# CHRISTI CRADDICK Chairman DAVID PORTER Commissioner BARRY T. SMITHERMAN



A Monthly Data Review from the Railroad Commission of Texas ■ June 2014

## **HIGHLIGHTS**

Commissioner

#### **Natural Gas Production**

In March 2014 Texas natural gas production was 663.27 billion cubic feet (bcf), down from 690.18 bcf produced during the same month in 2013. (Note: Recent oil and gas production data are considered preliminary, incomplete, and subject to revision. See pages 3 and 6 for the most recent production adjustment factors.)

#### **Crude Oil Production**

In March 2014 Texas crude oil production averaged 2.376 million barrels per day (mmb/d), up from 1.949 mmb/d reported during the same month in 2013. (See Note above.)

## **Rotary Rigs Operating in Texas**

In May 2014 the average Texas rotary rig count was 892, up from 838 rigs running during the same month last year. The May rig count was up from the April rig count of 882.

Source: Baker Hughes Co.

#### **Permits to Drill**

In May 2014 the Railroad Commission issued 2,389 original permits to drill, up from 1,931 permits issued during the same month last year and up from 1,919 permits issued in April.

# **Oil and Gas Well Completions**

In May 2014 operators reported 2,057 oil completions, down from 2,395 oil completions during the same month last year. There were 323 gas completions in May, down from 521 gas completions reported during the same month last year. There were 2,380 wells drilled in Texas in May, down from 2,916 wells drilled during the same month last year.

#### **TRENDS**

# EIA Short-Term Outlook for Crude Oil and Natural Gas:

The average price of imported crude for U.S. refiners (an indicator of world oil prices) is expected to increase from the average 2013 level of \$98.12 per barrel to \$98.58 per barrel during the 2<sup>nd</sup> quarter of 2014 and average \$94.98 for the year, according to the U.S. Energy Information Administration's (EIA) "Short-Term Energy Outlook" for June 2014.

The West Texas Intermediate spot average is expected to increase from the 2013 average level of \$97.91 per barrel to \$102.08 per barrel during the 2<sup>nd</sup> quarter of 2014 and average \$98.67 for the year.

U.S. petroleum demand is expected to increase 0.21 percent from 2013 to 2014 to 18.93 million barrels per day and increase 0.26 percent from 2014 to 2015 to 18.98 million barrels per day.

U.S. natural gas demand is expected to increase 1.68 percent from 2013 to 2014 to 26.47 trillion cubic feet, and is expected to decrease by 0.30 percent from 2014 to 2015 to 26.39 trillion cubic feet.

EIA projects that natural gas Henry Hub spot prices will average \$4.60 per mmbtu for the 2<sup>nd</sup> quarter of 2014 and average \$4.74 per mmbtu for the year. This is a 27.08 percent increase from EIA's 2013 Henry Hub spot price of \$3.73 per mmbtu. (Note: Beginning January 2013 EIA discontinued publishing wellhead prices and began publishing a natural gas spot price at the Henry Hub.)

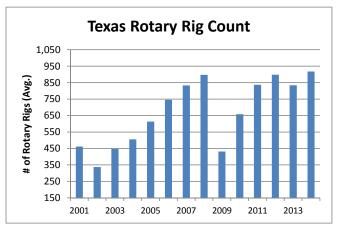
EIA projects a natural gas Henry Hub spot price of \$4.49 per mmbtu for 2015, a 5.27 percent decrease from the \$4.74 projected average price for 2014. (See note above.)

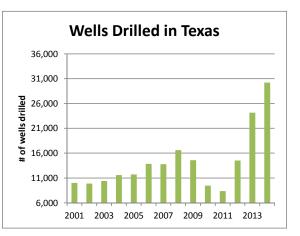
# <u>INSIDE</u>

Rotary Rig Count	2
Drilling Permits	2
Well Completions	2
Texas Natural Gas	3
Texas Gas Storage	4-5
Texas Crude Oil	6
US Petroleum	7

**TABLE 1. TEXAS DRILLING AND COMPLETION SUMMARY** 

	Active Rotary Rigs *			Wells Co	mpleted		
Period	Texas	Ű.S.	Permits #	Oil	Gas	Wells Drilled **	
1993	264	754	11,612	4,646	3,295	9,969	
1994	274	775	11,248	3,962	3,553	9,299	
1995	251	723	11,244	4,334	3,778	9,785	
1996	283	779	12,669	4,061	4,060	9,747	
1997	358	943	13,933	4,482	4,594	10,778	
1998	303	827	9,385	4,509	4,907	11,057	
1999	227	625	8,430	2,049	3,566	10,778	
2000	343	918	12,021	3,111	4,580	8,854	
2001	462	1,156	12,227	3,082	5,787	10,005	
2002	338	830	9,716	3,268	5,474	9,877	
2003	449	1,032	12,664	3,111	6,336	10,420	
2004	506	1,192	14,700	3,446	7,118	11,587	
2005	614	1,381	16,914	3,454	7,197	11,726	
2006	746	1,649	18,952	4,761	8,534	13,854	
2007	834	1,769	19,994	5,084	8,643	13,778	
2008	898	1,880	24,073	6,208	10,361	16,615	
2009	432	1,086	12,212	5,860	8,706	14,585	
2010	659	1,541	18,029	5,392	4,071	9,477	
2011	838	1,875	22,480	5,380	3,008	8,391	
2012	899	1,919	22,479	10,936	3,580	14,535	
2013	835	1,761	21,471	19,249	4,917	24,166	
Last 12 months	918	1,928	23,375	25,777	4,453	30,230	
May-13	838	1,767	1,931	2,395	521	2,916	
Jun-13	845	1,768	1,876	1,826	405	2,231	
Jul-13	841	1,766	1,843	1,860	470	2,330	
Aug-13	848	1,781	1,606	1,576	500	2,076	
Sep-13	837	1,760	1,531	1,456	424	1,880	
Oct-13	820	1,744	1,735	1,758	493	2,251	
Nov-13	829	1,756	1,559	1,625	167	1,792	
Dec-13	843	1,771	1,619	1,348	156	1,504	
Jan-14	836	1,769	1,791	3,131	398	3,529	
Feb-14	844	1,769	1,682	2,768	232	3,000	
Mar-14	864	1,803	1,894	2,965	272	3,237	
Apr-14	882	1,827	1,919	1,012	92	1,104	
May-14	892	1,859	2,389	2,057	323	2,380	





<sup>\*</sup> Source: Baker Hughes Inc.

<sup>#</sup> Totals shown are number of drilling permits issued

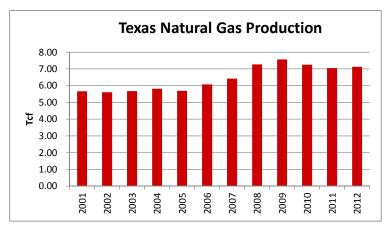
<sup>\*\*</sup> Wells drilled are oil and gas well completions and dry holes drilled/plugged.

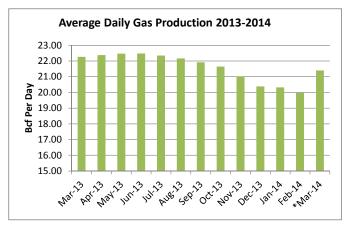
**TABLE 2. TEXAS NATURAL GAS (Trillion CF)** 

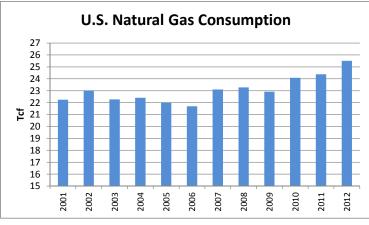
Period	Total Production *	Proved Reserves #	Consumption #	Producing Wells *	Wellhead Price **
1993	5.61	37.8	3.74	50,794	\$2.04
1994	5.68	39.0	3.67	52,614	\$1.85
1995	5.67	39.7	3.80	53,612	\$1.55
1996	5.77	41.6	3.99	55,052	\$2.17
1997	5.81	41.1	4.12	56,736	\$2.32
1998	5.77	40.8	4.21	58,436	\$1.96
1999	5.54	43.4	4.01	59,088	\$2.19
2000	5.65	45.4	4.42	60,486	\$3.68
2001	5.67	46.5	4.25	63,598	\$4.00
2002	5.61	47.5	4.30	65,686	\$2.95
2003	5.68	48.7	4.05	68,488	\$4.88
2004	5.82	53.3	3.91	72,237	\$5.46
2005	5.70	60.2	3.50	76,510	\$7.33
2006	6.08	65.8	3.43	83,218	\$6.39
2007	6.42	76.4	3.52	88,311	\$6.25
2008	7.27	81.8	3.55	96,502	\$7.97
2009	7.57	85.0	3.39	101,097	\$3.67
2010	7.25	94.3	3.57	101,653	\$4.48
2011	7.05	104.5	3.70	101,831	\$3.95
2012	7.13	93.48	3.87	102,218	\$2.66

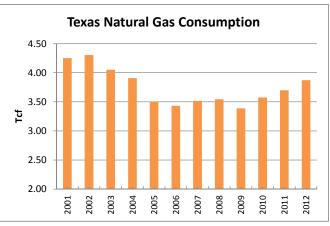
Total Gas Production (Bcf)								
Period	Daily	Monthly	Gas Well	Casinghead				
Mar-13	22.26	690.18	563.53	126.66				
Apr-13	22.37	671.15	545.06	126.08				
May-13	22.47	696.60	563.66	132.94				
Jun-13	22.47	674.20	541.76	132.44				
Jul-13	22.34	692.66	554.29	138.37				
Aug-13	22.16	687.01	546.93	140.08				
Sep-13	21.92	657.53	518.56	138.97				
Oct-13	21.64	670.89	531.36	139.54				
Nov-13	21.03	630.75	497.88	132.87				
Dec-13	20.38	631.87	495.14	136.73				
Jan-14	20.32	629.95	490.70	139.24				
Feb-14	19.97	559.18	432.70	126.48				
*Mar-14	21.40	663.27	529.28	133.98				

\* Note: The most recent 12 months of production data is preliminary and subject to revision. The most recent month of data is incomplete and may underestimate the final and complete total; a production adjustment factor of 1.1526 has been applied to reported March gas well production to obtain an estimate of final gas well production.









<sup>\*</sup> Source: Railroad Commission of Texas. The most recent 12 months of production data is subject to revision.

Source for 2001 and after is EIA and wellhead price is national average. Beginning 01/13 EIA will discontinue publishing wellhead prices and begin publishing a natural gas spot price at the Henry Hub.

<sup>#</sup> Source: US Energy Information Administration (EIA):EIA's reserves for estimates for 1992 and after exclude federal offshore and are wet after lease separation.

<sup>\*\*</sup> Source: Texas Comptroller of Public Accounts. Wellhead price is average net taxable price (\$/Mcf) and excludes federal offshore production.

**TABLE 3. TEXAS GAS STORAGE OPERATIONS** 

Productive or Depleted Reservoirs		]	Reported Max Withdrawal	Working Gas*	Working Gas*	Change From	Preliminary Working Gas*
Operator	Field	County Location	Rate (MMCF/DAY)	Inventory 5/31/2014 (MMCF)	45/31/2013 (MMCF)	One Year Ago (MMCF)	6/15/2014 (MMCF)
Oneok TX Gas Storage LP	Felmac (Yates)	Gaines	45		2,007	(284)	2,058
Oneok TX Gas Storage LP	Loop (Yates)	Gaines	75	800	800	-	800
Enbridge Pipeline LLC	Pickton (Bacon Lime)	Hopkins	15	2,195	2,136	59	2,197
Houston Pipe Line Co.	Bammell	Harris	1,300	· · · · · · · · · · · · · · · · · · ·	31,051	(18,808)	14,880
Cago, Inc.	Ambassador	Clay	40		80	-	80
Hill Lake Gas Storage LLC	Hill-Lake Sand	Eastland	450		7,851	(1,721)	6,778
ATMOS Pipeline - Texas	Lake Dallas	Denton	120	- ,	3,082	275	3,357
ATMOS Pipeline - Texas	La-Pan-Miss	Clay	120	,	2,338	(340)	1,998
Cummings Company, Inc.	Leeray Strawn	Stephens	20		-	-	-
ATMOS Pipeline - Texas	New York City	Clay	120		3,694	(200)	3,789
Fort Concho Gas Storage, Inc.	Pecan Station	Tom Green	28		1,027	(133)	888
ATMOS Pipeline - Texas	Tri-Cities Bacon	Henderson	275	· · · · · · · · · · · · · · · · · · ·	15,272	(3,551)	12,484
ATMOS Pipeline - Texas	Tri-Cities Rodessa	Henderson	50	,	2,231	210	2,441
Lower Colorado River Authority	Hilbig	Bastrop	100	,	2,530	(180)	2,631
Natural Gas Pipeline Co.	North Lansing	Harrison	1,100		72,920	(32,922)	43,533
Devon Gas Services LP	Lone Camp	Palo Pinto	28		246	(1)	245
Kinder Morgan Tejas Pipeline LLC	Clear Lake	Harris	900	,	50,002	(31,690)	20,368
Energy Transfer Fuel LP	Bryson	Jack	100	,	5,904	(740)	5,235
Worsham-Steed Gas Storage, LLC	Worsham Steed	Jack	25		21,029	(6,414)	16,211
Katy Storage and Transportation LP	Pottsville	Hamilton	200		-	(0.000)	40.500
Enstor Katy Storage and Transportation LP	Katy Hub & Storage	Fort Bend	700		22,202	(9,360)	13,592
		Subtotals	5,81	140,602	246,402	(105,800)	153,565
Salt Caverns							
Oneok TX Gas Storage LP	Salado (Loop Yates)	Gaines	500	1,709	1,113	596	1,881
Kinder Morgan Tejas Pipeline LP	Stratton Ridge	Brazoria	250	443	1,459	(1,016)	457
Centana Intrastate Pipeline LLC	Spindletop	Jefferson	400	1,929	4,967	(3,038)	2,284
Dow Chemical Co.	Stratton Ridge #34	Brazoria	200	-	-	-	=
Dow Chemical Co.	Stratton Ridge #6	Brazoria	180		970	70	1,011
Kinder Morgan Texas Pipeline LP	North Dayton	Liberty	750	,	10,097	(3,163)	7,324
ATMOS Pipeline - Texas	Bethel	Anderson	600	,	3,113	1,686	4,958
Moss Bluff Hub Partners LP	Moss Bluff	Liberty	1,000	,	13,305	(5,231)	9,307
Chevron Phillips Chemical Co	Clemens	Brazoria	7:		1,730	(583)	1,154
PB Energy Storage Services, Inc.	Spindletop	Jefferson	480	, -	6,857	286	7,241
Underground Services Markham, LP	Markham	Matagorda	1,100	,	20,539	(9,164)	13,931
Energy Transfer Fuel LP	Bethel Salt Dome	Anderson	600	-	1,513	(1,285)	146
Envoy Resources Inc	Wilson	Wharton	800	,	8,510	(3,176)	5,274
Chevron Keystone Gas Storage	Keystone Gas Storage	Winkler	350		4,780	116	5,105
Underground Storage LLC	Pierce Junction	Harris	350		1,884	(480)	1,293
Tres Palacios Storage LLC	Markham	Matagorda	2,500	,	18,327	(15,180)	4,378
Golden Triangle Storage, Inc	Spindletop	Jefferson	300		2,975	677	4,250
Freeport LNG Development, LP	Stratton Ridge	Brazoria	300		8,239	(3,930)	4,309
Source: RRC Form G-3		Subtotals	10,735 OTALS 16,540		110,378 356,780	(42,815) (148,615)	74,303 227,868

<sup>\*</sup> Notes: 1) Native Gas volumes are included in Working Gas volumes with the exception of Houston Pipe Line's Bammel facility and Natural Gas Pipeline Co. of America's North Lansing facility, in which the native gas is part of the non-working resident gas. 2) Due to an expansion of the North Lansing facility, 9,700 MMCCF of Resident Gas Inventory was converted to Working Gas volume as of June, 2007. 3) Tres Palacios Storage LLC Salt Cavern facility was added to report as of October, 2008. 4) The information contained on this report is an estimate for Worsham-Steed Gas Storage LLC and Hill-Lake Gas Storage LLC facilities while engineering studies are in process (8/20/2010).

TABLE 4. TEXAS GAS STORAGE OPERATIONS, 2013-2014

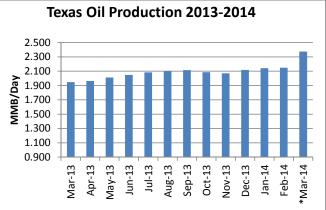
	Depleted Reservoirs			Salt Caverns			Total			
_	Beginning Balance (Mmcf)	Injections/ (Withdrawals) (Mmcf)	Ending Balance (Mmcf)	Beginning Balance (Mmcf)	Injections/ (Withdrawals) (Mmcf)	Ending Balance (Mmcf)		Beginning Balance (Mmcf)	Injections/ (Withdrawals) (Mmcf)	Ending Balance (Mmcf)
May-13	212,073	34,329	246,402	88,616	21,834	110,450		300,689	56,163	356,852
June-13	246,402	19,157	265,559	110,450	2,204	112,654		356,852	21,361	378,213
July-13	265,559	13,090	278,649	112,654	(4,644)	108,010		378,213	8,446	386,659
August-13	278,649	6,772	285,421	108,010	(4,043)	103,967		386,659	2,729	389,388
September-13	285,421	16,544	301,965	103,967	10,314	114,281		389,388	26,858	416,246
October-13	301,965	18,647	320,612	114,281	15,916	130,197		416,246	34,563	450,809
November-13	320,612	(9,753)	310,859	130,197	(4,759)	125,438		450,809	(14,512)	436,297
December-13	310,859	(35,054)	275,805	125,438	(32,085)	93,353		436,297	(67,139)	369,158
January-14	275,805	(71,142)	204,663	93,353	(32,576)	60,777		369,158	(103,718)	265,440
February-14	204,663	(70,049)	134,614	60,777	(20,275)	40,502		265,440	(90,324)	175,116
March-14	134,614	(37,858)	96,756	40,502	(3,647)	36,855		175,116	(41,505)	133,611
April-14	96,756	17,119	113,875	36,855	12,647	49,502		133,611	29,766	163,377
May-14	113,875	26,727	140,602	49,502	18,061	67,563		163,377	44,788	208,165

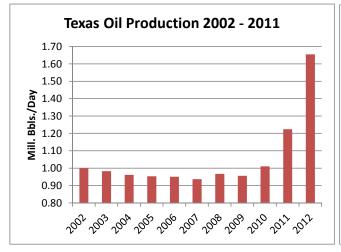
**TABLE 5. TEXAS CRUDE OIL (million barrels)** 

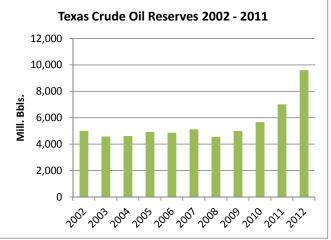
Period	Texas Total Production *	Texas Daily Average	% of U.S. Production	Proved Reserves *	% of U.S. Reserves	# of Producing Wells *	WTI Spot
1994	542	1.48	22.29%	5,847	26.0	179,955	\$17.30
1995	513	1.41	21.43%	5,743	25.7	177,397	\$14.73
1996	500	1.37	21.09%	5,736	26.1	175,277	\$16.31
1997	491	1.35	20.85%	5,687	25.2	175,475	\$18.77
1998	460	1.26	20.11%	4,927	23.4	170,288	\$20.01
1999	409	1.12	19.05%	5,339	24.5	162,620	\$14.06
2000	401	1.10	18.82%	5,273	23.9	161,097	\$20.01
2001	381	1.04	17.99%	4,944	22.0	159,357	\$25.95
2002	365	1.00	17.41%	5,015	22.1	155,865	\$26.11
2003	359	0.98	17.41%	4,583	20.9	153,461	\$31.12
2004	351	0.96	17.63%	4,613	21.6	151,205	\$41.44
2005	348	0.95	18.40%	4,919	22.6	151,286	\$56.49
2006	347	0.95	18.69%	4,871	23.2	151,832	\$66.02
2007	342	0.94	18.46%	5,122	24.0	153,223	\$72.32
2008	353	0.97	19.32%	4,555	23.8	156,588	\$99.57
2009	349	0.96	17.90%	5,006	24.2	157,807	\$61.65
2010	369	1.01	18.52%	5,674	24.4	158,451	\$79.40
2011	447	1.22	21.71%	7,014	26.4	161,402	\$94.86
2012	604	1.65	25.46%	9,614	31.5	167,864	\$94.12
Mar-13	60.43	1.949	* Note: The I	lex	cas Oil Proc	duction 201	L3-2014



\* Note: The most recent 12 months of production data is preliminary and subject to revision. The most recent month of data is incomplete and may underestimate the final and complete total; a production adjustment factor of 1.1797 has been applied to reported March crude oil production to obtain an estimate of final crude oil production.







<sup>\*</sup> Source: Railroad Commission of Texas. Production data is subject to revision.

<sup>#</sup> Source: U.S. Energy Information Administration (EIA). Reserve estimates for 1985 and after exclude federal offshore.

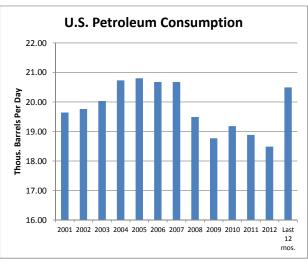
<sup>\*\*</sup> Source: Texas Comptroller of Public Accounts. Wellhead price is average net taxable price (\$/bbl.) & excludes federal offshore production.

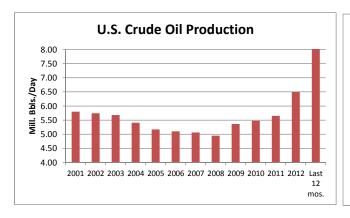
Source for 2001 and after is EIA. Wellhead price is West Texas Intermediate spot average.

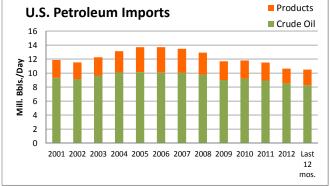
TABLE 6. US PETROLEUM OVERVIEW (MILLION BARRELS PER DAY)

	l I		Imports **		Products	Proved	Wells	Wellhead
Period	Production*	Total	Crude Oil	Products	Supplied #	Reserves **	Drilled **	Price **
1991	7.42	7.63	5.78	1.84	16.71	24,682	29,528	16.54
1992	7.17	7.89	6.08	1.81	17.03	23,745	23,608	15.99
1993	6.85	8.62	6.79	1.83	17.24	22,957	25,451	14.25
1994	6.66	9.00	7.06	1.93	17.72	22,457	22,255	13.19
1995	6.56	8.84	7.23	1.61	17.72	22,351	21,600	14.62
1996	6.47	9.48	7.51	1.97	18.31	22,017	23,886	18.46
1997	6.45	10.16	8.23	1.94	18.62	22,546	27,586	17.23
1998	6.25	10.71	8.71	2.00	18.92	21,034	22,911	10.87
1999	5.88	10.85	8.73	2.12	19.52	21,765	18,939	15.56
2000	5.82	11.46	9.07	2.39	19.70	22,045	29,287	26.72
2001	5.80	11.87	9.33	2.54	19.64	22,446	35,558	21.84
2002	5.74	11.53	9.14	2.39	19.76	22,677	27,871	22.51
2003	5.68	12.25	9.66	2.59	20.03	21,891	32,833	27.56
2004	5.41	13.13	10.08	3.05	20.73	21,371	37,057	36.77
2005	5.17	13.70	10.12	3.58	20.80	21,757	44,022	50.28
2006	5.10	13.69	10.11	3.58	20.68	20,972	51,429	59.69
2007	5.06	13.46	10.03	3.43	20.68	21,317	51,071	66.52
2008	4.95	12.91	9.78	3.13	19.49	19,121	54,302	94.04
2009	5.36	11.69	9.01	2.68	18.77	20,682	32,803	56.35
2010	5.48	11.79	9.21	2.58	19.18	23,267	36,611	74.71
2011	5.65	11.50	8.94	2.57	18.88	26,544	n/a	95.73
2012	6.50	10.63	8.53	2.11	18.49	30,529	n/a	94.52
Last 12 mos.	8.19	10.49	8.28	2.20	20.49			

Last 12 mos.	0.13	10.43	0.20	2.20	20.43
Feb-2013	7.12	9.24	7.27	1.97	18.66
Mar-2013	7.16	9.46	7.46	2.00	18.48
Apr-2013	7.33	10.08	7.73	2.35	18.55
May-2013	7.26	10.05	7.74	2.32	18.55
Jun-2013	7.21	9.79	7.73	2.06	18.72
Jul-2013	7.45	10.24	8.07	2.17	19.05
Aug-2013	7.47	10.20	8.10	2.10	19.09
Sep-2013	7.76	9.98	7.91	2.07	19.12
Oct-2013	7.71	9.59	7.48	2.12	19.27
Nov-2013	7.90	9.31	7.39	1.92	19.41
Dec-2013	7.87	9.50	7.76	1.74	19.08
Jan-2014	7.94	9.27	7.58	1.68	18.92
Feb-2014	8.05	9.15	7.20	1.95	18.99







<sup>\*</sup> Sources: U.S. Energy Information Administration (EIA). Recent production data is subject to revision.

<sup>\*\*</sup> Source: EIA. Wells drilled includes crude oil, natural gas, and dry wells drilled. U.S. average wellhead (first purchase) price is dollars per barrel. (Per most recent data from EIA)

<sup>\*</sup> Source: EIA. Petroleum products supplied is a measure of domestic consumption.

## **Railroad Commission of Texas**

P. O. Box 12967 Austin, Texas 78711-2967

Texas PetroFacts is available in PDF format for download from the Railroad Commission web site at <a href="http://www.rrc.state.tx.us">http://www.rrc.state.tx.us</a>.

Created in 1891 by the Texas Legislature, the Railroad Commission today is known principally as a leader in the regulation and conservation of oil and natural gas in Texas. For more than 85 years, the Commission has been charged with preventing waste and pollution while safeguarding property rights.

We believe the people of Texas continue to have a vital stake in the orderly production and conservation of the state's natural resources. Across the state, crude oil and natural gas are produced in 225\* of 254 counties. About 297,800\* persons are employed in oil and gas exploration, production, refining, and related industries. In all, businesses involved with the Texas oil and gas industry contribute about \$114.43 billion annually to the state's more than one trillion-dollar economy.

As an oil and gas producer, the state of Texas ranks among the nations of the world. Texas leads the United States in the production of crude oil and natural gas, and its marketed production of natural gas represents one-third of total U. S. supply. Texas produces an average of nearly one million barrels of oil a day; natural gas production in the state exceeds 7 trillion cubic feet a year.

Christi Craddick Chairman David Porter Commissioner Barry T. Smitherman Commissioner

<sup>\*</sup> The number of producing counties and employment data are subject to revision.