



The following are responses to questions collected during the January 8 oil and gas community meeting. (Please note, answers from agencies other than the Town were provided to the Town and have been entirely prepared by the named agency.):

## **Town of Timnath**

*(Robert Rogers, Town Attorney – 303-858-1800)*

- 1. Timnath has a small staff. In the case of an emergency on the site, what other responders will help and what would be the response time of the other emergency services? (Asked 2 times)***

The well site lies within the Windsor-Severance Fire Protection District. Their response times are as follows: Station 1 (located at 100 7<sup>th</sup> Street) is approximately 6 minutes and Station 3 (located at 7790 REA Parkway) is approximately 8 minutes. The Poudre Fire Authority (which provides the fire protection service within the Fire Protection District) has a mutual response agreement with the Windsor-Severance Fire Protection District so the Poudre Fire Authority would also likely respond if the event warranted it. The operator is also required, through its MOU with the Town and COGCC Rules, to prepare an emergency preparedness plan and provide a copy of the plan to the Town and to all overlapping fire protection districts.

- 2. Why were there no regulations about wells in place before Peterson's Application, and what can the County regulate that the State doesn't pre-empt? (Asked 3 times)***

There have been Town regulations in place for several years, and the Town is currently in the process of strengthening them. However, since the wells are outside the Town limits, this would be a question to direct to Larimer County. Their website and contact information can be found at [www.larimer.org](http://www.larimer.org).

- 3. Why won't the Town put in place a short term moratorium on well drilling until the Oil Drilling/Fracking topic is brought to the State Legislature and the Town updates their regulations? (Asked 2 times)***

The Town does not have the legal authority to put a moratorium in place, long term or short term in duration that would stop drilling of the wells in question. The Town is in the process of updating its regulations that govern property within its boundaries, and the Town plans to have the process completed this spring. No drilling operations have been proposed, and none are anticipated to be proposed within the Town's boundaries between now and when the updates to the Town's regulations will be completed.

- 4. Is there a possibility of restricting certain road access for the trucks that carry the hazardous material so they don't travel the same roads that school busses take to get kids to and from Bethke?***

As part of the road access agreement between the Town and the operator, the Town will call out the routes the trucks will take. We have asked them to use Harmony Road eastbound to CR 19 for trips east of Timnath and Latham Parkway (CR1) south to SH 392 for trips west of Timnath.



5. *What is the amount of land needed for forced pooling, and how much of that land does the Town own and how much of that is privately owned?*

Unlike some other states, there is no minimum acreage requirement for forced pooling in Colorado. The Town owns approximately 30 acres of mineral rights.

6. *Is the Town still intending to follow the P.R.O.S.T plan and develop the community center and park that is adjacent to the well site?*

Yes, eventually those will be developed as indicated in the P.R.O.S.T plan and are anticipated to be approximately 1,500 feet from the well site.

7. *Why were there no presentations that included experts from the opposing view of oil drilling?*

This was intended to be an educational forum with the experts who regulate oil and gas activity within the state, an opportunity for the public to learn more about the proposed well site, and an opportunity to present information regarding the Town's jurisdiction in this matter within the confines of applicable state limitations.

## **Colorado Oil and Gas Conservation Commission**

*(Marc Morton, Local Government Liaison – 303-894-2100 x5132)*

1. *With having over 52,000 wells and a small staff of inspectors how will you be able to inspect Mr. Peterson's wells frequently enough to make sure they are up to standards, and what is the frequency that the wells will be inspected? (Asked 9 times)*

COGCC field inspection staff, which includes 27 full-time inspectors as well as environmental protection specialists, conducted 33,612 facility inspections in 2014.

COGCC field inspections are conducted in a systematic, risk-based manner in which wells are inspected more frequently based on operational aspects that pose the greatest risk. This approach is outlined in the report available on the COGCC website at this link:

<http://cogcc.state.co.us/Announcements/RiskBasedInspection/RiskBasedInspectionStrategy.pdf>

Inspections may be conducted during pad construction, drilling operations, installation of a surface casing, mechanical integrity testing or a bradenhead testing, well completion or stimulation (hydraulic fracturing), due to a complaint response, or for a variety of other reasons. It is important to note that the well operator and contract workers visit well and production facilities frequently and are obligated to report spills to the COGCC according to applicable rules.

2. *With not having enough data on how wells affect public health, how do you know a 1,000 foot setback is far enough to prevent children from breathing in harmful chemicals? (Asked 4 times)*

The proposed wells are over 2,000 feet from the elementary school, approximately two times the allowed (1,000-foot) setback distance for High Occupancy Buildings. Setbacks for such buildings were



established in 2013 via a Commission Rulemaking that followed an extensive stakeholder involvement process. Rules now require a Commission Hearing if a well or location is proposed within 1,000 feet of a high occupancy building such as a school.

3. ***What is the need for all the casings in the well to form a barrier from the aquifer if the materials are safe, and have you had any casing failures on the new casings that Mr. Peterson will be using? (Asked 2 times)***

COGCC Rule 317.e. requires an adequate casing and cementing program to protect hydrocarbon formations and groundwater. COGCC's engineering staff evaluates the proposed casing and cementing program to ensure that it is designed to prevent migration of fluids from one formation to another. This includes protecting hydrocarbon bearing formations from the intrusion of water and water bearing formations from the intrusion of hydrocarbons. The integrity of the casing and cementing must be verified prior to stimulating a well.

4. ***Should the Bethke Elementary School and future Timnath Community Center and Park be noted on the application? (Asked 2 times)***

The distance to the nearest High Occupancy Building Unit is required to be on the application, including Applications for Permit to Drill and Oil and Gas Location Assessment. In this case the COGCC technical review, including input from the public, determined that the operator had misstated the distance and the error was corrected. The operator is not required to notate distances to features that do not yet exist. COGCC works with local governments to obtain information on planned development, but does not regulate such development.

5. ***Will you guarantee that baseline environmental testing will be done prior to the start of production?***

COGCC Rule 318A.f. requires baseline groundwater sampling prior to drilling, and 60 and 72 months following well completion. The groundwater sampling data is posted to our website and is publicly available. In some cases, operators may rely on previously submitted data for the initial baseline sample (in such cases where a nearby water source has already been sampled).

6. ***Are applicants required to resubmit a permit if there is false information, and have citizen comments impacted the decisions made by the commission on a pending permit application? (Asked 2 times)***

COGCC reviews all applications on their technical merits and does not approve an application until we are satisfied the application meets all applicable Rules. If errors are found during this technical review, COGCC consults with operators to correct information. COGCC welcomes and considers all public comments submitted and based on our technical review, including public or LGD comments, may add site-specific Conditions of Approval (COA) or Best Management Practices (BMP) to permits.

7. ***What is the emergency plan in the event of a spill, and who will pay for damages if there are any to Timnath property? (Asked 2 times)***



COGCC rules require operators to control and clean up all spills and releases to protect the environment and public health, safety, and welfare. Operators are required to investigate, clean up, and document impacts resulting from spills and releases as soon as practicable. COGCC must approve clean-up plans, and supervises the clean-up to ensure all impacts are remediated. The operator is also required to notify the local government and surface owner of any reportable releases.

COGCC may pursue an enforcement action if a spill is the result of a violation of COGCC rules, orders, or permits. COGCC does not have jurisdiction over damage to private property (other than to ensure any contamination from a spill is cleaned up).

8. *If there is a 400 barrel spill and 350 barrels get cleaned up does the incident get reported as a major spill of 400 barrels or a minor spill of 50, and does that affect the continuing operation of the well?*

The amount spilled would be reported, as well as the amount recovered.

9. *Can the public call in if they see any kind of violation and what is the response time of an inspector to check the violation?*

The link to file (and track) Complaints is provided below, and detailed guidance to filing and tracking the resolution of a complaint is provided. <http://cogcc.state.co.us/Complaints/Complaints.html>

10. *Are there any plans in place if the water quality is impacted?*

COGCC's 900-Series Rules, specifically Rule 906, 909, and 910, address operator requirements for spill reporting, investigation, and clean-up. COGCC is an implementing agency for water quality standards and classifications adopted by the Water Quality Control Commission (WQCC) for groundwater protection. All spills and releases are required to be cleaned up in accordance with those standards.

### **Peterson Energy Operating, Inc.**

*(Andy Peterson, P.E., President – 970-669-7411)*

1. *What are the full plans for mitigating toxic fumes or chemicals that will be emitted from the wells that could affect children's health at the elementary school? (Asked 3 times)*

Prior to the installation of production casing, any gas encountered during the drilling phase will be routed through a mud-gas separator and flared per COGCC regulations. A gas sales line will be installed prior to completing the well. Any gas encountered during the frac or flowback phases will be contained and routed down the gas sales line (not vented to the atmosphere). During the production phase, natural gas produced from the wells will be routed down the gas sales line (not vented to the atmosphere). The oil tanks will be sealed. Any Volatile Organic Compounds (VOCs) that vaporize out of the oil in the tanks will be destroyed in a thermal oxidizer and will not be vented to the atmosphere, per existing Colorado Department of Public Health and Environment (CDPHE) regulations. There is no hydrogen sulfide or other poisonous gas known to be present in the wells in this area.



**2. *Who will pay for the monitoring of the air and water quality?***

Peterson Energy will pay for all emissions monitoring required to be performed by existing CDPHE regulations.

**3. *Will your wells and drilling equipment have the latest and safest technology to use so that everything being constructed will be the safest possible? (Asked 4 times)***

Peterson Energy will follow all applicable safety regulations and will hire contractors with personnel and equipment qualified to drill, frac, complete and produce the wells safely and to the standards established by the COGCC regulations.

**4. *What is your overall timeline for the first two wells to be drilled, and when would you decide if you wanted to drill the last four wells? Will residents of Timnath be notified when you have decided when to drill the last four wells, and will we be notified in advance of drilling? (Asked 5 times)***

The first well or wells could be started as soon as 30 days following the approval of all permits, and will be completed approximately 60 days after that, or approximately 30 days after installation of a gas sales line, whichever comes later. The decision to drill any or all of the remaining wells will be made after analyzing current economic conditions and the production from the initial round of drilling. We cannot predict how long that analysis period will be. We agree to notify the Timnath Town manager in advance of our plans to drill any additional wells on the site.

**5. *Can you still reach these deposits from a well site that is further away from the school, and do you have any plans to drill more wells around the school in the future if these wells can produce the way you hope they will? (Asked 3 times)***

While we could reach these deposits from a well site that is further from the school, no such site is currently feasible because we do not currently have any other viable lease opportunities within a feasible distance of the deposit. As it stands now, our current locations are more than twice the allowable set back from the school. While we have no current plans for additional drilling, if the information gained from these wells is favorable, we do have the right to apply for permits to drill additional vertical, directional or even horizontal wells in the area. It is our intention to continue to work with the community and place any future locations as far away as feasible from the school.

**6. *Will you or the county be responsible for the maintenance of CR-1, and how do you plan to deal with the added number of truck traffic on the road? (Asked 4 times)***

Peterson Energy will not be responsible for the ongoing routine maintenance of CR-1. We do expect to be responsible for repairing damage to CR-1 caused by our operations. The additional truck traffic is expected to average about one trip per hour during drilling and completion operations and we do not anticipate that this will result in significant additional disturbance to Town residents.

**7. *Why are you not going to be doing horizontal drilling if the end of the well will only be a few hundred feet away from the site pad? (Asked 2 times)***



We have applied for permits to drill 6 directional wells that have bottomhole locations ranging between 600' and 2900' from their surface locations. These wells allow us to test the reservoirs for hydrocarbons prior to expending significantly more capital to drill horizontally. Horizontal wells cost 4-5 times more than directional wells.

**8. *Why are you intending to start new oil wells if the price of oil per barrel is low? (Asked 2 times)***

After all permits have been approved, we will review the latest estimated drilling costs and product prices and decide at that time whether to drill and how many wells to drill.

**9. *Will you agree to the MOU that the Town is developing?***

Peterson Energy has agreed to negotiate and abide by the terms of a MOU with the Town.

**10. *Can/Will you provide a list of every violation that you have made on all of your wells, not just the ones near a school or neighborhood?***

All inspections conducted by the COGCC on Peterson Energy wells since 1994 are available on the COGCC website at [cogcc.state.co.us/database/inspections](http://cogcc.state.co.us/database/inspections)

**11. *Who specifically are your investors and creditors?***

Please understand that our financial information is confidential.

## **Colorado Department of Public Health and Environment**

*(Kent Kuster, Oil and Gas Liaison – 303-692-3662)*

**1. *If there is not enough data on health impacts that wells create then why are drills allowed to continue drilling until the proper data is collected, and do you consider that to be sound public health policy? (asked 4 times)***

The simple answer is we do not have public health data or authority to stop oil and gas development in Colorado. We know that emissions from oil and gas development disperse as they move away from the well site and together the Colorado Oil and Gas Conservation Commission and CDPHE have made use of this knowledge by

- Increasing the distance from the well pad of production facility to the building units;
- Requiring closed-loop drilling systems;
- Requiring green completions; and
- Requiring extensive emission control measures on oil and gas facilities throughout Colorado.

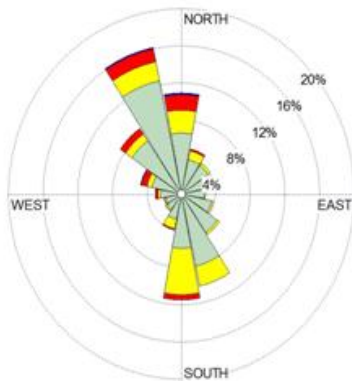
**2. *Do you use the Precautionary Principle on your decisions when it comes to any industry? If so, why isn't it being used when it comes to Oil and Gas?***



The Colorado Department of Public Health and Environment obtains authority to regulate from State or Federal laws. In general, regulations are written by state agencies as a way to enforce laws passed by the legislature or handed down by EPA. These regulations are normally based on known science and promulgated after going through an extensive stakeholder process followed by a rulemaking hearing that allows all parties to voice their concerns. It is only after this formal process that employees for the Colorado Department of Public Health and Environment are authorized to enforce regulations.

3. *Can you show us a possible air dispersion map of the area and where you believe the plume will be based on general wind direction for this area?*

Below is a wind rose from our Ft. Collins site on the CSU campus, which is our closest site to Timnath. The predominant winds are from the NNW, so with the production facility located to the NE of the school the emissions from this site will normally be carried to the east of the school.



4. *Have nurses and school officials been trained on the symptoms for exposure to oil and gas chemicals and are they able to treat those symptoms?*

Health effects from exposure to any chemical depends upon several factors, such as the amount of chemical in air (dosage), how the chemical moves and transforms in the environment, the length of time people are exposed and the toxic potential of the chemical. The Colorado Department of Public Health and Environment is aware of anecdotal symptoms e.g., headaches, eye and skin irritations and respiratory problems that have been reported to be connected with oil and gas development; however, these are considered non-specific symptoms that could come from a variety of exposures and infections. Health practitioners in the schools are experienced on dealing with these types of non-specific symptoms.

5. *Is the air quality testing that CSU will be conducting the first time this sort of data has been collected in the Front Range?*

Yes, the Front Range emission and dispersion study, currently underway, is the first time a detailed study of the emissions leaving the well pad has been conducted in the front range of Colorado. The



study will provide data on emissions from oil and gas sites at various distances from the well pad. The study will quantify air emissions from various well site operations e.g., drilling, completion and production, characterize how compounds disperse in the atmosphere as the plume moves away from the well site and discover how different seasons affect these emission characteristics. This is the first time the Colorado Department of Public Health and Environment will have access to a high quality peer-reviewed database of this type which will be used for future risk assessment studies.