

## **Market Report**

#### 29 June 2020

	Current		Δf	rom YD	Δ from 7D Avg		
Nat Gas Prompt	\$	1.61	_	\$ 0.11	<b>\$</b>	0.05	

	С	Current		rom YD	Δ from 7D Ava		
WTI Prompt	\$	38.97	_	\$ 0.48	<b>~</b> \$	(0.0)	

	Current		Δ from 7D Ava		
Brent Prompt	\$ 41.43	<b>\$</b> 0.41	<b>&gt;</b> \$ (0.0)		

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00z GWDD Change

## Cooler Change

## Warmer Change

ECMWF Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
12 Hr Chg	8.0	3.6	2.0	6.4
24 Hr Chg	0.7	3.1	1.0	4.8
GFS Ensemble 00z	1-5 Day	6-10 Day	11-15 Day	Total
GFS Ensemble 00z 12 Hr Chg	1-5 Day 0.3	6-10 Day 6.9	11-15 Day 5.2	Total 12.4

	Current	Δf	rom YD	Δf	rom 7D Avg
US Dry Production	84.3		0.06	~	-0.02

	Current	Δf	rom YD	Δf	rom 7D Avg
US ResComm	8.0		0.26		0.17

	Current	$\Delta$ from YD $\Delta$ from 7D Avg
Net LNG Exports	4.5	<b>△</b> 0.27 <b>△</b> 0.15

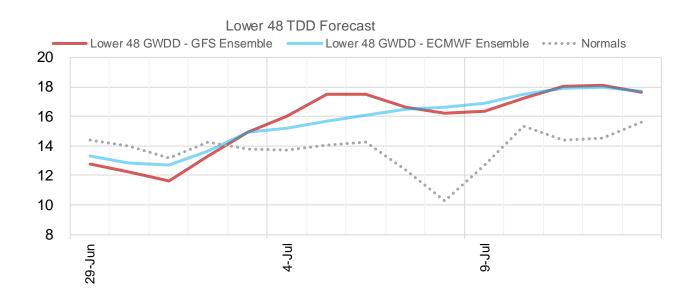
	Current	Δf	rom YD	Δf	rom 7D Avg
US Power Burns	38.7		1.75		0.65

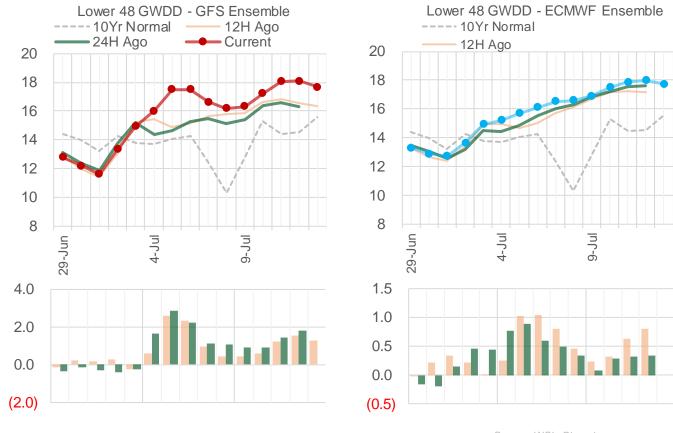
	Current	Δf	rom YD	Δf	rom 7D Ava
Canadian Imports	3.8	_	0.01	~	Ü

	Current	Δf	rom YD	Δ from 7D Avg		
Mexican Exports	6.0		0.44		0.13	



#### Short-term Weather Model Outlooks (00z)





Source: WSI, Bloomberg



## **Market Report**

#### Lower 48 Component Models

#### **Daily Balances**

	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	DoD	vs.7D
Lower 48 Dry Production	83.9	83.6	84.6	84.8	84.5	84.3	84.3	<b>△</b> 0.1	▲ 0.0
Canadian Imports	4.6	4.2	4.1	4.1	3.8	3.8	3.8	<b>0.0</b>	▼ -0.3
L48 Power	38.9	38.1	37.8	38.3	36.5	36.9	38.7	<b>1.7</b>	<b>0.9</b>
L48 Residential & Commercial	8.1	7.9	7.8	7.7	7.4	7.7	8.0	<b>0.3</b>	<b>a</b> 0.2
L48 Industrial	17.1	16.8	16.6	16.5	16.2	16.1	16.1	<b>△</b> 0.0	▼ -0.4
L48 Lease and Plant Fuel	4.7	4.7	4.8	4.8	4.8	4.7	4.8	<b>△</b> 0.0	<b>a</b> 0.0
L48 Pipeline Distribution	2.3	2.2	2.2	2.2	2.1	2.1	2.2	<b>△</b> 0.1	<b>0.1</b>
L48 Regional Gas Consumption	71.0	69.7	69.2	69.5	67.1	67.6	69.7	<b>2.1</b>	<b>△</b> 0.7
Net LNG Exports	4.1	4.2	4.8	4.7	4.5	4.3	4.5	<b>0.3</b>	<b>△ 0.1</b>
Total Mexican Exports	6.1	6.0	6.2	6.1	5.7	5.6	6.0	<b>△</b> 0.4	<b>△</b> 0.1
Implied Daily Storage Activity EIA Reported Daily Storage Activity Daily Model Error	7.3	8.0	8.5	8.7	11.0	10.6	7.8		

	22-May	29-May	5-Jun	12-Jun	19-Jun	26-Jun	WoW	vs. 4W
Lower 48 Dry Production	84.0	84.0	84.5	84.3	84.5	84.4	<b>▽ -0.1</b>	<b>△</b> 0.1
Canadian Imports	4.1	4.1	4.2	3.8	3.7	4.2	<b>0.5</b>	<b>△</b> 0.2
L48 Power	26.5	29.7	31.7	33.6	30.7	37.4	<b>6.6</b>	<b>5.9</b>
L48 Residential & Commercial	10.8	8.2	8.5	8.1	8.3	7.7	▼ -0.6	▼ -0.5
L48 Industrial	19.0	19.6	19.6	18.5	17.5	17.0	▼ -0.4	▼ -1.8
L48 Lease and Plant Fuel	4.7	4.7	4.7	4.7	4.8	4.8	▼ 0.0	<b>a</b> 0.0
L48 Pipeline Distribution	1.8	1.9	2.0	2.0	1.9	2.2	<b>a</b> 0.3	<b>a</b> 0.2
L48 Regional Gas Consumption	62.9	64.1	66.5	67.0	63.1	69.1	<b>5.9</b>	<b>3.9</b>
Net LNG Exports	6.3	6.1	5.1	3.9	3.8	4.0	<b>0.3</b>	▼ -0.7
Total Mexican Exports	5.2	5.0	5.3	5.7	5.6	5.9	<b>0.3</b>	<b>0.5</b>
Implied Daily Storage Activity	13.7	12.9	11.8	11.6	15.7	9.6	-6.1	
EIA Reported Daily Storage Activity	15.6	14.6	13.3	12.1	17.1			
Daily Model Error	-1.9	-1.7	-1.5	-0.5	-1.4			

Мо	nthly	Bal	ances

2Vr Ago	1 🗸					MTD		
Jun-18	Jun-19	Feb-20	Mar-20	Apr-20	May-20	Jun-20	MoM	vs. LY
81.6	89.6	91.8	92.2	91.2	85.3	84.4	<b>▽ -0.9</b>	▼ -5.1
5.6	4.7	5.2	4.1	4.0	3.9	4.0	<b>△ 0.1</b>	<b>▽ -0.8</b>
31.8	33.0	30.0	28.3	25.8	26.8	34.4	<b>~</b> 7.6	<b>1.3</b>
8.6	9.0	39.9	27.7	21.6	12.8	8.1	▼ -4.7	▼ -0.9
21.3	21.3	24.3	21.7	18.9	18.7	17.7	▼ -1.0	▼ -3.6
4.5	5.0	5.2	5.2	5.2	4.8	4.8	▼ 0.0	▼ -0.3
1.9	2.0	3.0	2.5	2.3	2.0	2.0	<b>△</b> 0.1	<b>△</b> 0.0
68.2	70.4	102.3	85.4	73.6	65.0	66.9	<b>1.9</b>	▼ -3.4
3.2	5.5	8.5	8.5	8.2	6.7	4.0	<b>▽</b> -2.6	▼ -1.5
4.5	5.3	5.3	5.6	4.9	4.9	5.7	▲ 0.8	<b>△</b> 0.4
11.3	13.1	-19.0	-3.1	8.4	12.7	11.7		
	81.6 5.6 31.8 8.6 21.3 4.5 1.9 68.2 3.2 4.5	Jun-18         Jun-19           81.6         89.6           5.6         4.7           31.8         33.0           8.6         9.0           21.3         21.3           4.5         5.0           1.9         2.0           68.2         70.4           3.2         5.5           4.5         5.3	Jun-18         Jun-19         Feb-20           81.6         89.6         91.8           5.6         4.7         5.2           31.8         33.0         30.0           8.6         9.0         39.9           21.3         21.3         24.3           4.5         5.0         5.2           1.9         2.0         3.0           68.2         70.4         102.3           3.2         5.5         8.5           4.5         5.3         5.3	Jun-18         Jun-19         Feb-20         Mar-20           81.6         89.6         91.8         92.2           5.6         4.7         5.2         4.1           31.8         33.0         30.0         28.3           8.6         9.0         39.9         27.7           21.3         21.3         24.3         21.7           4.5         5.0         5.2         5.2           1.9         2.0         3.0         2.5           68.2         70.4         102.3         85.4           3.2         5.5         8.5         8.5           4.5         5.3         5.6	Jun-18         Jun-19         Feb-20         Mar-20         Apr-20           81.6         89.6         91.8         92.2         91.2           5.6         4.7         5.2         4.1         4.0           31.8         33.0         30.0         28.3         25.8           8.6         9.0         39.9         27.7         21.6           21.3         21.3         24.3         21.7         18.9           4.5         5.0         5.2         5.2         5.2           1.9         2.0         3.0         2.5         2.3           68.2         70.4         102.3         85.4         73.6           3.2         5.5         8.5         8.5         8.2           4.5         5.3         5.6         4.9	Jun-18         Jun-19         Feb-20         Mar-20         Apr-20         May-20           81.6         89.6         91.8         92.2         91.2         85.3           5.6         4.7         5.2         4.1         4.0         3.9           31.8         33.0         30.0         28.3         25.8         26.8           8.6         9.0         39.9         27.7         21.6         12.8           21.3         21.3         24.3         21.7         18.9         18.7           4.5         5.0         5.2         5.2         5.2         4.8           1.9         2.0         3.0         2.5         2.3         2.0           68.2         70.4         102.3         85.4         73.6         65.0           3.2         5.5         8.5         8.5         8.2         6.7           4.5         5.3         5.3         5.6         4.9         4.9	Jun-18         Jun-19         Feb-20         Mar-20         Apr-20         May-20         Jun-20           81.6         89.6         91.8         92.2         91.2         85.3         84.4           5.6         4.7         5.2         4.1         4.0         3.9         4.0           31.8         33.0         30.0         28.3         25.8         26.8         34.4           8.6         9.0         39.9         27.7         21.6         12.8         8.1           21.3         21.3         24.3         21.7         18.9         18.7         17.7           4.5         5.0         5.2         5.2         5.2         4.8         4.8           1.9         2.0         3.0         2.5         2.3         2.0         2.0           68.2         70.4         102.3         85.4         73.6         65.0         66.9           3.2         5.5         8.5         8.5         8.2         6.7         4.0           4.5         5.3         5.3         5.6         4.9         4.9         5.7	Jun-18         Jun-19         Feb-20         Mar-20         Apr-20         May-20         Jun-20         MoM           81.6         89.6         91.8         92.2         91.2         85.3         84.4         ▼ -0.9           5.6         4.7         5.2         4.1         4.0         3.9         4.0         ▲ 0.1           31.8         33.0         30.0         28.3         25.8         26.8         34.4         ▲ 7.6           8.6         9.0         39.9         27.7         21.6         12.8         8.1         ▼ -4.7           21.3         21.3         24.3         21.7         18.9         18.7         17.7         ▼ -1.0           4.5         5.0         5.2         5.2         5.2         4.8         4.8         ▼ 0.0           1.9         2.0         3.0         2.5         2.3         2.0         2.0         ▲ 0.1           68.2         70.4         102.3         85.4         73.6         65.0         66.9         ▲ 1.9           3.2         5.5         8.5         8.5         8.2         6.7         4.0         ▼ -2.6           4.5         5.3         5.3         5.6

Source: Bloomberg, analytix.ai



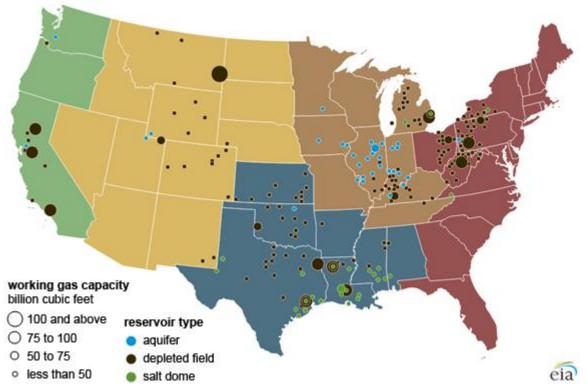
### Regional S/D Models Storage Projection

Week Ending 26-Jun

	Daily Raw Storage	Daily Adjustment Factor	Daily Average Storage Activity (Adjusted) *	Weekly Adjusted Storage Activity
L48	9.4	1.4	10.7	75
East	1.4	1.8	3.1	22
Midwest	3.8	-0.3	3.4	24
Mountain	3.1	-1.9	1.2	8
South Central	-0.3	2.3	2.0	14
Pacific	1.4	-0.5	0.9	7

<sup>\*</sup>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 report and beyond								
	Week Storage							
Week Ending	Projection							
3-Jul	60							
10-Jul	27							
17-Jul	42							

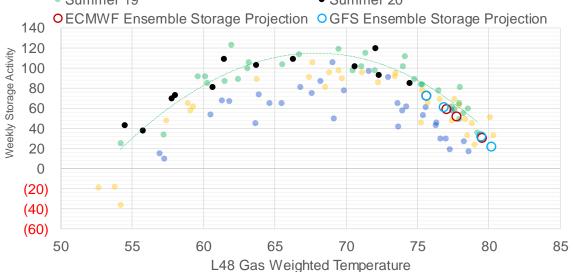
#### Weather Storage Model - Next 4 Week Forecast

Summer 17

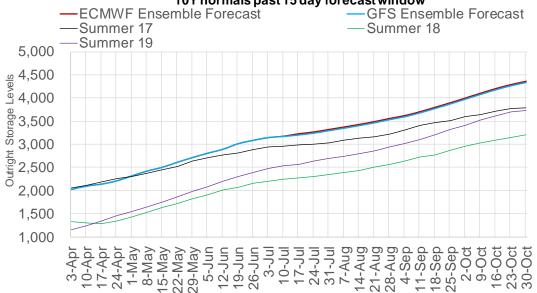
Summer 18

Summer 19

• Summer 20



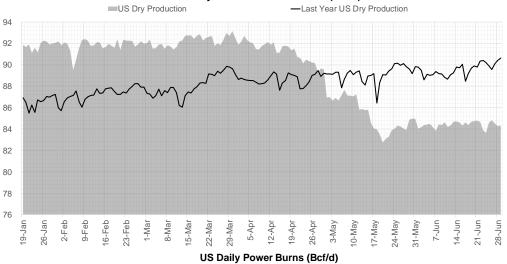
#### Weather Based End of Winter Projection (Bcf) 10Y normals past 15 day forecast window

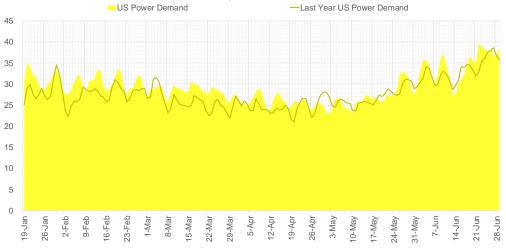




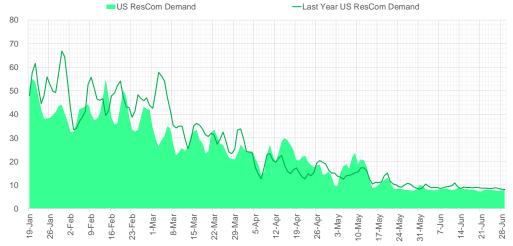
#### Supply - Demand Trends

#### US Dry Natural Gas Production (Bcf/d)





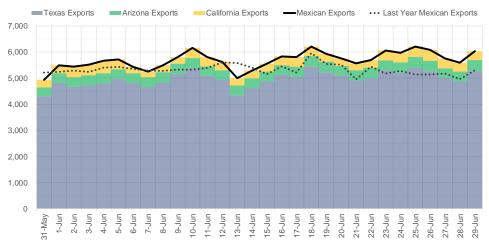
#### US Daily ResCom Consumption(Bcf/d)



Source: Bloomberg



#### Mexican Exports - Last 30 days (MMcf/d)



#### Net LNG Exports - Last 30 days (MMcf/d) Cove Point Exports ■Elba Exports Sabine Pass Exports Cameron Exports Everett Exports Freeport Exports Golden Pass Exports Lake Charles Exports Neptune Exports Northeast Exports Chorpus Christie Import LNG Exports 6,000 5,000 4.000 3.000 2.000 1,000 (1,000)

Source: Bloomberg



## **Market Report**

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

			•		<u>'</u>				
CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE VOL	CONTRACT MONTH	CONTRACT YEAR	PUT/CALL	STRIKE	CUMULATIVE OI
8	2020	С	2.00	8792	10	2020	Р	1.50	40378
8	2020	С	1.75	6022	10	2020	С	2.75	36203
8	2020	С	2.10	3840	8	2020	Р	1.50	36068
8	2020	P	1.50	3673	10	2020	С	3.00	35497
9	2020	P	1.50	3439	3	2021	Р	2.00	32800
9	2020	C	2.00	3378	9	2020	Р	1.20	32679
9	2020	P	1.40	3183	10	2020	Р	1.60	32354
10	2020	Р	1.70	2970	10	2020	С	2.50	31421
8	2020	C	1.65	2887	10	2020	Р	2.00	28714
8	2020	P	1.00	2680	8	2020	С	2.00	27524
10	2020	C	2.50	2670	9	2020	С	2.50	27323
9	2020	P	1.10	2524	10	2020	Р	1.75	24850
8	2020	P	1.30	2463	9	2020	Р	1.00	24675
8	2020	C	1.60	2416	8	2020	С	2.50	23434
8	2020	P	1.25	2397	10	2020	Р	1.25	23276
10	2020	P	1.10	2314	9	2020	Р	1.50	21375
8	2020	P	1.10	2136	8	2020	Р	1.20	21196
	2020	P P		2052	8	2020	Р	1.30	20175
8		P P	1.55		10	2020	Р	1.20	19967
10	2020	-	1.50	2004	9	2020	Р	1.75	19965
10	2020	P	0.50	2000	10	2020	Р	1.00	18667
10	2020	P	0.75	2000	9	2020	С	2.75	18455
8	2020	P	1.40	1966	10	2020	C	3.25	18188
8	2020	P	1.10	1827	10	2020	P	2.10	18132
9	2020	P	1.60	1677	8	2020	С	2.25	17990
10	2020	С	2.75	1610	1	2021	C	3.50	17909
9	2020	C	2.25	1603	1	2021	C	3.00	16616
9	2020	Р	0.80	1600	10	2020	P	1.30	16424
10	2020	Р	0.80	1600	10	2020	С	2.25	16067
8	2020	Р	0.75	1444	8	2020	Р	1.00	16002
10	2020	Р	1.40	1390	3	2021	С	3.00	15797
8	2020	С	1.70	1373	9	2020	P	1.25	15728
10	2020	С	2.00	1307	9	2020	P	1.30	15172
10	2020	Р	1.35	1297	9	2020	Р	1.10	14964
9	2020	Р	1.00	1278	9	2020	C	2.25	14906
10	2020	Р	1.75	1115	9	2020	Č	3.00	14874
10	2020	С	1.75	1114	8	2020	Ċ	3.00	14665
4	2021	С	5.00	1070	4	2021	Ċ	3.00	14660
8	2020	Р	1.20	1065	8	2020	P	1.25	14527
8	2020	С	2.40	1036	8	2020	Р	1.60	14229
12	2020	С	3.75	1005	10	2020	P	1.10	14018
10	2020	Р	1.20	1001	3	2021	C	7.00	13722
12	2020	С	4.75	1000	9	2020	P	2.00	13490
4	2021	С	6.00	1000	8	2020	C	2.75	13178
9	2020	С	1.75	988	8	2020	P	1.10	13130
10	2020	P	1.25	930	10	2020	C	3.50	13087
10	2020	P	1.55	920	1	2021	P	2.50	12963
9	2020	P	1.30	914	11	2020	C	3.50	12902
10	2020	P	1.00	899	1	2021	Č	4.50	12756
8	2020	P	0.90	871	3	2021	Č	3.5	12410

Source: CME, Nasdaq, ICE

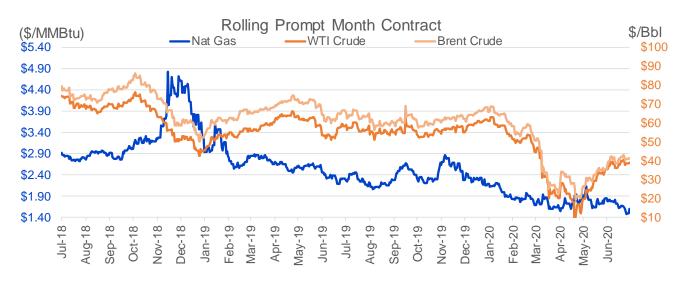


#### Nat Gas Futures Open Interest

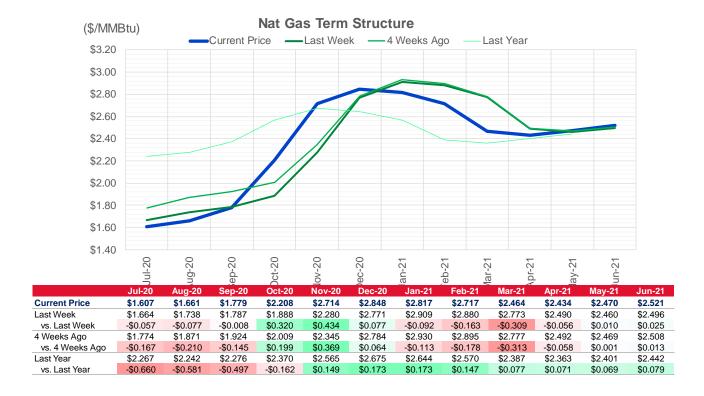
			_	
CME	and	ICF.	Com	hined

CME Henry	Hub Futures (10		, and ICE C		Futures Co	ntract Equiva	lent (10,000 MM
	Current	Prior		FOR JUNE 26	Current	Prior	Daily Change
AUG 20	13	3746	-3733	AUG 20	75466	75466	0
SEP 20	290783	289470	1313	SEP 20	92579	92579	0
OCT 20	199726	197388	2338	OCT 20	72191	72191	0
NOV 20	128210	129789	-1579	NOV 20	80140	80140	0
DEC 20	65705	65219	486	DEC 20	63720	63720	0
JAN 21	74274	73497	777	JAN 21	60797	60797	0
FEB 21	117772	118165	-393	FEB 21	75455	75455	0
MAR 21	40618	40373	245	MAR 21	46613	46613	0
APR 21	84808	85660	-852	APR 21	63083	63083	0
MAY 21	77415	77179	236	MAY 21	49383	49383	0
JUN 21	28678	28976	-298	JUN 21	45923	45923	0
JUL 21	17448	17549	-101	JUL 21	44002	44002	0
AUG 21	16189	16079	110	AUG 21	44722	44722	0
SEP 21	12440	12378	62	SEP 21	45189	45189	0
OCT 21	15362	15145	217	OCT 21	42952	42952	0
NOV 21	35436	34552	884	NOV 21	59710	59710	0
DEC 21	20081	19943	138	DEC 21	37036	37036	0
JAN 22	16190	16217	-27	JAN 22	37717	37717	0
FEB 22	12964	12938	26	FEB 22	29169	29169	0
MAR 22	8573	8511	62	MAR 22	26216	26216	0
APR 22	13462	13459	3	APR 22	27889	27889	0
MAY 22	12410	12413	-3	MAY 22	26747	26747	0
JUN 22	5029	4830	199	JUN 22	22403	22403	0
JUL 22	2029	2029	0	JUL 22	21955	21955	0
AUG 22	1795	1795	0	AUG 22	21957	21957	0
SEP 22	1248	1253	-5	SEP 22	21628	21628	0
OCT 22	1349	1349	0	OCT 22	21244	21244	0
NOV 22	1893	1891	2	NOV 22	23385	23385	0
DEC 22	1395	1395	0	DEC 22	19701	19701	0
JAN 23	1293	1293	0	JAN 23	20267	20267	0

Source: CME, ICE







	Units	Cash Settled	Prompt Settle	Cash to Prompt
AGT Citygate	\$/MMBtu	1.50	1.63	0.13
TETCO M3	\$/MMBtu	1.39	1.54	0.15
FGT Zone 3	\$/MMBtu	1.39	1.69	0.30
Zone 6 NY	\$/MMBtu	1.39	1.53	0.14
Chicago Citygate	\$/MMBtu	1.43	1.62	0.19
Michcon	\$/MMBtu	1.49	1.61	0.12
Columbia TCO Pool	\$/MMBtu	1.30	1.42	0.12
Ventura	\$/MMBtu	1.51	1.60	0.09
Rockies/Opal	\$/MMBtu	1.34	1.49	0.15
El Paso Permian Basin	\$/MMBtu	1.20	1.38	0.18
Socal Citygate	\$/MMBtu	1.54	1.85	0.31
Malin	\$/MMBtu	1.35	1.60	0.25
Houston Ship Channel	\$/MMBtu	1.38	1.65	0.27
Henry Hub Cash	\$/MMBtu	1.40	1.56	0.16
AECO Cash	C\$/GJ	1.29	1.38	0.09
Station2 Cash	C\$/GJ	1.26	1.54	0.28
Dawn Cash	C\$/GJ	1.46	1.60	0.14

Source: CME, Bloomberg



					VS	s. 4 Weeks		
	Units	<b>Current Price</b>	vs.	Last Week		Ago	VS	s. Last Year
NatGas Jan/Apr	\$/MMBtu	-0.38	_	0.035	_	0.054	$\overline{}$	-0.013
NatGas Mar/Apr	\$/MMBtu	-0.253	_	0.030	$\overline{}$	-0.538	$\overline{}$	-0.495
NatGas Oct/Nov	\$/MMBtu	0.43	_	0.037	_	0.093		0.364
NatGas Oct/Jan	\$/MMBtu	1.07	_	0.048	_	0.148		0.734
WTI Crude	\$/Bbl	38.97	$\overline{}$	-1.490	_	3.530	$\overline{}$	-20.120
Brent Crude	\$/BbI	41.43	$\overline{}$	-1.650	<b>A</b>	3.110	$\overline{}$	-23.630
Fuel Oil, NY Harbour 1%	\$/Bbl	98.03	<b>A</b>	0.000	_	0.000		0.000
Heating Oil	cents/Gallon	115.26	$\overline{}$	-6.600	_	12.360	$\overline{}$	-80.120
Propane, Mt. Bel	cents/Gallon	0.50	$\overline{}$	-0.009	<b>A</b>	0.016		0.020
Ethane, Mt. Bel	cents/Gallon	0.22	$\overline{}$	-0.005	$\overline{}$	-0.025		0.066
Coal, PRB	\$/MTon	12.30		0.000	<b>A</b>	0.000	$\overline{}$	-0.050
Coal, ILB	\$/MTon	31.05		0.000	_	0.000	$\overline{}$	-7.500