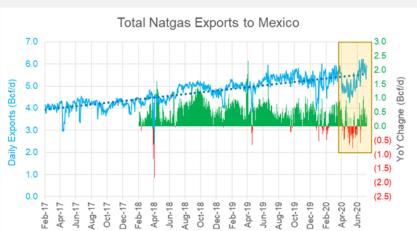


Natural gas exports to Mexico are critical to keep supply and demand balanced in the US. Over the past 5 years, we have seen exports increase substantially as new pipelines allow cheap US nat gas to flow to growing Mexican markets.

This June total exports reached 6 Bcf/d after a drop in exports related to COVID-19 demand destruction. Unlike the U.S. and Canada, Mexico has virtually no winter heating demand. The majority of gas demand is used to fuel industrial load and the growing power generation to meet air conditioning demand.

Despite demand destruction related to COVID-19 (as seen in the red bars below), year-to-date Mexican exports have increased by 0.25 Bcf/d on average. For June the YoY growth was 7%, or 0.375 Bcf/d.



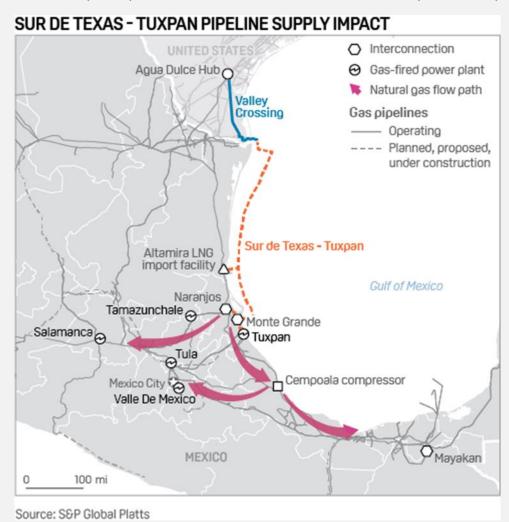


Mexico continues to build out its natural gas system and power generation fleet. Despite delays in almost every major project, each new piece of infrastructure adds new structural demand.

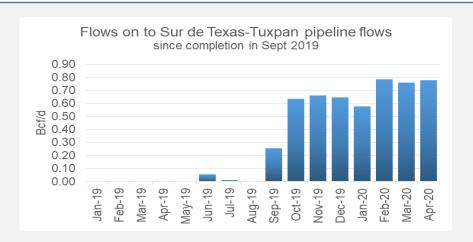




The last major project was Sur de Texas-Tuxpan pipeline which was completed in September 2019. The underwater Sur de Texas-Tuxpan Pipeline is designed to move 2.6 billion cubic feet of natural gas per day. The 42-inch and 480-mile pipeline begins in the Gulf of Mexico a few miles east of Brownsville and continues underwater to power plants in the coastal cities of Altamira, Tamaulipas and Tuxpan, Veracruz.



This pipeline is still operating well under capacity as more it waits for the build out of other pipelines to move natural gas to other destinations further inland. During the first 4 months of this year, the pipeline flows averaged 0.73 Bcf/d or 28% of the pipelines capacity.



Source: EIA

Looking into this summer, the expectation is that exports to Mexico will continue to grow with the completion of more pipeline systems. EIA reported this week that the southern-most segment of the Wahalajara system, the Villa de Reyes-Aguascalientes-Guadalajara (VAG) pipeline began operations in June 2020. This is connecting new demand markets in Mexico to U.S. natural gas pipeline exports.

The Wahalajara system is a group of new pipelines that connects the Waha hub in western Texas, a major supply hub for Permian Basin natural gas producers, to Guadalajara and other population centers in west-central Mexico. The Wahalajara system provides U.S. natural gas to meet growing demand from Mexico's electric power and industrial sectors. With the 0.89 billion cubic feet per day (Bcf/d) VAG pipeline entering service, EIA expects utilization of the Wahalajara system to quickly ramp up, resulting in increased U.S. natural gas exports to Mexico out of western Texas and additional takeaway capacity out of the Permian





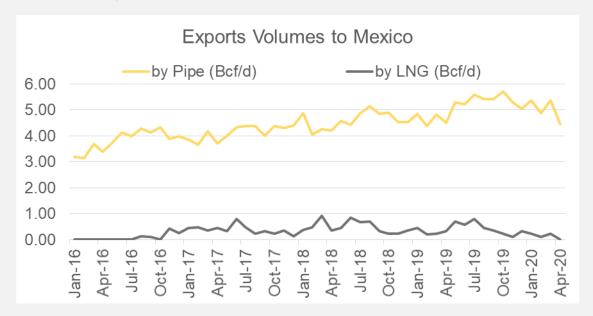
- 1 Road Runner
- 2 Tarahumara
- 3 El Encino La Laguna
- 4 La Laguna Aguascalientes
- 5 Villa De Reyes Aguascalientes Guadalajara

Source: Gasfundamental.com

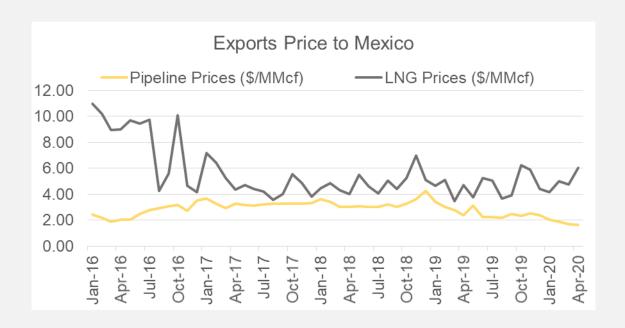


The addition of the VAG pipeline, the Tula-Villa de Reyes pipeline (late-2020) and new nat gas fired generation will likely increase US to Mexico exports. The increased pipeline deliveries will also help displace higher-cost LNG imports into Mexico's Manzanillo terminal.

Here is a look at average volumes moved to Mexico via Pipeline and LNG.



The price of pipeline gas is significantly lower than that via LNG; hence with more pipeline infrastructure we are likely to see LNG volumes disappear.





Some good sources for data:

Mexico's Secretaría de Energía Status of Pipelines (Spanish)

https://www.gob.mx/cms/uploads/attachment/file/338955/Estatus_de_gasoductos_junio_2018.pdf

EIA - U.S. Natural Gas Exports and Re-Exports by Point of Exit

https://www.eia.gov/dnav/ng/NG_MOVE_POE2_A_EPG0_ENP_MMCF_M.htm

SENER (Secretaria de Energia) - Natural Generation List

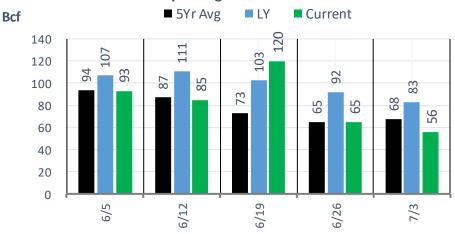
https://www.gob.mx/cms/uploads/attachment/file/475498/PRODESEN_VII.pdf

https://www.eia.gov/todayinenergy/detail.php?id=44278&src=email#

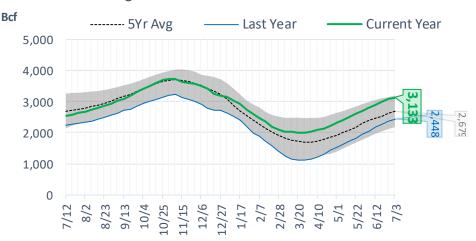


EIA Storage Report

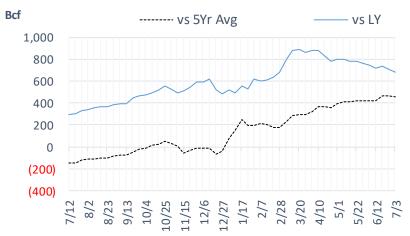
Total Lower 48 YoY Weekly Change



Total Lower 48 Storage Levels



Total Lower 48 LY Surplus/Deficit



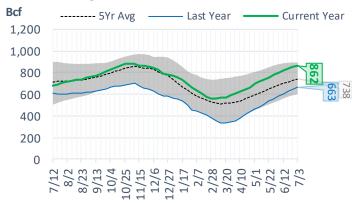


Natural Gas Storage Stats - Last 5 Weeks

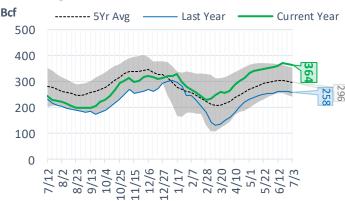
	Current	Week - 1	Week - 2	Week - 3	Week - 4	Week - 5
Week Ending	3-Jul	26-Jun	19-Jun	12-Jun	5-Jun	29-May
Total Lower 48 Storage Level	3133	3077	3012	2892	2807	2714
Weekly Change	+56	+65	+120	+85	+93	+102
vs LY	+685	+712	+739	+722	+748	+762
vs 5Yr Avg	+454	+466	+466	+419	+421	+422
S. Central Salt Storage Level	364	368	372	358	357	353
Weekly Change	-4	-4	+14	+1	+4	+5
vs LY	+106	+108	+109	+96	+101	+98
vs 5Yr Avg	+68	+69	+68	+53	+55	+56
S. Central NonSalt Storage Level	862	854	840	815	797	778
Weekly Change	+8	+14	+25	+18	+19	+21
vs LY	+199	+211	+215	+210	+217	+220
vs 5Yr Avg	+124	+128	+125	+113	+111	+110
Midwest Storage Level	761	740	716	688	662	634
Weekly Change	+21	+24	+28	+26	+28	+28
vs LY	+172	+181	+188	+195	+202	+209
vs 5Yr Avg	+138	+144	+145	+143	+144	+145
East Storage Level	657	639	619	586	563	536
Weekly Change	+18	+20	+33	+23	+27	+32
vs LY	+118	+121	+128	+123	+130	+131
vs 5Yr Avg	+91	+98	+104	+96	+102	+103
Mountain Storage Level	180	173	165	156	148	140
Weekly Change	+7	+8	+9	+8	+8	+8
vs LY	+42	+41	+41	+40	+40	+41
vs 5Yr Avg	+14	+11	+8	+4	+2	0
Pacific Storage Level	310	304	299	290	281	273
Weekly Change	+6	+5	+9	+9	+8	+9
vs LY	+49	+52	+57	+58	+58	+64



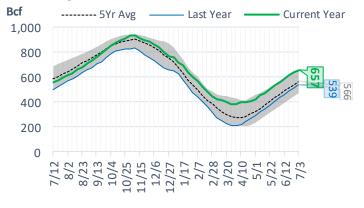
NonSalt Storage Levels



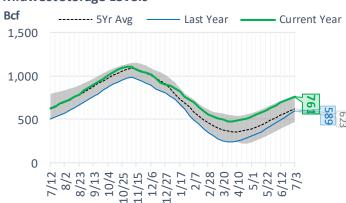
Salt Storage Levels



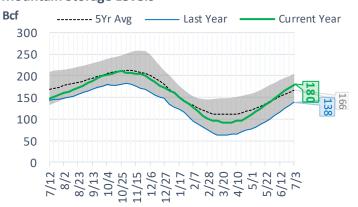
East Storage Levels



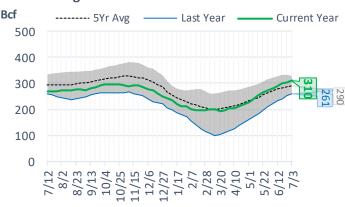
Midwest Storage Levels



Mountain Storage Levels

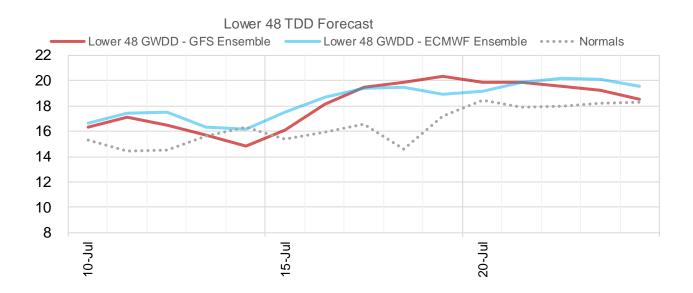


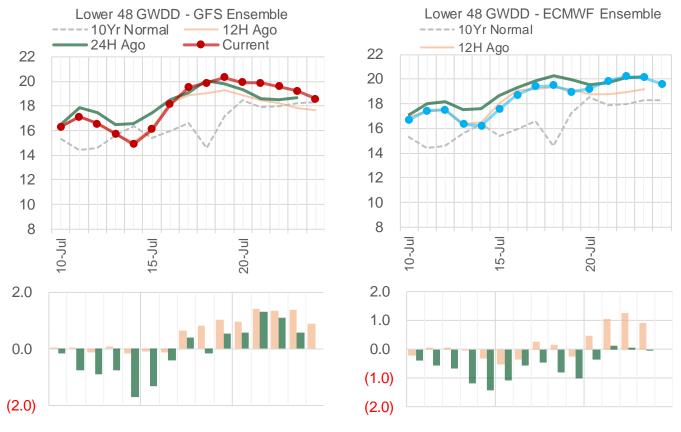
Pacific Storage Levels





Current Short-term Weather Model Outlooks (00z)





Source: WSI, Bloomberg



EIA Storage Week Balances

Market Report

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	5-Jun	12-Jun	19-
Lower 48 Dry Production	84.4	84 2	8.

	5-Jun	12-Jun	19-Jun	26-Jun	3-Jul	10-Jul	WoW	vs. 4W
Lower 48 Dry Production	84.4	84.2	84.5	84.4	84.4	84.8	0.3	△ 0.4
Canadian Imports	4.2	3.9	3.8	4.2	4.1	4.3	△ 0.2	0.3
L48 Power	31.4	33.3	30.3	37.3	38.7	41.7	3.0	6.8
L48 Residential & Commercial	8.1	7.7	8.0	7.4	7.4	7.3	▼ -0.1	▼ -0.3
L48 Industrial	20.2	19.2	18.2	18.5	18.8	18.4	▼ -0.4	▼ -0.3
L48 Lease and Plant Fuel	4.7	4.7	4.8	4.8	4.7	4.7	▼ 0.0	▼ 0.0
L48 Pipeline Distribution	1.9	2.0	1.8	2.2	2.2	2.2	△ 0.0	0.2
L48 Regional Gas Consumption	66.4	67.0	63.2	70.1	71.9	74.4	2.5	△ 6.4
Net LNG Exports	5.1	3.9	3.8	4.0	4.0	3.0	▽ -1.0	▽ -0.9
Total Mexican Exports	5.3	5.7	5.6	5.9	5.8	5.8	△ 0.1	▲ 0.1
Implied Daily Storage Activity	11.8	11.6	15.6	8.5	6.9	5.8	-1.1	
EIA Reported Daily Storage Activity	13.3	12.1	17.1	9.3	8.0			
Daily Model Error	-1.4	-0.6	-1.5	-0.8	-1.1			
•								

Monthly Balances									
	2Yr Ago Jul-18	LY Jul-19	Mar-20	Apr-20	May-20	Jun-20	MTD Jul-20	MoM	vs. LY
Lower 48 Dry Production	81.9	90.1	92.2	90.7	85.1	84.3	84.6	△ 0.2	▼ -5.5
Canadian Imports	5.6	5.0	4.1	4.0	3.9	4.0	4.3	△ 0.3	▼ -0.7
L48 Power	39.0	40.9	28.3	25.4	26.3	34.4	41.6	▲ 7.2	0.7
L48 Residential & Commercial	7.8	8.1	27.5	20.9	12.3	7.7	7.4	▼ -0.3	▼ -0.8
L48 Industrial	20.7	20.1	21.8	19.6	19.6	18.9	18.4	▼ -0.5	▼ -1.8
L48 Lease and Plant Fuel	4.6	5.0	5.2	5.1	4.8	4.8	4.7	▼ 0.0	▼ -0.3
L48 Pipeline Distribution	2.2	2.2	2.5	2.1	1.9	2.0	2.2	△ 0.2	▼ 0.0
L48 Regional Gas Consumption	74.3	76.4	85.3	73.1	64.8	67.7	74.3	▲ 6.6	▼ -2.1
Net LNG Exports	3.3	6.0	8.5	8.2	6.7	4.0	3.1	▼ -1.0	▼ -2.9
Total Mexican Exports	5.0	5.4	5.6	4.9	4.9	5.7	5.9	△ 0.2	△ 0.5
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	5.0	7.3	-3.1	8.4	12.7	10.9	5.6		

Source: Bloomberg, analytix.ai

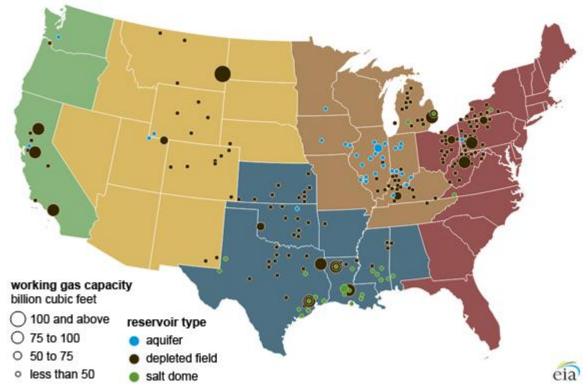
Regional S/D Models Storage Projection

Week Ending 10-Jul

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	5.5	1.3	6.9	48
East	-0.2	1.4	1.2	8
Midwest	3.7	-0.5	3.3	23
Mountain	2.3	-1.9	0.3	2
South Central	-1.2	2.7	1.5	10
Pacific	0.9	-0.4	0.6	4

^{*}Adjustment Factor is calcuated based on historical regional deltas

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





Weather Model Storage Projection

Next repor	t and beyond
	Week Storage
Week Ending	Projection
17-Jul	20
24-Jul	-2
31-Jul	55

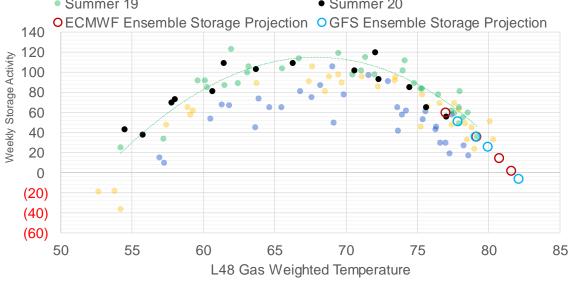
Weather Storage Model - Next 4 Week Forecast



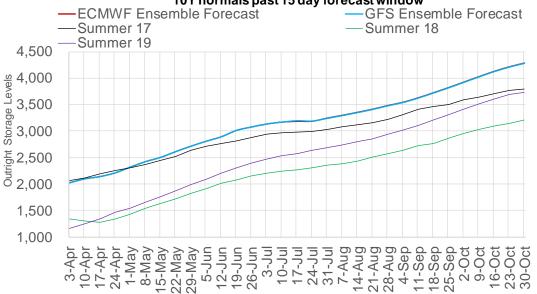
Summer 18

Summer 19

• Summer 20



Weather Based End of Winter Projection (Bcf) 10Y normals past 15 day forecast window





Weather Model Storage Projection to End of Season

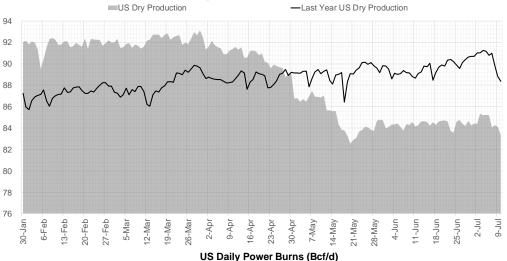
L48 Storage Trajector	y from Weather	Model				Forecast S	Storage Lev	els	
	Report		vs 5Yr	Reported	Estimate			5Yr Avg	
	Storage Level	vs. LY	Avg	Chg	Chg *	LY Chg	vs. LY	Chg	vs. 5Yr
3-Apr-20	2024	876	324	38		25	13	6	32
10-Apr-20	2097	876	370	73		73	0	27	46
17-Apr-20	2140	827	364	43		92	(49)	49	(6)
24-Apr-20	2210	783	360	70		114	(44)	74	(4)
1-May-20	2319	796	395	109		96	13	74	35
8-May-20	2422	799	413	103		100	3	85	18
15-May-20	2503	779	407	81		101	(20)	87	(6)
22-May-20	2612	778	423	109		110	(1)	93	16
29-May-20	2714	762	422	102		118	(16)	103	(1)
5-Jun-20	2807	748	421	93		107	(14)	94	(1)
12-Jun-20	2892	722	419	85		111	(26)	87	(2)
19-Jun-20	3012	739	466	120		103	17	73	47
26-Jun-20	3077	712	466	65		92	(27)	65	0
3-Jul-20	3133	685	454	56		83	(27)	68	(12)
10-Jul-20					36	67	(31)	63	(27)
17-Jul-20					20	44	(24)	37	(17)
24-Jul-20					(2)	56	(58)	33	(35)
31-Jul-20					55	58	(3)	33	22
7-Aug-20					53	51	2	44	9
14-Aug-20					56	56	0	44	12
21-Aug-20					60	60	(0)	49	11
28-Aug-20					69	77	(8)	66	3
4-Sep-20					62	80	(18)	68	(6)
11-Sep-20					83	82	1	77	6
18-Sep-20					95	97	(2)	80	15
25-Sep-20					98	109	(11)	78	20
2-Oct-20					103	102	1	86	17
9-Oct-20					103	102	1	87	16
16-Oct-20					99	92	7	75	24
23-Oct-20					86	89	(3)	67	19
30-Oct-20					71	49	22	52	19
			2296	2596	(300)	2024	272		

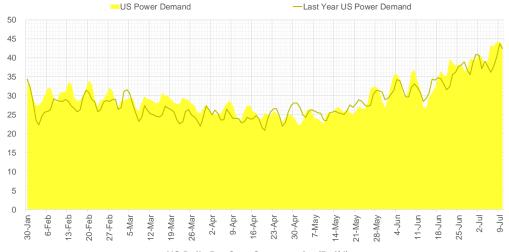
^{*} first 15D change is an average of the GFS Ensemble and ECMWF Ensemble



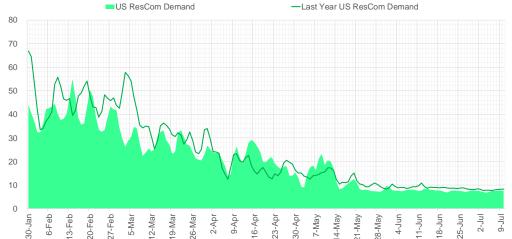
Supply - Demand Trends







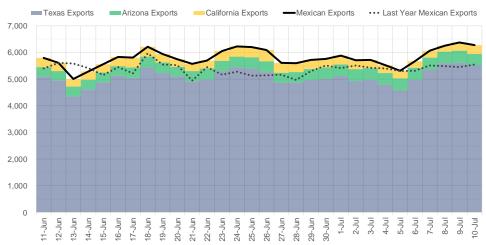
US Daily ResCom Consumption(Bcf/d)

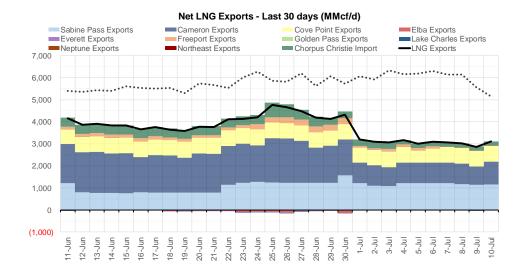


Source: Bloomberg



Mexican Exports - Last 30 days (MMcf/d)





Source: Bloomberg



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
8	2020	Р	1.50	5197	10	2020	Р	1.50	48164
8	2020	C	2.00	5116	8	2020	Р	1.50	36926
8	2020	P	1.60	3887	8	2020	С	2.00	36380
10	2020	C	2.70	2648	10	2020	С	2.75	35421
8	2020	Č	2.25	2361	10	2020	С	2.50	34104
8	2020	P	1.75	2335	3	2021	Р	2.00	33150
9	2020	C	2.00	2127	10	2020	Р	1.60	30870
10	2020	P	1.10	2075	9	2020	Р	1.50	30682
3	2021	C	3.00	1951	10	2020	Р	2.00	30374
9	2020	P	1.50	1909	10	2020	С	3.00	30299
8	2020	C	2.05	1818	9	2020	С	2.50	29541
3	2021	P	2.25	1802	10	2020	Р	1.75	28881
10	2020	P	1.50	1795	10	2020	Р	1.25	25193
10	2020	Р	1.60	1751	9	2020	С	3.00	25111
8	2020	Ċ	1.90	1696	9	2020	Р	1.20	24595
8	2020	P	1.65	1640	8	2020	С	2.50	24421
8	2020	P	1.70	1581	9	2020	Р	1.00	22868
3	2021	P	2.00	1460	9	2020	Р	1.75	22703
3	2021	Ċ	3.50	1450	8	2020	С	2.25	19322
2	2021	C	6.00	1400	8	2020	Р	1.30	19054
9	2021	P	1.80	1387	9	2020	С	2.75	18448
10	2020	C	2.00	1342	9	2020	Р	1.25	18366
9	2020	C	2.50	1303	10	2020	С	3.25	18191
8	2020	C	1.95	1161	10	2020	Р	2.10	18132
8	2020	C	1.70	1084	1	2021	С	3.50	17958
		P			10	2020	С	2.10	17856
8 10	2020 2020	P P	1.55 1.85	1083 1047	10	2020	Р	1.00	17783
10	2020	C	3.00	1019	3	2021	С	3.00	17267
		C			10	2020	С	2.25	16783
9	2020		1.85	1016	8	2020	Р	1.00	16760
10	2020	P	2.00	1014	8	2020	Р	1.60	16652
11	2020	С	2.75	1001	1	2021	С	3.00	16649
9	2020	С	1.70	1000	9	2020	С	2.00	16352
10	2020	С	3.50	1000	9	2020	С	2.25	15937
2	2021	С	5.00	1000	8	2020	Р	1.75	15937
8	2020	С	2.10	961	8	2020	Р	1.20	15796
9	2020	P	1.85	960	10	2020	Р	1.30	15553
8	2020	P	1.80	945	8	2020	Р	1.25	15533
10	2020	С	4.00	865	12	2020	Р	1.50	15254
2	2021	С	7.00	850	8	2020	Р	1.40	15220
8	2020	С	1.75	773	4	2021	С	3.00	15020
8	2020	С	1.85	771	8	2020	С	3.00	14670
10	2020	P	1.25	755	3	2021	С	3.50	14545
9	2020	P	1.25	731	10	2020	Р	1.20	14395
9	2020	С	2.15	654	9	2020	Р	1.30	14217
10	2020	Р	1.00	650	8	2020	С	2.10	14207
9	2020	С	1.75	563	9	2020	Р	2.00	13959
3	2022	С	3.00	550	8	2020	С	2.75	13515
9	2020	С	2.20	539	10	2020	С	2.00	13407
10	2020	С	2.05	519	11	2020	С	3.5	13353

Source: CME, Nasdaq, ICE



JAN 23

2514

2464

Market Report

Nat Gas Futures Open Interest CME, ICE and Nasdaq Combined

CME Henry H	lub Futures (1	0,000 MMBt	u)	ICE Henry Hub	Futures Co	ntract Equiva	lent (10,000 MM
	Current	Prior	Daily Change	FOR JUNE 26	Current	Prior	Daily Change
AUG 20	220359	239758	-19399	AUG 20	84373	84028	344.5
SEP 20	229165	220082	9083	SEP 20	74739	76078	-1339
OCT 20	118299	116437	1862	OCT 20	82638	79939	2699
NOV 20	78427	76109	2318	NOV 20	66961	66059	901.75
DEC 20	75403	73235	2168	DEC 20	61782	60516	1265.25
JAN 21	113078	112532	546	JAN 21	77193	75871	1321.75
FEB 21	40923	40808	115	FEB 21	47964	47665	299.5
MAR 21	80923	79590	1333	MAR 21	64321	63785	536
APR 21	76795	76631	164	APR 21	51765	51298	467
MAY 21	33008	33390	-382	MAY 21	46585	46274	311.25
JUN 21	19385	18609	776	JUN 21	44871	44493	377.75
JUL 21	16819	16847	-28	JUL 21	45505	45058	447.25
AUG 21	13114	13294	-180	AUG 21	46002	45544	458
SEP 21	15811	15787	24	SEP 21	43961	43553	407.75
OCT 21	39412	38788	624	OCT 21	64565	64149	415.25
NOV 21	21326	21253	73	NOV 21	37418	37097	321.75
DEC 21	15094	15386	-292	DEC 21	38304	37891	412.25
JAN 22	13610	13924	-314	JAN 22	30482	30257	225
FEB 22	8558	8286	272	FEB 22	27184	27014	169.25
MAR 22	13517	13556	-39	MAR 22	28824	28663	160.75
APR 22	12671	12576	95	APR 22	28175	27775	399.5
MAY 22	5251	5255	-4	MAY 22	22882	22778	103.5
JUN 22	1922	1924	-2	JUN 22	22994	22633	361
JUL 22	1799	1796	3	JUL 22	22535	22513	21.5
AUG 22	1255	1254	1	AUG 22	22415	22386	29.25
SEP 22	1756	1755	1	SEP 22	21968	21947	21
OCT 22	2129	2144	-15	OCT 22	23795	23695	100
NOV 22	1472	1487	-15	NOV 22	20449	20386	63.5
DEC 22	1301	1301	0	DEC 22	21012	20980	32.25

Source: CME, ICE

5.25

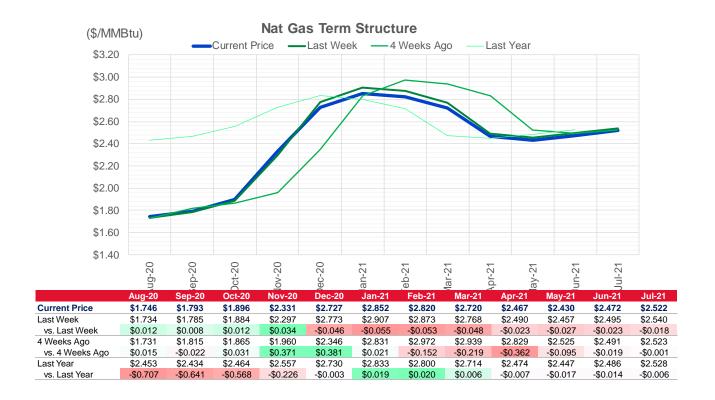
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					VS	s. 4 Weeks		
	Units	Current Price	VS.	Last Week		Ago	٧٤	s. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.39	_	0.032	_	0.062	_	0.013
NatGas Mar/Apr	\$/MMBtu	-0.253		0.025	$\overline{}$	-0.557	$\overline{}$	-0.508
NatGas Oct/Nov	\$/MMBtu	0.43	_	0.021	_	0.048		0.374
NatGas Oct/Jan	\$/MMBtu	0.96	$\overline{}$	-0.068	$\overline{}$	-0.057	_	0.635
WTI Crude	\$/Bbl	39.10	$\overline{}$	-1.550	_	2.840	$\overline{}$	-21.110
Brent Crude	\$/Bbl	41.85	$\overline{}$	-0.950		3.120	$\overline{}$	-24.870
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03		0.000	_	0.000		0.000
Heating Oil	cents/Gallon	121.40	$\overline{}$	-1.710		11.260	$\overline{}$	-76.610
Propane, Mt. Bel	cents/Gallon	0.48	_	0.016	$\overline{}$	-0.015	$\overline{}$	-0.013
Ethane, Mt. Bel	cents/Gallon	0.22	_	0.016	$\overline{}$	-0.008	_	0.060
Coal, PRB	\$/MTon	12.30		0.000		0.000		0.000
Coal, ILB	\$/MTon	31.05		0.000		0.000	$\overline{}$	-7.500

Source: CME, Bloomberg



Baker Hughes Rig Counts

This week we once again see a big change to rig counts. Oil rigs dropped by -4, while nat gas rigs dropped by -1. The weekly changes for the major basins are listed below.

	Rotary Rig	Count			
	=//0/00			Baker	Hughes >
	7/10/202	20			-
II C. Dua alcant Information	This Wast	. 1	Last Maak	. 1	Voor Asia
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago
Oil	181	-4	185	-603	784
Gas	75	- 1	76	-003 -97	172
Miscellaneous	2	0	2	0	2
Miscellaneous	_	U	_	U	_
Directional	19	-1	20	-51	70
Horizontal	220	-6	226	-611	831
Vertical	19	2	17	-38	57
		_			
Major Basin Variances	This Week	+/-	Last Week	+/-	Year Ago
Major Basin Variances	This Week	+/-	Last Week	+/-	Year Ago
Major Basin Variances Ardmore Woodford	This Week	+/-	Last Week	+/- -5	Year Ago 6
Ardmore Woodford	1	0	1	-5	6
Ardmore Woodford Arkoma Woodford	1 0	0	1 0	-5 -2	6 2
Ardmore Woodford Arkoma Woodford Barnett	1 0 1	0 0 -1	1 0 2	-5 -2 0	6 2 1
Ardmore Woodford Arkoma Woodford Barnett Cana Woodford	1 0 1 6	0 0 -1 0	1 0 2 6	-5 -2 0 -42	6 2 1 48
Ardmore Woodford Arkoma Woodford Barnett Cana Woodford DJ-Niobrara	1 0 1 6 4	0 0 -1 0	1 0 2 6 4	-5 -2 0 -42 -23	6 2 1 48 27
Ardmore Woodford Arkoma Woodford Barnett Cana Woodford DJ-Niobrara Eagle Ford	1 0 1 6 4 9	0 0 -1 0 0 -2	1 0 2 6 4 11	-5 -2 0 -42 -23 -57	6 2 1 48 27 66
Ardmore Woodford Arkoma Woodford Barnett Cana Woodford DJ-Niobrara Eagle Ford Granite Wash	1 0 1 6 4 9	0 0 -1 0 0 -2 0	1 0 2 6 4 11 0	-5 -2 0 -42 -23 -57	6 2 1 48 27 66 4
Ardmore Woodford Arkoma Woodford Barnett Cana Woodford DJ-Niobrara Eagle Ford Granite Wash Haynesville	1 0 1 6 4 9 0 33	0 0 -1 0 0 -2 0	1 0 2 6 4 11 0 33	-5 -2 0 -42 -23 -57 -4	6 2 1 48 27 66 4 52
Ardmore Woodford Arkoma Woodford Barnett Cana Woodford DJ-Niobrara Eagle Ford Granite Wash Haynesville Marcellus	1 0 1 6 4 9 0 33 27	0 0 -1 0 -2 0 0	1 0 2 6 4 11 0 33 28	-5 -2 0 -42 -23 -57 -4 -19	6 2 1 48 27 66 4 52 59
Ardmore Woodford Arkoma Woodford Barnett Cana Woodford DJ-Niobrara Eagle Ford Granite Wash Haynesville Marcellus Mississippian	1 0 1 6 4 9 0 33 27 0	0 0 -1 0 0 -2 0 0 -1	1 0 2 6 4 11 0 33 28	-5 -2 0 -42 -23 -57 -4 -19 -32	6 2 1 48 27 66 4 52 59 2