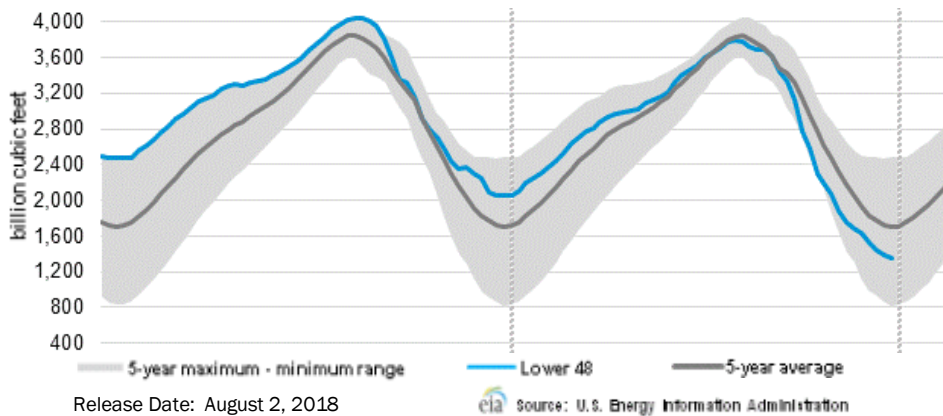






**NATURAL GAS NEWS**

**WEEKLY GAS IN UNDERGROUND STORAGE WITH 5-YR RANGE**



**Rig Count**

Report Date: October 12, 2018

	Total	Change
US -	1,063	+11
CN -	195	13

**EIA Weekly NG Storage Actual and Surveys for October 12, 2018**

Released October 11, 2018  
 Range — +71 to +90  
 PIRA— +89  
 CITI — +88  
 Reuters — +87

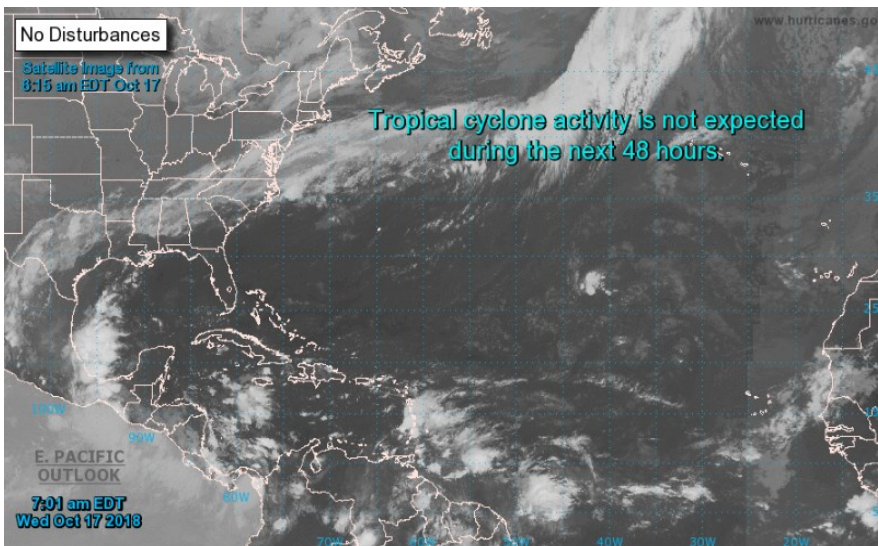
EIA ACTUAL — +46

**Total Working Gas In Storage**

**2956 BCF**

+90 BCF (LAST WEEK)  
 (627) BCF (LAST YEAR)  
 (607) BCF (5-YR AVG)

**TROPICAL STORM ACTIVITY— ATLANTIC**



Tropical Weather Outlook

NWS National Hurricane Center Miami FL

800 AM EDT Wed Oct 17 2018

For the North Atlantic...Caribbean Sea and the Gulf of Mexico:

Tropical cyclone formation is not expected during the next 5 days.

**U.S. Natural Gas Supply Gas Week 10/4 — 10/10**

**Average daily values (BCF/D):**  
Last Year (BCF/d)  
 Dry Production — +74.6  
 Total Supply — +80.3  
Last Week (BCF/d)  
 Dry Production — +85.7  
 Total Supply — +90.8

[NEXT REPORT ON Oct 22]

**U.S. Natural Gas Demand Gas Week 10/4 — 10/10**

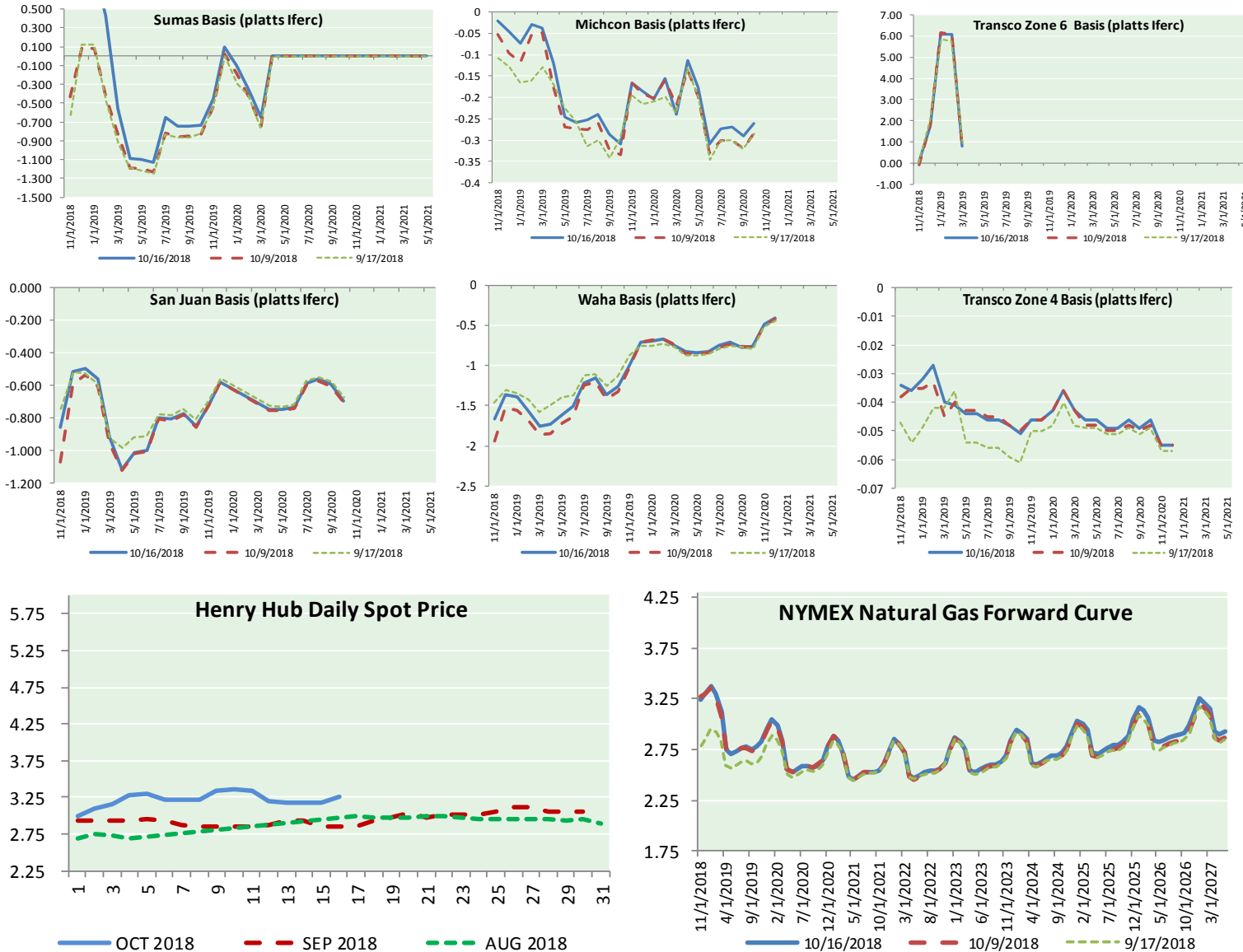
**Average daily values (BCF/D):**  
Last Year (BCF/d)  
 Power — +28.6  
 Total Demand — +72.7  
Last Week (BCF/d)  
 Power — +29.6  
 Total Demand — +77.5

[NEXT REPORT ON Oct 22]

NATURAL GAS NEWS



NATURAL GAS BASIS FUTURES, HENRY HUB SPOT PRICES, AND FORWARD CURVE



NYMEX WTI Delivery

Month Average (\$/bbl)

(Excluding Weekends and Holidays)

Month: October 2018

Day	Price	Day	Price
1	75.30	16	71.92
2	75.23	17	
3	76.41	18	
4	74.33	19	
5	74.34	20	
6		21	
7		22	
8	74.29	23	
9	74.96	24	
10	73.17	25	
11	70.97	26	
12	71.34	27	
13		28	
14		29	
15	71.78	30	
		31	

Average (Oct) 73.6700  
(through 10/16/2018)

Average (Sep) 70.0847

Average (Aug) 67.8452

CME NG Option Prices

ATM Call

Month	Strike	Close	Imp Vol
Dec-18			
Jan-19	3.350	0.157	35.6
Feb-19			
Mar-19			
Apr-19			

CME NG Option Prices

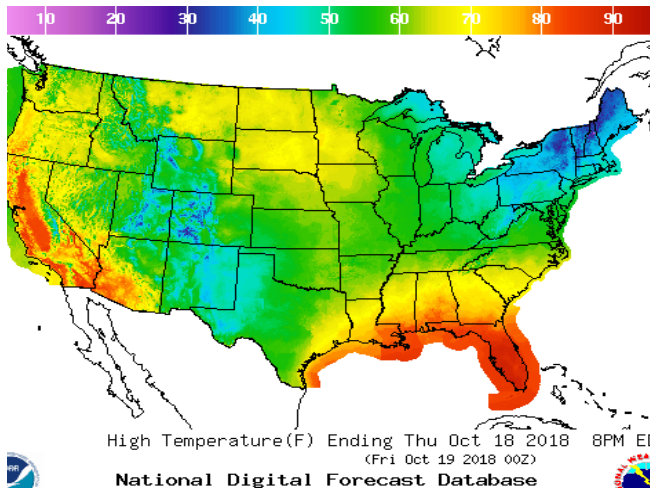
ATM Put

Month	Strike	Close	Imp Vol
Dec-18			
Jan-19	3.350	0.206	45.0
Feb-19			
Mar-19			
Apr-19			

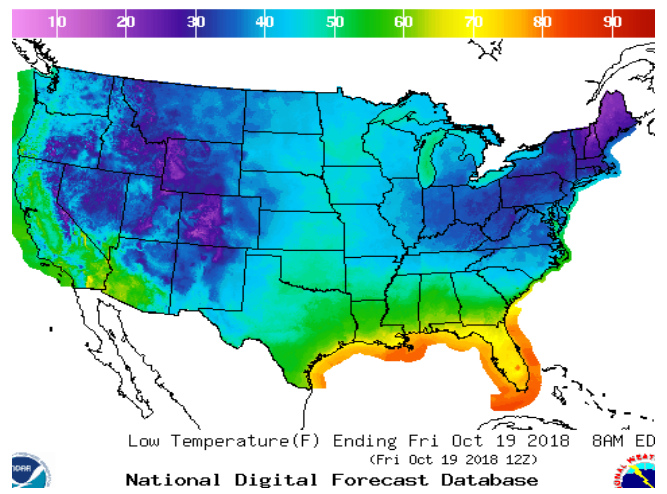


WEATHER – HIGH / LOW TEMPERATURE TOMORROW

HIGH Temperature

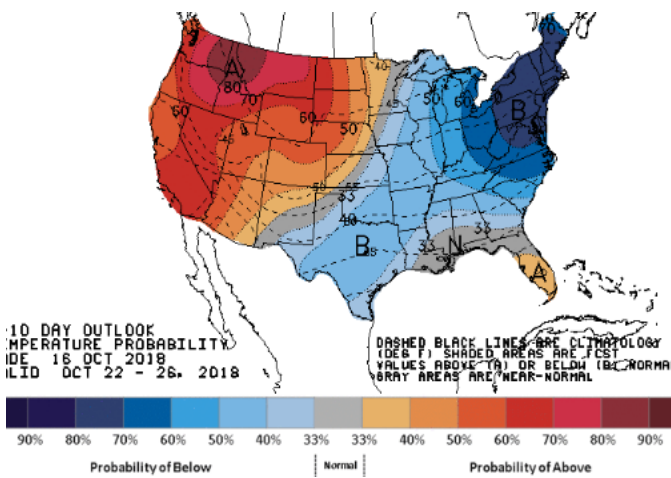


LOW Temperature

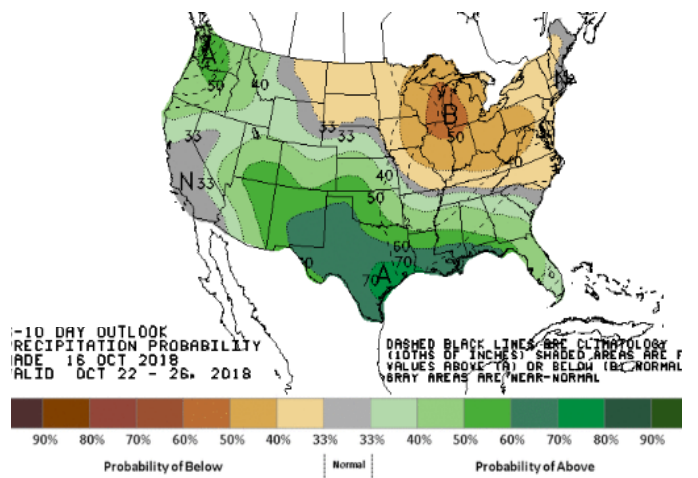


WEATHER – 6 TO 10 DAY OUTLOOK – NOAA

Temperature

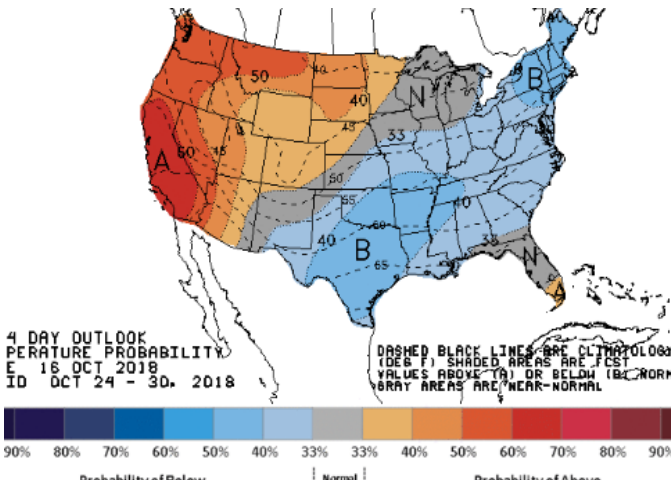


Precipitation

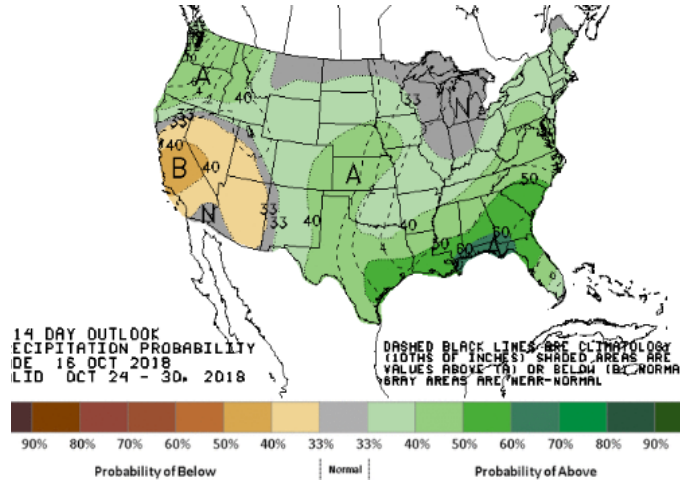


WEATHER – 8 TO 14 DAY OUTLOOK – NOAA

Temperature



Precipitation

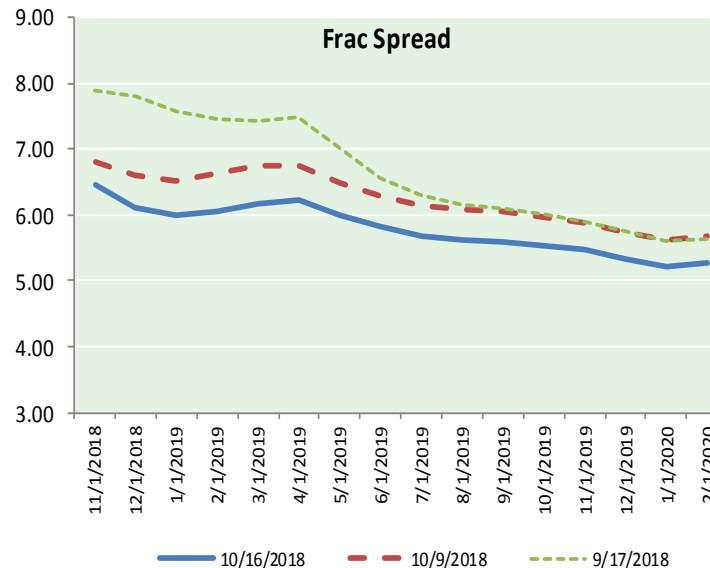
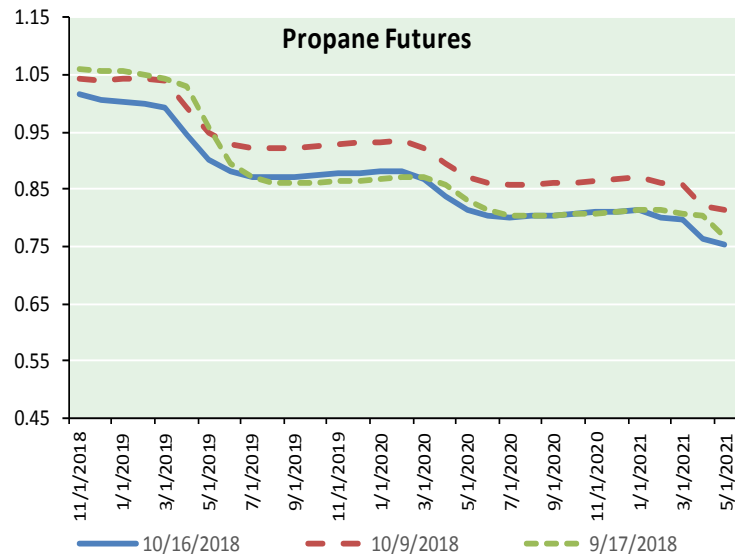
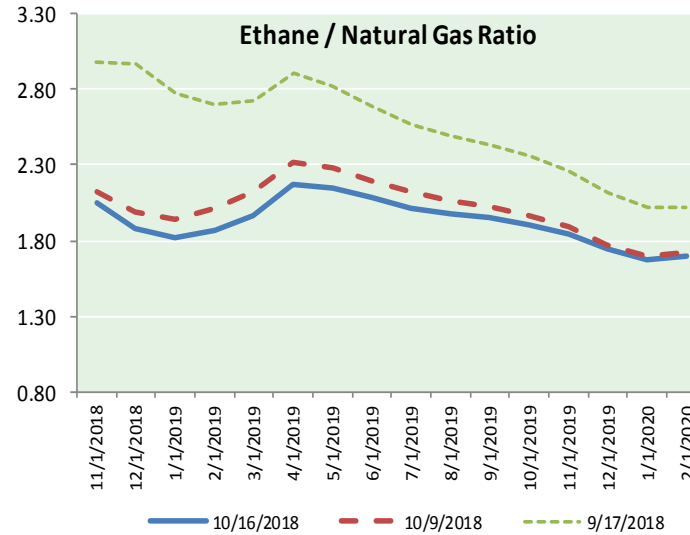
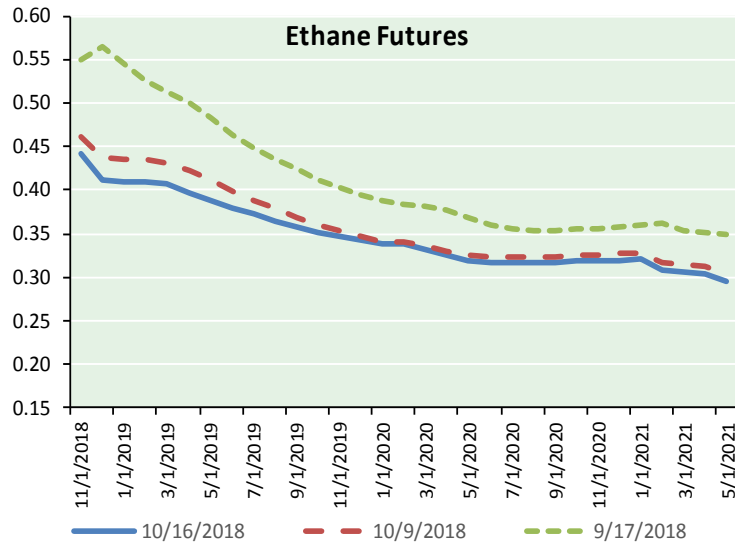


# NATURAL GAS NEWS



## ETHANE FUTURES, NG/ETHANE RATIO, PROPANE FUTURES, AND THE FRAC SPREAD

### CME Future Prices



Month	Close	Change
Nov-18	0.443	(0.018)
Dec-18	0.413	(0.030)
Jan-19	0.409	(0.029)
Feb-19	0.410	(0.028)
Mar-19	0.406	(0.026)
Apr-19	0.398	(0.023)
May-19	0.388	(0.021)
Jun-19	0.379	(0.019)
Jul-19	0.372	(0.017)
Aug-19	0.364	(0.016)
Sep-19	0.358	(0.014)
Oct-19	0.351	(0.014)
1YR Strip	0.391	(0.021)

### CME Future Prices Propane (C3) Non-LDH— Mont Belvieu

Month	Close	Change
Nov-18	1.016	0.014
Dec-18	1.005	0.027
Jan-19	1.003	0.026
Feb-19	0.998	0.023
Mar-19	0.993	0.021
Apr-19	0.946	0.019
May-19	0.903	0.018
Jun-19	0.883	0.018
Jul-19	0.872	0.016
Aug-19	0.871	0.016
Sep-19	0.873	0.016
Oct-19	0.875	0.016
1YR Strip	0.936	0.019

**NATURAL GAS NEWS**



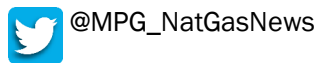
**Prompt WTI (CL) Crude  
Daily Sentiment**

**BULLISH**



RESISTANCE  
72.47 & 73.01  
SUPPORT  
71.20 & 70.47

**FOLLOW US ON TWITTER:**

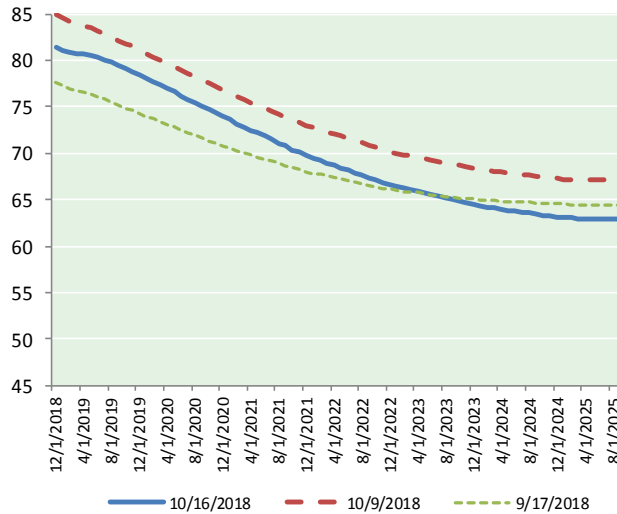


**NYMEX Brent (BZ)**

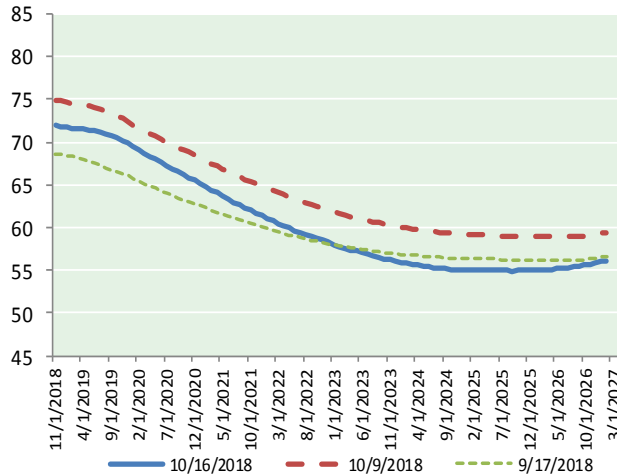
**Futures**

Month	Close	Change
Nov-18	71.92	0.14
Dec-18	71.76	0.15
Jan-19	71.70	0.17
Feb-19	71.64	0.19
Mar-19	71.59	0.20
Apr-19	71.54	0.22
May-19	71.48	0.24
Jun-19	71.38	0.27
Jul-19	71.23	0.30
Aug-19	71.01	0.33
Sep-19	70.74	0.34
Oct-19	70.45	0.36
Nov-19	70.15	0.37
Dec-19	69.84	0.37
Jan-20	69.45	0.38
Feb-20	69.06	0.38
Mar-20	68.68	0.38
Apr-20	68.32	0.38
May-20	67.99	0.39
Jun-20	67.67	0.40
Jul-20	67.29	0.40
Aug-20	66.91	0.40
Sep-20	66.55	0.40
Oct-20	66.22	0.39
1YR Strip 2018	71.37	0.24
2018	71.84	0.15
5YR Strip	64.07	0.26

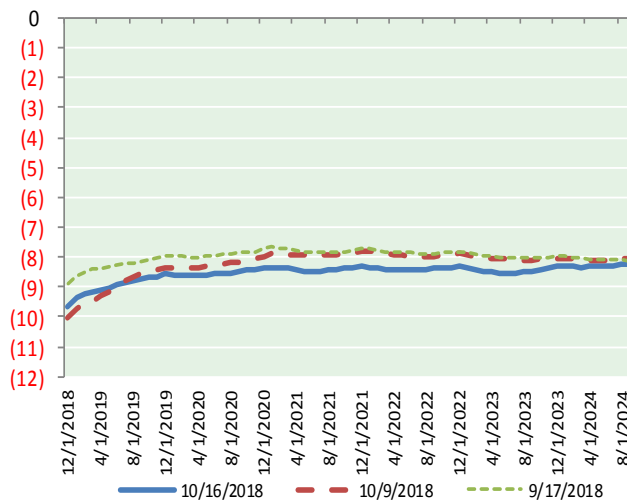
**BRENT CRUDE FORWARD CURVE**



**WTI CRUDE FORWARD CURVE**



**WTI-BRENT SPREAD**



**FRAC Spread**

**Specifications**

Ethane	: 42%	66,500 btu/g
Propane	: 28%	90,830 btu/g
Butane	: 11%	102,916 btu/g
Iso-Butane	: 6%	98,935 btu/g
Natural Gasoline	: 13%	115,021 btu/g

**Prompt NGL Futures**

	Nov-18	Close	Change
Butane	1.180	0.015	
Iso-Butane	1.184	0.015	
Nat Gasoline	1.594	0.003	

**NYMEX WTI (CL) Futures**

Month	Close	Change
Dec-18	81.41	0.63
Jan-19	81.04	0.61
Feb-19	80.88	0.61
Mar-19	80.76	0.61
Apr-19	80.63	0.62
May-19	80.50	0.63
Jun-19	80.31	0.62
Jul-19	80.07	0.62
Aug-19	79.79	0.61
Sep-19	79.47	0.60
Oct-19	79.13	0.59
Nov-19	78.80	0.57
Dec-19	78.41	0.54
Jan-20	78.05	0.52
Feb-20	77.68	0.51
Mar-20	77.31	0.49
Apr-20	76.94	0.48
May-20	76.57	0.47
Jun-20	76.20	0.46
Jul-20	75.82	0.45
Aug-20	75.43	0.44
Sep-20	75.04	0.42
Oct-20	74.65	0.41
Nov-20	74.30	0.40
1YR Strip 2018	80.23	0.61
2018	81.41	0.63
5YR Strip	72.35	0.28