

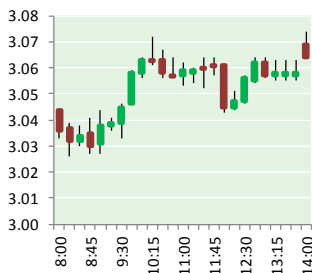
# NATURAL GAS



NEWS

NOVEMBER 21, 2017

## Prior Day's NYMEX Dec-17 Contract (CT)



## NYMEX NG Futures

Month	Close	Change
Dec-17	3.047	(0.050)
Jan-18	3.140	(0.051)
Feb-18	3.141	(0.049)
Mar-18	3.107	(0.045)
Apr-18	2.948	(0.013)
May-18	2.933	(0.010)
Jun-18	2.960	(0.010)
Jul-18	2.991	(0.009)
Aug-18	2.995	(0.008)
Sep-18	2.980	(0.007)
Oct-18	3.005	(0.007)
Nov-18	3.056	(0.008)
Dec-18	3.189	(0.009)
Jan-19	3.273	(0.009)
Feb-19	3.240	(0.010)
Mar-19	3.164	(0.008)
Apr-19	2.796	(0.001)
May-19	2.747	(0.001)
Jun-19	2.767	(0.001)
Jul-19	2.792	(0.001)
Aug-19	2.792	(0.001)
Sep-19	2.778	(0.001)
Oct-19	2.800	(0.001)
Nov-19	2.859	0.001
1YR Strip	3.025	(0.022)
2017	3.047	(0.050)
5YR Strip	2.919	(0.007)

## IN THE NEWS

**Houston puts forth liquefied natural gas proposal** — News-Miner reported: FAIRBANKS — Exporting liquefied natural gas to other parts of the state has long been on the radar for residents of Houston, Alaska, but it wasn't until two years ago when a new railroad spur was constructed that this plan became feasible. Knikatnu Inc., an Alaska Native Corp. in the

- **Houston puts forth liquefied natural gas proposal**
- **Massive gas line explosion leaves 18-foot crater in Orion Township**

Matanuska Susitna Valley, has teamed up with individuals from the valley and even consulted with global energy giant Siemens in developing a proposal to bring a gas liquefaction plant to Houston. The plan to liquefy natural gas in Houston and ship it to the Interior by way of the Alaska Railroad has been pitched as a safer, more economically viable means of transporting natural gas to Fairbanks. However, the Interior Gas Utility, and the states economic development authority have heard the pitch and they're not interested. In a recent IGU board meeting, the Alaska Industrial Development and Export Authority's energy project team lead, Gene Therriault, said the proposal coming out of Houston has been "a little disingenuous." For more visit [newsminer.com](http://newsminer.com) or click <http://bit.ly/2A1CJoQ>

**Massive gas line explosion leaves 18-foot crater in Orion Township** — Detroit Free Press reported: A ruptured gas line caused a massive fire that left an 18-foot-deep crater in an area of Orion Township near the Great Lakes Crossing Outlets mall on Monday night, authorities say. A fire was reported shortly after 9:52 p.m., when Consumers Energy noticed a drop in pressure on its gas system, the energy company said in a news release. The fire was north of Brown Road near Joslyn Road, near the border with Auburn Hills. Orion Township Fire Chief John Pender said the fire was on vacant land, the Associated Press reports. "We inspected the site of the ruptured gas line and surrounding area and found nothing suspicious or unusual relating to an intentional act," Captain Mel Maier of the Oakland County Sheriff's Office said in an e-mail. For more visit [freep.com](http://on.freep.com/2zZ5u5F) or click <http://on.freep.com/2zZ5u5F>

## 12 MONTH CANDLESTICK (WEEKLY)



## Prompt Natural Gas (NG) Daily Sentiment

**BEARISH**



RESISTANCE

3.17 & 3.20

SUPPORT

3.11 & 3.09

## Trading Summary

### NATURAL GAS

Futures	Close	Change
NG	3.047	(0.050)
Volume	381,396	(260,546)
Open Int.	1,364,576	5,467

### CRUDE AND GASOLINE

Futures	Close	Change
Crude	56.42	(0.29)
RBOB	1.7438	(0.0009)
Crude/NG	17.97	0.20

### METALS

Futures	Close	Change
Gold	1,275.30	7.50

### EQUITIES

Exchange	Close	Change
DOW	23,430.33	72.09
S&P 500	2,582.14	3.29

### CURRENCY

Currency	Close	Change
EUR/USD	1.1733	(0.0057)
USD/CND	1.2759	(0.0053)

## Contact Us



**Mansfield Energy Corp**  
1025 Airport Pkwy  
Gainesville, GA 30501

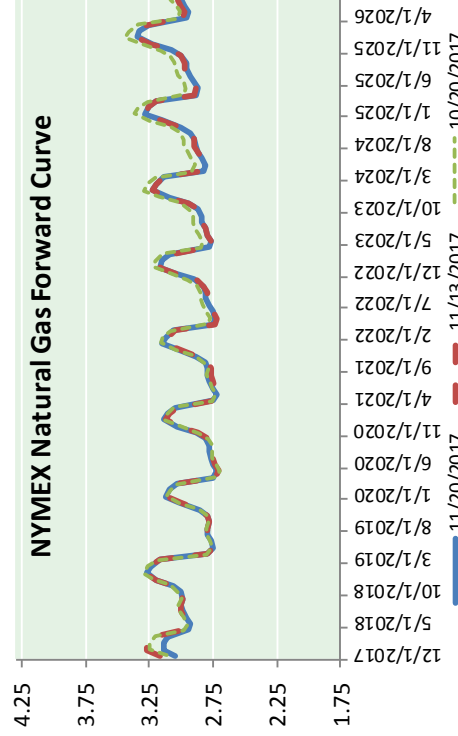
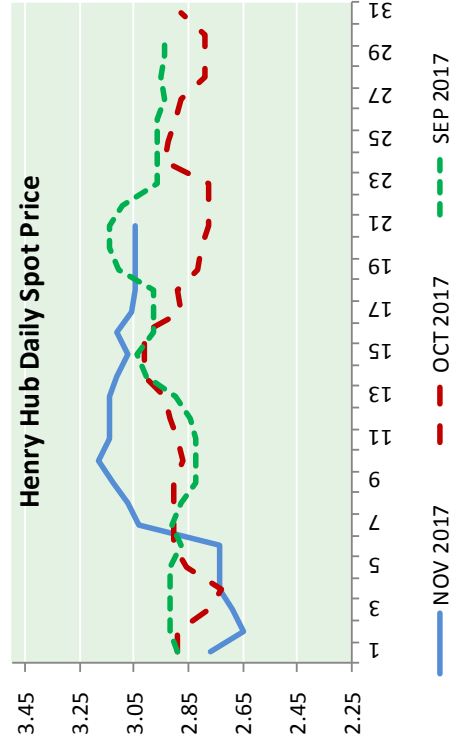
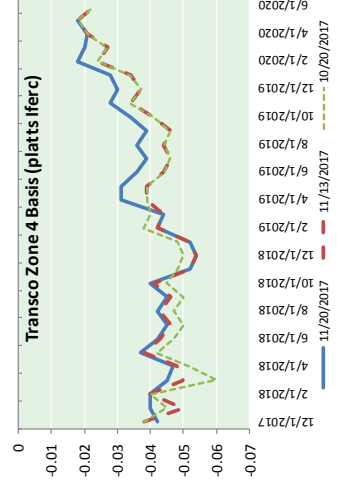
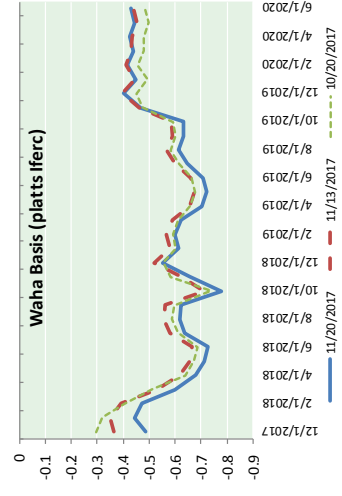
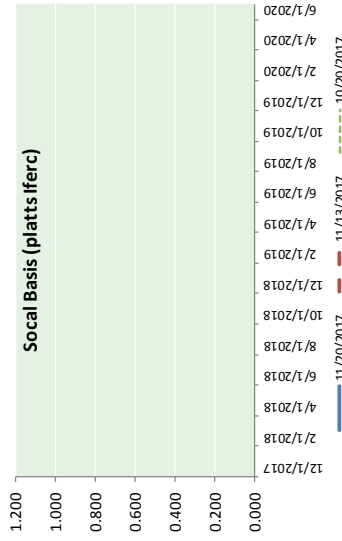
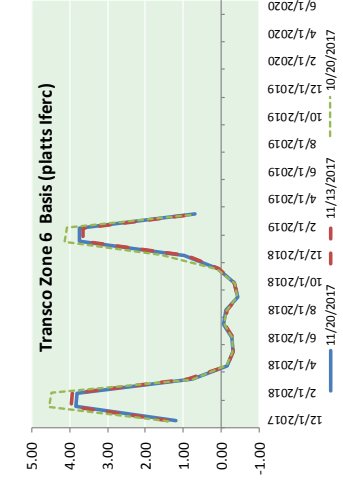
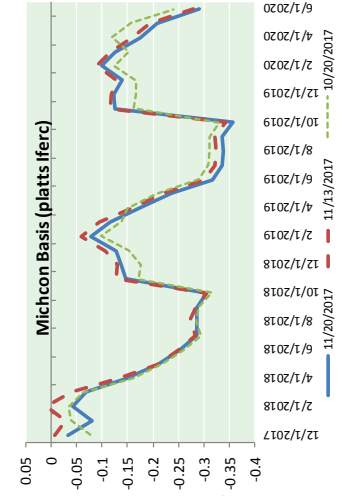
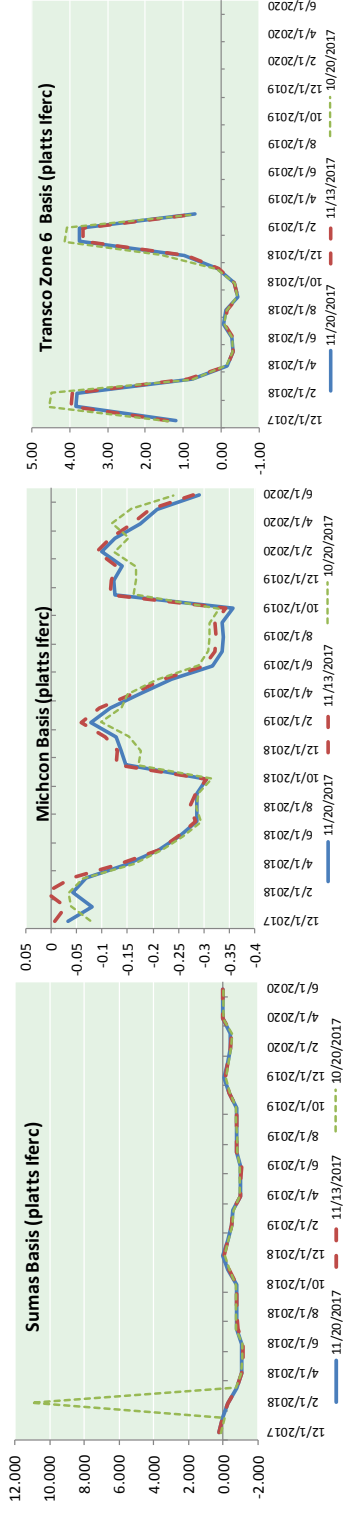
[www.mansfield.energy](http://www.mansfield.energy)

[info@mansfieldoil.com](mailto:info@mansfieldoil.com)

Phone: (800) 695-6626



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



CME NG Option Prices

ATM Call				
Month	Strike	Close	Imp	Vol
Dec-17	3.050	0.062	37.5	
Jan-18	3.150	0.160	41.2	
Feb-18	3.150	0.241	45.0	
Mar-18	3.100	0.296	45.9	
Apr-18	2.950	0.206	30.0	
May-18				
Jun-18				
Jul-18				
Aug-18				
Sep-18				
Oct-18				
Nov-18				
Dec-18				
Jan-19				
Feb-19				
Mar-19				
Apr-19				

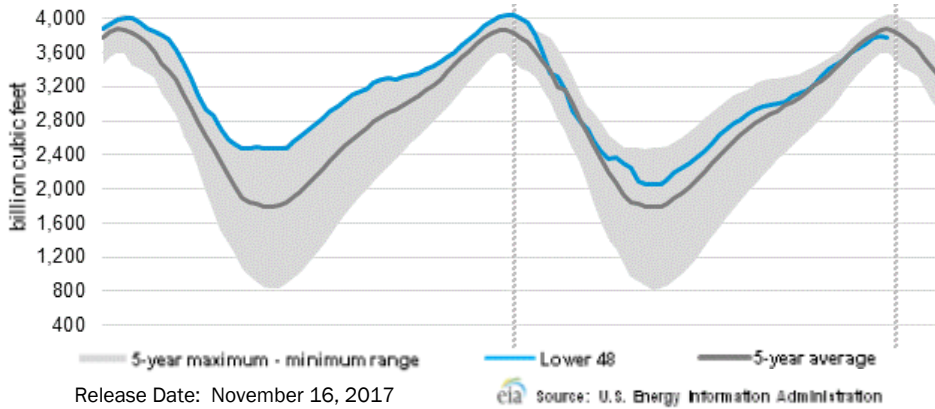
CME NG Option Prices

ATM Put				
Month	Strike	Close	Imp	Vol
Dec-17	3.050	0.056	37.5	
Jan-18	3.150	0.163	41.2	
Feb-18	3.150	0.253	46.8	
Mar-18	3.100	0.291	46.8	
Apr-18	2.950	0.203	29.0	
May-18				
Jun-18				
Jul-18				
Aug-18				
Sep-18				
Oct-18				
Nov-18				
Dec-18				
Jan-19				
Feb-19				
Mar-19				
Apr-19				



# NATURAL GAS NEWS

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



## Rig Count

Report Date: November 17, 2017

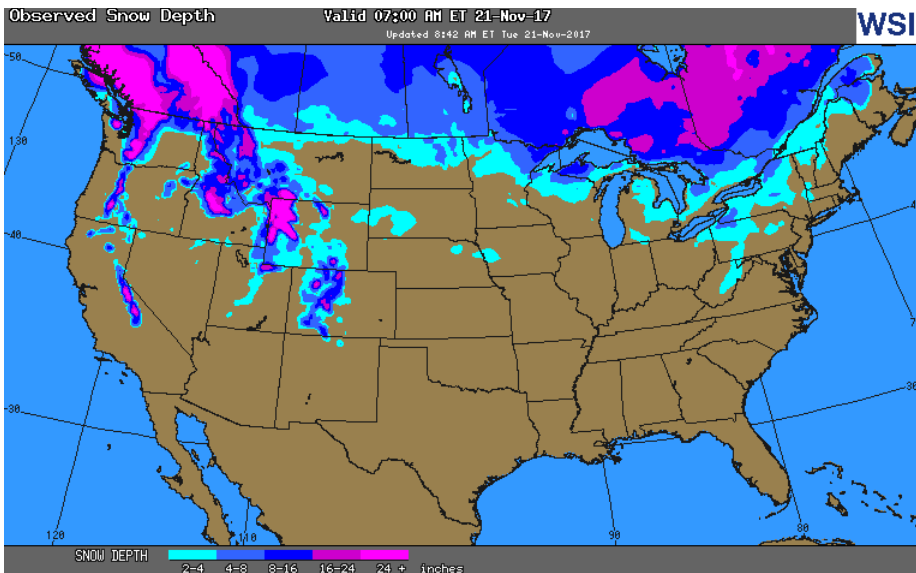
	Total	Change
US -	915	+8
CN -	208	+5

## EIA Storage History for 46th Week of Year (Due to Report Nov 23)

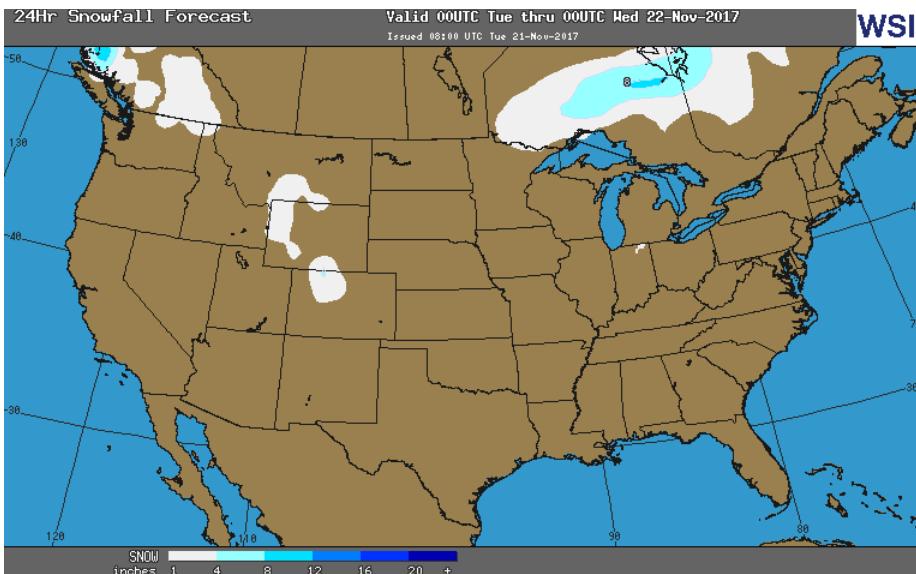
Year	Week Ending	BCF
2013	Nov 15, 2013	(45)
2014	Nov 14, 2014	(17)
2015	Nov 13, 2015	+15
2016	Nov 11, 2016	+30

ESTIMATE – TBD

## OBSERVED SNOW DEPTH



## 24 HOUR SNOWFALL FORECAST



## Total Working Gas In Storage

**3,772 BCF**

- (18) BCF (LAST WEEK)
- (271) BCF (LAST YEAR)
- (101) BCF (5-YR AVG)

## U.S. Natural Gas Supply Gas Week 11/9- 11/15

**Average daily values (BCF/D):**  
Last Year (BCF/d)  
 Dry Production – +70.9  
 Total Supply – +76.1  
Last Week (BCF/d)  
 Dry Production – +75.6  
 Total Supply – +81.0

[NEXT REPORT ON Nov 23]

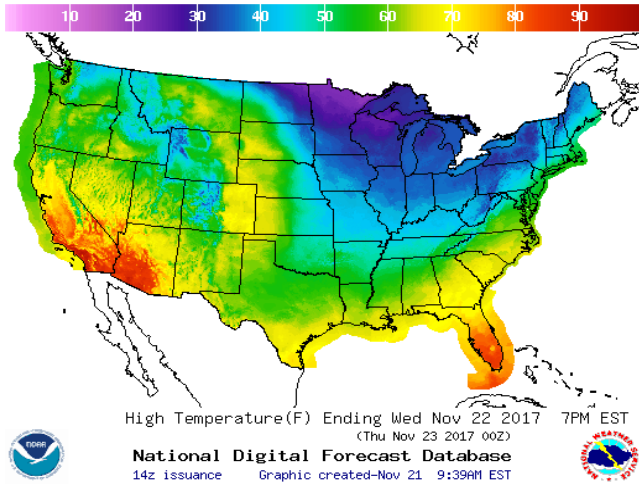
## U.S. Natural Gas Demand Gas Week 11/9- 11/15

**Average daily values (BCF/D):**  
Last Year (BCF/d)  
 Power – +22.7  
 Total Demand – +75.1  
Last Week (BCF/d)  
 Power – +23.3  
 Total Demand – +79.4

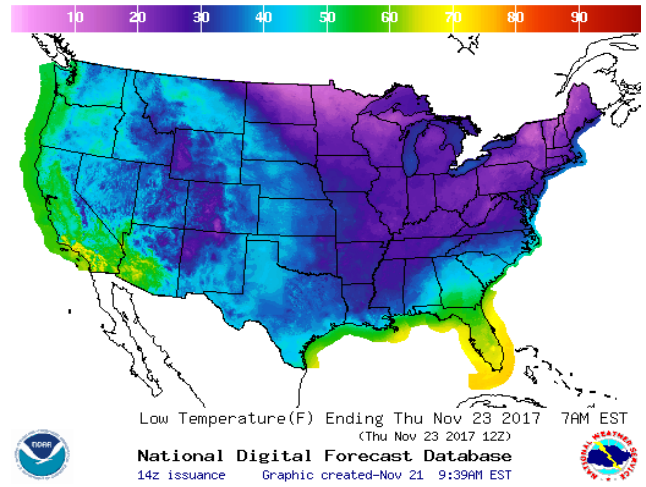
[NEXT REPORT ON Nov 23]

WEATHER – HIGH / LOW TEMPERATURE TOMORROW

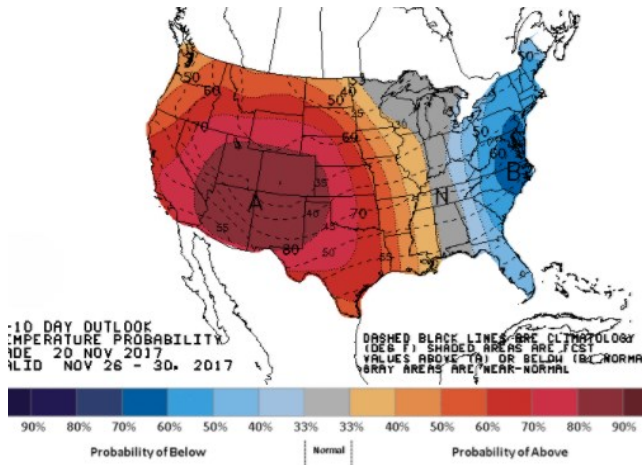
HIGH Temperature



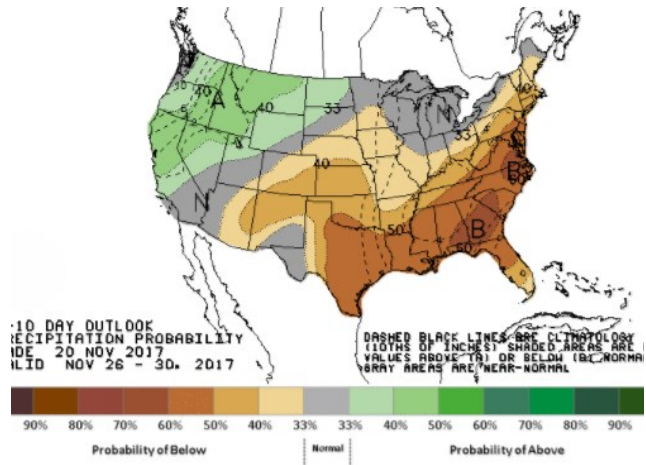
LOW Temperature



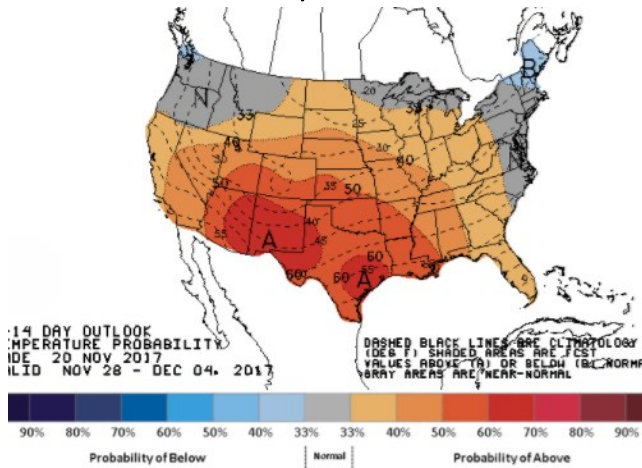
WEATHER – 6 TO 10 DAY OUTLOOK – NOAA  
Temperature



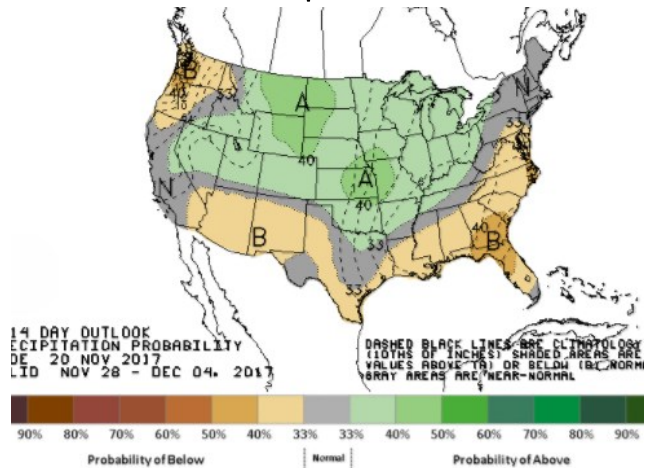
Precipitation



WEATHER – 8 TO 14 DAY OUTLOOK – NOAA  
Temperature



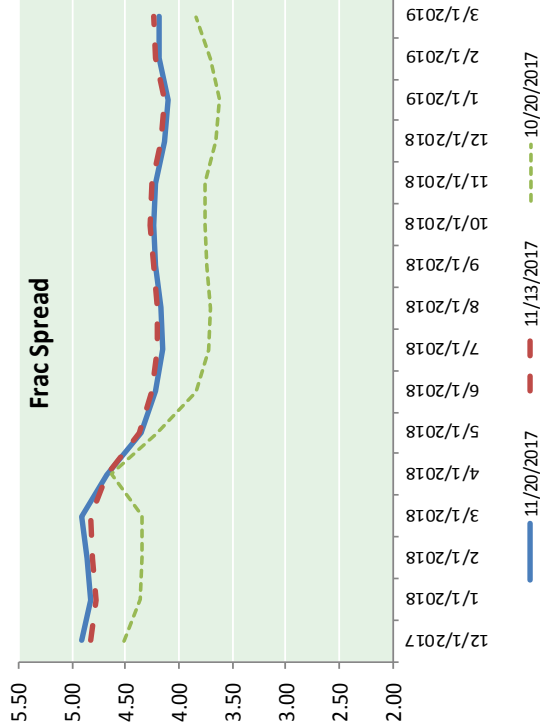
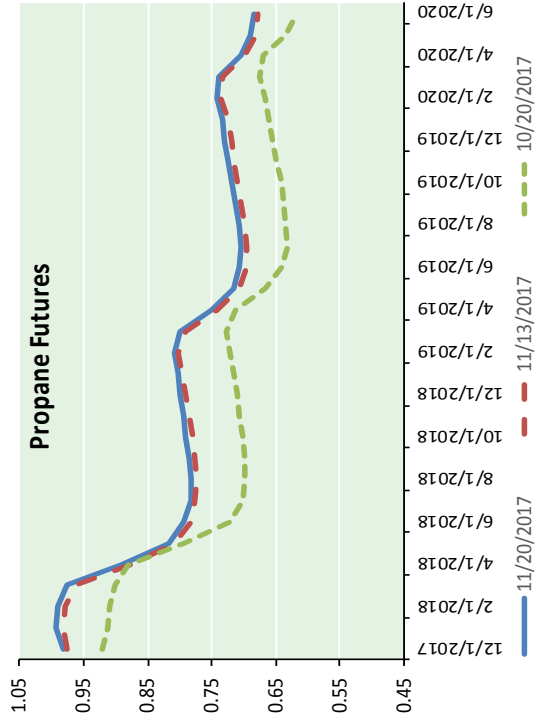
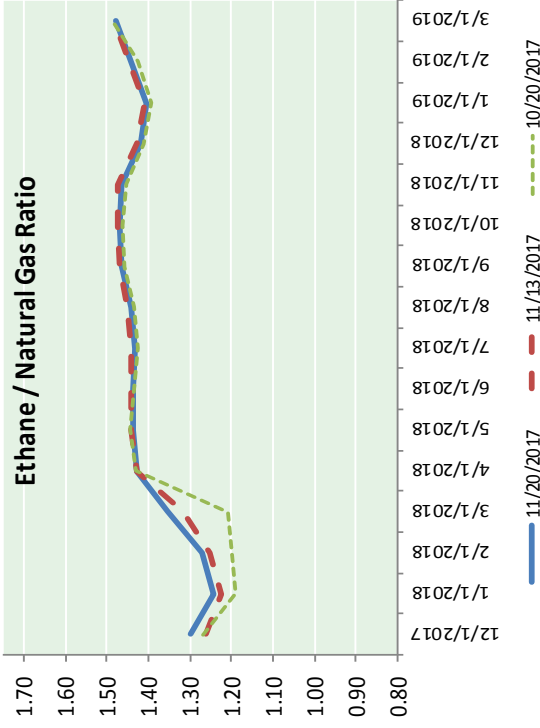
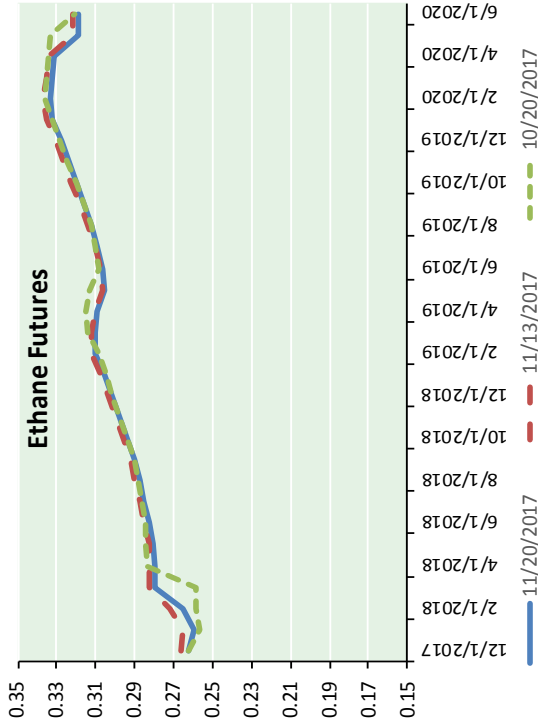
Precipitation





**NATURAL GAS NEWS**

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



**CME Future Prices**

**Ethane (C2)**

Month	Close	Change
Dec-17	0.263	(0.001)
Jan-18	0.259	(0.003)
Feb-18	0.266	(0.002)
Mar-18	0.279	0.001
Apr-18	0.280	0.000
May-18	0.281	0.001
Jun-18	0.283	0.001
Jul-18	0.285	0.001
Aug-18	0.288	0.001
Sep-18	0.291	0.001
Oct-18	0.294	0.001
Nov-18	0.298	0.001

1YR Strip 0.280 0.000

**CME Future Prices**

**Propane (C3)**

Month	Close	Change
Dec-17	0.981	(0.004)
Jan-18	0.993	(0.012)
Feb-18	0.990	(0.010)
Mar-18	0.978	(0.008)
Apr-18	0.893	(0.007)
May-18	0.818	(0.007)
Jun-18	0.793	(0.007)
Jul-18	0.784	(0.006)
Aug-18	0.783	(0.006)
Sep-18	0.786	(0.006)
Oct-18	0.790	(0.006)
Nov-18	0.795	(0.005)

1YR Strip 0.865 (0.007)

# NATURAL GAS NEWS



## Prompt WTI (CL) Crude

### Daily Sentiment

**BULLISH**



#### RESISTANCE

56.71 & 57.33

#### SUPPORT

55.52 & 54.95

### FOLLOW US ON TWITTER:



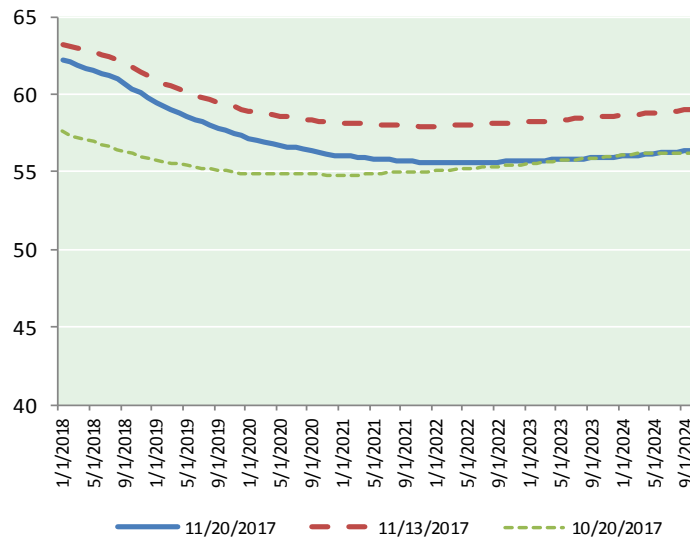
@MPG\_NatGasNews

## NYMEX Brent (BZ)

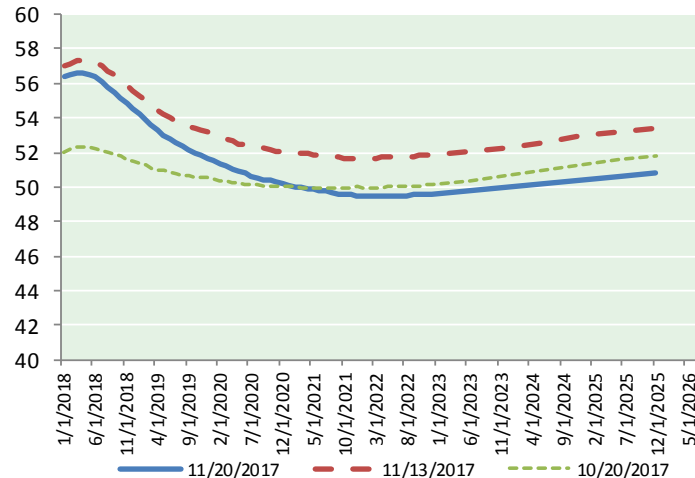
### Futures

Month	Close	Change
Jan-18	62.22	(0.50)
Feb-18	62.06	(0.49)
Mar-18	61.86	(0.47)
Apr-18	61.68	(0.45)
May-18	61.53	(0.42)
Jun-18	61.36	(0.41)
Jul-18	61.18	(0.40)
Aug-18	60.96	(0.39)
Sep-18	60.69	(0.39)
Oct-18	60.38	(0.39)
Nov-18	60.06	(0.40)
Dec-18	59.75	(0.39)
Jan-19	59.47	(0.39)
Feb-19	59.23	(0.39)
Mar-19	59.00	(0.39)
Apr-19	58.81	(0.40)
May-19	58.60	(0.40)
Jun-19	58.35	(0.41)
Jul-19	58.20	(0.41)
Aug-19	58.00	(0.41)
Sep-19	57.82	(0.42)
Oct-19	57.68	(0.44)
Nov-19	57.50	(0.44)
Dec-19	57.31	(0.43)
1YR Strip	61.14	(0.43)
2018	61.14	(0.43)
5YR Strip	57.42	(0.44)

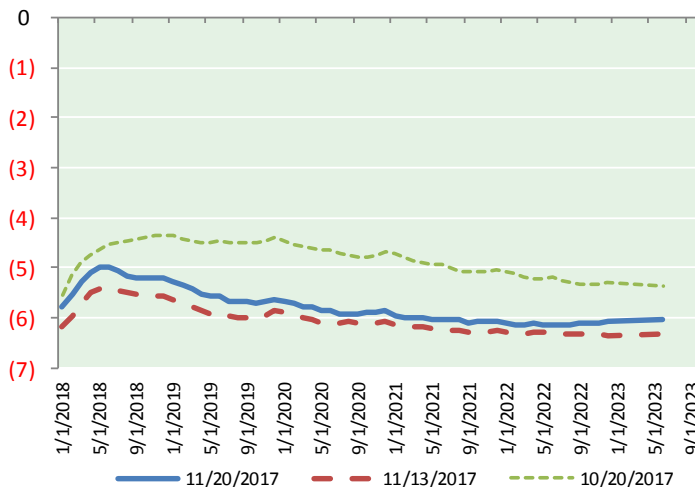
## BRENT CRUDE FORWARD CURVE



## 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

### (\$/gallon)

Dec-17	Close	Change
Butane	1.041	(0.009)
Iso-Butane	1.039	(0.009)
Nat Gasoline	1.357	(0.005)

## NYMEX WTI (CL) Futures

Month	Close	Change
Jan-18	56.42	(0.29)
Feb-18	56.53	(0.28)
Mar-18	56.60	(0.27)
Apr-18	56.60	(0.29)
May-18	56.53	(0.28)
Jun-18	56.36	(0.29)
Jul-18	56.11	(0.28)
Aug-18	55.81	(0.28)
Sep-18	55.50	(0.27)
Oct-18	55.17	(0.27)
Nov-18	54.84	(0.28)
Dec-18	54.54	(0.27)
Jan-19	54.21	(0.27)
Feb-19	53.88	(0.29)
Mar-19	53.58	(0.28)
Apr-19	53.29	(0.29)
May-19	53.03	(0.29)
Jun-19	52.79	(0.31)
Jul-19	52.54	(0.32)
Aug-19	52.32	(0.33)
Sep-19	52.13	(0.34)
Oct-19	51.97	(0.36)
Nov-19	51.82	(0.36)
Dec-19	51.69	(0.37)
1YR Strip	55.92	(0.28)
2018	55.92	(0.28)
5YR Strip	51.67	(0.36)