



**NDPC ROW Meeting**  
**North Dakota Pipeline Authority**  
**Justin J. Kringstad**  
**March 26, 2014 - Tioga, ND**

*“The roads they traveled were generally poor, if they existed at all. Weather sometimes made even the shortest passage from the wellhead impossible. A dilemma arose concerning what to do with the blessedly continuous production of oil when the roads became hopelessly mired.”*

**It's 1860's Pennsylvania!**

Excerpt from: Oil & Gas Pipelines in Nontechnical Language

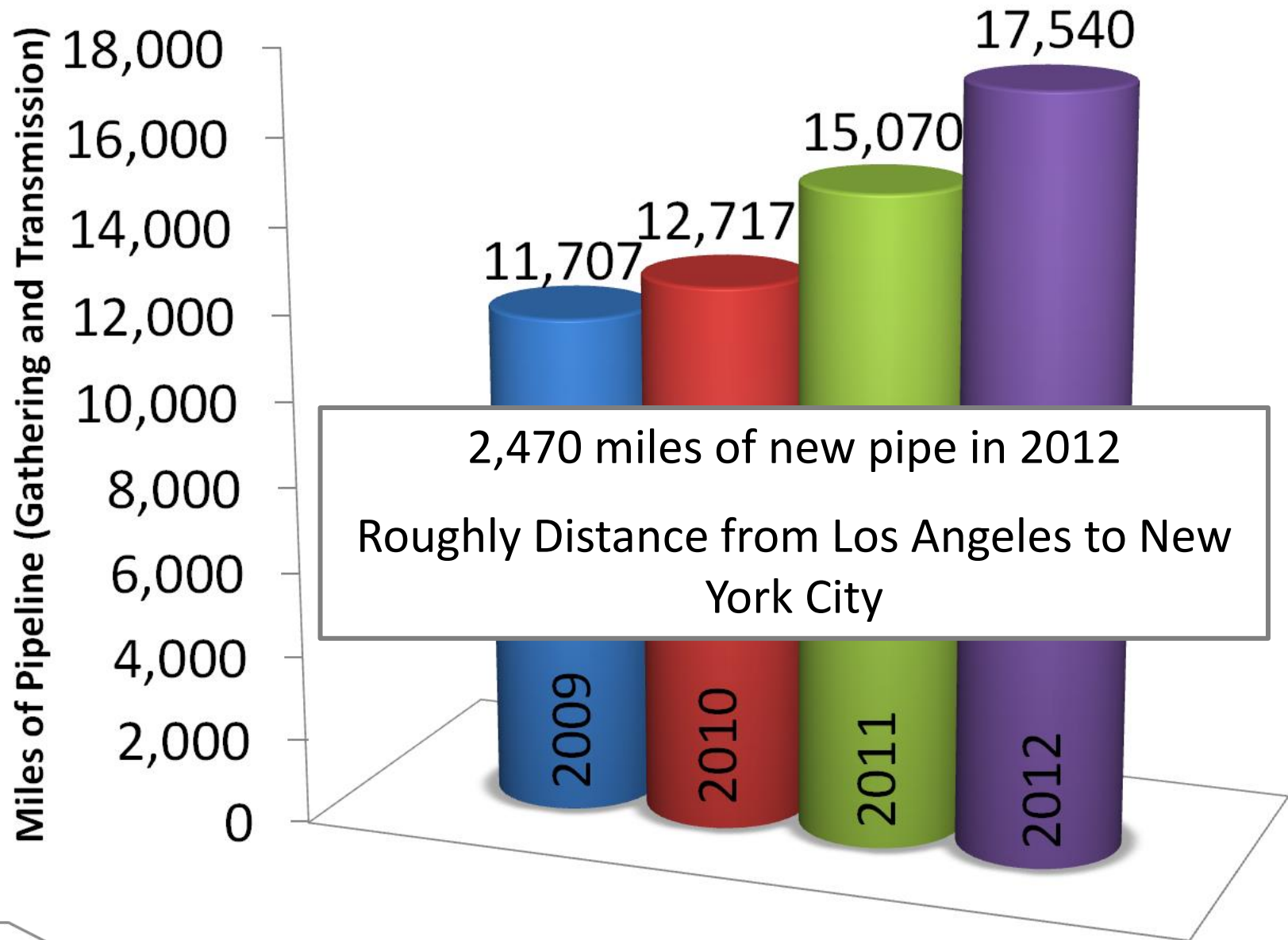




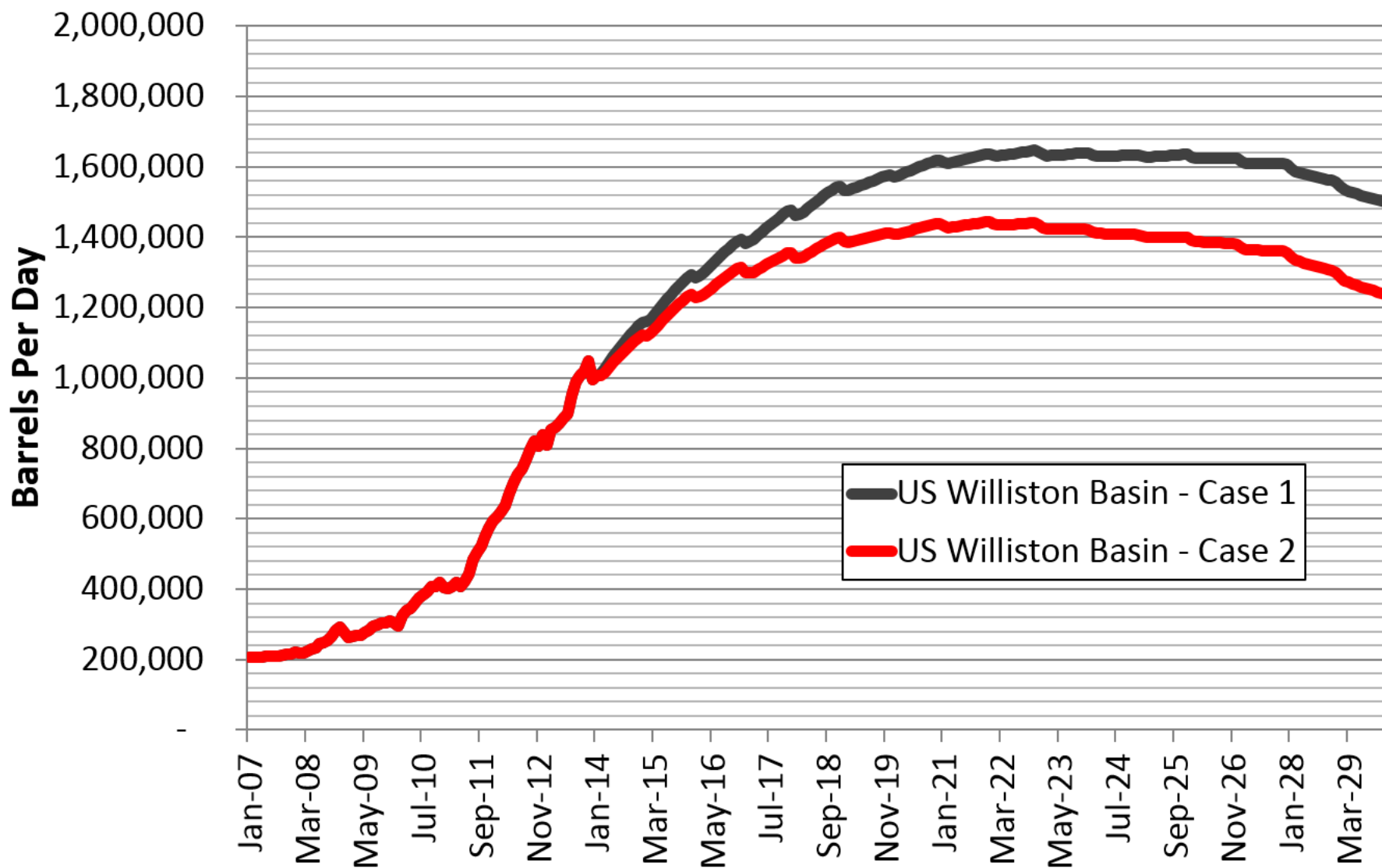


Source: Bridger Pipeline

# North Dakota Pipeline Miles



# Forecasting Williston Basin Oil Production, BOPD

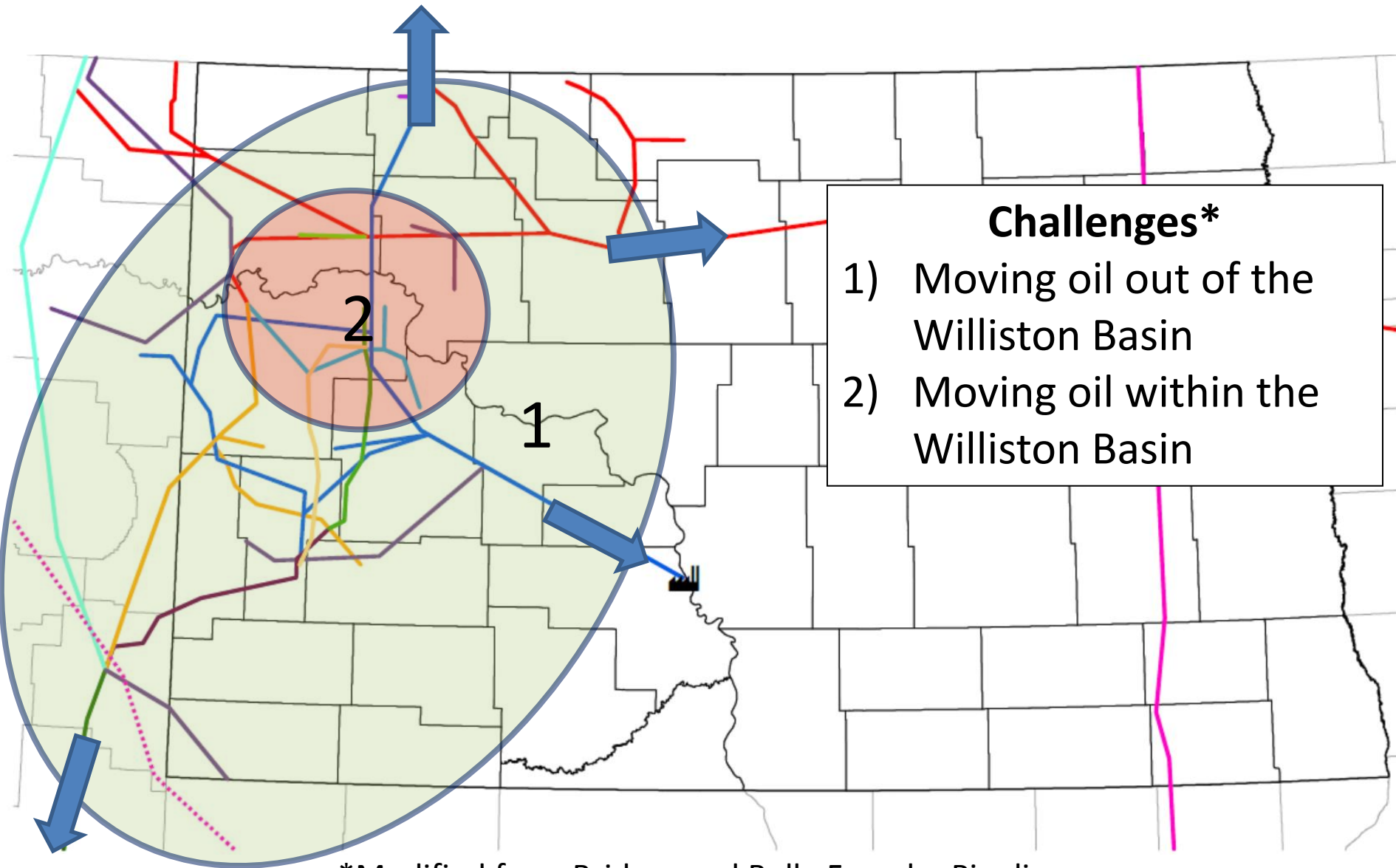


*Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.*





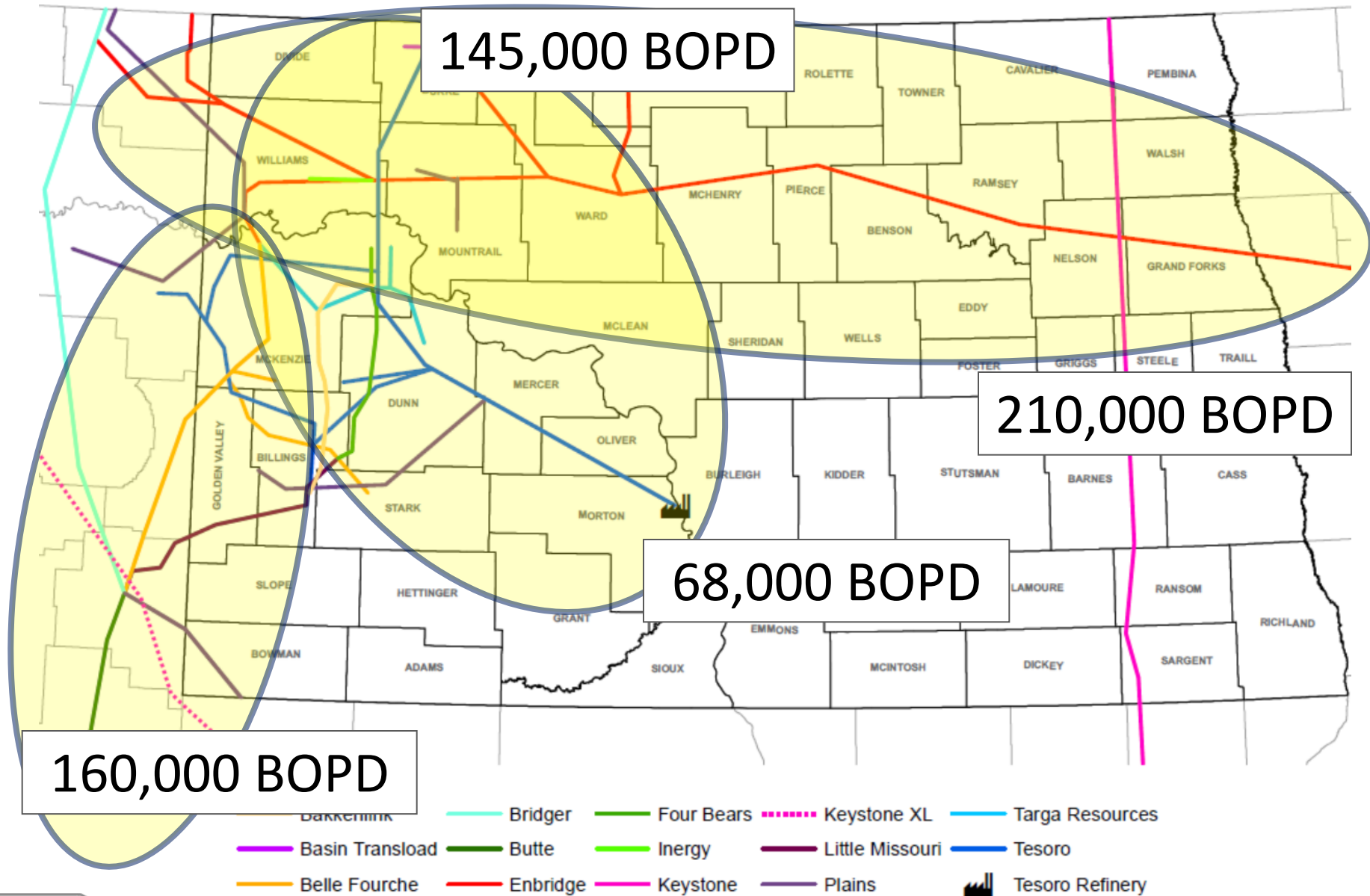
# North Dakota Crude Oil Pipelines



\*Modified from Bridger and Belle Fourche Pipelines

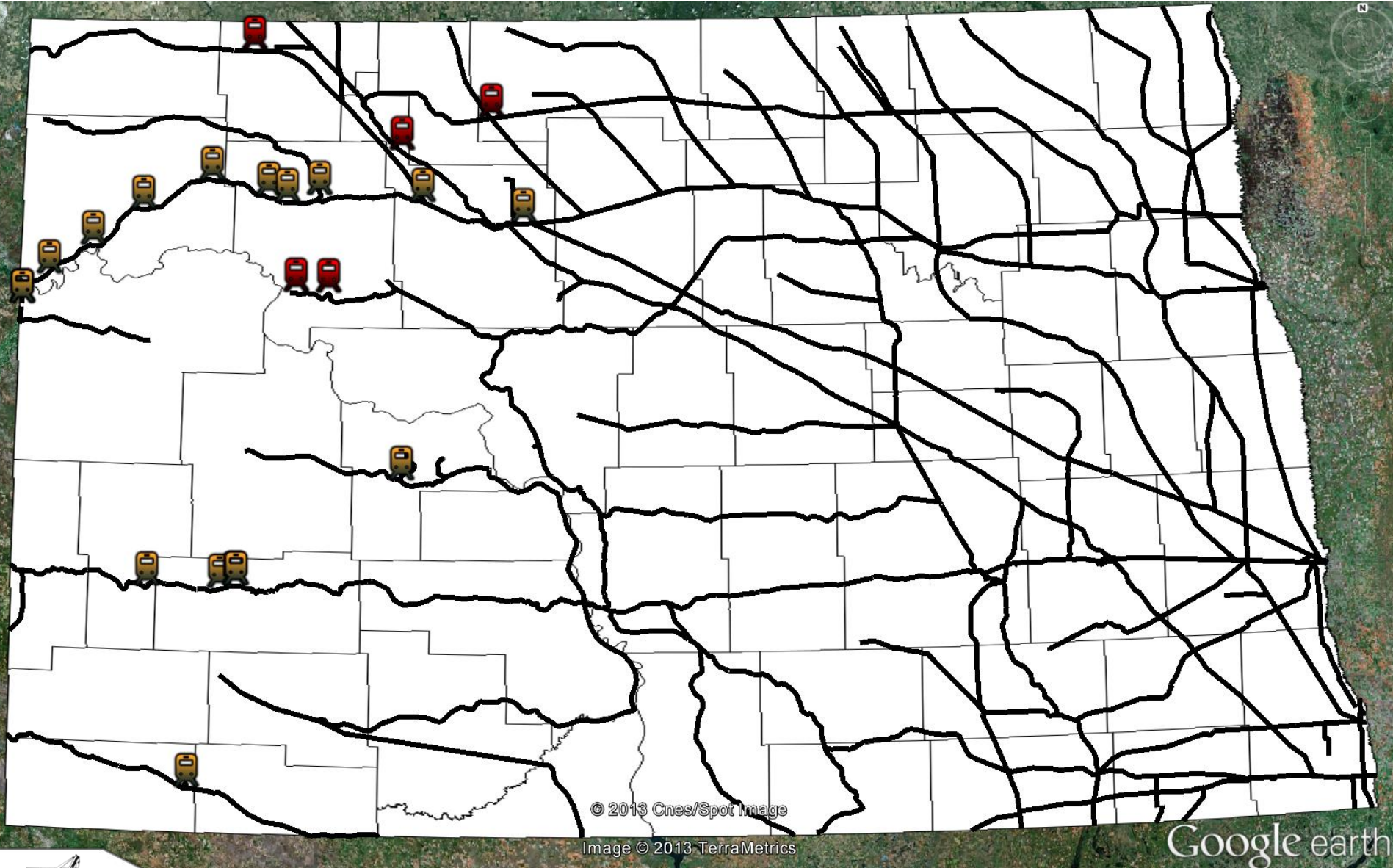


# North Dakota Crude Oil Pipelines

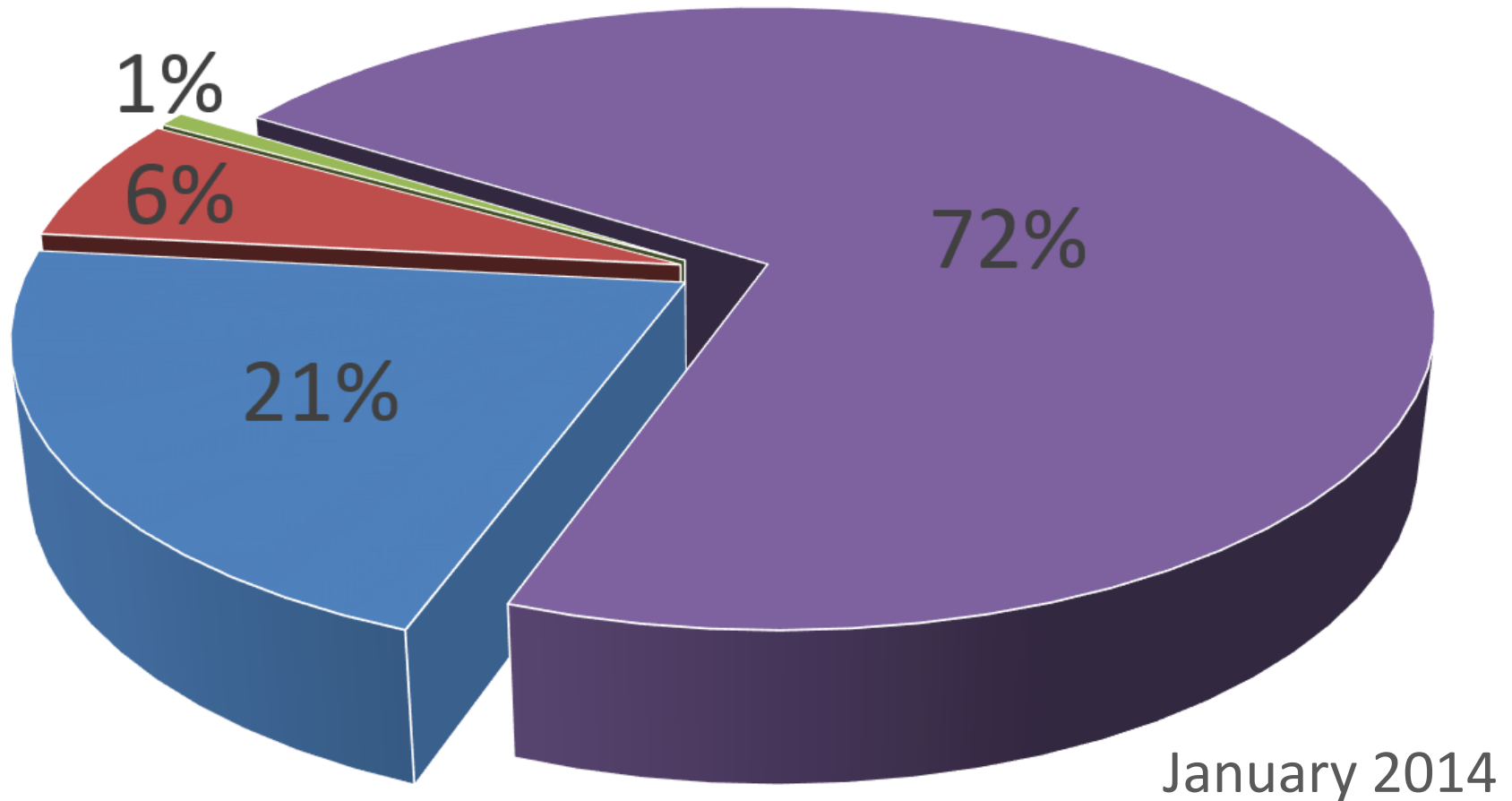




# Oil Loading Rail Facilities



# Estimated Williston Basin Oil Transportation



■ Estimated Pipeline Export

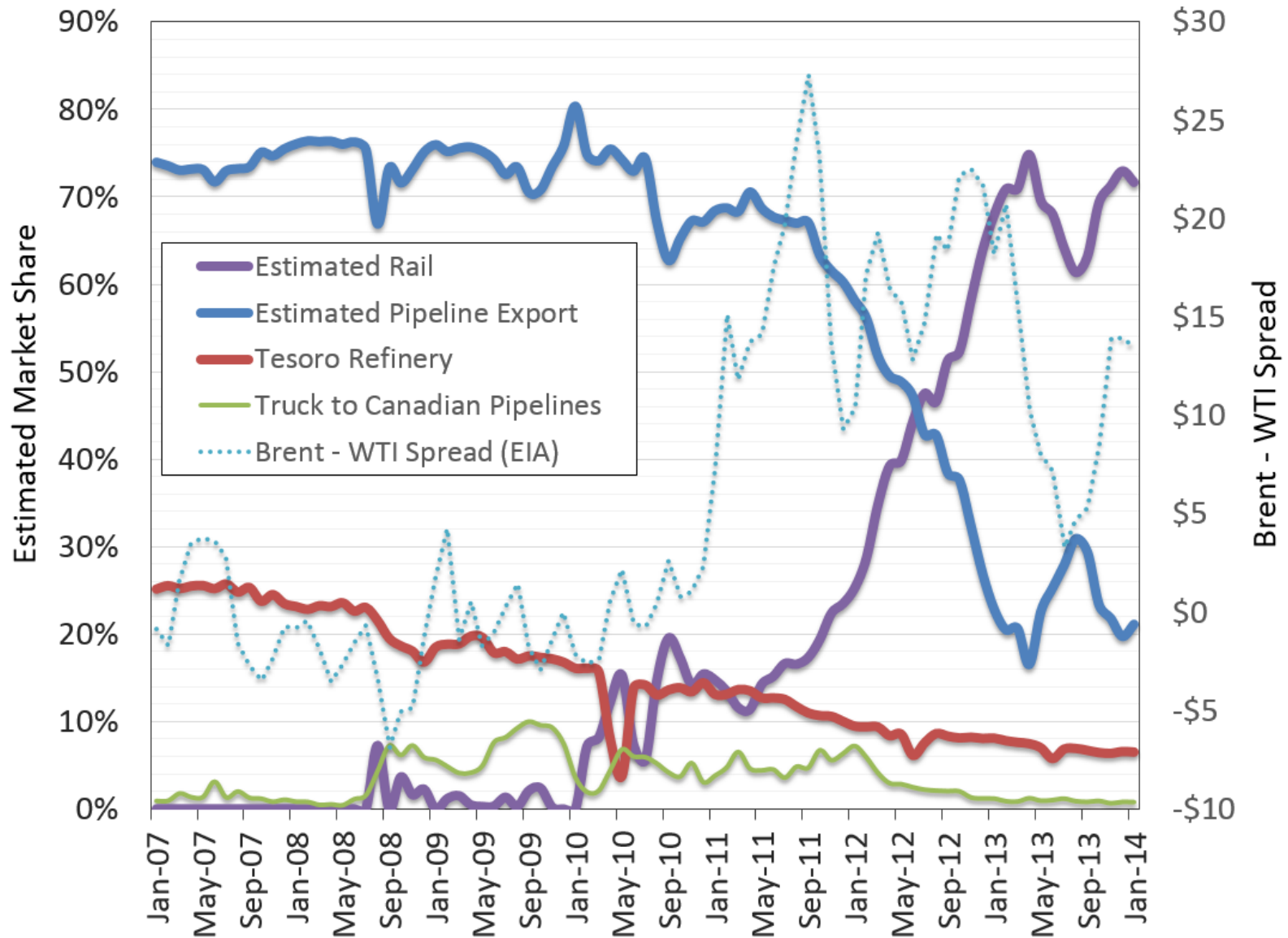
■ Tesoro Refinery

■ Truck to Canadian Pipelines

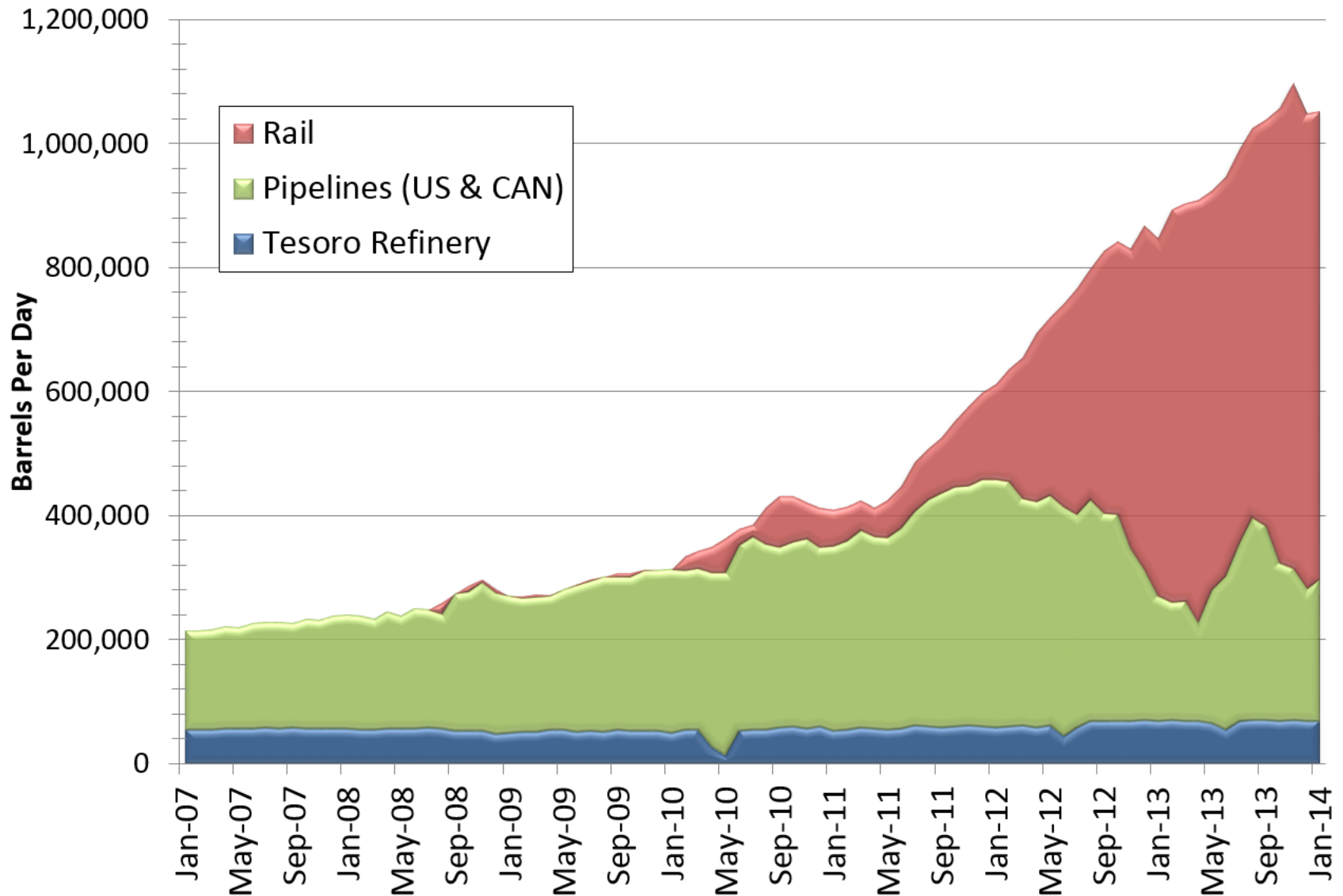
■ Estimated Rail



# Estimated Williston Basin Oil Transportation

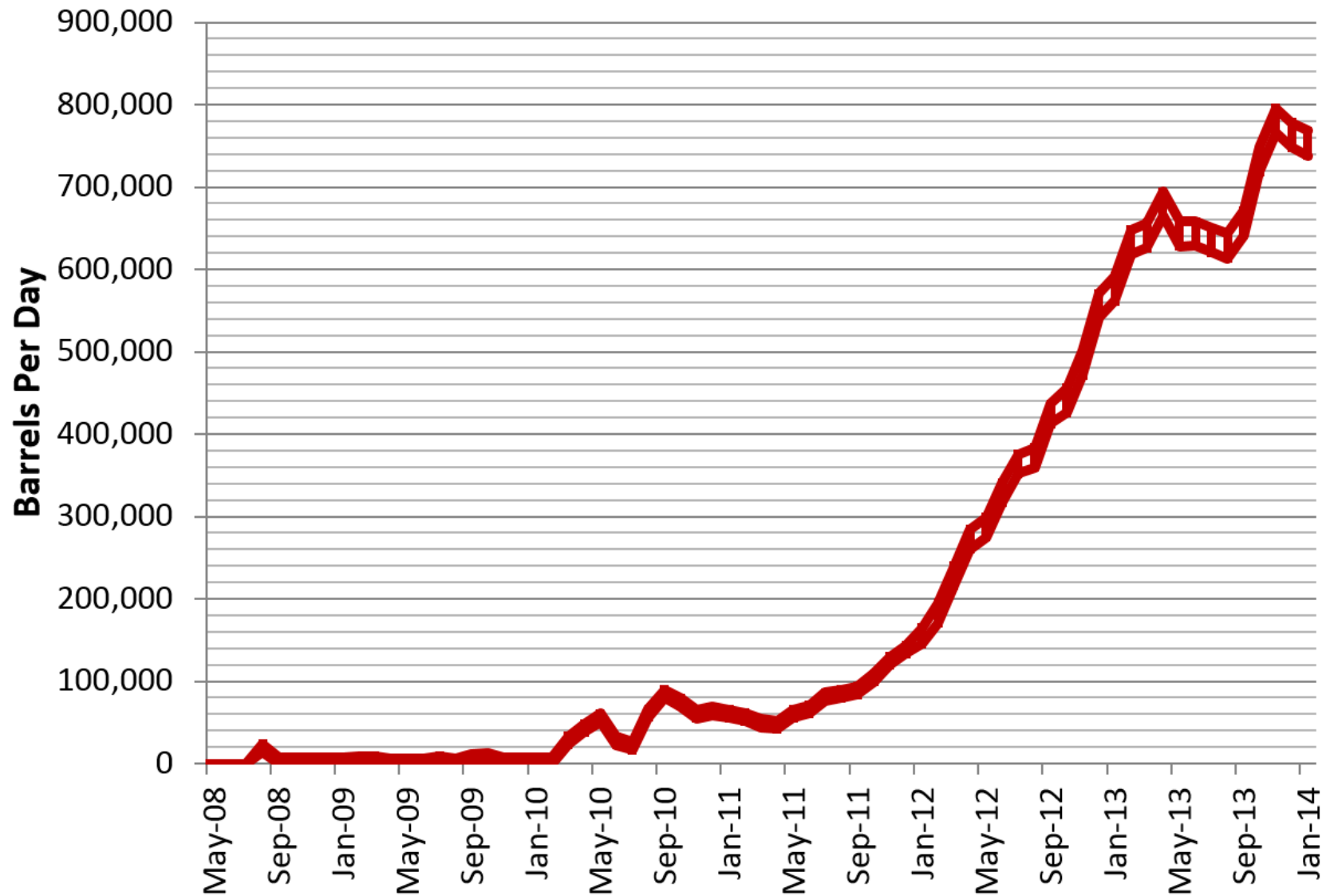


# Estimated Williston Basin Oil Transportation

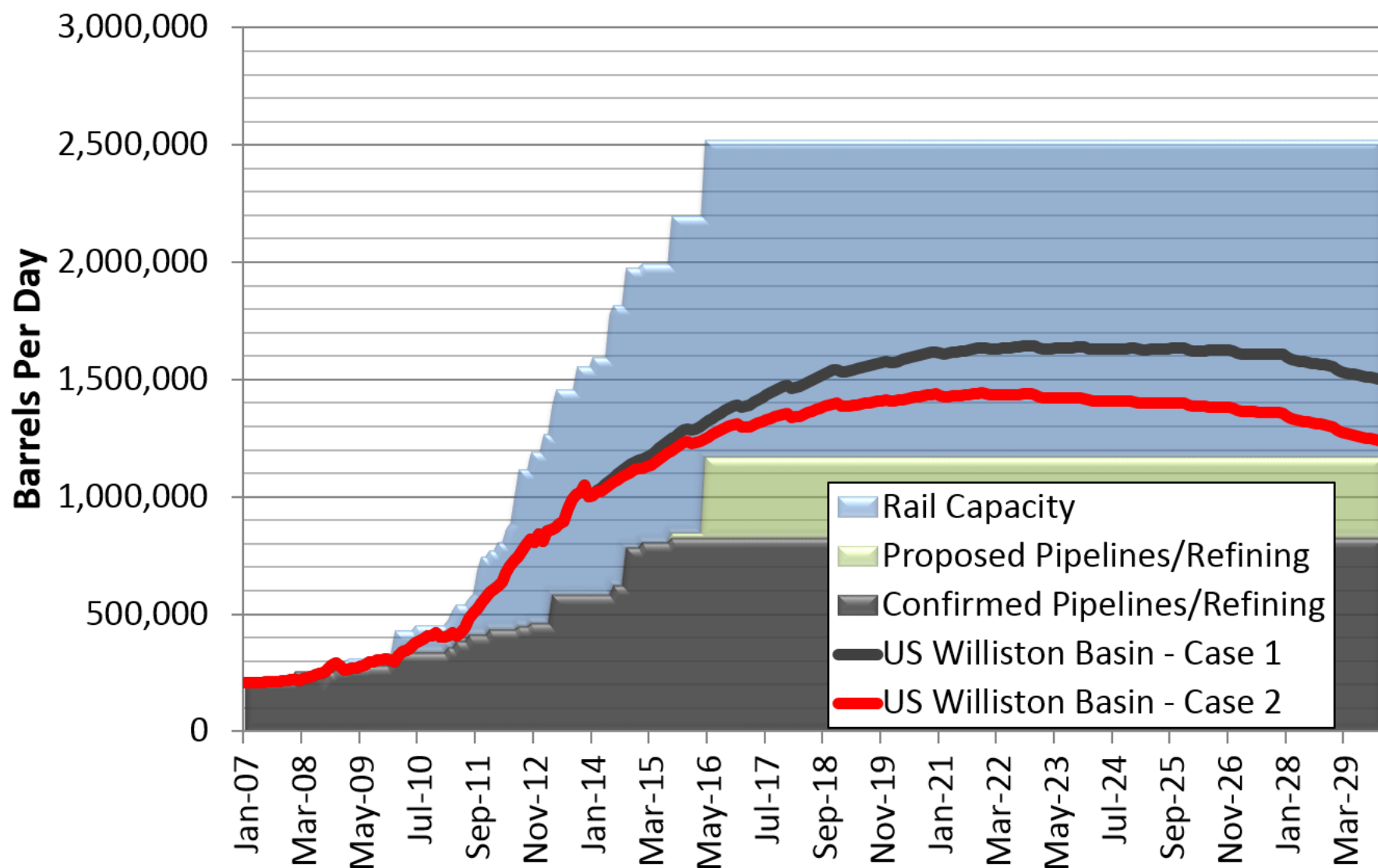




# Estimated ND Rail Export Volumes



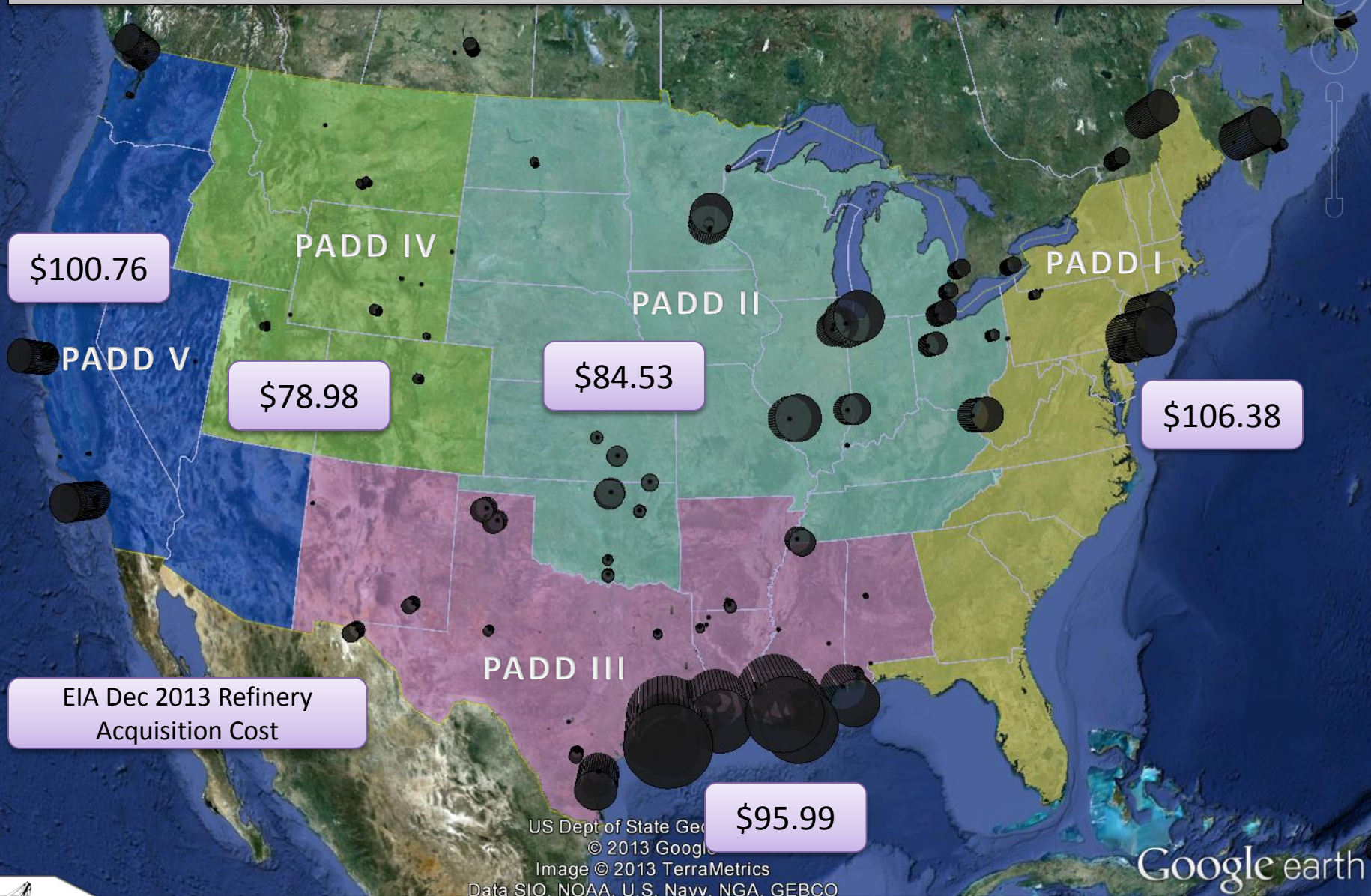
# Williston Basin Oil Production & Export Capacity, BOPD



Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

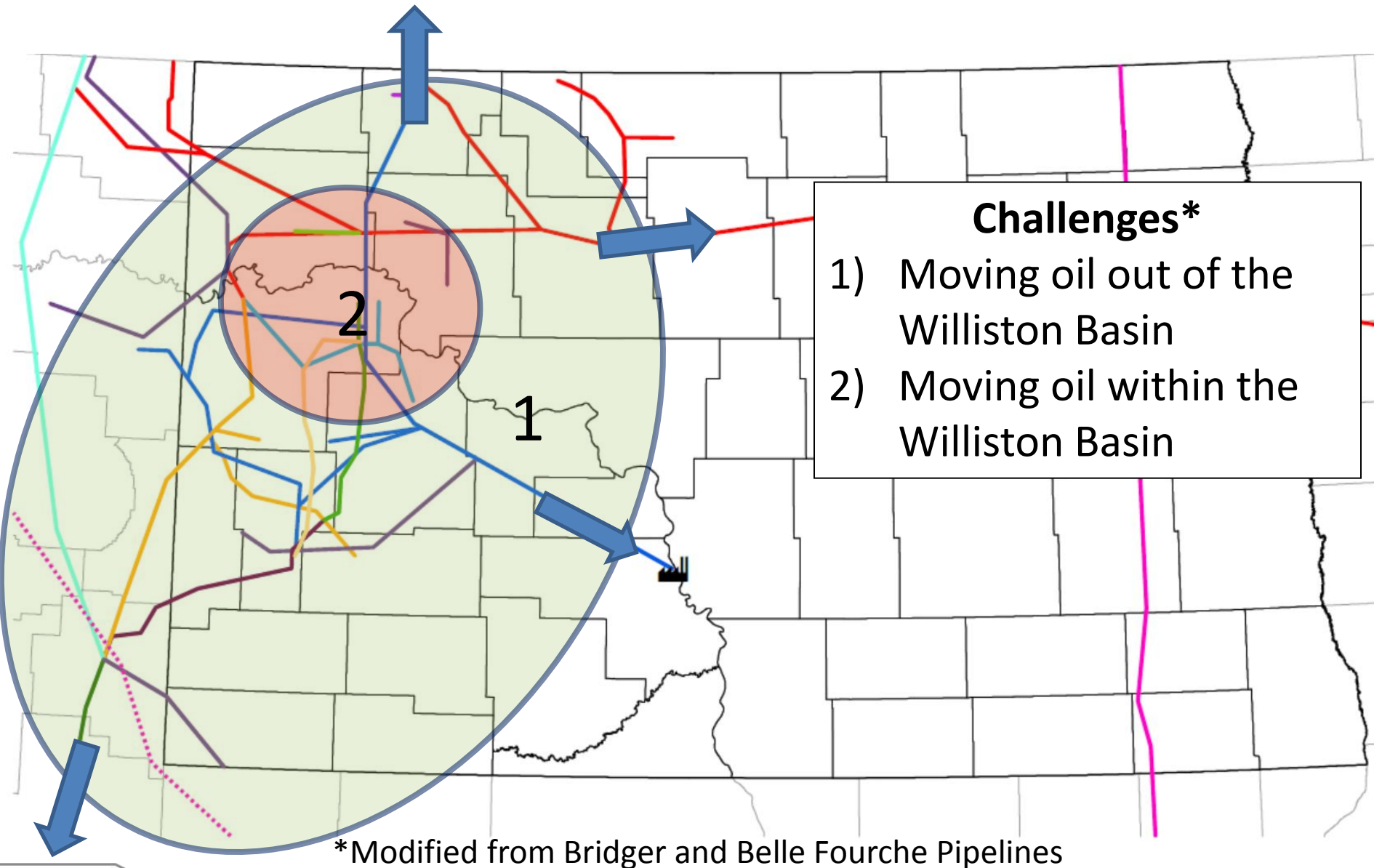


# US Refining Infrastructure



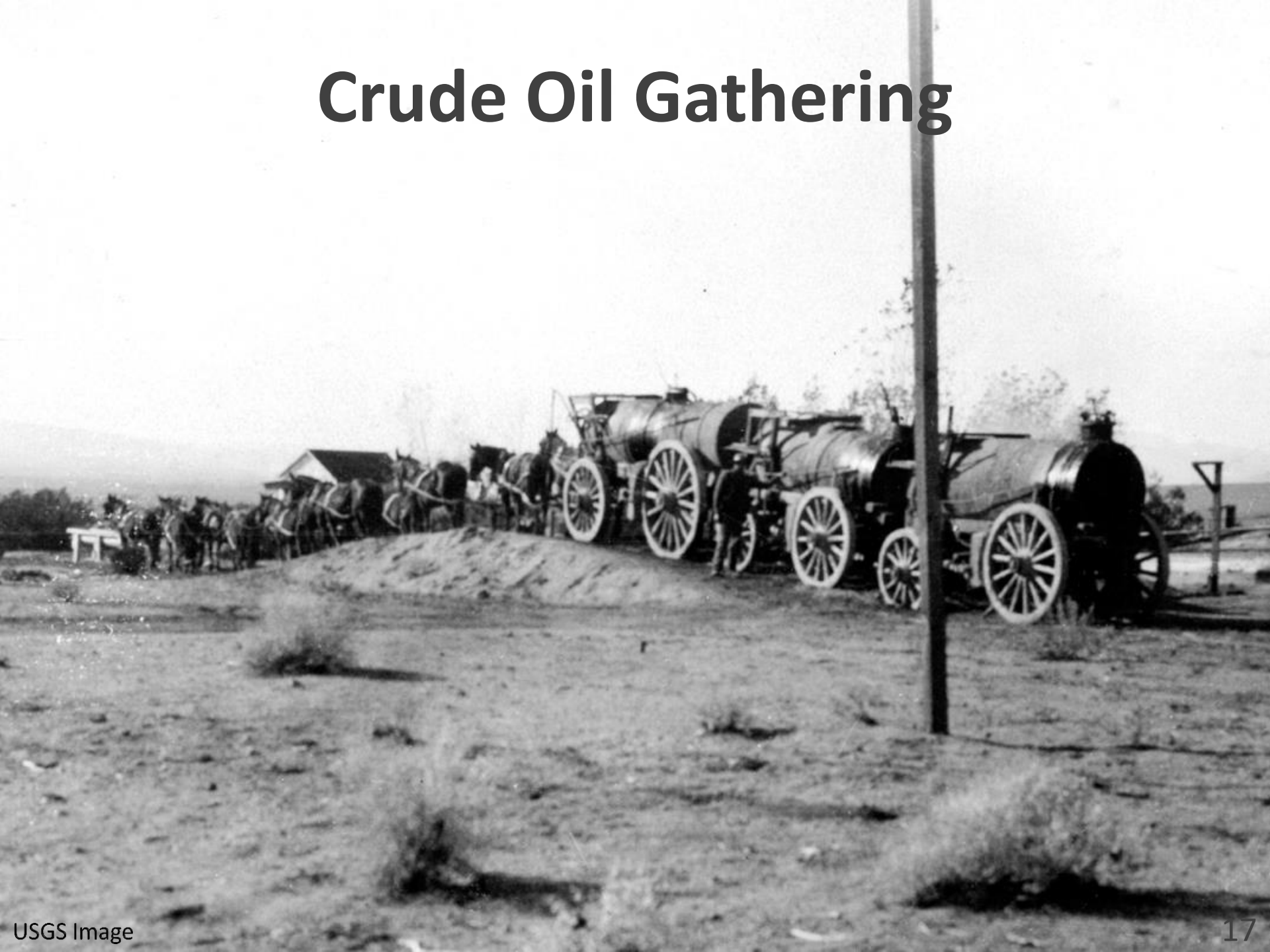


# North Dakota Crude Oil Pipelines



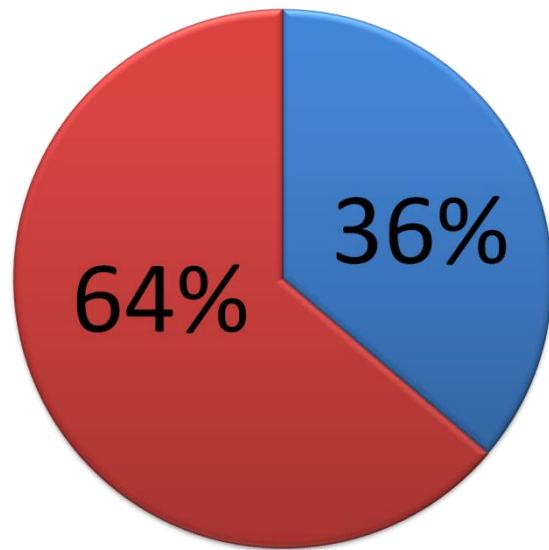


# Crude Oil Gathering



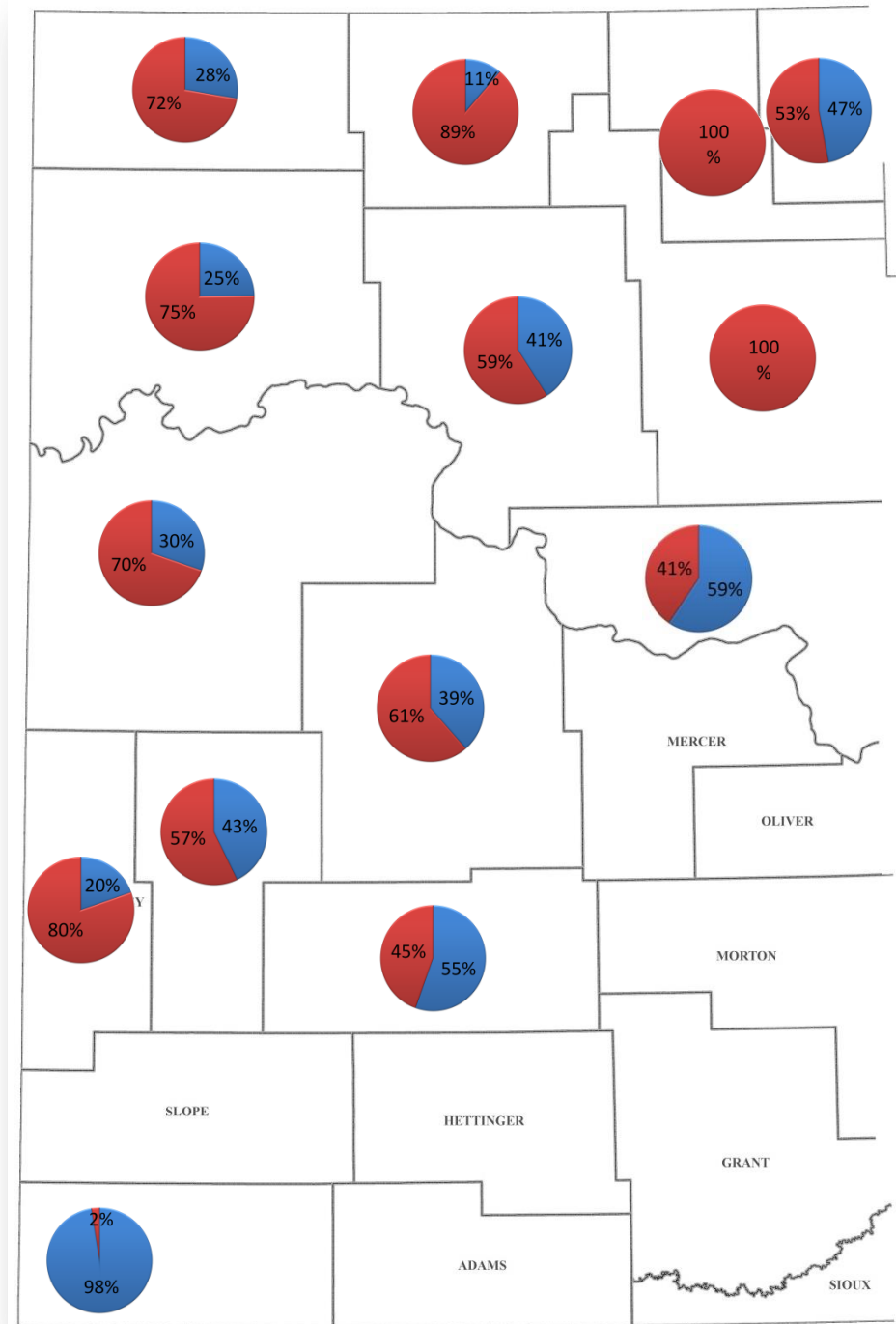
# ND Crude Oil Gathering

**Red** – Trucked  
**Blue** – Pipeline



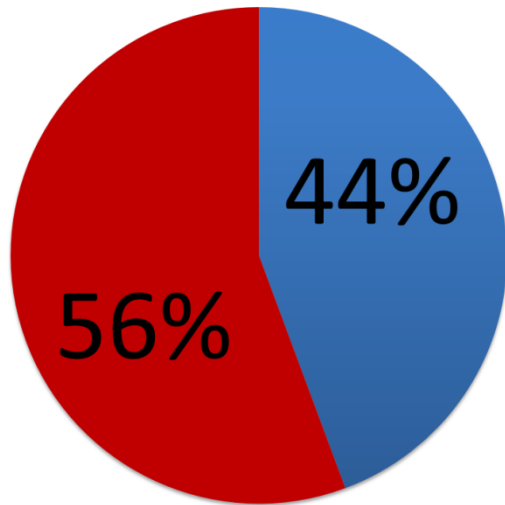
All ND Production

Sep 2012 Estimates – Some data incomplete or unavailable



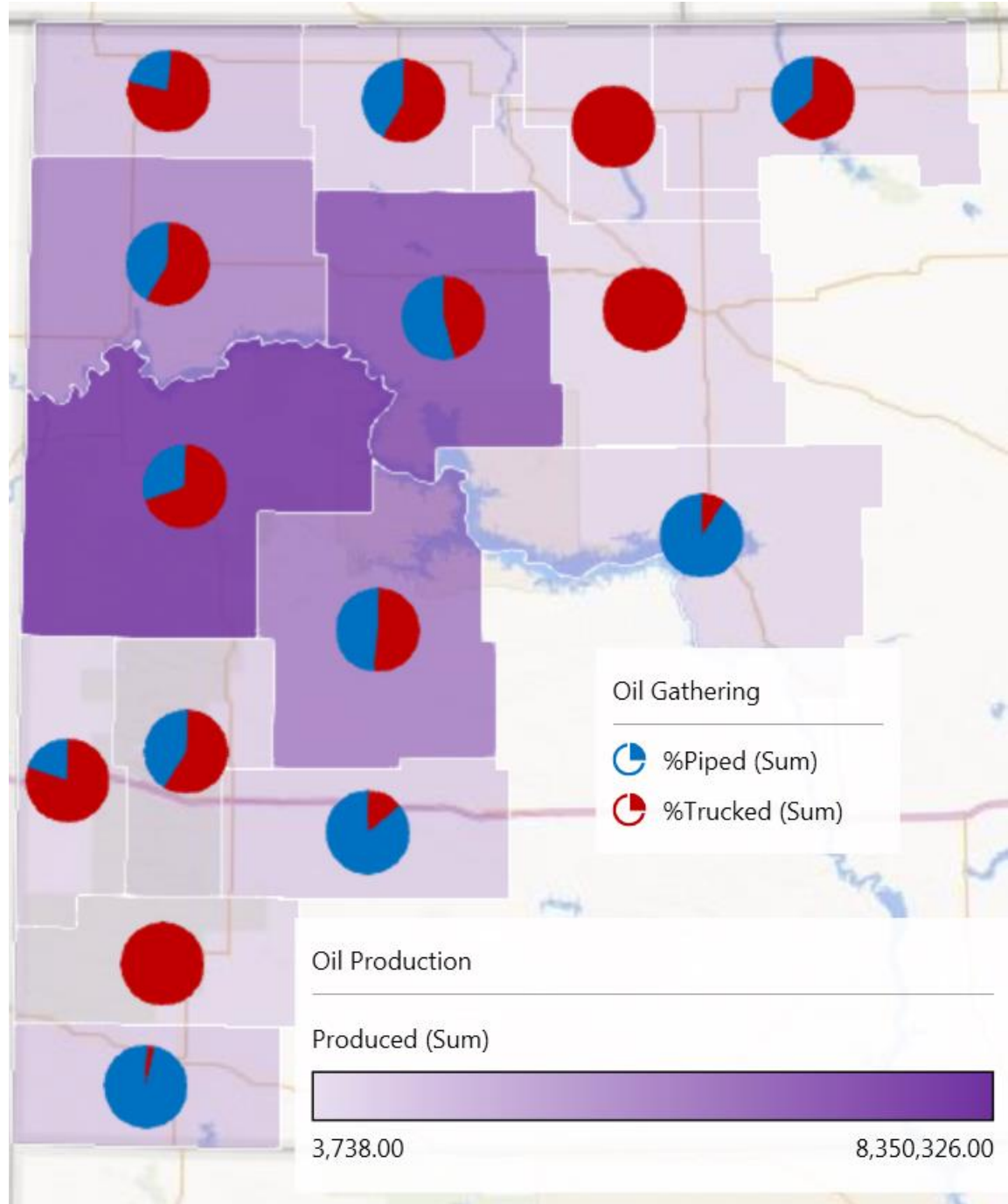
# ND Oil Gathering

**Red** – Trucked  
**Blue** – Pipeline



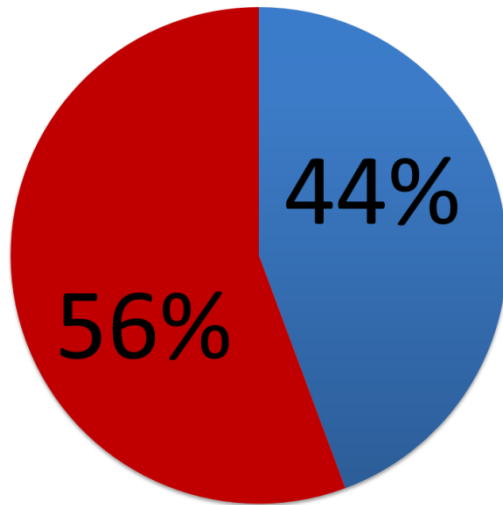
All ND Production

Sep 2013 Estimates  
Some data incomplete or unavailable



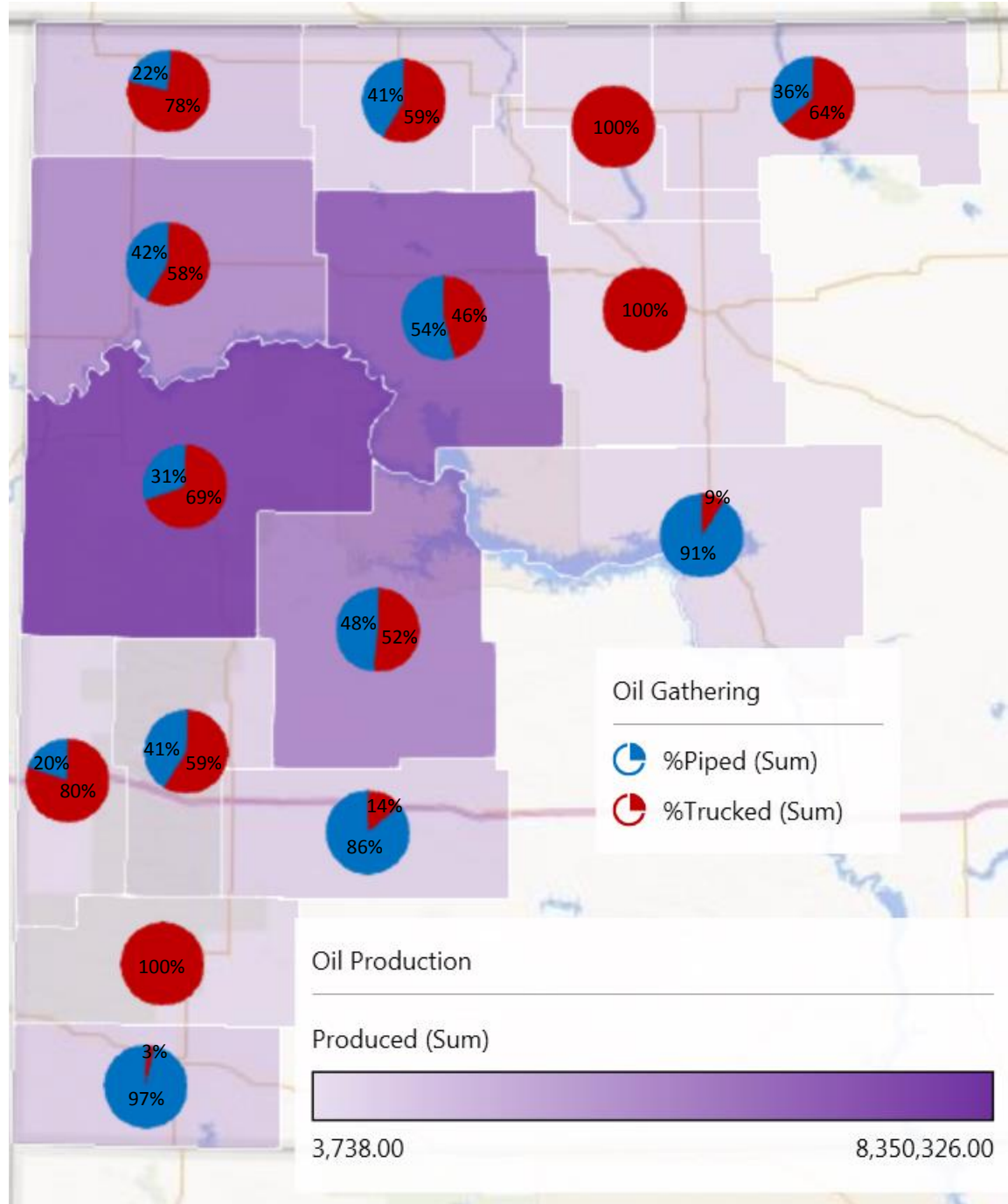
# ND Oil Gathering

**Red** – Trucked  
**Blue** – Pipeline



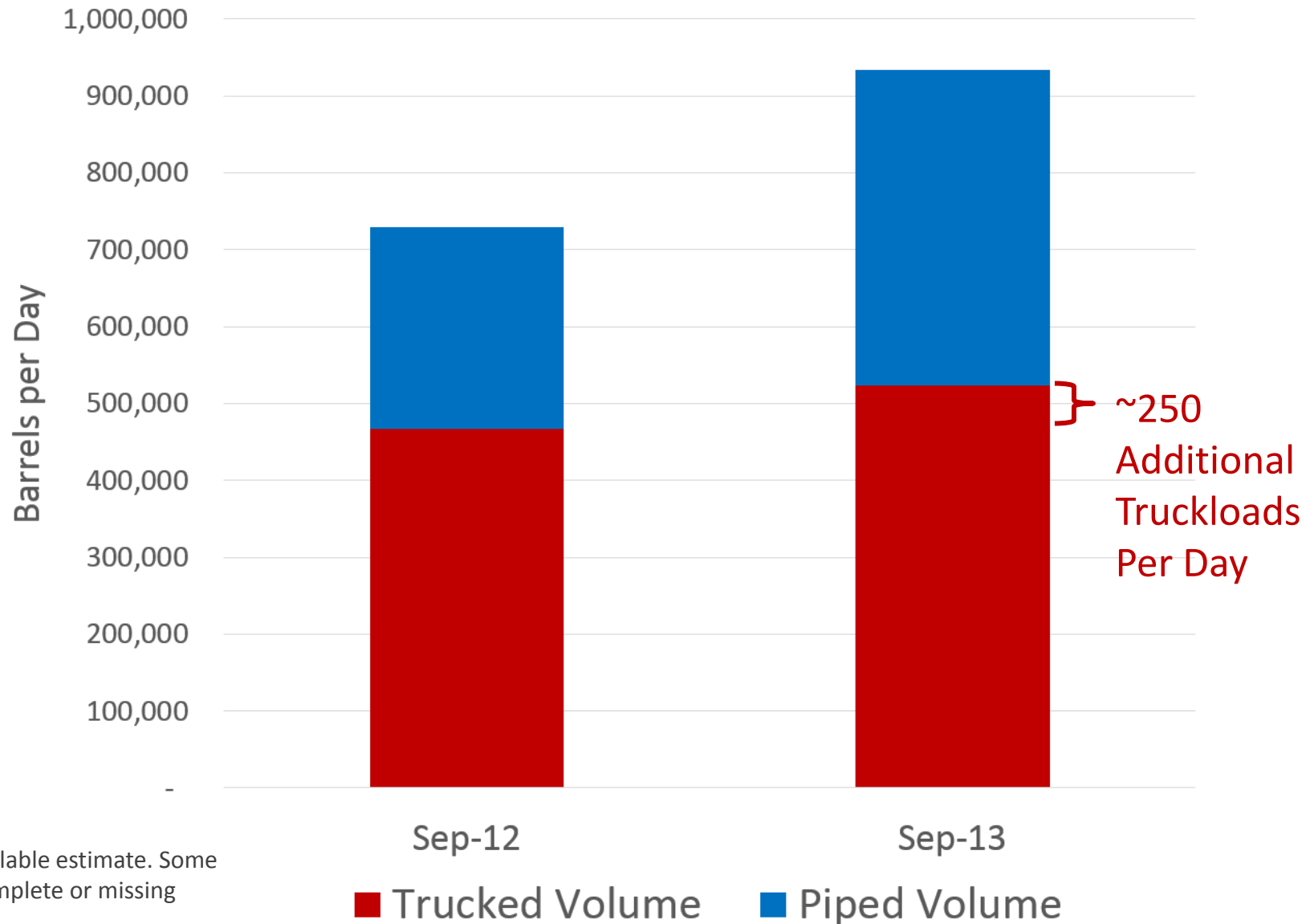
All ND Production

Sep 2013 Estimates  
Some data incomplete or unavailable

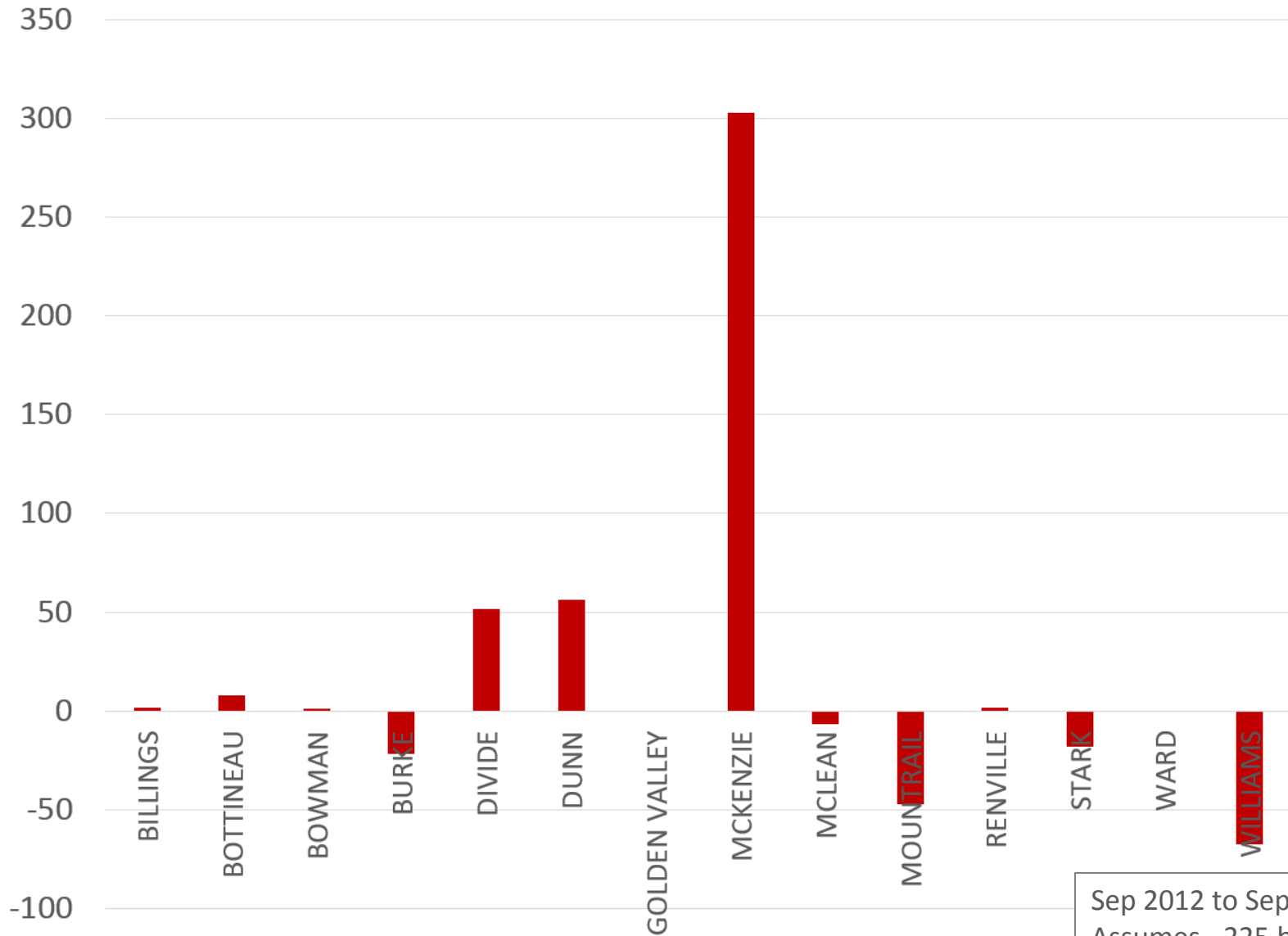




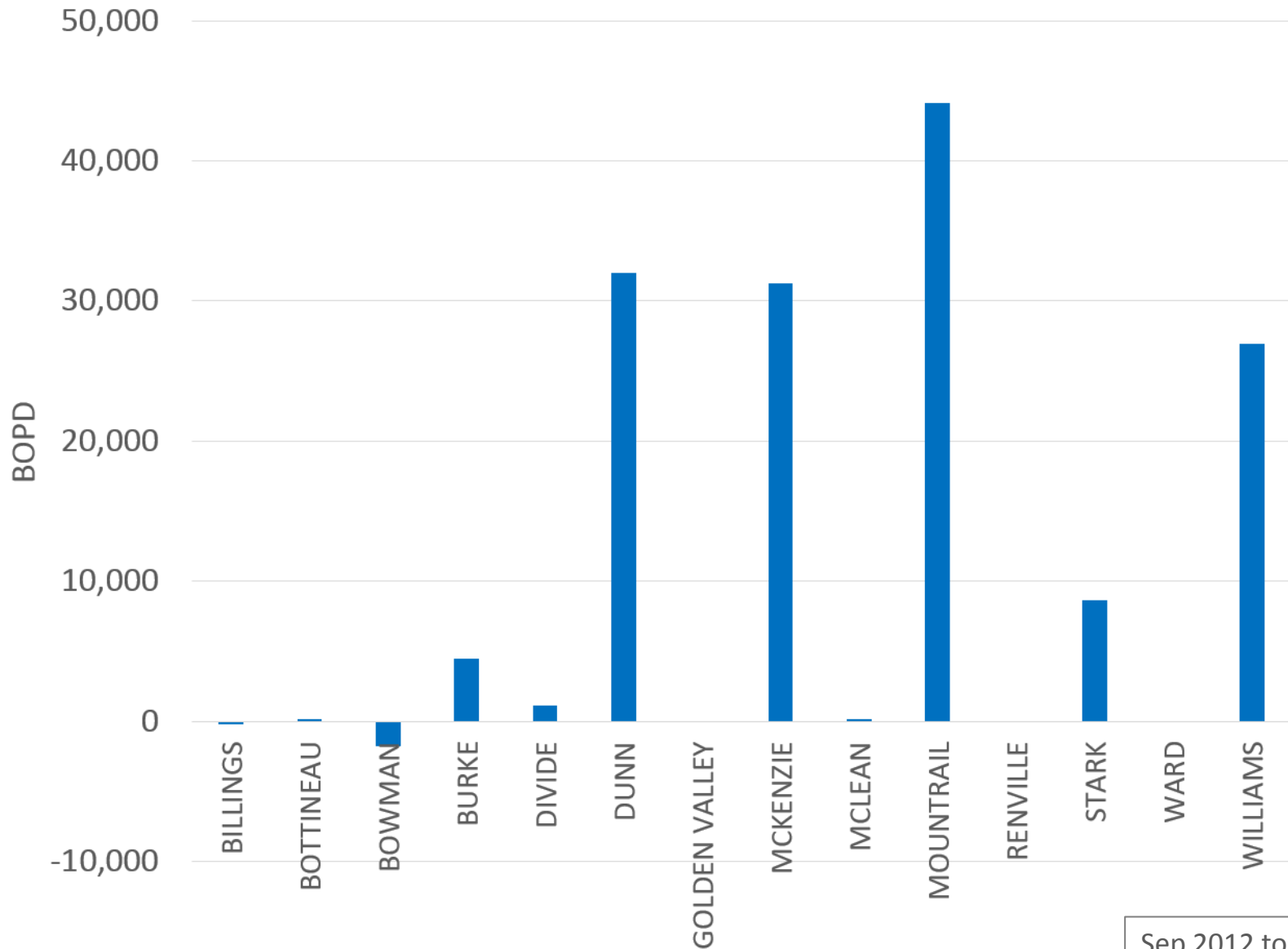
# Year-Over-Year Oil Gathering Changes\*



# Estimated YOY Daily Truckload Change



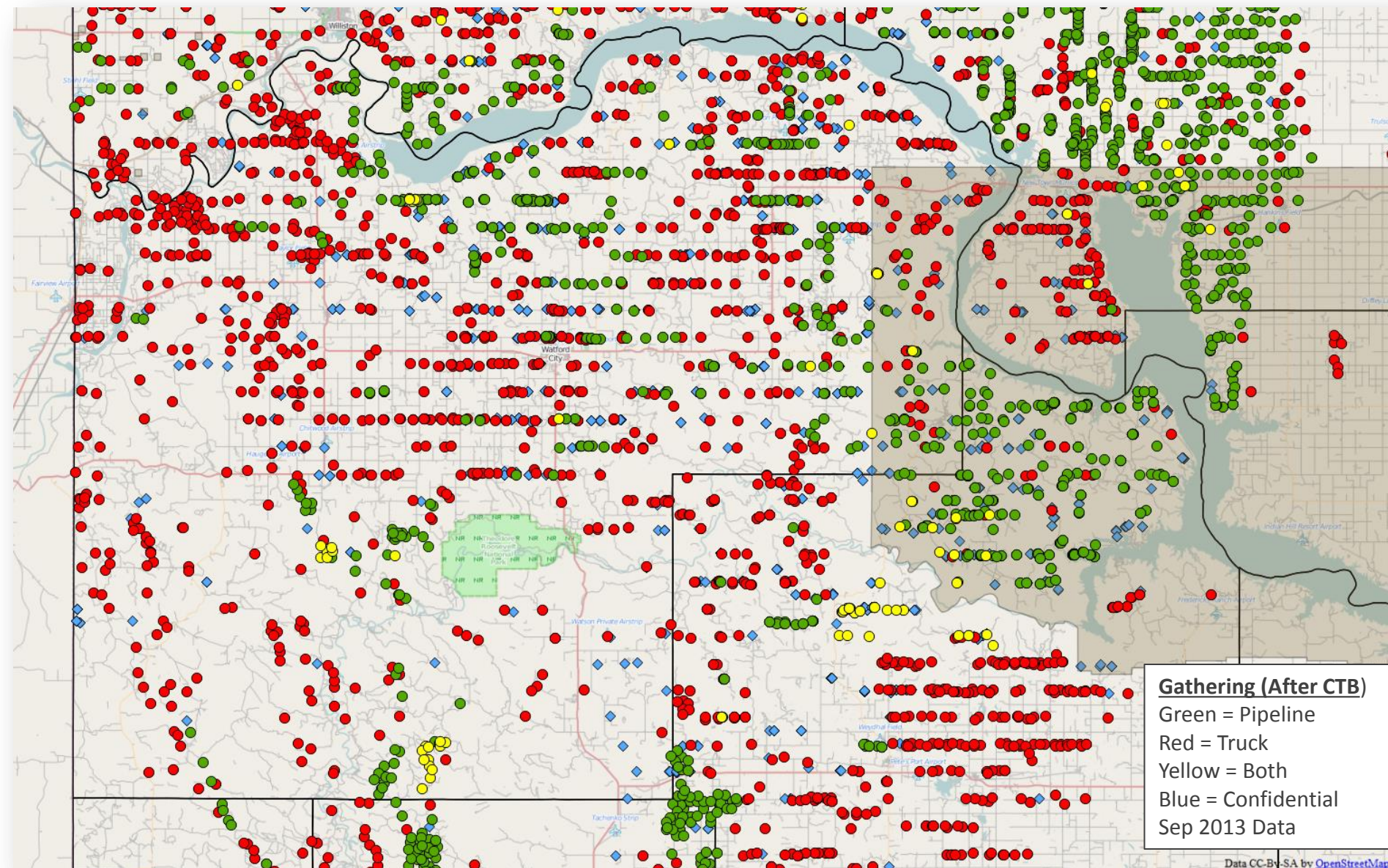
# Estimated YOY Oil Gathering Change



Sep 2012 to Sep 2013

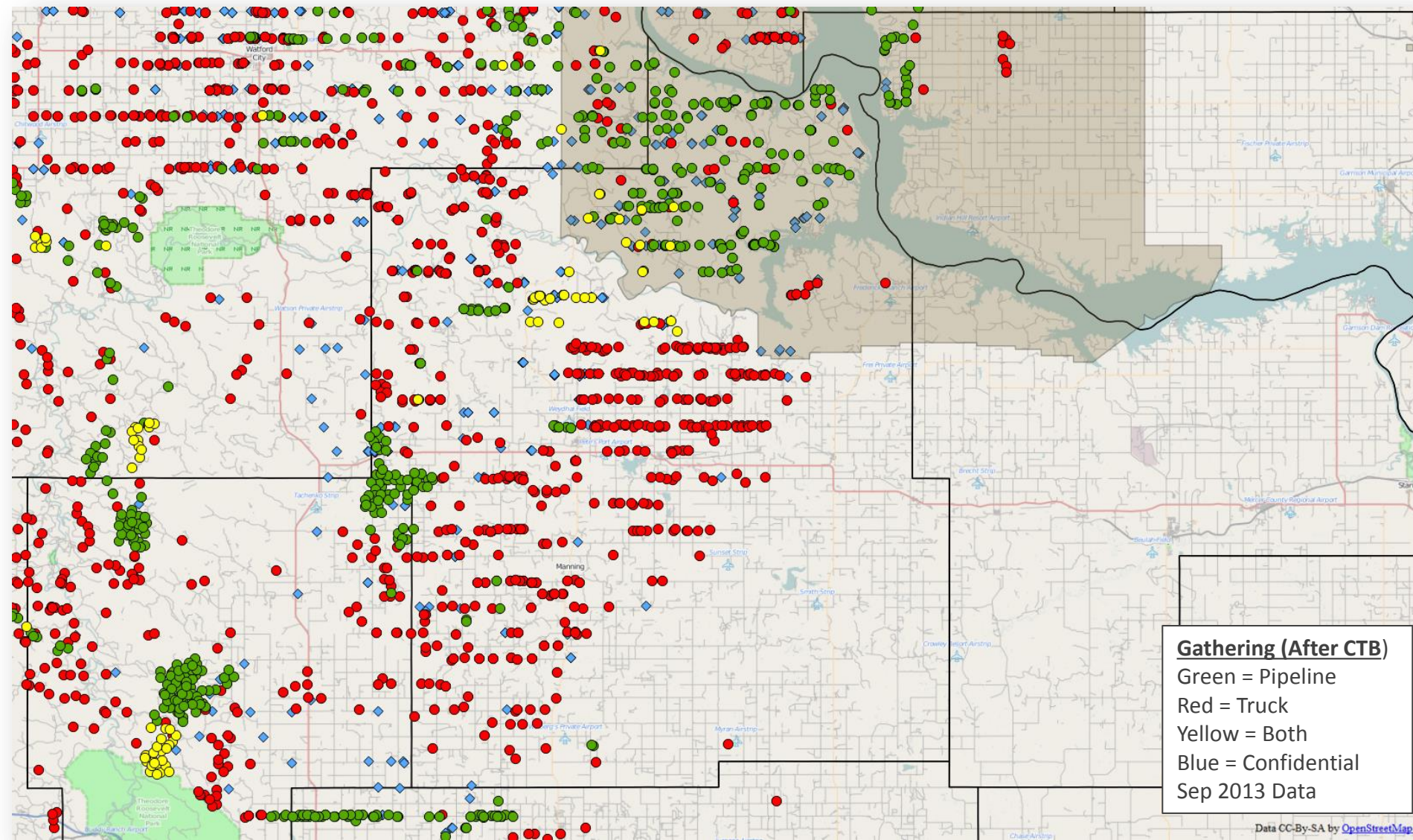


# Closer Look at Gathering Type



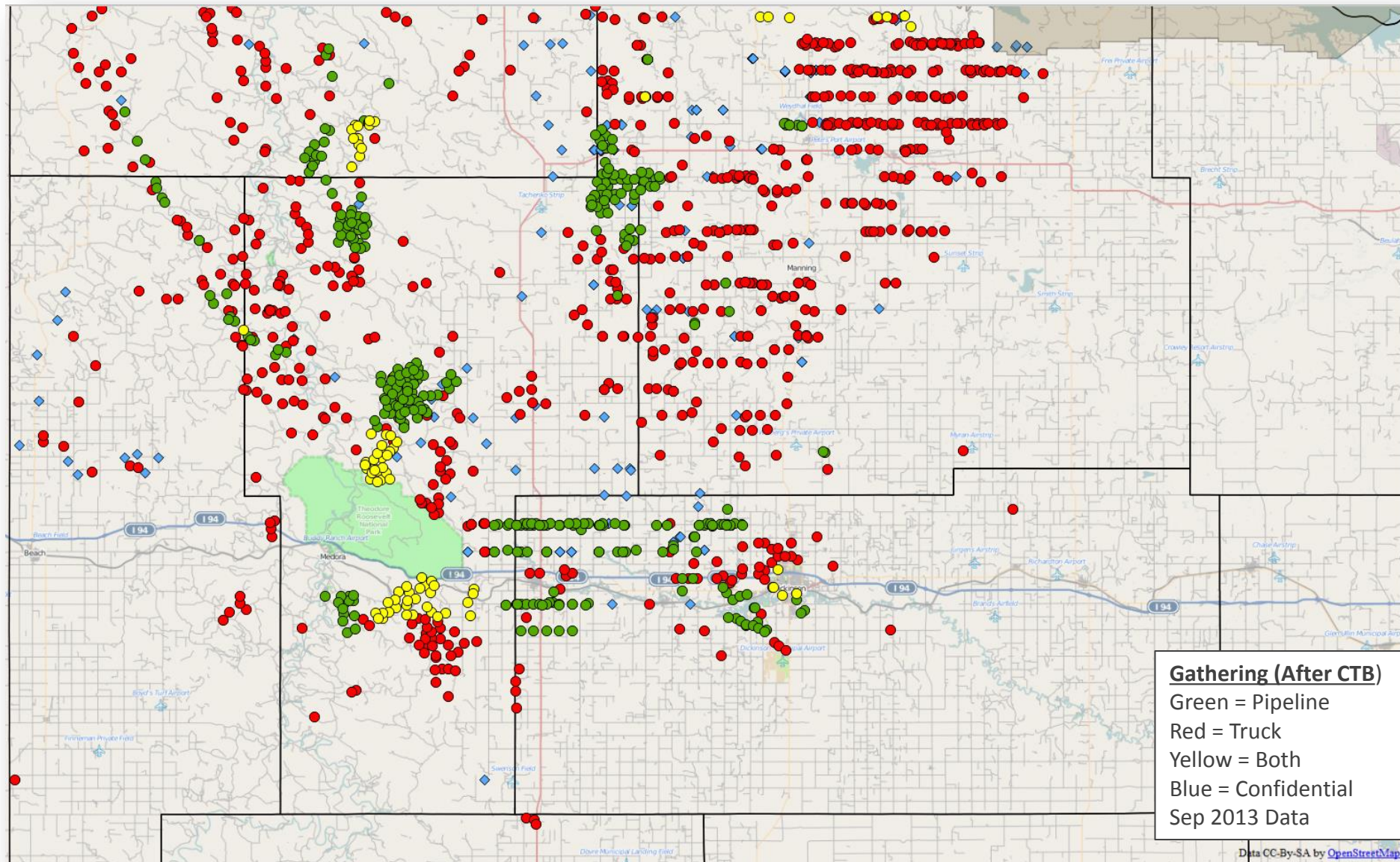


# Closer Look at Gathering Type





# Closer Look at Gathering Type

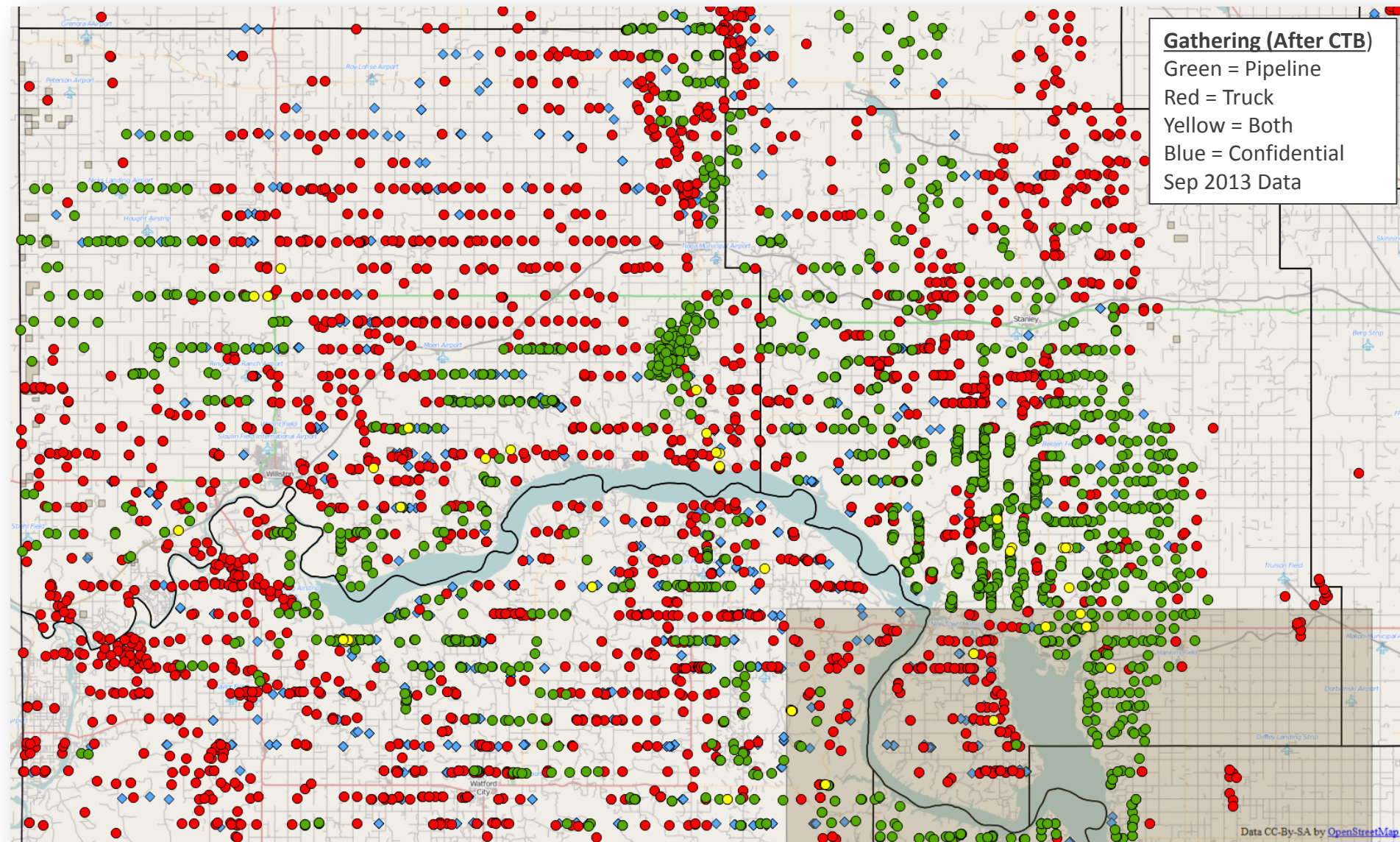


Data CC-BY-SA by [OpenStreetMap](#)

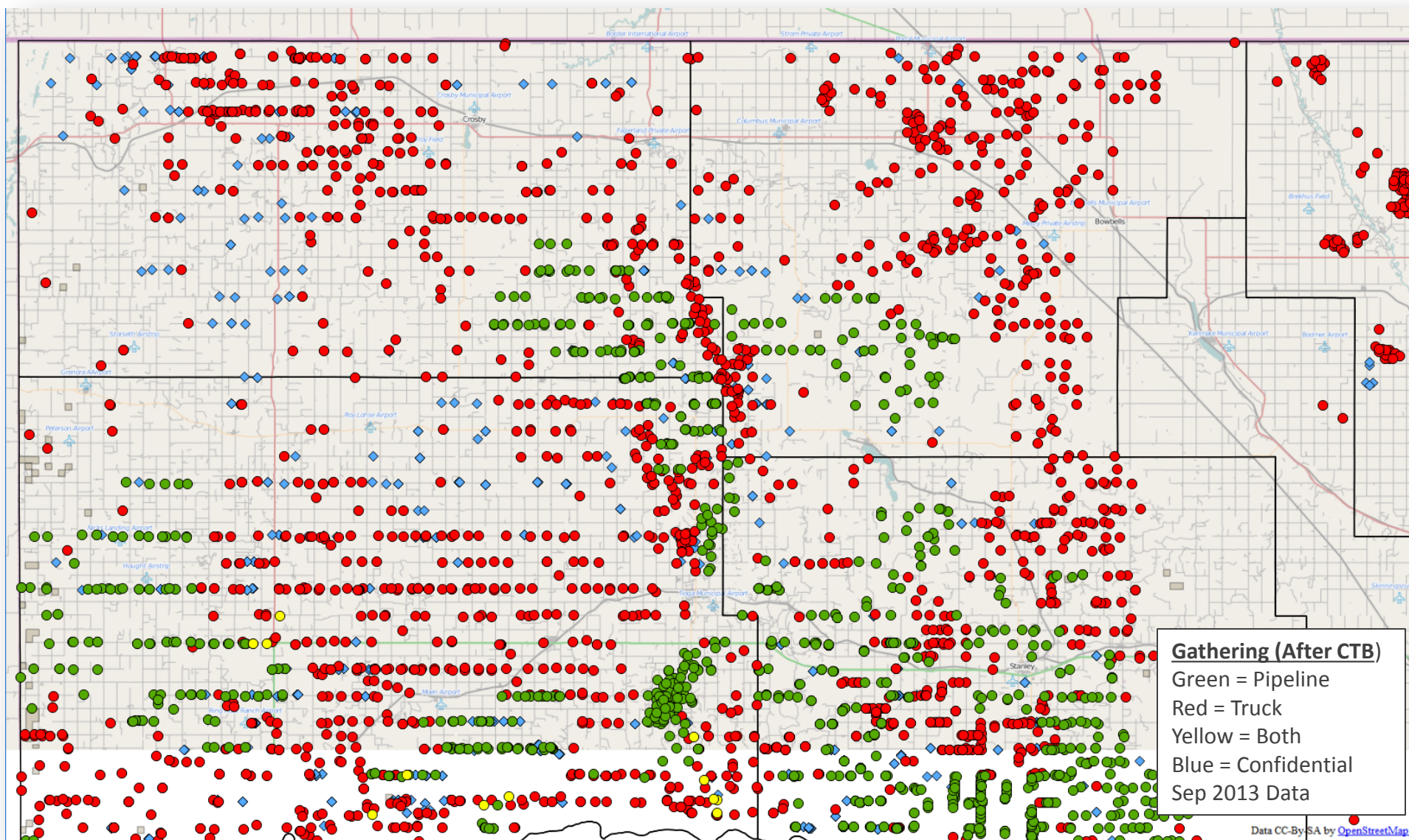




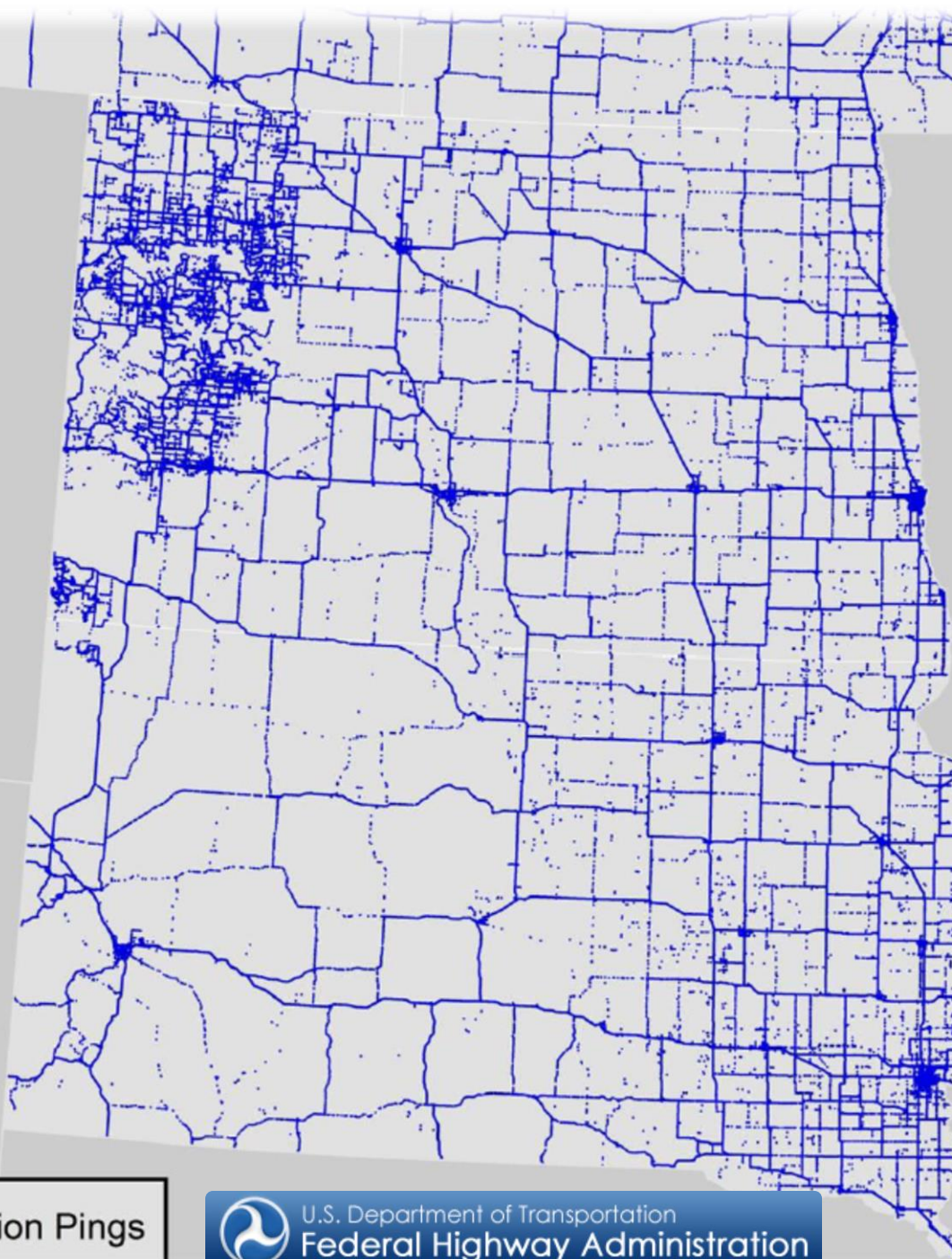
# Closer Look at Gathering Type



# Closer Look at Gathering Type



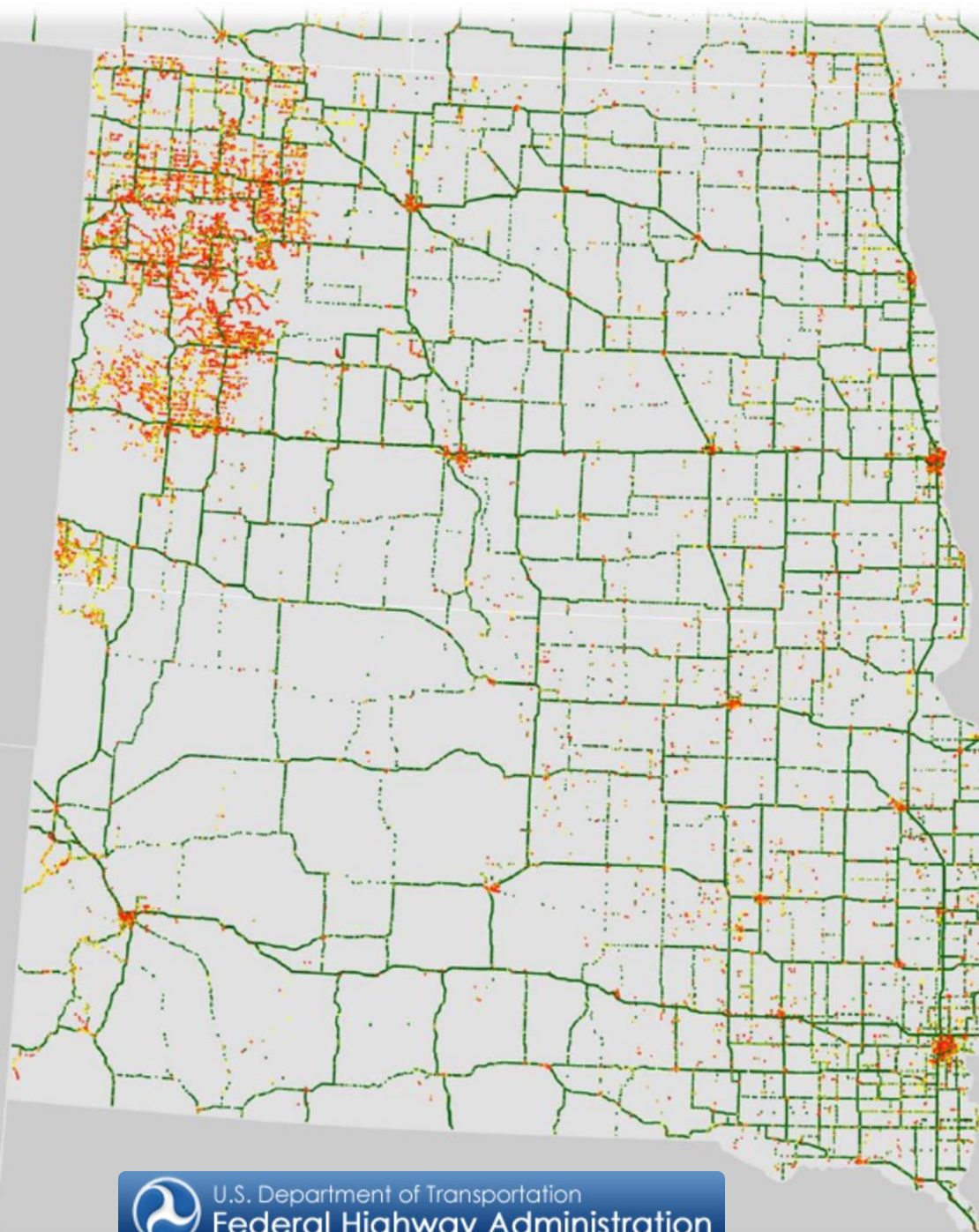




- Truck Position Pings



U.S. Department of Transportation  
**Federal Highway Administration**



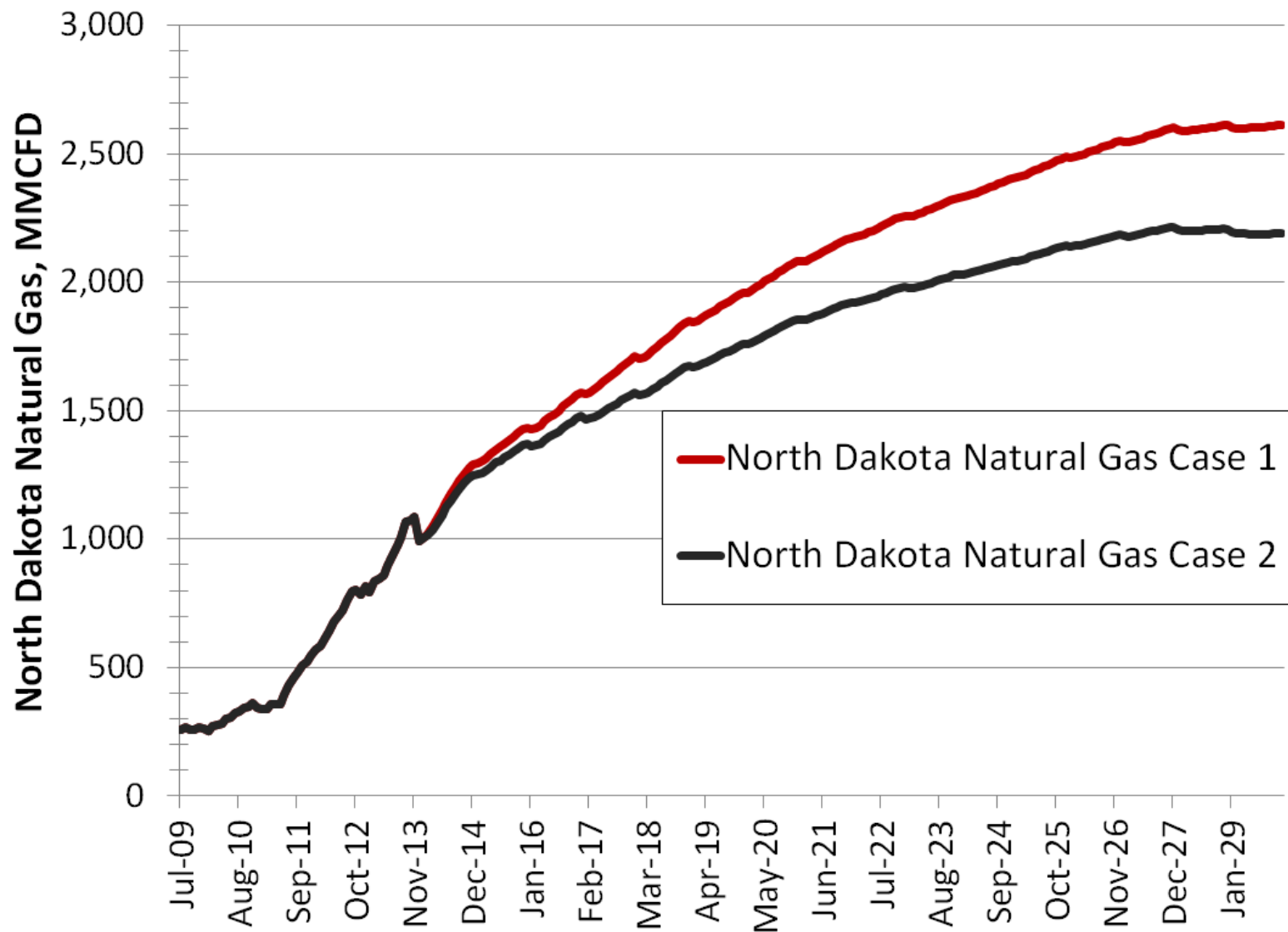
**Moving Truck Position Pings**  
**Speed - MPH**

- 1 - 25
- 26 - 35
- 36 - 45
- 46 - 55
- > 55



U.S. Department of Transportation  
**Federal Highway Administration**

# North Dakota Natural Gas Production Forecast

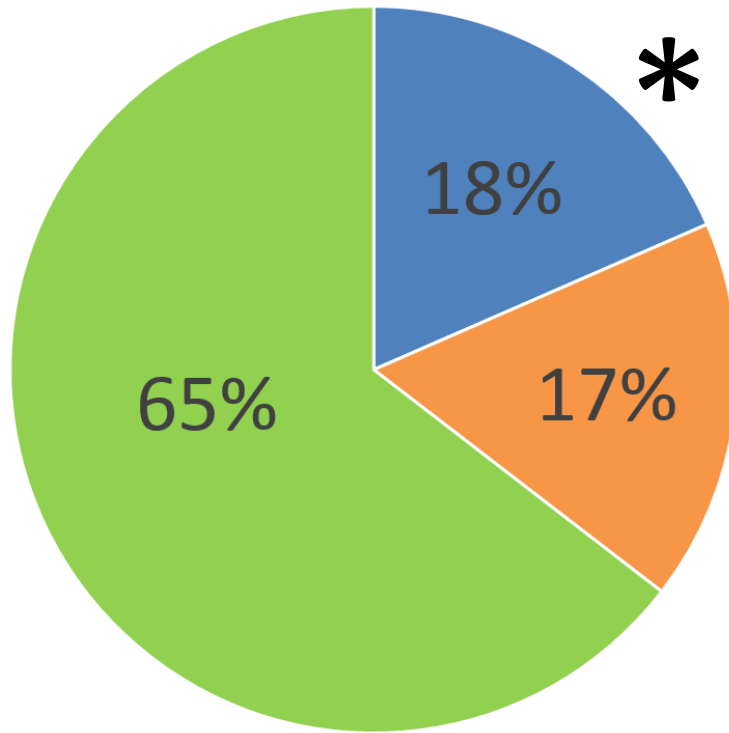


Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.





# Solving the Flaring Challenge



Statewide

**GREEN** – % of gas captured and sold  
**Blue** – % flared from zero sales wells  
**Orange** – % flared from wells with at least one mcf sold.

## Simple Terms

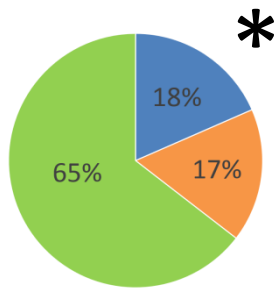
**Blue** – Lack of pipelines  
**Orange** – Challenges on existing infrastructure

January 2014 Data – Non-Confidential Wells

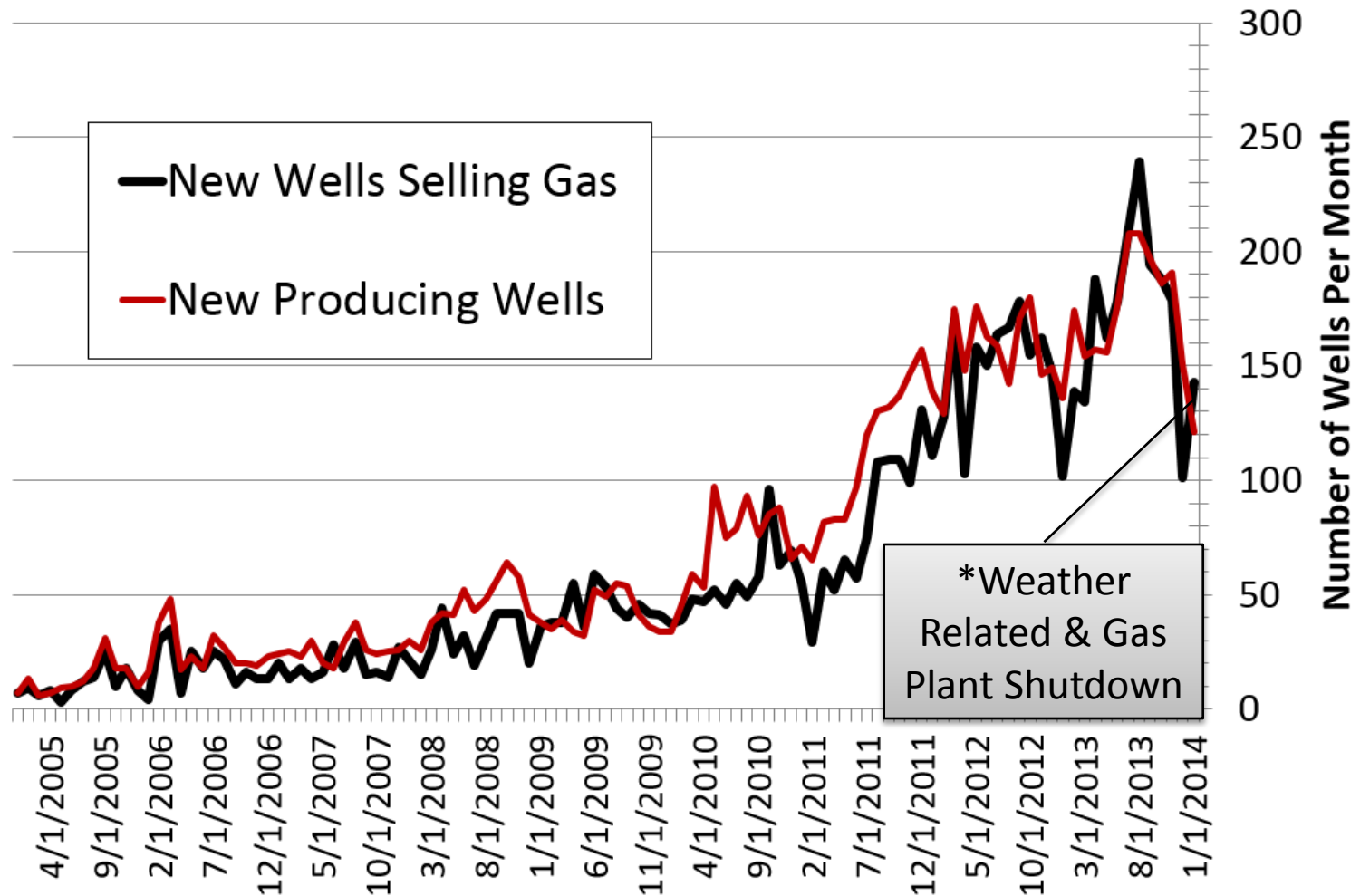
*\*Hess Tioga Gas Plant shut-in for 140 MMCFD expansion starting in November*



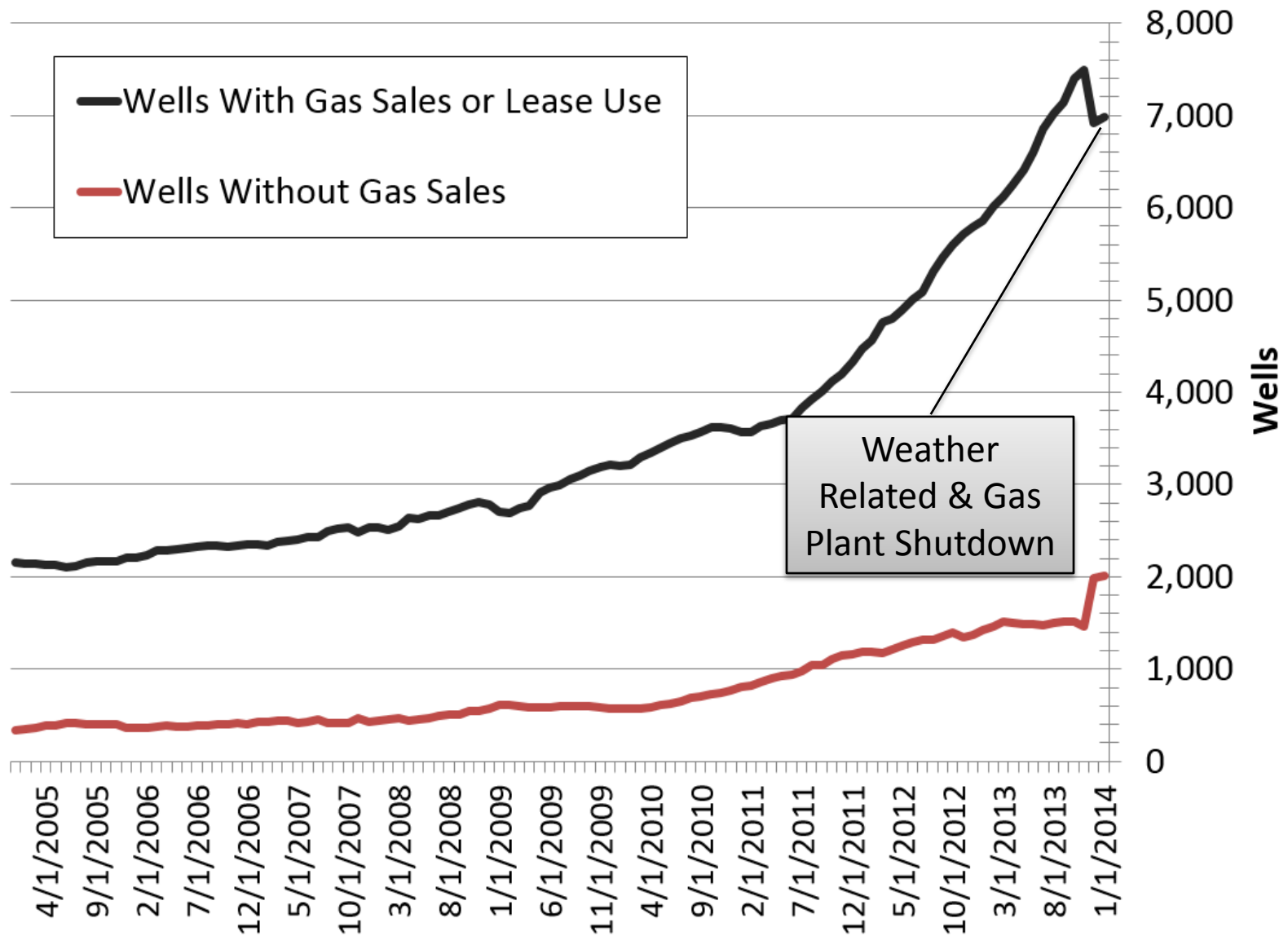




# Capturing the 18% Faster Well Connections



# ND Gas Gathering Statistics



# Discussion Items

*-Standardized Legal Forms or Info Sheets?*

*-Goal: Save both parties time and money*

*-Goal: Address common questions upfront*

*-Education Efforts*

*-What general questions are out there?*

*-Who is the audience and will they use it?*

*-Land Agent Best Practices and Standards*

*-Landowner Expectations*



# Contact Information

Justin J. Kringstad, Director  
North Dakota Pipeline Authority

600 E. Boulevard Ave. Dept. 405  
Bismarck, ND 58505-0840

Phone: (701)220-6227

Fax: (701)328-2820

E-mail: [jjkringstad@ndpipelines.com](mailto:jjkringstad@ndpipelines.com)

Websites:

[www.pipeline.nd.gov](http://www.pipeline.nd.gov)

[www.northdakotapipelines.com](http://www.northdakotapipelines.com)



**Know what's below.  
Call before you dig.**

