



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DISTRICT OIL AND GAS OPERATIONS

April 24, 2013

CERTIFIED MAIL # 7012 3050 0001 4216 0341

Ms. Tammy Hadlick
20930 SR 29
Montrose, PA 18801

Re: 58 Pa. C.S. § 3218 Determination
Complaint No. 285757
Franklin Twp., Susquehanna County

Dear Ms. Hadlick:

The Department has investigated the possible degradation of your water supply well located at 20930 SR 29, Franklin Twp., Susquehanna County, in response to a 12/20/2011 complaint that recent gas well drilling activities may have affected your water supply well. The Department has since been conducting an investigation which included evaluating the integrity of nearby gas wells and the collection of samples from your home water supply on 12/22/2011 and 3/6/2012. The samples were submitted to the Department's laboratory in Harrisburg for analysis, and the analytical reports for the samples were previously submitted to you.

As previously shared with you, the sample results showed several compounds elevated above Department standards. Barium was present at 4.539 and 4.337 mg/L which exceeds the primary maximum contaminant level (MCL) of 2 mg/L, and Aluminum, Iron, Manganese, Total Dissolved Solids (TDS) and Chloride exceeded secondary MCLs. Primary MCLs are intended to reflect potential dangers to human health, while secondary MCLs reflect the aesthetics of the water (i.e. taste, smell, etc.). Additionally, the sample results showed methane is present at 58.3 and 70.6 mg/L in your water supply. The presence of dissolved methane in your water supply, the turbidity or cloudiness, the sulfur odor, and all other compounds exceeding primary MCLs and/or secondary MCLs, appear to be related to background conditions. At this time, the Department's investigation does not indicate that gas well drilling has impacted your water supply.

Methane is the predominant component of natural gas. Federal water standard limitations have not been established for methane gas. The level of concern begins above 28 mg/l methane, which is referred to as the saturation level. At this level, under normal atmospheric pressure, the water cannot hold additional methane in solution. This may allow the gas to come out of the water and concentrate in the air space of your home or building. There is a physical danger of fire or explosion due to the migration of natural gas into water wells or through soils into dwellings where it could be ignited by sources that are present in most homes/buildings. Natural gas can also cause a threat of asphyxiation, although this is extremely rare.

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Tammy Hadlick

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When the Department is made aware of methane levels greater than 7 mg/l, we notify the water supply owner of the hazards associated with methane in their water supply. Please be aware however, that the methane levels can fluctuate. This means that even with a relatively low level of methane, you should be vigilant of changes in your water that could indicate an increase in methane concentration.

It is the Department's recommendation that all water wells should 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.

Should you have any questions concerning this matter, please feel free to contact Eric Rooney, P.G. at 570-346-5543.

Sincerely,



Jennifer W. Means
Environmental Program Manager
Oil and Gas Management

cc;

Marc B. Cooley

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Sharon Steinbacher

Complaint File #285757