

Winter 2007-08 U.S. Natural Gas Production and Supply Outlook

**Prepared for NGSA
By ICF International
Arlington, Virginia**

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Introduction

This report presents ICF's current view of trends and forecasts of industry activity, production and imports for the upcoming winter heating season. It also discusses regional production trends and exploration plays that will be important in the longer-term.

Rig counts and gas completion activity in the U.S. continue at a high pace, and are a measure of the huge investments being made by both majors and independents to sustain and increase U.S. gas production both onshore and offshore. Onshore, tight gas and shale gas activity dominate and production is surging in several basins. New completion technologies and horizontal drilling and completion methods in shale formations are proving to be very successful.

In the Gulf of Mexico, the Independence Hub gas facility has started up, with the capacity to produce up to 1 bcf per day. Expectations are that it will be producing close to that amount by the end of the year.

ICF forecasts that 2007 Lower-48 gas production will be moderately higher than in 2006. Going forward into next year we are forecasting a significant production increase, reflecting continued high rig counts in tight gas and shale gas plays and the startup of deepwater fields.

The production analysis presented here is based upon analysis of data from state agencies, the Energy Information Administration (EIA) and the Minerals Management

Service (MMS). It incorporates a procedure to estimate recent production where reported production is not yet complete due to a reporting lag. The gas production forecast is consistent with the ICF Monthly Gas Update. The forecasts of gas storage, pipeline imports, and LNG imports presented here are derived from the ICF publication.

Drilling and Permitting Activity

U.S. rig activity (Baker-Hughes series) in July 2007 averaged 1,777 rigs, 107 higher than in July of 2006 (**Exhibit 1**). The gas rig count was 1,492 as compared with 1,373 rigs last year.

Most of the activity increase in recent years has been onshore, concentrated in areas of non-conventional natural gas production – tight gas, coalbed methane, and shale gas. Offshore rig activity, dominated by shelf drilling, has been relatively constant. Areas of significant onshore rig count increases during the past year include Texas onshore (primarily North and East Texas), Colorado, and Arkansas.

Exhibit 2 shows the relationship between monthly gas rigs and oil and natural gas prices. The gas rig counts are shown as columns on the chart, and Henry Hub natural gas prices are shown as a solid line. The chart shows that there was a 6-month lag in 2001 and 2003 before the rig count peaked after the gas price peak. Since 2003, rig counts have increased steadily, despite significant wellhead price fluctuation. The data continue to show that development is focused on long-term supply rather than short-term market fluctuations.

Exhibit 3 presents 2007 trends in drilling activity by region. All major areas experienced increases with the exception of the Gulf of Mexico. There was a slight decline in the Rockies that was somewhat of an anomaly due to an increase in Wyoming last year. The greatest percentage increases in activity were in Texas, the Mid-Continent, and Appalachia. Canadian rig activity is predominantly in the Western Canadian Sedimentary basin, and is down this year due to the impact of development costs and other factors. However, WCSB coalbed activity continues at a strong pace.

Exhibit 1

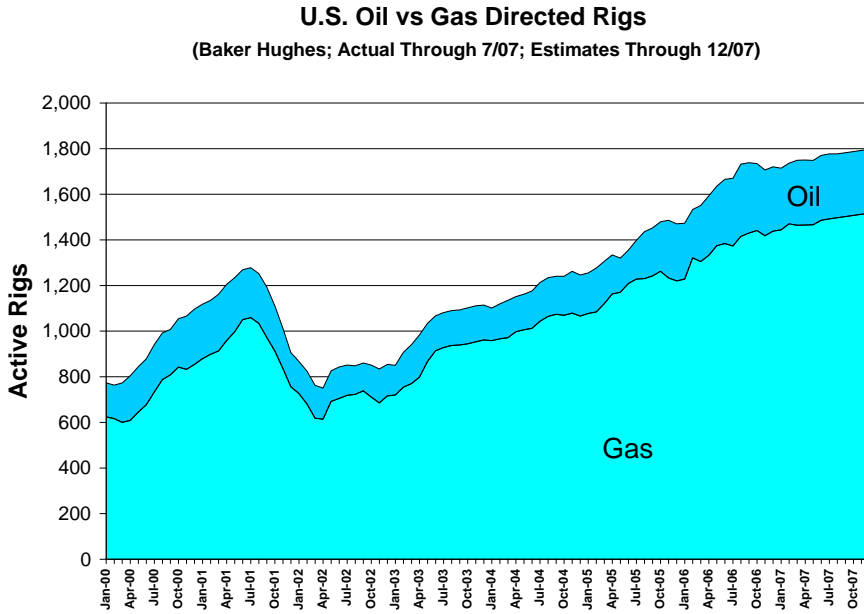


Exhibit 2

U.S. Gas Directed Drilling Activity and Crude Oil and Gas Prices (Through 7/07)

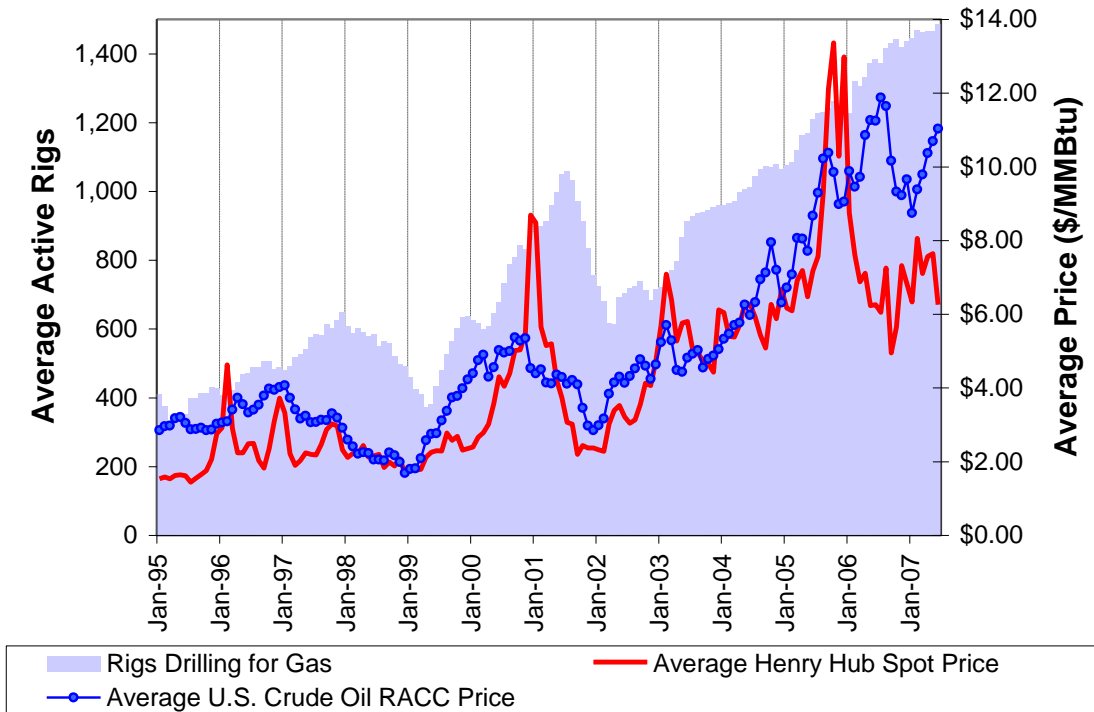


Exhibit 3

July Data - Total Rigs			
Source: Baker Hughes			
	July 2006	July 2007	Change (%)
Regional U.S. Rig Trends			
Rockies	258	235	-9%
Midcontinent	227	252	11%
Texas	740	823	11%
Louisiana	109	114	5%
Gulf of Mexico	90	76	-16%
Appalachia	51	57	12%
Other	195	220	13%
Lower-48	1,670	1,777	6%

Horizontal and directional drilling continues to increase. Horizontal drilling has met with great success in shale gas plays and directional drilling is increasing because of the reduced surface impact as multiple wellbores are drilled from a single drilling pad. In July, 2007, approximately 23 percent of active rigs were horizontal rigs and 21 percent were directional. Vertical drilling represented only 56 percent of the total.

Exhibit 4 summarizes the gas rig comparison between 2006 and 2007. Looking at the U.S. rig counts for the first eight months of 2007, the average was 1,473 rigs. This can be compared to an average of 1,342 gas rigs during the same months last year, an increase of 10 percent. On a calendar year basis, ICF is forecasting an average of 1,485 gas rigs this year, an increase of 8 percent.

Gas Well Completions

Exhibit 5 shows monthly U.S. gas well completion statistics from the EIA Monthly Energy Review. Activity has seen a steady increase since 2003. During the first half of 2007, monthly gas well completions have been at their highest level in recent years at a level of over 2,700 per month.

Exhibit 4

Historical and Forecast Gas Rigs

	2006	2007	change
January through August (actual)	1,342	1,473	+10%
Annual average (2007 forecast)	1,372	1,485	+8%

Exhibit 5

Monthly U.S. Gas Well Completions - 2002-07
(Source: EIA Monthly Energy Review)

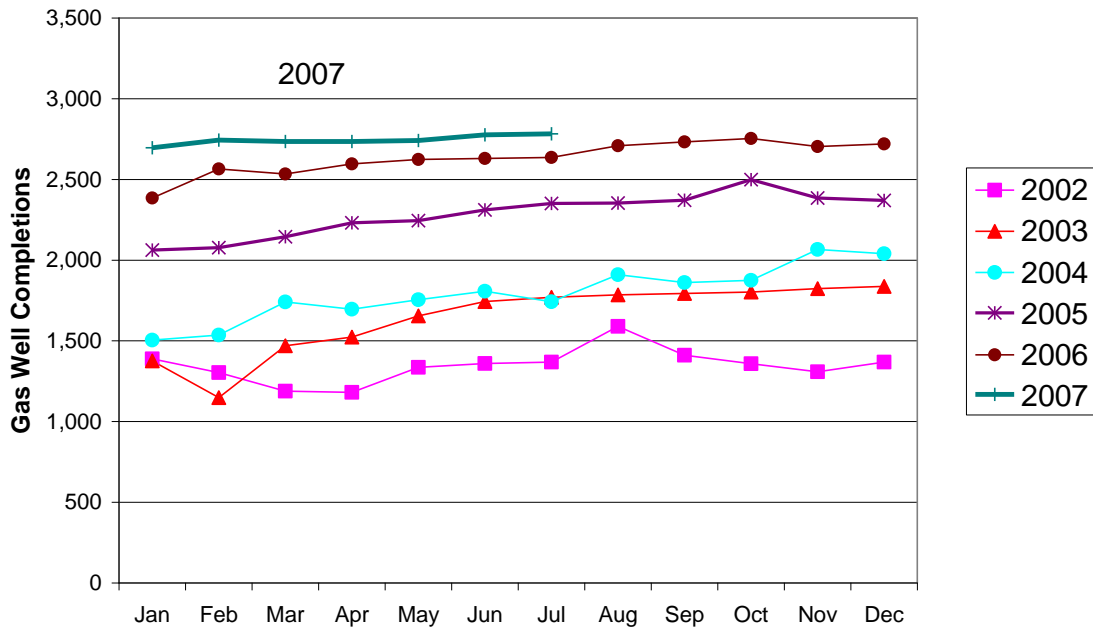


Exhibit 6 presents published data for Lower-48 quarterly gas well completions starting with the first quarter of 2004. The table presents EIA Monthly Energy Review data, API Quarterly Completion Report data, and ICF estimates. Based upon trends in rig activity and available well-completion data for 2007, ICF is forecasting the completion of about 30,500 Lower-48 gas wells in 2007. This represents an increase of 1,500 or 5 percent from the 29,000 wells completed in 2006.

Natural Gas Production

The major trends in Lower-48 gas production since our report last year are the continued increase in gas production from onshore non-conventional gas plays and the startup of the Independence Hub in the Gulf. Shale and tight gas development continues to dominate activity onshore, and non-conventional activity is expanding in some new areas. In the Gulf, there was no significant hurricane activity last year, but there is forecast to be at least a moderate level of activity this year.

Significant non-conventional drilling and completion activity continued in the following plays:

- Barnett Shale in the Fort Worth Basin
- Fayetteville Shale in Arkansas
- Woodford Shale in Oklahoma
- Bossier Sand in East Texas and North Louisiana
- Lance Sand in the Green River Basin
- Mesaverde Sand in the Uinta and Piceance Basins
- Oklahoma Anadarko Basin Tight Sands

Exhibit 6

**Comparison of Quarterly Lower 48 Completion Counts
Estimated Gas Well Completions**

Sources: EIA Monthly Energy Review and API Completion Report.

	EIA Monthly Energy Review Estimated	API Quarterly Comp. Report Estimated	ICF Estimated
2004 Q1	4,779	5,576	
2004 Q2	5,256	5,746	
2004 Q3	5,513	6,292	
2004 Q4	5,981	6,272	
2005 Q1	6,283	6,285	
2005 Q2	6,786	6,473	
2005 Q3	7,075	6,858	
2005 Q4	7,253	6,517	
2006 Q1	7,484	6,806	
2006 Q2	7,850	7,123	
2006 Q3	8,076	7,823	
2006 Q4	8,177	7,261	
2007 Q1	8,175	7,138	7,300
2007 Q2	8,252	7,209	7,500
2007 Q3	---	---	7,800
2007 Q4	---	---	7,900
Annual Totals			
2004	21,529	23,886	
2005	27,397	26,133	
2006	31,587	29,013	
2007	---	---	30,500

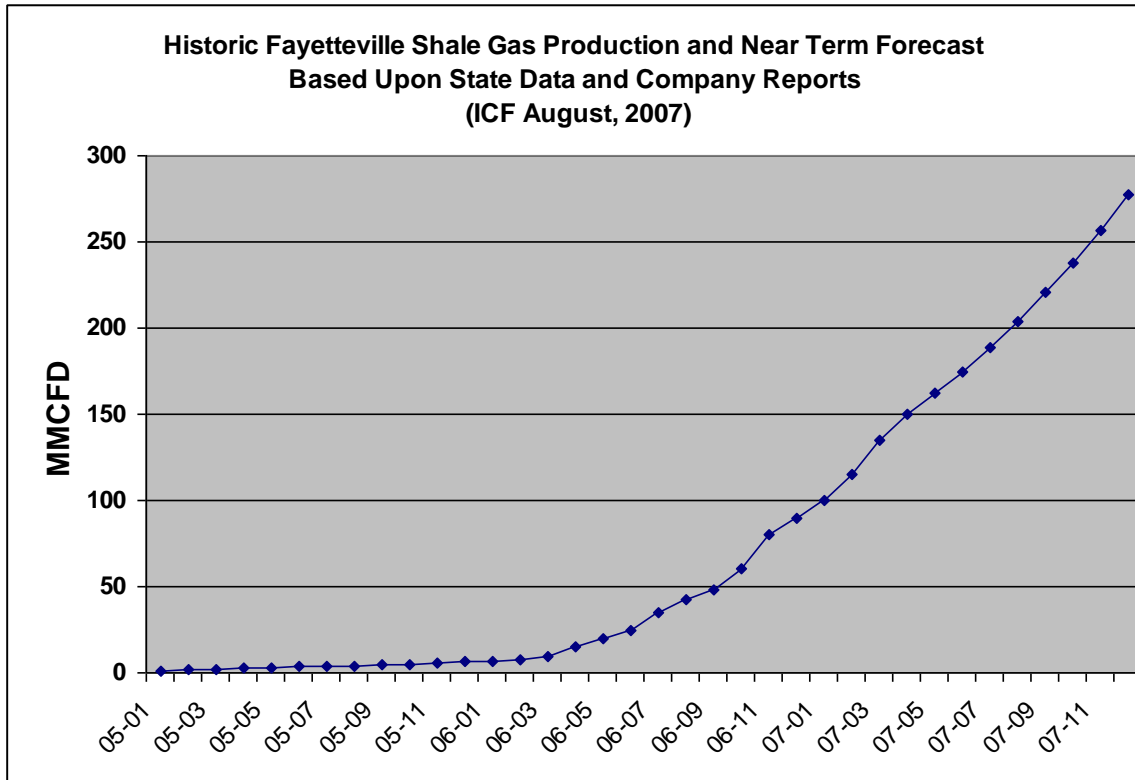
As shown in **Exhibit 7**, gas production from the Fayetteville Shale in the Arkoma Basin of Arkansas is ramping up rapidly and should approach 300 MMcf per day by the end of 2007. The main operator is Southwestern Energy, and they continue to report a high rate of success, both within the original core area, and at a large number of pilot areas around the basin. Southwestern Energy has completed over 200 horizontal wells and the average well recovery is about 1.4 Bcf. A recent company presentation indicated the potential for up to 11 Tcf on their acreage. Several of the other plays shown above are discussed in more detail below.

In the Gulf of Mexico, Anadarko Petroleum's Independence Hub in the Eastern Gulf started gas production this summer. The initial rate was 50 MMcf per day and at the end of August production had ramped up to about 250 MMcf per day. The facility has the capacity to process up to 1 Bcf per day, and is expected to achieve that level by the end of 2007. About ten gas fields have been developed using subsea completions are tied in to the facility. An interesting aspect of this development is that it illustrates the huge gas resource potential of the Eastern Gulf, an area which has been under drilling moratoria for many years. Only a small part of this region has been opened to leasing.

In terms of expected hurricane activity this fall, the Energy Information Administration recently published a supplement to the Short Term Energy Outlook in which they completed a probability analysis of Gulf Shut-in potential.¹ They concluded that the most likely shut in volume for this season is about 87 Bcf. That compares with over 800 Bcf shut in after Katrina and Rita in 2005.

¹ Energy Information Administration, 2007, "Short Term Energy Outlook Supplement: The 2007 Outlook for Hurricane Impacts on Gulf of Mexico Crude Oil and Natural Gas Production," June, 2007.

Exhibit 7



Exhibits 8 through 10 present the natural gas production analysis and forecast. Lower-48 gas production in the third quarter of 2007 is expected in this analysis to average 50.5 Bcf/d, up slightly from the 50.4 Bcf/d in the third quarter of last year. These estimates are presented graphically in **Exhibit 9**. The current rate of production remains about 2 Bcf/d lower than a rate of 52.7 Bcf/d in 2001. Much of the overall U.S. production decline since 2001 occurred in the Gulf of Mexico shelf.

Lower-48 gas production was heavily impacted in the last quarter of 2005 and the first quarter of 2006 by hurricane shut-ins, which ICF has estimated at over 800 Bcf for the OCS areas. Industry made a tremendous effort to restore not only the offshore platforms and pipelines but also onshore processing facilities. The capital that went into this effort was geared to not only bring production back but to increase storm resistance and storm response capabilities. Some deepwater field startups experienced delays in large part because of the need to allocate resources to repair and improve other facilities. It is

Exhibit 8

ICF Analysis of Lower-48 Quarterly Wellhead Gas Production

Dry marketed total gas - Bcf per day

Quarterly averages		Bcf per day *	Quarterly Bcfd Change	Quarterly Pct. Chg.		
2002	1Q02	50.67	-0.79	-1.54%		
	2Q02	51.13	0.46	0.91%		
	3Q02	50.46	-0.67	-1.31%		
	4Q02	49.95	-0.51	-1.01%		
2003	1Q03	51.04	1.09	2.18%		
	2Q03	51.16	0.12	0.24%		
	3Q03	50.50	-0.66	-1.29%		
	4Q03	50.17	-0.33	-0.65%		
2004	1Q04	50.92	0.75	1.49%		
	2Q04	49.87	-1.05	-2.06%		
	3Q04	49.50	-0.37	-0.74%		
	4Q04	49.20	-0.30	-0.61%		
2005	1Q05	50.10	0.90	1.83%		
	2Q05	50.08	-0.02	-0.04%		
	3Q05	47.41	-2.67	-5.33%		
	4Q05	46.61	-0.80	-1.69%		
2006	1Q06	48.70	2.09	4.48%		
	2Q06	49.30	0.60	1.23%		
	3Q06	50.41	1.11	2.25%		
	4Q06	50.82	0.41	0.81%		
2007	1Q07	50.45	-0.37	-0.73%		
	2Q07	50.28	-0.17	-0.34%		
	3Q07	50.48	0.20	0.40%		
	4Q07	51.55	1.07	2.12%		
2008	1Q08	51.87	0.32	0.62%		
	2Q08	52.10	0.23	0.44%		
	3Q08	52.55	0.45	0.86%		
	4Q08	52.63	0.08	0.15%		
Annual averages		Bcf per day	Bcfd Change	Annual Pct. Chg.	Annual Production Bcf/Yr.	Annual Change Bcf
	2002	50.55	-1.66	-3.18%	18,451	-606
	2003	50.71	0.16	0.32%	18,509	58
	2004	49.87	-0.84	-1.66%	18,252	-257
	2005	48.54	-1.33	-2.67%	17,717	-535
	2006	49.82	1.28	2.64%	18,184	467
	2007	50.69	0.87	1.75%	18,502	318
	2008	52.29	1.60	3.16%	19,138	636

* Production excludes approximately 1.2 Bcfd of Alaska gas production and 200 MMcfd of supplemental gas production consisting of coal gas and propane-air.

Exhibit 9

ICF Analysis of Lower 48 Gas Production Dry Marketed Production September 2007

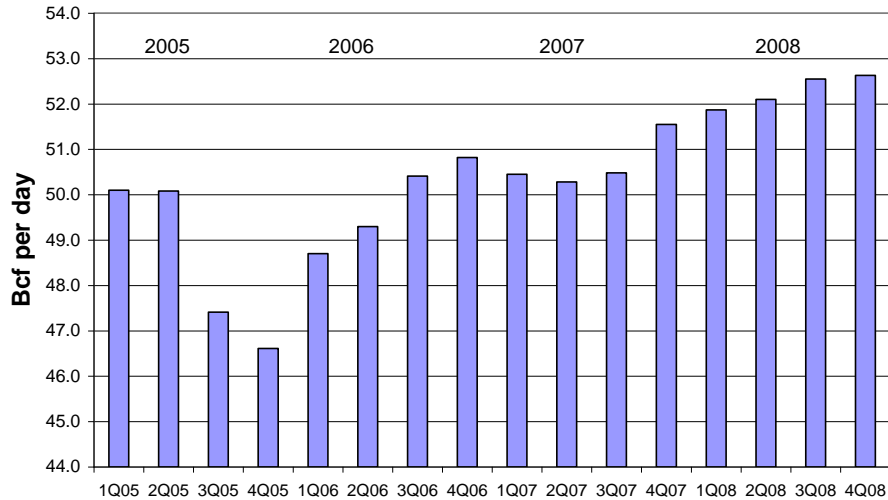


Exhibit 10

Historical and Forecast Winter Monthly Production

November - March
ICF GSR database

Bcf

Historical 2005-06			Historical 2006-07			ICF Forecast for this winter		
		Bcf			Bcf			Bcf
Nov	2005	1,414	Nov	2006	1,552	Nov	2007	1,550
Dec	2005	1,488	Dec	2006	1,559	Dec	2007	1,585
Jan	2006	1,512	Jan	2007	1,531	Jan	2008	1,590
Feb	2006	1,358	Feb	2007	1,410	Feb	2008	1,485
Mar	2006	1,513	Mar	2007	1,600	Mar	2008	1,593
total		7,285			7,652			7,803

Bcf per day

Historical 2005-06			Historical 2006-07			ICF Forecast for this winter		
		Bcfd			Bcfd			Bcfd
Nov	2005	47.1	Nov	2006	51.7	Nov	2007	51.7
Dec	2005	48.0	Dec	2006	50.3	Dec	2007	51.1
Jan	2006	48.8	Jan	2007	49.4	Jan	2008	51.3
Feb	2006	48.5	Feb	2007	50.4	Feb	2008	51.2
Mar	2006	48.8	Mar	2007	51.6	Mar	2008	51.4
average		48.2			50.7			51.3

anticipated that starting next year, deepwater production gains will improve, with a significant impact on U.S. gas production.

The lower portion of **Exhibit 8** presents an annual summary and shows the percentage change in Lower-48 production. ICF currently estimates that 2007 production will average 50.7 Bcf/d, a 1.8 percent increase over 2006. The forecast for 2008 is for an average of 52.3 Bcf/d, a 3.2 percent increase over this year.

Exhibit 10 presents the details of winter monthly natural gas production since November 2005 and the ICF forecast for the upcoming winter. The forecast is for Lower-48 production to average 51.7 Bcf/d in November and remaining more or less constant through March of 2008. The average monthly production rate for this winter is forecast to be approximately 0.6 Bcf/d higher than last year.

Active Gas Plays

Exhibit 11 lists the North American natural gas plays that are expected to contribute significant amounts of new natural gas production during the next several years. The table shows the approximate recoverable resource base being targeted, the year of anticipated production increase, and the expected daily production increase by 2010 (three to three and one half years). The total contribution from new production in these plays is expected to be in the range of 9 Bcf/d by 2010.

The Barnett Shale play in the Fort Worth Basin continues to expand steadily and is now producing approximately 2 Bcf/d of raw gas. The geographic extent of the play has expanded greatly to areas west and southwest of Fort Worth. Activity has largely moved out of the original area and horizontal drilling is beginning to dominate activity.

Exhibit 11

Selected North American Gas Plays Expected to Contribute Significantly To Near-Term Production

Currently Producing and Near-Term Startups Through 2010

ICF, August, 2007

See footnotes.

Region/Basin	Play	Long-Term Recoverable Resource Tcf	Year of Production Increase (or Ongoing)	Production Increase by 2010 (3 1/2 yrs) (MMcfd)
Rockies				
Green River Basin	Jonah and Pinedale Infill Development	10-20	Ongoing	800+
Green River Basin	Wamsutter Arch	3	Ongoing	250
Green River Basin	Vermillion Basin Deep Cretaceous Horizontal	?	2008	200?
Piceance Basin	Mesaverde Tight	12	Ongoing	600
Uinta Basin	Natural Buttes Mesaverde Tight	16	Ongoing	500
Powder River Basin	Big George Coalbed Play	5	Ongoing	300-500
Powder River Basin	Montana Coalbed Methane	1	Ongoing	100
Gulf Coast and Mid-Continent				
Fort Worth Basin	Barnett Shale	20	Ongoing	800+
East Texas/Arkla	Bossier and Cotton Valley Tight Sand	10	Ongoing	400
Arkoma Basin, AR and OK	Fayetteville Shale	30+	Ongoing	600
Arkoma Basin, AR and OK	Woodford Shale	60+	Ongoing	500
Anadarko Basin, OK	Deep tight gas	?	Ongoing	100
West Texas				
Permian Basin	Deep Haley Tight Gas Field	5?	Ongoing	300
Permian Basin	Canyon Sand Tight Gas	?	Ongoing	200
Permian Basin	Barnett and Woodford Shales	20+	2008+	200
Gulf of Mexico				
Central GoM	Deep Shelf Miocene Play below 15,000 Ft.	15-20	2008-09	100-200
Central GoM	Deepwater Lower Tertiary Play	10-15	2009-10	100-500?
Central GoM	Deepwater Thunderhorse Field	1?	2008	150
Central GoM	Atlantis Field		2007	150
Western GoM	Perdido Foldbelt (Great White/Trident Fields)	7	2008-10	100-200
Eastern GoM	Independence Hub (San Jacinto, Vortex, Jubilee, Spiderman, Atlas, Mondo, Cheyenne fields)	10-20	2007	1,000
Appalachia				
New York	Trenton-Black River Play	2	Ongoing	150
Ohio	Clinton-Medina Tight Gas	11	Ongoing	?
Western Canada				
Alberta	Alberta Coalbed Methane	15-25	Ongoing	600
NE BC	Greater Sierra Carbonate Trend in BC.	2-5	Ongoing	100
Alberta	Deep Basin Tight Gas	6-8	Ongoing	200-400
Total Expected Additions by 2010 from Above Plays - MMcf per day (see footnote)				9,000

Note: Anticipated increases in production from these active plays will in many cases be offset by declines in other formations. The production volumes shown are intended to give an indication of major gas production changes in important plays. Change is from mid-07 through 2010. In some cases, change may be lower than in prior NGSA reports because of one less year of increase between now and 2010.

The Fayetteville Shale play in Arkansas is experiencing a great deal of drilling activity and production is now approximately 200 MMcf/d. The shale has been mapped and tested over a tremendous area that spans numerous counties. Another area of shale development and rapidly increasing production is the Woodford Shale in southeastern Oklahoma. Well costs are higher in the Woodford, but recoveries are greater, too, at least in the areas that have been proven.

The Bossier tight sandstone play of East Texas and North Louisiana continues to be very active. Field-level analysis on a reservoir basis indicates a production rate of over 700 MMcf/d in the East Texas portion of the play, and 300 MMcf/d in Northern Louisiana. A deep Bossier trend has developed south of the main trend in Texas.

Northern Rockies natural gas production continues to increase. Increased regional production is largely attributed to Green River Basin and Piceance Basin tight natural gas plays. In the Green River Basin of Wyoming, activity at Jonah and Pinedale is still dominant. The Piceance Basin in northwestern Colorado continues to experience a large increase in tight gas development and production from the Mesaverde Formation.

In the deepwater Gulf of Mexico play (water depths greater than 200 meters), Anadarko Petroleum's Independence Hub started production in July, 2007 and is expected to ramp up to 1 Bcfd by the fourth quarter of this year or the first quarter of next year. According to Anadarko, the facility, located in 8,000 feet of water, is the deepest production platform ever installed, and has the world's largest offshore gas processing facility.²

BP's Atlantis field is expected to come online later this year. The field is in 5,000 feet of water in Green Canyon block 699 and should produce approximately 160 MMcf per day. According to ICF analysis of press releases, 2008 is shaping up to be a big year for the deepwater. As many as 20 new startups are scheduled, including BP's Thunder Horse, one of the largest oil and gas finds ever in the Gulf.

² Anadarko Petroleum, 2007, www.anadarko.com

In Western Canada, the Horseshoe Canyon coalbed methane play has achieved a production rate of over 500 MMcf/d. This production rate includes production that is commingled with adjacent non-coalbed formations but is sourced from coal. Operators are also making a significant effort to bring into production the Mannville Formation coalbed methane in Alberta as well. The Alberta Deep Basin Tight gas play has also been targeted and has a huge amount of gas in place.

Comparison with EIA Short-Term Forecast

EIA publishes a short-term forecast each month with quarterly estimates of U.S. natural gas production and imports. The August Short Term Energy Outlook was evaluated for comparison with the ICF near term forecast. **Exhibit 12** presents the EIA and ICF quarterly production averages for the Lower-48.

EIA is forecasting a 2007 Lower-48 production increase of 0.7 percent. This compares to the current analysis increase of 1.8 percent. Their forecast for 2008 is for a 1.4 percent increase, and the increase in the current analysis is 3.2 percent.

Storage Injection

At the end of August, U.S. inventories of working natural gas in storage stood at about 3.10 Tcf, or 380 Bcf above the five-year average of 2.72 Tcf and 130 Bcf higher than the 2.97 Tcf in August, 2006. As shown in **Exhibits 13 (a) and (b)**, the 2007 storage volumes are substantially above the five-year average, and since July have been higher than in 2006. Some industry analysts have recently lowered their price forecasts for the third quarter primarily because of the relatively high storage level, and also because of the expectation of a milder than previously expected hurricane season.

The level of storage fill is very sensitive to the number of cooling-degree days in September and October. Assuming normal weather this fall, the current ICF forecast is for the storage level on November 1 to be approximately 3.52 Tcf. This compares to a level of 3.45 Tcf last year, or 70 Bcf higher.

Exhibit 12

Comparison with EIA Short Term Outlook

Bcf per day; Lower-48 and U.S. Total Dry Gas Production
ICF Current Study vs. EIA Short Term Outlook

	ICF (Lower 48)	EIA (U.S. Total)	EIA (Lower 48)	Lower 48 Difference ICF vs.EIA	
2005					
1Q	50.10				
2Q	50.08				
3Q	47.41				
4Q	46.61				
2006					
1Q	48.70	50.33	49.00	-0.30	
2Q	49.30	50.33	49.12	0.18	
3Q	50.41	51.09	50.11	0.30	
4Q	50.82	51.30	50.11	0.71	
2007					
1Q	50.45	51.11	49.78	0.67	
2Q	50.28	51.65	50.55	-0.27	
3Q	50.48	50.43	49.35	1.13	
4Q	51.55	51.41	50.11	1.44	
2008					
1Q	51.87	52.44	51.22	0.65	
2Q	52.10	51.30	50.22	1.88	
3Q	52.55	51.41	50.33	2.22	
4Q	52.63	52.17	50.87	1.76	
		L48 % chg.	L48 % chg.		
2006	49.82	-0.10%	50.77	49.59	0.23
2007	50.69	1.75%	51.15	49.95	0.74
2008	52.29	3.16%	51.83	50.66	1.42%

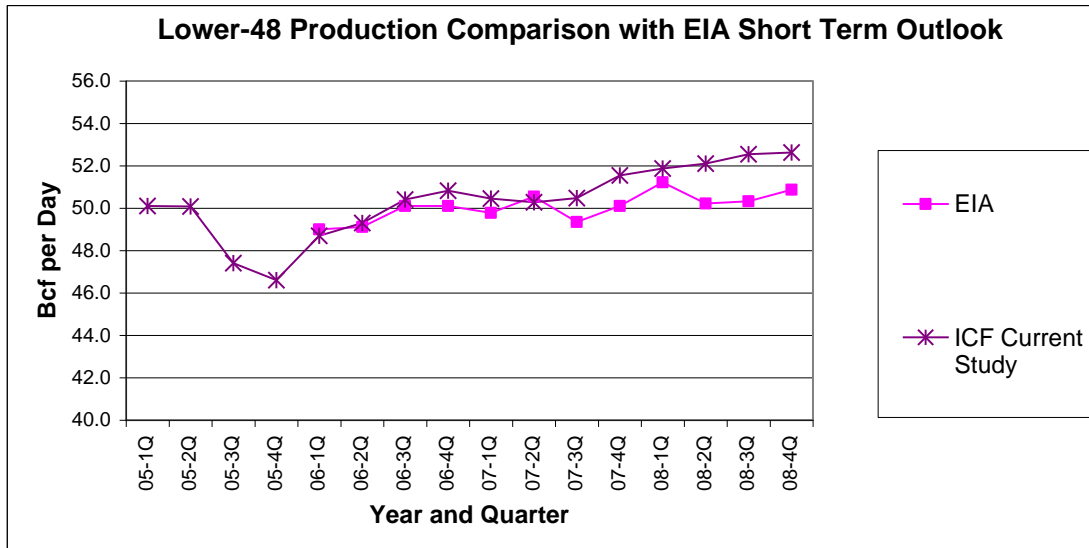


Exhibit 13 (a)

**Gas Storage - Entire Year With Forecast
U.S. Working Gas Inventories - End of Month Volumes**

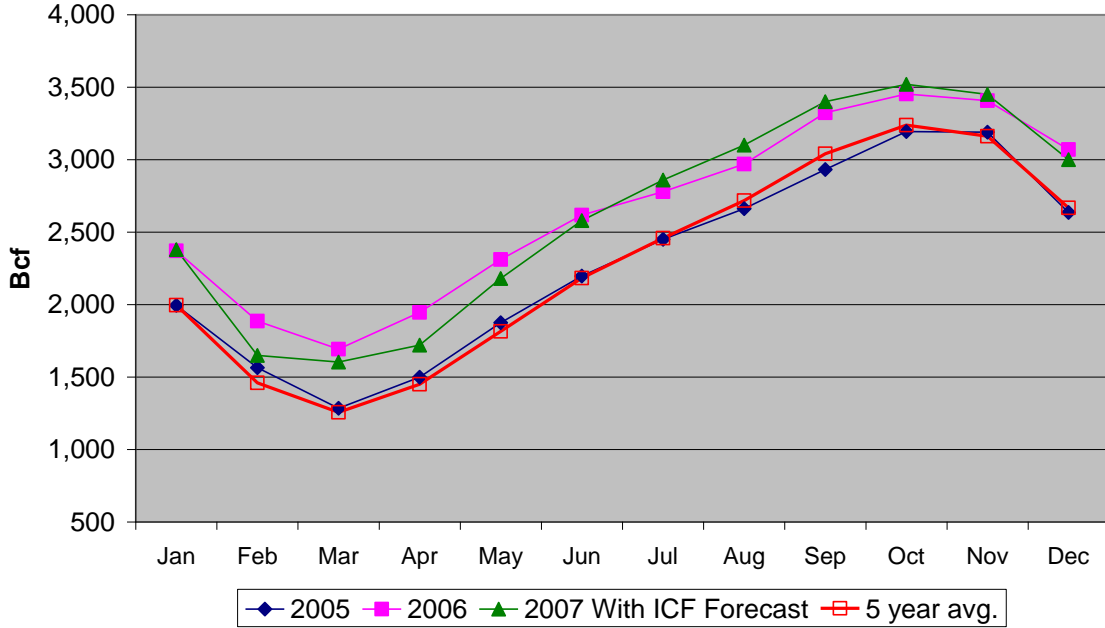
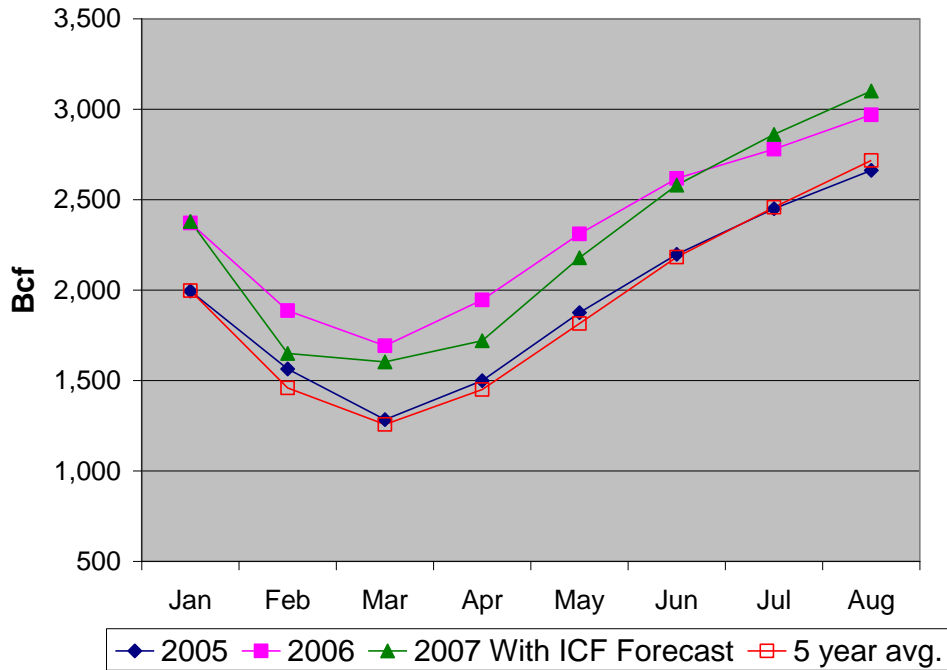


Exhibit 13 (b)

**Gas Storage - January through August
U.S. Working Gas Inventories - End of Month Volumes**



Pipeline Imports and Exports

Exhibit 14 shows the winter pipeline imports from Canada and exports to Mexico, starting with the winter of 2005-06. Import data are net to the U.S. The historical Canadian import data are taken from the ICF Monthly Gas Update and are a combination of Stats Canada and pipeline bulletin boards.

Net imports from Canada last winter (2006-07) averaged 8.5 Bcf/d, about 10 percent lower than the previous winter's average of 9.5 Bcf/d.

This winter we forecast that imports from Canada will average 7.8 Bcf/d, a decline of 8 percent or 0.7 Bcf/d relative to last winter. The volume of Canadian pipeline imports depends on WCSB gas production and demand in both Canada and the U.S.

Canadian production remains relatively flat. ICF is forecasting that WCSB production will continue to be flat in the near term. While gas production from the WCSB coalbed play is increasing rapidly, these gains have not yet resulted in an upturn in overall gas production. Another factor in is that offshore Nova Scotia area production has been relatively flat, and Canadian LNG has not yet started up.

On the Canadian demand side, a consideration is the demand for gas from Alberta oilsands operations, which is increasing. Also, demand in Ontario is expected to be higher due to the conversion of coal plants to gas. A normal winter this year will also result in increased Canadian demand.

Exhibit 14

Pipeline Imports from Canada and Exports to Mexico

November through March

Sources: ICF Monthly Gas Update and EIA Natural Gas Monthly

Net Imports from Canada

Bcf per day

positive = net imports

Historical 2005-06			Historical 2006-07			ICF Forecast for this winter 2007-08		
		Bcf/d			Bcf/d			Bcf/d
Nov	2005	9.27	Nov	2006	7.70	Nov	2007	7.80
Dec	2005	10.66	Dec	2006	8.53	Dec	2007	7.80
Jan	2006	9.29	Jan	2007	8.98	Jan	2008	7.80
Feb	2006	8.91	Feb	2007	9.61	Feb	2008	7.80
Mar	2006	8.95	Mar	2007	7.74	Mar	2008	7.80
average		9.49			8.50			7.80

Net Exports to Mexico

Bcf per day

negative = net exports

Historical 2005-06			Historical 2006-07			ICF Forecast for this winter 2007-08		
		Bcf/d			Bcf/d			Bcf/d
Nov	2005	-0.54	Nov	2006	-0.62	Nov	2007	-0.90
Dec	2005	-0.42	Dec	2006	-0.54	Dec	2007	-0.80
Jan	2006	-0.54	Jan	2007	-0.57	Jan	2008	-0.30
Feb	2006	-0.71	Feb	2007	-0.53	Feb	2008	-0.30
Mar	2006	-0.83	Mar	2007	-0.48	Mar	2008	-0.40
average		-0.61			-0.55			-0.54

Winter LNG Imports

The U.S. typically imports 1.5-2.5 Bcf/d of LNG during the winter months. Currently, the U.S. has five import facilities. Below is a listing of the facilities with their peak import capacity, which totals 5.2 Bcf/d. Note that sustainable baseload capacity is lower than peak capacity.

- Everett, MA; 1.04 Bcf/d peak capacity; 0.72 Bcf/d baseload
- Cove Point, MD; 1.00 Bcf/d peak capacity; expansion of 800 MMcf/d planned for 2008
- Elba Island, GA; 1.2 Bcf/d peak capacity; recently expanded by 520 MMcf/d; operator has filed for additional 900 MMcf/d
- Lake Charles, LA; 1.5 Bcf/d peak capacity; 1.2 Bcf/d baseload ; FERC approval for peak of 2.1 Bcf/d
- Gulf Gateway, Gulf of Mexico, 0.50 Bcf/d capacity

Numerous additional LNG import facilities have been proposed, including sites along the Gulf Coast, the Pacific Coast, both coasts of Mexico, and northeastern Canada. There are approved onshore terminals on the Gulf Coast with a total of 26 Bcf/d of capacity, two additional Gulf of Mexico projects with 2.6 Bcf/d of capacity and three approved sites on the East Coast totaling 2.8 Bcf/d.³ In Canada, two terminals have been approved on for Eastern Canada and one for western BC. Several terminals in Mexico are either operational or planned.

LNG sites that have entered or are about to enter construction phase include:

- Canaport LNG's 1 Bcf/d terminal in New Brunswick, Canada, with first shipments scheduled for late 2008.
- ExxonMobil's 2.0 Bcf/d Golden Pass terminal on the Sabine Ship Channel
- Chenier's 2.6 Bcf/d Sabine Pass terminal on the Sabine Ship Channel; under construction; 2.6 Bcf/d by 2008; 4.0 Bcf/d by 2009
- Chenier's 1.5 Bcf/d terminal at Freeport, Tex.; under construction; operational 2008

Exhibit 15 shows the recent history of worldwide LNG shipments and world gas production. Total LNG shipments increased from 4.9 Tcf in 2000 to 7.5 Tcf last year. LNG imports to North America increased from 239 Bcf per year to 652 Bcf per year in 2006, and now represent about 10 percent of worldwide shipments. The Asia-Pacific region's share of worldwide LNG has declined in recent years. Since 2000, world gas production has increased by 16 Tcf per year, while LNG shipments have increased by 2.5 Tcf per year.

Exhibit 16 shows monthly LNG gross imports for the past two winters and the ICF forecast for this winter. The winter total volume imported for 2005-06 was 221 Bcf, or 1.45 Bcf/d. Last winter, the volume increased to 283 Bcf, or 1.87 Bcf/d. For the upcoming winter, ICF is forecasting a volume of 302 Bcf, or 2.0 Bcf/d, or about 0.13 Bcf per day more.

³ FERC, 2007, <http://www.ferc.gov/industries/lng.asp>

Exhibit 15

World LNG Imports and Gas Production

EIA data through 2005; BP data for 2006

	LNG Imports					Gas Production		
	North America	Europe	Asia - Pacific	Total	LNG Post-2000 Increase	World Gas Production	Cumul. Post-2000 Increase	
	Bcf	Bcf	Bcf	Bcf	Bcf	Tcf	Tcf	
2000	239	1,150	3,544	4,933	0	85.4	0.0	
2001	261	1,157	3,776	5,194	261	87.6	2.2	
2002	253	1,386	3,671	5,310	377	89.1	3.7	
2003	544	1,390	3,978	5,912	979	92.3	6.9	
2004	683	1,423	4,347	6,453	1,520	95.4	10.0	
2005	664	1,668	4,495	6,827	1,894	98.1	12.7	
2006	652	2,028	4,774	7,454	2,521	101.1	15.7	

Percentage of world LNG imports				
	North America	Europe	Asia - Pacific	Total
	%	%	%	%
2000	4.8%	23.3%	71.8%	100.0%
2001	5.0%	22.3%	72.7%	100.0%
2002	4.8%	26.1%	69.1%	100.0%
2003	9.2%	23.5%	67.3%	100.0%
2004	10.6%	22.1%	67.4%	100.0%
2005	9.7%	24.4%	65.8%	100.0%
2006	8.7%	27.2%	64.0%	100.0%

Exhibit 16

Historical and Forecast Winter LNG Imports

November - March; Gross Imports - Not Net of Alaska Exports

Source of historical data: EIA Natural Gas Monthly (Data shown through March 2007)

Source of forecast: ICF Monthly Gas Update (Data shown for 2007-08)

Bcf

Historical 2005-06			Historical 2006-07			ICF Forecast for this winter 2007-08		
		Bcf			Bcf			Bcf
Nov	2005	58.0	Nov	2006	47.2	Nov	2007	60
Dec	2005	51.3	Dec	2006	51.2	Dec	2007	62
Jan	2006	39.5	Jan	2007	53.4	Jan	2008	62
Feb	2006	38.7	Feb	2007	44.1	Feb	2008	56
Mar	2006	33.2	Mar	2007	86.8	Mar	2008	62
total		220.7			282.7			302

Bcf per day

Historical 2005-06			Historical 2006-07			ICF Forecast for this winter 2007-08		
		Bcfd			Bcfd			Bcfd
Nov	2005	1.93	Nov	2006	1.57	Nov	2007	2.0
Dec	2005	1.65	Dec	2006	1.65	Dec	2007	2.0
Jan	2006	1.27	Jan	2007	1.72	Jan	2008	2.0
Feb	2006	1.38	Feb	2007	1.58	Feb	2008	2.0
Mar	2006	1.07	Mar	2007	2.80	Mar	2008	2.0
average		1.45			1.87			2.0

Summary

Exhibit 17 summarizes the results of the supply analysis

Exhibit 17

Supply Outlook for Winter 2007-08

	source	2006-07	2007-08	change	percent change
U.S. production vs previous year (trend)	1	---	Up	---	---
Annual well completions (calendar year)	2	29,013	30,500	1,487	5.1%
Annual rig count (gas rigs Jan. - December)	3	1,372	1,485	113	8.2%
Winter LNG imports (Bcf/d - Nov. - March)	4	1.87	2.00	0.13	7.0%
Winter average gas production (Bcf/d - Lower 48)	5	50.7	51.3	0.60	1.2%
Working gas in storage (Tcf - Nov.1)	6	3.45	3.52	0.07	2.0%
Net pipeline imports from Canada (Bcf/d - Nov. - Mar.)	7	8.50	7.80	-0.70	-8.2%

Sources:

1. ICF - Current Study - State and federal data with ICF adjustments and forecast.
2. API Quarterly Completion Report with ICF estimates.
3. Baker Hughes gas rigs with ICF forecast through December.
4. Historical data from EIA Natural Gas Monthly; Forecast from ICF Monthly Gas Update.
5. Historical and forecast from current study. Derived from state and federal data with adjustments and forecast
6. Historical data from EIA; Forecast from Monthly Gas Update.
7. Historical data from StatsCanada and bulletin boards; Forecast from Monthly Gas Update.