

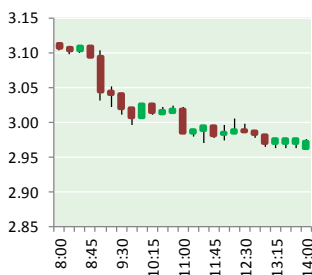
NATURAL GAS



NEWS

DECEMBER 5, 2017

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



NYMEX NG Futures

Month	Close	Change
Jan-18	2.985	(0.076)
Feb-18	2.988	(0.075)
Mar-18	2.955	(0.070)
Apr-18	2.834	(0.044)
May-18	2.829	(0.040)
Jun-18	2.860	(0.038)
Jul-18	2.892	(0.039)
Aug-18	2.896	(0.040)
Sep-18	2.879	(0.040)
Oct-18	2.903	(0.040)
Nov-18	2.958	(0.039)
Dec-18	3.090	(0.039)
Jan-19	3.177	(0.041)
Feb-19	3.146	(0.041)
Mar-19	3.071	(0.042)
Apr-19	2.710	(0.040)
May-19	2.667	(0.038)
Jun-19	2.689	(0.038)
Jul-19	2.714	(0.038)
Aug-19	2.713	(0.039)
Sep-19	2.695	(0.040)
Oct-19	2.718	(0.040)
Nov-19	2.773	(0.040)
Dec-19	2.923	(0.039)
1YR Strip	2.922	(0.048)
2018	2.922	(0.048)
5YR Strip	2.845	(0.039)

IN THE NEWS

Tokyo Gas signs LOI with Alaska Gasline on LNG purchase — Reuters reported: TOKYO (Reuters) - Tokyo Gas Co Ltd said on Tuesday it signed a letter of intent (LOI) with Alaska Gasline Development Corporation (AGDC) regarding the sale and purchase of liquefied natural gas (LNG). The move follows China's biggest state oil company Sinopec, one of the country's top banks and its

- Tokyo Gas signs LOI with Alaska Gasline on LNG purchase
- Hundreds gather in Richmond to protest natural gas pipelines

sovereign wealth fund agreeing last month to develop the \$43 billion natural gas project in Alaska, as the cash-poor U.S. state seeks to revive its dwindling energy industry. Alaska LNG is designed to carry natural gas from fields in the North Slope through an 800-mile (1,287 km) pipeline to south central Alaska for in-state use and to a liquefaction plant to produce up to 20 million tonnes of LNG per year for export. Tokyo Gas, which purchases about 14 million tonnes of LNG a year, plans to talk with AGDC on details of the possible purchase of LNG, including volume and length, a company spokesman said, adding such an action reflects its efforts to widen its supply sources. For more visit reuters.com or click <http://reut.rs/2nvq00Z>

Hundreds gather in Richmond to protest natural gas pipelines — Penn Energy reported: RICHMOND, Va. (AP) — Hundreds of people from across Virginia have rallied in Richmond to protest two proposed natural gas pipelines that would cross the state. Landowners, activists, a state lawmaker and two newly elected delegates were among those gathered at Capitol Square on Saturday to oppose the Mountain Valley and Atlantic Coast pipelines. Speakers addressed the crowd before attendees marched peacefully to a theater for a concert. Organizers said more than 500 people attended. The protest comes ahead of a crucial permitting decision by the State Water Control Board on whether to grant water quality certifications to the projects. Opponents say the pipelines will degrade water quality, infringe on property rights and further commit the region to fossil fuels. For more visit pennenergy.com or click <http://bit.ly/2Ax66EC>

12 MONTH CANDLESTICK (WEEKLY)



Prompt Natural Gas (NG) Daily Sentiment

BEARISH



RESISTANCE

3.09 & 3.19

SUPPORT

2.91 & 2.84

Trading Summary

NATURAL GAS

Futures	Close	Change
NG	2.985	(0.076)
Volume	627,060	(179,588)
Open Int.	1,447,093	19,756

CRUDE AND GASOLINE

Futures	Close	Change
Crude	57.47	(0.89)
RBOB	1.6922	(0.0494)
Crude/NG	19.25	0.19

METALS

Futures	Close	Change
Gold	1,274.30	(1.80)

EQUITIES

Exchange	Close	Change
DOW	24,290.05	58.46
S&P 500	2,639.44	(2.78)

CURRENCY

Currency	Close	Change
EUR/USD	1.1866	(0.0030)
USD/CND	1.2640	(0.0042)

Contact Us



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Gainesville, GA 30501

www.mansfield.energy

info@mansfieldoil.com

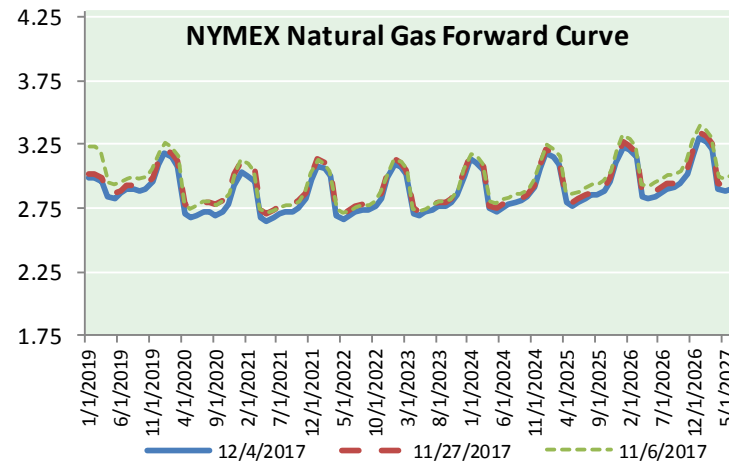
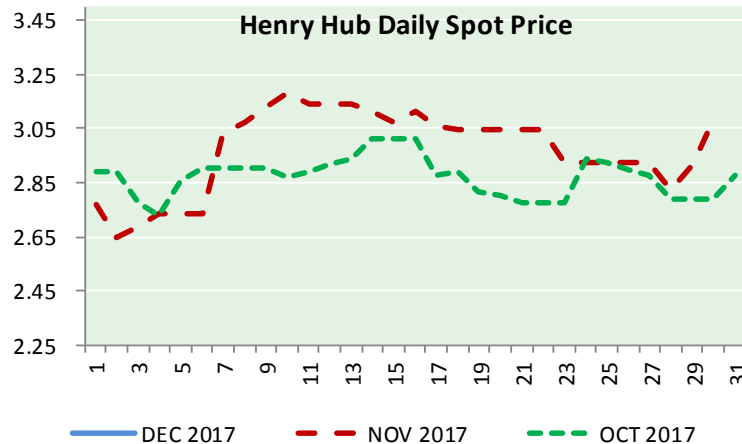
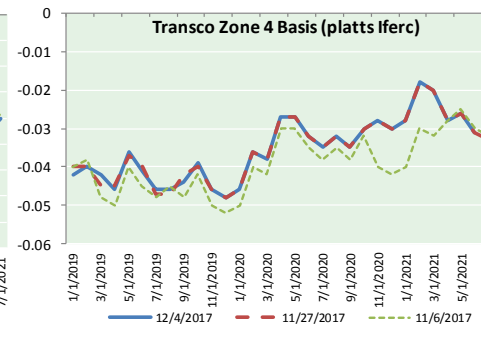
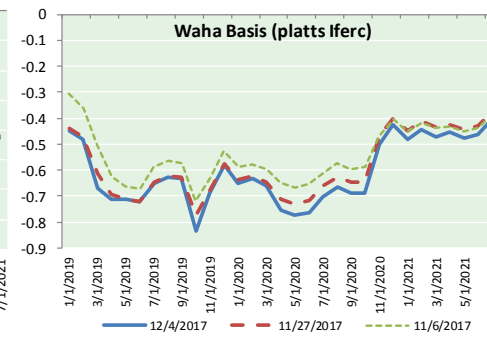
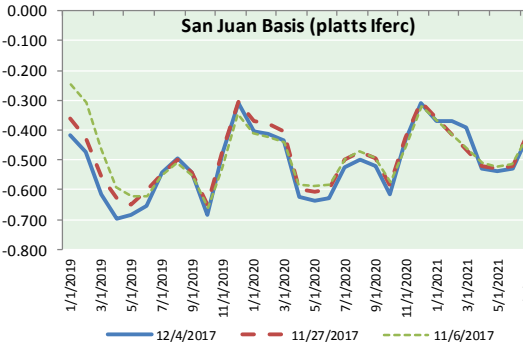
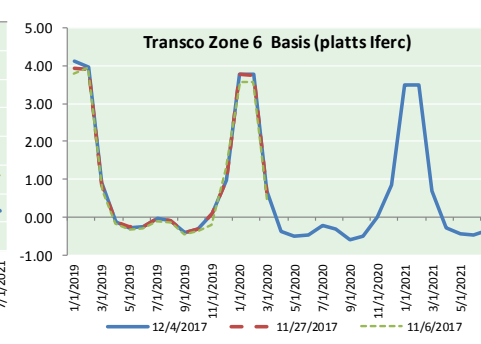
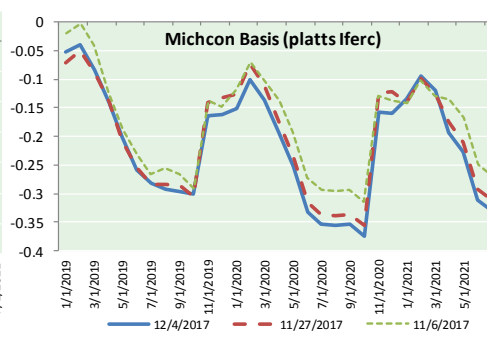
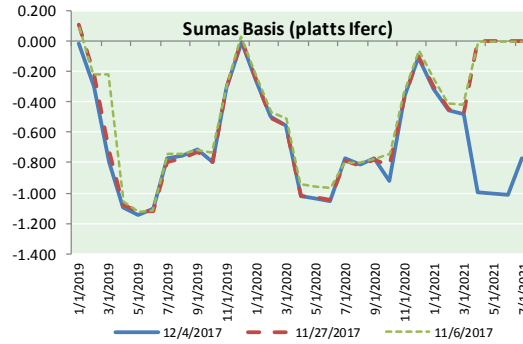
Phone: (800) 695-6626



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: December 2017

Day	Price	Day	Price
1	58.36	16	
2		17	
3		18	
4	57.47	19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	
		31	
Average (Dec)	57.9150		
(through 12/04/2017)			
Average (Nov)	56.6629		
Average (Oct)	51.5945		

CME NG Option Prices

ATM Call

Month	Strike	Close	Imp Vol
Jan-18	2.950	0.142	52.5
Feb-18	2.950	0.213	48.7
Mar-18	2.900	0.272	48.7
Apr-18		0.000	0.1
May-18	2.800	0.209	29.0

CME NG Option Prices

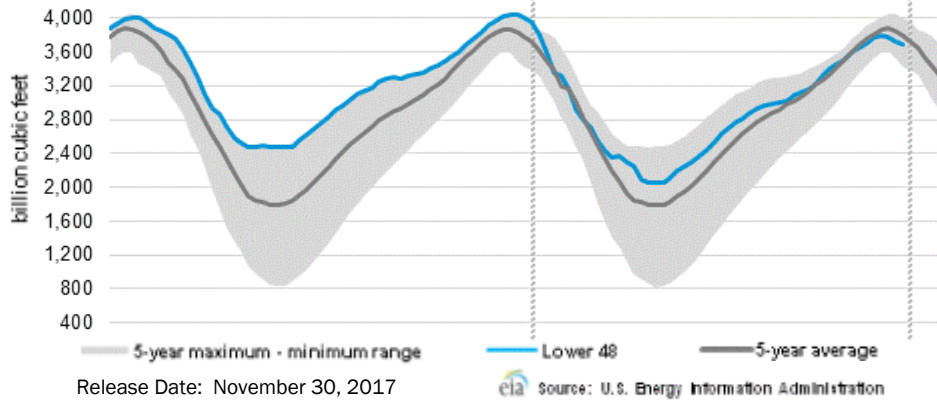
ATM Put

Month	Strike	Close	Imp Vol
Jan-18	2.950	0.108	35.6
Feb-18	2.950	0.180	39.4
Mar-18	2.900	0.219	41.2
Apr-18			
May-18	2.800	0.178	26.2



NATURAL GAS NEWS

WEEKLY GAS IN UNDERGROUND STORAGE WITH 5-YR RANGE



Rig Count

Report Date: December 1, 2017

	Total	Change
US -	929	+6
CN -	222	+7

EIA Weekly NG Storage Actual and Surveys for November 23, 2017
 Released November 30, 2017

- PIRA— (32)
- SMC— (37)
- Reuters— (37)

EIA ACTUAL — (33)

Total Working Gas In Storage

3,693 BCF

- (33) BCF (LAST WEEK)
- (309) BCF (LAST YEAR)
- (107) BCF (5-YR AVG)

U.S. Natural Gas Supply Gas Week 11/23- 11/29

Average daily values (BCF/D):

Last Year (BCF/d)

Dry Production — +79.6

Total Supply — +76.8

Last Week (BCF/d)

Dry Production — +75.8

Total Supply — +81.2

[NEXT REPORT ON Dec 7]

U.S. Natural Gas Demand Gas Week 11/23- 11/29

Average daily values (BCF/D):

Last Year (BCF/d)

Power — +20.7

Total Demand — +81.0

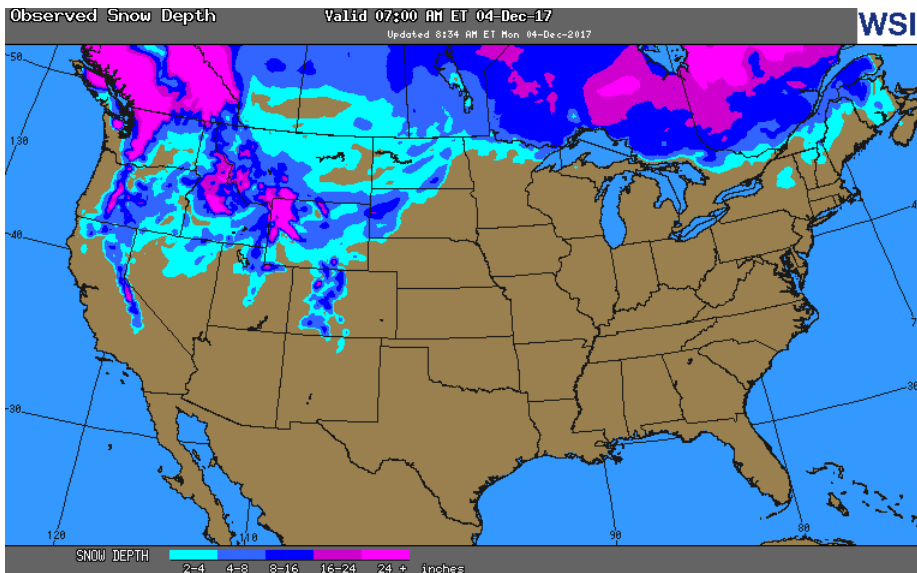
Last Week (BCF/d)

Power — +22.0

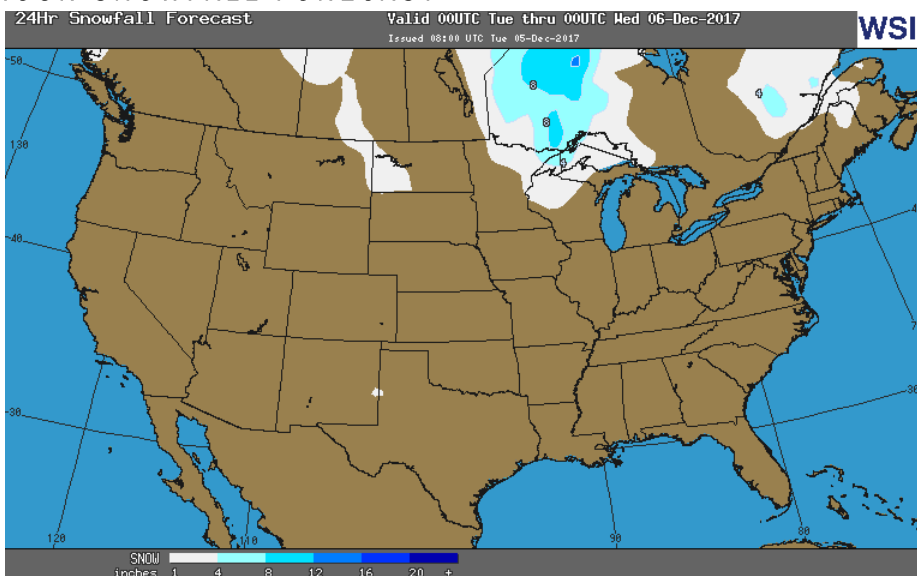
Total Demand — +85.4

[NEXT REPORT ON Dec 7]

OBSERVED SNOW DEPTH

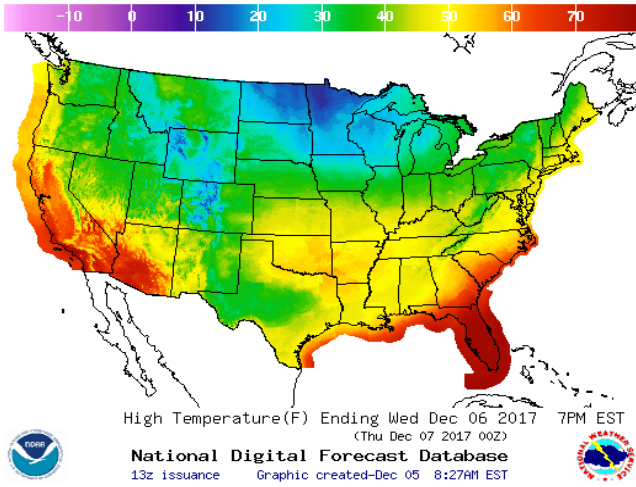


24 HOUR SNOWFALL FORECAST

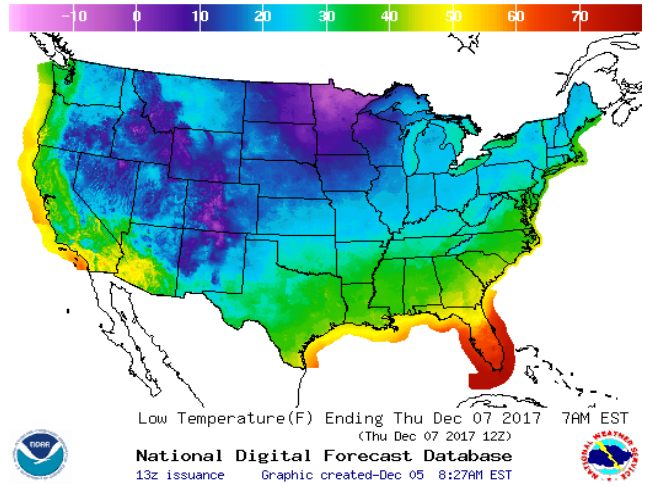


WEATHER – HIGH / LOW TEMPERATURE TOMORROW

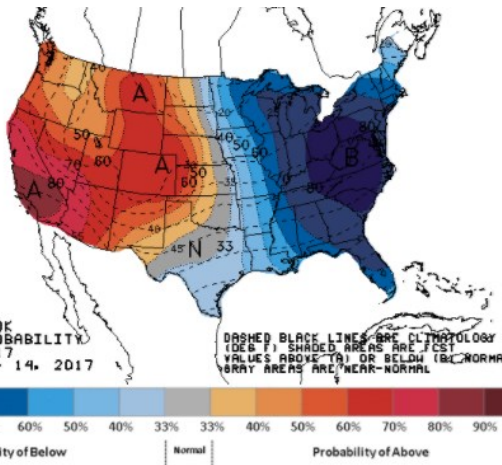
HIGH Temperature



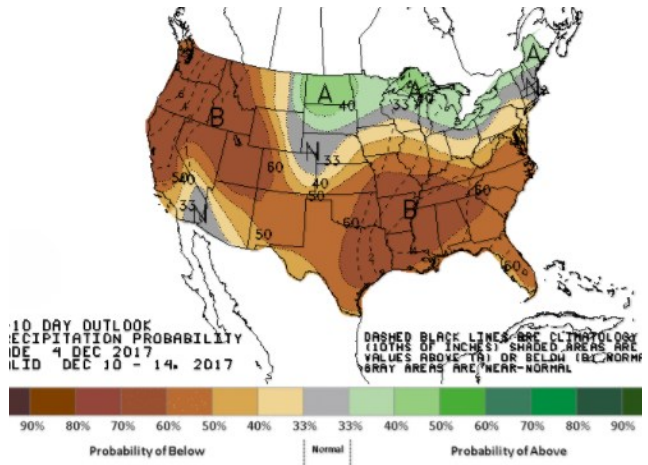
LOW Temperature



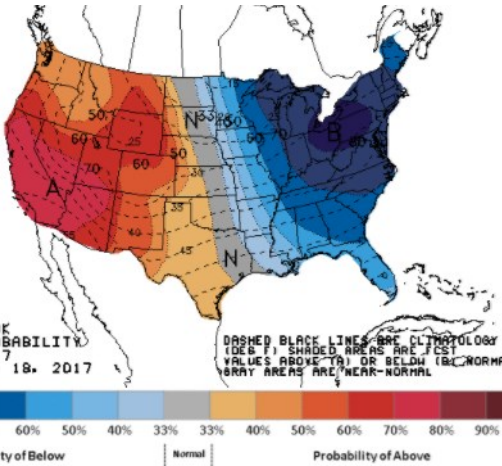
WEATHER – 6 TO 10 DAY OUTLOOK – NOAA
Temperature



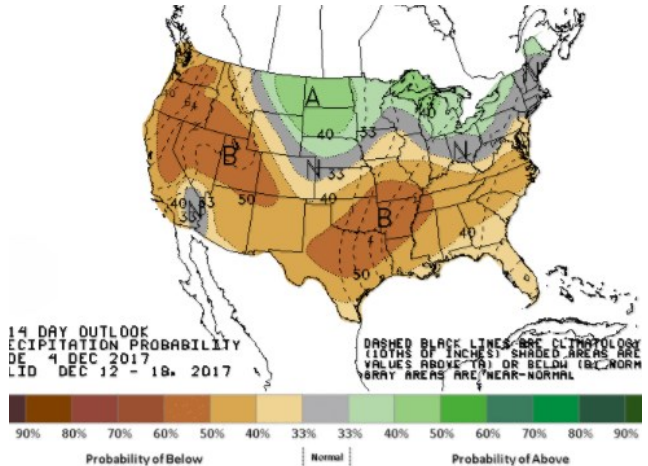
Precipitation



WEATHER – 8 TO 14 DAY OUTLOOK – NOAA
Temperature



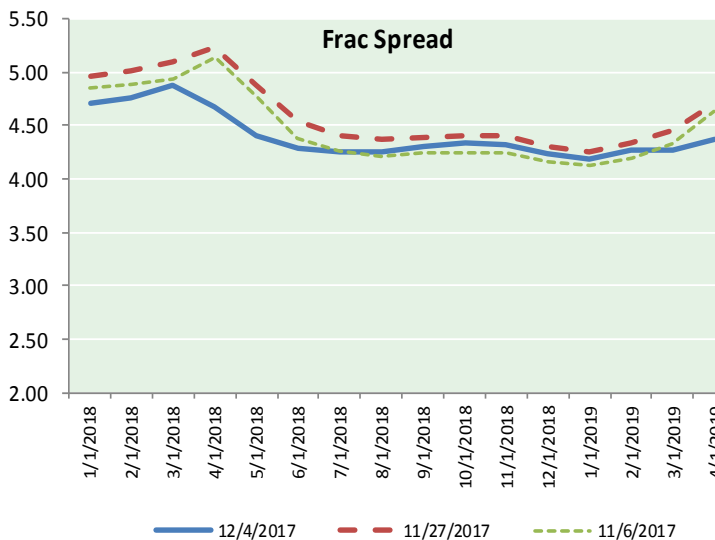
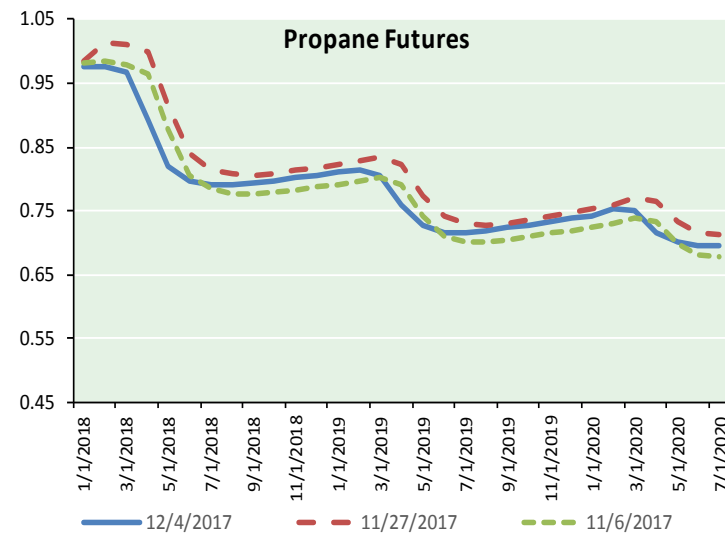
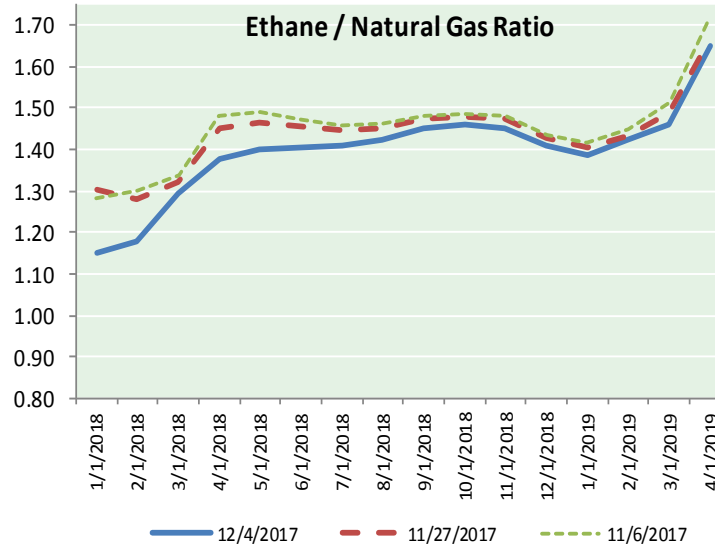
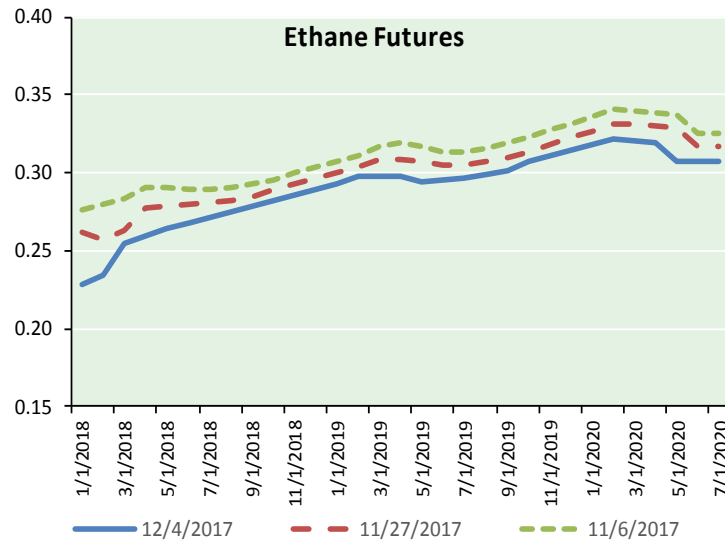
Precipitation



NATURAL GAS NEWS



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



CME Future Prices

Ethane (C2)

Non-LDH— Mont Belvieu

(cents/gallon)		
Month	Close	Change
Jan-18	0.228	(0.009)
Feb-18	0.234	(0.011)
Mar-18	0.254	(0.008)
Apr-18	0.259	(0.005)
May-18	0.264	(0.003)
Jun-18	0.268	(0.003)
Jul-18	0.271	(0.002)
Aug-18	0.274	(0.001)
Sep-18	0.278	(0.001)
Oct-18	0.282	0.000
Nov-18	0.286	0.000
Dec-18	0.289	(0.001)

1YR Strip 0.266 (0.004)

CME Future Prices

Propane (C3)

Non-LDH— Mont Belvieu

(cents/gallon)		
Month	Close	Change
Jan-18	0.977	(0.013)
Feb-18	0.976	(0.014)
Mar-18	0.969	(0.011)
Apr-18	0.892	(0.009)
May-18	0.821	(0.008)
Jun-18	0.798	(0.009)
Jul-18	0.792	(0.009)
Aug-18	0.792	(0.009)
Sep-18	0.793	(0.009)
Oct-18	0.797	(0.007)
Nov-18	0.802	(0.007)
Dec-18	0.806	(0.007)

1YR Strip 0.851 (0.009)

NATURAL GAS NEWS



Prompt WTI (CL) Crude

Daily Sentiment

BULLISH



RESISTANCE

55.41 & 55.72

SUPPORT

54.90 & 54.70

FOLLOW US ON TWITTER:



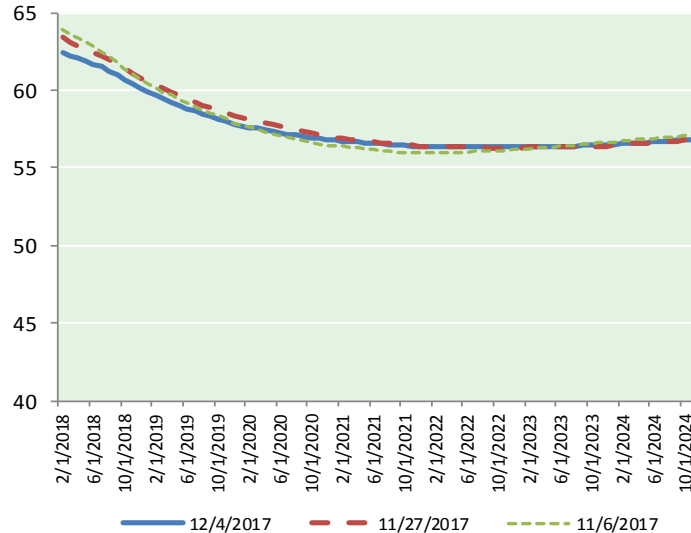
@MPG_NatGasNews

NYMEX Brent (BZ)

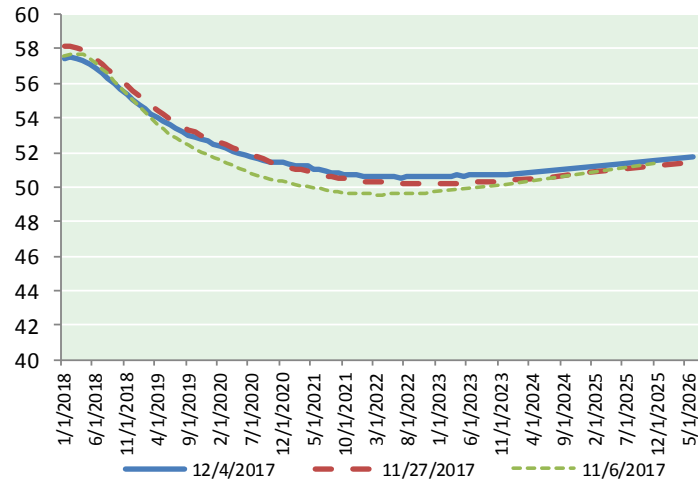
Futures

Month	Close	Change
Feb-18	62.45	(1.28)
Mar-18	62.24	(1.22)
Apr-18	62.04	(1.15)
May-18	61.87	(1.07)
Jun-18	61.70	(1.01)
Jul-18	61.50	(0.95)
Aug-18	61.26	(0.89)
Sep-18	60.99	(0.84)
Oct-18	60.71	(0.79)
Nov-18	60.44	(0.74)
Dec-18	60.16	(0.69)
Jan-19	59.92	(0.64)
Feb-19	59.70	(0.61)
Mar-19	59.46	(0.57)
Apr-19	59.26	(0.55)
May-19	59.05	(0.52)
Jun-19	58.81	(0.50)
Jul-19	58.66	(0.48)
Aug-19	58.48	(0.46)
Sep-19	58.32	(0.43)
Oct-19	58.18	(0.42)
Nov-19	58.02	(0.38)
Dec-19	57.85	(0.35)
Jan-20	57.72	(0.33)
1YR Strip	61.27	(0.94)
2018	61.40	(0.97)
5YR Strip	57.91	(0.38)

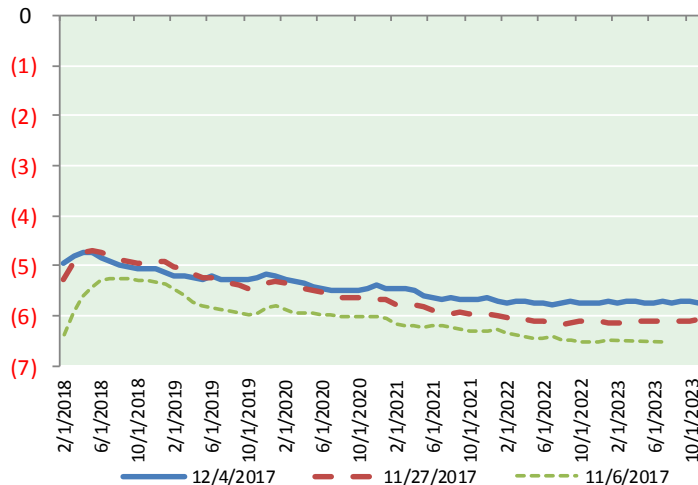
BRENT CRUDE FORWARD CURVE



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)

	Jan-18	Close	Change
Butane		1.036	(0.012)
Iso-Butane		1.040	(0.012)
Nat Gasoline		1.331	(0.023)

NYMEX WTI (CL) Futures

Month	Close	Change
Jan-18	57.47	(0.89)
Feb-18	57.49	(0.89)
Mar-18	57.42	(0.89)
Apr-18	57.31	(0.86)
May-18	57.12	(0.83)
Jun-18	56.87	(0.79)
Jul-18	56.58	(0.74)
Aug-18	56.27	(0.69)
Sep-18	55.96	(0.64)
Oct-18	55.66	(0.60)
Nov-18	55.37	(0.56)
Dec-18	55.09	(0.53)
Jan-19	54.79	(0.50)
Feb-19	54.50	(0.47)
Mar-19	54.24	(0.43)
Apr-19	54.01	(0.39)
May-19	53.79	(0.36)
Jun-19	53.60	(0.33)
Jul-19	53.39	(0.30)
Aug-19	53.20	(0.27)
Sep-19	53.03	(0.24)
Oct-19	52.90	(0.21)
Nov-19	52.78	(0.18)
Dec-19	52.67	(0.18)
1YR Strip	56.55	(0.74)
2018	56.55	(0.74)
5YR Strip	52.63	(0.21)