



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

December 6, 2023

CERTIFIED MAIL NO. [REDACTED]

[REDACTED]

Re: Water Supply Request for Investigation ID: 365456
58 Pa.C.S. § 3218 Determination
Springfield Township, Bradford County

Dear [REDACTED]

The purpose of this letter is to notify you of the Department's actions of (1) approving a Rebuttal to the Presumption of Liability ("Rebuttal Report") submitted by Blackhill Energy, LLC ("Blackhill") regarding your water supply and (2) determining that Blackhill's oil and gas activity is the cause of the pollution of your water supply. The Department actions are set forth in the enclosed letter addressed to Blackhill.

On July 25, 2022, you received a letter from the Department stating that Blackhill was presumed responsible for the pollution of your water supply located at the above address ("Water Supply"). Section 3218 of the Oil and Gas Act allows an oil and gas operator the opportunity to rebut the presumption that oil and gas activities impacted the Water Supply. On August 12, 2022, Blackhill submitted the Rebuttal Report to the Department. Please find enclosed the Department's letter to Blackhill approving the Rebuttal Report for the reasons described therein.

However, subsequent to receipt of the Rebuttal Report, the Department continued its investigation of the Water Supply as described in the enclosed letter. The Department's investigation, prompted by information you provided, has determined that the Water Supply was adversely affected by oil and gas activities, including but not limited to the drilling, alteration, or operation of an oil or gas well. The information upon which this determination is based is summarized in the enclosed letter.

The Department's investigation included collecting samples from the Water Supply on multiple occasions. The samples were submitted to the Department's laboratory in Harrisburg for analysis. Those samples and a summary of the sample results were provided to you in previous letters. A summary table of water quality exceedances in the samples collected by the Department from the Water Supply is provided below. The sample results showed methane, iron, aluminum, manganese, and total coliform bacteria exceeded Department standards or action levels.

Parameters	Unit	Statewide Standards or Recommended Levels	Your Highest Sample Results in Department Samples that were Detected Above Statewide Standards/Levels
Total Coliform Bacteria	cfu/100mL	0	15
Manganese	mg/L	0.05	0.3
Aluminum	mg/L	0.2	3.1
Iron	mg/L	0.3	4.4
Methane	mg/L	7	38

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.

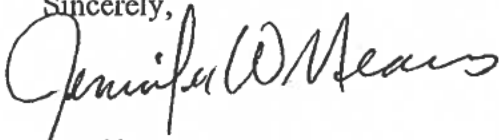
When the Department is made aware of methane levels greater than 7 mg/l, it notifies the water supply owner of the hazards associated with methane in their water supply. Please be aware however, that the methane levels can fluctuate. This means that even with a relatively low level of methane, you should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

The Department understands that your Water Supply has a vent currently installed. This will help to 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.

Also, please note that the water quality samples from the Water Supply showed several parameters above Primary or Secondary Maximum Contaminant Levels (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.).

The Department is continuing to work to permanently resolve this issue. Should you have any questions regarding the investigation, please contact Caleb Woolever, P.G., at 570.327.0546.

Sincerely,

A handwritten signature in black ink that reads "Jennifer W. Means". The signature is written in a cursive style with a large initial "J" and "M".

Jennifer W. Means
Program Manager
Eastern Oil and Gas District

Enclosures:

Sample Results Table

Fact Sheet

Department Letter to Blackhill Energy, LLC dated December 6, 2023

cc:

Stephanie Wharton

Caleb Woolever

Matt Nuss

Korey Starkey

Complaint File # 365456