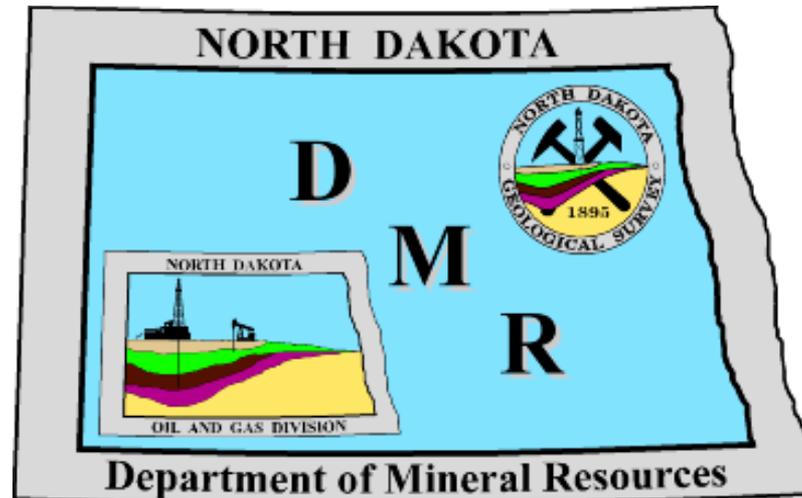


Energy Development and Transmission Committee

10:10 to 10:30 a.m. October 14, 2015, regarding the department's recent activities and the status of oil and gas development activity

North Dakota Department of Mineral Resources
Lynn D. Helms, Director



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

<http://www.state.nd.us/ndgs>

600 East Boulevard Ave. - Dept 405

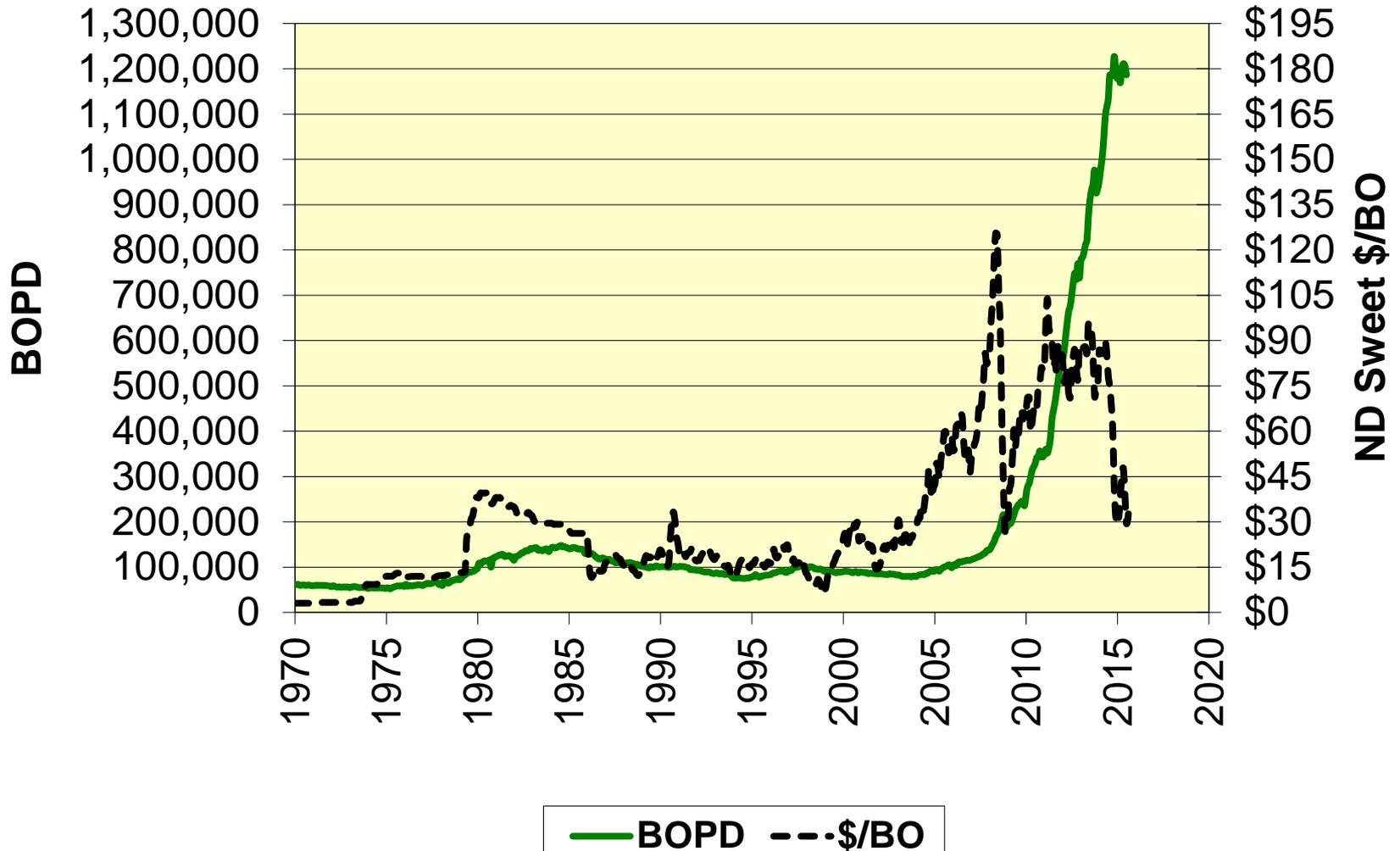
Bismarck, ND 58505-0840

(701) 328-8020

(701) 328-8000

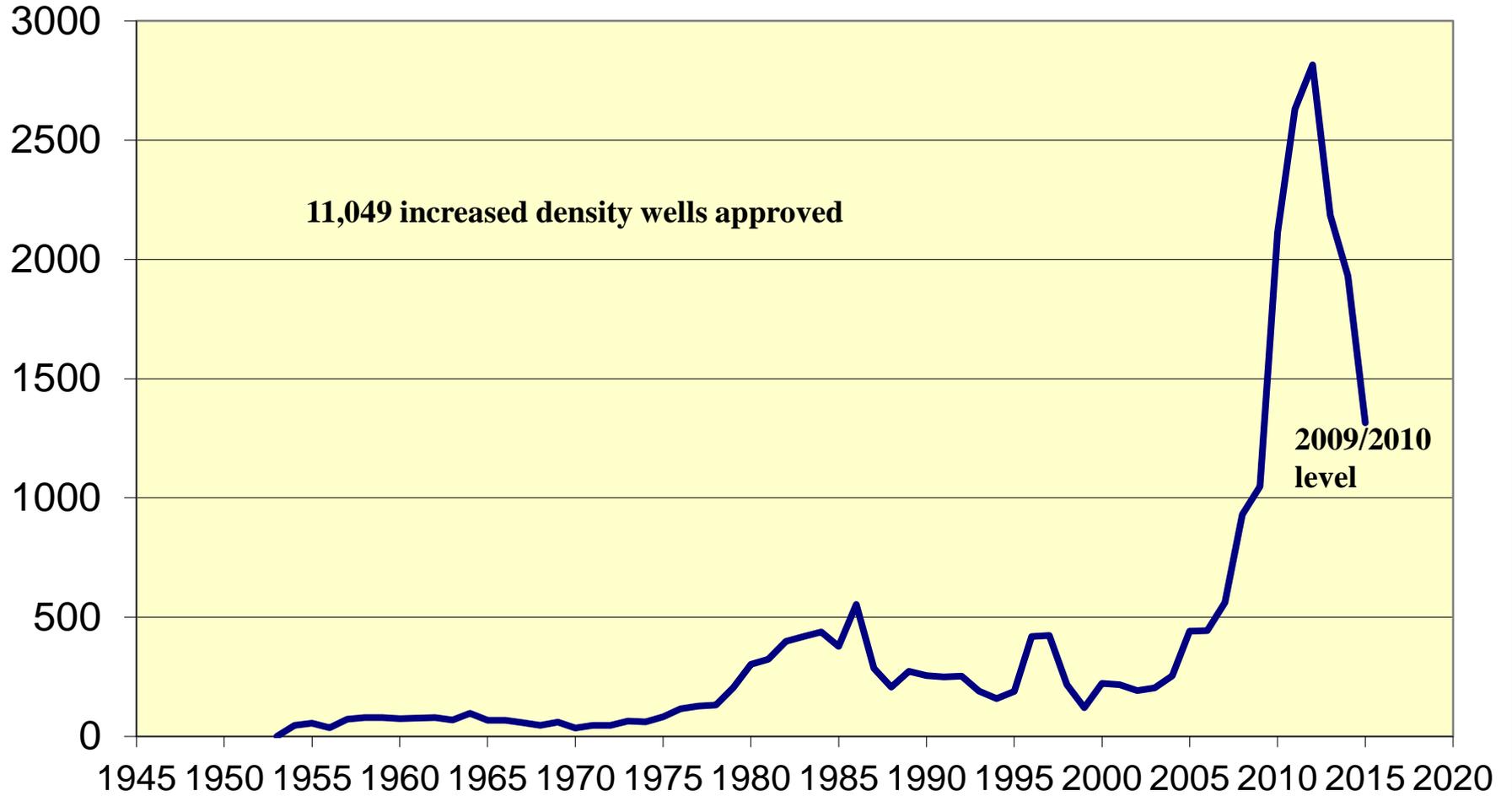


North Dakota Daily Oil Produced and Price



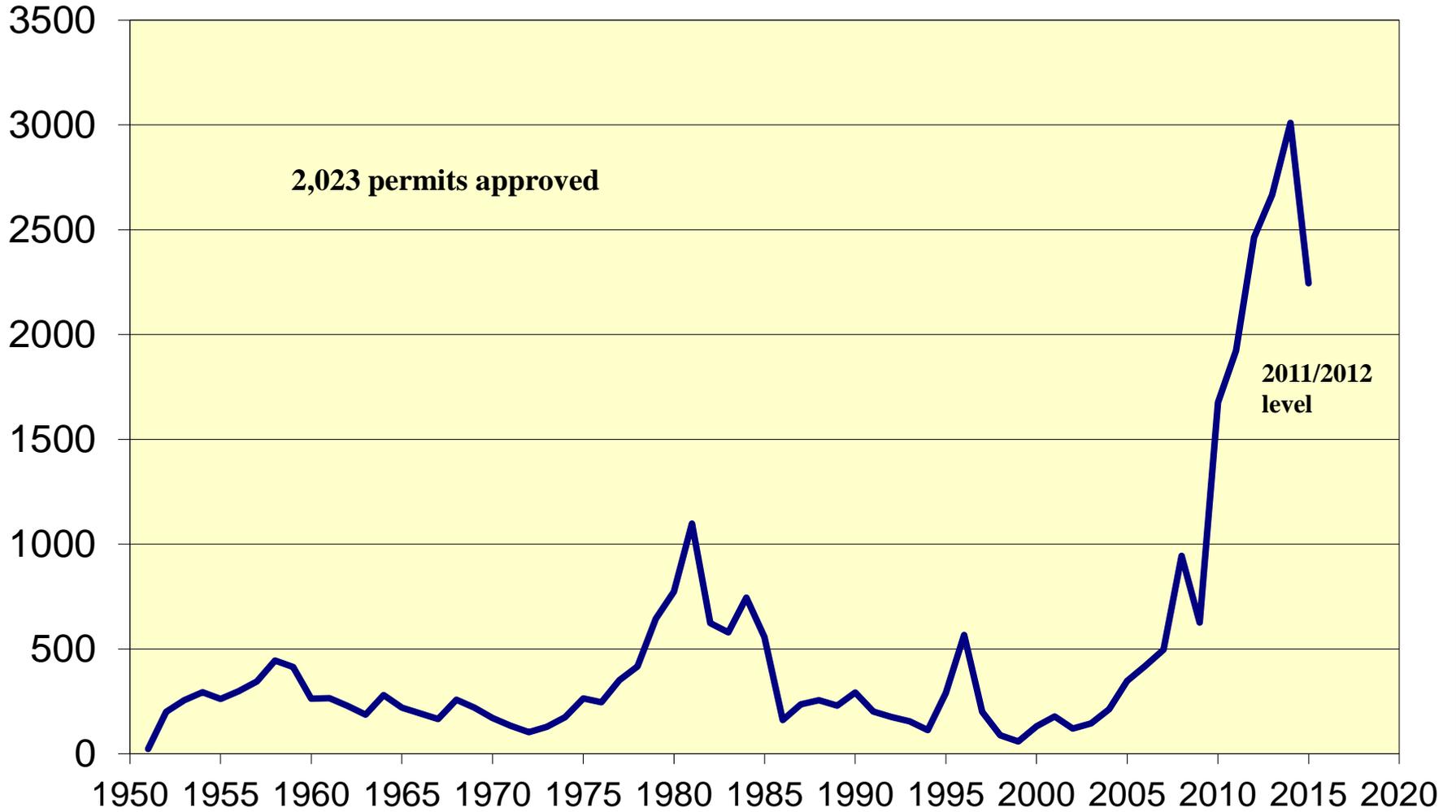


North Dakota Industrial Commission Cases Heard





North Dakota New Well Permits Issued

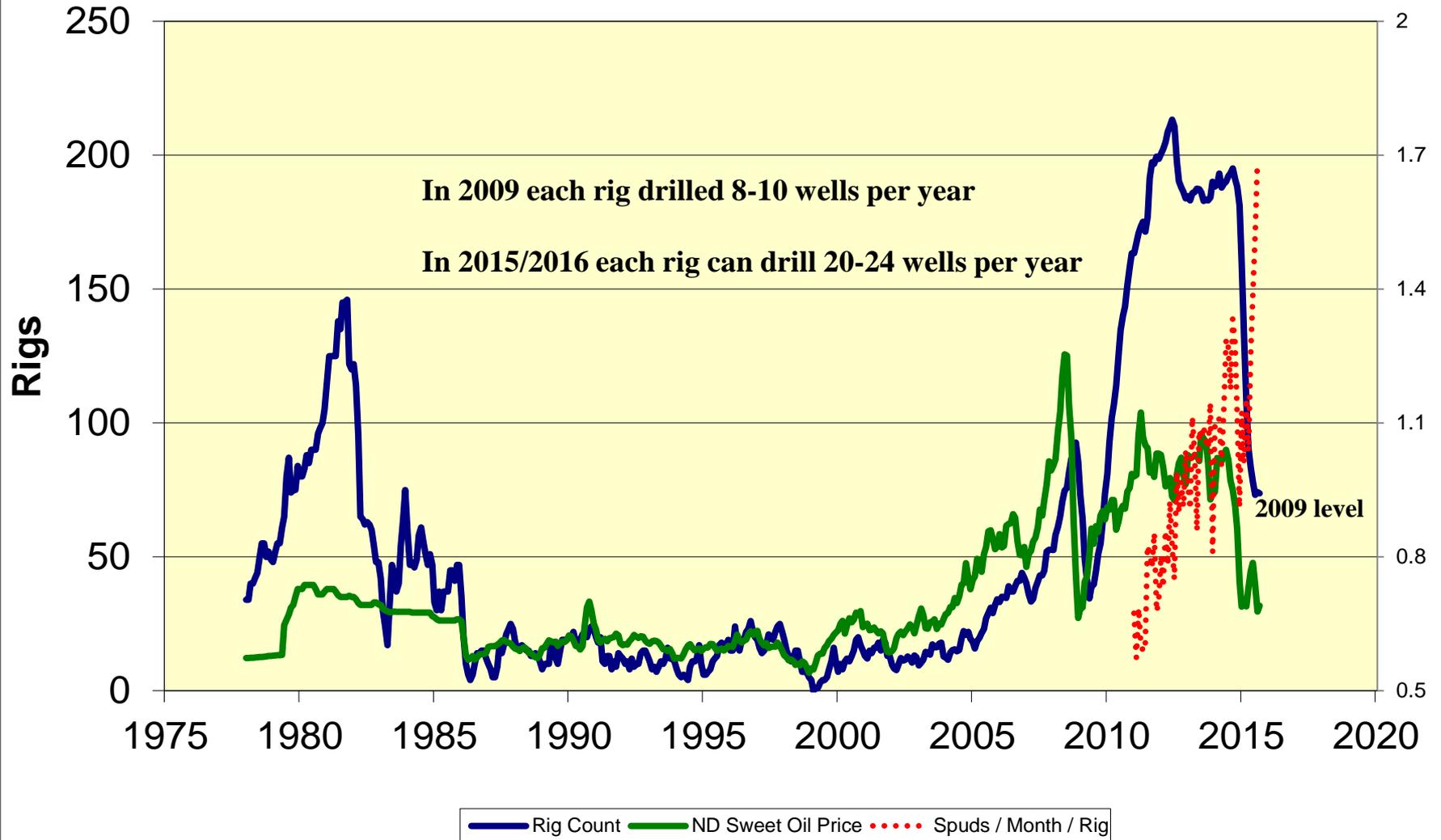


2,023 permits approved

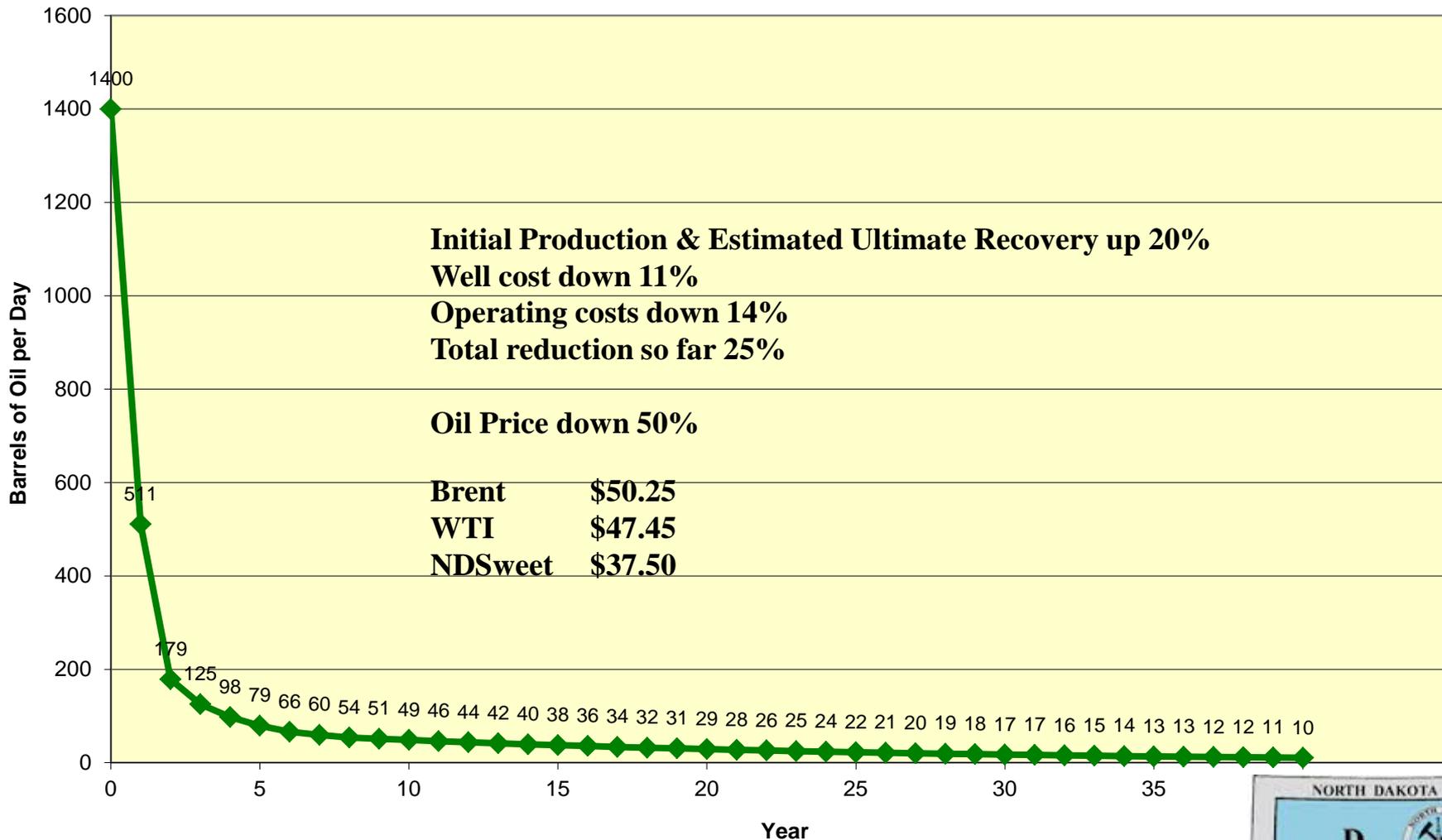
2011/2012 level



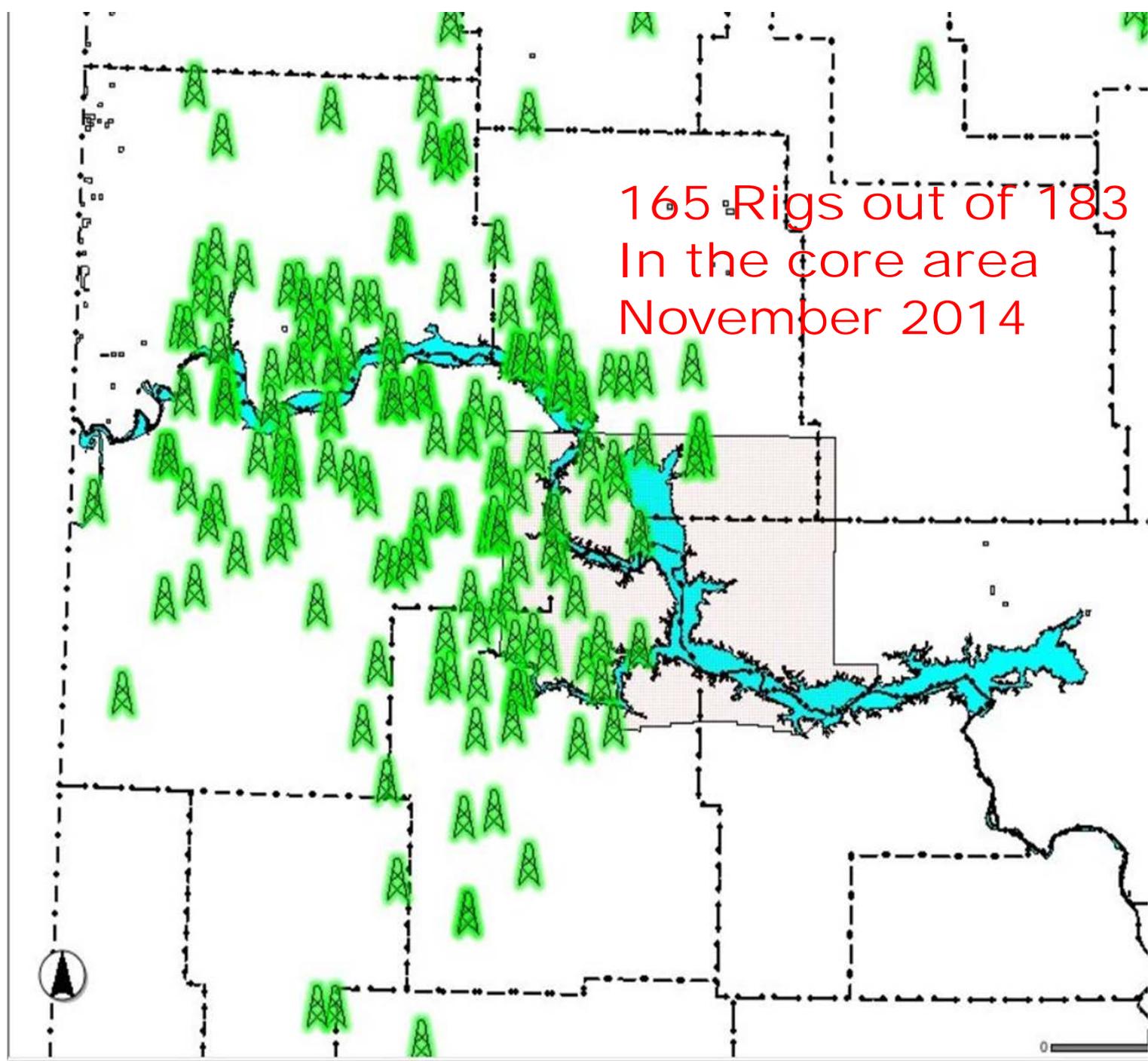
North Dakota Average Monthly Rig Count



Typical Bakken Well Production



165 Rigs out of 183
In the core area
November 2014



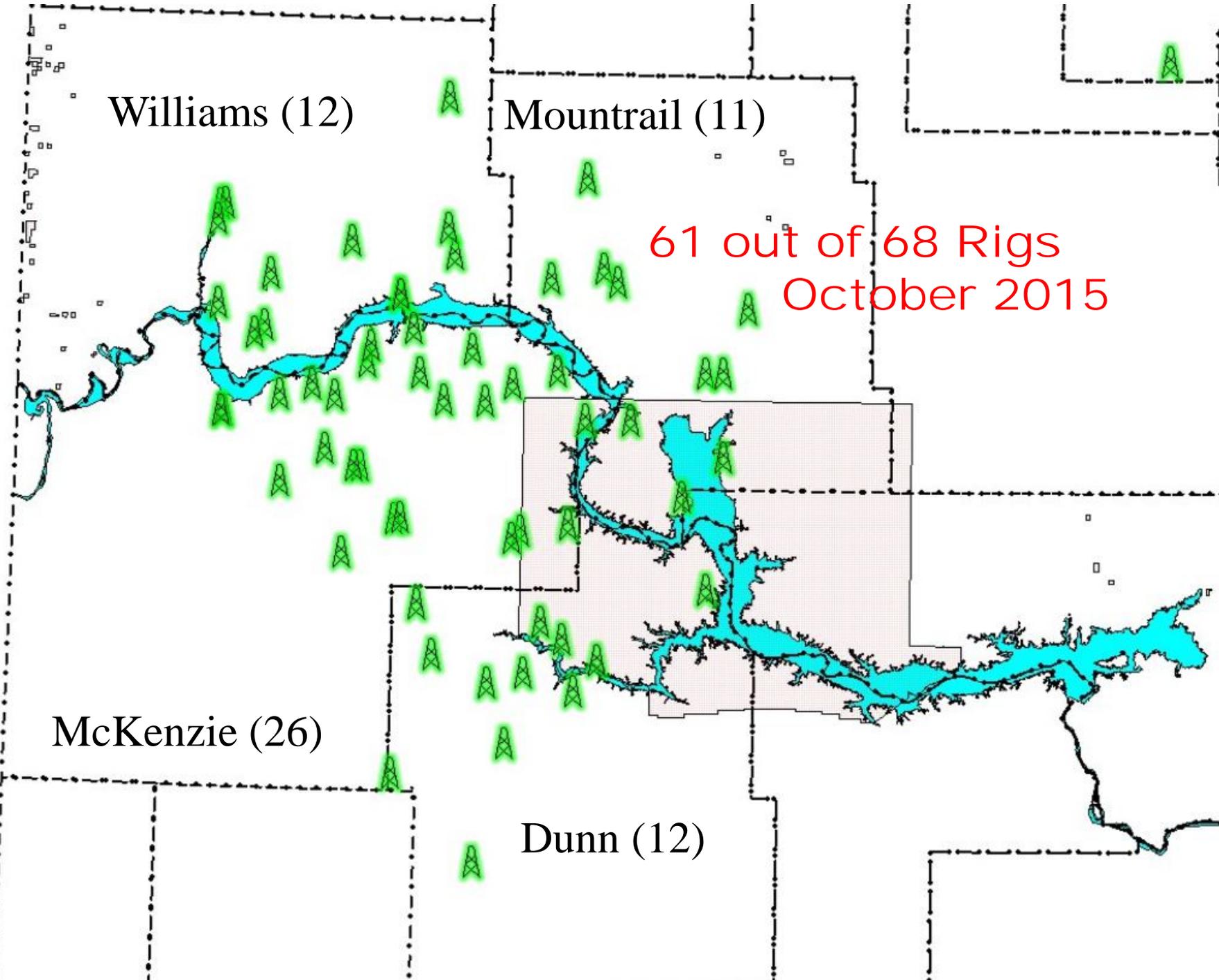
Williams (12)

Mountrail (11)

61 out of 68 Rigs
October 2015

McKenzie (26)

Dunn (12)



Oil & Gas Pipeline Jurisdiction:

House Bill 1333⁽²⁰¹³⁾:

Requires GIS shape files to be submitted. (Aug. 1, 2011 or newer)

Requires confidential installation dataset to be submitted.

Allows owner or tenant to request pipeline locations within bounds of real property.

Allows Tax Dept. access to information.

House Bill 1358⁽²⁰¹⁵⁾:

Requires engineering construction design drawings, list of independent inspectors, plan for leak detection (after August 1, 2015).

Requires independent inspectors certificate of testing after 60 days.

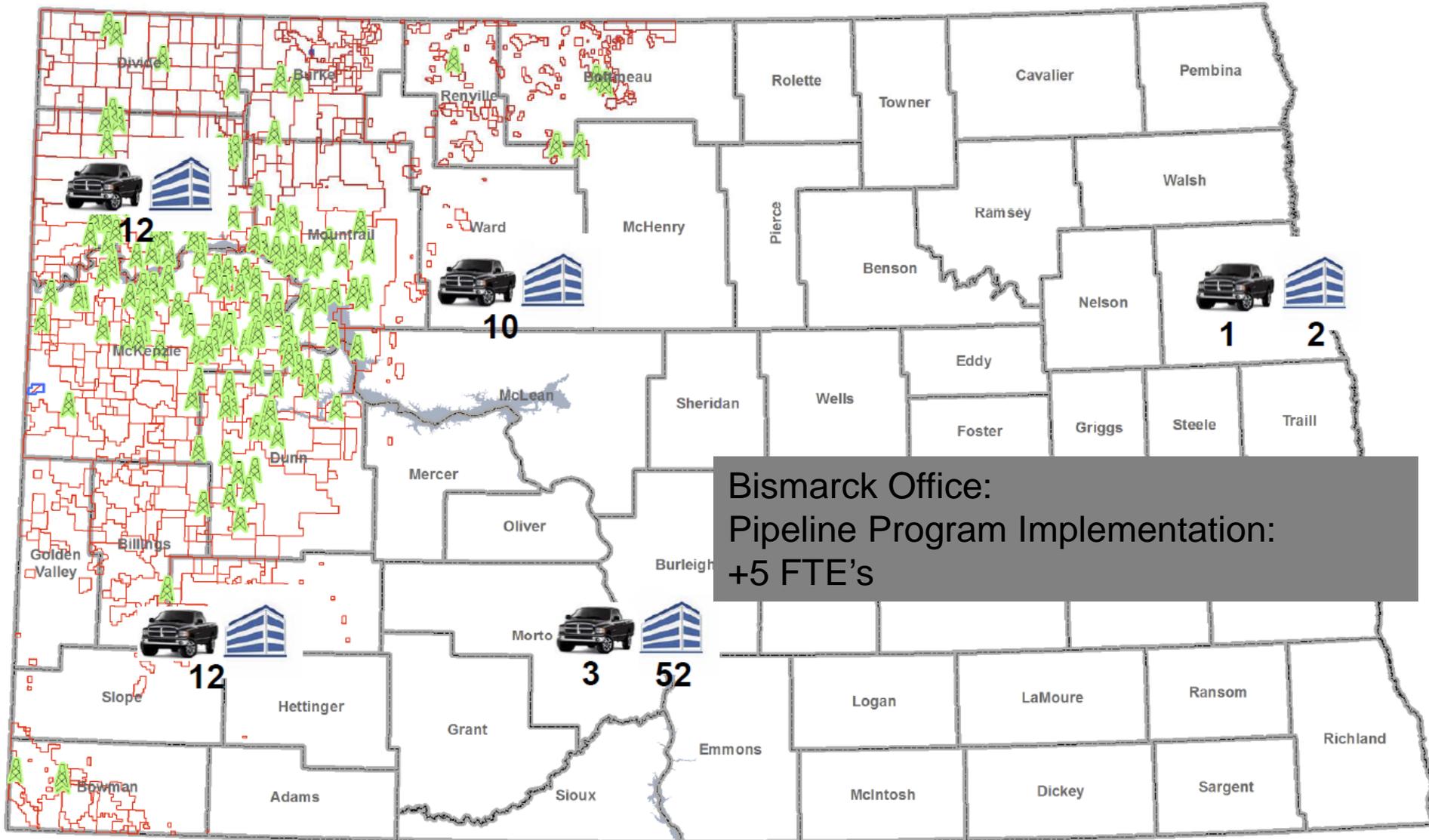
Commission may now require a bond.

Surface owner may now share GIS information.

Appropriates money for reclamation program & pipeline technology study.

Requires rule making for feasible, cost-effective and necessary improvements to pipeline safety and integrity.

Inspection & Enforcement



**Bismarck Office:
Pipeline Program Implementation:
+5 FTE's**

Each District Office Receives:
+1 ET Field Inspection & +1 ET Pipelines Field Inspection

Funding in House Bill 1358

SECTION 6-

38-08-04.5. Abandoned oil and gas well plugging and site reclamation fund

e. Reclamation and restoration of land and water resources impacted by oil and gas development, including related pipelines and facilities that were abandoned or were left in an inadequate reclamation status before August 1, 1983, and for which there is not any continuing reclamation responsibility under state law.

Land and water degraded by any willful act of the current or any former surface owner are not eligible for reclamation or restoration. The commission may expend up to one million five hundred thousand dollars per biennium from the fund in the following priority:

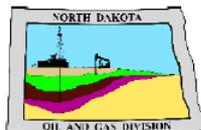
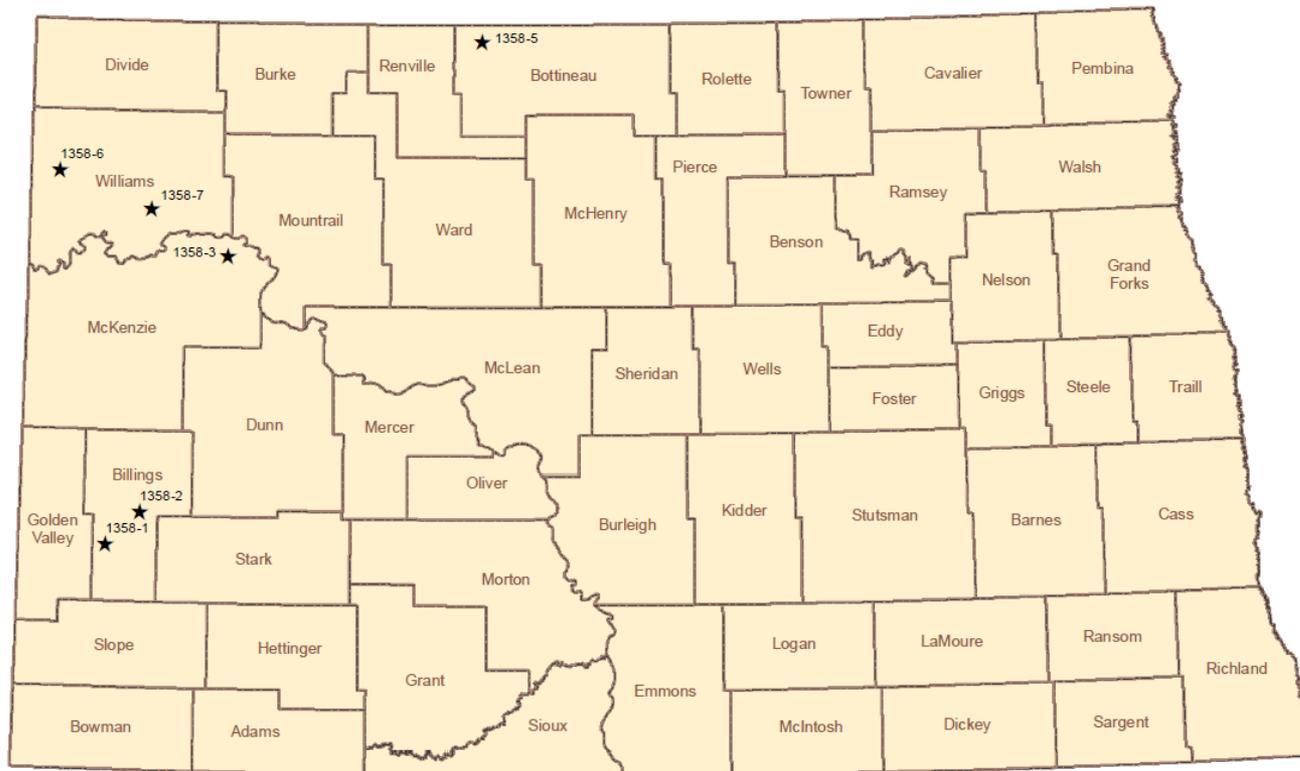
- (1) For the restoration of eligible land and water that are degraded by the adverse effects of oil and gas development including related pipelines and facilities.
- (2) For the development of publicly owned land adversely affected by oil and gas development including related pipelines and facilities.
- (3) For administrative expenses and cost in developing an abandoned site reclamation plan and the program.
- (4) Demonstration projects for the development of reclamation and water quality control program methods and techniques for oil and gas development, including related pipelines and facilities.

Funding in House Bill 1358

SECTION 6-

38-08-04.5. Abandoned oil and gas well plugging and site reclamation fund

House Bill 1358 Legacy Sites



North Dakota Industrial Commission
Department of Mineral Resources
Oil and Gas Division

★ 2015 Legacy Sites

Funding in House Bill 1358

SECTION 8-

\$1,500,000 for the purpose of funding a special project through the energy and environmental research center (EERC) at the university of North Dakota during the biennium beginning July 1, 2015, and ending June 30, 2017. The special project must focus on conducting an analysis of crude oil and produced water pipelines including the construction standards, depths, pressures, monitoring systems, maintenance, types of materials used in the pipeline including backfill, and an analysis of the ratio of spills and leaks occurring in this state in comparison to other large oil and gas-producing states with substantial volumes of produced water.

The NDIC shall contract with the EERC to compile the information and the center shall work with the department of mineral resources to analyze the existing regulations on construction and monitoring of crude oil and produced water pipelines, determine the feasibility and cost effectiveness of requiring leak detection and monitoring technology on new and existing pipeline systems, and provide a report with recommendations to the industrial commission and the energy development and transmission committee by December 1, 2015. The industrial commission shall adopt the necessary administrative rules necessary to improve produced water and crude oil pipeline safety and integrity. In addition, the industrial commission shall contract for a pilot project to evaluate a pipeline leak detection and monitoring system.

Funding in House Bill 1358

SECTION 9- \$500,000, or so much of the sum as may be necessary, for the purpose of conducting a pilot program involving the oil and gas research council in conjunction with research facilities in this state to determine the best techniques for remediating salt and any other contamination from the soil surrounding waste pits reclaimed by trenching between 1951 and 1984 in the north central portion of this state, for the biennium beginning July 1, 2015, and ending June 30, 2017.



The Final Pieces

SECTION 4. A surface owner may request a review of the temporarily abandoned status of a well that has been on temporarily abandoned status for at least seven years. The commission shall require notice and hearing to review the temporarily abandoned status. After notice and hearing, the surface owner may request a review of the temporarily abandoned status every two years.

SECTION 5. To provide for the confidentiality of well data reported to the commission if requested in writing by those reporting the data for a period not to exceed six months. However, the commission may release:

- a. Volumes injected into a saltwater injection well.
- b. Information from the spill report on a well on a site at which more than ten barrels of fluid, not contained on the well site, was released for which an oilfield environmental incident report is required by law.

Administrative Rules Under Review

NDAC 43-02-03:

- 01 Definitions
- 15 Bonding
- 16 & 17 Legal street address
- 19 Site construction
- 29 Underground gathering pipelines
- 30 Spill reporting
- 31 Confidentiality
- 49 Oil production facilities
- 52 Oil production reporting
 - 52.1 Gas production reporting
- 53 Saltwater handling facilities
- 55 Temporary abandoned status
- 90.2 Items allowed into official record of cases

Gas Capture

Wells waiting on completion has helped drive the success of Gas Capture.

Order signed July 1, 2014 and implemented October 1, 2014.

Current Target: 77% capture

- Statewide 80%

- Statewide Bakken 80%

- Non-FBIR Bakken 81%

- FBIR Bakken 77%

 - Trust FBIR Bakken 77%

 - Fee FBIR 80%

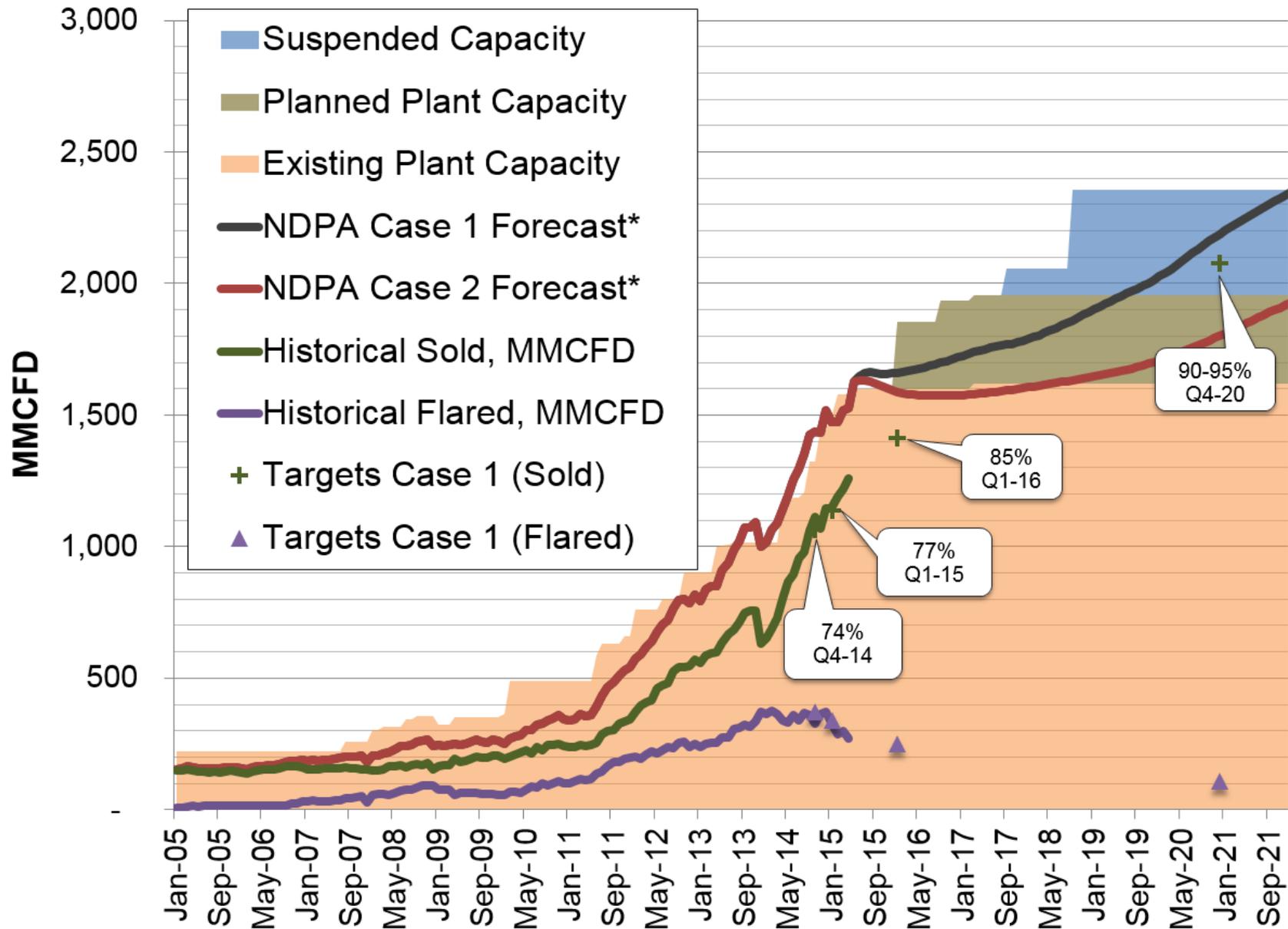
Next Target: April 1, 2016, 80% capture

November 1, 2016 85% capture

November 1, 2018 88% capture

November 1, 2020: 91-93% capture.

Solving the Flaring Challenge

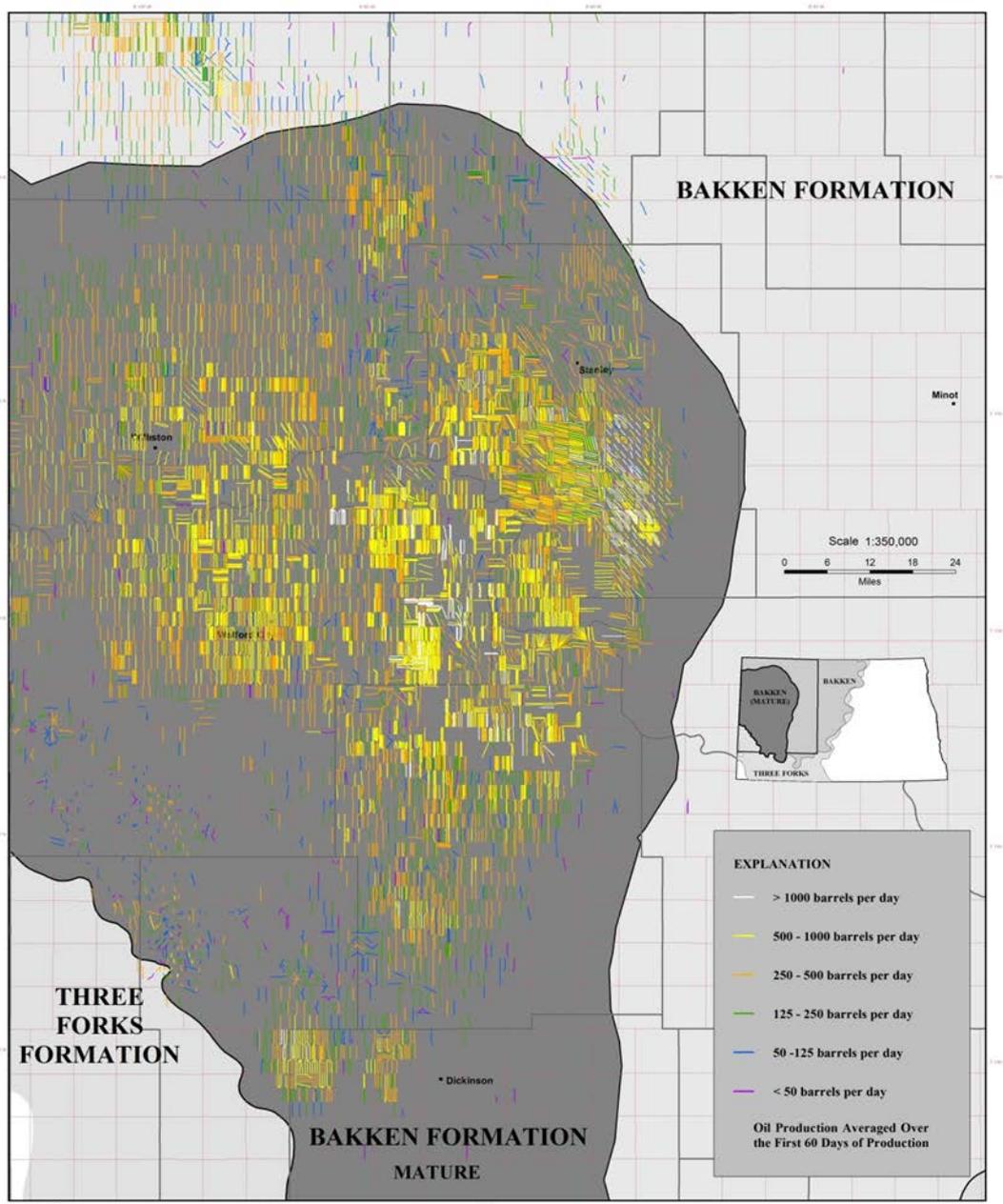


Oil Conditioning

- Signed December 9th, 2014; effective April 1, 2015.
- Goal: to produce a consistent product that does not exceed a vapor pressure of 13.7 pounds per square inch (psi).
- Achievable: NDIC prescribed temperatures and pressures, or through quarterly field testing.
- Result: safer, stable, crude oil.
 - 2015 April-June 4,700 barrels per day oil>NGL
 - 50% propane, 30% butane, 20% pentane+
- Oil Conditioning [FAQ](#)

First 60 Day Average Bakken Horizontal Production by Well

July 2015



Endangered Species

6 endangered



4 threatened

1 proposed

2 candidate

4 potential

Federal Regulation

BLM (6)



Hydraulic Fracturing

Onshore 3, 4, & 5

Venting/Flaring

Sage Grouse

EPA (4)



Chemical Disclosure

Waters of US

Methane Emissions

Waste Rules Lawsuit

**County Occurrence of Endangered, Threatened, Proposed and Candidate Species
Designated and Proposed Critical Habitat in North Dakota**

January 2015

Species	A d a m s	B a r n e s o n	B e n s o n	B i l l i n g s	B o t t i n e a u	B o w m a n	B u r k e	B u r l e i g h	C a s s	C a v a l i e r	D i c k e y	D i v i d e	D u n n	E d d y	E m m o n s	F o s t e r	G o. V a l l e y	G r. F o r k s	G r a n t	G r i g g s	H e t t i n g e r	K i d d e r	L a m o u r e	L o g a n	M c H e n r y	M c I n t o s h	M c K e n z i e	
Interior Least Tern - E								X					X		X												X	
Whooping Crane - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Black-Footed Ferret - E	X			X		X							X				X		X		X						X	
Pallid Sturgeon – E								X					X		X												X	
Gray Wolf - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Poweshiek Skipperling – E																												
Piping Plover - T			X				X	X				X	X	X	X							X		X	X	X	X	X
Western Prairie Fringed Orchid - T																												
Dakota Skipper - T		X			X		X						X	X							X					X		X
Rufa Red Knot - T			X				X	X				X	X	X	X							X		X	X	X	X	X
Northern Long-Eared Bat - P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sprague’s Pipit – C	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
Greater Sage-Grouse - C						X											X											
Critical Habitat																												
Piping Plover - D			X				X	X				X	X	X	X							X		X	X	X	X	X
Dakota Skipper - P																										X		X
Poweshiek Skipperling – P																												

E – Endangered

T – Threatened

P – Proposed

C – Candidate

D - Designated

**County Occurrence of Endangered, Threatened, Proposed and Candidate Species
and Designated Critical Habitat in North Dakota**

January 2015

Species	M c L e a n	M e r c e r	M o r t o n	M o u n t r a i l	N e l s o n	O l i v e r	P e m b i n a	P i e r c e	R a m s e y	R a n s o m	R e n v i l l e	R i c h l a n d	R o l e t e	S a r g e n t	S h e r i d a n	S i o u x	S l o p e	S t a r k	S t e e l e	S t u t s m a n	T o w n e r	T r a i l l	W a l s h	W a r d	W e l l s	W i l l i a m s		
Interior Least Tern - E	X	X	X	X		X										X											X	
Whooping Crane - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Black-footed Ferret - E		X	X			X										X	X	X										
Pallid Sturgeon - E	X	X	X	X		X										X											X	
Gray Wolf - E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Poweshiek Skipperling – E												X		X														
Piping Plover - T	X	X	X	X		X		X			X				X	X					X					X	X	X
Western Prairie Fringed Orchid - T										X		X																
Dakota Skipper - T	X			X		X		X		X		X		X							X					X	X	
Rufa Red Knot - T	X	X	X	X		X		X			X				X	X					X					X	X	X
Northern Long-Eared Bat - P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sprague=s Pipit - C	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X			X	X			X	X	X	X
Greater Sage-Grouse – C																	X											
Critical Habitat																												
Piping Plover - D	X	X	X	X		X		X			X				X	X					X					X		X
Dakota Skipper - P										X		X	X														X	
Poweshiek Skipperling – P												X		X														

E – Endangered

T – Threatened

P – Proposed

C – Candidate

D - Designated