

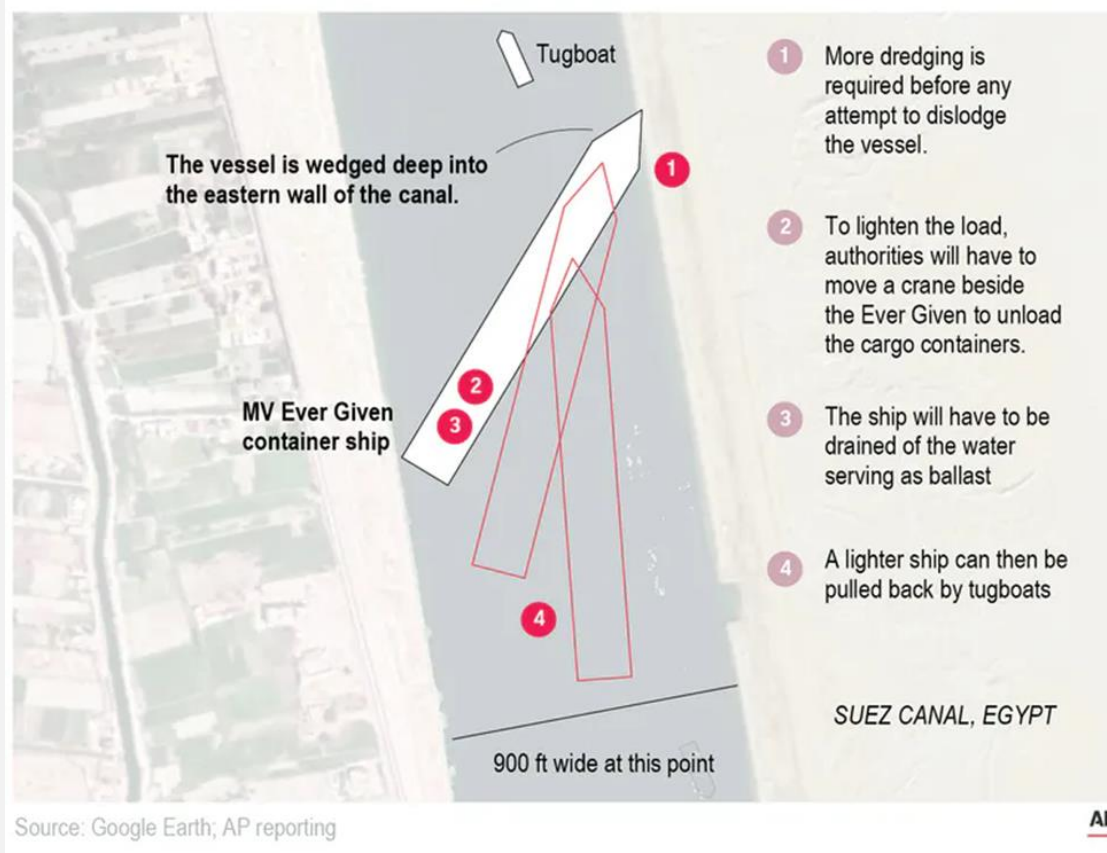
The week we focus on the issues around the Suez Canal and the impact on European gas markets.

Dredgers, excavators, and tug boats are working hard to free the ship, but the operation may take weeks, according to the AP. About 10% of the world's maritime trade passes through the canal, which allows ships to shorten the trip between Europe or the American east coast and Asia by thousands of kilometers, saving a week or more of travel time.

Here is a great image from the Associated Press show the process of dislodging the ship.

Authorities attempt to lighten wedged container ship

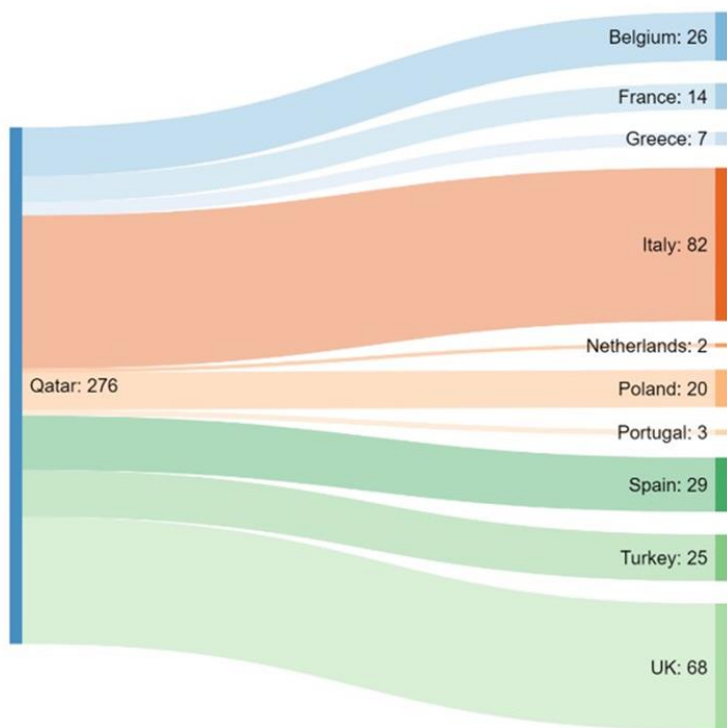
The Ever Given's massive weight, some 220,000 tons, is making it very difficult to dislodge and float. Instead, the team says it may have to lighten the ship and then try to nudge the ship using tugboats.



The blockage is leading to bullish spot price moves on European prices, but more particularly on UK's NBP price point. According to ICIS, the UK was the likely destination of at least five Qatari cargoes in the next two weeks, which would have passed through the Suez Canal. These are now delayed, with no definite time on when the channel will be open again. Around 50 ships usually pass the channel each day; hence each day the channel is blocked a bigger queue of ships forms.

From the LNG perspective, the prolonged blockage would impact particularly Qatari exports to Europe and Russian Yamal LNG exports to Asia.

To give a better perspective of Europe's reliance on Qatari LNG, the following image from ICIS' LNGEdge platform shows where the 276 Qatari LNG vessels docked throughout 2020. The UK and Italy are clearly the most popular destinations. Italy has long-term contract with Qatar for the delivery of around three vessels every week. This could leave Italy short volumes to refill storage early in the season.

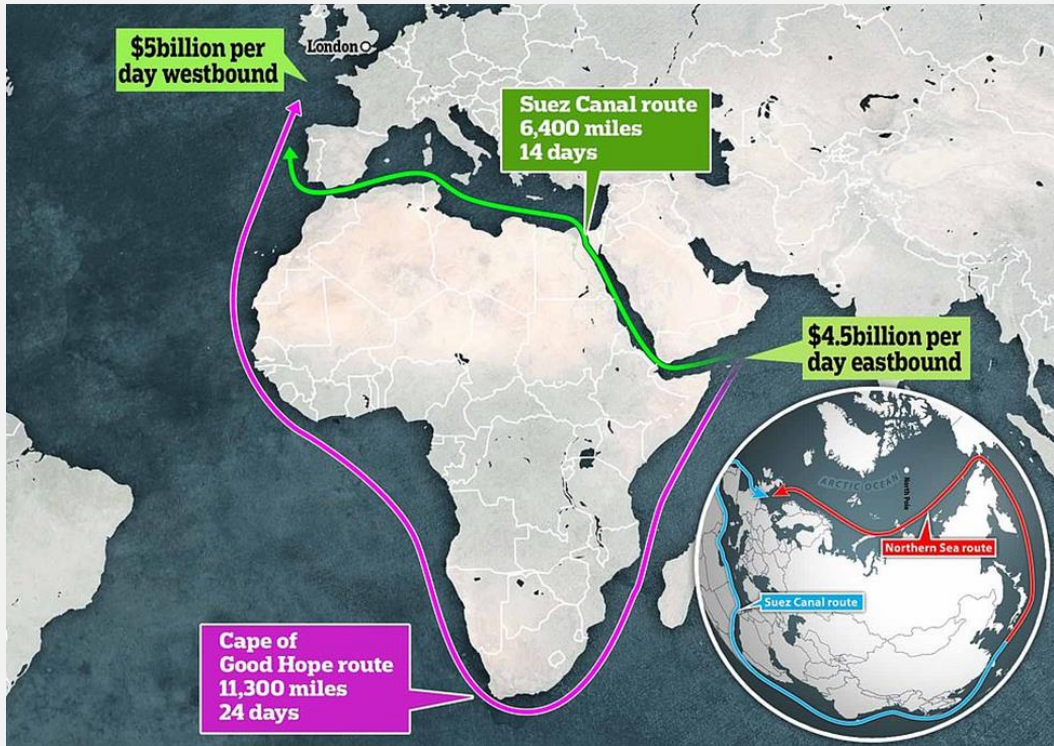


Source: ICIS

There have already been some diversions of Qatari vessels over the past few days. Here are some maps dropped on enlyst on Friday from ICIS.

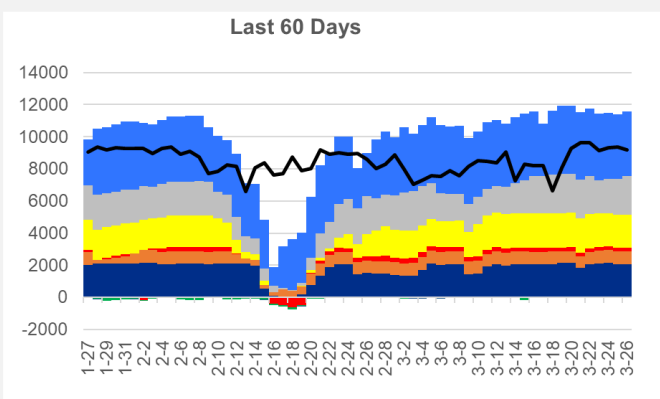
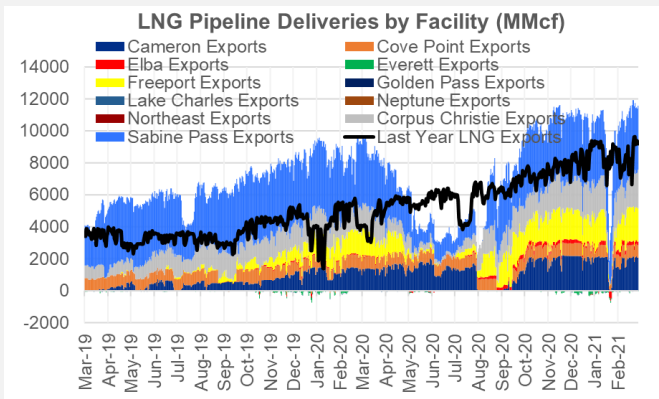


The two diversions shown above are the Q-Max tankers Al Samriya and the Al Mafyar - both likely headed to the UK. The diversion is expected to take an additional 10 days. Below is a great map showing the alternative routes with the Suez Canal not available.



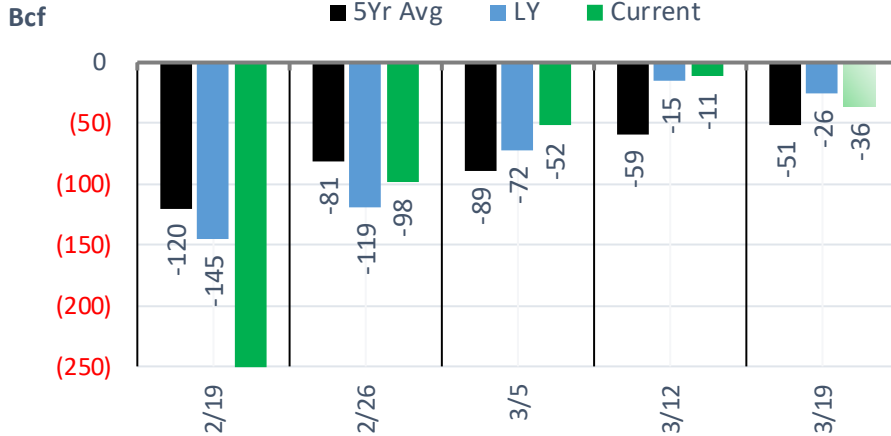
Here is the half-decent good news for the situation (just from the LNG side). Thankfully this unfortunate event is happening when temperatures are mild globally, and we are switching from withdrawals to injections across the northern hemisphere. European storage levels are low, but still high enough to cover any short-term shortages.

The recent ramp up to US LNG facilities has been somewhat coincidental, but it does show how the flexibility of US LNG and how it can be a good back stop to any longer-term LNG issues in Europe.

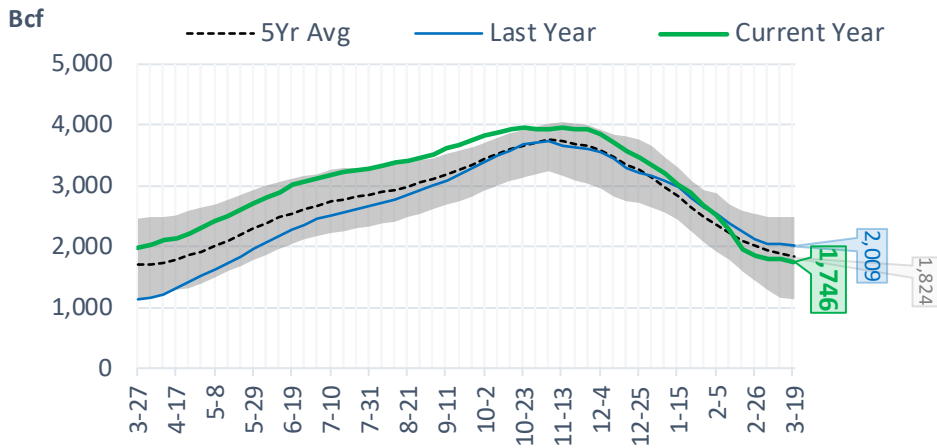


EIA Storage Report

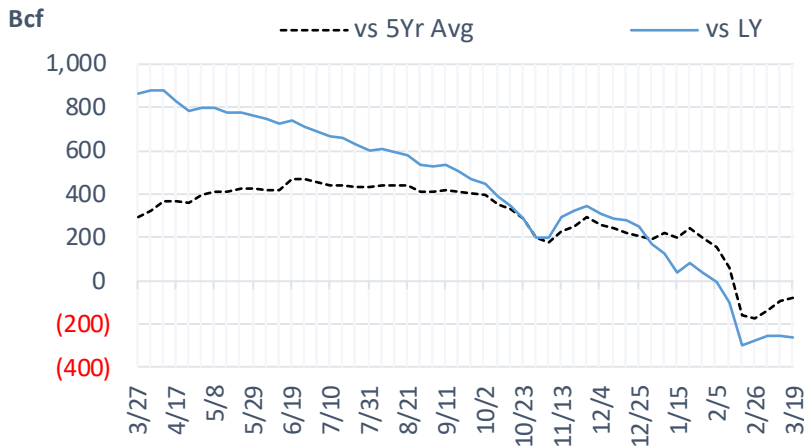
Total Lower 48 YoY Weekly Change



Total Lower 48 Storage Levels



Total Lower 48 LY Surplus/Deficit

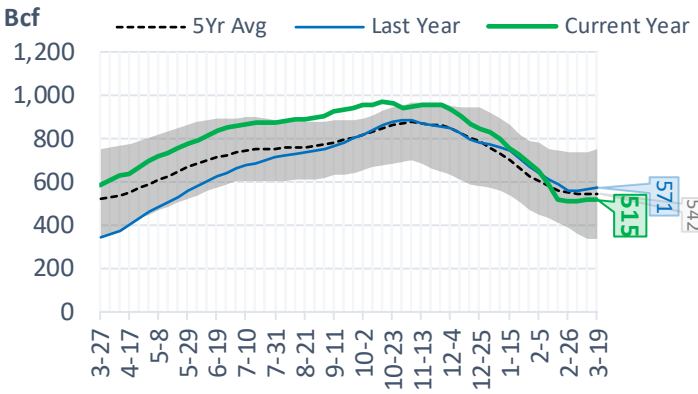


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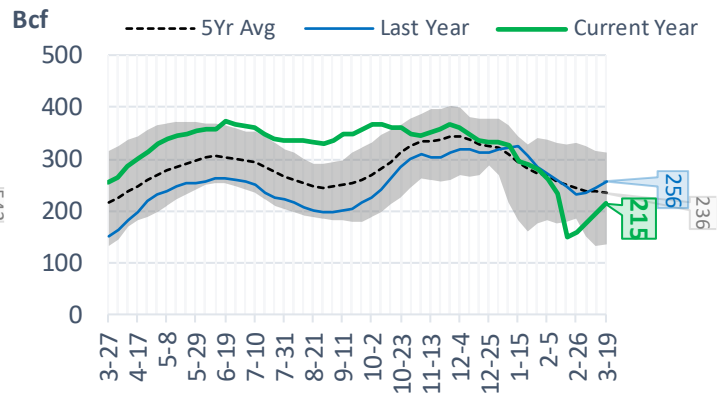
Natural Gas Storage Stats - Last 5 Weeks

Week Ending	Current 19-Mar	Week - 1 12-Mar	Week - 2 5-Mar	Week - 3 26-Feb	Week - 4 19-Feb	Week - 5 12-Feb
Total Lower 48 Storage Level	1746	1782	1793	1845	1943	2281
Weekly Change	-36	-11	-52	-98	-338	-237
vs LY	-263	-253	-257	-277	-298	-105
vs 5Yr Avg	-78	-93	-141	-178	-161	+57
S. Central Salt Storage Level	215	197	176	159	150	233
Weekly Change	+18	+21	+17	+9	-83	-28
vs LY	-41	-48	-58	-74	-98	-27
vs 5Yr Avg	-21	-40	-62	-86	-99	-25
S. Central NonSalt Storage Level	515	519	509	511	520	593
Weekly Change	-4	+10	-2	-9	-73	-61
vs LY	-56	-47	-47	-51	-66	-20
vs 5Yr Avg	-27	-24	-35	-41	-42	+14
Midwest Storage Level	405	426	440	465	508	589
Weekly Change	-21	-14	-25	-43	-81	-77
vs LY	-90	-88	-93	-102	-97	-66
vs 5Yr Avg	-19	-23	-33	-42	-29	+11
East Storage Level	307	328	350	383	424	485
Weekly Change	-21	-22	-33	-41	-61	-44
vs LY	-93	-86	-80	-77	-72	-54
vs 5Yr Avg	-22	-25	-32	-32	-16	+3
Mountain Storage Level	112	114	113	117	123	137
Weekly Change	-2	+1	-4	-6	-14	-13
vs LY	+19	+18	+15	+14	+12	+17
vs 5Yr Avg	+6	+7	+4	+4	+4	+12
Pacific Storage Level	193	199	205	210	218	244
Weekly Change	-6	-6	-5	-8	-26	-13
vs LY	-2	0	+5	+13	+21	+45
vs 5Yr Avg	+7	+13	+17	+19	+21	+41

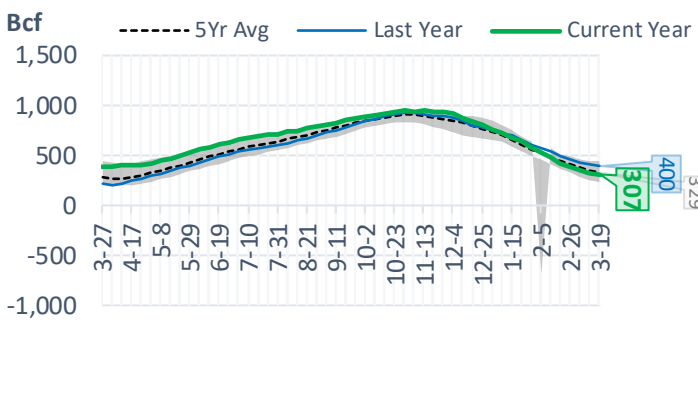
NonSalt Storage Levels



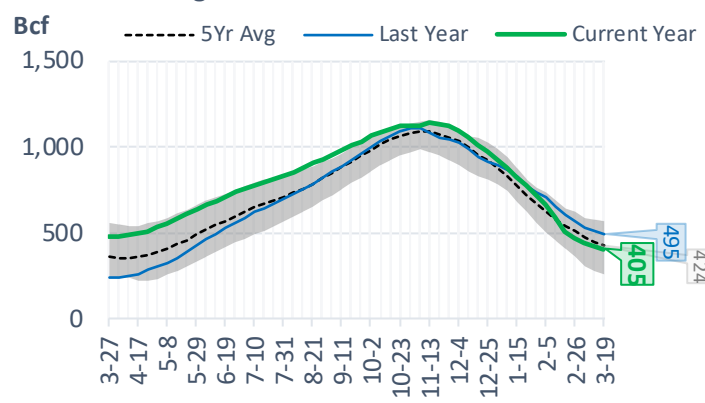
Salt Storage Levels



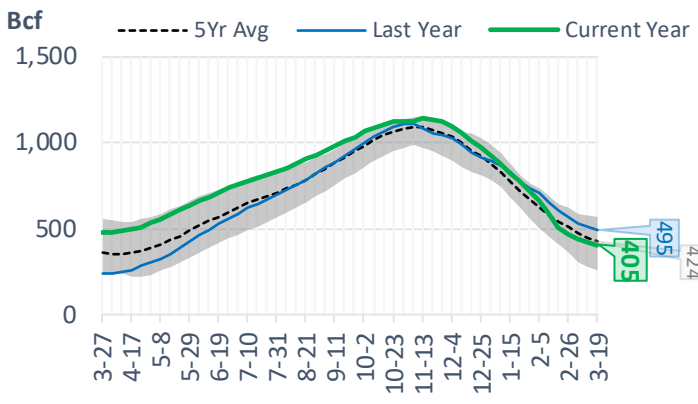
East Storage Levels



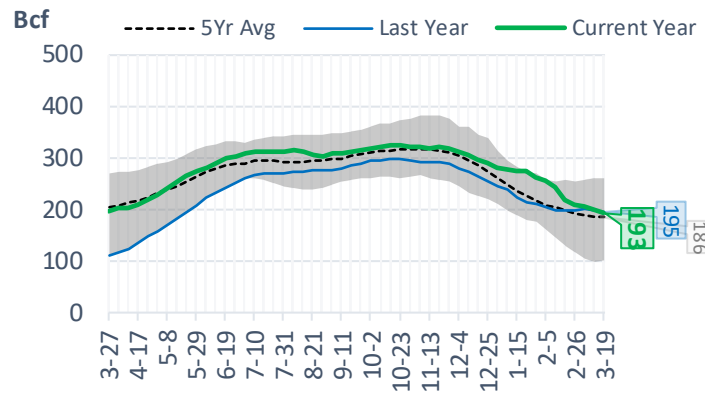
Midwest Storage Levels



Midwest Storage Levels



Pacific Storage Levels



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EIA Storage Week Balances

	19-Feb	26-Feb	5-Mar	12-Mar	19-Mar	26-Mar	WoW	vs. 4W
Lower 48 Dry Production	76.5	84.6	92.4	92.5	92.4	92.5	▲ 0.1	▲ 2.0
Canadian Imports	7.8	6.2	4.9	4.7	5.0	4.5	▼ -0.5	▼ -0.7
L48 Power	30.2	25.3	26.2	24.8	24.9	24.2	▼ -0.7	▼ -1.1
L48 Residential & Commercial	59.8	41.8	35.5	30.7	30.7	25.3	▼ -5.5	▼ -9.4
L48 Industrial	20.3	21.9	19.5	18.8	20.4	19.0	▼ -1.4	▼ -1.2
L48 Lease and Plant Fuel	4.2	4.7	5.1	5.1	5.1	5.1	▲ 0.0	▲ 0.1
L48 Pipeline Distribution	4.1	3.0	2.9	2.6	2.6	2.4	▼ -0.3	▼ -0.4
L48 Regional Gas Consumption	118.6	96.7	89.2	82.0	83.8	75.9	▼ -7.9	▼ -12.0
Net LNG Exports	4.9	7.8	10.1	10.6	11.2	11.6	▲ 0.4	▲ 1.7
Total Mexican Exports	4.9	5.6	6.1	6.5	6.3	6.6	▲ 0.3	▲ 0.5
Implied Daily Storage Activity	-44.1	-19.2	-8.0	-1.9	-3.8	2.9	6.8	
EIA Reported Daily Storage Activity	-48.3	-14.0	-7.4	-1.6	-5.1			
Daily Model Error	4.2	-5.2	-0.6	-0.3	1.3			

Monthly Balances

	2Yr Ago Mar-19	LY Mar-20	Nov-20	Dec-20	Jan-21	Feb-21	MTD Mar-21	MoM	vs. LY
Lower 48 Dry Production	88.7	93.7	90.6	91.3	91.2	85.7	92.4	▲ 6.7	▲ 1.2
Canadian Imports	5.1	4.1	4.6	5.8	6.3	6.4	4.8	▼ -1.6	▼ -1.0
L48 Power	25.7	28.3	25.8	28.1	28.7	27.9	25.2	▼ -2.7	▼ -2.9
L48 Residential & Commercial	35.7	27.4	25.0	39.8	44.4	48.5	29.9	▼ -18.6	▼ -9.9
L48 Industrial	23.0	22.1	22.0	23.7	22.8	21.7	19.4	▼ -2.3	▼ -4.3
L48 Lease and Plant Fuel	4.9	5.2	5.0	5.0	5.0	4.7	5.1	▲ 0.4	▲ 0.1
L48 Pipeline Distribution	2.9	2.6	2.5	3.1	3.3	3.4	2.6	▼ -0.8	▼ -0.5
L48 Regional Gas Consumption	92.3	85.7	80.4	99.7	104.3	106.3	82.2	▼ -24.1	▼ -17.5
Net LNG Exports	4.8	8.5	10.2	11.0	10.5	8.4	11.0	▲ 2.6	▲ 0.0
Total Mexican Exports	4.9	5.4	6.1	5.8	6.2	5.7	6.5	▲ 0.8	▲ 0.7
Implied Daily Storage Activity	-8.1	-1.9	-1.4	-19.5	-23.5	-28.3	-2.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

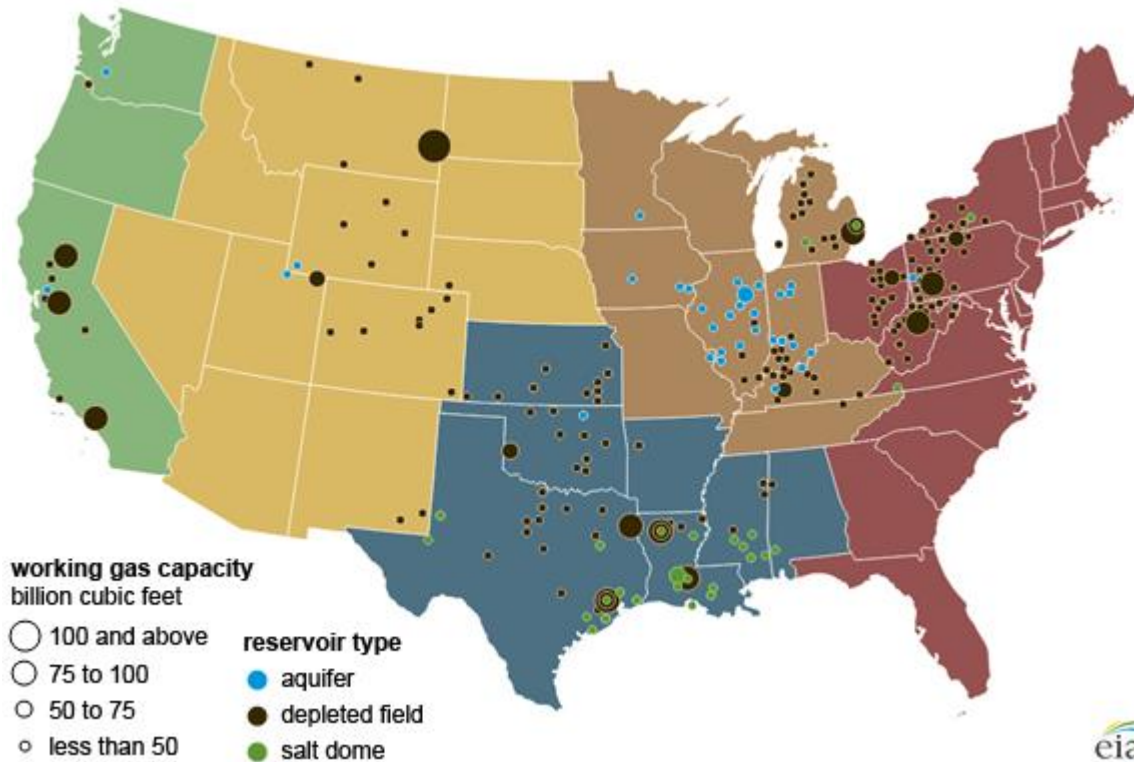
Regional S/D Models Storage Projection

Week Ending 26-Mar

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	2.6	0.4	3.1	21
East	-2.4	2.3	-0.1	-1
Midwest	-0.3	-0.5	-0.8	-5
Mountain	3.3	-3.4	0.0	0
South Central	1.5	2.2	3.7	26
Pacific	0.5	-0.2	0.3	2

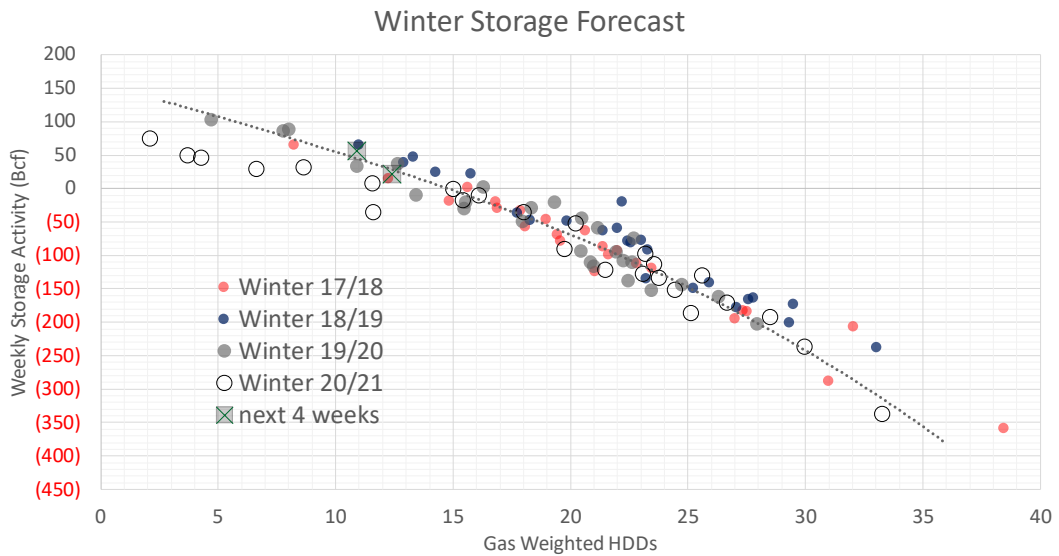
*Adjustment Factor is calculated based on historical regional deltas

U.S. underground natural gas storage facilities by type (July 2015)



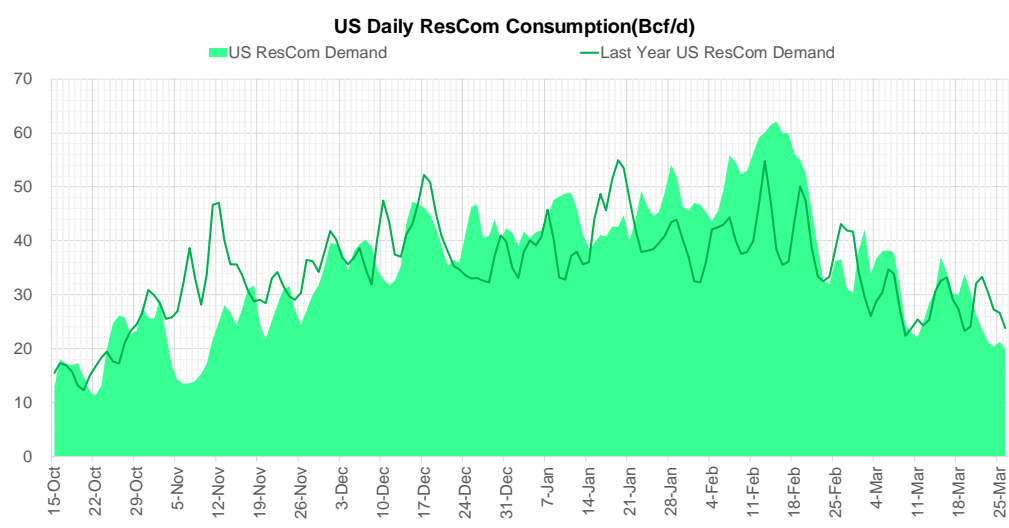
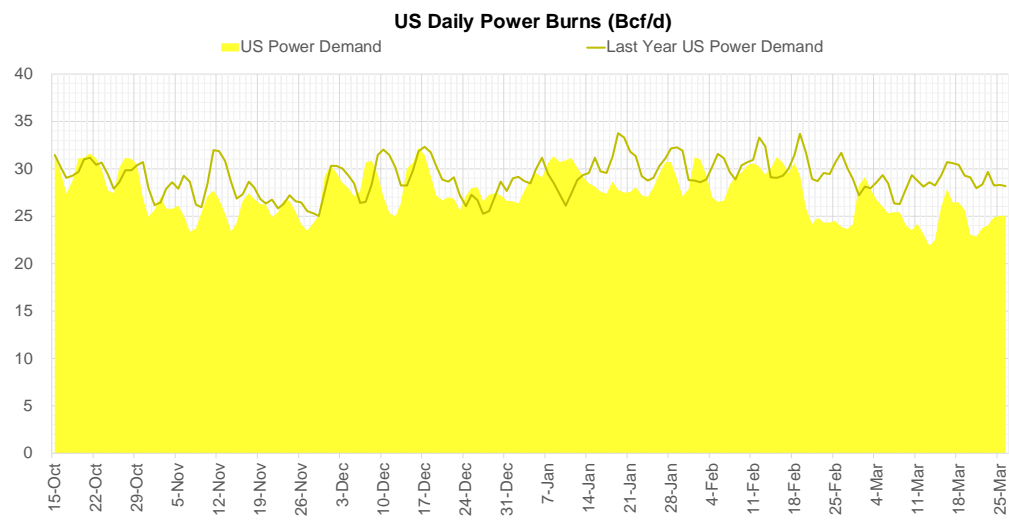
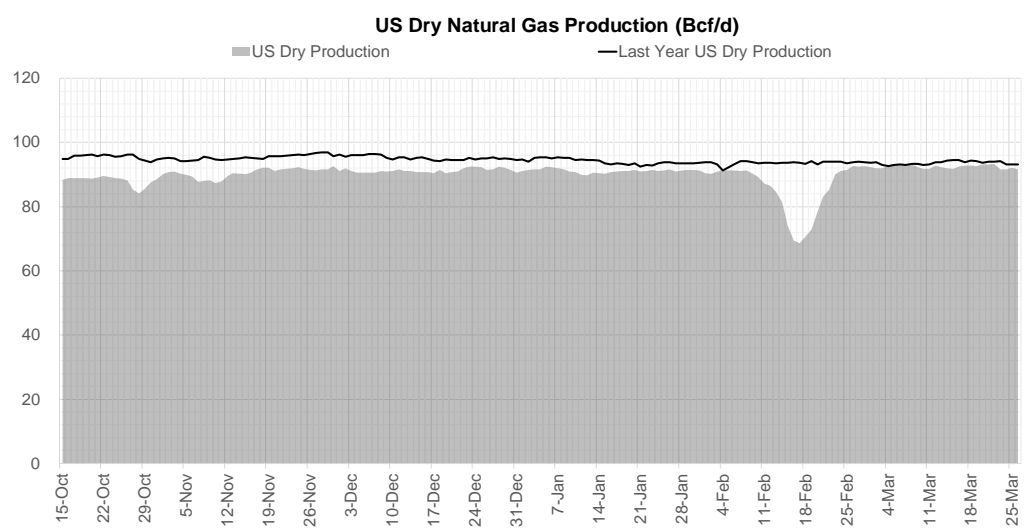
Weather Model Storage Projection

Next report and beyond		
Week Ending	Temp	Week Storage Projection
02-Apr 09-Apr 16-Apr	10.9	56



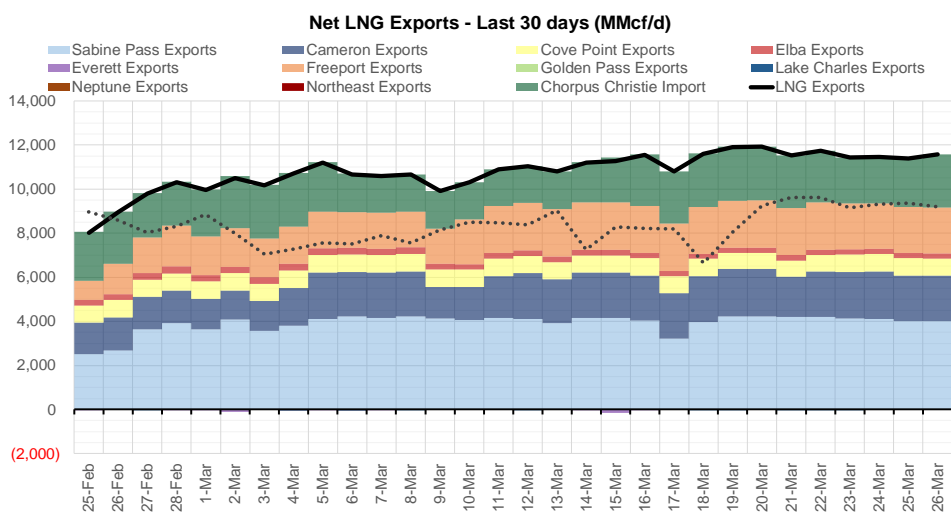
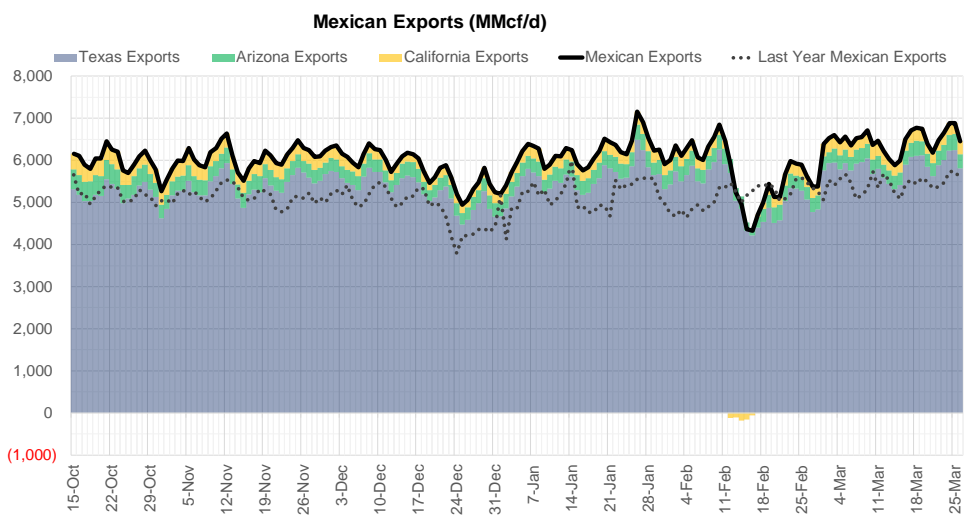
Note: this is not our official end of season forecast. This chart signifies where storage levels end with 10-year normal weather and current market tightness relative to last year

Supply – Demand Trends



Source: Bloomberg

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Source: Bloomberg

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Nat Gas Options Volume and Open Interest CME, ICE and Nasdaq Combined

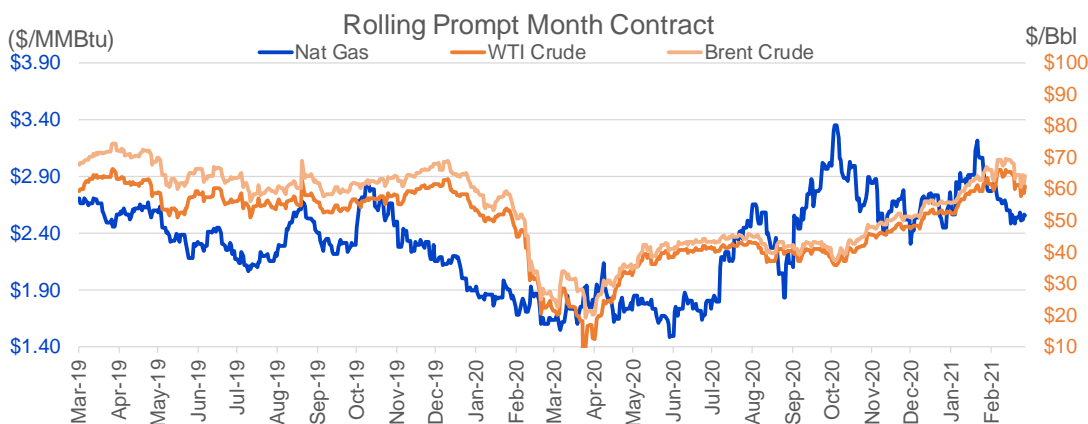
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
4	2021	P	2.50	5584	4	2021	C	3.00	56568
4	2021	P	2.40	5470	4	2021	C	4.00	53148
4	2021	C	2.60	5357	10	2021	C	4.00	42658
4	2021	C	2.65	3253	4	2021	P	2.50	41754
7	2021	C	4.00	2750	4	2021	C	3.25	39622
12	2021	P	2.00	2575	5	2021	C	3.00	34834
12	2021	P	1.80	2500	8	2021	C	4.00	33713
5	2021	P	2.50	2327	4	2021	C	2.75	31579
4	2021	P	2.45	2239	7	2021	C	4.00	31213
10	2021	P	2.25	2155	10	2021	C	3.25	29456
5	2021	P	2.25	2101	8	2021	C	3.50	28596
4	2021	P	2.60	2046	6	2021	C	4.00	27953
9	2021	C	3.50	2000	4	2021	P	2.25	26606
5	2021	C	3.00	1882	4	2021	P	2.00	26184
5	2021	P	2.30	1804	5	2021	C	3.50	25552
5	2021	P	2.00	1802	10	2021	C	5.00	25404
7	2021	P	2.25	1750	5	2021	P	2.50	25085
8	2021	P	2.25	1750	5	2021	C	4.00	24706
9	2021	P	2.25	1750	4	2021	C	3.50	23983
7	2021	C	2.75	1700	5	2021	C	3.25	23916
6	2021	P	2.25	1503	6	2021	P	2.50	23064
4	2021	P	2.55	1468	4	2021	P	2.75	22577
8	2021	C	2.75	1400	5	2021	P	2.25	22572
10	2021	C	4.00	1242	6	2021	C	3.00	21635
4	2021	C	2.75	1238	7	2021	C	3.50	21552
5	2021	C	2.80	1228	5	2021	P	2.00	21352
5	2021	P	2.45	1156	10	2021	C	3.50	20642
9	2021	C	2.75	1100	4	2021	C	5.00	20533
4	2021	C	2.50	1033	8	2021	P	2.25	19963
10	2021	C	3.75	1000	10	2021	P	2.50	19511
5	2021	C	3.35	970	10	2021	C	3.00	18907
10	2021	P	2.30	900	4	2022	C	3.00	18614
5	2021	P	2.20	877	6	2021	C	3.50	18439
5	2021	C	2.75	866	7	2021	P	2.50	18295
4	2021	C	2.70	837	4	2021	P	2.60	18150
5	2021	P	2.35	812	6	2021	P	2.25	17896
4	2021	C	2.55	757	10	2021	P	2.00	17886
8	2021	P	2.45	757	4	2021	C	2.50	17733
6	2021	P	2.45	750	6	2021	C	3.25	17633
7	2021	P	2.45	750	11	2021	C	4.00	17550
9	2021	P	2.45	750	9	2021	P	2.00	17511
10	2021	P	2.45	750	6	2021	P	2.00	16893
11	2021	C	4.15	750	9	2021	C	3.50	16699
11	2021	C	4.25	750	7	2021	C	3.25	16542
6	2021	C	3.25	704	12	2021	C	4.00	16375
8	2021	C	2.90	600	8	2021	C	3.25	15970
9	2021	C	2.90	600	6	2021	C	3.75	15649
5	2021	C	2.65	589	7	2021	P	2.00	15240
10	2021	C	2.75	550	8	2021	P	2.50	15236
					5	2021	C	2.75	15164

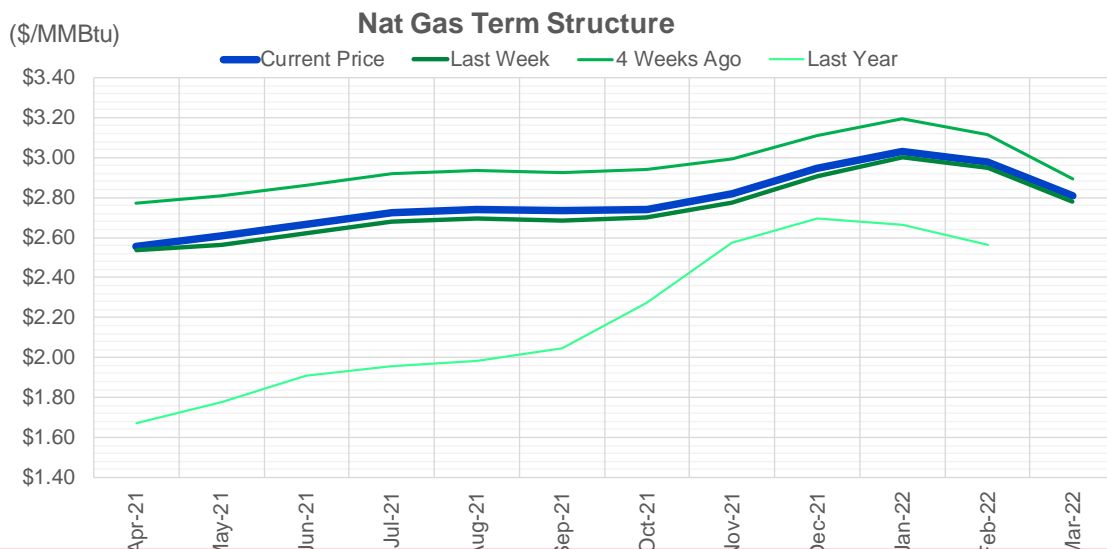
Source: CME, Nasdaq, ICE

Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM			
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change
APR 21	17131	22503	-5372	APR 21	78260	78938	-679
MAY 21	284892	286271	-1379	MAY 21	88380	87338	1042
JUN 21	106125	105508	617	JUN 21	77243	76773	470
JUL 21	99617	98212	1405	JUL 21	81126	80596	530
AUG 21	54156	53050	1106	AUG 21	77421	76826	596
SEP 21	105075	104505	570	SEP 21	69368	69214	155
OCT 21	130545	130061	484	OCT 21	82510	83684	-1174
NOV 21	67160	66690	470	NOV 21	57349	57294	55
DEC 21	45027	45421	-394	DEC 21	57818	57885	-68
JAN 22	56621	56185	436	JAN 22	57702	57465	237
FEB 22	19785	19427	358	FEB 22	43439	43309	131
MAR 22	42434	42186	248	MAR 22	49001	48953	48
APR 22	44460	43922	538	APR 22	45276	45023	253
MAY 22	20628	20472	156	MAY 22	38172	38125	46
JUN 22	13512	13482	30	JUN 22	36827	36571	257
JUL 22	8136	8161	-25	JUL 22	36425	36288	136
AUG 22	8400	8327	73	AUG 22	35745	35546	199
SEP 22	8469	8512	-43	SEP 22	36642	36412	231
OCT 22	19458	19474	-16	OCT 22	43140	42945	195
NOV 22	9291	9173	118	NOV 22	33505	33370	135
DEC 22	9023	9022	1	DEC 22	38553	38300	253
JAN 23	6314	6305	9	JAN 23	20989	21003	-14
FEB 23	2337	2335	2	FEB 23	19348	19304	44
MAR 23	4504	4514	-10	MAR 23	21307	21334	-27
APR 23	4775	4768	7	APR 23	17307	17231	76
MAY 23	3721	3721	0	MAY 23	16934	16839	95
JUN 23	1082	1092	-10	JUN 23	16054	16030	24
JUL 23	1006	992	14	JUL 23	15812	15803	9
AUG 23	750	749	1	AUG 23	16268	16251	18
SEP 23	608	608	0	SEP 23	15268	15206	62

Source: CME, ICE






	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Current Price	\$2.554	\$2.609	\$2.668	\$2.726	\$2.742	\$2.736	\$2.741	\$2.818	\$2.947	\$3.033	\$2.978	\$2.809
Last Week	\$2.535	\$2.566	\$2.624	\$2.682	\$2.696	\$2.686	\$2.702	\$2.775	\$2.907	\$3.004	\$2.951	\$2.780
vs. Last Week	\$0.019	\$0.043	\$0.044	\$0.044	\$0.046	\$0.050	\$0.039	\$0.043	\$0.040	\$0.029	\$0.027	\$0.029
4 Weeks Ago	\$2.771	\$2.809	\$2.862	\$2.919	\$2.938	\$2.926	\$2.939	\$2.994	\$3.110	\$3.195	\$3.117	\$2.893
vs. 4 Weeks Ago	-\$0.217	-\$0.200	-\$0.194	-\$0.193	-\$0.196	-\$0.190	-\$0.198	-\$0.176	-\$0.163	-\$0.162	-\$0.139	-\$0.084
Last Year	\$1.634	\$1.671	\$1.775	\$1.907	\$1.957	\$1.981	\$2.047	\$2.275	\$2.576	\$2.696	\$2.666	\$2.565
vs. Last Year	\$0.920	\$0.938	\$0.893	\$0.819	\$0.785	\$0.755	\$0.694	\$0.543	\$0.371	\$0.337	\$0.312	\$0.244

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jan21/Apr21	\$/MMBtu	0.087	▲ 0.019	▼ -0.217	▲ 0.461
NatGas Mar21/Apr21	\$/MMBtu	-0.300	▲ 0.019	▼ -0.383	▼ -0.543
NatGas Oct21/Nov21	\$/MMBtu	0.077	▲ 0.004	▲ 0.022	▲ 0.019
NatGas Apr21/Oct21	\$/MMBtu	0.187	▲ 0.422	▲ 0.659	▼ -0.123
WTI Crude	\$/Bbl	60.87	▼ -0.550	▼ -0.630	▲ 39.360
Brent Crude	\$/Bbl	64.28	▼ -0.250	▼ -1.850	▲ 39.350
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	180.38	▼ -1.850	▼ -5.270	▲ 73.530
Propane, Mt. Bel	cents/Gallon	0.92	▼ -0.002	▲ 0.005	▲ 0.626
Ethane, Mt. Bel	cents/Gallon	0.22	▲ 0.000	▼ -0.048	▲ 0.094
Coal, PRB	\$/MTon	12.30	▲ 0.000	▲ 0.000	▲ 0.000
Coal, PRB	\$/MMBtu	0.70			

Source: CME, Bloomberg

Baker Hughes Rig Counts

Rotary Rig Count						Baker Hughes 
3/19/2021						
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago	
Oil	318	9	309	-346	664	
Gas	92	0	92	-14	106	
Miscellaneous	1	0	1	-1	2	
Directional	14	-1	15	-35	49	
Horizontal	372	10	362	-324	696	
Vertical	25	0	25	-2	27	
Canada Breakout	This Week	+/-	Last Week	+/-	Year Ago	
Oil	41	-17	58	-11	52	
Gas	51	-7	58	5	46	
Major Basin Variances	This Week	+/-	Last Week	+/-	Year Ago	
Ardmore Woodford	0	0	0	-4	4	
Arkoma Woodford	0	0	0	-1	1	
Barnett	1	0	1	0	1	
Cana Woodford	11	0	11	-7	18	
DJ-Niobrara	7	0	7	-13	20	
Eagle Ford	32	3	29	-35	67	
Granite Wash	0	0	0	-3	3	
Haynesville	45	0	45	2	43	
Marcellus	30	0	30	-9	39	
Mississippian	0	0	0	-2	2	
Permian	216	4	212	-189	405	
Utica	9	0	9	0	9	
Williston	13	1	12	-38	51	