

Items for Discussion with the Oil/Gas Review Team

for

Inclusion into the Memorandum of Understanding with COGCC

August 28, 2012

Elbert County and the Colorado Oil and Gas Conservation Commission agree to enter into a Memorandum of Understanding to memorialize the following for oil and gas operations within Elbert County:

County Inspector

Elbert County may either employ a staff person or contract with a private entity to conduct oil and gas facilities inspections pursuant to the terms and conditions outlined in an intergovernmental agreement between Elbert County and the Colorado Oil and Gas Conservation Commission (the "Inspector"). Only persons who have been approved and trained by the Colorado Oil and Gas Conservation Commission may conduct the inspections authorized under the intergovernmental agreement.

Sound Control Measures COGCC Rule 802

~~*Well drilling operations within ¼ mile of a residence, office, retail, school, or church use, shall be required to install noise mitigation barriers.*~~

Lighting COGCC Rule 803

~~*Lighting shall be required to be shielded and directed toward operations and equipment, thereby minimizing impact to surrounding properties. Lighting must be adequate to ensure safety of the crew and for safe operations on site.*~~

Safety & Security Measures

Open-ended discharge valves on all storage tanks, pipelines, and other containers shall be required to be locked at any unattended facilities. Security fencing and locked gate shall be required for oil and gas facilities where a residence, school, or recreational facility is within 660 feet.

Visual Mitigation COGCC Rule 804

~~Uniform colors shall be required for all tanks batteries and oil and gas production equipment that remains on site longer than 6 months. Colors shall be earth tone in color to match the land (not sky) and slightly darker than the surrounding landscape.~~

Roads

The operator shall enter into a road operations and maintenance agreement with the County Public Works Department. Access permits shall be obtained from Elbert County or Colorado Department of Transportation.

Setbacks

There shall be a minimum of 1,320 feet between the wellhead and any residential structure, domestic well, or platted building envelope. A setback of at least 200 feet shall be required between the wellhead and the closest property line. The entire pad site with the oil and gas facility shall be located a minimum of 1,000 feet from the normal high-water mark of any water body, or 30 feet higher in elevation from any water body. Chemicals, liquids, or refueling areas shall not be placed within 1,000 feet of wetlands or riparian areas.

Air Quality

Oil and gas facilities shall comply with the Colorado Air Quality Control Program. Fugitive dust shall be controlled during all phases of the operation. Vapor recovery systems shall be required for all permanent oil and gas facilities instead of allowing for the "flaring" of vapors and gases.

Waste Management Plan COGCC Rule 907.a.

~~Operators shall be required to ensure that all exploration and production waste is properly stored, handled, transported, treated, recycled and disposed of, to prevent adverse impacts to the air, water, and soil.~~ A "no-spill, no liquid on the ground" policy shall be required.

Control & Disposal of Produced Water

No produced water shall be disposed of on site. The operator shall be required to incorporate on-site treatment/recycling of, and adequate on-site storage capacity for, produced and back-flow waters to reduce the volume of water used in the drilling process and to reduce truck volume on roads. Only closed-loop systems shall be permitted. No open pits shall be allowed in Elbert County.

Water Supply Plan & Surface Water/Aquifer Protection

Oil and gas facilities shall not degrade the quality or quantity of surface waters from the addition of non-point source pollution. Well casings shall be extended 200' below the lowest aquifers.

Water Well Testing

Prior to commencement of any drilling operations, the Operator will contact, by certified mail, all surrounding property owners with active domestic, irrigation or livestock wells, that fall within the following notification area:

- a. one (1) mile radius of the wellhead;*
- b. one (1) mile radius of the horizontal well bore;*
- c. the area defined by the tangents of the circles described in 1 and 2 above if applicable (See Figure 3 on next page); and*

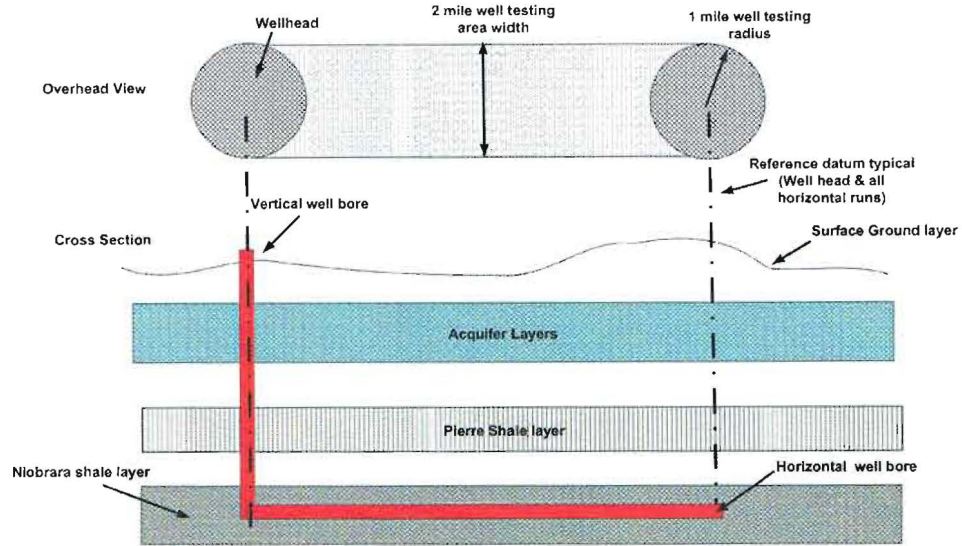
ask permission to conduct water sampling and analysis pre-drilling, post drilling, post completion, and post production every three (3) years for a period of fifteen (15) years. The green and white postal receipts are to be submitted to Community and Development Services 5 days prior to drilling operations.

The testing schedule will restart after any completion, drilling, stimulation or alteration of existing wells. The drilling of a new well on an existing pad will trigger a re-start of the testing schedule for any existing well on that pad, provided that those existing wells were previously included in a testing schedule. Additional "post completion" test(s) may be required if changes in water quality are identified during follow-up testing. The Director of Community and Development Services may require further water well sampling at any time in response to complaints from water well owners.

Additional testing, for cause as determined by CDS, will be done at any interval for any resident within the test area. A request for further testing must be submitted in writing and must include reason for request.

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Figure 3



The wells will be analyzed for relevant changes as compared to the pre-drilling analysis. The "Initial baseline testing" described in this paragraph shall include all tests listed in appendix "B" and shall be conducted by a non-affiliated, certified laboratory. The costs for such testing and analysis shall be the responsibility of the Operator. The Operator shall provide copies of such water tests and all analyses to the property owners and to Elbert County Environmental Health Department. All such tests and analyses shall comply with Colorado Oil & Gas Commission water well testing and water-bearing formation protection procedures and requirements.

Within three (3) months of each collection of samples used for the test, copies of all test results described above shall be provided to the County and the landowner where the water quality testing well is located.

Until such time as final reclamation of a site has been completed as described in the Colorado Oil & Gas Conservation Commission Reclamation Regulations, all "Test and Survey" reports and water well testing information that have been required by the Colorado Oil & Gas Commission to determine the presence of waste or occurrence of pollution, as well as the results from well-head monitoring to allow safe and convenient determinations of pressure and fluid flow, shall be forwarded to Community & Development Services, Attention: Director.

If free gas or a methane concentration level greater than 1 mg/L is detected in a water quality testing well, compositional analysis and carbon isotopic analyses of methane carbon shall be performed to determine gas type (thermogenic, biogenic or an intermediate mix of both). If the testing results reveal biogenic gas, no further isotopic testing shall be done. If the carbon isotope test results in a thermogenic or intermediate mix signature, annual testing shall be

performed thereafter and an action plan shall be drafted by applicant to determine the source of the gas. Regardless of gas type, If the methane concentration level increases by more than 5 mg/L between sampling periods, or increase to more than 10 mg/L, an action plan shall be drafted to determine the source of the gas.