

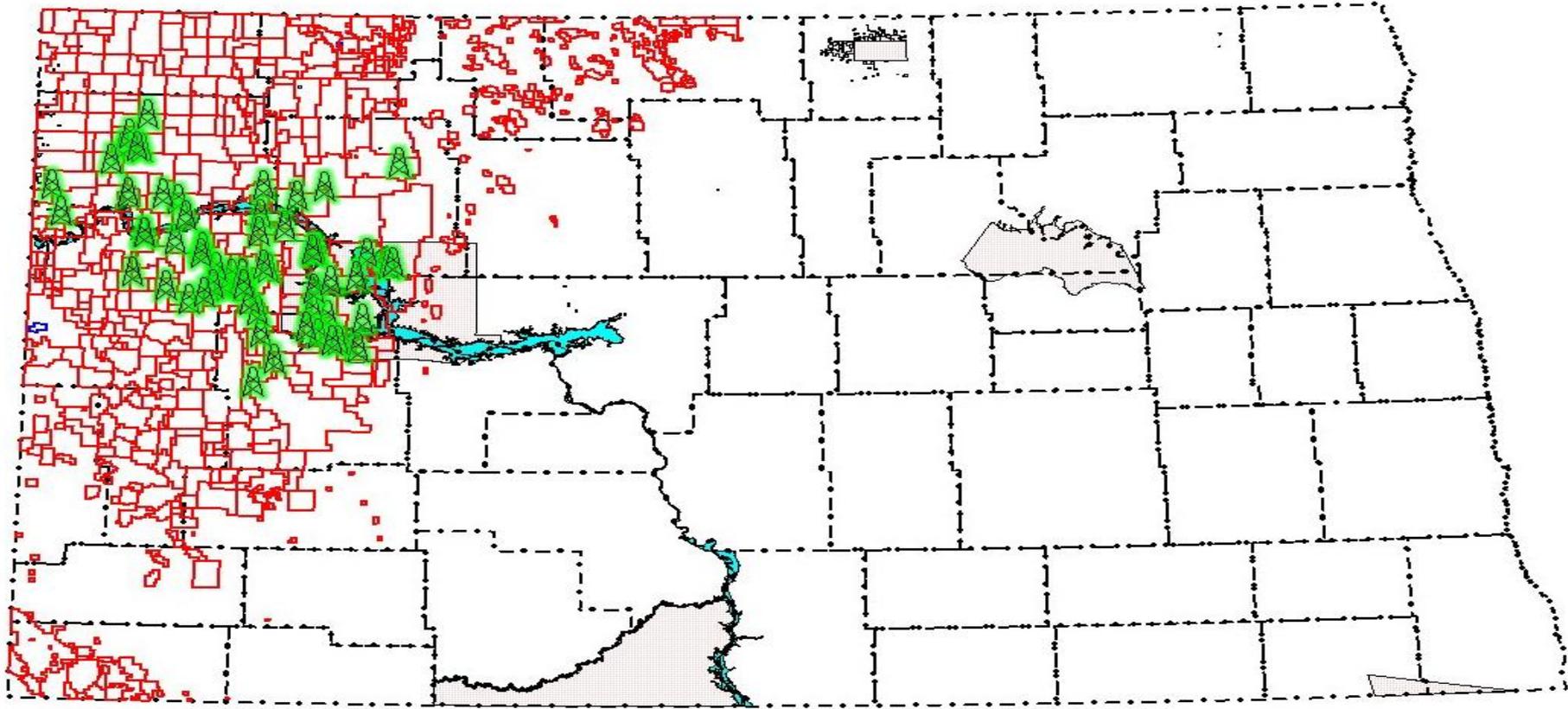


# ***WILLISTON BASIN PETROLEUM CONFERENCE***

*Bismarck, ND – May 22, 2018*

*Bruce E. Hicks  
Assistant Director  
NDIC-DMR-OGD*

# NORTH DAKOTA – 61 DRILLING RIGS – MAY 2018

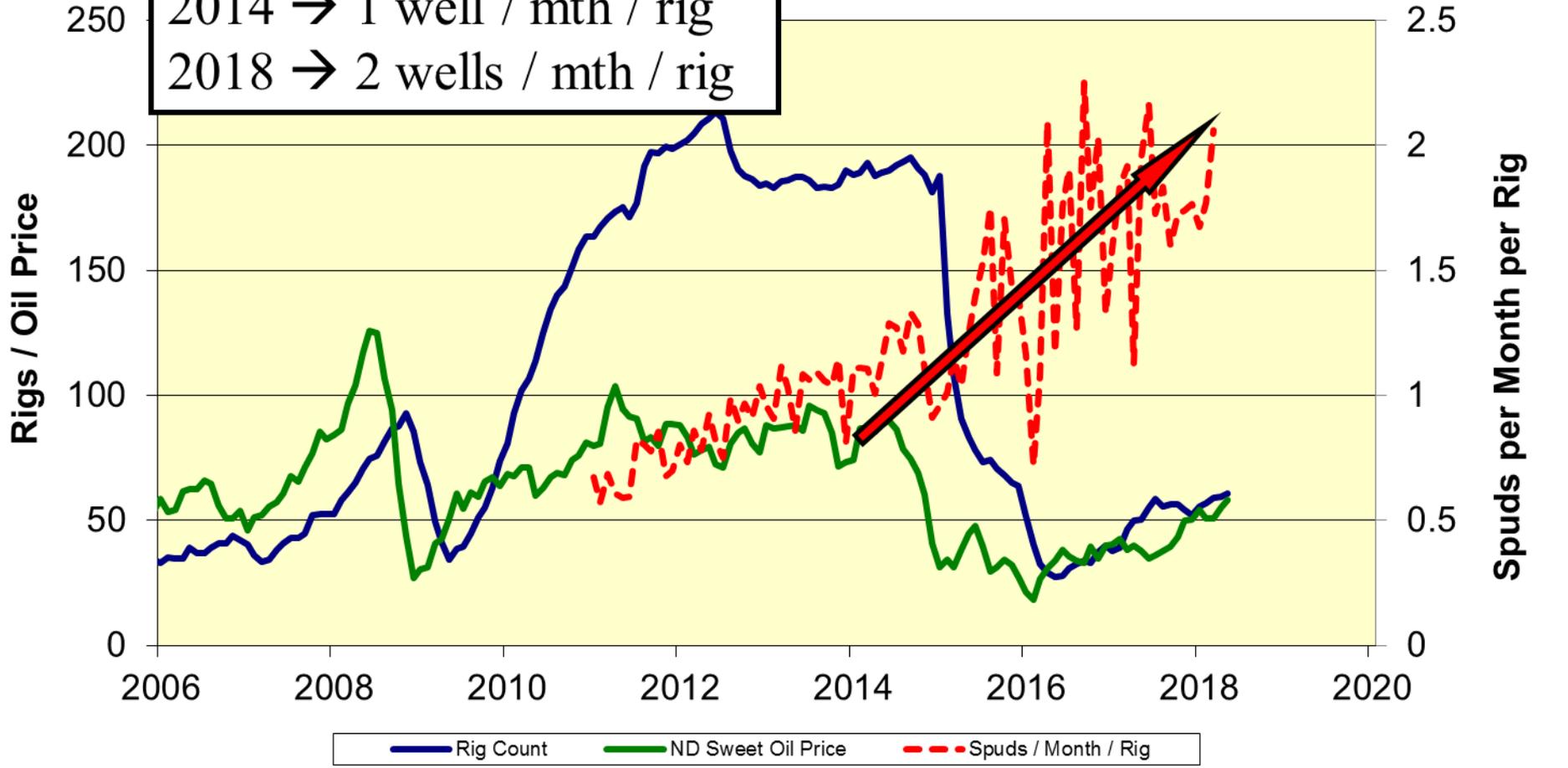


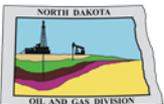
**Current drilling activity is focused in Mountrail,  
Dunn, McKenzie, and Williams Counties.**



# North Dakota Average Monthly Rig Count

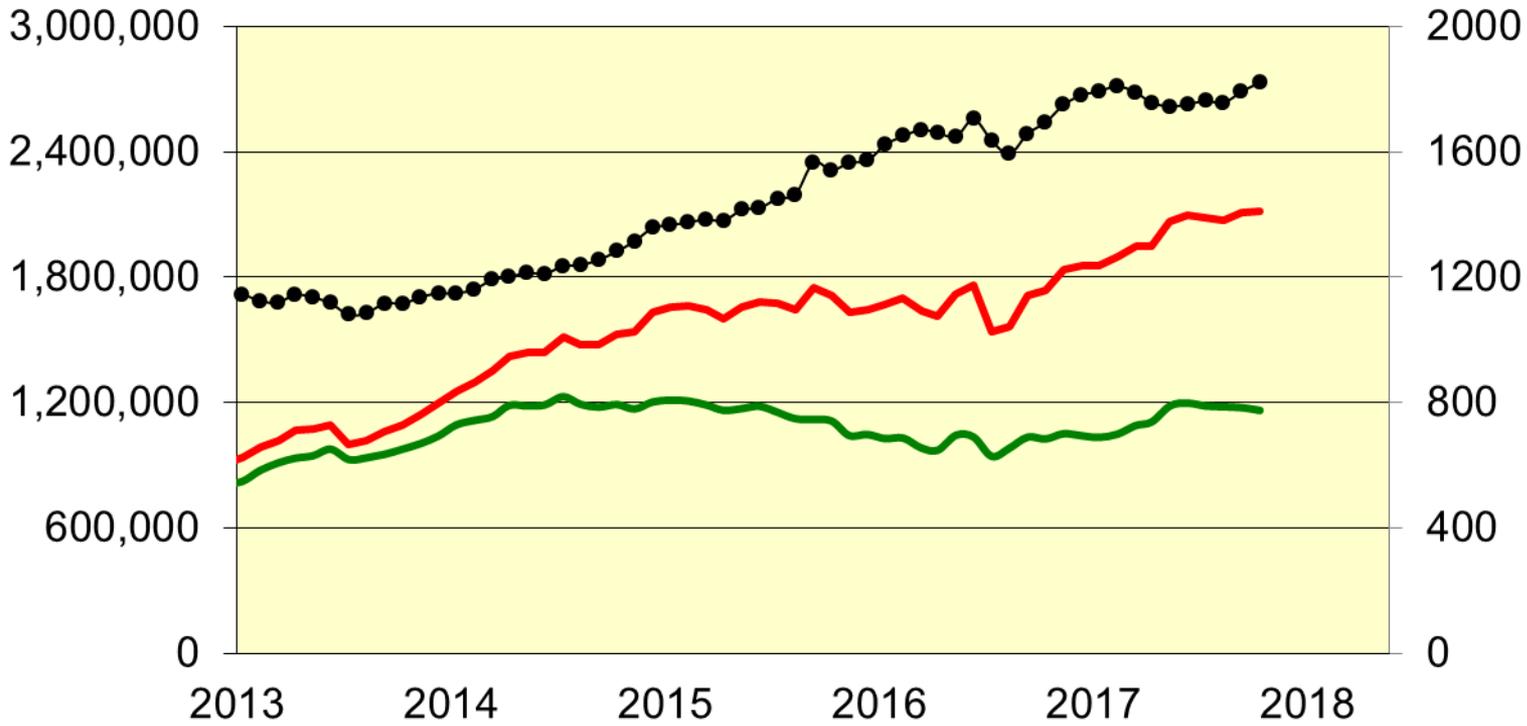
2014 → 1 well / mth / rig  
2018 → 2 wells / mth / rig





# North Dakota Gas-Oil Ratio

**BOPD -- MCFPD**

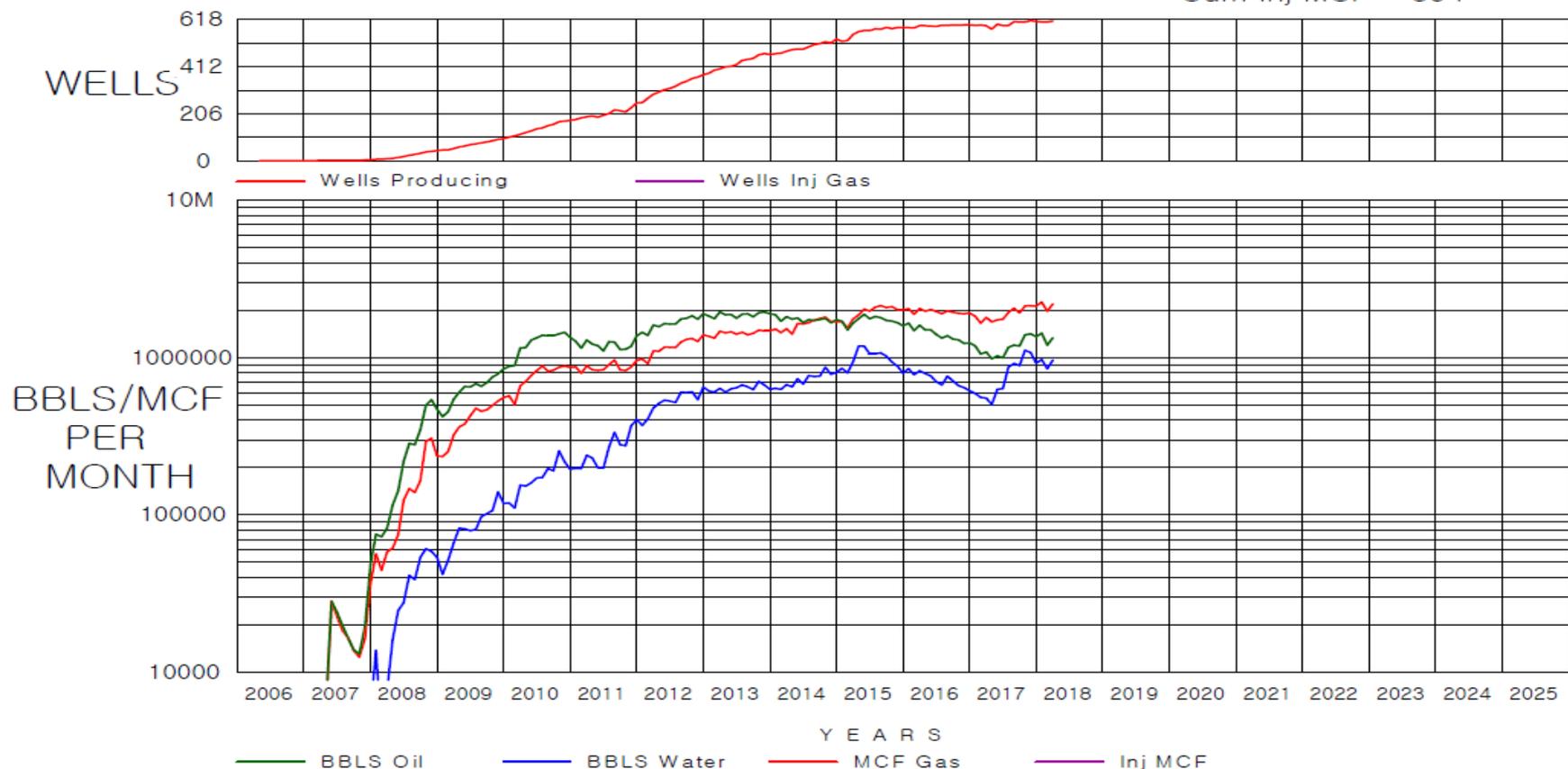


**Gas-Oil Ratio**

**— MCFPD    — BOPD    —•— GOR**

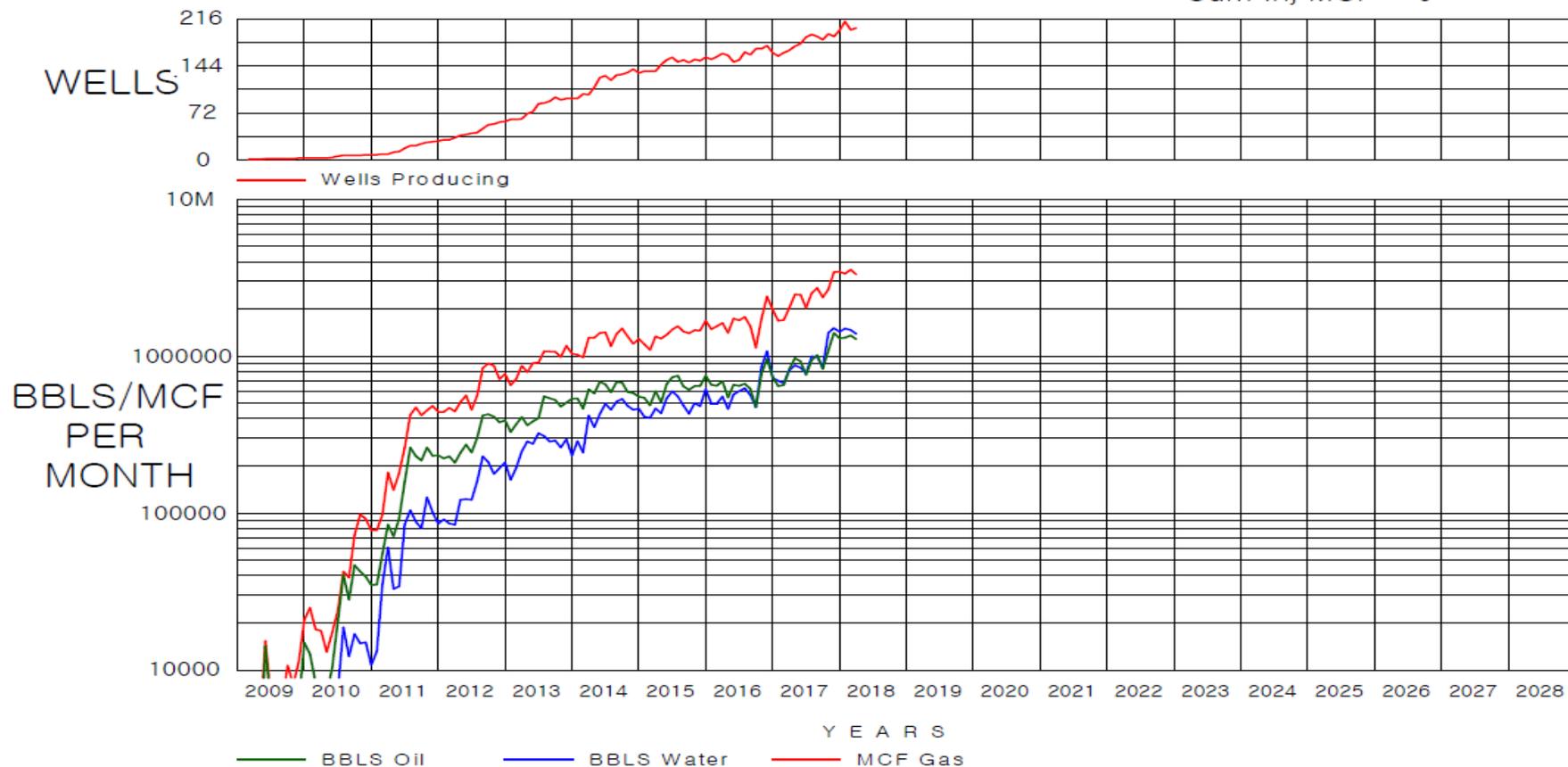
## SANISH-BAKKEN

Cum Oil = 160010359  
 Cum Water = 62281755  
 Cum Gas = 153650181  
 Cum Inj BBLS = 0  
 Cum Inj MCF = 894



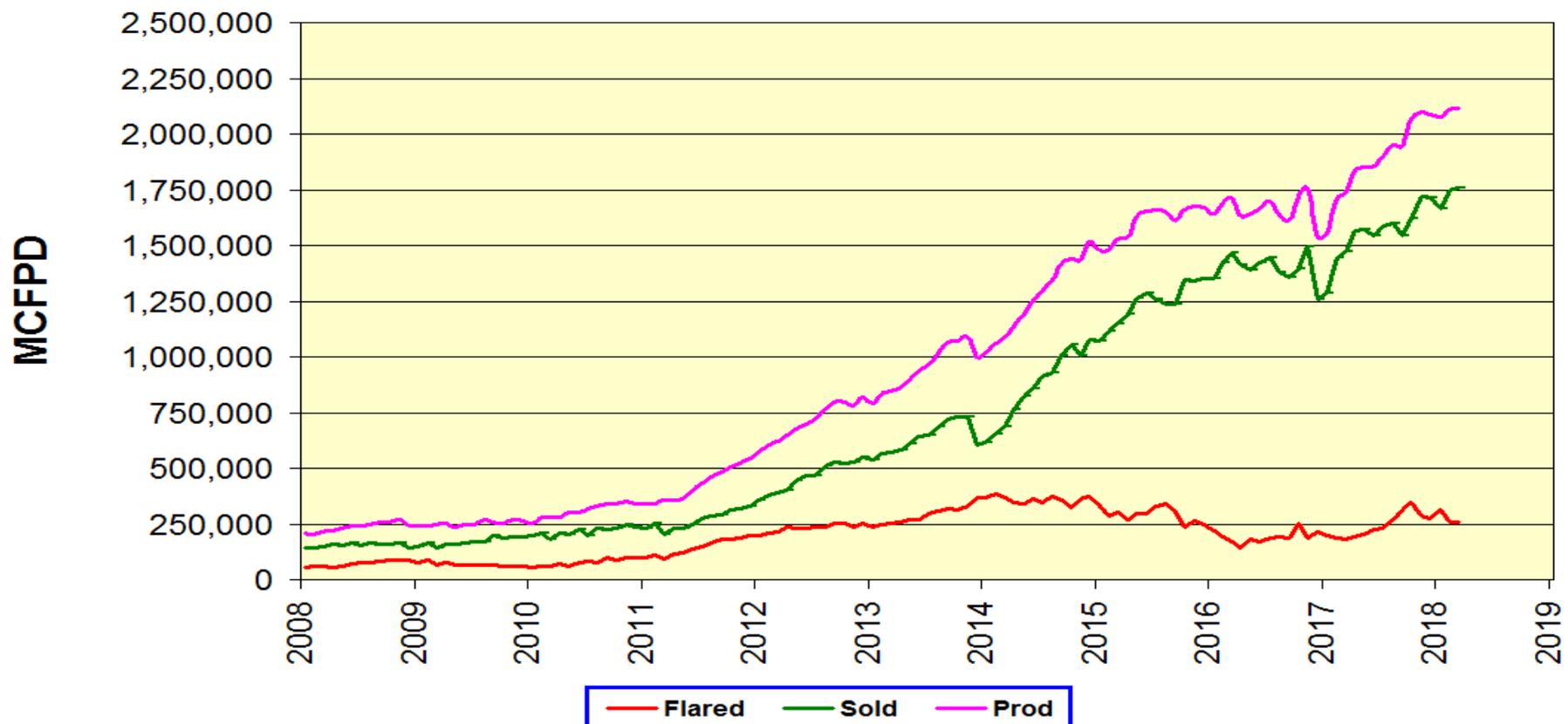
## BANKS-BAKKEN

Cum Oil = 49648361  
 Cum Water = 40734656  
 Cum Gas = 115009023  
 Cum Inj BBLs = 0  
 Cum Inj MCF = 0





# North Dakota Daily Gas Volumes



# North Dakota Gas Capture Regulations

- **ICO 24665—effective 7-1-2014**
  - **Policy Goals**
    - **Reduce the flared volume of gas**
    - **Reduce the number of wells flaring**
    - **Reduce the duration of flaring from wells**
- **Guidance f/ICO 24665**
  - **Original approved 4-3-15**
  - **Revised 10-22-15**
  - **Revised 4-17-18**

- Services
- Rules & Regulations
- Policies & Guidance**
- Forms
- Hearing Dockets
- Active Drilling Rigs
- Daily Activity Reports
- Information Center
- Confidential Well List
- General Statistics
- Seismic
- Well Search
- Report a Spill/Incident
- Gathering Pipelines
- GIS Map Server
- Publications
- Surface Mineral Owner
- Basic Services
- Premium Services
- Electronic Filing
- Related Links
- FAQ & Web Help
- Employment Opportunities
- Bakken and Three Forks Information
- Contact Us

# ← Policies & Guidance (Gas Capture Order)

Industrial Commission, Department of  
Gas Division, home page.

elms, Director      Bruce E. Hicks, Assistant

[Rules Approved by the Commission](#)

[Commission Guidance on Gas Capture effective 4-17-20](#)

The Oil and Gas Division regulates the drilling and production of oil and gas in North Dakota. Our mission is to encourage and promote the development, production, and utilization of oil and gas in the state in such a manner as will prevent waste, maximize economic recovery, and fully protect the correlative rights of all owners to the end that the landowners, the royalty owners, the producers, and the general public realize the greatest possible good from these vital natural resources.

 Adobe Acrobat Reader site.

 Flash Player is required.

 This web site is part of the Groundwater Protection Council's Water Protection Council (C) the [Risk Based Data Management](#) DOE Energy 100 Award.

## Areas of Interest

- [Areas of Interest \(NDIC-PP 2.01 & 2.02\)](#)
- 

## Class VI Primacy

- [Class VI Primacy Application for the authority to regulate the Geologic Storage of Carbon Dioxide](#)
- 

## Diesel Fuel Guidance

- ["Diesel fuel" in HF stimulation now requires UIC approval](#)
- 

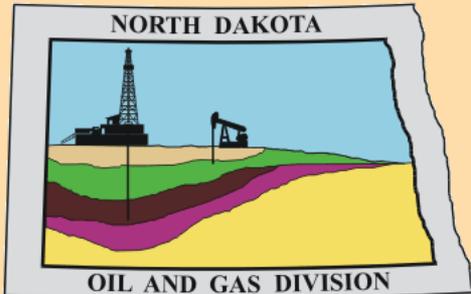
## Drilling Permit Review

- [Drilling Permit Review Policies](#)
- 

## Gas Capture

- [Hearing Exhibit Gas Capture Letter](#)
- [APD Gas Capture Letter](#)
- [Order 24665](#)
- [Guidance Policy for Commission Order 24665](#)

← **Order 24665 + Guidance**



## Welcome to the North Dakota Industrial Commission, Department of Mineral Resources Gas Division, home page.

Lynn D. Helms, Director

Bruce E. Hicks, Assistant Director

[Rules Approved by the Commission](#)

[Commission Guidance on Gas Capture effective 4-17-2018](#)

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# **North Dakota Gas Capture Regulations**

## **Guidance Changes Approved 4-17-2018**

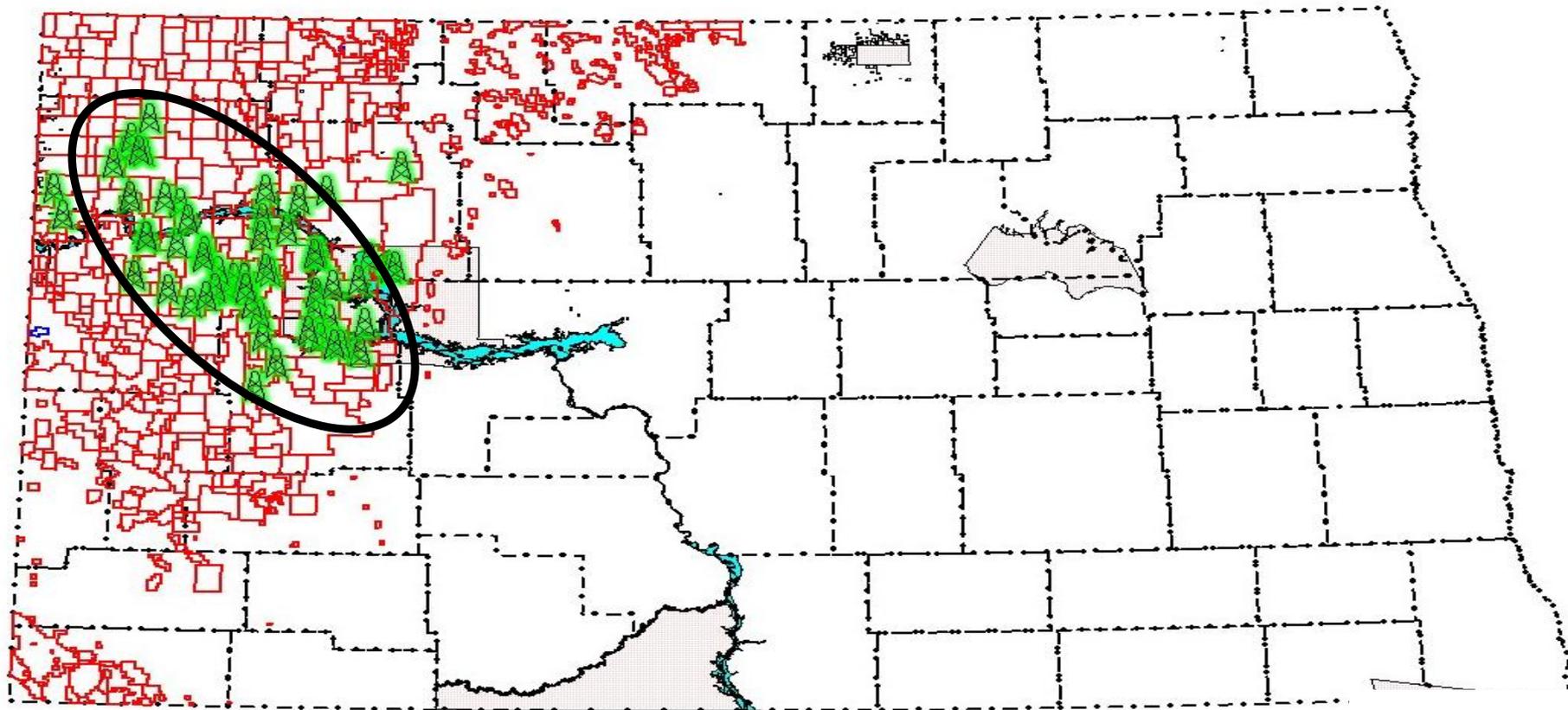
- **Producers must**
  - **Provide Gas Prod Forecast to midstreamers**
    - **GCP not required at temp-proper-infill hearings**
    - **Maintain a GCP for future development plans**
  - **GCP w/APD if < goal in last 3 mths**
  - **Improvement meeting w/IC if < goal in 3/6 mths**

# **North Dakota Gas Capture Regulations**

## **Guidance Changes Approved 4-17-2018**

- **Stranded Gas Allowance**
  - **Must be outside Bak Core Area**
  - **Undrilled twp or < 60% capture in past 2 mths**
  - **Designate 6 new hor per twp**
  - **Prod MER & remove 12 mths from flare calc**

# Appr Extent of Bakken Core Area



# **North Dakota Gas Capture Regulations**

## **Guidance Changes Approved 4-17-2018**

- **Currently 90-day MER f/new Bak/TF**
  - **46 days >14-day flowback removed from calc**
    - **Midstreamers can't build f/peak prod rates**

# **North Dakota Gas Capture Regulations**

## **Guidance Changes Approved 4-17-2018**

- **Gas Credits**
  - **Six-month rollover**
  - **Liquid Natural Gas (LNG) used in operations**
  - **Compressed Natural Gas (CNG) used**
  - **Gas above capture goals**

# **North Dakota Gas Capture Regulations**

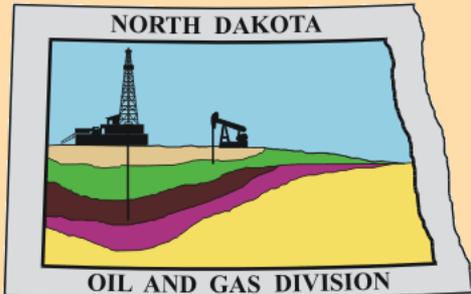
## **Guidance Changes Approved 4-17-2018**

- **Temporary Exemptions—no hearing**
  - **Administrative approval**
  - **One year duration**
  - **Quarterly Report to IC will detail requests**

# North Dakota Gas Capture Regulations

## FAQs

- **Credit for Force Majeure gas—No**
- **Must report Force Majeure gas—Yes**
- **Must report “gas credit” gas—Yes**
- **Gas Credits—extenuating circumstances**
  - **ROW, down-time, fed delays, elec power, safety, res damage**
- **Future additions as warranted**



# Welcome to the North Dakota Industrial Commission, Department of Mineral Resources Gas Division, home page.

Lynn D. Helms, Director

Bruce E. Hicks, Assistant Director

[Rules Approved by the Commission](#)

[Commission Guidance on Gas Capture effective 4-17-2018](#)

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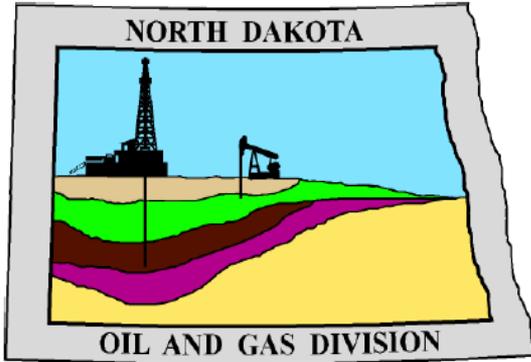
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# Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

[nd.gov/oilgas/](http://nd.gov/oilgas/)

North Dakota Industrial Commission Order 24665

Frequently Asked Questions Version 041718

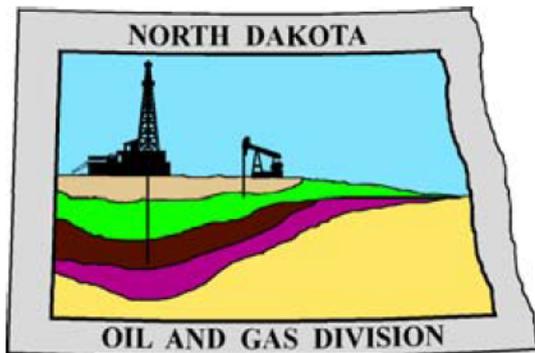
**FAQS**

**Question:** If an operator is granted a gas credit for gas captured from a well, can that volume be counted as a gas credit?

**Answer:** No, gas captured from a well cannot be counted as a capture credit because the gas was not physically captured.

**Question:** The policy states the operator is allowed to remove (from the total monthly volume **calculation**) gas volumes flared from wells affected by a force majeure event. If an operator's application, for removal of such gas is granted, does that gas volume have to be reported to the Commission?

**Answer:** Yes, all gas must be reported and accounted for on the [Gas Production Report - Form 5B](#)



# Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

<http://www.nd.gov/oilgas/>

**BAKKEN CORE AREA  
FIELD LIST**

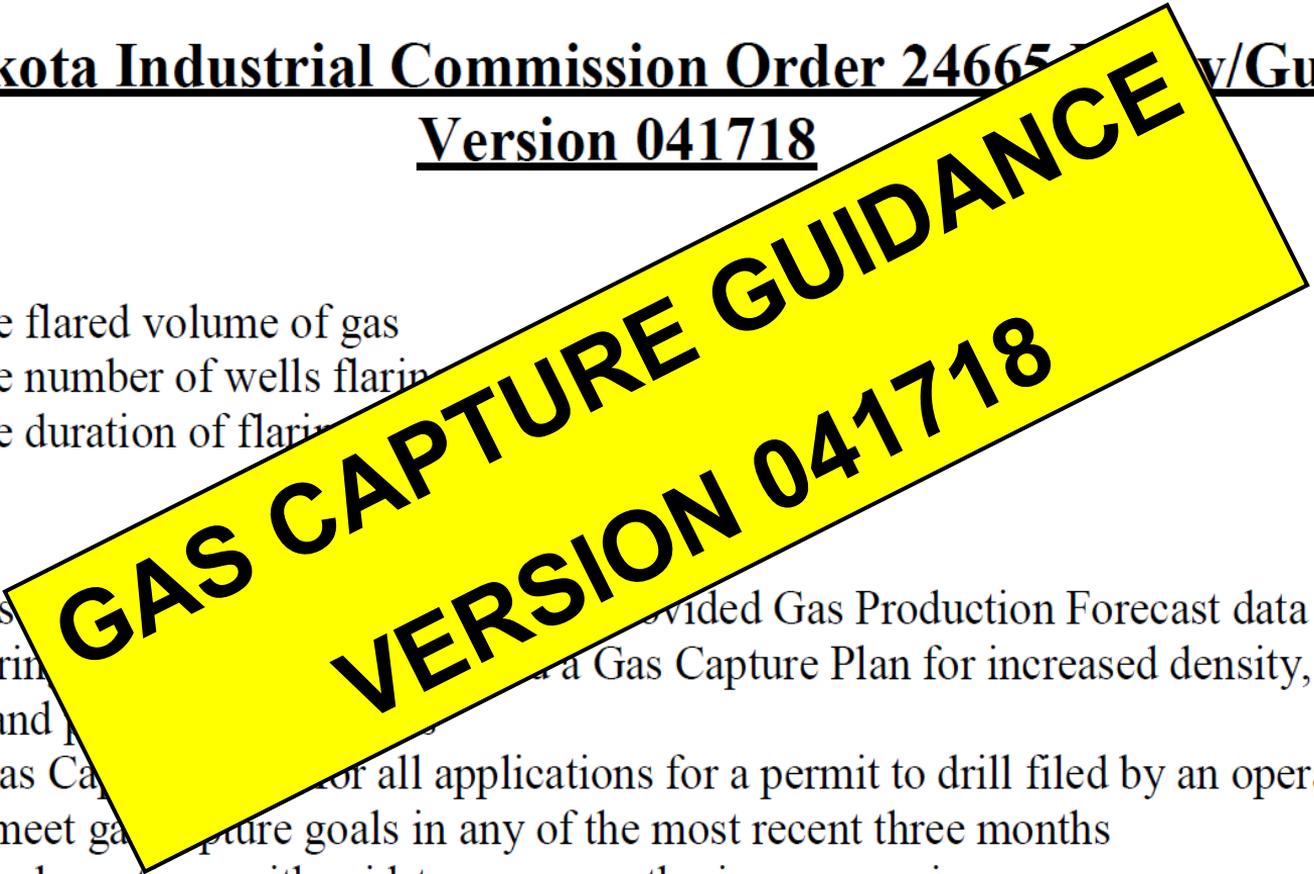
The following fields are referenced in the attached  
North Dakota Industrial Commission 4665 Policy/Guidance Version 041718:

Alger  
Alkali Creek  
Antelope  
Arnegard  
Avoca

Fancy Buttes  
Four Bears  
Garden  
Grail  
Grinnell

Sandricks  
Sanish  
Siverston  
South Fork  
South Tobacco Garden

North Dakota Industrial Commission Order 24665-1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100/101/102/103/104/105/106/107/108/109/110/111/112/113/114/115/116/117/118/119/120/121/122/123/124/125/126/127/128/129/130/131/132/133/134/135/136/137/138/139/140/141/142/143/144/145/146/147/148/149/150/151/152/153/154/155/156/157/158/159/160/161/162/163/164/165/166/167/168/169/170/171/172/173/174/175/176/177/178/179/180/181/182/183/184/185/186/187/188/189/190/191/192/193/194/195/196/197/198/199/200/201/202/203/204/205/206/207/208/209/210/211/212/213/214/215/216/217/218/219/220/221/222/223/224/225/226/227/228/229/230/231/232/233/234/235/236/237/238/239/240/241/242/243/244/245/246/247/248/249/250/251/252/253/254/255/256/257/258/259/260/261/262/263/264/265/266/267/268/269/270/271/272/273/274/275/276/277/278/279/280/281/282/283/284/285/286/287/288/289/290/291/292/293/294/295/296/297/298/299/300/301/302/303/304/305/306/307/308/309/310/311/312/313/314/315/316/317/318/319/320/321/322/323/324/325/326/327/328/329/330/331/332/333/334/335/336/337/338/339/340/341/342/343/344/345/346/347/348/349/350/351/352/353/354/355/356/357/358/359/360/361/362/363/364/365/366/367/368/369/370/371/372/373/374/375/376/377/378/379/380/381/382/383/384/385/386/387/388/389/390/391/392/393/394/395/396/397/398/399/400/401/402/403/404/405/406/407/408/409/410/411/412/413/414/415/416/417/418/419/420/421/422/423/424/425/426/427/428/429/430/431/432/433/434/435/436/437/438/439/440/441/442/443/444/445/446/447/448/449/450/451/452/453/454/455/456/457/458/459/460/461/462/463/464/465/466/467/468/469/470/471/472/473/474/475/476/477/478/479/480/481/482/483/484/485/486/487/488/489/490/491/492/493/494/495/496/497/498/499/500/501/502/503/504/505/506/507/508/509/510/511/512/513/514/515/516/517/518/519/520/521/522/523/524/525/526/527/528/529/530/531/532/533/534/535/536/537/538/539/540/541/542/543/544/545/546/547/548/549/550/551/552/553/554/555/556/557/558/559/560/561/562/563/564/565/566/567/568/569/570/571/572/573/574/575/576/577/578/579/580/581/582/583/584/585/586/587/588/589/590/591/592/593/594/595/596/597/598/599/600/601/602/603/604/605/606/607/608/609/610/611/612/613/614/615/616/617/618/619/620/621/622/623/624/625/626/627/628/629/630/631/632/633/634/635/636/637/638/639/640/641/642/643/644/645/646/647/648/649/650/651/652/653/654/655/656/657/658/659/660/661/662/663/664/665/666/667/668/669/670/671/672/673/674/675/676/677/678/679/680/681/682/683/684/685/686/687/688/689/690/691/692/693/694/695/696/697/698/699/700/701/702/703/704/705/706/707/708/709/710/711/712/713/714/715/716/717/718/719/720/721/722/723/724/725/726/727/728/729/730/731/732/733/734/735/736/737/738/739/740/741/742/743/744/745/746/747/748/749/750/751/752/753/754/755/756/757/758/759/760/761/762/763/764/765/766/767/768/769/770/771/772/773/774/775/776/777/778/779/780/781/782/783/784/785/786/787/788/789/790/791/792/793/794/795/796/797/798/799/800/801/802/803/804/805/806/807/808/809/810/811/812/813/814/815/816/817/818/819/820/821/822/823/824/825/826/827/828/829/830/831/832/833/834/835/836/837/838/839/840/841/842/843/844/845/846/847/848/849/850/851/852/853/854/855/856/857/858/859/860/861/862/863/864/865/866/867/868/869/870/871/872/873/874/875/876/877/878/879/880/881/882/883/884/885/886/887/888/889/890/891/892/893/894/895/896/897/898/899/900/901/902/903/904/905/906/907/908/909/910/911/912/913/914/915/916/917/918/919/920/921/922/923/924/925/926/927/928/929/930/931/932/933/934/935/936/937/938/939/940/941/942/943/944/945/946/947/948/949/950/951/952/953/954/955/956/957/958/959/960/961/962/963/964/965/966/967/968/969/970/971/972/973/974/975/976/977/978/979/980/981/982/983/984/985/986/987/988/989/990/991/992/993/994/995/996/997/998/999/1000  
Version 041718



Policy Goals:

- 1) reduce the flared volume of gas
- 2) reduce the number of wells flaring
- 3) reduce the duration of flaring

Action items:

- 1) require a semi-annual Gas Capture Improvement Plan meeting with operators who have failed to meet gas capture goals in any of the most recent three months. Provide Gas Production Forecast data to midstream gas gathering companies. Require a Gas Capture Plan for increased density, temporary spacing, and...
- 2) require Gas Capture Improvement Plan for all applications for a permit to drill filed by an operator who has failed to meet gas capture goals in any of the most recent three months
- 3) semi-annual meetings with midstream gas gathering companies
- 4) semi-annual Gas Capture Improvement Plan meetings with operators who have failed to meet

# **North Dakota Gas Capture Regulations**

## **Gas Capture Goals**

- **85% currently**
- **88% Nov 1, 2018**



# **NDIC – DMR - OGD**

*<https://www.dmr.nd.gov/oilgas/>*

*600 East Boulevard Ave. - Dept 405*

*Bismarck, ND 58505-0840*

*(701) 328-8020*

*Bruce E. Hicks*

*Assistant Director*

*NDIC-DMR-OGD*