

VALUE FOCUS

Exploration & Production

First Quarter 2017 // Region Focus: Eagle Ford



Executive Summary

Oil prices increased over the last twelve months from \$38/bbl at March 31, 2016 to \$50/bbl at the end of the first quarter 2017. Over the last couple years many companies postponed exploration activities and cut capital projects to drill new wells because of the depressed oil prices. Oil prices have now settled around \$50/bbl and producers are working to cut costs and increase efficiency in this new oil price environment. While production has increased across the U.S., producers are still being cautious.

OPEC agreed to cut production by 1.2 million barrels of oil per day starting January 1, 2017. As of the end of the January, OPEC's 13 members have generally complied

with production cuts (achieving 82% of the pledged cuts) and Russia also held up their end of the deal.

During CERA week in Houston, OPEC explained their plans to extend the cuts past the June expiration date. However even if OPEC maintains production cuts, rising U.S. shale oil output is thought to temper the results of OPEC's reduction in supply.

As oil prices stabilized somewhat around \$50 per barrel, the number of oil and gas companies filing for bankruptcy declined. Only 7 oil and gas companies went bankrupt in the first quarter of 2017 compared to 17 in the first quarter of 2016 and 70 total in 2016.

2017

Q1: Eagle Ford

Q2: Permian Basin

Q3: Bakken

Q4: Marcellus and Utica



Energy Industry Services

Mercer Capital provides business valuation and financial advisory services to companies in the energy industry.

Services Provided

- Valuation of energy companies
- Transaction advisory for acquisitions and divestitures
- Valuations for purchase accounting and impairment testing
- Fairness and solvency opinions
- Litigation support for economic damages and valuation and shareholder disputes

Industry Segments

Mercer Capital serves the following industry segments:

- Exploration & Production
- Oil Field Services
- Midstream Operations
- Alternative Energy

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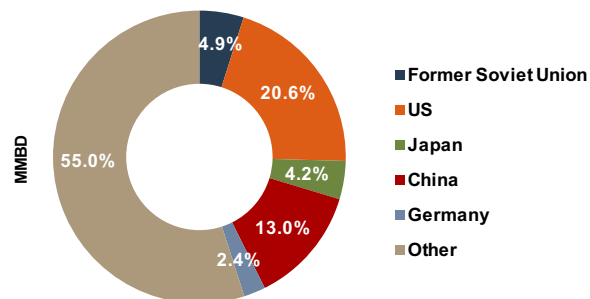
World Oil Demand

Crude Oil & Natural Gas

97.46
mboe/d

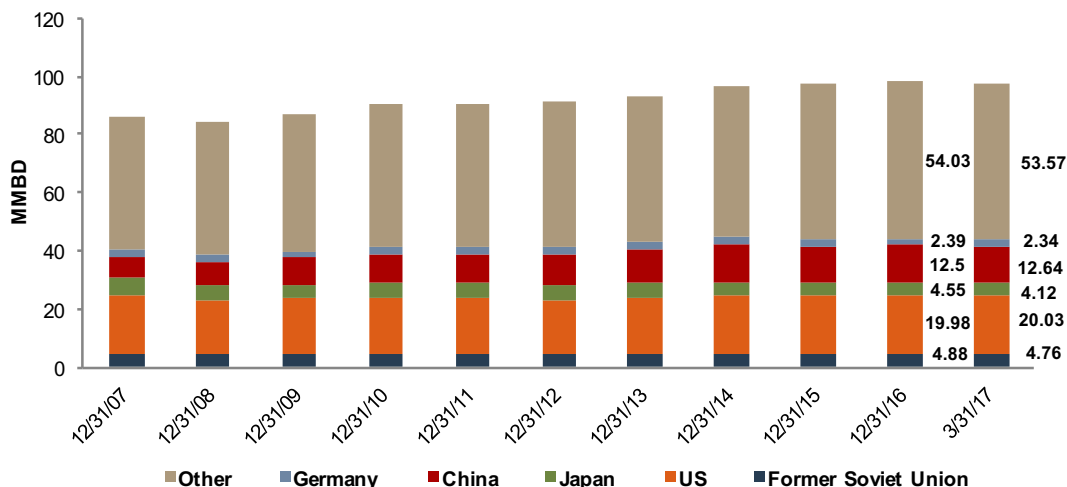
World Daily Consumption of Crude Oil and Liquid Fuels: March 2017

As of March 31, 2017, total world daily consumption equaled 97.46 million barrels per day.



Source: Bloomberg

World Daily Consumption of Crude Oil and Liquid Fuels



Source: Bloomberg

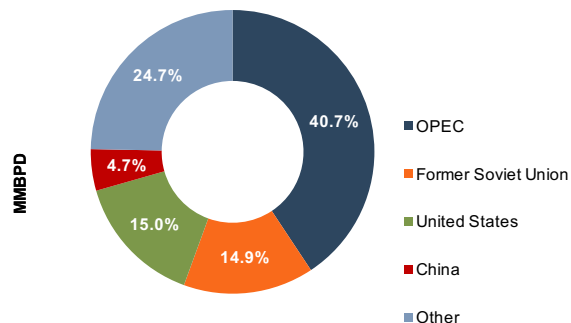
World Oil Supply

Crude Oil & Natural Gas

98.00
mboe/d

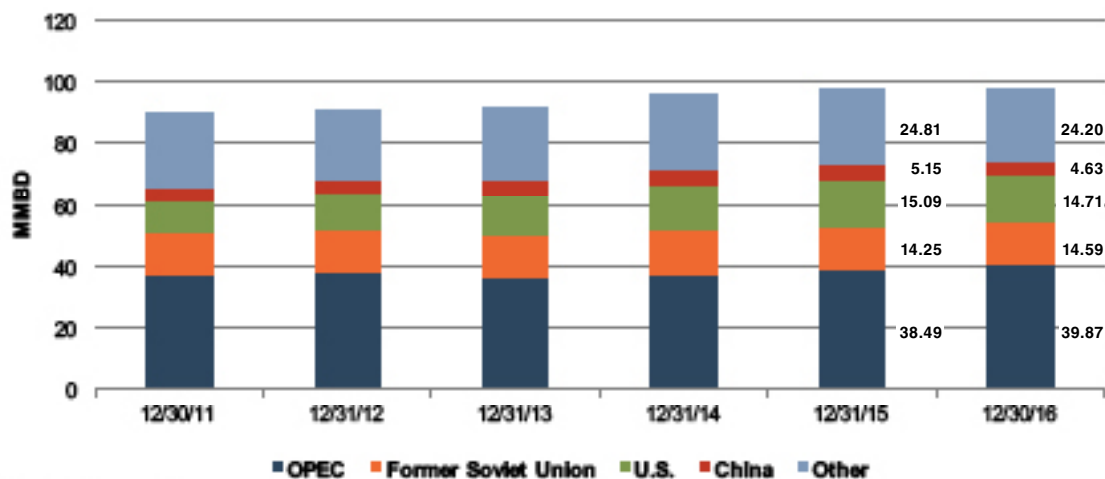
World Daily Production of Crude Oil: December 2016

As of December 31, 2016 (the most recent date available) world daily production totaled 98.0 million barrels per day.



Source: Bloomberg

World Daily Production of Crude Oil



Source: Bloomberg

Regulation

Overview

BLOG

ENERGY VALUATION INSIGHTS

Updated weekly, the **Energy Valuation Insights Blog** presents issues important to the oil and gas industry.

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The Oil and Gas industry is heavily regulated. The Environmental Protection Agency (EPA), the Federal Energy Regulatory Commissions (FERC), Bureau of Land Management (BLM), the Department of the Interior (DOI), and more regulate operations of the oil and gas industry. Recent legislation includes the EPA's withdrawal of a costly request for oil and gas companies to report their methane emissions and two executive orders from President Trump, designed to loosen regulation particularly in the energy industry.

In the first quarter of 2017, President Donald Trump worked to create a more friendly energy environment. The President's nominees for Secretary of State, Secretary of Energy, and Environmental Protection Agency administrator – Rex Tillerson, Rick Perry, and Scott Pruitt, respectively – were all confirmed by the Senate, and the Trump administration focused on reviving the coal industry and promoting oil and gas investments. In January 2017, Trump reopened negotiations surrounding the Keystone XL and Dakota Access pipelines and the Dakota Access Pipeline should start carrying oil in early April. Additionally, he signed an **executive order** requiring that “for every one new regulation issued, at least two prior regulations be identified for elimination.” While this order is aimed at reducing all federal regulation and regulatory costs, it is expected to have a substantial impact on reducing burdensome regulations specifically in the oil and gas industry. In March, President Trump issued another **executive order**, focused on “avoiding regulatory burdens that unnecessarily encumber energy production” and repealing a variety of Obama-era legislation. Notably, one of the nullified rules would have regulated methane emissions. Methane is the second most prevalent greenhouse gas, and the oil and gas industry is responsible for nearly one-third of its emissions. This rule would have **reduced methane emissions**, but been costly to E&P companies. The EPA also withdrew their request for information regarding oil and gas companies' equipment and methane emissions, which was expected to cost the industry **\$42 million**. It is expected that the Trump administration will continue to reduce regulations which should materially reduce operating expenses for the oil and gas industry.

Throughout his campaign President Trump promised to terminate or renegotiate the North American Free Trade Agreement (NAFTA) which was created over 23 years ago. NAFTA regulates e-commerce, intellectual property, and environmental standards. Although it seems unlikely that President Trump will completely withdraw from the agreement, most analysts believe that doing so would be detrimental to U.S. E&P companies given that the three countries' energy industries have become so **intricately integrated and interdependent** over the past decades. There are certain ways that renegotiating and modernizing the trade agreement would benefit the oil and gas industry, ensuring further integration and cooperation between the three country's energy industries. A number of analysts predict that if the NAFTA is renegotiated and Congress' proposed border adjustment tax is approved then U.S. crude oil would **become more expensive** than the Brent benchmark.

Eagle Ford Basin

Overview



The economics of oil and gas production varies by region. Mercer Capital focuses on trends in the Eagle Ford, Permian, Bakken, and Marcellus and Utica plays. The cost of producing oil and gas depends on the geological makeup of the reserve, depth of reserve, and cost to transport the raw crude to market. We can observe different costs in different regions depending on these factors. This quarter we take a closer look at the Eagle Ford Basin.

The Eagle Ford Shale's potential was first recognized in 2008 when the first drillers found natural gas. Soon after, other drillers began to enter the play and discovered not only significant natural gas reserves, but also large quantities of oil. Since then companies have invested heavily in Eagle Ford. Today the Eagle Ford has produced in excess of **2.0 billion barrels** of crude oil and condensate.

The Eagle Ford is one of the most productive shale oil plays in the US. Eagle Ford Shale is capable of producing both oil and gas through unconventional drilling techniques. The high carbonate percentage of the shale makes the rock more "fracable," thus cheaper to produce than other shale plays **such as the Bakken**. In 2014 the Eagle Ford caught up to production levels comparable to the Permian; however since then the Permian has experienced superior growth and on average **lower break even prices**. **Rig counts** in the Permian, more than quadrupled rig counts in the Eagle Ford making the Eagle Ford the second largest oil producer in the US, after the Permian. On average over the first quarter of 2017, oil production per rig totaled 1,116 bpd in the Eagle Ford versus 2,207 bpd in the Permian and 974 bpd in the Bakken.

Eagle Ford Basin

Production

The EIA estimates of total production as the sum of new production from recently drilled wells and legacy production from existing wells. Legacy productions trends are dominated by depletion rates.

From March 2012 to March 2014 production of crude oil in the Eagle Ford increased at CAGR of 66% per year. Even after the collapse of oil prices in mid-2014, the production of in the Eagle Ford continued to increase through March 2015. Operators in the Eagle Ford continued to pump oil at increasing rates even after prices fell because many thought they could pump more oil in order to make up for revenue gaps until the price of oil rebounded. However, once companies realized that low prices were here to stay, operators had to revise their plans. Companies short on cash were unable to drill new wells which led to significant declines in production. From March 2015 to January 2017, production in the Eagle Ford fell by 30%. Production did not settle until this quarter when the price of oil stabilized around \$50 per barrel.

The top producers in the Eagle Ford include EOG Resources (EOG) and ConocoPhillips (COP). Both reported generally positive result in the first quarter of 2017. EOG reported record crude oil volumes producing 316 mbpd which represented an 18% increase over the first quarter of 2016. EOG's main focus since the decline in oil prices has been to improve their drilling strategy through technical advances in order to reduce costs.

Eagle Ford Basin

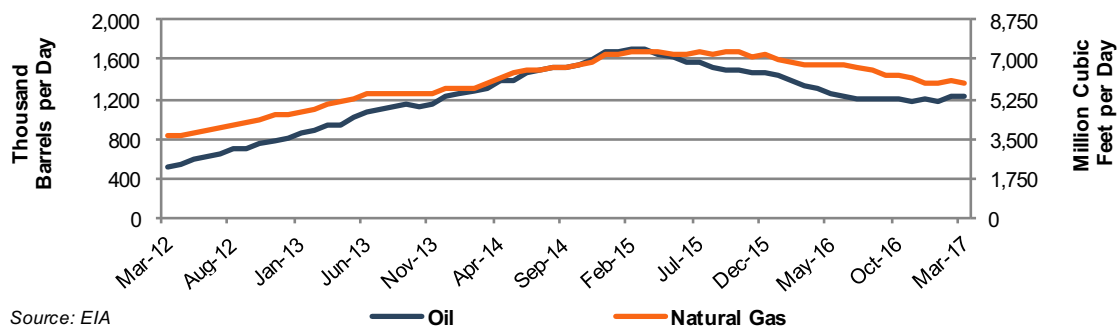
Production (continued)

ConocoPhillips reported **133 mbdp in the Eagle Ford** and overall production of 221 mbpd which was a 2% decline from this point last year. Management, however, expects Q1 to be the low point for 2017. They operated 5 wells in the Eagle Ford in the first quarter out of 12 rigs total in the lower 48 and said if able add another rig they would first look to the Eagle Ford because much of the needed infrastructure already exists.

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Total Oil and Gas Production in the Eagle Ford Basin



Eagle Ford Basin

Guideline Public Company Valuation Multiples

As shown in Appendix B, median activity multiples for companies focused in the Eagle Ford are lower than companies found in the Permian, located in west Texas, but earnings multiples for companies in the Eagle Ford are higher than those in the Permian. Many companies moved out of other regions to the Permian Basin in 2016 because breakeven prices in the Permian Basin were lower than other reserves. However, as oil prices have increased and stabilized around \$50 per barrel, the drilling economics in other regions such as the Eagle Ford have improved.

Enterprise values for companies in the Eagle Ford increased by approximately 30% over the last twelve months, while enterprise values in the Permian increased by over 60%. Currently, activity multiples such as Enterprise Value to total production per day for companies operating in the Permian Basin are high because companies operating in the Permian Basin have lower operating expenses than in other plays, thus more revenue generated from production flows through to the bottom line. Earnings multiples are high for companies operating the Eagle Ford because enterprise values recognize the future earnings potential of those companies while the EBITDA only considers historical earnings, which has recovered more quickly in the Permian than in the Eagle Ford.

While the Marcellus and Utica are still viable plays, the price of natural gas has remained depressed for many years due to a lack of infrastructure in the area. However, new investment in pipelines that will carry natural gas and NGLs out of the Northeast is expected to help reduce pressure on natural gas prices which will increase earnings. Multiples in the Bakken have remained depressed since the fall in oil prices and continued to fall over the last quarter (as seen in Appendix D).

Eagle Ford Basin

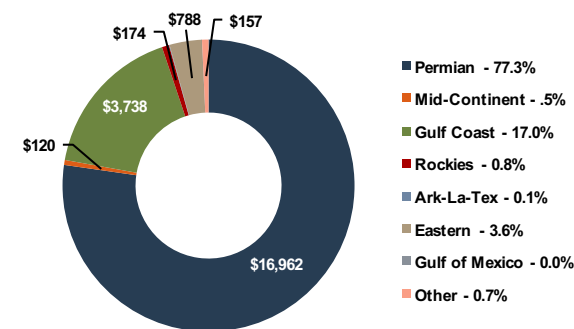
M&A Transaction Activity

M&A activity in the E&P sector has generated approximately \$21.9 billion over the first three months of 2017. Recent transactions in the Eagle Ford are summarized on the next page.

This past year there has been significant movement in and out plays as companies sell off “non-core assets” and concentrate their focus on their most productive plays. After the collapse of oil prices, many oil and gas companies were short on capital and looked to sell off assets for cash, while others who were well positioned before the collapse in prices were given the opportunity to purchase this acreage.

One of the most active companies in the Eagle Ford in the M&A space was WildHorse Resource Development Company (WRD) (shown as the buyer in three of the above transactions). WRD has assembled the second largest acreage position in the Eagle Ford. In February 2017, WRD paid \$15.6 million for acreage in the Eagle Ford which included seven operated and nine non-operated producing wells. The metrics demonstrate that they paid \$1,500/acre and \$80,000/Boe/d but the metrics can't tell the full story. The acreage purchased was **adjacent to WRD's existing acreage** and the acquired acreage had significant undeveloped leasehold. WRD's activity in the Eagle Ford is indicative of the current trend to focus operations in the most productive plays and use strategic synergies to increase efficiency and lower break even pricing in a time of extended low oil prices.

U.S. Announced Deal Value (as of 3/31/2017)
(in \$billions)



Source: 1Demick

Eagle Ford Transactions

Announced Date	Buyer	Seller	Play	Deal Value (\$MM)	\$ / Acre	\$ / Boepd	\$ / Boe
2/23/17	WildHorse Resource Development	Not Disclosed	Eaglebine/Woodbine	\$15.6	\$1,480.8	\$80,000.0	na
2/2/17	EV Energy Partners Lp	Not Disclosed	Multiple	58.7	110,964.1	58,700.0	45.2
1/25/17	Hawkwood Energy Llc	Halcon Resources Corp	Multiple	500.0	6,172.8	54,347.8	23.1
1/12/17	Sanchez Energy Corp, Blackstone	Anadarko Petroleum Corp	Eagle Ford Shale	2,100.0	13,548.4	31,343.3	7.0
1/3/17	Venado Oil & Gas Llc	SM Energy Company	Eagle Ford Shale	800.0	21,333.3	29,347.0	12.3
11/2/16	Verdun Oil Company LLC	Noble Energy, Inc.	Eagle Ford Shale	68.0	6,181.8	na	na
11/1/16	WildHorse Resource Development	Not Disclosed	Eagle Ford Shale	30.0	6,122.4	nm	na
10/24/16	WildHorse Resource Development	Clayton Williams Energy Inc.	Multiple	400.0	2,500.0	102,564.1	41.2
10/24/16	Carrizo Oil & Gas Inc.	Sanchez Energy Corp	Eagle Ford Shale	181.0	12,066.7	58,387.1	12.5
10/20/16	Pilgrim Petroleum Corporation	Not Disclosed	Multiple	330.0	15,714.3	na	na
8/19/16	Lonestar Resources Ltd.	Juneau Energy Inc	Multiple	5.5	4,283.5	21,653.5	5.0
8/3/16	Protege Energy III LLC	Newfield Exploration Co.	Eagle Ford Shale	380.0	na	29,921.3	na
7/27/16	Not Disclosed	Baytex Energy Corp.	Eagle Ford Shale	55.0	na	55,000.0	43.7
6/22/16	Sundance Energy Australia Limited	Not Disclosed	Eagle Ford Shale	16.0	3,168.3	26,666.7	5.3
5/17/16	Enervest Ltd.	GulfTex Energy III	Eagle Ford Shale	501.0	119,342.5	58,473.4	na
5/17/16	Enervest Ltd.	Blackbrush Oil & Gas Llc	Eagle Ford Shale	674.0	na	130,367.5	na
Median				\$255.5	\$6,181.8	\$55,000.0	\$12.5
Average				\$382.2	\$24,836.8	\$56,674.7	\$21.7

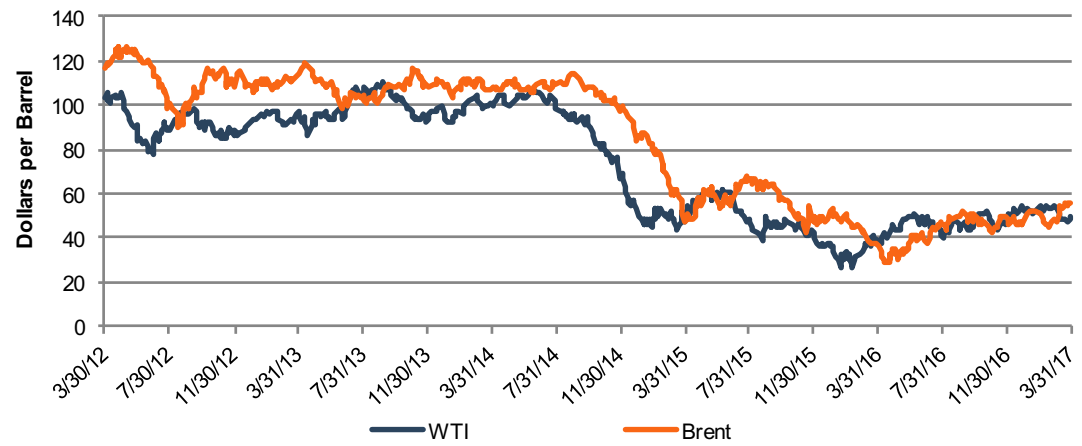
Source: Shale Experts

* Does not include all transactions in the Eagle Ford Basin for the last twelve months ended 3/31/2017

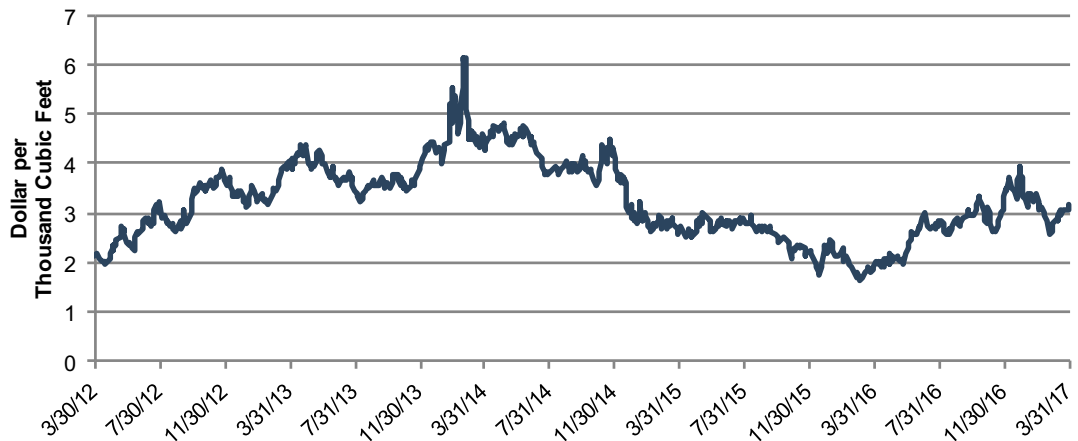
Appendix A

Commodity Prices

Crude Oil Spot Prices



Henry Hub Natural Gas Spot Price



Appendix B

Selected Public Company Information

Mercer Capital tracks the performance of Exploration and Production companies across different mineral reserves in order to understand how the current pricing environment affects operators in each region. We created an index of seven groups which we follow in order to better understand performance trends across reserves and across the industry. The current pricing multiples of each company in the index is summarized below.

as of 3/31/2017									
Company Name	Ticker	LTM		EBITDAX Margin	Daily Production (MBOE/D)	Enterprise Value (\$MM)	YOY Change in EV	EV/ EBITDAX	EV/ Total Production
		Revenues (\$MM)	EBITDAX (\$MM)						
Global Integrated									
Exxon-XTO	XOM	210,976	28,118	13.3%	4,070	385,386	-1.6%	14x	94,682x
Statoil	STO	51,070	17,633	34.5%	2,004	67,749	9.6%	4x	33,815x
Shell	RDS/A	256,833	35,562	13.8%	na	296,209	10.9%	8x	na
Chevron	CVX	111,739	17,316	15.5%	2,734	242,722	13.3%	14x	88,779x
Occidental Petroleum Co.	OXY	10,924	3,294	30.2%	630	56,772	0.1%	17x	90,047x
BP	BP	200,359	17,865	8.9%	na	152,585	21.5%	9x	na
Average		140,317	19,965	19.4%	2,360	200,237	9.0%	11x	76,831x
Median		156,049	17,749	14.7%	2,369	197,653	10.3%	11x	89,413x

Presented in \$000,000s, as of 3/31/2017
Source: Bloomberg L.P.

Notes on Select Public Companies

- Atlas Resources filed for bankruptcy in July 2016.
- Arsenal Energy and Lone Pine Resources combined to form Prairie Provident Resources.
- Lucas Energy was renamed Camber Energy (CEI) and moved its focus to the Permian Basin.
- Ultra Petroleum filed for Chapter 11 on April 29, 2016 and is still working to get out of bankruptcy.
- Swift Energy emerged from bankruptcy on April 25, 2016.
- In December 2016, Stone Energy filed for bankruptcy.
- Vanguard filed for Bankruptcy in February 2017.
- USEG is trading at below \$1 per share.
- In the fourth quarter of 2016, Earthstone Energy shifted their focus to the Permian Basin.
- Clayton Williams Energy was acquired by Noble Energy in April 2017 (we added Noble Energy to our group of global E&P companies).
- Stone Energy filed for bankruptcy in December 2016 and emerged midway through Q1 2017.
- Sanchez Energy sold \$200 million in non-core assets located in the eastern portion of the Eagle Ford in 4Q 2016 in order to focus operations in the southern section of the Eagle Ford.

Appendix B

Selected Public Company Information

as of 3/31/2017

Company Name	Ticker	LTM		EBITDAX Margin	Daily Production (MBOE/D)	Enterprise Value (\$MM)	YOY Change in EV	EV/ EBITDAX	EV/ Total Production
		Revenues (\$MM)	EBITDAX (\$MM)						
Global E&P									
Marathon Oil	MRO	4,312	2,206	51.2%	391	18,160	24.3%	8x	46,403x
Hess	HES	5,066	1,509	29.8%	281	21,019	-1.4%	14x	74,682x
ConocoPhillips Co.	COP	26,090	8,119	31.1%	1,445	84,953	14.1%	10x	58,802x
Anadarko Petroleum Corp.	APC	10,124	4,489	44.3%	648	47,358	10.5%	11x	73,039x
Noble Energy	NBL	4,072	2,599	63.8%	406	21,545	4.1%	8x	53,067x
Apache Corp.	APA	5,786	2,720	47.0%	468	27,941	0.8%	10x	59,654x
Murphy Oil	MUR	1,925	1,168	60.7%	167	6,843	-5.2%	6x	41,018x
Newfield Exploration	NFX	1,744	420	24.1%	147	9,282	9.5%	22x	63,055x
Average		7,390	2,904	44.0%	494	29,638	7.1%	11x	58,715x
Median		4,689	2,403	45.7%	399	21,282	6.8%	10x	59,228x

Presented in \$000,000s, as of 3/31/2017
Source: Bloomberg L.P.

Appendix B

Selected Public Company Information

as of 3/31/2017

Company Name	Ticker	LTM		EBITDAX Margin	Daily Production (MBOE/D)	Enterprise Value (\$MM)	YOY Change in EV	EV/ EBITDAX	EV/ Total Production
		Revenues (\$MM)	EBITDAX (\$MM)						
Other North American E&P									
Legacy Reserves	LGCY	394	122	31.1%	43	1,370	-10.9%	11x	32,177x
EXCO Resources	XCO	304	nm	nm	na	1,336	-16.7%	nm	na
EV Energy Partners	EVEP	239	(92)	-38.3%	29	676	-10.7%	nm	23,601x
Encana Corp.	ECA	3,462	444	12.8%	315	15,113	45.3%	34x	47,994x
Devon	DVN	11,549	3,053	26.4%	548	34,604	17.8%	11x	63,180x
Contango Oil & Gas	MCF	81	nm	nm	10	244	-28.3%	nm	24,029x
Bill Barrett Corp	BBG	266	159	59.6%	17	794	-20.6%	5x	47,795x
Denbury Resources Inc	DNR	1,023	(795)	-77.7%	61	4,066	1.0%	nm	66,989x
Bonanza Creek Energy Inc	BCEI	215	29	13.4%	na	na	na	nm	na
Enerplus	ERF	652	419	64.3%	80	2,492	58.0%	6x	31,189x
QEP Resources Inc	SXL	1,589	649	40.9%	158	4,729	2.7%	7x	29,902x
Abraxas Petroleum Corp.	AXAS	63	(7)	-11.6%	7	352	42.3%	nm	50,722x
WPX Energy	WPX	1,161	261	22.5%	105	7,986	50.1%	31x	76,234x
EQT	EQT	2,338	1,464	62.6%	378	16,273	8.7%	11x	43,090x
Chesapeake Energy	CHK	9,122	(1,512)	-16.6%	542	16,596	0.6%	nm	30,607x
Matador Resources	MTDR	369	120	32.5%	33	2,807	37.4%	23x	83,911x
Comstock Resources	CRK	193	nm	nm	36	1,161	-0.1%	nm	32,177x
Average		1,942	308	15.9%	157	6,913	11.0%	16x	45,573x
Median		394	141	24.5%	61	2,650	1.8%	11x	43,090x

Presented in \$000,000s, as of 3/31/2017

Source: Bloomberg L.P.

Appendix B

Selected Public Company Information

Focused E&P Companies (>50% of Production in region)

as of 3/31/2017

Company Name	Ticker	LTM		EBITDAX Margin	Daily Production (MBOE/D)	Enterprise Value (\$MM)	YOY Change in EV	EV/EBITDAX	EV/Total Production
		Revenues (\$MM)	EBITDAX (\$MM)						
Bakken									
Continental Resources	CLR	2,328	1,784	76.6%	220	23,502	27.0%	13x	106,969x
Whiting Petroleum Corp	WLL	1,367	546	39.9%	119	6,591	-3.9%	12x	55,184x
Halcon Resources Corp	HK	617	(357)	-57.8%	36	1,594	na	nm	44,848x
Oasis Petro	OAS	900	489	54.3%	67	5,679	62.4%	12x	85,293x
Crescent Point Energy	CPG	2,709	1,705	62.9%	168	8,973	-13.8%	5x	53,500x
Average		1,584	833	35.2%	122	9,268	17.9%	11x	69,159x
Median		1,367	546	54.3%	119	6,591	11.5%	12x	55,184x
Marcellus & Utica									
Range Resources	RRC	1,962	969	49.4%	342	10,941	35.4%	11x	31,959x
Cabot Oil and Gas	COG	1,413	329	23.3%	309	12,114	2.6%	37x	39,205x
Rice	RICE	1,157	595	51.4%	211	8,292	106.0%	14x	39,239x
REX Energy Corp	REXX	154	nm	nm	31	843	-12.0%	nm	27,147x
Antero Resources Corp	AR	3,200	1,751	54.7%	369	12,576	-2.6%	7x	34,081x
Eclipse Resources Corp.	ECR	295	106	35.9%	50	999	43.6%	9x	20,085x
Gulfport Energy	GPOR	562	(244)	-43.5%	175	4,260	6.9%	nm	24,403x
Southwestern Energy Co	SWN	2,735	(398)	-14.6%	406	9,041	-6.9%	nm	22,255x
Average		1,435	444	22.4%	237	7,383	21.6%	16x	29,797x
Median		1,285	329	35.9%	260	8,667	4.8%	11x	29,553x

Presented in \$000,000s, as of 3/31/2017
Source: Bloomberg L.P.

Appendix B

Selected Public Company Information

Focused E&P Companies (>50% of Production in region)

as of 3/31/2017

Company Name	Ticker	LTM		EBITDAX Margin	Daily Production (MBOE/D)	Enterprise Value (\$MM)	YOY Change in EV	EV/ EBITDAX	EV/ Total Production
		Revenues (\$MM)	EBITDAX (\$MM)						
Permian Basin									
Concho	CXO	2,359	2,313	98.0%	183	20,985	31.7%	9x	114,931x
Callon Petroleum Co	CPE	259	109	42.1%	23	3,074	155.5%	28x	134,351x
Parsley Energy	PEIX	620	445	71.8%	60	8,500	96.1%	19x	141,007x
Diamondback Energy	FANG	669	265	39.5%	71	10,765	79.7%	41x	152,288x
Earthstone Energy, Inc.	ESTE	52	nm	nm	8	288	66.5%	nm	36,429x
RSP Permian Inc	RSPP	467	nm	nm	55	7,621	113.8%	nm	139,497x
Laredo Petroleum Inc.	LPI	807	408	50.6%	57	4,861	53.8%	12x	85,116x
Approach Resources Inc	AREX	101	50	49.8%	12	561	3.4%	11x	47,758x
Ring Energy	REI	37	(19)	-51.7%	4	476	137.3%	nm	124,711x
Pioneer Natural Resources Co.	PXD	5,093	1,627	31.9%	264	32,148	33.2%	20x	121,562x
Cimarex Energy Co.	XEC	1,458	278	19.1%	180	12,275	22.4%	44x	68,078x
Energen Corp	EGN	644	651	101.1%	63	5,747	41.3%	9x	91,789x
Average		1,047	613	45.2%	82	8,942	69.6%	21x	104,793x
Median		632	343	45.9%	59	6,684	60.2%	19x	118,246x

Presented in \$000,000s, as of 3/31/2017
Source: Bloomberg L.P.

Appendix B

Selected Public Company Information

Focused E&P Companies (>50% of Production in region)

as of 3/31/2017

Company Name	Ticker	LTM		EBITDAX Margin	Daily Production (MBOE/D)	Enterprise Value (\$MM)	YOY Change in EV	EV/ EBITDAX	EV/ Total Production
		Revenues (\$MM)	EBITDAX (\$MM)						
Eagle Ford									
Carrizo Oil & Gas Inc.	CRZO	583	73	12.5%	48	3,227	5.1%	44x	66,588x
Baytex Energy	BTE	739	14	1.9%	68	2,162	-3.0%	150x	31,817x
Sanchez Energy	SN	568	80	14.2%	83	3,007	69.0%	37x	36,324x
SM Energy (St. Mary Land & Exploration)	SM	1,304	410	31.4%	111	4,912	27.9%	12x	44,234x
EOG Resources	EOG	8,726	3,133	35.9%	587	61,742	33.6%	20x	105,272x
Average		2,384	742	19.2%	179	15,010	26.5%	53x	56,847x
Median		739	80	14.2%	83	3,227	27.9%	37x	44,234x

Presented in \$000,000s, as of 3/31/2017
Source: Bloomberg L.P.

Appendix B

Selected Public Company Information

Focused E&P Companies (>50% of Production in region)

as of 3/31/2017

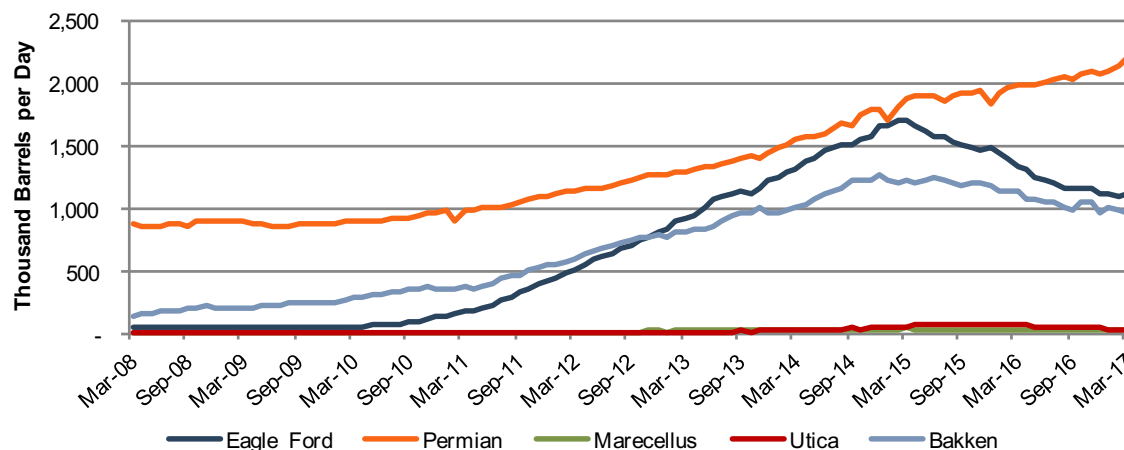
Company Name	Ticker	LTM		EBITDAX Margin	Daily Production (MBOE/D)	Enterprise Value (\$MM)	YOY Change in EV	EV/ EBITDAX	EV/ Total Production
		Revenues (\$MM)	EBITDAX (\$MM)						
Focused E&P									
Average		1,410	521	28.0%	138	8,812	44.5%	26x	69,441x
Median		704	329	35.9%	69	5,713	33.6%	14x	50,629x
E&P									
Average		2,525	878	27.1%	202	11,536	27.5%	20x	60,383x
Median		900	410	32.5%	105	6,169	10.5%	12x	47,994x
All									
Average		17,030	3,124	26.2%	365	31,754	25.5%	19x	61,625x
Median		1,161	444	31.4%	119	7,804	10.5%	12x	50,722x

Presented in \$000,000s, as of 3/31/2017
Source: Bloomberg L.P.

Appendix C

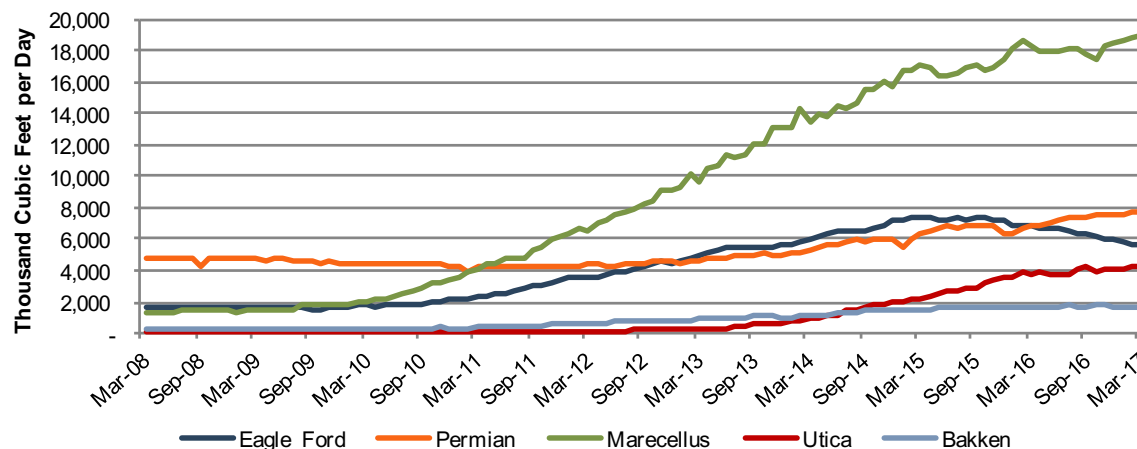
Production by Region

Crude Oil Production



Source: EIA

Natural Gas Production

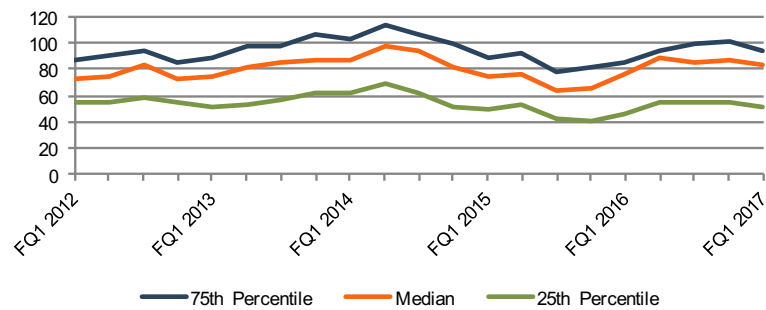


Source: EIA

Appendix D

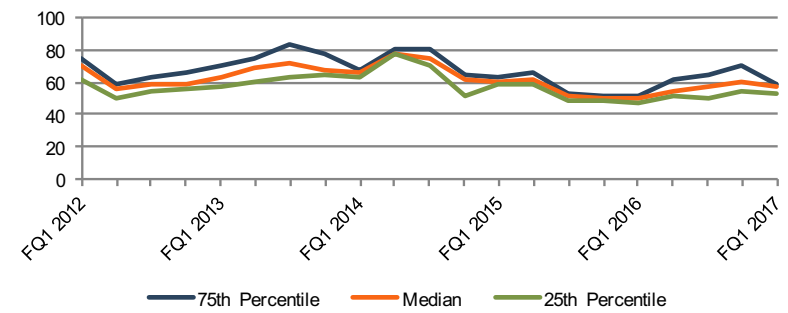
Historical Valuations

Global Integrated EV/Total Production



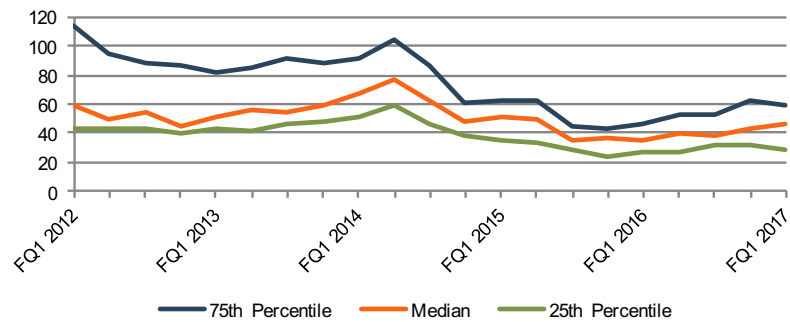
Source: Bloomberg L.P.

Global E&P EV/Total Production



Source: Bloomberg L.P.

North American E&P EV/Total Production

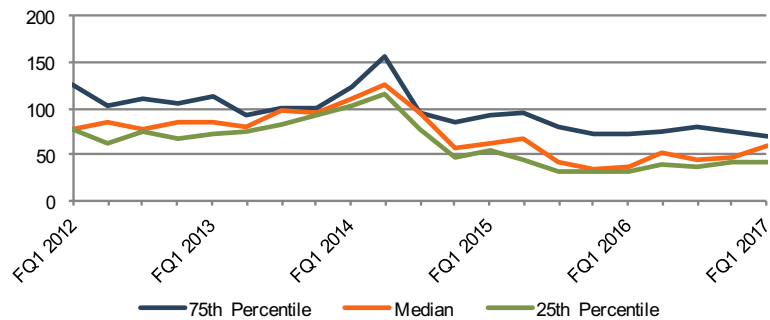


Source: Bloomberg L.P.

Appendix D

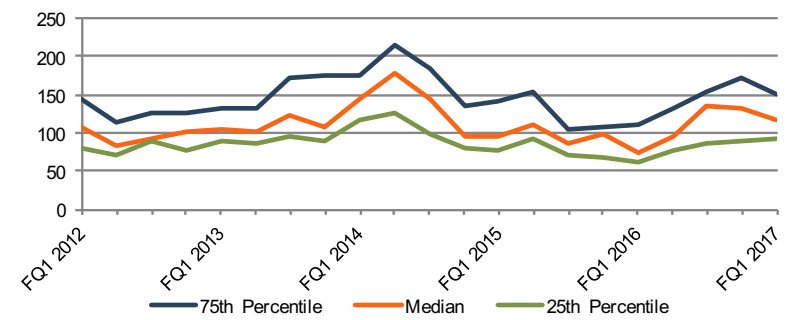
Historical Valuations

Eagle Ford EV/Total Production



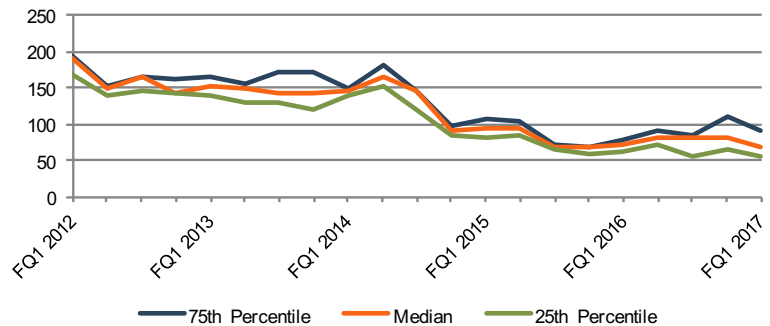
Source: Bloomberg L.P.

Permian Rig EV/Total Production



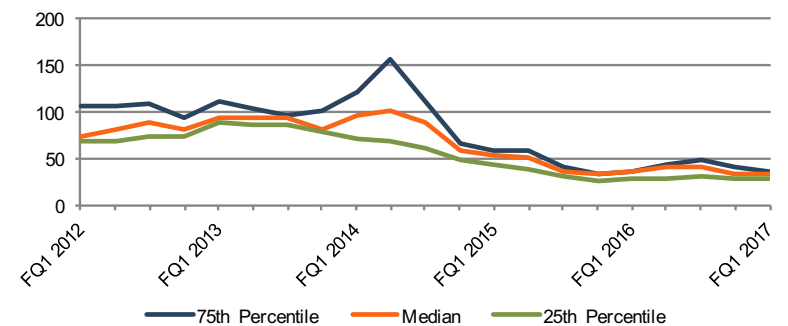
Source: Bloomberg L.P.

Bakken Rig EV/Total Production



Source: Bloomberg L.P.

Marcellus & Utica EV/Total Production

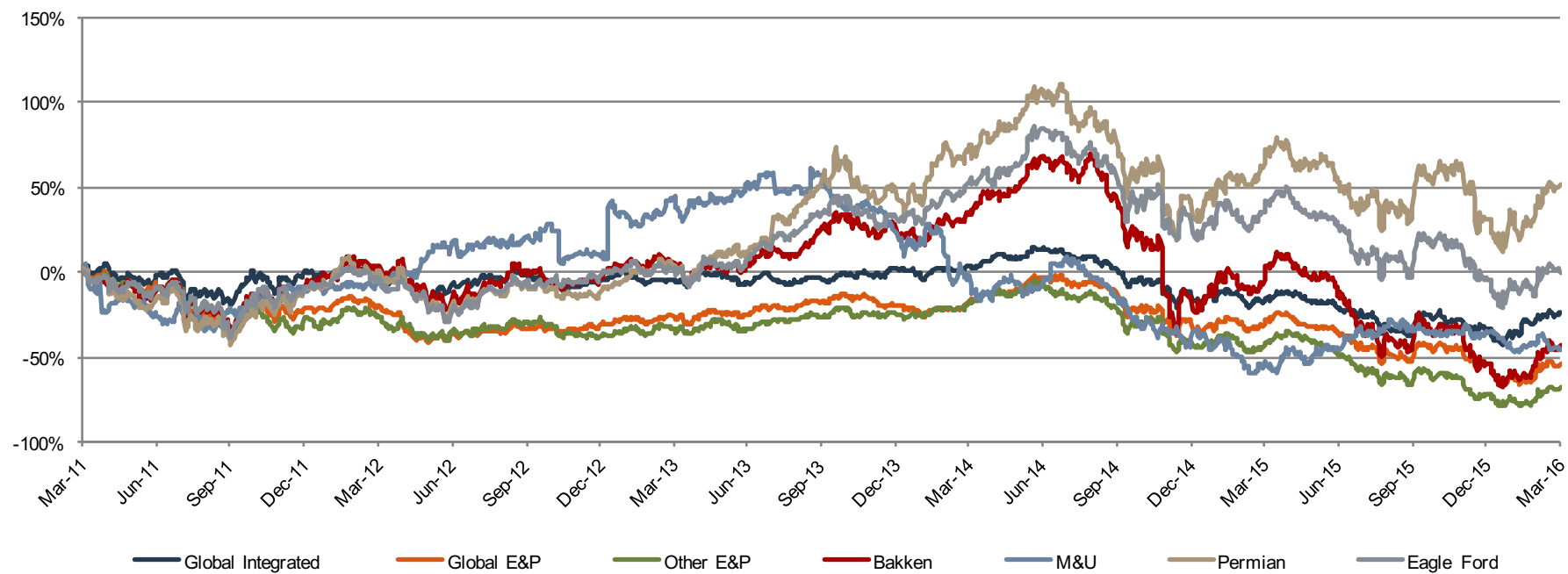


Source: Bloomberg L.P.

Appendix E

Stock Performance

Mercer Capital's Energy Indices Stock Performance



Source: Bloomberg

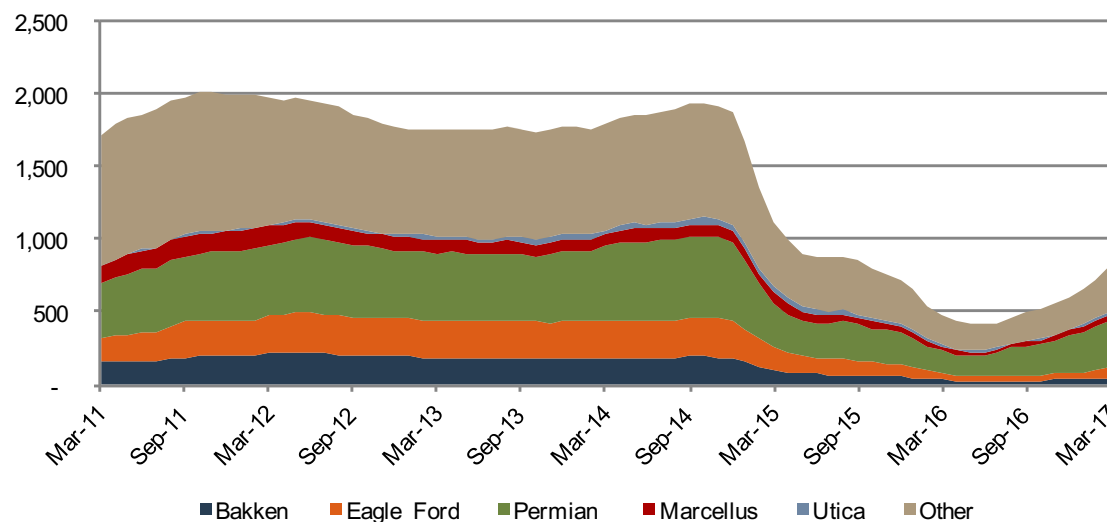
Appendix F

Rig Count

Baker Hughes collects and publishes information regarding active drilling rigs in the United States and internationally. The number of active rigs is a key indicator of demand for oilfield services & equipment. Factors influencing rig counts include energy prices, investment climate, technological changes, regulatory activity, weather, and seasonality.

The number of active rigs in the United States as of March 31, 2017, stood at 824, representing a 73% increase compared to one year prior but a 26% decrease to two years prior. But over the last three months, the number of rigs increased by 25%. The recent increase reflects a pickup in drilling activity as OPEC reached an agreement to make production cuts, which led to an uptick in oil prices, causing many US Shale drillers to increase [drilling activity](#). The Permian remains the most active play for drilling followed by the Eagle Ford, Marcellus, Bakken and Utica.

Rig Count by Region

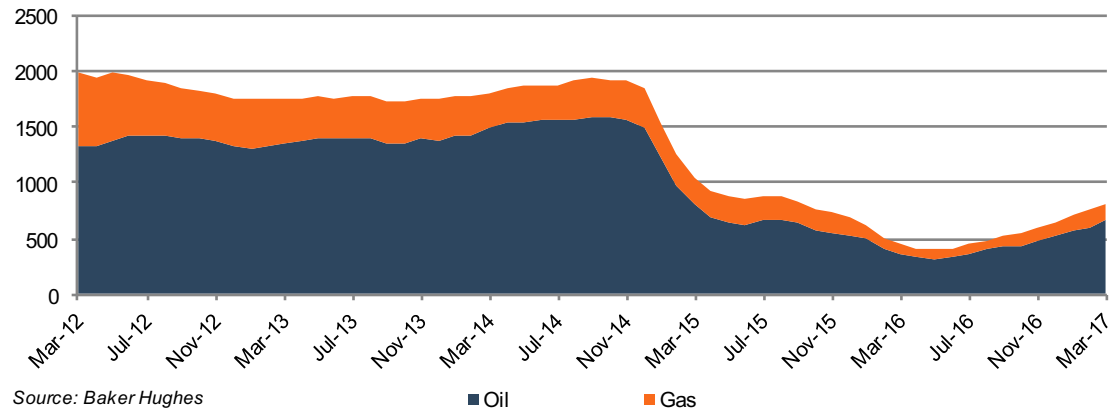


Source: Baker Hughes

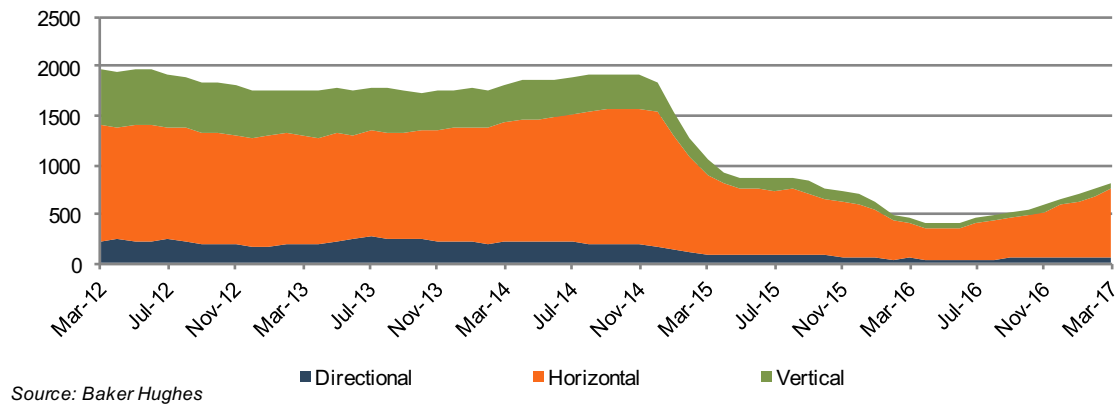
Appendix F

Rig Count

U.S. Rig Count by Oil vs. Natural Gas



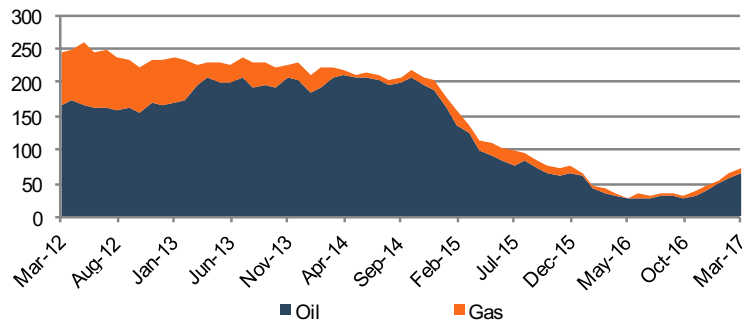
U.S. Rig Count by Trajectory



Appendix F

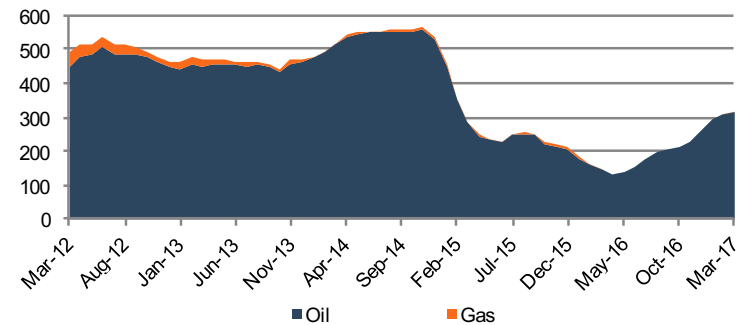
Rig Count // Oil vs. Natural Gas

Eagle Ford Rig Count by Oil vs. Natural Gas



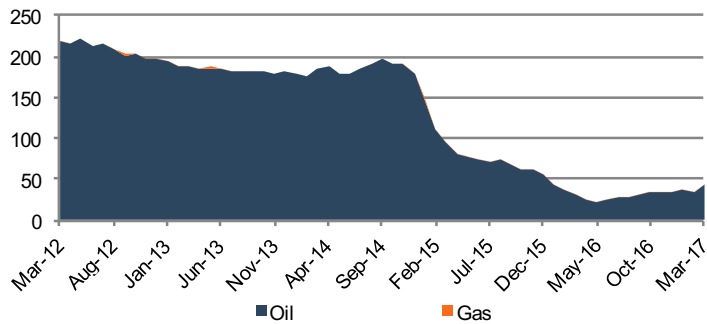
Source: Baker Hughes

Permian Rig Count by Oil vs. Natural Gas



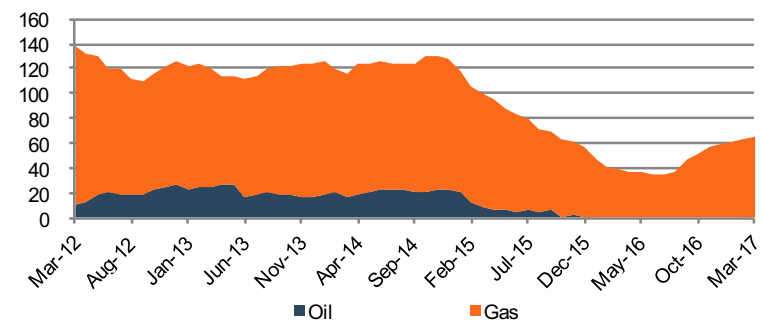
Source: Baker Hughes

Bakken Rig Count by Oil vs. Natural Gas



Source: Baker

Marcellus & Utica Rig Count by Oil vs. Natural Gas

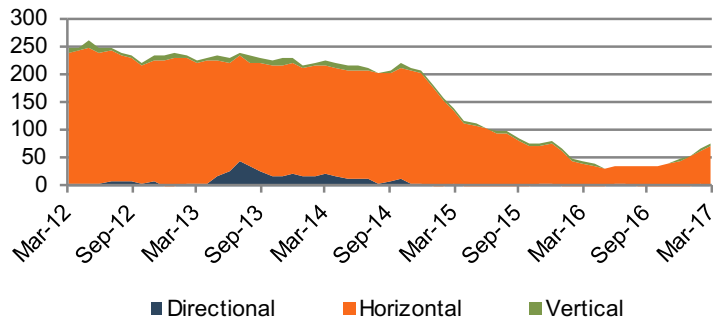


Source: Baker Hughes

Appendix F

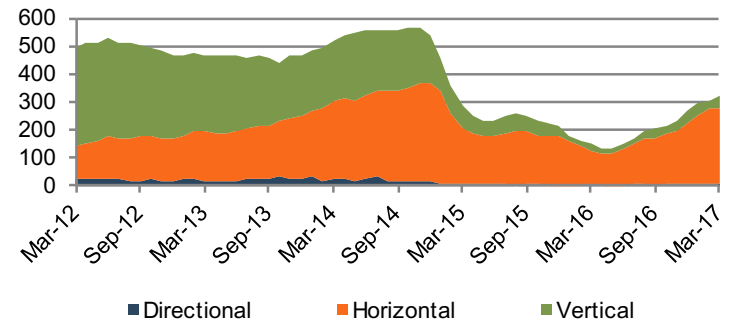
Rig Count // Trajectory

Eagle Ford Rig Count by Trajectory



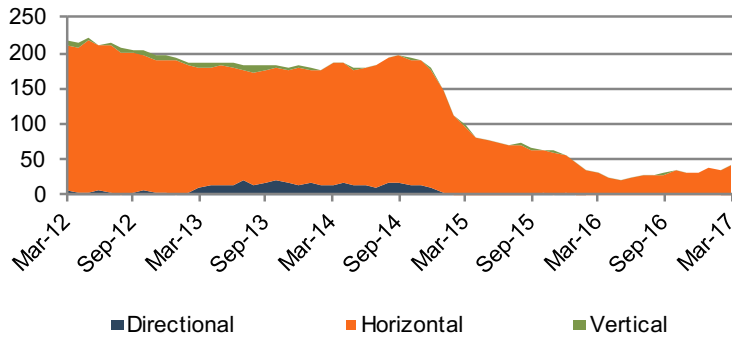
Source: Baker Hughes

Permian Rig Count by Trajectory



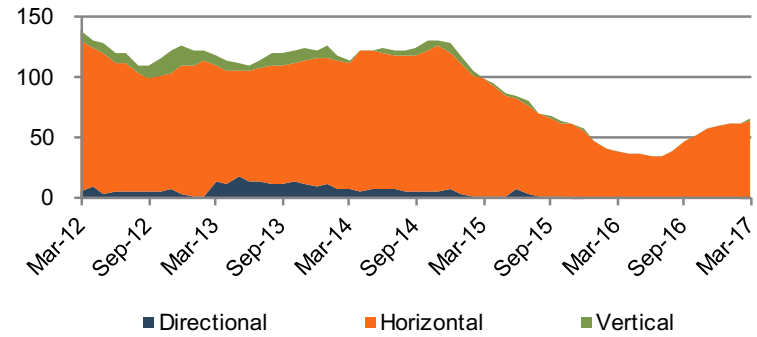
Source: Baker Hughes

Bakken Rig Count by Trajectory



Source: Baker Hughes

Marcellus & Utica Rig Count by Trajectory



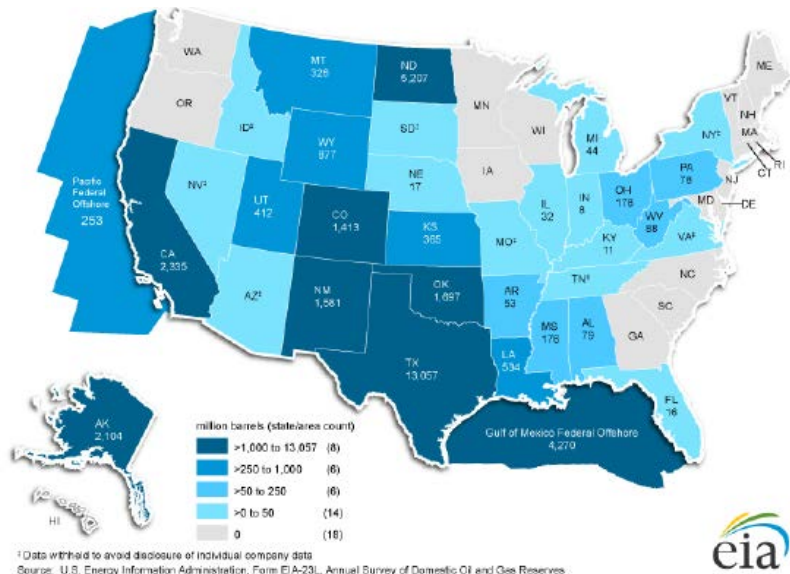
Source: Baker Hughes

Appendix G

U.S. Oil and Gas Resources

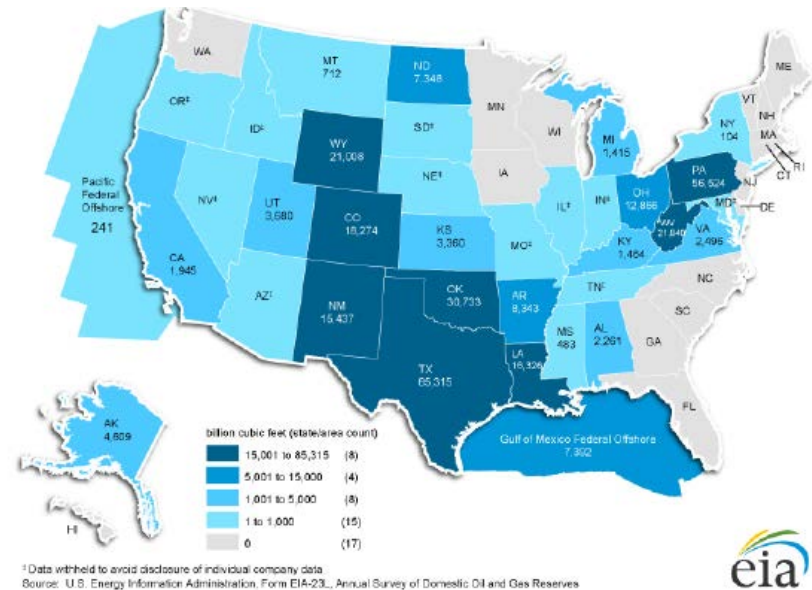
U.S. Crude Oil and Lease Condensate Proved Reserves Map

2015



U.S. Wet Natural Gas Proved Reserves Map

2015



The EIA's Annual Survey of Oil and Gas Reserves is available in November. The most recent data available was used.



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