

**Statement of Basis, Specific Statutory Authority, and Purpose
New Rules and Amendments to Current Rules of the Colorado Oil and Gas
Conservation Commission, 2 CCR 404-1**

**Cause No. 1R Docket No. 1211-RM-03
Statewide Water Sampling and Monitoring (new Rule 609 and amended Rule
318A.e.(4))**

This statement sets forth the basis, specific statutory authority, and purpose for new rules and amendments to the Rules and Regulations and Rules of Practice and Procedure (“Rules”) promulgated by the Colorado Oil and Gas Conservation Commission (“COGCC”) on January 7, 2013, concerning statewide water sampling and monitoring.

These rules are promulgated to protect public health, safety, and welfare, including the environment and wildlife resources, from the impacts resulting from oil and gas development in Colorado. They are intended to foster the responsible and balanced development of oil and gas resources in Colorado.

In adopting the new rules and amendments, the Commission will rely upon the entire administrative record for this rulemaking proceeding, which formally began on October 1, 2012 when the Commission directed COGCC Staff to proceed with rule making for purposes of considering new or amended rules requiring baseline monitoring and subsequent sampling of groundwater near new Oil and Gas Locations. The administrative record includes the proposed rules and numerous recommended modifications and alternatives; public comment, written testimony, and exhibits; and hours of public and party hearings.

Prior to initiating formal rule making, COGCC Staff conducted a stakeholder process, which commenced on September 21, 2012. Staff provided a conceptual overview of a proposed new groundwater sampling rule (Rule 609) to stakeholders on that date, and held a stakeholder meeting on September 27, 2012 to discuss the conceptual overview. COGCC released a first draft of Rule 609 to stakeholders on October 12, 2012, and extended invitations to stakeholders, including several local governments, to participate in a stakeholder meeting on October 18, 2012. At the October 18, 2012 stakeholder meeting, the overwhelmingly consensus among stakeholders was that no additional stakeholder meetings were necessary prior to the rule making hearing, scheduled for November 14, 2012. Pre-hearing conferences were held on October 26, 2012 and November 6, 2012 in advance of the first rule making hearing on November 14, 2012. In formulating its water sampling and monitoring rule, the Commission staff benefitted from experience with similar existing area-specific baseline sampling rules and discussions with stakeholders. The Colorado Oil and Gas Association voluntary baseline sampling and monitoring program provided insight into how a rule like Rule 609 would work.

Statutory Authority

Section 34-60-105(1), C.R.S. (Commission has the power to make and enforce rules); and § 34-60-106(2)(d), C.R.S. (Commission has authority to regulate “Oil and gas operations so as to prevent and

mitigate significant adverse environmental impacts on any air, water, soil, or biological resource resulting from oil and gas operations to the extent necessary to protect public health, safety, and welfare, including protection of the environment and wildlife resources, taking into consideration cost-effectiveness and technical feasibility.”).

Purpose

The purpose of the new and amended water sampling rules is to gather baseline water quality data prior to oil and gas development occurring in a particular area, and to gather additional data after drilling and completion operations. The water quality data generated under the rules will be publicly available on the Commission’s web site. Acquiring this data and making it publicly available will inform relevant stakeholders, including public officials, of baseline groundwater quality, and may aid in early detection of any adverse impacts related to oil and gas activity. Similarly, the sampling program may identify existing groundwater contaminants, which can then be properly treated. Commission Staff receives more complaints related to water quality than any other type of complaint.

Because contaminants can occur in groundwater naturally (e.g., selenium, methane), and due to agricultural activity, septic system use, household chemical use/disposal, the age and composition of the plumbing pipes (e.g., lead), or industrial activity, it is important to collect groundwater samples prior to drilling and completion operations to establish baseline water quality conditions. Additional testing following drilling and completion activities is equally important to monitor for potential changes in water quality or the presence of contaminants over time.

Amendments and Additions to Rules by Series

300 Series Rules

Prior to this rulemaking, the Commission had not promulgated a statewide rule requiring baseline water sampling and monitoring of non-coal bed methane wells. However, it had previously passed an area-specific rule requiring water sampling in the Greater Wattenberg Area (“GWA”) as defined by the Commission Rules. Specifically, beginning in 2006, GWA water sampling was required under Commission Rule 318A.e(4). *See* Order of the Commission in Cause No. 1R-100 (amending GWA rule to require water sampling).

Rule 318A.e(4) has been amended in this rulemaking to expand the existing water sampling requirements within GWA, while also recognizing the unique conditions in GWA. Due to the high level of existing oil and gas development in the GWA, new oil and gas wells are frequently drilled in the same sections where several existing producing wells are already present and where baseline water samples were previously collected, analyzed and reported to the Commission. In addition, the aquifer systems are well understood and continuous over large areas. Given these considerations, the Commission believes that the amendments adopted reflect an appropriate balance of the competing considerations at this time.

Under Rule 318A.e.(4)B., operators will be required to obtain one baseline sample from a water source within the governmental quarter section in which a new Oil or Gas Well, the first well on a Multi-Well Site, or a Dedicated Injection Well is located. If a sampling location has previously been established within the governmental quarter section, and sampled within the prior sixty (60) months before spudding, no initial baseline sample is required. Operators, may, of course obtain groundwater samples if they wish, but have the option of relying on pre-existing data if they choose. If there is no suitable water source within the governmental quarter section, a water source from a previously unsampled governmental quarter section within a 1/2 mile radius of the Oil and Gas well, Multi-Well Site, or Dedicated Injection Well, if any, must be sampled. Sampling at least one water source within a quarter section of a new oil or gas well will facilitate determination of existing groundwater conditions prior to commencement of new drilling activity. Once a sample location is established in a governmental quarter section, no additional sample locations are required for that governmental quarter section. Rule 318A.e.(4)C. provides specific exceptions from the sampling requirements.

Under Rule 318A.e.(4)D., operators are required to take an initial sample within 12 months prior to setting conductor pipe in an Oil and Gas Well or the first well on a Multi-Well Site, or commencement of drilling a Dedicated Injection Well. One subsequent sampling event shall be conducted at the initial (or previously established) sample location between six (6) and twelve (12) months following completion of the Well or Dedicated Injection Well, or the last Well on a Multi-Well Site. Given the large number of Oil and Gas Wells being drilled within the GWA, the Commission anticipates that, over time, a groundwater sampling location will be established within the vast majority of the approximately 11,600 governmental quarter sections that comprise the GWA. This will allow the Commission to evaluate groundwater conditions with the GWA on a broad, system-wide scale, and to monitor systemic impacts, if any, associated with oil and gas activity.

Additional provisions of Rule 318A.e.(4), related to constituents to be sampled for, reporting of sampling results to the Director, water source owner, and the public, and the absence of presumed liability, causation, or fault based on conducting the required sampling or the results of the sampling, mirror the provisions of Rule 609, which are described below.

600 Series Rules

The primary purpose of Rule 609 is to set forth a statewide rule for groundwater sampling and monitoring. The rule is entirely new. The quality of groundwater can affect not only human health, wildlife resources and the environment, but also society and the economy. Groundwater contamination can adversely affect property values, the image of a community, economic development, and the overall quality of life. The Commission proposed Rule 609 to protect and preserve Colorado's groundwater resources, detect potential contamination and inform all stakeholders of groundwater quality both before and after oil and gas development.

Rule 609 does not apply to water sampling and monitoring associated with coalbed methane wells, which is addressed under Rule 608 and numerous Commission orders. By passing Rule 609, the

Commission does not intend to alter or amend any of the requirements of Rule 608 and related orders concerning water sampling and monitoring associated with coalbed methane wells. As noted above, Rule 609 also does not apply in the GWA. Groundwater sampling within the GWA is governed by Rule 318A.e.(4), as amended by this rule making.

Rule 609.a describes the applicability of the Rule.

Rule 609.b. sets forth the regulatory requirements concerning the number of groundwater samples operators must obtain to satisfy the rule, the location of such samples relative to the proposed Oil and Gas Location, and the hierarchy of preferred sampling locations. Commission staff determined that a rule requiring operators to obtain water samples from all sample sites (up to a maximum of 4) within a one half mile radius of each oil and gas location would provide valuable information for Commission staff and the operators to assess water quality. Commission staff also determined that a rule requiring such samples to be taken within a half mile of the proposed Oil and Gas Location was appropriate because, should contamination from oil and gas activity occur, it would be detectable within a relatively close proximity of the location. Specific exceptions to the sampling requirements are set forth in Rule 609.c.

The hierarchy of preferred water sources set forth in Rule 609.b. reflects staff's vision of what constitutes the best sampling location. It is the intent of the rule that decisions made by the 609.b criteria are self executing by the operators, and that pre-approval of sample sites is not required.

Rule 609.d. provides the general timing requirements for baseline sampling and follow up monitoring. The initial sample will assess pre-development groundwater conditions. The first follow-up sample assesses whether any short-term impacts related to drilling and completion may have occurred, while the second subsequent sample evaluates potential long-term impacts. Under specific circumstances, operators may use water sample data previously obtained from an available water source to satisfy the initial baseline sampling or second subsequent sampling requirement. This provision is a reasonable cost-reducing measure that will not significantly impair the goals of the groundwater sampling program. As stated above, the Commission believes that baseline water sampling is critical to assessing groundwater quality prior to oil and gas development. Baseline testing will benefit all water users by informing them of the quality of the water source tested, including any potential existing contamination. In the event existing pollutants are identified, water users can to take appropriate treatment and remediation measures. Knowing the pre-development groundwater quality will also be valuable in resolving conflicts that may arise over whether oil and gas operations have caused adverse impacts to groundwater resources.

Rules 609.e.(1) and (2) provide sampling procedures and a comprehensive set of analytical testing requirements applicable to all sampling conducted under the rule. The analytes to be sampled for in the initial baseline sample are those generally used by Commission staff to evaluate complaints regarding domestic well water quality. A reduced set of analytes, focused specifically on potential impacts of oil and gas operations, is required for the subsequent sampling events. Commission Rule 609.e.(4) also

addresses the potential presence of methane gas in any sample and requires the operator to notify the Commission and the relevant well owner of potentially dangerous levels of gas. Operators are also required to notify COGCC Staff if BTEX compounds or total petroleum hydrocarbons are detected in a water sample. Under Rule 609.f, sampling results must be provided to the Director in an electronic format; all data provided to the Director will be posted to a searchable water quality database accessible through the Commission's website.

The Commission does not intend for Operators to be presumed liable based on conducting the sampling required under Rules 609 or 318A.e.(4), or based on the results of such sampling. Rule 609.g. and Rule 318A.e.(4), respectively, expressly state that owners or operators shall not be presumed to be liable, at fault, or causally responsible, as a result of undertaking the sampling required by these Rules, or based on the sampling results.