



Production in the Permian Basin

Forecasting Production Quantity And Quality Across The Permian Basin To Determine Demand For Midstream Infrastructure In The Low Oil Price Environment

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Permian Midstream Congress

Production Forecasts, High Gravity Crudes And Condensates

2015

Introduction to ARB Midstream



- Denver based infrastructure development company providing midstream solutions
- Strong financial support from private equity
- Utilize in-depth quantitative analytics to identify value propositions of our assets
- Emphasis on early stage development opportunities
- Current projects being developed:
 - Niobrara Connector “NiCon” – DJ Basin
 - Permian Gateway – Midland Basin (Big Spring)



Observations

- Out look on crude production has many variables
- Despite 50% drop in horizontal rig count, crude production is forecasted to continue growth
 - Increased horizontal drilling efficiencies
 - Initial production rates show year over year increases across all Permian districts
- Acceleration in production points to areas in need of midstream options
- Majority of new Permian Basin production growth is 40° API gravity and above



Permian Basin Production



Variabilities in Production



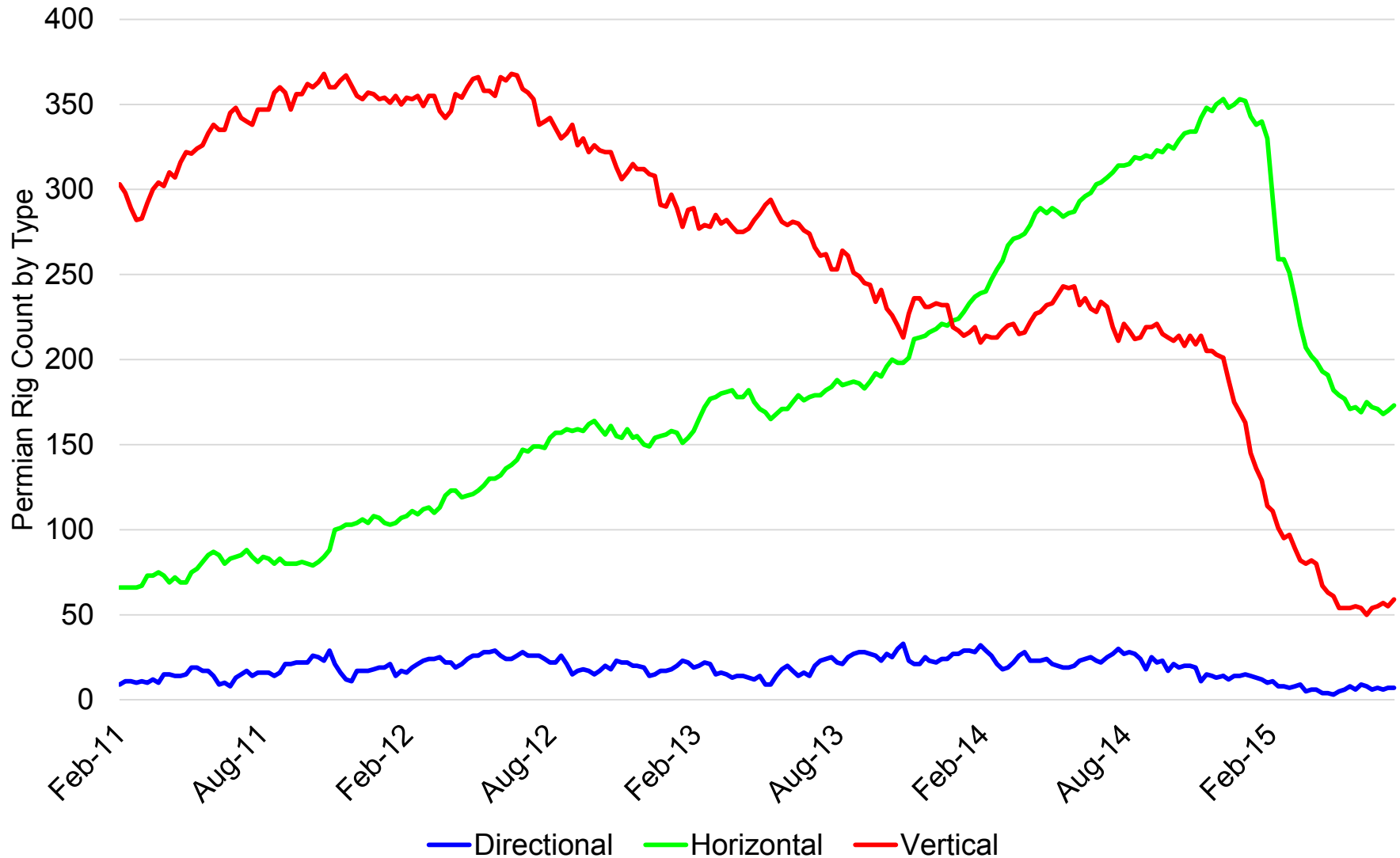
• Upside

- Stabilized or growing rig count
- Increased drilling efficiencies
- Increase in IP Rates
- Improving price of oil
- Drilled Uncompleted (DUCs)

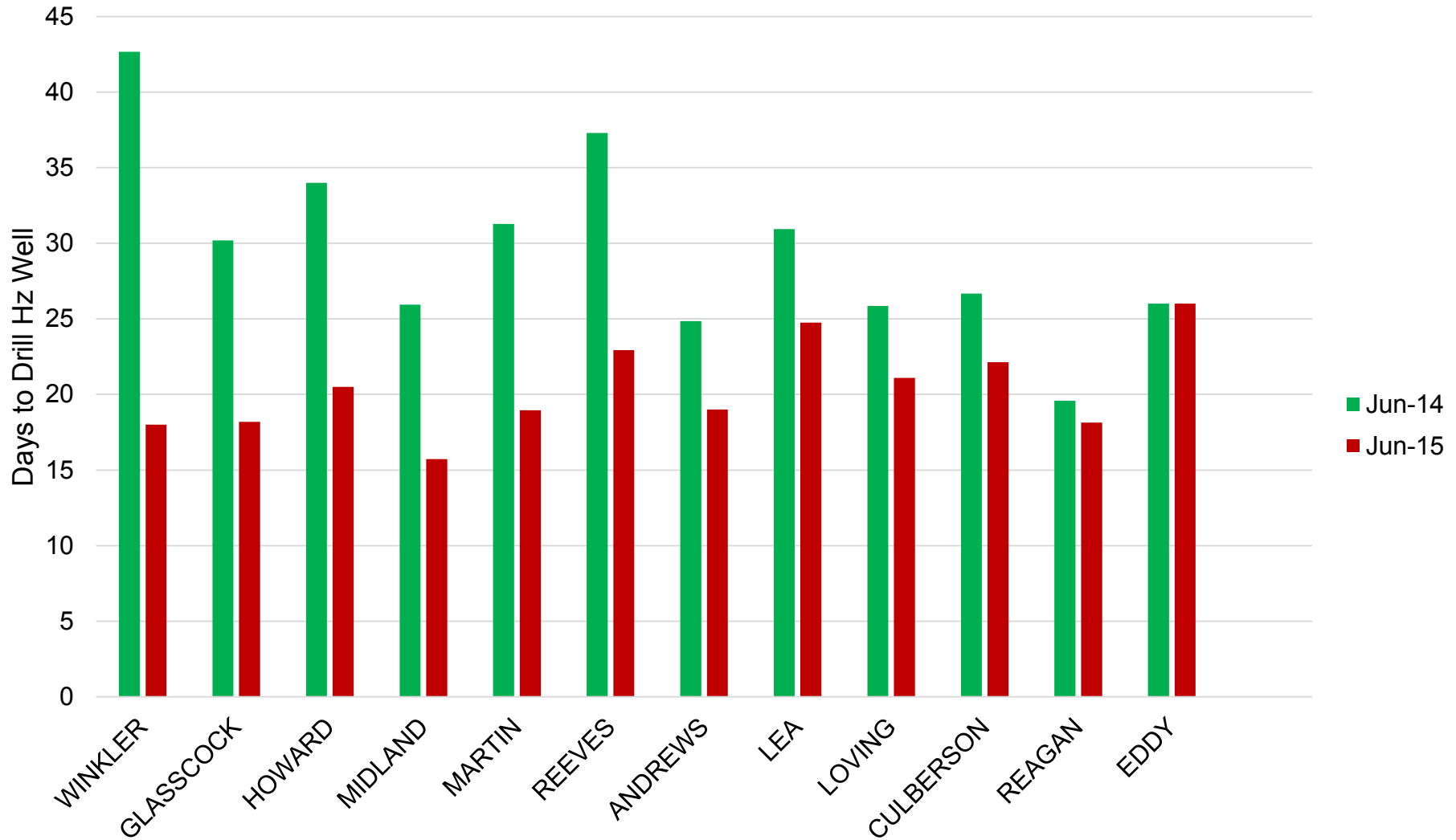
• Downside

- Low or declining price of oil
- Declining rig count
- Drilled Uncompleted (DUCs)
- OPEC production
- Iran Exports

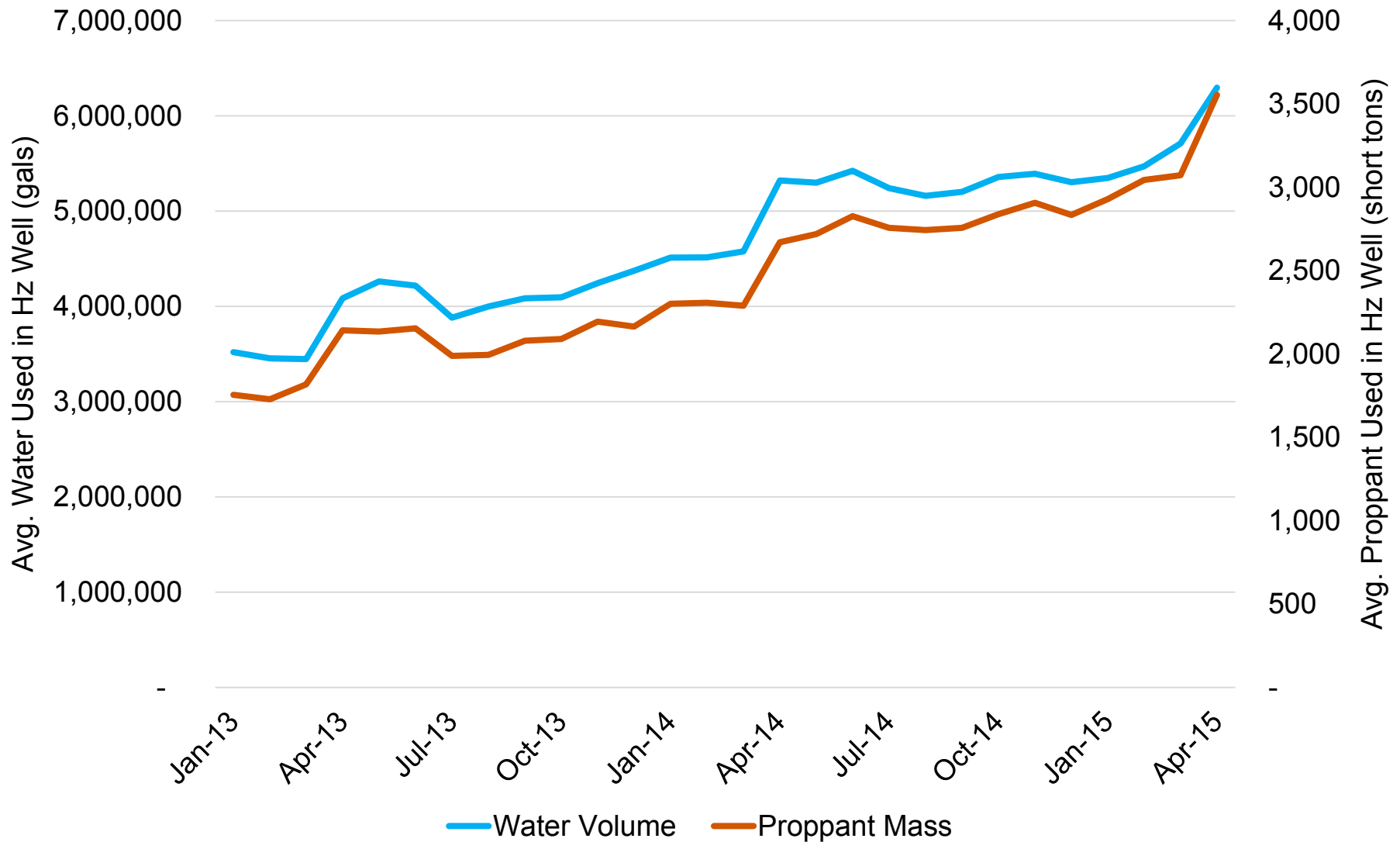
Horizontal Rigs Now Account for Nearly 75% of all Permian Rigs 2015 YTD



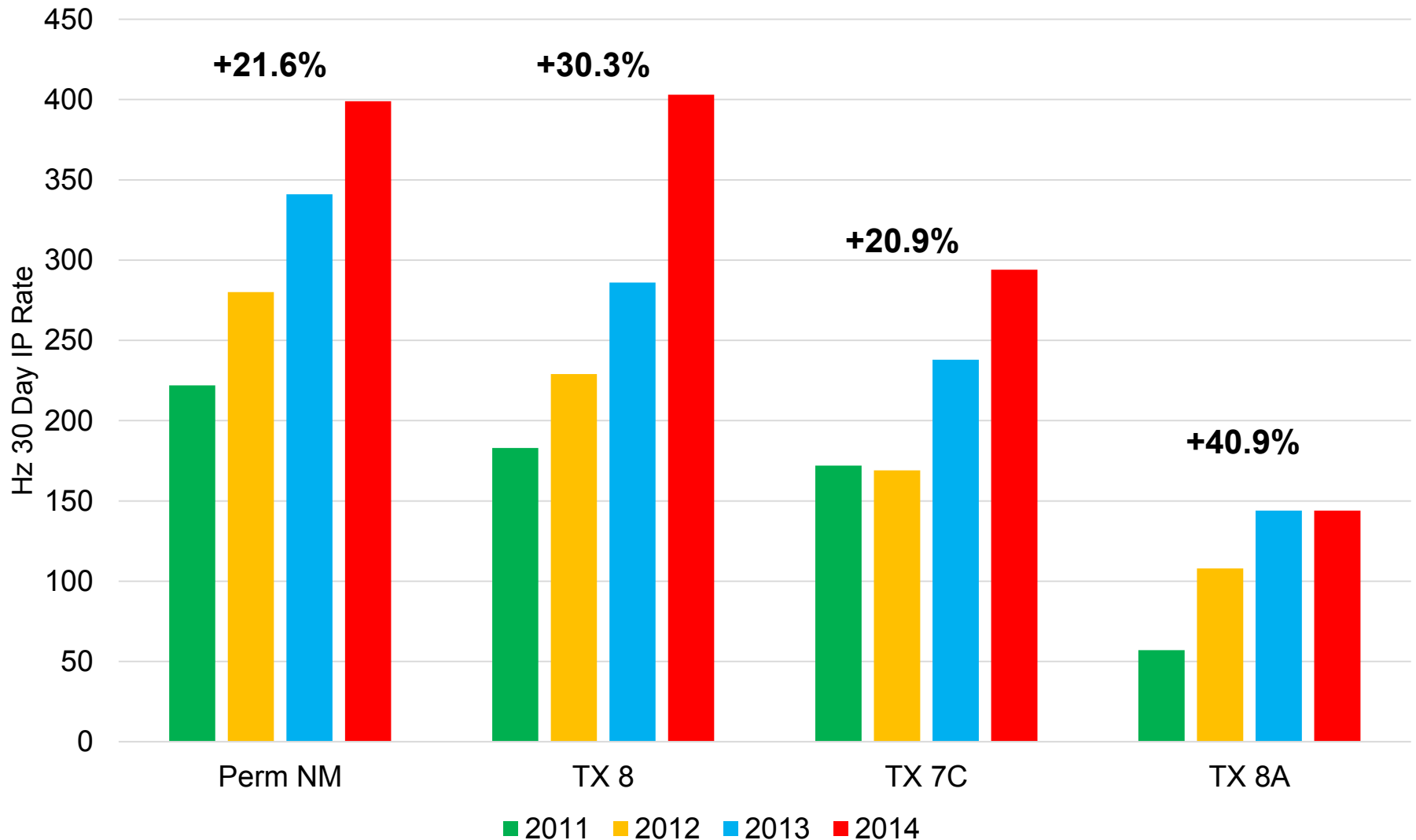
Horizontal Drill Times Are Down by an Average of 10 Days



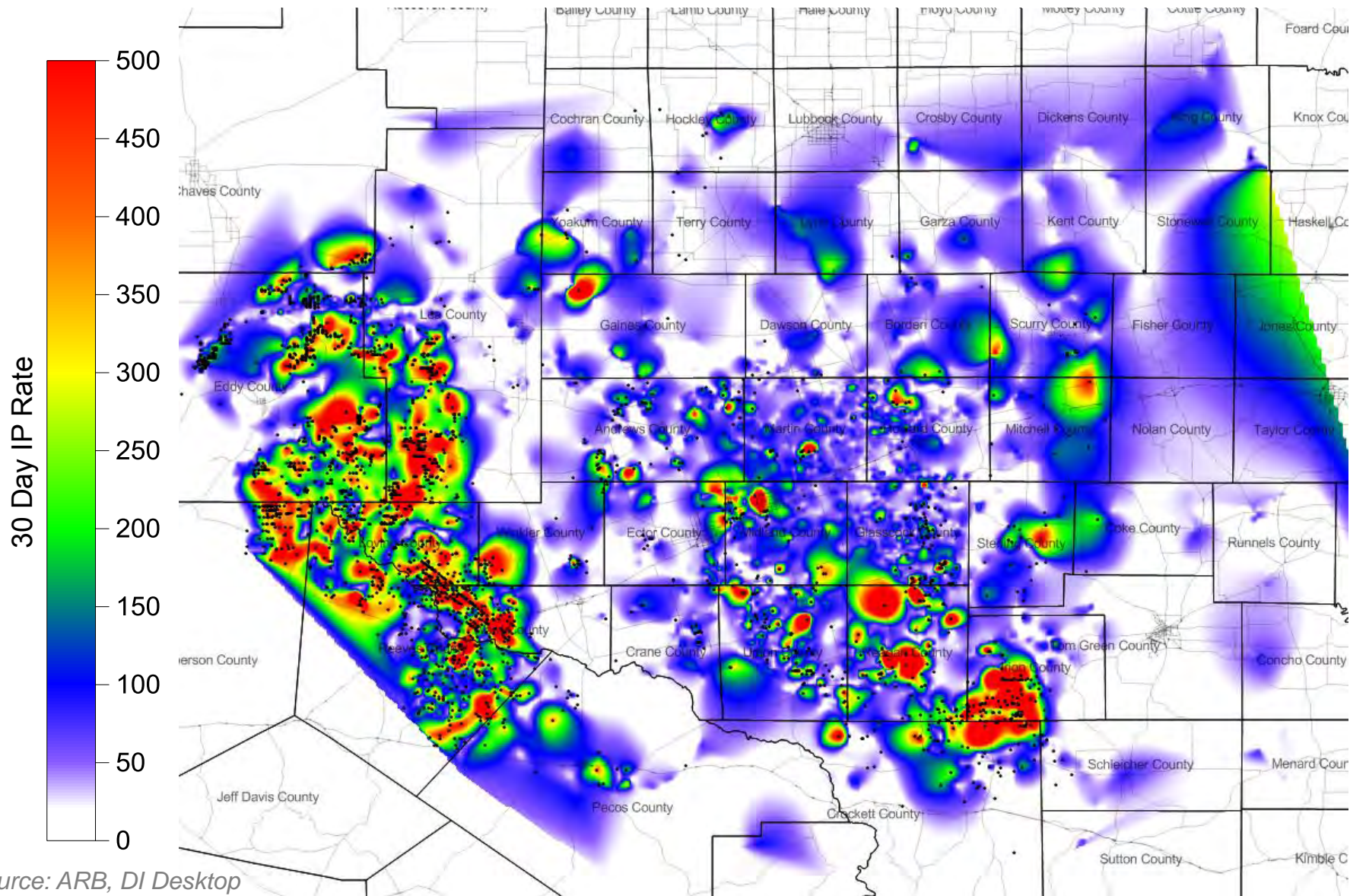
Water and Sand Usage in Hz Well Completion Up 54% and 66% in 24 months



Horizontal IP Rates Are Up an Average of 28% Year Over Year



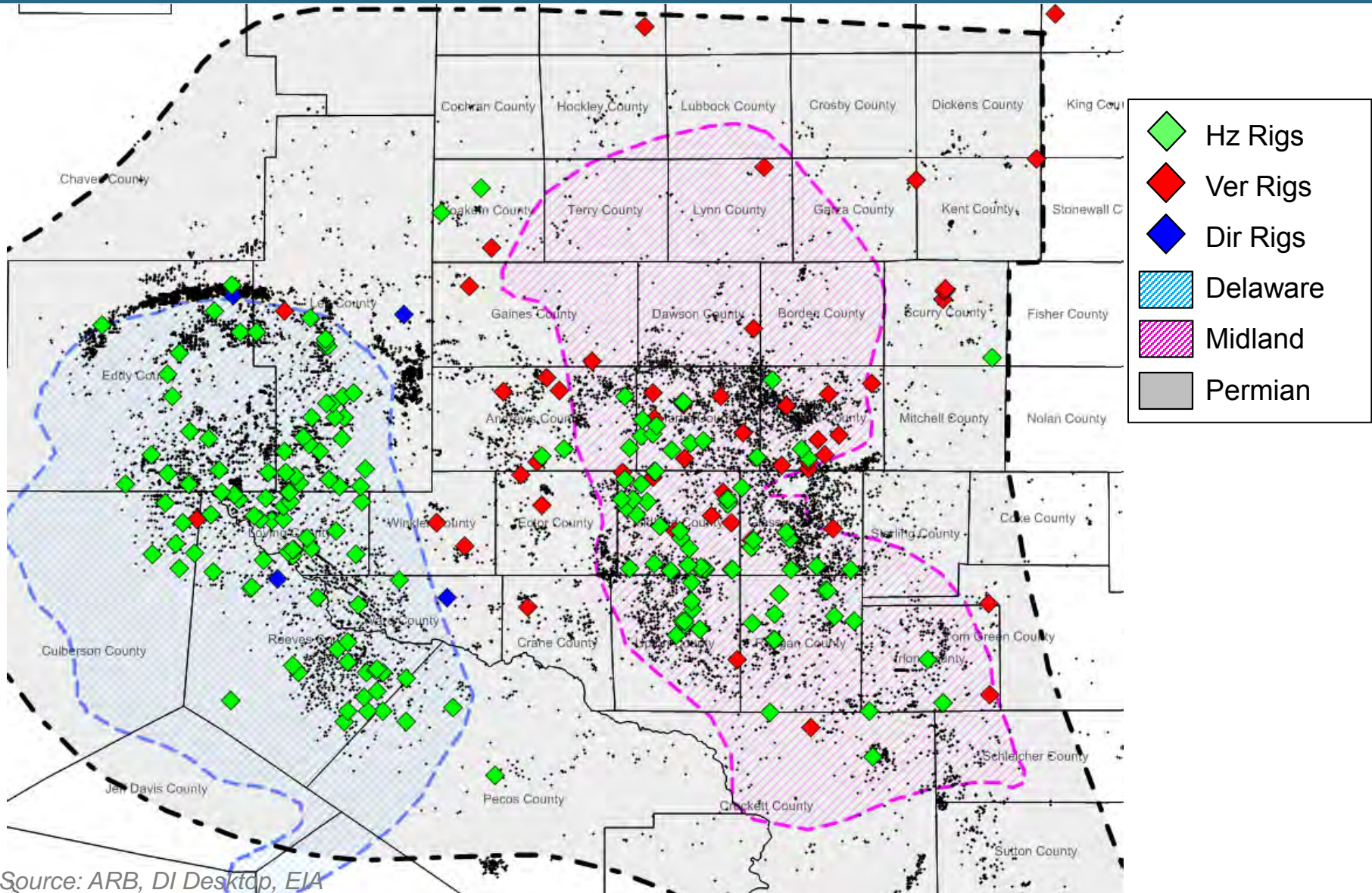
Largest IP Rates Focused in Western Permian



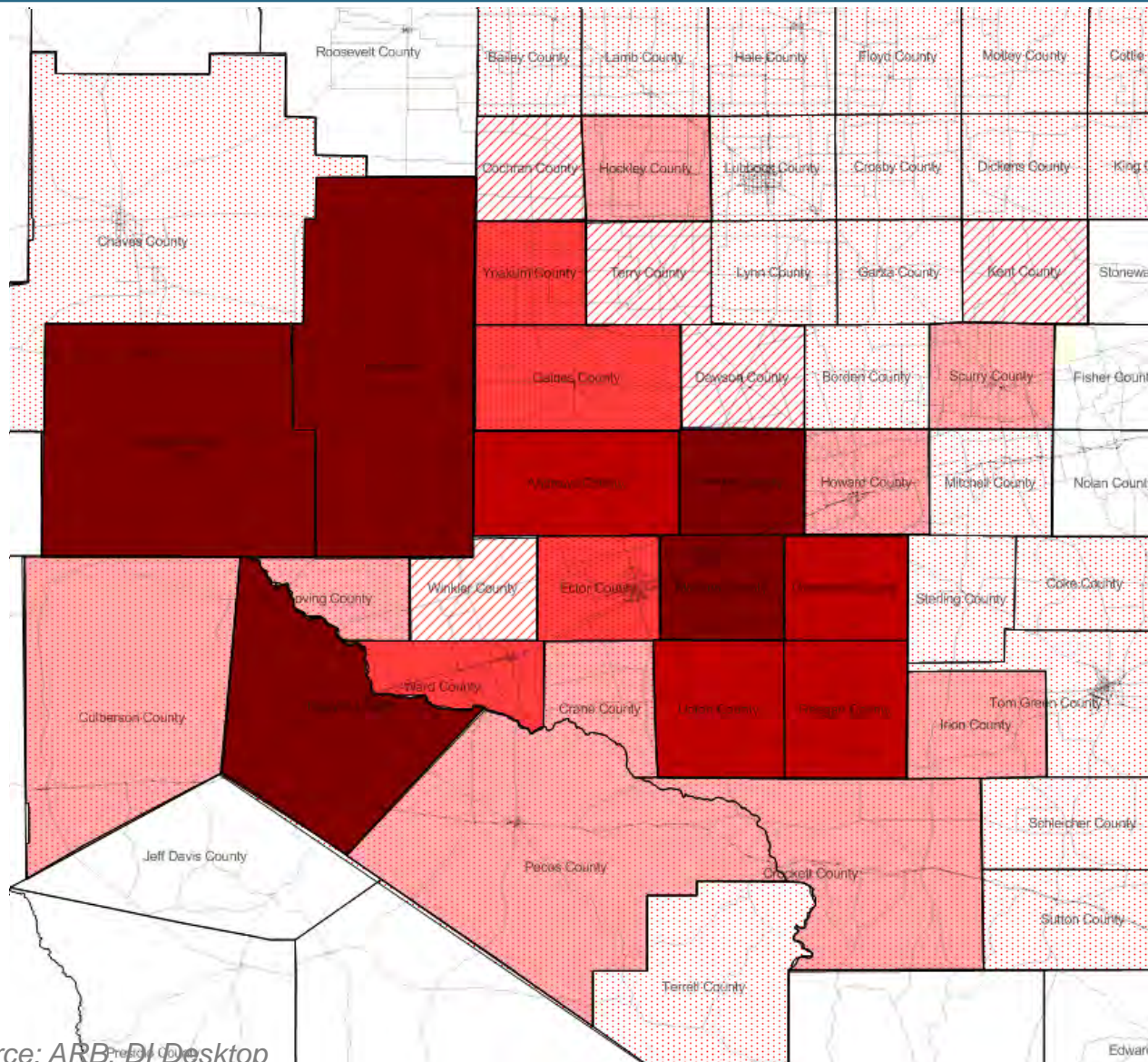
Source: ARB, DI Desktop

7 Counties Represent 75% of Hz Drilling

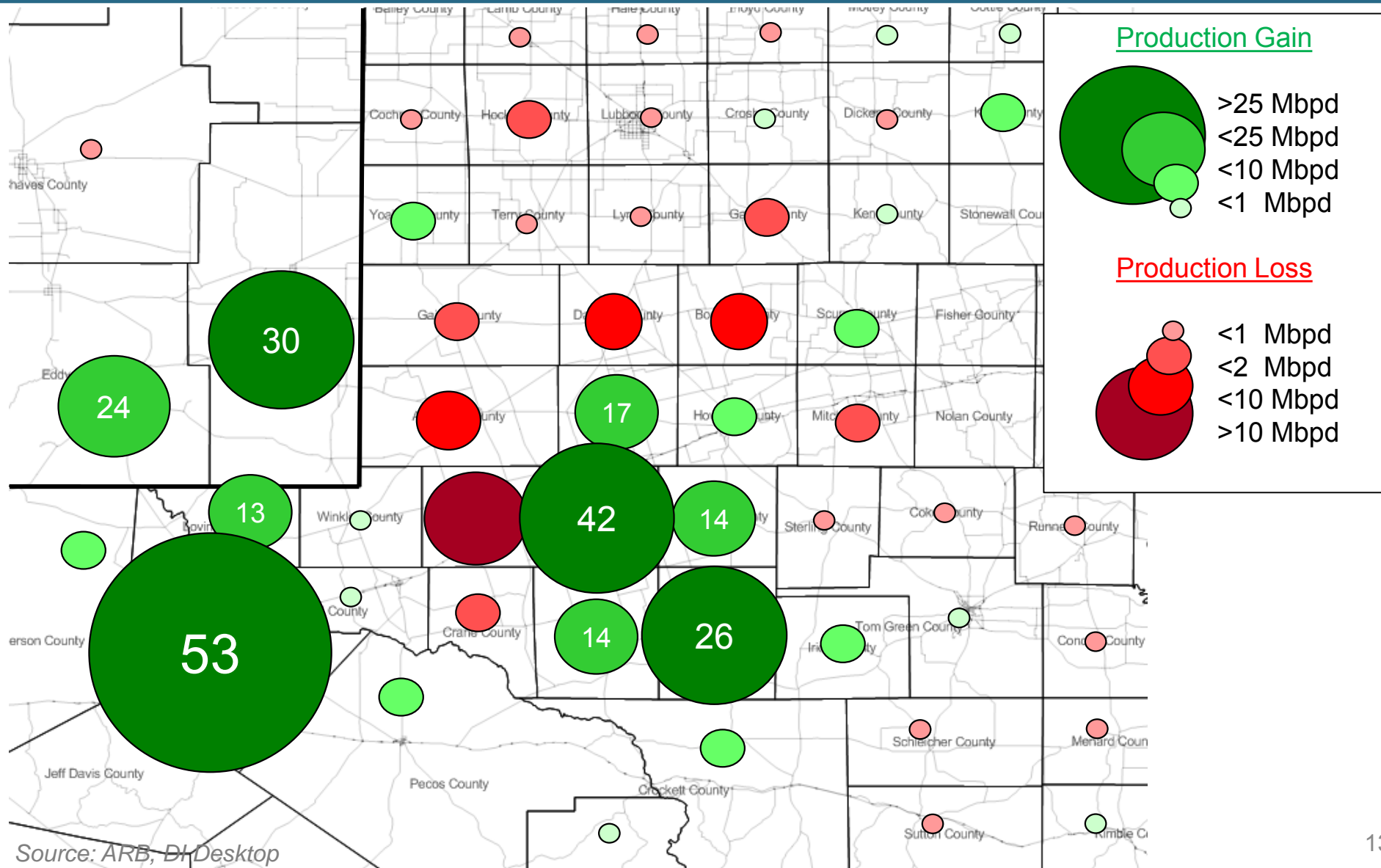
– July 26, 2015



7 Counties Account for 50% of All Permian Production

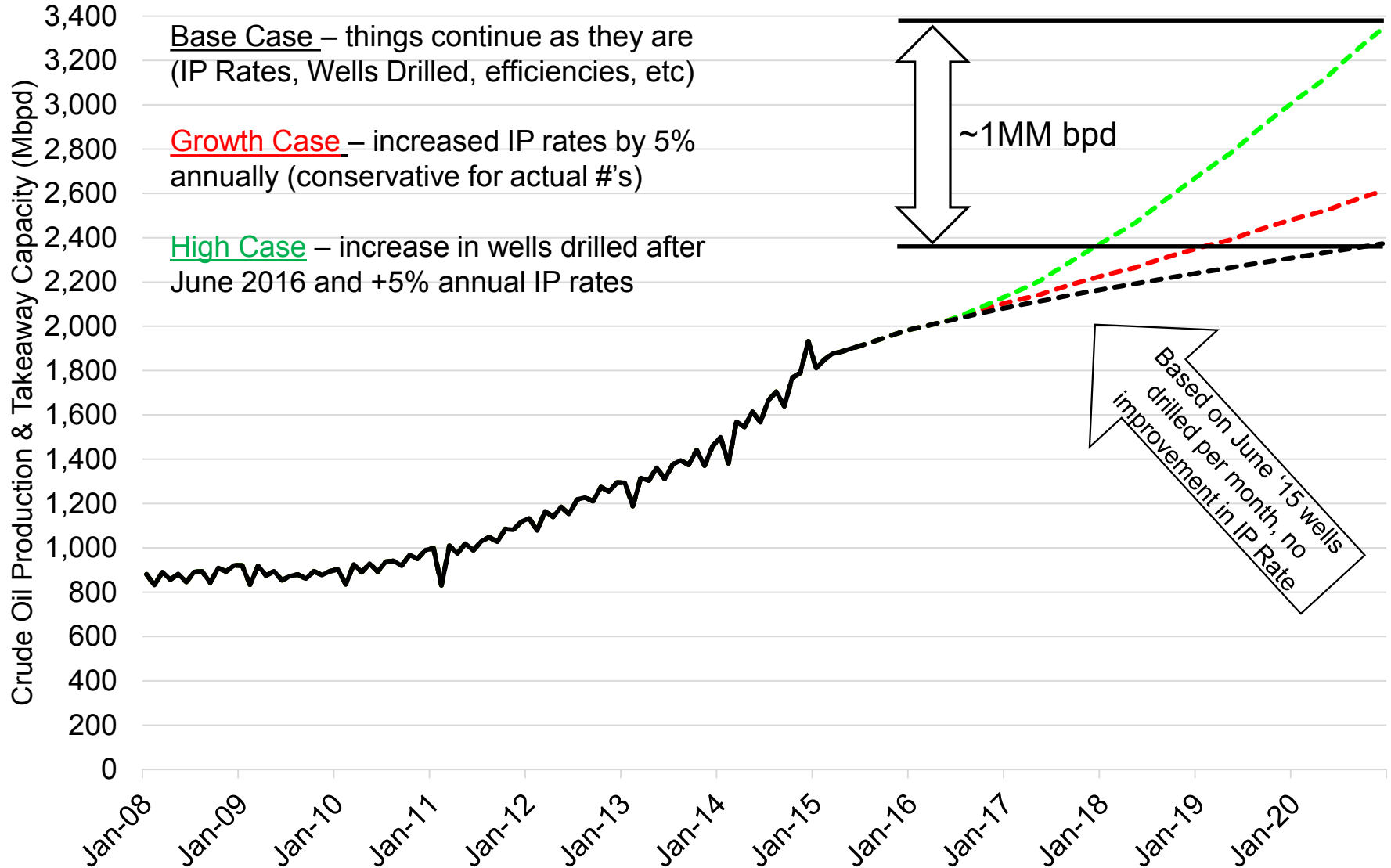


Change and Acceleration in Production Point to Areas of Infrastructure Need



Source: ARB, DJ Desktop

Permian Production Scenarios

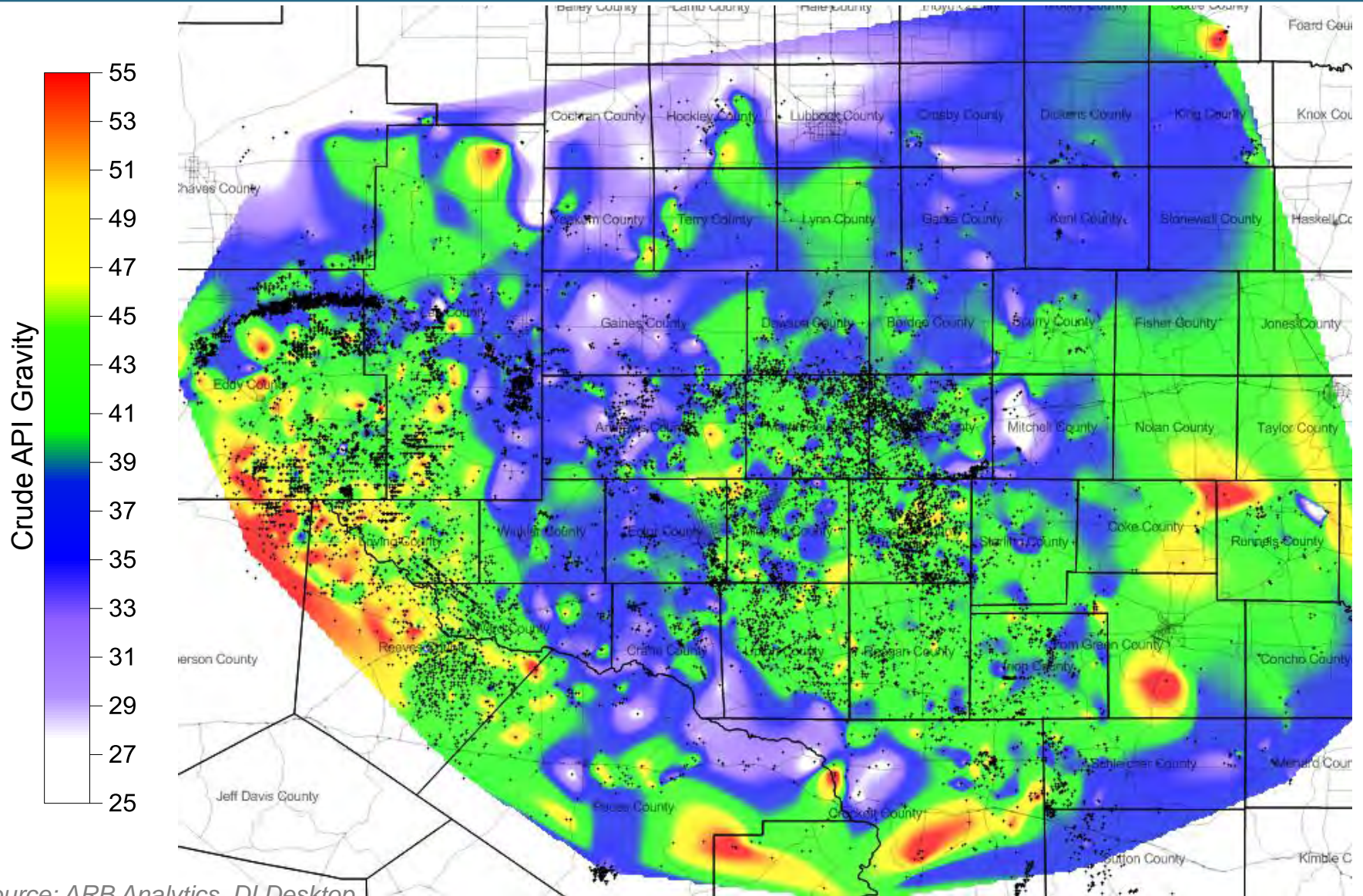


Quality

Midstream Is As Much About Quality As It Is Quantity

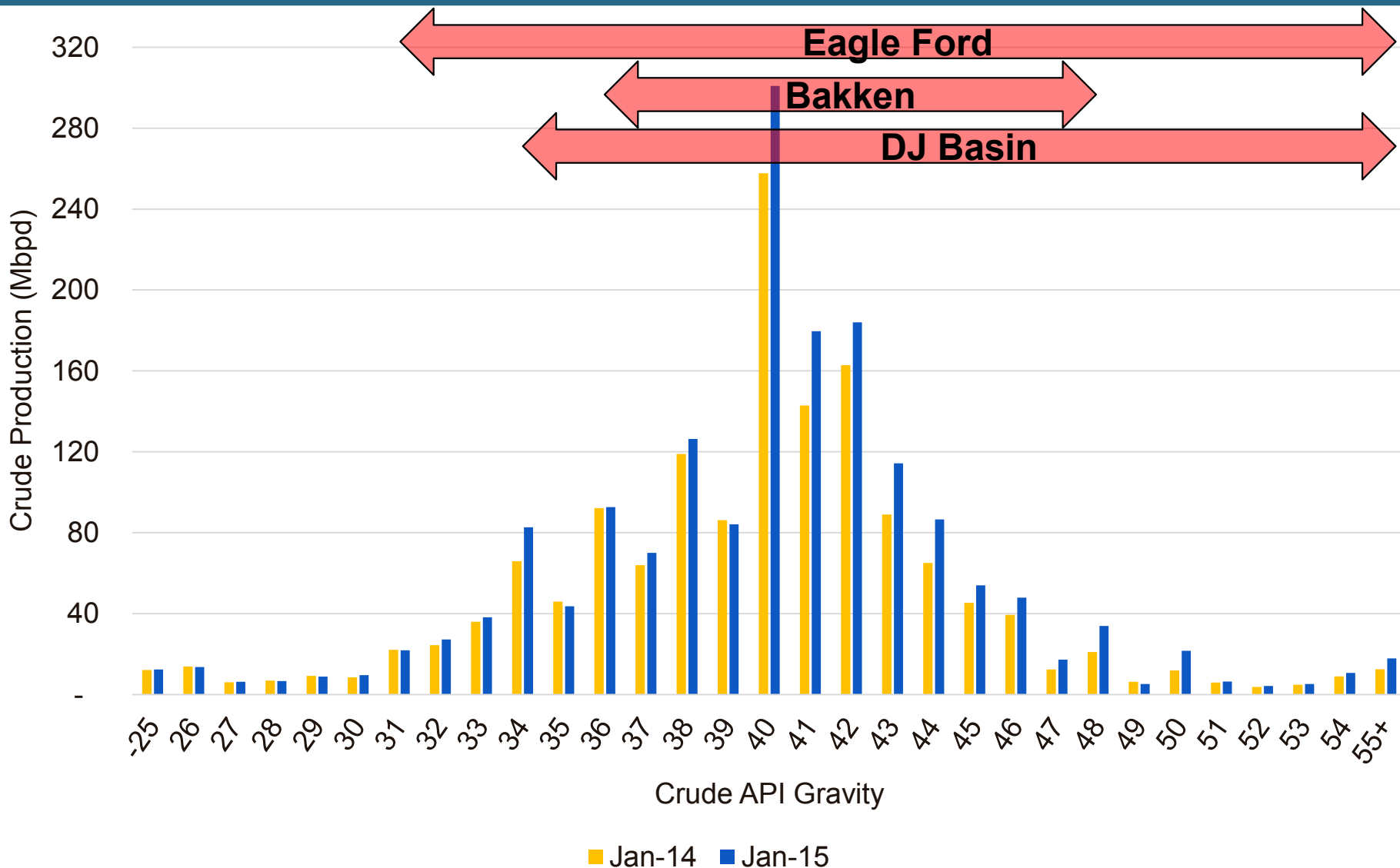


Where is the quality of production coming from?



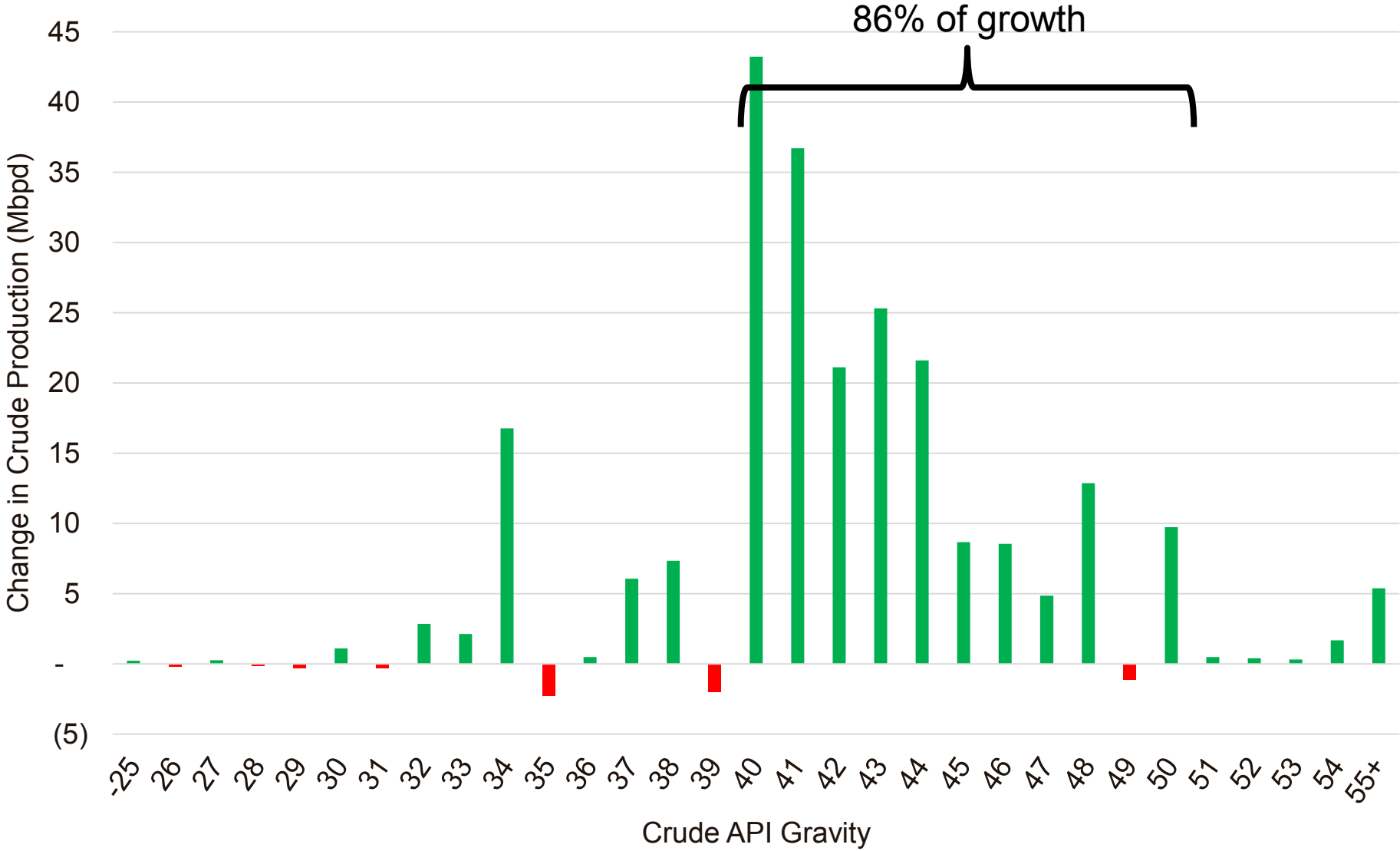
Source: ARB Analytics, DI Desktop

Permian Basin Production by API – January 2014 vs January 2015



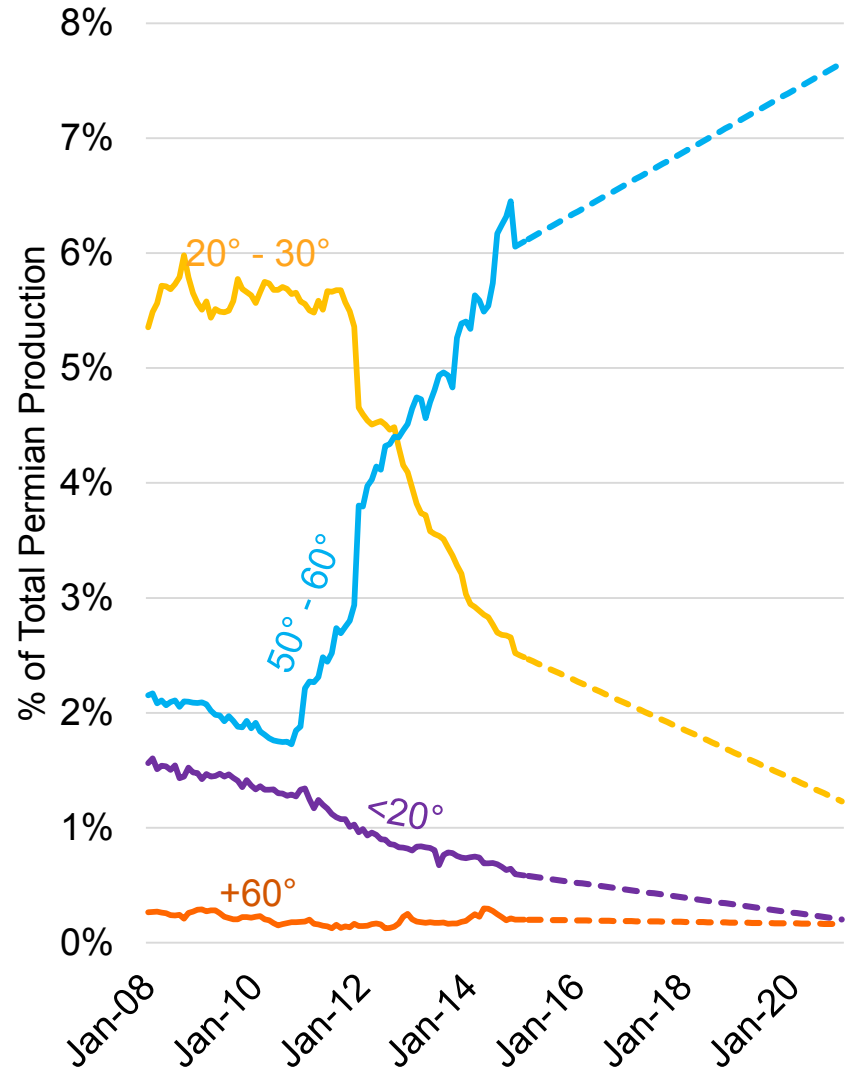
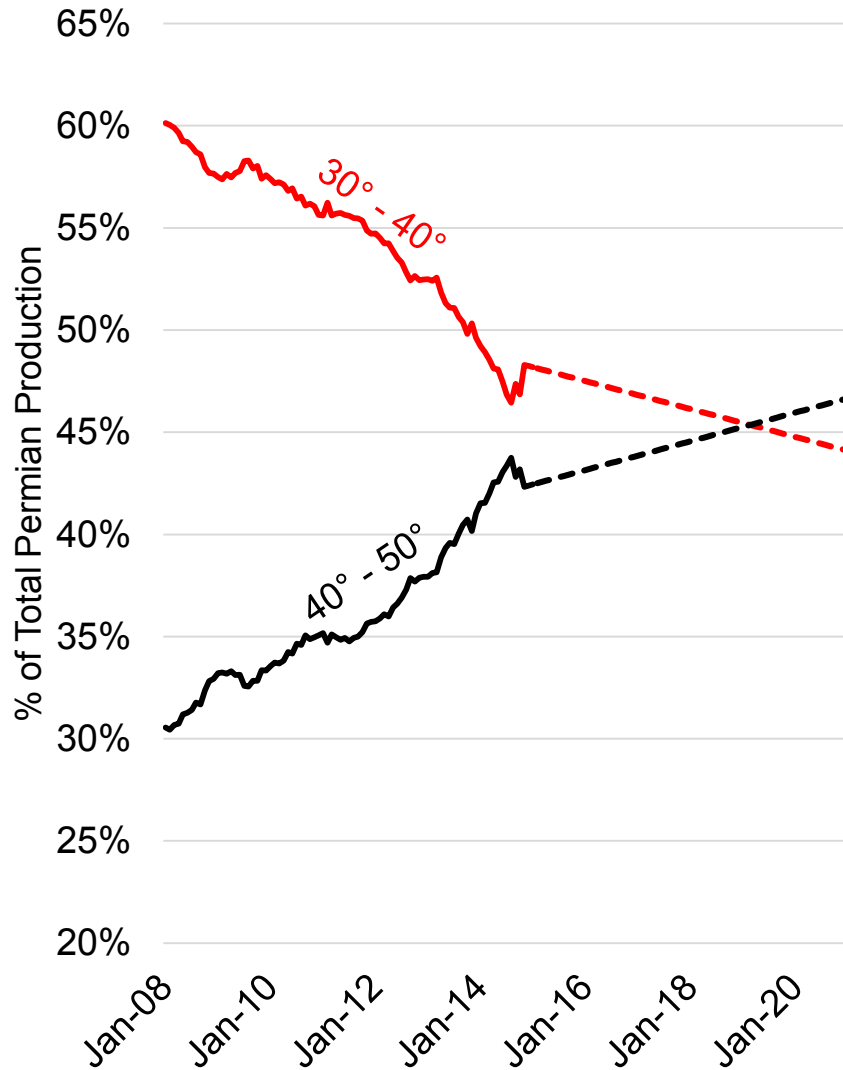
Source: ARB, DI Desktop

Majority of new production is 40° API Gravity and above



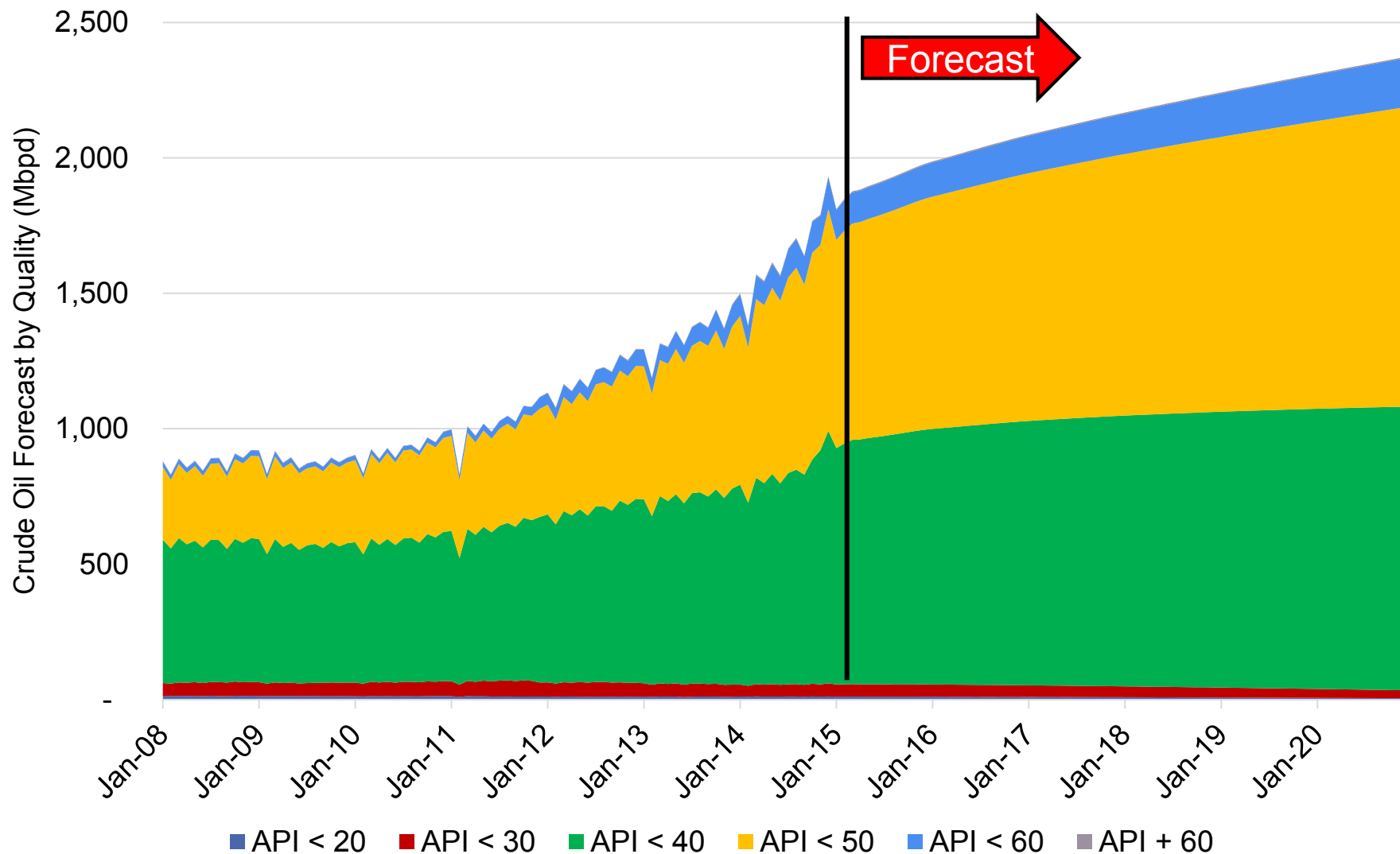
Source: ARB Analytics, DI Desktop

40°-50° API is Growing While Most Other Grades are Declining



Permian Production Forecast by Quality

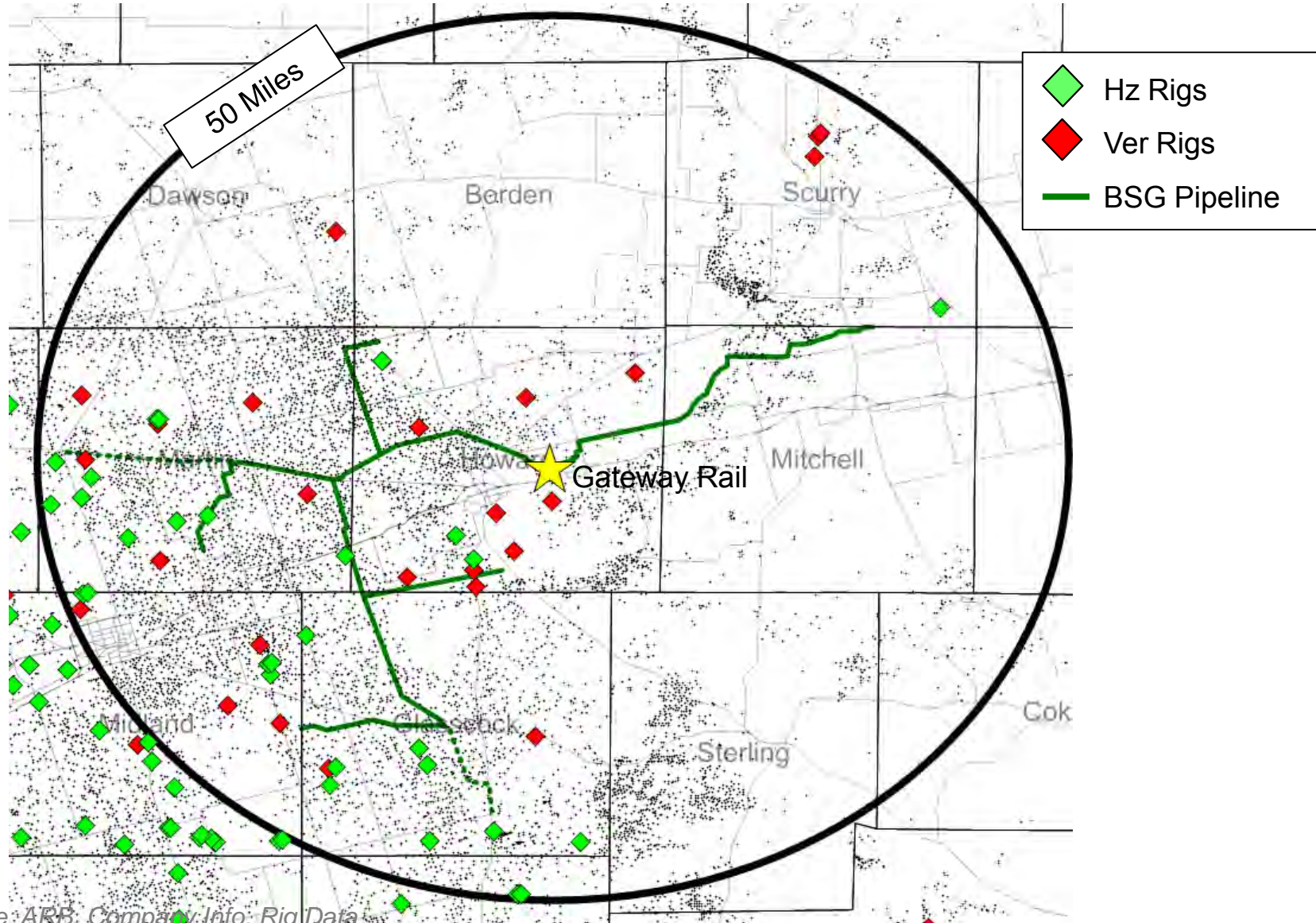
– Base Case Forecast Scenario



Permian Gateway Rail Facility



Permian Gateway Rail – Located in Howard County



A Look at Permian Gateway Crude-by-Rail Terminal

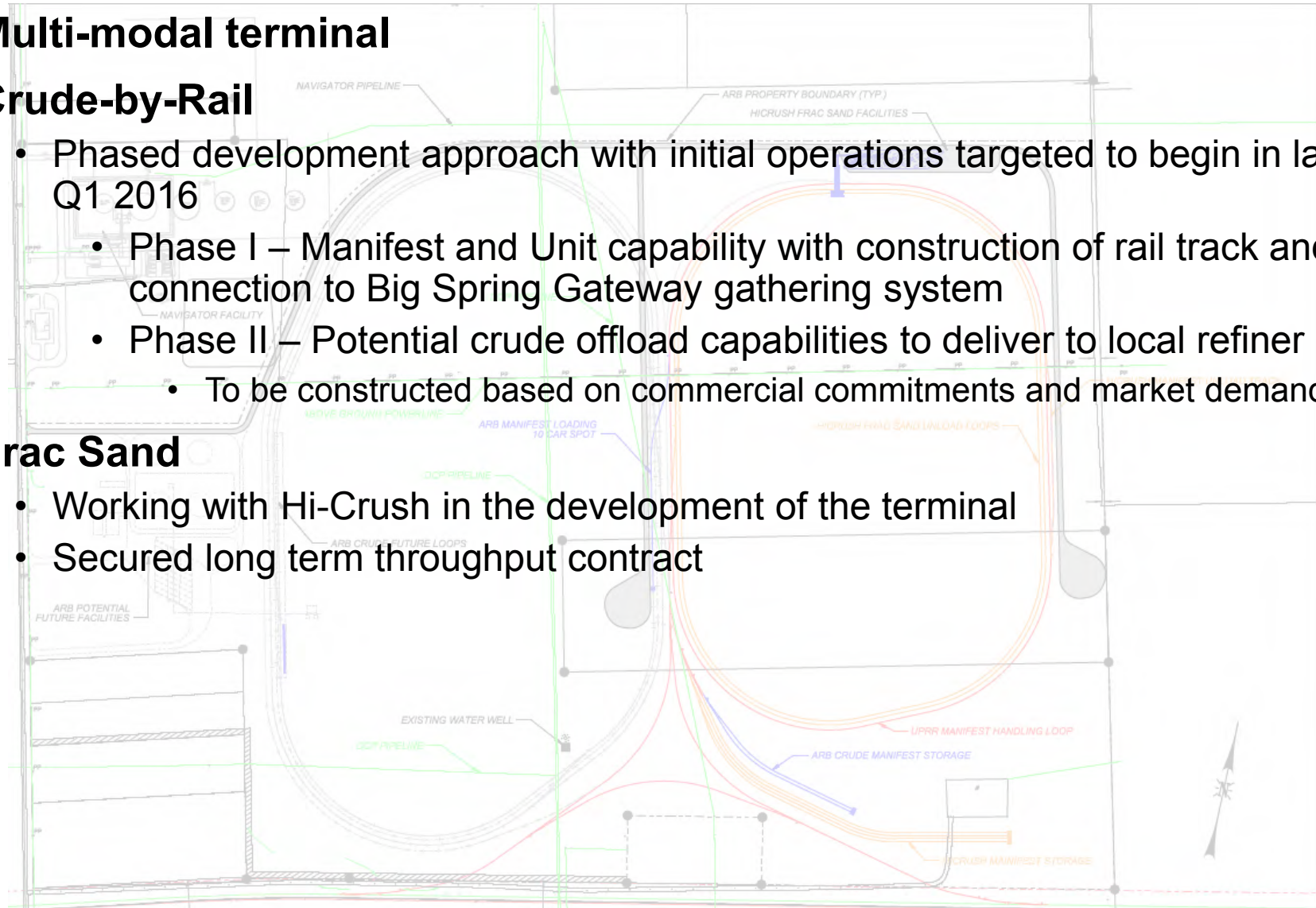
- **Multi-modal terminal**

- **Crude-by-Rail**

- Phased development approach with initial operations targeted to begin in late Q1 2016
 - Phase I – Manifest and Unit capability with construction of rail track and connection to Big Spring Gateway gathering system
 - Phase II – Potential crude offload capabilities to deliver to local refiner
 - To be constructed based on commercial commitments and market demand

- **Frac Sand**

- Working with Hi-Crush in the development of the terminal
- Secured long term throughput contract



Conclusion

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