



Oil & Gas Industry Day

February 25, 2014

Utah State Tax Commission



Disclaimer

Forecasted numbers are opinions of value and are subject to significant economic factors unknown or not reported at this time.



Oil & Gas Production

Discount Rate

Comparable Companies

2013

- ABRAXAS PETROL
- BERRY PETRO
- BILL BARRETT
- CONTINENTAL RES.
- DOUBLE EAGLE
- ENCANA CORP
- GASCO ENERGY
- GMX RESOURCES
- ISRAMCO INC.
- KODIAK OIL & GAS
- LEGACY RESERVES
- PIONEER NATURAL RES.
- QEP RESOURCES
- RESOLUTE ENERGY CORP
- ULTRA PETROLEUM CORP
- WARREN RESOURCES
- WHITING PETROLEUM

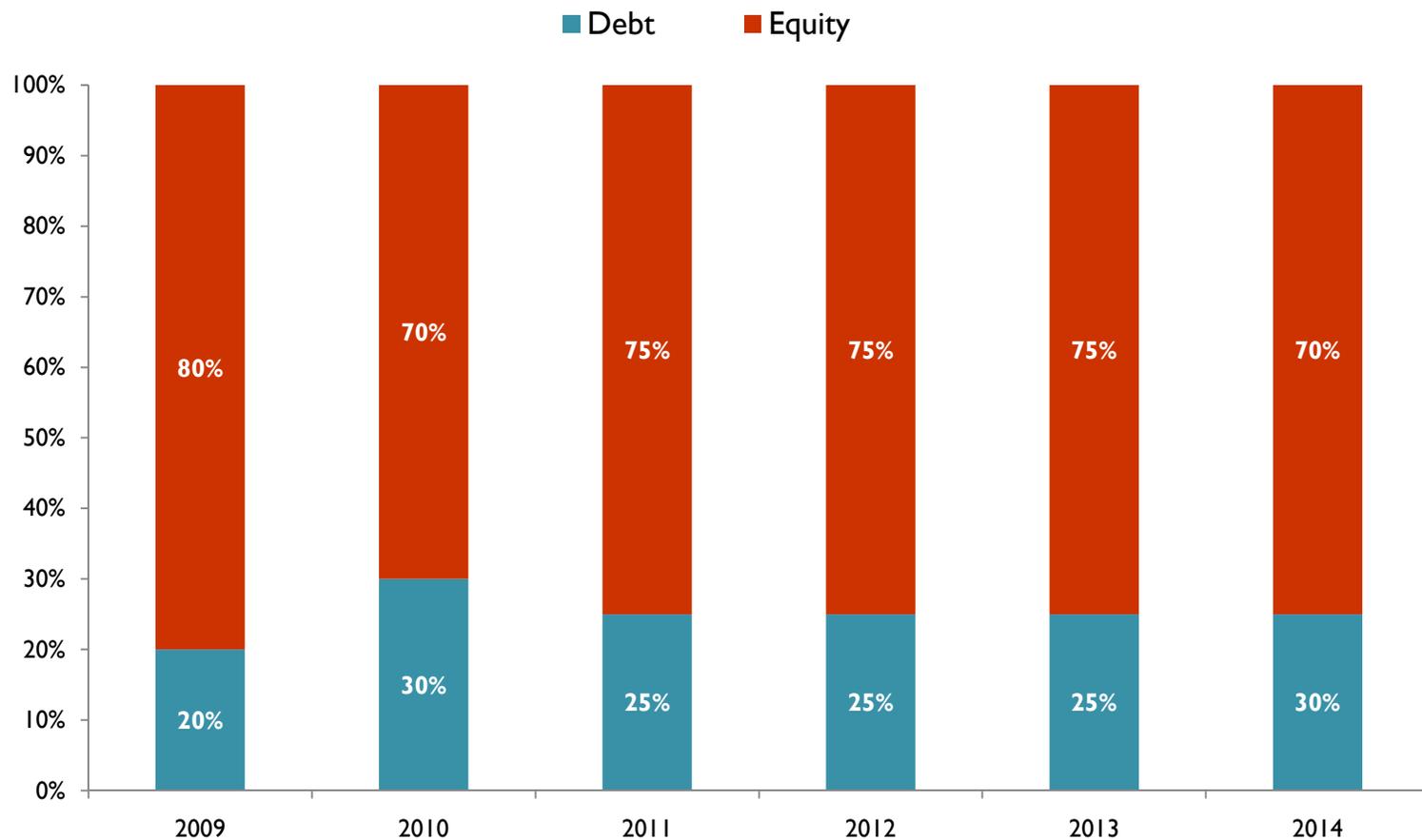
2014

- ABRAXAS PETROL
- BILL BARRETT
- CONTINENTAL RES.
- DOUBLE EAGLE
- ENCANA CORP
- ISRAMCO INC.
- KODIAK OIL & GAS
- LEGACY RESERVES
- LINN ENERGY LLC
- PIONEER NATURAL RES.
- QEP RESOURCES
- RESOLUTE ENERGY CORP
- ULTRA PETROLEUM CORP
- WARREN RESOURCES
- WHITING PETROLEUM
- WPX ENERGY

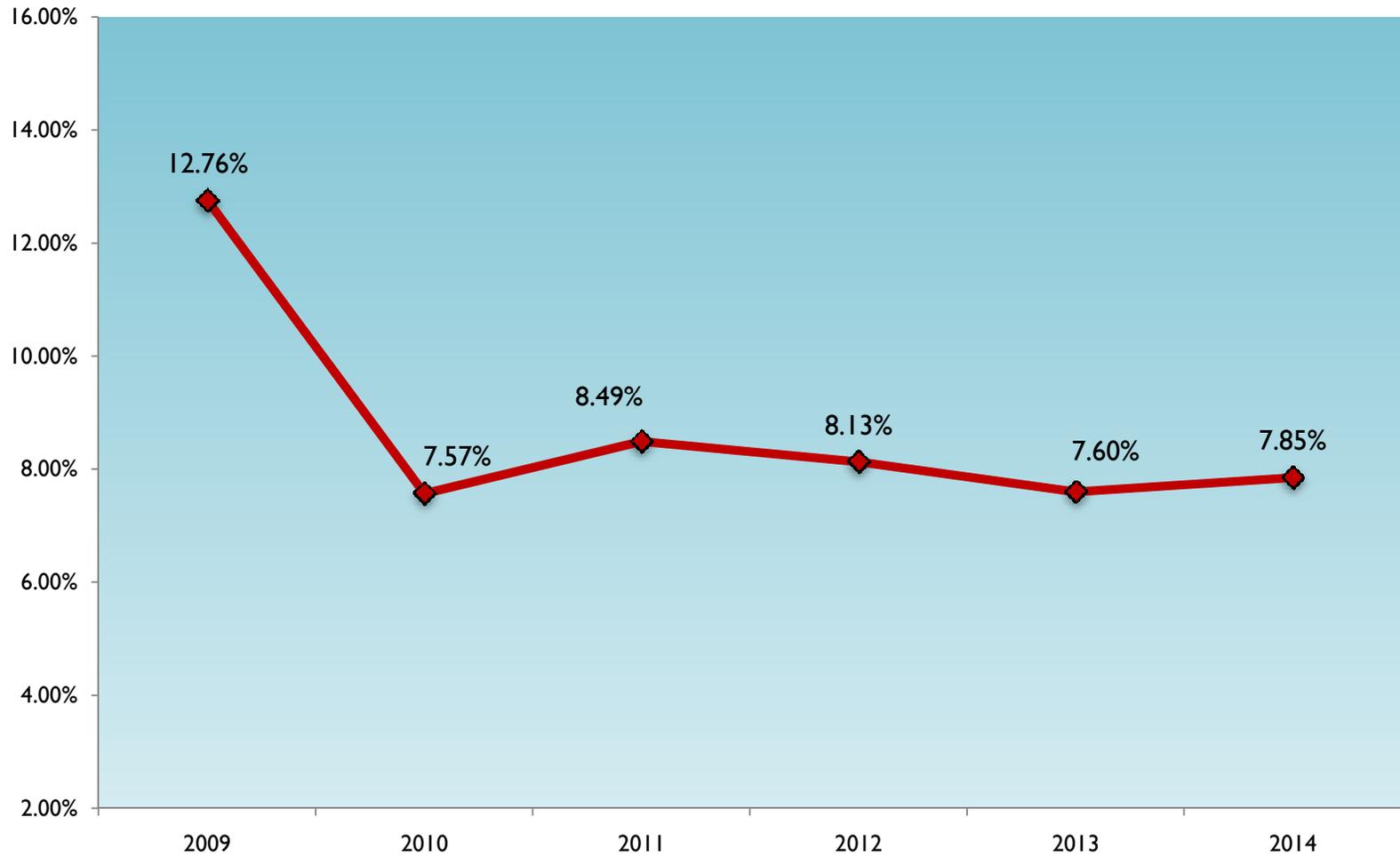
Added: Linn Energy LLC, WPX Energy

Dropped: Berry, Gasco, GMX

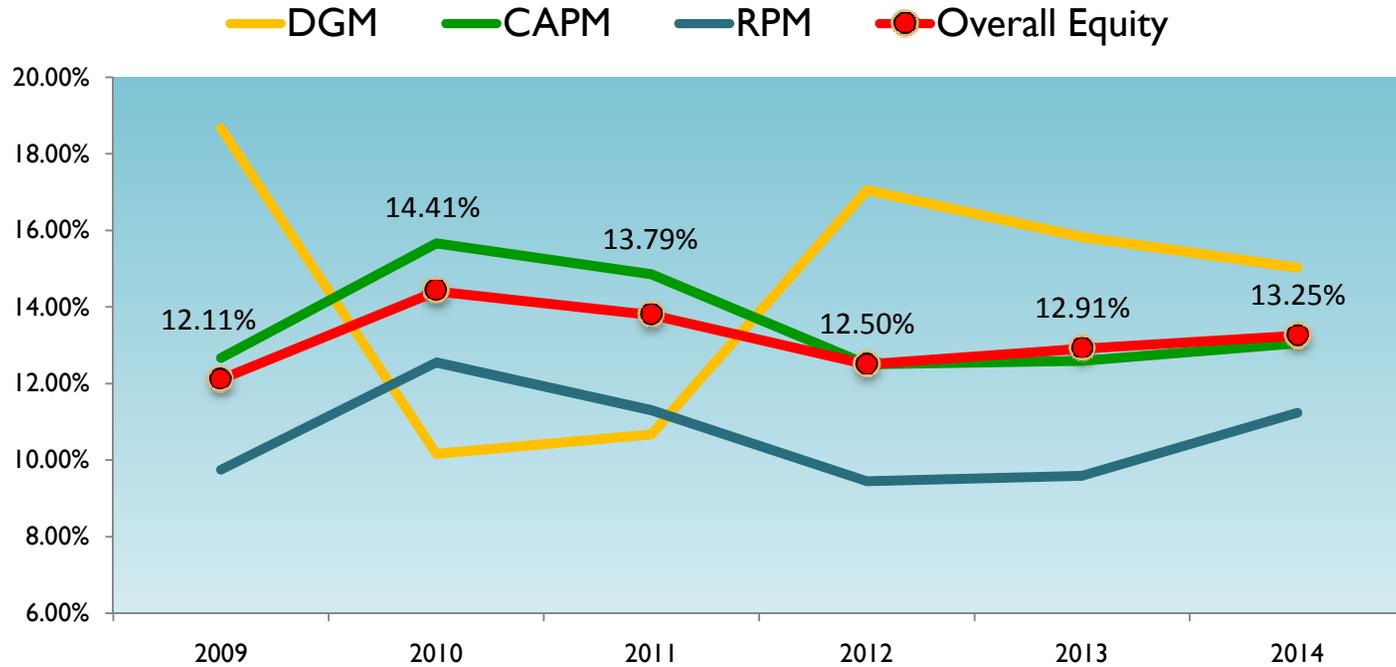
Capital Structure



Debt Rate



Equity Rate



EQUITY MODELS	RATE	WEIGHTIN	
		G	WEIGHTED RATE
Dividend Growth Model	15.03%	10%	1.50%
Capital Asset Pricing Model	13.05%	90%	11.75%
Risk Premium Model	11.24%	0%	0.00%
RECONCILED EQUITY RATE			13.25%

Production Discount Rate

WEIGHTED AVERAGE COST OF CAPITAL DISCOUNT RATE CALCULATION

	RATE	CAPITAL STRUCTURE	WEIGHTED RATE
EQUITY RATE	13.25%	70%	9.28%
DEBT RATE (BA3)	7.85%	30%	2.36%
BEFORE TAXES WACC			11.64%



Oil & Gas Gathering/Water Disposal

Discount Rate

Comparable Companies

2013

- COPANO ENERGY
- EL PASO PIPELINE
- ONEOK INC
- SPECTRA ENERGY
- WILLIAMS COS

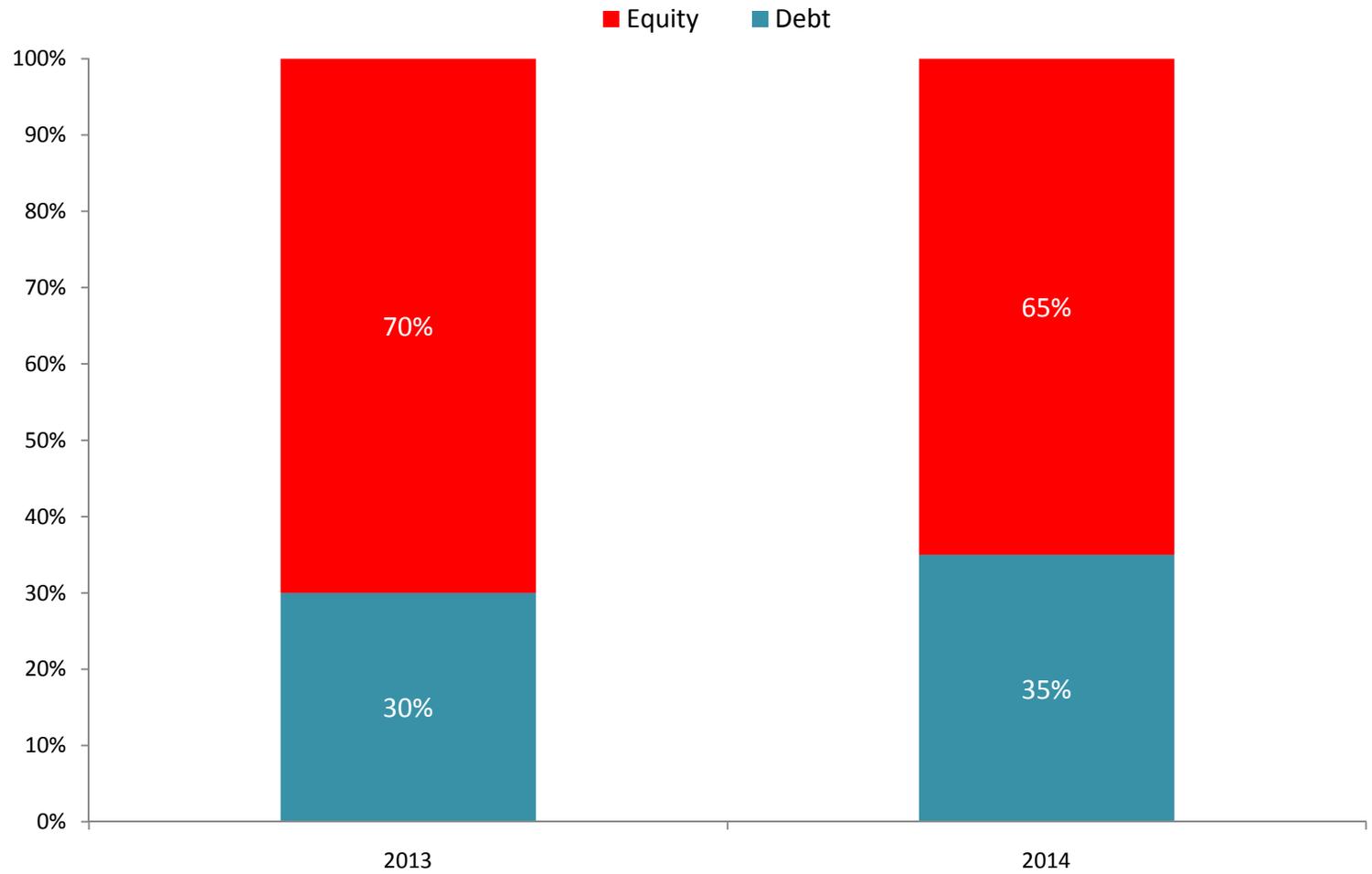
2014

- EL PASO PIPELINE
- ENERGY TRANS. PART.
- KINDER MORGAN EN.
- PLAINS ALL AMER. PIPE.
- ONEOK INC
- SPECTRA ENERGY
- WILLIAMS PTRS LP

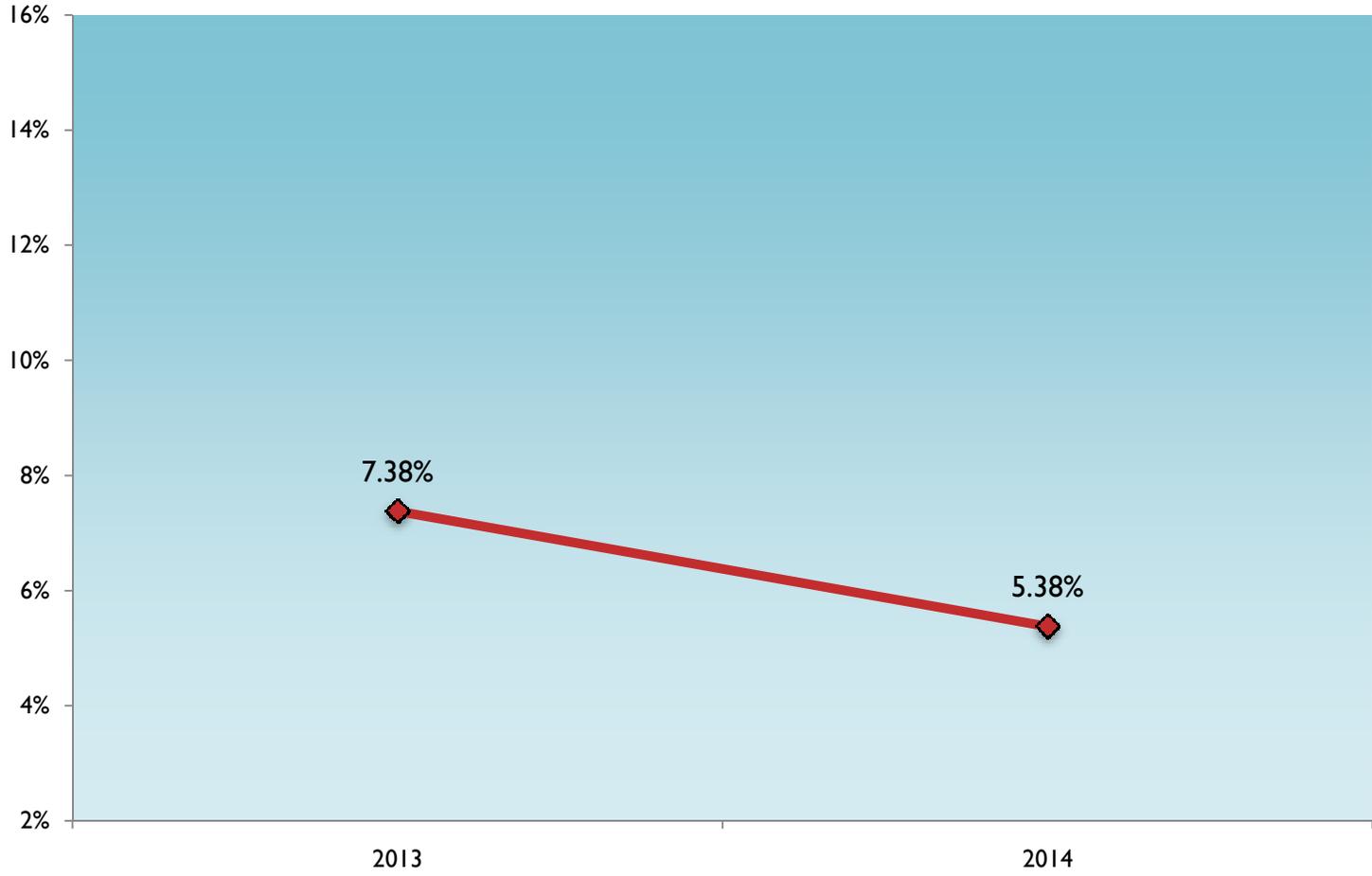
***Added: Energy Trans. Part.,
Kinder Morgan En., Plains All
Amer. Pipe., and Williams Ptrs
LP***

***Dropped: Copano Energy and
Williams Cos***

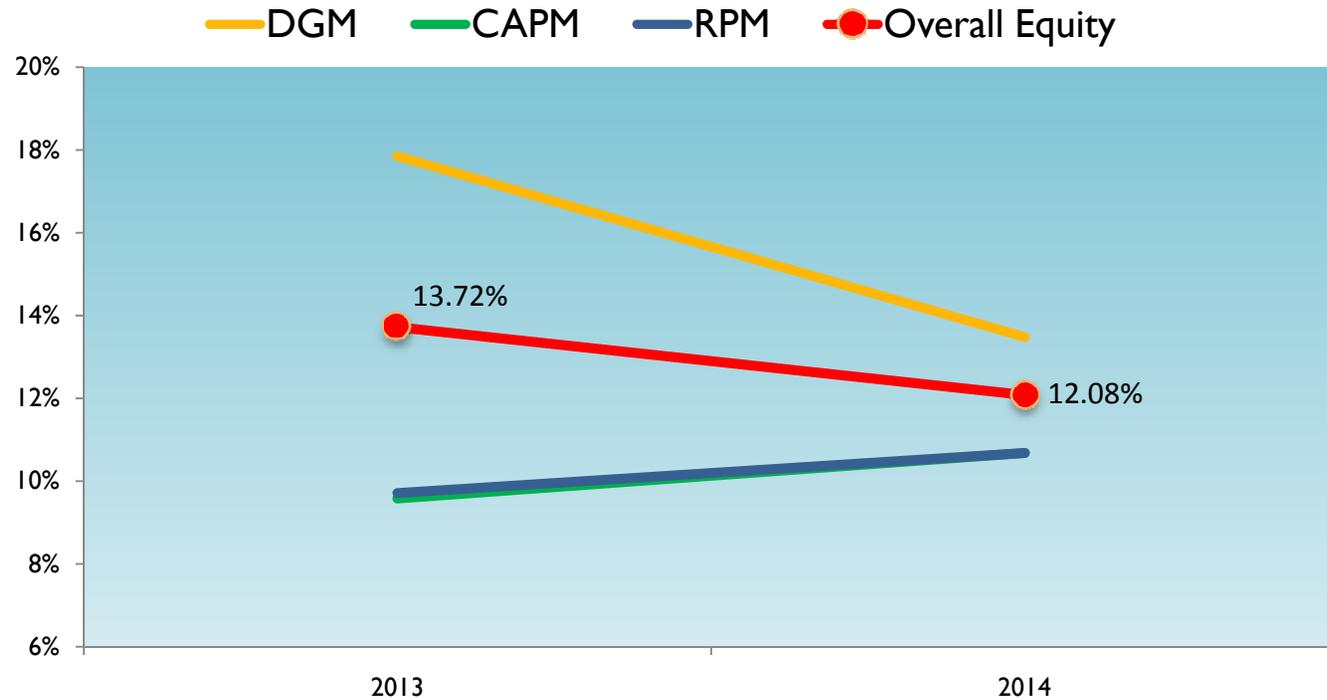
Capital Structure



Debt Rate



Equity Rate



EQUITY MODELS	RATE	WEIGHTING	WEIGHTED RATE
Dividend Growth Model	13.48%	50%	6.74%
Capital Asset Pricing Model	10.68%	50%	5.34%
Risk Premium Model	10.68%	0%	0.00%
RECONCILED EQUITY RATE			12.08%

Gathering/Water Disposal Discount Rate

WEIGHTED AVERAGE COST OF CAPITAL DISCOUNT RATE CALCULATION				
	RATE	CAPITAL STRUCTURE	WEIGHTED RATE	
EQUITY RATE	12.08%	65%	7.85%	
DEBT RATE (Baa3)	5.38%	35%	1.88%	
BEFORE TAXES WACC			9.73%	



Oil Price Forecast

Oil Price Forecast

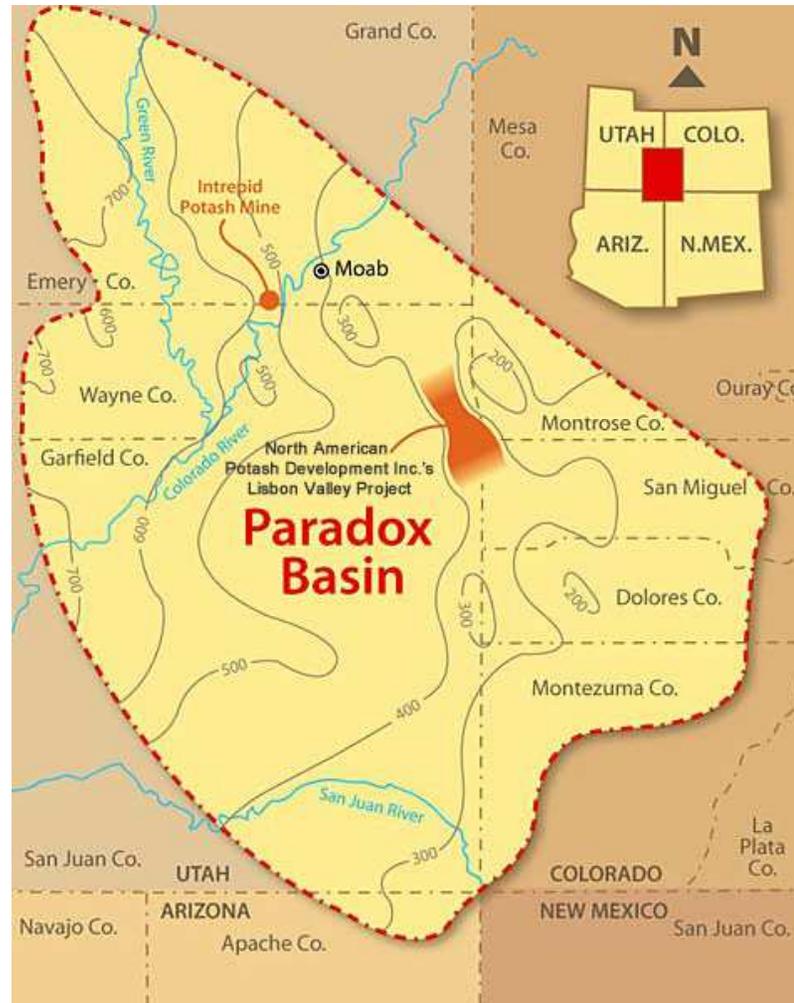


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“Product Price”

- Starting price is the weighted average posted price of the previous year

Paradox Basin Map



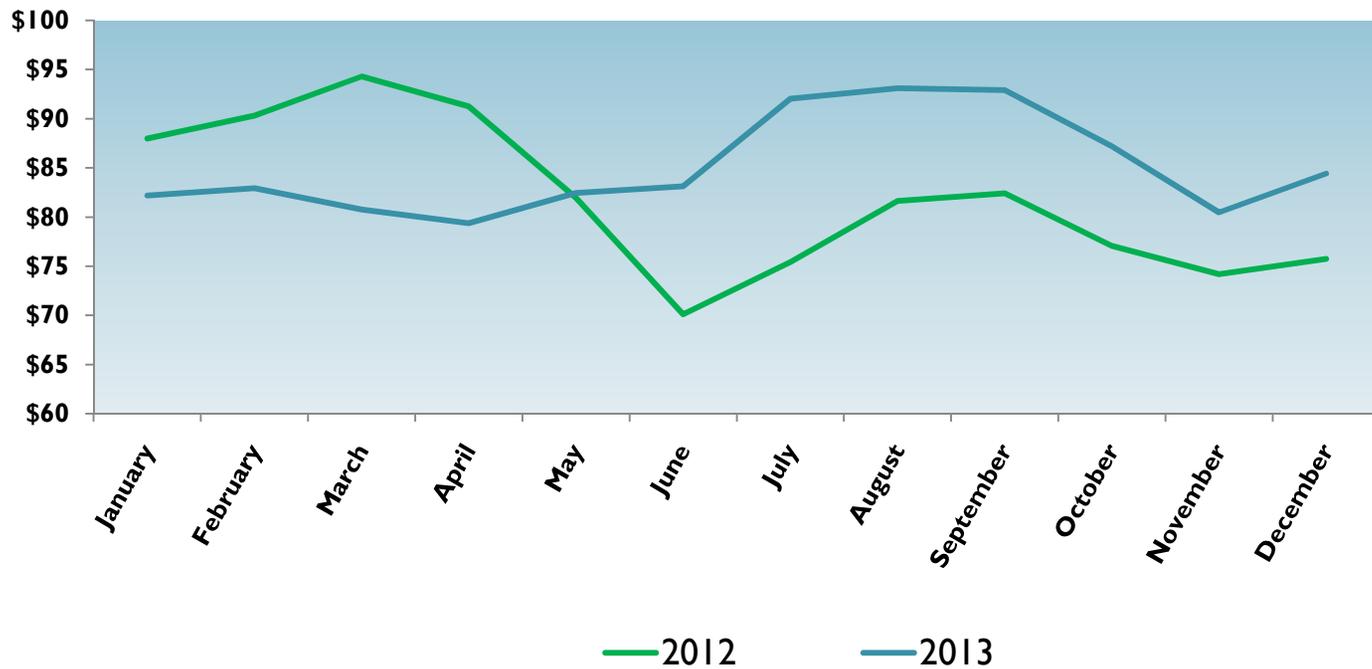
PARADOX BASIN/SWEET - "GIANT"

MONTH	POSTING DAYS	WEIGHTED PRICE 2013	PREVIOUS YEAR 2012	% CHANGE
January	31	\$82.18	\$87.98	-7%
February	28	\$82.92	\$90.33	-8%
March	31	\$80.74	\$94.31	-14%
April	30	\$79.35	\$91.27	-13%
May	31	\$82.44	\$81.97	1%
June	30	\$83.11	\$70.09	19%
July	31	\$92.03	\$75.42	22%
August	31	\$93.11	\$81.64	14%
September	30	\$92.92	\$82.40	13%
October	31	\$87.20	\$77.06	13%
November	30	\$80.46	\$74.18	8%
December	31	\$84.40	\$75.75	11%
Year End Weighted Monthly Average Price (\$/bbl)		\$85.07	\$81.87	4%

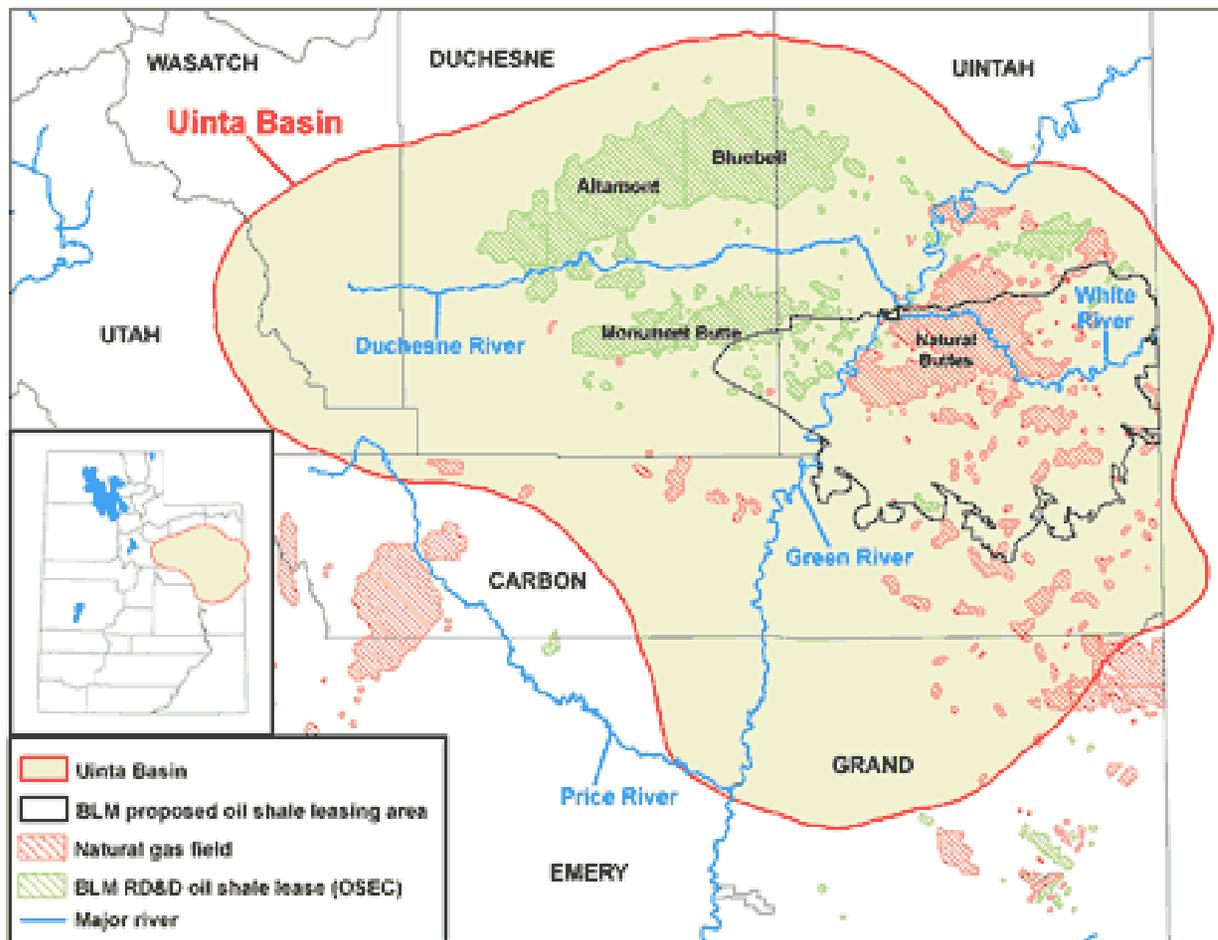
Source: Western Refining

WEIGHTED CRUDE OIL POSTED PRICES

Paradox Basin/Sweet - "Giant"



Uinta Basin Map

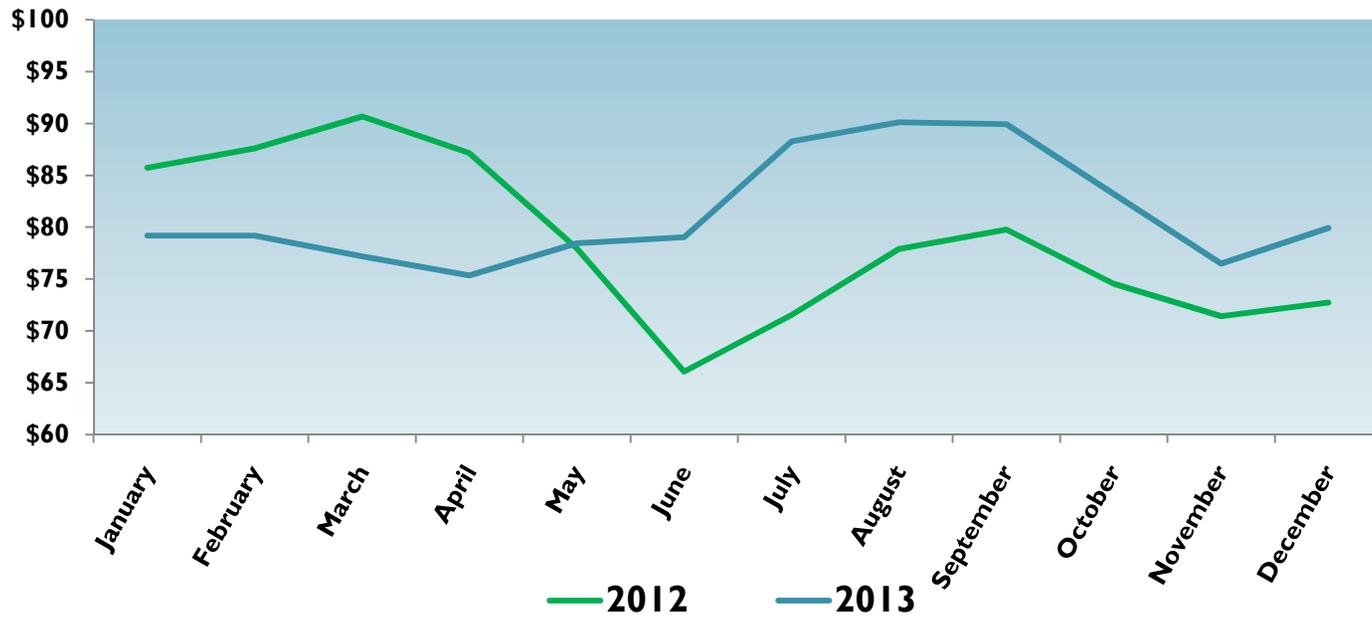


UINTA BASIN BLACK WAX - "CHEVRON"

MONTH	POSTING DAYS	WEIGHTED PRICE 2013	PREVIOUS YEAR 2012	% CHANGE
January	31	\$79.18	\$85.72	-8%
February	28	\$79.18	\$87.60	-10%
March	31	\$77.19	\$90.65	-15%
April	30	\$75.35	\$87.13	-14%
May	31	\$78.45	\$77.97	1%
June	30	\$79.04	\$66.09	20%
July	31	\$88.29	\$71.55	23%
August	31	\$90.12	\$77.90	16%
September	30	\$89.92	\$79.78	13%
October	31	\$83.20	\$74.56	12%
November	30	\$76.48	\$71.42	7%
December	31	\$79.94	\$72.74	10%
Year End Weighted Monthly Average Price (\$/bbl)		\$81.36	\$78.59	4%

WEIGHTED CRUDE OIL POSTED PRICES

Uinta Basin Black Wax

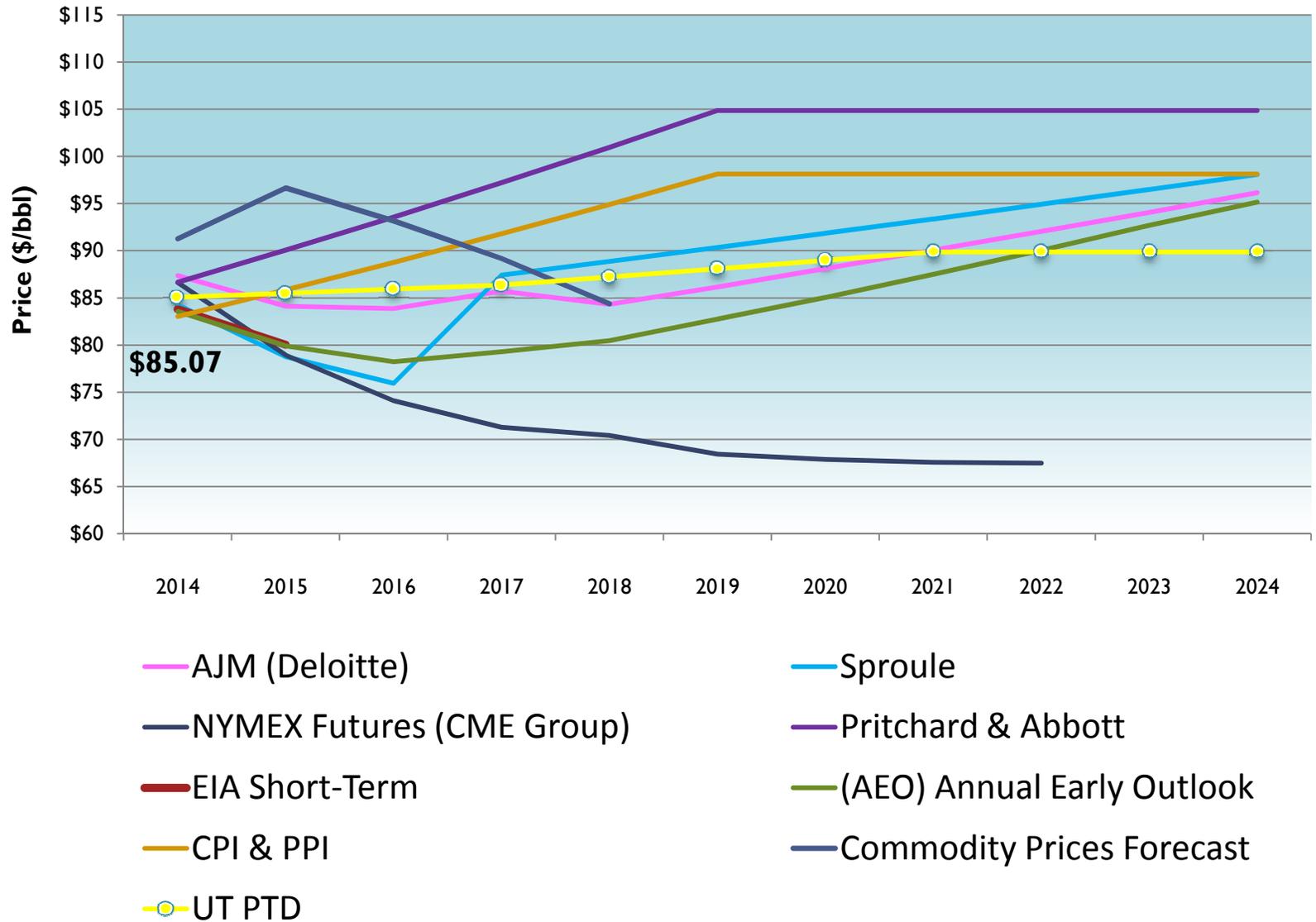




Sources for Oil Price Forecasting

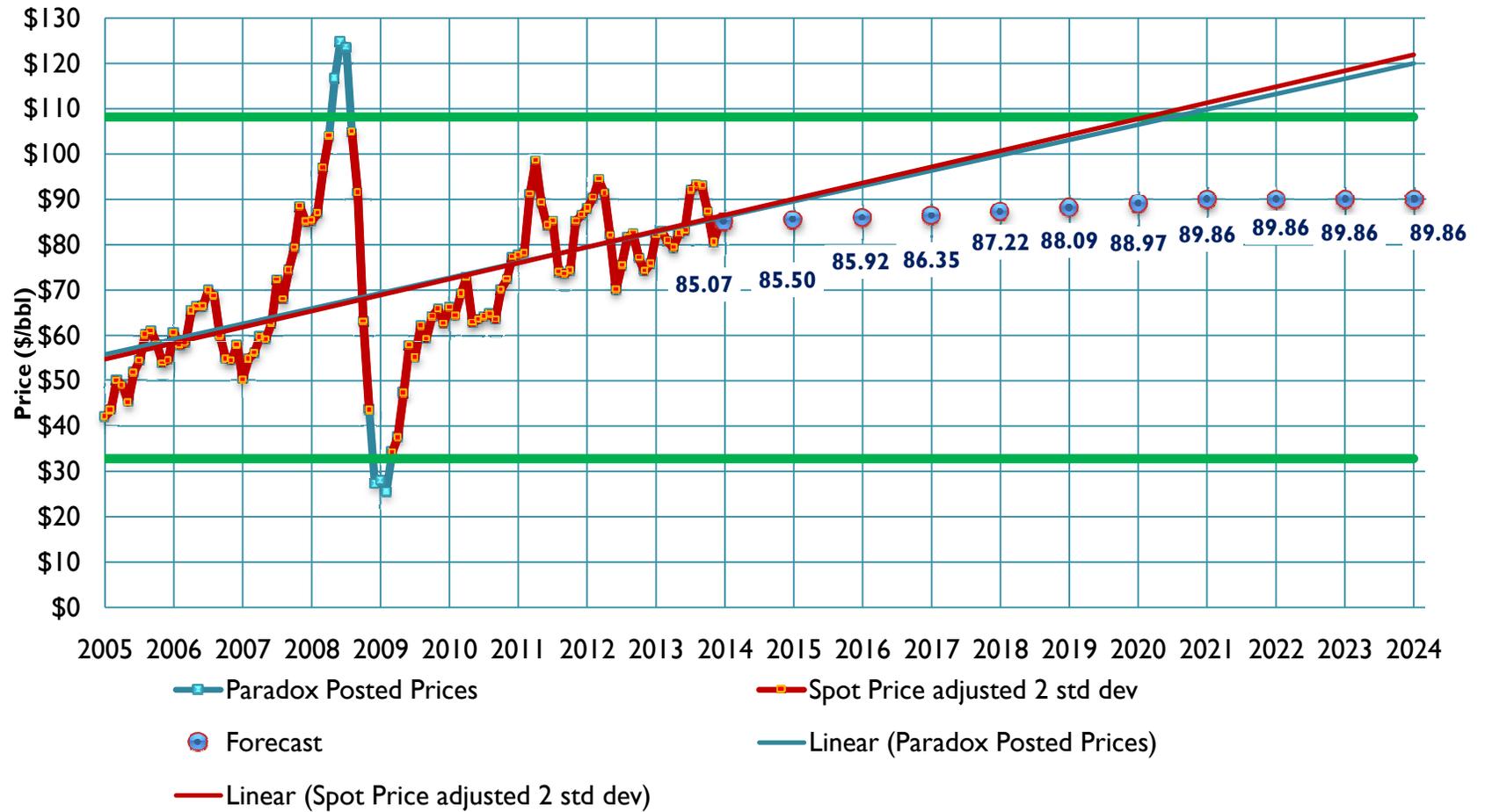
- ▶ U.S. EIA – United States Energy Information Administration
 - Short Term Outlook (STO)
 - Annual Energy Outlook (AEO)
- ▶ EIU – Economist Intelligence Unit
 - Economic and Commodity Prices Forecast
- ▶ NYMEX (CME Group) – New York Mercantile Exchange for futures prices
- ▶ Sproule Associates – Petroleum consultants annual forecast
- ▶ AJM Deloitte – Petroleum consultant company annual forecast
- ▶ Texas Comptroller – Pritchard & Abbott, Inc. Method
 - Price Adjustment Factor(PAF) & Producer Price Index(PPI)
- ▶ Macquarie Tristone – Energy lenders' price forecast survey
- ▶ Goldman Sachs – Finance and investment consultants annual forecast

2014 Paradox Oil Price Forecast



2014 Paradox Oil Price Forecast

2 Std deviation
High & Low Out



$y = 0.3771x + 42.028$
 $y = 0.2815x + 55.513$

2014 Oil Price Forecast

Paradox Basin Summary												
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Start Price	81.87											
Forecast with High & Low Out		85.07	85.50	85.92	86.35	87.22	88.09	88.97	89.86	89.86	89.86	89.86
% Change			0.5%	0.5%	0.5%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%

Black Wax Summary												
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Start Price	78.59											
Forecast with High & Low Out		81.36	81.77	82.18	82.59	83.41	84.25	85.09	85.94	85.94	85.94	85.94
% Change			0.5%	0.5%	0.5%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%



2013 Highlights

- Global unplanned supply disruptions
 - OPEC accounted for 70% of the total unplanned disruptions
- Middle East conflict
- China replaced the US as the world's largest crude oil importer
- International crude oil prices stabilized
- US oil production increased



2014 Expectations

- **Supply**
 - US pipeline capacity will increase
- **Demand**
 - 2-3% growth
- **Production**
 - Primarily in Bakken, Eagle Ford, and Permian regions
 - 7.5 mil b/d 2013
 - To 8.5 mil b/d 2014
 - To 9.3 mil b/d 2015



Natural Gas Price Forecast

Natural Gas Price Forecast



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“Product Price”

- Starting price, as defined by Utah Tax Code, is:
 - (1) If sold under contract, the price shall be the stated price.
 - (2) If sold otherwise, the price shall be the weighted average price.

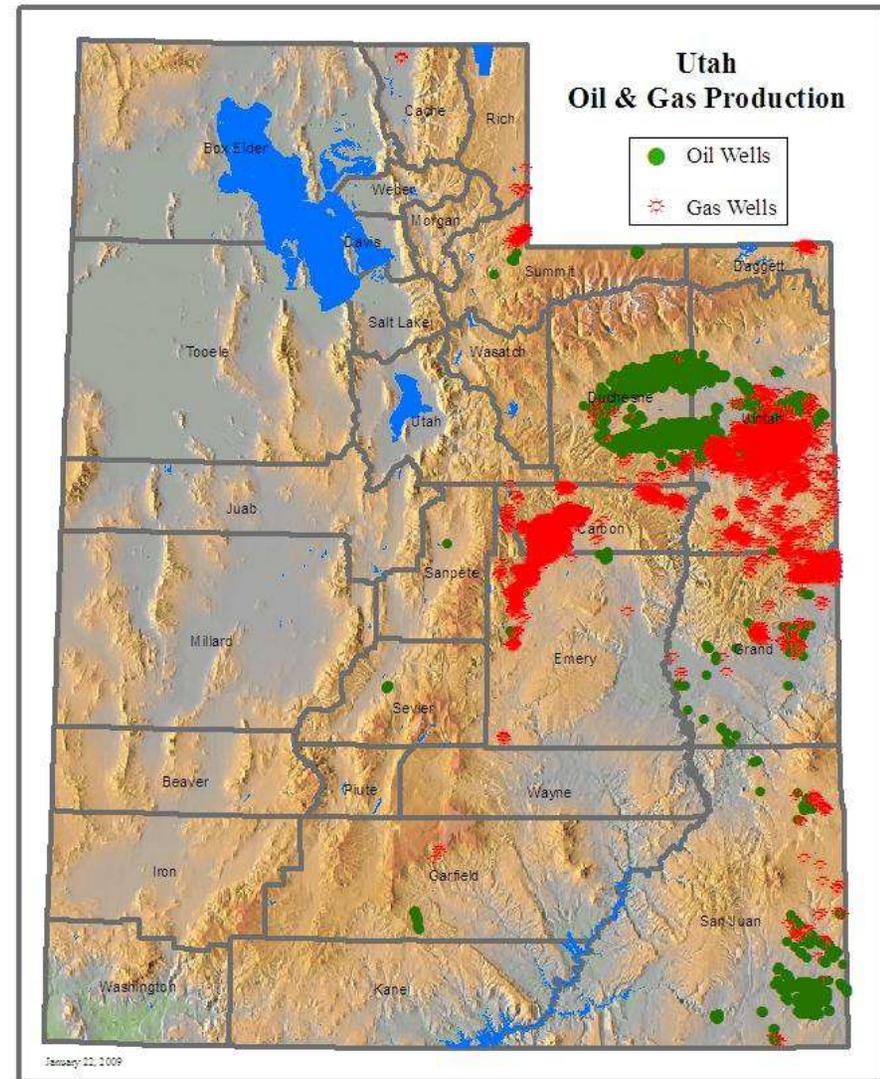
Utah - 2013

Data Analysis:

- Supply
- Drilling
- Production
- Storage

Other Variables:

- Consumption
- Weather
- Economy



2013 Utah - Permits

Applications for Permit to Drill (APD)

- by County -

	2013	2012	2011	2010
CARBON	7	93	138	91
DUCHESNE	794	745	539	391
EMERY	6	1	2	2
GRAND	12	17	11	4
JUAB	1	1	0	3
MILLARD	2	0	0	1
SAN JUAN	50	34	12	22
SEVIER	1	1	2	3
UINTAH	737	1213	802	662
Sub-total	1610	2105	1506	1179
State Totals	1611	2105	1516	1186

- by Year -

Year	Permits
2013	1611
2012	2105
2011	1516
2010	1186
2009	1171
2008	1359
2007	1553
2006	2061
2005	1630
2004	1102

2013 Utah - Drilling

Drilling Commenced (Wells Spudded)

- by County -

	2013	2012	2011	2010
BOX ELDER	0	3	0	0
CARBON	1	19	94	59
DAGGETT	1	0	0	0
DUCHESNE	442	420	348	423
EMERY	1	1	1	1
GRAND	7	13	2	5
JUAB	0	1	1	2
MILLARD	2	0	0	1
SAN JUAN	15	14	11	15
SEVIER	0	1	3	2
UINTAH	518	635	525	461
Sub-total	987	1107	985	969
State Totals	988	1107	986	972

- by Year -

Year	Wells Spudded
2013	988
2012	1107
2011	986
2010	972
2009	515
2008	1147
2007	1138
2006	1068
2005	890
2004	660

- by Month -

	2013	2012	2011	2010
January	72	89	74	73
February	86	99	75	71
March	79	108	57	84
April	76	103	59	79
May	87	112	99	72
June	58	89	69	87
July	84	113	100	101
August	89	98	100	69
September	90	106	67	77
October	68	75	92	97
November	100	50	108	86
December	99	65	86	76
Total	988	1107	986	972

2013 Utah - Supply

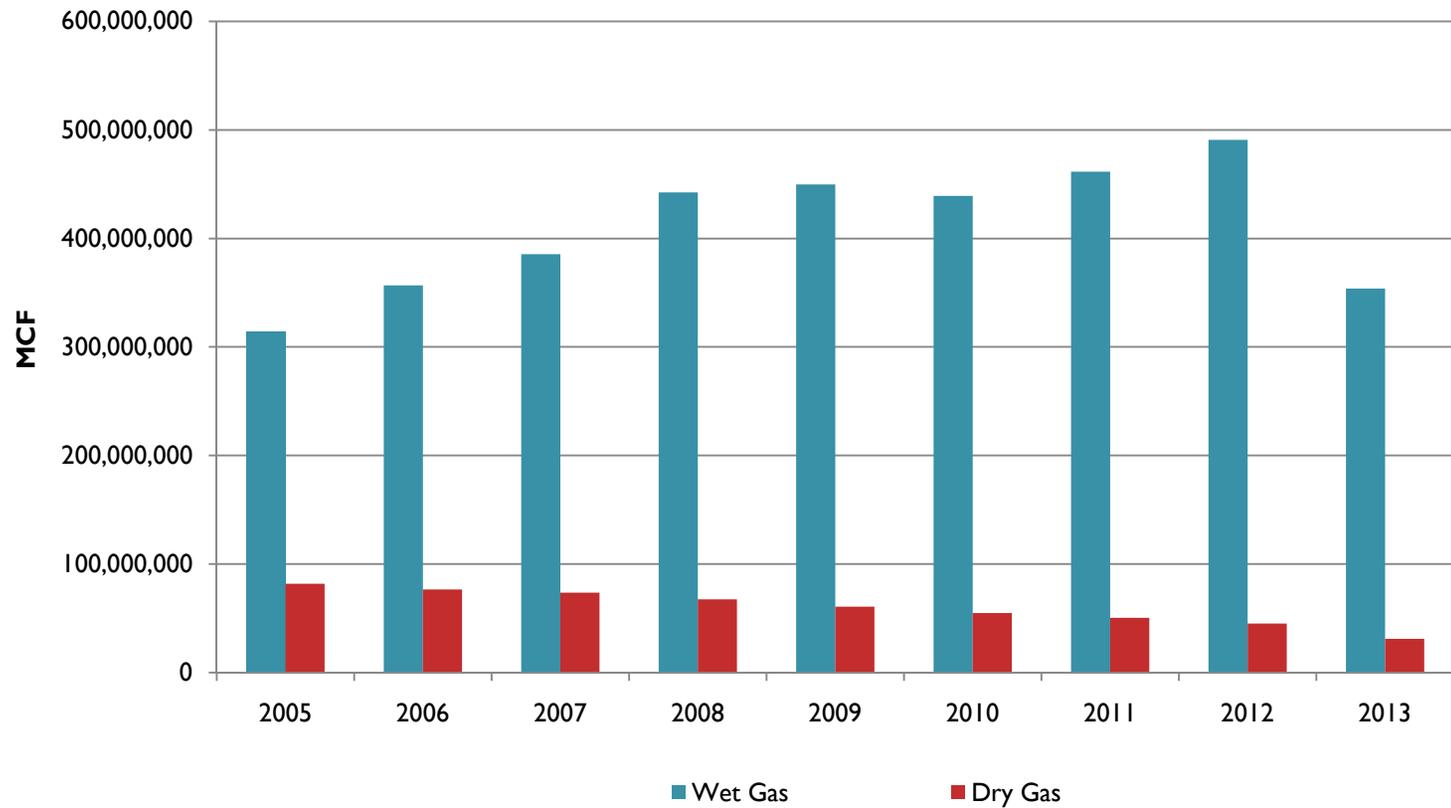
Well Statuses	Number of Wells	Mineral Lease Types			
		Federal	Native American	State	Fee
Producing Oil Wells	4543	1788	1741	254	760
Producing Gas Wells	7085	4729	177	1907	272
Shut-in Oil Wells	702	363	184	45	110
Shut-in Gas Wells	829	578	23	149	79
Active Water Injection Wells	1743	1165	440	134	4
Active Water Disposal Wells	112	37	7	26	42
Plugged and Abandoned Wells	7406	4017	1042	1014	1302
Orphan Wells					
Open Orphan Wells (no known operator)	34	20	0	8	6
2012 Stripper Wells					
Stripper Oil Wells (produce <= 10 BBLs/day)	2430	1108	948	141	233
Stripper Gas Wells (produce <= 60 MCF/day)	2435	1762	81	489	103
Well Status Summary					
Total Holes Not Yet Completed	756	413	201	53	89
Total Wells Capable of Production	13159	7458	2125	2355	1221
Total Non-Plugged Wells	15280	8828	2600	2547	1305
Total Wells Drilled	22686	12845	3642	3561	2607

Wells Plugged

Well Types	2013	2012	2011	2010
Oil Wells	11	23	10	37
Gas Wells	30	51	57	56
Service Wells	4	1	5	4
Dry Holes	13	27	31	57
Totals	58	102	103	154

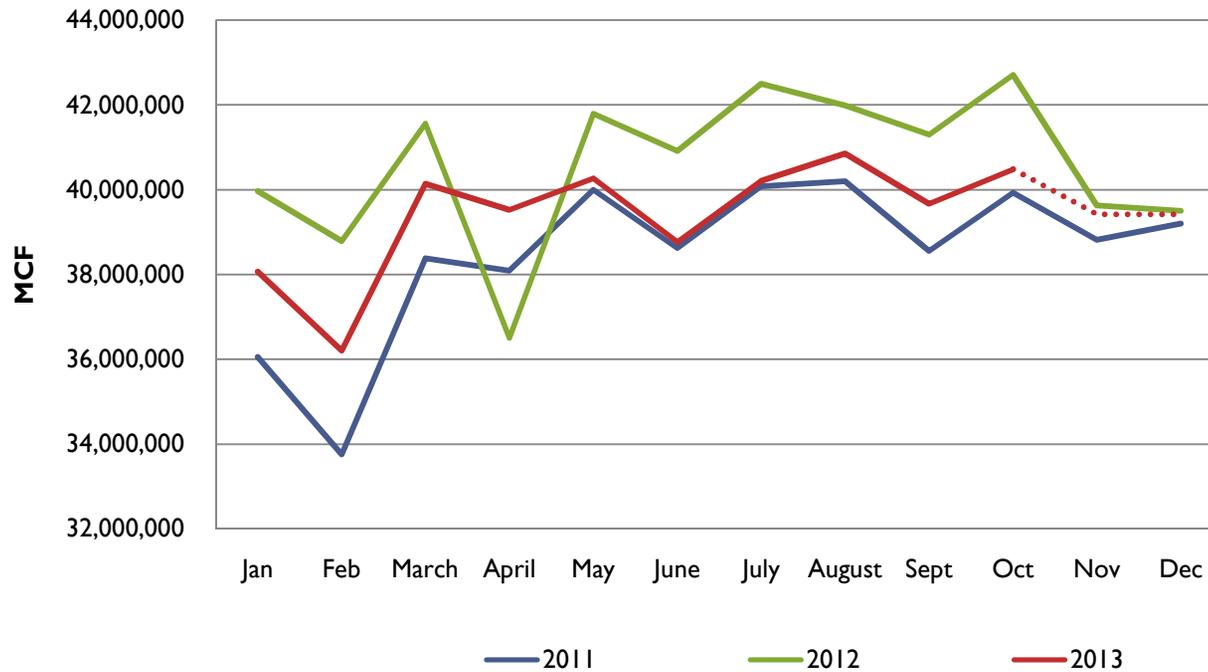
2013 Utah - Production

- by Year -



2013 Utah - Production

- by Month -



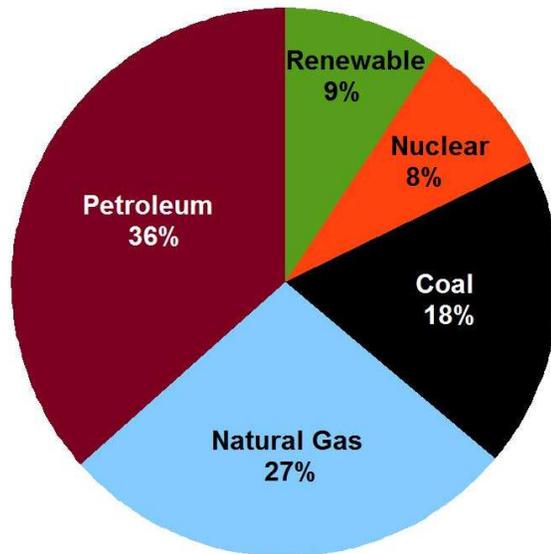


2013 Utah - Storage

- Stockpile peaking now occurring later
 - Trending now to November
- Heating Degree Days(HDD) below normal
 - January, and December consumed the most
- Working supply remained high until December

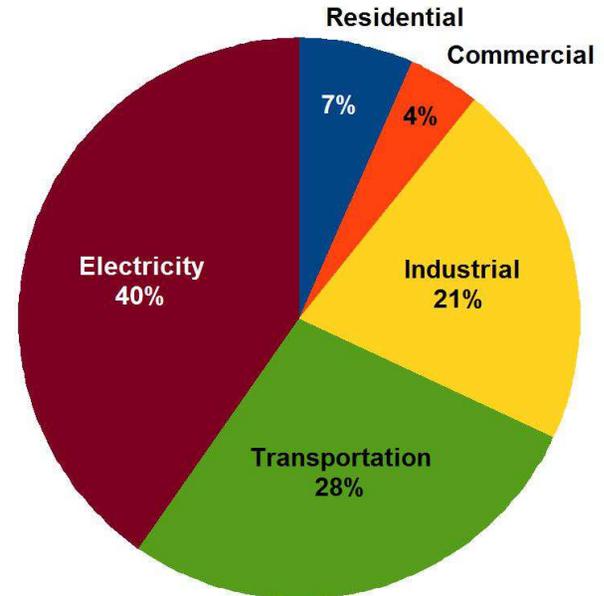
Domestic Energy Consumption

United States Energy Consumption by Source



Data Source: US Energy Information Agency

United States Energy Consumption by Sector



Data Source: US Energy Information Agency



Weather

- Minimal influence:
 - Spring, summer, fall temperatures
- Major influence:
 - Winter-over-winter temperatures & forecasts
- Sources & Predictions:
 - NOAA/National Weather Service Outlook:
 - Winter forecast
 - Average precipitation
 - Above average temperatures
 - The Farmers Almanac
 - Winter forecast
 - Snowier than normal
 - Near-normal rainfall
 - Below normal temperatures



Economy

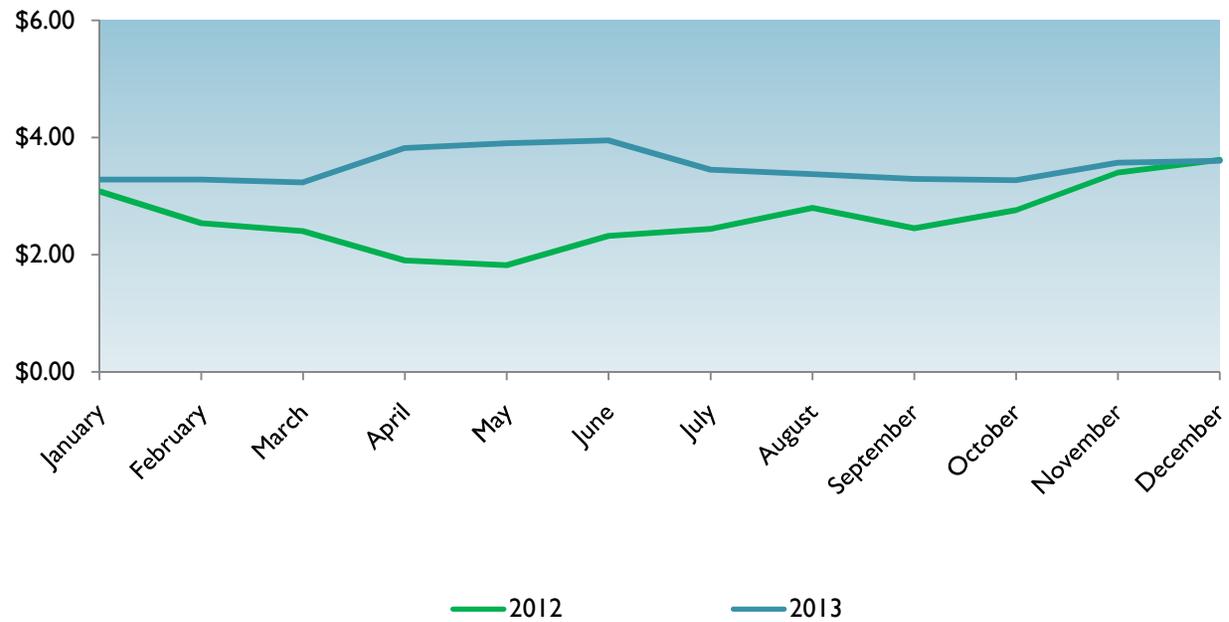
- Public data anticipates slightly stronger growth than what occurred in 2013
 - Continued improvement
 - GDP
 - Inflation Rate
- Pressure on natural gas prices will remain similar to 2013
 - Manufacturing growth (industrial sector)
 - CPI

NORTHWEST PIPELINE - OPAL, WYOMING

MONTH	POSTING DAYS	WEIGHTED PRICE PREVIOUS YEAR		% CHANGE
		2013	2012	
January	31	\$3.28	\$3.08	6%
February	28	\$3.28	\$2.54	29%
March	31	\$3.23	\$2.40	35%
April	30	\$3.82	\$1.90	101%
May	31	\$3.90	\$1.82	114%
June	30	\$3.95	\$2.32	70%
July	31	\$3.45	\$2.44	41%
August	31	\$3.37	\$2.80	20%
September	30	\$3.29	\$2.45	34%
October	31	\$3.27	\$2.76	18%
November	30	\$3.57	\$3.40	5%
December	31	\$3.60	\$3.62	-1%
Year End Weighted Monthly Average Price (\$/MCF)		\$3.50	\$2.63	33%

Weighted Spot Prices

NORTHWEST PIPELINE – OPAL, WYOMING



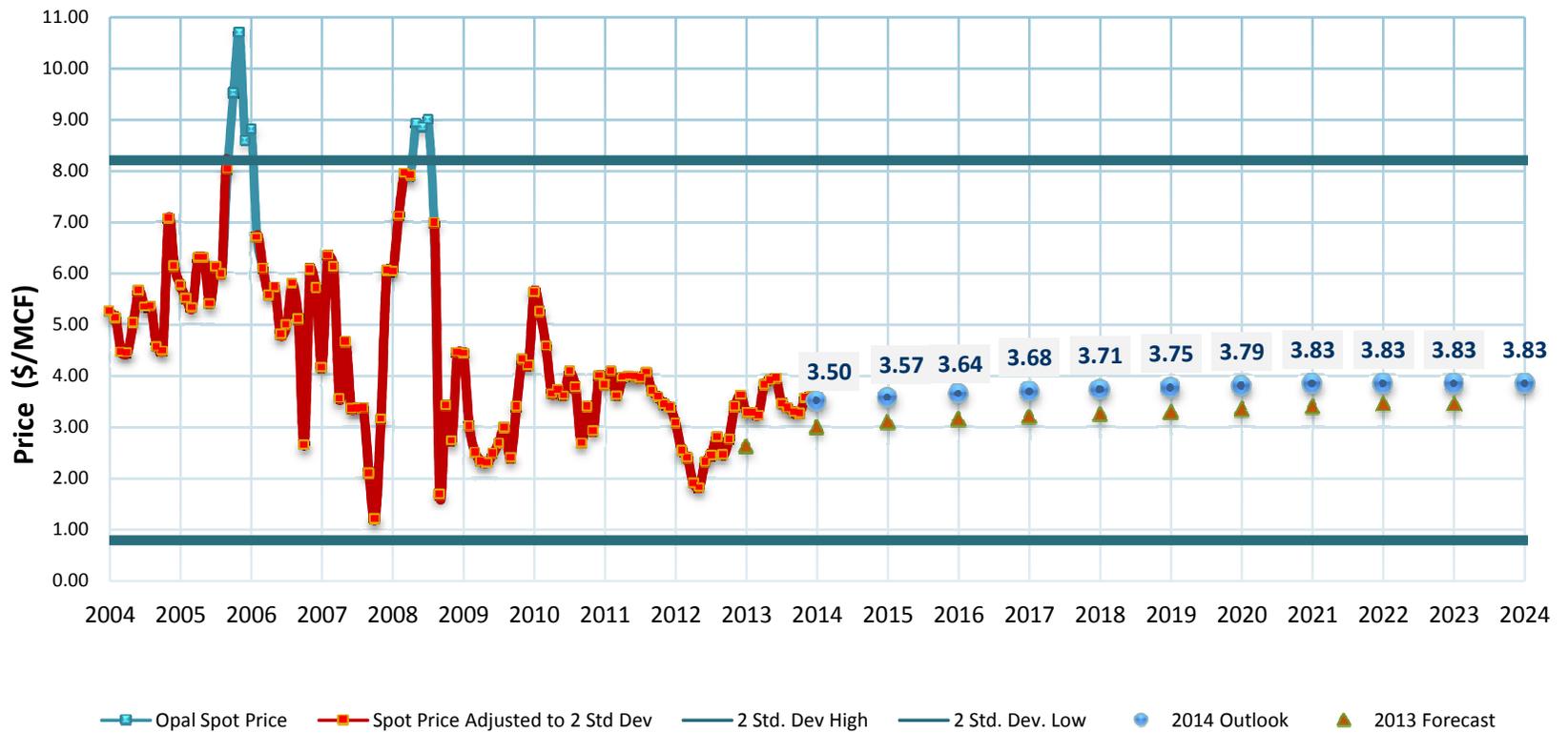


Sources for Natural Gas Price Forecasting

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- ▶ Macquarie Tristone – Energy lenders' price forecast survey
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2014 Gas Price Forecast

2 Std deviation
High and Low Out



2014 Gas Price Forecast

Opal, Wyoming Summary												
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Start Price	2.63											
Forecast with High & Low Out		3.50	3.57	3.64	3.68	3.71	3.75	3.79	3.83	3.83	3.83	3.83
% Change			2.0%	2.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%



2013 Highlights

- The U.S. became the largest producer of natural gas
- The average price of natural gas rebounded from record lows and is expected to increase



2014 Expectations

- **Supply**
 - 5-year historic high storage supply will need a average refill
- **Demand**
 - Residential, commercial, and electric sectors will display similar growth to last year
 - Industrial will display the most growth,
- **Production**
 - Slightly exceed last year's production