

DRILLING, DEVELOPMENT, PRODUCTION AND ABANDONMENT

301. RECORDS, REPORTS, NOTICES-GENERAL

Any written notice of intention to do work or to change plans previously approved must be filed with the Director, and must reach the Director and receive approval before the work is begun, or such approval may be given orally and, if so given, shall thereafter be confirmed to the Director in writing.

In case of emergency, or any situation where operations might be unduly delayed, any notice or information required by these rules and regulations to be given to the Director may be given orally or by wire, and if approval is obtained the transaction shall be promptly confirmed in writing to the Director, as a matter of record.

Immediate notice shall be given to the Director when public health or safety is in jeopardy. Notice shall also be given to the Director of any other significant downhole problem or mechanical failure in any well within ten (10) days.

The owner shall keep on the leased premises, or at the owner's headquarters in the field, or otherwise conveniently available to the Director, accurate and complete records of the drilling, redrilling, deepening, repairing, plugging or abandoning of all wells, and of all other well operations, and of all alterations to casing. These records shall show all the formations penetrated, the content and quality of oil, gas or water in each formation tested, and the grade, weight and size, and landed depth of casing used in drilling each well on the leased premises, and any other information obtained in the course of well operation. Such records on each well shall be transferred to and maintained by any subsequent owner.

Whenever a person has been designated as an operator by an owner or owners of the lease or well, such an operator may submit the reports as herein required by the Commission.

302. COGCC Form 1. REGISTRATION FOR OIL AND GAS OPERATIONS

- a. Prior to the commencement of its operations, all producers, operators, transporters, refiners, gasoline or other extraction plant operators, and initial purchasers who are conducting operations subject to this Act in the State of Colorado, shall, for purposes of the Act, file a Registration For Oil and Gas Operations, Form 1, with the Director in the manner and form approved by the Commission. Any producer, operator, transporter, refiner, gasoline or other extraction plant operator, and initial purchaser conducting operations subject to the Act who has not previously filed a Registration For Oil and Gas Operations, Form 1, shall do so. Any person providing financial assurance for oil and gas operators in Colorado shall file a Form 1 with the Director. All changes of address of the parties required to file a Form 1 shall be immediately reported by submitting a new Form 1.
- b. **Designation of Agent, Form 1A.** Operator employees approved to submit documents shall be listed on a completed Designation of Agent, Form 1A. A company/individual other than the operator may be designated as an agent, and its representatives shall be listed on a completed Designation of Agent, Form 1A. This agency shall remain in effect until it is terminated in writing by submitting a new Designation of Agent, Form 1A. All changes to reported agent information shall be immediately reported by submitting a new Designation of Agent, Form 1A.
- c. **Operator Registration with Local Governments for Advance Planning.**

(1) When used in this subpart, "municipal local jurisdiction" means a home rule or statutory city, town, territorial charter city, or combined city and county.

- (2) Beginning on May 1, 2016, all operators that have filed a Form 1 with the Commission shall register with each municipal local jurisdiction and county in which it has an approved drilling unit or a pending or approved Form 2 or Form 2A. An operator registers by complying with the local registration process established by the municipal local jurisdiction or county. If a local registration process does not exist, an operator may comply by delivering current copies of its Form 1 and Form 1A to the Local Governmental Designee ("LGD") in jurisdictions that have designated an LGD, and to the planning department in jurisdictions that do not have an LGD.
- (3) A municipal local jurisdiction may request any operator registered within its jurisdiction provide the following information to the municipal local jurisdiction and the Commission's Local Government Liaison ("LGL"):
- A. Based on an operator's current business plan as of the date of the request, a good faith estimate of the number of wells the operator intends to drill in the next five years in the local jurisdiction. A publicly traded company's well estimates may be based on reserves classified as "proved undeveloped" for SEC reporting purposes.
 - B. A map showing the location within the local jurisdiction of an operator's existing well sites and related production facilities; sites for which the operator has approved, or has submitted applications for, drilling and spacing orders, Form 2s or Form 2As; and, sites the operator has identified for development on its current drilling schedule for which it has not yet submitted applications for Commission permits.
 - C. An operator will provide the well estimates requested pursuant to this subsection 3 using reasonable business judgment based on information known to the operator as of the date the estimates are requested. Well estimates are subject to change at any time at the operator's sole discretion.

303. REQUIREMENTS FOR FORM 2, APPLICATION FOR PERMIT-TO-DRILL, DEEPEN, RE-ENTER, OR RECOMPLETE, AND OPERATE; FORM 2A, OIL AND GAS LOCATION ASSESSMENT.

a. FORM 2. APPLICATION FOR PERMIT-TO-DRILL, DEEPEN, RE-ENTER, OR RECOMPLETE, AND OPERATE.

- (1) **Approval by Director.** A complete Form 2, Application for Permit-to-Drill, Deepen, Re-enter or Recomplete and Operate (Application for Permit-to-Drill) must be approved by the Director before commencement of operations with heavy equipment for the following operations:
- A. Drilling any well;
 - B. Deepening any existing well;
 - C. Re-entering any plugged well (except for re-entry to re-plug shall require a Well Abandonment Report, Form 6, per Rule 311);
 - D. Recompleting and operating any existing well; or
 - E. Drilling a sidetrack from any well.

- (2) **Approved Location.** An approved Form 2A, Oil and Gas Location Assessment, is required for the well location per Rule 303.b.
- (3) **Operational Conflicts.** The Permit to Drill shall be binding with respect to any provision of a local governmental permit or land use approval that is in operational conflict with the Permit to Drill.
- (4) **Filing Fees.** A Form 2, Application for Permit-to-Drill, shall be submitted with a filing and service fee established by the Commission (see Appendix III). Wells drilled for stratigraphic information only shall be exempt from paying the filing and service fee.
- (5) **Information Requirements.**

The Form 2 requires the following information:

- A. Every Form 2, Application for Permit-to-Drill, will specify the distance between the Well and wall or corner of the nearest building, Building Unit, High Occupancy Building Unit, Designated Outside Activity Area, public road, above ground utility, railroad, and property line.
- B. **Wellbore Diagram.** A Form 2 to deepen, to re-enter, to recomplete to a different reservoir, or to drill a sidetrack of an existing Well will have a wellbore diagram attached.
- C. A Form 2 to deepen, to re-enter, to recomplete to a different reservoir, or to drill a sidetrack of an existing Well will include the details of the proposed work.
- D. **Well Location Plat.** A Form 2 to drill a new Well or a new wellbore will have a well location plat attached. The plat will be a current scaled drawing(s) of the entire section(s) penetrated by the proposed well with the following minimum information:
 - i. Dimensions on adjacent exterior section lines sufficient to completely describe the quarter section(s) containing the proposed Well surface location, top of productive zone, wellbore, and bottom hole location will be indicated. If dimensions are not field measured, the plat will state how the dimensions were determined.
 - ii. For irregular, partial or truncated sections, dimensions will be furnished to completely describe the entire section(s) containing the proposed Well.
 - iii. The field-measured distances from the nearer north/south and nearer east/west section lines will be measured at 90 degrees from said section lines to the Well surface location and referenced on the plat. For unsurveyed land grants and other areas where an official public land survey system does not exist, the Well locations will be spotted as footages on a protracted section plat using Global Positioning System (GPS) technology and reported as latitude and longitude in accordance with Rule 215.
 - iv. The latitude and longitude of the proposed surface location will be provided on the drawing with a minimum of 5 decimal places of accuracy and precision using the North American Datum (NAD) of 1983 (e.g. latitude 37.12345 N, longitude 104.45632 W). If GPS technology is utilized to determine the latitude and longitude, all GPS data shall meet the requirements set forth in Rule 215.

- v. The well location plat will include the proposed top of the productive zone and the bottom hole location. If the wellbore penetrates multiple sections, the well location plat will depict every section penetrated by the wellbore.
 - vi. A map legend.
 - vii. A north arrow.
 - viii. A scale expressed as an equivalent (e.g. 1 inch = 1000 feet).
 - ix. A bar scale.
 - x. The ground elevation.
 - xi. The basis of the elevation (how it was calculated or its source).
 - xii. The basis of bearing or interior angles used.
 - xiii. Complete description of monuments and/or collateral evidence found; all aliquot corners used will be described.
 - xiv. The legal land description by section, township, range, principal meridian, baseline, and county.
 - xv. Operator name.
 - xvi. Well name and well number.
 - xvii. Date of completion of scaled drawing.
- E. **Deviated Drilling Plan.** A Form 2 to drill a deviated (directional, highly deviated, or horizontal) wellbore utilizing controlled directional drilling methods will have the deviated drilling plan attached. The deviated drilling plan will meet the requirements set forth in Rule 321.
- F. **Casing and Cementing Plan.** A Form 2 to drill a Well will include a casing and cementing plan that addresses anticipated groundwater by demonstrating how it will be isolated, potential flow and hydrocarbon bearing zones, and subsurface hazards. The casing and cementing plan will describe the top and bottom depths and the concentration of total dissolved solids (TDS) in milligrams per liter of all groundwater from the surface to the depth of the bottom hole, and demonstrate compliance with the casing and cementing requirements of Rule 317.e. To identify top and bottom depths and TDS concentrations of groundwater, the Operator will use all available sources of pertinent information, including but not limited to reports from the Water Quality Control Commission, the Division of Water Resources, the Colorado Geological Survey, the United States Geological Survey, the Colorado Groundwater Atlas; peer-reviewed publications; the Commission's Field Scout Cards; electric logs (e.g. resistivity logs); produced water samples; groundwater samples collected to support aquifer exemptions and samples collected from domestic, municipal, agricultural, and industrial water wells. If the top or bottom depth, or TDS concentration cannot be determined using these sources the Operator will comply with Rule 317.e.(5) to ensure isolation of all such groundwater.
- G. **Statewide Offset Well Evaluation.**

- i. The Form 2 will include an offset well evaluation. The Operator will evaluate the construction and integrity of all offset wells within 1,500 feet of the proposed wellbore. The Operator will provide a plan to address all offset wells within 1,500 feet that do not meet isolation and integrity requirements.
 - ii. The Operator will attach any consents obtained pursuant to Rule 317.v. to the Form 2.
 - iii. The Operator will provide notice as required by Rule 317.w.
- H. **Hydraulic Fracturing Treatment at Depths 2,000 Feet or Less.** If an Operator proposes to drill a Well at a depth less than 2,000 feet true vertical depth (TVD) below the surface that will be subject to hydraulic fracturing treatment, the following requirements apply:
- i. **Geology and Hydrogeology Assessment.** The Operator will characterize and assess the local geology and groundwater resources within 2 miles of the proposed oil and gas Well.
 - ii. **Engineering Assessment.** The Operator will describe the proposed drilling process, well design, completion process, hydraulic fracturing treatment process, production methods, and facilities. The assessment will identify any risks to geology and hydrogeology and explain how the operator will prevent, minimize, or mitigate any identified risk.

303.b. **FORM 2A, OIL AND GAS LOCATION ASSESSMENT.**

- (1) Unless exempted under subsection 2, below, a completed Form 2A, Oil and Gas Location Assessment, approved by the Director or the Commission is required for:
- A. Any new Oil and Gas Location. For purposes of this section, “new Oil and Gas Location” shall mean surface disturbance at a previously undisturbed site;
 - B. Surface disturbance for purposes of modifying or expanding an existing Oil and Gas Location; or
 - C. The addition of a well or a pit, except an Emergency Pit or a Flare Pit where there is no risk of condensate accumulation, to any existing Oil and Gas Location.
- (2) **Exemptions.** A new Form 2A shall not be required for the following:
- A. Surface disturbance, other than for purposes described in subsections 303.b.(1) B and C. above, at an existing Oil and Gas Location within the originally disturbed area, even if interim reclamation has been performed;
 - B. For an Oil and Gas Location covered by an approved Comprehensive Drilling Plan and where such Comprehensive Drilling Plan contains information substantially equivalent to that which would be required for a Form 2A for the proposed Oil and Gas Location and the Comprehensive Drilling Plan has been subject to procedures substantially equivalent to those required for a Form 2A, including but not limited to consultation with Surface Owners, local governments, the Colorado Department of Public Health and Environment or Colorado Parks and Wildlife, where applicable, and public notice and opportunity to comment, and where the operator

does not seek a variance from the Comprehensive Drilling Plan or a provision of these rules that is not addressed in the Plan;

- C. Seismic operations;
- D. Pipelines for oil, gas, or water; or
- E. Roads.

(3) **Information Requirements.**

The Form 2A requires the following information:

- A. A Form 2A shall specify the shortest distance between any Well or Production Facility proposed or existing on the Oil and Gas Location and the edge or corner of the nearest building, Building Unit, High Occupancy Building Unit, the nearest boundary of a Designated Outside Activity Area, and the nearest public road, above ground utility, railroad, and property line.
- B. **Location Pictures.** A minimum of four (4) color photographs, one (1) of the staked location from each cardinal direction shall be attached. Each photograph shall be identified by: date taken, well or location name, and direction of view.
- C. A list of major equipment components to be used in conjunction with drilling and operating the well(s), including all tanks, pits, flares, combustion equipment, separators, and other ancillary equipment and a description of any pipelines for oil, gas, or water.
- D. **Location Drawing.** A scaled drawing, or scaled aerial photograph showing the approximate outline of the Oil and Gas Location and all wells and/or Production Facilities used for measuring distances shall be attached. The drawing shall include all visible improvements within five hundred (500) feet of the proposed Oil and Gas Location (as measured from the proposed edge of disturbance), with a horizontal distance and approximate bearing from the oil and gas facilities. Visible improvements shall include, but not be limited to, all buildings and Building Units, publicly maintained roads and trails, fences, above-ground utility lines, railroads, pipelines or pipeline markers, mines, oil wells, gas wells, injection wells, water wells known to the operator and those registered with the Colorado State Engineer, known springs, plugged wells, known sewers with manholes, standing bodies of water, and natural channels including permanent canals and ditches through which water may flow. If there are no visible improvements within five hundred (500) feet of a proposed Oil and Gas Location, it shall be so noted on the Form 2A.
- E. **Hydrology Map.** A topographic map showing all surface waters and riparian areas within one thousand (1,000) feet of the proposed Oil and Gas Location, with a horizontal distance and approximate bearing from the Oil and Gas Location shall be attached.
- F. **Access Road Map.** An 8 1/2" by 11" vicinity map, U.S. Geological Survey topographic map, or scaled aerial photograph showing the access route from the highway or county road to the proposed Oil and Gas Location shall be attached.

G. Designation of the current land use(s) and landowner's designated final land use(s) and basis for setting reclamation standards.

i. If the final land use includes residential, industrial/commercial, or cropland and does not include any other uses, the land use should be indicated and no further information is needed.

ii. If the final land use includes rangeland, forestry, recreation, or wildlife habitat, then a reference area shall be selected and the following information shall be attached:

aa. **Reference Area Map.** A topographic map showing the location of the site, and the location of the reference area; and

bb. **Reference Area Pictures.** Four (4) color photographs of the reference area, taken during the growing season of vegetation and facing each cardinal direction. Each photograph shall be identified by date taken, well or Oil and Gas Location name, and direction of view. Provided that these photographs may be submitted at any time up to twelve (12) months after the Form 2A.

H. **NRCS Map Unit Description.** Natural Resources Conservation Service (NRCS) soil map unit description shall be attached.

I. **Construction Layout Drawing.** If the Oil and Gas Location disturbance is to occur on lands with a slope ten percent (10%) or greater, or one (1) foot of elevation gain or more in ten (10) foot distance, then the following information shall be attached:

i. Construction layout drawing (construction and operation); and

ii. Location cross-section plot (construction and operation).

J. If the proposed Oil and Gas Location is within one thousand (1,000) feet of a Building Unit, the following information shall be attached:

i. **Facility Layout Drawing.** A scaled facility layout drawing depicting the location of all existing and proposed new Oil and Gas Facilities listed on the Form 2A;

ii. **Waste Management Plan.** A Waste Management Plan describing how the Operator intends to satisfy the general requirements of Rule 907.a.; and

iii. **Rule 305.a.(2) Certification.** Evidence that Building Unit owners within the Buffer Zone received the pre-application notice required by Rule 305.a.(2).

K. **Certification of Local Government Notification in Urban Mitigation Areas.**

i. If a proposed Oil and Gas Location is within an Urban Mitigation Area, but is not a Large UMA Facility, the operator shall submit evidence

that the local government with land use authority received the pre-application notice required by Rule 305.a.(1).

- ii. For a proposed Large UMA Facility, the operator shall certify on the Form 2A that the operator complied with Rule 305A and submit documentation supporting its certification demonstrating one of the following:
 - aa. The operator and local government with land use authority reached agreement regarding the site for the proposed Large UMA Facility;
 - bb. The proposed Large UMA Facility was subject to an exception under Rule 305A.e.;
 - cc. The local government with land use authority waived the notification and consultation procedures in Rule 305A.a.(1) and 305A.c. in writing;
 - dd. The local government with land use authority did not timely respond to the Notice of Intent to Construct Large UMA Facility; or
 - ee. The operator and local government with land use authority engaged in consultation and at least 90 days passed after the local government received the Notice of Intent to Construct Large UMA Facility but no agreement was reached regarding the siting of the proposed Large UMA Facility.
 - iii. For a proposed Large UMA Facility, the operator shall submit evidence that Proximate Local Governments received the pre-application notice required by Rule 305.a.(3).
- L. **Multi-Well Plan.** Where the proposed Oil and Gas Location is for multiple wells on a single pad, a drawing showing proposed wellbore trajectory with bottom-hole locations shall be attached.
 - M. A description of any applicant-proposed Best Management Practices or, where a variance from a provision of these rules is sought, any applicant-proposed measures to meet the standards for such a variance. With the consent of the Surface Owner, this may include mitigation measures contained in a relevant Surface Use Agreement.
 - N. If the proposed Oil and Gas Location is covered by an approved Comprehensive Drilling Plan pursuant to Rule 216, a list of any conditions of approval.
 - O. Contact information for the Surface Owner(s) and an indication as to whether there is a Surface Use Agreement(s) or any other agreement(s) between the applicant and the Surface Owner(s) for the proposed Oil and Gas Location.
 - P. Designation of whether the proposed Oil and Gas Location is within sensitive wildlife habitat or a restricted surface occupancy area.

- Q. If the proposed Oil and Gas Location is within a zone defined in Rule 317B, Table 1, documentation that the applicant has provided notification of the application submittal to potentially impacted public water systems within fifteen (15) stream miles downstream.
 - R. Any additional data as reasonably required by the Commission as a result of consultation with the Colorado Department of Public Health and Environment or Colorado Parks and Wildlife.
 - S. Oil and Gas Locations in wetlands. The Form 2A shall also indicate if an Army Corps of Engineers permit pursuant to 33 U.S.C.A. §1342 and 1344 of the Water Pollution and Control Act (Section 404 of the federal “Clean Water Act”) is required for the construction of an Oil and Gas Location.
 - T. The Operator shall indicate on the Form 2A whether it intends to seek a location exception under Rules 604.b(2) or b(3), and, if so, the relevant Surface Use Agreement(s) shall be attached.
 - U. **Schools and Child Care Centers.** If the proposed oil and gas location is subject to the notice requirements of Rule 305.a.(4), then the following information will be attached or included:
 - i. **Facilities Map.** A map or scaled aerial image depicting the oil and gas location boundary and proposed and existing wells and production facilities in proximity to any surrounding school facility or child care center; and
 - ii. A statement indicating whether the school governing body requested consultation and whether, after consultation, the school governing body and operator reached agreement regarding identification of a school facility or child care center.
- (4) Where the information required under subsection (3) has been included in a federal Surface Use Plan of Operations meeting the requirements of Onshore Oil and Gas Order Number 1 (72 Fed. Reg. 10308 (March 7, 2007)), or for a federal Right of Way, Form 299, then the operator may attach the completed pertinent information and identify on the Form 2A where the information required under this section may be found therein.

303.c. **PROCESSING TIME FOR APPROVALS UNDER THIS SECTION.**

- (1) In accordance with Rule 216.f.(3), where a proposed Oil and Gas Location is covered by an approved Comprehensive Drilling Plan and no variance is sought from such Plan or these rules not addressed in the Comprehensive Drilling Plan, the Director shall give priority to and approve or deny an Application for Permit-to Drill, Form 2, or, where applicable, Oil and Gas Location Assessment, Form 2A, that is not a Large UMA Facility within 30 days of a determination that such application is complete pursuant to Rule 303.h., unless significant new information is brought to the attention of the Director. The Director shall give priority to a Form 2A proposing a Large UMA Facility that is consistent with a Comprehensive Drilling Plan, or a local government comprehensive plan that specifies locations for oil and gas facilities, and shall approve or deny such an application within 90 days.
- (2) **Request for Hearing.**

- A. An operator may request a hearing before the Commission on an Application for Permit-to-Drill, Form 2, and on an Oil and Gas Location Assessment, Form 2A, that is not a Large UMA Facility if the Director has not issued a decision within 75 days following a determination that the application is complete;
- B. An operator may request a hearing before the Commission on an Oil and Gas Location Assessment, Form 2A, for a Large UMA Facility if the Director has not issued a decision within:
 - i. 90 days following a determination that the application is complete, if:
 - aa. At the time the Form 2A is submitted, the operator and the local government with land use authority reached agreement regarding the site for the proposed Large UMA Facility;
 - bb. The Form 2A was excepted from the Rule 305A consultation process; or
 - cc. The local government with land use authority waived the 305A procedures in writing or did not timely respond in writing to the Notice of Intent to Construct.
 - ii. 120 days following a determination that the application is complete, if, at the time the Form 2A is submitted, the operator and the local government with land use authority had not reached agreement regarding the site for the proposed Large UMA Facility.
- C. A hearing pursuant to either subpart A. or B. shall be expedited but will be held only after both the 20 days' notice and the newspaper notice are given as required by §34-60-108, C.R.S. However, the hearing can be held after the newspaper notice if all of the entities listed under Rule 503.b. waive the 20 day notice requirement.

303.d. **Revisions to Form 2 or Form 2A.** Prior to approval of the Form 2 or Form 2A permit application, minor revisions or requested information may be provided by contacting the COGCC staff. After approval, any substantive changes shall be submitted for approval on a Form 2 or Form 2A. A Sundry Notice, Form 4, shall be submitted, along with supplemental information requested by the Director, when non-substantive revisions are made after approval, and no additional fee shall be imposed.

303.e. **Incomplete applications.** Applications for Permit-to-Drill, Form 2, or Oil and Gas Location Assessments, Form 2A, which are submitted without the required attachments, the proper signature, or the required information, shall be considered incomplete and shall not be reviewed or approved. The COGCC staff shall notify the applicant in not more than ten (10) days of its receipt of the application of such inadequacies, except that the Director shall notify the applicant of inadequacies within three (3) business days of its receipt where the proposed Oil and Gas Location is covered by an accepted Comprehensive Drilling Plan. The applicant shall then have thirty (30) days from the date that it was contacted to correct or provide requested information, otherwise the application shall be considered withdrawn and the fee shall not be refunded.

303.f. **Information requests after completeness determination.** Subsequent to deeming an Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A,

complete, the Director may request from the operator additional information needed to complete review of and make a decision on such an application. Such an information request shall not affect an operator's ability to request a hearing pursuant to Rule 303.e seventy-five (75) days from the date the Form 2 or Form 2A was originally determined to be complete pursuant to Rule 303.h.

303.g. Permit expiration.

- (1) Applications for Permit-to-Drill, Form 2. Approval of a Form 2 shall become null and void if drilling operations on the permitted well are not commenced within two (2) years after the date of approval. The Director shall not approve extensions to Applications for Permit-to-Drill, Form 2.
- (2) Oil and Gas Location Assessments, Form 2A. If construction operations are not commenced on an approved Oil and Gas Location within three (3) years after the date of approval, then the approval shall become null and void. The Director shall not approve extensions to Oil and Gas Location Assessments, Form 2A.

303.h. Permits in areas pending Commission hearing. The Director may withhold the issuance of any Applications for Permit-to-Drill, Form 2, for any well or proposed well that is located in an area for which an application has been filed, or which the Commission has sought, by its own motion, to establish drilling units. The hearing thereon shall be held at the next meeting of the Commission, or as soon as practicable before an Administrative Law Judge or Hearing Officer.

303.i. Special circumstances for permit issuance without notice or consultation. The Director may issue a permit at any time in the event that an operator files a sworn statement and demonstrates therein to the Director's satisfaction that:

- (1) The operator had the right or obligation under the terms of an existing contract to drill a well; and the owner or operator has a leasehold estate or a right to acquire a leasehold estate under said contract which will be terminated unless the operator is permitted to immediately commence the drilling of said well; or
- (2) Due to exigent circumstances (including a recent change in geological interpretation), significant economic hardship to a drilling contractor will result or significant economic hardship to an operator in the form of drilling stand by charges will result.

In the event the Director issues a permit under this rule, the operator shall not be required to meet obligations to Surface Owners, local governmental designees, the Colorado Department of Public Health and Environment, or Colorado Parks and Wildlife under Rule 305 (except Rules 305.f.(4) and 305.f.(6), for which compliance will still be required) and 306. The Director shall report permits granted in such manner to the Commission at regularly scheduled monthly hearings.

303.j. Special circumstances for withholding approval of Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A.

- (1) The Director may withhold approval of any Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, for any proposed well or Oil and Gas Location when, based on information supplied in a written complaint submitted by any party with standing under Rule 522.a.(1), other than a local governmental designee, or by staff analysis, the Director has reasonable cause to believe the proposed well or Oil and Gas Location is in material violation of the Commission's rules, regulations, orders or statutes, or otherwise presents an imminent threat to

public health, safety and welfare, including the environment, or a material threat to wildlife resources. Any such withholding of approval shall be limited to the minimum period of time necessary to investigate and dismiss the complaint, or to resolve the alleged violation or issue. If the complaint is dismissed or the matter resolved to the dissatisfaction of the complainant, such person may consult with the parties identified in Rule 503.b.(7).

- (2) In the event the Director withholds approval of any Application for Permit-To-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, under this Rule 303.j., an operator may ask the Commission to issue an emergency order rescinding the Director's decision.

303.k. **Suspending approved Application for Permit-To-Drill, Form 2.** Prior to the spudding of the well, the Director shall suspend an approved Application for Permit-to-Drill, Form 2, if the Director has reasonable cause to believe that information submitted on the Application for Permit-to-Drill, Form 2 was materially incorrect. Under the circumstances described in Rule 303.i.(1) or (2), an operator may ask the Commission to issue an emergency order rescinding the Director's decision.

303.l. **Reclassification of stratigraphic well.** If a test for productivity is made in a stratigraphic well, the well must be reclassified as a well drilled for oil or gas and is subject to all of the rules and regulations for well drilled for oil or gas, including filing of reports and mechanical logs.

303.m. **Provisions for avoiding mine sites.** Any person holding, or who has applied for, a permit issued or to be issued under §34-33-101 to 137, C.R.S., may at their election, notify the Director of such permit or application. Such notice shall include the name, mailing address and facsimile number of such person and designate by legal description the life-of-mine area permitted, or applied for, with the Division of Reclamation, Mining, and Safety. As soon as practicable after receiving such notice and designation, the Director shall inform the party designated therein each time that an Application for Permit-to-Drill, Form 2, is filed with the Director which pertains to a well or wells located or to be located within said life-of-mine area as designated. The provisions of Rule 303.i.(1) and (2) will not be applicable to this rule.

304. FINANCIAL ASSURANCE REQUIREMENTS

Prior to drilling or assuming the operations for a well an operator shall provide financial assurance in accordance with the 700 Series rules. When an operator's existing wells are not in compliance with the 700 Series, the Director may withhold action on an Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, until such time as a hearing on the permit application is held by the Commission. Such hearing shall be held at the next regularly scheduled Commission hearing, or as soon as practicable before an Administrative Law Judge or Hearing Officer.

305A. LOCAL GOVERNMENT NOTIFICATION AND CONSULTATION FOR LARGE UMA FACILITIES

a. **Notice of Intent to Construct a Large UMA Facility.** Subject to the exceptions specified in subsection 305A.e., an operator proposing a Large UMA Facility shall deliver a written Notice of Intent to Construct a Large UMA Facility not less than 90 days prior to initiating the Form 2A process with the Commission and before the operator has finalized a specific location with the Surface Owner as follows:

- (1) The Notice must be delivered to:

A. The local government with land use authority over the proposed location of a Large UMA Facility; and

B. The Surface Owner of the lands on which a Large UMA Facility is proposed.

(2) The operator must deliver the Notice by hand delivery; certified mail, return-receipt requested; electronic mail, return receipt requested; or by other delivery service with receipt confirmation unless an alternative method of notice is pre-approved by the Director.

b. Content of Notice of Intent to Construct a Large UMA Facility. A Notice of Intent to Construct a Large UMA Facility shall include the following information:

(1) A description and depiction of the proposed Oil and Gas Location and the planned facilities;

(2) A description of the siting rationale for proposing to locate the facility within the Urban Mitigation Area, including a description of other sites considered and the reasons such alternate sites were rejected; and

(3) An offer to consult with the local government with land use authority over the proposed location to seek agreement regarding siting the Large UMA Facility, considering alternative locations and potential best management practices.

c. Consultation between the Operator and the Local Government with Land Use Authority.

If the local government with land use authority over the proposed Large UMA Facility accepts an operator's offer to consult in writing within 30 days of receipt of a Notice of Intent to Construct a Large UMA Facility, the operator shall consult in good faith regarding siting of, and best management practices to be employed at, the proposed location.

(1) The operator will invite the Surface Owner to participate in the local government consultation so the Surface Owner's siting requests and concerns can be considered.

(2) The Director will participate in the consultation process between the local government and the operator at the request of either.

(3) If the local government and operator are unable to reach agreement regarding the location for a proposed Large UMA Facility, the operator shall offer in writing to engage in mediation with the local government.

A. If the local government agrees to mediation, the operator and the local government shall jointly select a mediator or mediators and equally share the cost of mediation.

B. Upon selection of a mediator(s), the mediation shall conclude within 45 days unless the operator and local government agree to an extension of time.

C. The Director is not a party to the mediation, but at the request of either the local government or the operator, the Director shall provide technical assistance to the parties or the mediator to the extent the Director is able.

(4) This Rule 305A.c. does not prescribe any particular form of consultation or local land use planning or approval process.

d. **Meeting with the Surface Owner.** Within 30 days of receiving the Notice of Intent to Construct a Large UMA Facility, the Surface Owner of the lands on which the operator proposes to locate a Large UMA Facility may request a meeting with the operator and Director regarding siting of the proposed Large UMA Facility. The Director will schedule the meeting.

e. **Exceptions to Large UMA Facility Notification and Consultation Process.**

(1) An operator proposing a Large UMA Facility is not required to provide a Notice of Intent to Construct a Large UMA Facility or to engage in the consultation processes described in Rule 305A.a.-d. in any of the following circumstances:

A. The local government with land use authority over the proposed location of a Large UMA Facility has opted out of the Rule 305A notification and consultation processes. A local government may opt out of the Rule 305A notification and consultation processes by notifying the Director in writing that the local government does not wish to receive Notices of Intent to Construct Large UMA Facilities for such Facilities proposed within its jurisdiction.

B. The operator and the local government with land use authority over the proposed location of a Large UMA Facility have an existing agreement regarding siting of oil and gas locations and the proposed Large UMA Facility is within the scope of the agreement. An operator relying on this exception shall submit a copy of relevant provisions of the agreement with its Form 2A as required by Rule 303.b.(3)K. to demonstrate compliance with Rule 305A.

C. The Large UMA Facility is proposed to be located within an approved site specific development plan (as defined in §24-68-102(4)(a), C.R.S., that establishes vested property rights as defined in §24-68-103, C.R.S.), and which expressly governs the location of Wells or Production Facilities on the surface estate. An operator relying on this exception shall submit a copy of relevant portions of the plan and approval by the local government with its Form 2A as required by Rule 303.b.(3)K. to demonstrate compliance with Rule 305A.

D. The Location of the Large UMA Facility is within acreage identified as an oil and gas operations area included in an approved "Application for Development" as that is defined under §24-65.5-101, et. seq., C.R.S. An operator relying on this exception shall submit a copy of relevant portions of the plan and approval by the local government with its Form 2A as required by Rule 303.b.(3)K. to demonstrate compliance with Rule 305A.

(2) For a Form 2A submitted pursuant to (1)B., (1)C, or (1)D. of this Rule 305A.e., the Director within 30 days may verify with the local government with land use authority that the proposed Large UMA Facility is within the scope of the cited agreement or development plan. If, after conferring with the local government with land use authority and the operator, the Director determines the proposed Large UMA Facility is not within the scope of the cited agreement the Director will reject the Form 2A and notify the operator that it must comply with Rule 305A.a.-d.

(3) All Rule 604.c.(4) requirements apply to all Large UMA Facilities regardless of whether a proposed Large UMA Facility is excepted from the Rule 305A.a.-d. requirements pursuant to this Rule 305A.e.

f. Initiating the Form 2A Process.

- (1) An operator may initiate the Form 2A process by submitting its pre-application notices pursuant to Rule 305.a. once any of the following occur:
 - A. The operator and the local government with land use authority reach agreement regarding a proposed Large UMA Facility's site.
 - B. The operator asserts the proposed Large UMA Facility is subject to an exception pursuant to Rule 305A.e.
 - C. The local government with land use authority waives the Rule 305A procedures in writing.
 - D. The local government with land use authority fails to respond in writing within 30 days of receiving the Notice of Intent to Construct a Large UMA Facility.
 - E. At least 90 days have passed since the local government with land use authority received a written Notice of Intent to Construct a Large UMA Facility and the local government and the operator have engaged in consultation pursuant to Rule 305A.c., but have not reached agreement. In these cases, the operator may initiate the Form 2A process with its preferred site, but must state on the Form 2A that the local government does not agree with the site for the proposed Large UMA Facility. A Form 2A submitted under these circumstances will be docketed for a Commission hearing as follows:
 - i. The Director will notify the operator and local government with land use authority when the Director's technical review is complete and will confirm whether an agreement has been reached regarding the site for the proposed location.
 - ii. If an agreement has been reached, the Director will issue a decision on the Form 2A.
 - iii. If an agreement has not been reached, the Director will notice the Form 2A for a Commission hearing.
 - aa. Such a hearing shall be expedited but will be held only after both the 20 days' notice and the newspaper notice are given as required by §34-60-108, C.R.S. However, the hearing can be held after the newspaper notice if all of the entities listed under Rule 503.b. waive the 20-day notice requirement.
 - bb. The hearing will be conducted pursuant to Rule 528.a. For purposes of the hearing, the operator will be the Applicant and the local government with land use authority may intervene as a matter of right.
- (2) The Director will reject a Form 2A submitted for a Large UMA Facility if the documentation submitted with the Form 2A pursuant to Rule 303.b.(3)K. does not demonstrate compliance with Rule 305A for the proposed Large UMA Facility.

305. FORM 2 AND 2A APPLICATION PROCEDURES

a. Pre-application notifications.

- (1) Urban Mitigation Area Notice to Local Government. For proposed Oil and Gas Locations within an Urban Mitigation Area, an Operator shall notify the local government in writing that it intends to apply for an Oil and Gas Location Assessment. The operator will provide a Notice of Intent to Conduct Oil and Gas Operations to the Local Governmental Designee in those jurisdictions that have designated an LGD or to the local government planning departments in jurisdictions that have not designated an LGD no less than 30 days before the operator submits a Form 2A, Oil and Gas Location Assessment, to the Director. The notice shall include a general description of the proposed Oil and Gas Facilities, the location of the proposed Oil and Gas Facilities, the anticipated date operations (by calendar quarter and year) will commence, and that an additional notice pursuant to Rule 305.c. will be sent by the Operator. This notice shall serve as an invitation to the local government to engage in discussions with the Operator regarding proposed operations and timing, local government jurisdictional requirements, and opportunities to collaborate regarding site development. A local government may waive its right to notice under this provision at any time by providing written notice to an Operator and the Director. The notice requirement of this subpart does not apply to local governments that received notice and accepted the offer to consult pursuant to Rule 305A.a.

- (2) Exception Zone and Buffer Zone Setback Notice to the Surface Owner and Building Unit Owners. For Oil and Gas Locations proposed within the Exception Zone or Buffer Zone Setback, Operators shall notify the Surface Owner and the owners of all Building Units that a permit to conduct Oil and Gas Operations is being sought no less than 30 days before the operator submits the Form 2A, Oil and Gas Location Assessment, to the Director. The Operator may rely on the county assessor tax records to identify the persons entitled to receive the Notice. Notice shall include the following:
 - A. The Operator's contact information;
 - B. The location and a general description of the proposed Well or Oil and Gas Facilities;
 - C. The anticipated date operations will commence (by calendar quarter and year);
 - D. The Local Governmental Designee's (LGD) contact information;
 - E. Notice that the Building Unit owner may request a meeting to discuss the proposed operations by contacting the LGD or the Operator; and
 - F. A "Notice of Comment Period" will be sent pursuant to Rule 305.c. when the public comment period commences.

- (3) Large UMA Facility Notice to Proximate Local Governments. For a proposed Large UMA Facility, an operator shall notify any home rule or statutory city, town, territorial charter city, combined city and county, or county (for purposes of this section "Proximate Local Governments") within 1,000 feet of the proposed site that a permit to construct a Large UMA Facility is being sought not less than 45 days prior to submitting a Form 2A, Oil and Gas Location Assessment, to the Director.

A local government may waive its right to notice under this provision at any time by providing written notice to the operator and the Director.

- A. The Notice shall include the following: the operator's contact information; a description of the location and a general description of the proposed Large UMA Facility; and state that the Proximate Local Government may provide comments as provided in Rule 305.d.
- B. The Director will respond in writing to any Proximate Local Government comments regarding specific best management practices reasonably related to potential significant adverse impacts to public health, safety and welfare, including the environment and wildlife resources, that are within the Commission's jurisdiction to remedy for the proposed Large UMA Facility.

(4) Notice to School, Child Care Center, and School Governing Body.

- A. An operator will notify any relevant school or child care center, and school governing body, of a proposed oil and gas location within one-thousand, three hundred, twenty (1,320) feet or less from:
 - i. The property line of a parcel currently owned by the school, child care center, or school governing body as identified through county assessor records;
 - ii. The property line of a parcel considered a future school facility as identified on the final approved plat that may be obtained from the planning department of the relevant local government; or
 - iii. What reasonably appears to be a school facility (regardless of property ownership) based on the operator's review of current aerial maps that show surface development or surveys of the area.
- B. The operator will provide a pre-application Notice of Intent to Conduct Oil and Gas Operations to the principal or senior administrator of the school and to all applicable school governing bodies no less than 30 days before the operator submits the Form 2A, Oil and Gas Location Assessment, to the Director.
- C. The Notice will include:
 - i. The operator's contact information;
 - ii. The location and general description of the proposed oil and gas location, including the School Facilities Map as required under Rule 303.b.(3)U;
 - iii. The Local Governmental Designee's (LGD) contact information;
 - iv. The anticipated date, by calendar year and quarter, that construction will begin and the expected schedule of drilling and completion activities;
 - v. Whether the operator anticipates the proposed wells or production facilities will be subject to the mitigation measures in Rule 604.c.;

- vi. Whether the oil and gas location, wells, or production facilities are subject to a memorandum of understanding or other agreement with, or approval from, the relevant local government regarding location;
 - vii. Notice that the school governing body for the school facility or child care center may request a consultation to discuss the proposed operations by contacting the operator, and that the Director may be invited to any meeting. A school or child care center may delegate the consultation process to the principal or senior administrator of the school or child care center in proximity to the oil and gas location; and
 - viii. Notice that the school, child care center, or school governing body may submit comments regarding the proposed oil and gas location to the Commission as part of the Rule 305.d. public comment period.
- D. A school governing body may waive the right to notice for it and all schools within the area subject to the school governing body's oversight under this provision at any time by providing written notice to the operator and the Director.

b. Posting Form 2A and Form 2.

(1) **Form 2A.** Upon receipt of an Oil and Gas Location Assessment, Form 2A, the Director shall, as provided by Rule 303, determine if the application is complete and, if so, post such Form 2A on the Commission's website. The Commission shall provide concurrent electronic notice of such posting to the relevant Local Governmental Designee (LGD) and the Colorado Parks and Wildlife (where consultation is triggered pursuant to Rule 306.c) and the Colorado Department of Public Health and Environment (where consultation is triggered pursuant to Rule 306.d). The website posting shall clearly indicate:

- A. The date on which the Form 2A was posted;
- B. The date by which public comments must be received to be considered;
- C. The address(es) to which the public may direct comments; and
- D. Where the proposed Oil and Gas Location is covered by an accepted Comprehensive Drilling Plan, directions for review of the Plan.

(2) **Form 2.** If an Application for Permit-to-Drill, Form 2, is concurrently filed with a Form 2A, that fact shall be noted in the posting provided herein. If a Form 2 is subsequently filed, only a summary notice of such filing, indicating that a Form 2A covering the well has been previously accepted or approved, shall be posted, with concurrent notice to the local governmental designee and, where consultation with one of those agencies is triggered, the Colorado Parks and Wildlife or Colorado Department of Public Health and Environment.

305.c. **Completeness determination and comment period notifications.** Upon receipt of a completeness determination from the Director, an Operator shall notify the persons specified herein of their opportunity to meet with the Operator pursuant to Rule 306 and submit written comments about the proposed Oil and Gas Location to the Director, the LGD, and the Operator, and shall provide information about the Oil and Gas Location as follows:

(1) **Oil and Gas Location Assessment Notice (“OGLA Notice”).**

A. Parties to be noticed:

- i. Surface Owners;
- ii. Owners of all Building Units within the Exception Zone Setback; and
- iii. Owners of surface property within five hundred (500) feet of the proposed Oil and Gas Location, for proposed Oil and Gas Locations not subject to Rule 318A or 318B.

The operator may rely on the tax records of the assessor for the county in which the affected lands are located to identify the persons entitled to receive the OGLA Notice.

B. The OGLA Notice shall be delivered by hand; certified mail, return-receipt requested; electronic mail, return receipt requested; or by other delivery service with receipt confirmation unless an alternative method of notice is pre-approved by the Director.

C. The OGLA Notice shall include:

- i. The Form 2A itself (without attachments);
- ii. A copy of the information required under Rule 303.b.(3).C, 303.b.(3).D, 303.b.(3).F, and 303.b.(3).J.i.;
- iii. The COGCC’s information sheet on hydraulic fracturing treatments except where hydraulic fracturing treatments are not going to be applied to the well in question;
- iv. Instructions on how Building Unit owners can contact their Local Governmental Designee;
- v. An invitation to meet with the Operator before Oil and Gas Operations commence on the proposed Oil and Gas Location;
- vi. An invitation to provide written comments to the LGD, the Operator and to the Director regarding the proposed Oil and Gas Operations, including comments regarding the mitigation measures or Best Management Practices to be used at the Oil and Gas Location.

(2) **Buffer Zone Notice.** A “Notice of Comment Period” shall be provided by postcard to owners of Building Units within the Buffer Zone. The operator may rely on the county assessor tax records to identify the persons entitled to receive the Buffer Zone Notice. Notice shall include the following information:

- A. The Operator’s contact information;
- B. The Local Governmental Designee’s contact information;
- C. The COGCC’s website address and telephone number;

- D. The location of the proposed Oil and Gas Facilities and the anticipated date operations will commence (by month and year);
- E. An invitation to meet with the Operator before Oil and Gas Operations commence on the proposed Oil and Gas Location;
- F. An invitation to provide written comments to the LGD, the Operator and to the Director regarding the proposed Oil and Gas Operations, including comments regarding the mitigation measures or Best Management Practices to be used at the Oil and Gas Location.

(3) **Appointment of agent.** The Surface Owner or Building Unit owner may appoint an agent, including its tenant, for purposes of subsequent notice and for consultation or meetings under Rule 306. Such appointment shall be made in writing to the operator and must provide the agent's name, address, and telephone number.

(4) **Tenants.** With respect to notices given under this Rule 305, it shall be the responsibility of the notified Surface Owner or Building Unit owner to give notice of the proposed operation to the tenant farmer, lessee, or other party that may own or have an interest in any crops or surface improvements that could be affected by such proposed operation.

(5) **Waiver.** Any of the notices required herein may be waived in writing by the Surface Owner, its agent, or the Local Governmental Designee, provided that a waiver by a Surface Owner or its agent shall not prevent the Surface Owner or any successor-in-interest to the Surface Owner from rescinding that waiver if such rescission is in accordance with applicable law.

305.d. **Comment period.** The Director shall not approve a Form 2A, or any associated Form 2, for a proposed Well or Production Facility during the comment period, and shall accept and immediately post on the Commission's website any comments received from the public, the Local Governmental Designee, the Colorado Department of Public Health and Environment, or Colorado Parks and Wildlife regarding the proposed Oil and Gas Location.

(1) The comment period for a Form 2 or a Form 2A for an Oil and Gas Location that is not a Large UMA Facility is 20 days from posting pursuant to Rule 305.b.

A. The Director shall extend the comment period to 30 days upon the written request during the 20-day comment period by the Local Governmental Designee, the Colorado Department of Public Health and Environment, Colorado Parks and Wildlife, the Surface Owner, or an owner of surface property who receives notice under Rule 305.c.(1)A.iii.

B. For Oil and Gas Locations proposed within an Urban Mitigation Area or within 500 feet of a Building Unit, the Director shall extend the comment period to not more than 40 days upon the written request of the Local Governmental Designee received within the original 20-day comment period.

(2) For a Large UMA Facility, the comment period is 40 days from posting pursuant to Rule 305.b.

(3) At the Director's sole discretion, the comment periods identified above may be extended or re-opened for a period not to exceed 20 days.

- (4) The Director shall post notice of an extension granted under this provision on the COGCC website within 24 hours of receipt of the extension request.

305.e. **Permit approval.** Upon the conclusion of the comment period and, where applicable, consultation with the Local Governmental Designee, Colorado Parks and Wildlife or Colorado Department of Public Health and Environment pursuant to Rules 306.b, 306.c. or 306.d, respectively, the Director may attach technically feasible and economically practicable conditions of approval to the Form 2 or Form 2A as the Director deems necessary to implement the provisions of the Act or these rules pursuant to Commission staff analysis or to respond to legitimate public health, safety, or welfare concerns expressed during the comment period. Provided, that an applicant under Rule 503 who claims that such a condition is not technically feasible, economically practicable, or necessary to implement the provisions of the Act or these rules, or to respond to legitimate public health, safety, or welfare concerns shall have the burden of proof on that issue before the Commission.

- (1) **Notice of decision.** Upon making a decision on an Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, the Director shall promptly provide notification of the decision and any conditions of approval to the operator and to any party with standing to request a hearing before the Commission pursuant to Rule 503.b, unless such a party has waived in writing its right to such notice and the Director has been provided a copy of such waiver.

- (2) **Suspension of approval.** If a party, Surface Owner or local government requests a hearing before the Commission pursuant to Rule 503.b on an Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, then it shall notify the Director in writing within ten (10) days after the issuance of the decision, setting forth the basis for the objection. Upon receipt of such an objection, the Director shall suspend the approval of the Form 2 or Form 2A and set the matter for an expedited adjudicatory hearing. Such a hearing shall be expedited but will only be held after both the 20 days' notice and the newspaper notice are given as required by Section 34-60-108, C.R.S. However, the hearing can be held after the newspaper notice if all of the entities listed under Rule 503.b waive the 20-day notice requirement. If such an objection is not received, the permit shall issue as proposed by the Director.

- (3) **Appeal.** If the approval of a Form 2 or Form 2A is not suspended as provided for herein, the issuance of the approved Form 2 or Form 2A by the Director shall be deemed a final decision of the Commission, subject to judicial appeal.

305.f. **Statutory Notice to Surface Owners.** Not less than thirty (30) days in advance of commencement of operations with heavy equipment for the drilling of a well, operators shall provide the statutorily required notice to the well site Surface Owner(s) as described below and the Local Governmental Designee in whose jurisdiction the well is to be drilled. Notice to the Surface Owner may be waived in writing by the Surface Owner.

- (1) Surface Owner Notice is not required on federal- or Indian-owned surface lands.
- (2) Surface Owner Notice shall be delivered by hand; certified mail, return-receipt requested; or by other delivery service with receipt confirmation. Electronic mail may be used if the Surface Owner has approved such use in writing.

- (3) The Surface Owner Notice must provide:
- A. The operator's name and contact information for the operator or its agent;
 - B. A site diagram or plat of the proposed well location and any associated roads and production facilities;
 - C. The date operations with heavy equipment are expected to commence;
 - D. A copy of the COGCC Informational Brochure for Surface Owners;
 - E. A postage-paid, return-addressed post card whereby the Surface Owner may request consultation pursuant to Rule 306; and,
 - F. A copy of the COGCC Onsite Inspection Policy (See Appendix or COGCC website), where the Oil and Gas Location is not subject to a Surface-Use Agreement.
- (4) **Notice of subsequent well operations.** An operator shall provide to the surface owner or agent at least seven (7) days advance notice of subsequent well operations with heavy equipment that will materially impact surface areas beyond the existing access road or well site, such as recompleting or stimulating the well.
- (5) **Notice during irrigation season.** If a well is to be drilled on irrigated crop lands between March 1 and October 31, the operator shall contact the Surface Owner or agent at least fourteen (14) days prior to commencement of operations with heavy equipment to coordinate drilling operations to avoid unreasonable interference with irrigation plans and activities.
- (6) **Final reclamation notice.** Not less than thirty (30) days before any final reclamation operations are to take place pursuant to Rule 1004, the operator shall notify the Surface Owner. Final reclamation operations shall mean those reclamation operations to be undertaken when a well is to be plugged and abandoned or when production facilities are to be permanently removed. Such notice is required only where final reclamation operations commence more than thirty (30) days after the completion of a well.

305.g. **Location Signage.** The Operator shall, concurrent with the Surface Owner Notice, post a sign not less than two feet by two feet at the intersection of the lease road and the public road providing access to the well site, with the name of the proposed well, the legal location thereof, and the estimated date of commencement. Such sign shall be maintained until completion operations at the well are concluded.

305.h. **Buffer Zone Move-In, Rig-Up Notice.** At least 30 days, but no more than 90 days, before the Move-In, Rig-Up of a drilling rig, the operator shall provide Move-In, Rig-Up ("MIRU") Notice to all Building Unit owners within the Buffer Zone if: (i) it has been more than one year since the previous notice or since drilling activity last occurred, or (ii) notice was not previously required.

- (1) The operator may rely on the county assessor tax records to identify the persons entitled to MIRU Notice. MIRU Notice shall be delivered by hand; certified mail, with return-receipt requested; electronic mail, with return receipt requested; or by other delivery service with receipt confirmation.
- (2) The MIRU Notice must include:

- A. A statement informing the Building Unit owner that the operator intends to Move-In and Rig-Up a drilling rig to drill wells within 1000 feet of their Building Unit;
 - B. The operator's contact information;
 - C. The legal location of the proposed wells (Quarter-Quarter, Section, Township, Range, County);
 - D. The approximate street address of the proposed well locations (Street Number, Name, City);
 - E. The name and number of the proposed wells, including the API Number if the APD has been approved or the eForm Document Number if the APD is pending approval;
 - F. The anticipated date (Day, Month, Year) the drilling rig will move in and rig up; and
 - G. The COGCC's website address and telephone number.
- (3) A Building Unit owner entitled to receive MIRU Notice may waive their right in writing at any time.
- (4) An operator may request an exception to this Rule and provide MIRU Notice less than 30 days prior to Move-In, Rig-Up of the drilling rig for good cause.

306. CONSULTATION AND MEETING PROCEDURES. Following the notifications provided for in Rule 305.c, an Operator shall comply with the following consultation and meeting procedures:

a. **Surface owners.** The Operator shall consult in good faith with the Surface Owner, or the Surface Owner's appointed agent as provided for in Rule 305 in locating roads, production facilities, and well sites, or other oil and gas operations, and in preparation for reclamation and abandonment. Such consultation shall occur at a time mutually agreed to by the parties prior to the commencement of operations with heavy equipment upon the lands of the Surface Owner. The Surface Owner or appointed agent may comment on preferred locations for wells and associated production facilities, the preferred timing of oil and gas operations, and mitigation measures or Best Management Practices to be used during Oil and Gas Operations.

(1) **Information provided by operator.** When consulting with the Surface Owner or appointed agent, the operator shall furnish a description or diagram of the proposed drilling location; dimensions of the drill site; topsoil management practices to be employed; and, if known, the location of associated production or injection facilities, pipelines, roads and any other areas to be used for oil and gas operations (if not previously furnished to such Surface Owner or if different from what was previously furnished).

(2) **Waiver.** The Surface Owner or the Surface Owner's appointed agent may waive, permanently or otherwise, their right to consult with the operator at any time. Such waiver must be in writing, signed by the Surface Owner, and submitted to the operator.

306.b. **Local governments.**

- (1) Local governments that have appointed a Local Governmental Designee and have indicated to the Director a desire for consultation shall be given an opportunity to consult with the Applicant and the Director on an Application for Permit-to-Drill, Form 2, or an Oil and Gas Location Assessment, Form 2A, for the location of roads, Production Facilities and Well sites, and mitigation measures or Best Management Practices during the comment period under Rule 305.d.
- (2) Within fourteen (14) days of being notified of a Form 2 or a Form 2A completeness determination pursuant to Rule 305.c, the Local Governmental Designee may notify the Commission and the Colorado Department of Public Health and Environment by electronic mail of its desire to have the Colorado Department of Public Health and Environment consult on a proposed Oil and Gas Location, based on concerns regarding public health, safety, welfare, or impacts to the environment.
- (3) For proposed Oil and Gas Locations within Exception Zone Setback or Urban Mitigation Areas, the Operator shall attend an informational meeting with Building Unit owners within the Exception Zone Setback or Urban Mitigation Area if the LGD requests such a meeting. Such informational meetings may be held on an individual basis, in small groups, or in larger community meetings and shall be held at a convenient place and time.

306.c. **Colorado Parks and Wildlife.**

(1) **Consultation to occur.**

- A. Subject to the provisions of Rule 1202.d, Colorado Parks and Wildlife shall consult with the Commission, the Surface Owner, and the Operator on an Oil and Gas Location Assessment, Form 2A, where:
 - i. Consultation is required pursuant to a provision in the 1200-Series of these rules;
 - ii. The operator seeks a variance from a provision in the 1200-Series of these rules; or
 - iii. Colorado Parks and Wildlife requests consultation because the proposed Oil and Gas Location would be within areas of known occurrence or habitat of a federally threatened or endangered species, as shown on the Colorado Parks and Wildlife Species Activity Mapping (SAM) system.
- B. The Commission shall consult with Colorado Parks and Wildlife when an operator requests a modification of an existing Commission order to increase well density or otherwise proposes to increase well density to more than one (1) well per forty (40) acres, or the Commission develops a basin-wide order involving wildlife or wildlife-related environmental concerns or protections.
- C. Notwithstanding the foregoing, the requirement to consult with Colorado Parks and Wildlife may be waived by Colorado Parks and Wildlife at any time.

(2) **Procedure.**

- A. The operator shall provide:

- i. A description of the oil and gas operation to be considered, including location;
 - ii. Any other relevant available information on the oil and gas operation, the affected wildlife resource, or the provision(s) of the 1200-Series Rules upon which the consultation is based; and
 - iii. Proposed mitigation for the affected wildlife resource.
- B. The Commission shall take into account the information submitted by the operator consistent with Rule 1202.c.
- C. The operator, the Commission, the Surface Owner, and Colorado Parks and Wildlife shall have forty (40) days to conduct the consultation called for in this section. Such consultation shall begin concurrent with the start of the public comment period. If no consultation occurs within such 40-day period, the requirement to consult shall be deemed waived, and the Director shall consider the operator's application on the basis of the materials submitted by the operator.

(3) Result of consultation under Rule 306.c.

- A. As a result of consultation called for in this subsection, Colorado Parks and Wildlife may make written recommendations to the Commission on conditions of approval necessary to minimize adverse impacts to wildlife resources. Where applicable, Colorado Parks and Wildlife may also make written recommendations on whether a variance request should be granted, under what conditions, and the reasons for any such recommendations.
- B. **Agreed-upon conditions of approval.** Where the operator, the Director, Colorado Parks and Wildlife, and the Surface Owner agree to conditions of approval for Oil and Gas Locations as a result of consultation, these conditions of approval shall be incorporated into approvals of an Oil and Gas Location Assessment, Form 2A, or an Application for Permit-to-Drill, Form 2, where applicable.
- C. **Permit-specific conditions.** Where the consultation called for in this subsection results in permit-specific conditions of approval to minimize adverse impacts to wildlife resources, the Director shall attach such permit-specific conditions only with the consent of the affected Surface Owner.
- D. **Standards for consultation and initial decision.** Following consultation and subject to subsection C above and Rule 1202.c, the Director shall decide whether to attach conditions of approval to a Form 2A or Form 2, where applicable. In making this decision, the Director shall apply the criteria of Rule 1202.
- E. **Notification of decision to consulting agency.** Where consultation occurs under Rule 306.c, the Director shall provide to Colorado Parks and Wildlife the conditions of approval for the Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, on the same day that he or she announces a decision to approve the application.

306.d. **Colorado Department of Public Health and Environment.**

(1) **Consultation to occur.**

- A. The Commission shall consult with the Colorado Department of Public Health and Environment on an Application for Permit-to-Drill, Form 2, or an Oil and Gas Location Assessment, Form 2A, where:
- i. Within 14 days of notification pursuant to Rule 305, the Local Governmental Designee requests the participation of the Colorado Department of Public Health and Environment in the Commission's consideration of an Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, based on concerns regarding public health, safety, welfare, or impacts to the environment;
 - ii. The operator seeks from the Director a variance from, or consultation is otherwise required or permitted under, a provision of one of the following rules intended for the protection of public health, safety, welfare, or the environment:
 - aa. Rule 317B. Public Water System Protection;
 - bb. Rule 325. Underground Disposal of Water;
 - cc. Rule 603. Statewide Location Requirements for Oil and Gas Facilities, Drilling, and Well Servicing Operations;
 - dd. Rule 604. Setback and Mitigation Measures for Oil and Gas Facilities, Drilling, and Well Servicing Operations;
 - ee. Rule 608. Coalbed Methane Wells;
 - ff. Rule 805. Odors and Dust;
 - gg. 900-Series E&P Waste Management; or
 - hh. Rule 1002.f. Stormwater Management.

All requests for variances from these rules must be made at the time an operator submits a Form 2A.
 - iii. The operator submits an Application for an Oil and Gas Location Assessment, Form 2A, for a Large UMA Facility.
- B. The Commission shall consult with the Colorado Department of Public Health and Environment when an operator requests a modification of an existing Commission order to increase well density or otherwise proposes to increase well density to more than one (1) well per forty (40) acres, or the Commission develops a basin-wide order that can reasonably be anticipated to have impacts on public health, welfare, safety, or environmental concerns or protections.

- C. Notwithstanding the foregoing, the requirement to consult with the Colorado Department of Public Health and Environment may be waived by the Colorado Department of Public Health and Environment at any time.

(2) Procedure.

- A. Where required, the Commission and the Colorado Department of Public Health and Environment shall have forty (40) days to conduct the consultation called for in this section. Such consultation shall begin concurrent with the start of the public comment period. If no consultation occurs within such 40-day period, the requirement to consult shall be waived, and the Director shall consider the operator's application on the basis of the materials submitted by the operator.
- B. The consultation called for in this section shall focus on identifying potential impacts to public health, safety, welfare, or the environment from activities associated with the proposed Oil and Gas Location, and development of conditions of approval or other measures to minimize adverse impacts.
- C. Where consultation occurs pursuant to Rule 306.d.(1).A, it may include:
 - i. Review of the permit application;
 - ii. Discussions with the local governmental designee to better understand local government's concerns;
 - iii. Discussions with the Commission, operator, Surface Owner, or those potentially affected; and
 - iv. Review of public comments.
- D. Where consultation occurs pursuant to Rule 306.d.(1).A.ii, the Colorado Department of Public Health and Environment shall have the opportunity to:
 - i. Review the permit application, the request for variance, and the basis for the request; and
 - ii. Discuss the request with the operator, the surface owner, and the Commission.
- E. Where consultation occurs pursuant to Rule 306.d.(1).B, the Colorado Department of Public Health and Environment shall have the opportunity to:
 - i. Review the well-density increase application or draft Commission order; and
 - ii. Discuss the request with the operator or proponent, the Commission, and the local governmental designee.

(3) Results of consultation under Rule 306.d.

- A. As a result of consultation called for in this subsection, the Colorado Department of Public Health and Environment may make written

recommendations to the Commission on conditions of approval necessary to protect public health, safety, and welfare or the environment. Such recommendations may include, but are not limited to, monitoring requirements or best management practices. Where applicable, the Colorado Department of Public Health and Environment may also make written recommendations on whether a variance request should be granted, under what conditions, and the reasons for any such recommendations.

- B. **Agreed-upon conditions of approval.** Where the operator, the Director, the Colorado Department of Public Health and Environment, and the Surface Owner agree to conditions of approval for Oil and Gas Locations as a result of consultation, these conditions of approval shall be incorporated into approvals of an Oil and Gas Location Assessment, Form 2A, or Applications for Permit-to-Drill, Form 2, where applicable.
- C. **Standards for consultation and Director decision.** Following consultation, the Director shall decide whether to attach conditions of approval recommended by the Colorado Department of Public Health and Environment to a Form 2A or Form 2, where applicable. This decision shall minimize significant adverse impacts to public health, safety, and welfare, including the environment, consistent with other statutory obligations.
- D. **Notification of decision to consulting agency.** Where consultation occurs under Rule 306.d, the Director shall provide to the Colorado Department of Public Health and Environment the conditions of approval for the Application for Permit-to-Drill, Form 2, or Oil and Gas Location Assessment, Form 2A, on the same day that he or she announces a decision to approve the application.

306.e. **Meetings with Building Unit Owners Within a Buffer Zone Setback.**

- (1) **Meetings with Building Unit Owners.** An Operator shall be available to meet with Building Unit owners who received an OGLA Notice or a Buffer Zone Notice pursuant to Rule 305.c. and requested a meeting regarding the proposed Oil and Gas Location. Operators shall also be available to meet with such Building Unit owners if requested to do so by the Local Governmental Designee and such meetings shall comply with Rule 306.b.(3). Such informational meetings may be held on an individual basis, in small groups, or in larger community meetings.
- (2) **Information provided by operator.** When meeting with Building Unit owners or their appointed agent(s) pursuant to subsection (1), above, the Operator shall provide the following information: the date construction is anticipated to begin; the anticipated duration of pad construction, drilling and completion activities; the types of equipment anticipated to be present on the Location; and the operator's interim and final reclamation obligation. In addition, the Operator shall present a description and diagram of the proposed Oil and Gas Location that includes the dimensions of the Location and the anticipated layout of production or injection facilities, pipelines, roads and any other areas to be used for oil and gas operations. The Operator and Building Unit owners shall be encouraged to discuss potential concerns associated with Oil and Gas Operations, such as security, noise, light, odors, dust, and traffic, and shall provide information on proposed or recommended Best Management Practices or mitigation measures to eliminate, minimize or mitigate those issues.

- (3) **Waiver.** The Building Unit owner or agent may waive, permanently or otherwise, the foregoing meeting requirements. Any such waiver shall be in writing, signed by the owner or agent, and shall be submitted by the Building Unit owner or agent to the operator and the Director.
- (4) **Mitigation Measures.** Operators will consider all legitimate concerns related to public health, safety, and welfare raised during informational meetings or in written comments and, in consultation with the Director and Local Governmental Designee if the LGD so requests, will add relevant and appropriate Best Management Practices or mitigation measures as Conditions of Approval into the Form 2A and any associated Form 2s.
- (5) **Operator Certification.** The Director shall not approve a Form 2A, Oil and Gas Location Assessment, until the operator certifies it has complied with the meeting requirements of this Rule 306.e.
- 306.f. **Final reclamation consultation.** In preparing for final reclamation and plugging and abandonment, the operator shall use its best efforts to consult in good faith with the affected Surface Owner (or the tenant when the Surface Owner has requested that such consultation be made with the tenant). Such good faith consultation shall allow the Surface Owner (or appointed agent) the opportunity to provide comments concerning preference for timing of such operations and all aspects of final reclamation, including, but not limited to, the desired final land use and seed mix to be applied.
- 306.g. **Tenants.** Operators shall have no obligation to consult with tenant farmers, lessees, or any other party that may own or have an interest in any crops or surface improvements that could be affected by the proposed operation unless the Surface Owner appoints such person as its agent for such purposes. Nothing shall prevent the Surface Owner from including a tenant in any consultation, whether or not appointed as the Surface Owner's agent.
- 306.h. **School, Child Care Center, and School Governing Body.** The operator will offer to consult with the school governing body that received notice pursuant to Rule 305.a.(4). During the consultation, the school governing body may identify additional discrete facilities or areas it considers a school facility or child care center, and the operator will provide information regarding best management practices, operations, traffic management, and phases of development for the proposed oil and gas location. The operator and school governing body are encouraged to share information regarding operations and mitigation to attempt agreement regarding school facility and child care center setbacks.

307. COGCC Form 4. SUNDRY NOTICES

The Sundry Notice, Form 4, is a multipurpose form which shall be used by an operator to request approval from or provide notice to the Director as required by rule or when no other specific form exists, i.e., well name or number change. The rules requiring the use of the Sundry Notice, Form 4, are listed in Appendix I.

308A. COGCC Form 5. DRILLING COMPLETION REPORT

a. Preliminary Drilling Completion Report, Form 5

- (1) If drilling is suspended prior to reaching total depth and does not recommence within 90 days, an Operator will submit a "Preliminary" Drilling Completion Report, Form 5 within the next 10 days.

- (2) **Information Requirements.** The “Preliminary” Drilling Completion Report, Form 5 will include the following information:
- A. The date drilling activity was suspended;
 - B. The reason for the suspension;
 - C. The anticipated date and method of resumption of drilling; and
 - D. The details of all work performed to date, including all the information required in Rule 308A.b.(2) that has been obtained.
- (3) A “Final” Form 5 will be submitted after reaching total depth as required by Rule 308A.b.

308A.b. Final Drilling Completion Report, Form 5

- (1) A “Final” Drilling Completion Report, Form 5, will be submitted within 60 days of rig release after drilling, sidetracking, or deepening a Well to total depth. In the case of continuous, sequential drilling of multiple wells on a pad, the Final Form 5 will be submitted for all the wells within 60 days of rig release for the last Well drilled on the pad.
- (2) **Information Requirements.** The “Final” Drilling Completion Report, Form 5 will include the following information:
- A. A cement job summary for every casing string set or required by permit conditions will be attached to the form. The cement summary report will include cement reports and charts related to cement placement, which will include:
 - i. Daily operations summary; and
 - ii. Cement verification reports from the cementing contractor.
 - B. All logs run, open-hole and cased-hole, electric, mechanical, mud, or other, will be reported and submitted as specified here:
 - i. A digital image file (PDF, TIFF, PDS, or other format approved by the Director) of every log run will be attached to the form. The digital image file of the cement bond log will include a variable density display.
 - ii. A digital data file (LAS, DLIS, or other format approved by the Director) of every log run, with the exception of mud logs and cement bond logs, will be attached to the form.
 - C. All drill stem tests will be reported and test results will be attached to the form.
 - D. All cores will be reported and the core analyses attached to the form. If core analyses are not yet available, the Operator will note this on the Form 5 and provide a copy of the analyses as soon as it is available, via a Sundry Notice, Form 4.
 - E. Any directional survey will be attached to the form and will meet the requirements set forth in Rule 321.

- F. The latitude and longitude coordinates of the “as drilled” well location will be reported on the form. The latitude and longitude coordinates will be in decimal degrees to an accuracy and precision of five decimals of a degree using the North American Datum (NAD) of 1983 (e.g. latitude 37.12345, longitude -104.45632). If GPS technology is utilized to determine the latitude and longitude, all GPS data will meet the requirements set forth in Rule 215. The Operator will report the accuracy value expressed in meters and the date of the GPS measurement on the Form 5.
 - G. The bradenhead pressure action threshold, which is calculated as 30% of the true vertical depth (TVD) in feet of the surface casing shoe expressed in psig.
- (3) The Operator will submit a Drilling Completion Report, Form 5, within 30 days of the completion of well operations in which the casing or cement in the wellbore is changed. Changes to the wellbore casing or cement configuration include, but are not be limited to, the operations listed in Rule 317.e.(9). The Drilling Completion Report, Form 5 will include the information required in 308A.b.(2). The form will include the following attachments:
- A. Daily operations summary;
 - B. Cement verification reports from the contractor; and
 - C. Cement bond log(s) if run by rule, choice, or as a required condition of the repair approval, submitted pursuant to Rule 308A.b.(2).B.

308B. COGCC Form 5A. COMPLETED INTERVAL REPORT

308B.a. The Operator will submit the Completed Interval Report, Form 5A, within 30 days after a formation is completed (successful or not); after a formation is temporarily abandoned or permanently abandoned; after a formation is recompleted, reperforated, or restimulated; and after a formation is commingled.

308B.b. The Operator will report the details of hydraulic fracturing treatment, acidizing stimulation, or other stimulation, including the fluid volumes and items required on the Form 5A.

308B.c. In order to resolve completed interval information uncertainties, the Director may require an operator to submit further information in an additional Completed Interval Report, Form 5A.

308C. CONFIDENTIALITY

Upon submittal of a Sundry Notice, Form 4, request by the operator, completion reports, including Drilling Completion Reports, Form 5 and Completed Interval Reports, Form 5A, and mechanical logs of exploratory or wildcat wells shall be marked “confidential” by the Director and kept confidential for six (6) months after the date of completion, unless the operator gives written permission to release such logs at an earlier date.

309. COGCC Form 7. OPERATOR'S MONTHLY REPORT OF OPERATIONS

- a. Operators shall report all existing oil and gas wells that are not plugged and abandoned on the Operator's Monthly Report of Operations, Form 7, within 45 days after the end of each month. A well must be reported every month from the month that it is spud until it has been reported for one month as abandoned. Each formation that is completed in a well

shall be reported every month from the time that it is completed until it has been abandoned and reported for one month as abandoned. The reported volumes shall include all fluids produced during flowback, initial testing, and completion of the well.

- b. The volume of specific fluids injected into a Class II Underground Injection Control well shall be reported on an Operator's Monthly Report of Operations, Form 7, within 45 days after the end of each month. The specific Class II fluids reported on Form 7 are produced fluids and any gas or fluids used during enhanced recovery unit operations. Produced fluids include, but are not limited to, produced water and fluids recovered during drilling, casing cementing, pressure testing, completion, workover, and formation stimulation of all oil and gas wells including production, exploration, injection, service and monitoring wells.

Injection of any other Class II fluids requires separate volume reporting on a Form 14, as described in Rule 316A.

310. COGCC Form 8. OIL AND GAS CONSERVATION LEVY

On or before March 1, June 1, September 1 and December 1 of each year, every producer or purchaser, whichever disburses funds directly to each and every person owning a working interest, a royalty interest, an overriding royalty interest, a production payment and other similar interests from the sale of oil or natural gas subject to the charge imposed by §34-60-122(1) (a) C.R.S., 1973, as amended, will file a return with the Director showing by operator, the volume of oil, gas or condensate produced or purchased during the preceding calendar quarter, including the total consideration due or received at the point of delivery. No filing will be required when the charge imposed is zero mill (\$0.0000) per dollar value.

The levy will be an amount fixed by order of the Commission. The levy amount may, from time to time, be reduced or increased to meet the expenses chargeable against the oil and gas conservation and environmental response fund. The present charge imposed, as of October 1, 2020, is \$0.0015 per dollar value

311. COGCC Form 6. WELL ABANDONMENT REPORT

- a. **Notice of Intent to Abandon , Form 6.** Prior to the abandonment of a well, a Well Abandonment Report, Form 6 – Notice of Intent to Abandon, will be submitted to, and approved by, the Director. The Form 6 - Notice of Intent to Abandon will be completed and attachments included to fully describe the proposed abandonment operations. This includes the proposed depths of mechanical plugs and casing cuts; the proposed depths and volumes of all cement plugs; the amount, size and depth of casing and junk to be left in the Well; the volume, weight, and type of fluid to be left in the wellbore between cement or mechanical plugs; and the nature and quantities of any other materials to be used in the plugging. The Operator will provide a current wellbore diagram and a wellbore diagram showing the proposed plugging procedure with the Form 6. If the Well is not plugged within six months of approval, the operator will file a new Form 6 – Notice of Intent to Abandon.

- b. **Subsequent Report of Abandonment, Form, 6.**

(1) Within 30 days after abandonment, the Well Abandonment Report, Form 6 - Subsequent Report of Abandonment, will be filed with the Director. The abandonment details will include an account of the manner in which the abandonment or plugging work was performed. Copies of any casing pressure test results and downhole logs run during plugging and abandonment will be submitted with Form 6. Additionally, plugging verification reports detailing all procedures are required. A Plugging Verification Report will be submitted for each person or contractor actually setting the plugs. The Form 6 - Subsequent Report of Abandonment, and the Plugging Verification Reports will detail the depths of mechanical plugs and casing cuts, the depths and

volumes of all cement plugs, the amount, size, and depth of casing and junk left in the Well, the volume and weight of fluid left in the wellbore and the nature and quantities of any other materials used in the plugging. Plugging Verification Reports will conform with the Operator's report and both will show that plugging procedures are at least as extensive as those approved by the Director.

(2) The Director will review an Operator's Well Abandonment Report, Form 6 - Subsequent Report of Abandonment, plugging records, and the well file to evaluate the abandonment or plugging work performed. The Director will approve the form or identify deficiencies for the Operator to correct and may require one of the following:

- A. Surface or subsurface monitoring programs after the Well has been plugged and abandoned, if a subsurface or surface release occurred or may occur;
- B. Re-entering the Well to complete additional remediation or plugging and abandonment work; or
- C. Any other actions necessary to ensure proper plugging and abandonment of the Well.

(3) If the Operator does not take actions necessary to correct deficiencies, the Director may issue a corrective action pursuant to Rule 208.

c. **Re-Plugging.** A Well Abandonment Report, Form 6 – Notice of Intent to Abandon, will be submitted to, and approved by, the Director prior to the re-entry of a plugged and abandoned Well for the purpose of re-plugging the Well. A Well Abandonment Report, Form 6 - Subsequent Report of Abandonment will be filed with the Director within 30 days of the completion of the re-plugging operations. These forms will be submitted with all the information required above and any additional information required by current policy.

d. **As-Drilled Location.** For all Wells being plugged, the Operator will report the latitude and longitude coordinates of the "as drilled" Well location on the Form 6. When plugging a Well for which this data has been obtained and submitted to the Commission previously, the Operator will submit this data on the Form 6 – Notice of Intent to Abandon. When plugging a Well for which this data has not yet been obtained and submitted to the Commission, the Operator will determine the "as drilled" location prior to plugging and submit the location on the Form 6 – Subsequent Report of Abandonment. The latitude and longitude coordinates will be in decimal degrees to an accuracy and precision of five decimals of a degree using the North American Datum (NAD) of 1983 (e.g. latitude 37.12345, longitude -104.45632). If the Operator uses GPS technology to determine the latitude and longitude, all GPS data will meet the requirements set forth in Rule 215. The Operator will report the accuracy value expressed in meters and the date of the GPS measurement on the Form 6.

312. COGCC Form 10. CERTIFICATE OF CLEARANCE AND/OR CHANGE OF OPERATOR

a. Each operator of any oil or gas well completed after April 30, 1956, shall file with the Director, within thirty (30) days after initial sale of oil or gas a Certificate of Clearance and/or Change of Operator, Form 10, in accordance with the instructions appearing on such form, for each well producing oil or gas or both oil and gas. A Form 10 shall be filed for any well from which oil, gas or other hydrocarbon is being produced.

A Form 10 shall be filed within thirty (30) days should the oil transporter (first purchaser) and/or the gas gatherer (first purchaser) change. In addition, within fifteen (15) days of an operator change for any well, a Form 10 shall be filed with a filing and service fee as set by the Commission. (See Appendix III)

- b. Each operator of a Class II injection well shall file a new Form 10 with the Director within 30 days of the transfer of ownership.
- c. Whenever there shall occur a change in the producer or operator filing the certificate under Rule 312.a. hereof, or whenever there shall occur a change of transporter from any well within the State, a new Form 10 shall be executed and filed within fifteen (15) days in accordance with the instructions appearing on such form. In the case of temporary use of oil for well treating or stimulating purposes, no new form need be executed. In the case of other temporary change in transporter involving the production of less than one (1) month, the producer or operator may, in lieu of filing a new certificate, notify the Commission and the transporter authorized by the certificate on file with the Commission by letter of the estimated amount to be moved by the temporary transporter and the name of such temporary transporter. A copy of such notice shall also be furnished such temporary transporter.
- d. In no instance shall the temporary transporter move any quantity greater than the estimated amount shown in said notice.
- e. The certificate, when properly executed and approved by the Commission, shall constitute authorization to the pipeline or other transporter to transport the authorized volume from the well named therein; provided that this section shall not prevent the production or transportation in order to prevent waste, pending execution and approval of said certificate. Permission for the transportation of such production shall be granted in writing to the producer and transporter.
- f. The certificate shall remain in force and effect until:
 - (1) The producer or operator filing the certificate is changed; or
 - (2) The transporter is changed; or
 - (3) The certificate is canceled by the Commission.
- g. A copy of each Form 10 to be filed hereunder shall be sent by the Director to those local governmental designees who so request.
- h. It is the operator's responsibility to mail approved copies of the Certificate of Clearance and/or Change of Operator, Form 10, to the transporter and/or gatherer for each well listed.
- i. A Form 10, Change of Operator is required within 15 days of the transfer of ownership of production facilities including off-location flowlines and crude oil transfer lines. A Form 10 is not required for gas gathering systems, gas processing plants, and underground gas storage facilities, which are governed by Rule 313B.

313. COGCC Form 11. MONTHLY REPORT OF GASOLINE OR OTHER EXTRACTION PLANT

All operators of gasoline or other extraction plants shall make monthly reports to the Director on Form 11 Such forms shall contain all information required thereon and shall be filed with the Director on or before the twenty-fifth (25th) day of each month covering the preceding month.

313A. COGCC Form 11. MONTHLY REPORT OF GASOLINE OR OTHER EXTRACTION PLANT

All operators of gasoline or other extraction plants must make monthly reports to the Director on a Form 11. Such forms must contain all information required thereon and must be filed with the Director on or before the twenty-fifth (25th) day of each month covering the preceding month.

313B. COGCC Form 12. GAS GATHERING SYSTEMS, PROCESSING OR STORAGE FACILITY REGISTRATION/CHANGE OF OPERATOR

a. 30 days after placing a new gas gathering system, a new gas compressor station, a new gas processing plant, or a new underground gas storage facility into service, an operator must submit a Gas Facility Registration, Form 12. The following information must be included:

- (1) The name and type, of system or facility.
- (2) The legal location (quarter-quarter, section, township, range, county) of a gas compressor station or a gas processing plant or legal location description (quarter-quarter, section, township, range, county) of the geographic area covered by the gas gathering system, or an underground gas storage facility.
- (3) The latitude and longitude of a gas compressor station or a gas processing plant or a representative latitude and longitude near the center of a gas gathering system, or an underground gas storage facility.
- (4) A facility layout drawing of a gas compressor station, a gas processing plant or an underground gas storage facility and the surrounding topography.
- (5) A topographic map or a geographic area map covering the gathering system that sufficiently shows the gathering line's route, section, township and range lines, waterways, public roadways, county lines and municipal boundaries.

b. The operator of an unregistered gas gathering system, gas compressor station, gas processing plant, or underground gas storage facility existing prior to May 1, 2018, must submit a Form 12 – Registration no later than October 31, 2019.

The operator of a registered gas gathering system, gas compressor station, gas processing plant, or underground gas storage facility existing prior to May 1, 2018, must submit a Gas Facility Registration, Form 12 no later than October 31, 2019 that includes the information specified in Section a.(1) – (5) above.

c. The operator of an existing gas gathering system, gas processing plant, gas compressor station, or underground storage facility must report annually the addition or removal of any gathering pipelines report on a Gas Facility Registration, Form 12. The operator of an existing underground storage facility must report annually the expansion or decommissioning of more than 10% of the capacity of such facility on a Gas Facility Registration, Form 12.

d. Within 30 days of transfer of ownership of a gas gathering system, gas compressor station, gas processing plant, or an underground gas storage facility, an operator must submit a Gas Facility Registration/Change of Operator, Form 12. Documentation confirming transfer of ownership must be attached to the Form 12. All records related to the installation, repair, and monitoring are to be transferred to the new operator.

314. COGCC Form 17. BRADENHEAD TEST REPORT

The Operator will submit results of bradenhead tests to the Director within 10 days of completing the test either by filing a Form 17 or by another method approved by the Director or Commission. The Operator will include a wellbore diagram if not previously submitted or if the wellbore

configuration has changed. The Director may request that the Operator collect samples for analysis of the bradenhead gas and liquid along with production gas. The Operator will submit the results of any gas and liquid analysis collected using a Form 43.

315. REPORT OF RESERVOIR PRESSURE TEST

Where the Director believes it is necessary to prevent waste, protect correlative rights, or prevent a significant adverse impact, the Director may require subsurface pressure measurements. Whenever such measurements are made, results shall be reported on a Sundry Notice, Form 4, within twenty (20) days after completion of tests, or submitted on any company form approved by the Director containing the same information.

316A. COGCC Form 14. NON-PRODUCED WATER INJECTION

a. Form 14A. AUTHORIZATION OF SOURCE OF CLASS II WASTE FOR DISPOSAL

Prior approval of a Form 14A, Authorization of Source of Class II Waste for Disposal, is required for the injection of Class II waste (other than the fluids specifically described in Rules 308B and 309) into any formation in a dedicated Class II Underground Injection Control well. Examples include, but are not limited to, ground water recovered during a remediation project or chemical treatments. The Form 14A shall include a description of the nature and source of the injected fluids, the types of chemicals used to treat the injected fluids, and the date of initial fluid injection for new injection wells. The Form 14A must be submitted and approved for a new disposal facility and for any changes in the source of Class II waste for an existing facility.

b. Form 14. MONTHLY REPORT OF NON-PRODUCED WATER INJECTED

- i. Operators engaged in the injection of Class II waste (other than the fluids specifically described in Rules 308B and 309) into any formation in a dedicated Class II Underground Injection Control well shall submit a Form 14, Monthly Report of Non-Produced Water Injected within 45 days after the end of each month. This report shall include the type and amount of waste received from transporters.
- ii. Operators of simultaneous injection wells shall, by March 1 of each year, report to the Director the calculated injected volume for the previous year by month on a Form 14.
- iii. Operators of gas storage projects shall, by March 1 of each year, report to the Director the amount of gas injected and withdrawn for the previous year and the amount of gas remaining in the reservoir as of December 31 of that year.

316B. COGCC Form 21. MECHANICAL INTEGRITY TEST

Not less than 10 days prior to the performance of a mechanical integrity test, the Director shall be notified with a Field Operations Notice, Form 42 – Mechanical Integrity Test, of the scheduled date on which the test will be performed. Results of any mechanical integrity test shall be submitted on Form 21, Mechanical Integrity Test, within 30 days after the test. The Form 21 shall be completely filled out except for Part II, which is required only for injection wells. An original copy of the pressure chart shall be submitted with every Form 21.

316C. COGCC Form 42. FIELD OPERATIONS NOTICE

Operators will submit a Form 42, Field Operations Notice, as designated below and in accordance with a Condition of Approval on any Form 2, Application for Permit to Drill; Form 2A, Oil and Gas Location Assessment; Form 4, Sundry Notice; Form 6, Well Abandonment Report; or any other approved form.

- a. **Notice of Intent to Conduct Hydraulic Fracturing Treatment.** Operators shall give at least 48 hours advance written notice of intent to the Commission of a hydraulic fracturing treatment at any well. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Hydraulic Fracturing Treatment. The Commission shall provide prompt electronic notice of such intention to the relevant local governmental designee (LGD).
- b. **Notice of Spud.** Operators shall give at least 48 hours advance written notice of intent to the Commission of a surface hole spud on any well. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Spud. The Commission shall provide prompt electronic notice of such intention to the relevant local governmental designee (LGD).
- c. **Notice of Construction or Major Change.** Operators shall give at least 48 hours advance written notice of intent to the Commission of a construction or major change at any Well, Oil and Gas Location, or Oil and Gas Facility. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Construction or Major Change.
- d. **Notice to Run and Cement Casing.** If required by policy or condition of approval, Operators shall give at least 24 hours advance written notice of intent to the Commission to run and cement casing on any well. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice to Run and Cement Casing.
- e. **Notice of Formation Integrity Test.** If required by policy or condition of approval, Operators shall give at least 24 hours advance written notice of intent to the Commission of a formation integrity test on any well. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Formation Integrity Test.
- f. **Notice of Mechanical Integrity Test.** Operators shall give at least 10 day advance written notice of intent to the Commission of a mechanical integrity test on any well. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Mechanical Integrity Test.
- g. **Notice of Start of Plugging Operations.** Operators will give at least 48 hours advance written notice to the Commission prior to mobilizing for plugging any Well. Such notice will be provided on a Field Operations Notice, Form 42 - Start of Plugging Operations.
- h. **Notice of Blow Out Preventer Test.** If required by policy or condition of approval, Operators shall give at least 24 hours advance written notice of intent to the Commission of a blow out preventer test at any well. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Blow Out Preventer Test.
- i. **Notice of Site Ready for Reclamation Inspection.** Operators shall give written notice to the Commission of a site ready for reclamation inspection at any well, well pad or production facility. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Site Ready for Reclamation Inspection.
- j. **Notice of Pit Liner Installation.** Operators shall give at least 48 hours advance written notice of intent to the Commission of a pit liner installation at any facility. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Pit Liner Installation.
- k. **Notice of Significant Lost Circulation.** Operators shall give written notice to the Commission of significant lost circulation at any well within 24 hours. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Significant Lost Circulation.
- l. **Notice of High Bradenhead Pressure During Stimulation.** Operators will give written notice to the Commission of high bradenhead pressure during stimulation at any Well within

24 hours of measuring the high pressure. Such notice will be provided on a Field Operations Notice, Form 42 - Notice of High Bradenhead Pressure During Stimulation.

- m. **Notice of Completion of Form 2/2A Permit Conditions.** If required by policy or condition of approval, Operators shall give written notice to the Commission of completion of Form 2 or 2A permit conditions at any well, Oil and Gas Location, or Oil and Gas facility. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Completion of Form 2/2A Permit Conditions.
- n. **Notice of Inspection Corrective Actions Performed.** Operators shall give written notice to the Commission of inspection corrective actions performed at any well, Oil and Gas Location, or Oil and Gas facility. Such notice shall be provided on a Field Operations Notice, Form 42 - Notice of Inspection Corrective Actions Performed.
- o. **Notice of Return to Service.** Operators must provide at least 48 hours advance written notice to the Director as required by the 1100-Series Rules and Rule 326.
- p. **Abandonment of Flowline.** Operators must provide written notice to the Commission before undertaking or after completing abandonment of flowlines in accordance with Rule 1105.

317. GENERAL DRILLING RULES

Unless altered, modified, or changed for a particular field or formation upon hearing before the Commission the following will apply to the drilling or deepening of all wells:

- 317.a. **Blowout Prevention Equipment ("BOPE").** The Operator will take all necessary precautions for keeping a Well under control during drilling, deepening, re-entering, recompleting, workovers, or plugging. The Operator will indicate the BOPE, if any, on the Application for Permit to Drill, Deepen, Re-enter, or Recomplete and Operate (Form 2), as well as any known subsurface conditions (e.g. under or over-pressured formations). The Operator will ensure the working pressure of any BOPE exceeds the anticipated surface pressure to which it may be subjected, assuming a partially evacuated hole with a pressure gradient of 0.22 psi/ft. For BOPE requirements in Designated Setback Locations, see Rule 604.c.(2). For statewide BOPE specification, inspection, operation and testing requirements, see Rule 603.e.
 - (1) The Commission may designate specific areas, fields or formations as requiring certain BOPE. Any such proposed designation will occur by notice describing the area, field, or formation in question and will be given to all Operators of record within such area or field and by publication. The proposed designation, if no protest is timely filed, will be placed on the Commission consent agenda for its next regularly scheduled meeting following the month in which such notice was given. The matter will be approved or heard by the Commission in accordance with Rule 531. Such designation will be effective immediately upon approval by the Commission, except as to any previously-approved Form 2. If a protest is timely filed, the designation will be heard by the Commission in accordance with the 500 Series Rules.
 - (2) Pursuant to Rule 317.a.(1), the Director may condition approval of any application for permit to drill by requiring BOPE which the Director determines to be necessary for keeping the well under control. Should the Operator object to such condition of approval, the Commission will hear the matter at the next regularly scheduled meeting of the Commission, subject to the notice requirements of Rule 507.

- 317.b. **Bottom Hole Location.** Unless authorized by the provisions of Rule 321, Operators will drill all Wells so that the horizontal distance between the bottom of the hole and the location at the top of the hole will be at all times a practical minimum.
- 317.c. **Requirement to Post Permit at the Rig.** The Operator will post a copy of the approved Application for Permit-to-Drill, Form 2, in a conspicuous place on the drilling rig or workover rig.
- 317.d. **Requirement to Provide Spud Notice.** An Operator will provide advance notice to the Director on a Field Operations Notice, Form 42, no less than 48 hours prior to spudding a Well.
- 317.e. **Drilling Fluid, Casing, and Cement Program to Isolate Hydrocarbon Formations and Groundwater and for Well Control.**
- (1) The casing and cementing plan for each Well will prevent migration of oil, gas, and water within potential flow zones from one formation to another behind the casing.
 - (2) The casing and cementing plan will ensure groundwater penetrated by the wellbore will be isolated from the infiltration of hydrocarbons or water from other formations penetrated by the wellbore. At a minimum, the Director will require that the operator's casing and cement plan for a Well will isolate groundwater with fully-cemented surface casing or a combination of fully-cemented surface casing and stage cement for other casing string(s) across the groundwater and to a depth 50 feet below the groundwater and to 50 feet above it or to surface, in formations that meet the following standards:
 - A. Groundwater that has been classified pursuant to 5 C.C.R. § 1002-41 as Domestic Use – Quality, Agricultural Use – Quality, Surface Water Quality Protection, or Potentially Usable Quality; and
 - B. Groundwater that has not been classified pursuant to 5 C.C.R. § 1002-41, and with total dissolved solids (TDS) less than 10,000 mg/l.
 - C. Only the version of Colorado Department of Public Health and Environment, Water Quality Control Commission (WQCC), Regulation Number 41, The Basic Standards for Ground Water, 5 C.C.R. § 1002-41, *et seq.* published in the Colorado Register on June 10, 2020 applies to this Rule 317.e; later versions do not apply. A copy of 5 C.C.R. § 1002-41 is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, 5 C.C.R. § 1002-41 may be examined at the Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80246, and is available at <https://www.sos.state.co.us/CCR/RegisterHome.do>.
 - (3) **Surface casing where subsurface conditions are unknown.** In areas where pressure and formations are unknown, surface casing will be run for well control to reach a depth approved by the Director that is a minimum depth of 10% of true vertical depth (TVD) of the deepest point of the planned well (or as required by Commission order) and will be of sufficient size to permit the use of an intermediate string or strings of casings. Surface casing will be set in or through an impervious formation and will be cemented by pump and plug or displacement or other approved method with sufficient cement to fill the annulus to the top of the hole, all in accordance with reasonable requirements of the Director. In the D–J Basin Fox Hills Protection Area surface casing will be set in accordance with Rule 317A. (See also subpart 5).

(4) **Surface casing where subsurface conditions are known.** For wells drilled in areas where subsurface conditions have been established by drilling experience, surface casing, size at the operator's option, will be set and cemented to the surface by the pump and plug or displacement or other approved method at a depth approved by the Director, and for well control, to a minimum depth of 10% of true vertical depth (TVD) of the deepest point of the planned well (or as required by Commission order). In the D–J Basin Fox Hills Protection Area surface casing will be set in accordance with Rule 317A. (See also subpart 5).

(5) **Alternate isolation by stage cementing.**

- A. In areas where groundwater is of such depth as to make it impractical to set the full amount of surface casing necessary to comply fully with the requirement to isolate groundwater, the Director may approve isolation by stage cementing behind the intermediate and/or production casing so as to accomplish the required result.
- B. If either the top or bottom depths, or the concentration of TDS in identified groundwater are uncertain or unknown based on available sources of pertinent information as described in Rule 303.a.(5).F:
 - i. The Operator will collect site-specific data sufficient to ensure compliance with all casing and cementing requirements of this Rule 317.e, and submit that information in its casing and cementing plan or in an amended plan that is approved by the Director before the Operator completes the well; or
 - ii. The Operator's casing and cementing plan will provide for extending surface casing or cementing behind intermediate and/or production casing to isolate all groundwater where TDS concentrations are uncertain or unknown. To isolate groundwater, where the top or bottom depth of groundwater is unknown or uncertain the Operator's casing and cementing plan will provide for:
 - I. Extending surface casing and cement from the surface to 50 feet below the lowest bottom depth;
 - II. Stage cementing behind intermediate and/or production casing to 50 feet above the highest top or 50 feet below the lowest bottom depth; or
 - III. Extending primary production cement from the bottom of the casing to 50 feet above the highest top that is not otherwise isolated by surface casing and cement or alternate stage cement and casing string.
- C. If groundwater not identified in the casing and cementing plan is encountered after setting the surface casing with either (a) a TDS concentration less than 10,000 mg/l, or (b) unknown or uncertain TDS concentration, the Operator will isolate the groundwater by stage cementing the intermediate and/or production casing with a solid cement plug extending from 50 feet below the groundwater to 50 feet above the groundwater, with the Director's approval. In such cases the Operator will submit an amended casing and cementing plan reflecting the groundwater and stage cementing within 20 days.
- D. In the D–J Basin Fox Hills Protection Area any stage cementing will occur only in accordance with Rule 317A. If the stage cement is not circulated to surface, a cement bond log will be run to determine the top of the stage cement to ensure aquifers are protected.

- (6) All hole intervals drilled prior to reaching the base of the surface casing or as required by permit condition will be drilled with air, fresh water, or a fresh water-based bentonitic drilling mud. Any other additives will be reviewed and approved by the Director prior to use.
- (7) All casing cemented in a well will be steel casing.
- (8) Prior to placing casing in the hole, the Operator will ensure the casing has been tested to verify integrity. An Operator may:
 - A. For new pipe only, use the mill test pressure.
 - B. Hydrostatically pressure test the casing with an applied pressure at least equal to the maximum pressure to which the pipe will be subjected in the Well; or
 - C. Use a casing evaluation tool.
- (9) Prior written approval from the Director on a Form 4, Sundry Notice, is required before commencing any of the following operations:
 - A. Pumping cement down the bradenhead access to the annulus between the production casing (or intermediate casing, if present) and surface casing;
 - B. All routine or planned casing repair operations; or
 - C. Any other changes to the casing or cement in the wellbore.
- (10) In the case of unforeseen casing repairs during well operations, the Operator will obtain oral approval from the Director, and will immediately submit a Form 4, Sundry Notice, confirming the repairs and approval.
- (11) An Operator will submit a Drilling Completion Report, Form 5, within 30 days of the completion of the operations listed above, per Rule 308A.b.(3).
- (12) Prior written approval from the Director on a Form 4, Sundry Notice, is required before changing the gross interval of perforations in a completed formation, including into a formation designated as a common source of supply. A Completed Interval Report, Form 5A will be submitted within 30 days of the Gross Interval Change, pursuant to Rule 308B.

317.f. Cementing.

- (1) Operators will use the pump and plug method. An Operator will use a top plug to reduce contamination of cement from the displacement of fluid. An Operator will use a bottom plug or other Director-approved isolation technique or equipment to reduce contamination from drilling mud within the casing.
- (2) Unless the Director approves otherwise,
 - A. The diameter of the drilled hole in which surface casing will be set and cemented will be at least 1.5 inches greater than the nominal outside diameter of the casing the operator will install.

- B. All other casing will be set and cemented with at least 0.84 inches between the nominal outside diameter of the casing being cemented and the previously set casing's inside nominal diameter.
- (3) The Operator will design and place cement in a manner that inhibits channeling of the cement in the annular space outside of the casing being cemented. During placement of cement, the Operator will monitor pump rates to verify the rates remain within design parameters and ensure displacement meets the design. The Operator will monitor the cementing process to ensure proper cement densities are maintained.
 - (4) When cement is required, the Operator will use a cement slurry that isolates all groundwater, hydrocarbon, corrosive, potential flow, or hydrogen sulfide zones.
 - (5) The Operator will prepare cement slurry to:
 - A. The designed density;
 - B. Minimize free fluid content, to the extent practicable;
 - C. Ensure cement slurry free water separation will not exceed 3 milliliters per 250 milliliters of cement; and
 - D. Ensure the cement mix water chemistry is appropriate for the cement slurry design.
 - (6) The Operator or cement services provider will test a cement mixture at a rate that is the most frequent of every 6 months or when there is a change in operating conditions, cement type, or cement vendor.
 - A. The test will be on representative samples of the cement and additives.
 - B. The Operator will make cement test data available to the Director upon request.

317.g. **Casing Centralization.**

- (1) **Surface casing.** At a minimum, the Operator will centralize casing as follows:
 - A. Within 120 feet of the of the surface;
 - B. At the casing shoe;
 - C. Above and below a stage collar or diverting tool, if run; and
 - D. Every fourth joint.
 - E. The Operator may implement an alternative centralization plan for surface casing if approved by the Director.
- (2) **Production and intermediate casing.** The Operator will provide adequate centralization or other methods to achieve cementing objectives in accordance with the permitted well design.

317.h. **Wellbore Circulation.** Prior to cementing, the Operator will clean and condition the wellbore to control gas flow, foster adequate cement displacement, and ensure a bond between cement, casing, and the wellbore.

317.i. Surface and Intermediate Casing Cementing.

- (1) The Operator will ensure that all surface and intermediate casing cement required under this rule achieves a minimum compressive strength of 300 psi after 24 hours and 800 psi after 72 hours measured at 800 psi confining pressure and 95° Fahrenheit or at the minimum expected downhole temperature.
- (2) The Operator will cement all surface casing with a continuous column from the bottom of the casing to the surface.
- (3) After thorough circulation of the wellbore as required by Rule 317.h., the Operator will pump cement behind the intermediate casing to at least 500 feet above the top of the shallowest known production horizon and as required in Rule 317. The Operator will allow cement placed behind the surface and intermediate casing to set a minimum of 8 hours or until 300 psi calculated compressive strength is developed, whichever occurs first, prior to commencing drilling operations. If the surface casing cement level falls below the surface or if there is evidence of inadequate cement coverage, the Operator will consult with the Director and, upon request, provide and implement a corrective action plan prior to drilling ahead.

317.j. Production Casing Cementing.

- (1) The operator will ensure that all cement required under this Rule 317 placed behind production casing achieves a minimum compressive strength of at least 300 psi after 24 hours and of at least 800 psi after 72 hours both measured at 800 psi at either 95° Fahrenheit or at the minimum expected downhole temperature.
- (2) After thorough circulation of a wellbore as required by Rule 317.h., the Operator will pump cement behind the production casing to the shallower of: 500 feet above the top of the shallowest uncovered known producing horizon, isolation of specific geologic intervals specified in the permit, or isolation of any other zone as required by Rule 317.e.

317.k. Surface Casing Pressure Testing.

- (1) Prior to drilling out below the surface casing shoe, the Operator will successfully pressure test the surface casing for a minimum 30-minute duration and to a minimum of 1,500 psi or to a pressure that will determine if the casing has adequate mechanical integrity to meet the well design and construction objectives.
- (2) If the surface casing is exposed to more than 360 rotating hours after reaching total depth or the depth of the next casing string, the Operator will verify the integrity of the surface casing before running the next casing string by using a casing evaluation tool, conducting a mechanical integrity test, or using an equivalent casing evaluation method submitted to and approved by the Director through a Sundry Notice, Form 4.

317.l. Intermediate Casing Pressure Testing.

- (1) Prior to drilling out below the intermediate casing shoe, the Operator will successfully pressure test the intermediate casing to ensure integrity is adequate to meet well design and construction objectives. The Operator will perform the pressure test for a minimum 30-minute duration and to a minimum of 1,500 psi unless otherwise approved by the Director.

- (2) The Operator will monitor the well's bradenhead pressure during any pressure test conducted pursuant to Rule 317.l.

317.m. Production Casing and Stimulation String Pressure Testing.

- (1) Prior to stimulation, the Operator will successfully pressure test the production casing or stimulation string, if used. The Operator will pressure test from the wellhead to a minimum depth of 200 feet above the true vertical depth (TVD) of the top perforations.
- (2) For production casing that will be exposed to stimulation and the stimulation string, the Operator will perform the pressure test for a minimum of 30 minutes and to a minimum of 500 psi greater than the maximum surface pressure anticipated to be imposed during the stimulation.
- (3) For wells that are not stimulated and production casing that will not be exposed to the stimulation, the Operator will perform the pressure test for a minimum of 30 minutes and to a minimum of 500 psi greater than the maximum anticipated surface pressure.
- (4) The Operator will monitor the Well's bradenhead pressure during any pressure test conducted pursuant to Rule 317.m.

317.n. Casing Pressure Test Monitoring and Success Criteria for all Casing Strings.

- (1) An Operator has successfully conducted a pressure test when:
 - A. The surface pressure does not change more than 5% from the initial test pressure;
 - B. The pressure does not change more than 1% during the last 5 minutes of the test; and
 - C. The bradenhead pressure does not change more than 5% during the test when testing the intermediate or production casings.
- (2) In the event of an indication that a Well no longer has mechanical integrity, the Operator may not conduct stimulation on any Well on the Oil and Gas Location until the Operator has determined the Well has mechanical integrity. If a Well intervention is necessary, the Operator will obtain verbal approval from the Director for the intervention and authorization to proceed with the stimulation.

317.o. Isolation when Drilling Operations Are Suspended Before Running Production Casing. In the event drilling operations are suspended before production casing is run, the Operator will notify the Director immediately and will take adequate and proper precautions to prevent migration of oil, gas, and water between formations in the open hole until drilling resumes or the well is plugged and abandoned.

317.p. Flaring of Gas During Drilling and Notice to Local Emergency Dispatch. Any gas escaping from the well during drilling operations will be, so far as practicable, conducted to a safe distance from the well site and burned. The Operator will notify the local emergency dispatch as provided by the Local Governmental Designee of any such flaring. Such notice will be given prior to the flaring if the flaring can be reasonably anticipated, and in all other cases as soon as possible but in no event more than 2 hours after the flaring occurs.

317.q. Protection of Productive Strata During Deepening Operations. If a Well is deepened for the purpose of producing oil and gas from a lower stratum, such deepening to and

completion in the lower stratum will be conducted in such a manner as to protect all upper productive strata.

- 317.r. **Requirement to Evaluate Disposal Zones for Hydrocarbon Potential.** If a Well is drilled as a disposal well then the disposal zone will be evaluated for hydrocarbon potential. The proposed hydrocarbon evaluation method will be submitted in writing and approved by the Director prior to implementation. The productivity results will be submitted to the Director upon completion of the Well.
- 317.s. **Requirement to Log Well.** For all new drilling operations, the Operator will run a minimum of a resistivity log with gamma-ray or other petrophysical log(s) approved by the Director that adequately describe the stratigraphy of the wellbore. A cement bond log, capable of generating a variable density display, will be run on all production casing or, in the case of a production liner, the intermediate casing, when these casing strings are run. The Operator will submit these logs and all other logs run with the Drilling Completion Report, Form 5. The Operator will run open-hole logs or equivalent cased-hole logs at depths that adequately verify the setting depth of surface casing and any groundwater coverage. These requirements will not apply to unlogged open-hole completion intervals.
- 317.t. **Remedial Cementing.** If cement coverage in any casing string does not satisfy the requirements of Rule 317.e., the Director may apply a condition of approval for Application for Permit-to-Drill, Form 2, to require remedial cementing and a cement bond log or other cement evaluation tool before recompletion, reentering, or deepening operations consistent with the provisions for isolating groundwater and hydrocarbon bearing zones in this Rule 317.
- 317.u. **Statewide Wellbore Collision Prevention.** An Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed Well prior to drilling operations for the proposed Well. The Operator will give notice to all offset Operators prior to drilling.
- 317.v. **Statewide Setback for Hydraulic Fracturing Treatment.**
- (1) No portion of a proposed wellbore that will be treated by hydraulic fracturing may be located within 150 feet of an existing (producing, shut-in, or temporarily abandoned) or permitted interval of an oil and gas wellbore that has been or will be treated by hydraulic fracturing belonging to another Operator without the signed written consent of the Operator of the encroached upon wellbore. The Operator will attach any signed written consents to the Application for Permit-to-Drill, Form 2 for the proposed wellbore.
 - (2) The Operator will measure the distance between the proposed and offset wellbores using the directional survey for drilled wellbores and the deviated drilling plan for permitted wellbores, or as otherwise reflected in the Commission's well records. The Operator will measure the distance from the perforation or mechanical isolation device.
- 317.w. **Notice Prior to Hydraulic Fracturing Treatment.** At least 90 days prior to the anticipated commencement of hydraulic fracturing treatment, the Operator of the wellbore that will be stimulated by hydraulic fracturing treatment will provide notice of hydraulic fracturing treatment commencement to all Operators of offset wells that were identified pursuant Rule 303.a.(5)G.i.
- 317.x. **Offset Wellheads and Surface Equipment.** Prior to hydraulic fracturing treatments, the Operator will ensure offset existing wells within 1,500 feet of the wellbore to be hydraulically fractured that are producing, shut-in, or temporarily abandoned have surface equipment (wellhead and master valve) rated to a pressure adequate to contain anticipated surface

pressures that could occur from the proposed hydraulic fracturing treatment. For offset wells that do not have adequately rated surface equipment, the Operator may instead use downhole mechanical isolation above perforations in the objective formation to prevent unanticipated migration of pressure.

- 317.y. **Consent to Offset Well Mitigation.** When an offset well and a proposed well are under different operatorship, the Operator of the offset well will not refuse to have the offset well appropriately mitigated to meet the requirements of the Commission's Rules necessary to ensure protection of public health, safety, welfare, the environment, and wildlife resources.
- 317.z. **Communication Prevention.** An Operator will take all necessary measures to prevent communication along any known conduits between a wellbore's hydraulic fracturing-treated interval and groundwater.
- 317.aa. **Surface Equipment Used in Hydraulic Fracturing Treatment.** Prior to beginning a hydraulic fracturing treatment, the Operator will rig up and pressure test any surface equipment exposed to hydraulic fracturing treatment pressure. The Operator will test for the proposed hydraulic fracturing treatment design and, at a minimum, to 110% of the maximum anticipated surface hydraulic fracturing treating pressure. The test will ensure an appropriate safety factor and prevent fluid losses.
- 317.bb. **Hydraulic Fracturing Treatment Monitoring:** The operator will monitor and record hydraulic fracturing treatment parameters including but not limited to the following list:
- (1) Surface injection pressure (psig);
 - (2) Slurry rate (bpm);
 - (3) Proppant concentration (ppg);
 - (4) Fluid rate (bpm);
 - (5) Identities, rates, and concentrations of additives used; and
 - (6) All other annuli pressures or volumes measured at the surface.

317A. SPECIAL DRILLING RULES - D-J BASIN FOX HILLS PROTECTION AREA

The following special drilling rules shall apply to wells in the D-J Basin Fox Hills Protection Area as defined in the 100 Series of the Rules and Regulations:

- a. **Surface Casing - Minimum Requirements for Well Control.** In all wells drilled within the D-J Basin Fox Hills Protection Area, surface casing shall be run to a minimum depth of five percent (5%) of the projected total depth to which the well is to be drilled, provided that in no event shall the surface casing be run to a depth less than two hundred (200) feet. The Director may, on a case-by-case basis, grant variances in this five percent (5%) requirement where the Director finds that the well is a development well in which pressures can be accurately predicted and finds that, based upon those predictions, the five percent (5%) requirement should be varied to achieve effective well control. In all cases, however, the actual depth at which the surface casing is set shall be calculated to position the casing seat to a depth within a competent formation (preferably shale) which will contain the maximum pressure to which the casing will be exposed during normal drilling operations.

b. **Surface Casing - Aquifer Protection.** For purposes of aquifer protection, surface casing must be set as follows in wells which are not exploratory wells:

- (1) Surface casing shall be run to a depth at least fifty (50) feet below the Fox Hills transition zone in wells drilled within Townships 5 South through 5 North, Ranges 65 West through 70 West or within Townships 3 North through 5 North, Range 64 West.
- (2) With respect to Townships 5 South through 5 North, Ranges 58 West through 63 West, Townships 5 South through 2 North, Range 64 West; and Township 6 South, Ranges 65 West through 70 West, in all wells located within one (1) mile of a permitted producing water well, surface casing shall be set to a depth sufficient to protect the deepest permitted producing water well within such one mile area. Said depth shall be at least fifty (50) feet below the depth of the base of the aquifer from which said deepest water well is producing, or fifty (50) feet below the base of the Fox Hills Transition Zone if such deepest water well produces from the Fox Hills Aquifer.

Upon the request of the operator, the Director (or the Commission upon appeal) may grant a variance to the requirements of this subparagraph b. upon a showing to the Director, or the Commission upon appeal, that the variance does not violate the basic intent of said requirements. For such variance purpose, the basic intent of said requirements is stated to be to provide reasonable aquifer protection for the water well(s) which are permitted by the State of Colorado Division of Water Resources and are currently producing in the area potentially affected by the oil or gas well to be drilled.

c. **Exploratory Wells.** For purposes of the D–J Basin Fox Hills Protection Area only, the term exploratory well means any well:

- (1) Which targets the classically demonstrated zones with limited geographic extent such as channel, bar, valley fill and levee type sandstones that were deposited prior to the x-bentonite time stratigraphic event; or
- (2) Which can be demonstrated to be separated from a known producing horizon by a dry hole; or
- (3) Which can be demonstrated to be targeted to a horizon which is geologically separate from the producing horizon in an offsetting producing well, or
- (4) Which the Director, or the Commission upon appeal, may define as an exploratory well by variance, it being the basic intent of this definition that the requirements of subparagraph b. not operate to discourage the drilling of high risk wells.

317B. PUBLIC WATER SYSTEM PROTECTION

a. **Definitions.** For purposes of this Rule 317B:

- (1) **Drilling, Completion, Production and Storage (“DCPS”) Operations** means operations at (i) well sites for the drilling, completion, recompletion, workover, or stimulation of wells or chemical and production fluid storage, and (ii) any other oil and gas location at which production facilities are operated. DCPS Operations excludes roads, gathering lines, and routine operations and maintenance.

- (2) **Existing Oil and Gas Location** means an oil and gas location, excluding roads, and gathering lines, permitted or constructed prior to the later of May 1, 2009 for federal land or April 1, 2009 for all other land or the date that the oil and gas location becomes subject to Rule 317B by virtue of its proximity to a Classified Water Supply Segment.
- (3) **New Oil and Gas Location** means an oil and gas location, excluding roads and gathering lines, that is not an existing oil and gas location.
- (4) **New Surface Disturbance** means surface disturbance that expands the area of surface covered by an oil and gas location beyond that initially disturbed in the construction of the oil and gas location.
- (5) **Non-Exempt Linear Feature** means a road or gathering line that is not necessary to cross a stream or connect or access a well or a gathering line.

b. Applicability Determination.

- (1) Rule 317B is applicable to DCPS Operations within Surface Water Supply Areas. The applicability of Rule 317B will be determined by reviewing the Public Water System Surface Water Supply Area Map, attached as part of Appendix VI, or by entering information into the Public Water System Surface Water Supply Area Applicability Determination Tool, also located on the Commission website.
- (2) The Public Water Systems subject to the protections of this Rule 317B are those listed in Appendix VI. Any additions or deletions to the Public Water Systems listed in Appendix VI or the Public Water System Surface Water Supply Area Map, also located in Appendix VI, shall be by Commission rulemaking, as provided in Rule 529.
- (3) DCPS Operations at New Oil and Gas Locations within a Surface Water Supply Area will be subject to the requirements in Rules 317B.c, 317B.d, or 317B.e based on the buffer zones defined in Table 1, below. DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area at which no new surface disturbance has occurred after the date Rule 317B became applicable to that oil and gas location will be subject to the requirements in Rule 317B.f.(1) based on the buffer zones defined in Table 1. DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area at which new surface disturbance has occurred after the date Rule 317B became applicable to that oil and gas location will be subject to the requirements in Rule 317B.f.(2) based on the buffer zones defined in Table 1.
- (4) For Classified Water Supply Segments that are perennial and intermittent streams, buffer zones shall be determined by measuring from the ordinary high water line of each bank to the near edge of the disturbed area at the oil and gas location at which the DCPS Operations will occur.
- (5) The buffer zones shall apply only to DCPS Operations located on the surface. The buffer zones shall not apply to subsurface boreholes and equipment or materials contained therein. The buffer zones shall not apply to DCPS Operations located in an area that does not drain to a classified water supply segment protected by this Rule 317B.

TABLE 1. Buffer Zones Associated with DCPS Operations.

Zone	Classified Water Supply Segments (ft)
Internal Buffer	0 - 300
Intermediate Buffer	301 - 500
External Buffer	501 - 2,640

c. Requirements for DCPS Operations Conducted at New Oil and Gas Locations in the Internal Buffer Zone.

DCPS Operations conducted and Non-Exempt Linear Features located at New Oil and Gas Locations within a Surface Water Supply Area may not occur in whole or in part within the Internal Buffer Zone identified in Table 1 unless a variance is granted pursuant to Rule 502.b and consultation with the Colorado Department of Public Health and Environment occurs pursuant to Rule 306.d and a Form 2A or Form 2 with appropriate conditions of approval has been approved, or the Director has approved a Comprehensive Drilling Plan pursuant to Rule 216 that covers the operation. In determining appropriate conditions of approval for such operations, the Director shall consider the extent to which the conditions of approval are required to prevent impacts to the Public Water System.

(1) The Commission shall grant a variance if the operator demonstrates that:

A. The proposed DCPS Operations and applicable best management practices and operating procedures will result in substantially equivalent protection of drinking water quality in the Surface Water Supply area; and

B. Either:

i. Conducting the DCPS Operation outside the Internal Buffer Zone would pose a greater risk to public health, safety, or welfare, including the environment and wildlife resources, such as may be the case where conducting the DCPS Operations outside the Internal Buffer Zone would require construction in steep or erosion-prone terrain or result in greater surface disturbance due to an inability to use infrastructure already constructed such as roads, well sites, or pipelines; or

ii. Conducting DCPS Operations beyond the Internal Buffer Zone is technically infeasible and prevents the operator from exercising its mineral rights.

(2) At a minimum, for any DCPS Operation at a New Oil and Gas Location within the Internal Buffer Zone, the Director shall include as conditions of approval in the Form 2A, Form 2, or Comprehensive Drilling Plan, the requirements of Rule 317B.d.

d. Requirements for DCPS Operations at New Oil and Gas Locations in the Intermediate Buffer Zone.

The following shall be required for all DCPS Operations at New Oil and Gas Locations within a Surface Water Supply Area and in the Intermediate Buffer Zone as defined in Table 1.

- (1) Pitless drilling systems;
- (2) Flowback and stimulation fluids contained within tanks that are placed on a well pad or in an area with downgradient perimeter berming;
- (3) Berms or other containment devices shall be constructed in compliance with Rule 604.c.(2)G around crude oil, condensate, and produced water storage tanks; and
- (4) When sufficient water exists in the Classified Water Supply Segment, collection of baseline surface water data consisting of a pre-drilling surface water sample collected immediately downgradient of the oil and gas location and follow-up surface water data consisting of a sample collected at the same location three (3) months after the conclusion of any drilling activities and operations or completion. The sample parameters shall include:
 - A. pH;
 - B. Alkalinity;
 - C. Specific conductance;
 - D. Major cations/anions (chloride, fluoride, sulfate, sodium);
 - E. Total dissolved solids;
 - F. BTEX/GRO/DRO;
 - G. TPH;
 - H. PAH's (including benzo(a)pyrene); and
 - I. Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium).

Current applicable EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or nationally accredited programs.

Copies of all test results described above shall be provided to the Commission and the potentially impacted Public Water System(s) within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.

- (5) Notification of potentially impacted Public Water Systems within fifteen (15) stream miles downstream of the DCPS Operation prior to commencement of new surface disturbing activities at the site.
- (6) An emergency spill response program that includes employee training, safety, and maintenance provisions and current contact information for downstream Public Water System(s) located within fifteen (15) stream miles of the DCPS Operation, as well as the ability to notify any such downstream Public Water System(s) with intake(s) within fifteen (15) stream miles downstream of the DCPS operations.

In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the above-described emergency response program.

If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the affected or potentially affected Public Water System(s) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).

e. Requirements for DCPS Operations at New Oil and Gas Locations within the External Buffer Zone.

The following shall be required when DCPS Operations are conducted at New Oil and Gas Locations within a Surface Water Supply Area and in the External Buffer Zone as defined in Table 1.

- (1) Pitless drilling systems or containment of all drilling flowback and stimulation fluids pursuant to Rule 904; and
- (2) When sufficient water exists in the Classified Water Supply Segment, collection of baseline surface water data consisting of a pre-drilling surface water sample collected immediately downgradient of the oil and gas location and follow-up surface water data consisting of a sample collected at the same location three (3) months after the conclusion of any drilling activities and operations or completion. The sample parameters shall include:
 - A. pH;
 - B. Alkalinity;
 - C. Specific conductance;
 - D. Major cations/anions (chloride, fluoride, sulfate, sodium);
 - E. Total dissolved solids;
 - F. BTEX/GRO/DRO;
 - G. TPH;
 - H. PAH's (including benzo(a)pyrene); and
 - I. Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium).

Current applicable EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or nationally accredited programs.

Copies of all test results described above shall be provided to the Commission and the potentially impacted Public Water System(s) within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.

- (3) Notification of potentially impacted Public Water Systems within fifteen (15) stream miles downstream of the DCPS Operation prior to commencement of new surface disturbing activities at the site.
- (4) An emergency spill response program that includes employee training, safety, and maintenance provisions and current contact information for downstream Public Water System(s) located within fifteen (15) stream miles of the DCPS Operation, as well as the ability to notify any such downstream Public Water System(s) with intake(s) within fifteen (15) stream miles downstream of the DCPS operations.

In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the above-described emergency response program.

If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the affected or potentially affected Public Water System(s) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).

f. Requirements for DCPS Operations at Existing Oil and Gas Locations.

- (1) Existing Oil and Gas Locations and DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area and within zones specified in Table 1 shall be subject to the following requirements instead of the requirements of Rules 317B.c, 317B.d, or 317B.e provided that no new surface disturbance at the Existing Oil and Gas Location occurs after the later of May 1, 2009 for federal land or April 1, 2009 for all other land or the date Rule 317B became applicable to the oil and gas location:
 - A. Collection of surface water data from a Classified Water Supply Segment consisting of a sample collected immediately downgradient of the oil and gas operation will occur by the latest of June 1, 2009, within six (6) months after the date Rule 317B became applicable to the oil and gas location, or when sufficient water exists in the stream:
 - i. pH;
 - ii. Alkalinity;
 - iii. Specific conductance;
 - iv. Major cations/anions (chloride, fluoride, sulfate, sodium);
 - v. Total dissolved solids;
 - vi. BTEX/GRO/DRO;
 - vii. TPH;
 - viii. PAH's (including benzo(a)pyrene); and
 - ix. Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium).

Current applicable EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or nationally accredited programs.

Copies of all test results described above shall be provided to the Commission and the potentially impacted Public Water System(s) within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.

- B. An emergency spill response program that includes employee training, safety, and maintenance provisions and current contact information for downstream Public Water System(s) located within fifteen (15) stream miles of the DCPS Operation, as well as the ability to notify any such downstream Public Water System(s) with intake(s) within fifteen (15) stream miles downstream of the DCPS Operations.

In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the above-described emergency response program.

If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the affected or potentially affected Public Water System(s) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).

- C. Operators shall employ and maintain Best Management Practices, as necessary, to comply with this rule.

- (2) Existing Oil and Gas Locations and DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area and within zones specified in Table 1 for which new surface disturbance occurs on or after the later of May 1, 2009 for federal land or on or after April 1, 2009 for all other land or the date Rule 317B became applicable to the oil and gas location shall be subject to the requirements of Rule 317B.f.(3) instead of the requirements of Rules 317B.c, 317B.d, or 317B.e where the additional new surface disturbance is addressed in a Comprehensive Drilling Plan accepted pursuant to Rule 216, or if:

- A. The new disturbance from the DCPS Operation will not increase the existing disturbed area prior to interim reclamation by more than one hundred (100) percent up to a maximum of three (3) acres, and
- B. The new surface disturbance occurs in a direction away from the stream or no closer to the stream if moving away from the stream would result in more damaging surface disturbance such as location on a steep slope, in an area of high soil erosion potential, or in a wetland.

- (3) Where the provisions of Rule 317B.f.(2) apply, the following zone requirements shall apply:

- A. For all zones, the requirements of Rule 317B.f.(1), except that the sampling parameters in Rule 317B.f.(1).A shall occur no later than six (6) months

after commencing the DCPS Operations at the Existing Oil and Gas Location.

B. For External and Intermediate Buffer Zones: pitless drilling systems or containment of drilling, flowback, and stimulation fluids with impervious liners, as provided in Rule 904.

C. For Internal Buffer Zones:

- i. Pitless drilling systems;
- ii. Flowback and stimulation fluids contained within tanks and placed on a well pad or in an area with downgradient perimeter berming;
- iii. Berms constructed in compliance with Rule 604.c.(2)G around all crude oil, condensate, and produced water tanks; and
- iv. Notification of potentially impacted Public Water Systems within fifteen (15) stream miles downstream of the DCPS Operation prior to commencement of new surface disturbing activities at the site.

318. LOCATION OF WELLS

All wells drilled for oil or gas to a common source of supply shall have the following setbacks:

- a. **Wells 2,500 feet or greater in depth.** A well to be drilled two thousand five hundred (2,500) feet or greater shall be located not less than six hundred (600) feet from any lease line, and shall be located not less than one thousand two hundred (1,200) feet from any other producible or drilling oil or gas well when drilling to the same common source of supply, unless authorized by order of the Commission upon hearing.
- b. **Wells less than 2,500 feet in depth.** A well to be drilled to less than a depth of two thousand five hundred (2,500) feet below the surface shall be located not less than two hundred (200) feet from any lease line, and not less than three hundred (300) feet from any other producible oil or gas well, or drilling well, in said source of supply, except that only one producible oil or gas well in each such source of supply shall be allowed in each governmental quarter-quarter section unless an exception under Rule 318.c. is obtained.
- c. **Exception locations.** The Director may grant an operator's request for a well location exception to the requirements of this rule or any order because of geologic, environmental, topographic or archaeological conditions, irregular sections, a surface owner request, or for other good cause shown provided that a waiver or consent signed by the lease owner toward whom the well location is proposed to be moved, agreeing that said well may be located at the point at which the operator proposes to drill the well and where correlative rights are protected. If the operator of the proposed well is also the operator of the drilling unit or unspaced offset lease toward which the well is proposed to be moved, waivers shall be obtained from the mineral interest owners under such lands. If waivers cannot be obtained from all parties and no party objects to the location, the operator may apply for a variance under Rule 502.b. If a party or parties object to a location and cannot reach an agreement, the operator may apply for a Commission hearing on the exception location.

d. Exemptions to Rule 318.

- (1) This rule shall not apply to authorized secondary recovery projects.

(2) This rule shall apply to fracture or crevice production found in shale, except from fields previously exempted from this rule.

(3) In a unit operation, approved by federal or state authorities, the rules herein set forth shall not apply except that no well in excess of two thousand five hundred (2,500) feet in depth shall be located less than six hundred (600) feet from the exterior or interior (if there be one) boundary of the unit area and no well less than two thousand five hundred (2,500) feet in depth below the surface shall be located less than two hundred (200) feet from the exterior or interior (if there be one) boundary of the unit area unless otherwise authorized by the order of the Commission after proper notice to owners outside the unit area.

e. **Wells located near a mine.** No well drilled for oil or gas shall be located within two hundred (200) feet of a shaft or entrance to a coal mine not definitely abandoned or sealed, nor shall such well be located within one hundred (100) feet of any mine shaft house, mine boiler house, mine engine house, or mine fan; and the location of any proposed well shall insure that when drilled it will be at least fifteen (15) feet from any mine haulage or airway.

318A. GREATER WATTENBERG AREA SPECIAL WELL LOCATION, SPACING AND UNIT DESIGNATION RULE

a. **GWA, GWA wells, GWA windows and unit designations.** The Greater Wattenberg Area ("GWA") is defined to include those lands from and including Townships 2 South to 7 North and Ranges 61 West to 69 West, 6th P.M. In the GWA, operators may utilize the following described surface drilling locations ("GWA windows") to drill, twin, deepen, or recomplate a well ("GWA well") and to commingle any or all of the Cretaceous Age formations from the base of the Dakota Formation to the surface:

(1) A square with sides four hundred (400) feet in length, the center of which is the center of any governmental quarter-quarter section ("400' window"); and,

(2) A square with sides eight hundred (800) feet in length, the center of which is the center of any governmental quarter section ("800' window").

(3) Absent a showing of good cause, which shall include the existence of a surface use or other agreement with the surface owner authorizing a surface well location outside of a GWA window, all surface wellsites shall be located within a GWA window.

(4) Unit designations.

A. 400' window. When completing a GWA well in a 400' window to a spaced formation, the operator shall designate drilling and spacing units in accordance with existing spacing orders.

B. 800' window. When completing a GWA well in an 800' window, whether in spaced or unspaced formations, the operator shall: (i) designate drilling and spacing units in accordance with existing spacing orders where units are not smaller than a governmental quarter section; or (ii) form a voluntary drilling and spacing unit consisting of a governmental quarter section; or (iii) where designating a drilling and spacing unit smaller than a governmental quarter section, secure waiver(s) from the operator or from the mineral owners (if the operator is also the holder of the mineral lease) of the lands in the governmental quarter section that are not to be included in the spacing unit; or (iv) apply to the Commission to form an alternate unit or to respace the area.

- C. Unspaced areas and wellbore spacing units. When completing a GWA well to an unspaced formation, the operator shall designate a drilling and spacing unit not smaller than a governmental quarter-quarter section if such well is proposed to be located greater than four hundred sixty (460) feet from the quarter-quarter section boundary in which it is located. If a well is proposed to be located less than four hundred sixty (460) feet from the governmental quarter-quarter section boundary, a wellbore spacing unit ("wellbore spacing unit") for such well shall be comprised of the governmental quarter-quarter sections that are located less than four hundred sixty (460) feet from the wellbore regardless of section or quarter section lines.
- D. Horizontal GWA well. Where a drilling and spacing unit does not exist for a horizontal well, a horizontal wellbore spacing unit shall be designated by the operator for each proposed horizontal well. The horizontal wellbore spacing unit may be of different sizes and configurations depending on lateral length and orientation but shall be comprised of the governmental quarter-quarter sections in which the wellbore lateral penetrates the productive formation as well as any governmental quarter-quarter sections that are located less than four hundred sixty (460) feet from the completed interval of the wellbore lateral regardless of section or quarter section lines. However, if the horizontal component of the horizontal wellbore is located entirely within a GWA window, the operator shall designate a drilling and spacing unit in accordance with subsections a.(4)A. and a.(4)B. of this rule. A horizontal wellbore spacing unit may overlap portions of another horizontal wellbore spacing unit or other wellbore spacing unit designated in accordance with subsection a.(4)C. GWA horizontal wells and horizontal wellbore spacing units shall be subject to the notice and hearing procedures as provided for in Rule 318A.e.(6).
- b. **Recompletion/commingling of existing wells.** Any GWA well in existence prior to the effective date of this rule, which is not located as described above, may also be utilized for deepening to or recompletion in any Cretaceous Age formation and for the commingling of production therefrom.
- c. **Surface locations.** Prior to the approval of any Application for Permit-to-Drill submitted for a GWA well, the proposed surface well location shall be reviewed in accordance with the following criteria:
- (1) A new surface well location shall be approved in accordance with Commission rules when it is less than fifty (50) feet from an existing surface well location.
 - (2) When the operator is requesting a surface well location greater than fifty (50) feet from a well (unless safety or mechanical considerations of the well to be twinned or topographical or surface constraints justify a location greater than fifty (50) feet), the operator shall provide a consent to the exception signed by the surface owner on which the well is proposed to be located in order for the Director to approve the well location administratively.
 - (3) If there is no well located within a GWA window but there is an approved exception location well located outside of a GWA window that is attributed to such window, the provisions of subsections (1) and (2) of this subsection c. shall be applicable to such location.

d. **Prior wells excepted.** This rule does not alter the size or configuration of drilling units for GWA wells in existence prior to the effective date of this rule. Where deemed necessary by an operator for purposes of allocating production, such operator may allocate production to any drilling and spacing unit with respect to a particular Cretaceous Age formation consistent with the provisions of this rule.

e. **GWA infill.**

- (1) **Interior infill wells.** Additional bottom hole locations for the “J” Sand, Codell and Niobrara Formations are hereby established greater than four hundred sixty (460) feet from the outer boundary of any existing 320-acre drilling and spacing unit (“interior infill wells”). Pursuant to the well location provisions of subsection a., above, interior infill well locations shall be reached by utilizing directional drilling techniques from the GWA windows.
 - A. If a bottom hole location for an interior infill well is proposed to be located less than four hundred sixty (460) feet from the outer boundary of an existing drilling and spacing unit, a wellbore spacing unit as defined in a.(4)C., above, shall be designated by the operator for such well.
 - B. If a bottom hole location for an interior infill well is proposed to be located greater than four hundred sixty (460) feet from an existing 80-acre or existing 320-acre drilling and spacing unit, the spacing unit for such well shall conform to the existing 80-acre or existing 320-acre drilling and spacing unit.
- (2) **Boundary wells.** Additional bottom hole locations for the “J” Sand, Codell and Niobrara Formations are hereby established less than four hundred sixty (460) feet from the outer boundary of a 320-acre governmental half section or from the outer boundary of any existing 320-acre drilling and spacing unit (“boundary wells”). A wellbore spacing unit as defined in a.(4)C., above, shall be designated by the operator for such well.
- (3) **Additional producing formations.** An operator wanting to complete an interior infill well or boundary well in a formation other than the “J” Sand, Codell, or Niobrara Formations (“additional producing formation”) must request an exception location prior to completing the additional producing formation. The spacing unit dedicated to the exception location shall comply with subsections (1) or (2), above, as appropriate.
- (4) **Existing production facilities.** To the extent reasonably practicable, operators shall utilize existing roads, pipelines, tank batteries and related surface facilities for all interior infill wells and boundary wells.
- (5) **Notice and hearing procedures.** For proposed boundary wells, wellbore spacing units, and additional producing formations provided by this subsection e., and for proposed horizontal wells and horizontal wellbore spacing units as provided by 318A.a.(4)D., the following process shall apply:
 - A. Notice shall be given by certified mail by the operator of a proposed boundary well, wellbore spacing unit, horizontal well or horizontal wellbore spacing unit to all Owners in the proposed wellbore spacing unit. Notice shall be given by certified mail by the operator of a proposed additional producing formation to all Owners in cornering and contiguous spacing units of the requested completion and the proposed spacing unit; if the additional producing formation is unspaced only the Owner in the proposed spacing unit needs to

be notified. Notice for a boundary well, wellbore spacing unit, horizontal well or horizontal wellbore spacing unit shall include a description of the wellbore orientation, the anticipated spud date, the size and shape of the proposed wellbore spacing unit (with depiction attached), the proposed surface and bottom hole locations, identified by footage descriptions, and the survey plat. For proposed horizontal wells and horizontal wellbore spacing units, the operator shall also identify by footage descriptions, the location at which the wellbore penetrates the target formation.

- B. Each owner shall have a 30 day period after receipt of such notice to object in writing to the operator. The written objection must be based upon a claim that the notice provided by the operator does not comply with the informational requirements of subsection A., above, and/or a technical objection that either waste will be caused, correlative rights will be adversely affected, or that the operator is not an "owner", as defined in the Act, of the mineral estate(s) through which the wellbore penetrates within the target formation. Specific facts must form the basis for such objection. The objecting party shall provide a copy of the written objection to the Director.
- C. If an objection pursuant to subsection B. is timely received, the operator may seek a hearing before the Commission on the objection. The objecting party will bear the burden of proving that the notice provided by the operator does not comply with the informational requirements of subsection A., above, that the operator is not an owner, as defined by the Act, and/or the approval of the boundary well location, wellbore spacing unit, horizontal well, horizontal wellbore spacing unit or additional producing formation would either create waste or adversely affect the objecting party's correlative rights. The objection may be presented to an Administrative Law Judge or Hearing Officer. After hearing the objection, the Administrative Law Judge or Hearing Officer may issue a recommended order that sets forth whether the objection shall stand or be dismissed.
- D. If the objection stands, the Commission may either enter an order approving or denying the proposed boundary well location, wellbore spacing unit, horizontal well location, horizontal wellbore spacing unit or additional producing formation, with or without conditions. Such conditions may be requisites for the Application for Permit-to-Drill, Form 2, if the operator chooses to proceed with an Application for Permit-to-Drill, Form 2, relative to the proposed boundary well, wellbore spacing unit, horizontal well, horizontal wellbore spacing unit or additional producing formation. If the objection is dismissed, the operator shall treat the objection as withdrawn and otherwise proceed with subsection E. below.
- E. Absent receipt of a timely objection pursuant to subsections A. and B., above, the Director may administratively approve the boundary well, wellbore spacing unit, horizontal well, horizontal wellbore spacing unit or additional producing formation. A location plat evidencing the well location, wellbore spacing unit, or additional producing formation and applicable spacing unit shall be submitted to the Director together with copies of any surface waivers and a certification that no timely objections were received. An Application for Permit-to-Drill, Form 2, specifically identifying that a boundary well, wellbore spacing unit, horizontal well, horizontal wellbore spacing unit or additional producing formation is proposed, shall also be filed with the Director in accordance with Rule 303 within 90 days of the expiration of the 30 day notice period or such notice shall be deemed withdrawn. Should such notice be withdrawn or deemed withdrawn, the proposed operator shall not submit another notice for

the same well or wellbore spacing unit within 45 days of the date the original notice is withdrawn or deemed withdrawn.

f. Groundwater baseline sampling and monitoring.

(1) Applicability and effective date.

- A. This Rule 318A.f. applies to Oil Wells, Gas Wells (hereinafter, Oil and Gas Wells), Multi-Well Sites, and Dedicated Injection Wells as defined in the 100-Series Rules, for which a Form 2 Application for Permit to Drill is submitted on or after May 1, 2013.
- B. This Rule 318A.f. does not apply to an existing Oil or Gas Well that is re-permitted for use as a Dedicated Injection Well.
- C. Nothing in this Rule is intended, and shall not be construed, to preclude or limit the Director from requiring groundwater sampling or monitoring at other Production Facilities consistent with other applicable Rules, including but not limited to the Oil and Gas Location Assessment process, and other processes in place under 900-series E&P Waste Management Rules (Form 15, Form 27, Form 28).

(2) **Sampling Locations.**

- A. Initial baseline samples and a subsequent monitoring sample shall be collected from one (1) Available Water Source in the governmental quarter section in which a new Oil and 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.
- B. If there is no Available Water Source within the governmental quarter section where a proposed new Oil and Gas Well, Multi-Well Site, or Dedicated Injection Well is located, then an Available 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, shall be sampled. Once a sample location is established in a governmental quarter section, no additional sample locations are required for that governmental quarter section.
- C. If there is more than one Available Water Source in the governmental quarter section or, if applicable, within the half-mile radius around the Oil and Gas Well, the first well on a Multi-Well Site, or a Dedicated Injection Well, the sample location shall be selected based on the following criteria:
 - i. Proximity. Available Water Sources closest to the proposed Oil or Gas Well, a Multi-Well Site, or a Dedicated Injection Well are preferred.
 - ii. Type of Water Source. Well maintained domestic water wells are preferred over other Available Water Sources.

- iii. Multiple identified aquifers available. Where multiple defined aquifers are present, sampling the deepest identified aquifer is preferred.
- iv. Condition of Water Source. An operator is not required to sample Water Sources that are determined to be improperly maintained, nonoperational, or have other physical impediments to sampling that would not allow for a representative sample to be safely collected or would require specialized sampling equipment (e.g. shut-in wells, wells with confined space issues, wells with no tap or pump, non-functioning wells, intermittent springs).

(3) **Exceptions.** Prior to spudding, an operator may request an exception from the requirements of this Rule 318.A.f. by filing a Sundry Notice (Form 4) for the Director's review and approval if:

- A. No Available Water Sources are located within the governmental quarter section or a previously unsampled quarter section within a 1/2 mile radius of a proposed Oil and Gas Well, Multi-Well Site, or Dedicated Injection Well;
- B. The only Available Water Sources are determined to be unsuitable pursuant to subpart (4)B.ii.dd, above. An operator seeking an exception on this ground shall document the condition of the Available Water Sources it has deemed unsuitable; or
- C. The owners of all Water Sources suitable for testing under this Rule refuse to grant access despite an operator's reasonable good faith efforts to obtain consent to conduct sampling. An operator seeking an exception on this ground shall document the efforts used to obtain access from the owners of suitable Water Sources.
- D. If the Director takes no action on the Sundry Notice within ten (10) business days of receipt, the requested exception from the requirements of this Rule 318A.e.(4) shall be deemed approved.

(4) **Timing of Sampling.**

- A. Except as provided in subpart (4)B.i, above, initial sampling shall be conducted 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.
- B. 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. Wells that are drilled and abandoned without ever producing hydrocarbons are exempt from subsequent monitoring sampling under this subpart (4)D.ii.

- (5) Sampling and analysis shall be conducted in conformance with an accepted industry standard as described in Rule 910.b.(2). A model Sampling and Analysis Plan (“COGCC Model SAP”) shall be posted on the COGCC website, and shall be updated periodically to remain current with evolving industry standards. Sampling and analysis conducted in conformance with the COGCC Model SAP shall be deemed to satisfy the requirements of this subsection. Upon request, an operator shall provide its sampling protocol to the Director.
- (6) **Initial Baseline Sampling Analysis.** The initial baseline sampling required pursuant to subpart (4)D.i shall include pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO₃), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime forming), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylenes). Field observations such as odor, water color, sediment, bubbles, and effervescence shall also be documented. The location of the sampled Water Source shall be surveyed in accordance with Rule 215.
- (7) **Subsequent Sampling Analysis.** Subsequent sampling to meet the requirements of subpart (4)D.ii shall include total dissolved solids (TDS), dissolved gases (methane, ethane, propane), major anions (bromide, chloride, sulfate, and fluoride), major cations (potassium, sodium, magnesium, and calcium), alkalinity (total bicarbonate and carbonate as CaCO₃), BTEX compounds (benzene, toluene, ethylbenzene and xylenes), and TPH.
- (8) **Methane Detections.** If free gas or a dissolved methane concentration greater than 1.0 milligram per liter (mg/l) is detected in a water sample, gas compositional analysis and stable isotope analysis of the methane (carbon and hydrogen – 12C, 13C, 1H and 2H) shall be performed to determine gas type. The operator shall notify the Director and the owner of the water well immediately if:
- A. the test results indicated thermogenic or a mixture of thermogenic and biogenic gas;
 - B. the methane concentration increases by more than 5.0 mg/l between sampling periods; or
 - C. the methane concentration is detected at or above 10 mg/l.
- (9) **BTEX or TPH Detections.** The Operator shall notify the Director immediately if BTEX compounds or TPH are detected in a water sample.
- (10) **Sampling Results.** Copies of all final laboratory analytical results shall be provided to the Director and the water well owner or landowner within three (3) months of collecting the samples. The analytical results, the surveyed sample Water Source location, and the field observations shall be submitted to the Director in an electronic data deliverable format.
- A. The Director shall make such analytical results available publicly by posting on the Commission’s web site or through another means announced to the public.

B. Upon request, the Director shall also make the analytical results and surveyed Water Source location available to the Local Governmental Designee from the jurisdiction in which the groundwater samples were collected, in the same electronic data deliverable format in which the data was provided to the Director.

(11) **Liability.** The sampling results obtained to satisfy the requirements of this Rule 318A.f., including any changes in the constituents or concentrations of constituents present in the samples, shall not create a presumption of liability, fault, or causation against the owner or operator of a Well, Multi-Well Site, or Dedicated Injection Well who conducted the sampling, or on whose behalf sampling was conducted by a third-party. The admissibility and probity of any such sampling results in an administrative or judicial proceeding shall be determined by the presiding body according to applicable administrative, civil, or evidentiary rules.

- g. **Limit on locations.** This rule does not limit the number of formations that may be completed in any GWA drilling and spacing unit nor, subject to subsection c., above, does it limit the number of wells that may be located within the GWA windows.
- h. **GWA water sampling.** The Director may apply appropriate drilling permit conditions to require water well sampling near any proposed GWA wells in accordance with the guidelines set forth in subsection f., above.
- i. **Waste Management.** In conjunction with filing an Oil and Gas Location Assessment, Form 2A, the operator shall include a waste management plan meeting the general requirements of Rule 907.a.
- j. **Exception locations.** The provisions of Rule 318.c. respecting exception locations shall be applicable to GWA wells, however, absent timely objection, boundary wells, wellbore spacing units, and additional producing formations shall be administratively approved as provided in subsection e.(6) above.
- k. **Correlative rights.** This rule shall not serve to bar the granting of relief to owners who file an application alleging abuse of their correlative rights to the extent that such owners can demonstrate that their opportunity to produce Cretaceous Age formations from the drilling locations herein authorized does not provide an equal opportunity to obtain their just and equitable share of oil and gas from such formations.
- l. **Supersedes orders and policy.** Subject to paragraph d. above, this rule supersedes all prior Commission drilling and spacing orders affecting well location and density requirements of GWA wells. Where the Commission has issued a specific order limiting the number of horizontal wells permitted in a drilling and spacing unit, the well density in such unit shall be governed by that order.
- m. The landowner notice provision for the owner(s) of surface property within five hundred (500) feet of the proposed oil and gas location under Rule 305.e. shall not apply to any such locations that are subject to the provisions of this subsection 318A.

318B. Yuma/Phillips County Special Well Location Rule

- a. This Special Well Location Rule (“WLR”) governs wells drilled to and completed in the Niobrara Formation for the following lands:

Township 1 North Range 44 West: Sections 7, 18, 19, 30 through 33 Range 45 West: Sections 7 through 36 Range 46 West: Sections 4 through 9 Range 47 West: All Range 48 West: All

Township 2 North Range 46 West: All Range 47 West: All Range 48 West: All

Township 3 North Range 45 West: Sections 1 through 18 Range 46 West: All
Range 47 West: All Range 48 West: All

Township 4 North Range 45 West: All Range 46 West: All Range 47 West: All
Range 48 West: All

Township 5 North Range 45 West: All Range 46 West: All Range 47 West: All
Range 48 West: All

Township 6 North Range 45 West: All Range 46 West: All Range 47 West: All
Range 48 West: All

Township 7 North Range 45 West: All Range 46 West: All Range 47 West: All

Township 8 North Range 45 West: All Range 46 West: All Range 47 West: All

Township 9 North Range 45 West: Sections 19 through 36 Range 46 West: Sections
19 through 36 Range 47 West: Sections 19 through 36

Township 1 South Range 44 West: Sections 3 through 10, 16 through 21, 27 through
34 Range 45 West: Sections 3 through 5 Range 46 West: Sections 4 through 9,
16 through 36 Range 47 West: All Range 48 West: All

Township 2 South Range 44 West: Sections 3 through 6 Range 45 West: Section
7: W½, Section 18: W½, Section 19: All Range 46 West: Sections 1 through 24
Range 47 West: All Range 48 West: All

Township 3 South Range 48 West: All

Township 4 South Range 48 West: All

Within the WLR Area, operators may conduct drilling operations to the Niobrara Formation as follows:

- (1) Four (4) Niobrara Formation wells may be drilled in any quarter section.
- (2) No more than one (1) well may be located in any quarter quarter section.
- (3) No minimum distance shall be required between wells producing from the Niobrara Formation in any quarter section
- (4) Wells shall be located at least three hundred (300) feet from the boundary of said quarter section, and wells located outside any drilling units already established by the Commission in the WLR Area prior to this WLR's effective date (July 30, 2006) shall, in addition, be located at least three hundred (300) feet from any lease line. Further, wells shall be located not less than nine hundred (900) feet from any producible well drilled to the Niobrara Formation prior to this WLR's effective date (July 30, 2006) located in a contiguous or cornering quarter section unless exception is approved by the Director.

- b. Any well drilled to the Niobrara Formation in the WLR Area prior to the effective date (July 30, 2006) of this WLR which is legally located when this WLR becomes effective but is not located as listed above shall be treated as properly located for purposes of this WLR.
- c. This WLR does not alter the size or configuration of any drilling units already established by the Commission in the WLR Area prior to this WLR's effective date (July 30, 2006).
- d. This WLR shall not serve to bar the granting of relief to owners who file an application alleging abuse of their correlative rights to the extent that such owners can demonstrate that their opportunity to produce from the Niobrara Formation at locations herein authorized does not provide an equal opportunity to obtain their just and equitable share of oil and gas from such formation.
- e. Well exception locations to this WLR shall be subject to the provisions of Rule 318.c.
- f. This WLR is a well location rule and supersedes existing Commission orders in effect at the time of its adoption only to the extent that the existing orders relate to permissible well locations and the number of wells that may be drilled in a quarter section. Commission orders in effect when this Rule 318B. is adopted nonetheless apply with respect to the size of drilling units already established by the Commission in the WLR Area. This WLR is not intended to establish well spacing. Accordingly, when an area subject to Rule 318B. is otherwise unspaced, it does not act to space the area but instead provides the permissible locations for any new Niobrara Formation wells. Similarly, Rule 318B. does not affect production allocation for existing or future wells. An operator may allocate production in accordance with the applicable lease, contract terms or established drilling and spacing units recognizing the owner's right to apply to the COGCC to resolve any outstanding correlative rights issues.
- g. The landowner notice provisions for owner(s) of surface property within five hundred (500) feet of the proposed oil and gas location under Rule 305.e shall not apply to any such locations that are subject to the provisions of this Rule 318B.

319. ABANDONMENT

The requirements for abandoning a Well are as follows:

319.a. Plugging

- (1) An Operator will plug a dry or abandoned well, seismic, core, or other exploratory hole, in such a manner that oil, gas, water, or other substance will be confined to the formation in which it originally occurred, isolating all zones specified in Rule 317.e., and zones identified and approved on the Notice of Intent to Abandon, Form 6. If the wellbore is not static before setting a plug in an open hole or after casing is removed from the wellbore, then the Operator will circulate any produced fluids from the wellbore and will fill the wellbore with wellbore fluids sufficient to maintain a balance or overbalance of the producing formation. Wellbore fluids will be in a static state prior to pumping balanced cement plugs, unless the Operator is placing the cement plug as a preliminary step to counteract a high pressure or a lost circulation zone before establishing a static state. The Operator will fill intervals between plugs with wellbore fluids of sufficient density to exert hydrostatic pressure exceeding the greatest formation pressure encountered while drilling such interval. If mud is necessary to maintain wellbore fluids in a static state prior to setting plugs, the Operator will use a minimum mud weight of 9 pounds per gallon. The Operator will use water spacers both ahead of and behind balanced plug cement slurry to minimize cement contamination by any wellbore fluids that are incompatible with the cement slurry. Any cement plug will be a minimum of 100 feet in length and will extend a minimum of 100 feet above

each zone to be isolated. The material an Operator uses in plugging, whether cement, mechanical plug, or some other equivalent method approved in writing by the Director, will be placed in the Well in a manner to permanently prevent migration of oil, gas, water, or other substance from the formation in which it originally occurred. Cement will conform to the requirements in Rule 317.f. The operator will ensure the slurry design achieves a minimum compressive strength of 300 psi after 24 hours and 800 psi after 72 hours measured at 95° Fahrenheit, or at the minimum expected downhole temperature, and at 800 psi confining pressure.

- (2) The Operator will have the option as to the method of placing cement in the hole by (a) dump bailer, (b) pumping a balanced cement plug through tubing or drill pipe, (c) pump and plug, or (d) equivalent method approved by the Director prior to plugging. Unless prior approval is given, all wellbores will have water, mud or other approved fluid between all plugs.
- (3) An Operator will not place substances of any nature or description other than that normally used in plugging operations in any Well at any time during plugging operations. An Operator will submit all final reports of plugging and abandonment on a Well Abandonment Report, Form 6, and include a job log or cement verification report from the plugging contractor specifying the type of fluid used to fill the wellbore, type and slurry volume of API Class cement used, date of work, and depth the plugs were placed.
- (4) An Operator may not pull surface casing from any Well unless authorized by the Director.
- (5) All abandoned Wells will have a plug or seal placed in the casing and all open annuli from a depth of 50 feet to the surface of the ground or the bottom of the cellar in the hole in such manner as not to interfere with soil cultivation or other surface use. For below-grade markers, the Operator will fit the top of the casing with a screw cap or a steel plate welded in place with a weep hole. For above-grade markers, the Operator will fit the top of the casing with a screw cap or a steel plate welded in place with a weep hole, and a permanent monument that will be a pipe not less than four inches in diameter and not less than 10 feet in length, of which four feet will be above ground level and the remainder embedded in cement or welded to the surface casing. Whether a below-grade or an above-grade marker is used, the Operator will inscribe the marker with the well's legal location, well name and number, and API Number. The Operator will not cap or seal the well until 5 days after placing the last plug to allow monitoring for successful plugging and will cap or seal the well within 90 days after placing the last plug.
- (6) The Operator will obtain approval from the Director of the plugging method prior to plugging, and will notify the Director of the estimated time and date the plugging operation of any Well is to commence, and identify the depth and thickness of all known sources of groundwater. The Operator will verify the placement of the plug required at the base of groundwater and the placement of any other plug specified by the Director by tagging or by an alternative method approved by the Director. For good cause shown, the Director may require that a cement plug be tagged if a cement retainer or bridge plug is not used. If requested by the Operator, the Director will furnish written follow-up documentation for a requirement to tag cement plugs.
- (7) **Wells Converted for Water Supply.** When the well, seismic, core, or other exploratory hole to be plugged may safely be used as a water supply well, and such utilization is desired by the Surface Owner, the well need not be filled above the required sealing plug set below groundwater; provided that written authority for such use is secured from the Surface Owner and, in such written authority, the Surface Owner assumes

the responsibility to plug the well upon its abandonment as a water well in accordance with the Commission's Rules. Such written authority and assumption of responsibility will be filed with the Commission, provided further that the Surface Owner furnishes a copy of the permit for a water well approved by the Division of Water Resources.

319.b. Temporary Abandonment.

- (1) A Well may be temporarily abandoned after passing a successful mechanical integrity test pursuant to Rule 326 upon approval of the Director, for a period not to exceed 6 months provided the hole is cased or left in such a manner as to prevent migration of oil, gas, water, or other substance from the formation or horizon in which it originally occurred. All temporarily abandoned Wells will be closed to the atmosphere with a swedge and valve or packer, or other approved method. The well sign shall remain in place. If an Operator requests temporary abandonment status in excess of 6 months the Operator shall state the reason for requesting such extension and state plans for future operation. A Sundry Notice, Form 4, or other form approved by the Director, will be submitted annually stating the method the well is closed to the atmosphere and plans for future operation. Subsequent mechanical integrity tests will be required at the frequency specified in Rule 326.
- (2) The manner in which the Well is to be maintained should be reported to the Commission, and bonding requirements, as provided for in Rule 304, kept in force until such time as the Well is permanently abandoned.
- (3) An Operator will abandon any Well which has ceased production or injection and is incapable of production or injection and any hole determined to be dry within 6 months thereafter unless the Well passes a successful mechanical integrity test pursuant to Rule 326, and the time is extended by the Director upon application by the owner. The application will indicate why the Well is temporarily abandoned and future plans for utilization. In the event the well is covered by a blanket bond, the Director may require an individual plugging bond on the temporarily abandoned well. Subsequent mechanical integrity tests will be required at the frequency specified in Rule 326. Gas storage wells are to be considered active at all times unless physically plugged.

320. LIABILITY

The owner and operator of any well drilled for oil or gas production or injection purposes, or any seismic, core, or other exploratory holes, whether cased or uncased, shall be liable and responsible for the plugging thereof in accordance with the rules and regulations of the Commission regardless of whether the cost of such plugging and abandonment exceeds the amount of security as set forth in Rule 304.

321. DIRECTIONAL DRILLING

321.a. Deviated Drilling Plan.

- (1) If an Operator intends to drill a deviated (directional, highly deviated, or horizontal) wellbore utilizing controlled directional drilling methods, the Operator will prepare a deviated drilling plan that includes sufficient data to describe the location of the wellbore in three dimensions from not greater than 500 feet below the surface of the ground to total depth.
- (2) The Operator will file the deviated drilling plan with the Application for Permit-to-Drill, Form 2 in a format approved by the Director.

321.b. Directional Survey for a Deviated Wellbore.

- (1) For an intentionally drilled deviated wellbore the Operator will perform a directional survey of the wellbore in a manner to gather sufficient data to describe the location of the wellbore in three dimensions and from not greater than 500 feet below the surface of the ground to total depth.
- (2) The directional survey will be included with the Drilling Completion Report, Form 5, and in a format approved by the Director.

321.c. Inclination Survey for a Non-deviated Wellbore.

- (1) For a newly drilled non-deviated wellbore or for the re-entry, recompletion or deepening of an existing wellbore, the operator will perform an inclination survey of the wellbore and file the inclination survey with the Drilling and Completion Report, Form 5.
- (2) The first shot point of such inclination survey will be made at a depth not greater than 500 feet below the surface, and succeeding shot points will be made either at 500-foot intervals or at the nearest drill bit change thereto, but will not exceed 1,000 feet apart. The inclination survey may be made either during the normal course of drilling or after the well has reached total depth. A directional survey meeting the requirements of Rule 321.b. may be filed in lieu of an inclination survey.
- (3) In the event a Form 5 is not required for re-entry, recompletion or deepening of an existing wellbore, the Operator will file the inclination survey with a Sundry Notice, Form 4.
- (4) The survey will be provided in a format approved by the Director.

321.d. Wellbore Setback Compliance. The Operator will ensure that the wellbore complies with the setback requirements in the Commission's orders or Rules prior to producing the well.

322. COMMINGLING

The commingling of production from multiple formations or wells is encouraged in order to maximize the efficient use of wellbores and to minimize the surface disturbance from oil and gas operations. Commingling may be conducted at the discretion of an operator, unless the Commission has issued an order or promulgated a rule excluding specific wells, geologic formations, geographic areas, or field from commingling in response to an application filed by a directly and adversely affected or aggrieved party or on the Commission's own motion.

This rule supercedes the procedural requirements to establish commingling and allocation contained in any Commission order as of the effective date of this rule, but does not supersede any allocation made under such order.

323. OPEN PIT STORAGE OF OIL OR HYDROCARBON SUBSTANCES

Storage of oil or any other produced liquid hydrocarbon substance in earthen pits or reservoirs is considered to constitute waste, except in emergencies where such substances cannot be otherwise contained. In such cases, these substances must be reclaimed and such storage eliminated as soon as practicable after the emergency is controlled, unless special permission to delay or continue is obtained from the Director.

324A. POLLUTION

- a. The operator shall take precautions to prevent significant adverse environmental impacts to air, water, soil, or biological resources to the extent necessary to protect public health, safety and welfare, including the environment and wildlife resources, taking into consideration cost-effectiveness and technical feasibility to prevent the unauthorized discharge or disposal of oil, gas, E&P waste, chemical substances, trash, discarded equipment or other oil field waste.
- b. No operator, in the conduct of any oil or gas operation shall perform any act or practice which shall constitute a violation of water quality standards or classifications established by the Water Quality Control Commission for waters of the state, or any point of compliance established by the Director pursuant to Rule 324D. The Director may establish one or more points of compliance for any event of pollution, which shall be complied with by all parties determined to be a responsible party for such pollution.
- c. No owner, in the conduct of any oil or gas operation, shall perform any act or practice which shall constitute a violation of any applicable air quality laws, regulations, and permits as administered by the Air Quality Control Commission or any other local or federal agency with authority for regulating air quality associated with such activities.
- d. No injection shall be authorized pursuant to Rule 325 or Rule 401 unless the person applying for authorization to conduct the injection activities demonstrates that those activities will not result in the presence in an underground source of drinking water of any physical, chemical, biological or radiological substance or matter which may cause a violation of any primary drinking water regulation in effect as of July 12, 1982 and found at 40 C.F.R. Part 141, or may otherwise adversely affect the health of persons. An underground source of drinking water is an aquifer or its portion:
 - (1) A which supplies any public water system; or
 - B which contains a sufficient quantity of ground water to supply a public water system; and
 - (i) currently supplies drinking water for human consumption; or
 - (ii) contains fewer than 10,000 milligrams per liter total dissolved solids; and
 - (2) which is not an exempted aquifer.
- e. No person shall accept water produced from oil and gas operations, or other oil field waste for disposal in a commercial disposal facility, without first obtaining a Certificate of Designation from the County in which such facility is located, in accord with the regulations pertaining to solid waste disposal sites and facilities as promulgated by the Colorado Department of Public Health and Environment.

324B . EXEMPT AQUIFERS

- a. **Criteria for aquifer exemption.** An aquifer or a portion thereof may be designated by the Director or the Commission as an exempted aquifer, in connection with the filing of an application pursuant to Rule 325, or Rule 401, and after notification to the Colorado Department of Public Health and Environment, Water Quality Control Division, if it meets the following criteria
 - (1) It does not currently serve as a source of drinking water, and either subparagraph (2) or (3) below apply;

- (2) It cannot now and will not in the future serve as a source of drinking water because:
- A. It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a person filing an application pursuant to Rule 325, or Rule 401, to contain minerals or hydrocarbons that, considering their quantity and location, are expected to be commercially producible; or
 - B. It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical; or
 - C. It is so contaminated that it would be economically or technologically impractical to render the water fit for human consumption;
- (3) The total dissolved solids content of the ground water is more than three thousand (3,000) and less than ten thousand (10,000) milligrams per liter and it is not reasonably expected to supply a public water system.

- b. **Aquifer exemption public notice.** If an aquifer exemption is required as part of an injection permit process, the injection well applicant shall apply for an aquifer exemption. This application shall contain data and information which show that applicable aquifer exemption criteria set forth in Rule 324B.a. are met. After evaluation of the application and prior to designating an aquifer or a portion thereof as an exempted aquifer, the Director shall publish a notice of proposed designation in a newspaper of general circulation serving the area where the aquifer is located. The notice shall identify such aquifer or portion thereof which the Director proposes to designate as exempted, and shall state that any person who can make a showing to the Director that the requested designation does not meet the criteria set forth in Rule 324B.a. may request the Commission to hold a hearing thereon.
- c. **Evaluation of written requests for public hearing.** Written requests for a public hearing before the Commission shall be reviewed and evaluated by the Director in consultation with the applicant to determine if the criteria set forth in Rule 324B.a. have been met. If, within thirty (30) days after publication of the notice, the Commission receives a hearing request for which the Director determines the criteria set forth in Rule 324B.a. have not been met, the Commission shall hold such a hearing in accordance with the provisions of §34-60-108, C.R.S., 1973, as amended, and shall make a final determination regarding designation.
- d. **Aquifer exemption designation.** If, within thirty (30) days after publication of the notice described in subparagraph b. above, the Commission does not receive a hearing request or receives a hearing request for which the Director determines the criteria set forth in Rule 324B.a. have been met, said aquifer or portion thereof shall be considered exempted thirty (30) days after publication of the notice.

324C. QUALITY ASSURANCE FOR CHEMICAL ANALYSIS

For the purpose of application for a permit for all wells authorized under Rule 325 and Rule 401, collection and analysis of water samples must comply with the Commission's approved quality assurance project plan.

324D. CRITERIA TO ESTABLISH POINTS OF COMPLIANCE

In determining a point of compliance, the Director shall take into consideration recommendations of the operator or any responsible party or parties, if applicable, including technical and economic feasibility, together with the following factors:

- a. The classified use established by the Water Quality Control Commission, for any groundwater or surface water which will be impacted by contamination. If not so classified, the Director shall consider the quality, quantity, potential economic use and accessibility of such water;
- b. The geologic and hydrologic characteristics of the site, such as depth to groundwater, groundwater flow, direction and velocity, soil types, surface water impacts, and climate;
- c. The toxicity, mobility, and persistence in the environment of contaminants released or discharged from the site;
- d. Established wellhead protection areas;
- e. The potential of the site as an aquifer recharge area; and
- f. The distance to the nearest permitted domestic water well or public water supply well completed in the same aquifer affected by the event.
- g. The distance to the nearest permitted livestock or irrigation water well completed in the same aquifer affected by the event.

325. UNDERGROUND DISPOSAL OF WATER

- a. No person shall commence operations for the underground disposal of water, or any other fluids, into a Class II well, or any well regulated by the Commission, nor shall any person commence construction of such a well, without having first obtained written authorization for such operations from the Director. Persons wishing to obtain authorization to conduct underground disposal activities shall file with the Director an Underground Injection Formation Permit Application, Form 31 and an Injection Well Permit Application, Form 33. If the disposal well is to be drilled, this application shall be submitted concurrently with the Application for Permit-to-Drill, Form 2, along with a service and filing fee to be determined by the Commission. (See Appendix III)
- b. **Withholding approval of underground disposal of water.** The Director may withhold the issuance of a permit and the granting of approval of any Underground Injection Formation Permit Application, Form 31 and any Injection Well Permit Application, Form 33 for any proposed disposal well when the Director has reasonable cause to believe that the proposed disposal well could result in a significant adverse impact on the environment or public health, safety and welfare. In the event such approval is not granted, the Director shall immediately advise the operator and bring the matter to the Commission at its next regularly scheduled hearing, or as soon as practicable before an Administrative Law Judge or Hearing Officer.
- c. The application for a dedicated injection well shall include the following information:
 - (1) The name, description and depth of the formation into which water is to be injected, and all underground sources of drinking water which may be affected by the proposed operation. A water analysis of the injection formation (if the total dissolved solids of the injection formation is determined to less than ten thousand (10,000) milligrams per liter, the aquifer must be exempted in accordance with Rule 322B.). The fracture pressure or fracture gradient of the injection formation.
 - (2) A base plat covering the area within one-quarter (1/4) mile of the proposed disposal well showing location of the proposed disposal well or wells and the location of all oil and gas wells, domestic and irrigation wells of public record and the identification of all oil and gas wells currently producing from the proposed injection

zone within one-half (1/2) mile of the disposal zone. The names, addresses and holdings of all surface and mineral owners as defined in C.R.S. 34-60-103 (7), within one-quarter (1/4) mile of the proposed disposal well or wells, or all owners of record in the field if a field-wide system is proposed. These owners shall be specifically outlined and identified on the base plat. A list of all domestic and irrigation wells of public record, within one-quarter (1/4) mile of the proposed disposal well or wells, including their location and depth. (This information may be obtained at the Colorado Division of Water Resources.) Remedial action shall be required for any well within one-quarter (1/4) mile of the proposed disposal well or wells in which the injection zone is not adequately confined. The applicant shall include information regarding the need for remedial action on any well(s) penetrating the injection zone within one-quarter (1/4) mile of the proposed disposal well or wells, which the applicant may or may not operate and a plan for the performance of any such remedial work. A copy of all plans and specifications for the system and its appurtenances.

- (3) A resistivity log, run from the bottom of the surface casing to total depth of the disposal well or wells or any well within one (1) mile together with a log from that well that can be correlated with the injection well. If the disposal well is to be drilled, a description of the typical stratigraphic level of the disposal formation in the disposal well or wells, and any other available logging or testing data, on the disposal well or wells.
- (4) A full description of the casing in the disposal well or wells. This shall include any information available on any remedial cement work performed to any casing string. This shall also include a schematic drawing showing all casing strings with cement volumes and tops, existing or as proposed, plug back total depth, depth of any existing open or squeezed perforations, setting depths of any bridge plugs existing or proposed, planned perforations in the injection zone, tubing and packer size and setting depth. A diagram of the surface facility showing all pipelines and tanks associated with the system. A listing of all leases connected directly by pipelines to the system.
- (5) A listing of all sources of water, by lease and well, to be injected shall be submitted on a Source of Produced Water for Disposal, Form 26.
- (6) Any proposed stimulation program.
- (7) The minimum and maximum amount of water to be injected daily with anticipated injection pressures. Maximum injection pressure will be set by the Director upon approval.
- (8) The names and addresses of those persons notified by the applicant, as required by subparagraph i. of this rule.

d. The application for a simultaneous injection well shall include the following:

- (1) The name, description and depth of the formation into which water is to be injected, and all underground sources of drinking water which may be affected by the proposed operation. A water analysis of the injection formation (if the total dissolved solids of the injection formation is determined to be less than ten thousand (10,000) milligrams per liter, the aquifer must be exempted in accordance with Rule 324B.); a water analysis from the producing formation; and go fracture pressure or fracture gradient of the injection formation.

- (2) A base plat covering the area within one-quarter (1/4) mile of the proposed well showing the location of the proposed well or wells and the location of all oil and gas wells, domestic and irrigation wells of public record and the identification of all oil and gas wells currently producing from the proposed injection zone within one-half (1/2) mile of the disposal zone and the names, addresses and holdings of all mineral owners as defined in §34-60-103 (7), C.R.S., within one-quarter (1/4) mile of the proposed disposal well or wells, or all owners of record in the field if a field-wide system is proposed. These owners shall be specifically outlined and identified on the base plat. Remedial action shall be required for any well within one-quarter (1/4) mile of the proposed well or wells in which the injection zone is not adequately confined. The applicant shall include information regarding the need for remedial action on any well(s) penetrating the injection zone within one-quarter (1/4) mile of the proposed disposal well or wells, which the applicant may or may not operate and a plan for the performance of any such remedial work and a copy of all plans and specifications for the system and its appurtenances.
- (3) A resistivity log, run from the bottom of the surface casing to total depth of the disposal zone or such log from a well within one (1) mile together with a log from that well that can be correlated with the simultaneous injection well. If the simultaneous injection well is to be drilled, a description of the typical stratigraphic level of the injection formation in the simultaneous injection well or wells, and any other available logging or testing data, on the simultaneous injection well or wells.
- (4) A full description of the casing in the simultaneous injection well or wells. This shall include any information available on any remedial cement work performed to any casing string. This shall also include a schematic drawing showing all casing strings with cement volumes and tops, existing or as proposed, plug back total depth, depth of any existing open or squeezed perforations, setting depths of any bridge plugs existing or proposed, planned perforations in the injection zone, downhole pump setting depth and any tubing and or packer size and setting depth.
- (5) Any proposed stimulation program.
- (6) The amount of water to be injected daily.
- (7) Downhole pump specifications, together with a calculation of maximum discharge pressure created under proposed wellbore configuration. Downhole pump configurations shall be designed to inject below the injection zone fracture gradient.
- (8) The names and addresses of those persons notified by the applicant, as required by subparagraph j. of this rule.

The following rules shall apply to both dedicated injection well and simultaneous injection well applications.

- e. **Mechanical integrity testing requirement.** Prior to application approval, the proposed disposal well must satisfactorily pass a mechanical integrity test in accordance with Rule 326.
- f. **Commercial disposal well requirements.** Prior to application approval, the appurtenant commercial disposal well operations shall comply with the requirements of Rules 706, 707, and 712.

- g. **Multiple well applications.** Application may be made to include the use of more than one (1) disposal well on the same lease, or on more than one (1) lease. Wherever feasible and applicable, the application shall contemplate a coordinated plan for the entire field.
- h. The designated operator of a unitized or cooperative project shall execute the application.
- i. Notice of the application for a dedicated injection well shall be given by the applicant by registered or certified mail or by personal delivery, to each surface owner and owner as defined in §34-60-103(7), C.R.S., within one-quarter (1/4) mile of the proposed well or wells and to owners and operators of oil and gas wells producing from the injection zone within one-half (1/2) mile of the disposal well or to owners of cornering and contiguous units where injection will occur into the producing zones, whichever is the greater distance.
- j. Notice of the application for a simultaneous injection well shall be given by the applicant by registered or certified mail or by personal delivery, to each owner as defined in §34-60-103(7), C.R.S., within one-quarter (1/4) mile of the proposed well or wells and to owners and operators of oil and gas wells producing from the injection zone within one-half (1/2) mile of the disposal well or to owners of cornering and contiguous units where injection will occur into the producing zones, whichever is the greater distance.
- k. A copy of the notice of application shall be included with the disposal application filed with the Commission, and the applicant shall certify that notice by registered or certified mail or by personal delivery, to each of the owners specified in subparagraphs i. and j., has been accomplished.
- l. **Notice of application requirements.** The notice shall briefly describe the disposal application and include legal location, proposed injection zone, depth of injection, and other relevant information. The notice shall state that any person who would be directly and adversely affected or aggrieved by the authorization of the underground disposal into the proposed injection zone may file, within 15 days of notification, a written request for a public hearing before the Commission, provided such request meets the protest requirements specified in subparagraph m. of this rule. The notice shall also state that additional information on the operation of the proposed disposal well may be obtained at the Commission office.
- m. **Evaluation of written requests for public hearing.** Written requests for public hearing before the Commission by a person, notified in accordance with subparagraphs i. and j. of this rule, who may be directly and adversely affected or aggrieved by the authorization of the underground disposal into the proposed injection zone, shall be reviewed and evaluated by the Director in consultation with the applicant. Written protests shall specifically provide information on:
- (1) Possible conflicts between the injection zone's proposed disposal use and present or future use as a source of drinking water or present or future use as a source of hydrocarbons, or
 - (2) Operations at the well site which may affect potential and current sources of drinking water.
- n. **Dedicated injection well public notice.** The Director shall publish a notice of the proposed disposal permit for dedicated injection wells in a newspaper of general circulation serving the area where the well(s) is (are) located. The notice shall briefly describe the disposal application and include legal location, proposed injection zone, depth of injection and other relevant information. Comment period on the proposed disposal application shall end thirty (30) days after date of publication. If any data, information, or arguments submitted during the public comment period appear to raise substantial questions concerning potential

impacts to the environment, public health, safety and welfare raised by the proposed disposal well permit the Director may request that the Commission hold a hearing.

- o. **Injection application deadlines.** If all of the data or information necessary to approve the disposal application has not been received within six (6) months of the date of receipt, the application will be withdrawn from consideration. However, for good cause shown, a ninety (90) day extension may be granted, if requested prior to the date of expiration.

326. MECHANICAL INTEGRITY TESTING

For the purpose of this rule, a mechanical integrity test of a well is a test to determine if there is a significant leak in the well's casing, tubing, or mechanical isolation device, or if there is significant fluid movement into an underground source of drinking water through vertical channels adjacent to the wellbore.

a. **Injection Wells** - A mechanical integrity test shall be performed on all injection wells.

- (1) The mechanical integrity test shall include one of the following tests to determine whether significant leaks are present in the casing, tubing, or mechanical isolation device:
 - A. Isolation of the tubing-casing annulus with a packer set at 100 feet or less above the highest open injection zone perforation, unless an alternate isolation distance is approved in writing by the Director. The pressure test shall be with liquid or gas at a pressure of not less than 300 psi or the average injection pressure, whichever is greater, and not more than the maximum permitted injection pressure; or
 - B. The monitoring and reporting to the Director, on a monthly basis for 60 consecutive months, of the average casing-tubing annulus pressure, following an initial pressure test; or
 - C. Any equivalent test or combination of tests approved by the Director.
- (2) The mechanical integrity test shall include one of the following tests to determine whether there are significant fluid movements in vertical channels adjacent to the well bore:
 - A. Cementing records which shall only be valid for injection wells in existence prior to July 1, 1986;
 - B. Tracer surveys;
 - C. Cement bond log or other acceptable cement evaluation log;
 - D. Temperature surveys; or
 - E. Any other equivalent test or combination of tests approved by the Director.
- (3) No person shall inject fluids via a new injection well unless a mechanical integrity test on the well has been performed and supporting documents including Mechanical Integrity Test, Form 21, submitted and approved by the Director. Verbal approval may be granted for continuous injection following a successful test.

(4) Following the performance of the initial mechanical integrity test required by subparagraph (3), additional mechanical integrity tests shall be performed on each type of injection well as follows:

A. Dedicated injection well. As long as it is used for the injection of fluids, mechanical integrity tests shall be performed at the rate of not less than one test every five years, except as specified by subparagraph C below. Five year periods shall commence on the date the initial mechanical integrity test is performed or the date any mechanical integrity test specified in subparagraph C below.

B. Simultaneous injection well. No additional tests will be required after the initial mechanical integrity test.

C. All injection wells. A new mechanical integrity test shall be performed after any casing repairs, after resetting the tubing or mechanical isolation device, or whenever the tubing and/or mechanical isolation device is moved during workover operations.

b. **Shut-in Wells** - All shut-in wells shall pass a mechanical integrity test.

(1) A mechanical integrity test shall be performed on each shut-in well within two years of the initial shut-in date.

(2) Subsequently, a mechanical integrity test shall be performed on each shut-in well on 5 year intervals from the date the initial mechanical integrity test was performed, as long as the well remains shut-in.

(3) The mechanical integrity test for a shut-in well shall be performed after: isolating the wellbore with a bridge plug or similar approved isolating device set 100 feet or less above the highest open perforation. The pressure test shall be with liquid or gas at an initial, stabilized surface pressure of not less than 300 psi surface pressure or any equivalent test or combination of tests approved by the Director.

(4) Not less than 48 hours prior to returning an inactive, shut-in well to production or injection, an operator must submit a Field Operations Notice, Form 42 – Notice of Return to Service, to the Director of the scheduled date for returning the well to production or injection to allow the Commission to inspect.

c. **Temporarily Abandoned Wells** – All temporarily abandoned wells shall pass a mechanical integrity test.

(1) A mechanical integrity test shall be performed on each temporarily abandoned well within 30 days of temporarily abandoning the well.

(2) Subsequently, a mechanical integrity test shall be performed on each temporarily abandoned well on five year intervals from the date of the initial mechanical integrity test was performed, as long as the well remained temporarily abandoned.

(3) The mechanical integrity test for a temporarily abandoned well shall be performed after isolating the wellbore with a bridge plug or similar approved isolating device set 100 feet or less above the highest open perforation. The pressure test shall be liquid or gas at an initial, stabilized surface pressure of not less than 300 psi surface pressure or any equivalent test or combination of tests approved by the Director.

- (4) Not less than 48 hours prior to returning an inactive, temporarily abandoned well to production or injection, an operator must submit a Field Operations Notice, Form 42 – Notice of Return to Service, to the Director of the scheduled date for returning the well to production or injection to allow the Commission to inspect the installation of equipment or conduct of the mechanical intervention.
- d. **Waiting-on-completion and Suspended Operations Wells** – A mechanical integrity test shall be performed on each waiting-on-completion well within two years of setting the production casing. A mechanical integrity test shall be performed on each suspended operations well within two years of setting any casing string and suspending operations prior to reaching permitted total depth.
- e. Not less than 10 days prior to the performance of any mechanical integrity test required by this rule, any person required to perform the test shall notify the Director with a Form 42, Field Operations Notice, Mechanical Integrity Test, of the scheduled date and time when the test will be performed.
- f. All wells shall maintain mechanical integrity.
- (1) All non-injection wells which lack mechanical integrity, as determined through a mechanical integrity test or other means, shall be repaired or plugged and abandoned within six months. If an operator has performed a mechanical integrity test within the two years required for shut-in wells or the 30 days required for temporarily abandoned wells by this Rule, they will have six months from the date of the unsuccessful test to make repairs or plug and abandon the well. If the operator has not performed a mechanical integrity test within the required time frames in Rule 326.b.(1) and 326.c.(1), they will not be given an additional six months in the event of an unsuccessful test.
- (2) All injection wells which fail a mechanical integrity test, or which are determined through any other means to lack mechanical integrity, shall be shut-in immediately.
- g. Mechanical integrity test pressure loss or gain must not exceed 10% of the initial stabilized surface pressure over a test period of 15 minutes. The test may be repeated if the pressure loss or gain is determined to be the result of compression related to gas dissolution from the fluid column or temperature effects related to the fluid used to load the column. Wells that do not satisfy this test requirement are considered to lack mechanical integrity and are subject to the requirements of Rule 326.d.

327. WELL CONTROL

The operator shall take all reasonable precautions, in addition to fully complying with Rule 317 to prevent any oil, gas or water well from flowing uncontrolled and shall take immediate steps and exercise due diligence to bring under control any such well.

The operator shall report all uncontrolled events to the Director as soon as practicable, but no later than 24 hours following the incident. Within 15 days after these occurrences the operator shall submit a Spill Report, Form 19, and/or a Well Control Report, Form 23, as appropriate, for reportable spills/releases or kicks while drilling, providing all details required on the forms. The Director shall maintain these written reports in a central file.

328. MEASUREMENT OF OIL

The volume of all oil production from a lease or a production unit shall be measured and recorded prior to removal from the lease or production unit. The volume of production of oil shall be computed

in terms of barrels of clean oil on the basis of properly calibrated meter measurements or tank measurements of oil-level differences, made and recorded to the nearest one-quarter (1/4) inch of one hundred percent (100%) capacity tables, subject to the following corrections in items a., b., and c. below. This rule shall be used consistently with standards established by the American Society for Testing and Materials (ASTM), the American Petroleum Institute (API) Manual of Petroleum Measurement Standards, the American Gas Association (AGA), the Gas Processors Association (GPA), or other applicable standards-setting organizations, and pursuant to contractual rights or obligations. Only those editions of standards cited within this rule shall apply to this rule; later amendments do not apply. The material cited in this rule is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, these materials may be examined at any state publication depository library.

- a. **Correction for Impurities.** The percentage of impurities (water, sand and other foreign substances not constituting a natural component part of the oil) shall be determined to the satisfaction of the Director, and the observed gross volume of oil shall be corrected to exclude the entire volume of such impurities.
- b. **Temperature Correction.** The observed volume of oil corrected for impurities shall be further corrected to the standard volume of sixty degrees Fahrenheit (60° F) in accordance with ASTM D-1250 Table 7, or any close approximation thereof approved by the Director.
- c. **Gravity Determination.** The gravity of oil at sixty degrees Fahrenheit (60° F) shall be determined in accordance with ASTM D-1250 Table 5, or any close approximation thereof approved by the Director.
- d. **Tank Gauging.** Measurement by tank gauging must be completed in accordance with industry standards as specified in:
 - (1) The API Manual of Petroleum Measurement Standards, Chapter 3.1A Standard Practice for the Manual Gauging of Petroleum and Petroleum Products, (Second Edition, August 2005) and no later editions;
 - (2) The API Manual of Petroleum Measurement Standards, Chapter 3.1B Standard Practice for the Manual Gauging of Petroleum and Petroleum Products, (Second Edition, June 2001) and no later editions;
 - (3) The API Manual of Petroleum Measurement Standards, Chapter 3.1A Standard Practice for the Manual Gauging of Petroleum and Petroleum Products, (Second Edition, August 2005) and no later editions;
 - (4) The API Manual of Petroleum Measurement Standards Chapter 18.1 - Custody Transfer - Section 1-Measurement Procedures for Crude Oil Gathered from Small Tanks by Truck (Second Edition, April 1997) and no later editions, or
 - (5) The API Manual of Petroleum Measurement Standards Chapter 18.2, Custody Transfer of Crude Oil from Lease Tanks Using Alternative Measurement Methods, (First Edition, July 2016) and no later editions.
 - (6) The API Manuals identified in (1) through (6) above are available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, the API Manuals may be examined at any state publications depository library and is available from API at 1220 L Street, NW Washington, DC 20005-4070, 1-202-682-8000.

- e. **Metering Station.** Measurement shall be completed in accordance with industry standards as specified in API CH. 4 Proving Systems (Section 2, Third Edition September 2003 and Section 8, First Edition November 1995), API CH. 5 Metering (CH. 5.1 Fourth Edition October 2005, CH. 5.2 Third Edition October 2005, CH. 5.3 Fifth Edition September 2005, CH. 5.4 Second Edition July 2005, CH. 5.5 Second Edition July 2005, and CH. 5.6 First Edition October 2002), API CH. 7 Temperature Determination (First Edition June 2001), API CH. 8 Sampling (CH. 8.1 Third Edition October 1995 and CH. 8.2 Second Edition October 1995), and the API CH. 12, Calculation of Quantities (CH. 12.1 Part 1 Second Edition November 2001).
- f. **LACT Meters.** Measurement utilizing LACT units shall be in accordance with industry specifications or standards as specified in API SPEC. 6.1, Lease Automatic Custody Transfer Systems (Second Edition May 1991).
- g. **Sales Reconciliation.** In order to facilitate the resolution of questions regarding the payment of proceeds or sales reconciliation from a well, a payee may submit a Form 37 to the payor requesting additional information concerning the payee's interest in the well, price of the oil sold, taxes applied to the sale of oil, differences in well production and well sales, and other information as described in § 34-60-118.5, C.R.S. The payor shall return the completed form to the payee within sixty (60) days of receipt. Submittal of this form to the payor shall fulfill the requirement for "written request" described in § 34-60-118.5(2.5), C.R.S., and is a prerequisite to filing a complaint with the Commission. The payor shall use its best efforts to consult in good faith with the payee to resolve disputes regarding payment of proceeds or sales reconciliation.

A Form 37 requesting information concerning payment of proceeds may be submitted by the payee at any time. A Form 37 requesting information concerning sales volume reconciliation shall be submitted by the payee within one year of receipt of payment or the notification of a revised payment. The Commission may act to prohibit or terminate any abuse of the reconciliation process, such as the submittal by a payee of multiple repeated requests for sales volume reconciliation regarding the same well. Such action by the Commission may include, but is not limited to, relieving the payor from its obligation to answer the request and limiting or prohibiting the payee's submittal of additional requests.

329. MEASUREMENT OF GAS

The volume of all gas produced from a lease or a production unit shall be measured and recorded prior to removal from the lease or production unit. Production of gas of all kinds shall be measured by meter unless otherwise agreed to by the Director. For computing volume of gas to be reported to the Commission, the standard pressure base shall be fourteen point seventy-three (14.73) psia, regardless of atmospheric pressure at the point of measurement, and the standard temperature base shall be sixty degrees Fahrenheit (60° F). All volumes of gas to be reported to the Commission shall be adjusted by computation to these standards, regardless of pressures and temperatures at which the gas was actually measured, unless otherwise authorized by the Director. This rule shall be used consistently with standards established by the American Society for Testing and Materials (ASTM), the American petroleum Institute (API) Manual of Petroleum Measurement Standards, the American Gas Association (AGA), the Gas Processors Association (GPA), or other applicable standards-setting organizations, and pursuant to contractual rights and obligations. Only those editions of standards cited within this rule shall apply to this rule; later amendments do not apply. The material cited in this rule is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, these materials may be examined at any state publication depository library.

- a. **Metering Station.** Installation and operation of gas measurement stations shall be in accordance with industry standards as specified in API CH. 14.3, Orifice Measurement

(Part 2, Fourth Edition April 2000 and Part 3, Third Edition August 1992 and Part 4, Third Edition November 1992); API CH. 21.1, Electronic Measurement (gas) (First Edition September 1993); AGA Report #7, Turbine Measurement (January 2006); AGA Report #9, Ultrasonic Measurement (April 2007); and AGA Report #11, Coriolis Measurement (January 2003).

- b. **Metering Equipment.** The devices used to measure the differential, line pressure, and temperature shall have accepted accuracy ratings established in industry standards as specified in API CH. 22, Testing Protocol Standards (CH. 22.1 First Edition November 2006 and CH. 22.2 First Edition August 2005).
- c. **Meter Calibration.** Meters shall be calibrated annually unless more frequent calibration is required by contractual obligations or by the Director. All calibration reports shall be created, maintained, and made available as operation records pursuant to Rule 205. In the event two consecutive meter calibrations exceed a 2% error, the operator shall report the test results to the Director who may require the operator to show cause why the meter should not be replaced.
- d. **Gas Quality.** The heating value of produced natural gas shall be representative of the flowing gas stream at the lease or unit boundary, as determined by chromatographic analysis of a sample obtained in close proximity to the volume measurement device and shall be reported on an Operator's Monthly Report of Operations, Form 7. Gas sampling and analysis shall occur annually unless more frequent sampling is required by contractual obligations or by the Director. Gas sampling, gas chromatography, and the resulting analysis data shall be in accordance with industry standards as specified in API CH. 14.1, Gas Sampling (Fifth Edition February 2006); GPA 2166, Gas Sampling (Revised 2005); GPA 2261, Gas Analysis (Revised 2000); GPA 2286, Extended Analysis; GPA 2145, Gas Physical Properties (Revised 2003); and GPA 2172, Gas Heating Value (Revised 1996).
- e. **Sales Reconciliation.** In order to facilitate the resolution of questions regarding the payment of proceeds or sales reconciliation from a well, a payee may submit a Form 37 to the payer requesting additional information concerning the payee's interest in the well, price of the gas sold, taxes applied to the sale of gas, differences in well production and well sales, and other information as described in § 34-60-118.5, C.R.S. The payer shall return the completed form to the payee within sixty (60) days of receipt. Submittal of this form to the payer shall fulfill the requirement for "written request" described in § 34-60-118.5(2.5), C.R.S., and is a prerequisite to filing a complaint with the Commission. The payer shall use its best efforts to consult in good faith with the payee to resolve disputes regarding payment of proceeds or sales reconciliation.

A Form 37 requesting information concerning payment of proceeds may be submitted by the payee at any time. A Form 37 requesting information concerning sales volume reconciliation shall be submitted by the payee within one year of receipt of payment or the notification of a revised payment. The Commission may act to prohibit or terminate any abuse of the reconciliation process, such as the submittal by a payee of multiple repeated requests for sales volume reconciliation regarding the same well. Such action by the Commission may include, but is not limited to, relieving the payer from its obligation to answer the request and limiting or prohibiting the payee's submittal of additional requests.

330. MEASUREMENT OF PRODUCED AND INJECTED WATER

- a. The volume of produced water shall be computed and reported in terms of barrels on the basis of properly calibrated meter measurements or tank measurements of water-level differences, made and recorded to the nearest one-quarter (1/4) inch of one hundred (100%) percent capacity tables. If measurements are based on oil/water ratios, the oil/water ratio must be based on a production test performed during the last calendar year.

Other equivalent methods for measurement of produced water may be approved by the Director.

- b. The volume of water injected into a Class II dedicated injection well shall be computed and reported in term of barrels on the basis of properly calibrated meter measurements or tank measurements of water-level differences made and recorded to the nearest one-quarter (1/4) inch of one hundred percent (100%) capacity tables. If water is transported to an injection facility by means other than direct pipeline, measurement of water is required by a properly calibrated meter
- c. The volume of water injected and produced in simultaneous injection wells shall be computed and reported in terms of barrels on the basis of calculated pump volumes, on the basis of property calibrated meter measurements, or on the basis of a produced gas to water ratio based on an annual production test.

331. VACUUM PUMPS ON WELLS

The installation of vacuum pumps or other devices for the purpose of imposing a vacuum at the wellhead or on any oil or gas bearing reservoir may be approved by the Director upon application therefore, except as herein provided. The application shall be accompanied by an exhibit showing the location of all wells on adjacent premises and all offset wells on adjacent lands, and shall set forth all material facts involved and the manner and method of installation proposed. Notice of the application shall be given by the applicant by registered or certified mail, or by delivering a copy of the application to each producer within one-half (1/2) mile of the installation.

In the event no producer within one-half (1/2) mile of the installation or the Commission itself files written objection or complaint to the application within fifteen (15) days of the date of application, then the application shall be approved, but if any producer within one-half (1/2) mile of said installation or the Commission itself files written objection within fifteen (15) days of the date of application, then a hearing shall be held as soon as practicable.

332. USE OF GAS FOR ARTIFICIAL GAS LIFTING

Gas may be used for artificial gas lifting of oil where all such gas returned to the surface with the oil is used without waste. Where the returned gas is not to be so used, the use of gas for artificial gas lifting of oil is prohibited unless otherwise specifically ordered and authorized by the Commission upon hearing.

333. SEISMIC OPERATIONS

- a. **COGCC Form 20, Notice of Intent to Conduct Seismic Operations.** Seismic operations require an approved Form 20 which shall be submitted to the Director prior to commencement of shothole drilling or recording operations. An informational copy of the Form 20 shall be filed by the operator with the local governmental designee at or before the time of filing with the Director. Any change of plans or line locations may be implemented without Director approval provided that after such change is performed, the Director shall receive written notice of the change within five (5) days.

A map shall be included with the notice. This map shall be at a scale of at least 1:48,000 showing sections, townships and ranges and providing the location of the proposed seismic lines, including source and receiver line locations.

The Notice of Intent to Conduct Seismic Operations, Form 20, shall be in effect for six (6) months from the date of approval. An extension of time may be granted upon written request submitted prior to the expiration date.

b. **Surface owner consultation.** Prior to the commencement of any seismic operation, a good faith effort shall be made to consult with all surface owners of the lands included in the seismic project area.

c. **Exploration requiring the drilling of shotholes:**

(1) **Explosive storage.** All explosives shall be legally and safely stored and accounted for in magazines when not in use in accordance with relevant regulations of the Alcohol, Tobacco and Firearms Division of the Federal Department of the Treasury.

(2) **Blasting safety setbacks.** Blasting shall be kept a safe distance from a building, water well or spring, unless by special written permission of the surface owner or lessee, according to the following minimum setback distances:

CHARGES IN LBS. GREATER THAN	CHARGES IN LBS. UP TO AND INCLUDING	MINIMUM SETBACK DISTANCE IN FEET
0	2	200
2	5	300
5	6	360
6	7	420
7	8	480
8	9	540
9	10	600
10	11	649
11	12	696
12	13	741
13	14	784
14	15	825
15	16	864
16	17	901
17	18	936
18	19	969
19	20	1000
20		1320

(3) Prior to any shothole drilling, the operator shall contact the Utility Notification Center of Colorado (CO 811).

(4) **Drilling and plugging.** The following guidelines shall be used to plug shotholes unless the operator can demonstrate that another method will provide adequate protection to ground water quality and movement and long-term land stability:

A. Any slurry, drilling fluids, or cuttings which are deposited on the surface around the seismic hole shall be raked or otherwise spread out to at least within one (1) inch of the surface, such that the growth of the natural grasses or foliage shall not be impaired.

- B. All shotholes shall be preplugged or anchored to prevent public access if not immediately shot. In the event the preplug does not hold, seismic holes shall be properly plugged and abandoned as soon as practical after the shot has been fired. However, a fired hole shall not be left unplugged for more than thirty (30) days without approval of the Director. In no event shall shotholes be left open, but shall be covered with a tin hat or other similar cover until they are properly plugged. The hats shall be imprinted with the seismic contractor's name or identification number or mark.
 - C. The hole shall be filled to a depth of approximately three (3) feet below ground level by returning the cuttings to the hole and tamping the returned cuttings to ensure the hole is not bridged. A non-metallic perma-plug either imprinted or tagged with the operator name or the identification number or mark described in the notice of intent shall be set at a depth of three (3) feet, and the remaining hole shall be filled and tamped to the surface with cuttings and native soil. A sufficient mound of native soil shall be left over the hole to allow for settling.
 - D. When non-artesian water is encountered while drilling seismic shotholes, the holes shall be filled from the bottom up with a high grade coarse ground bentonite to ten (10) feet above the static water level or to a depth of three (3) feet from the surface; the remaining hole shall be filled and tamped to the surface with cuttings and native soil, unless the operator otherwise demonstrates that use of another suitable plugging material may be substituted for bentonite without harm to ground water resources.
 - E. If artesian flow (water rising above the depth at which encountered) is encountered in the drilling of any seismic hole, cement or high grade coarse ground bentonite shall be used to seal off the water flow with the selected material placed from the bottom of the hole to the surface or at least fifty (50) feet above the top of the water-bearing material, thereby preventing cross-flow between aquifers, erosion or contamination of fresh water supplies. Said holes shall be plugged immediately.
- d. **COGCC Form 20A, Completion Report for Seismic Operations.** A Form 20A shall be submitted to the Director within sixty (60) days after completion of the project. The report shall include: maps (with a scale not less than 1:48,000) showing the location of all receiver lines, energy source lines and any shotholes. Shotholes encountering artesian flow shall be indicated on the map.

If the program included any shotholes, then the completion report shall be accompanied by the following:

- (1) a certification by the party responsible for plugging the holes that all shotholes are plugged as prescribed by these rules and approved by the Director, and
- (2) the latitude and longitude of each shothole location. The latitude and longitude coordinates shall be referenced in decimal degrees to an accuracy and precision of five decimals of a degree using the North American Datum (NAD) of 1983 (e.g.; latitude 37.12345 N, longitude 104.45632 W) or reported in other form as approved by the Director. If GPS technology is utilized to determine the latitude and longitude, all GPS data shall meet the requirements set forth in Rule 215. a. through h.

- e. **Bonding Requirements.** The company submitting the Notice of Intent to Conduct Seismic Operations, Form 20, shall file financial assurance in accordance with Rule 705. prior to the commencement of operations. The bond shall remain in effect until a request is made by the company to release the bond for the following reasons:
- (1) The shotholes have been properly plugged and abandoned, and source and receiver lines have been reclaimed in accordance with this Rule 333., and
 - (2) There are no outstanding complaints received from surface owners that have not been investigated by the Director and addressed as provided for in Rule 522.
- f. **Reclamation requirements.** Upon completion of seismic operations the surface of the land shall be restored as nearly as practicable to its original condition at the commencement of seismic operations. Appropriate reclamation of disturbed areas will vary depending upon site specific conditions and may include compaction alleviation and revegetation. All flagging, stakes, cables, cement, mud sacks or other materials associated with seismic operations shall be removed.

334. PUBLIC HIGHWAYS AND ROADS

All persons subject to the act and these rules and regulations while using public highways or roads shall be subject to the State Vehicles and Traffic Laws pursuant to Title 42, C.R.S. and the State Highway and Roads Laws, Title 43, C.R.S., pertaining to the use of public highways or roads within the state.

335. COGCC Form 15. EARTHEN PIT REPORT/PERMIT

An Earthen Pit Report/Permit, Form 15, shall be submitted for approval by the Director in accordance with Rule 903.

336. COGCC Form 18. COMPLAINT REPORT

Any party who wishes to file a complaint regarding oil and gas operations is encouraged to submit a Form 18. The Director shall investigate any complaint and determine what, if any, action shall be taken in accordance with Rule 522.

337. COGCC Form 19. SPILL/RELEASE REPORT

A spill or release of E&P waste or produced fluids shall be reported to the Director on a Spill/Release Report, Form 19 pursuant to the reporting requirements in Rule 906.

338. RESERVED

339. RESERVED

340. COGCC Form 27. SITE INVESTIGATION AND REMEDIATION WORKPLAN

Site Investigation and Remediation Workplan, Form 27, shall be submitted when required in accordance with Rule 909.

341. BRADENHEAD MONITORING DURING WELL STIMULATION OPERATIONS

341.a. Equipment Requirements.

- (1) The Operator will equip bradenhead access on all Wells to the annulus between the production and surface casing as well as any intermediate casing with appropriate fittings to allow safe and convenient determination of pressure and fluid flow.
- (2) To allow for Commission visual inspection at all times, all valves use for annular pressure monitoring will remain exposed and will not be buried. An Operator may use a rigid housing to protect the valves so long as the housing can be easily opened or removed by the Operator upon request.
- (3) These equipment requirements apply to all Wells, regardless of function.

341.b. **Bradenhead Monitoring.** The Operator will monitor all Wells at a Director-indicated frequency for aspects of well integrity necessary to protect public health, safety, welfare, the environment, including groundwater, potential flow zones, and formations, and wildlife resources and in accordance with this Rule 341.

(1) **After Rig Release, Prior to Stimulation.** An Operator will monitor all annular casing pressures on a monthly basis. If at any point the bradenhead monitoring pressure is greater than 30% of the true vertical depth (TVD) in feet of the surface casing shoe expressed in psig, the Operator will contact the Director before proceeding with stimulation to determine whether mitigation or other measures are necessary to ensure isolation consistent with the Commission's Rules.

(2) **During Hydraulic Fracturing Treatment.**

- A. An Operator will confine the placement of all stimulation fluids to the objective formations during hydraulic fracturing treatment to the extent practicable.
- B. During hydraulic fracturing treatment operations, an Operator will continuously monitor and record bradenhead annulus pressure on all wells being stimulated.
- C. If intermediate casing has been set on the well stimulated by hydraulic fracturing treatment, an Operator will monitor and record the pressure in the annulus between the intermediate casing and the production casing during stimulation operations.
- D. During hydraulic fracturing treatment operations, an Operator will monitor the bradenhead annulus and casing pressures for all wells within 300 feet of the wellbore being stimulated.
- E. If at any time during hydraulic fracturing treatment operations, the bradenhead annulus pressure in psig in the well being stimulated or any well being monitored has a bradenhead pressure exceeding 30% of the true vertical depth (TVD) in feet of the surface casing shoe expressed in psig, or the Operator has reason to suspect any potential failure of the production casing or stimulation string, the operator will:
 - i. Safely and quickly discontinue the stimulation and dissipate the annular pressure.
 - ii. Notify the Director as soon as practicable but no later than 24 hours following the occurrence with a Form 42, Field Operations Notice, Notice of High Bradenhead Pressure During Stimulation.

- iii. Perform diagnostic testing on the well and related equipment as is necessary to determine: (i) whether such a failure has actually occurred; (ii) if the pressure observations can be accounted for due to thermal expansion or pressure “ballooning” of the casing; or (iii) the presence or absence of a downhole failure or whether a migration pathway has actually occurred. The Operator will perform diagnostic testing as soon as is reasonably practical after Operator has reasonable cause to know of or suspect any such failure.
 - I. If the Operator does not identify a downhole failure or a migration pathway, the Operator will notify the Director of the results. The Director will timely grant approval to proceed with stimulation and may do so orally.
 - II. If the Operator identifies a downhole failure or migration pathway, the Operator will consult with the Director and, upon request, provide and implement a corrective plan prior to continuing any further stimulation operations on the Well and any additional Well on the Oil and Gas Location.
- iv. Submit a Sundry Notice, Form 4, providing all details, including whether a downhole failure or migration pathway occurred, cause of the high pressure or suspected failure, and corrective measures taken within 15 days after the occurrence.

(3) **Thirty Days After Hydraulic Fracturing Treatment.** For the first 30 days after hydraulic fracturing treatment or completion, an Operator will monitor and record production casing pressure and all annular casing pressures for a well on a daily basis, at a minimum.

(4) **Through the Remaining Life of the Well.** For all Wells in the state, an Operator will monitor and record production casing pressure and all annular casing pressures on a monthly basis or at a Director-approved frequency. If a Well’s bradenhead pressure is greater than 30% of the true vertical depth (TVD) in feet of the surface casing shoe expressed in psig, or a lower threshold set by a Commission Order, or if a Well flows liquids or continuous gas from the bradenhead annulus, an operator will

- A. Report the bradenhead pressure to the Director on a Form 17, Bradenhead Test;
- B. Take immediate action to remedy such an annular pressure; and
- C. Perform diagnostic testing to determine if the annular casing pressure is sustained. An Operator will report diagnostic testing results to the Director on a Sundry Notice, Form 4, within 60 days of submitting a Form 17 pursuant to Rule 341.b.(4)A. If the diagnostic testing confirms sustained casing pressure, an Operator will develop and implement a pressure management plan and provide the plan with the Sundry Notice.

(5) **Records.** An Operator will keep bradenhead monitoring records required by Rule 341.b. available for inspection by the Director for a minimum of 5 years after the monitoring was performed.

341.c. **Annual Bradenhead Testing and Reporting.** For all Wells other than coalbed methane wells, an operator will perform an annual bradenhead test and submit the data to the Director on a Form 17 or other Director-approved method. For coalbed methane wells, an Operator will perform bradenhead testing in accordance with Rule 608.e.

341.d. **Bradenhead Test Observations.**

- (1) If an Operator observes a deficiency, the Operator will immediately take action to address the deficiency. Actions taken may include the Operator performing diagnostic testing on the Well to determine whether a deficiency does exist and the best method of repair or if a pressure management plan is needed.
- (2) The Director may impose a remediation plan if a deficiency exists, and if imposed, the Operator will implement an approved remediation plan or pressure management plan and report results within 30 days or as required by the approved plan.
- (3) If the Operator is not able to effectively address the deficiency or implement a pressure management plan, the Operator will plug and abandon the well within 6 months of discovering the deficiency.