

January 12, 2009

Natural Gas Trends

Highlights

FIRST INTERVENTIONLESS WELL COMPLETION

New technology reduces labor hours, completion costs. Last week, Marathon Oil Company announced what it believes was the world's first totally interventionless gas well completion using the patented EXcape® Completion Process technology developed jointly by four companies, including three Texas-based companies - Marathon Oil, BJ Services, and GEODynamics - and a well flow management company based in the United Kingdom, Expro Group.

The EXcape technology was used to complete a natural gas well located in the Woodford Shale formation in southeastern Oklahoma. The Woodford Shale is estimated to hold around 4 trillion cubic feet of natural gas. A map of the Woodford Shale is at <http://oilshalegas.com/woodfordshale.html>. Using this new technology, **Marathon reduced its labor hours by more than 35% and reduced overall well completion costs by 10%**, when compared to conventional gas well completions using pump-down techniques in horizontal wells.

The EXcape Completion Process provided a means to more effectively stimulate multiple pay intervals without the need for multiple mobilizations of equipment and personnel. Using this new technology, Marathon Oil was able to **remotely** perforate, fracture, stimulate, and complete each individual interval zone for production, including the setting and removal of isolation devices.

Benefits. In addition to reduced labor hours and operation costs, the new process reportedly improves safety, well control and environmental operations because the equipment is remotely actuated. Additionally, there are lower fracturing fluid requirements due to smaller tubulars and because the displacement fluid for one stimulation stage becomes the pad fluid for the next stage.

Sources: www.marathon.com and www.exprogroup.com

How EXcape Works

According to the Expro Group, to use this new well completion technology, a producer must first establish zones within a well and position the EXcape system across the zones. After the EXcape system is in position, it is cemented into the bottom of the well.

The technology uses a 3-stage process to complete a well. First, a remote firing system perforates the well at the lowest interval depth. The flow of natural gas is monitored and, if appropriate, stage stimulation occurs within this zone. Second, the remote firing system is used to perforate the next zone, followed by zonal isolation of the first zone immediately below, and then, stage stimulation occurs for the second zone. After all zones have been perforated, isolated, and stimulated, the zone isolation devices are removed so that gas flows freely through the well. A short video explaining how this technology works is available on the Expro Group's website at: www.exprogroup.com/zone.html

Data

- February Natural Gas Futures Contract (January 9) NYMEX at Henry Hub closed at \$5.516.
- February Light, Sweet Crude Oil Futures Contract (January 9) NYMEX at Cushing closed at \$40.83 per Bbl. or approximately \$6.50 per MMBtu.

Heating Degree Days

From 1/4/09 through 1/10/09, Texas and the U.S. experienced much warmer than normal weather. For the heating season (7/1/08 to present), cumulative heating degree days are **12% below normal for Texas** and 2% below normal for the U.S. Source: NOAA (www.cpc.ncep.noaa.gov)

Heating Degree Days (HDD) Week ending 1/10/09

City or Region	Week Total HDD	Week HDD +/- from Normal *	Year-to-date Total HDD	YTD, % +/- from Normal *
Amarillo	185	-25	1760	-15 %
Austin	80	-30	771	-4 %
DFW	91	-58	846	-26 %
El Paso	124	-23	1059	-20 %
Houston	65	-33	561	-24 %
San Antonio	66	-39	550	-29 %
Texas**	88	-36	854	-12 %
U.S.**	189	-19	1997	-2 %

* A plus (+) value = cooler than normal; a minus (-) value = warmer than normal.
 ** State and U.S. degree-days are population-weighted by NOAA.

U.S. Gas Storage Draws Only 47 Bcf For the Week

U.S. working gas in underground storage was 2,830 Bcf for the week ending 1/2/09, **a decrease of only 47 Bcf from the prior week, sparking queries about the effect of the economic downturn on industrial demand.** A year ago, U.S. gas storage was 2,799 Bcf. The 2004-2008 5-year U.S. average for this week was 2,743 Bcf. Working gas in storage this week in the producing region (which includes Texas) was 902 Bcf compared to the 2004-2008 5-year average of 824 Bcf. Sources: EIA (www.eia.doe.gov) and *Platts Gas Daily*, 1/9/09

U. S. Working Gas in Storage (Bcf) Week ending 1/2/09

Region	This Week	Last Week	Change	Current Δ from 5-Year Average (%)
East	1540	1589	-49	- 1.2 %
West	388	400	-12	+7.2 %
Producing	902	888	14	+9.5 %
Lower 48 Total	2830	2877	-47	+3.2 %

Texas Gas Rig Count Plunges

In the past two weeks, the Texas gas rig count dropped by 86, **the largest drop in gas rig activity of any U.S. state** and a 17% drop from a year ago. Houston-based companies Schlumberger, Halliburton and Weatherford International announced actual and/or anticipated layoffs. Platts reported analysts characterizations of the U.S. land rig market as ‘collapsing’ and being in a ‘free fall.’

Sources: Platts *Gas Daily*, 1/12/09, and Baker Hughes, Inc.

Baker Hughes Rotary Rig Count (1/9/09)

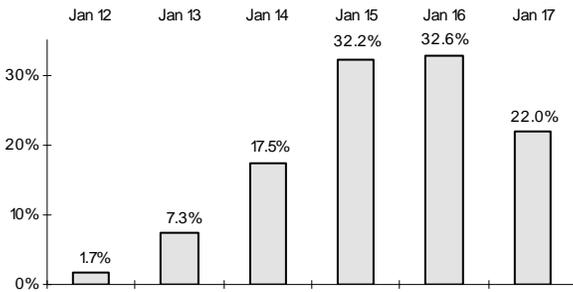
	This Week	+/- Last Week	Year Ago	+/- Year Ago
U.S.	1589	-34	1744	-155
Gas	1239	-28	1409	-170
Oil	341	-5	327	+14
Texas	713	-34	859	-146
N. Amer.	1949	+96	2259	-310

Dominion Energy Use Forecast for U.S.

Above normal energy use is forecasted for the U.S. this week, according to the Dominion Energy Index, as shown below. The index forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index

U.S. Energy Use Forecast

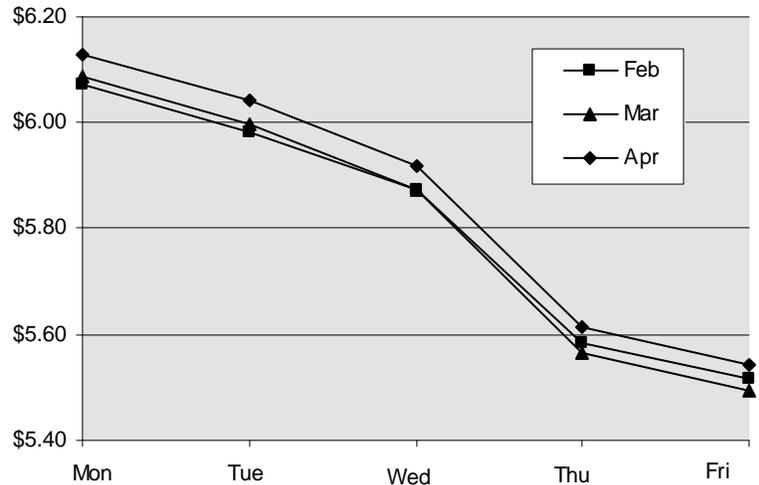


Pipeline Stock Prices Drop in 2008

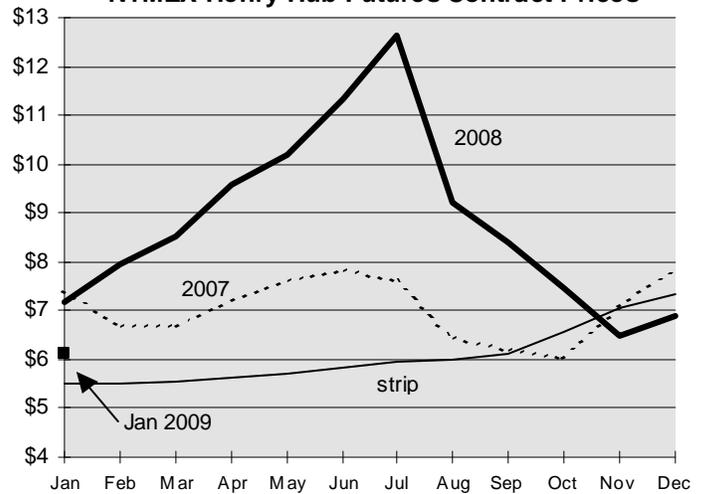
Following an analysis of 17 gas companies with significant pipeline assets, Platts reported that the companies’ **stock prices declined, on average by about 1/3** in 2008.

Source: Platts *Gas Daily*, 1/12/09

NYMEX Natural Gas Price Movement 1/5/09 -1/9/09



NYMEX Henry Hub Futures Contract Prices



Gas Price Summary 1/9/09

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
U.S. (February Futures)				
NYMEX	\$5.516	-\$0.455	-\$2.438	\$6.065