



# University Lands: Strategizing for the Long Term

Mark Houser, Chief Executive Officer



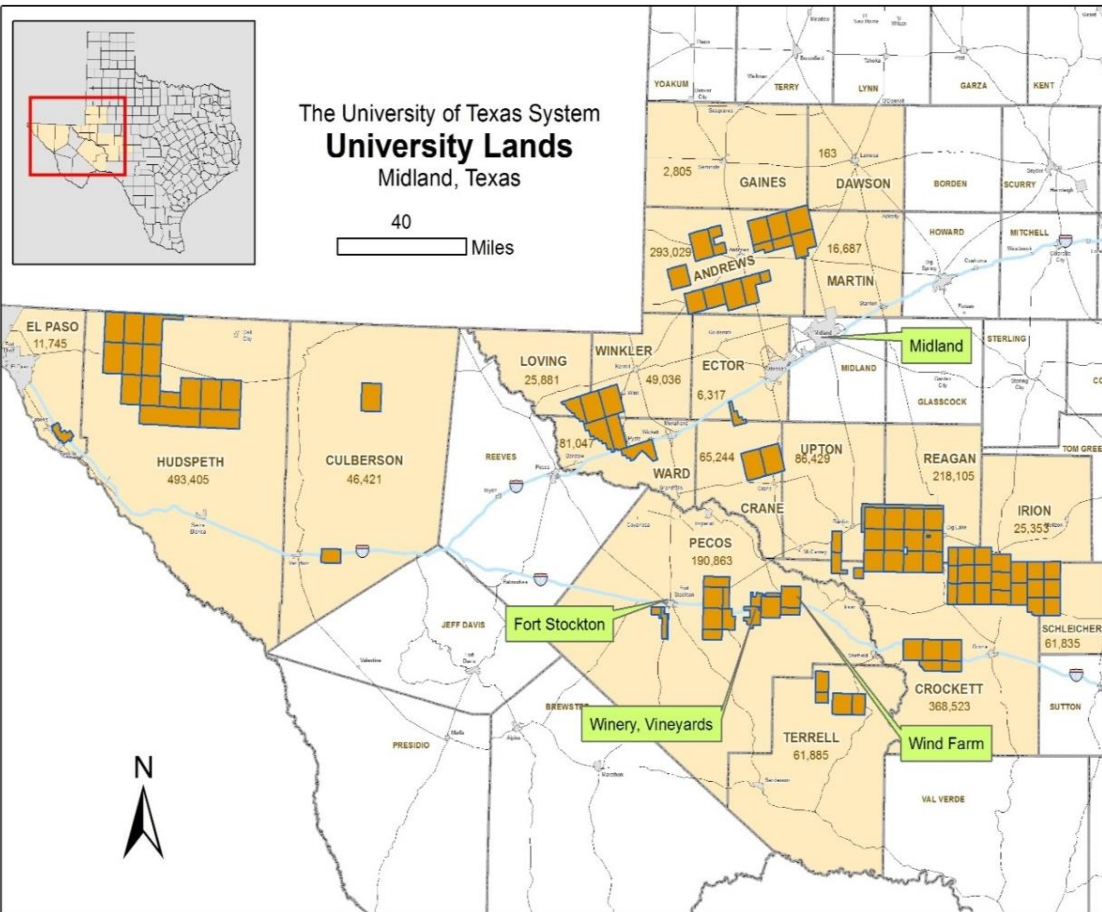
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March 9, 2016

IPAA - Leaders in Industry Luncheon

# University Lands Overview

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- ❑ Owns and manages surface and mineral rights of 2.1+ million west Texas acres
- ❑ History dating back to 1838
- ❑ First oil discovery in 1923
  - ❑ ~20,000 wells drilled to date
  - ❑ 9,000 wells currently producing
  - ❑ >1,800 horizontal wells
  - ❑ >200 operators
- ❑ Surface activities include:
  - ❑ Pipelines and power line easements
  - ❑ Grazing, ranching and hunting
  - ❑ Wind farms
  - ❑ Winery
  - ❑ Airports
  - ❑ Public schools
  - ❑ Water sales
- ❑ Revenue Benefits the University of Texas and Texas A&M University System via the Permanent University Fund



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# Diversity of University Lands

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*“Texas holds embedded in its earth rocks and minerals which now lie idle because unknown, resources of incalculable industrial utility, of wealth and power. Smite the earth, smite the rocks with the rod of knowledge and fountains of unstinted wealth will gush forth.”*

- Ashbel Smith, M.D., first Chairman of the U. T. Board of Regents at the dedication of the University of Texas, 1881



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# University Lands Operations

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- ❑ University Lands holds mineral interest and typically a royalty interest
- ❑ >200 Oil & Gas Operators
- ❑ 3,466 Oil & Gas Leases
- ❑ 5,168 Easements
- ❑ 1,997 Commercial Surface Leases
- ❑ 112 Grazing Leases → 36,000 Head of Livestock
- ❑ Miscellaneous Activities:
  - Antiquities Compliance
  - Wildlife Management
  - Geophysical Permitting
  - Environmental Management



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# University Lands Operations

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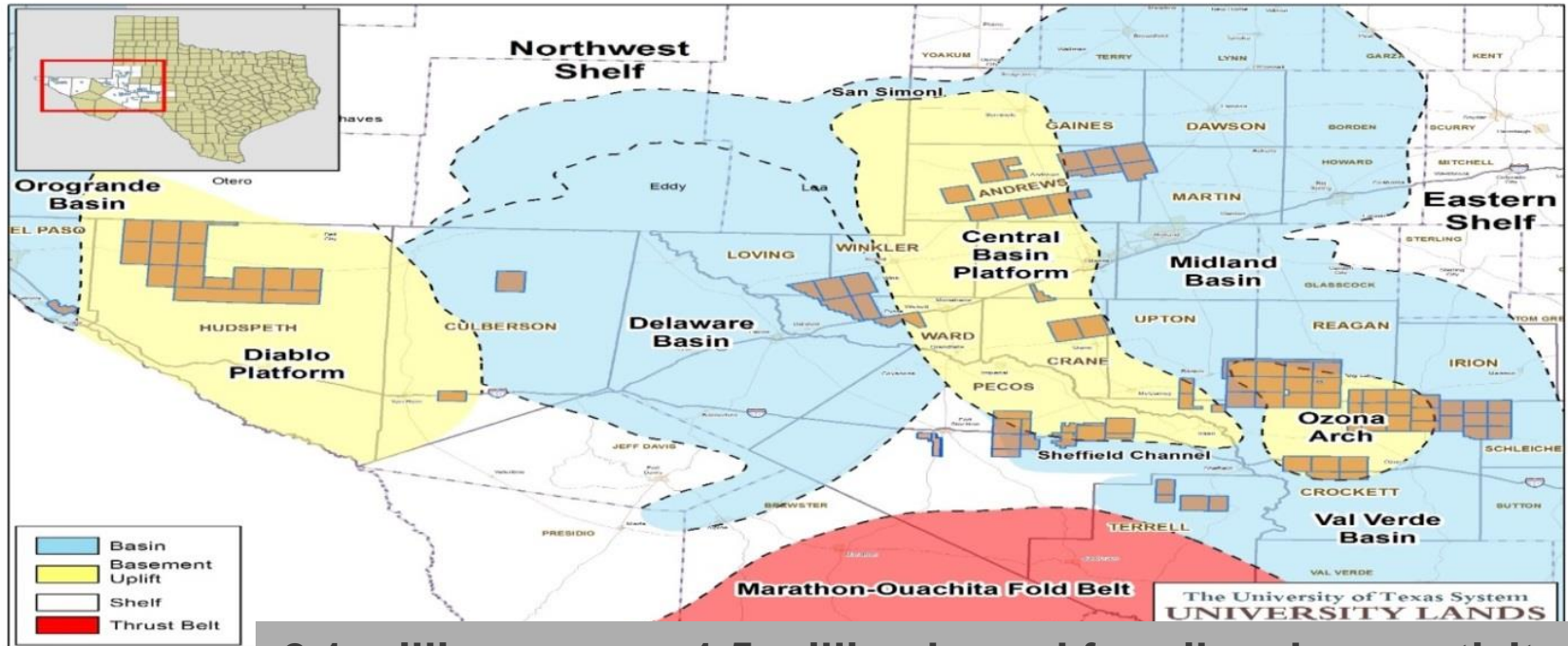
What's all this  
talk about a  
wall?

There's already  
one there!!



# Oil and Gas Assets

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**2.1 million acres: ~1.5 million leased for oil and gas activity**

- ❑ Total Reserves (8/2015)
  - ❑ 1,126 million BOE
  - ❑ 13% Proved
- ❑ 2015 Gross Daily Production
  - ❑ ~220,000 BOE per day
  - ❑ 70% oil
- ❑ 2015 Net Daily Production
  - ❑ ~42,000 BOE per day
- ❑ 21,000 Identified “3P” Drilling Locations
- ❑ **Incredible potential database for oil and gas AND water resources**





# 2015 Top Producers (as of 12/2015)

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OPERATOR	MMBOE
APACHE CORPORATION	8.25
PIONEER NATURAL RESOURCES	8.11
DEVON ENERGY	8.08
EP ENERGY E&P COMPANY	7.68
QEP ENERGY COMPANY	4.84
AMERICAN ENERGY-PERM BASIN	4.23
EOG RESOURCES	4.00
OXY USA	3.43
APPROACH OPERATING	3.23
XTO ENERGY	2.55
CONOCOPHILLIPS	1.98
ENERGEN RESOURCES CORPORATION	1.61
SHERIDAN PRODUCTION COMPANY	1.59
SHELL WESTERN	1.03
DIAMONDBACK	1.02
FORGE ENERGY	0.93
CALLON PETROLEUM	0.86
LEGACY RESERVES	0.84
SANDRIDGE	0.73
CLAYTON WILLIAMS	0.71
<b>TOP 20 PRODUCERS 2015 PRODUCTION</b>	<b>65.7 MMBOE</b>

**Top 20 Producers →  
85% of total production**



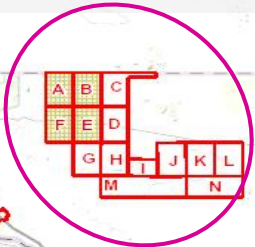
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# University Lands: 2015 Activity Highlights

## Orogrande Basin

Torchlight well  
Potentially exciting new trend  
\$50MM exploration plan



## N Central Basin Platform

Conventional V and Hz plays - plus Spraberry.  
COP and XTO main players



## Northern Midland Basin

Bid Round early 2016  
Spraberry main focus - Pioneer Spraberry wells IP >1000 BO/D

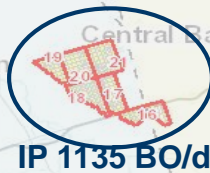
## E Central Basin Platform

Infill drilling of prolific Devonian and Grayburg Fields. 16 wells drilled. Henry and Apache are the main players.



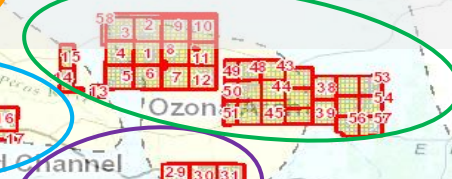
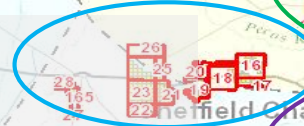
## Delaware Basin

Wolfcamp/ Bone Spring  
31 wells drilled  
Energen Wolfcamp well IP 1135 BO/d



## S Central Basin Platform/ Sheffield Channel

6 wells - all vertical Wolfbone tests drilled  
Best well: PT IP 556 BO/d



## Val Verde Basin/ Ozona Uplift

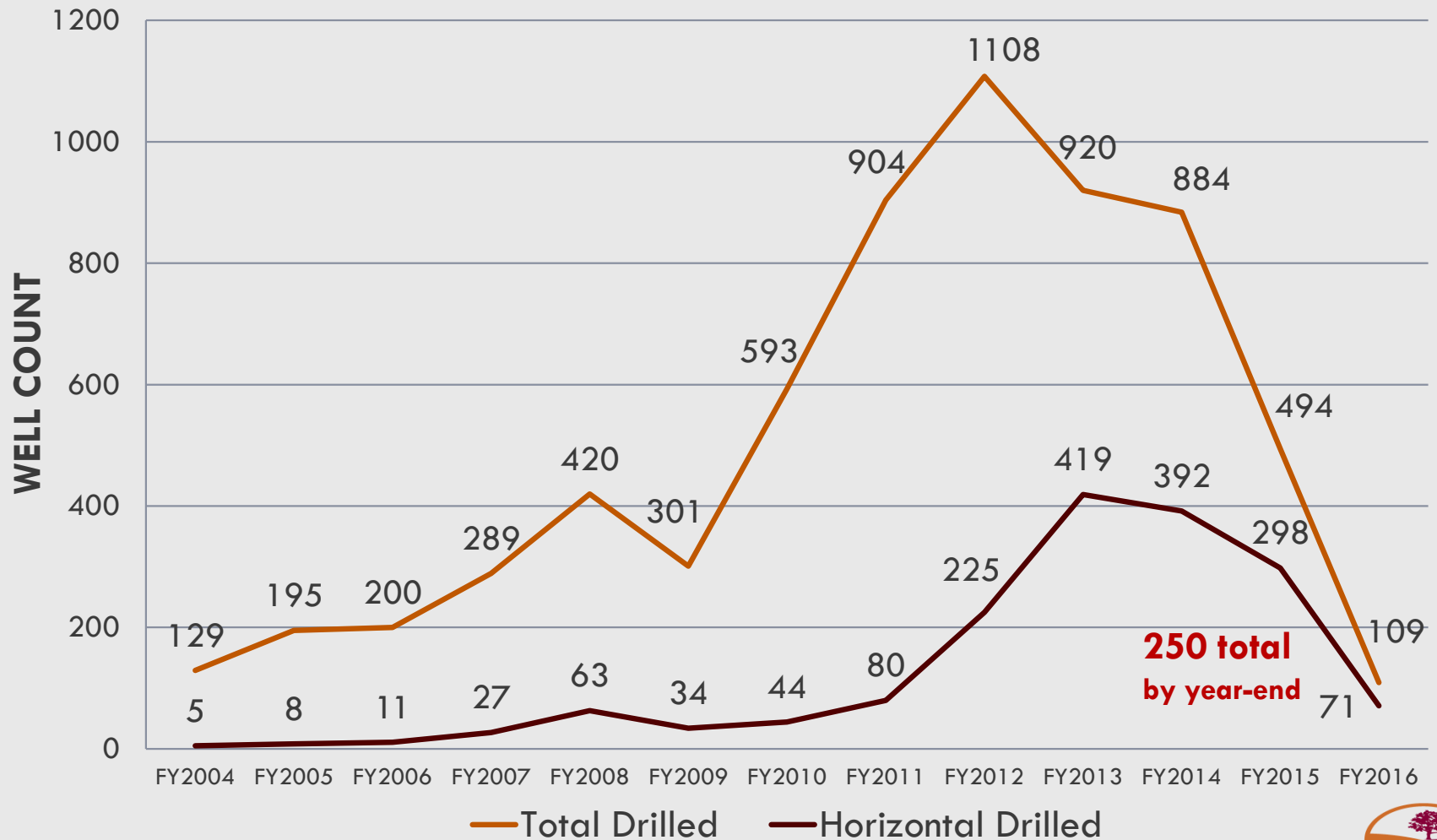
Historic Gas Province  
51 wells drilled

## Southern Midland Basin/ Ozona Uplift

Wolfcamp, Spraberry  
Last year. 51 wells IP > 500 BO/d

**35 Wells in 2015 with IP's >1000 BOPD  
6 in past 2 months!**

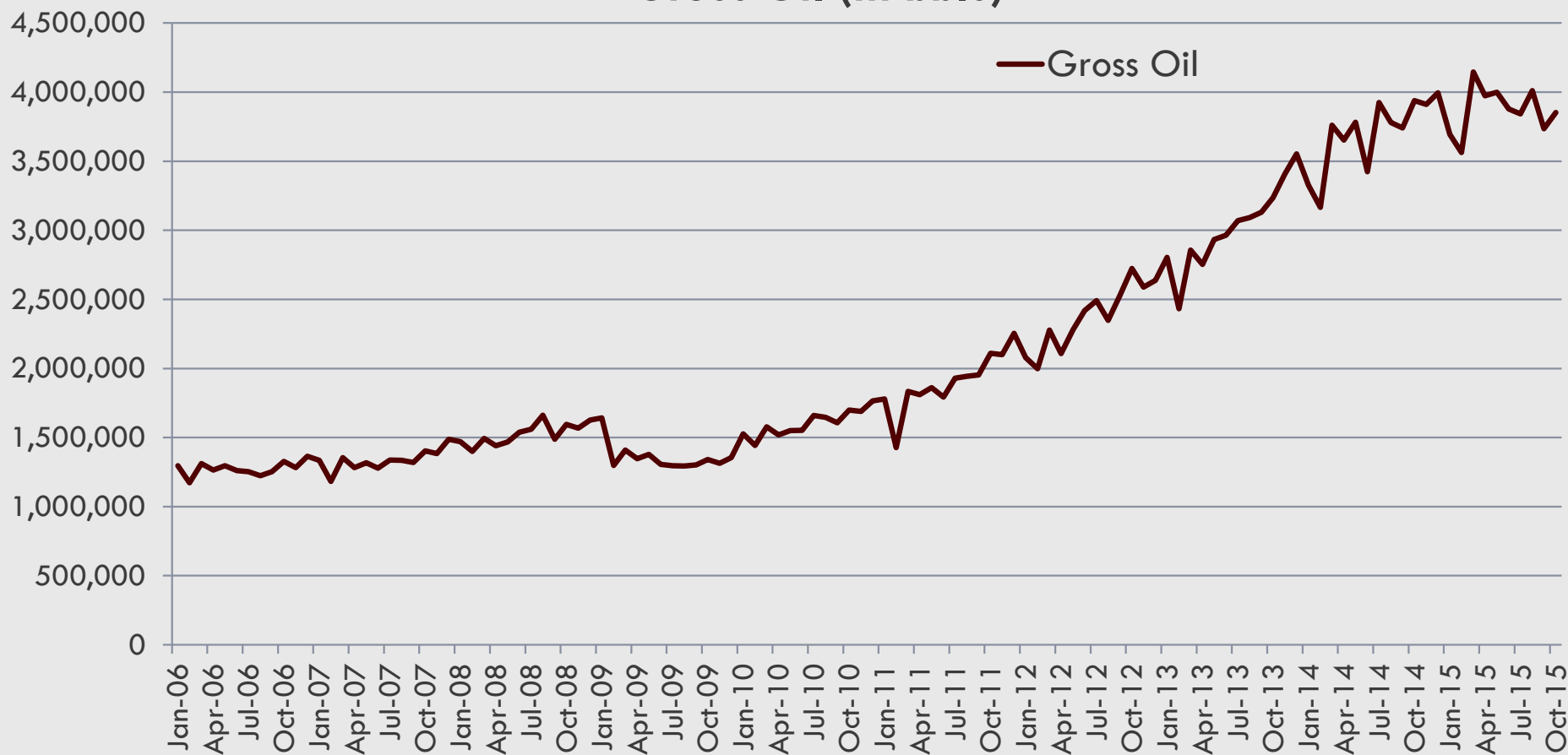
# Wells Drilled by Fiscal Year



# University Lands Historical Production

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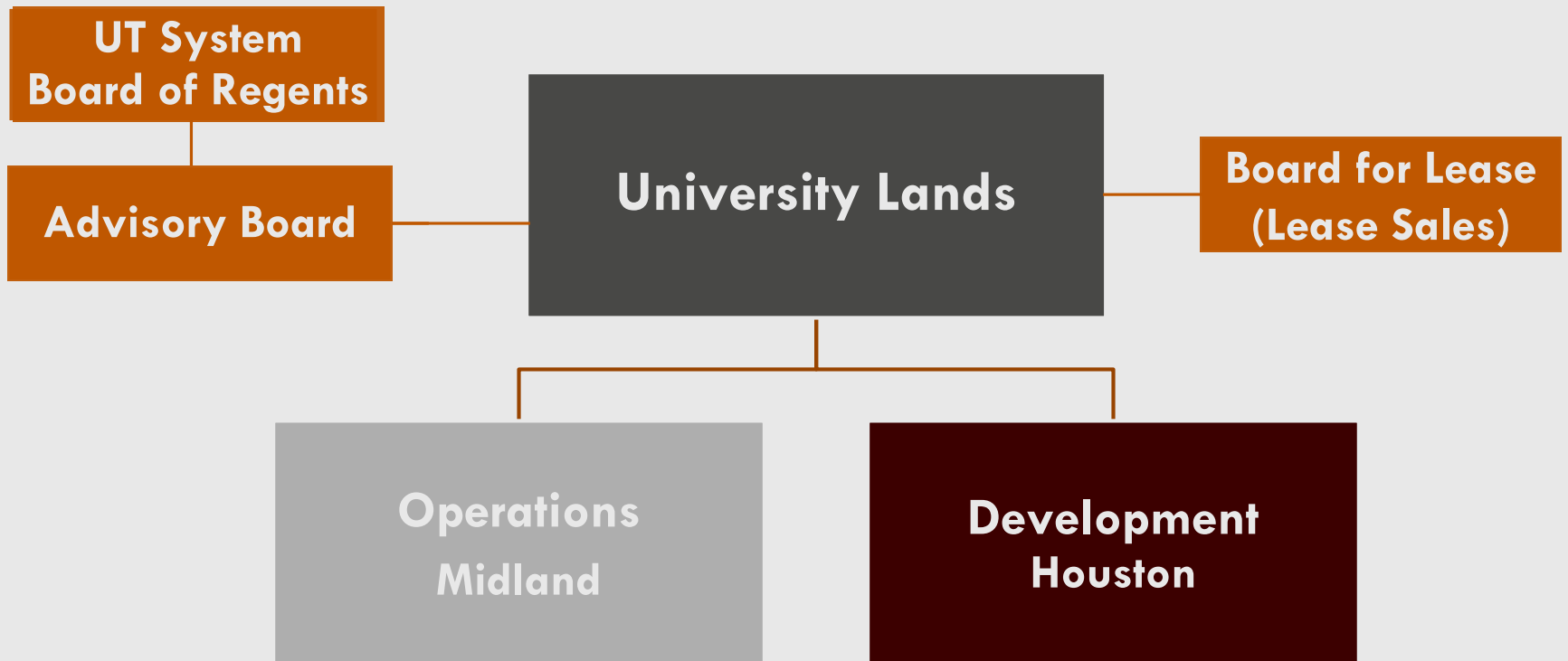
## Gross Oil (in bbls)



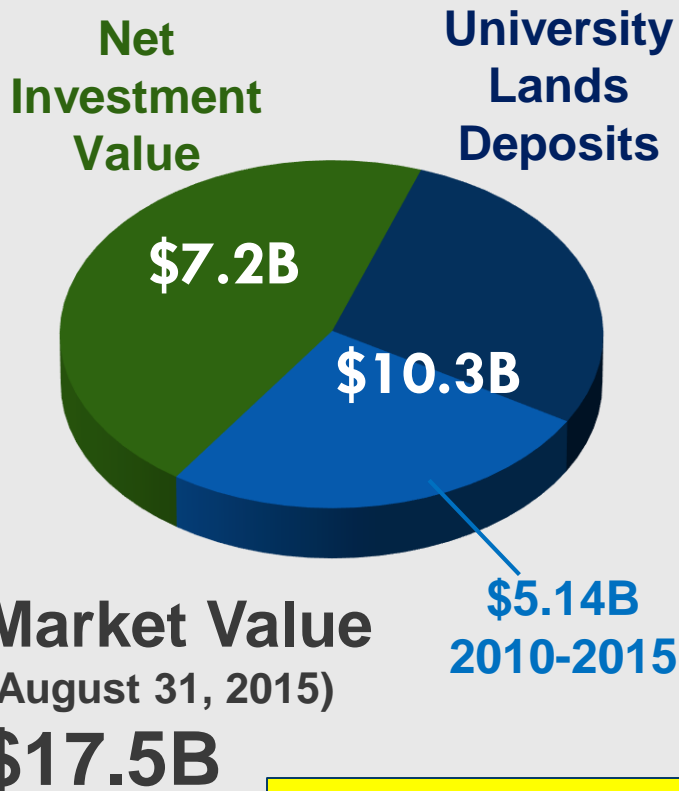


# General Structure

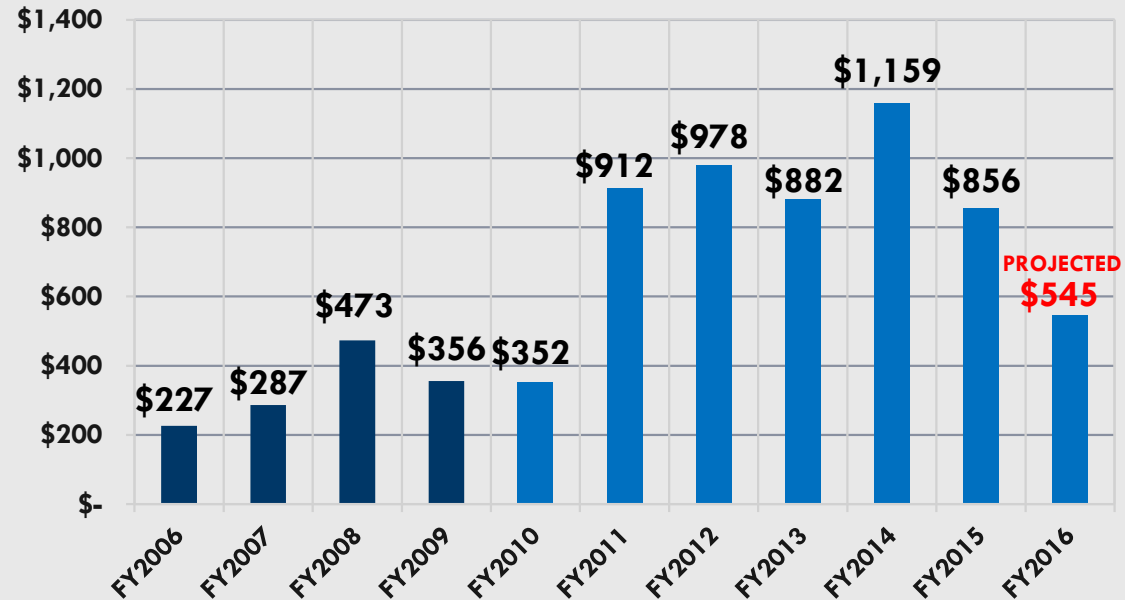
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# The Permanent University Fund (PUF)



**University Lands Revenue  
FY2006 - FY2016 (in millions)**



4-7% of PUF Market Value Plus University Lands Revenue  
Annually to UT System (2/3) and A&M System (1/3)



# University Lands Strategy: What's New?

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- ❑ **Create a more commercial, forward-looking culture**
  - ❑ Study the highest performing mineral companies to determine best practices
- ❑ **Increase internal knowledge of resource potential**
  - ❑ Enhance capabilities for managing extensive data through targeted, key hires and technology improvements
  - ❑ Build technical expertise and expand industry relationships by opening Houston office
  - ❑ Partner with the Texas Oil & Gas Institute (TOGI)
- ❑ **Work with industry partners to continue creating value through commodity and technology volatility by diversifying and incentivizing:**
  - ❑ Upstream opportunities
  - ❑ Midstream opportunities
  - ❑ Water development opportunities
  - ❑ New opportunities – solar development?
- ❑ **Assess organizational structure and statutory framework of UL to determine best structure for stewardship and management of lands**



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# New Mindset: UL as a Technical Partner

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Focused initiatives to develop technical expertise:

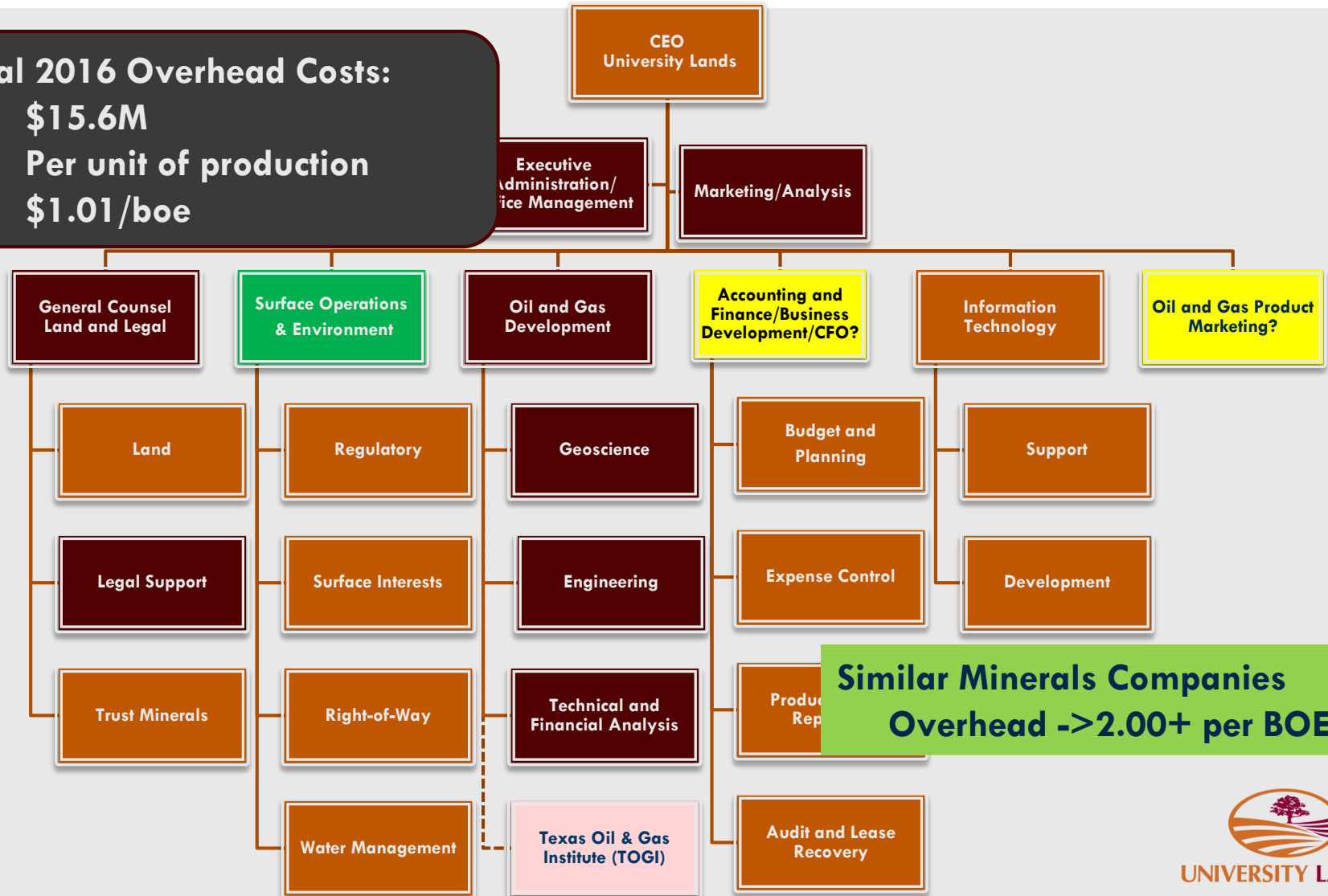
- **Staffing:** Diligent efforts to build the right team
- **UL Data:** Understanding, accessibility, and enhancement
- **Mapping:** ARCGIS and subsurface mapping
- **Reserves Evaluation:** Effective development planning
- **Operator Intelligence and Cooperation:**
  - What can we do to help operators grow their position and improve technology?
- **Growth:** Employing technical and other initiatives to grow UL



# Organizational Structure

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- Total 2016 Overhead Costs:
  - \$15.6M
  - Per unit of production \$1.01/boe



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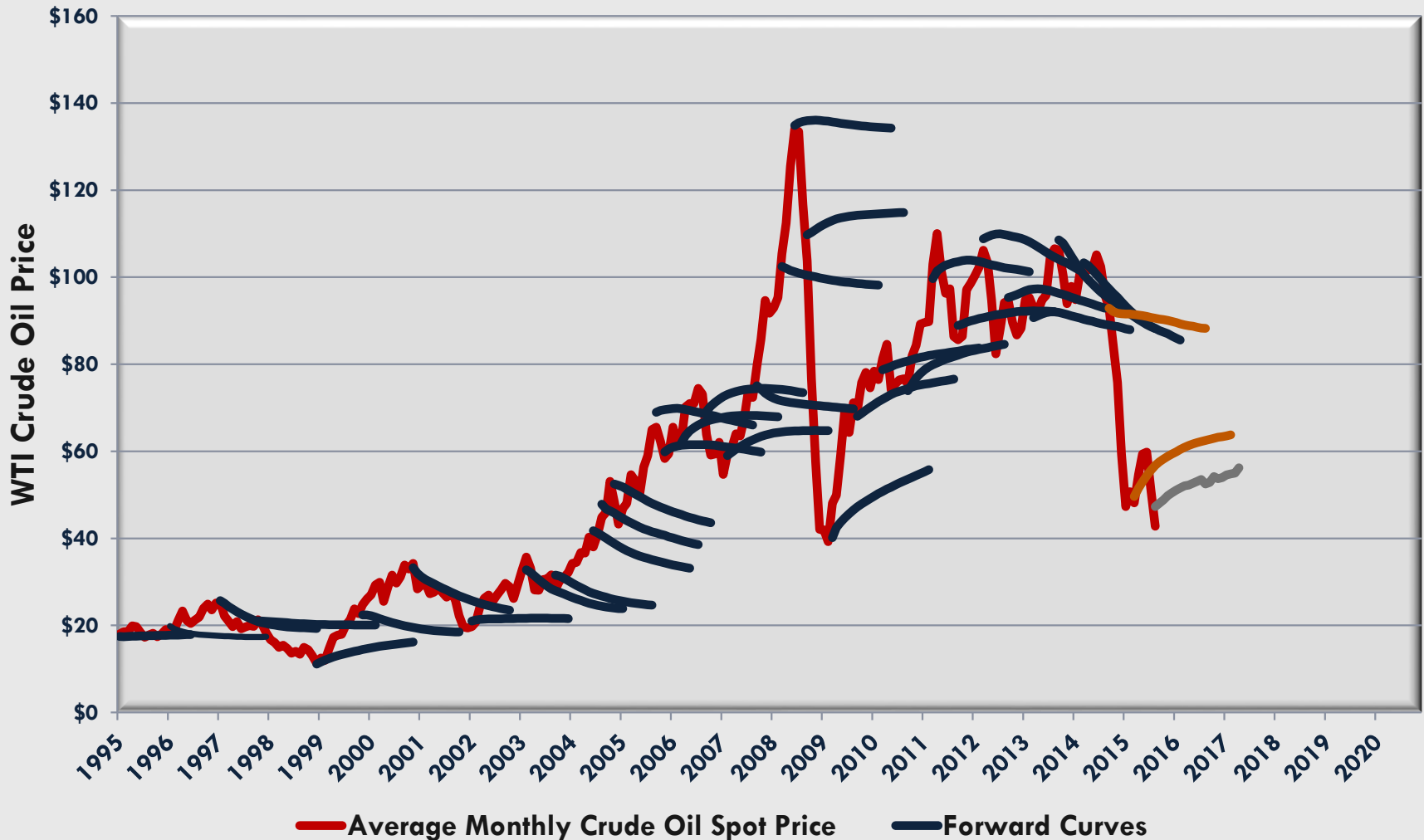
# Oil Market Uncertainty





# Spot Prices vs. the Forward Curve

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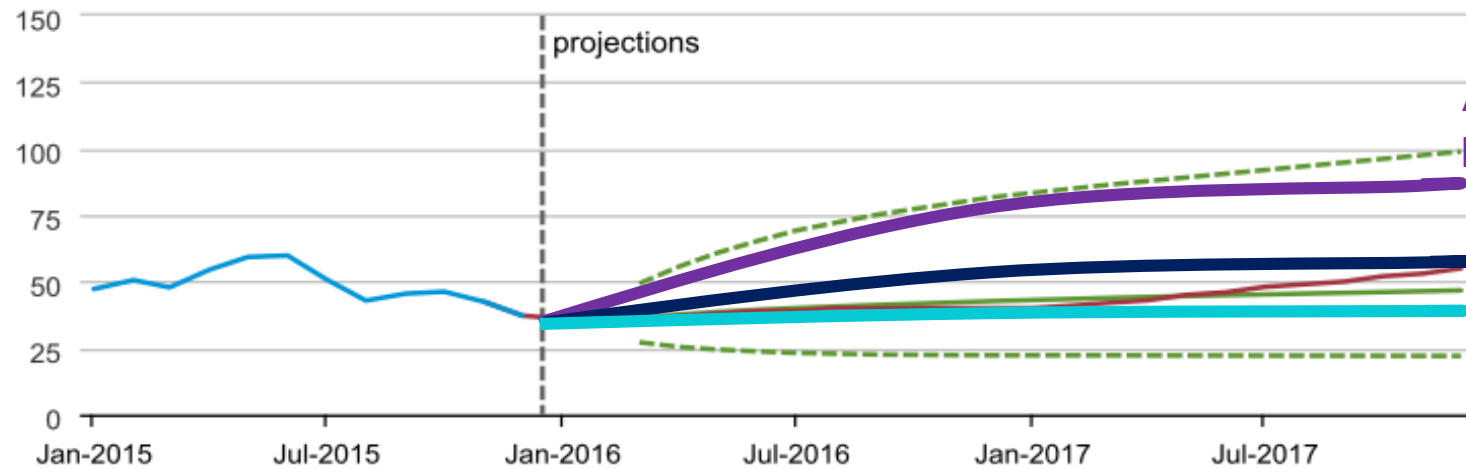


Source: Plains All American

# Oil Markets – Where are they heading?

## West Texas Intermediate (WTI) Crude Oil Price

(dollars per barrel)



**Aggressive Recovery (TPH)**  
**Moderate Recovery (RJ)**  
**Lower for Longer (GS)**

- Historical spot price
- STEO price forecast
- NYMEX futures price
- - - 95% NYMEX futures lower confidence interval
- - - 95% NYMEX futures upper confidence interval



Source: Short-Term Energy Outlook, January 2016

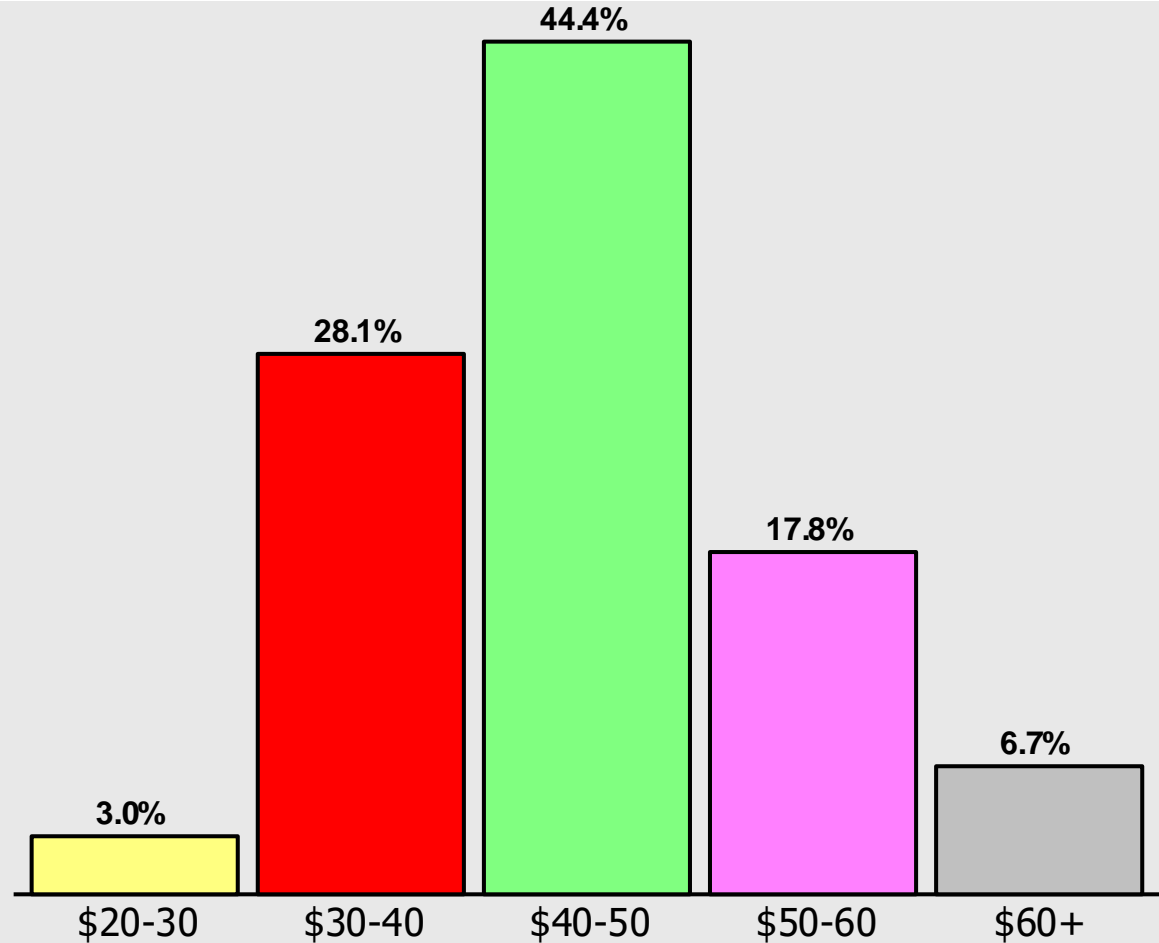
Note: Confidence interval derived from options market information for the 5 trading days ending Jan. 7 2016. Intervals not calculated for months with sparse trading in near-the-money options contracts.



# Where Will Oil Prices Exit 2016?

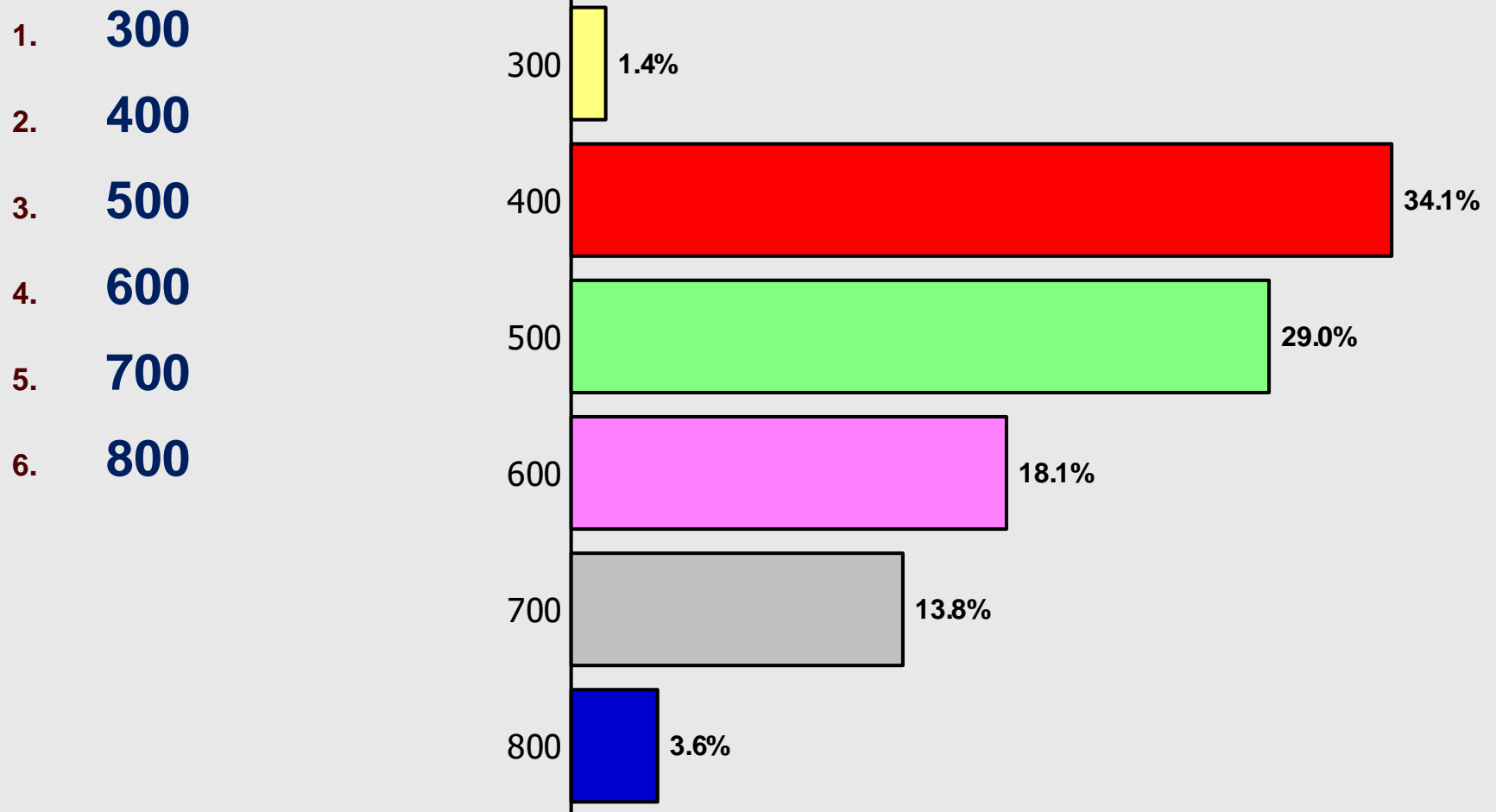
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1. **\$20- \$30**
2. **\$30- \$40**
3. **\$40- \$50**
4. **\$50- \$60**
5. **\$60+**



# How Many U.S. Rigs Will be Drilling at end of 2016?

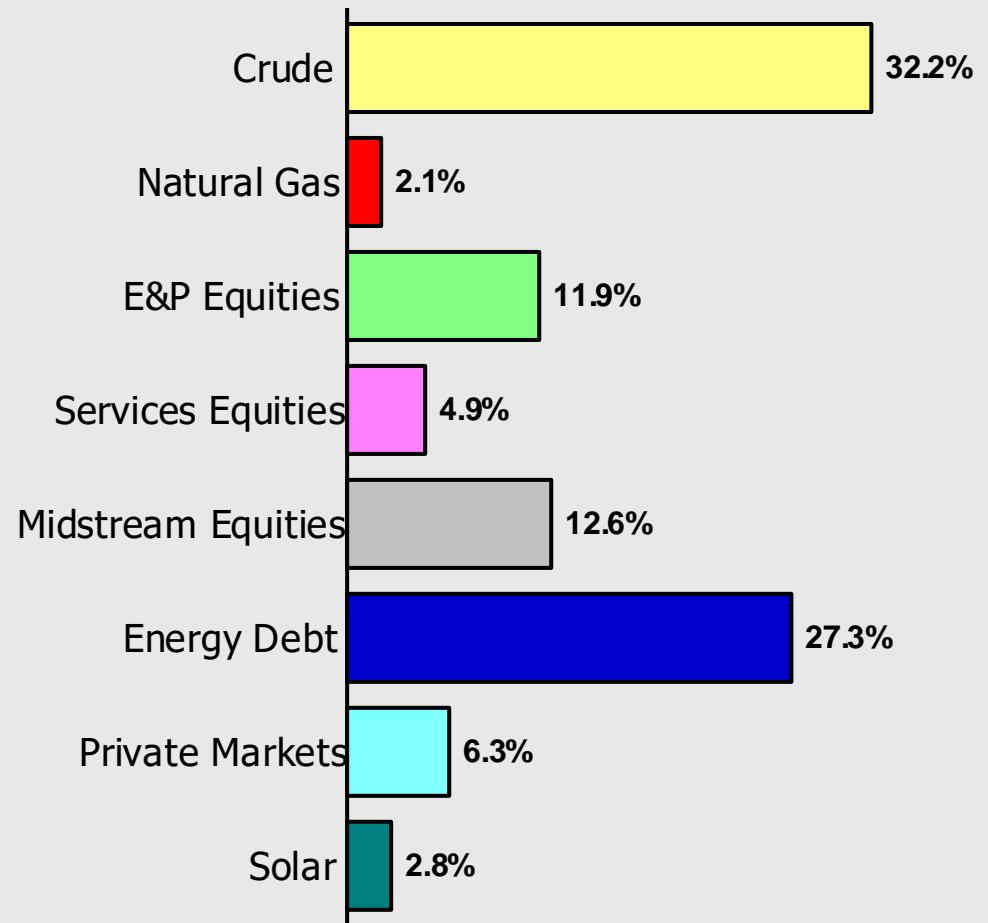
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# What Is The Best Energy Investment Opportunity, Today?

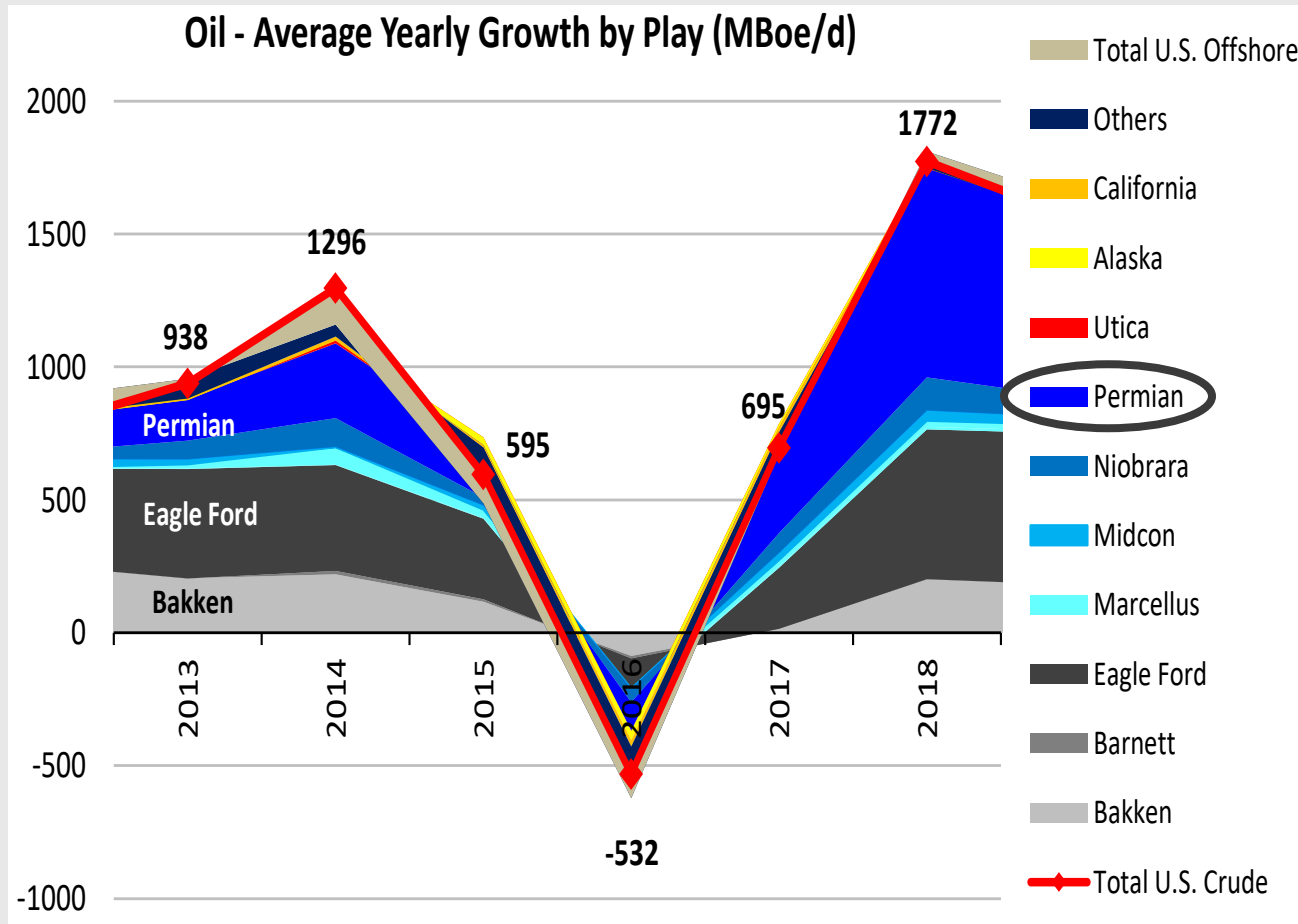
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1. **Crude**
2. **Natural Gas**
3. **E&P Equities**
4. **Services Equities**
5. **Midstream Equities**
6. **Energy Debt**
7. **Private Markets**
8. **Solar**





# Permian Basin Will Remain a Strong Player in U.S. Supply Growth

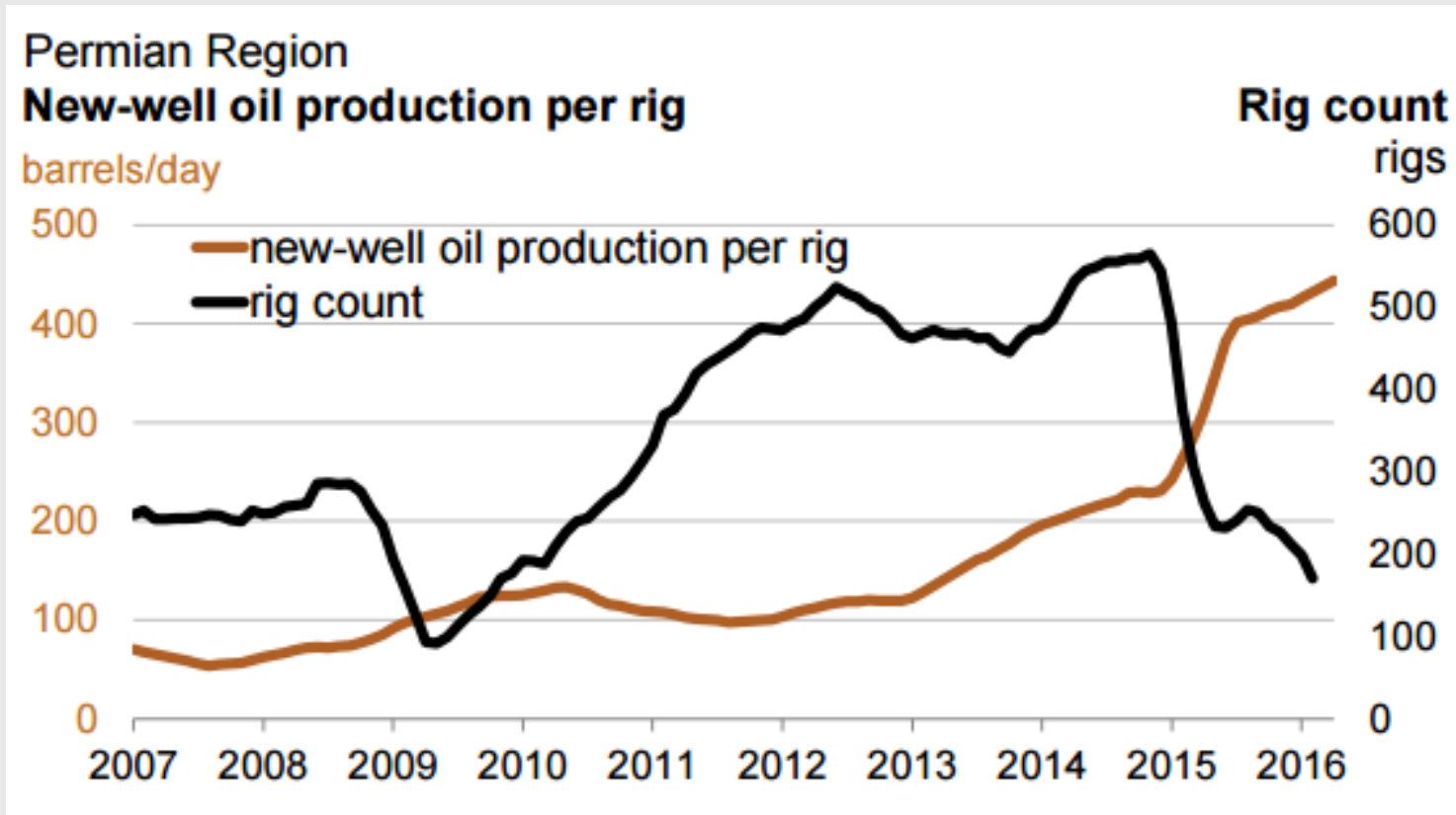


SOURCE: RAYMOND JAMES & ASSOCIATES, EIA, HPDI, Baker Hughes

# EIA Permian Drilling Productivity Report

## March 2016

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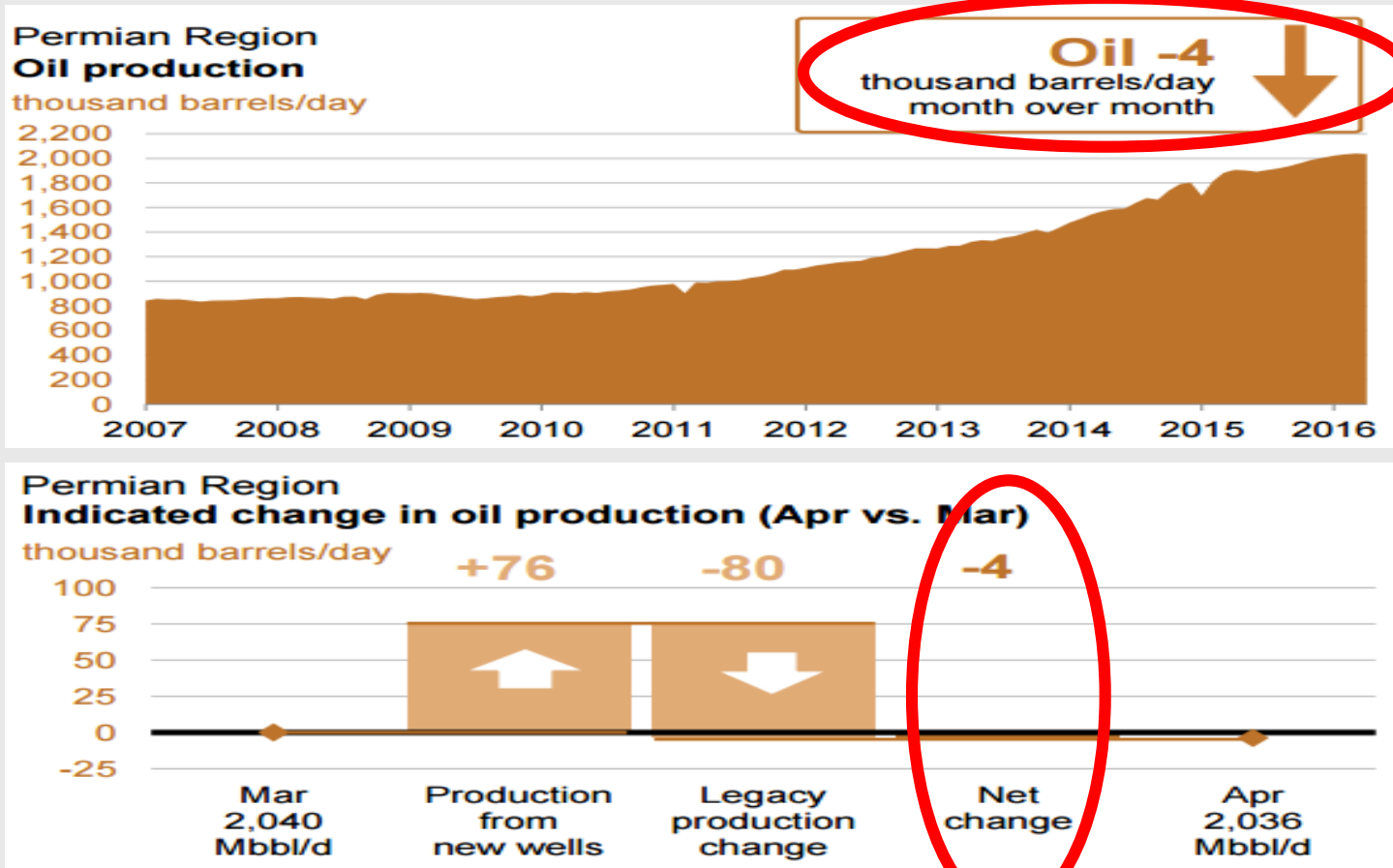


**Average 540 bopd in 2016  
vs. 80 bopd in 2007!**

Source: EIA

# EIA Permian Drilling Productivity Report March 2016

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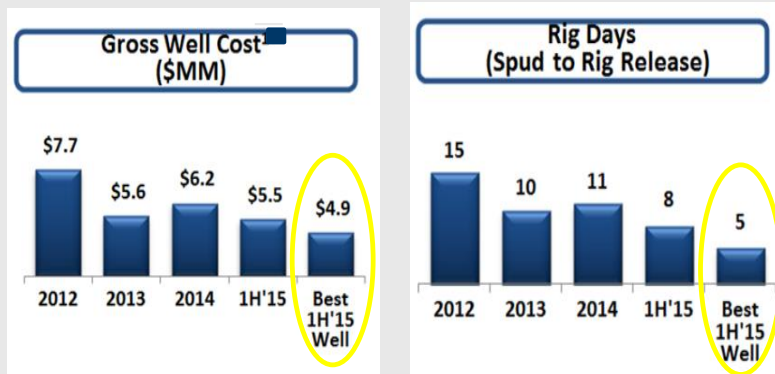
Source: EIA

Despite a rapid rig rate reduction, Permian production is just now declining, but when will the decline become significant?

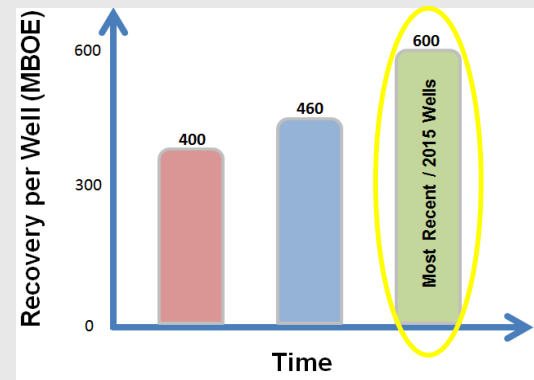
# Increasing Efficiencies: Returns Still Challenging for Producers

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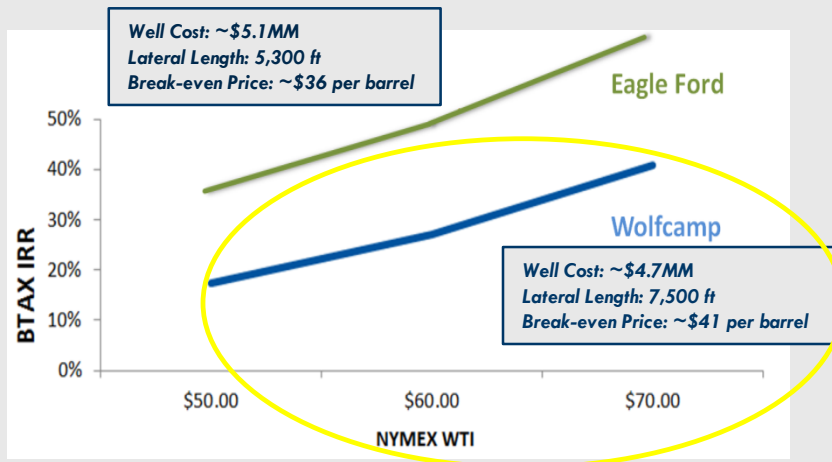
## Wolfcamp Cost Efficiencies



## Well Recoveries up 50%



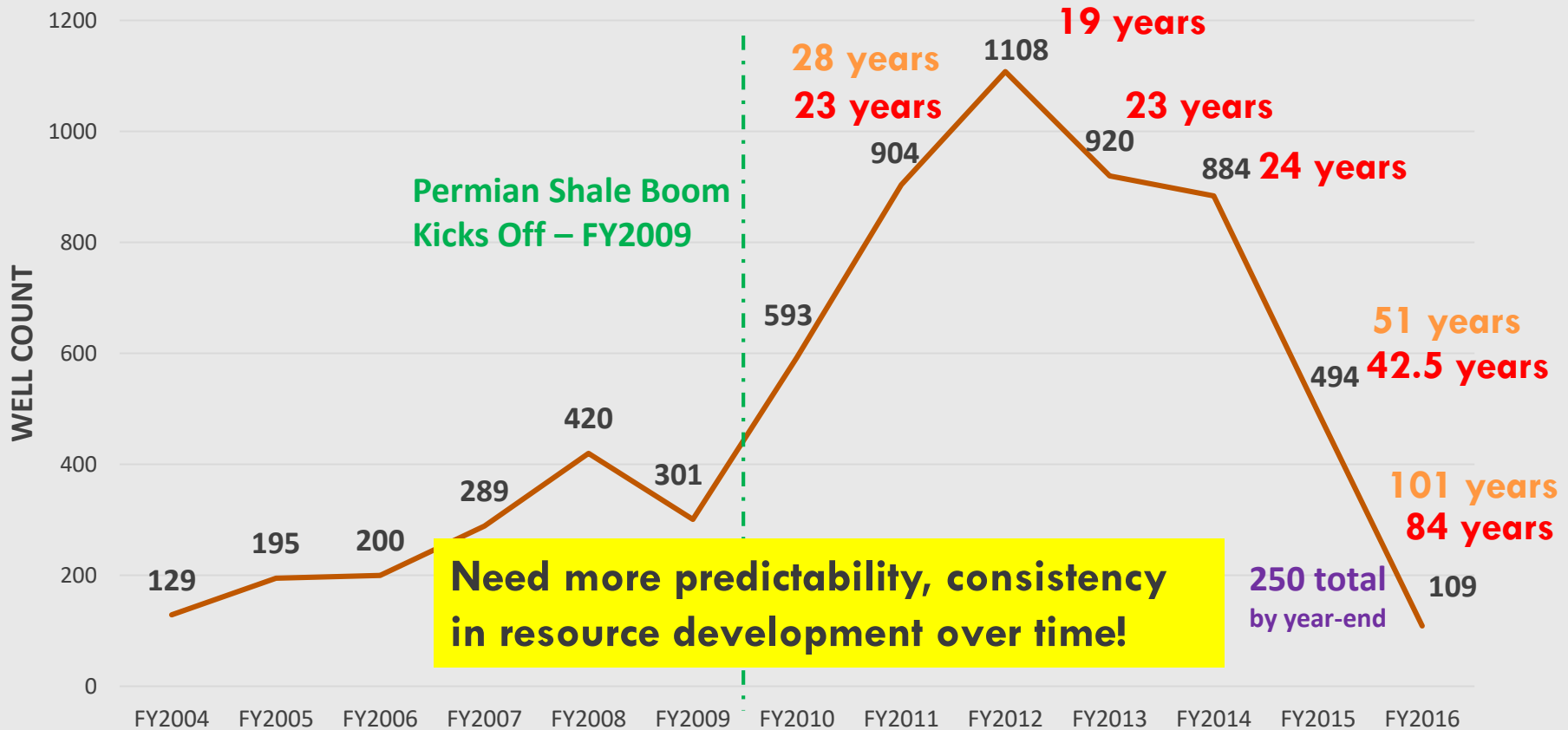
## Well Economics Create Competition for Capital



- University Lands is evaluating potential ways for ensuring efficient development of lands over time, including potential price-sensitive royalty structures.

Source: EP Energy

# Existing Leases - Oil and Gas Well Inventory



**\*Years of inventory based on 21,000 drilling locations**

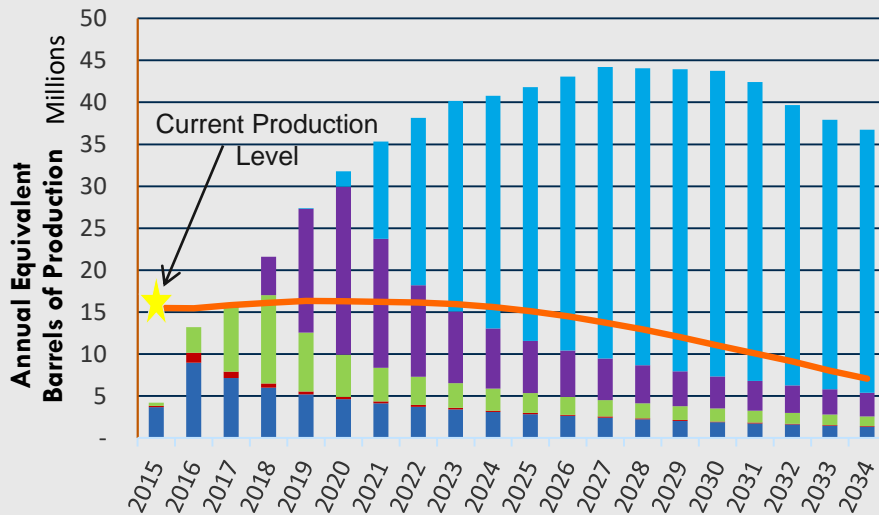
**\*Years of inventory based on 20% increase in drilling locations**





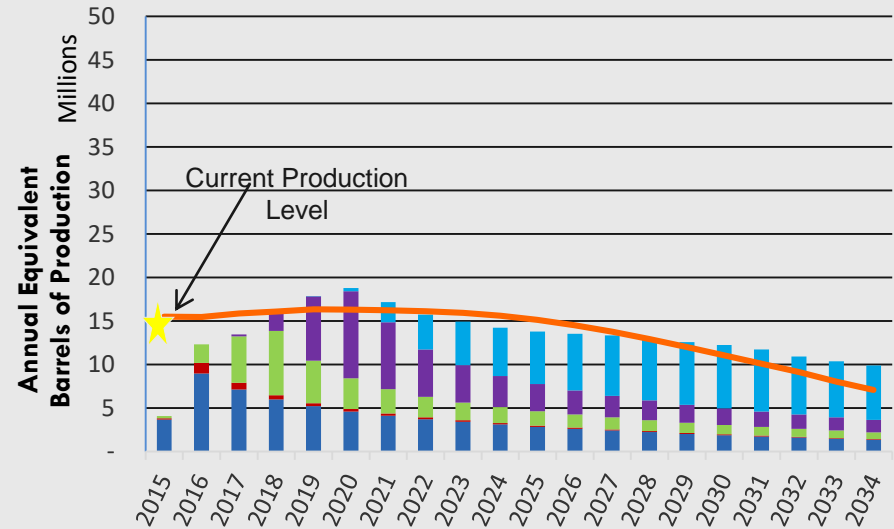
# Oil and Gas: Long-Term Production Ranges

## UNRISKED Reserves



- PROVED DEVELOPED PRODUCING
- PROVED DEVELOPED NON-PRODUCING
- PROVED UNDEVELOPED
- PROBABLE RESERVES
- POSSIBLE RESERVES
- FORECASTED

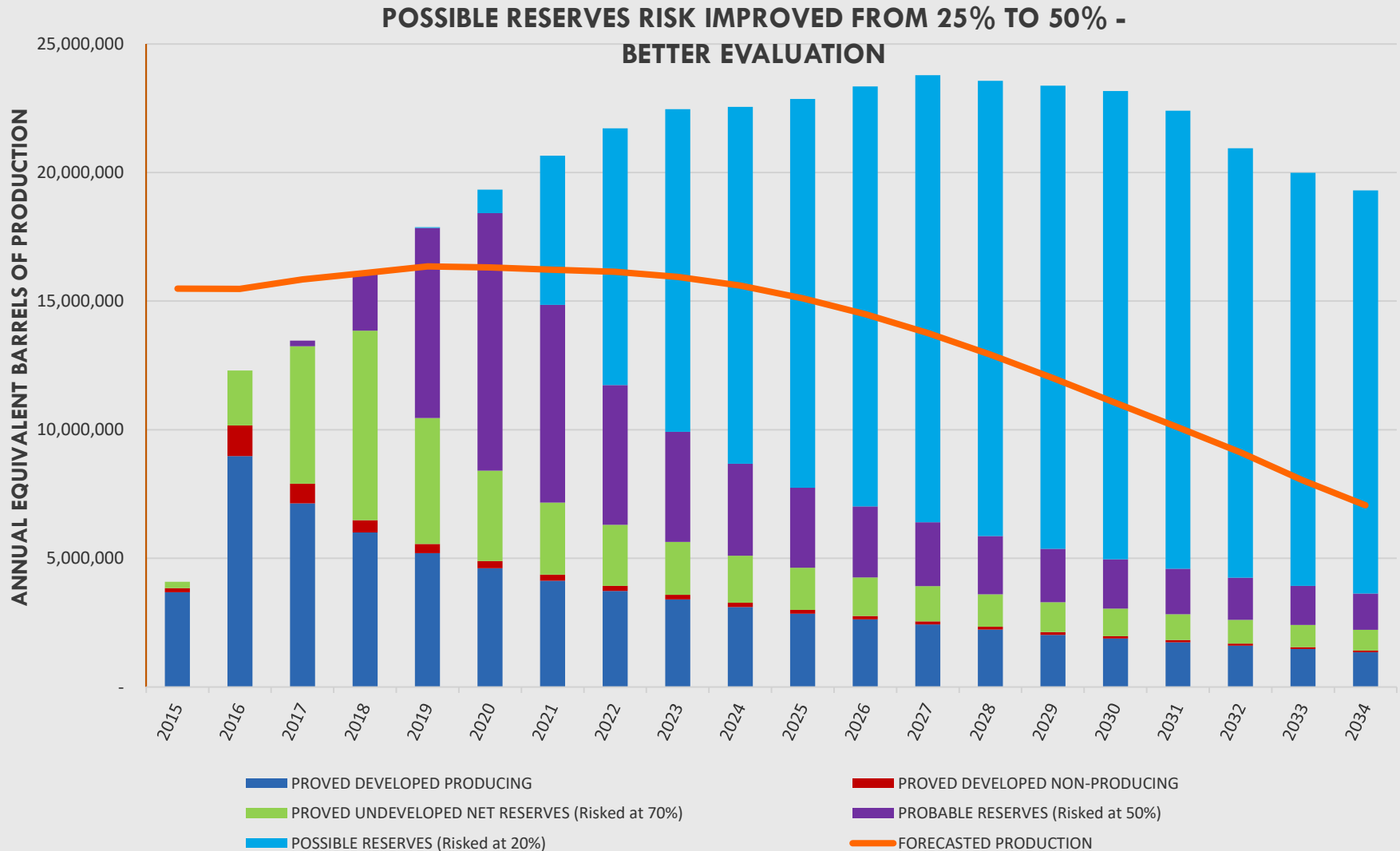
## RISKED Reserves



- PROVED DEVELOPED PRODUCING
- PROVED DEVELOPED NON-PRODUCING
- PROVED UNDEVELOPED (RISKED @ 70%)
- PROBABLE RESERVES (RISKED @ 50%)
- POSSIBLE RESERVES (RISKED @ 25%)
- FORECASTED

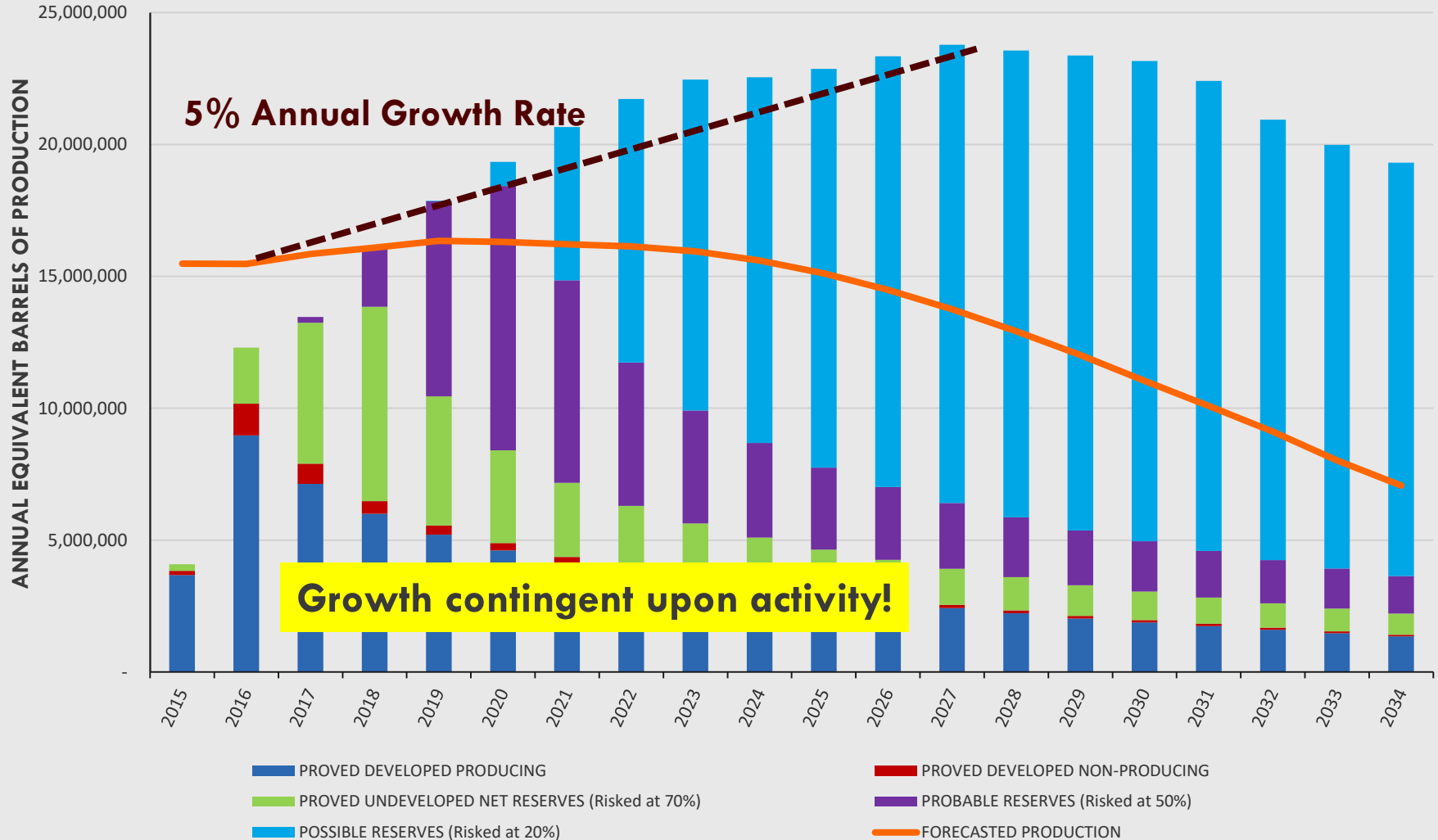


# De-Risking of Assets through Enhanced Evaluation and Data Usage



# De-Risking of Assets through Enhanced Evaluation and Data Usage

POSSIBLE RESERVES RISK IMPROVED FROM 25% TO 50%



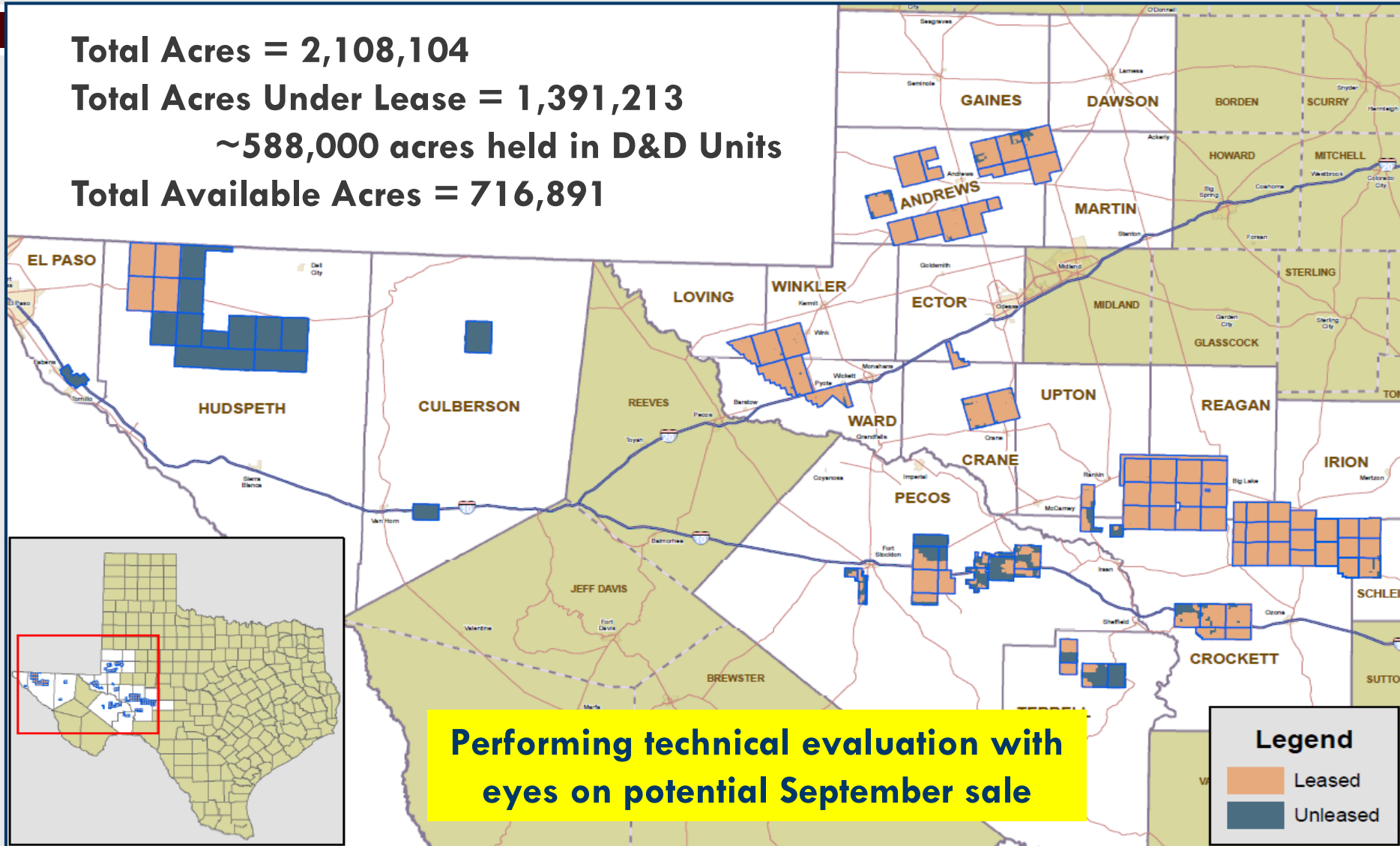
# Oil and Gas - Potential Lease Sales

**Total Acres = 2,108,104**

**Total Acres Under Lease = 1,391,213**

**~588,000 acres held in D&D Units**

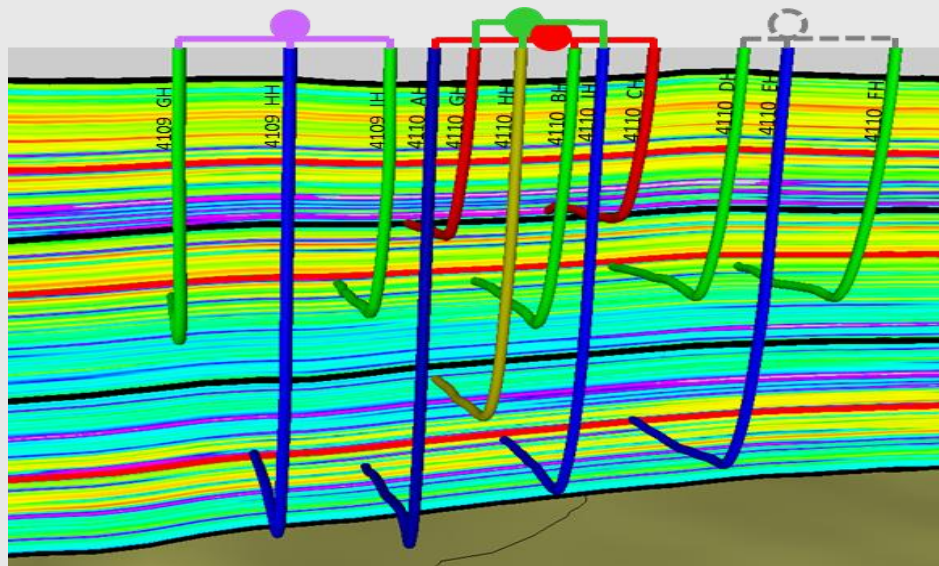
**Total Available Acres = 716,891**



# University Lands: Key Takeaways

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- ❑ Significant long-term resource potential
- ❑ Scale provides huge potential synergies
  - ❑ Oil and gas resource capture
  - ❑ Water resource development
- ❑ University Lands should be a industry leader in knowledge of resource capture
  - ❑ Data provides huge advantage



**Must work practically with industry with a long-term view!**  
**Effective long-term development is very complex.**





Perspective...