



February 4, 2019

Covering the Week of January 25 to January 31, 2019

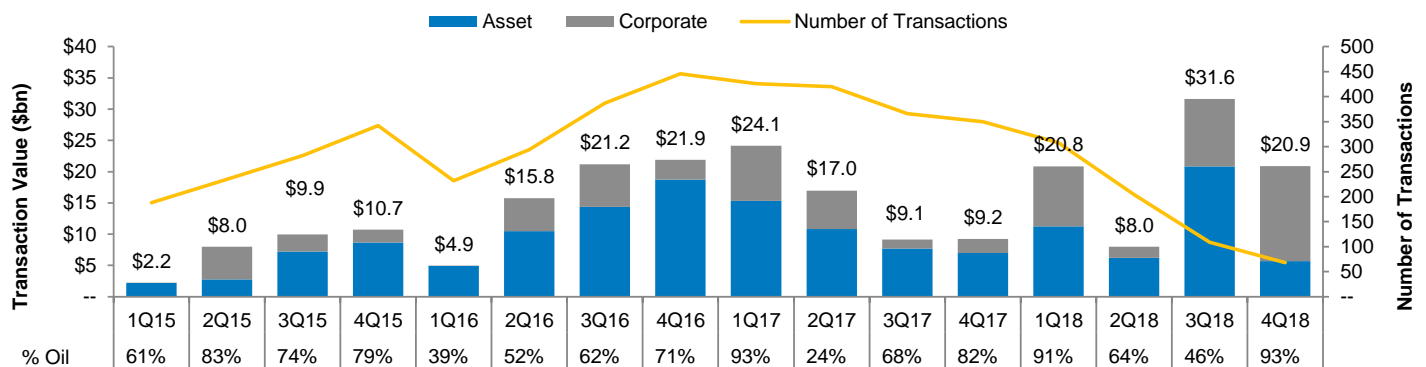
Week in Review

- Oil Search announced it acquired an additional 50% interest in, and operatorship of, 195,200 gross acres in the eastern area of the Alaska North Slope
- The Society of Petroleum Engineers' Gulf Coast Section hosted a sold out A&D Symposium on January 31st; BMO's A&D team members kicked off the event with an A&D Overview presentation and led the Eagle Ford panel

Key Industry Indicators

Indicator	Current Value	Week's Change	% Change	Direction
Prompt Oil Price (\$/bbl)	\$53.79	\$0.66	1.2%	↑
Prompt Gas Price (\$/mmbtu)	\$2.81	(\$0.29)	(9.2%)	↓
Wkly Trans. Value (\$mm)	\$8	(\$11)	(57%)	↓
Wkly Trans. Count	2	(2)	(50%)	↓
US Rig Count	1,045	(14)	(1.3%)	↓
US Oil Prod'n (mmbbl/d)	11.9	--	--	—
US Gas Prod'n (bcf/d) ⁽¹⁾	107.4	2.0	1.9%	↑
US Oil Storage (mmbbl)	445.9	0.9	0.2%	↑
US Gas Storage (tcf)	2.2	(0.2)	(7.3%)	↓

Quarterly Deal Activity



All references to last week in the comments below are through Thursday

Commodities

- Oil ended last week up. Expectation that the White House would agree to a deal to re-open the government along with Saudi Arabia committing to deeper oil cuts in February seems to have improved prices over the past week. Ongoing political unrest in Venezuela which could threaten an already declining production base and warnings about lower earnings due to slower economic growth in China stoked a bit of broad market fear. The near-term contract closed up \$0.66, or 1.2%, at \$53.79
- Natural gas ended last week down. Enbridge updated on its TETCO line, shut down since a January explosion, saying the company is working on returning 1 bcf/d of flows through the Berne Compressor Station in Noble County, Ohio. Larger than expected inventory draw and shifting weather outlooks that expect cooler than average temperatures across the Eastern US are to come. The near-term contract closed down \$0.29, or 9.2%, at \$2.81

Equity Markets

- S&P E&P⁽²⁾ underperformed last week 1.9% vs. SPX⁽²⁾ 2.3%
- The major U.S. equity indexes finished up again last week as markets continue to improve. Consumer discretionary, consumer staples, financials, health care, industrials, materials, real estate, and tech all finished up. Real estate performed the best, up 4.8%

Debt Markets

- Four U.S. issuers priced five tranches for \$5.9 billion in proceeds
- Year-to-date U.S. volume is down 38% year-on-year
- U.S. high yield funds reported an inflow of \$73 million
- ETFs reported an outflow of \$68 million, while mutual funds reported an inflow of \$141 million
- High yield index yield was 7.28%; high yield energy index yield was 8.56%

Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, EIA, PLS

Note: Current quarter's data is through the week covered by this issue.

1. EIA U.S. natural gas gross withdrawals and production reported monthly as of November 2018.

2. S&P E&P = S&P Oil & Gas E&P Select Industry, SPX = S&P 500 Index.

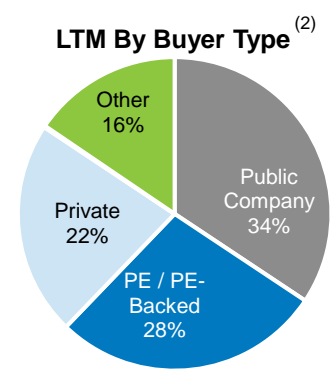
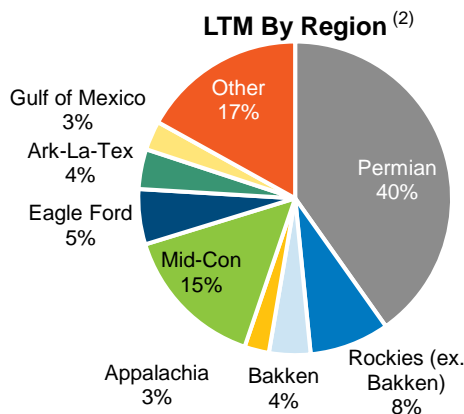
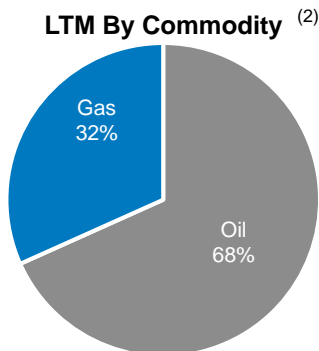


February 4, 2019

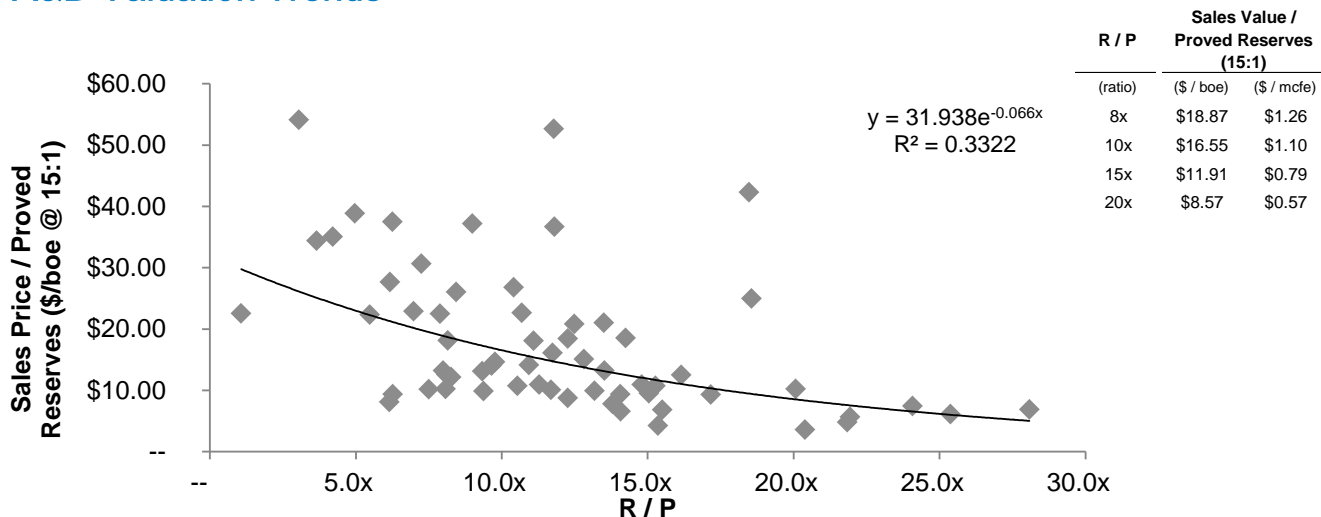
The 10 Most Recent Asset Transactions Over \$20 Million

Ann'd Date	Buyer	Seller	Area	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre)
16-Jan-19	Talos Energy Inc	Samson Energy Co LLC	Gulf of Mexico	Non-op Gulf of Mexico working interest	\$30	\$13.45	\$17,939	n.a.
08-Jan-19	Undisclosed Buyer	MCM Energy Partners LLC	Permian	Midland Basin assets	\$20	n.a.	n.a.	n.a.
21-Dec-18	Pantheon Resources Plc	Great Bear Petroleum LLC	Alaska	250,000 leased acres in the North Slope	\$49	n.a.	n.a.	\$196
19-Dec-18	Comstock	Shelby Shale LLC	Ark-La-Tex	6,023 net acres in Haynesville	\$21	n.a.	n.a.	\$3,404
17-Dec-18	Alliance Resource Partners	Dale Operating Co	Multi-Region	42,000 net royalty acres	\$176	n.a.	n.a.	nmf
11-Dec-18	Undisclosed Buyer	Riviera Resources Inc	Mid-Continent	37,000 net acres in the Arkoma Basin	\$68	n.a.	\$17,000	\$1,838
21-Nov-18	Kimbell Royalty Partners	Undisclosed Seller	Multi-Region	16,700 net royalty acres	\$108	n.a.	\$90,588	nmf
19-Nov-18	Lonestar Resources Inc	Sabine Oil & Gas Corp	Eagle Ford	2,706 net acres in Eagle Ford	\$39	\$2.98	\$48,375	\$14,302
19-Nov-18	Aethon III	QEP Resources Inc	Ark-La-Tex	49,700 net acres in Haynesville	\$735	\$4.60	\$14,848	\$14,789
07-Nov-18	Vantage Energy Acq. Corp	QEP Resources Inc	Bakken	102,800 net acres in Williston Basin	\$1,725	n.a.	\$37,500	\$16,780

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services



A&D Valuation Trends⁽³⁾



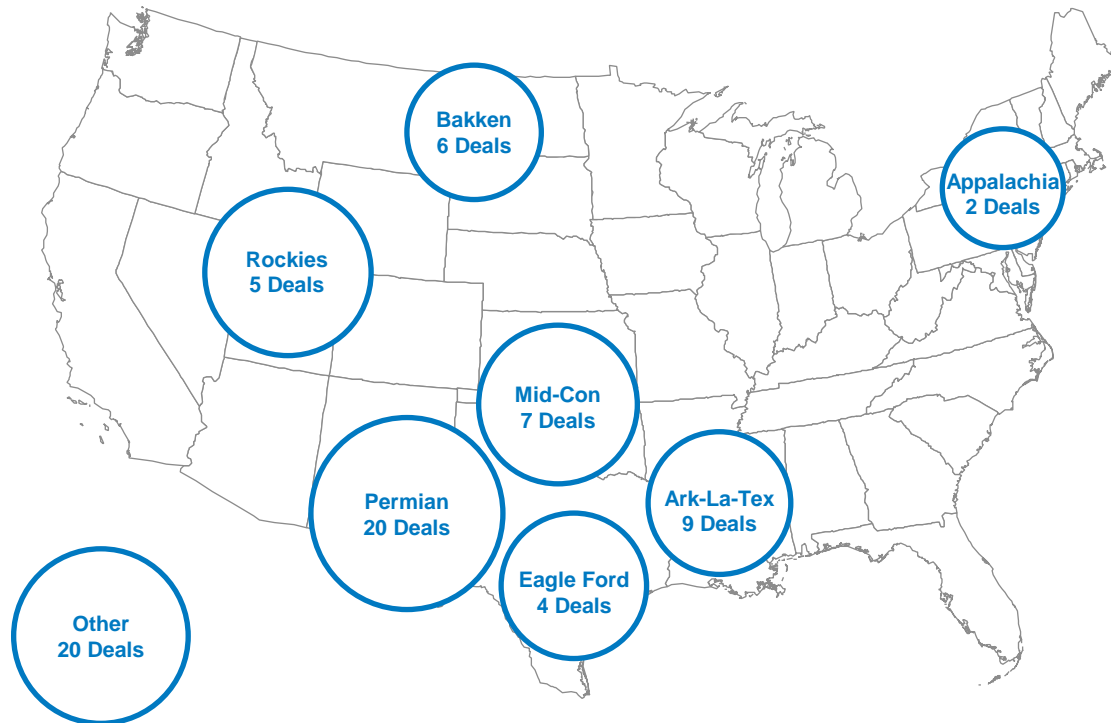
2 Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, PLS

1. Represents total enterprise value.
2. Calculated as percentage of total LTM transaction count (number of transactions, not dollar value).
3. 62 transactions from January 2015 to 2018 with transaction value >\$20mm. Adjusted for changes in price outlooks. Recalculated boe reserves are on a 15:1 (gas:oil) basis. Acreage transactions excluded by using deals with PDP of >= 40% of total proved.



February 4, 2019

Select Significant Deals on the Market



A&D Headlines

- [Oil Search Expands Lease Position Further in Alaska North Slope](#)

Industry Headlines

- [Crude Vaults to Yearly High as Saudi Shipments to U.S. Dwindle](#)
- [Trump Sanctions Venezuela Oil Company PDVSA, Pressuring Maduro](#)
- [OPEC Production Cuts Signal Age of Abundance](#)
- [Chicago Cold Air to Rival Antarctica Lifts Power, Gas Prices](#)
- [Oil Bulls Get Bolder as OPEC Cuts Lessen Odds of a Relapse](#)

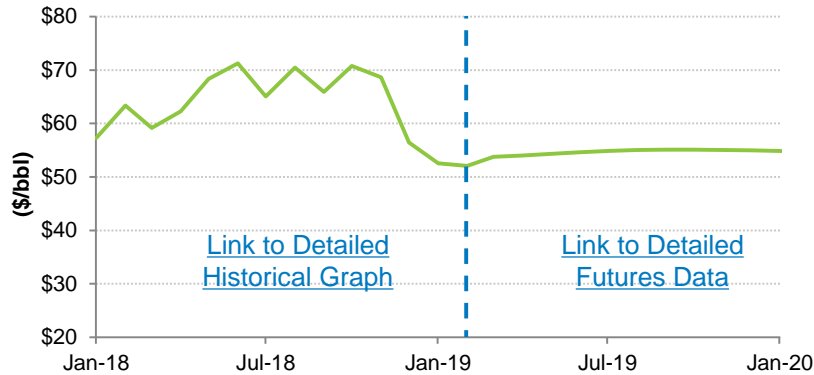
(Click headline to link to the full article)



February 4, 2019

Commodity Prices

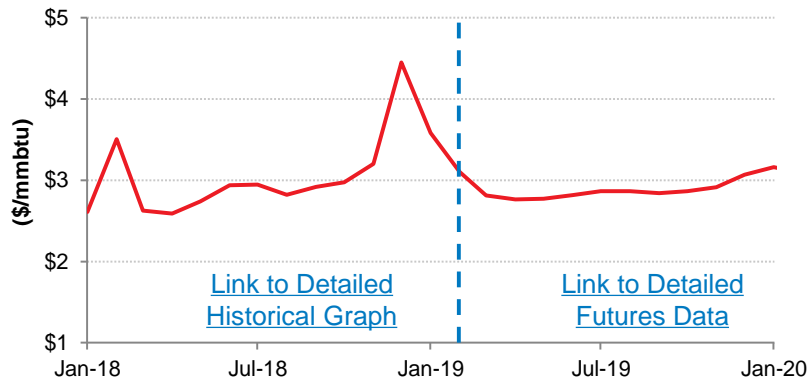
WTI OIL (HISTORICAL / FORECAST)



NYMEX WTI Futures as of 31-Jan-19 Close (\$/bbl)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$54.70	\$54.39	\$66.24	\$62.22
2019	\$54.69	\$54.30	\$64.94	\$58.41
2020	\$54.27	\$54.60	\$61.56	\$55.17
2021	\$53.40	\$54.04	\$58.86	\$53.25
2022	\$52.96	\$53.72	\$56.85	\$52.32
2023	\$52.92	\$53.70	\$55.59	\$52.14

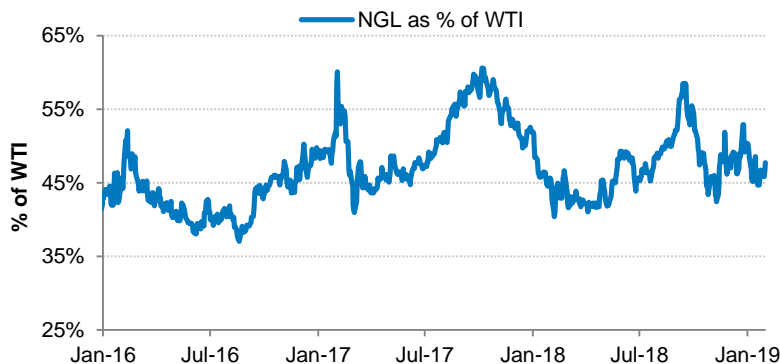
HENRY HUB NATURAL GAS (HISTORICAL / FORECAST)



NYMEX Gas Futures as of 31-Jan-19 Close (\$/mmbtu)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$2.90	\$2.97	\$2.79	\$2.97
2019	\$2.86	\$2.95	\$2.74	\$2.83
2020	\$2.72	\$2.76	\$2.63	\$2.80
2021	\$2.61	\$2.64	\$2.60	\$2.84
2022	\$2.79	\$2.82	\$2.74	\$2.99
2023	\$2.79	\$2.82	\$2.74	\$2.99

NGL PRICING⁽²⁾



Historical Prices as of 31-Jan-19 Close (\$/gal)

NGLs	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
Ethane	\$0.35	\$0.34	\$0.34	\$0.27
Propane	\$0.69	\$0.68	\$0.96	\$0.89
Butane	\$0.71	\$0.70	\$1.06	\$0.89
Iso-butane	\$0.88	\$0.83	\$1.29	\$1.06
Pentane+	\$1.11	\$1.03	\$1.54	\$1.43

Source: BMO Commodity Products Group, Bloomberg, FactSet

1. Future prices are calendar year average unless stated otherwise.
2. Assumes typical Gulf Coast barrel composition.

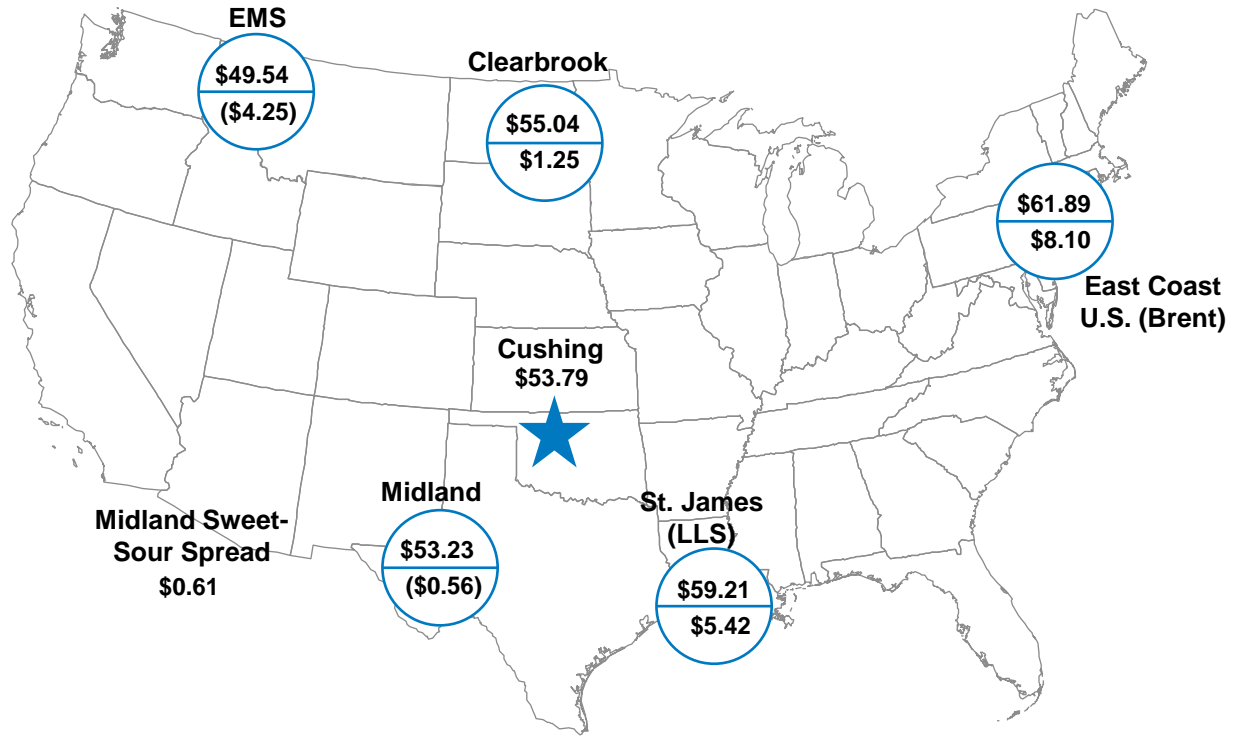


February 4, 2019

Commodity Prices (cont'd)

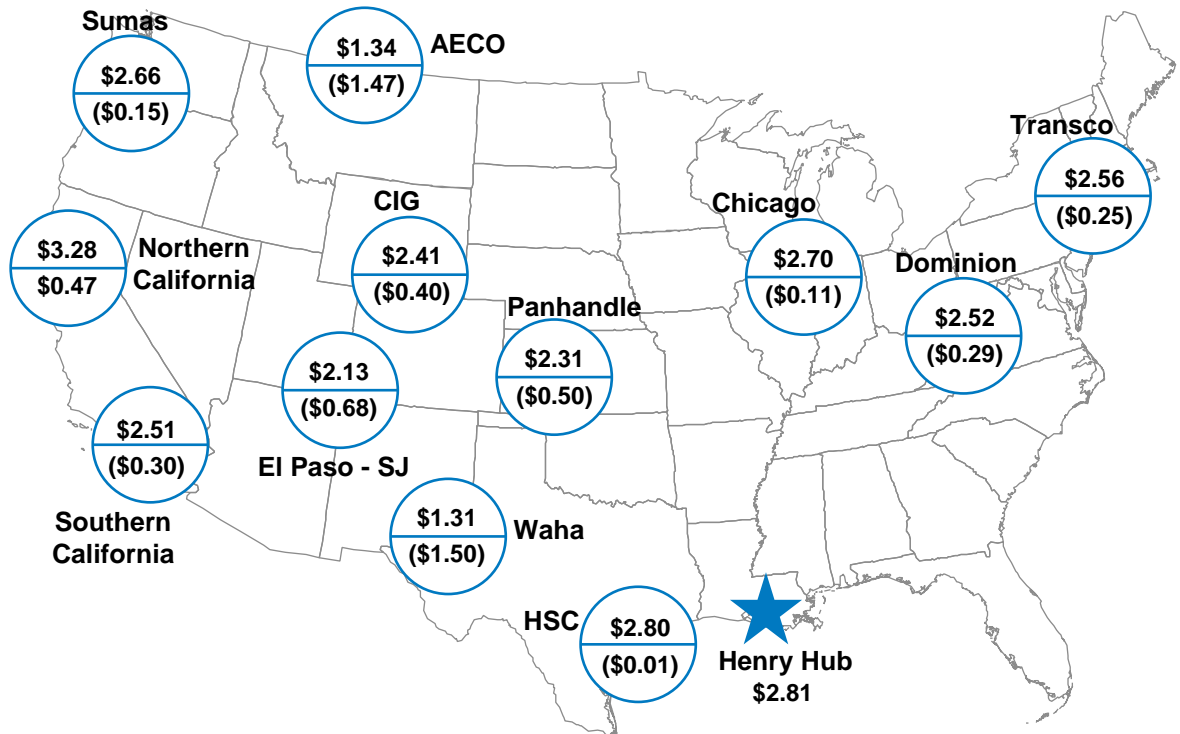
OIL PRICING & DIFFERENTIALS TO CUSHING WTI (\$ / BBL) – AS OF 31-JAN-19

Legend



NATURAL GAS PRICING & DIFFERENTIALS TO HENRY HUB (\$ / MMBTU) – AS OF 31-JAN-19

Legend



Source: BMO Commodity Products Group, Bloomberg

Note: Prices and differentials are for prompt month futures except for Clearbrook which is based on spot prices.



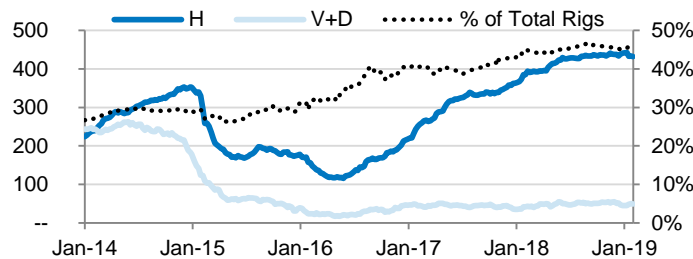
February 4, 2019

Permian Snapshot

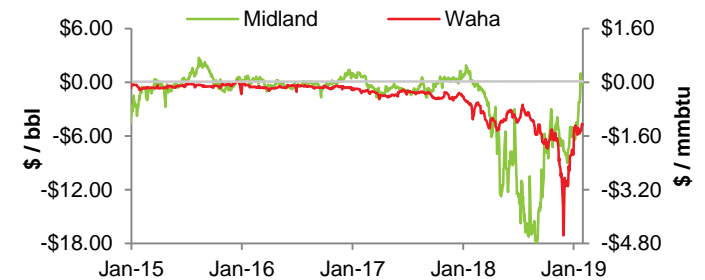
Item	Value	Wkly Change	Last Week
Rig Count	481	↓ (3)	484
Permitting Activity	294	↑ 95	199

Item	Value	Wkly Change	Last Week
Oil Differential	(\$0.05)	↑ \$0.45	(\$0.50)
Gas Differential	(\$1.27)	↑ \$0.16	(\$1.42)

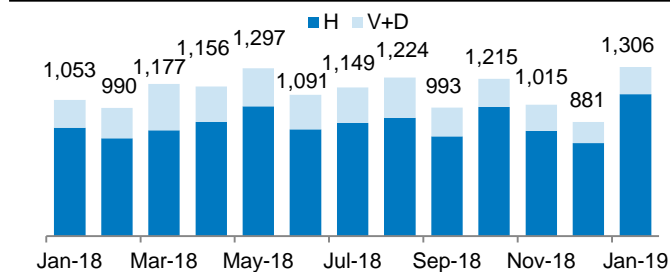
RIG COUNT



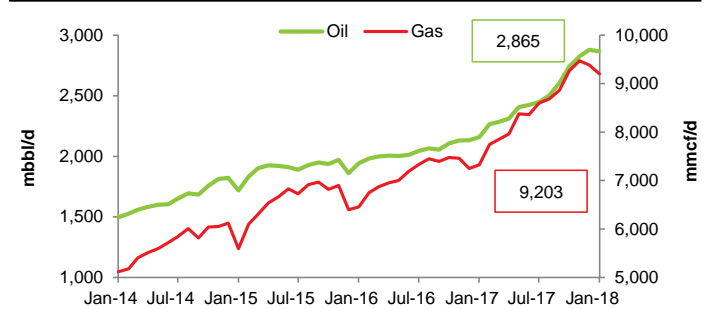
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

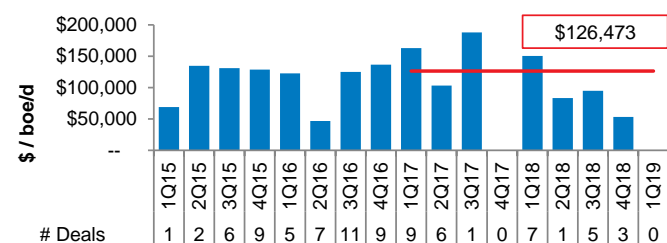


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

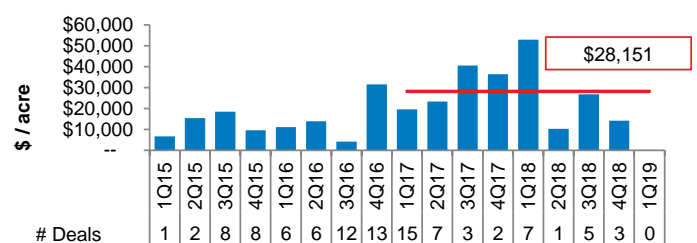
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
08-Jan-19	Undisclosed Buyer	MCM Energy Partners LLC	Midland Basin assets	\$20	n.a.	n.a.	n.a.
06-Nov-18	Diamondback Energy	ExL Pet.; EnergyQuest	3,646 net acres in Midland Basin	\$313	n.a.	\$89,286	\$85,710
05-Nov-18	Centennial Resource Dev.	Undisclosed Seller	820 net acres in Delaware Basin	\$26	n.a.	n.a.	\$31,707
01-Nov-18	Undisclosed Buyer	Parsley Energy LP	11,850 net acres in Midland Basin	\$170	n.a.	\$141,667	\$14,346
30-Sep-18	Energen	Undisclosed Seller	1,700 net acres in Delaware Basin	\$38	n.a.	n.a.	\$22,235
			Mean	\$113	n.a.	\$115,476	\$38,500
			Median	\$38	n.a.	\$115,476	\$26,971

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



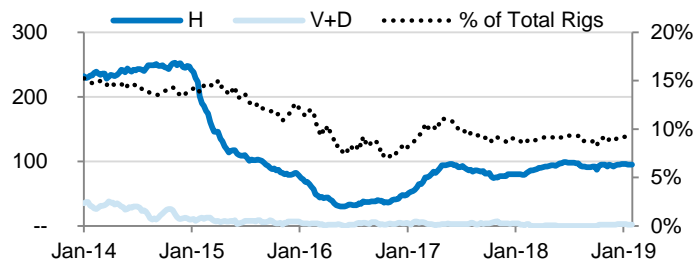
February 4, 2019

Eagle Ford Snapshot

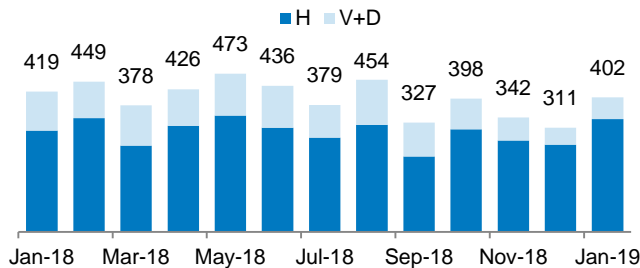
Item	Value	Wkly Change	Last Week
Rig Count	97	█	-- 97
Permitting Activity	94	▲	14 80

Item	Value	Wkly Change	Last Week
Oil Differential	\$5.70	▼	(\$2.50) \$8.20
Gas Differential	\$0.13	▲	\$0.16 (\$0.03)

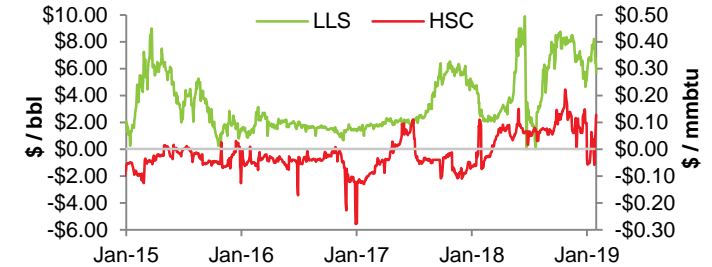
RIG COUNT



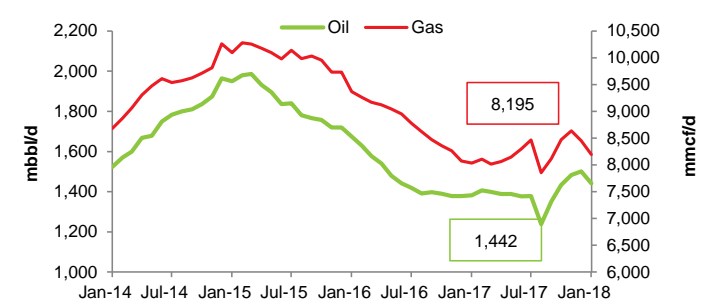
PERMITTING ACTIVITY BY MONTH



DIFFERENTIALS



GROSS PRODUCTION

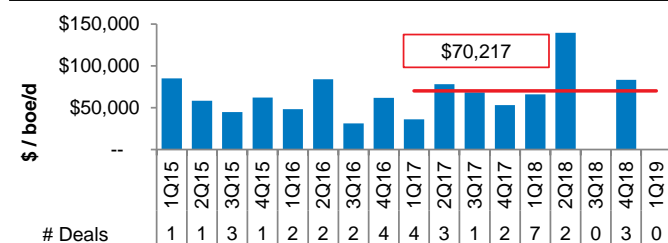


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

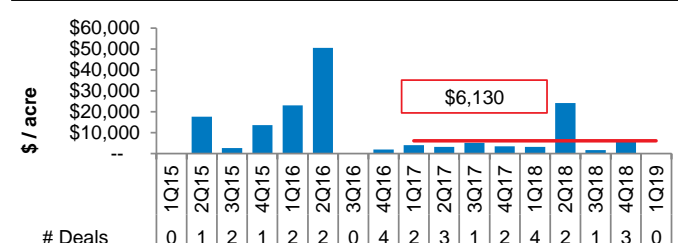
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
19-Nov-18	Lonestar Resources Inc	Sabine Oil & Gas Corp	2,706 net acres in Eagle Ford	\$39	\$2.98	\$48,375	\$14,302
20-Sep-18	WildHorse	Undisclosed Seller	20,305 net Eagle Ford/Austin Chalk acres	\$35	n.a.	n.a.	\$1,743
07-Sep-18	Undisclosed Buyer	Viking Minerals LLC	1,191 net royalty acres in Eagle Ford	\$28	n.a.	n.a.	nmf
31-Jul-18	EP Energy Corp	Undisclosed Seller	Additional working interests in Eagle Ford	\$31	n.a.	n.a.	n.a.
26-Jul-18	BP	BHP Billiton	Permian, Eagle Ford, and Haynesville	\$10,500	n.a.	n.a.	n.a.
			Mean	\$2,127	\$2.98	\$48,375	\$8,022
			Median	\$35	\$2.98	\$48,375	\$8,022

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



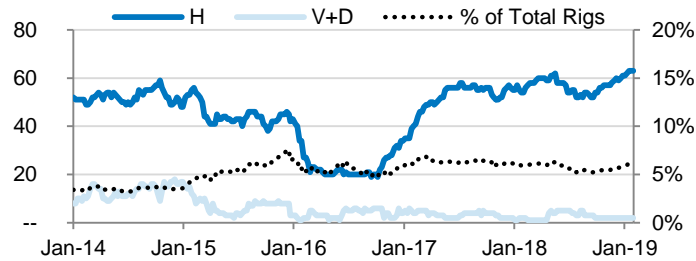
February 4, 2019

Ark-La-Tex Snapshot

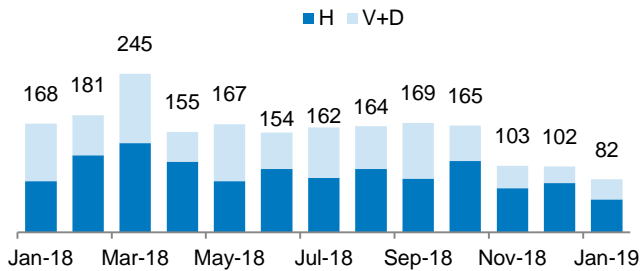
Item	Value	Wkly Change	Last Week
Rig Count	65	█ --	65
Permitting Activity	12	█ ↓ (12)	24

Item	Value	Wkly Change	Last Week
Oil Differential	\$5.70	█ ↓ (\$2.50)	\$8.20
Gas Differential	--	█ --	--

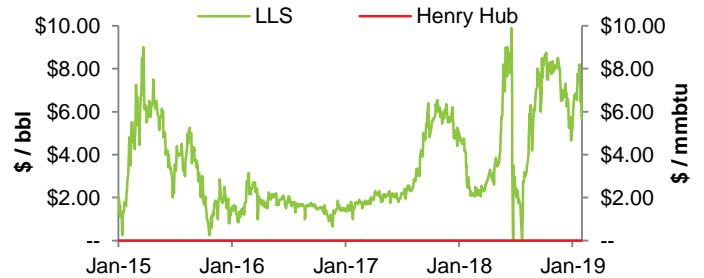
RIG COUNT



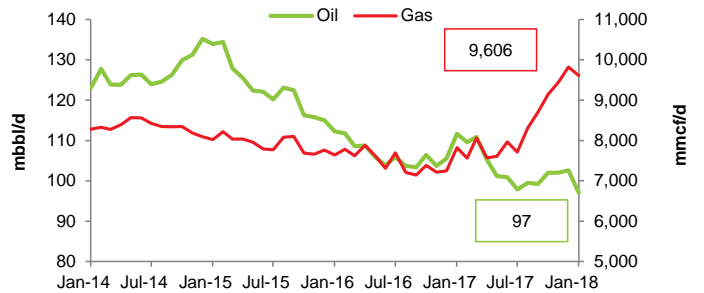
PERMITTING ACTIVITY BY MONTH



DIFFERENTIALS



GROSS PRODUCTION

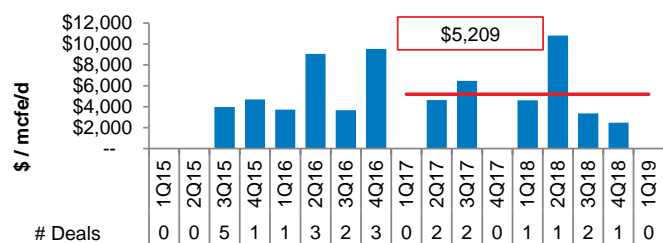


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

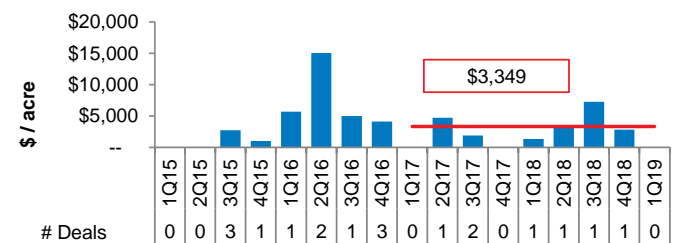
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/mcf)	Prod. Multiple (\$/mcf/d)	Net Acres (\$/acre) ⁽²⁾
19-Dec-18	Comstock	Shelby Shale LLC	6,023 net acres in Haynesville	\$21	n.a.	n.a.	\$3,404
19-Nov-18	Aethon III	QEP Resources Inc	49,700 net acres in Haynesville	\$735	\$0.77	\$2,475	\$14,789
05-Sep-18	Viking Energy Group	Multiple Sellers	Texas and Louisiana assets	\$100	n.a.	n.a.	n.a.
05-Sep-18	Equinor	Texegy LLC	60,000 net acres in Austin Chalk	\$75	n.a.	n.a.	\$1,250
06-Aug-18	Mission Creek Resources	Bonanza Creek Energy Inc	11,132 net acres in the Cotton Valley	\$117	\$1.69	\$6,500	\$10,510
				Mean	\$210	\$1.23	\$4,487
				Median	\$100	\$1.23	\$6,957

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$3,000/mcfepd in 2014, and \$2,000/mcfepd in 2015, 2016, 2017, 2018, and 2019.

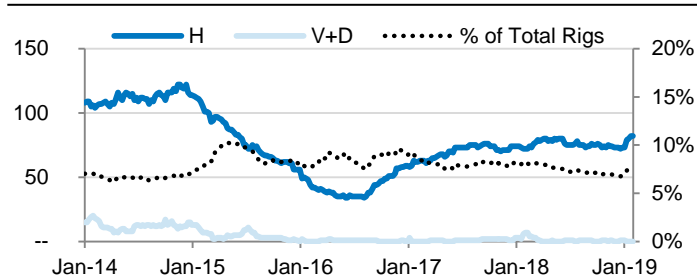


February 4, 2019

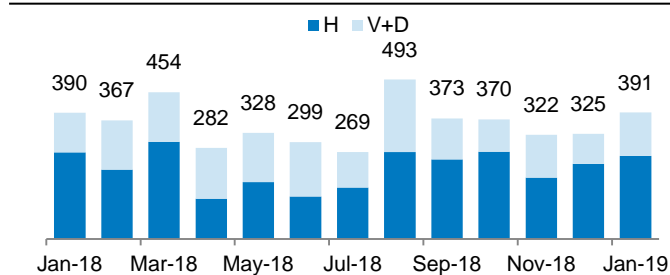
Appalachia Snapshot

Item	Value	Wkly Change	Last Week
Rig Count	82	█ --	82
Permitting Activity	21	↓ (69)	90

RIG COUNT

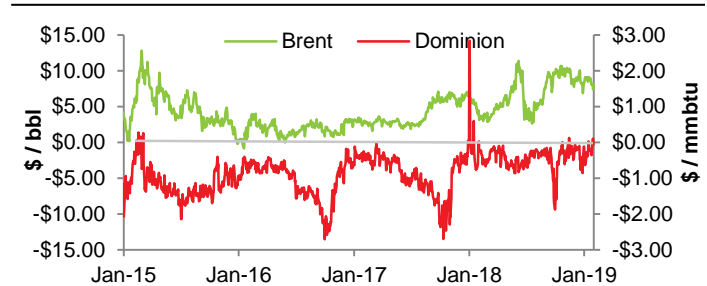


PERMITTING ACTIVITY BY MONTH

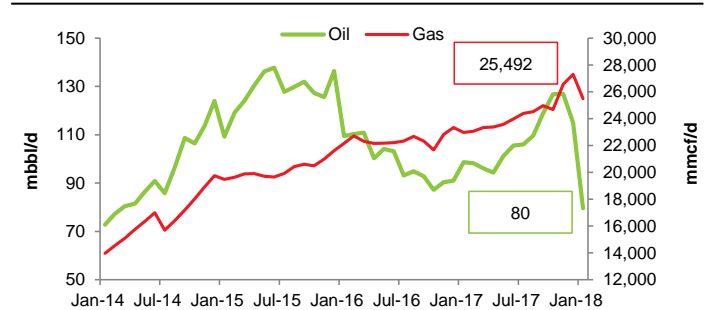


Item	Value	Wkly Change	Last Week
Oil Differential	\$8.10	↓ (\$0.01)	\$8.11
Gas Differential	(\$0.06)	↑ \$0.14	(\$0.20)

DIFFERENTIALS



GROSS PRODUCTION

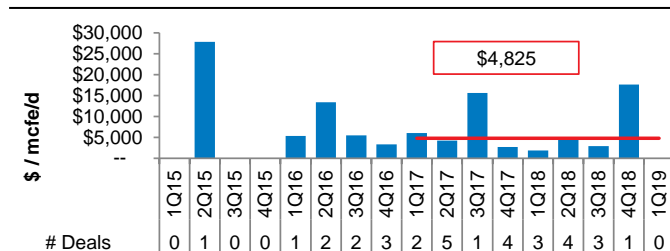


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

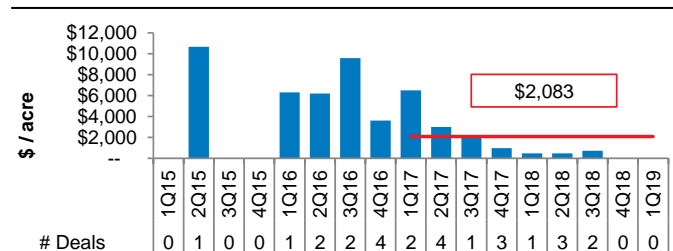
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾	Proved Multiple	Prod. Multiple	Net Acres	
				(\$mm)	(\$/mcf)	(\$/mcf/d)	(\$/acre) ⁽²⁾	
15-Oct-18	Undisclosed Buyer	Range Resources Corp	Overriding royalty interests in Appalachia	\$300	n.a.	\$17,649	n/mf	
27-Aug-18	PennEnergy Resources	Rex Energy Corp	141,026 net acres in PA and OH	\$601	\$0.58	\$2,781	\$4,258	
26-Jul-18	Encino Acquisition Partners	Chesapeake	938,000 net acres in the Utica	\$1,900	\$0.66	\$2,960	\$2,026	
29-Jun-18	Ascent Resources LLC	Utica Minerals; Undisclosed	35,400 acres in the Utica	\$700	n.a.	\$15,217	\$19,774	
29-Jun-18	Ascent Resources LLC	CNX Resources; Hess	78,000 acres in the Utica	\$800	n.a.	\$4,762	\$10,256	
				Mean	\$860	\$0.62	\$8,674	\$9,079
				Median	\$700	\$0.62	\$4,762	\$7,257

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

1. Represents total enterprise value. Excludes transactions with deal value <\$20 million.
2. \$/acre multiple not adjusted for value associated with production.
3. Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
4. Production valued at \$3,000/mcfepd in 2014, and \$2,000/mcfepd in 2015, 2016, 2017, 2018, and 2019.



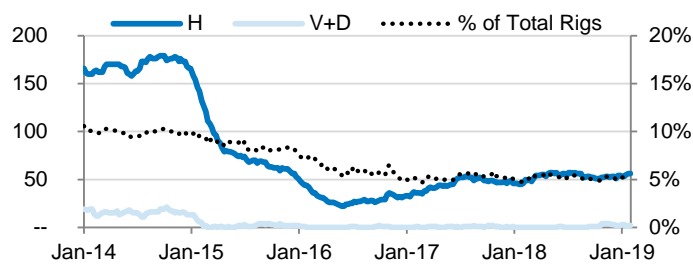
February 4, 2019

Bakken Snapshot

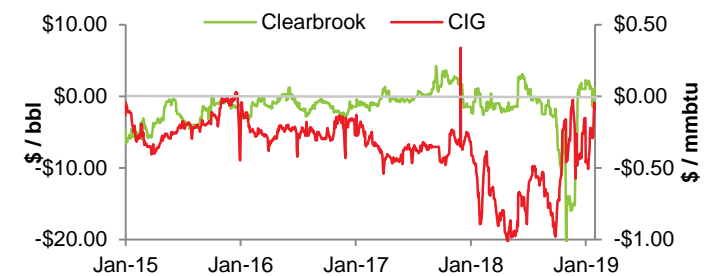
Item	Value	Wkly Change	Last Week
Rig Count	58	█ --	58
Permitting Activity	13	█ (13)	26

Item	Value	Wkly Change	Last Week
Oil Differential	\$1.25	↑ \$2.75	(\$1.50)
Gas Differential	(\$0.09)	↑ \$0.18	(\$0.27)

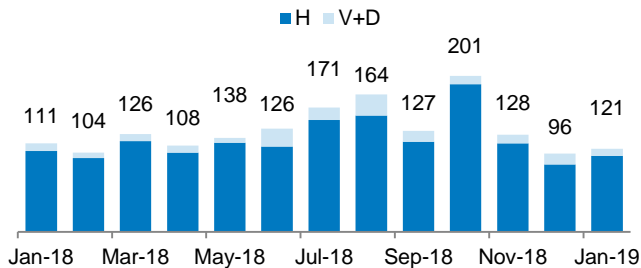
RIG COUNT



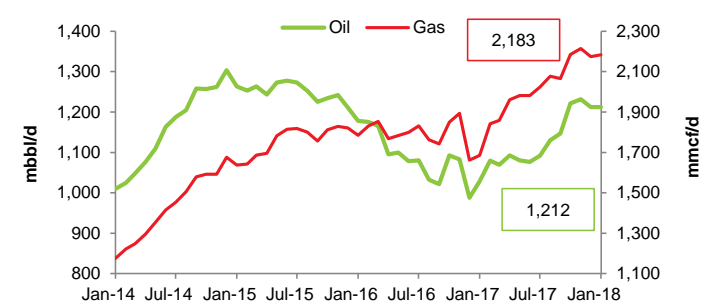
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

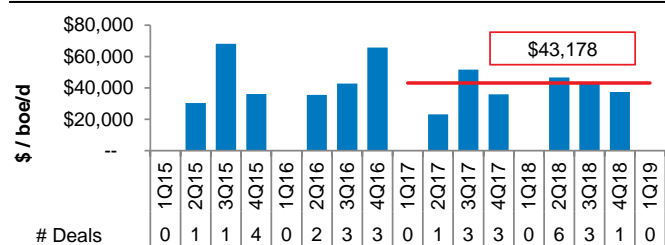


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

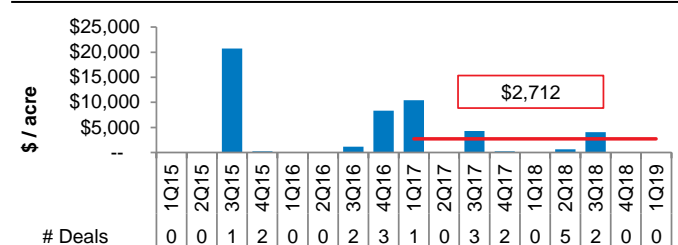
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
07-Nov-18	Vantage Energy Acq. Corp	QEP Resources Inc	102,800 net acres in Williston Basin	\$1,725	n.a.	\$37,500	\$16,780
31-Jul-18	Northern Oil and Gas	W Energy Partners	10,600 net acres in Williston Basin	\$288	n.a.	\$42,708	\$27,196
18-Jul-18	Northern Oil and Gas	Pivotal Petroleum Partners LP	Producing assets in Williston Basin	\$152	n.a.	\$37,032	n.a.
12-Jul-18	PetroShale Inc	Slawson Exploration Co	1,981 net acres in Williston Basin	\$55	\$6.04	\$100,000	\$27,764
06-Jul-18	Energy Resources 12 LP	Bruin E&P Partners LLC	2.8% non-operated WI in Bakken assets	\$83	n.a.	n.a.	n.a.
			Mean	\$461	\$6.04	\$54,310	\$23,913
			Median	\$152	\$6.04	\$40,104	\$27,196

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



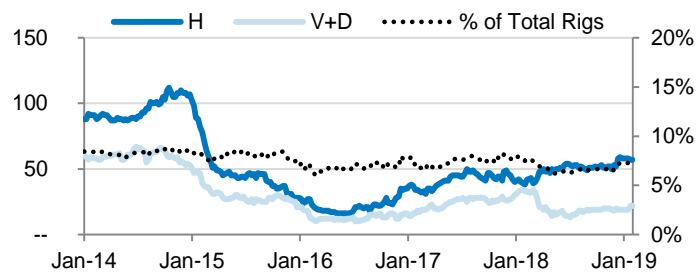
February 4, 2019

Rockies (excl. Bakken) Snapshot

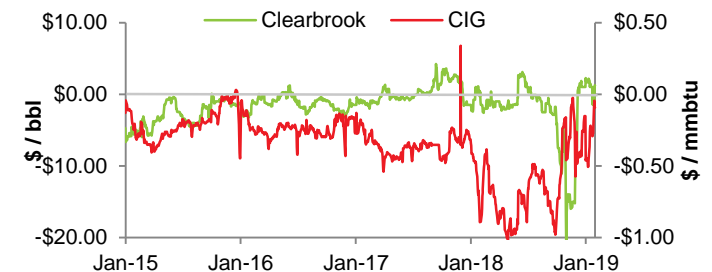
Item	Value	Wkly Change	Last Week
Rig Count	79	█ --	79
Permitting Activity	102	↑ 95	7

Item	Value	Wkly Change	Last Week
Oil Differential	\$1.25	↑ \$2.75	(\$1.50)
Gas Differential	(\$0.09)	↑ \$0.18	(\$0.27)

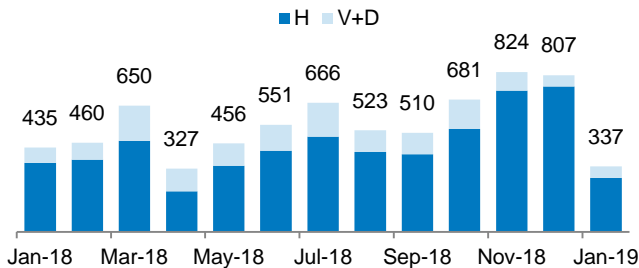
RIG COUNT



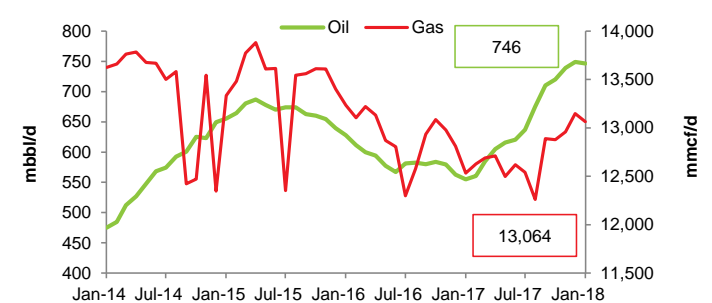
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

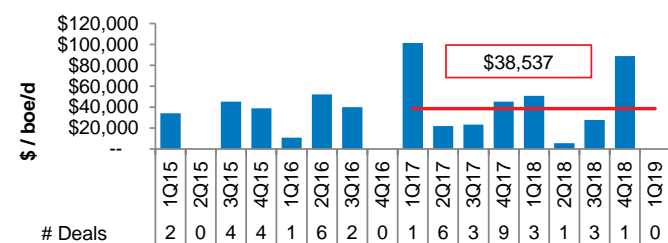


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

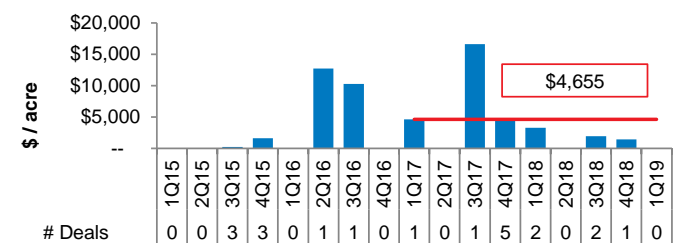
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
01-Oct-18	DJR Energy LLC	EnCana	182,000 net acres in San Juan Basin	\$480	n.a.	\$88,889	\$2,637
28-Aug-18	Vermilion Energy Inc	Massif Oil & Gas LLC	55,000 acres in Powder River Basin	\$150	n.a.	\$56,604	\$2,727
28-Aug-18	Rebellion Energy II LLC	Liberty Resources II LLC	19,000 net acres in Powder River Basin	\$100	n.a.	n.a.	\$5,263
09-Aug-18	Undisclosed Buyer	Ultra Petroleum	~8,000 net acres in the Uinta	\$75	n.a.	\$37,500	\$9,375
10-Jul-18	Middle Fork Energy Part.	QEP Resources Inc	~230,000 net acres in the Uinta	\$155	\$1.54	\$17,222	\$674
			Mean	\$192	\$1.54	\$50,054	\$4,135
			Median	\$150	\$1.54	\$47,052	\$2,727

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

1. Represents total enterprise value. Excludes transactions with deal value <\$20 million.
2. \$/acre multiple not adjusted for value associated with production.
3. Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
4. Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



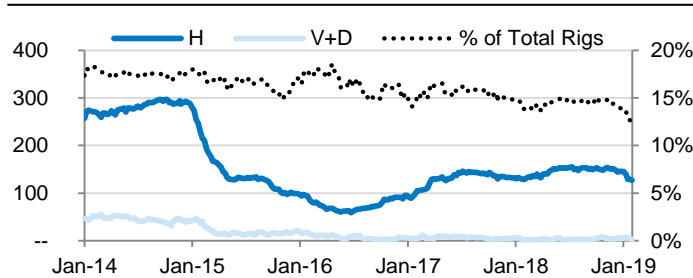
February 4, 2019

Mid-Continent Snapshot

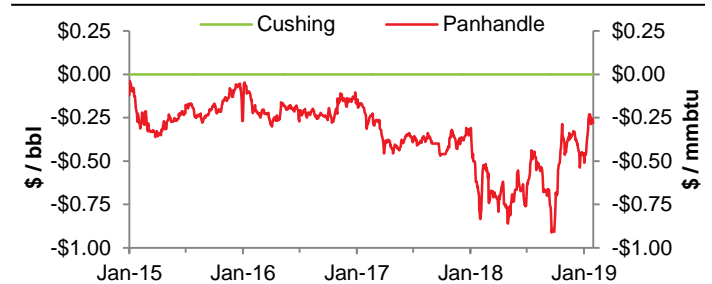
Item	Value	Wkly Change	Last Week
Rig Count	129	↓ (5)	134
Permitting Activity	58	↓ (12)	70

Item	Value	Wkly Change	Last Week
Oil Differential	--	█	--
Gas Differential	(\$0.28)	↓ (\$0.03)	(\$0.25)

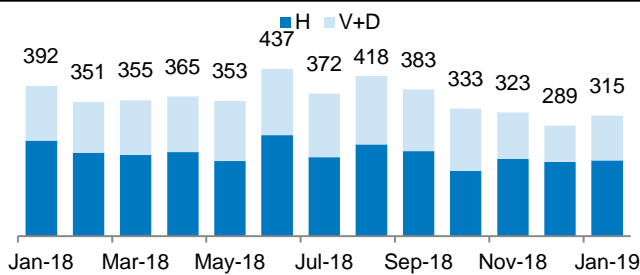
RIG COUNT



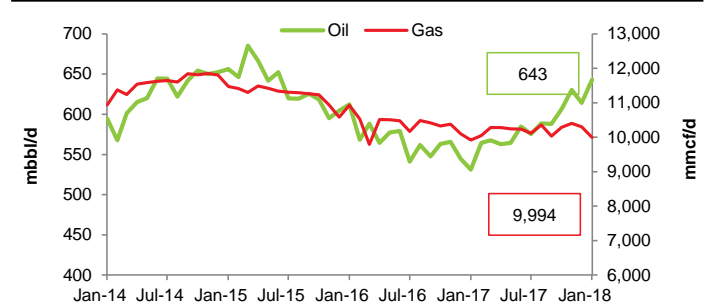
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

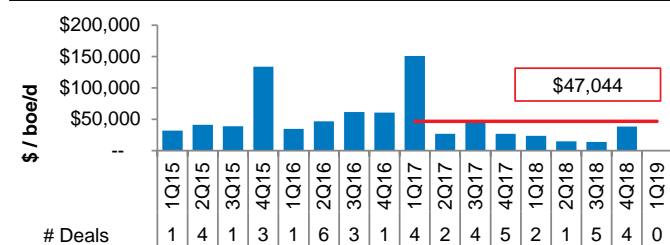


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

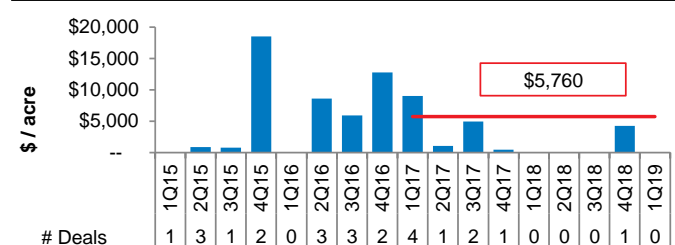
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾	
11-Dec-18	Undisclosed Buyer	Riviera Resources Inc	37,000 net acres in the Arkoma Basin	\$68	n.a.	\$17,000	1,838	
02-Nov-18	SandRidge Energy	Undisclosed Seller	Mississippi Lime and NW STACK assets	\$25	n.a.	\$6,649	n.a.	
31-Oct-18	Casillas Petroleum Corp	Sheridan Production Partners	29,600 net acres in SCOOP assets	\$260	n.a.	\$78,078	\$8,784	
04-Sep-18	Flywheel Energy LLC	Southwestern Energy	915,000 net acres in Fayetteville Shale	\$1,865	\$3.04	\$15,629	\$2,038	
06-Aug-18	Franco Nevada Corp	Continental Resources Inc	Mineral rights JV in the SCOOP/STACK	\$220	n.a.	n.a.	nmf	
				Mean	\$488	\$3.04	\$29,339	\$4,220
				Median	\$220	\$3.04	\$16,314	\$2,038

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



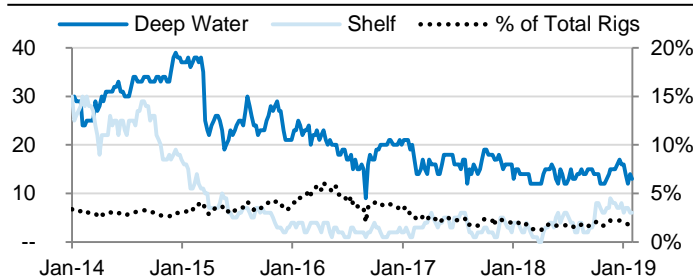
February 4, 2019

Gulf of Mexico Snapshot

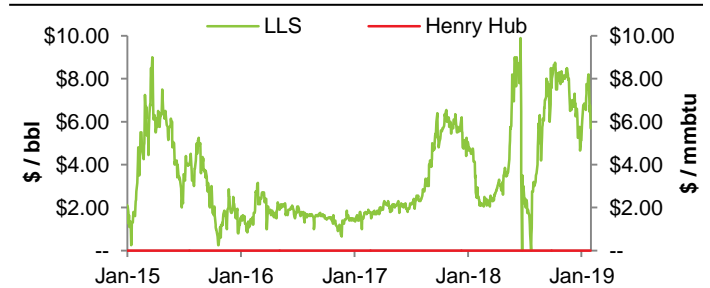
Item	Value	Wkly Change	Last Week
Rig Count	19	↓ (1)	20
Permitting Activity	3	↓ (6)	9

Item	Value	Wkly Change	Last Week
Oil Differential	\$5.70	↓ (\$2.50)	\$8.20
Gas Differential	--	--	--

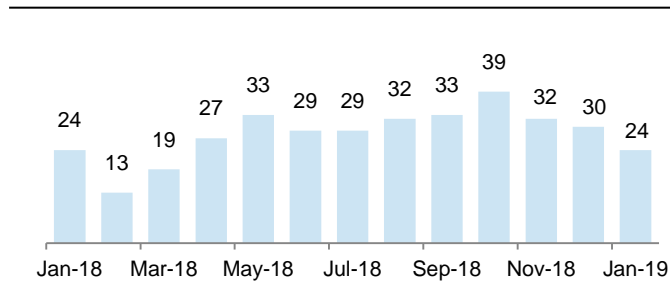
RIG COUNT



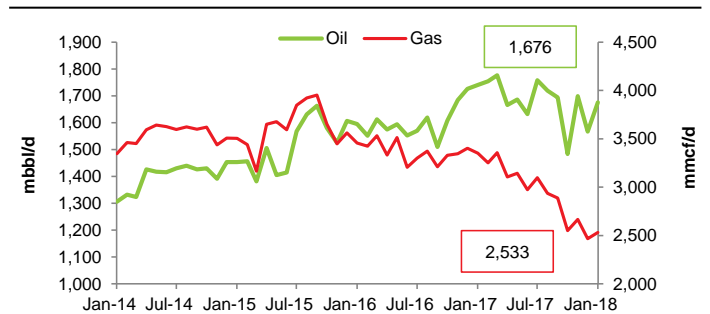
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH⁽¹⁾



GROSS PRODUCTION

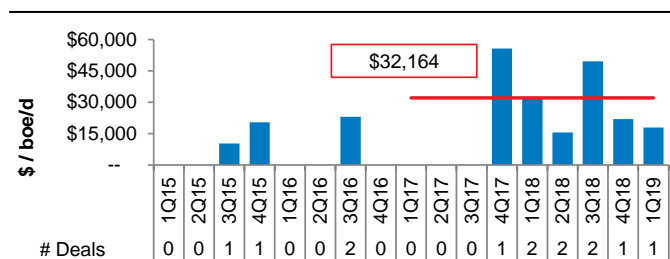


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

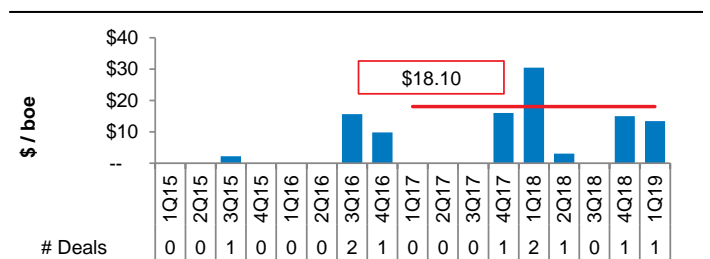
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽²⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽³⁾
16-Jan-19	Talos Energy Inc	Samson Energy Co LLC	Non-op Gulf of Mexico working interest	\$30	\$13.45	\$17,939	n.a.
10-Oct-18	Murphy	Petrobras	Gulf of Mexico joint venture	\$900	\$15.00	\$21,951	n.a.
04-Sep-18	Talos Energy Inc	Whistler Energy II LLC	Leases in Green Canyon federal waters	\$91	n.a.	\$60,667	n.a.
27-Apr-18	Stone Energy	Shell; ExxonMobil; Anadarko	GOM Ram Powell assets	\$234	n.a.	\$38,361	n.a.
28-Mar-18	W&T Offshore	Cobalt International Energy	9.375% non-op WI in the Heidelberg unit	\$31	\$23.92	\$9,345	n.a.
			Mean	\$257	\$17.46	\$29,653	n.a.
			Median	\$91	\$15.00	\$21,951	n.a.

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽⁴⁾



TRANSACTION PROVED RESERVE MULTIPLES⁽⁴⁾



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Permits include directional and unidentified drilling permits.
- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.



February 4, 2019

[Click event to open](#)

Upcoming Industry Events

February 2019

Feb 5-7	SPE Hydraulic Fracturing Technology Conference
Feb 11-15	NAPE Summit Week
Feb 12	Women in Energy Luncheon
Feb 15	ADAM-Houston Monthly Luncheon
Feb 19	Houston Producers Forum Luncheon
Feb 19-20	DUG Haynesville (Shreveport)

March 2019

Mar 5	Energy Capital Conference
Mar 5-7	IADC/SPE Drilling Conference
Mar 15	ADAM-Houston Monthly Luncheon
Mar 19	Houston Producers Forum Luncheon
Mar 26-28	International Petroleum Technology Conference

April 2019

Apr 8-10	IPAA Oil & Gas Investment Symposium
Apr 15	DUG Sand (Fort Worth)
Apr 15	DUG Water (Fort Worth)
Apr 15-17	DUG Permian (Fort Worth)
Apr 16	Houston Producers Forum Luncheon
Apr 19	ADAM-Houston Monthly Luncheon

May 2019

May 6-9	Offshore Technology Conference
May 10	Petroleum Resources Economics Conference
May 13-17	SPE Electric Submersible Pumps Symposium
May 14-15	DUG Rockies (Denver)
May 14	Houston Producers Forum Luncheon
May 16	IADC Drilling Onshore Conference & Exhibition
May 17	ADAM-Houston Monthly Luncheon

June 2019

Jun 5-6	Midstream Texas Conference & Exhibition
Jun 18	Houston Producers Forum Luncheon
Jun 18-20	DUG East (Pittsburgh)
Jun 19-20	IADC World Drilling Conference & Exhibition
Jun 21	ADAM-Houston Monthly Luncheon
Jun 24-26	IPAA Midyear Meeting

July 2019

Jul 16	Houston Producers Forum Luncheon
Jul 19	ADAM-Houston Monthly Luncheon

August 2019

Aug 16	ADAM-Houston Monthly Luncheon
Aug 20	IPAA Oil & Gas Overview Course
Aug 20	Houston Producers Forum Luncheon
Aug 21-22	Summer NAPE

September 2019

Sep 17	Houston Producers Forum Luncheon
Sep 20	ADAM-Houston Monthly Luncheon
Sep 24-26	DUG Eagle Ford (San Antonio)
Sep 30-Oct 2	SPE Annual Technical Conference and Exhibition

October 2019

Oct 9	IPAA Leaders in Industry Luncheon
Oct 15	Houston Producers Forum Luncheon
Oct 18	ADAM-Houston Monthly Luncheon
Oct 22-23	A&D Strategies and Opportunities Conference

November 2019

Nov 4-6	Executive Oil Conference & Exhibition
Nov 15	ADAM-Houston Monthly Luncheon
Nov 19	IPAA Oil & Gas for Newcomers
Nov 19	Houston Producers Forum Luncheon
Nov 19-21	DUG Midcontinent (Oklahoma City)

December 2019

Dec 17	Houston Producers Forum Luncheon
Dec 20	ADAM-Houston Monthly Luncheon

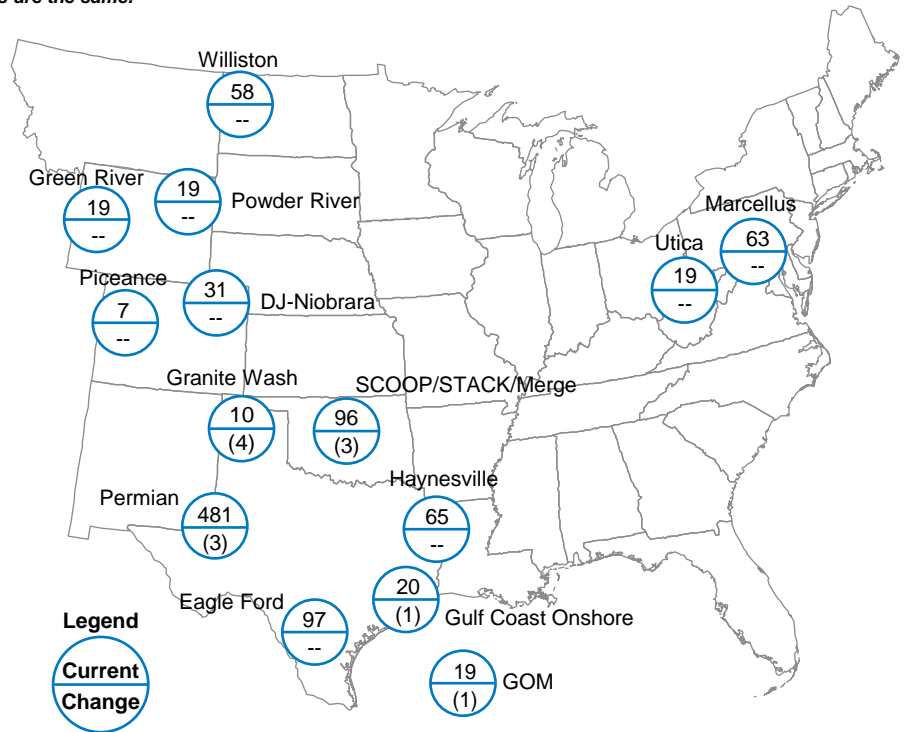


February 4, 2019

Rig Count Summary

BMO uses updated basin outlines, and the resulting rig counts, to more accurately represent current basin knowledge. The data below reflect these changes and is different than those shown by Baker Hughes. The totals are the same.

	This Week	Change	Last Week	Last Year
Total Rigs	1,045	(14)	1,059	946
Oil	847	(15)	862	765
Gas	198	1	197	181
Miscellaneous	--	--	--	--
Directional	57	(2)	59	72
Horizontal	925	(7)	932	808
Vertical	63	(5)	68	66
Basin				
Permian	481	(3)	484	427
SCOOP/STACK/Merge	96	(3)	99	98
Granite Wash	10	(4)	14	19
Eagle Ford	97	--	97	80
Haynesville	65	--	65	56
Marcellus	63	--	63	55
Utica	19	--	19	24
Williston	58	--	58	46
DJ-Niobrara	31	--	31	26
Green River	19	--	19	22
Powder River	19	--	19	11
Piceance	7	--	7	8
Gulf Coast Onshore	20	(1)	21	18
GOM	19	(1)	20	16
Alaska	7	(4)	11	5
Other	34	2	32	35
Mid-Con	23	2	21	14
Rockies	3	--	3	4
Western	6	--	6	14
Eastern	2	--	2	3



Contacts

Geoff Roberts
MD & Co-Head of U.S. A&D
713-518-1268
geoff.roberts@bmo.com

Jason Martinez
MD & Co-Head of U.S. A&D
713-546-9771
jason.martinez@bmo.com

Howard Barnwell
MD & Transactions Mgr.
713-546-9767
howard.barnwell@bmo.com

Rob Priske
MD & Transactions Mgr.
713-546-9727
rob.priske@bmo.com

Marian Yu
Associate

Aaron Moeller
Associate

Jennifer Boudreaux
Analyst

Chelsea Neville
Transactions Coordinator

Disclaimer

This material is prepared by the BMO Capital Markets' Investment and Corporate Banking Department, for distribution to BMO Capital Markets' clientele. It is not a product of BMO Capital Markets' Research Department. The views of the Investment and Corporate Banking Department may differ from those of the Research Department. BMO Capital Markets is a trade name used by BMO Financial Group for the wholesale banking businesses of Bank of Montreal, BMO Harris Bank N.A. (member FDIC), Bank of Montreal Ireland p.l.c., and Bank of Montreal (China) Co. Ltd and the institutional broker dealer businesses of BMO Capital Markets Corp. (Member FINRA and SIPC) in the U.S., BMO Nesbitt Burns Inc. (Member Investment Industry Regulatory Organization of Canada and Member Canadian Investor Protection Fund) in Canada and Asia and BMO Capital Markets Limited (authorised and regulated by the Financial Conduct Authority) in Europe and Australia. "Nesbitt Burns" is a registered trademark of BMO Nesbitt Burns Inc., used under license. "BMO Capital Markets" is a trademark of Bank of Montreal, used under license. "BMO (M-Bar roundel symbol)" is a registered trademark of Bank of Montreal, used under license. © Registered trademark of Bank of Montreal in the United States, Canada and elsewhere. ™ Trademark of Bank of Montreal in the United States and Canada. Bank of Montreal or its subsidiaries ("BMO Financial Group") has lending arrangements with, or provide other remunerated services to, many issuers covered by BMO Capital Markets. The opinions, estimates and projections contained in this report are those of BMO Capital Markets as of the date of this report and are subject to change without notice. BMO Capital Markets endeavors to ensure that the contents have been compiled or derived from sources that we believe are reliable and contain information and opinions that are accurate and complete. However, BMO Capital Markets makes no representation or warranty, express or implied, in respect thereof, takes no responsibility for any errors and omissions contained herein and accepts no liability whatsoever for any loss arising from any use of, or reliance on, this report or its contents. Information may be available to BMO Capital Markets or its affiliates that is not reflected in this report. The information in this report is not intended to be used as the primary basis of investment decisions, and because of individual client objectives, should not be construed as advice designed to meet the particular investment needs of any investor. This material is for information purposes only and is not an offer to sell or the solicitation of an offer to buy any security. BMO Capital Markets or its affiliates will buy from or sell to customers the securities of issuers mentioned in this report on a principal basis. BMO Capital Markets or its affiliates, officers, directors or employees have a long or short position in many of the securities discussed herein, related securities or in options, futures or other derivative instruments based thereon. BMO Capital Markets may act as financial advisor and/or underwriter for the issuers mentioned herein and may receive remuneration for same. The reader should assume that BMO Capital Markets or its affiliates may have a conflict of interest and should not rely solely on this report in evaluating whether or not to buy or sell securities of issuers discussed herein. All values in this document are in US\$ unless otherwise specified.

Source of rig count stats: Baker Hughes