

NATURAL GAS



MAY 22, 2019

Prior Day's NYMEX JUN-19 Contract (CT)



NYMEX NG Futures

Month	Close	Change
Jun-19	2.543	(0.070)
Jul-19	2.559	(0.082)
Aug-19	2.574	(0.082)
Sep-19	2.572	(0.079)
Oct-19	2.604	(0.077)
Nov-19	2.684	(0.074)
Dec-19	2.859	(0.069)
Jan-20	2.954	(0.065)
Feb-20	2.916	(0.062)
Mar-20	2.803	(0.052)
Apr-20	2.565	(0.035)
May-20	2.534	(0.032)
Jun-20	2.568	(0.030)
Jul-20	2.604	(0.028)
Aug-20	2.615	(0.027)
Sep-20	2.601	(0.027)
Oct-20	2.622	(0.027)
Nov-20	2.674	(0.026)
Dec-20	2.830	(0.025)
Jan-21	2.927	(0.025)
Feb-21	2.894	(0.023)
Mar-21	2.765	(0.022)
Apr-21	2.511	(0.016)
May-21	2.481	(0.016)
1YR Strip 2019	2.681	(0.065)
5YR Strip	2.628	(0.076)
5YR Strip	2.688	(0.028)

IN THE NEWS

Saudi Arabia wants to buy tons of American natural gas—CNN reported: Saudi Arabia has placed a huge bet on American natural gas. In a sign of shifting energy fortunes, Saudi Aramco announced a mega preliminary agreement on Wednesday to buy 5 million tons of liquefied natural gas per year from a Port Arthur, Texas export project that's under development. If completed, the

- Saudi Arabia wants to buy tons of American natural gas
- Natural Gas Prices In The Permian Flip Negative Again

purchase from San Diego-based Sempra Energy (SRE) would be one of the largest LNG deals ever signed, according to consulting firm Wood Mackenzie. Aramco, Saudi Arabia's crown jewel, would also inject a cash infusion into the Port Arthur development in exchange for a 25% stake. For more on this story visit cnn.com or click <https://cnn.it/30BvmSh>

Natural Gas Prices In The Permian Flip Negative Again— Oil Price reported: Natural gas prices at the Waha hub in West Texas are negative again this week, for the first time since plunging to an all-time low of minus \$4.28 per million British thermal units (MMBtu) in early April, according to data compiled by Reuters. On Wednesday, next-day natural gas prices at the Waha hub in the Permian dipped to below zero—to minus \$0.40 per MMBtu, for the first negative reading since early April. According to Reuters estimates, Waha natural gas prices averaged just \$0.92 per MMBtu so far in 2019, compared to \$2.10 in 2018 and a five-year average of \$2.80 between 2014 and 2018. In early April, prices at the Waha hub plummeted to record low negative levels, as pipeline constraints and problems at compressor stations at one pipeline stranded gas produced in the Permian. Gas production in the Permian has been rising in lockstep with crude oil production, and even though gas takeaway capacity has attracted less media attention, pipeline constraints for natural gas are similar to those of crude oil pipeline capacity. The natural gas takeaway capacity constraints have resulted in more gas flaring in the Permian on the one hand, and in a record-high spread between the Waha gas hub price and the U.S. benchmark Henry Hub in Louisiana, on the other hand. For more on this story visit oilprice.com or click <https://bit.ly/2YPRu9R>

12 MONTH CANDLESTICK (WEEKLY)



Prompt Natural Gas (NG) Daily Sentiment

BEARISH



RESISTANCE
2.60 & 2.65
SUPPORT
2.51 & 2.48

Trading Summary

NATURAL GAS

Futures	Close	Change
NG	2.543	(0.070)
Volume	468,146	(402,162)
Open Int.	1,317,936	12,314

CRUDE AND GASOLINE

Futures	Close	Change
Crude	61.42	(1.71)
RBOB	1.9912	(0.0281)
Crude/NG	24.00	0.10

METALS

Futures	Close	Change
Gold	1,273.60	

EQUITIES

Exchange	Close	Change
DOW	25,474.33	(302.28)
S&P 500	-1,541.57	(31.18)

CURRENCY

Currency	Close	Change
EUR/USD	1.1112	(0.0038)
USD/CND	1.2405	

Contact Us



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1025 Airport Pkwy
Gainesville, GA 30501

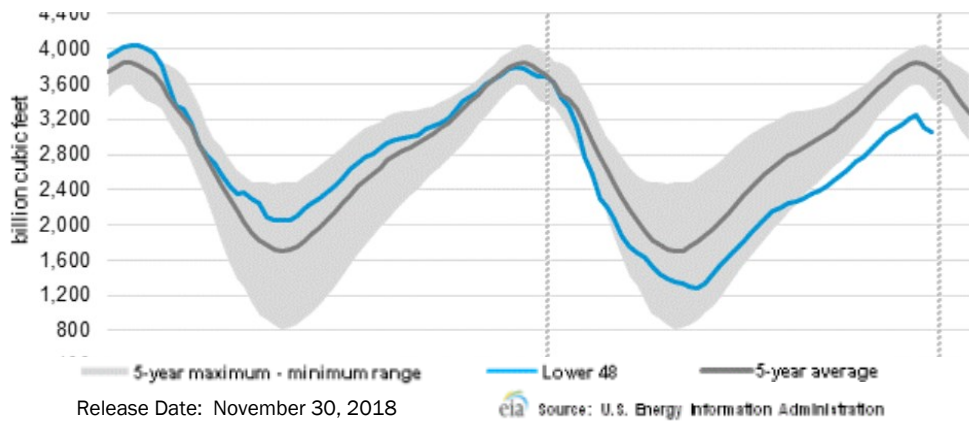
www.mansfield.energy
info@mansfieldoil.com

Phone: (800) 695-6626





WEEKLY GAS IN UNDERGROUND STORAGE WITH 5-YR RANGE



Rig Count

Report Date: March 22, 2019

	Total	Change
US -	1,016	(22)
CN -	105	(106)

EIA Weekly NG Storage Actual and Surveys for May 15, 2019

Released May 14, 2019

Range — +85 to +114

PIRA— (89)
 PointLogic — (88)

Energy Aspects — (86)

EIA ACTUAL — (123)

Total Working Gas In Storage

1,653 BCF

106 BCF (LAST WEEK)
 130 BCF (LAST YEAR)
 (286) BCF (5-YR AVG)

U.S. Natural Gas Supply Gas Week 5/9 — 5/15

Average daily values (BCF/D):
 Last Year (BCF/d)

Dry Production — +80.3
 Total Supply — +86.1
 Last Week (BCF/d)
 Dry Production — +89.4
 Total Supply — +94.4

[NEXT REPORT ON May 24]

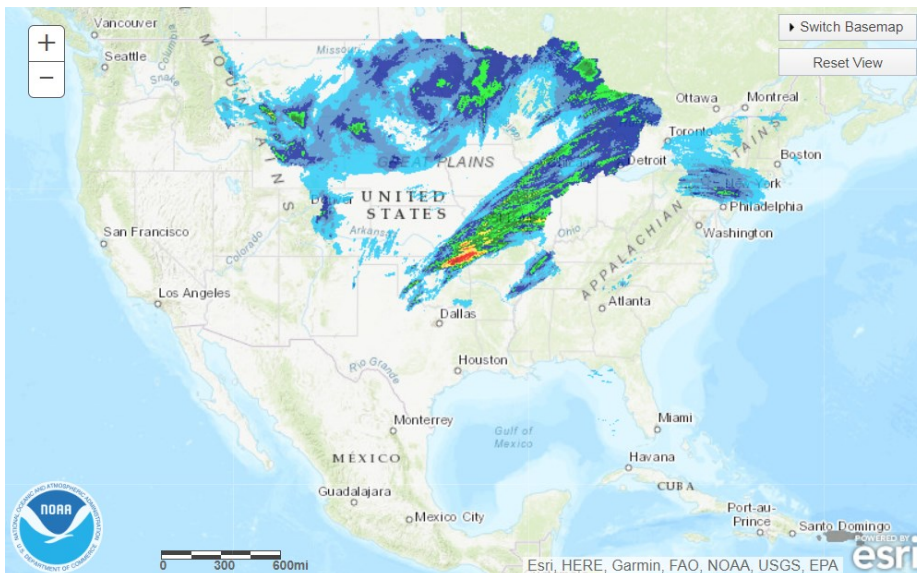
U.S. Natural Gas Demand Gas Week 5/9 — 5/15

Average daily values (BCF/D):
 Last Year (BCF/d)

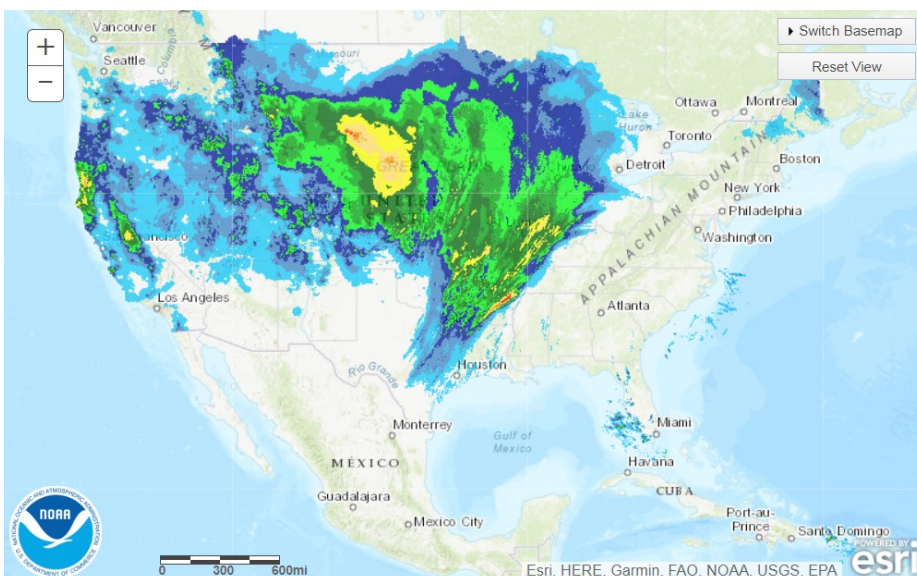
Power — +27.1
 Total Demand — +71.3
 Last Week (BCF/d)
 Power — +24.6
 Total Demand — +75.8

[NEXT REPORT ON May 24]

TODAY'S PRECIPITATION



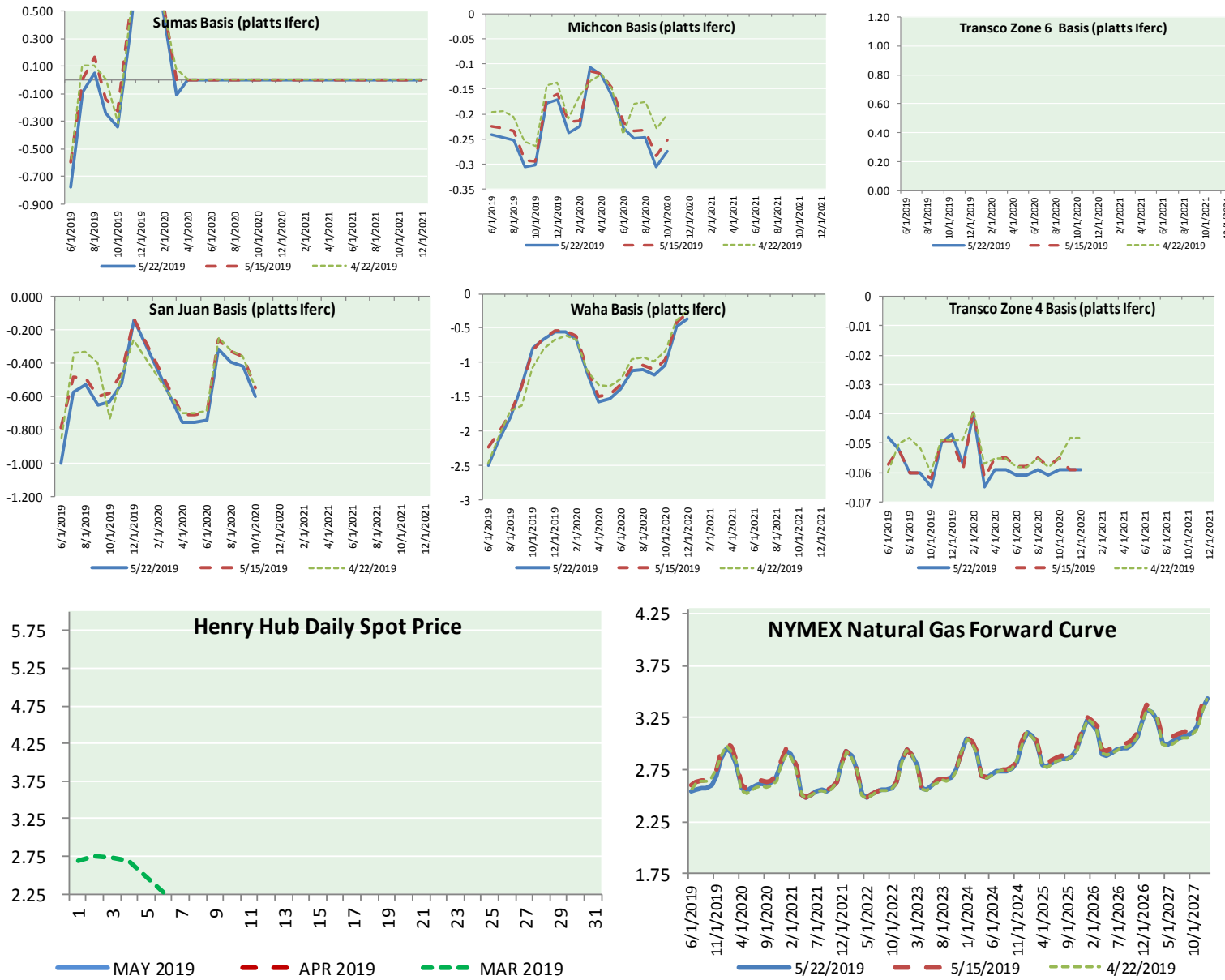
24 HOUR PRECIPITATION





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: May 2019

Day	Price	Day	Price
1	63.60	16	62.87
2	61.81	17	62.76
3	61.94	18	
4		19	
5		20	63.10
6	62.25	21	62.99
7	61.40	22	61.42
8	62.12	23	
9	61.70	24	
10	61.66	25	
11		26	
12		27	
13	61.04	28	
14	61.78	29	
15	62.02	30	
		31	
Average (May)		62.1538	
		(through 05/22/2019)	
Average (Apr)		63.9541	
Average (Mar)		58.1681	

CME NG Option Prices

ATM Call

Month	Strike	Close	Imp Vol
Jul-19			
Aug-19	2.600	0.071	26.2
Sep-19			
Oct-19			
Nov-19			

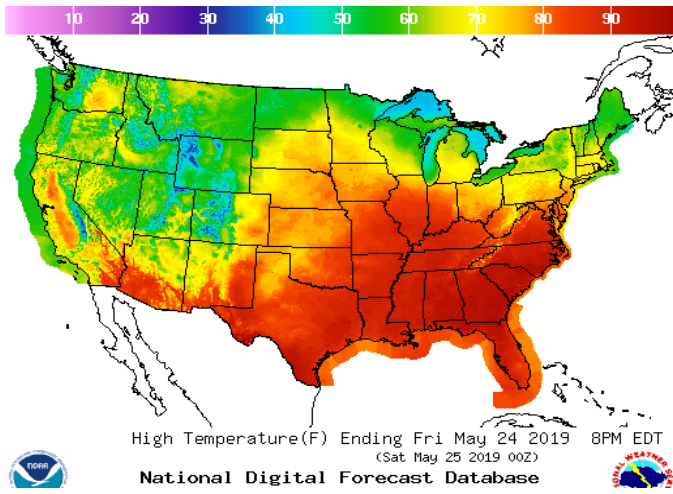
CME NG Option Prices

ATM Put

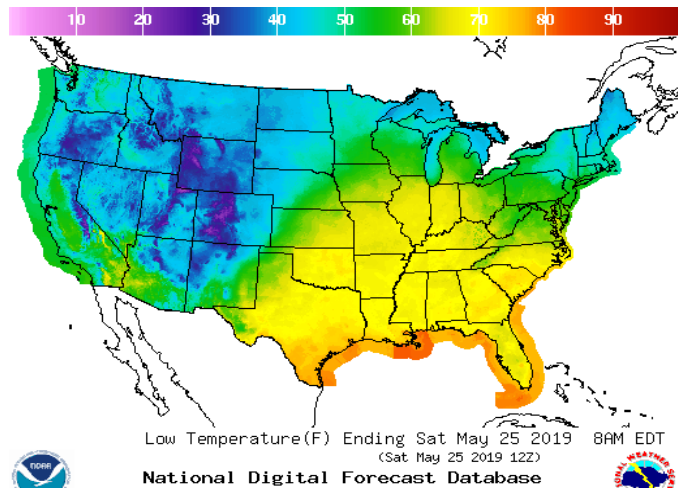
Jul-19			
Aug-19	2.600	0.100	28.1
Sep-19			
Oct-19			
Nov-19			

WEATHER – HIGH / LOW TEMPERATURE TOMORROW

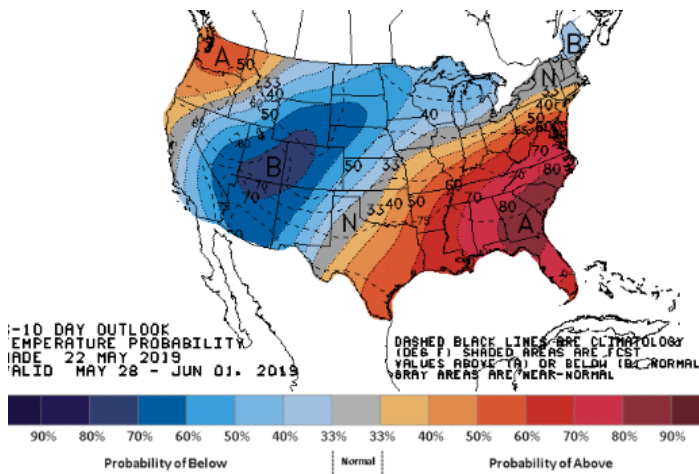
HIGH Temperature



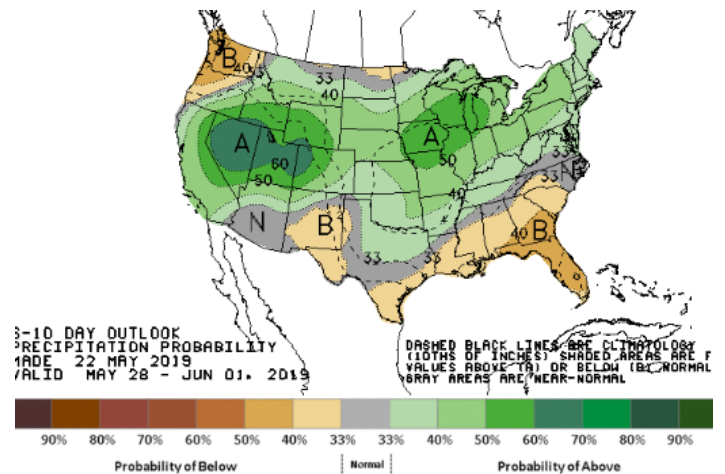
LOW Temperature



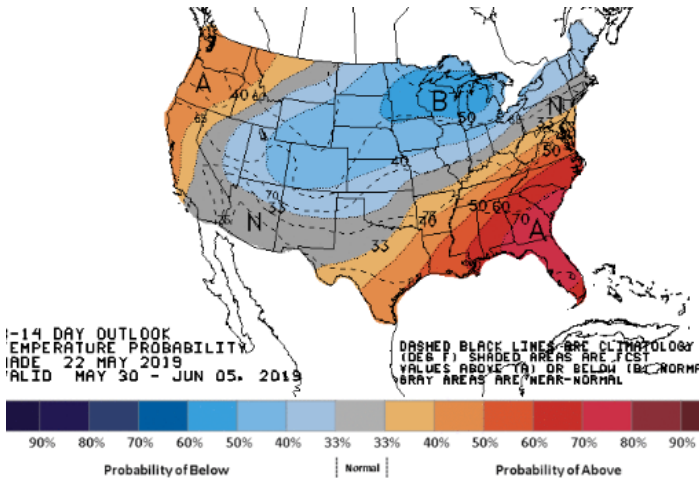
WEATHER – 6 TO 10 DAY OUTLOOK – NOAA
Temperature



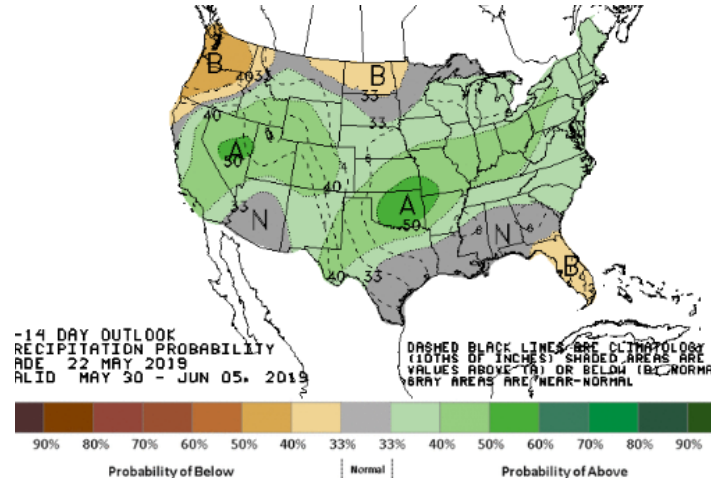
Precipitation



WEATHER – 8 TO 14 DAY OUTLOOK – NOAA
Temperature

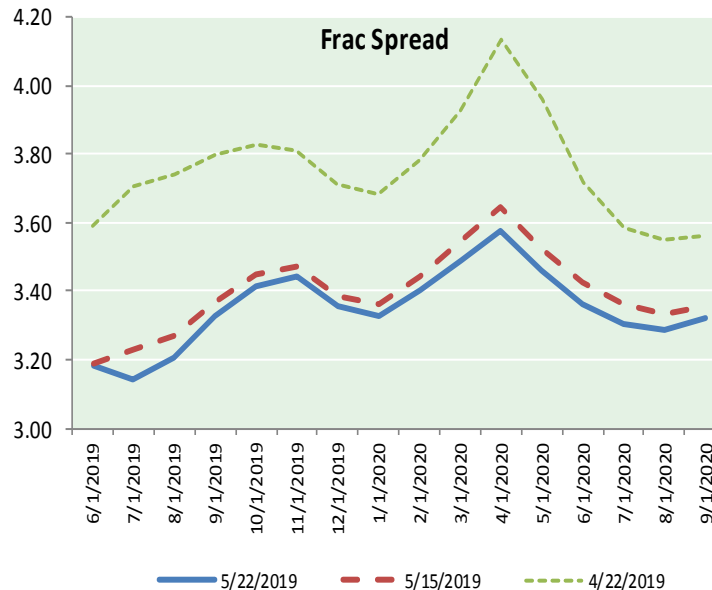
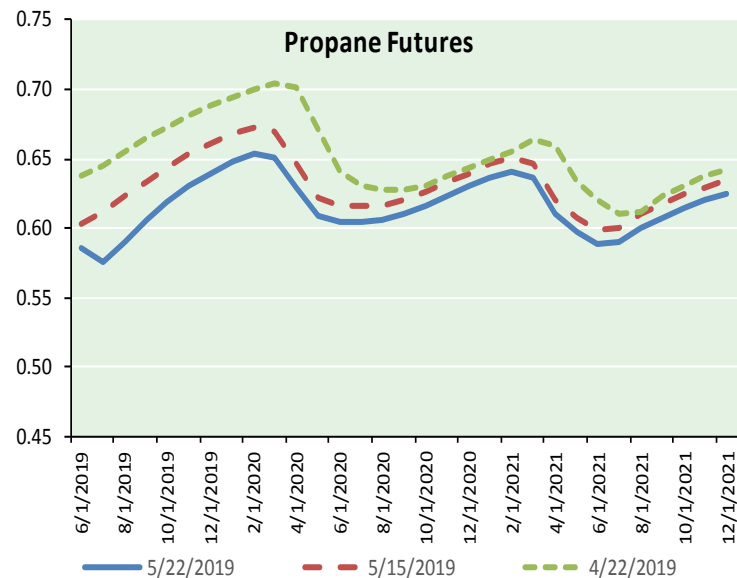
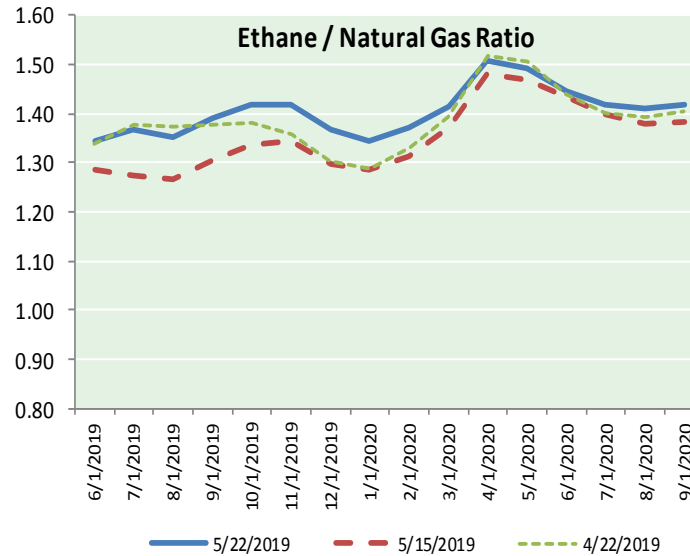
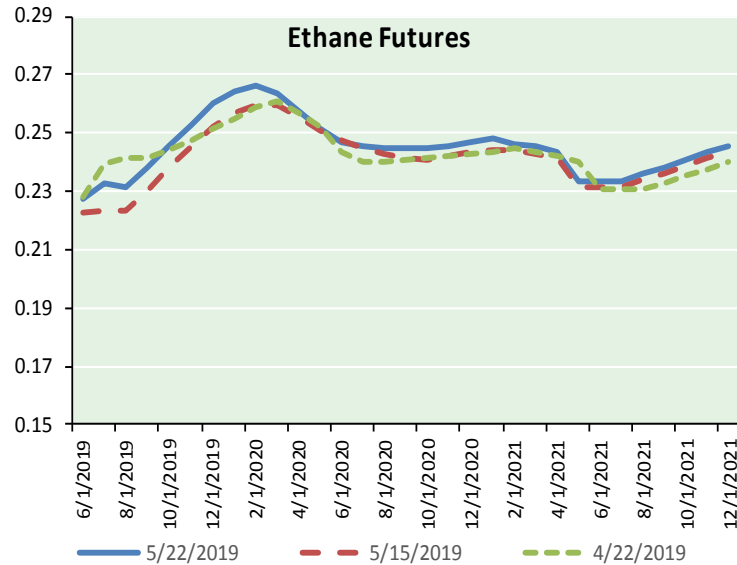


Precipitation





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



CME Future Prices

Month	Close	Change
Jun-19	0.227	(0.001)
Jul-19	0.233	(0.002)
Aug-19	0.231	(0.002)
Sep-19	0.238	(0.002)
Oct-19	0.246	(0.002)
Nov-19	0.253	(0.002)
Dec-19	0.260	(0.002)
Jan-20	0.264	(0.002)
Feb-20	0.266	(0.002)
Mar-20	0.264	(0.003)
Apr-20	0.258	(0.003)
May-20	0.251	(0.003)
1YR Strip	0.249	(0.002)

CME Future Prices

Propane (C3)
Non-LDH— Mont Belvieu

Month	Close	Change
Jun-19	0.585	(0.007)
Jul-19	0.575	(0.019)
Aug-19	0.591	(0.018)
Sep-19	0.606	(0.018)
Oct-19	0.619	(0.018)
Nov-19	0.631	(0.017)
Dec-19	0.640	(0.017)
Jan-20	0.648	(0.017)
Feb-20	0.653	(0.017)
Mar-20	0.651	(0.017)
Apr-20	0.629	(0.016)
May-20	0.609	(0.015)
1YR Strip	0.620	(0.016)

NATURAL GAS NEWS



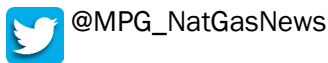
Prompt WTI (CL) Crude
Daily Sentiment

BEARISH



RESISTANCE
62.60 & 63.79
SUPPORT
60.63 & 59.85

FOLLOW US ON TWITTER:

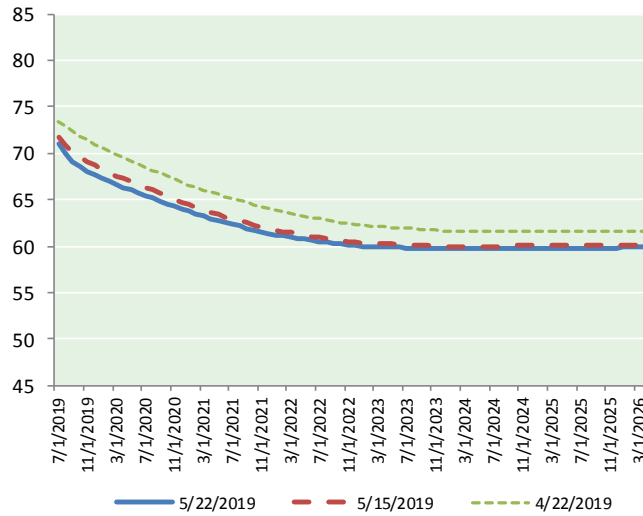


NYMEX Brent (BZ)

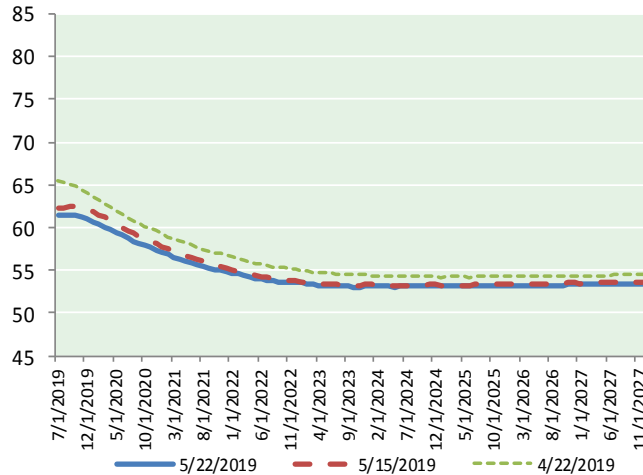
Futures

Month	Close	Change
Jul-19	61.42	(1.71)
Aug-19	61.50	(1.71)
Sep-19	61.48	(1.71)
Oct-19	61.37	(1.70)
Nov-19	61.20	(1.68)
Dec-19	60.97	(1.65)
Jan-20	60.68	(1.64)
Feb-20	60.37	(1.61)
Mar-20	60.06	(1.58)
Apr-20	59.74	(1.54)
May-20	59.43	(1.50)
Jun-20	59.12	(1.46)
Jul-20	58.78	(1.43)
Aug-20	58.46	(1.39)
Sep-20	58.17	(1.35)
Oct-20	57.90	(1.32)
Nov-20	57.65	(1.29)
Dec-20	57.42	(1.25)
Jan-21	57.13	(1.21)
Feb-21	56.85	(1.18)
Mar-21	56.59	(1.15)
Apr-21	56.35	(1.12)
May-21	56.12	(1.10)
Jun-21	55.94	(1.06)
1YR Strip	60.61	(1.62)
2019	61.32	(1.69)
5YR Strip	55.78	(0.98)

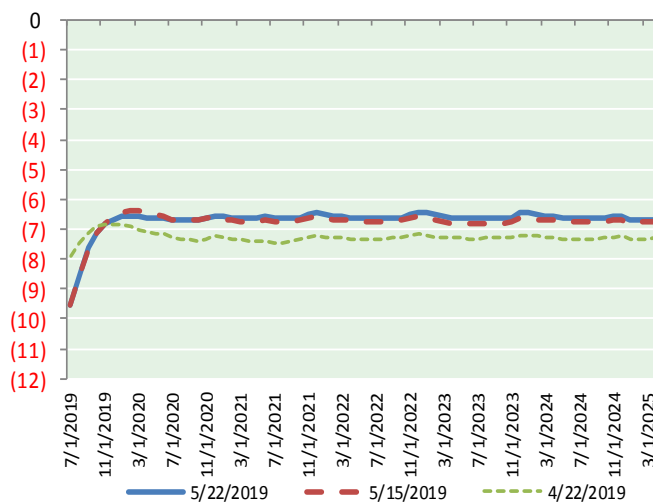
BRENT CRUDE FORWARD CURVE



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

	Jun-19	Close	Change
Butane	0.633	0.001	
Iso-Butane	0.641	0.001	
Nat Gasoline	1.255	(0.011)	

NYMEX WTI (CL) Futures

Month	Close	Change
Jul-19	70.99	(1.19)
Aug-19	69.99	(1.32)
Sep-19	69.13	(1.38)
Oct-19	68.47	(1.43)
Nov-19	68.00	(1.45)
Dec-19	67.63	(1.43)
Jan-20	67.27	(1.43)
Feb-20	66.95	(1.40)
Mar-20	66.64	(1.38)
Apr-20	66.34	(1.37)
May-20	66.04	(1.35)
Jun-20	65.74	(1.32)
Jul-20	65.44	(1.30)
Aug-20	65.16	(1.28)
Sep-20	64.86	(1.26)
Oct-20	64.57	(1.23)
Nov-20	64.27	(1.20)
Dec-20	63.97	(1.18)
Jan-21	63.72	(1.16)
Feb-21	63.47	(1.14)
Mar-21	63.23	(1.11)
Apr-21	62.99	(1.09)
May-21	62.75	(1.07)
Jun-21	62.52	(1.04)
1YR Strip	67.77	(1.37)
2019	69.04	(1.37)
5YR Strip	62.43	(0.88)