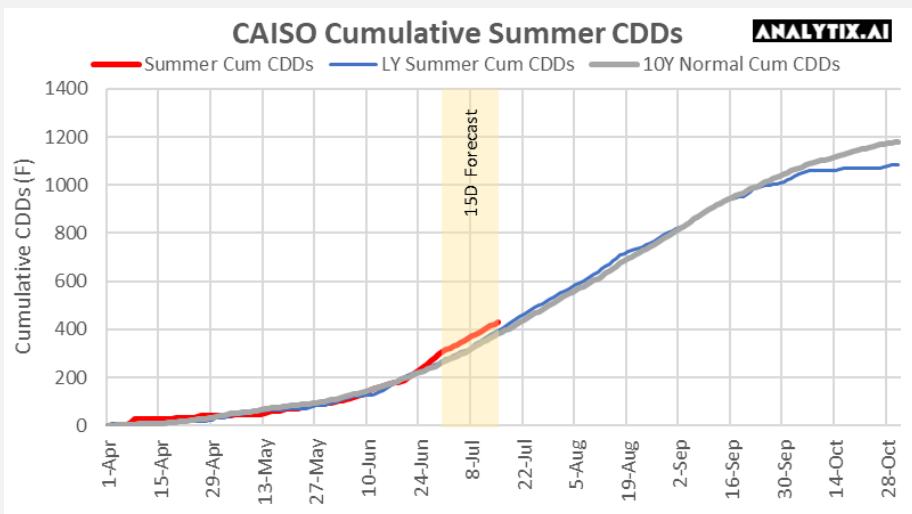
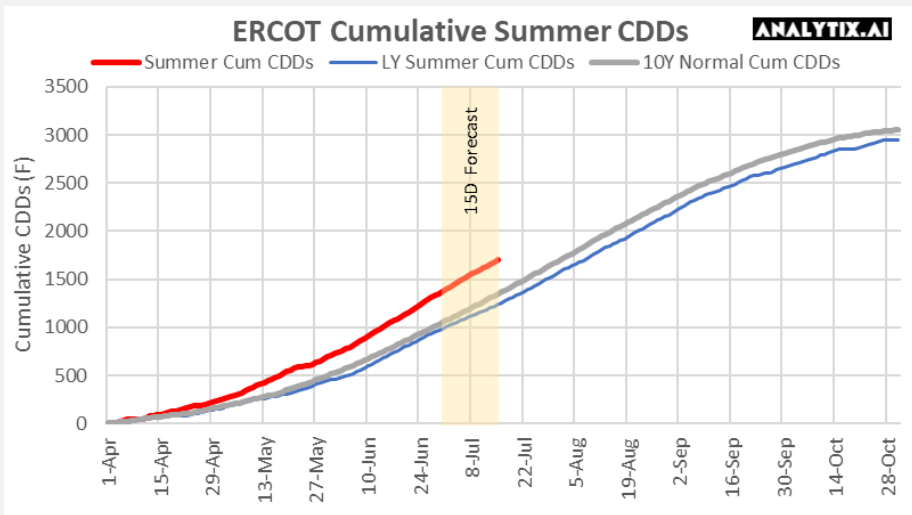
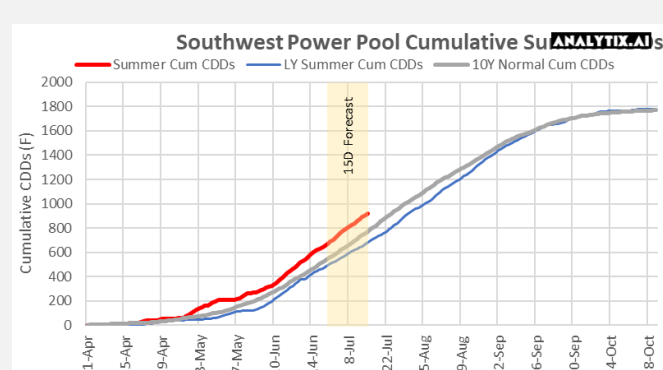
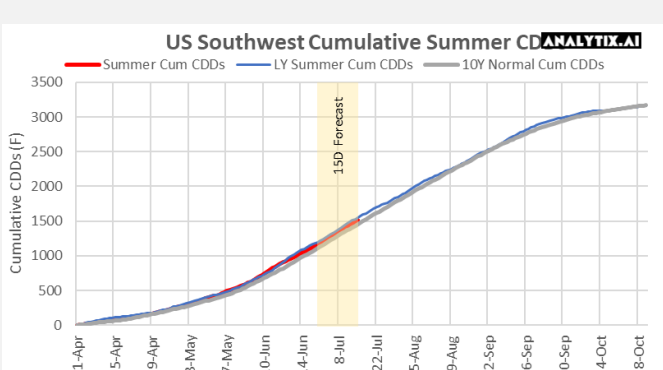
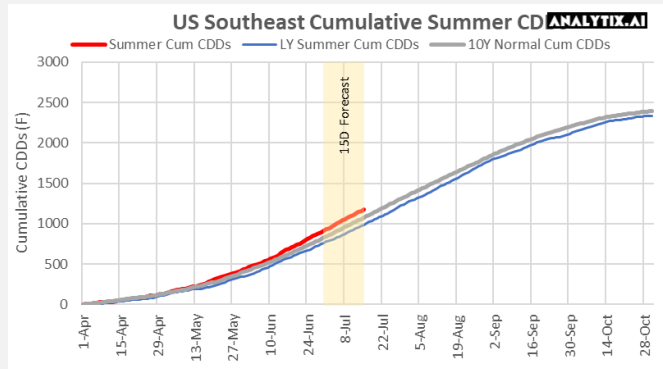
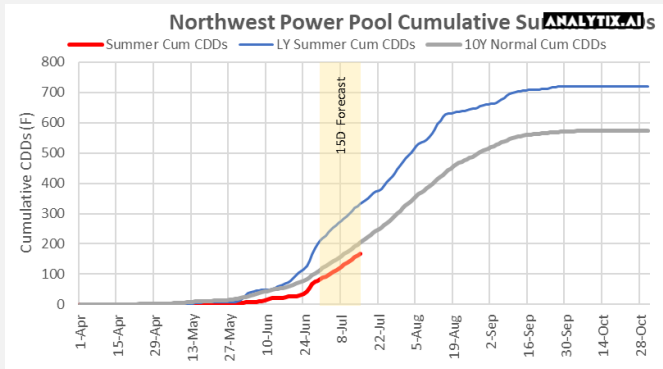
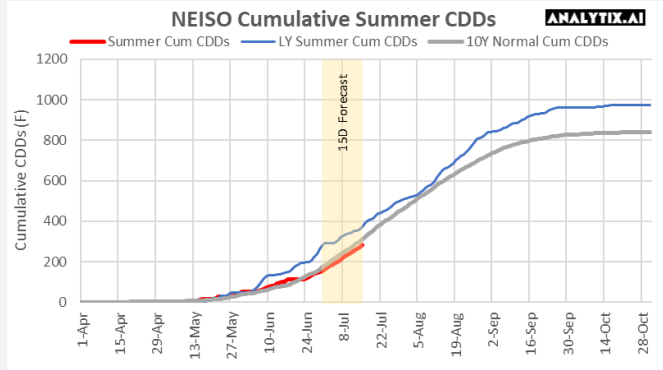
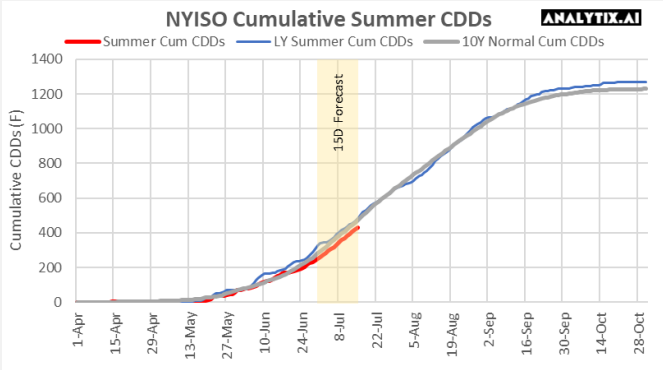
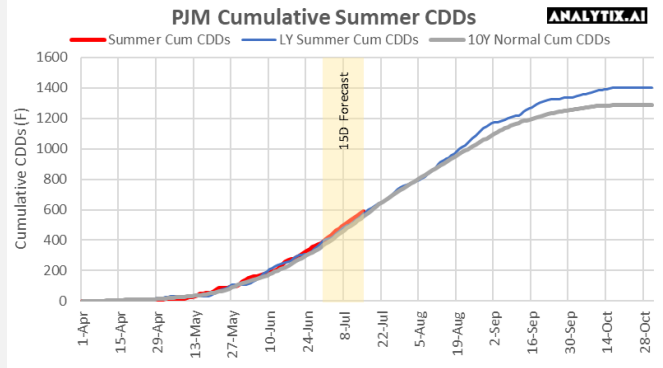
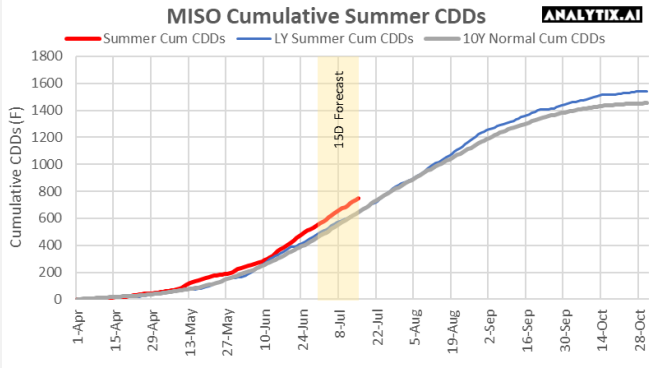


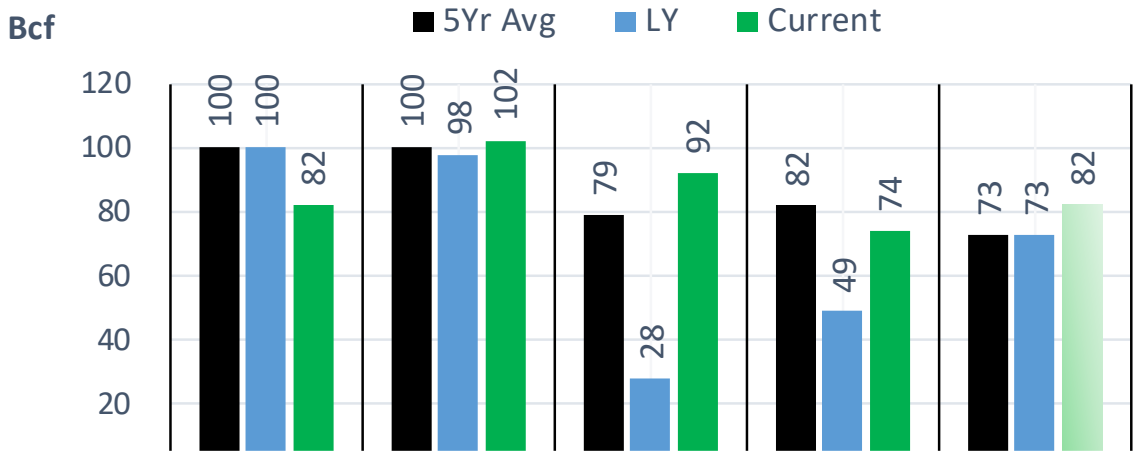
Happy Canada Day and July 4th. This week we start with a series of charts showing cumulative CDDs across all the major power ISOs. Q2 was quite extreme in many ways, but the weather intensity in some pockets of the country ahead of peak summer was very notable.



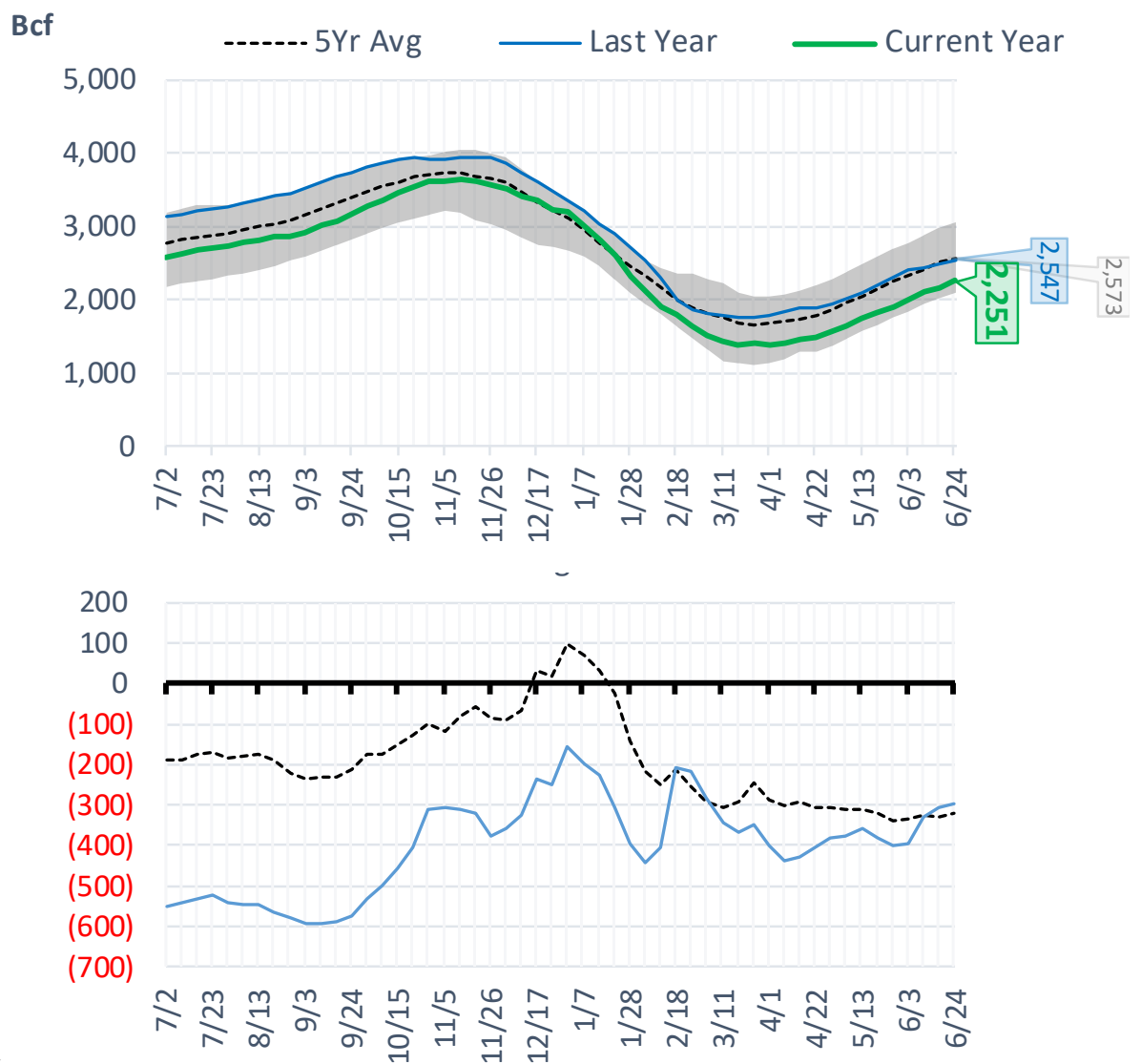
The risk of trading futures and options and other derivatives involves a substantial risk of loss and is not suitable for all persons. Each person must consider whether a particular trade, combination of trades, or strategy is suitable for that person's financial means and objectives. Past results are not necessarily indicative of future results. This communication may contain links to third party websites which are not under the control of and are not maintained by ION Energy Group, and ION Energy Group is not responsible for their content.



Total Lower 48 YoY Weekly Change



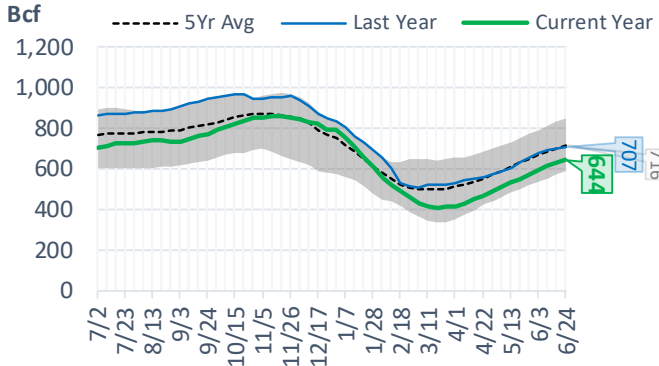
Total Lower 48 Storage Levels



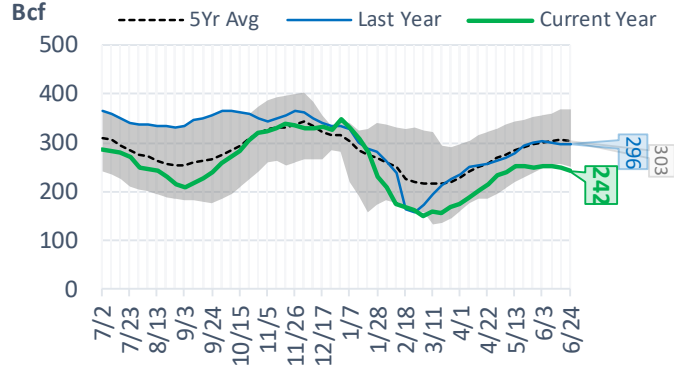
Natural Gas Storage Stats - Last 5 Weeks

Week Ending	Current 24-Jun	Week - 1 17-Jun	Week - 2 10-Jun	Week - 3 3-Jun	Week - 4 27-May	Week - 5 20-May
Total Lower 48 Storage Level	2251	2169	2095	2003	1901	1819
Weekly Change	+82	+74	+92	+102	+82	+87
vs LY	-296	-305	-330	-394	-398	-380
vs 5Yr Avg	-322	-331	-323	-336	-338	-320
S. Central Salt Storage Level	242	248	251	251	248	252
Weekly Change	-6	-3	0	+3	-4	+1
vs LY	-54	-48	-48	-51	-51	-42
vs 5Yr Avg	-61	-57	-53	-50	-49	-40
S. Central NonSalt Storage Level	644	628	612	593	569	547
Weekly Change	+16	+16	+19	+24	+22	+16
vs LY	-63	-69	-82	-85	-87	-84
vs 5Yr Avg	-72	-76	-76	-77	-82	-83
Midwest Storage Level	535	506	482	454	426	394
Weekly Change	+29	+24	+28	+28	+32	+30
vs LY	-84	-85	-85	-89	-93	-101
vs 5Yr Avg	-68	-71	-68	-69	-68	-73
East Storage Level	461	430	407	376	345	325
Weekly Change	+31	+23	+31	+31	+20	+29
vs LY	-48	-54	-52	-64	-64	-56
vs 5Yr Avg	-65	-71	-67	-72	-73	-63
Mountain Storage Level	134	128	122	118	113	109
Weekly Change	+6	+6	+4	+5	+4	+6
vs LY	-38	-40	-42	-41	-37	-34
vs 5Yr Avg	-24	-25	-25	-23	-20	-19
Pacific Storage Level	235	231	221	211	200	193
Weekly Change	+4	+10	+10	+11	+7	+6
vs LY	-8	-8	-21	-64	-66	-62
vs 5Yr Avg	-31	-29	-34	-44	-45	-42

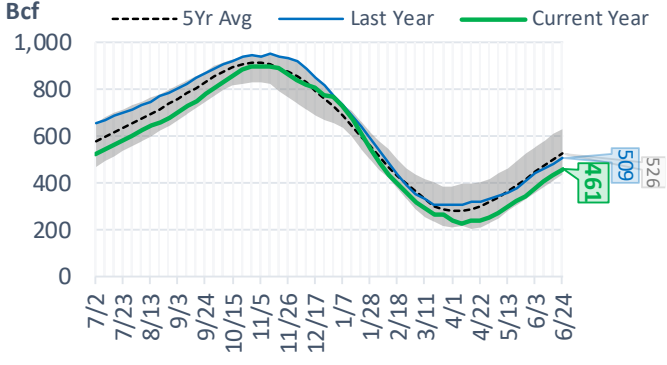
NonSalt Storage Levels



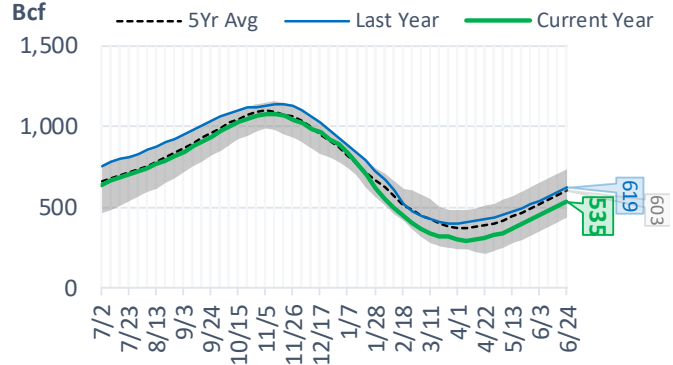
Salt Storage Levels



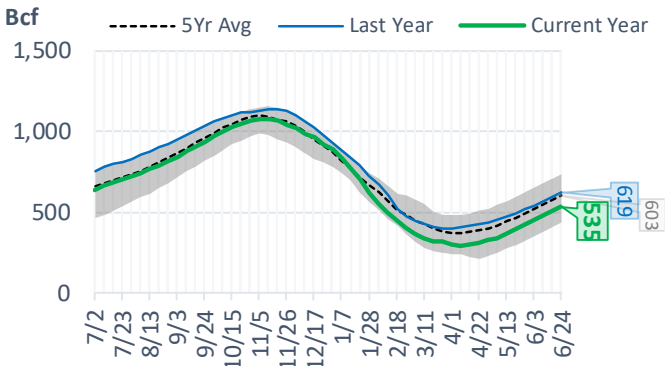
East Storage Levels



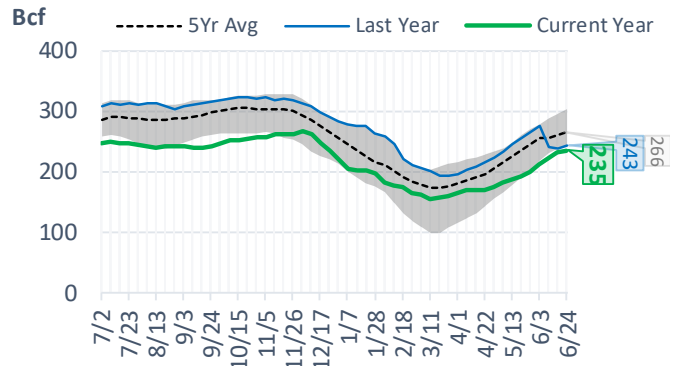
Midwest Storage Levels



Midwest Storage Levels



Pacific Storage Levels



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EIA Storage Week Balances

	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	WoW	vs. 4W
Lower 48 Dry Production	96.2	96.9	96.4	96.0	95.9	96.2	▲ 0.3	▼ -0.1
Canadian Imports	4.9	4.8	5.4	6.1	5.6	5.7	▲ 0.1	▲ 0.2
L48 Power	30.0	30.3	32.3	37.8	37.4	39.8	▲ 2.4	▲ 5.3
L48 Residential & Commercial	11.6	9.1	8.6	8.3	8.4	8.0	▼ -0.4	▼ -0.6
L48 Industrial	20.8	21.4	21.3	21.3	19.8	19.8	▲ 0.0	▼ -1.1
L48 Lease and Plant Fuel	5.2	5.2	5.2	5.2	5.2	5.2	▲ 0.0	▼ 0.0
L48 Pipeline Distribution	2.4	2.2	2.2	2.5	2.5	2.6	▲ 0.1	▲ 0.2
L48 Regional Gas Consumption	70.0	68.3	69.7	75.1	73.3	75.5	▲ 2.1	▲ 3.8
Net LNG Exports	13.0	12.8	12.3	10.7	10.6	10.6	▲ 0.0	▼ -0.9
Total Mexican Exports	7.0	7.1	7.1	7.2	7.0	7.0	▲ 0.1	▼ 0.0
Implied Daily Storage Activity	11.0	13.6	12.7	9.1	10.5	8.7	-1.8	
EIA Reported Daily Storage Activity	11.7	14.6	13.1	10.6	11.7			
Daily Model Error	-0.7	-1.0	-0.4	-1.5	-1.2			

Monthly Balances

	2Yr Ago	LY	MTD					MoM	vs. LY
	Jul-20	Jul-21	Feb-22	Mar-22	Apr-22	May-22	Jun-22		
Lower 48 Dry Production	89.0	93.5	92.7	93.5	96.0	96.0	96.1	▲ 0.1	▲ 2.7
Canadian Imports	4.4	5.2	6.5	5.2	5.8	5.1	5.6	▲ 0.5	▲ 0.5
L48 Power	43.8	39.7	28.7	25.4	24.7	28.9	36.6	▲ 7.8	▼ -3.0
L48 Residential & Commercial	7.9	8.1	43.3	31.5	22.5	12.3	8.4	▼ -3.9	▲ 0.3
L48 Industrial	20.1	20.8	22.0	19.7	21.5	21.1	20.5	▼ -0.6	▼ -0.3
L48 Lease and Plant Fuel	4.9	5.1	5.1	5.2	5.2	5.2	5.2	▲ 0.0	▲ 0.1
L48 Pipeline Distribution	2.6	2.5	3.5	2.9	2.6	2.3	2.5	▲ 0.1	▼ -0.1
L48 Regional Gas Consumption	79.3	76.2	102.6	84.7	76.6	69.8	73.2	▲ 3.4	▼ -3.0
Net LNG Exports	3.3	10.8	12.4	12.9	12.3	12.5	11.2	▼ -1.3	▲ 0.4
Total Mexican Exports	5.9	7.1	6.2	6.5	6.7	7.0	7.1	▲ 0.1	▲ 0.0
Implied Daily Storage Activity	4.9	4.6	-22.1	-5.4	6.2	11.8	10.4		
EIA Reported Daily Storage Activity									
Daily Model Error									

Source: Bloomberg, analytix.ai

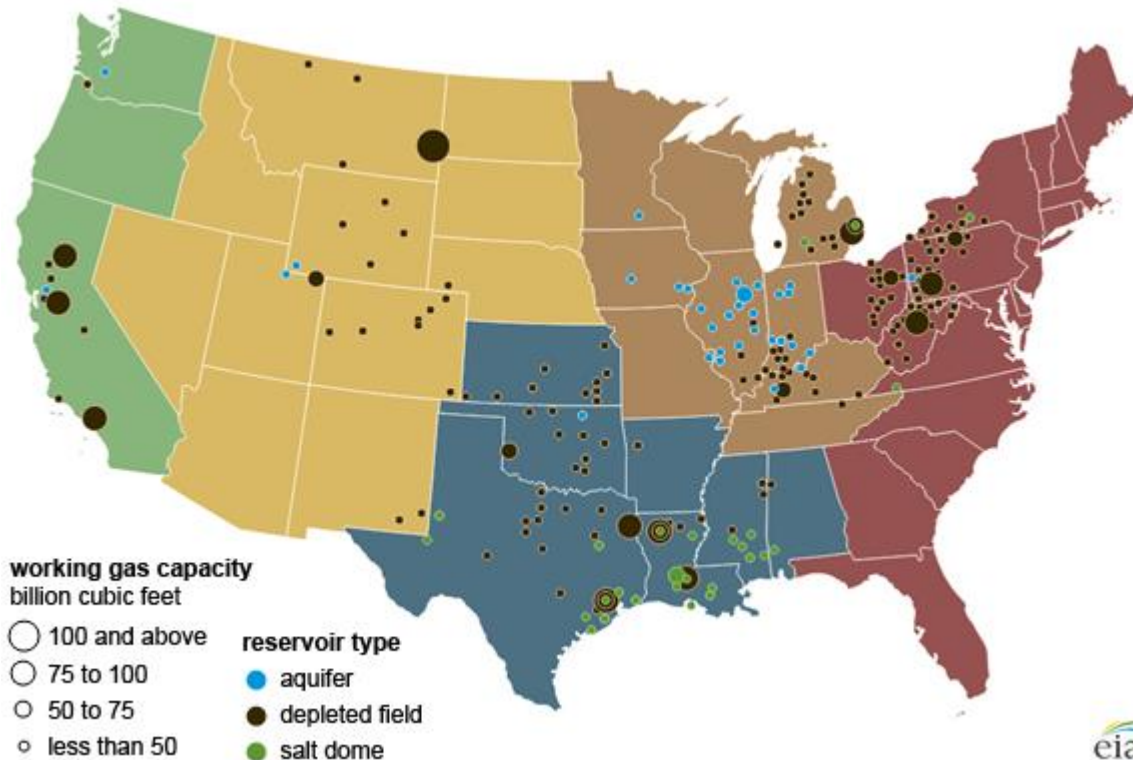
Regional S/D Models Storage Projection

Week Ending 1-Jul

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	9.6	0.1	9.7	68
East	1.0	2.1	3.1	22
Midwest	5.0	-1.4	3.6	25
Mountain	4.7	-3.9	0.8	6
South Central	-2.8	4.2	1.4	10
Pacific	1.6	-0.9	0.8	5

*Adjustment Factor is calculated based on historical regional deltas

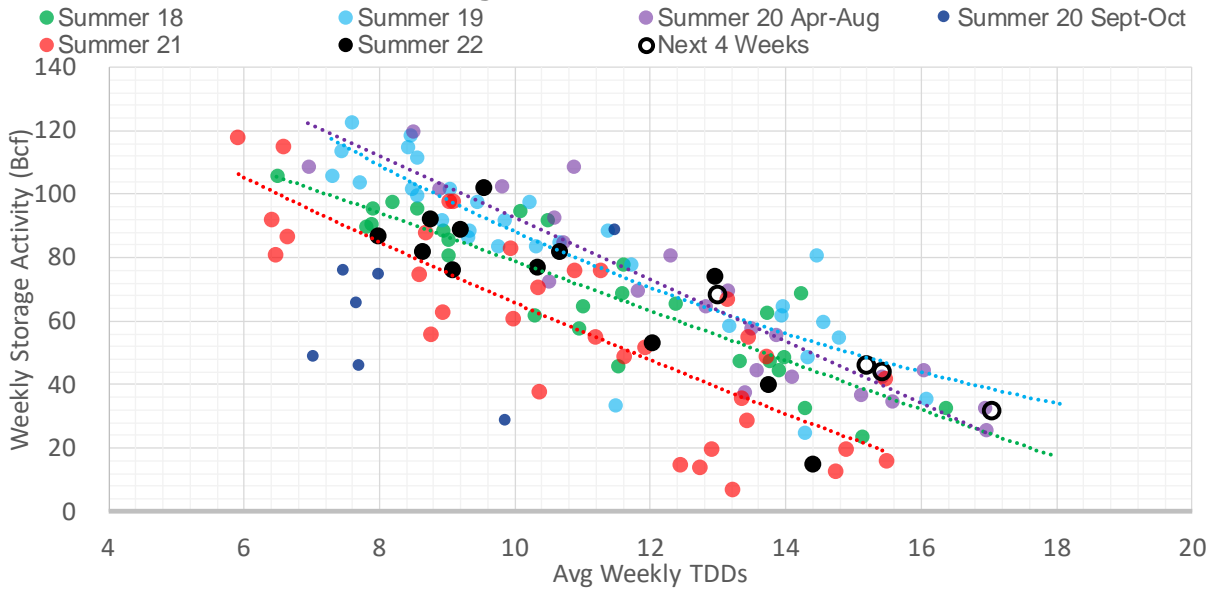
U.S. underground natural gas storage facilities by type (July 2015)



Weather Model Storage Projection

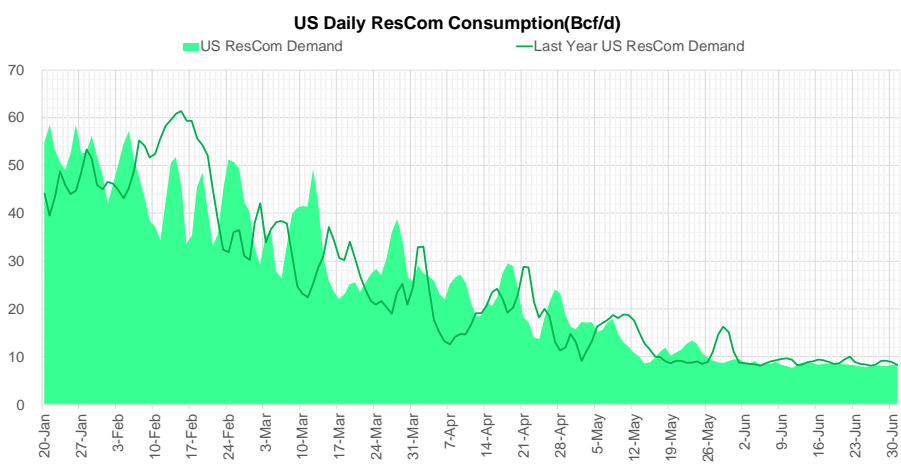
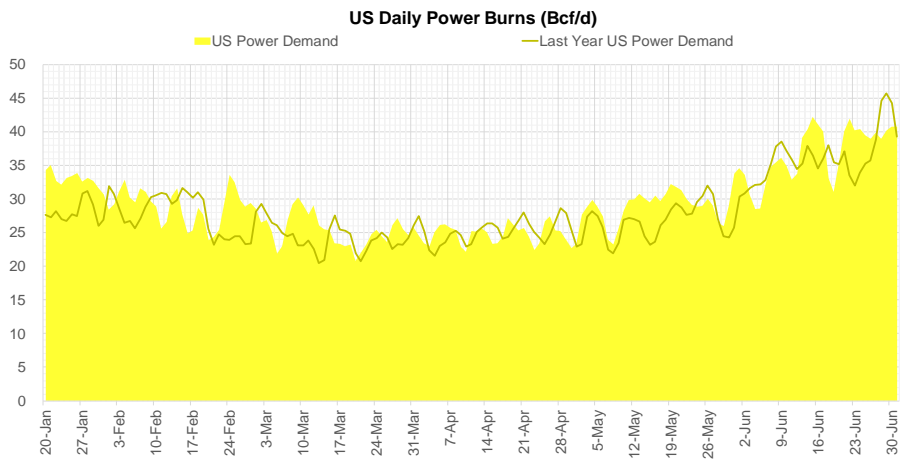
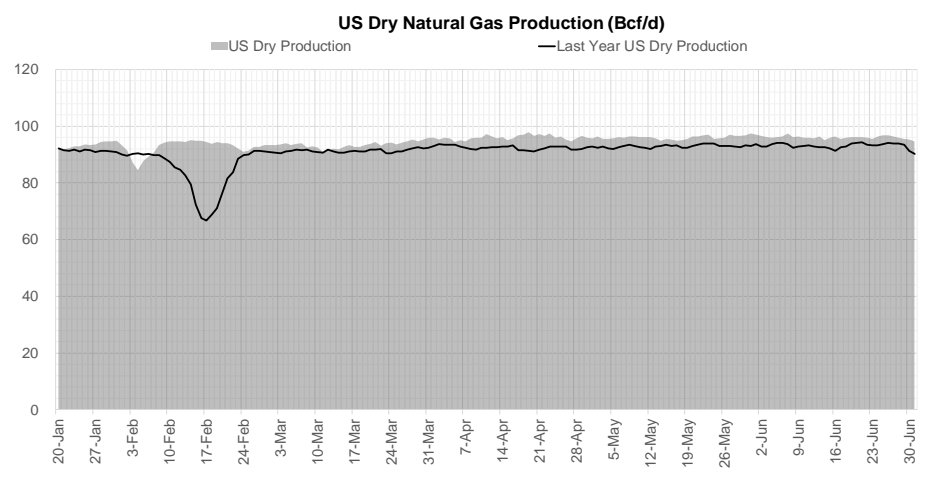
Next report and beyond		
Week Ending	GWDDs	Week Storage Projection
01-Jul	13.0	68
08-Jul	15.2	46
15-Jul	17.1	31
22-Jul	15.4	44

Weather Storage Model - Next 4 Week Forecast



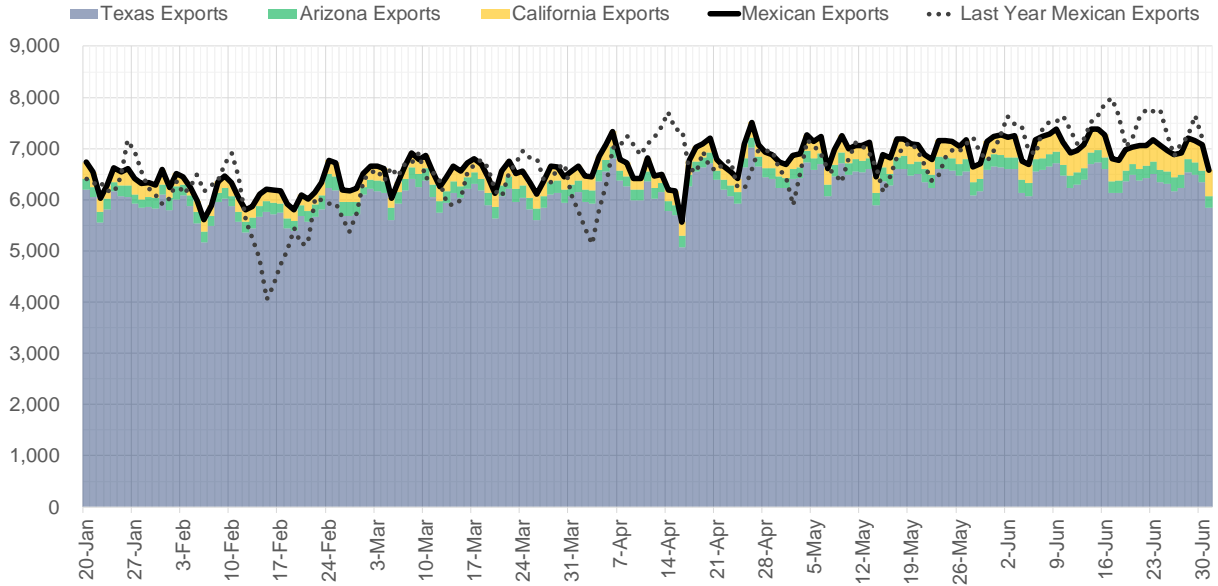
Note: this is not our official end of season forecast. This chart signifies where storage levels end with 10-year normal weather and current market tightness relative to last year

Supply – Demand Trends

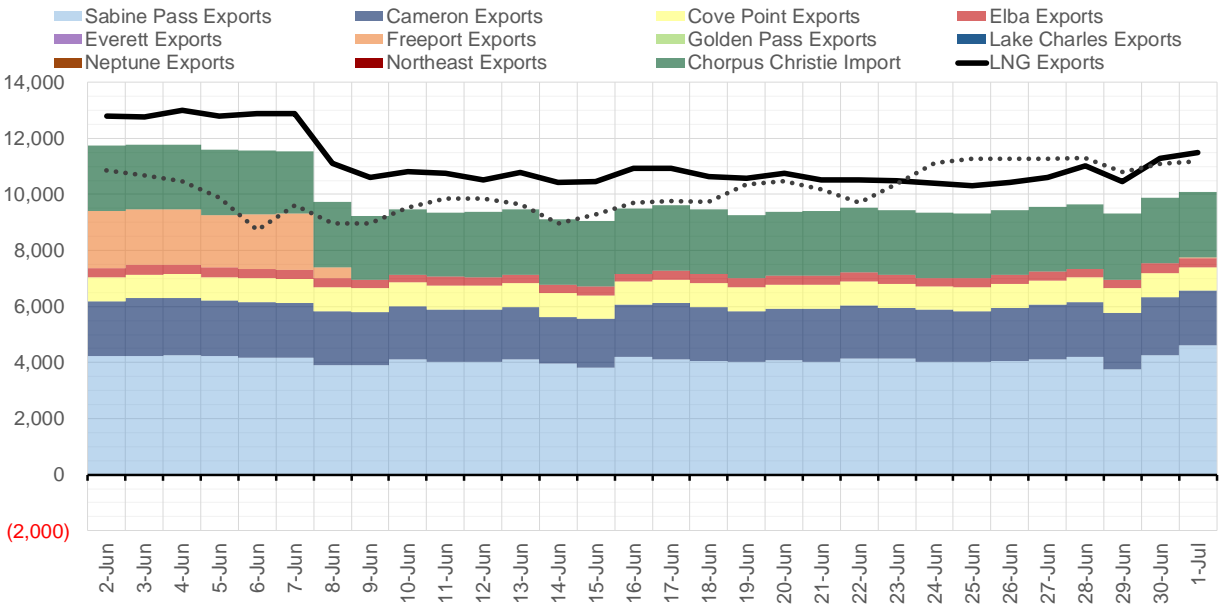


Source: Bloomberg

Mexican Exports (MMcf/d)



Net LNG Exports - Last 30 days (MMcf/d)



Source: Bloomberg

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Nat Gas Options Volume and Open Interest CME and ICE data combined

CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
8	2022	P	5.00	9151	8	2022	C	10.00	41863
8	2022	C	7.00	3480	8	2022	C	12.00	38204
8	2022	P	5.50	3439	10	2022	C	6.00	35600
3	2023	C	6.00	3170	8	2022	C	10.50	30510
2	2023	C	6.00	3134	10	2022	P	6.00	24271
3	2023	C	5.00	3130	10	2022	P	3.00	23928
1	2023	C	6.00	3125	9	2022	C	6.00	23732
1	2023	C	5.00	3100	10	2022	C	5.00	23365
2	2023	C	5.00	3100	8	2022	C	7.00	22322
8	2022	P	6.00	2888	8	2022	P	6.00	22040
3	2023	C	10.00	2605	8	2022	C	12.10	22003
10	2022	P	3.00	2429	9	2022	C	10.00	21500
8	2022	C	8.00	2377	10	2022	P	3.50	20685
8	2022	C	7.50	2126	10	2022	P	2.50	19851
9	2022	P	5.00	2019	8	2022	C	6.00	19756
10	2022	P	2.00	2000	9	2022	P	4.00	19485
3	2023	P	3.00	1990	5	2023	P	2.00	19352
8	2022	P	5.25	1987	8	2022	C	8.00	18911
9	2022	P	5.50	1965	8	2022	C	9.00	18532
10	2022	P	4.00	1939	1	2023	C	10.00	18404
8	2022	C	9.50	1936	3	2023	C	10.00	18372
8	2022	P	4.50	1932	9	2022	C	7.00	18247
8	2022	C	8.50	1805	12	2022	C	5.00	18221
8	2022	P	4.75	1801	10	2022	P	2.00	17308
8	2022	C	6.75	1738	8	2022	P	7.00	17206
8	2022	P	6.50	1613	10	2023	P	2.00	16730
8	2022	C	6.50	1482	2	2023	C	10.00	16049
9	2022	C	12.00	1430	10	2022	P	4.00	15971
8	2022	C	10.00	1401	9	2022	C	4.00	15970
8	2022	P	7.00	1347	10	2022	C	10.00	15756
8	2022	C	7.10	1341	8	2022	P	5.50	15737
9	2022	P	6.00	1332	10	2022	P	5.00	15516
9	2022	C	7.00	1322	12	2022	P	5.00	15421
8	2022	P	7.10	1201	9	2022	P	2.50	15293
8	2022	C	10.50	1156	9	2022	P	3.00	15089
8	2022	P	5.55	1127	8	2022	P	5.00	15014
10	2022	P	6.00	1125	8	2022	P	3.00	14914
8	2022	C	5.75	1093	9	2022	P	2.75	14887
8	2022	C	9.00	1081	10	2022	P	3.25	14398
1	2023	C	4.00	1020	10	2022	C	8.00	14357
2	2023	C	4.00	1020	10	2023	P	3.00	14205
3	2023	C	4.00	1020	4	2023	P	3.00	14082
3	2023	C	9.00	1015	12	2022	C	6.00	13921
10	2022	C	9.00	1013	8	2022	P	4.00	13742
11	2022	P	4.00	1002	10	2022	C	7.00	13627
2	2023	C	8.00	1000	9	2022	C	9.00	13386
2	2023	C	9.00	1000	10	2022	C	4.00	13308
8	2022	P	6.45	998	8	2022	C	3.00	13226
8	2022	P	6.15	973	9	2022	C	3.00	13225
					10	2022	C	3	13114

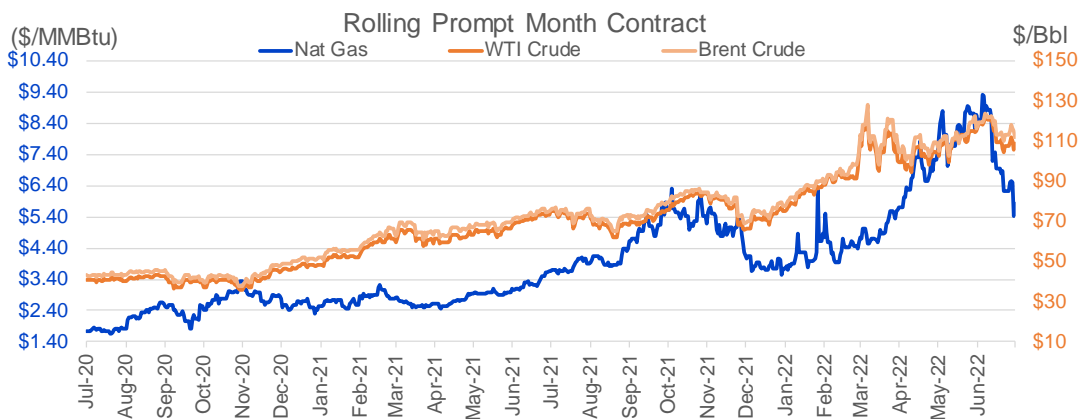
Source: CME, ICE

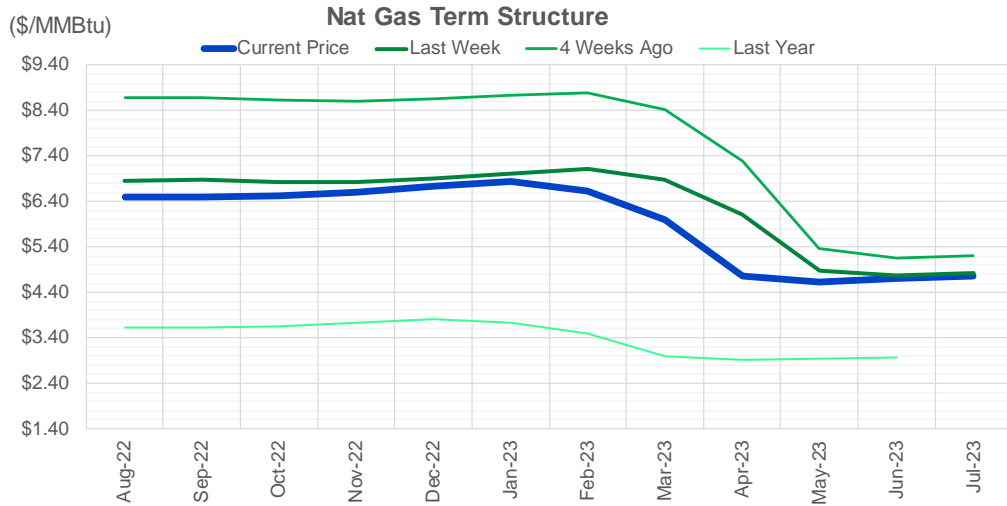
Nat Gas Futures Open Interest

CME and ICE data combined

CME Henry Hub Futures (10,000 MMBtu)				ICE Henry Hub Futures Contract Equivalent (10,000 MM			
	Current	Prior	Daily Change		Current	Prior	Daily Change
AUG 22	103824	102482	1342	AUG 22	78296	76982	1314
SEP 22	141033	142464	-1431	SEP 22	79303	78861	442
OCT 22	95600	96345	-745	OCT 22	73286	73299	-14
NOV 22	55584	54931	653	NOV 22	60362	59940	422
DEC 22	54218	52409	1809	DEC 22	64603	64683	-80
JAN 23	60657	61940	-1283	JAN 23	64461	65678	-1217
FEB 23	30982	30670	312	FEB 23	53853	53430	423
MAR 23	48677	48240	437	MAR 23	50304	51302	-998
APR 23	68196	67372	824	APR 23	50170	51304	-1134
MAY 23	57980	58574	-594	MAY 23	51161	50845	316
JUN 23	21227	21628	-401	JUN 23	44373	44441	-69
JUL 23	22883	24073	-1190	JUL 23	44055	43979	76
AUG 23	15334	15816	-482	AUG 23	42946	42990	-45
SEP 23	16196	16635	-439	SEP 23	42059	42277	-219
OCT 23	39122	38496	626	OCT 23	49332	49790	-458
NOV 23	12283	12441	-158	NOV 23	44435	44309	126
DEC 23	12192	12287	-95	DEC 23	40353	40480	-127
JAN 24	18294	18221	73	JAN 24	39509	39457	52
FEB 24	7808	7175	633	FEB 24	28435	28374	61
MAR 24	16022	15667	355	MAR 24	32926	32921	5
APR 24	12904	13770	-866	APR 24	27541	27197	343
MAY 24	6145	6201	-56	MAY 24	26367	26241	126
JUN 24	2262	2216	46	JUN 24	23329	23132	197
JUL 24	1965	1945	20	JUL 24	23255	23066	190
AUG 24	3013	3005	8	AUG 24	23591	23409	182
SEP 24	1397	1385	12	SEP 24	23027	22856	171
OCT 24	7188	6921	267	OCT 24	25716	25644	72
NOV 24	4571	4558	13	NOV 24	24254	24161	93
DEC 24	7156	7119	37	DEC 24	26165	26272	-107
JAN 25	13394	13174	220	JAN 25	17522	18053	-531

Source: CME, ICE






	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Current Price	\$6.498	\$6.493	\$6.519	\$6.614	\$6.735	\$6.830	\$6.618	\$6.002	\$4.753	\$4.639	\$4.698	\$4.764
Last Week	\$6.858	\$6.872	\$6.835	\$6.826	\$6.905	\$7.019	\$7.110	\$6.876	\$6.121	\$4.873	\$4.770	\$4.836
vs. Last Week	-\$0.360	-\$0.379	-\$0.316	-\$0.212	-\$0.170	-\$0.189	-\$0.492	-\$0.874	-\$1.368	-\$0.234	-\$0.072	-\$0.072
4 Weeks Ago	\$8.696	\$8.686	\$8.643	\$8.614	\$8.657	\$8.726	\$8.797	\$8.426	\$7.277	\$5.361	\$5.162	\$5.214
vs. 4 Weeks Ago	-\$2.198	-\$2.193	-\$2.124	-\$2.000	-\$1.922	-\$1.896	-\$2.179	-\$2.424	-\$2.524	-\$0.722	-\$0.464	-\$0.450
Last Year	\$3.650	\$3.624	\$3.619	\$3.658	\$3.743	\$3.807	\$3.725	\$3.488	\$2.998	\$2.917	\$2.943	\$2.977
vs. Last Year	\$2.848	\$2.869	\$2.900	\$2.956	\$2.992	\$3.023	\$2.893	\$2.514	\$1.755	\$1.722	\$1.755	\$1.787

	Units	Current Price	vs. Last Week	vs. 4 Weeks Ago	vs. Last Year
NatGas Jul21/Oct21	\$/MMBtu	2.224	▲ 0.000	▲ 0.000	▲ 2.218
NatGas Oct21/Nov21	\$/MMBtu	0.361	▲ 0.000	▲ 0.000	▲ 0.319
NatGas Oct21/Jan22	\$/MMBtu	-1.817	▲ 0.000	▲ 0.000	▼ -2.008
NatGas Apr22/Oct22	\$/MMBtu	0.073	▼ -0.880	▼ -3.000	▲ 0.081
WTI Crude	\$/Bbl	105.76	▲ 1.490	▼ -11.110	▲ 30.530
Brent Crude	\$/Bbl	114.81	▲ 4.760	▼ -2.800	▲ 38.970
Fuel Oil, NY Harbour 1%	\$/Bbl	97.18	▲ 0.000	▲ 0.000	▲ 0.000
Heating Oil	cents/Gallon	389.82	▼ -43.970	▼ -31.020	▲ 174.200
Propane, Mt. Bel	cents/Gallon	1.21	▲ 0.004	▼ -0.015	▲ 0.114
Ethane, Mt. Bel	cents/Gallon	0.65	▲ 0.010	▲ 0.007	▲ 0.344
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 
6/24/2022						
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago	
Oil	594	10	584	222	372	
Gas	157	3	154	59	98	
Miscellaneous	2	0	2	2	0	
Directional	41	2	39	11	30	
Horizontal	685	11	674	264	421	
Vertical	27	0	27	8	19	
Canada Breakout	This Week	+/-	Last Week	+/-	Year Ago	
Oil	104	0	104	22	82	
Gas	50	-2	52	6	44	
Major Basin Variances	This Week	+/-	Last Week	+/-	Year Ago	
Ardmore Woodford	3	0	3	2	1	
Arkoma Woodford	4	0	4	3	1	
Barnett	4	0	4	4	0	
Cana Woodford	32	3	29	15	17	
DJ-Niobrara	16	1	15	7	9	
Eagle Ford	72	3	69	40	32	
Granite Wash	2	1	1	0	2	
Haynesville	69	0	69	20	49	
Marcellus	39	0	39	12	27	
Mississippian	1	-1	2	1	0	
Permian	349	4	345	113	236	
Utica	12	0	12	3	9	
Williston	38	0	38	21	17	