

MARK-UP

RULE B-5 - SUBMISSION OF WELL RECORDS AND ISSUANCE OF CERTIFICATE OF COMPLIANCE

- a. During the drilling, original completion, recompletion, or workover of every well, the owner, operator, contractor, driller or other person responsible for the conduct of drilling, original completion, recompletion or workover operations, shall keep adequate records of the well being drilled, all of which shall be accessible to the Commission and its agents at all reasonable times.
- b. For purposes of this rule, original completion shall be defined as initial zone perforation, and configuration of wellhead for production, excluding pipeline connections. Any further completion work, after the initial configuration of the wellhead, shall be considered a recompletion or workover, and subject to the filing requirements of Section (d) or (f) below.
- c. For purposes of this rule, recompletion is as defined in General Rule A-4.
- d. For purposes of this rule, workover is as defined in General Rule A-4. Upon completion of workover operations, only well records specified in Section (f)(1)(3) are required to be submitted.
- e. Wells drilled as dry holes, where production casing has not been set, shall be subject to the well record submission requirements specified in Section (f) (1)(2) and (3) within 30 days after the completion of drilling activities.
- f. Upon original completion or recompletion of the well, the operator, contractor, driller, or other person responsible for the conduct of the drilling operation shall file with the Commission:
 1. Properly filled out Well Completion Report.
 2. All electric logs or other geophysical logs of the open well bore, which measure resistivity, porosity, temperature, and gamma ray emission and for planned directional and horizontal wells, borehole deviation and direction logs, to be submitted in a 1 inch, 2 inch and 5 inch to 100 foot scale format or other measurement format acceptable to the Commission. All logs shall be submitted, at a minimum, as paper copies in standard continuous logging paper format. If digital copies of the logs were also available from the logging service company, the operator is required to submit copies of the digital logs to the Commission in digital format.
 3. All logging and well service company tickets applicable to the completion or recompletion operation.
 4. Properly filled out Request for Certificate of Compliance.
 5. Application to Abandon, if applicable.

- g. For directional or horizontal wells, or deviated wells not in compliance with General Rule B-30, the following shall also be submitted:
 - (1) A plat shall be filed with any Completion and Recompletion Report to demonstrate the actual location of all vertical, directional and horizontally drilled boreholes in the drilling unit. The plat should provide and present the following:
 - A. The locations of all wells which have been drilled within the drilling unit (except for those wells that have been plugged and abandoned, by providing their surface and bottom hole location, and either midpoint perforations for deviated or directionally drilled wells or the closest point along any lateral section of the horizontal portion of the well bore (whichever is applicable) measured to the nearest mineral lease, drilling unit or division line within a governmental section, whichever applies to the established drilling unit in that field; and
 - B. The distance between common sources of supply for which an allowable determination is required; and
 - C. The exact location of the entire perforated length of the lateral section in a horizontal well.
 - (2) A directional survey in table form, accompanied by the following:
 - A. A two dimensional cross section diagram, viewed perpendicular to the axis of maximum lateral borehole displacement, which depicts the measured and true vertical depth and the displacement from vertical of the wellbore; and
 - B. An azimuth plot viewed in plan view providing displacement of the well path from the surface location.
- h. The above reports shall be filed within 30 days of the original completion, recompletion or workover of the well and prior to commencement of production. Upon receipt of the required information specified in Section (f) (1), (2) and (4), a Certificate of Compliance shall be issued granting authority to produce and transport oil and/or gas for a period of 30 days at which time the required information specified in Section (f) (3) must be on file in order for a final Permit to Produce and Transport to be issued. However, if completion activities are not completed within 90 days of the setting of the production casing or other production related casing, the required information specified in (f) (1), (2) and (3) are required to be submitted, pending submission of final reports at the conclusion of completion activities and a request for a Certificate of Compliance..
- i. Failure to comply with the provisions of this rule shall be sufficient reason to cause the suspension of the issuance of any further drilling permits on a statewide basis to that operator until the required information is submitted to the Commission, within 10 days following written notice provided to the operator of the failure to provide the required information.
- j. If an operator makes a request, in writing, that the logs described in Section (f) (2) be kept confidential, the request will be honored for a period not to exceed 90 days after the

logging for completion or abandonment of the well, provided that the report or the data thereon, when pertinent, may be introduced in evidence in any public hearing before the Commission or any court, regardless of the request that such record be kept confidential.

MARK-UP

RULE B-40 - AUTHORIZATION FOR DIRECTOR OF PRODUCTION AND CONSERVATION TO ADMINISTRATIVELY APPROVE APPLICATIONS FOR EXCEPTIONAL WELL LOCATIONS.

- a) The Director of Production and Conservation or his designee is authorized to issue a Drilling Permit for a well proposed to be drilled at a location within an established drilling and production unit, which fails to conform to the setback distance requirements from unit boundary lines under applicable field rules or Commission general rules. This rule is only applicable:
- (1) To dry gas wells drilled vertically, directionally or horizontally and does not apply to any type of dry gas well drilled as a wildcat well, as defined in General Rule B-3, or for dry gas wells drilled in Exploratory Units established by Commission order, or;
 - (2) To oil or gas condensate wells drilled in standard drilling units from which the well setbacks are defined by distance from a drilling unit boundary defined by a legal land description and does not apply to drilling units where well setbacks are established by other methods, or for wildcat wells or for wells in Exploratory Units established by the Commission, or ;
 - (3) To oil wells located in uncontrolled fields where the standard well setback as specified in General Rule B-3, apply to lease lines rather than drilling unit lines.
- b) In each such instance in which a permit is issued, except in uncontrolled fields which are not subject to an allowable and horizontal wells which are subject to a modified method specified in Section (c) below, a reduction in the allowable to which such well would otherwise be entitled, under the provisions of the applicable field rules or other general well spacing rules, shall be assessed by multiplying a fraction, the numerator of which shall be the distance expressed in feet between the location of such proposed well and the boundary of the drilling and production unit in which the well is to be drilled and the denominator of which shall be the distance expressed in feet at which wells within such field and/or drilling unit are otherwise required to be located. If the proposed location encroaches upon more than one boundary of said unit, then the penalty to be imposed upon the production allowable shall be cumulative of the penalties from both boundaries as described in Section (d) below.
- c) If the well is horizontally drilled dry gas well, a reduction in the allowable to which such well would otherwise be entitled, under the provisions of the applicable field rules or other general well spacing rules, shall be assessed by multiplying a fraction, the numerator of which shall be expressed as an average of the encroachment over the entire length of the horizontal well, expressed in feet, between the location of such proposed well and the boundary of the drilling and production unit in which the well is to be drilled and the denominator of which shall be the distance expressed in feet at which wells within such field and/or drilling unit are otherwise required to be located. If the proposed location encroaches upon more than one boundary of said unit, then the penalty to be imposed upon the production allowable shall be cumulative of the penalties from both boundaries as described in Section (d) below.

- d) If the proposed location encroaches upon more than one boundary as specified in section (b) above, the reduction in the allowable shall be calculated as follows:

First boundary encroachment expressed as:

$$\frac{\text{setback footage specified by rule (minus)(-) actual footage of proposed well from unit boundary (divided by)(\div)}{\text{setback footage specified by rule, plus (+)}}$$

Second boundary encroachment expressed as:

$$\frac{\text{setback footage specified by rule (minus)(-) actual footage of proposed well from unit boundary (divided by)(\div)}{\text{setback footage specified by rule}} = \text{penalty factor}$$

Then:

$$\text{penalty factor (x) full calculated allowable (MCF or bbl)} = \text{amount allowable reduced (MCF or bbl)}$$

Then:

$$\text{full calculated allowable (MCF or bbl) (minus)(-) amount allowable reduced (MCF or bbl)} = \text{production allowable (MCF or bbl)}$$

- e) Each such application for an exceptional location shall be submitted on a form prescribed by the Director of Production and Conservation, accompanied by an application fee of \$300.00 and include the name and address of each owner, as defined in A.C.A. § 15-72-102(9), within the unit in which the proposed well is to be drilled and within the units offsetting the boundary line or lines, or in the case of wells in uncontrolled fields within the boundaries of mineral lease lines and the offsetting lease(s), which shall be encroached upon by the proposed exceptional well location.
- f) Concurrently with the filing of an application in accordance with this rule, the applicant shall send to each owner specified in Section (e) above a notice of the application filing and verify such mailing by affidavit, setting out the names and addresses of all owners and the date(s) of mailing.
- g) Any owner noticed in accordance with section (e) shall have the right to object to the granting of such application within fifteen (15) days after the receipt of the application by the Commission. Each objection must be made in writing and filed with the Director. If a timely written objection is filed as herein provided, then the applicant shall be promptly furnished a copy and such application and the objection shall be referred to the Commission for determination at the next regular hearing.
- h) An application may be referred to the Commission for determination when the Director: (1) deems the penalty to be imposed upon the allowable for such well, calculated as herein provided, to be inadequate to offset any advantage which the applicant may have over any other producer, as defined in A.C.A. § 15-72-102(8), by reason of the drilling of the well at such exceptional location, or (2) deems it necessary that the Commission make such determination for the purpose of protecting correlative rights of all parties. Promptly upon such determination, and not later than fifteen (15) days after receipt of the application, the

Director shall give the applicant written notice, citing the reason(s) for denial of the application under this rule and the referral to the full Commission for determination.

- i) Applications for exceptional locations resulting from directional drilling shall be considered for administrative approval in accordance with this rule, provided, that no allowable shall be authorized until the Commission has been furnished a bottom hole directional survey for each common source of supply for which an allowable is requested. In all such cases where directional surveys are made available, the distance, of the mid-point perforations in a directional well, from the unit boundary shall be used in calculating the allowable.
- j) If the Director has not notified the applicant of the determination to refer the application to the Commission within the fifteen (15) day period in accordance with the foregoing provisions, and if no objection is received at the office of the Commission within the fifteen (15) days as provided for in section (f), the application shall be approved and a Drilling Permit issued.

GENERAL RULE B-43
ESTABLISHMENT OF DRILLING UNITS FOR GAS PRODUCTION FROM
CONVENTIONAL AND UNCONVENTIONAL SOURCES OF SUPPLY OCCURRING IN
CERTAIN PROSPECTIVE AREAS NOT COVERED BY FIELD RULES

- (a) For purposes of this rule, unconventional sources of supply shall mean those common sources of supply that are identified as the Fayetteville Shale, the Moorefield Shale, and the Chattanooga Shale Formations, or their stratigraphic shale equivalents, as described in published stratigraphic nomenclature recognized by the Arkansas Geological Survey or the United States Geological Survey.
- (b) For purposes of this rule, conventional sources of supply shall mean all common sources of supply that are not defined as unconventional sources of supply in section (a) above.
- (c) This rule is applicable to all occurrences of conventional and unconventional sources of supply in Arkansas, Cleburne, Conway, Cross, Faulkner, Independence, Jackson, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, Van Buren, White and Woodruff Counties, Arkansas and shall be called the "section (c) lands". The development of the conventional and unconventional sources of supply within the section (c) lands shall be subject to the provisions of this rule.
- (d) This rule is further applicable to all occurrences of unconventional sources of supply in Crawford, Franklin, Johnson, and Pope Counties, Arkansas and shall be called the "section (d) lands". The development of the unconventional sources of supply within the section (d) lands shall be subject to the provisions of this rule. For purposes of this rule, the section (d) lands and the section (c) lands may collectively be referred to as the "covered lands".
- (e) All Commission approved Fayetteville Shale and non-Fayetteville Shale fields that are situated within the section (c) lands and that are in existence on the date this rule is adopted (collectively, the "existing fields"), are abolished and the lands heretofore included within the existing fields are included within the section (c) lands governed by this rule. Further, all amendments that added the Fayetteville Shale Formation to previously established fields for conventional sources of supply occurring in the section (d) lands are abolished and continuing development of the Fayetteville Shale and other unconventional sources of supply in these lands shall be governed by the provisions of this rule. All existing individual drilling units however, contained within the abolished fields shall remain intact.
- (f) All drilling units established for conventional and unconventional sources of supply within the section (c) lands and all drilling units established for unconventional sources of supply within the section (d) lands shall be comprised of regular governmental sections with an area of approximately 640 acres in size. Each drilling unit shall be characterized as either an "exploratory drilling unit" or an "established drilling unit". An "exploratory drilling unit" shall be defined as any drilling unit that is not an established drilling unit. An "established drilling unit" shall be defined as any drilling unit that contains a well that has been drilled and completed in a conventional or unconventional source of supply (a "subject well"), and for which the operator or other person responsible for the conduct of the drilling operation has filed, with the Commission, all appropriate documents in accordance with General Rule B-5. and been issued a certificate of compliance. Upon the filing of the required well and completion reports for a subject well and the issuance of a certificate of compliance with respect thereto, the exploratory drilling unit upon which the subject well is located and all contiguous governmental sections shall be automatically reclassified as established drilling units.

- (g) The filing of an application to integrate separately owned tracts within an exploratory drilling unit, as defined in Section (f) above and as contemplated by A.C.A. § 15-72-302(e), is permissible, provided that one or more persons who collectively own at least an undivided fifty percent (50%) interest in the right to drill and produce oil or gas, or both, from the total acreage assigned to such exploratory drilling unit support the filing of the application. In determining who shall be designated as the operator of the exploratory drilling unit that is being integrated, the Commission shall apply the following criteria:
- 1) Each integration application shall contain a statement that the applicant has sent written notice of its application to integrate the drilling unit to all working interest owners of record within such drilling unit. This notice shall contain a well proposal and AFE for the initial well and may be sent at the same time the integration application is filed.
 - 2) If any non-applicant working interest owner in the drilling unit owns, or has the written support of one or more working interest owners that own, separately or together, at least a fifty percent (50%) working interest in the drilling unit, such non-applicant working interest owner may (i) object to the applicant being named operator (a “section (g) operator challenge”) or (ii) file a competing integration application (a “section (g) competing application”) that challenges any aspect of the original integration application for such drilling unit. Any contested matter that is limited to a section (g) operator challenge shall be heard at the Commission hearing that was originally scheduled for such integration application. Any contested matter that involves the filing of a section (g) competing application shall be postponed until the next month’s regularly scheduled Commission hearing if postponement is requested by either competing applicant.
 - 3) If a party desiring to be named operator of a drilling unit is supported by a majority-in-interest of the total working interest ownership in the drilling unit (the “majority owner”), the majority owner shall be designated unit operator.
 - 4) In the event two parties desiring to be named operator own, or have the written support of one or more working interest owners that own, exactly, an undivided 50% share of the drilling unit and either a section (g) operator challenge is submitted or a section (g) competing application is filed, operatorship shall be determined by the Commission, based on the factors it deems relevant and the evidence submitted by the parties or as otherwise provided by subsequent rule.
 - 5) If the person designated as operator by the Commission in the adjudication of a section (g) operator challenge or a section (g) competing application does not commence actual drilling operations on the drilling unit within the twelve (12) month period set out in the integration order, such operator shall not be entitled to be designated as operator under the subsequent integration of such drilling unit unless (i) the operator’s failure to commence such drilling operations was due to force majeure, or (ii) a majority-in-interest of the total working interest ownership in the drilling unit (excluding such designated operator) support such operator.
- (h) The filing of an application to integrate separately owned tracts within an established drilling unit, as defined in Section (f) above and as contemplated by A.C.A. § 15-72-303 is permissible, without a minimum acreage requirement, provided that one or more persons owning an interest in the right to drill and produce oil or gas, or both, from the total acreage assigned to such established drilling unit requests such integration. In determining who shall be designated as the

operator of the established drilling unit that is being integrated, the Commission shall apply the following criteria:

- 1) Each integration application shall contain a statement that the applicant has sent written notice of its application to integrate the drilling unit to all working interest owners of record within such drilling unit. This notice shall contain a well proposal and AFE for the initial well and may be sent at the same time the integration application is filed.
- 2) Any non-applicant working interest owner in the drilling unit may object to the applicant being named operator (a “section (h) operator challenge”). In addition, if an objecting party owns, or has the written support of one or more working interest owners that own, separately or together, a larger percentage working interest in the drilling unit than the applicant, such objecting party may file a competing integration application (a “section (h) competing application”) that challenges any aspect of the original integration application for such drilling unit. Any contested matter that is limited to a section (h) operator challenge shall be heard at the Commission hearing that was originally scheduled for such integration application. Any contested matter that involves the filing of a section (h) competing application shall be postponed until the next month’s regularly scheduled Commission hearing if postponement is requested by either competing applicant.
- 3) If a party desiring to be named operator of a drilling unit is a majority owner (as defined in subsection (g)(3) above), the majority owner shall be designated unit operator.
- 4) If a party desiring to be named operator of a drilling unit is not a majority owner, but is supported by the largest percentage interest of the total working interest ownership in the drilling unit (the “plurality owner”), there shall be a rebuttable presumption that the plurality owner shall be designated unit operator. If a section (h) operator challenge to a plurality owner being designated unit operator is submitted by a party that owns, or has the written support of one or more owners that own, separately or together, the next largest percentage share of the working interest ownership in the drilling unit (the “minority owner”), the Commission may designate the minority owner operator if the minority owner is able to show that, based on the factors the Commission deems relevant and the evidence submitted by the parties, the Commission should designate the minority owner as unit operator.
- 5) If two or more parties that desire to be named operator own, or have the support of one or more working interest owners that own, separately or together, the same working interest ownership in the drilling unit, operatorship shall be determined by the Commission, based on the factors it deems relevant and the evidence submitted by the parties or as otherwise provided by subsequent rule.
- 6) If the person designated as operator by the Commission in the adjudication of a section (h) operator challenge or a section (h) competing application does not commence actual drilling operations on the drilling unit within the twelve (12) month period set out in the integration order, such operator shall not be entitled to be designated operator under the subsequent integration of such drilling unit unless (i) the original operator’s failure to commence drilling operations on the initial well was due to force majeure, or (ii) a majority-in-interest of the total working interest ownership in the drilling unit (excluding the original operator) support the original operator.

- (i) The well spacing for wells drilled in drilling units for unconventional sources of supply within the covered lands are as follows:
 - 1) Each well location (as defined in Section (a)(2) of General Rule B-3) shall be at least 560 feet from any drilling unit boundary line;
 - 2) Each well location (as defined in Section (a)(2) of General Rule B-3) shall be at least 560 feet from other well locations within an established drilling unit;
 - 3) No more than 16 wells may be drilled per 640 acres for each separate unconventional source of supply within an established drilling unit; and
 - 4) Applications for exceptions to these well location provisions, relative to a drilling unit boundary or other location in a common source of supply, may be brought before the Commission.
- (j) The well spacing for wells drilled in drilling units for conventional sources of supply within the section (c) lands are as follows:
 - 1) Only a single well completion will be permitted to produce from each separate conventional source of supply within each established drilling unit, unless additional completions are approved in accordance with General Rule D-19;
 - 2) Each well location (as defined in Section (a) 2) of General Rule B-3) shall be at least 1120 feet from any drilling unit boundary line;
 - 3) Well completions located closer than 1120 feet from all established drilling unit boundaries, shall be subject to approval in accordance with General Rule B-40; and
 - 4) Applications for exceptions to these well location provisions, relative to a drilling unit boundary or other location in a common source of supply, may be brought before the Commission.
- (k) The casing programs for all wells drilled in exploratory and established drilling units established by this rule and occurring in the covered lands specified by this rule shall be in accordance with General Rule B- 15.
- (l) Wells completed in and producing from only conventional sources of supply, as defined in Section (b), shall be subject to the testing and production allowable provisions of General Rule D-16. Wells completed in and producing from only unconventional sources of supply, as defined in Section (a), shall be subject to the initial and annual testing and test reporting provisions of General Rule D-16, except that the initial test shall be witnessed at the discretion of the Director, the annual tests may be performed without the presence of a Commission representative and there shall be no production allowable established for wells producing from unconventional sources of supply located within the covered lands.
- (m) The commingling of completions for unconventional sources of supply within each well situated on an established drilling unit, shall be subject to the provisions and approval process outlined in General Rule D-18. If an unconventional source of supply is approved to be commingled with a conventional source of supply within a well situated on an established drilling unit, the well shall be subject to the production allowable provisions of General Rule D-16.

- (n) The reporting requirements of General Rule B-5 shall apply to all wells subject to the provisions of this rule. In addition, the operator of each such well shall be required to file monthly gas production reports, on a Form approved by the Director, no later than 45 days after the last day of each month.
- (o) The Commission specifically retains jurisdiction to consider applications brought before the Commission from a majority in interest of working interest owners in two or more adjoining drilling units seeking the authority to drill, produce and share the costs of and the proceeds of production from one or more separately metered wells that extend across or encroach upon drilling unit boundaries and that are drilled and completed in one or more unconventional sources of supply within the covered lands. All such applications shall contain a proposed agreement on the formula for the sharing of costs, production and royalty from the affected drilling units.
 - 1) However, if the majority in interest of working interest owners agree to share a proposed well between two or more adjoining drilling units, which have been previously integrated, utilizing the below methodology for sharing of costs, production and royalty among the affected drilling units, the Director or his designee is authorized to approve the application administratively. The method for sharing the costs of and the proceeds of production from one or more separately metered wells shall be based on acreage allocation as follows:
 - A. An area measured 560 feet along and on both sides of the entire length of the horizontal perforated section of the well, and including an area formed by a 560 feet radius from the beginning point of the perforated interval, and a 560 feet radius from the ending point of the perforated interval shall be calculated for each such separately metered well (the “calculated area”).
 - B. Each calculated area shall be allocated and assigned to each drilling unit according to that portion of the calculated area occurring within each drilling unit.
 - 2) Each such application for utilizing the above methodology shall be submitted on a form prescribed by the Director of Production and Conservation, accompanied by an application fee of \$500.00 and include the name and address of each owner, as defined in A.C.A. § 15-72-102(9), within each of the drilling units in which the proposed well is to be drilled and/or completed.
 - 3) Concurrently with the filing of an application utilizing the above methodology, the applicant shall send to each owner specified in subsection (o)(2) above a notice of the application filing and verify such mailing by affidavit, setting out the names and addresses of all owners and the date(s) of mailing.
 - 4) Any owner noticed in accordance with subsection (o)(3) above shall have the right to object to the granting of such application within fifteen (15) days after the receipt of the application by the Commission. Each objection must be made in writing and filed with the Director. If a timely written objection is filed as herein provided, then the applicant shall be promptly furnished a copy and such application and the objection shall be referred to the Commission for determination at the next regular hearing.

- 5) An application may be referred to the Commission for determination when the Director deems it necessary that the Commission make such determination for the purpose of protecting correlative rights of all parties. Promptly upon such determination, and not later than fifteen (15) days after receipt of the application, the Director shall give the applicant written notice, citing the reason(s) for denial of the application under this rule and the referral to the full Commission for determination.
 - 6) If the Director has not notified the applicant of the determination to refer the application to the Commission within the fifteen (15) day period in accordance with the foregoing provisions, and if no objection is received at the office of the Commission within the fifteen (15) days as provided for in subsection (o)(4), the application shall be approved and a Drilling Permit issued.
 - 7) Upon receipt of the drilling permit, the applicant shall give the other working interest parties written notice that the drilling permit has been issued. The working interest parties, who have not previously made an election, shall have 15 days after receipt of said notice within which to make an election to participate in the well or be deemed as electing non-consent and subject to the non-consent penalty set out in the existing Joint Operating Agreement(s) covering their respective drilling unit or units.
 - 8) Following completion of the well and prior to the issuance by the Commission of the Certificate of Compliance to commence production, the final location of the perforated interval shall be submitted to the Commission to verify the proposed portion of the calculated area occurring within each drilling unit as specified in subsection (o)(1) above.
- (p) The Commission shall retain jurisdiction to consider applications, brought before the Commission, from a majority in interest of working interest owners in two or more adjoining governmental sections seeking the authority to combine such adjoining governmental sections into one drilling unit for the purpose of developing one or more unconventional sources of supply. In any such multi-section drilling unit, production shall be allocated to each tract therein in the same proportion that each tract bears to the total acreage within such drilling unit.
- (q) The Commission shall retain jurisdiction to consider applications, brought before the Commission, from a majority in interest of working interest owners in a drilling unit seeking the authority to omit any lands from such drilling unit that are owned by a governmental entity and for which it can be demonstrated that such governmental entity has failed or refused to make such lands available for leasing.