Permian Basin Overview

SPEE, Wednesday Oct 7 2015 Meeting

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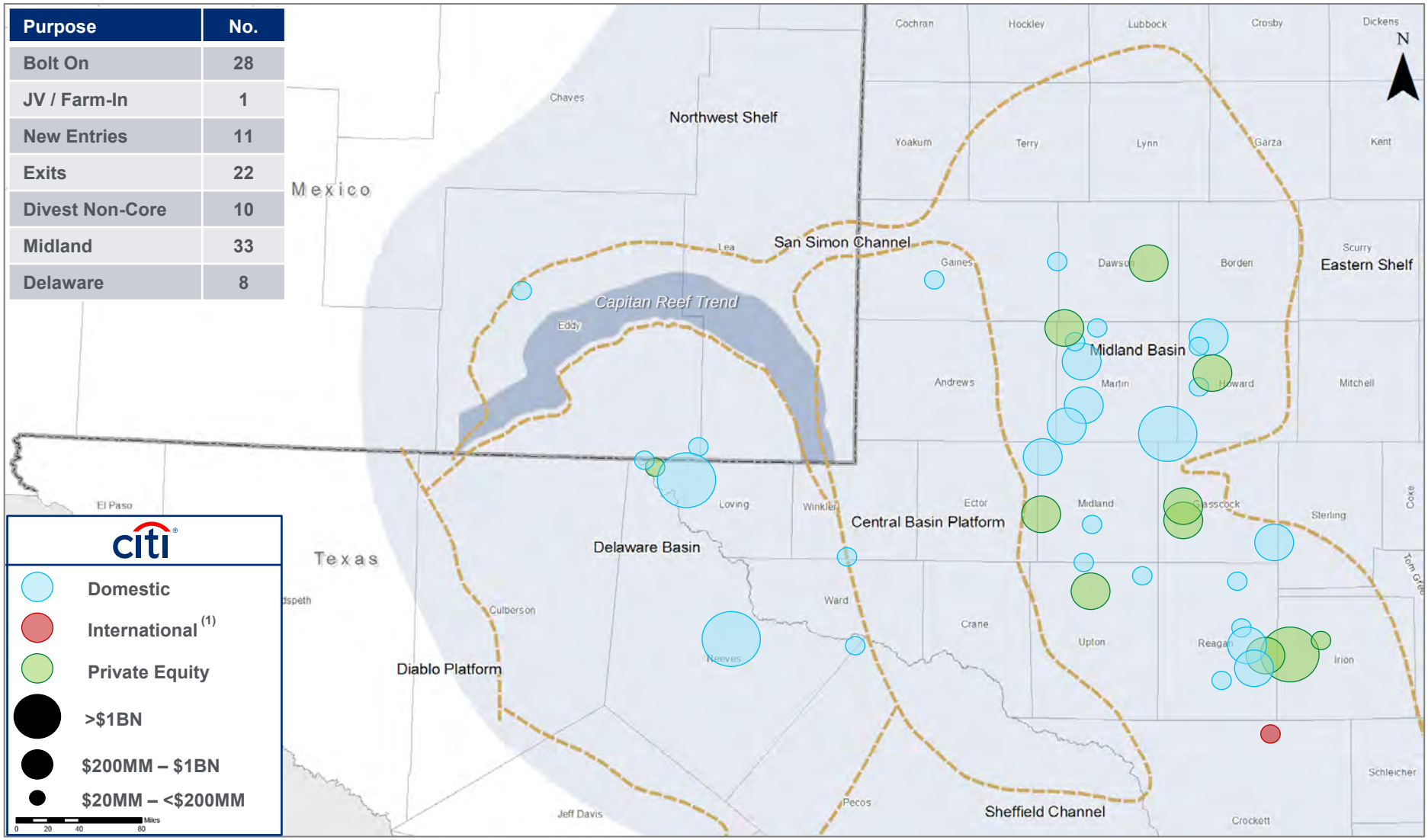
2014 to YTD: Over 40 Transactions, Over $20BN Transacted

Transaction Volume, Geographical Focus, and Multi-Formation opportunities: Changing with the Maturity of the Play.

Purpose	No.
Bolt On	28
JV / Farm-In	1
New Entries	11
Exits	22
Divest Non-Core	10
Midland	33
Delaware	8

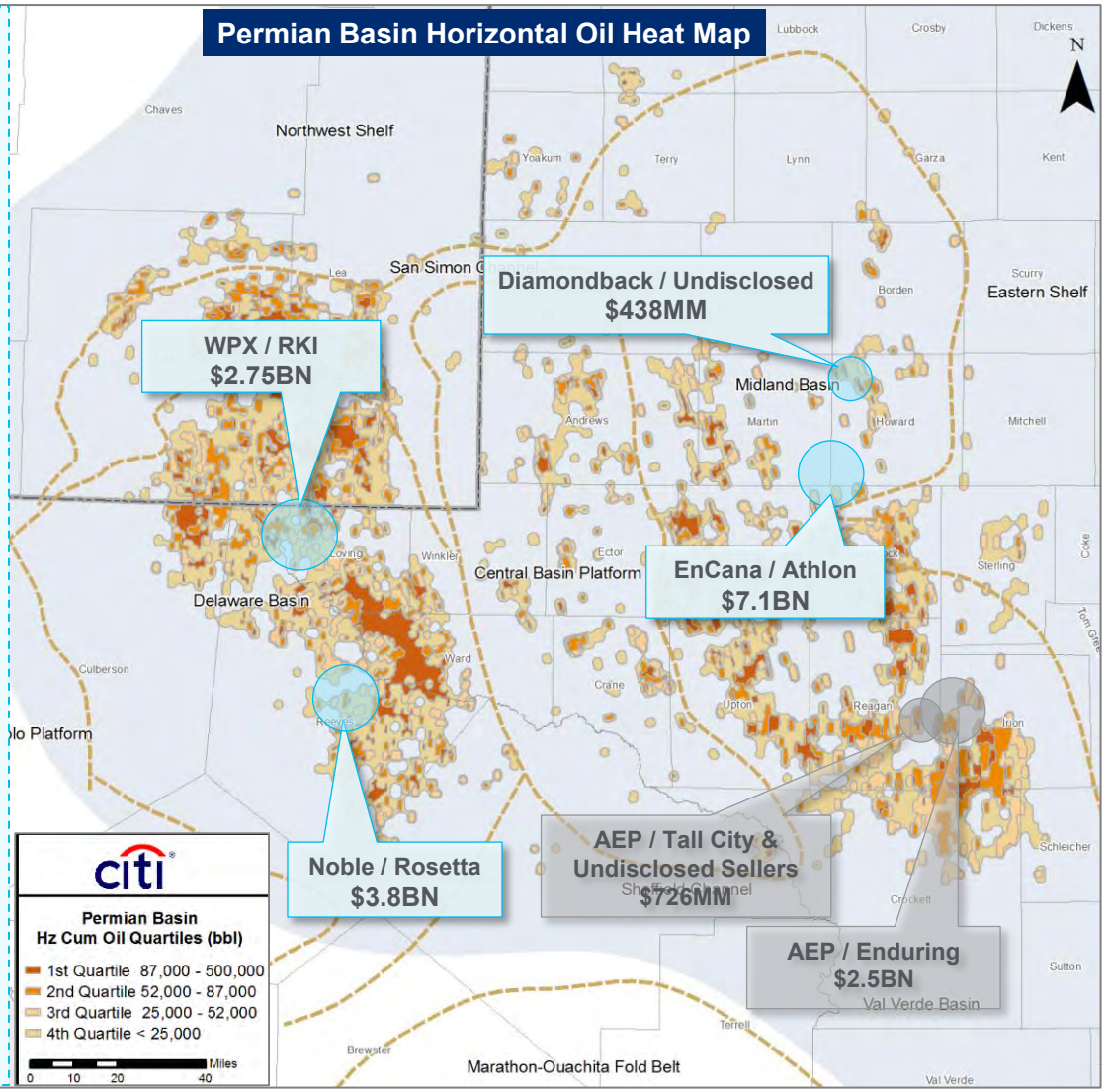


Source: IHS Herolds; PLS, Citi A&D

(1) Map excludes deals $20 MM or smaller; Notable international deals occurred prior to 2014 – YTD include: Pioneer / Sinochem $1.7BN JV in January 2013, Devon / Sumitomo $1.4BN JV in August 2012, Apache's $3.1BN acquisition of all of BP's oil and gas operations

Trend Setting Deals: New Entrants & Core Acreage Increased

- **WPX's $2.75 BN Delaware Basin Acquisition of RKI[(1)]**
  - ***Entry into the Permian Basin***
  - Headline $ / Boe: $22
  - Headline $ / Boepd: $102,000
  - Headline $ / Acre: $25,000
  - Adjusted $ / Acre: $12,500
- **Noble's $3.8 BN Corporate Acquisition of Rosetta (May 2015)**
  - ***Entry into the Permian Basin***
  - Headline $ / Boe: $14
  - Headline $ / Boepd: $59,000
  - Headline $ / Acre: $84,000
  - Adjusted $ / Acre: $20,000
- **Diamondback's $438 MM Bolt-On Acquisition (May 2015)**
  - Headline $ / Boepd: $176,000
  - Headline $ / Acre: $37,000
  - Adjusted $ / Acre: $24,000
- **AEP's $726 MM Bolt-on Acquisition (Oct. 2014)**
  - Headline $ / Boe: $15
  - Headline $ / Boepd: $519,000
  - Headline $ / Acre: $27,000
  - Adjusted $ / Acre: $24,000
- **EnCana's $7.1 BN Corporate Acquisition of Athlon (Sept. 2014)**
  - ***Entry into the Permian Basin***
  - Headline $ / Boe: $40
  - Headline $ / Boepd: $233,000
  - Headline $ / Acre: $50,000
  - Adjusted $ / Acre: $33,000
- **AEP's $2.5 BN Acquisition (June 2014)**
  - ***Entry into the Permian Basin***
  - Headline $ / Boepd: $156,000
  - Headline $ / Acre: $40,000
  - Adjusted $ / Acre: $17,000



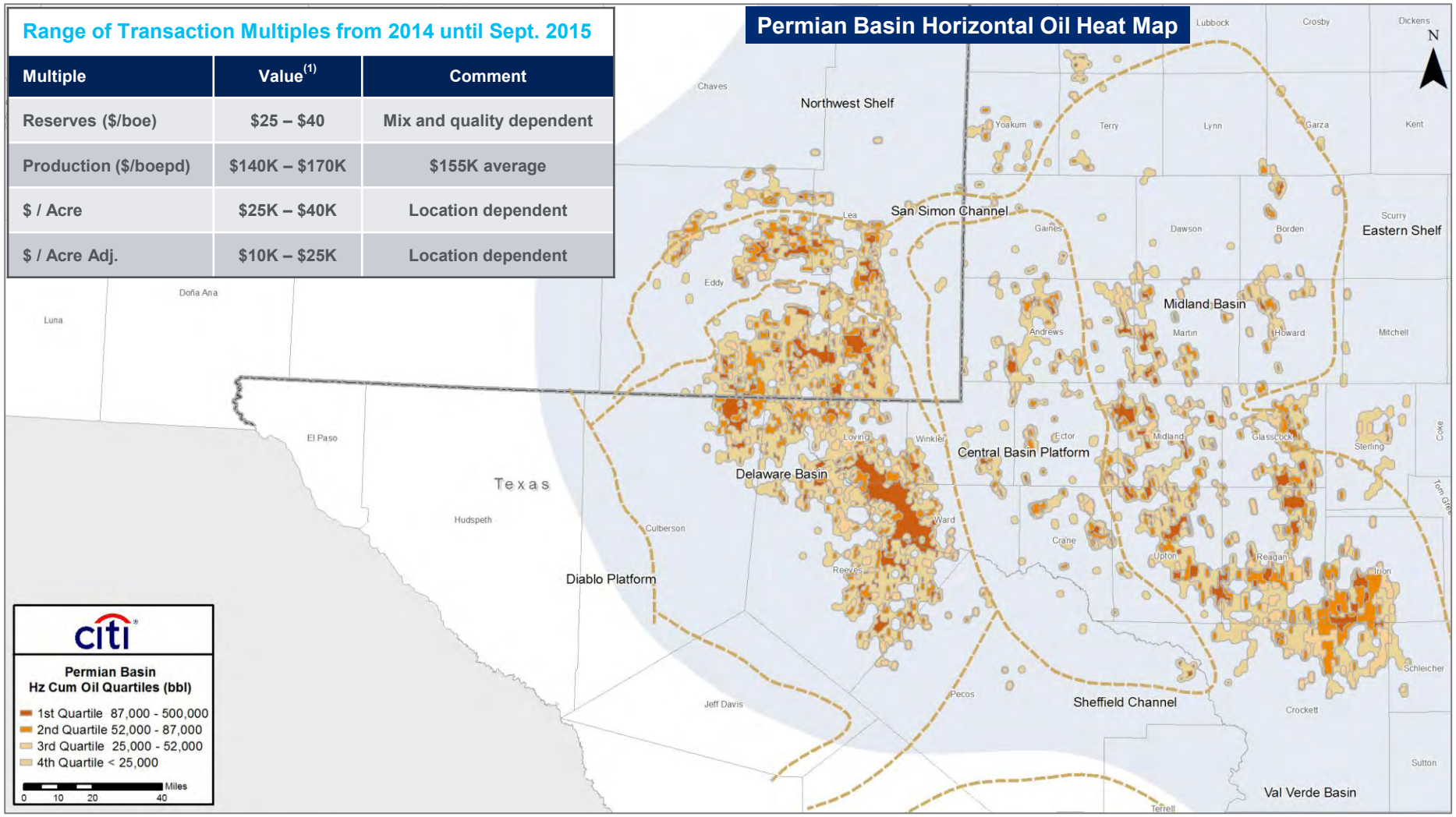
Source: IHS Herolds; PLS, Citi A&D, BEG, values rounded to the nearest 1,000
(1) Metrics adjusted to only include upstream transaction value of $2.25 BN

Multiples Remain High As Horizontal Drilling Trends Upward

Transaction Multiples are Driven By Rock Quality & Fluid Composition. Stacked Pay is a Value Multiplier.

Range of Transaction Multiples from 2014 until Sept. 2015

Multiple	Value[1]	Comment
Reserves ($/boe)	$25 – $40	Mix and quality dependent
Production ($/boepd)	$140K – $170K	$155K average
$ / Acre	$25K – $40K	Location dependent
$ / Acre Adj.	$10K – $25K	Location dependent



Source: IHS Herolds; PLS, Citi A&D, BEG

(1) All multiples could be adjusted by 0.86% stock adjustment or by 0.70% for WTI oil prices

(2) Active horizontal wells 2010 to present

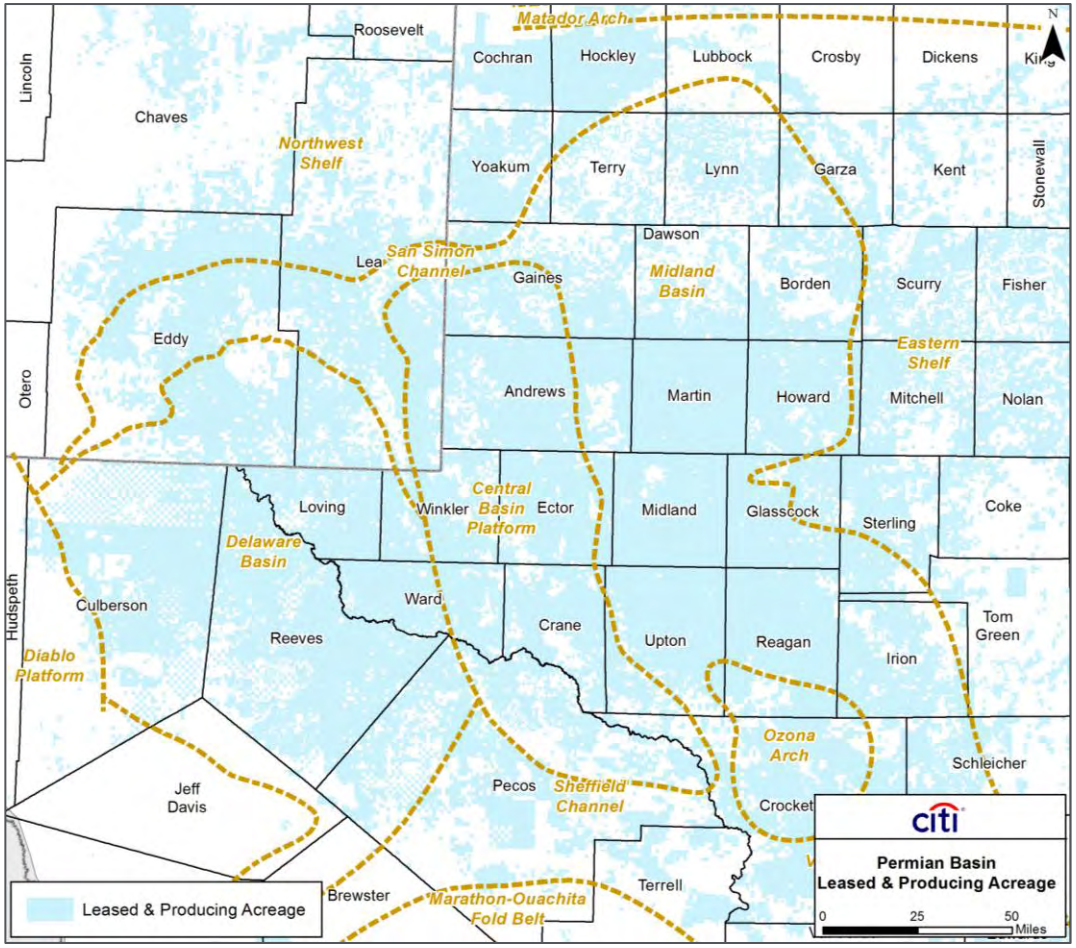
Number & Size of Operators Suggest Consolidation Ahead

There are 1,665 operators in the Permian Basin.

boepd Range	# Of Operators	Percent Oil
>250,000	0	79%
100,000 - 250,000	5	66%
50,000 - 100,000	9	58%
25,000 - 50,000	12	63%
10,000 - 25,000	21	62%
5,000 - 10,000	18	71%
1,000 - 5,000	89	68%
< 1,000	1,511	76%

Operators Of Interest

- 154 Operators with more than 1,000 boepd (consolidation opportunities?)
- With a production range of 5,000 to 100,000 boepd:
  - 61 deals of ~100 MM to 10 BN dollars?
- Four potential mega deals greater than 100 Mboepd



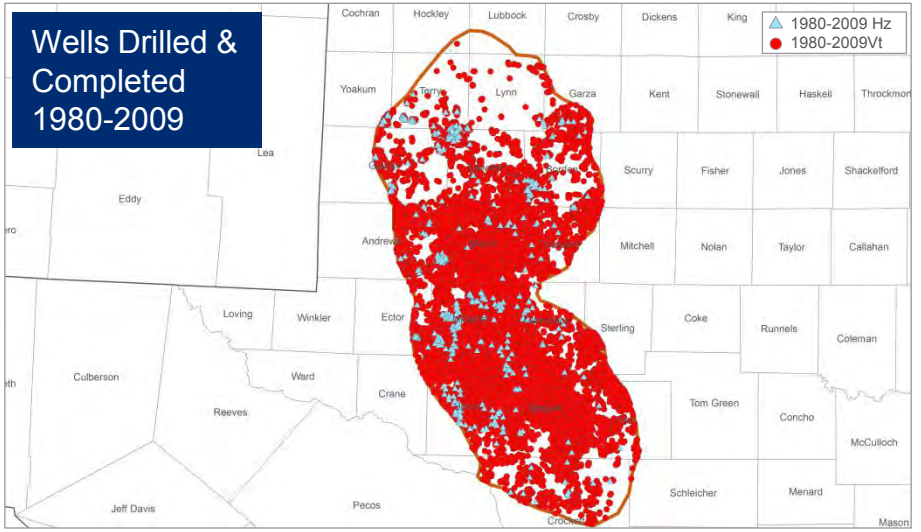
Source: Drillinginfo.

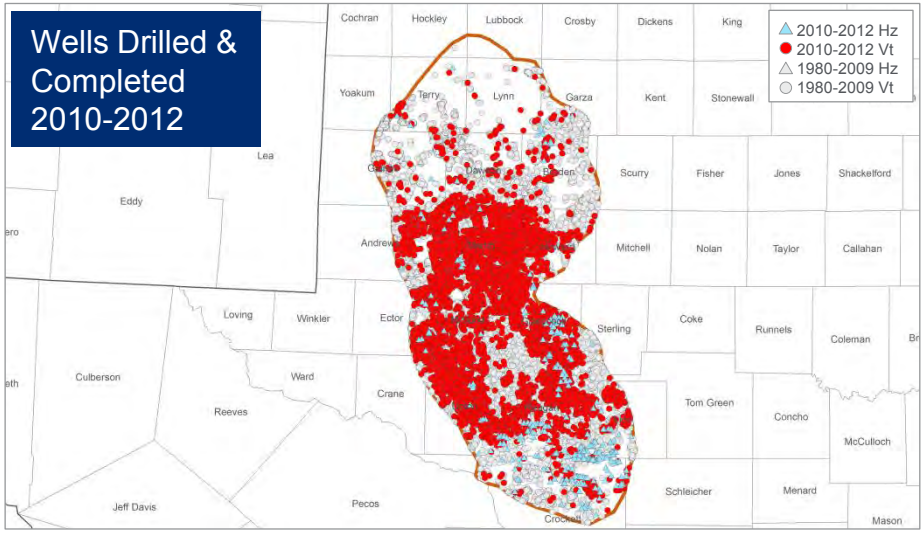
Midland Basin Drilling History – Oil Wells

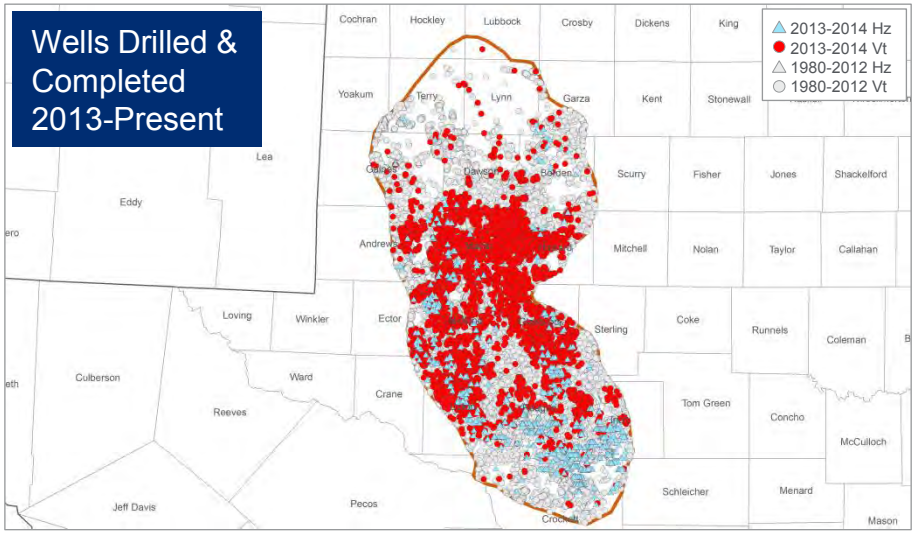
Drilling activity is focused on the middle and southern portion of the Midland Basin, with a transition from traditionally vertical wells to horizontal wells over the past few years.

Key Points

Date Range	Horizontal Wells	Vertical Wells
1980 - 2009	1,019	38,645
2010 - 2012	603	11,403
2013 - 2014	1,502	5,266



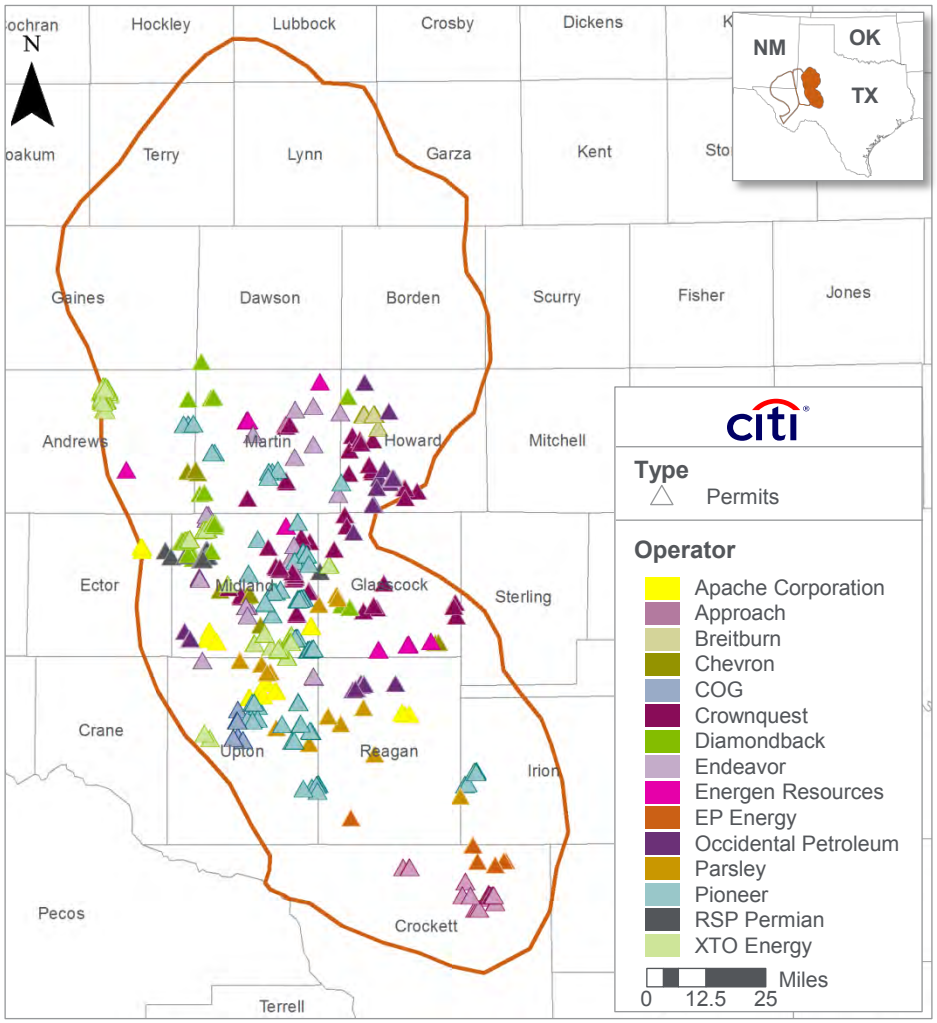




Source: DrillingInfo as of February 2015

Current Midland Permitting & Rig Activity Breakout

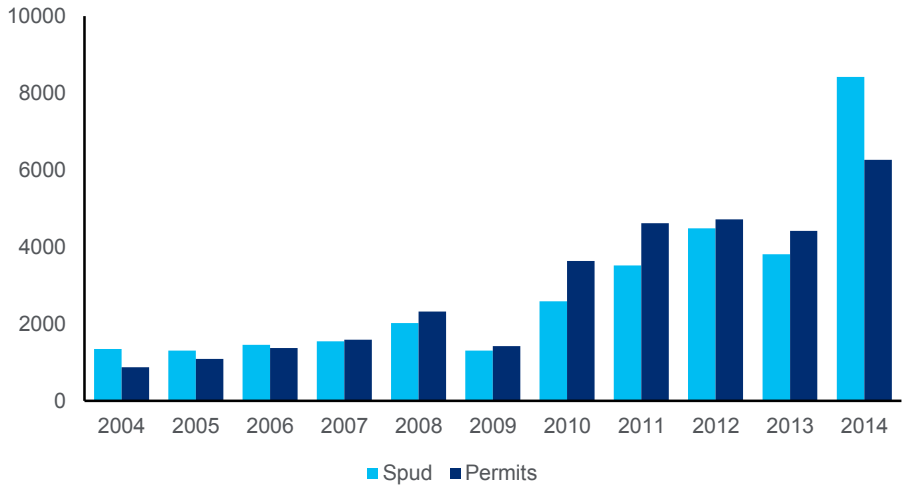
Since 2009 there has been significant activity in the number of permits and spud wells, with 2014 standing out as a year of increased activity.



Permit and Rig Activity by Operator (1)

	Rigs		Permits			
	H	V	H	V	Total	Average Depth (Feet)
PIONEER NATURAL RES. USA, INC.	20	3	218	64	282	11,985
OCCIDENTAL PETROLEUM CORPORATION	4	1	87	89	176	13,121
APACHE CORPORATION	9	3	113	56	169	11,125
CHEVRON U. S. A. INC.	2	4	17	98	115	12,000
ENCANA CORPORATION	4	5	27	88	115	11,025
PARSLEY ENERGY OPERATIONS, LLC	4	0	21	78	99	13,880
CROWNQUEST OPERATING, LLC	0	2	5	86	91	11,733
LAREDO PETROLEUM, INC.	4	3	55	35	90	12,250
RSP PERMIAN, LLC	3	1	55	32	87	12,300
BREITBURN OPERATING L.P.	0	1	11	76	87	12,000

Number of Wells Permitted and Spud

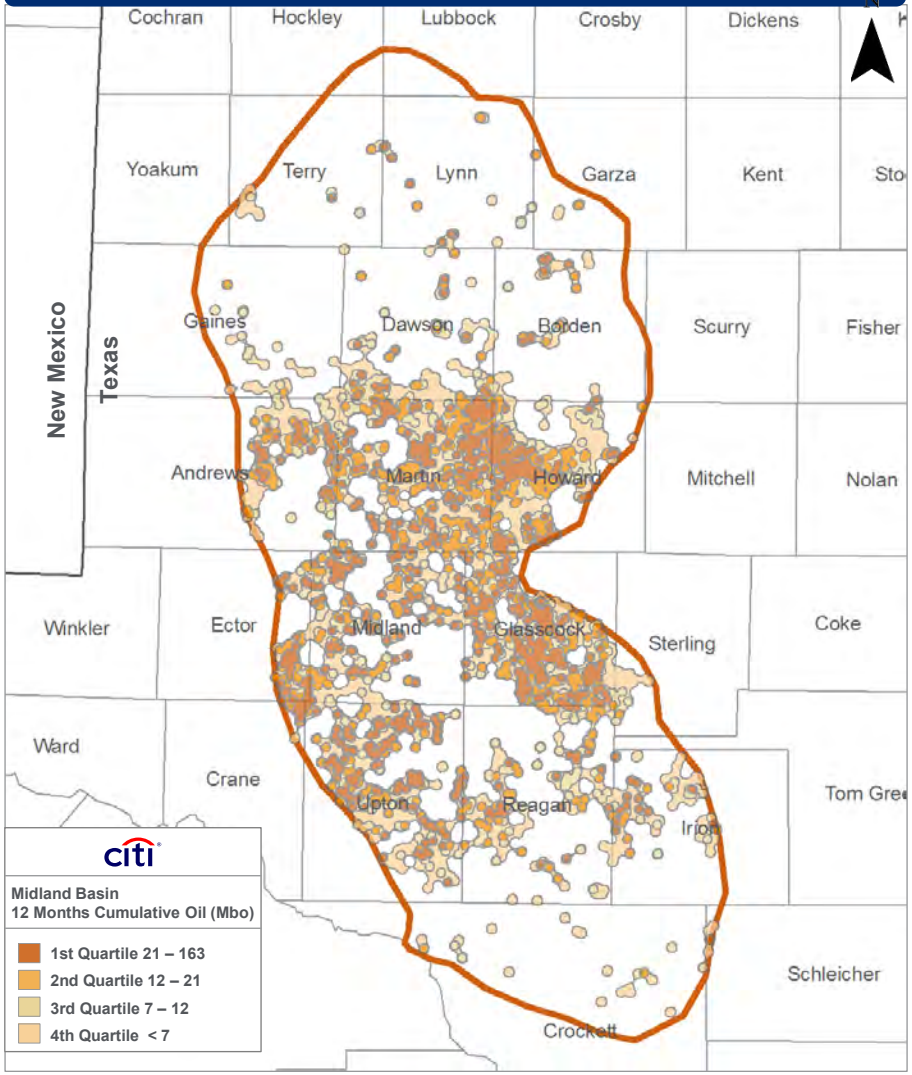


Source: Drillinginfo
(1) Outstanding permits in the last 180 days as of October 2015

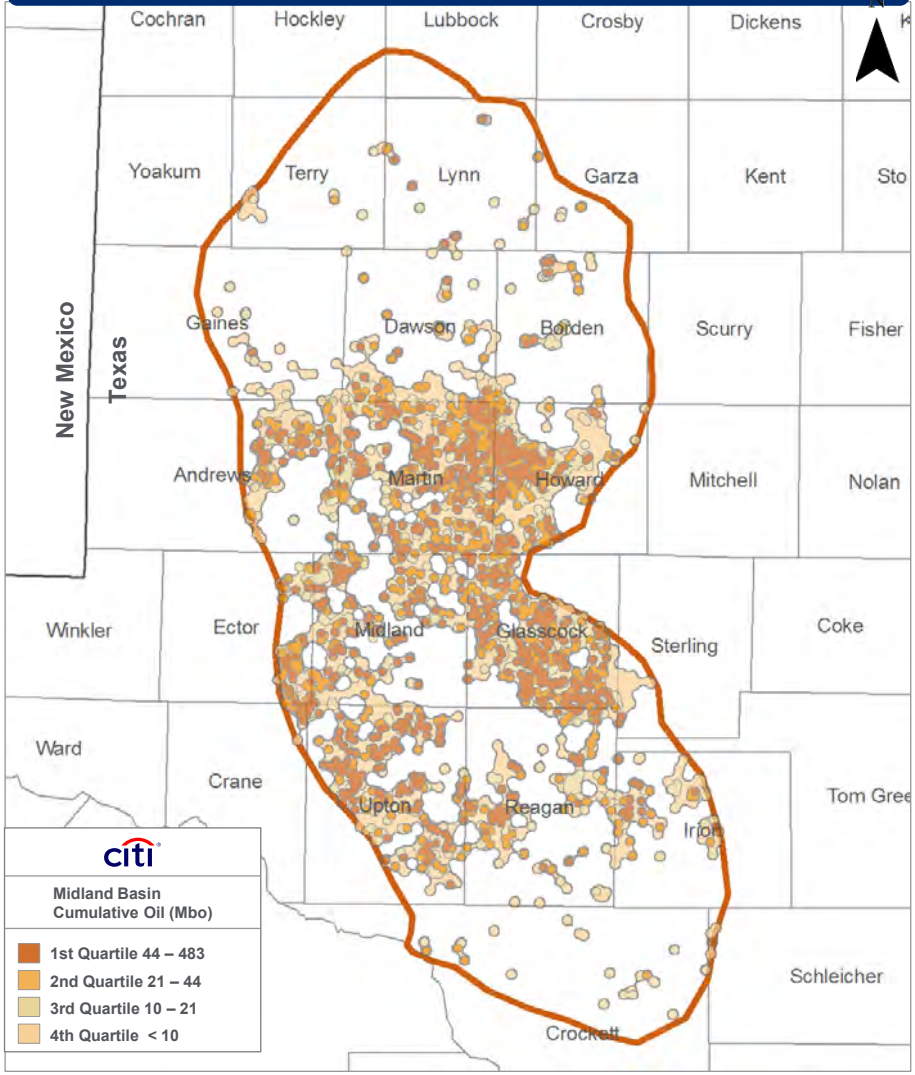
Midland Basin Cumulative Oil Production – Vertical Wells

Midland Basin 12 month and cumulative production shown from 3,050 vertical wells. Production shown from January 1, 2010 to January 1, 2015. Excludes vertical wells with less than 180 days of production.

Twelve Month Cumulative Production



Cumulative Oil Production

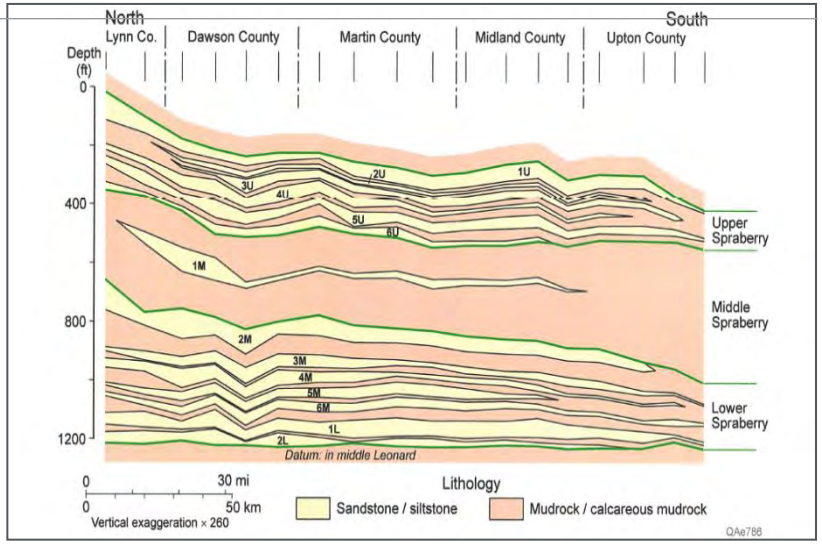


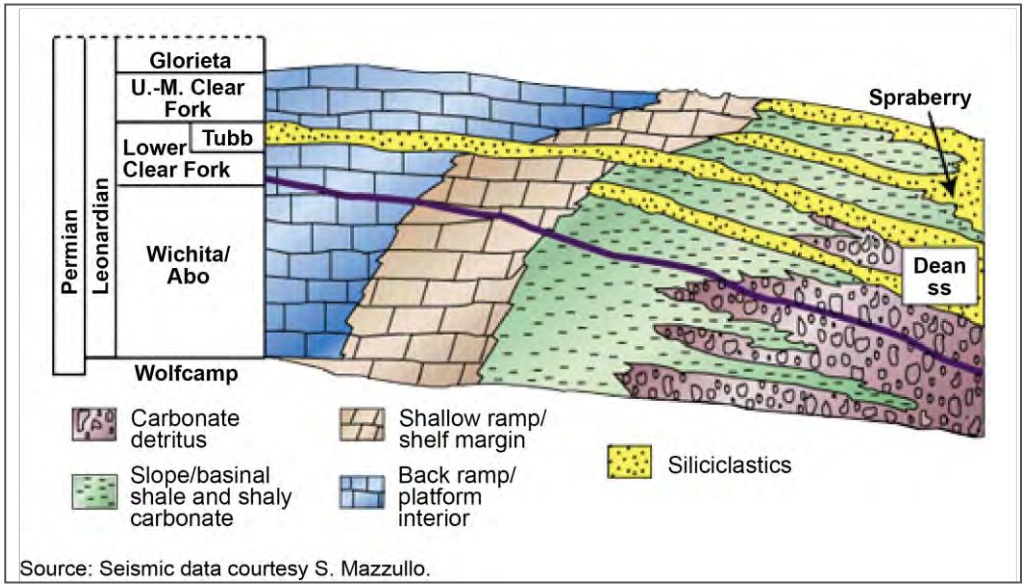
Source: Drillinginfo

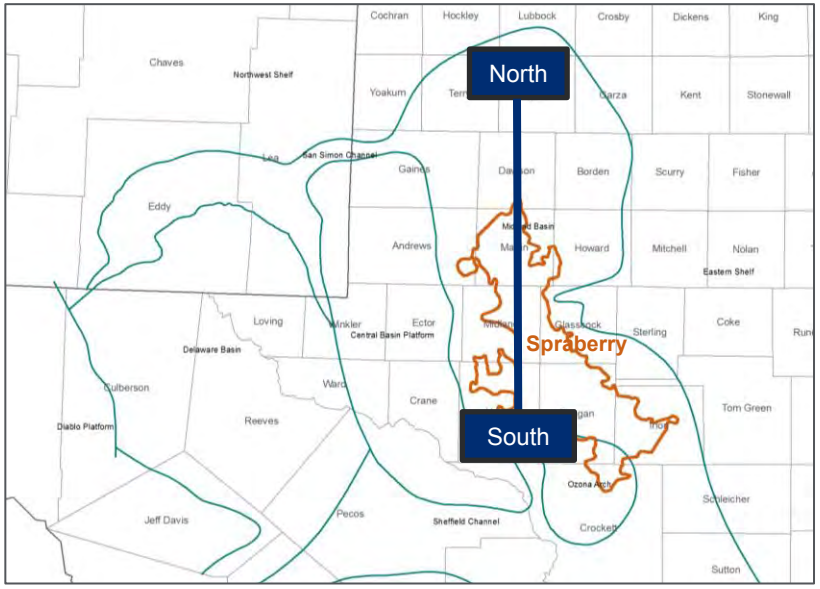
Spraberry Geology

Large basin floor submarine fan systems fed by turbidity currents and debris flows.

- Basinal equivalent of the Clear Fork carbonate shelf/slope play
- Historical production from the coarse siltstone units within the Spraberry
  - Due to advances in drilling and completion technologies, more recent production has been increasingly from the less permeable mudstone and fine-grained sandstone facies
- Updip pinch out of Spraberry sandstones/mudstones on a macro, regional scale creates stratigraphic traps for both the conventional and resource Spraberry plays
- Three sets of vertical natural fractures observed in cores
  - North-northeast strike
  - East-northeast strike
  - Northeast Strike
- **Cumulative Production: 358 MMbo, 323 Bcf**
- Pioneer Resources, Concho Operating and Devon Energy are active operators in the Spraberry horizontal play.



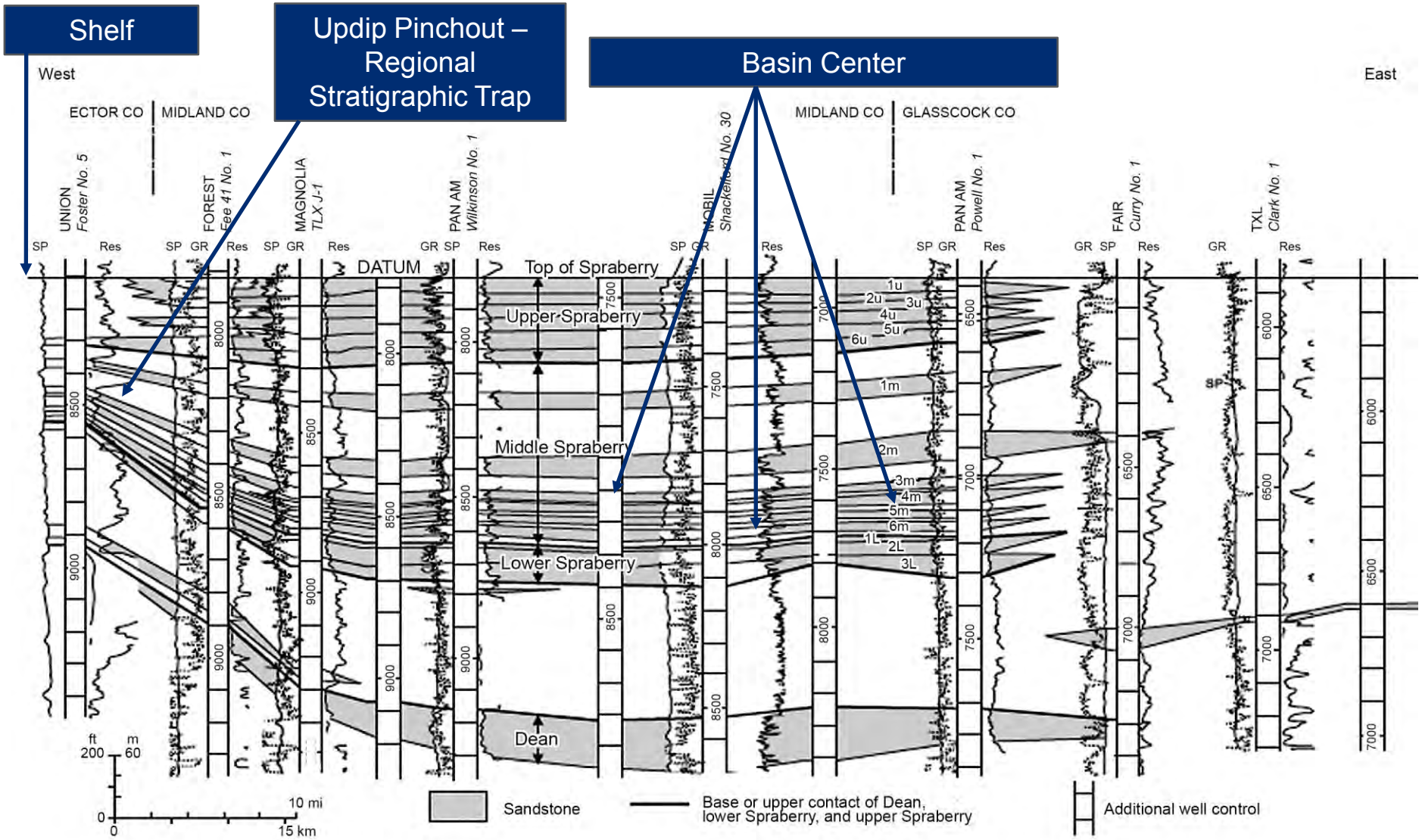




Source: AAPG, BEG.

Spraberry Cross Section – From Shelf to Basin

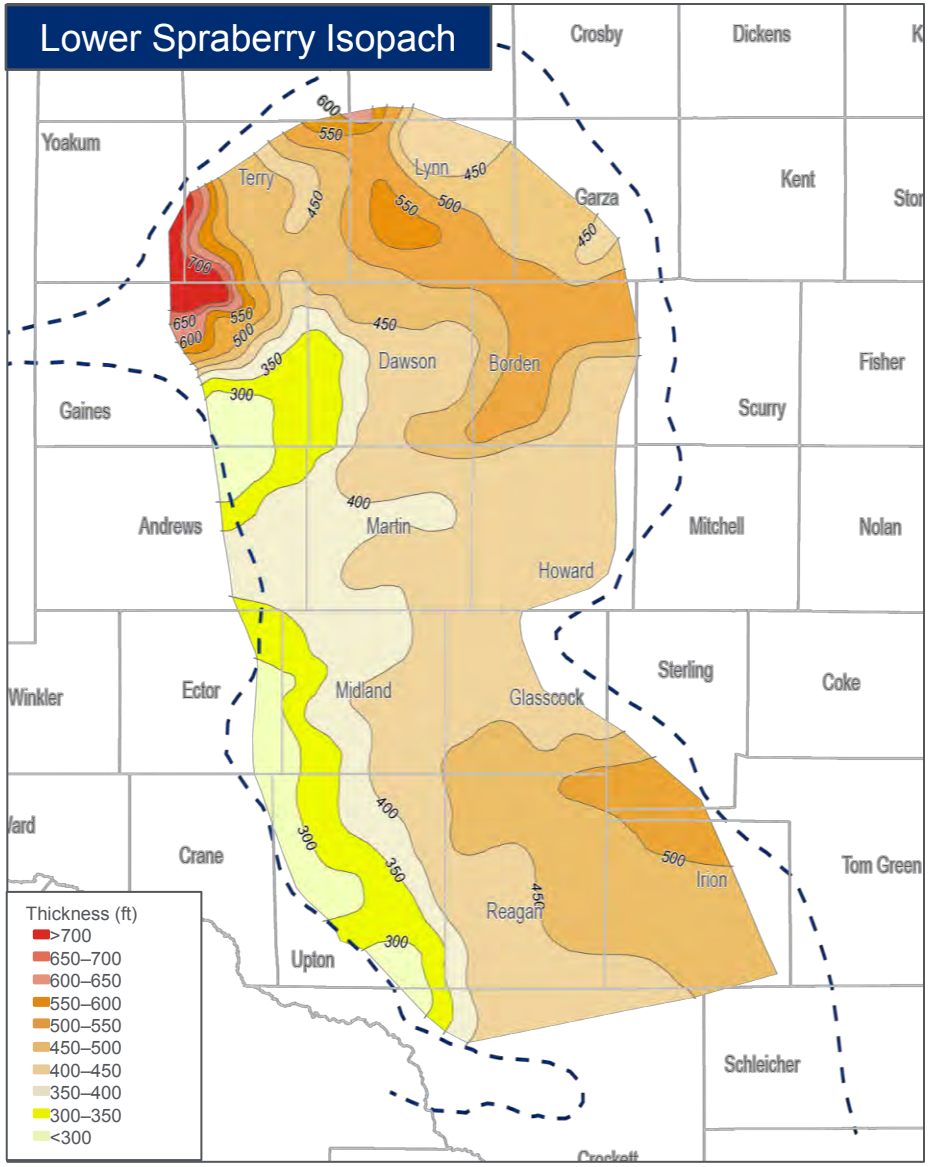
Clastic upper- and lower-Spraberry intervals comprised of fine grained sandstones and low-permeability siltstones, interbedded with the organic middle Spraberry interval.

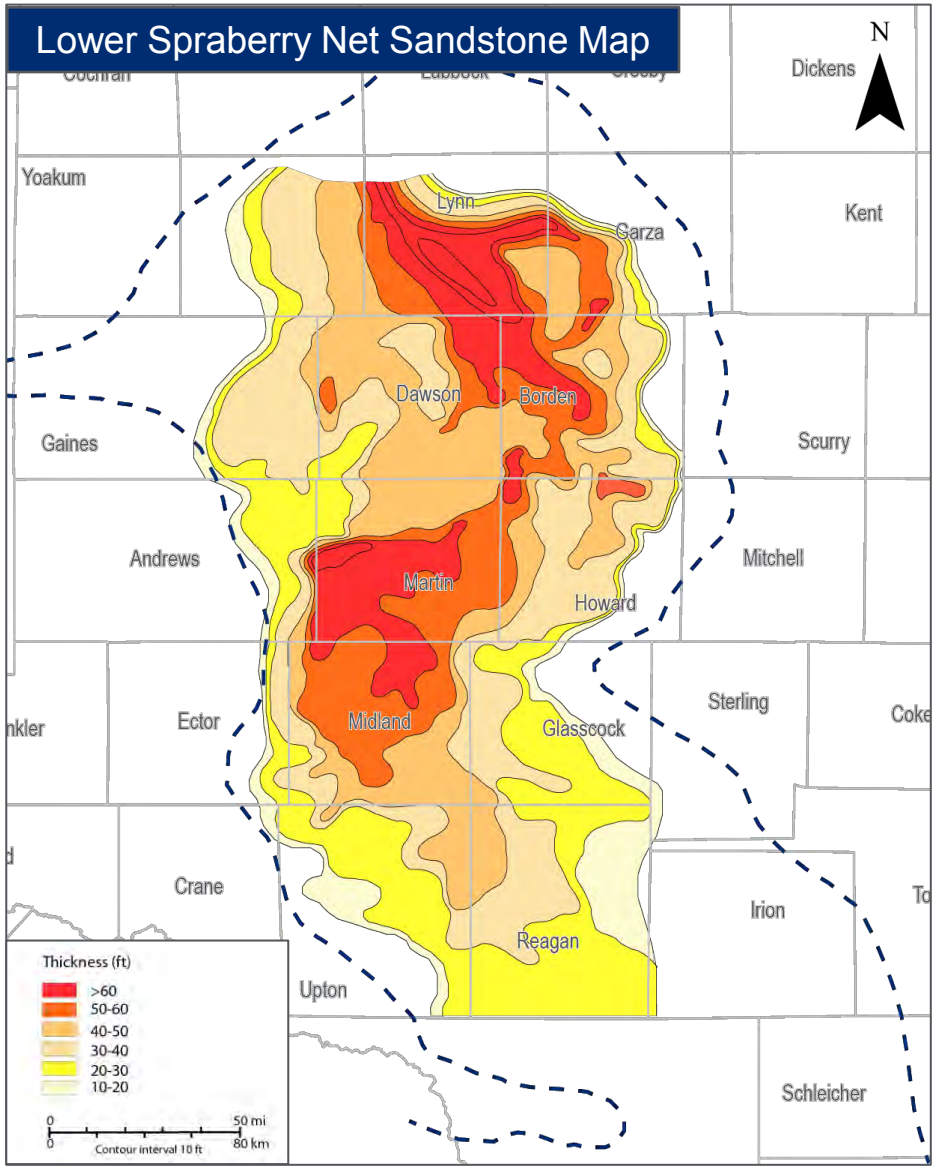


Source: BEG

Lower Spraberry Isopach and Net Sandstone Maps

The Spraberry starts in the north as channel geometries then transforms to lobes at the toe of slope and finally to broadly distributed, highly laminated sheet sands.





Source: BEG

Type Curve Summary: Spraberry Formation

Reservoir and Production Characteristics

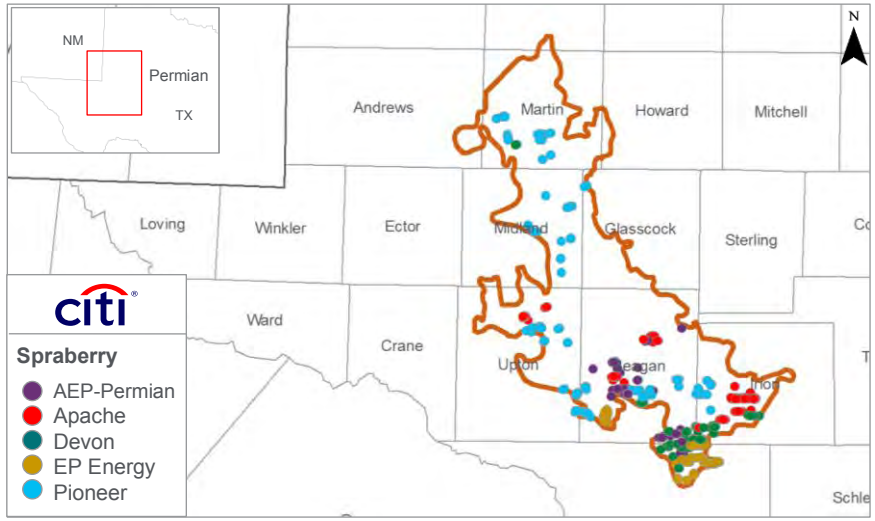
The Spraberry, historically, has been the top producing play in the Midland Basin. It has historically been developed with multi-stage hydraulically fractured vertical wells

- Operators are targeting sweet crude production w/associated gas
- Operators such as Diamondback are developing the lower and middle spraberry with horizontal/multi-stage wells
- Top 5 Operators by production: Pioneer, EP, Devon, Apache and AEP
- Spraberry formation top depth resides at ~6,700-9,700'
- Naturally fractured and consist of tightly packed sands w/low permeability and porosity

Source: Woodmac, HPDI and Citi

Spraberry Play Outline

Operator Location Map



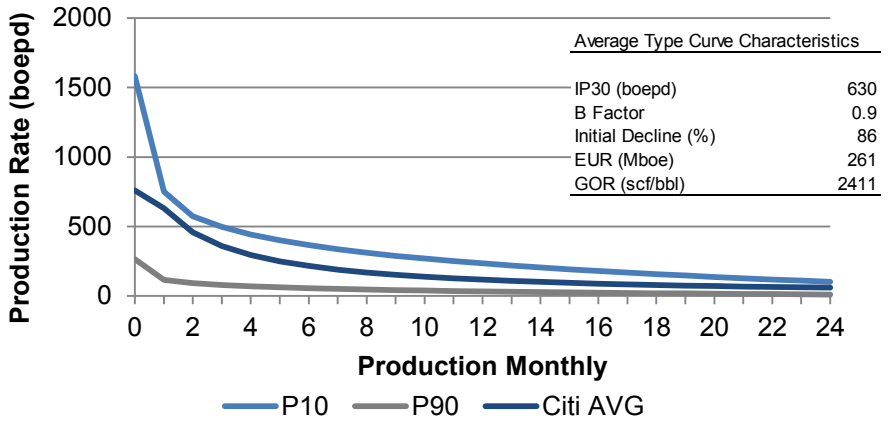
Source: HPDI, Citi and BEG

Type Curve and Economics: Spraberry Formation

Reservoir Characteristics

- Operators in the area: Pioneer, EP, Devon, Apache and AEP
- Historically the Spraberry was targeted as a vertical liquids-rich play
- Recently operators are targeting middle and lower Spraberry as horizontal landing zones
- Over the last few years horizontal drilling and unconventional completions have been applied to the Spraberry
- Lateral length is increasing greatly in the Midland Basin as there is a correlation seen between IP and lateral length

Production Curve and Assumptions



Note:
1. Production curve assumptions includes 1,137 horizontal wells and is from 2013 to present

Economics

Assumptions	
CAPEX per Well	$6 MM
Variable OPEX	6.00 $/bbl oil; 0.30 $/Mcf gas; 2.82 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.4%
WI/NRI	100/75%

Results

	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat $60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	(1,689.87)	(225.19)	(685.14)	208.46	1,102.08	1,995.70
IRR (%)	0%	8%	5%	12%	22%	35%
Payout (years)	32.42	7.27	10.01	5.12	3.22	2.31
ROI	0.95	1.27	1.18	1.39	1.59	1.8
Break Even Oil Price (PV0)			$51.03			

Assumptions	
CAPEX per Well	$4.2 MM
Variable OPEX	6.00 $/bbl oil; 0.30 $/Mcf gas; 2.82 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.4%
WI/NRI	100/75%

Results

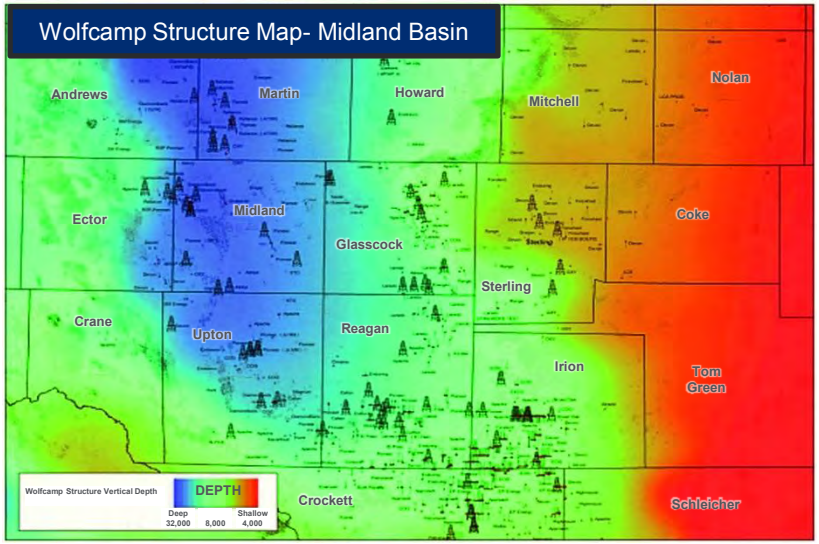
	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat $60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	67.73	1,093.01	1,072.46	1,966.08	2,859.70	3,753.31
IRR (%)	11%	36%	28%	49%	80%	100%
Payout (years)	5.51	2.25	2.73	1.84	1.42	1.1
ROI	1.36	1.82	1.69	1.98	2.28	2.57
Break Even Oil Price (PV0)			$36.40			

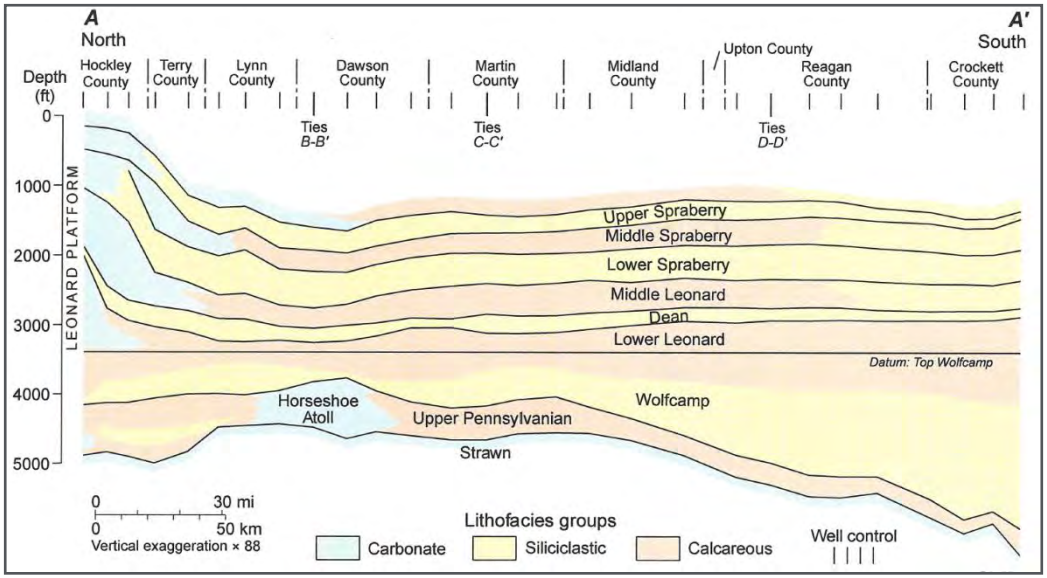
Source: Woodmac, HPDI and Citi

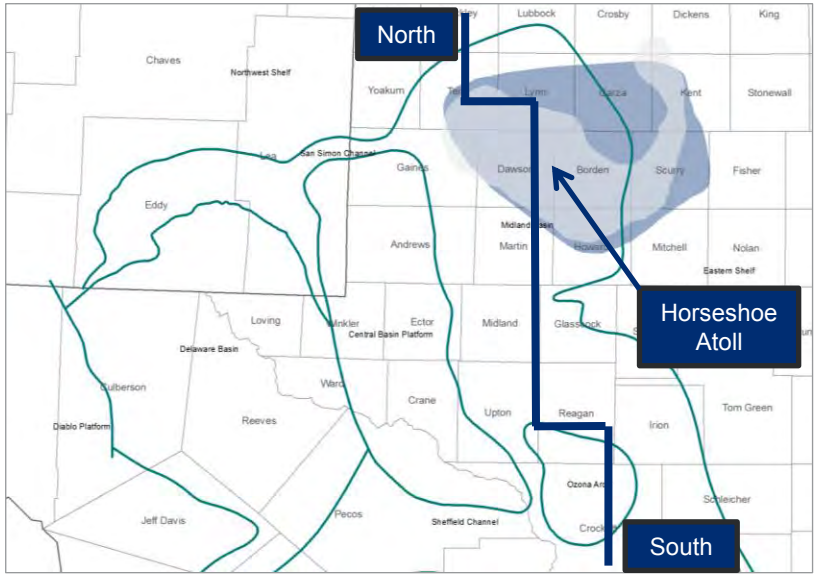
Wolfcamp Geology – Midland Basin

Basin floor siliciclastic and calcareous organic-rich mudrocks with siliciclastic input from the East/Southeast and carbonate input from the Central Basin Platform.

- The Wolfcamp formation represents the onset of deposition during Permian time
- Wolfcampian deposition was controlled by tectonics and sea level fluctuations
  - Tectonism related to the Ouachita orogeny
  - Sea level fluctuations related to southern hemisphere glaciation
- Composed of a lower silliciclastic dominated interval overlain by a more calcareous interval
  - Calcareous and silliciclastic mudrocks dominate the distal basin center
  - Carbonates dominate basin margins/shelfal areas
  - Low-permeability reservoirs and source rocks in close proximity
- The Wolfcamp interval thickens to the East and the South and thins out over the Horseshoe Atoll (see illustrative section)
- **Cumulative Production: 530MMbo, 940 Bcf**
- Apache Corporation, Laredo Petroleum and Devon Energy are active operators in the Midland basin Wolfcamp horizontal play.



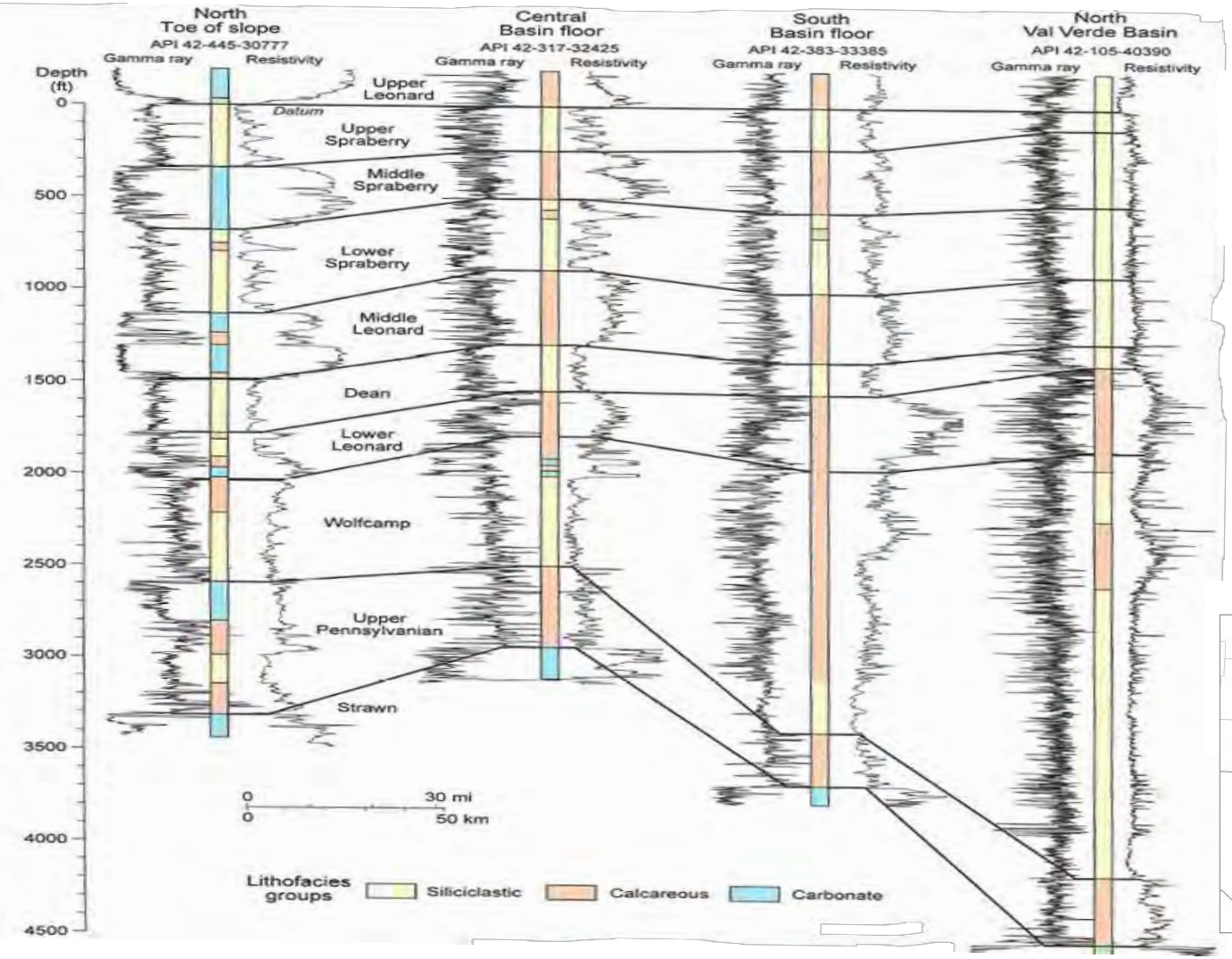




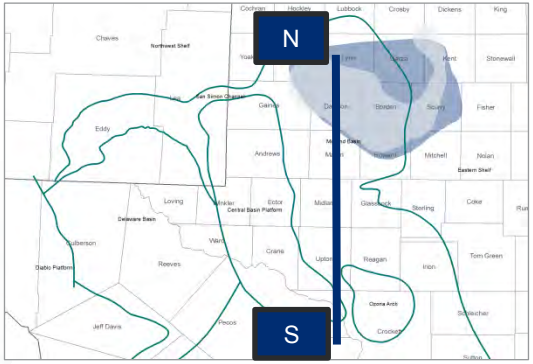
Source: Oil & Gas Journal, BEG

Wolfcamp Geology – Midland Basin

The Wolfcamp formation thickens and becomes more siliciclastic to the south towards the basin center and the Val Verde Basin.



- The upper part of the Wolfcamp is calcareous while the lower part is siliceous
- The lower siliceous part of the Wolfcamp gets thicker towards the southern Midland basin
- The calcareous upper part is thickest closest to the central basin platform (CBP)



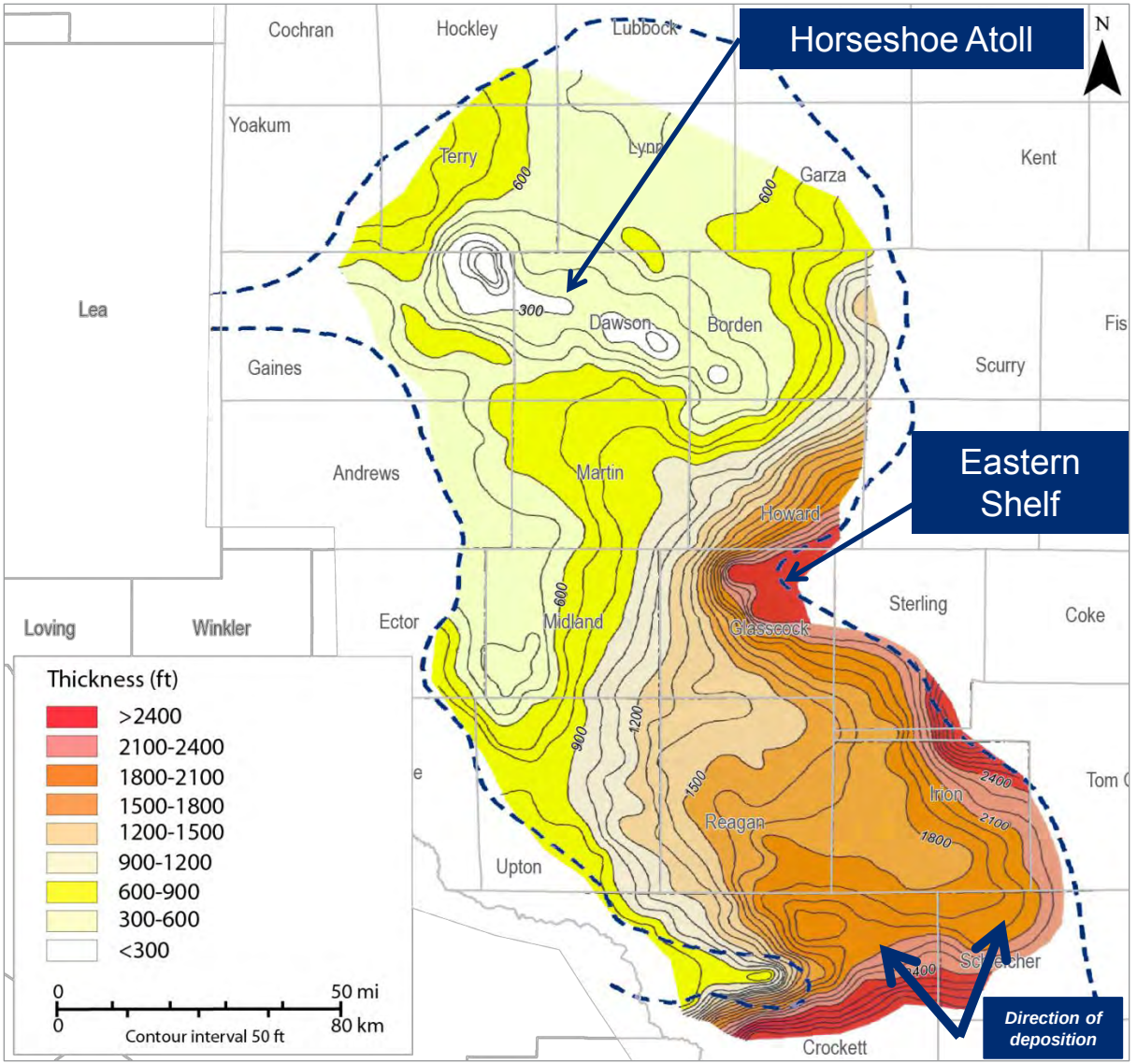
Source: BEG

Wolfcamp Geology – Midland Basin

Wolfcamp formation isopach.

Commentary

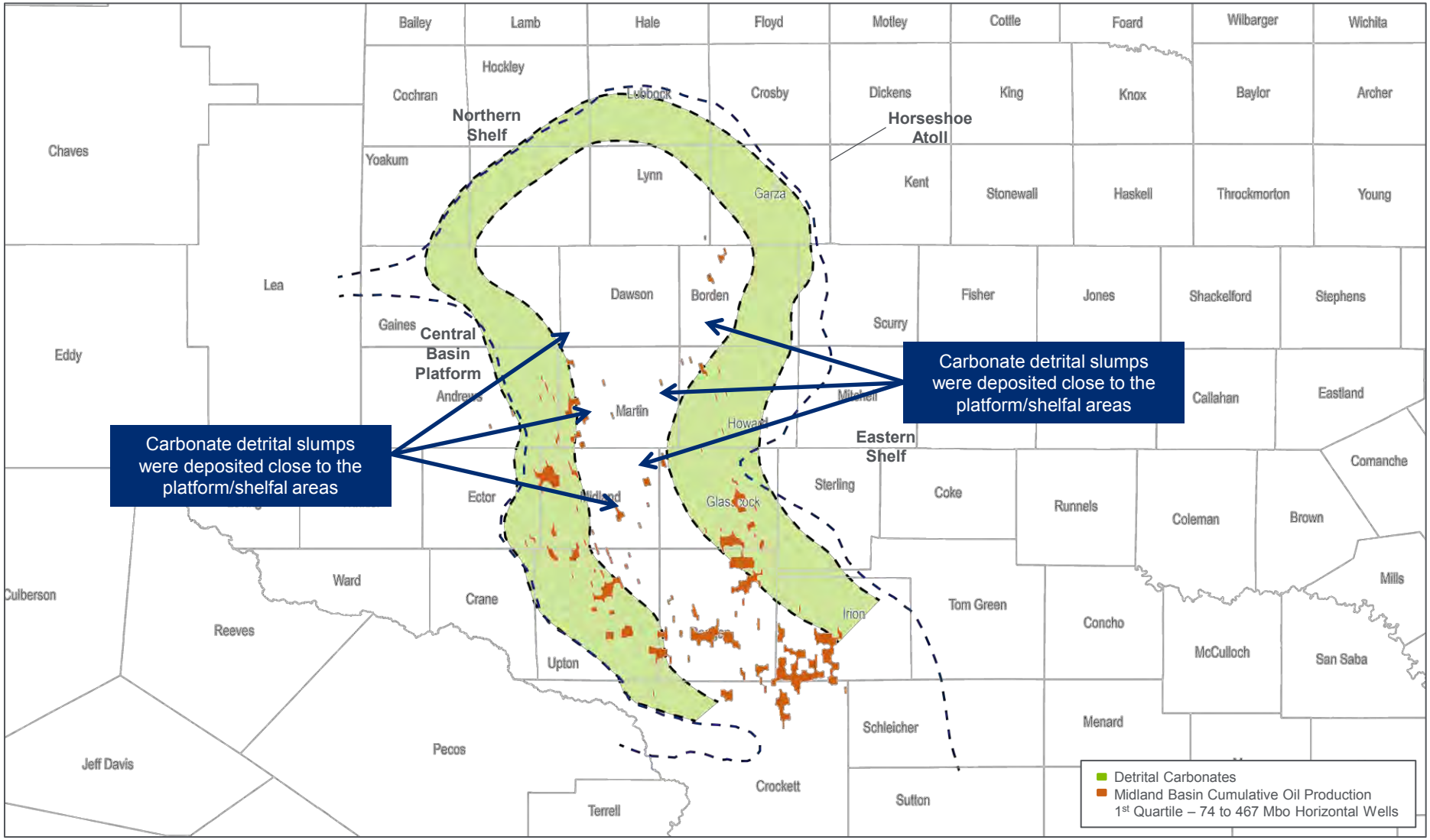
- The Wolfcamp Shale generally thickens to the Southeast
  - Depocenter to the South and East towards Val Verde basin
  - Maximum thickness of ~2,500'
- Over the Horseshoe Atoll, the Wolfcamp Shale thins significantly
  - The Wolfcamp Shale also thins towards the Central Basin Platform
  - The Wolfcamp formation still gets as thick as 800' north of the Horseshoe Atoll
- Industry focus historically has been to the south towards the thickest part of the Wolfcamp
- High GOR and increased thermal maturity towards the south has constrained recent Wolfcamp development in southern Midland basin



Source: BEG

Wolfcampian Carbonate Platform

During Wolfcamp deposition, a carbonate rim surrounded the Midland basin and subsequently influenced Wolfcamp deposition and lithology along the basin margins away from basin axis.



Source: BEG

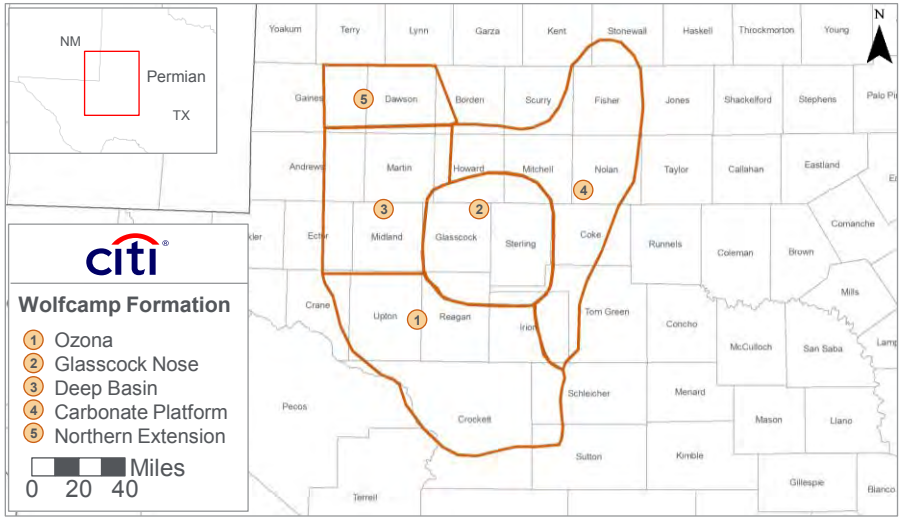
Type Curve Summary: Wolfcamp Formation

Reservoir Characteristics

The Midland Basin Wolfcamp is broken out into five Woodmac sub-plays: Ozona, Glasscock, Deep Basin, Carbonate Platform and Northern Extension

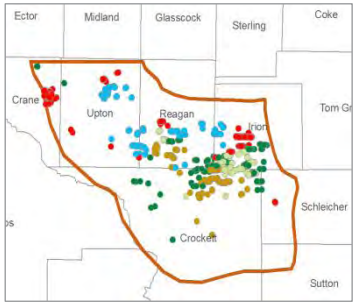
- Operators Include: Apache, Devon, EP, Pioneer, Oxy, SM, Encana, Energen, Laredo, Reliance, Diamondback, Abraxus, Tall City and WTG
- Wolfcamp formation top depth resides at ~5,000-10,000'
- The formation presents itself across 18 counties in the Midland Basin, but its core production lies in Upton, Regan Glasscock, Crockett and Irion counties

Wolfcamp Type Curve Areas



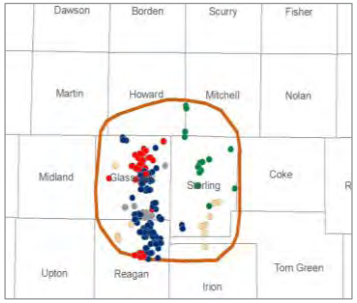
Operator Location Map

Ozona



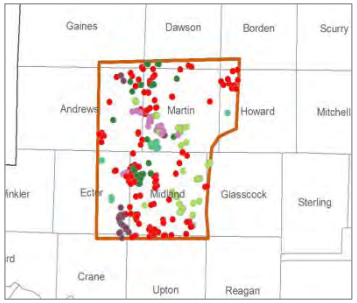
- Apache
- Devon
- EOG
- EP Energy
- Pioneer

Glasscock



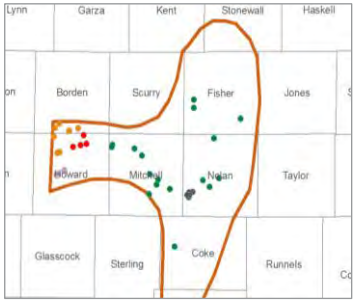
- Apache
- Devon
- Energen
- Laredo
- OXY

Deep Basin



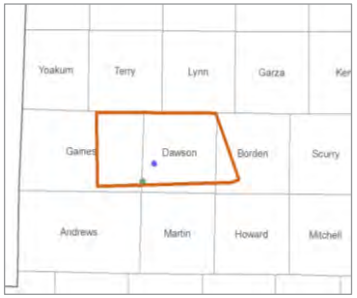
- Devon
- Diamondback
- OXY
- Pioneer
- Reliance

Carbonate Platform



- Abraxas
- Apache
- Devon
- Encana
- Tall City

Northern Extension



- SM Energy
- WTG Expl.

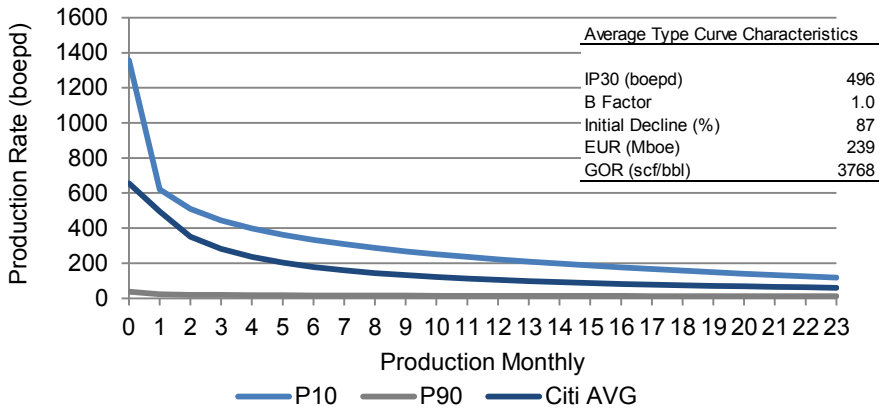
Source: DrillingInfo & Woodmac

Type Curve and Economics: Wolfcamp Formation; Glasscock

Reservoir Characteristics

- Devon and Apache dominate activity in the Glasscock sub-play
- Operators target the D-bench in this area of the Wolfcamp
- Intermittent carbonate debris pockets and debris flows make well performance variable in this sub-play
- Operators are experimenting with drilling and completions practices in order to determine optimal wellbore design and placement

Production Curve and Assumptions



Note:
1. Production curve assumptions includes 106 horizontal wells and is from 2013 to present

Economics

Assumptions	
CAPEX per Well	$7 MM
Variable OPEX	5.00 $/bbl oil; 0.60 $/Mcf gas; 2.30 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.4%
WI/NRI	100/75%

Results

	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat			
			$60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	(3,384.35)	(1,675.55)	(2,558.28)	(1,875.34)	(1,192.41)	(509.48)
IRR (%)	0%	0%	0%	2%	4%	7%
Payout (years)	n/a	n/a	n/a	28.42	13.22	8.26
ROI	0.7	0.94	0.87	1.01	1.15	1.28
Break Even Oil Price (PV0)			$69.45			

Assumptions	
CAPEX per Well	$4.9 MM
Variable OPEX	5.00 $/bbl oil; 0.60 $/Mcf gas; 2.30 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.4%
WI/NRI	100/75%

Results

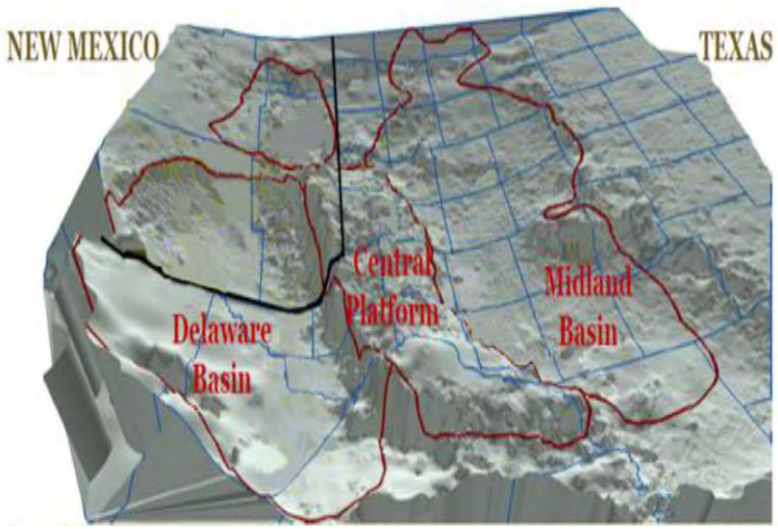
	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat			
			$60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	(1,333.79)	(64.40)	(507.72)	175.20	858.13	1,541.06
IRR (%)	6%	9%	6%	12%	20%	30%
Payout (years)	30.45	6.63	9.46	5.48	3.63	2.65
ROI	1	1.36	1.24	1.44	1.64	1.83
Break Even Oil Price (PV0)			$47.72			

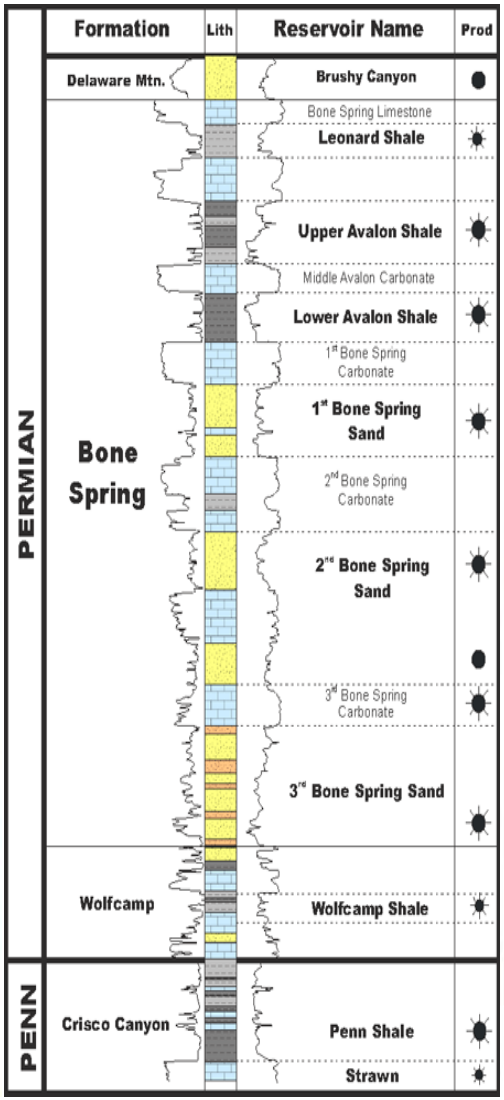
Source: Woodmac, HPDI and Citi

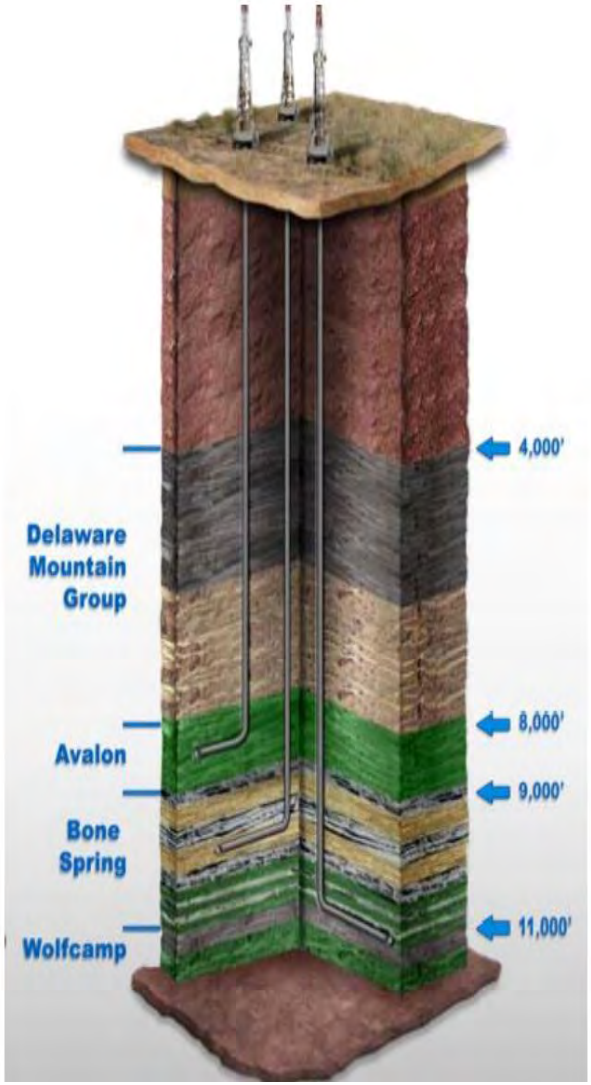
Delaware Basin Overview

Prolific hydrocarbon producing province with ~6.3 billion barrels of oil and 57 Tcf of gas produced since 1935.

- Structural low for most of Permian time: inlet for marine water
- This led to the deposition of deep water deposits as well as carbonate buildups and other shallow/deep marine deposits
- This cyclicity of source rock and carbonate/deep water deposition resulted in the stacking of several hydrocarbon 'plays'
  - Up to 9 separate targets in the Permian section
- Permian age unconventional targets are the Delaware Mountain Group, Avalon, Bonesprings, and Wolfcamp Formations







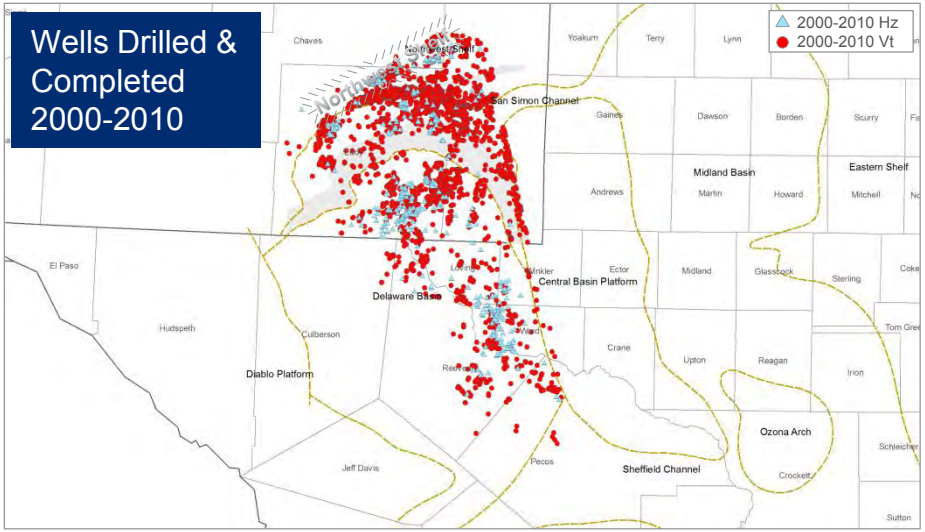
Source: Drillinginfo, Concho Investor Presentation

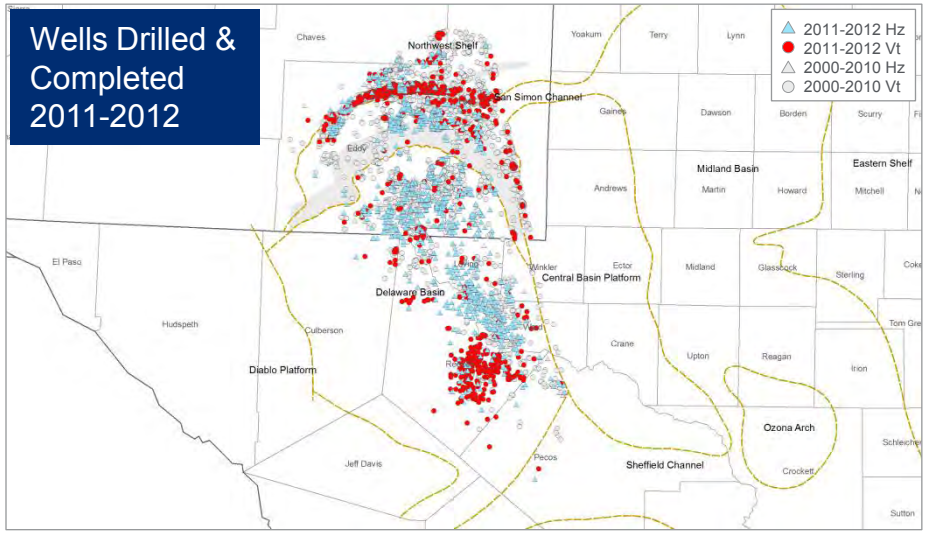
Delaware and Northwest Shelf Basin Drilling History (Oil)

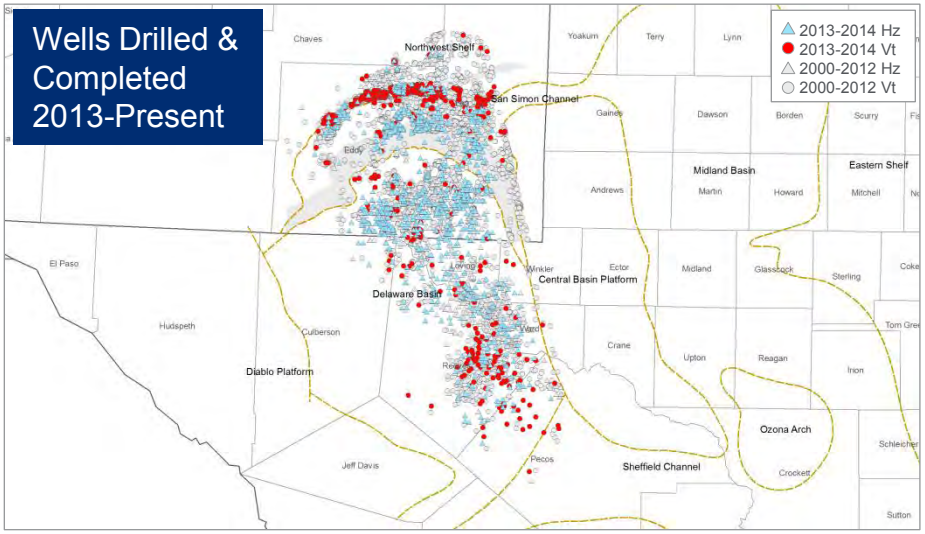
In recent years, oil drilling has trended heavily towards horizontal wells, with activity increasingly focused in premier areas such as Reeves and Loving Counties in Texas and Eddy and Lea Counties in New Mexico.

Key Points

Date Range	Horizontal Wells	Vertical Wells
2000 - 2010	297	3,580
2011 - 2012	609	1,029
2013 - 2014	1,534	844





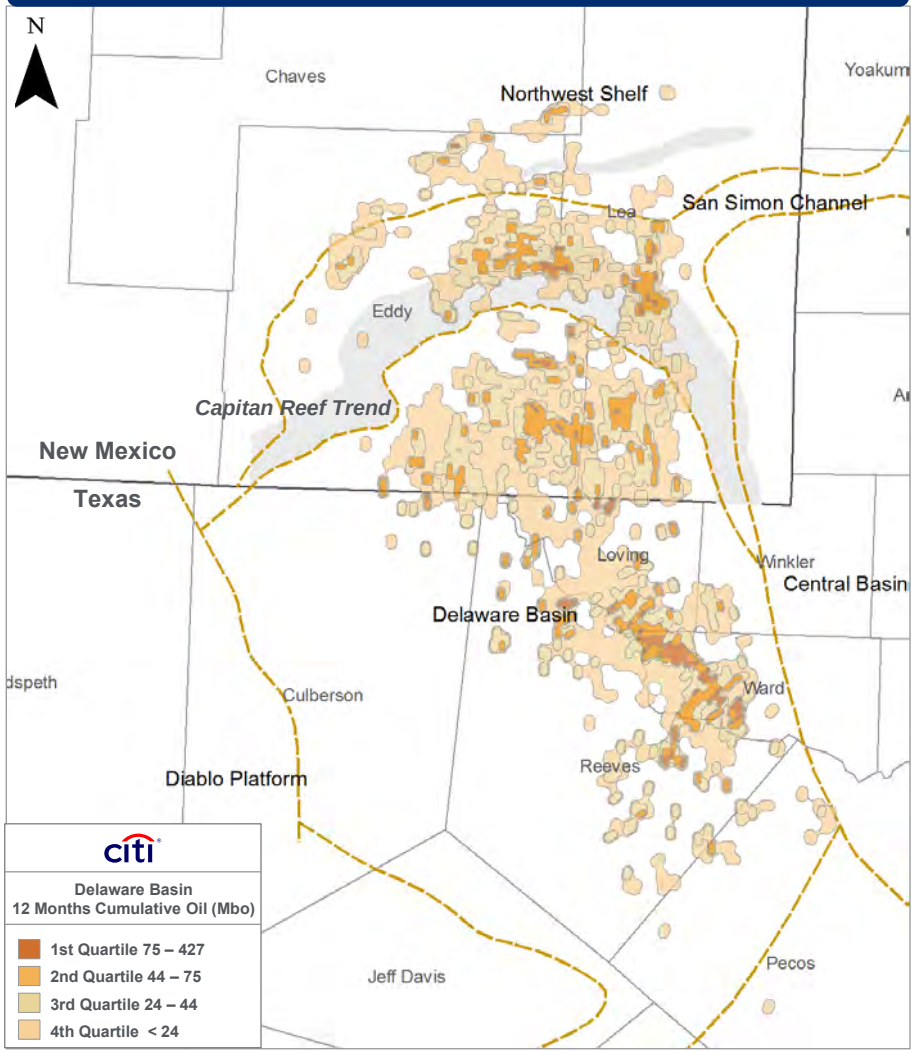


Source: Drillinginfo as of 2/4/2015

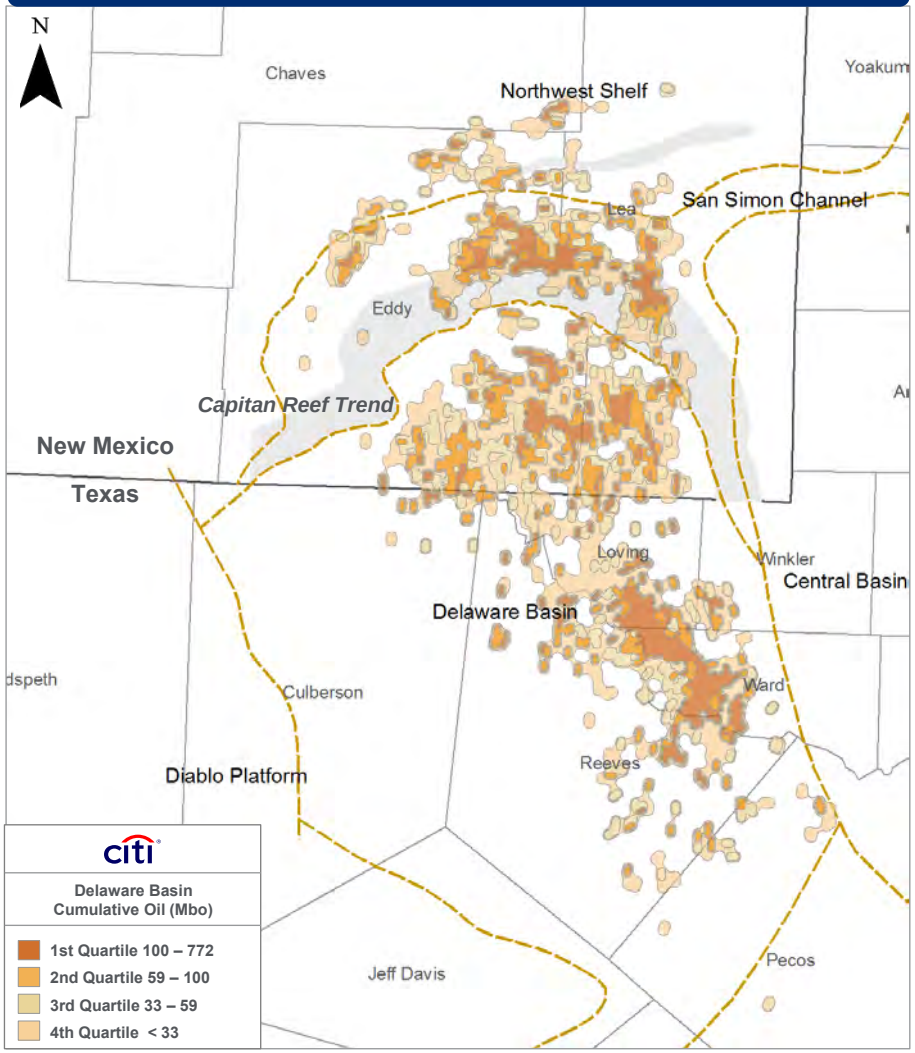
Delaware and Northwest Shelf Basin Horizontal Well Performance

First 12 months and cumulative production shown from 2,320 horizontal wells. Excludes horizontal wells with less than 180 days of production.

Twelve Month Cumulative Production



Cumulative Oil Production

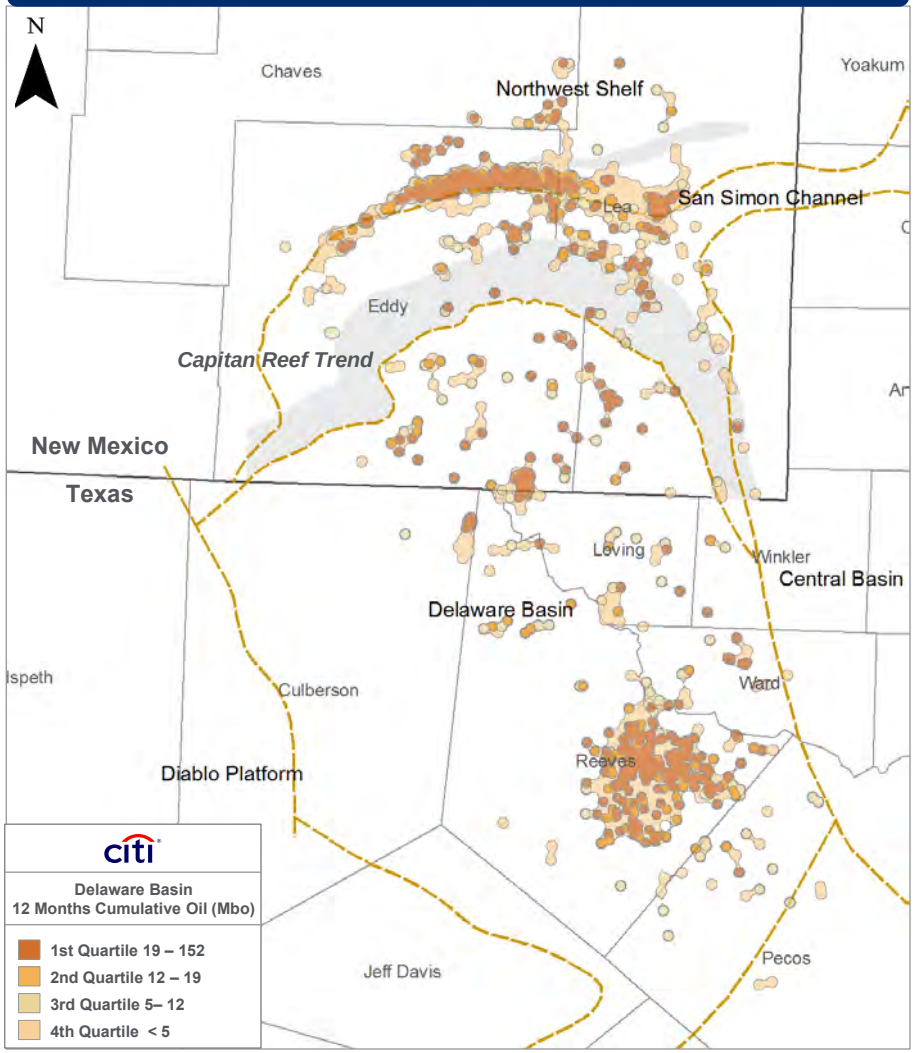


Source: Drillinginfo as of 2/04/15

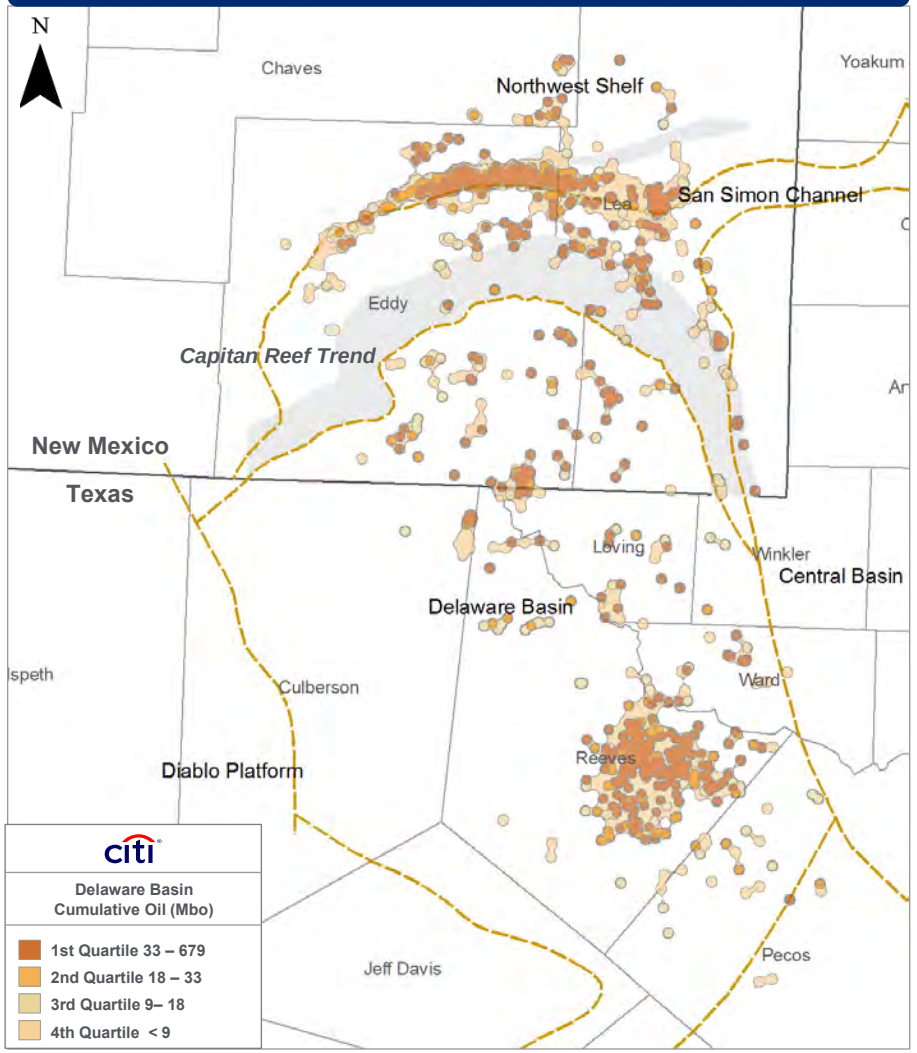
Delaware and Northwest Shelf Basin Vertical Well Performance

First 12 months and cumulative production shown from 2,650 vertical wells. Excludes vertical wells with less than 180 days of production.

Twelve Month Cumulative Production



Cumulative Oil Production



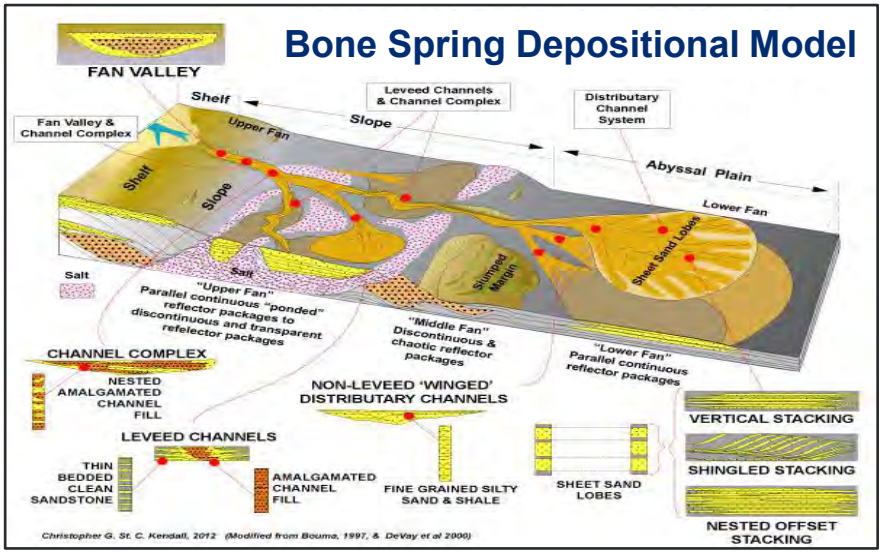
Source: Drillinginfo as of 2/04/15.

Bone Spring Basinal Play Geology

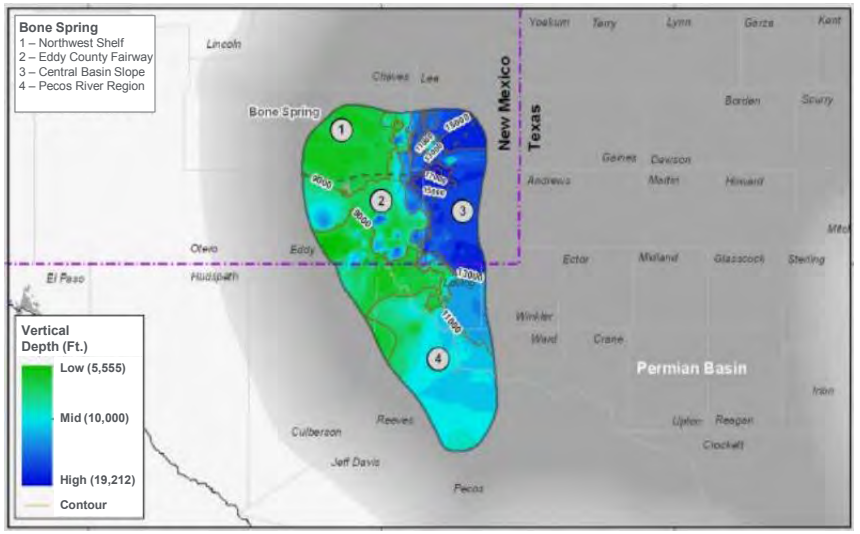
Submarine fans interbedded with carbonate debris flows, mudstone and organic shale.

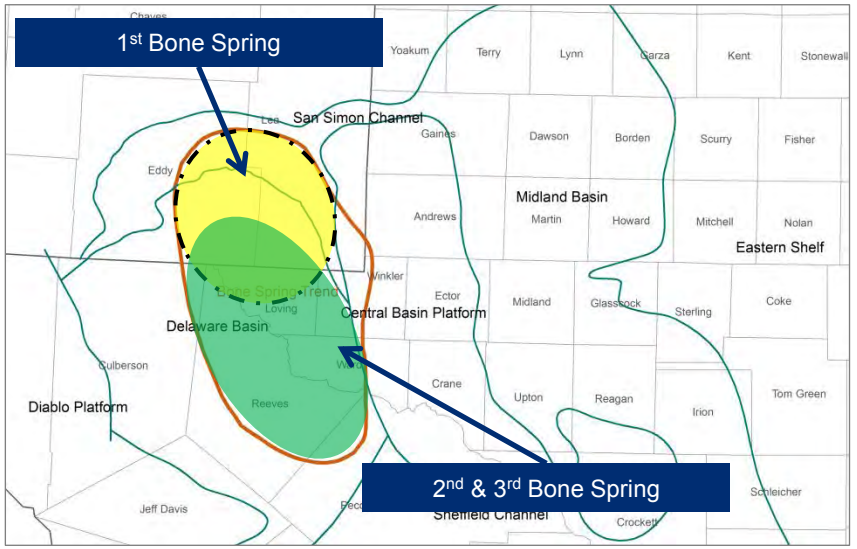
- Deposited in a basinal setting seaward of the Abo shelf edge
- Deepest closest to Central Basin Platform (~19,000' TVD)
- Production from carbonate debris flows and sandstone members
- The debris flows consist of dolomitized breccia and packstones with secondary porosity
- The submarine fan was deposited in a channel and fan system at the base of the depositional slope
- **Cumulative Horizontal Production: 124 MMbo, 495 Bcf**
- Cimarex Energy, Concho Operating and Devon Energy are active operators in the Frontier horizontal play

Bone Spring Depositional Model



Bone Spring Structure Map

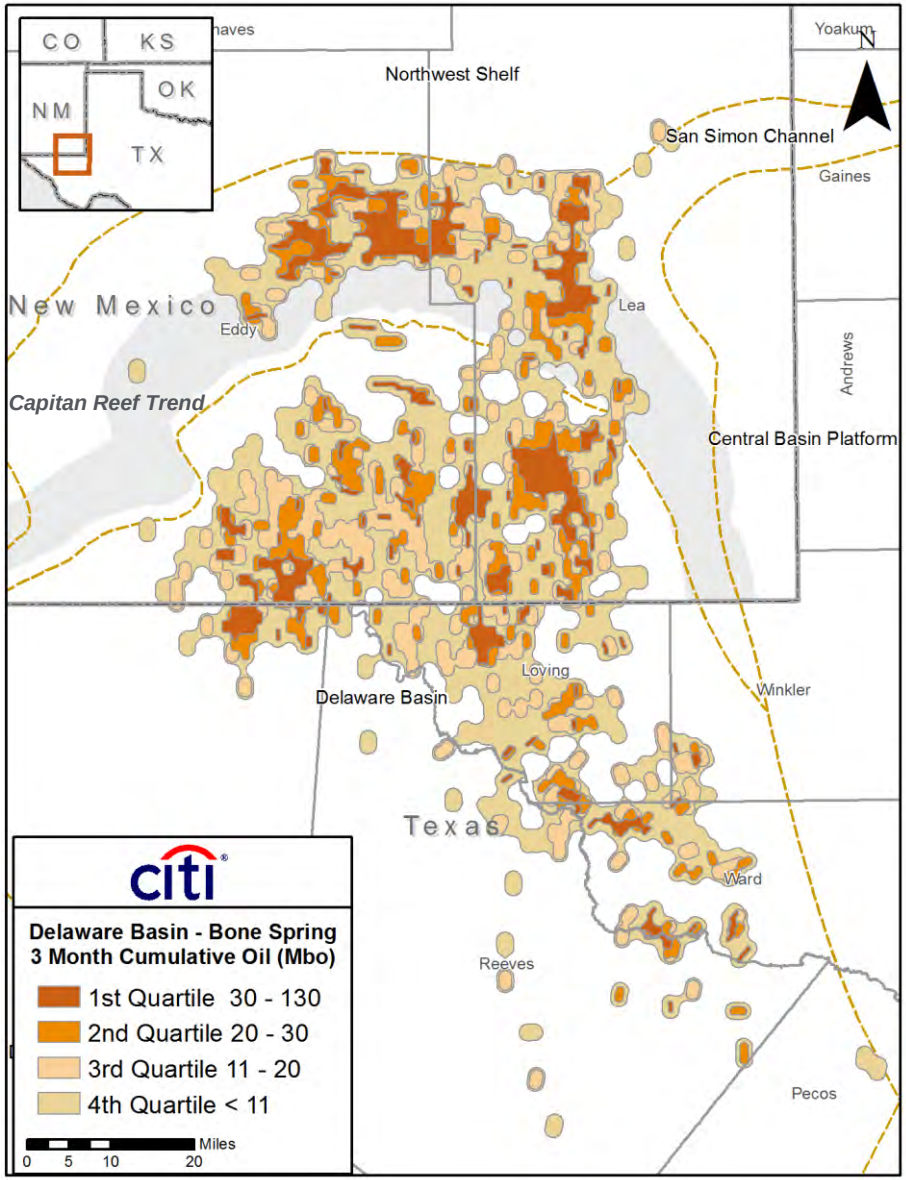




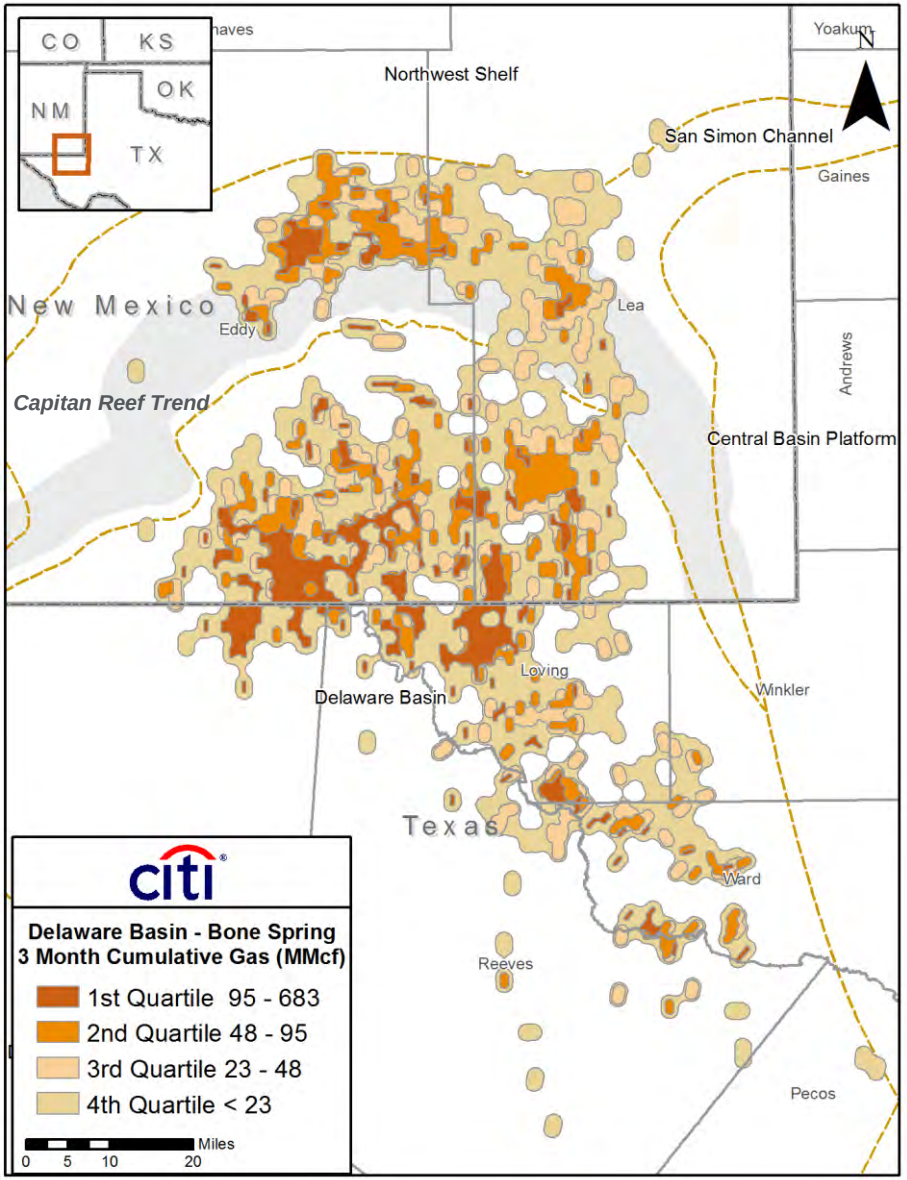
Source: Drillinginfo, AAPG

Bone Springs 3 Month Oil and Gas Horizontal Wells

3 Month Cumulative Oil



3 Month Cumulative Gas



Source: Drillinginfo from January 1, 2010 to April 27, 2015. Horizontal wells shown. Bone Spring three months cumulative production shown from 2,015 wells

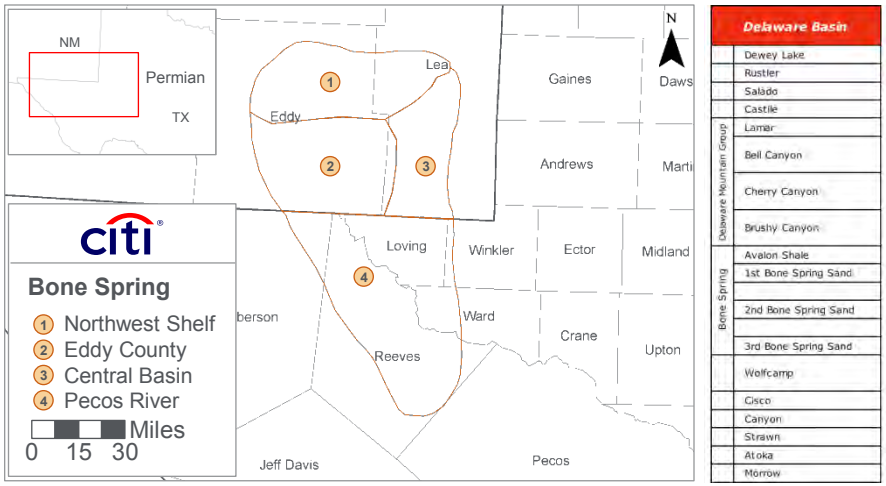
Type Curve Overview: Bone Spring Formation

Reservoir Characteristics

The Delaware Basin Bone Spring is broken out into four Woodmac sub-plays: Northwest Shelf, Eddy County Fairway, Central Basin Slope, Pecos River Region

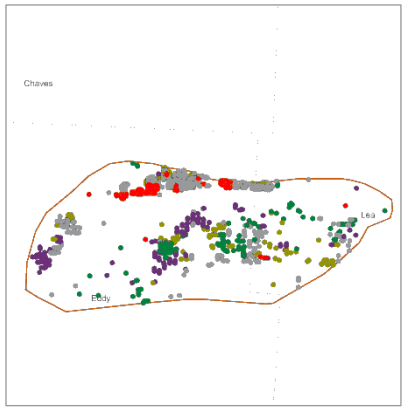
- The intervals of the Bone Spring formation are a sequence of distinct sand/carbonate strata referred to as the: first, second, and third Bone Spring
- Operators: Conoco, Shell, Devon, Anadarko, Cimarex
- Bone Spring formation top depth resides at ~9,000'
- Most lateral lengths are between 4,000-5,000 feet, however some operators are testing 7,500 ft in the second interval

Bone Spring Type Curve Areas

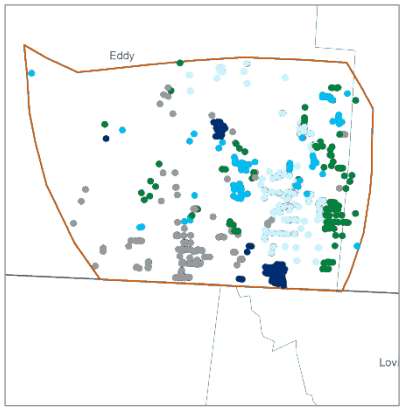


Operator Location Map

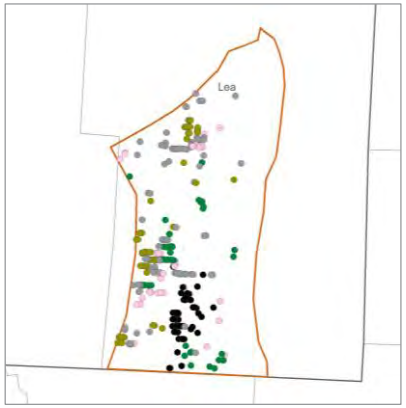
Northwest Shelf



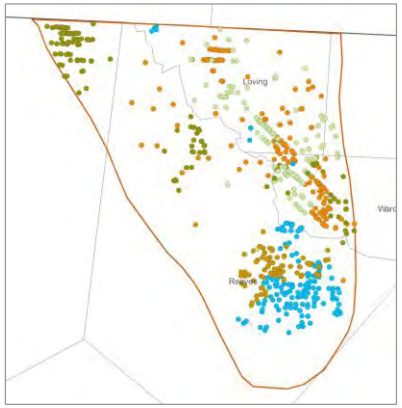
Eddy County Fairway



Central Basin Slope



Pecos River Region



Anadarko, Apache, BOPCO, Cimarex, COG, Devon, Mewbourne, OXY, RKI, Rosetta, Shell

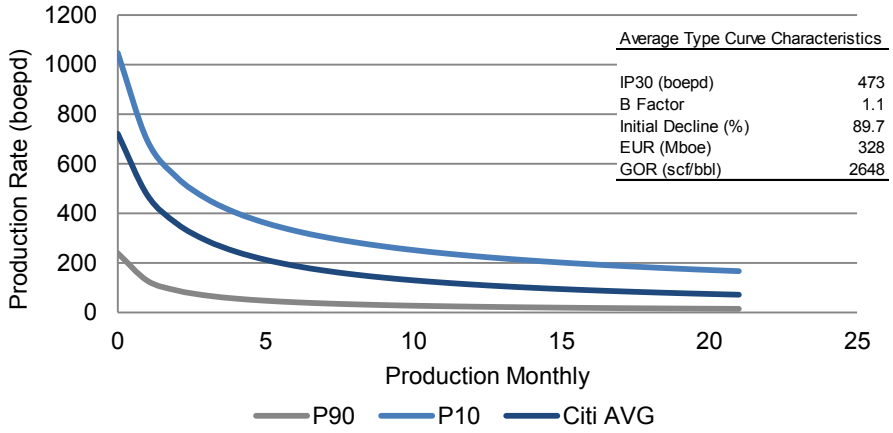
Source: HPDI, Drillinginfo, Woodmac and Citi

Type Curve and Economics: Bone Spring; Northwest Shelf

Reservoir Characteristics

- Main operators in the NW Shelf area are Devon, EOG and OXY
- The 2nd and 3rd sand intervals of the Bone Spring are targeted in this area
- 160-acre down spacing is practiced in this sub-play
- Economic optimization continues as completions cost lower and production continue to increase

Production Curve and Assumptions



Note:
1. Production curve assumptions includes 418 horizontal wells and is from 2010 to present

Economics

Assumptions	
CAPEX per Well	$6.6 MM
Variable OPEX	6.45 $/bbl oil; 0.51 $/Mcf gas; 1.50 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.40%
WI/NRI	100/75%

Results

	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat			
			$60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	(2,465.24)	(854.09)	(940.00)	(87.13)	766.20	1,619.54
IRR (%)	0%	0%	0%	9%	20%	33%
Payout (years)	9.83	9.83	10.92	4.78	3.12	2.34
ROI	0.70	0.93	0.99	1.15	1.31	1.47
Break Even Oil Price (PV0)			$60.75			

Assumptions	
CAPEX per Well	$4.6 MM
Variable OPEX	6.45 $/bbl oil; 0.51 $/Mcf gas; 1.50 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.40%
WI/NRI	100/75%

Results

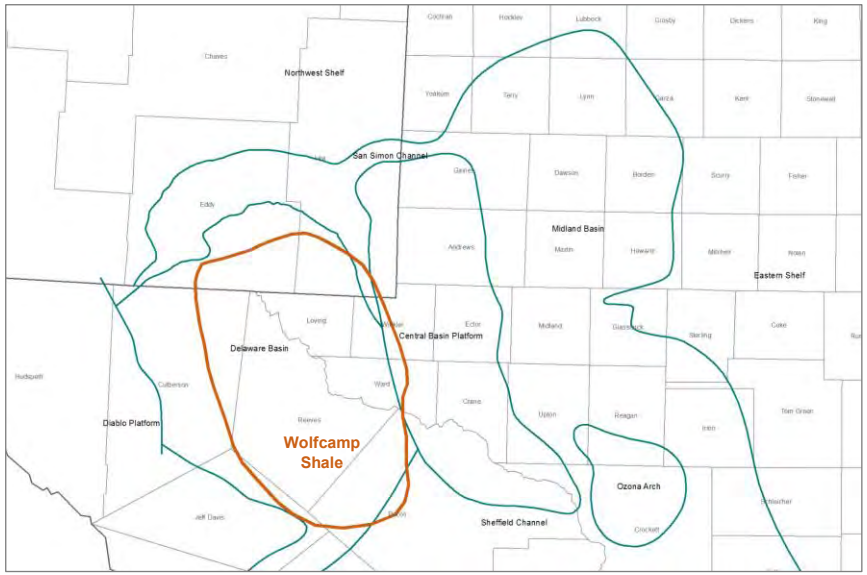
	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat			
			$60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	(512.33)	659.40	1,012.43	1,865.00	2,719.11	3,572.45
IRR (%)	0%	32%	32%	57%	87%	100%
Payout (years)	9.83	2.13	2.28	1.70	1.35	1.07
ROI	1.00	1.35	1.42	1.65	1.88	2.11
Break Even Oil Price (PV0)			$41.94			

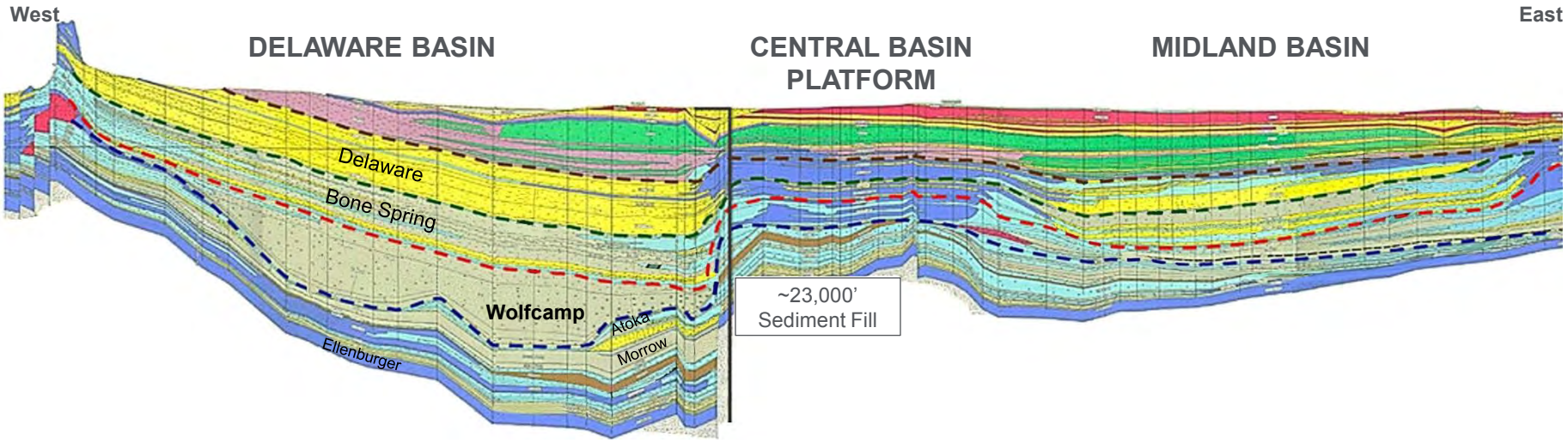
Source: HPDI and Citi

Wolfcamp Geology – Delaware Basin

Basin floor calcareous organic-rich mudrocks with carbonate input from the Central Basin Platform and North-East Shelf.

- The Wolfcamp formation represents the onset of deposition during Permian time
- Wolfcampian deposition was controlled by tectonics and sea level fluctuations
  - Tectonism related to the Ouachita orogeny
  - Sea level fluctuations related to southern hemisphere glaciation
- Composed primarily of dark shales and detrital carbonate
  - Carbonate interbeds consist of breccia, sand and mud deposited by debris flows and turbidity currents
  - Traps are stratigraphic, with reservoirs enclosed in organic rich basinal shales which act as both seal and source rock
- The Delaware basin Wolfcamp is deeper then the Wolfcamp in the Midland basin hence; the Wolfcamp interval in the Delaware is more thermally mature (late oil window-gas window)
- **Cumulative Production: 149 MMbo, 2 Tcf**
- Cimarex Energy, BHP Billiton and Anadarko Petroleum are active operators in the Delaware Wolfcamp horizontal play

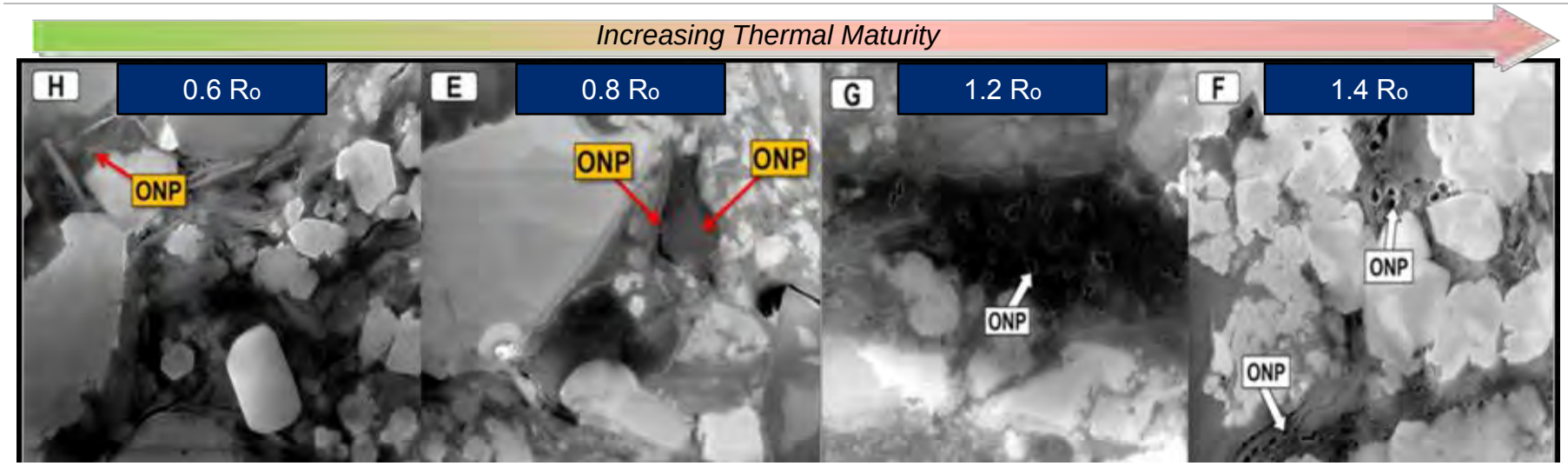




Source: Matador Resources investor presentation, AAPG

Wolfcamp Geology

Delaware basin Wolfcamp shale has more kerogen porosity, higher reservoir pressures and more organic matter than Midland basin Wolfcamp shale.



Midland Basin	Midland Basin	Delaware Basin	Delaware Basin
• Only captured occurrence of organic porosity • Small nanopore • 6,994.50' • 18% Oil saturation, 37% Gas saturation (GRI) • 1.7% TOC, 0.19 PI, 89 TI mg/g C, 372 HI mg/g/C • Kerogen (vol%) 3.8	• Bigger nanopores • 10,402' • 1.69% Oil saturation, 40.89% Gas Saturation (GRI) • 2.16% TOC, 0.427 PI, 71 TI mg/g C, 95 HI mg/g/C • Kerogen (vol%) 4.9	• Numerous larger nanopores • 9,298' • 5.9% Oil saturation, 56% Gas Saturation (GRI) • 4.72% TOC, 0.69 PI, 89 TI mg/g C, 40 HI mg/g/C • Kerogen (vol%) 10.4	• Numerous larger nanopores • 8,640.5' • 8.61% Oil saturation, 70.39% Gas Saturation (GRI) • 4.65% TOC, 0.454 PI, 67 TI mg/g C, 81 HI mg/g/C • Kerogen (vol%) 10.2

- SEM Photos of the Wolfcamp shale showing images across thermal regimes in the Midland and Delaware basins
  - Delaware basin Wolfcamp more thermally mature (deeper)
- As a result of being more thermally mature, the Delaware basin Wolfcamp has more organic nanoporosity (intra-kerogen storage) and higher reservoir pressures due to fluid expansion (oil to gas cracking)
- Delaware basin Wolfcamp also has higher TOC values
  - More organic due to less clastic 'dilution' of organic material

ONP = Organic nanoporosity
PI = Production Index
HI = Hydrogen Index
TI = Transformation Index

Source: Corelab, AAPG

Wolfcamp Shale Petrophysical Overview

Complicated mix of organic-rich calcareous and siliciclastic mudrocks with deep-water channel detrital carbonates.

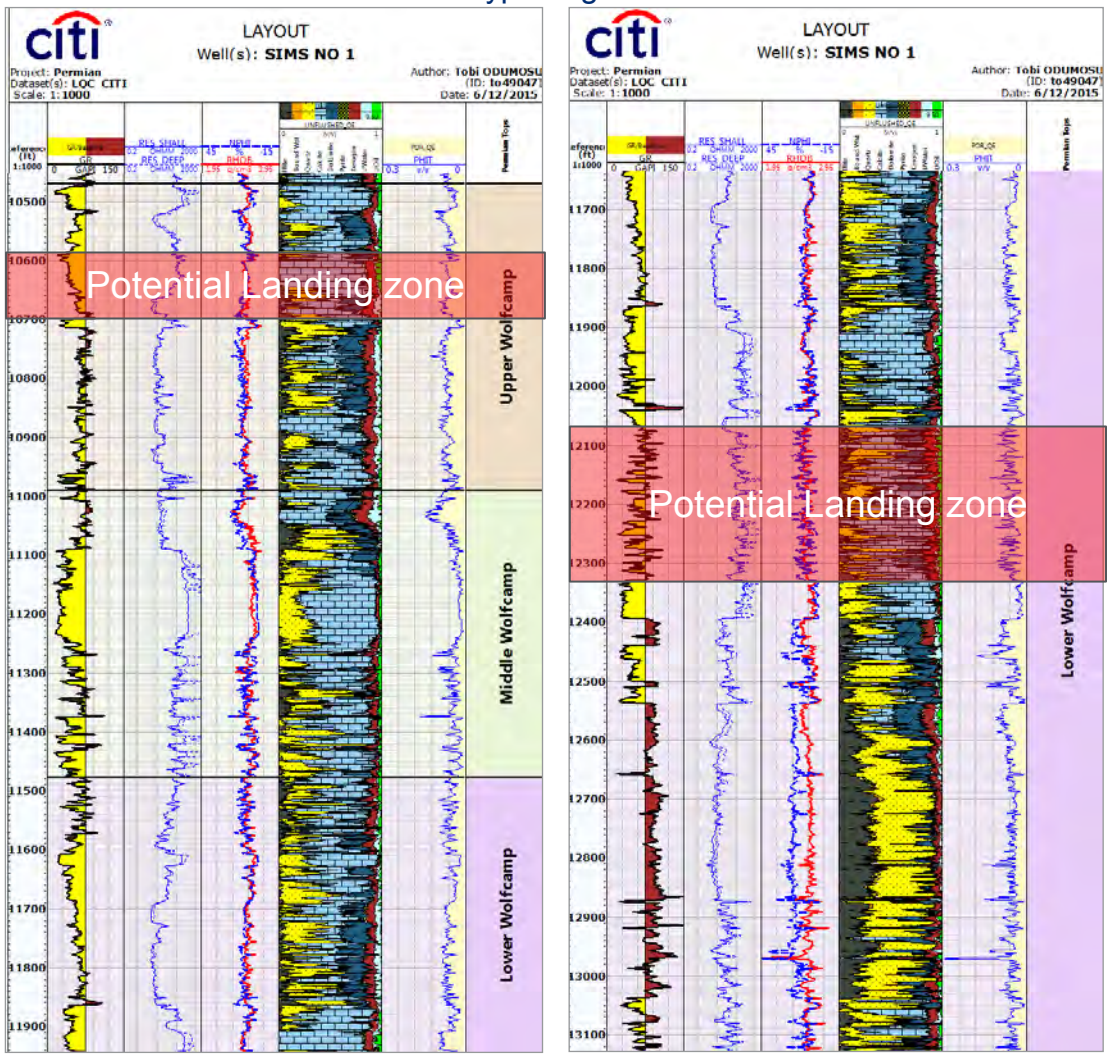
Overview

- Delaware Wolfcamp thicker with higher porosities and permeabilities than the Midland Wolfcamp
- Upper Wolfcamp oiler than lower Wolfcamp
- Carbonate debris flows were the historic target zones for conventional production; Industry now focusing on organic-rich shaley zones

	Upper Wolfcamp	Middle and Lower Wolfcamp
Reservoir Pressure	Normal to Over-pressured	Normal to Over-pressured
Gross Thickness	~150-350 feet	1000-1800 feet
Average Porosity	7.5%	9.4%
Permeability	0.01 nD-5000 nD	
Fluid	Gas and Oil	
Average Sw.	~40%	~60%
Thermal Maturity (Ro)	0.95-1.0	0.95-1.97
TOC	1.5 to 3%	1 to 6%
Clay Content	5-60%	5-75%
Carbonate Content	5 – 90%	2-78%
Quartz Content	5 –70%	15-85%

Source: Various industry presentations. IHS log data.

Type Log



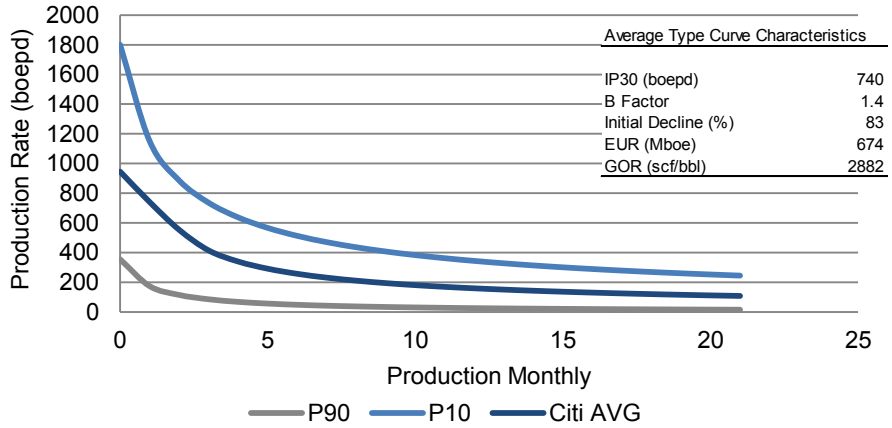
Landing zones not easily discerned from open hole logs without petrophysical interpretation of TOC, mineralogy and bulk volume of oil

Type Curve and Economics: Wolfcamp Formation; Reeves Core

Reservoir Characteristics

- Reeves Core is the most active sub-play in the Delaware basin and leads Wolfcamp in oil production
- Activity remains concentrated around the Pecos River and is starting to expand south
- Cimarex and Concho drive activity in the Reeves Core sub-play, followed by Rosetta, Clayton Williams and BHP

Production Curve and Assumptions



Note:
1. Production curve assumptions includes 312 horizontal wells and is from 2010 to present

Economics

Assumptions	
CAPEX per Well	$7.1 MM
Variable OPEX	6.23 $/bbl oil; 0.59 $/Mcf gas; 2.30 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.40%
WI/NRI	100/75%

Results

	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat			
			$60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	(4,413.49)	(2,070.00)	(2,436.33)	(1,146.00)	153.29	1,458.02
IRR (%)	0%	0%	0%	5%	11%	18%
Payout (years)	12.92	12.92	15.33	8.42	5.55	4.05
ROI	0.65	0.87	0.93	1.13	1.33	1.53
Break Even Oil Price (PV0)			$60.15			

Assumptions	
CAPEX per Well	$4.9 MM
Variable OPEX	6.23 $/bbl oil; 0.59 $/Mcf gas; 2.30 $/bbl NGL
Severance Tax	4.6% oil; 7.5% gas
Ad Valorem Taxes	2.40%
WI/NRI	100/75%

Results

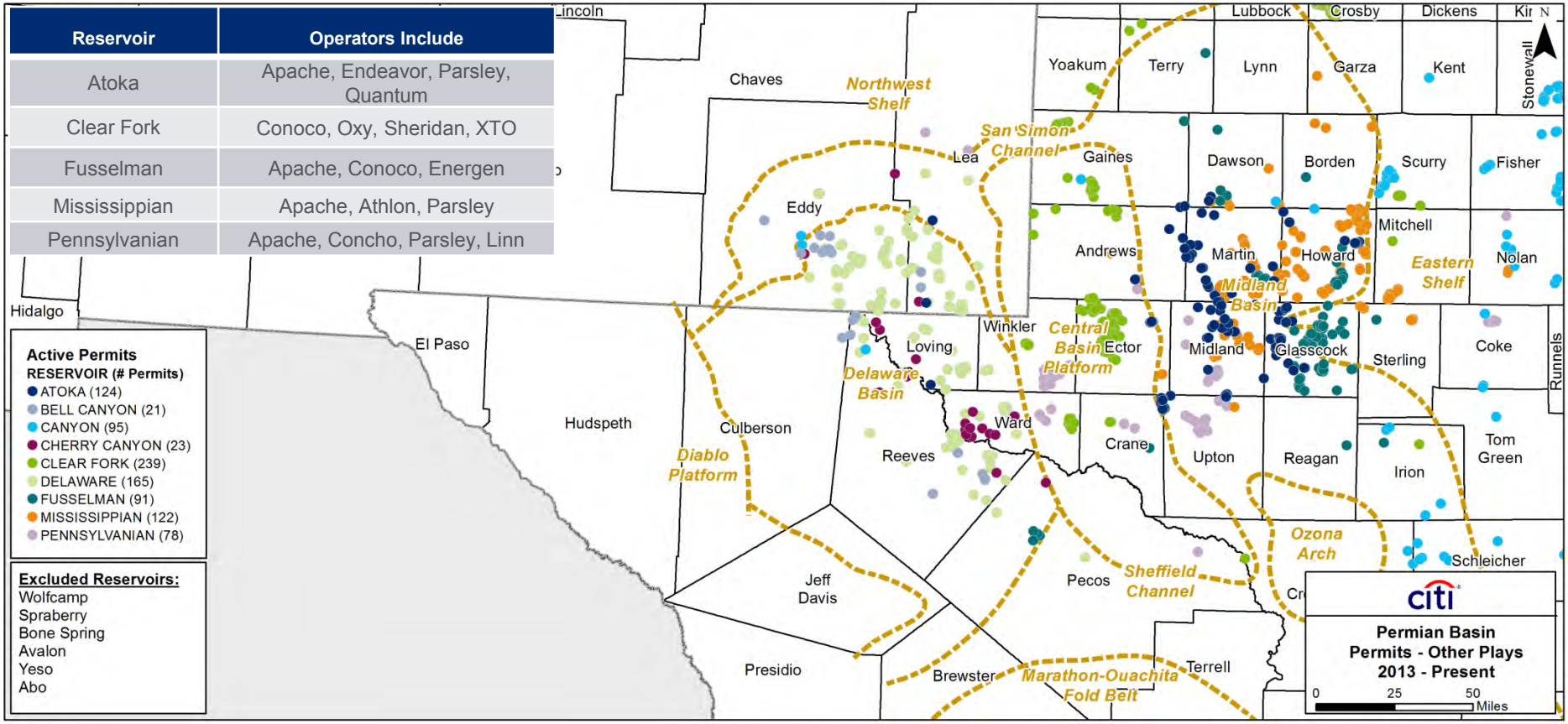
	** PRICE DECK **					
	NYMEX 04/01/15; 50.09 oil & 2.60 gas	25% Reduction in CAPEX	$3.50/Mcf Flat			
			$60/bbl Flat	$70/bbl Flat	$80/bbl Flat	$90/bbl Flat
Net PV10 ($M)	175.84	1,347.58	2,442.87	3,442.46	4,742.62	6,047.36
IRR (%)	12%	37%	41%	67%	97%	100%
Payout (years)	4.63	2.29	2.21	1.69	1.36	1.11
ROI	1.28	1.69	1.83	2.21	2.6	2.99
Break Even Oil Price (PV0)			$36.28			

Source: HPDI and Citi

Permitting Activity Indicates Interest In Additional Formations

Noticeable increase in Clear Fork, Del/Canyon Sequence, Pennsylvanian, Atoka, Mississippian & Fusselman permitting.

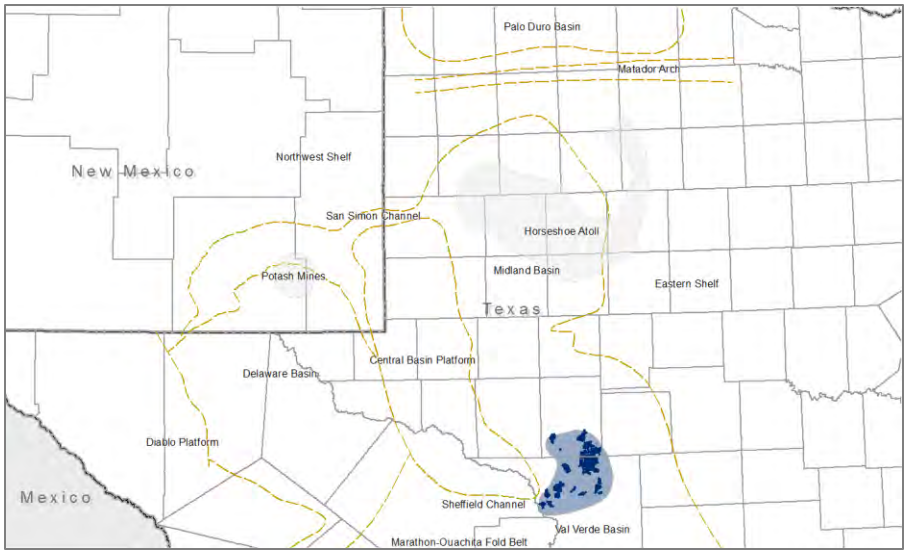
Reservoir	Operators Include
Atoka	Apache, Endeavor, Parsley, Quantum
Clear Fork	Conoco, Oxy, Sheridan, XTO
Fusselman	Apache, Conoco, Energen
Mississippian	Apache, Athlon, Parsley
Pennsylvanian	Apache, Concho, Parsley, Linn



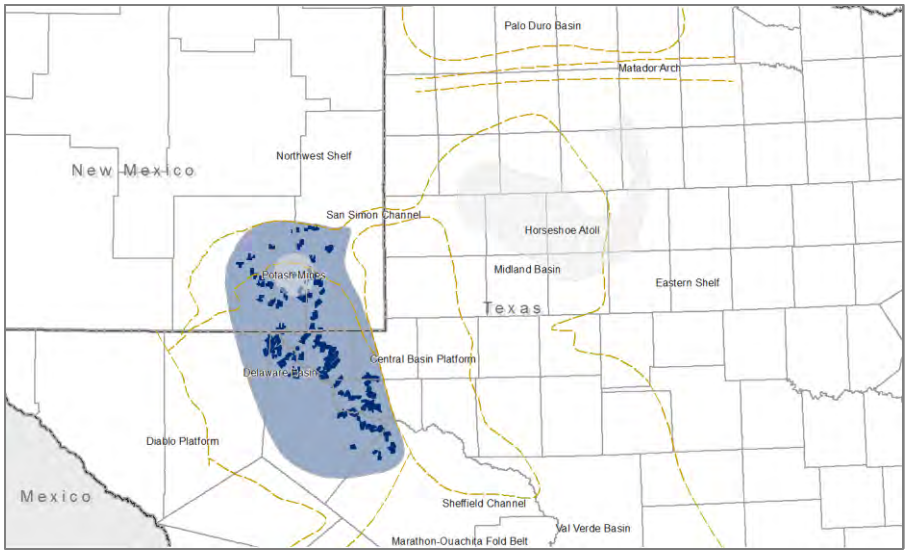
Source: Drillinginfo

Permian Basin Oil Plays

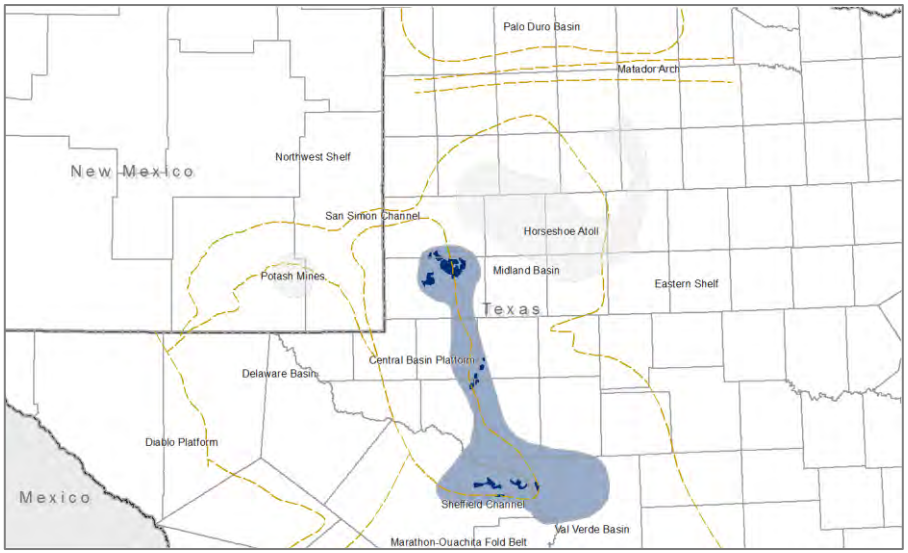
Grayburg High Energy Platform Carbonate Play Ozona Arch Play



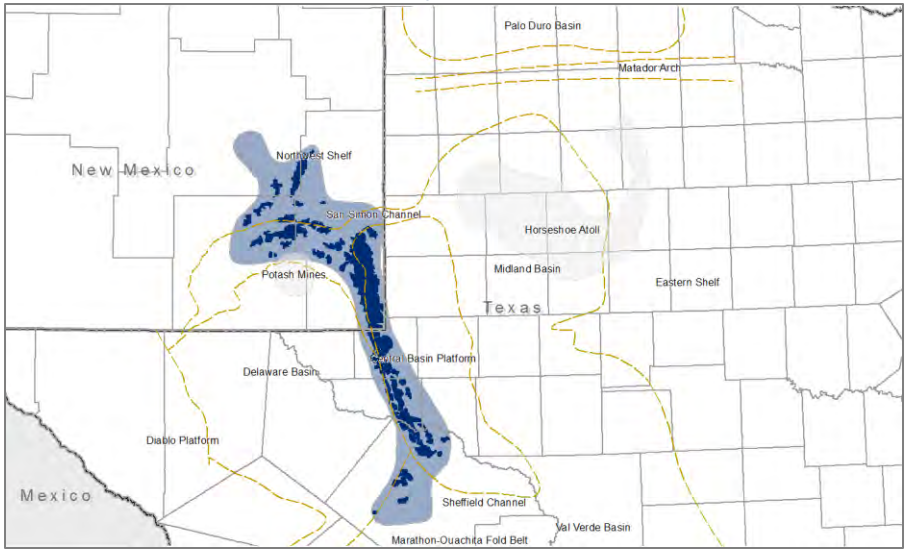
Delaware Mountain Group Basinal Sandstone Play



Queen Tidal Flat Sandstone Play



Artesia Platform Sandstone Play



Source: BEG

Petroleum Plays

Million Barrel Oil Fields

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efficiency, renewable energy and mitigation