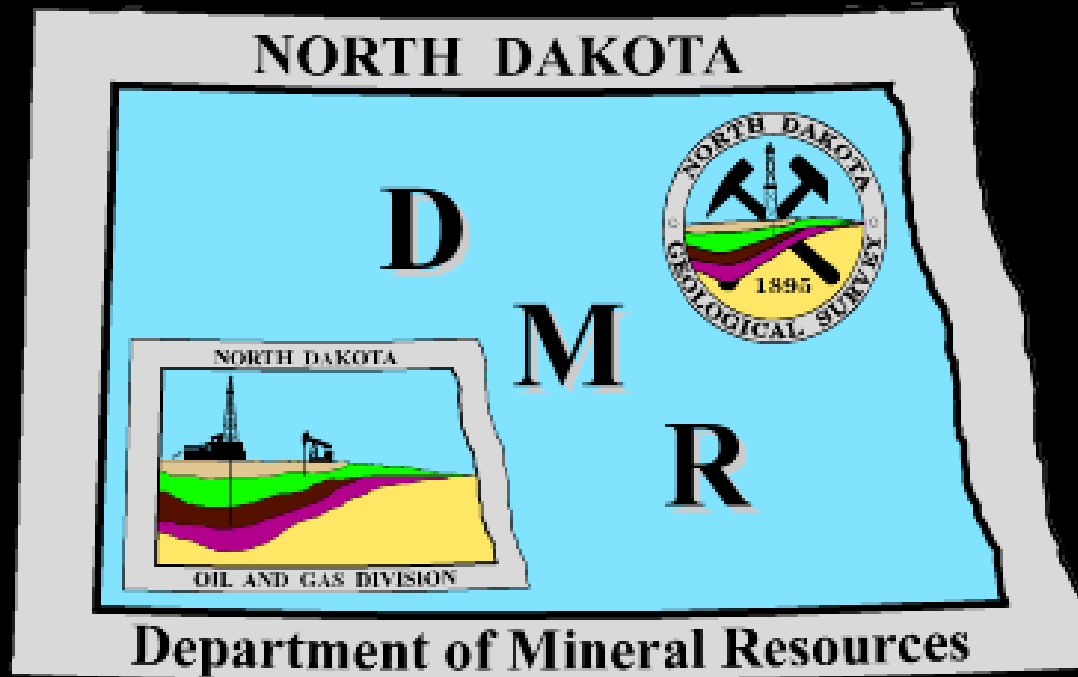


North Dakota Department of Mineral Resources



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

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

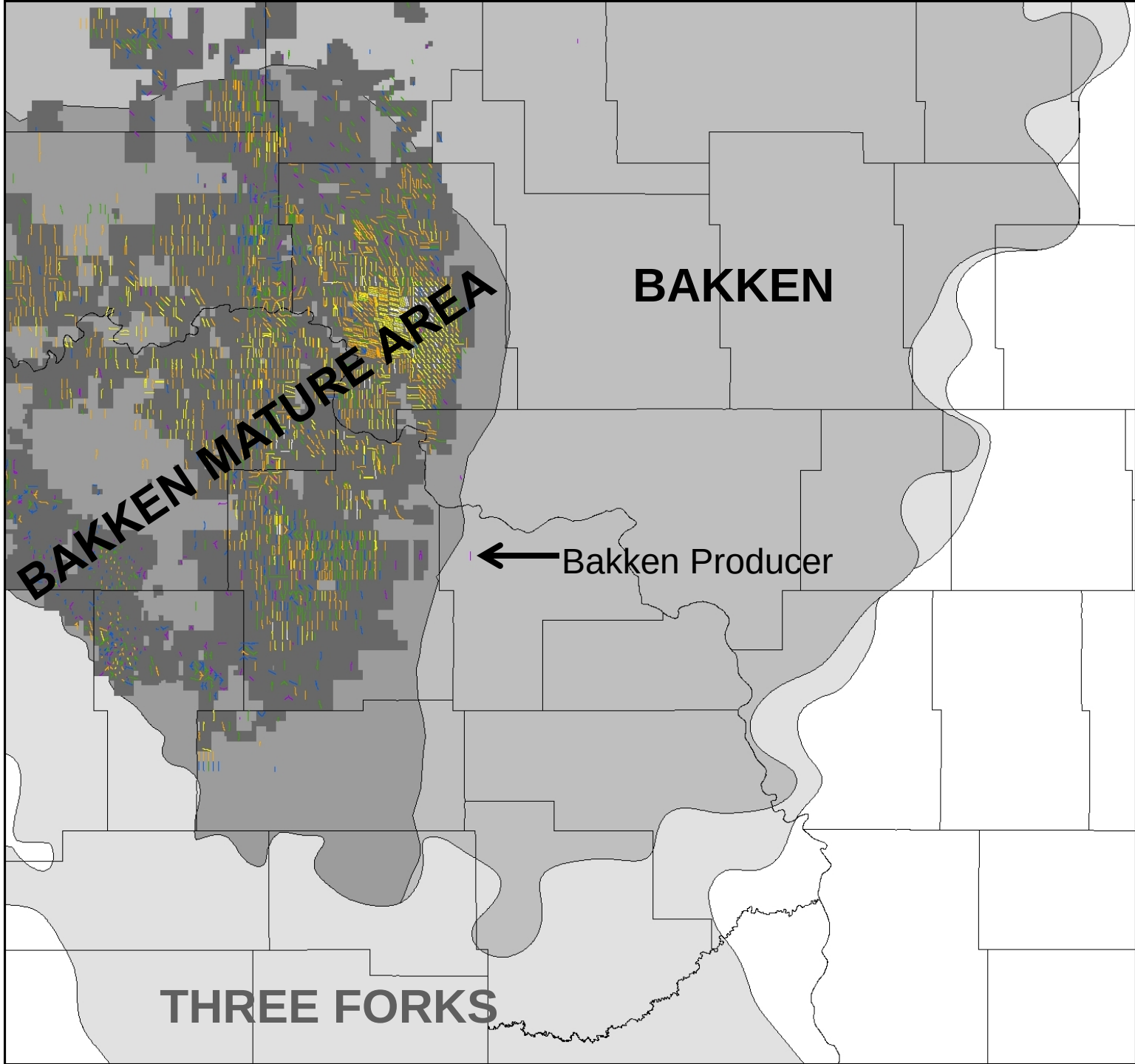
600 East Boulevard Ave. - Dept 405

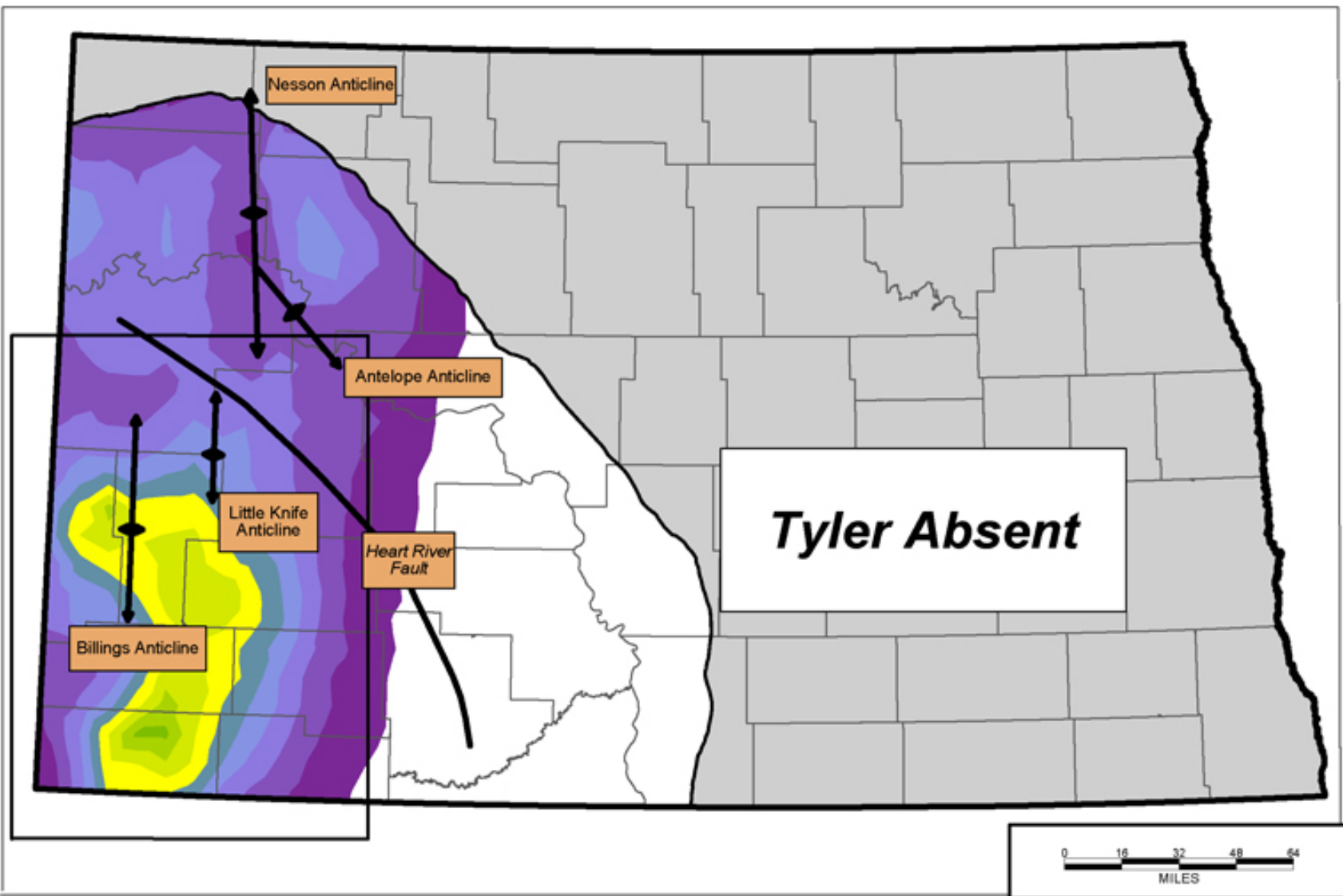
Bismarck, ND 58505-0840

(701) 328-8020 (701) 328-8000

North American shale plays (as of May 2011)



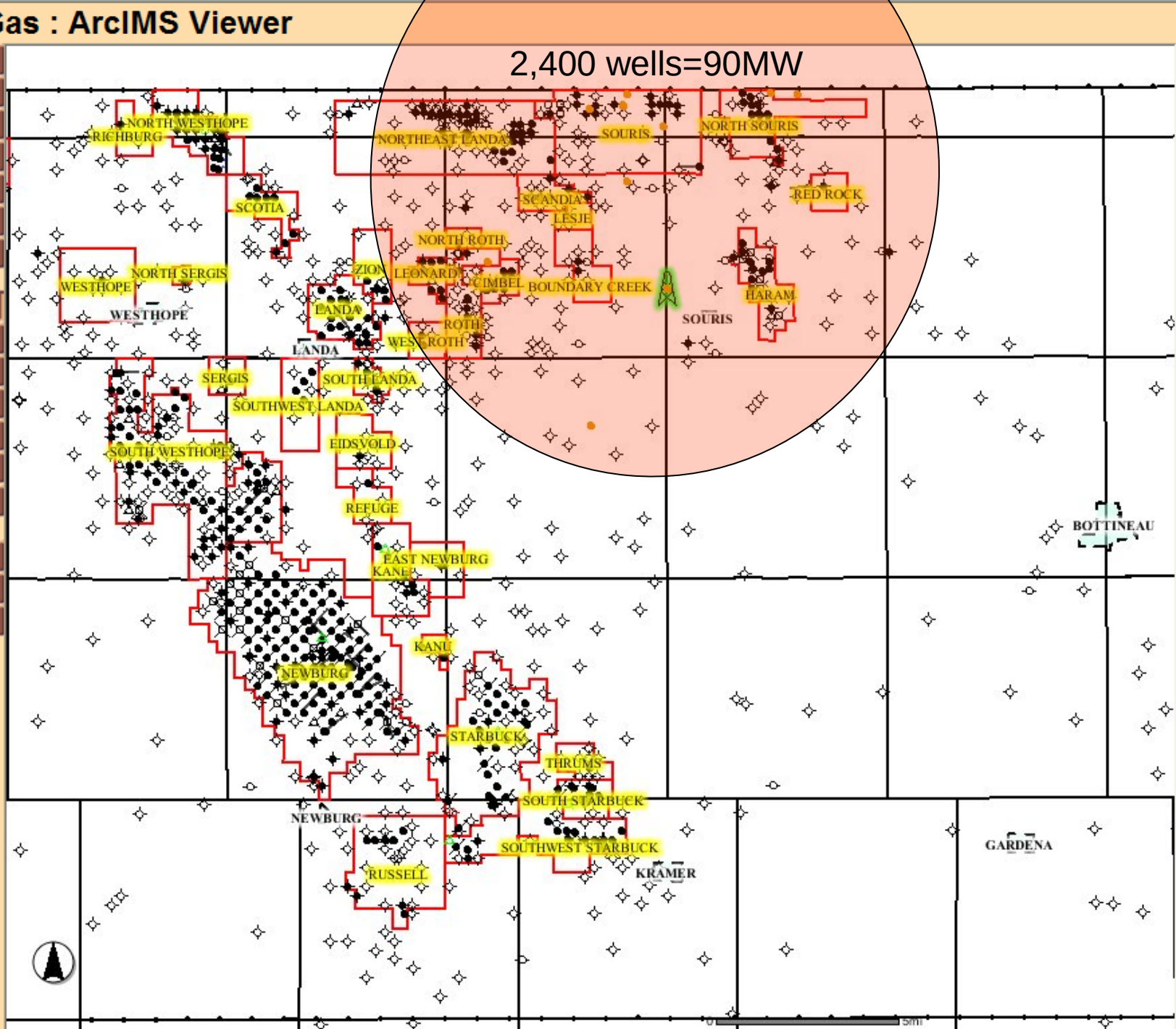




Oil and Gas : ArcIMS Viewer

Legend / Layers
Overview Map
View Entire State
Previous View
Clear Selection
Search
Generate PDF

Zoom In
Zoom Out
Pan
Rect Identify
Select Object
Buffer
Distance
Find Well
Find Field/Unit
Find Section

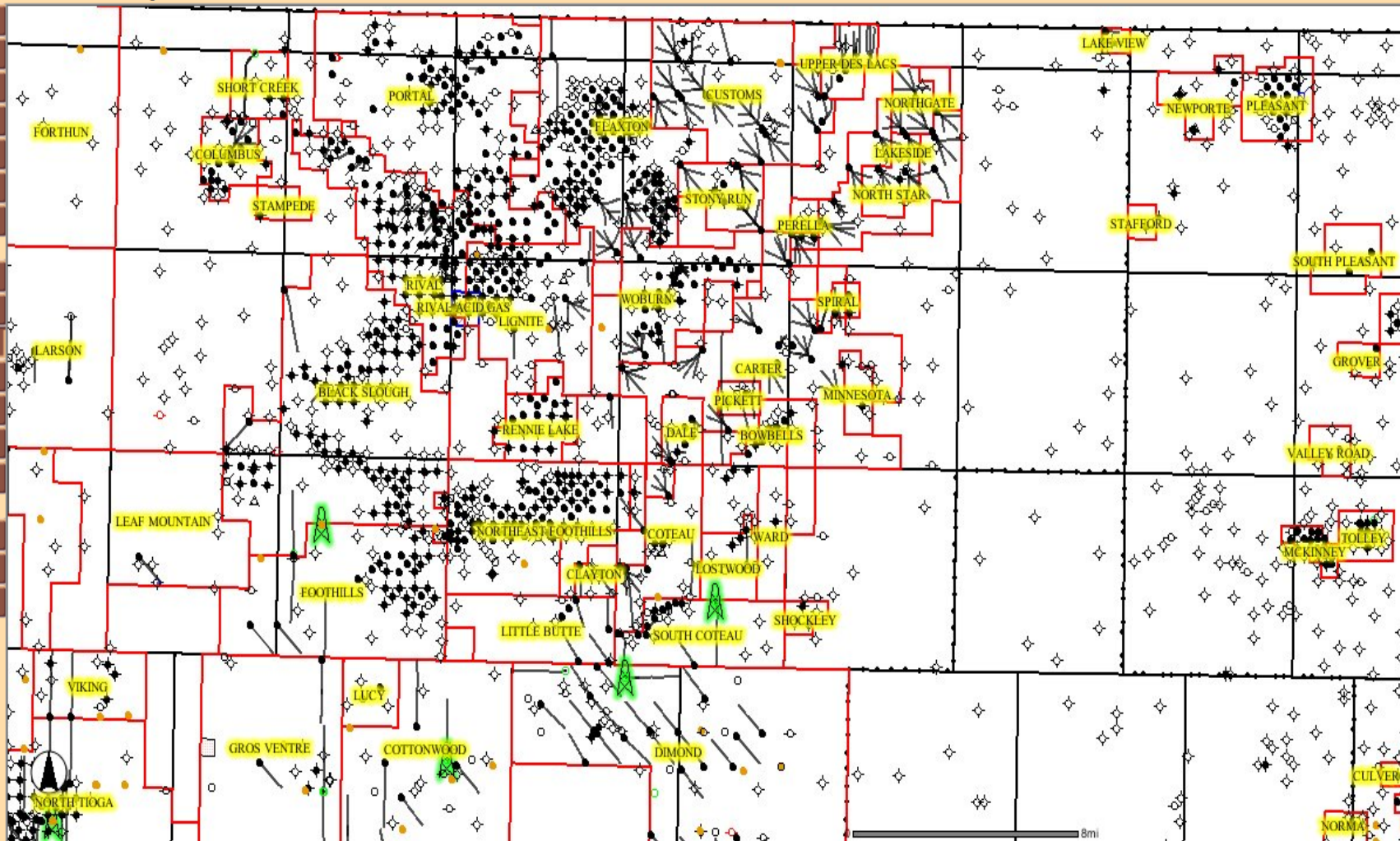


Oil and Gas Subscription: ArcIMS Viewer

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View Entire State
Previous View
Clear Selection
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Generate PDF

Zoom In
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Rect Identify
Select Object
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Distance

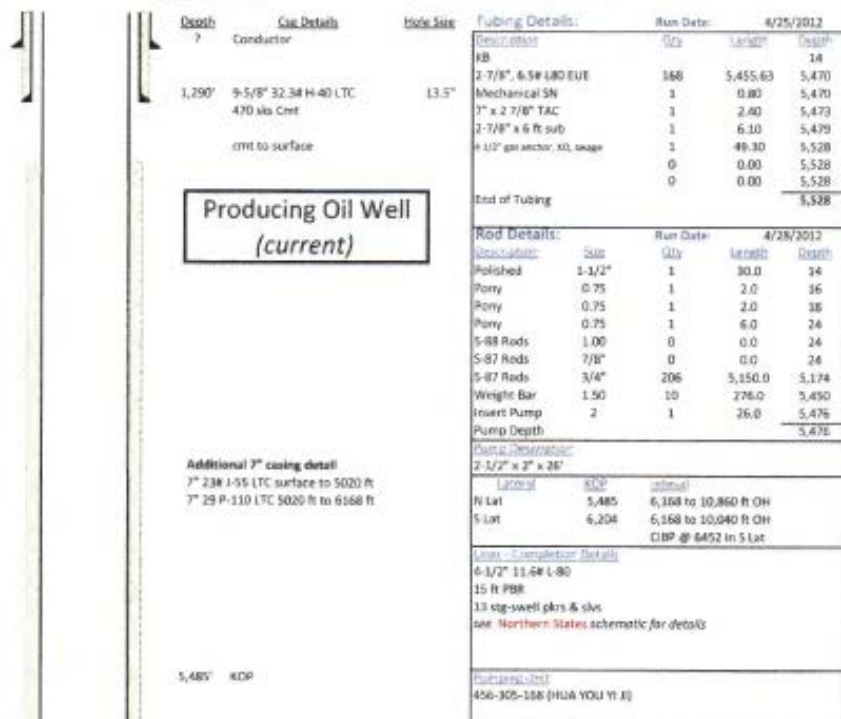
Find Well
Find Field/Unit
Find Section



County Boundaries
Selection cleared.

County: **Burke** State: **ND** Field: **Carter**
Surf Location: **650 FSL, 2472 FEL, SWSE Sec 23 T162N R90W** GL Elev: **1959** RKS: **14'**
BH Location: **N Lat - 591.43 FNL, 1577.82 FEL, NESE Sec 23 T162N R90W** TVD: **5,850** PSTD: **6 1/8" OH MD 10,860**
BH Location: **S Lat - 2388.07 FNL, 304.83 FEL, NESE Sec 26 T162N R90W** TVD: **6,035** PSTD: **6 1/8" OH MD 10,040**
Original Spud Date: **1/18/2006** Completed Pool: **Nesson/Middle**

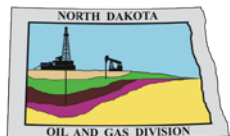
CASE # 18033
EXHIBIT E2
E/2 Sec's 23 & 26
T162N R90W
BURKE COUNTY, ND
By: **MILLER June 2012**



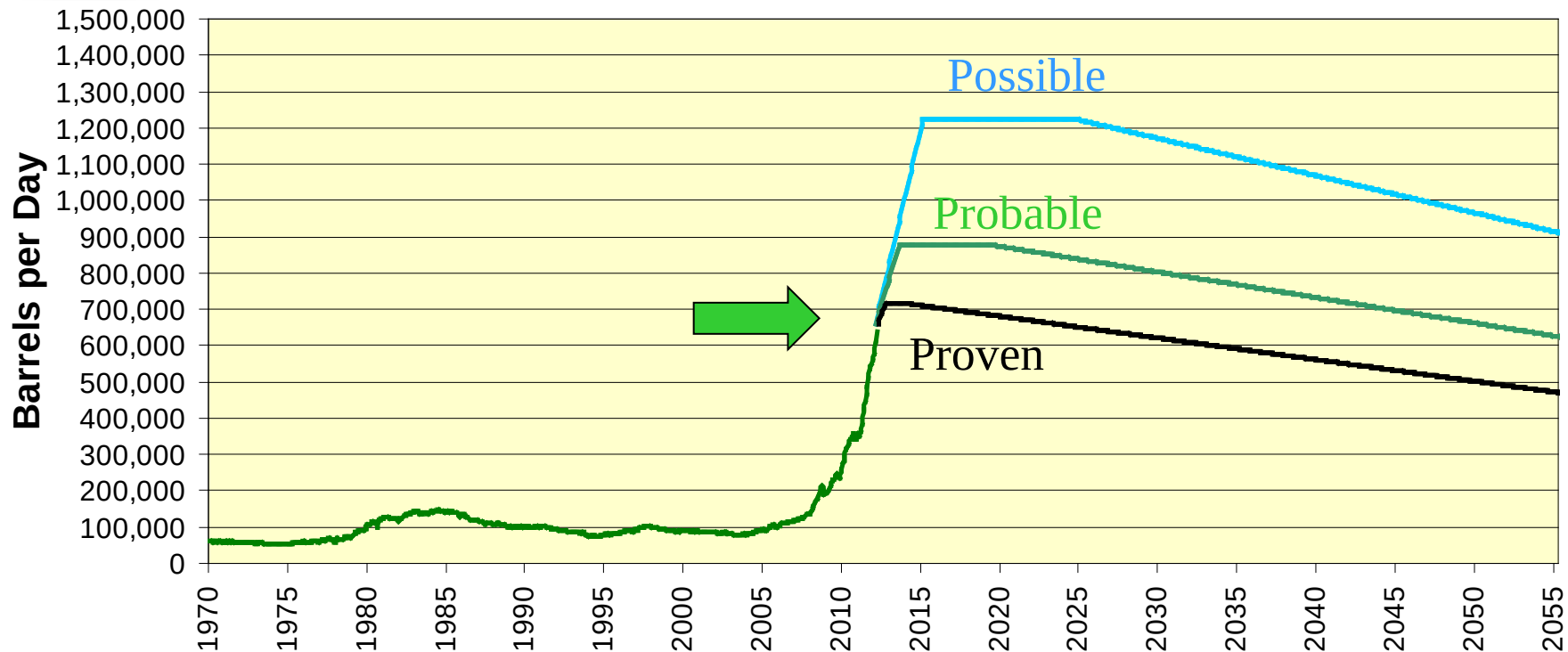
INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA
DATE **6/27/12** CASE NO. **18033**
Introduced By **Cornerstone**
Exhibit **E2**
Identified By **Miller**

Western North Dakota

- 1,800 to 3,000 wells/year = 2,000 expected
 - 150-250 rigs = 12,000 – 30,000 jobs
 - Another 10,000-15,000 jobs building infrastructure
 - 200 rigs can drill the wells needed to secure leases in 1 year
 - 200 rigs can drill the wells needed to develop spacing units in 18 years
 - 35,000-40,000 more new wells



North Dakota Oil Production



4,224 Bakken and Three Forks wells drilled and completed

35,000-40,000 more new wells possible in thermal mature area

Proven=7 BBO Probable=10 BBO Possible=15 BBO (billion barrels of oil)

History

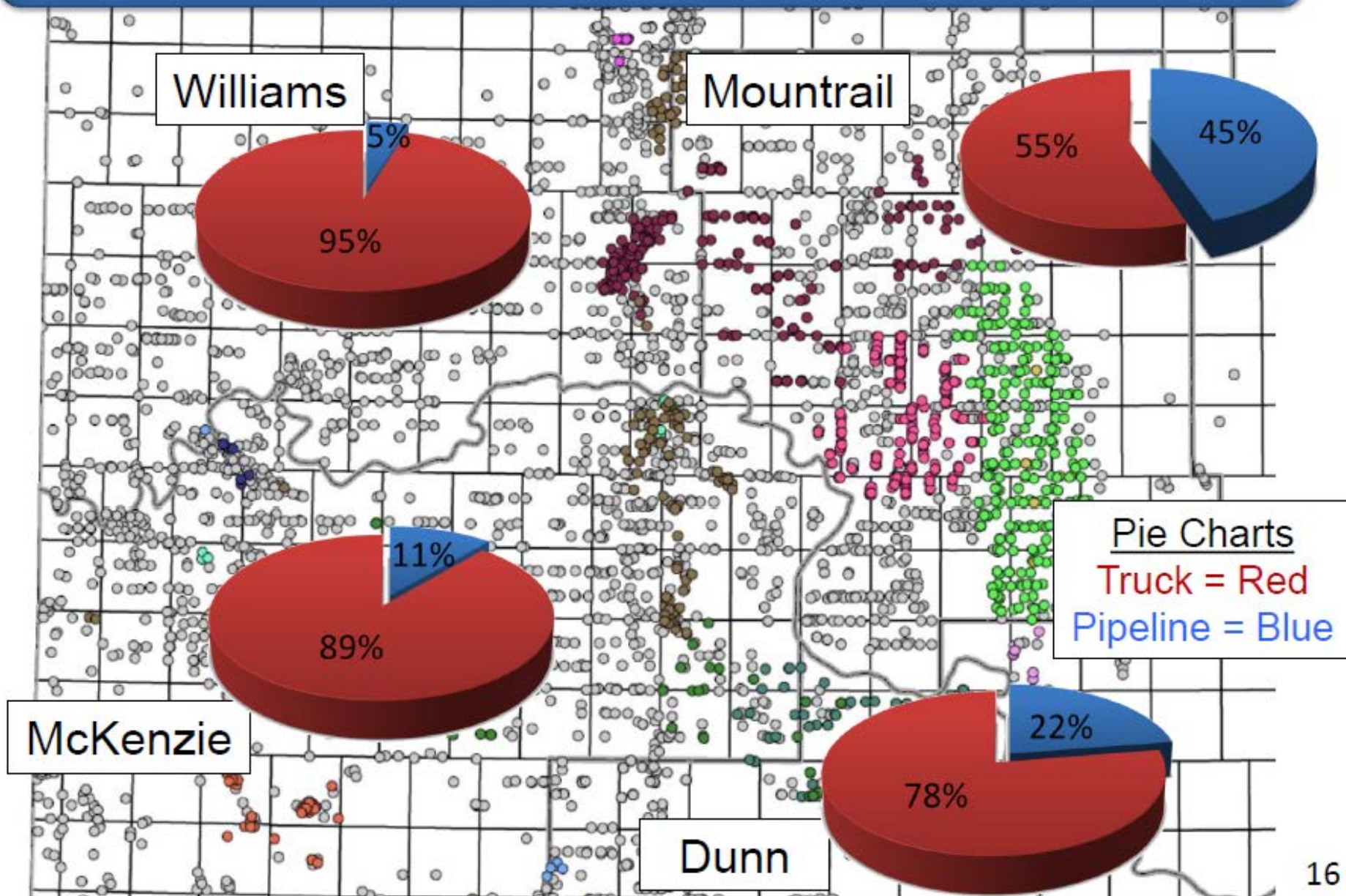
Bakken - Three Forks P10

Bakken - Three Forks P50

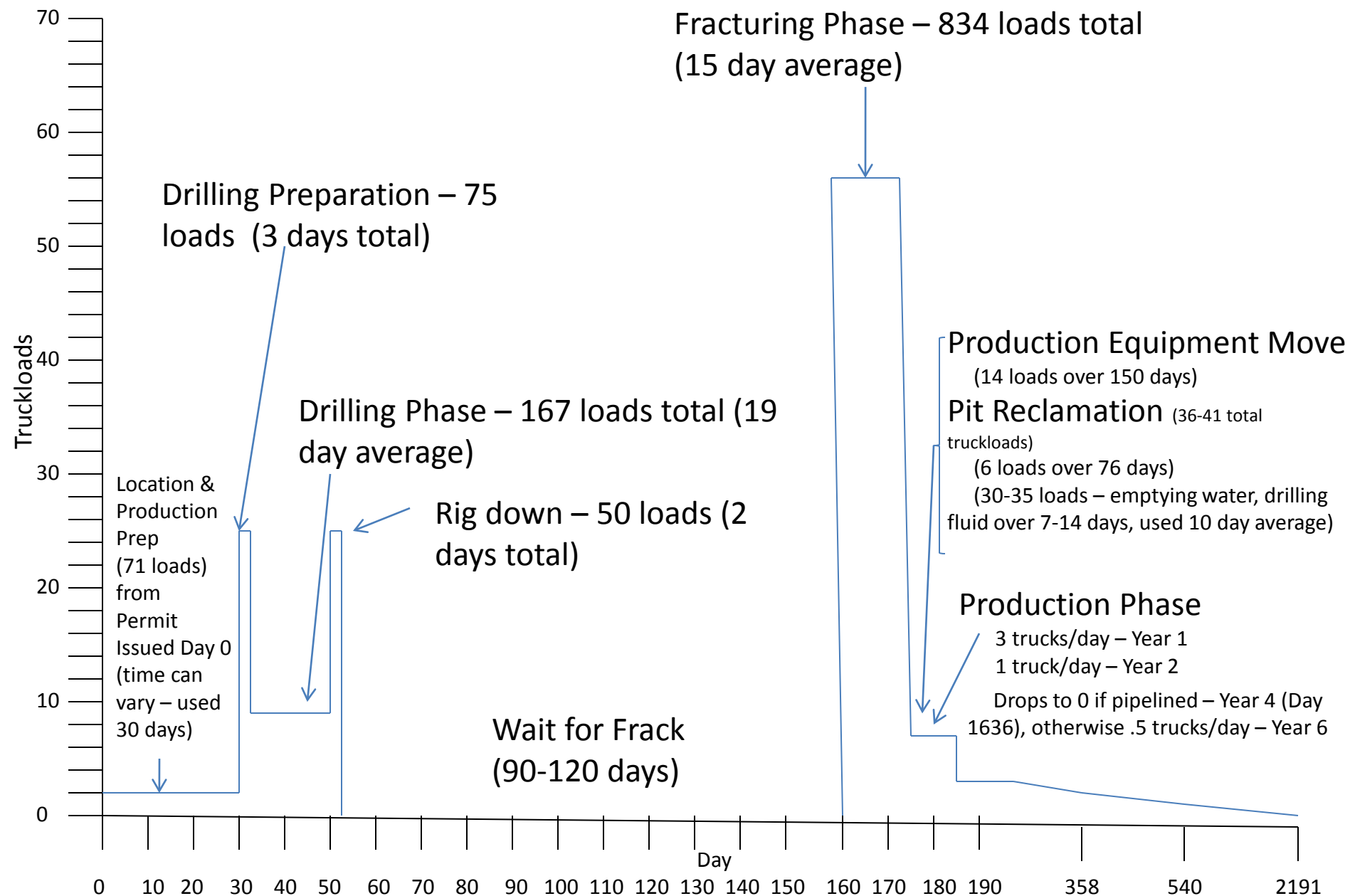
Bakken - Three Forks P90

The North Dakota Challenges

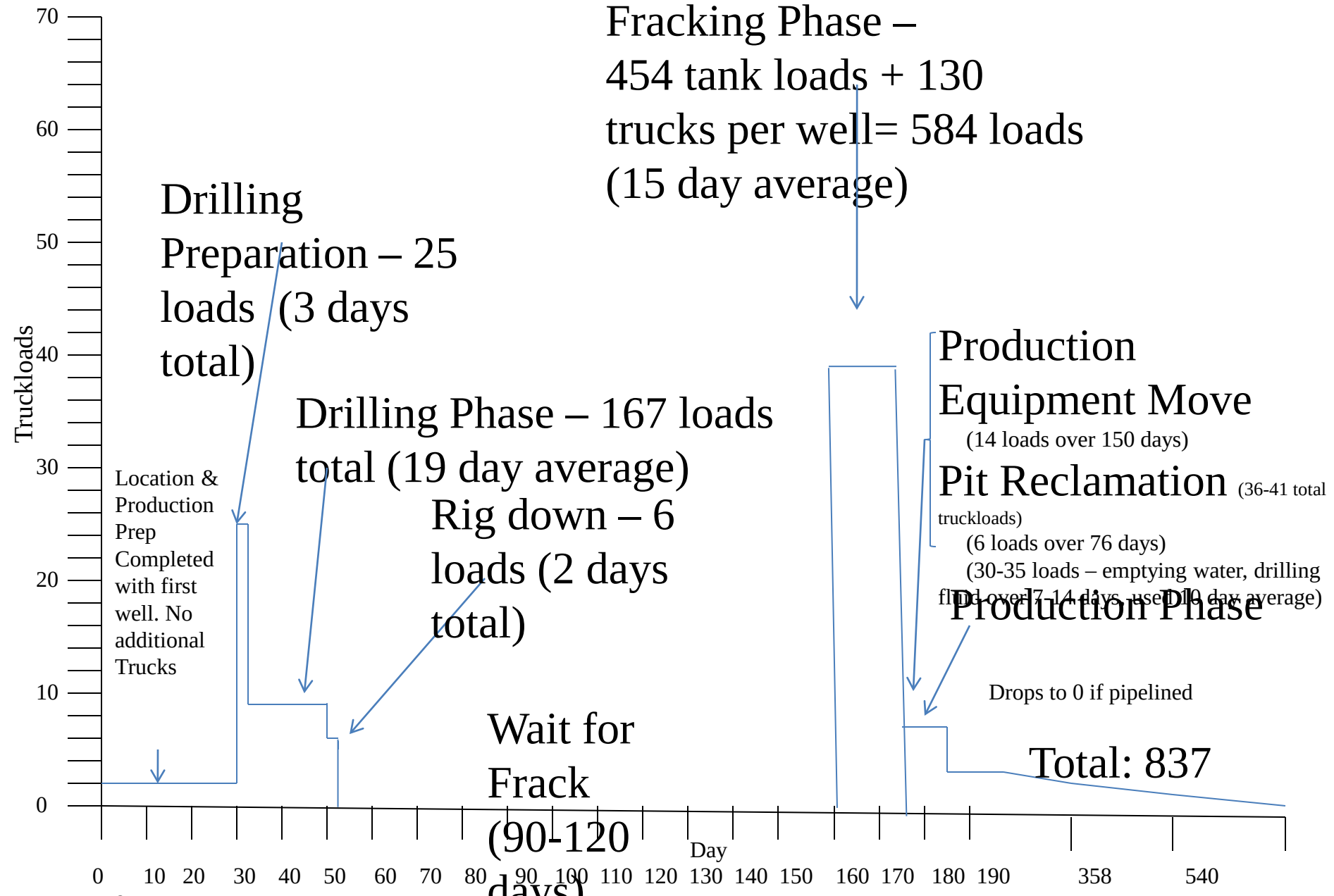
North Dakota Crude Gathering



New Bakken Well – Truckload Timeline



Bakken Wells 2-4 – Truckload Timeline



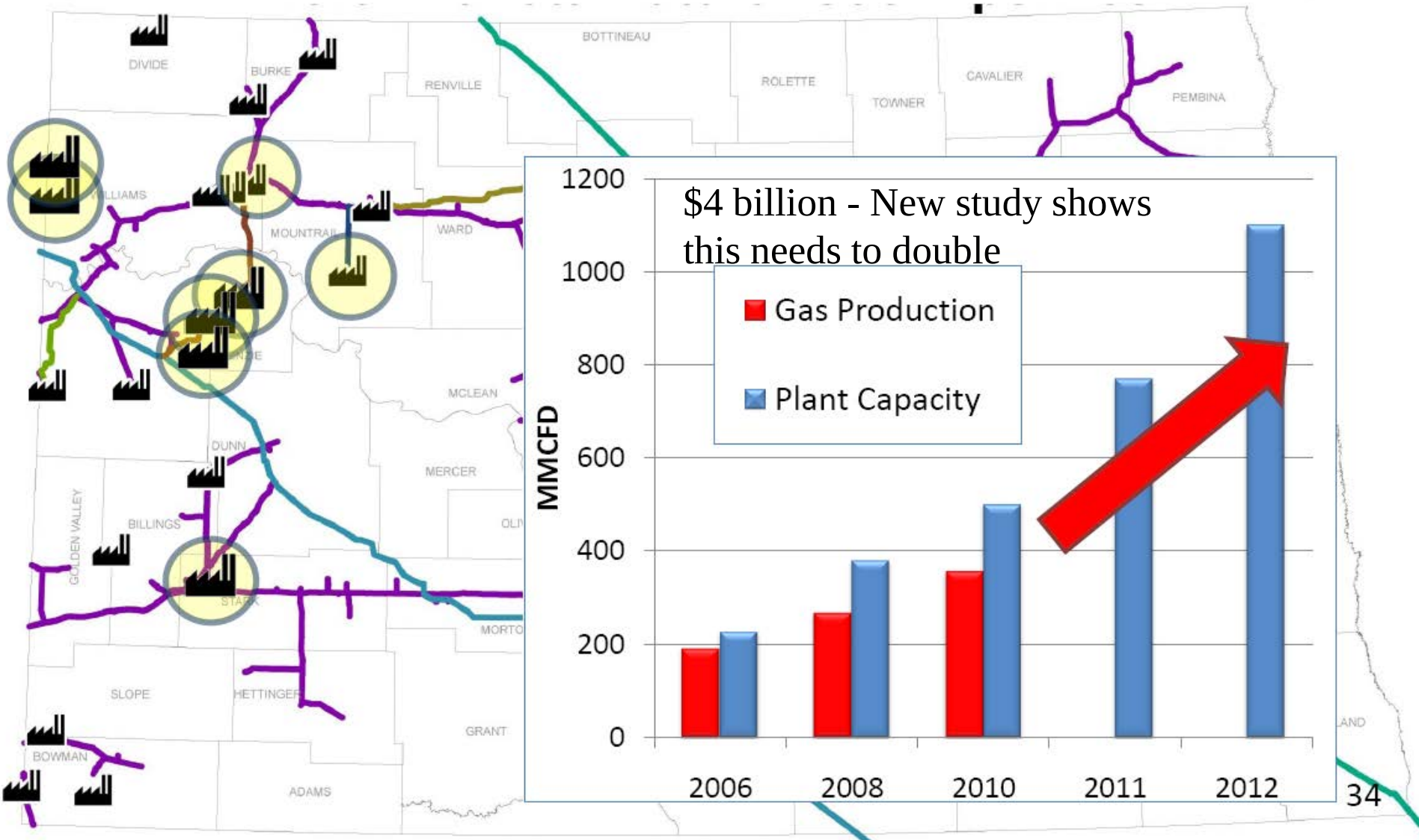




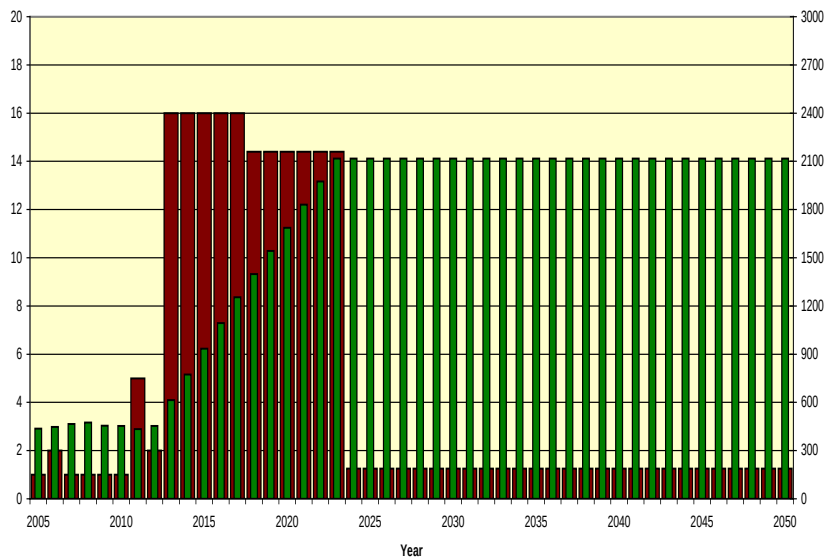
North Dakota Monthly Gas Flared



New or Expanding Gas Plants

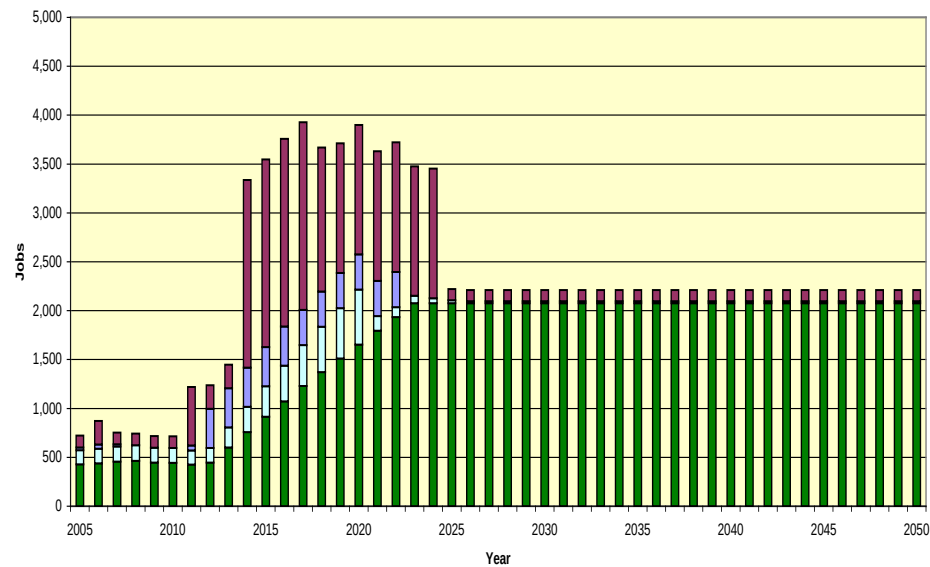


Billings Rigs and Wells

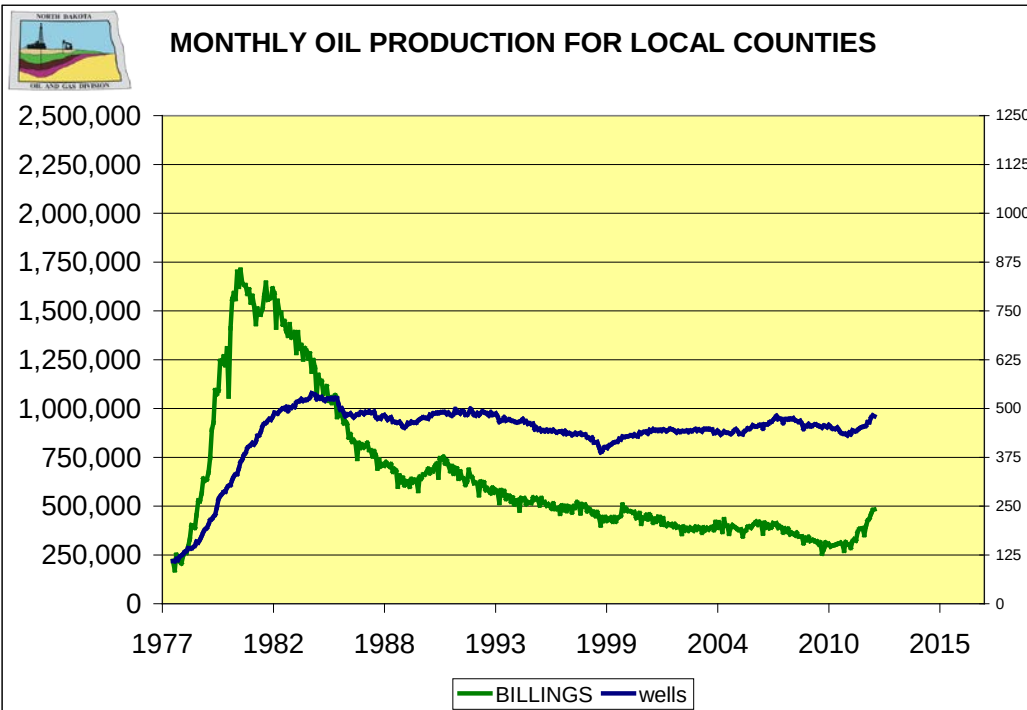


■ Rigs ■ Wells

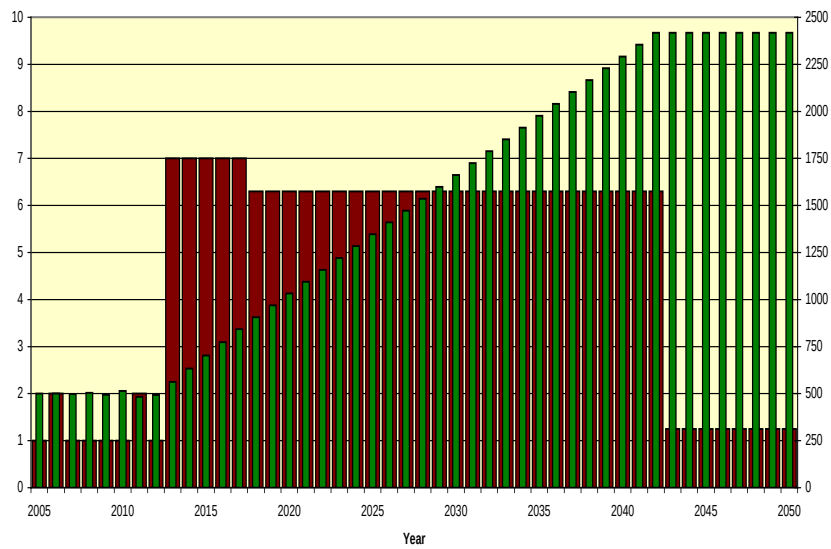
Billings Oil Industry Jobs



■ Prod jobs ■ Gathering jobs ■ Fracing jobs ■ Drilling jobs

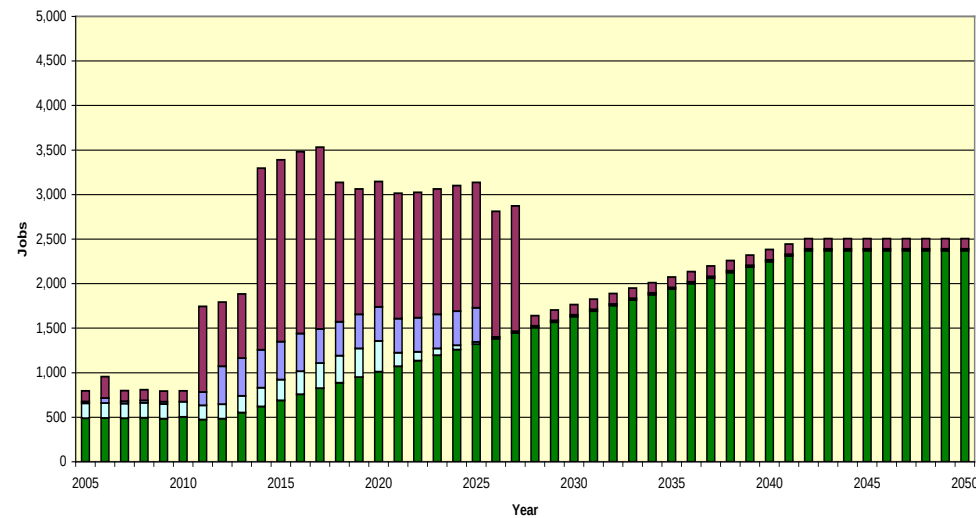


Bottineau Rigs and Wells

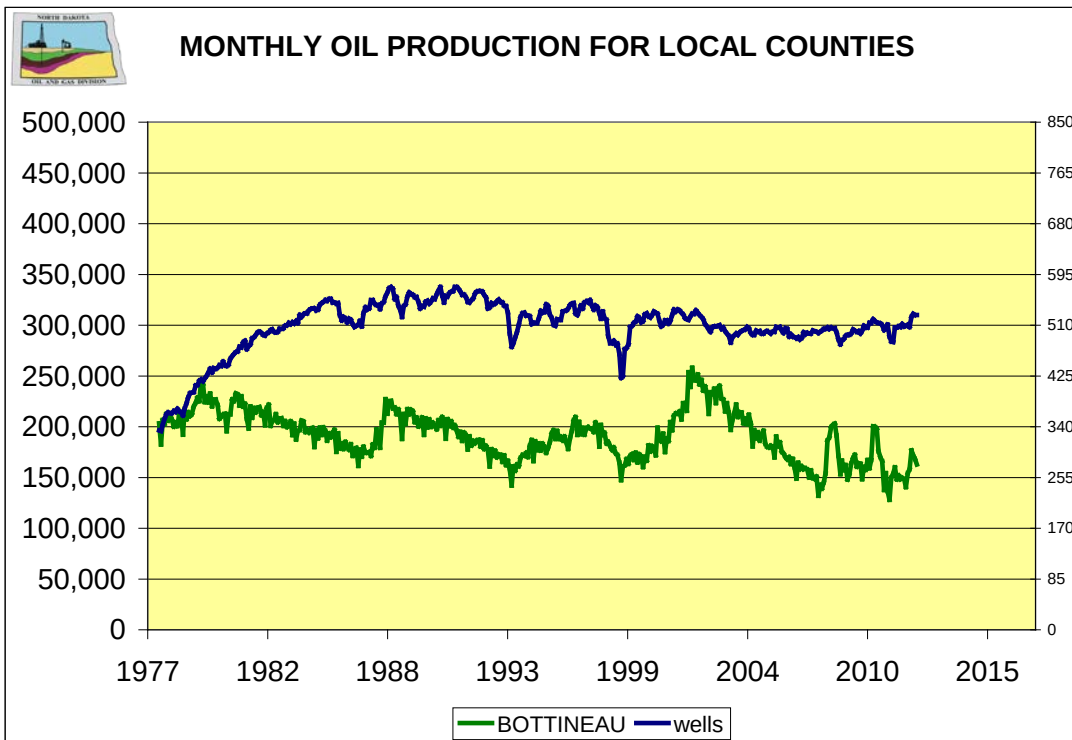


■ Rigs ■ Wells

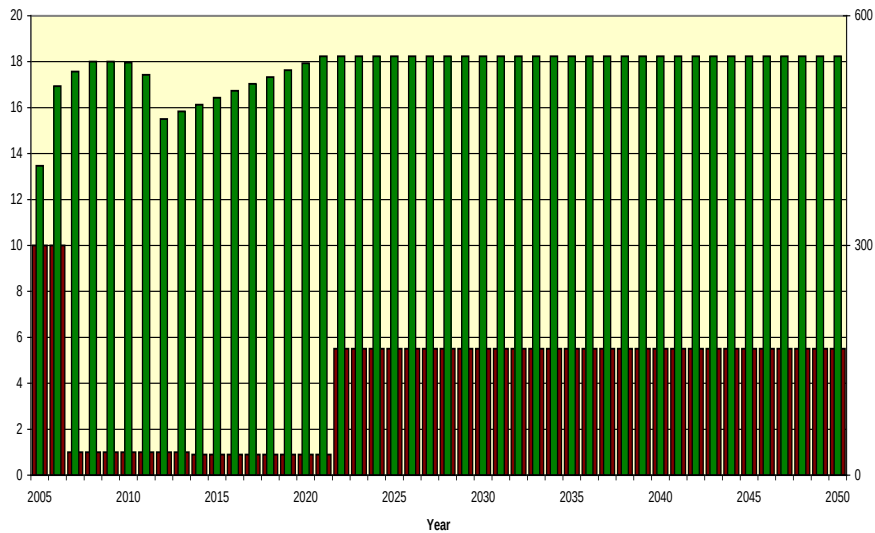
Bottineau Oil Industry Jobs



■ Prod jobs ■ Gathering jobs ■ Fracing jobs ■ Drilling jobs

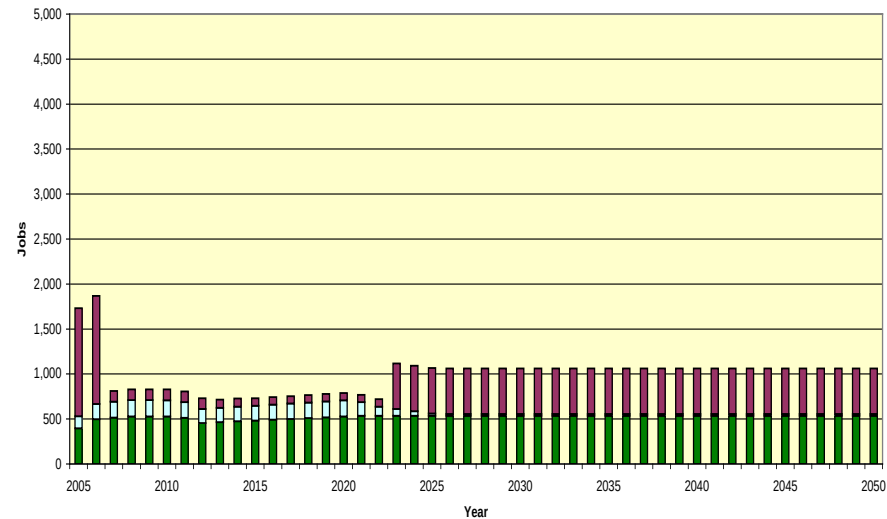


Bowman Rigs and Wells

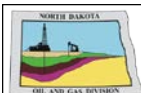


■ Rigs ■ Wells

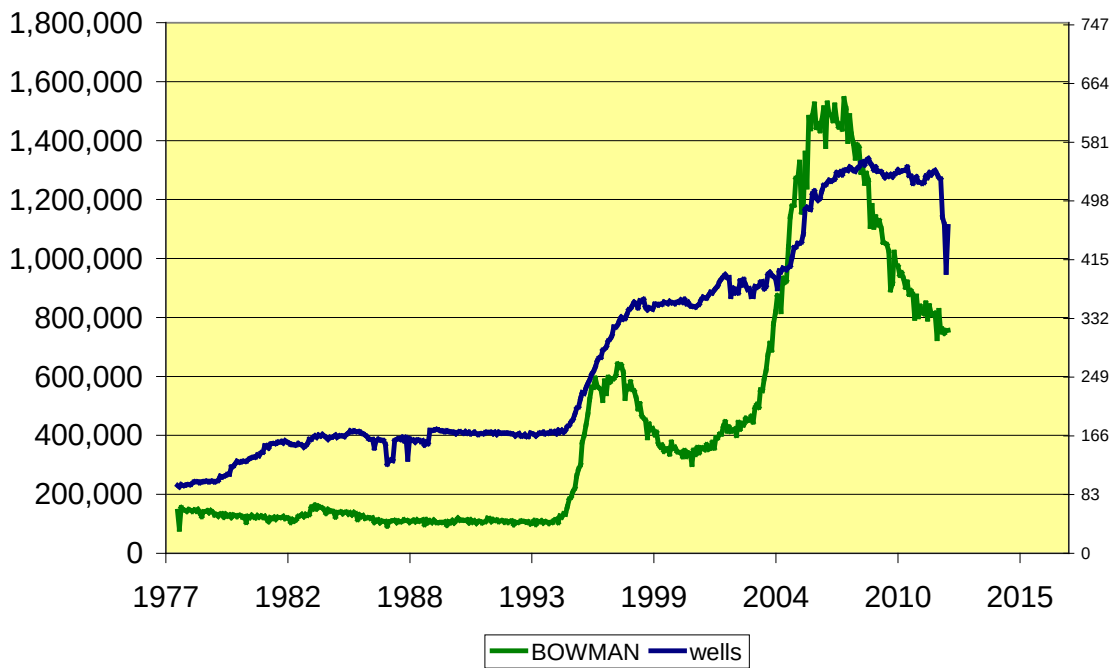
Bowman Oil Industry Jobs



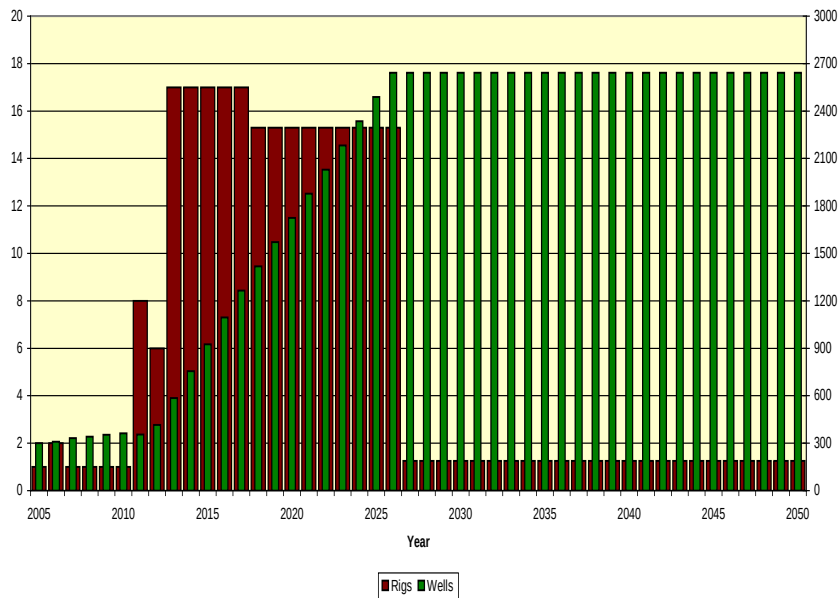
■ Prod jobs ■ Gathering jobs ■ Fracing jobs ■ Drilling jobs



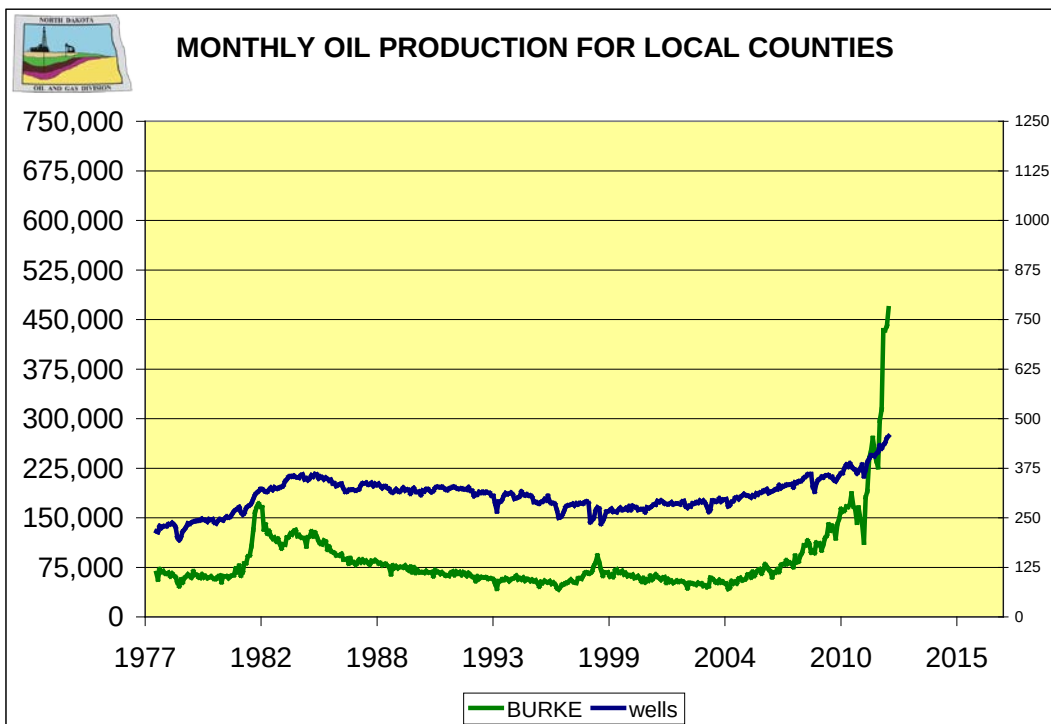
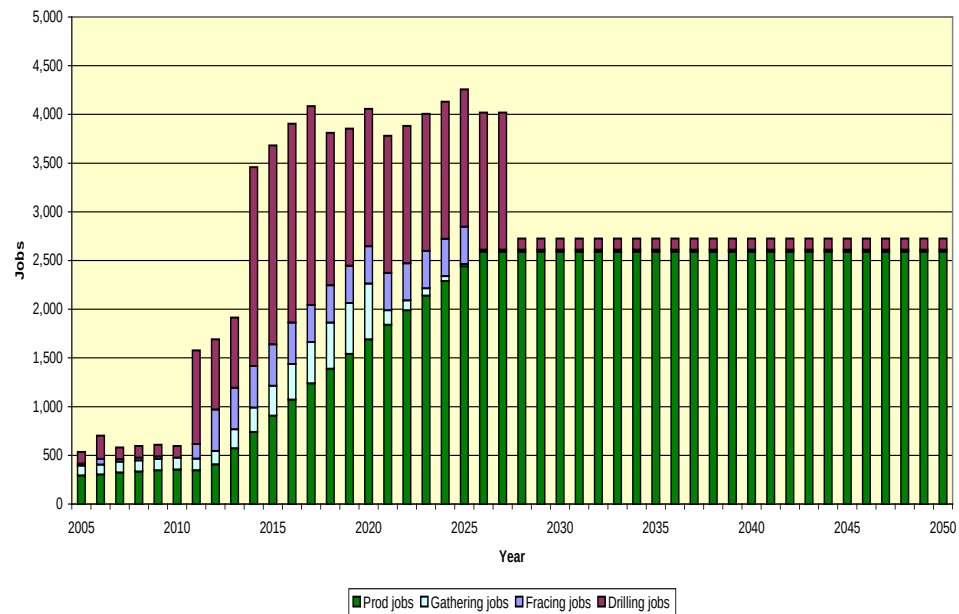
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



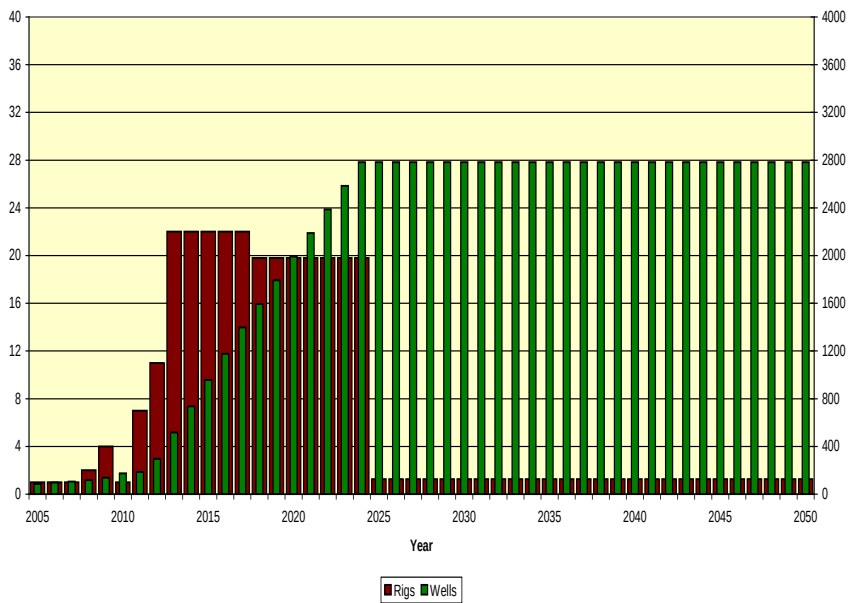
Burke Rigs and Wells



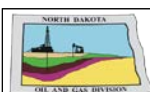
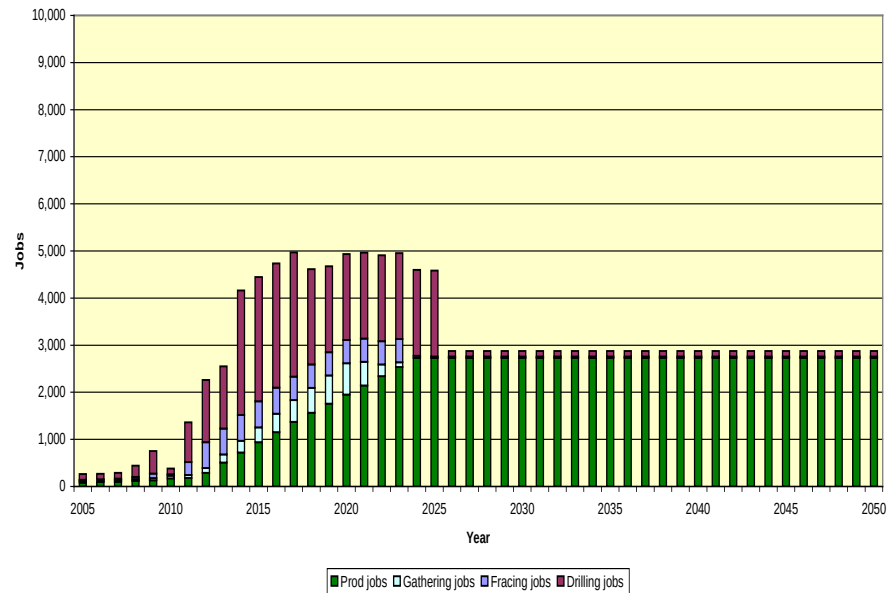
Burke Oil Industry Jobs



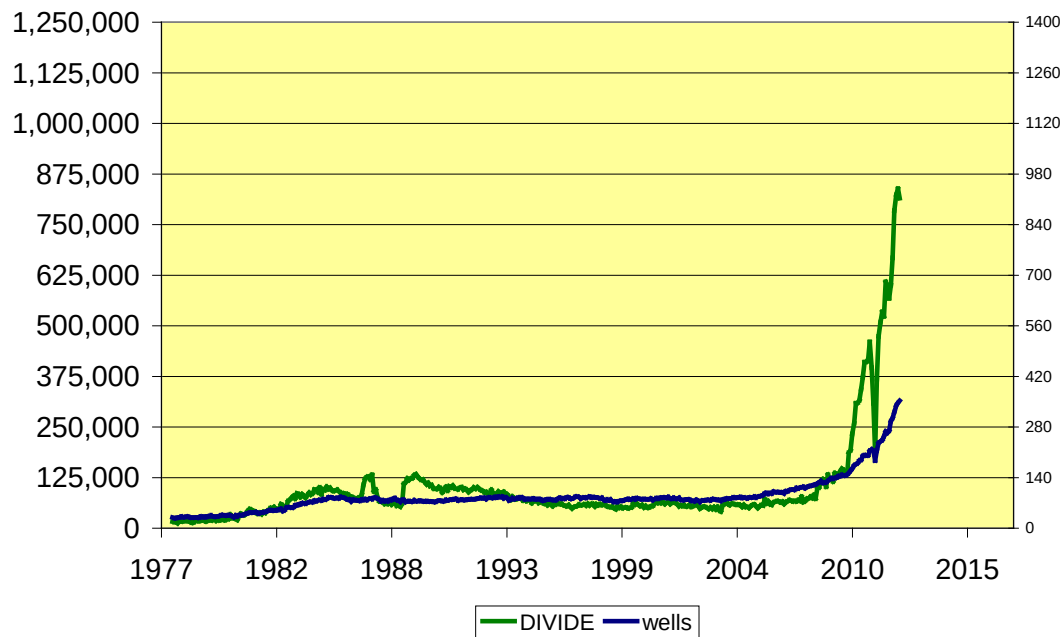
Divide Rigs and Wells



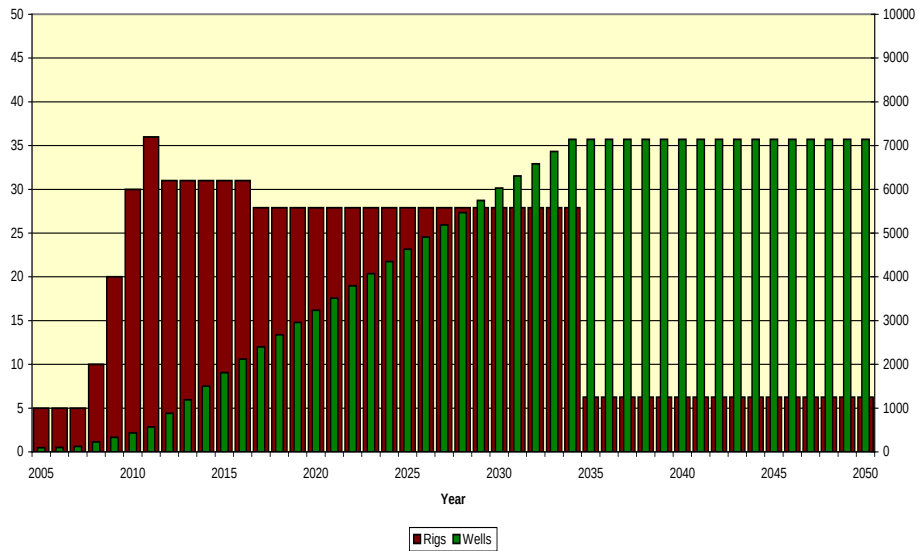
Divide Oil Industry Jobs



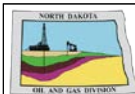
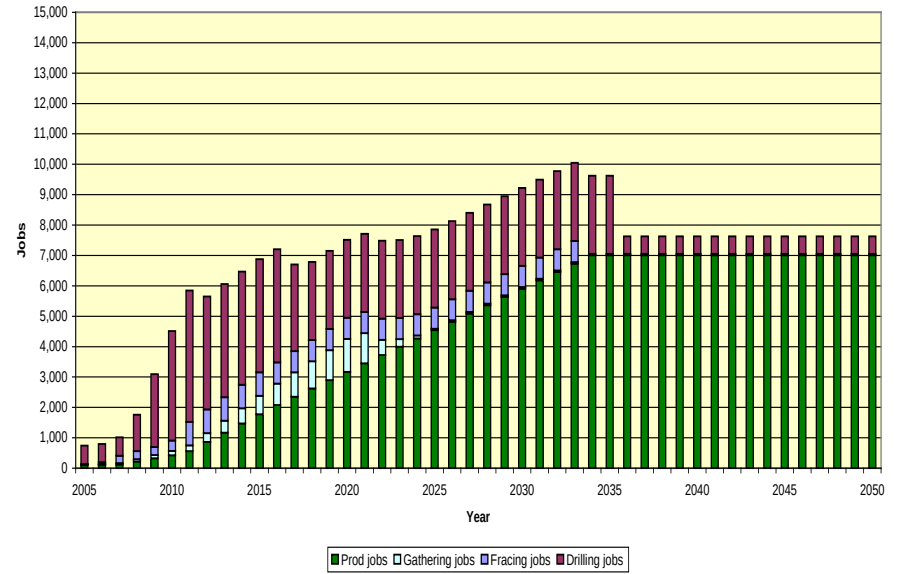
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



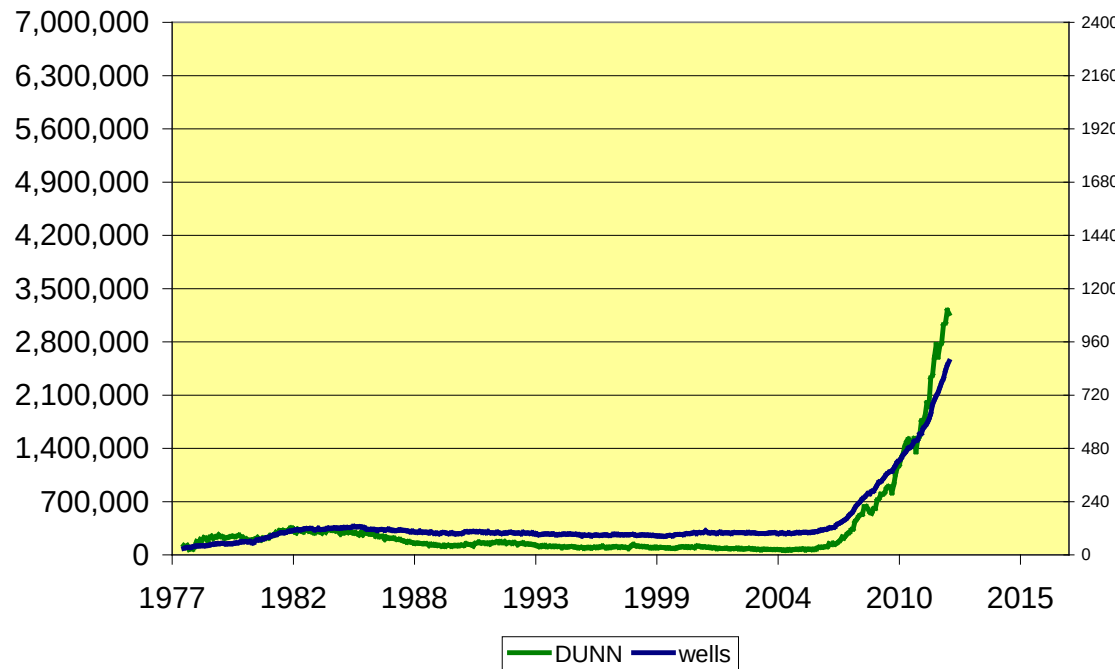
Dunn Rigs and Wells



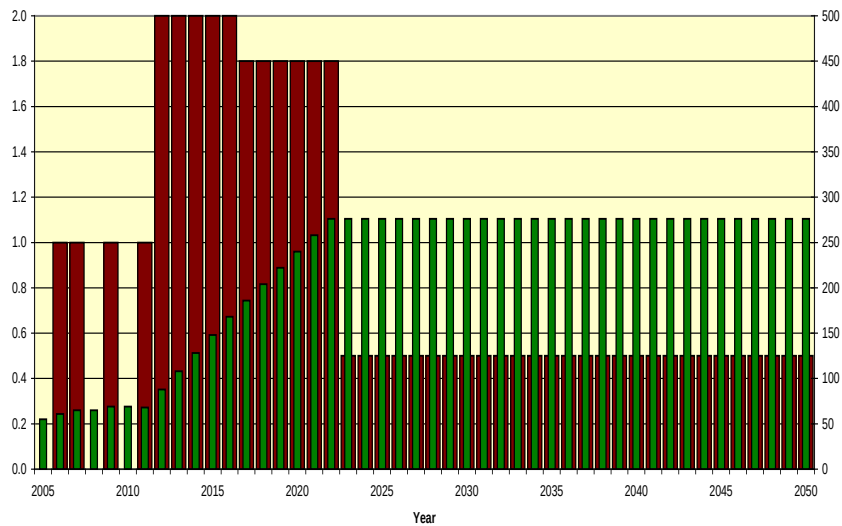
Dunn Oil Industry Jobs



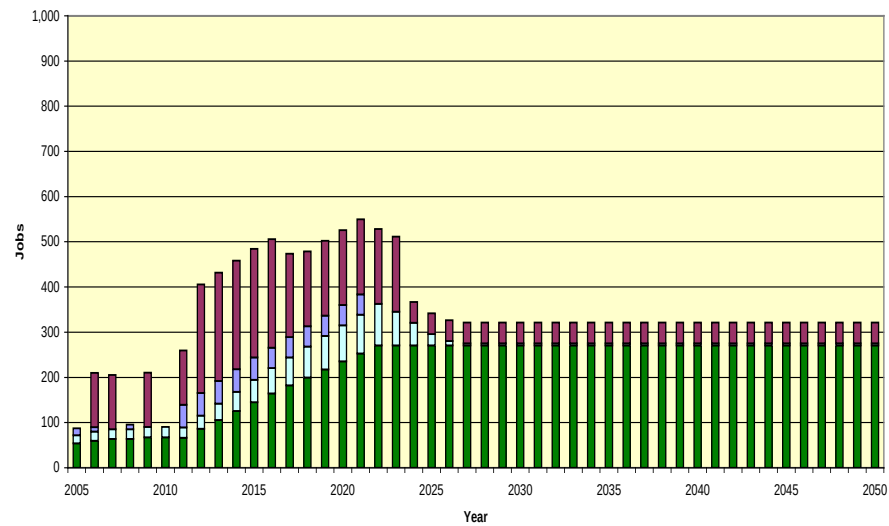
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



Golden Valley Rigs and Wells

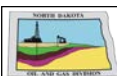


Golden Valley Oil Industry Jobs

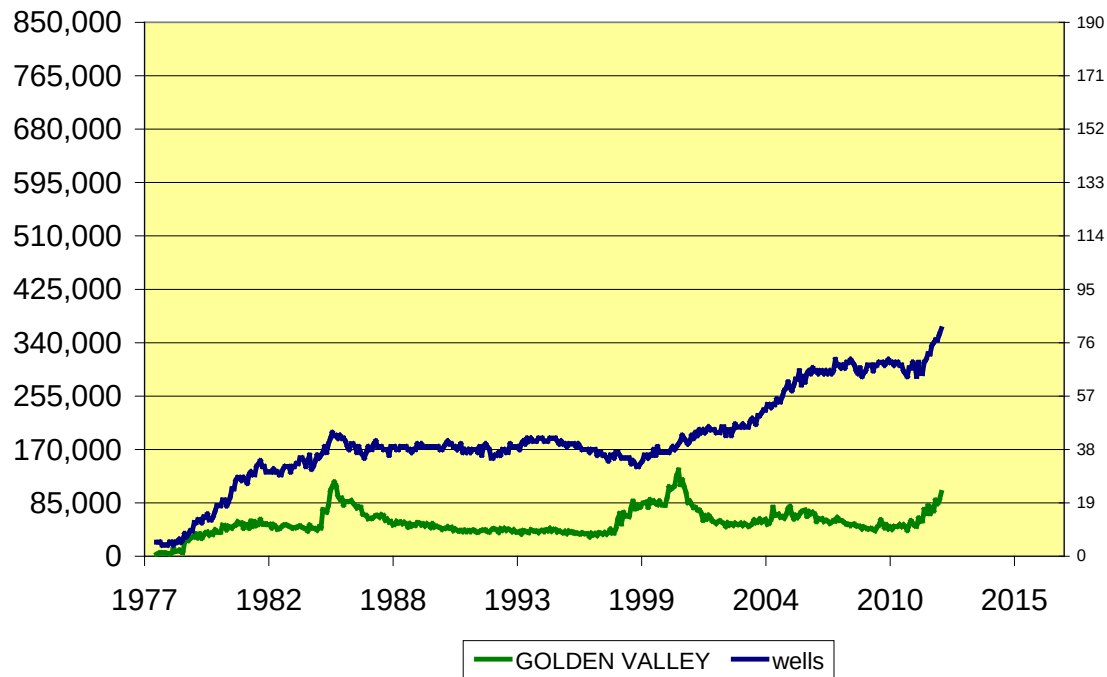


■ Rigs ■ Wells

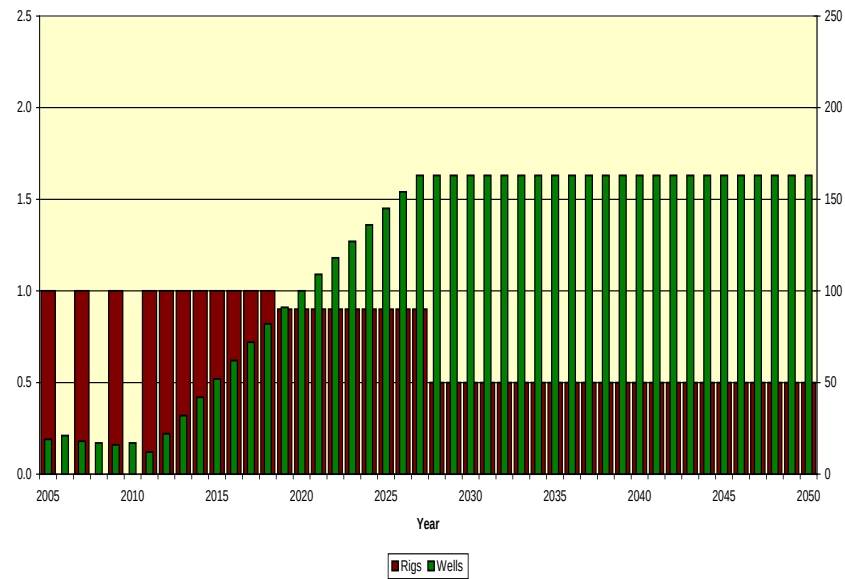
■ Prod jobs ■ Gathering jobs ■ Fracing jobs ■ Drilling jobs



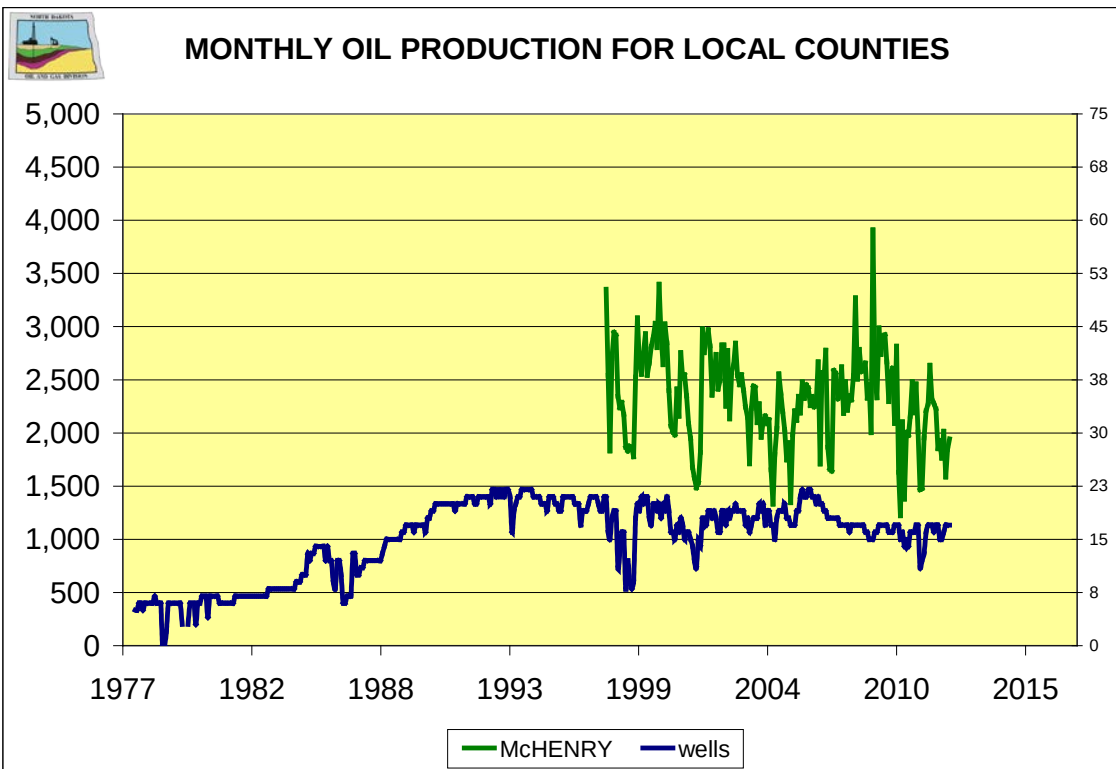
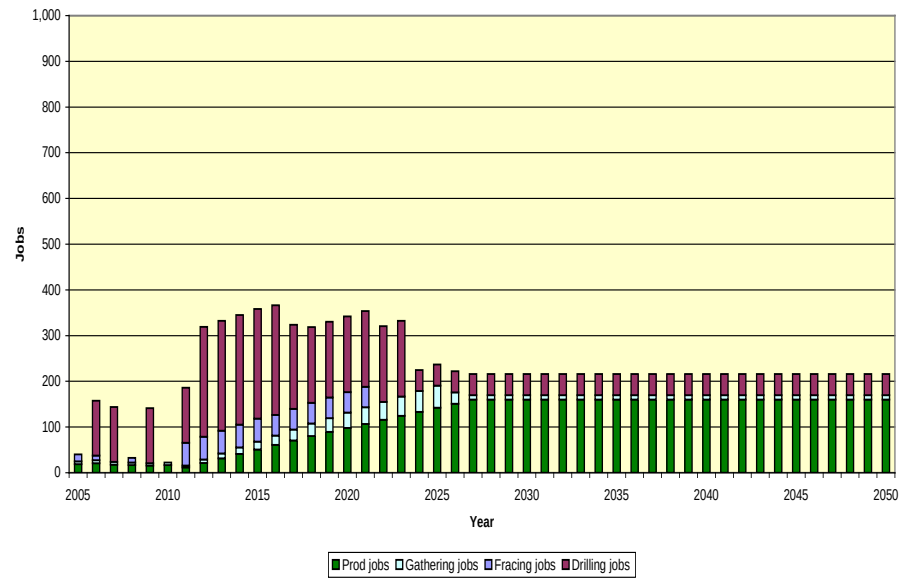
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



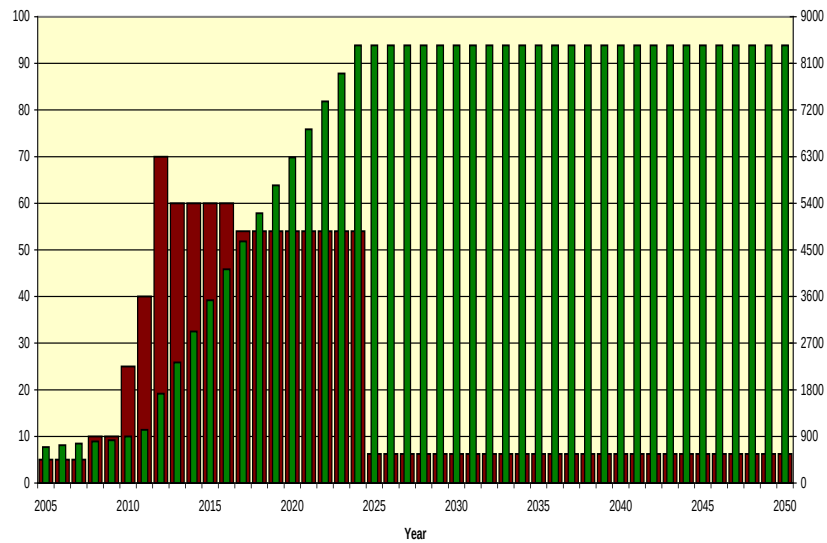
McHenry Rigs and Wells



McHenry Oil Industry Jobs

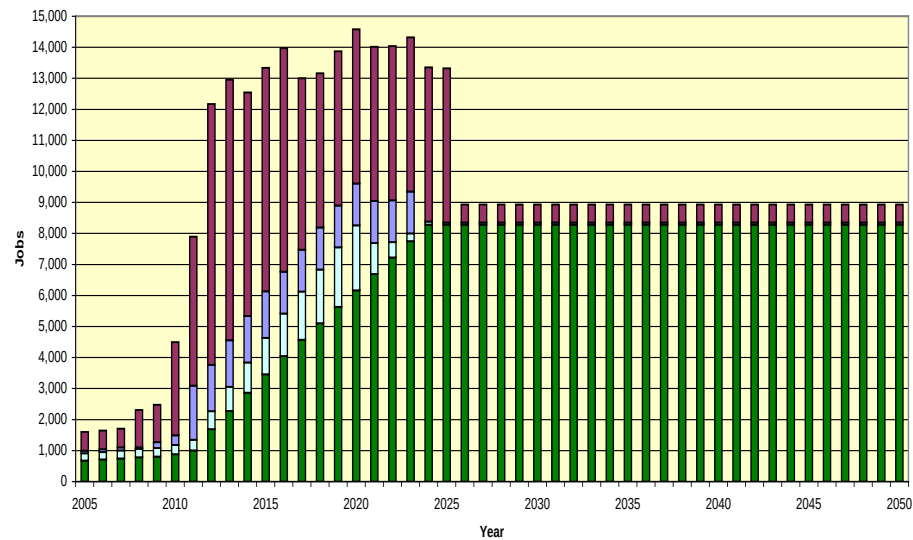


McKenzie Rigs and Wells

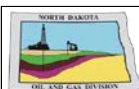


■ Rigs ■ Wells

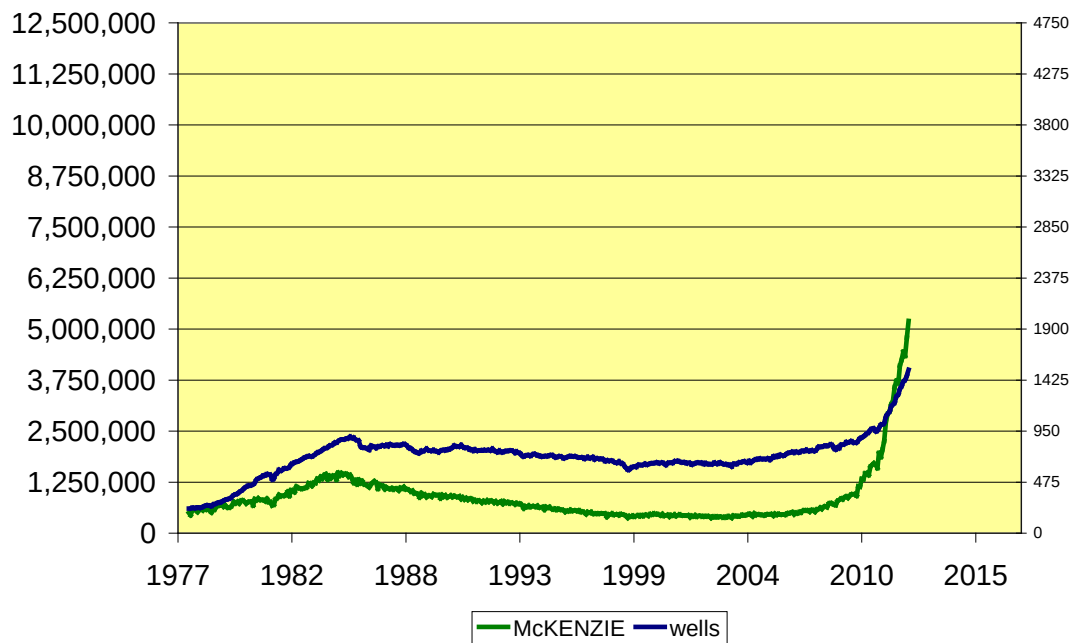
McKenzie Oil Industry Jobs



■ Prod jobs ■ Gathering jobs ■ Fracing jobs ■ Drilling jobs

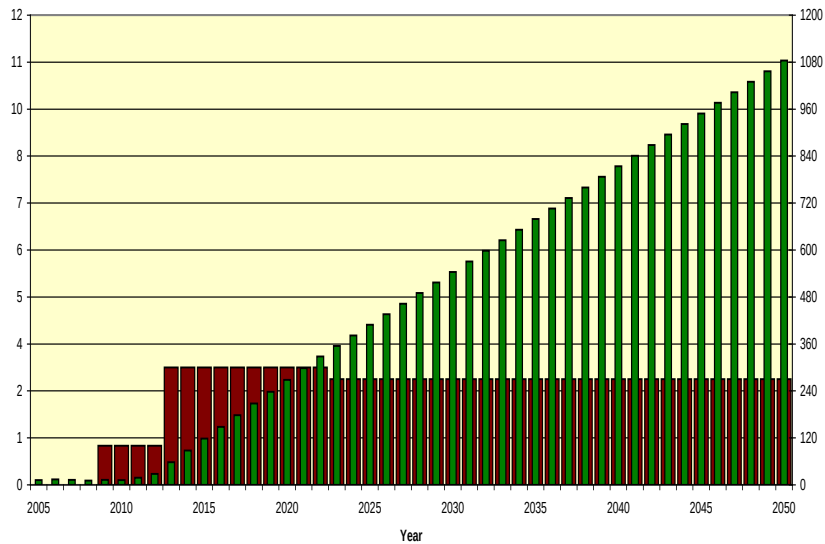


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



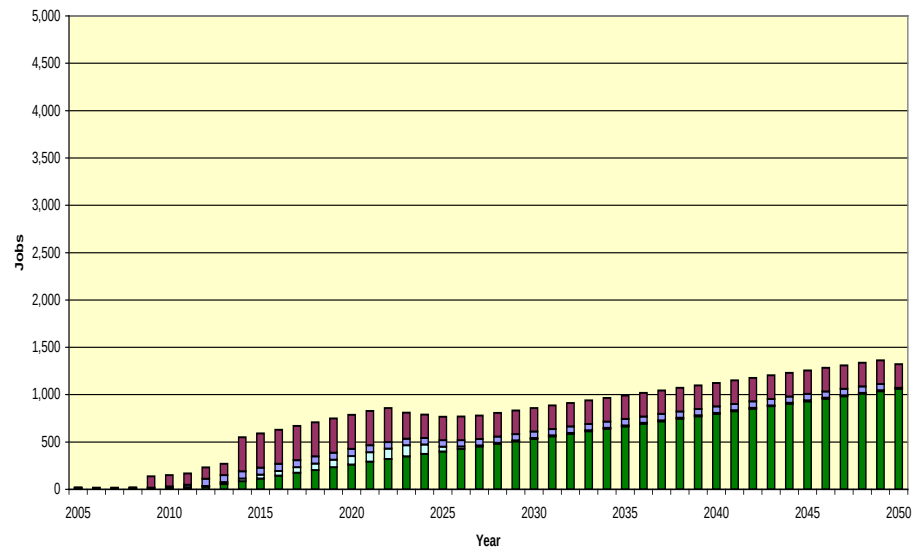
— McKENZIE — wells

McLean Rigs and Wells

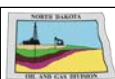


■ Rigs ■ Wells

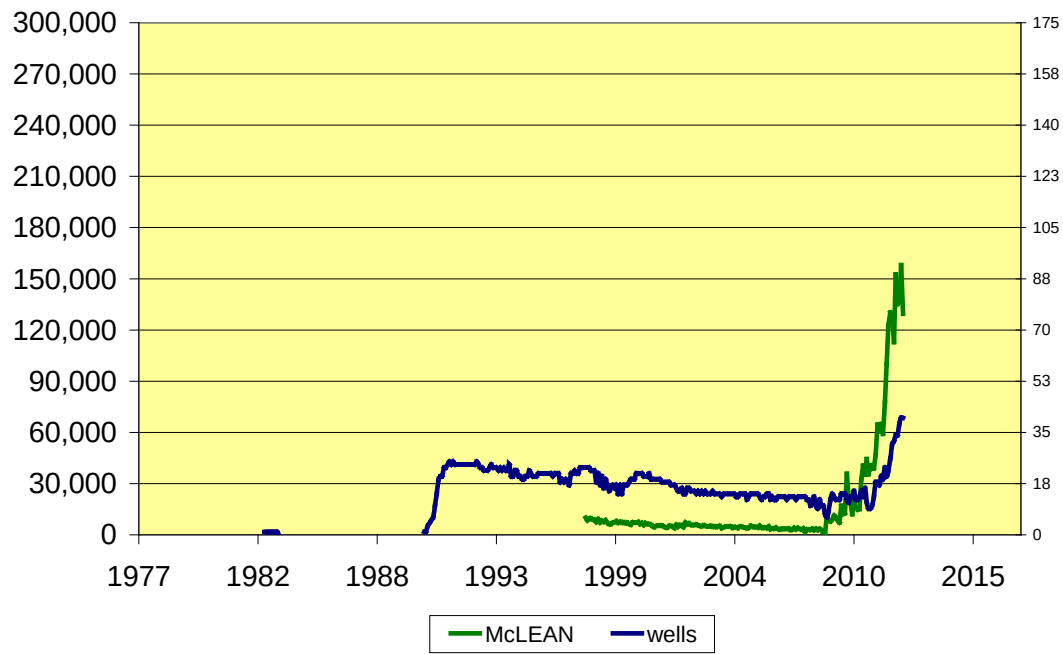
McLean Oil Industry Jobs



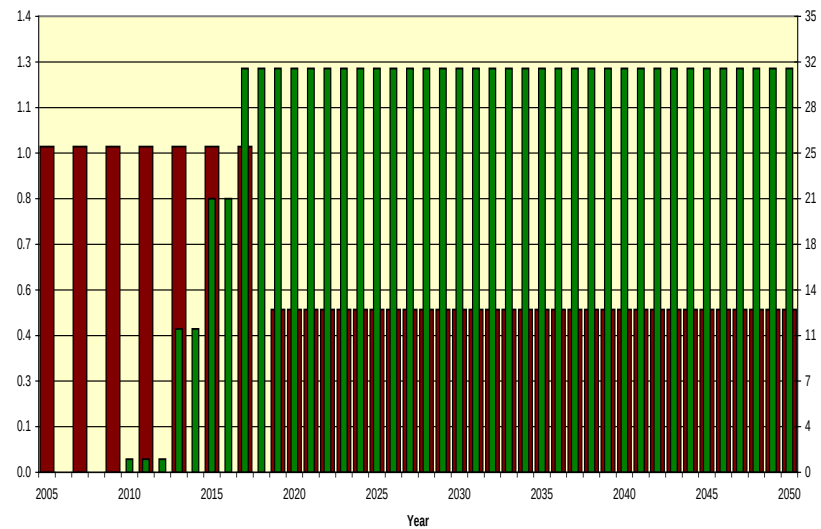
■ Prod jobs ■ Gathering jobs ■ Fracing jobs ■ Drilling jobs



MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES

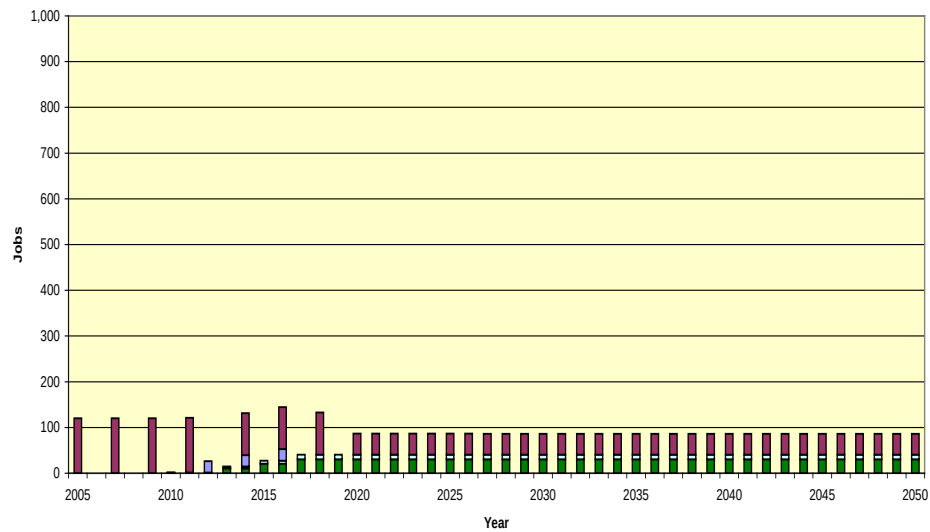


Mercer Rigs and Wells



■ Rigs ■ Wells

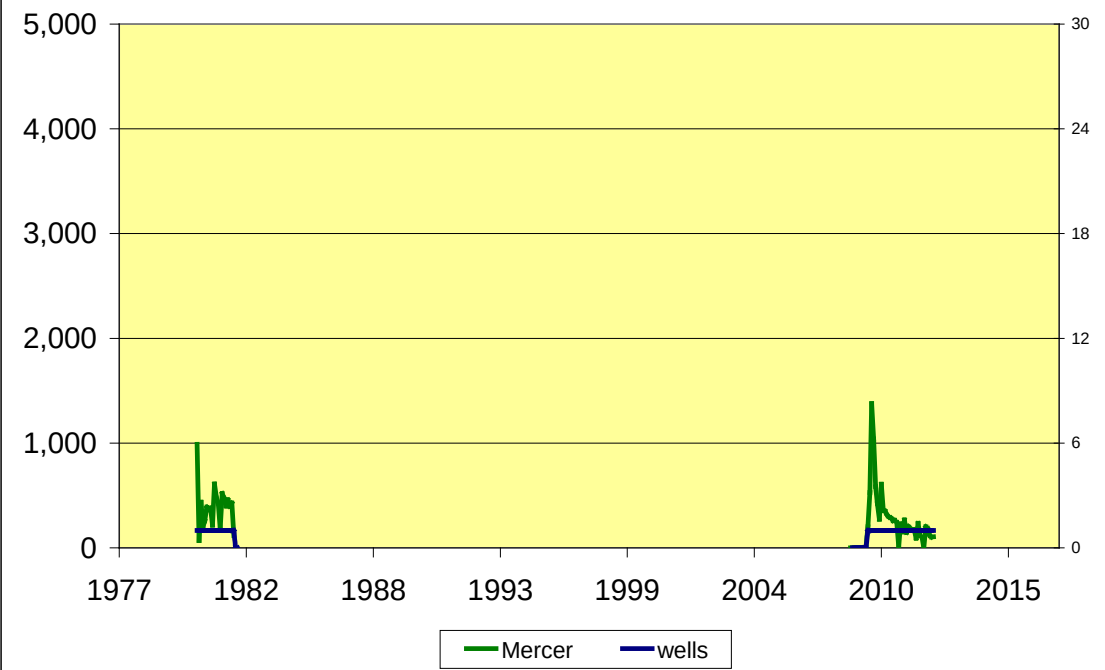
Mercer Oil Industry Jobs



■ Prod jobs ■ Gathering jobs ■ Fracing jobs ■ Drilling jobs

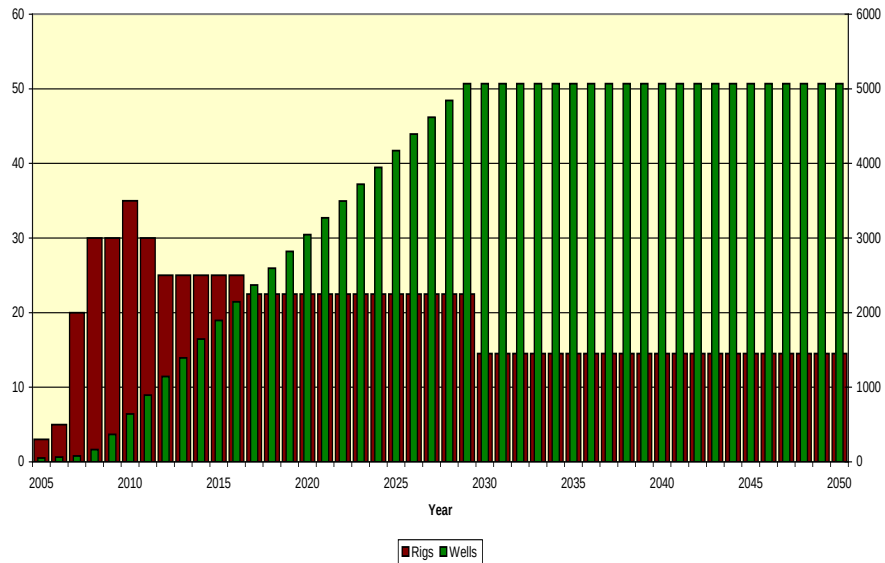


MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES

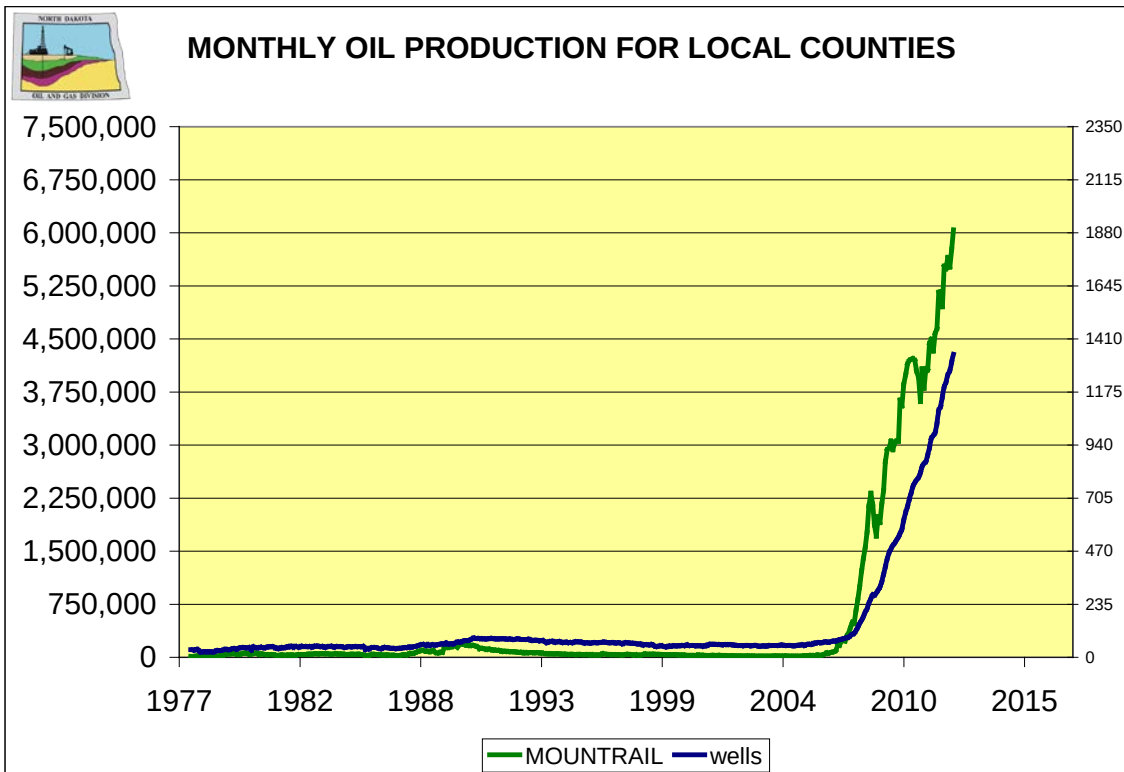
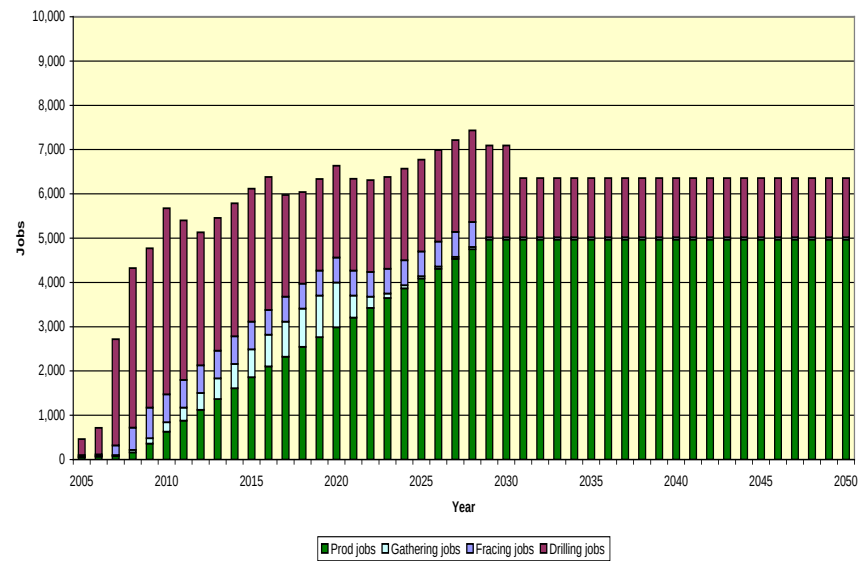


— Mercer — wells

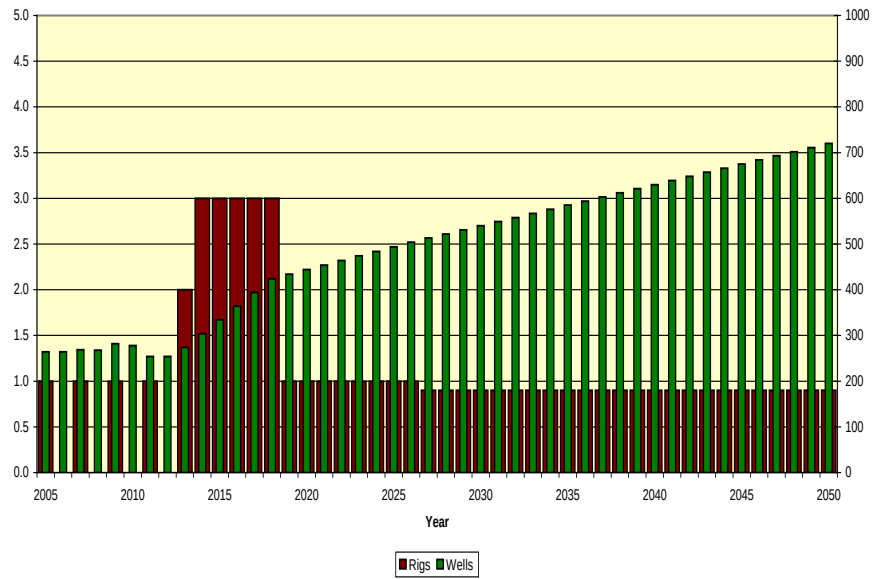
Mountrail Rigs and Wells



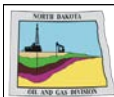
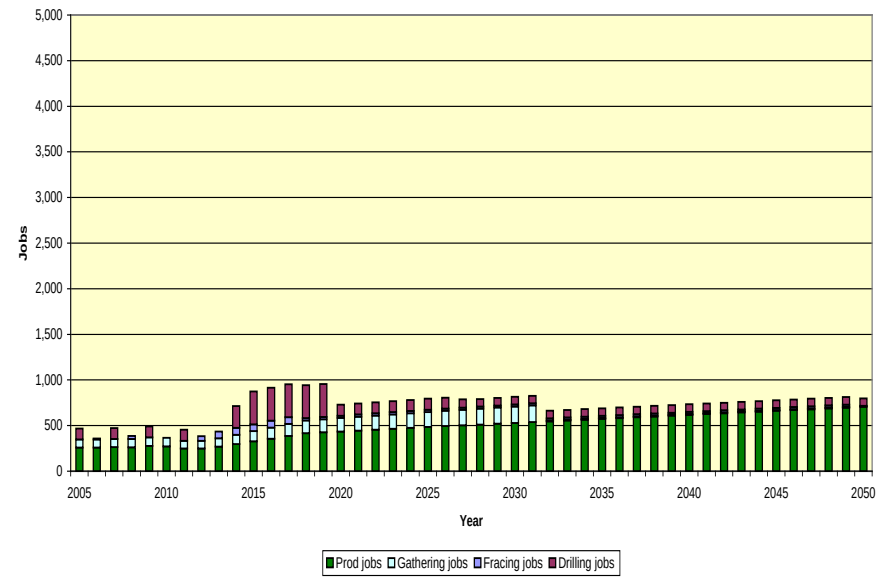
Mountrail Oil Industry Jobs



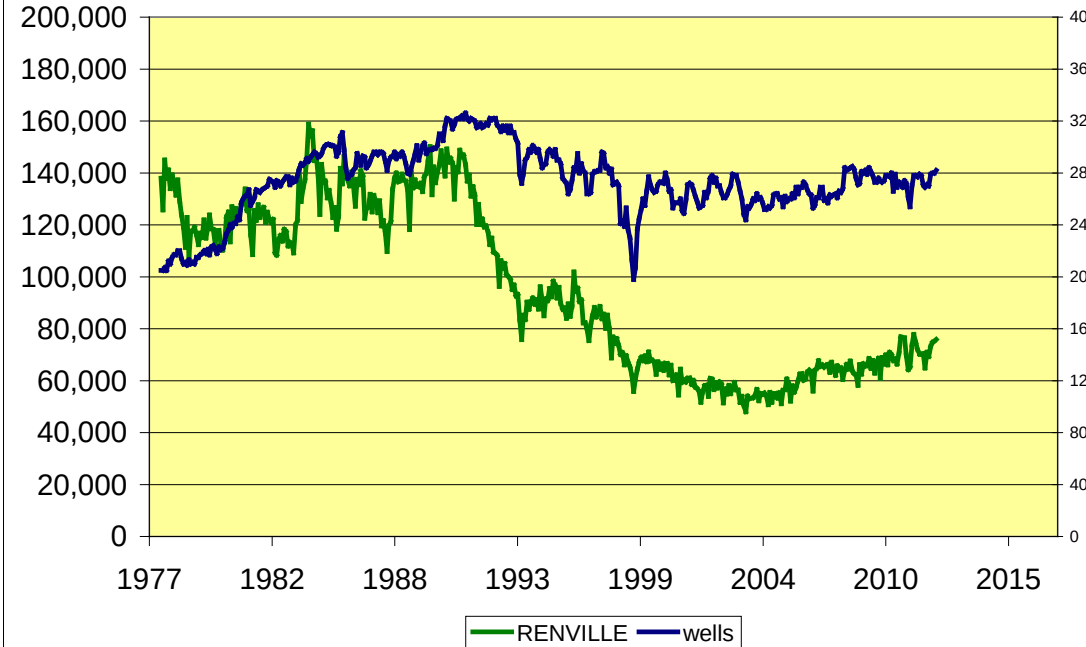
Renville Rigs and Wells



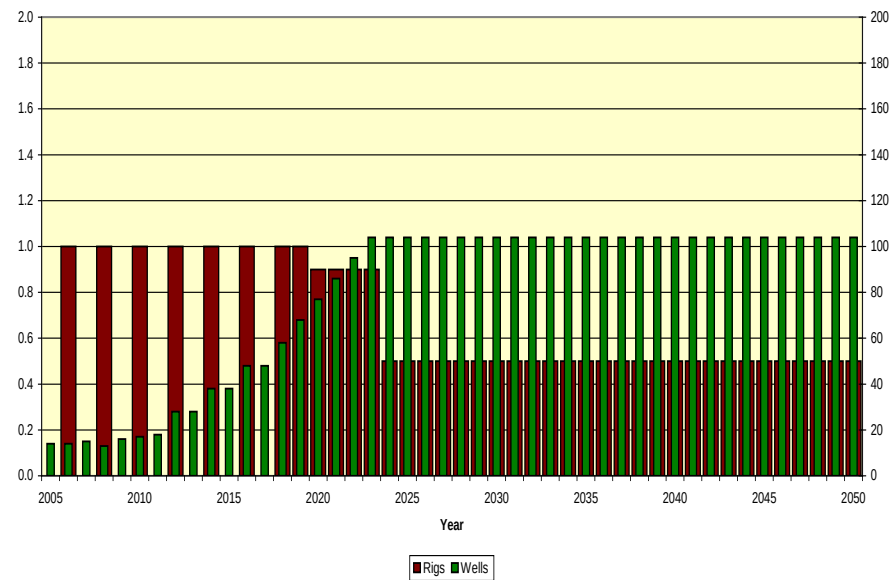
Renville Oil Industry Jobs



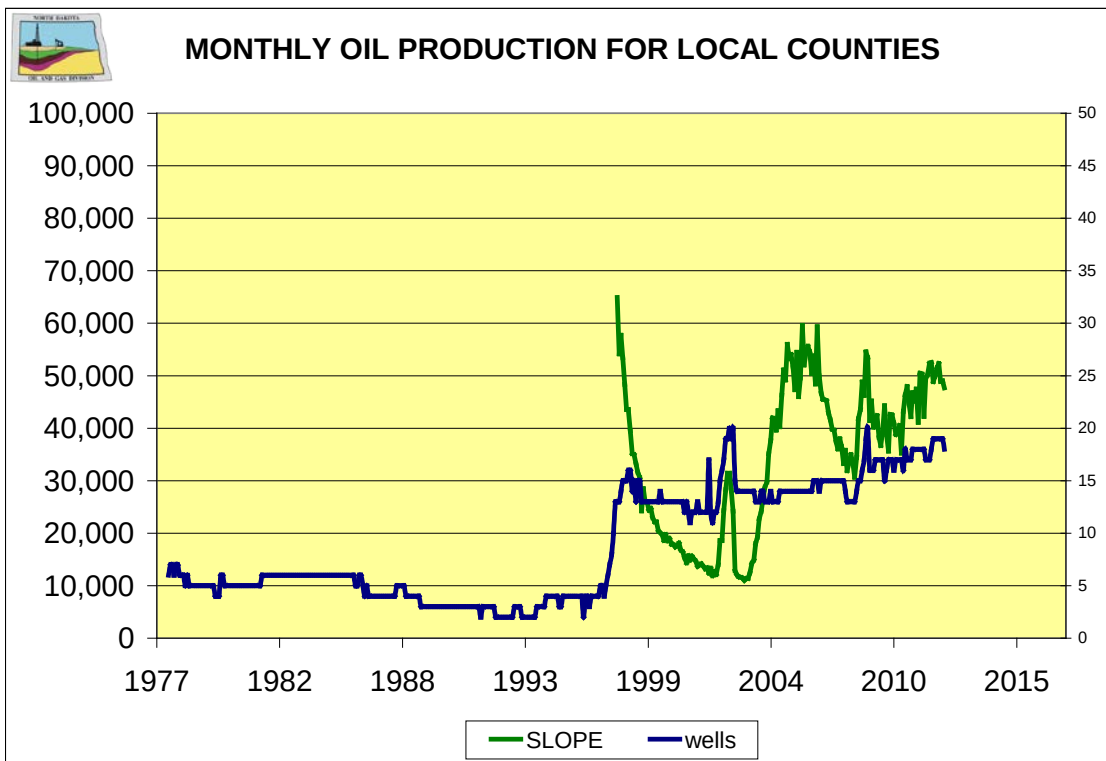
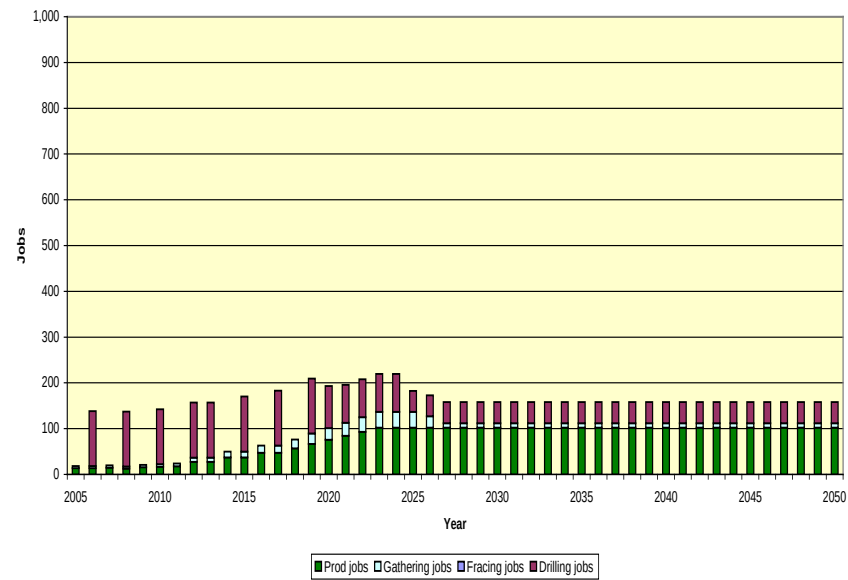
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



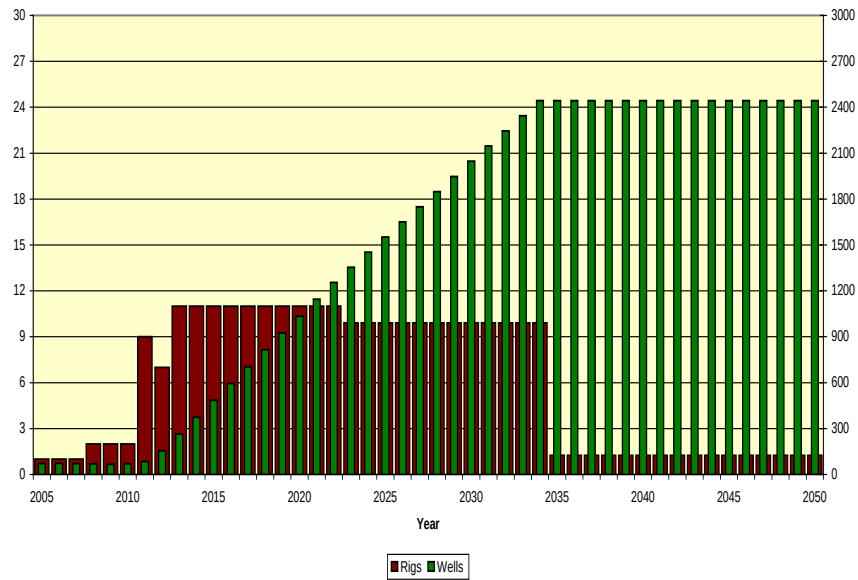
Slope non-Tyler Rigs and Wells



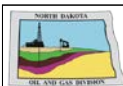
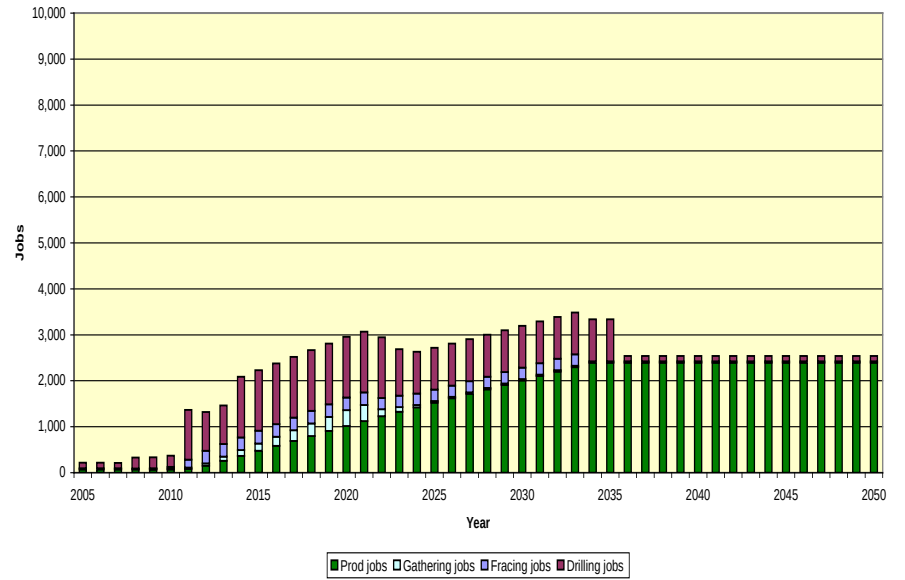
Slope non-Tyler Oil Industry Jobs



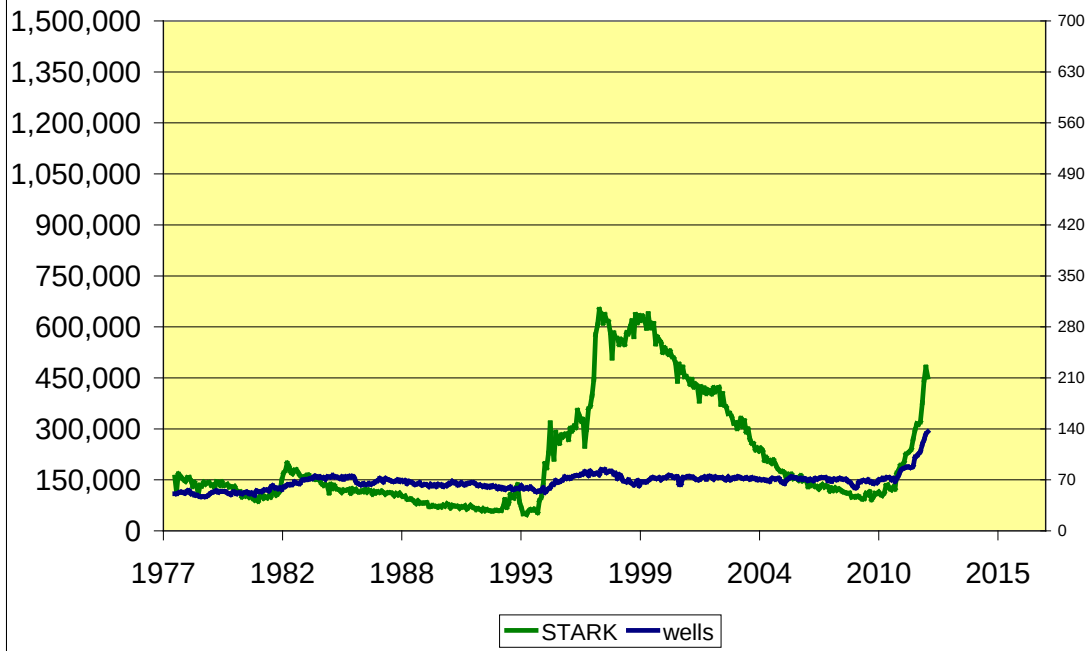
Stark Rigs and Wells



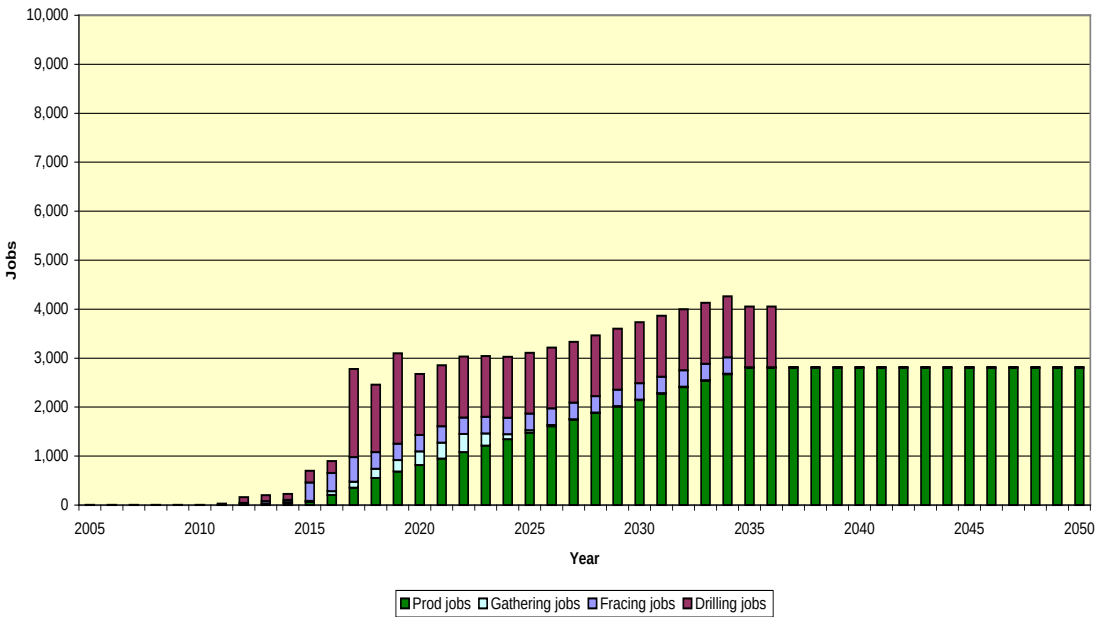
Stark Oil Industry Jobs



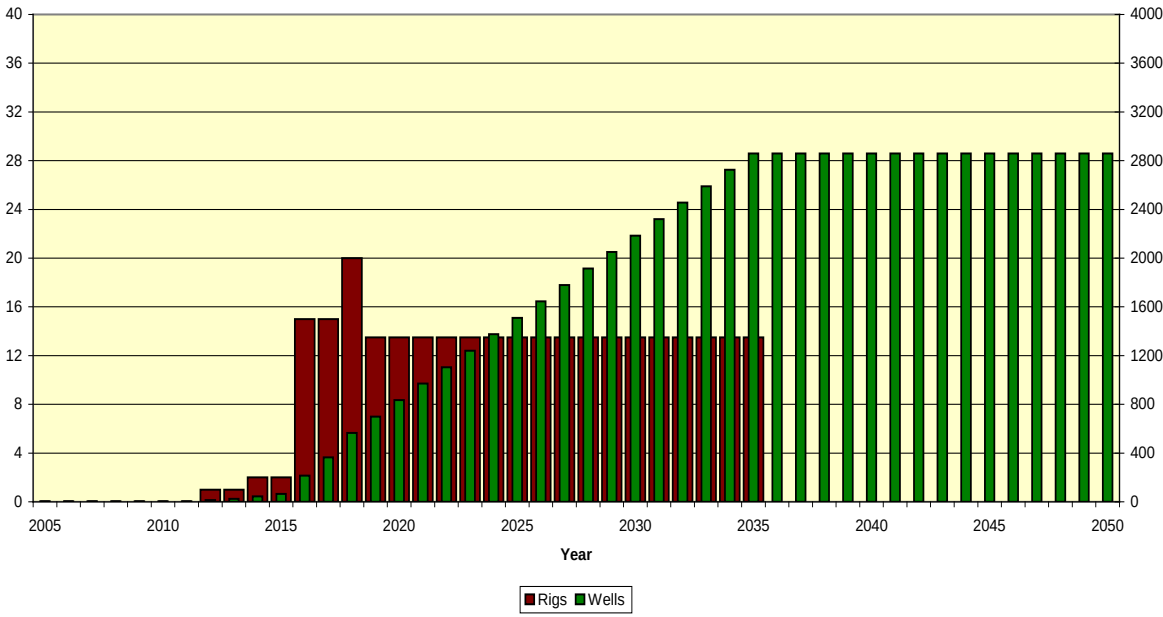
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



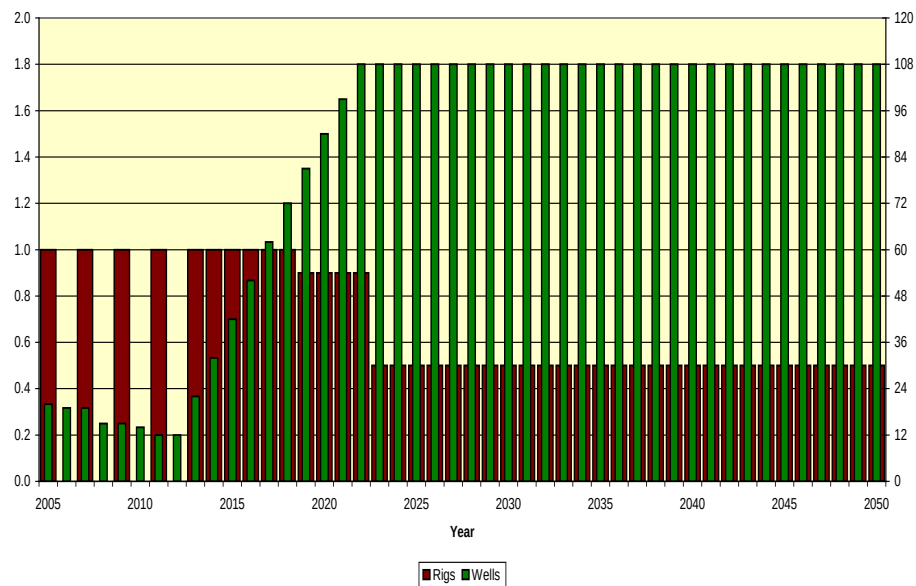
Tyler Oil Industry Jobs



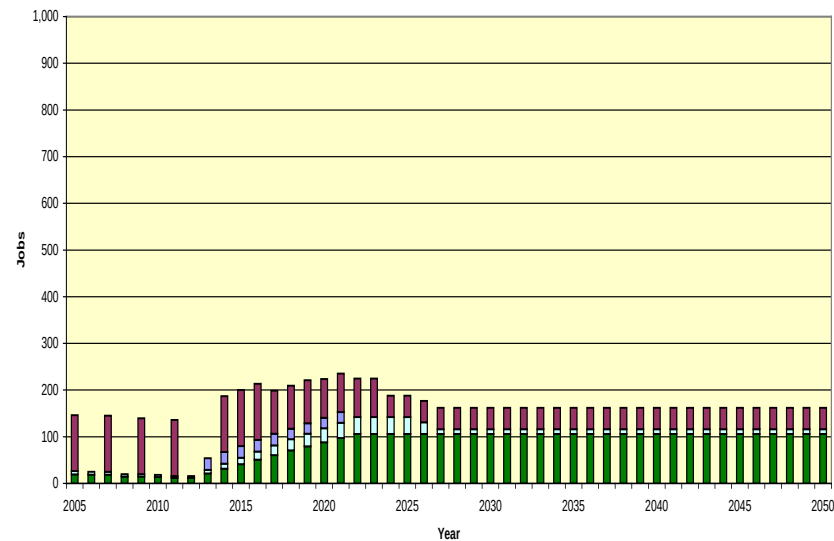
Tyler Rigs and Wells



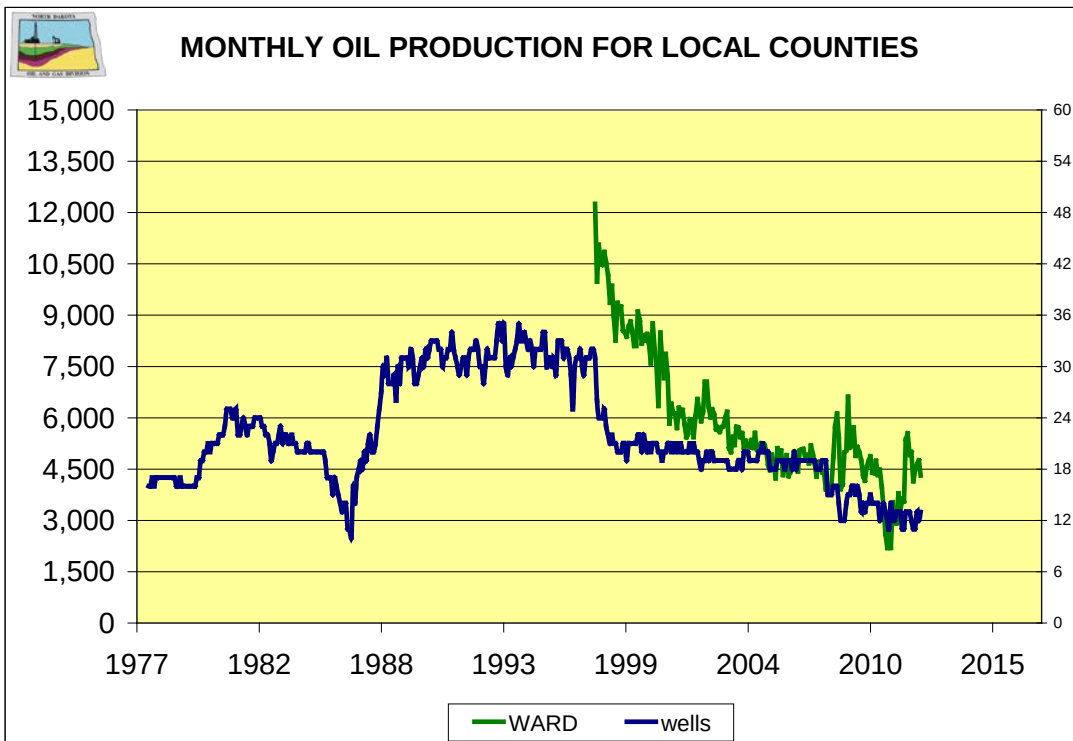
Ward Rigs and Jobs



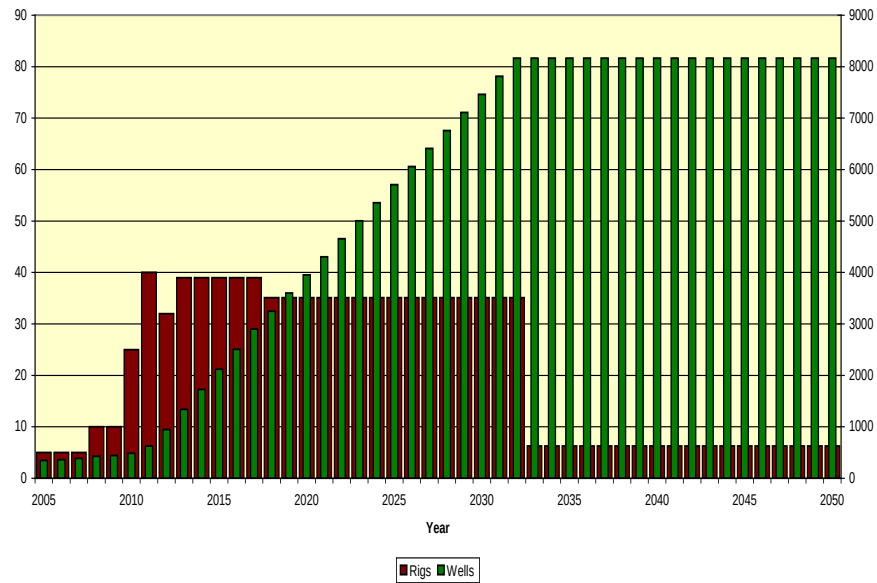
Ward Oil Industry Jobs



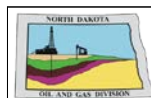
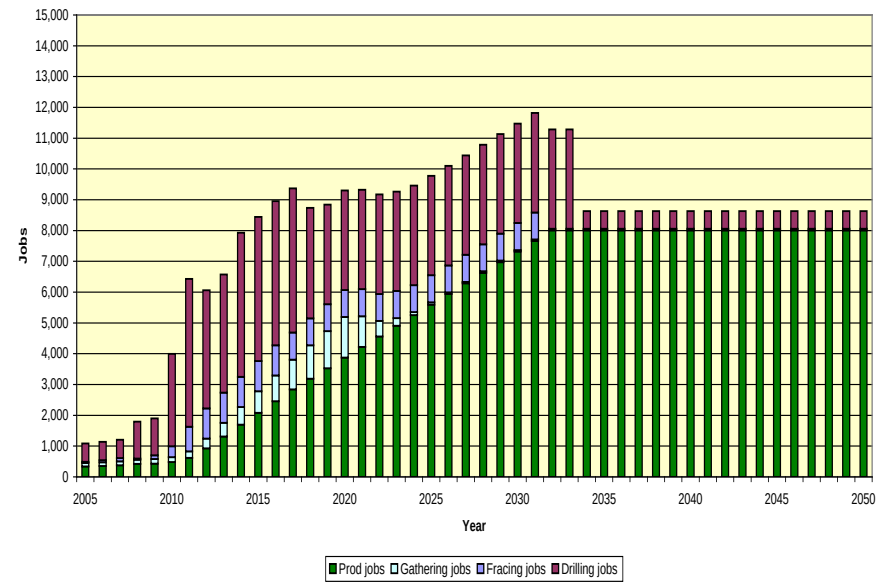
MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES



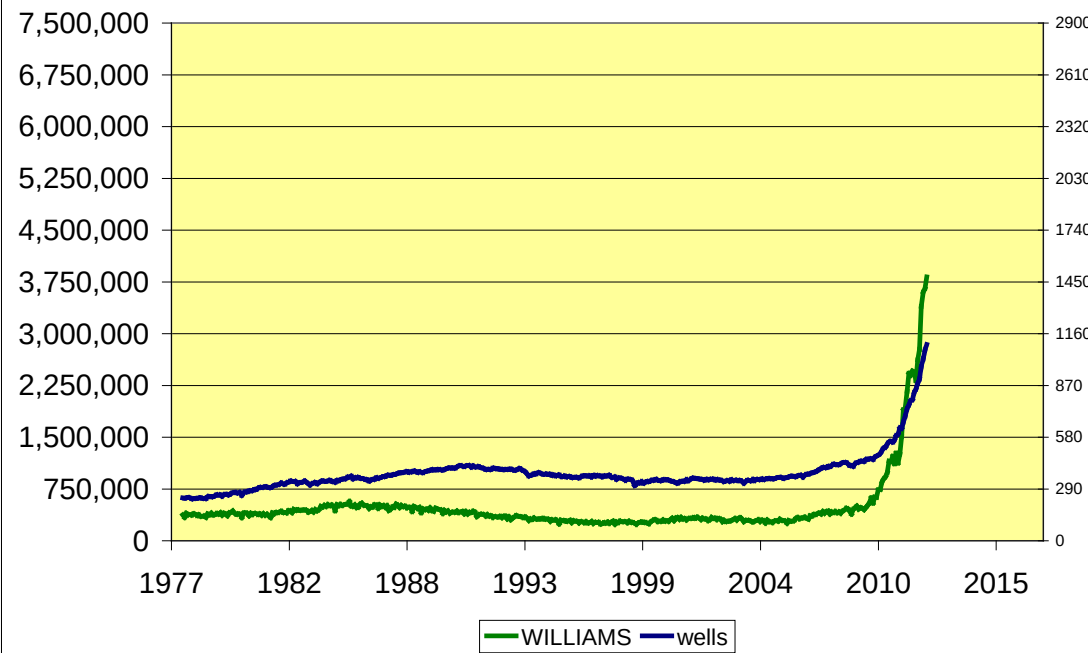
Williams Rigs and Wells



Williams Oil Industry Jobs



MONTHLY OIL PRODUCTION FOR LOCAL COUNTIES





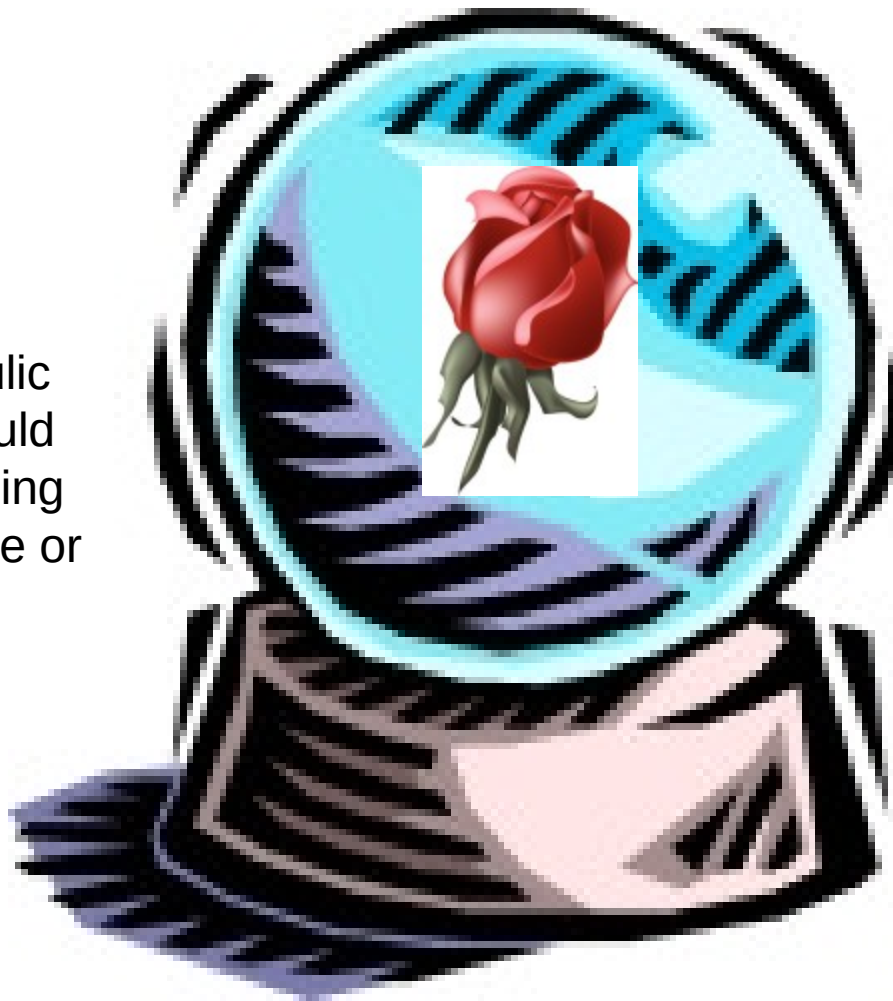
storm www.fotosearch.com

Draft BLM Hydraulic Fracturing rule could double federal drilling permit approval time or worse.



storm www.fotosearch.com

Current administration budget contains tax changes that could reduce drilling capital 35-50%



The future looks promising for sustained Bakken/Three Forks development



storm www.fotosearch.com

Draft EPA guidance on diesel fuel in hydraulic fracturing could triple drilling permit approval time or worse.



storm www.fotosearch.com

World and U.S. economies continue to struggle. If China joins the downward spiral oil price could fall enough to make some areas uneconomic

