



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHWEST REGIONAL OFFICE

8
October 8, 2013

CERTIFIED MAIL NO. [REDACTED]

[REDACTED]

Re: Section 3218 of the Oil and Gas Act, Water Supply Temporarily Affected
Case No. 256642
Residential Water Supply
Waterford Township, Erie County

Dear [REDACTED]

The Department has completed its investigation of the residential water supply identified at the above address ("Water Supply"). Several samples from the Water Supply were collected during this lengthy investigation and are summarized in the attached table identified as Appendix A. These water samples were performed by the state of Pennsylvania-accredited laboratories for analysis.

Based on review of the Water Supply results taken from July 2008 to September 2013, and other available information, the Department determined that nearby gas well operations affected the Water Supply with Methane/Ethane. However, based upon the results of the later samples that were taken, along with the combustible gas meter readings that were periodically taken over the water well (see Appendix B), the Department has determined that the Water Supply was only temporarily affected. The Water Supply continues to show the presence of natural gas (methane) contamination at lower levels. We believe the continued presence of natural gas (methane) is the result of other sources that are affecting your Water Supply. This was determined through isotopic analysis of the natural gas (methane) in your Water Supply. The isotopic analysis does not indicate that the gas is of thermogenic origin or from a deep production gas source. The other sources that could be attributed to this are shallow naturally occurring gas producing sands, microbial gas, or glacial drift gas deposits.

It is the Department's recommendation that your water well be equipped with a working vent. This will help alleviate the possibility of concentrating these gases in areas where ignition would pose a threat to life or property. Please note that it is not possible to completely eliminate the hazards of having natural gas in your water supply by simply venting your well.

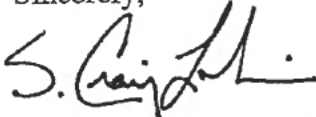
October 2, 2013

Copies of all of the sample results are enclosed. Please refer to the following documents to assist you with interpreting the sample results:

<http://extension.psu.edu/water/converted-publications/how-to-interpret-a-water-analysis-report>
http://www.dep.state.pa.us/dep/deputate/watermgt/WSM/WSM_DWM/PA-MCLs_05.pdf
<http://water.epa.gov/drink/contaminants/secondarystandards.cfm>

Because there are no more indications of deep natural gas (methane) contamination in the Water Supply, the Department does not anticipate requiring any further action regarding this Water Supply. In the meantime, please contact Ben Zimmer or Scott Lux at 814-332-6860 if you have any questions about the Water Supply.

Sincerely,



S. Craig Lobins
Northwest District Oil and Gas Manager
District Oil and Gas Operations

Enclosures: Reports of Laboratory Analyses of Water Supply Samples

cc: S. Lux
B. Zimmer
J. Scott
File

SCL:JSL:isl