STATE OF COLORADO
OIL & GAS
CONSERVATION COMMISSION

DEPARTMENT OF NATURAL RESOURCES
Bill Ritter, Jr., Governor
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Denver, CO 80203
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www.colorado.gov/cogcc

April 16, 2009

Bergstrom
6702 Weld County Road 14
Ft Lupton, Colorado 80621

RE: Gas Composition Analytical Results for Your Water Well
Section 32 – Township 2 North – Range 65 West
Weld County, Colorado

Dear Mr. Bergstrom:

On April 3, 2009 Terracon Inc. of Wheat Ridge, Colorado (Terracon), under direction of the Colorado Oil and Gas Conservation Commission (COGCC), sampled your water well and submitted these samples for laboratory analysis. The purpose of this water sampling was to determine if natural gas drilling and production activities in your area might have impacted your well water. The COGCC has not yet received the results of the general water quality samples collected from your well. We anticipate receiving those results within the next few weeks and will submit those results under another cover letter. The COGCC collected a sample of gas from your water well for compositional analysis and submitted to Isotech Laboratories, Inc. (Isotech) in Champaign, Illinois. A discussion of these sample results and a copy of the Isotech report is enclosed.

GAS COMPOSITION

The gas produced from the oil/gas wells around your home is "thermogenic" methane. Thermogenic methane gas is formed by the thermal breakdown of organic material in rocks resulting from high temperatures created by deep burial. With the methane are other higher carbon number compounds ("heaver") such as propane (C3), iso-butane (iC4), normal butane (nC4), iso-pentane (iC5), normal pentane (nC5), and hexane (C6). Biogenic methane gas occurs in most near-surface environments and is a principal product of the decomposition of buried organic material. In Weld County many of the coal zones in the Laramie/Fox Hills aquifer, in which your water well is completed, contain biogenic methane gas.

Laboratory results of the gas sample collected from your water well show that methane (0.0099 percent) detected along with nitrogen (72.15 percent), oxygen (17.71 percent), carbon dioxide (8.78 percent), and argon (1.35 percent). The nitrogen, oxygen, argon, and carbon dioxide are components of air and the very low presence of methane (C1) is typical of the naturally occurring biogenic gas in the Laramie/Fox Hills aquifer. No "heaver" carbon compounds (those C3 through C6 gasses discussed above) are present that would indicate the presence of thermogenic gas.

Isotopic Analysis of Methane

The concentration of methane in your water well was below the concentration that the laboratory could determine any isotopes.

CONCLUSION

Based on the analysis of the gas content for the gas from your water well, the methane gas present is the product of natural bacteriological activity and unrelated to any oil & gas activities in your area.

The additional water quality sample results for your well are anticipated to be finished within the next few weeks. As discussed above, the COGCC will send you those sample results under a separate cove letter. If you have any questions or would like to discuss these matters further, please contact me at the COGCC in Denver via e-mail (robert.chesson@state.co.us) or by phone at 303-894-2100, extension 5112.

Respectfully,

Robert H. Chesson, C.P.G., P.G.
Environmental Protection Specialist

Enclosures

cc: Dave Neslin – COGCC w/o enclosures
Debbie Baldwin – COGCC w/o enclosures
Mikel Cox – Noble Energy
Paul Schneider – Kerr McGee/Anadarko