

NATURAL GAS



NOVEMBER 27, 2018

Prior Day's NYMEX Dec-18 Contract (CT)



NYMEX NG Futures

Month	Close	Change
Dec-18	4.248	(0.060)
Jan-19	4.299	(0.056)
Feb-19	4.184	(0.078)
Mar-19	3.966	(0.076)
Apr-19	2.861	(0.028)
May-19	2.735	(0.020)
Jun-19	2.752	(0.021)
Jul-19	2.774	(0.019)
Aug-19	2.766	(0.011)
Sep-19	2.735	(0.004)
Oct-19	2.753	(0.001)
Nov-19	2.788	0.002
Dec-19	2.941	0.005
Jan-20	3.064	0.007
Feb-20	3.006	0.008
Mar-20	2.829	(0.011)
Apr-20	2.466	(0.004)
May-20	2.426	(0.004)
Jun-20	2.483	(0.004)
Jul-20	2.542	(0.003)
Aug-20	2.548	(0.003)
Sep-20	2.531	(0.006)
Oct-20	2.548	(0.006)
Nov-20	2.614	(0.007)
1YR Strip	3.238	(0.031)
2018	4.248	(0.060)
5YR Strip	2.734	(0.011)



IN THE NEWS

Get your natural gas in Texas for 25 cents, if you can— Reuters reported: Next-day natural gas prices for Tuesday at the Waha hub in the Permian basin in Texas tumbled almost 80 percent to their lowest on record because of limits on the amount of gas that can move out of the region by pipeline. Prices at the Waha hub fell to an average of 25 cents per million British thermal

- **Get your natural gas in Texas for 25 cents, if you can**
- **Venezuela rejected BP bid to buy Total's stake in gas block**

units (mmBtu), according to SNL data available on the Refinitiv Eikon going back to 1991. Traders said small amounts of fuel were even sold at negative prices as producers struggled to get rid of the gas. That compares with an average of \$2.16/mmBtu so far this year, \$2.71 in 2017 and a five-year (2013-2017) average of \$3.11. The Permian is the biggest oil producing shale basin in the United States and since gas is associated with much of the oil comes out of the ground, it is also the nation's second biggest shale gas producing region, behind the Appalachian. For more on this story visit [reuters.com](https://reut.rs/2DXcS6F) or click <https://reut.rs/2DXcS6F>

Venezuela rejected BP bid to buy Total's stake in gas block— Reuters reported: Venezuela's oil ministry last month turned down a proposal by BP (BP.L) to buy Total's (TOTF.PA) stake in a promising but inactive natural gas project along the maritime border with Trinidad and Tobago, five people briefed on the matter said. BP owns the rights to the Trinidadian side of the gas play. It could have used the output from the neighboring area, the Deltana Platform's fourth block off Venezuela's eastern coast, to feed its growing operations on the island, said the people, who were not authorized to speak publicly. The rejection highlights how Venezuela's socialist government, often hostile to foreign companies, remains an obstacle to investment even as oil majors eye the OPEC nation's barely tapped gas reserves to expand their liquefied natural gas (LNG) portfolios. The ministry told the parties the area's reserves needed to be re-estimated, an argument it has used to reject other deals. For more on this story visit [reuters.com](https://reut.rs/2E2d84n) or click <https://reut.rs/2E2d84n>

12 MONTH CANDLESTICK (WEEKLY)



Prompt Natural Gas (NG) Daily Sentiment

BULLISH



RESISTANCE

4.36 & 4.47

SUPPORT

4.07 & 3.88

Trading Summary

NATURAL GAS

Futures	Close	Change
NG	4.248	(0.060)
Volume	425,406	(344,358)
Open Int.	1,312,479	(4,189)

CRUDE AND GASOLINE

Futures	Close	Change
Crude	51.63	1.21
RBOB	1.4426	0.0513
Crude/NG	12.01	0.43

METALS

Futures	Close	Change
Gold	1,220.20	1.80

EQUITIES

Exchange	Close	Change
DOW	24,640.24	354.29
S&P 500	-707.48	40.89

CURRENCY

Currency	Close	Change
EUR/USD	1.1324	(0.0004)
USD/CND	1.2405	0.0019

Contact Us



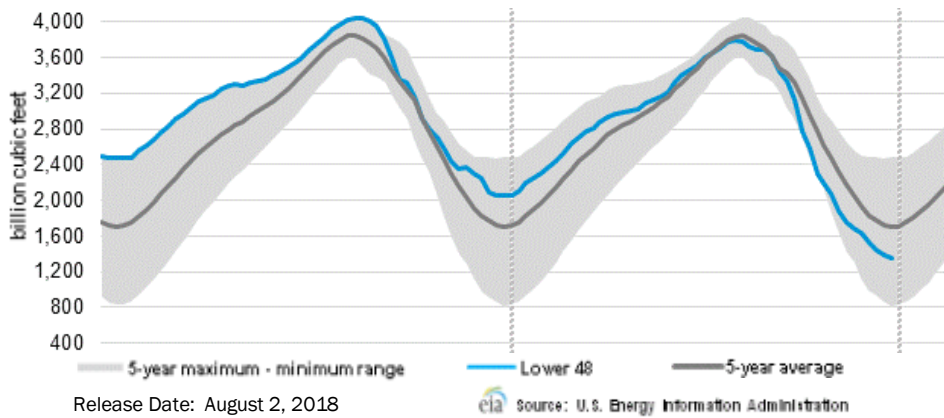
Mansfield Energy Corp
1025 Airport Pkwy
Gainesville, GA 30501

www.mansfield.energy

info@mansfieldoil.com

Phone: (800) 695-6626

WEEKLY GAS IN UNDERGROUND STORAGE WITH 5-YR RANGE



Rig Count

Report Date: November 21, 2018

	Total	Change
US -	1,079	(3)
CN -	204	7

EIA Weekly NG Storage Actual and Surveys for November 2, 2018

Released November 1, 2018
 Range — +100 to +63
 PIRA— +120
 Price Futures Group — +100
 Wells Fargo — +92

EIA ACTUAL — +48

Total Working Gas In Storage

3,113 BCF

(134) BCF (LAST WEEK)
 (620) BCF (LAST YEAR)
 (710) BCF (5-YR AVG)

U.S. Natural Gas Supply Gas Week 11/8 — 11/14

Average daily values (BCF/D):
Last Year (BCF/d)
 Dry Production — +78.0
 Total Supply — +84.5
Last Week (BCF/d)
 Dry Production — +87.5
 Total Supply — +91.1

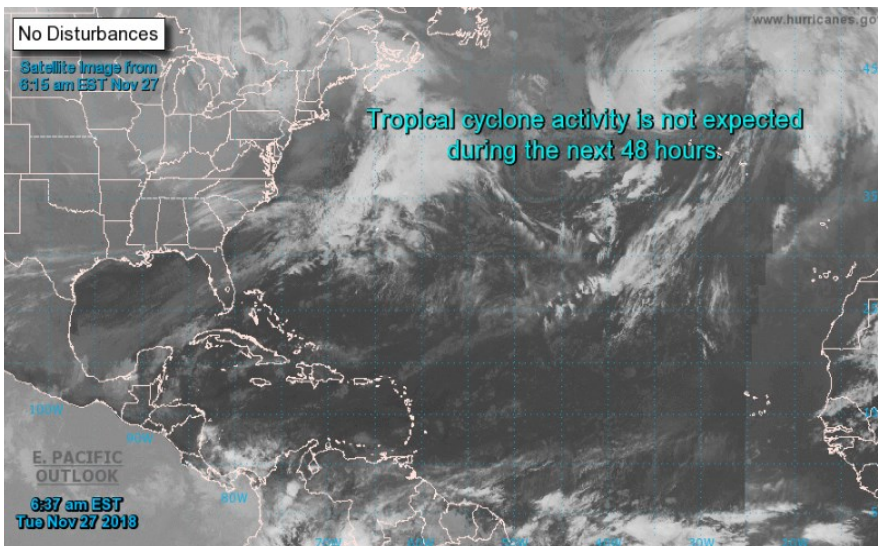
[NEXT REPORT ON Nov 23]

U.S. Natural Gas Demand Gas Week 11/8 — 11/14

Average daily values (BCF/D):
Last Year (BCF/d)
 Power — +23.0
 Total Demand — +93.7
Last Week (BCF/d)
 Power — +22.0
 Total Demand — +83.0

[NEXT REPORT ON Nov 23]

TROPICAL STORM ACTIVITY— ATLANTIC



Tropical Weather Outlook

NWS National Hurricane Center Miami FL

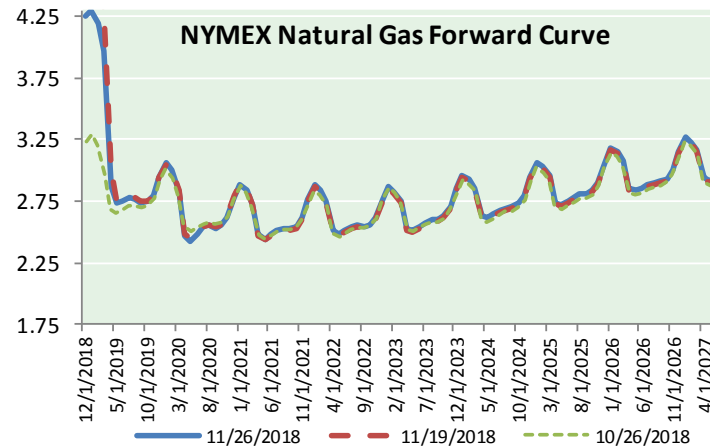
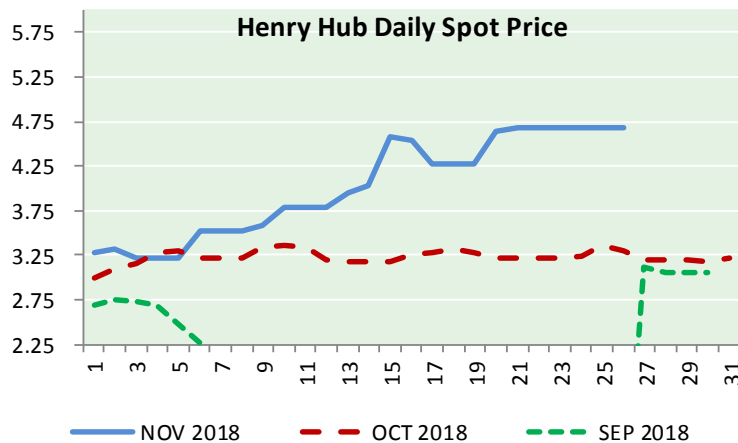
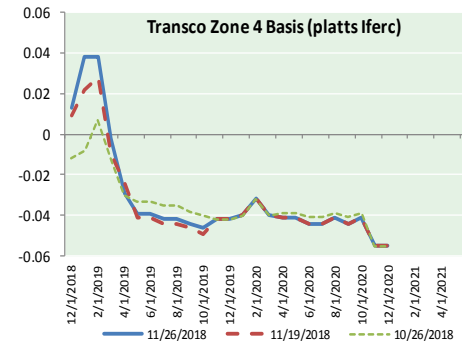
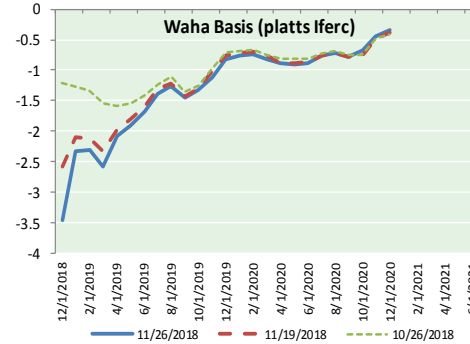
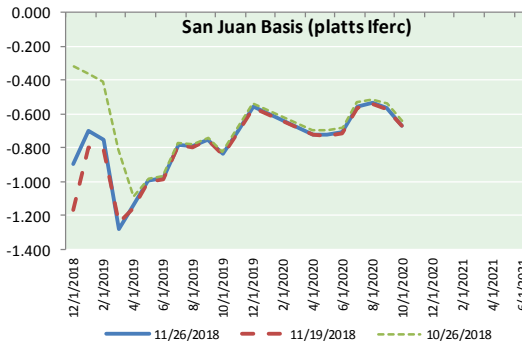
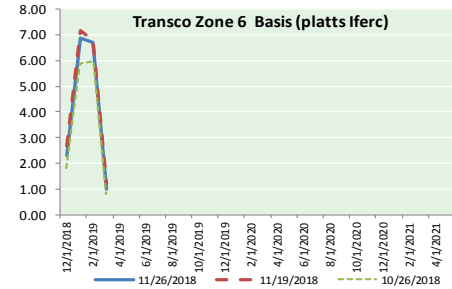
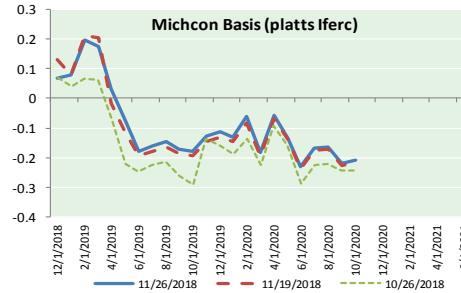
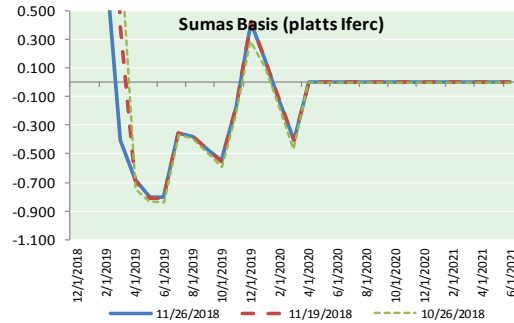
700 AM EST Tue Nov 27 2018

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

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



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



NYMEX WTI Delivery

Month Average (\$/bbl)

(Excluding Weekends and Holidays)

Month: November 2018

Day	Price	Day	Price
1	63.69	16	56.46
2	63.14	17	
3		18	
4		19	56.76
5	63.10	20	53.43
6	62.21	21	54.63
7	61.67	22	
8	60.67	23	50.42
9	60.19	24	
10		25	
11		26	51.63
12	59.93	27	
13	55.69	28	
14	56.25	29	
15	56.46	30	

Average (Nov) 58.0194
(through 11/26/2018)

Average (Oct) 70.7578

Average (Sep) 70.0847

CME NG Option Prices

ATM Call

Month	Strike	Close	Imp Vol
Jan-19			
Feb-19	4.200	0.513	106.8
Mar-19			
Apr-19			
May-19			

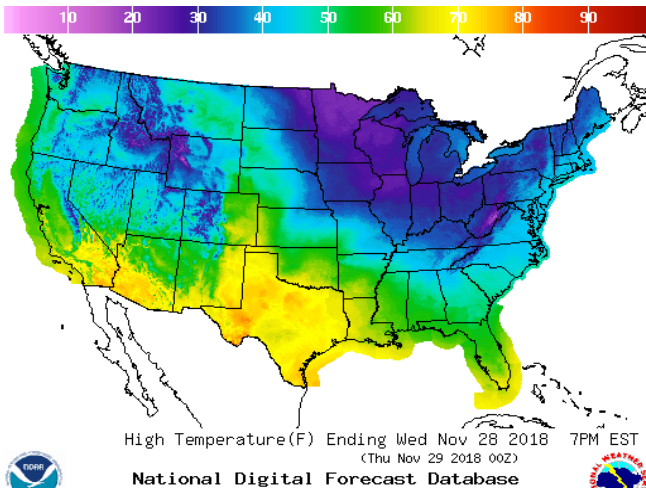
CME NG Option Prices

ATM Put

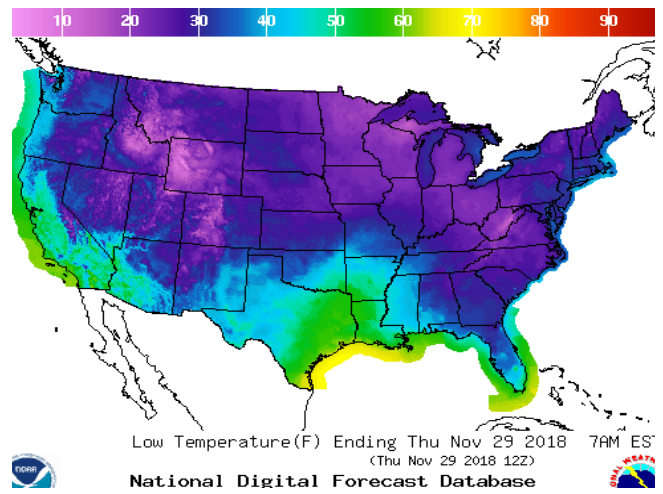
Month	Strike	Close	Imp Vol
Jan-19			
Feb-19	4.200	0.422	90.0
Mar-19			
Apr-19			
May-19			

WEATHER – HIGH / LOW TEMPERATURE TOMORROW

HIGH Temperature

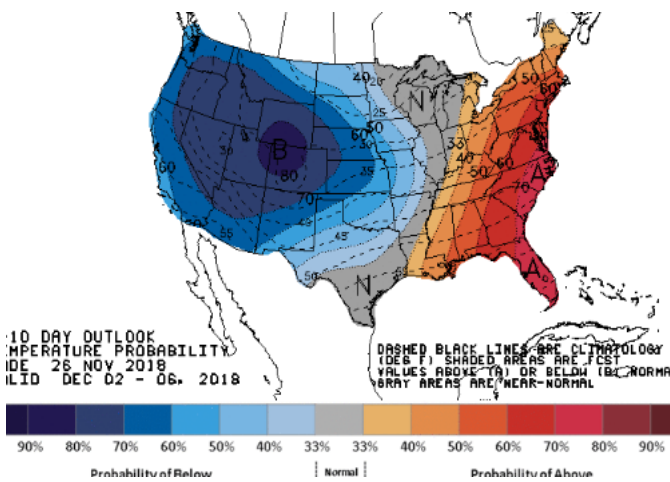


LOW Temperature

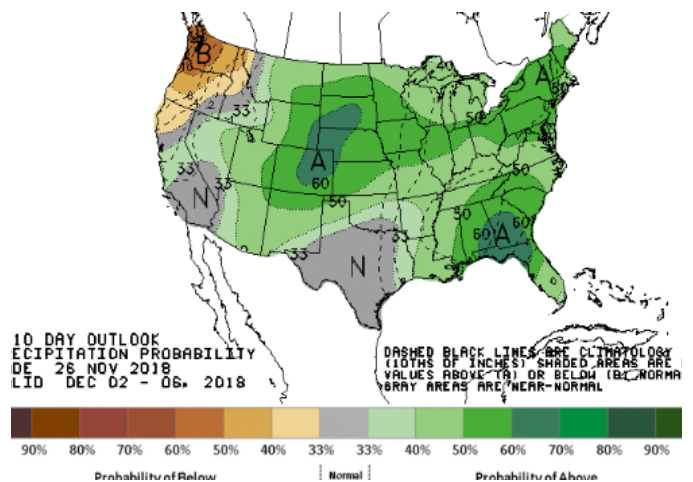


WEATHER – 6 TO 10 DAY OUTLOOK – NOAA

Temperature

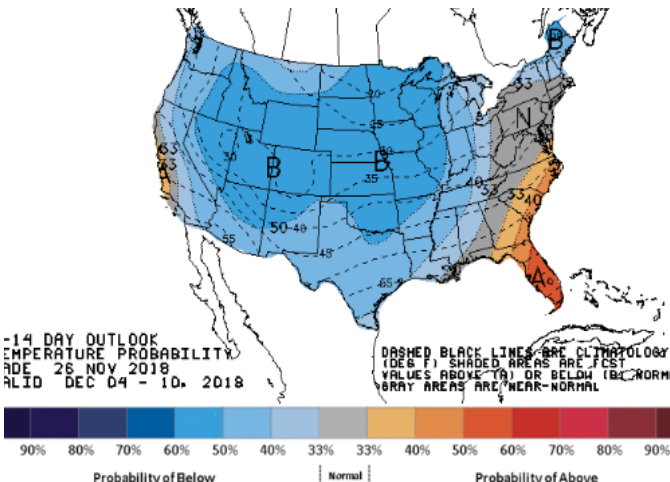


Precipitation

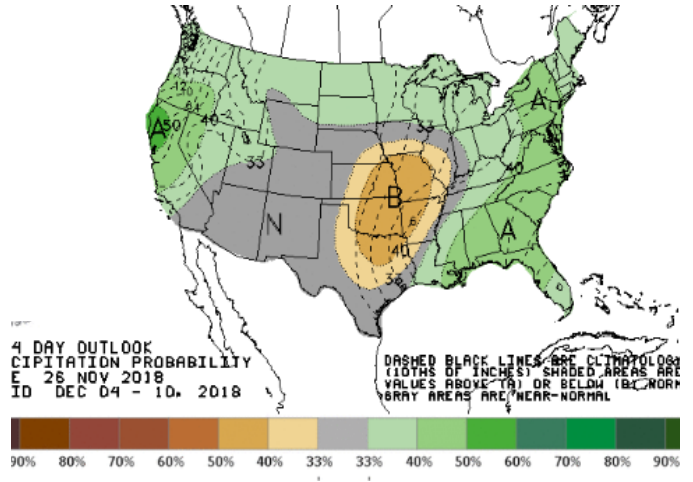


WEATHER – 8 TO 14 DAY OUTLOOK – NOAA

Temperature



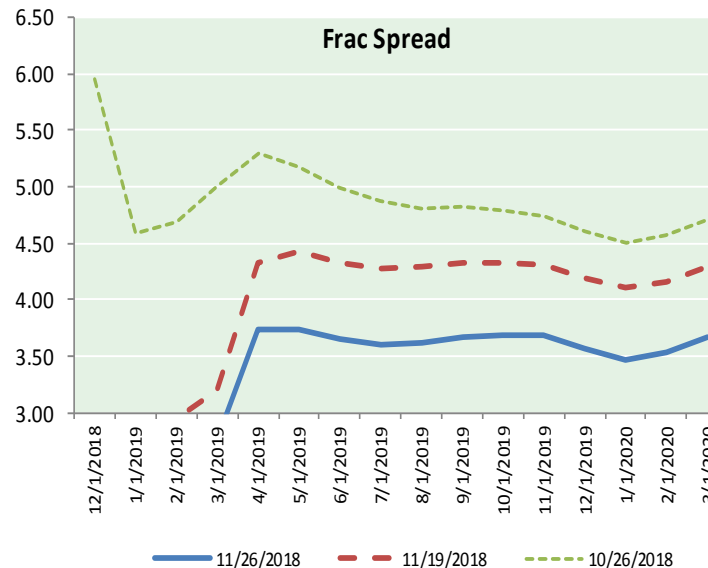
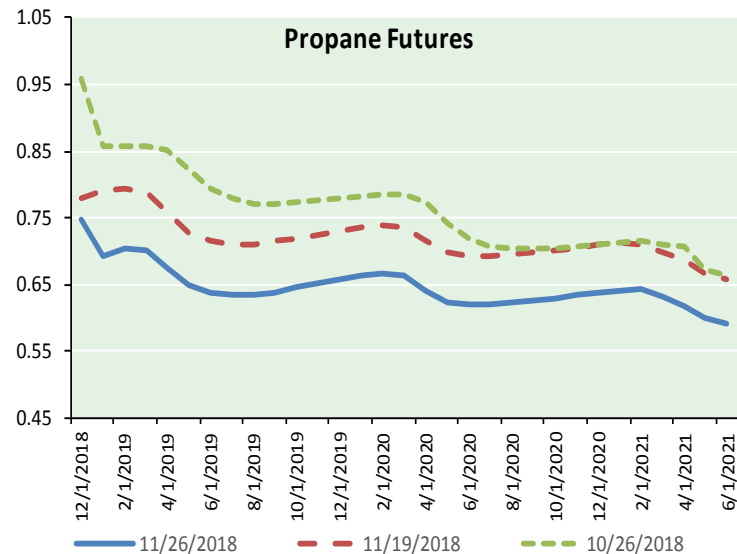
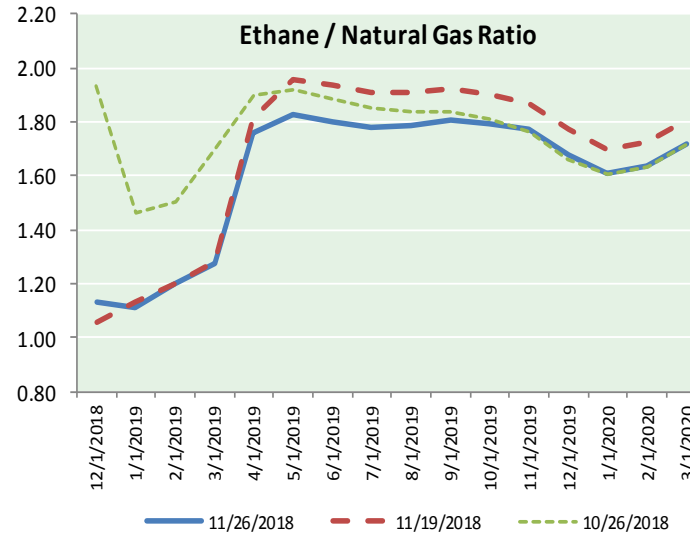
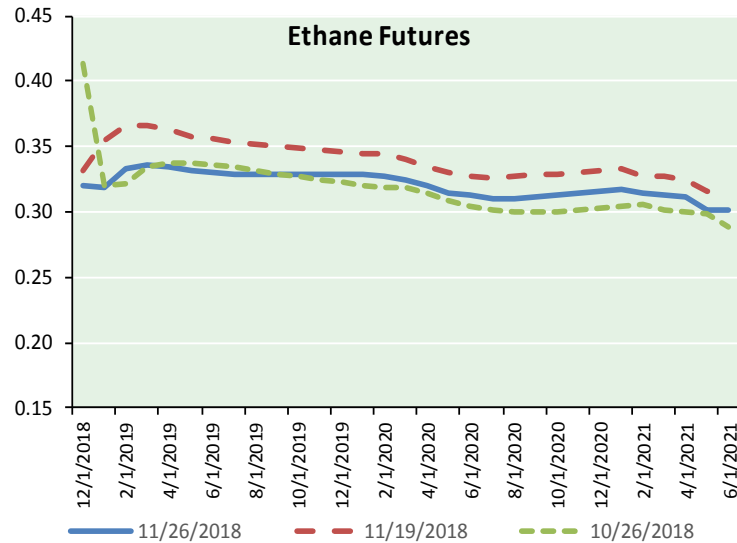
Precipitation



NATURAL GAS NEWS



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



CME Future Prices

Month	Close	Change
Dec-18	0.319	(0.004)
Jan-19	0.319	(0.014)
Feb-19	0.333	(0.013)
Mar-19	0.336	(0.009)
Apr-19	0.334	(0.009)
May-19	0.332	(0.009)
Jun-19	0.330	(0.009)
Jul-19	0.328	(0.009)
Aug-19	0.328	(0.008)
Sep-19	0.328	(0.008)
Oct-19	0.329	(0.009)
Nov-19	0.328	(0.008)

1YR Strip 0.329 (0.009)

CME Future Prices

**Propane (C3)
Non-LDH— Mont Belvieu**

Month	Close	Change
Dec-18	0.747	0.002
Jan-19	0.693	0.007
Feb-19	0.703	0.011
Mar-19	0.700	0.011
Apr-19	0.674	0.012
May-19	0.648	0.012
Jun-19	0.638	0.013
Jul-19	0.634	0.014
Aug-19	0.635	0.014
Sep-19	0.638	0.014
Oct-19	0.645	0.015
Nov-19	0.651	0.015

1YR Strip 0.667 0.012

NATURAL GAS NEWS



Prompt WTI (CL) Crude

Daily Sentiment

BEARISH



RESISTANCE

52.55 & 53.48

SUPPORT

50.40 & 49.18

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@MPG_NatGasNews

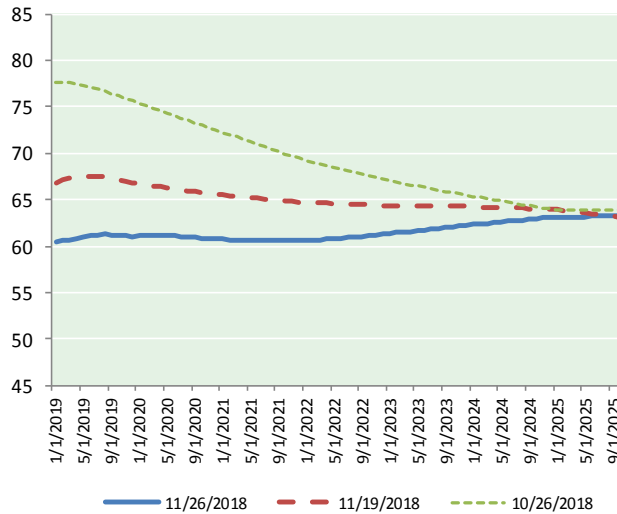
NYMEX Brent (BZ)

Futures

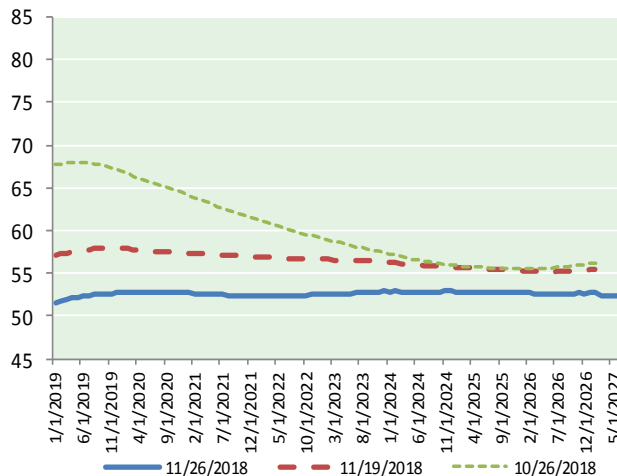
Month	Close	Change
Jan-19	51.63	1.21
Feb-19	51.80	1.21
Mar-19	51.95	1.19
Apr-19	52.08	1.17
May-19	52.23	1.17
Jun-19	52.33	1.16
Jul-19	52.41	1.15
Aug-19	52.48	1.14
Sep-19	52.56	1.13
Oct-19	52.61	1.10
Nov-19	52.66	1.07
Dec-19	52.71	1.05
Jan-20	52.71	1.03
Feb-20	52.72	1.02
Mar-20	52.73	0.99
Apr-20	52.74	0.97
May-20	52.75	0.94
Jun-20	52.77	0.92
Jul-20	52.75	0.91
Aug-20	52.74	0.90
Sep-20	52.73	0.88
Oct-20	52.73	0.85
Nov-20	52.76	0.85
Dec-20	52.78	0.81

1YR Strip	52.29	1.15
2018	#DIV/0!	#DIV/0!
5YR Strip	52.54	0.75

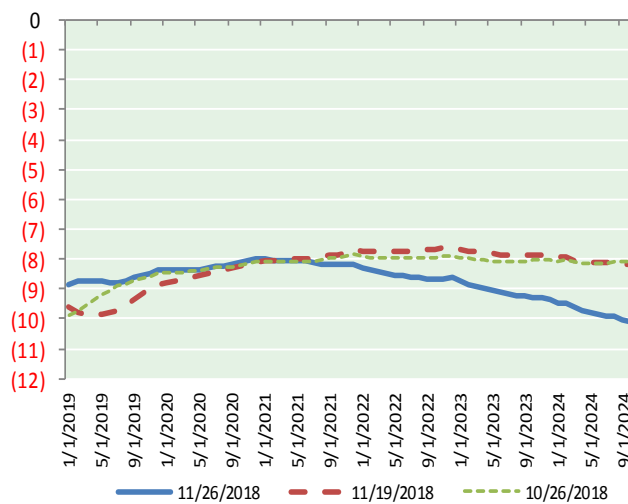
BRENT CRUDE FORWARD CURVE



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

	Dec-18	Close	Change
Butane	0.843	0.000	
Iso-Butane	0.902	(0.001)	
Nat Gasoline	1.119	0.005	

NYMEX WTI (CL) Futures

Month	Close	Change
Jan-19	60.48	1.68
Feb-19	60.56	1.52
Mar-19	60.69	1.46
Apr-19	60.83	1.41
May-19	60.99	1.38
Jun-19	61.14	1.36
Jul-19	61.23	1.34
Aug-19	61.24	1.31
Sep-19	61.20	1.29
Oct-19	61.16	1.27
Nov-19	61.12	1.23
Dec-19	61.06	1.20
Jan-20	61.07	1.18
Feb-20	61.08	1.17
Mar-20	61.09	1.14
Apr-20	61.10	1.12
May-20	61.09	1.08
Jun-20	61.07	1.06
Jul-20	61.01	1.04
Aug-20	60.96	1.03
Sep-20	60.90	0.98
Oct-20	60.85	0.94
Nov-20	60.80	0.90
Dec-20	60.76	0.87

1YR Strip	60.98	1.37
2018	#DIV/0!	#DIV/0!
5YR Strip	61.07	0.73