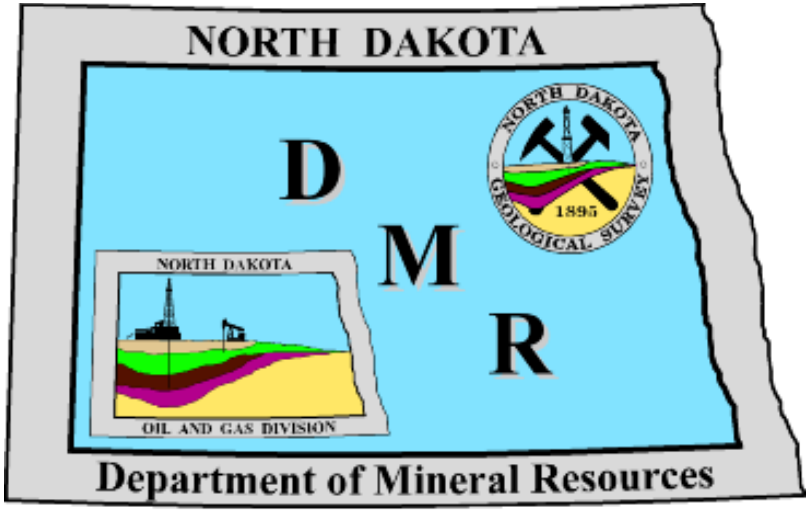
North Dakota Department of Mineral Resources

Office of Management and Budget
Friday, October 28, 2016



http://www.oilgas.nd.gov ***http://www.state.nd.us/ndgs***

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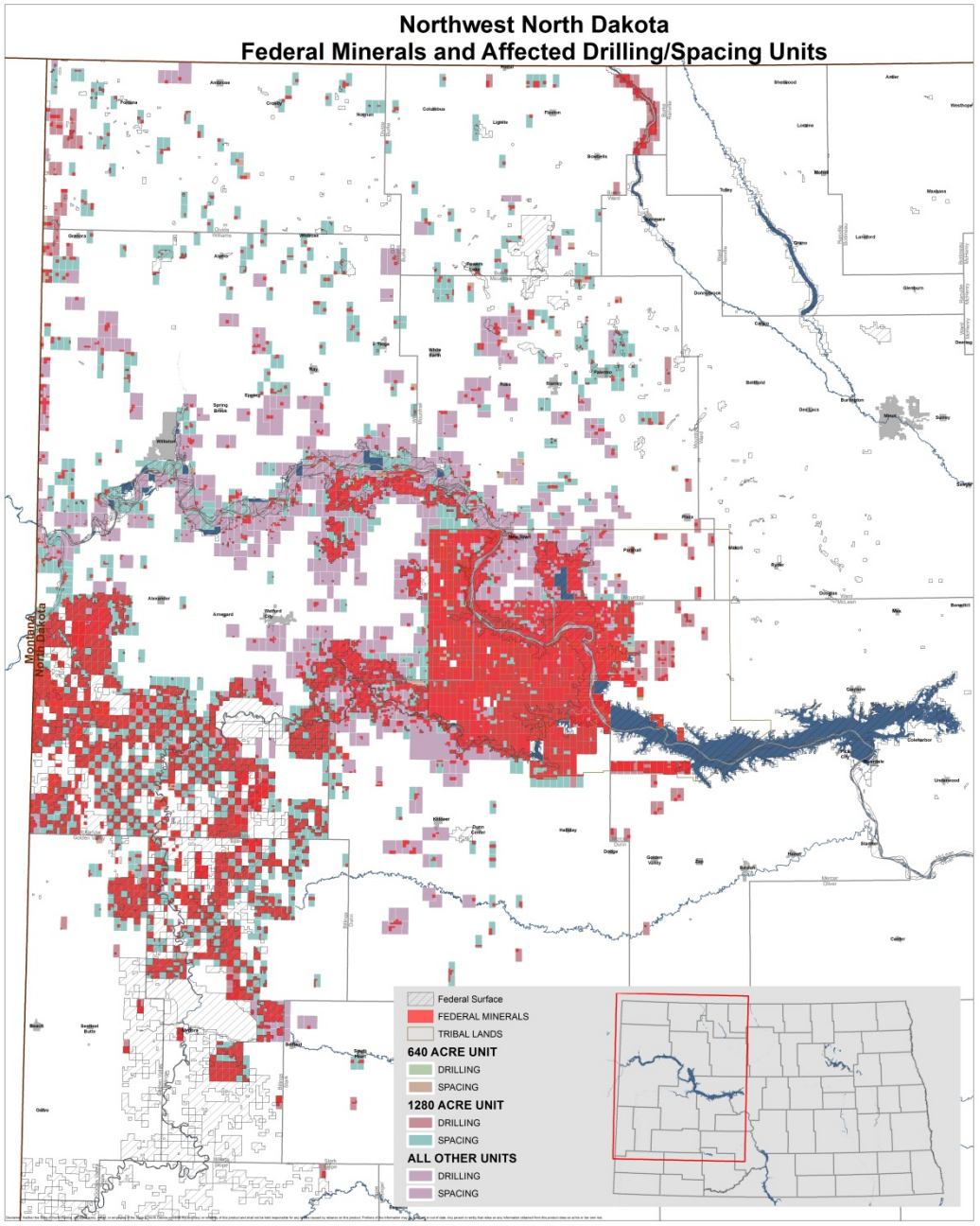
North Dakota has a unique history of land ownership that has resulted in a significant portion of the state consisting of split estate lands that could be adversely affected by the proposed rule. Unlike many western states that contain large blocks of unified federal surface and federal mineral ownership, the surface and mineral estates in North Dakota were at one time more than 97% private and state owned as a result of the railroad and homestead acts of the late 1800s. However, during the depression and drought years of the 1930s, numerous small tracts in North Dakota went through foreclosure. The federal government through the Federal Land Bank and the Bankhead Jones Act foreclosed on many farms taking ownership of both the mineral and surface estates. Many of the surface estates were later sold to private parties with some or all of the mineral estates retained by the federal government. This resulted in a very large number of small federally-owned mineral estate tracts scattered throughout western North Dakota. Those federal mineral estates impact more than 30% of the oil and gas spacing units that are typically recognized as a communitized area (CA) by the BLM. There are a few large blocks of federal mineral ownership, for which the federal government has trust responsibility and also manages the surface estate through the U.S. Forest Service or Bureau of Indian Affairs.

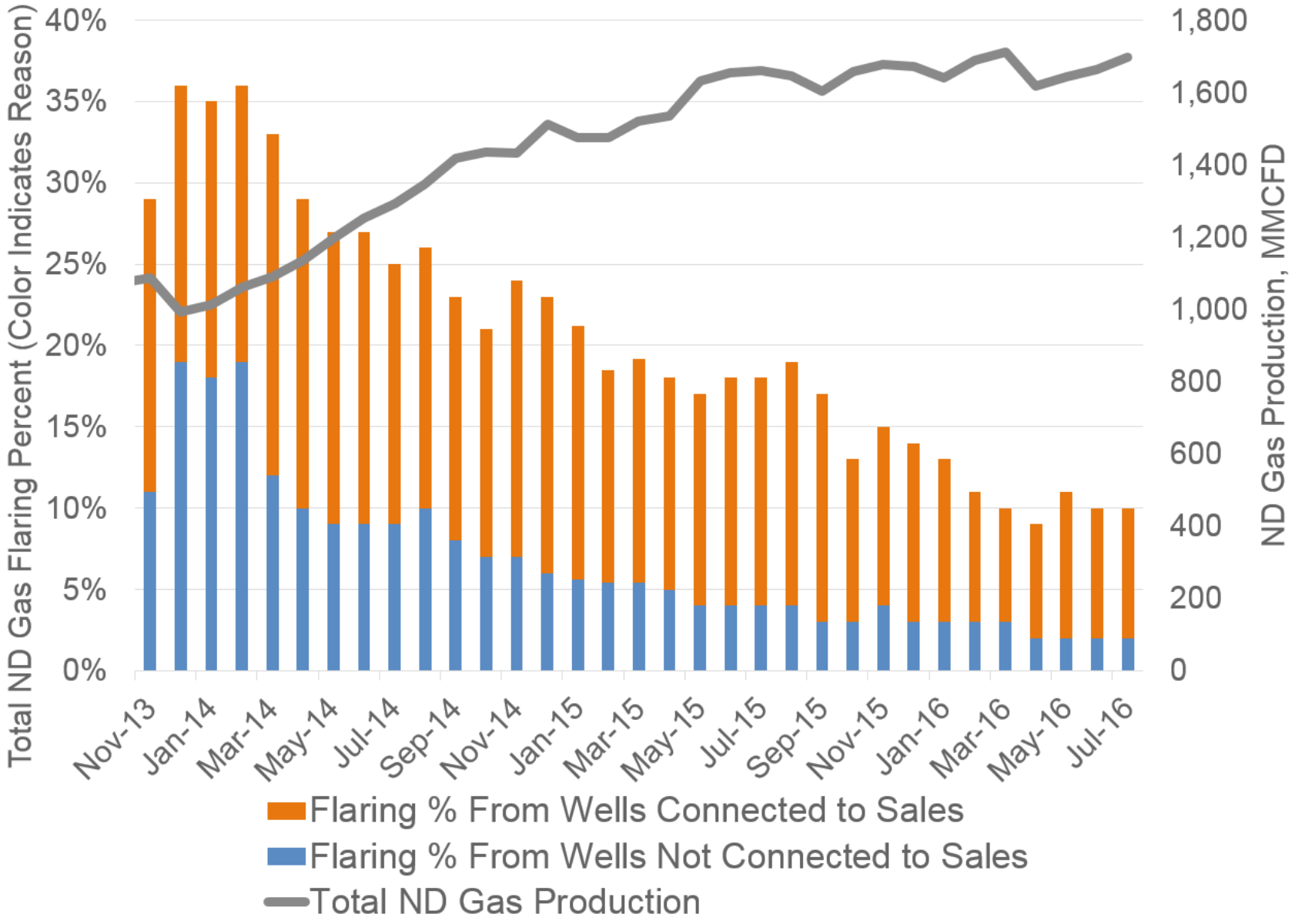


§ 3162.3-1 Drilling applications and plans: When submitting an Application for Permit to Drill an oil well, the operator must also submit a plan to minimize waste of natural gas from that well.

The proposed rule duplicates North Dakota's requirement for gas capture plans in part, but the required information under the proposed rule is not entirely consistent with the North Dakota regulations this requirement could create a direct conflict with North Dakota's ability to administer its oil and gas regulatory program. The proposed rule states that "failure to submit a complete and adequate waste minimization plan is grounds for denying or disapproving an Application for Permit to Drill." Since North Dakota drilling permits and gas capture plans are only valid for one year, BLM denying or disapproving an Application for Permit to Drill on the basis of information the NDIC believes is unnecessary is likely to result in numerous North Dakota drilling permits expiring.

§ 3178.2 Scope.
(a) This subpart applies to:
(1) All onshore Federal and Indian (other than Osage Tribe) oil and gas leases, units, and CAs, except as otherwise provided in this subpart;
(2) Indian Mineral Development Act (IMDA) oil and gas agreements, unless specifically excluded in the agreement or unless the relevant provisions of this subpart are inconsistent with the agreement;
(3) Leases and other business agreements and contracts for the development of tribal energy resources under a Tribal Energy Resource Agreement entered into with the 270 Secretary, unless specifically excluded in the lease, other business agreement, or Tribal Energy Resource Agreement;
(4) Committed State or private tracts in a federally approved unit or communitization agreement defined by or established under 43 CFR subpart 3105 or 43 CFR part 3180;
(5) All onshore wells, tanks, compressors, and other facilities located on a Federal or Indian lease or a federally approved unit or CA; and
(6) All gas lines located on a Federal or Indian lease or federally approved unit or CA that are owned or operated by the operator of the lease, unit, or communitization agreement.
(b) For purposes of this subpart, the term "lease" also includes IMDA agreements.

Because wells in North Dakota's unconventional Bakken play require a 2 mile horizontal lateral to be economic, a large number of wells in North Dakota are commingled down hole, and many have central tank batteries in North Dakota which commingle private, state, and federal mineral interests. Under the proposed rule, many wells in established spacing units and CA will now require a BLM drilling permit and a waste management plan. Private mineral interests, as well as the State of North Dakota, will be directly impacted by BLM permitting delays.


Total ND Gas Flaring Percent (Color Indicates Reason)
40%
35%
30%
25%
20%
15%
10%
5%
0%
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
ND Gas Production, MMCFD
Nov-13
Jan-14
Mar-14
May-14
Jul-14
Sep-14
Nov-14
Jan-15
Mar-15
May-15
Jul-15
Sep-15
Nov-15
Jan-16
Mar-16
May-16
Jul-16
Flaring % From Wells Connected to Sales
Flaring % From Wells Not Connected to Sales
Total ND Gas Production

38-08-06.4. FLARING OF GAS RESTRICTED - IMPOSITION OF TAX -AYMENT OF ROYALTIES - INDUSTRIAL COMMISSION AUTHORITY.

1. As permitted under rules of the industrial commission, gas produced with crude oil from an oil well may be flared during a one-year period from the date of first production from the well.
2. After the time period in subsection 1, flaring of gas from the well must cease and the well must be:
a. Capped;
b. Connected to a gas gathering line;
c. Equipped with an electrical generator that consumes at least seventy-five percent of the gas from the well;
d. Equipped with a system that intakes at least seventy-five percent of the gas and natural gas liquids volume from the well for beneficial consumption by means of compression to liquid for use as fuel, transport to a processing facility, production of petrochemicals or fertilizer, conversion to liquid fuels, separating and collecting over fifty percent of the propane and heavier hydrocarbons; or
e. Equipped with other value-added processes as approved by the industrial commission which reduce the volume or intensity of the flare by more than sixty percent.
3. An electrical generator and its attachment units to produce electricity from gas and a collection system described in subdivision d of subsection 2 must be considered to be personal property for all purposes.
4. For a well operated in violation of this section, the producer shall pay royalties to royalty owners upon the value of the flared gas and shall also pay gross production tax on the flared gas at the rate imposed under section 57-51-02.2.
5. The industrial commission may enforce this section and, for each well operator found to be in violation of this section, may determine the value of flared gas for purposes of payment of royalties under this section and its determination is final.
6. A producer may obtain an exemption from this section from the industrial commission upon application that shows to the satisfaction of the industrial commission that connection of the well to a natural gas gathering line is economically infeasible at the time of the application or in the foreseeable future or that a market for the gas is not available and that equipping the well with an electrical generator to produce electricity from gas or employing a collection system described in subdivision d of subsection 2 is economically infeasible.

The initial horizontal well drilled in each spacing unit should be allowed to produce at its maximum efficient rate, regardless if the well is connected to a gas gathering system. Allowing such wells to produce at a maximum efficient rate will allow valuable information to be obtained in order to make decisions regarding future well and infrastructure requirements in the spacing unit.

In order to allow operators the maximum flexibility to manage their drilling, operation, and gas capture plans within the gas capture goals established by the Commission, the Commission will evaluate compliance with the gas capture goals statewide, by county, by field, then by well for each operator.
1) All infill horizontal wells, including overlapping spacing units, completed in a Bakken, Bakken/Three Forks, and/or Three Forks Pool are allowed to produce at a maximum efficient rate for 90 days.

Underground Gathering Pipelines

Estimate 12,700 miles pre August 2011

+ 4,900 miles August 2011-December 2013

+ 2,650 miles per year 2014-2020

= 36,000 miles (circumference around the world at the equator is about 24,902 miles)

11,949 miles within OGD database

Flexibility will be provided in the form of temporary exemptions from production restrictions after notice and hearing if the following extenuating circumstances are validated:
1) surface landowner, tribal, or federal government right-of-way delays
2) temporary midstream down-time for system upgrades and/or maintenance
3) federal regulatory restrictions or delays
4) safety issues
5) delayed access to electrical power
6) possible reservoir damage

Flexibility in the form of temporary exemptions from production restrictions may be considered for other types of extenuating circumstances after notice and hearing if the effect of such flexibility is a significant net increase in gas capture within one year of the date such relief is granted.

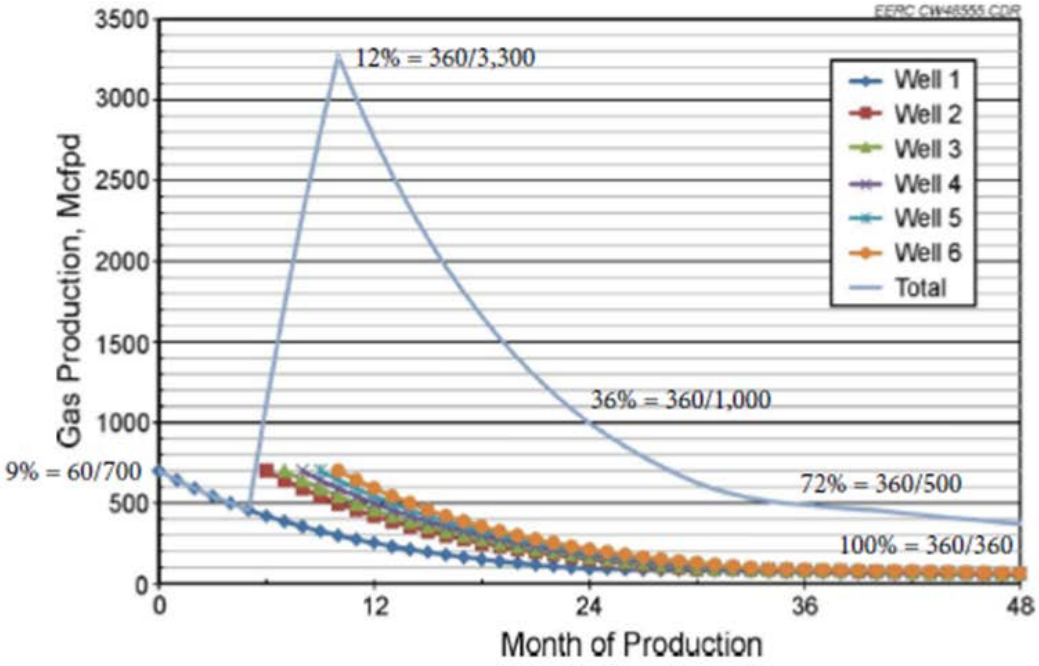
Scenario 1 – Hypothetical Six-Well, 1-month Interval

Exhibit 2

- Initial well producing for 6 months, followed by five additional wells coming online at 1-month intervals.
- Hypothetical decline curve used.

1 well x 1,800 Mcf/month / 30days/month = 60 Mcf/day

6 wells x 1,800 Mcf/month / 30days/month = 360 Mcf/day



EERC

§ 3179.8 Measuring and reporting volumes of gas vented and flared from wells: If the operator estimates that the volume of gas vented or flared from a flare stack or manifold equals or exceeds 50 Mcf per day; or if the BLM determines and informs the operator that the additional accuracy offered by measurement is necessary for effective implementation of this Subpart the operator must measure all volumes of gas vented or flared.

NDIC oil and gas measurement personnel have not been able to identify any existing meter systems that can accurately determine flare gas volumes over the extreme range of pressures and rates typically encountered on producing wells. Therefore, NDIC Order 24665 requires operators to accurately measure total gas production, or calculate total gas production from an accurate gas oil ratio, and calculate the gas capture percentage as follows: "The gas capture percentage shall be calculated by summing monthly gas sold plus monthly gas used on lease plus monthly as processed in a Commission approved beneficial manner, divided by the total monthly volume of associated gas produced by the operator." NDIC Order No. 24665 and support documents can be viewed under "Gas Capture" at https://www.dmr.nd.gov/oilgas/2014Permitting(2).asp . The proposed rule conflicts with guidance issued by the NDIC for compliance with NDIC Order No. 24665. Therefore, this requirement is in direct conflict with North Dakota's ability to administer its oil and gas regulatory program. The NDIC strongly recommends that the measurement requirement be eliminated from the proposed rule.

43-02-03-40. GAS-OIL RATIO TEST. Each operator shall take a gas-oil ratio test within thirty days following the completion or recompletion of an oil well. Each test shall be conducted using standard industry practices unless otherwise specified by the director. The initial gas-oil ratio must be reported on the well completion or recompletion report (form 6). Subsequent gas-oil ratio tests must be performed on producing wells when the producing pool appears to have reached bubble point. After the discovery of a new pool, each operator shall make additional gas-oil ratio tests as directed by the director or provided for in field rules. During tests each well shall be produced at a maximum efficient rate. The director may shut in any well for failure to make such test until such time as a satisfactory test can be made, or satisfactory explanation given. The results of all gas-oil ratio tests shall be submitted to the director on form 9, which shall be accompanied by a statement that the data on form 9 is true and correct.