports and were submitted to the PADEP.<sup>1</sup> These reports, using the full complement of data, clearly demonstrate that the release did not impact the seven residential groundwater wells. All of this data was available to ATSDR during their evaluation for the Consultation through the PADEP or EPA.

The Consultation inaccurately states that it relied on “the currently available data” while ATSDR plainly failed to use the “best available information.” Best available information would include use of the additional GES and SAIC rounds of sampling and other sampling data collected by the EPA and PADEP from those seven water wells. The broader data set reveals the scientific inadequacy of the Consultation’s reliance on one snapshot round of water-quality data and confirms that natural gas activities did not contaminate the wells. The Consultation selectively chose data that fit its conclusions: ATSDR, in most cases, based its opinion on data that yielded the highest values; ATSDR also relied on questionable “background” data in some circumstances while ignoring valid and available “background” sampling data in favor of generic regional background data in others. The Consultation failed to disclose or discuss instances where the published literature relied upon by ATSDR indicated natural or historical sources for various constituents present in the groundwater, but

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<sup>1</sup> The three reports are consecutively cited as 1) SAIC and GES, 2011. ATGAS Investigation Initial Site Characterization and Response, April 19, 2011 to May, 2011, Report, August 30, 2011; 2) SAIC, 2011. Haire Water Well Water-Quality Investigation, July 13, 2011; and 3) SAIC, GES and IEM, 2011, ATGAS Investigation Final Surface Water, Springs, and Water Well Site Characterization Report, December, 2011.



rather chose to imply that the detection of those constituents was in some way related to the ATGAS incident.

While relying on the meager seven samples, the Consultation and its widely reported press release asserted the following:

1. the data do not “conclusively indicate but suggest that the groundwater near this site is impacted by natural gas activities”;
2. methane, other hydrocarbons, and certain metals and other inorganics concentrations increased by up to ten-fold in one well; and
3. there were “exceedances,” “exposure scenarios,” and “elevated levels” of “chemicals” and “contaminants.”

The Consultation concluded with a number of sweeping recommendations for water treatment and additional evaluation and sampling of private water wells.

Unfortunately, based on the data, these conclusions are completely untrue and unfounded, and the resulting recommendations are completely without merit. In fact, the “elevated levels” discussed by ATSDR are representative of the normally existing water quality found in this area of Pennsylvania.

**2. The Consultation did not consider exposure pathways and utilizes misleading transposition of units.**

The Consultation fails to evaluate exposure pathways to determine if it was even physically possible for the incident to have caused particular impacts. The Consultation’s claims regarding ten-fold increases in certain hydrocarbons were based on invalid data that reflected obvious cross-contamination or other sample collection or laboratory error. Its discussion of obviously naturally-occurring metals and anions as “contaminants” without providing adequate context about their natural occurrence in Bradford County is confusing at best, and at worst falsely implies that those constituents are artificially-introduced contaminants. The Consultation also often uses “parts per million” (milligrams per Liter) units to describe levels of constituents deemed safe, while reporting data in “parts per billion” (micrograms per Liter) units, making it appear to the lay reader that comparative levels of the constituents exceed safe levels when they do not.

**3. The ATSDR's very public announcements of the Consultation and its inaccurate conclusions caused unnecessary public alarm.**

The results of ATSDR's Consultation and its conclusions were communicated to the local residents, the general public, the PADEP, and the EPA. After being informed of ATSDR's findings, many of the residents became alarmed. In reality, the quality of their water had not changed from pre-drill conditions. As reported in the Consultation, the level of arsenic in one of the wells exceeded the EPA Maximum Contaminant Level (MCL). Upon receiving this information, the EPA installed an arsenic water treatment system for this resident in July, 2011. However, based on comparison with pre-drill sampling, the level of arsenic in this well is unchanged – it is naturally occurring. Chesapeake collects pre-drill samples from residents within 1,000 to 4,000 feet of all of our locations. Out of 7,512 pre-drill samples collected since August, 2009 in Bradford County, PA, 320 residents have arsenic concentrations which exceed the arsenic MCL, and at least 2,978 (39.5 %) of the residential well water samples do not meet one or more of the EPA primary or secondary drinking water-quality standards. If ATSDR intends to recommend installation of treatment systems for each of these residents, these baseline data have been provided to the PADEP.

Further, the natural occurrence of arsenic in groundwater from water wells in Bradford County is also discussed in a recent U.S. Geological Survey (USGS) report<sup>2</sup> which ATSDR did not disclose or discuss in the Consultation.

In summary, we are gravely concerned that the Consultation has created an inaccurate and misleading view of shale gas development and of the actual circumstances and impacts surrounding the ATGAS 2H well incident. The Consultation contains numerous misleading implications, scientific flaws, inaccurate conclusions, and inappropriate recommendations, as described above and more fully detailed in the attached Request. These errors have caused unfounded panic in private residents in the immediate area, as well as misguided fear of natural gas activities among the public more generally. Accordingly, we ask ATSDR to immediately take action to remedy the situation by publicly acknowledging these errors, retracting the report, correcting its numerous scientific flaws, and publishing a new, objective, useful, complete, and clear health consultation that relies on the best available information and peer-reviewed sound science as required by the Information Quality Act and related requirements and guidance.

Chesapeake requests that the ATSDR retract and appropriately amend the Consultation without the formal process of this petition but we have, in any event, submitted a formal petition to help ensure that such efforts are undertaken and to bring attention to the

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<sup>2</sup> Low, DJ and DG Galeone, 2006. Reconnaissance of Arsenic Concentrations in Ground Water From Bedrock and Unconsolidated Aquifers in Eight Northern-Tier Counties of Pennsylvania, USGS Report 2006-1376.



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inadequacies of ATSDR's science relative to Information Quality Act standards and its own mandates for data integrity. Please feel free to contact me if you wish to discuss this matter.

Very truly yours,

Chesapeake Energy Corporation

/S/

Paul Hagemeier

PDH:rr

cc: Honorable Kathleen Sebelius, United States Department of Health and Human Services  
Administrator Lisa Jackson, United States Environmental Protection Agency