The background of the slide is a silhouette of an oil pumpjack against a vibrant sunset sky. The sky transitions from a deep orange at the bottom to a lighter, more yellowish-orange at the top. The pumpjack is a large, dark silhouette that dominates the center of the image. It has a long, angled arm that extends from a central pivot point to a vertical rod on the left. The base of the pumpjack is a complex structure of legs and cross-braces. The overall mood is industrial and serene.

2010 Oil & Gas Industry Day

February 17, 2010

Final Version
Revised: March 3, 2010

Oil & Gas Discount Rate

Sample Companies

- Search process
 - Rocky Mountain Region
 - No Significant Offshore or International Operations
 - No Integrated Companies
- Typical Buyer

Companies Used

- Abraxas Petrol
- Berry Petroleum 'A'
- Bill Barrett Corp
- Brigham Exploration Co
- Delta Petroleum
- Double Eagle Petroleum Co.
- Encore Acquisition
- Forest Oil
- Gasco Energy Inc
- Parallel Petroleum
- Pioneer Natural Res.
- Quicksilver Res.
- Ultra Petroleum Corp.
- Warren Resources Inc
- Whiting Petroleum Corp
- XTO Energy

Discount Rate

- WACC (weighted average cost of capital)
 - Equity Rate
 - Debt Rate

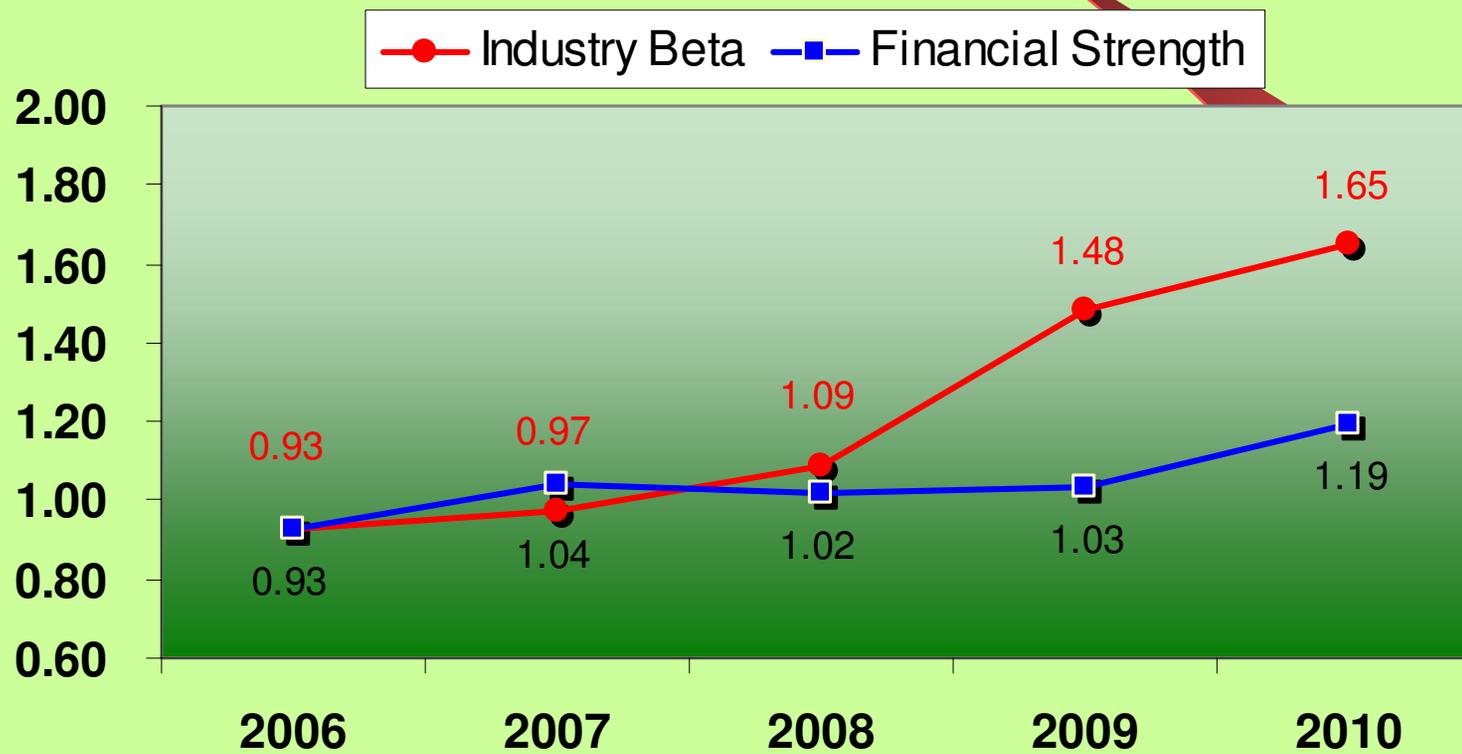
Equity Rate Models

- Dividend Growth Model
 - Projected Dividend Growth
- Risk Premium Model
 - Financial Strength
- Capital Asset Pricing Model
 - Beta

Financial Strength

- Financial Strength is a measure of a company's financial condition. Generally speaking, the largest companies with the strongest balance sheets, the least amount of debt, the lowest interest charges and the best financial ratios get the highest scores. In many ways the Financial Strength rank is similar to a bond rating. Value Line's Financial Strength ranks go from a high of A++ to a low of C. B+ is Average.

Equity Risk Factors



Other Key Rates

—◆— MARKET RISK PREMIUM —■— RISK FREE RATE





UTAH STATE TAX COMMISSION
2010 OIL & GAS INDUSTRY DISCOUNT RATE STUDY
EQUITY RATE MODELS

Company Name	RPM		CAPM	Recent Stock Price	DGM		Current Dividends	DGM Rate
	Relative Financial Strength		Beta		Projected EPS Growth	Projected Dividend Growth		
Abraxas Petrol	C	1.68	1.55	\$ 2.19				
Berry Petroleum `A'	B+	1.01	1.75	\$ 27.13	7.0	4.5	\$0.30	10.46%
Bill Barrett Corp	B+	1.01	1.45	\$ 36.74	5.0			
Brigham Exploration Co	C+	1.25	2.00	\$ 10.01	15.5			
Delta Petroleum	C+	1.25	2.05	\$ 1.64	28.0			
Double Eagle Petroleum Co.	C+	1.25	1.60	\$ 4.45				
Encore Acquisition	B+	1.01	1.60	\$ 44.53	1.5			
Forest Oil	B+	1.01	1.55	\$ 20.11	4.0			
Gasco Energy Inc	C+	1.42	1.80	\$ 0.49				
Parallel Petroleum	C	1.68	1.80	\$ 3.14				
Pioneer Natural Res.	B+	1.01	1.45	\$ 42.54			\$0.08	9.45%
Quicksilver Res.	B	1.12	1.70	\$ 13.63	17.5			
Ultra Petroleum Corp.	B+	0.93	1.15	\$ 47.97	15.5			
Warren Resources Inc	C+	1.42	2.15	\$ 3.13	19.0			
Whiting Petroleum Corp	B+	1.01	1.75	\$ 64.02	5.7			
XTO Energy	B+	0.93	1.10	\$ 42.93	5.0	10.0	\$0.52	10.57%
Mean		1.19	1.65		11.25%	7.25%		10.16%
Industry Growth Rate used					9.25%			

RISK PREMIUM MODEL (ValueLine's Financial Strength Rating)

Market Risk Premium		6.70%
Industry Relative Financial Strength (Risk Factor)	x	1.19
Industry Risk Premium		7.95%
Add: Risk-Free Rate		4.60%

Cost of Equity Rate - Risk Premium

12.55%

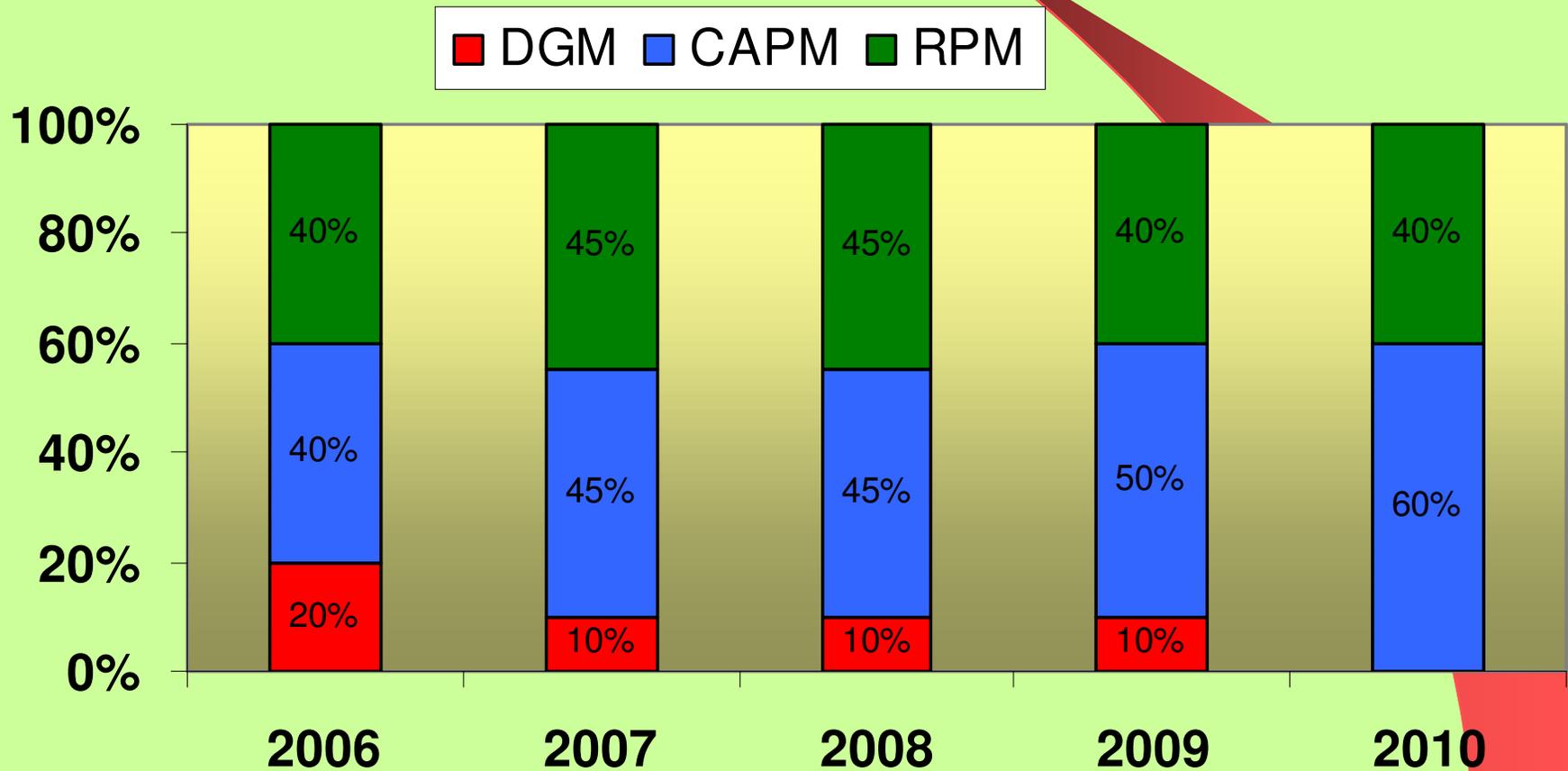
CAPITAL ASSET PRICING MODEL (Realized Returns)

Market Risk Premium		6.70%
Industry Beta (Risk Factor)	x	1.65
Industry Risk Premium		11.06%
Add: Risk-Free Rate		4.60%

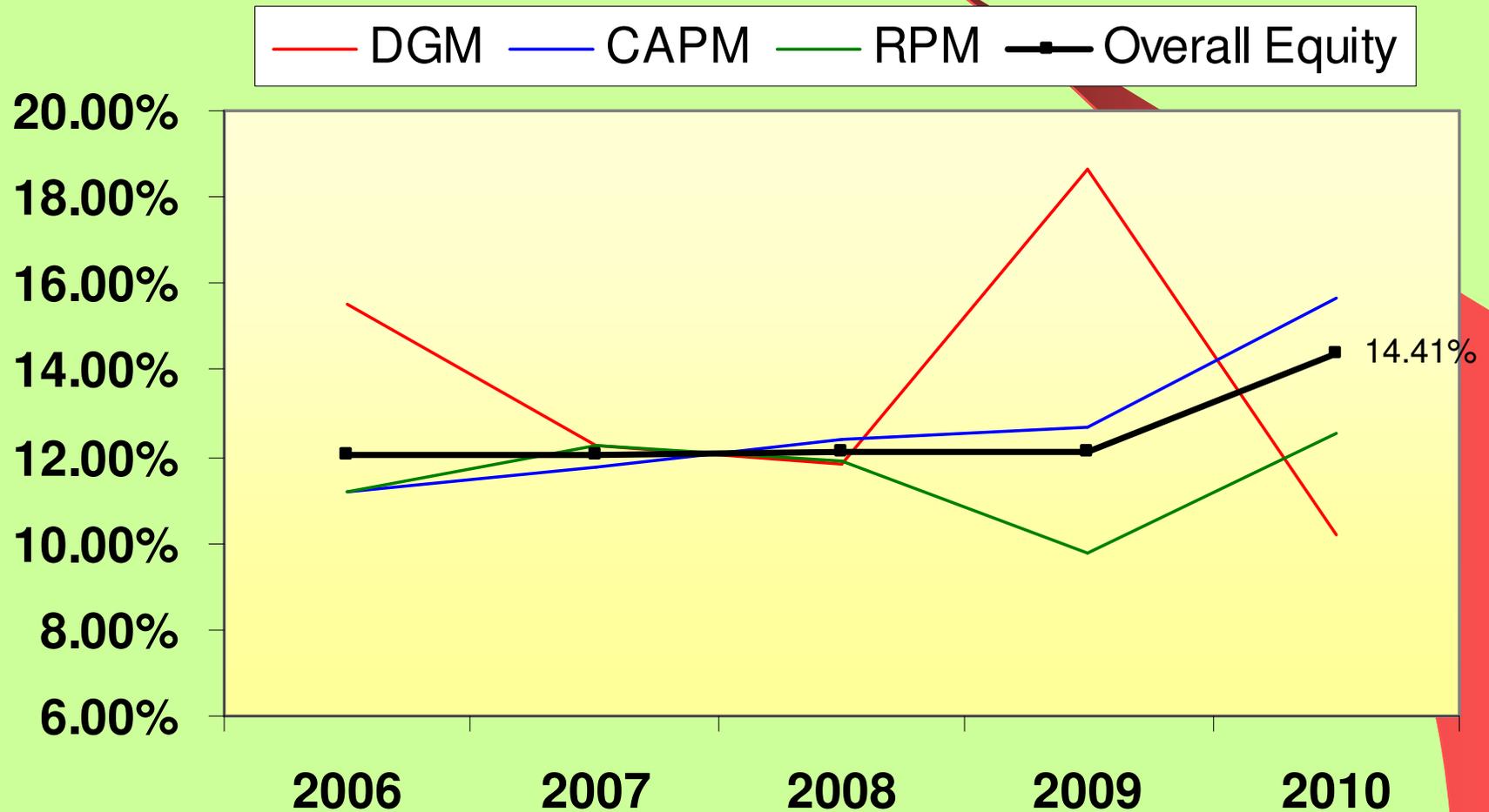
Cost of Equity Rate - CAPM

15.66%

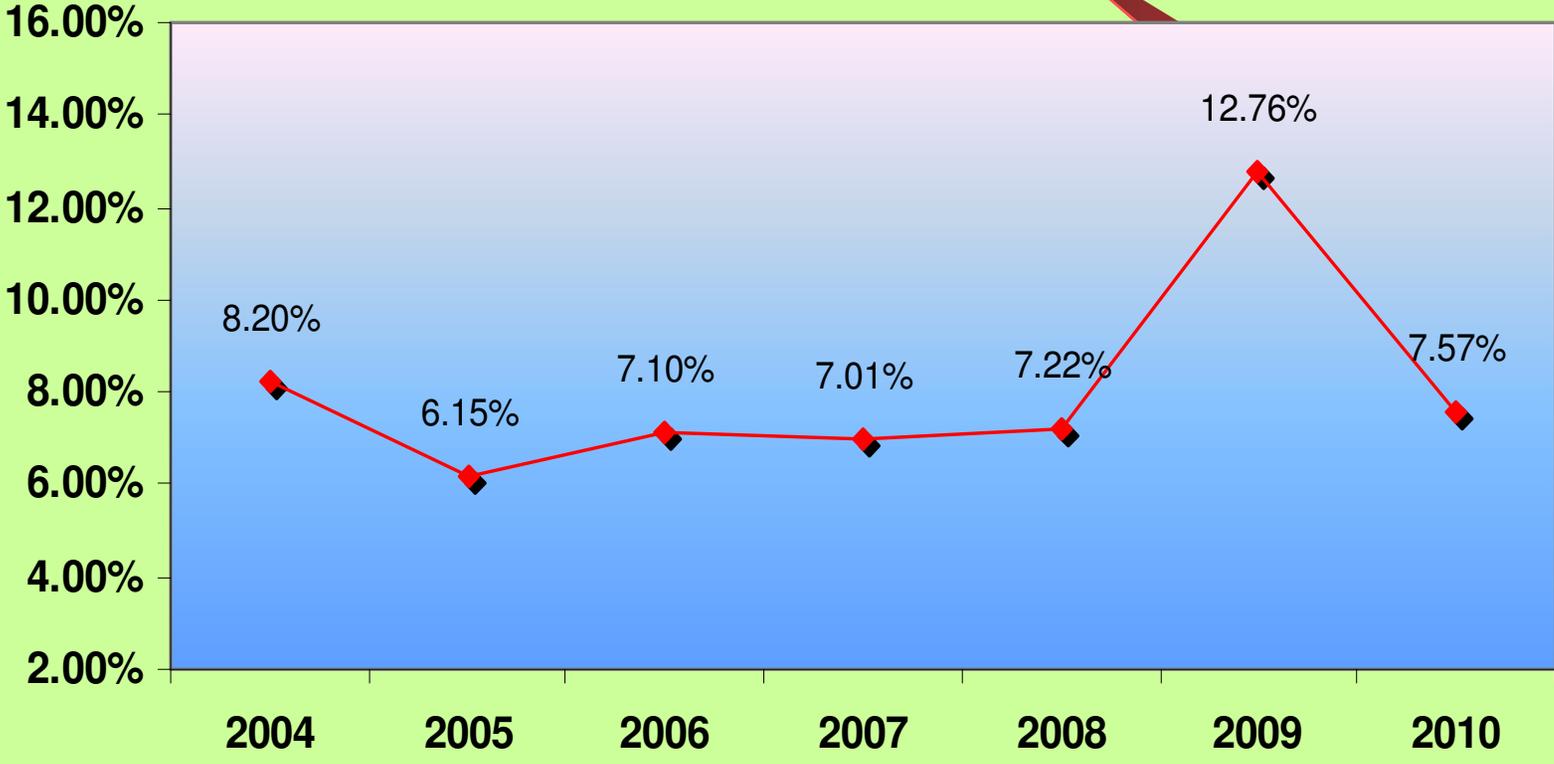
Equity Rate Model Weighting



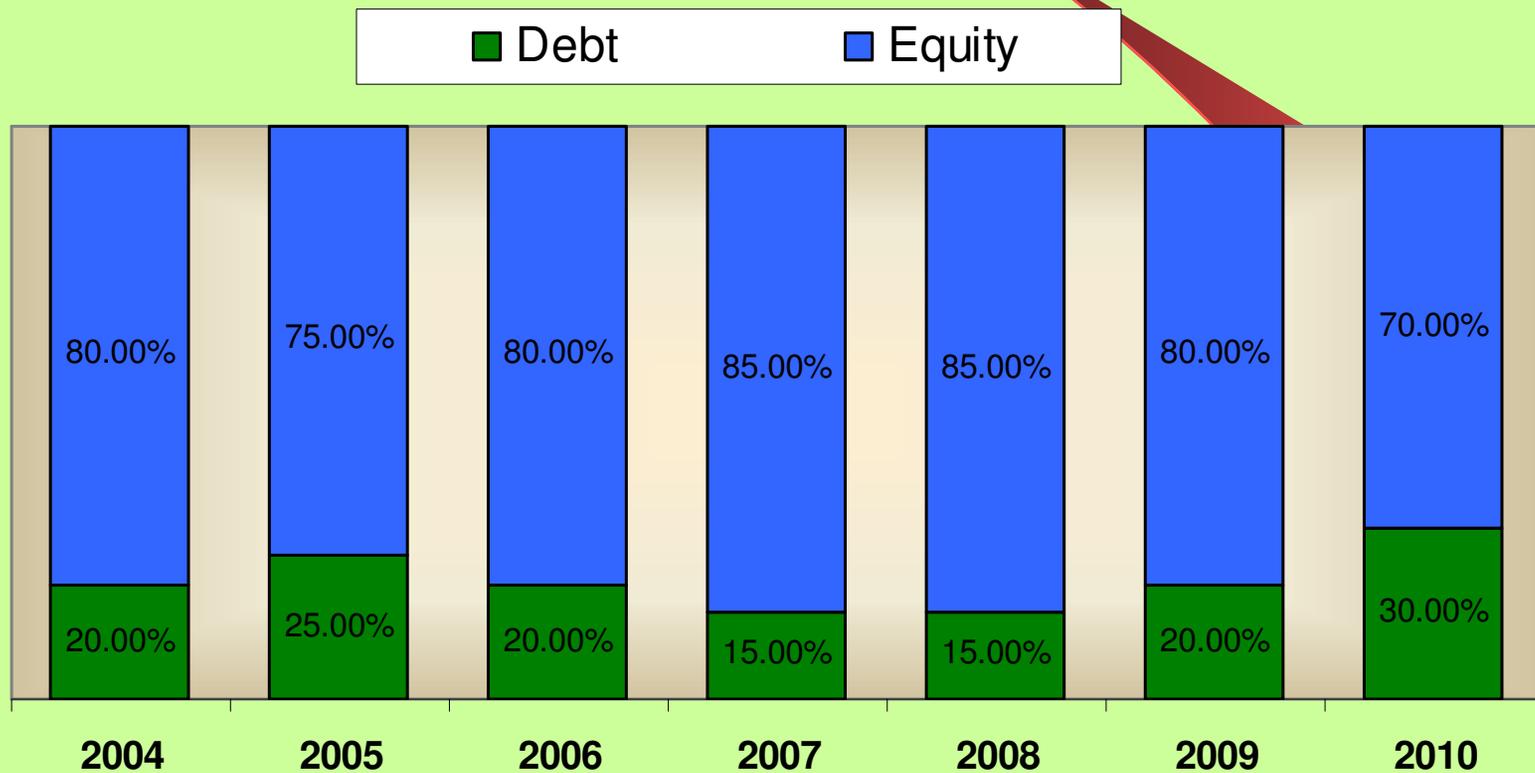
Cost of Equity



Debt Rate



Capital Structure



Overall Discount Rate (WACC)

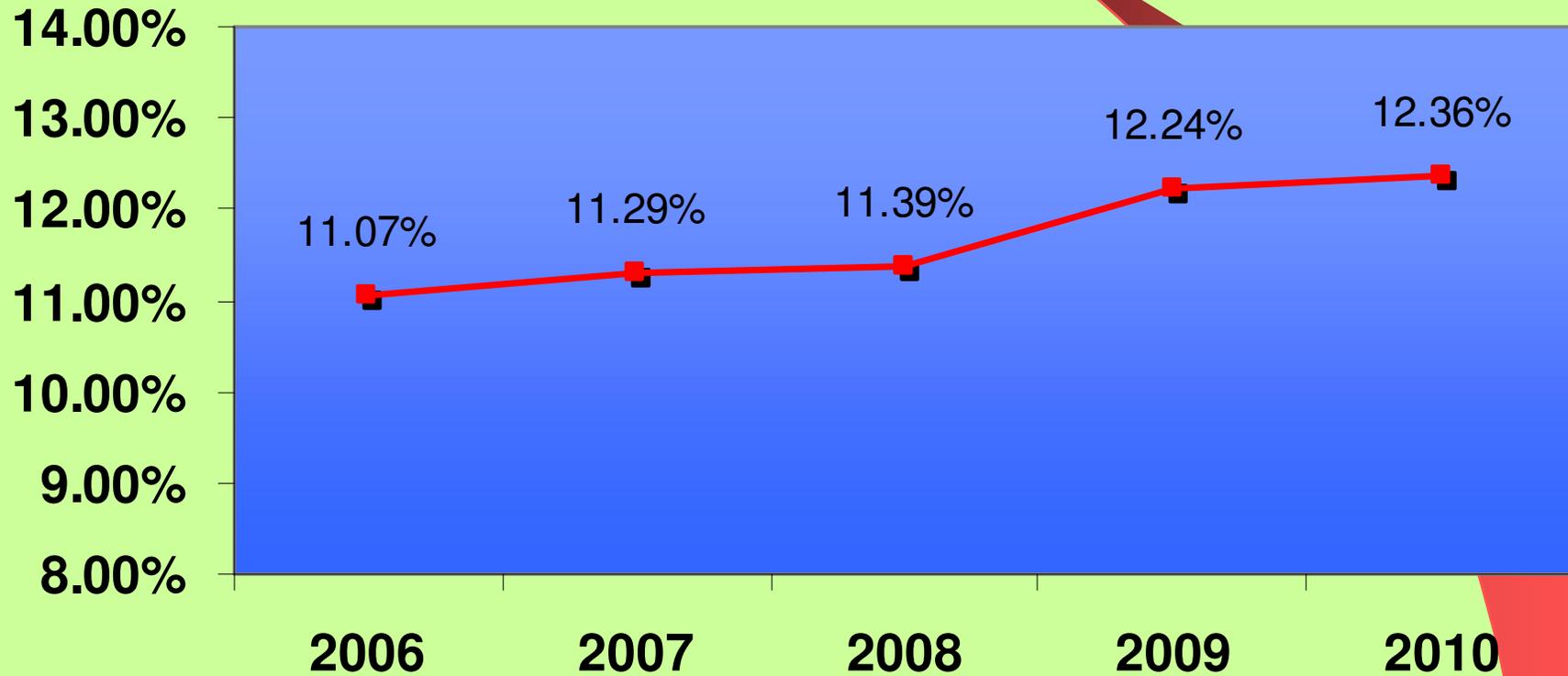
- WACC
 - Rate has not been adjusted for income taxes.
 - Taxes have been deducted from the cash flow
- Property Tax Rate
 - Weighted average property tax rate by county is added to the discount rate in place of a property tax expense.

WEIGHTED AVERAGE COST OF CAPITAL - DISCOUNT RATE CALCULATION

	RATE	CAPITAL STRUCTURE	WEIGHTED RATE
EQUITY RATE	14.41%	70%	10.09%
DEBT RATE (Ba2)	7.57%	30%	2.27%
WEIGHTED AVERAGE COST OF CAPITAL			12.36%

Applied to an After Tax CashFlow

Discount Rate History



OIL PRICES



Market Uncertainty??

- Analysts can only say with 95% confidence that oil will be somewhere between \$46 a barrel and \$162 a barrel by the year's end.
-Steve Hargreaves (CNNMoney.com)

R884-24P-10

7. "Product price" means:

a) Oil: The weighted average posted price for the calendar year preceding January 1, specific for the field in which the well is operating as designated by the Division of Oil, Gas, and Mining. The weighted average posted price is determined by weighing each individual posted price based on the number of days it was posted during the year, adjusting for gravity, transportation, escalation, or deescalation.

b) Gas:

(1) If sold under contract, the price shall be the stated price as of January 1, adjusted for escalation and deescalation.

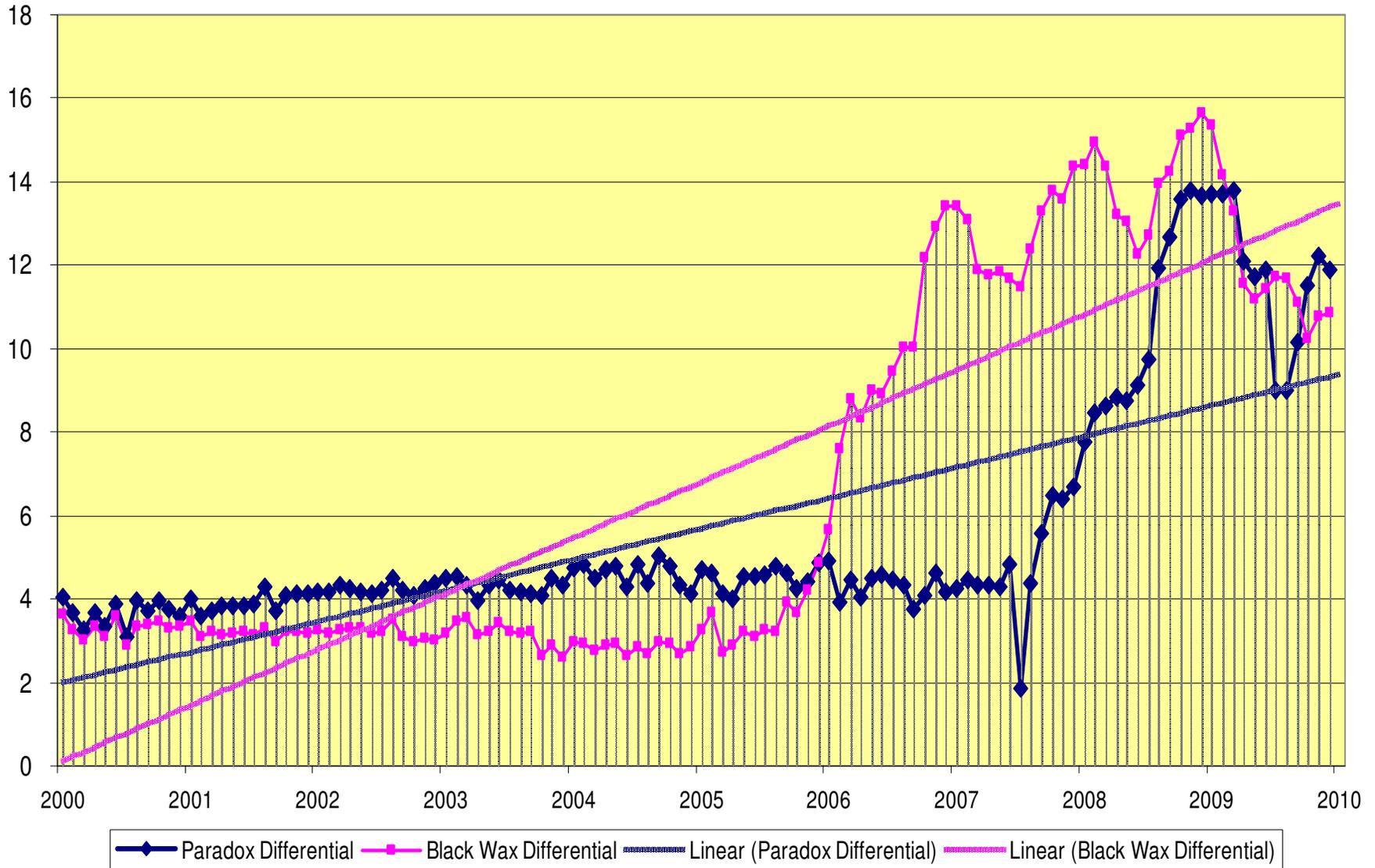
(2) If sold on the spot market or to a direct end-user, the price shall be the average price received for the 12-month period immediately preceding January 1, adjusted for escalation and deescalation.

Oil Price Differentials

Averages	<i>Paradox</i> Posted Oil Prices	WTI Posted Oil Prices	2010 Indicated Differential	2009 Indicated Differential
10 year	42.76	48.20	5.25	4.61
5 year	64.02	71.21	6.84	5.72
3 year	68.80	77.84	8.61	6.50
2 year	69.46	80.61	10.78	7.58
1 year	49.93	61.65	11.05	10.35

Averages	<i>Black Wax</i> Posted Oil Prices	WTI Posted Oil Prices	2010 Indicated Differential	2009 Indicated Differential
10 year	41.74	48.20	6.28	5.71
5 year	60.82	71.21	10.19	8.57
3 year	64.92	77.84	12.80	12.17
2 year	67.58	80.61	12.85	13.41
1 year	49.70	61.65	11.18	14.10

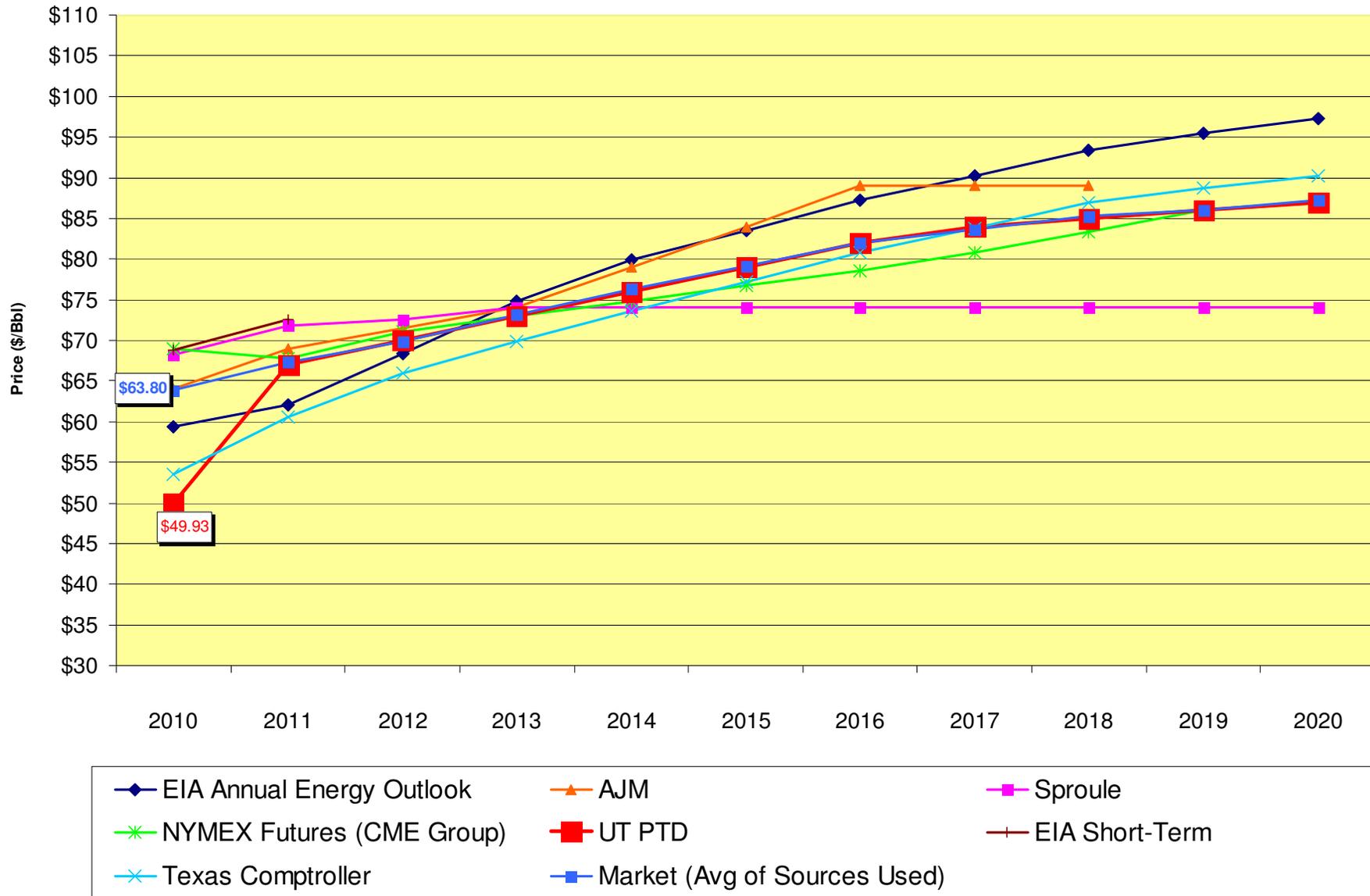
2010 Oil Prices to WTI Actual Differential Comparison (10-Year Trend)



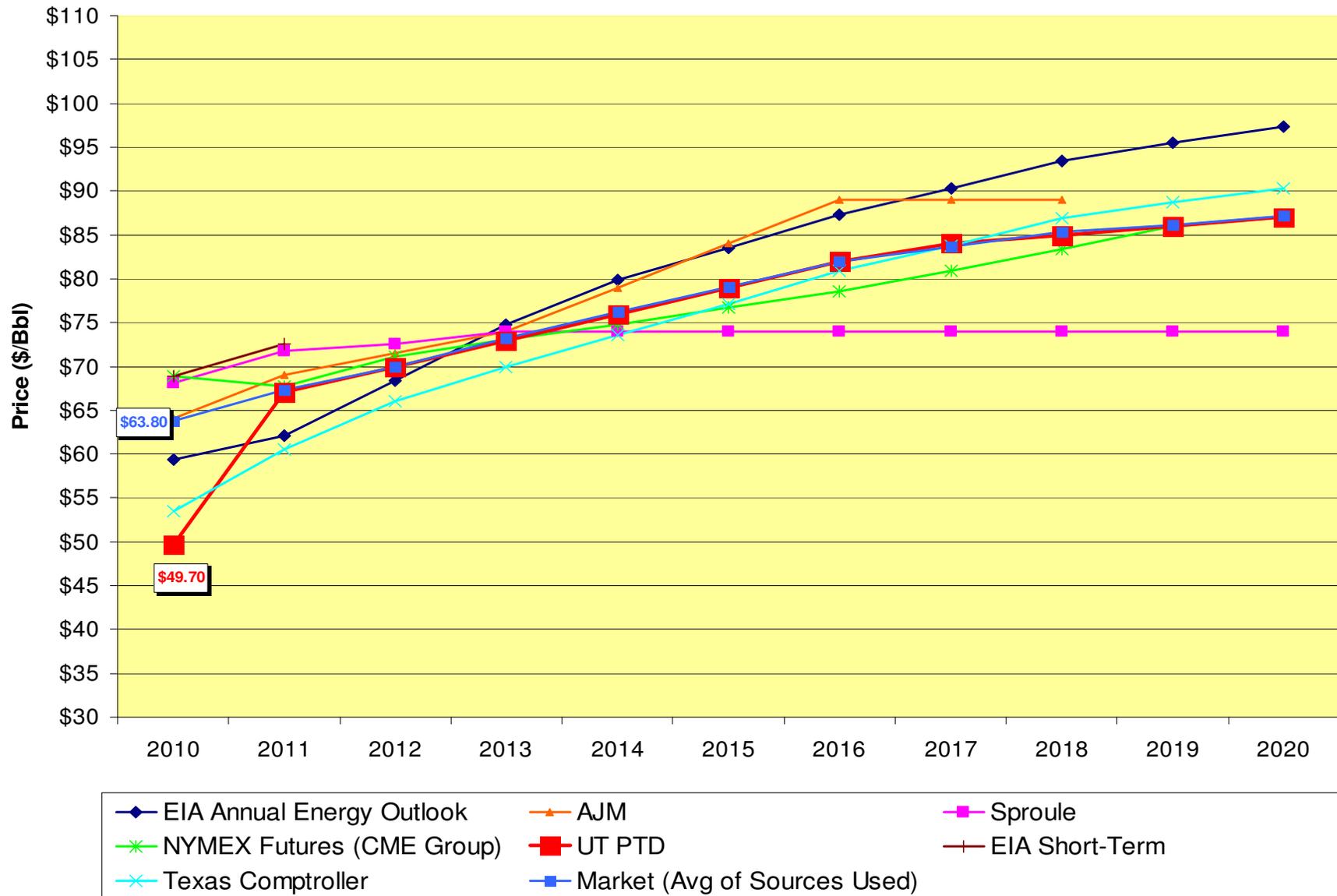
Sources For Oil Prices Used

- US EIA Short Term - Energy Information Administration (section of the U.S. Dept. of Energy Annual Forecast)
- NYMEX (CME Group) - New York Mercantile Exchange natural gas futures prices
- Sproule Associates - Petroleum consultant company annual forecast
- AJM Petroleum Consultants - Petroleum consultant company annual forecast
- Texas Comptroller – sets oil prices for the oil industry assessment for the State of Texas

2010 Oil Price Paradox Basin Sources



2010 Oil Price Black Wax Sources



2010 Oil Prices Paradox Basin Sources

	UT PTD			EIA Short-Term			EIA Annual Energy Outlook			NYMEX Futures (CME Group)			Texas Comptroller		
	Paradox	Diffntl	Paradox	WTI	Diffntl	Paradox	WTI	Diffntl	Paradox	WTI	Diffntl	Paradox	WTI	Diffntl	Paradox
2010	49.93	0.00	49.93	79.83	11.00	68.83	70.30	11.00	59.30	79.92	11.00	68.92	64.55	11.00	53.55
2011	67.00	0.00	67.00	83.50	11.00	72.50	73.06	11.00	62.06	78.71	11.00	67.71	71.49	11.00	60.49
2012	70.00	0.00	70.00				79.41	11.00	68.41	82.09	11.00	71.09	76.99	11.00	65.99
2013	73.00	0.00	73.00				85.74	11.00	74.74	84.06	11.00	73.06	80.87	11.00	69.87
2014	76.00	0.00	76.00				90.91	11.00	79.91	85.78	11.00	74.78	84.59	11.00	73.59
2015	79.00	0.00	79.00				94.52	11.00	83.52	87.71	11.00	76.71	88.15	11.00	77.15
2016	82.00	0.00	82.00				98.23	11.00	87.23	89.56	11.00	78.56	91.85	11.00	80.85
2017	84.00	0.00	84.00				101.23	11.00	90.23	91.85	11.00	80.85	94.80	11.00	83.80
2018	85.00	0.00	85.00				104.41	11.00	93.41	94.35	11.00	83.35	97.88	11.00	86.88
2019	86.00	0.00	86.00				106.47	11.00	95.47	97.03	11.00	86.03	99.72	11.00	88.72
2020	87.00	0.00	87.00				108.28	11.00	97.28		11.00		101.27	11.00	90.27

	Sproule			AJM			(sources?)			(sources?)			Market (Avg of Sources Used)		
	WTI	Diffntl	Paradox	WTI	Diffntl	Paradox	WTI	Diffntl	Paradox	WTI	Diffntl	Paradox	WTI	Diffntl	Paradox
2010	79.17	11.00	68.17	75.00	11.00	64.00								11.00	63.80
2011	82.81	11.00	71.81	80.00	11.00	69.00								11.00	67.26
2012	83.52	11.00	72.52	82.50	11.00	71.50								11.00	69.90
2013	85.00	11.00	74.00	85.00	11.00	74.00								11.00	73.13
2014	85.00	11.00	74.00	90.00	11.00	79.00								11.00	76.26
2015	85.00	11.00	74.00	95.00	11.00	84.00								11.00	79.08
2016	85.00	11.00	74.00	100.00	11.00	89.00								11.00	81.93
2017	85.00	11.00	74.00	100.00	11.00	89.00								11.00	83.58
2018	85.00	11.00	74.00	100.00	11.00	89.00								11.00	85.33
2019	85.00	11.00	74.00		11.00									11.00	86.06
2020	85.00	11.00	74.00		11.00									11.00	87.18

2010 Oil Prices Black Wax Sources

	UT PTD			EIA Short-Term			EIA Annual Energy Outlook			NYMEX Futures (CME Group)			Texas Comptroller		
	Black Wax	Diff'l	Black Wax	WTI	Diff'l	Black Wax	WTI	Diff'l	Black Wax	WTI	Diff'l	Black Wax	WTI	Diff'l	Black Wax
2010	49.70	0.00	49.70	79.83	11.00	68.83	70.30	11.00	59.30	79.92	11.00	68.92	64.55	11.00	53.55
2011	67.00	0.00	67.00	83.50	11.00	72.50	73.06	11.00	62.06	78.71	11.00	67.71	71.49	11.00	60.49
2012	70.00	0.00	70.00				79.41	11.00	68.41	82.09	11.00	71.09	76.99	11.00	65.99
2013	73.00	0.00	73.00				85.74	11.00	74.74	84.06	11.00	73.06	80.87	11.00	69.87
2014	76.00	0.00	76.00				90.91	11.00	79.91	85.78	11.00	74.78	84.59	11.00	73.59
2015	79.00	0.00	79.00				94.52	11.00	83.52	87.71	11.00	76.71	88.15	11.00	77.15
2016	82.00	0.00	82.00				98.23	11.00	87.23	89.56	11.00	78.56	91.85	11.00	80.85
2017	84.00	0.00	84.00				101.23	11.00	90.23	91.85	11.00	80.85	94.80	11.00	83.80
2018	85.00	0.00	85.00				104.41	11.00	93.41	94.35	11.00	83.35	97.88	11.00	86.88
2019	86.00	0.00	86.00				106.47	11.00	95.47	97.03	11.00	86.03	99.72	11.00	88.72
2020	87.00	0.00	87.00				108.28	11.00	97.28		11.00		101.27	11.00	90.27

	Sproule			AJM			(sources?)			(sources?)			Market (Avg of Sources Used)		
	WTI	Diff'l	Black Wax	WTI	Diff'l	Black Wax	WTI	Diff'l	Black Wax	WTI	Diff'l	Black Wax	WTI	Diff'l	Black Wax
2010	79.17	11.00	68.17	75.00	11.00	64.00							11.00		63.80
2011	82.81	11.00	71.81	80.00	11.00	69.00							11.00		67.26
2012	83.52	11.00	72.52	82.50	11.00	71.50							11.00		69.90
2013	85.00	11.00	74.00	85.00	11.00	74.00							11.00		73.13
2014	85.00	11.00	74.00	90.00	11.00	79.00							11.00		76.26
2015	85.00	11.00	74.00	95.00	11.00	84.00							11.00		79.08
2016	85.00	11.00	74.00	100.00	11.00	89.00							11.00		81.93
2017	85.00	11.00	74.00	100.00	11.00	89.00							11.00		83.58
2018	85.00	11.00	74.00	100.00	11.00	89.00							11.00		85.33
2019	85.00	11.00	74.00		11.00								11.00		86.06
2020	85.00	11.00	74.00		11.00								11.00		87.18

2010 Oil Price Forecast Paradox Basin/Sweet Summary

Latest **10 Year's** of Monthly Posted Prices

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Average of 2008 Monthly Prices	88.99											
Forecast with High & Low to 2 std dev		49.93	67.00	70.00	73.00	76.00	79.00	82.00	84.00	85.00	86.00	87.00
% Increase / Decrease			34.2%	4.5%	4.3%	4.1%	4.0%	3.8%	2.4%	1.2%	1.2%	1.2%

2010 Oil Price Forecast

Black Wax

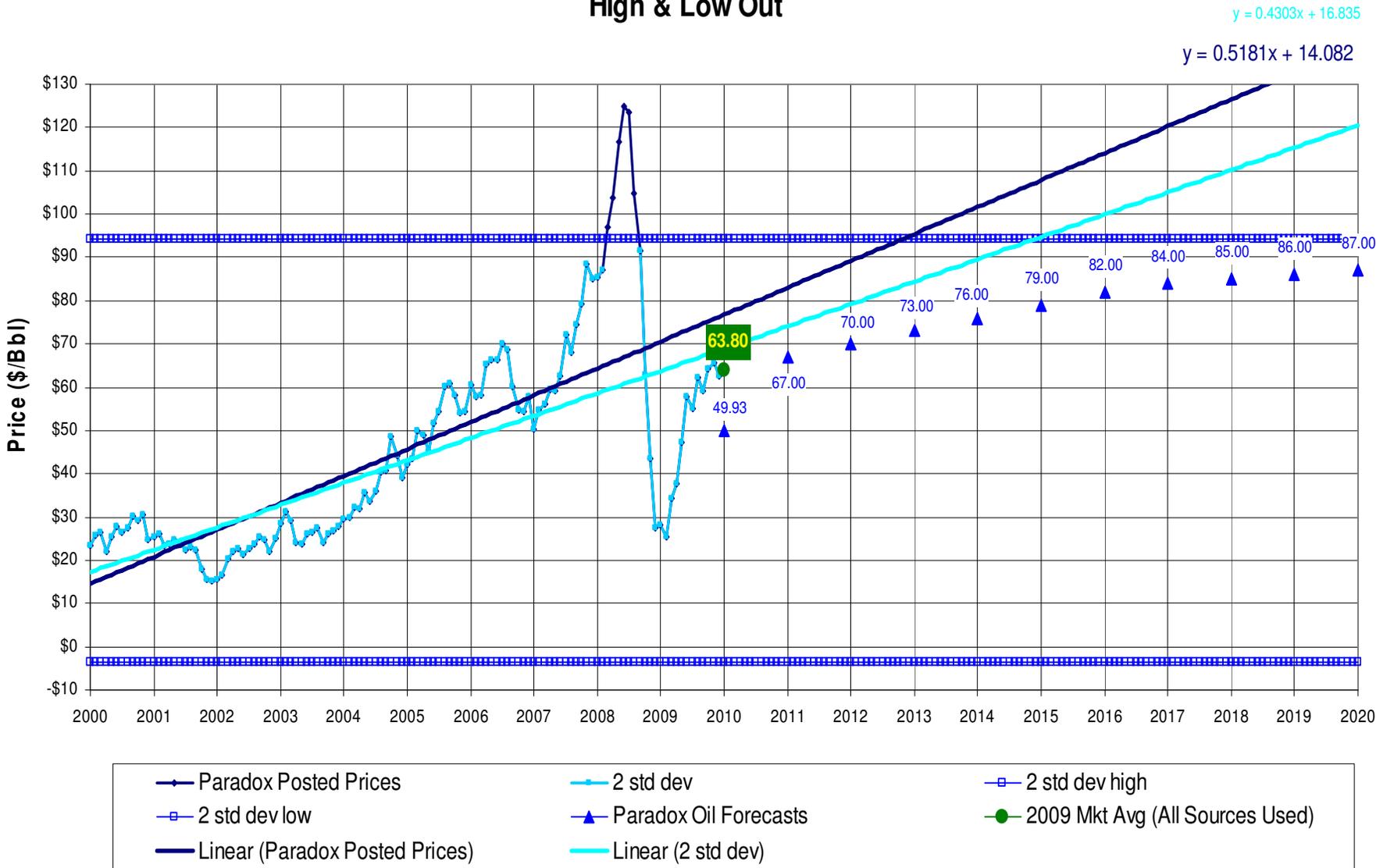
Summary

Latest **10 Year's** of Monthly Posted Prices

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Average of 2008 Monthly Prices	85.46											
Forecast with High & Low to 2 std dev		49.70	67.00	70.00	73.00	76.00	79.00	82.00	84.00	85.00	86.00	87.00
% Increase / Decrease			34.8%	4.5%	4.3%	4.1%	4.0%	3.8%	2.4%	1.2%	1.2%	1.2%

2010 Oil Price Forecast Paradox

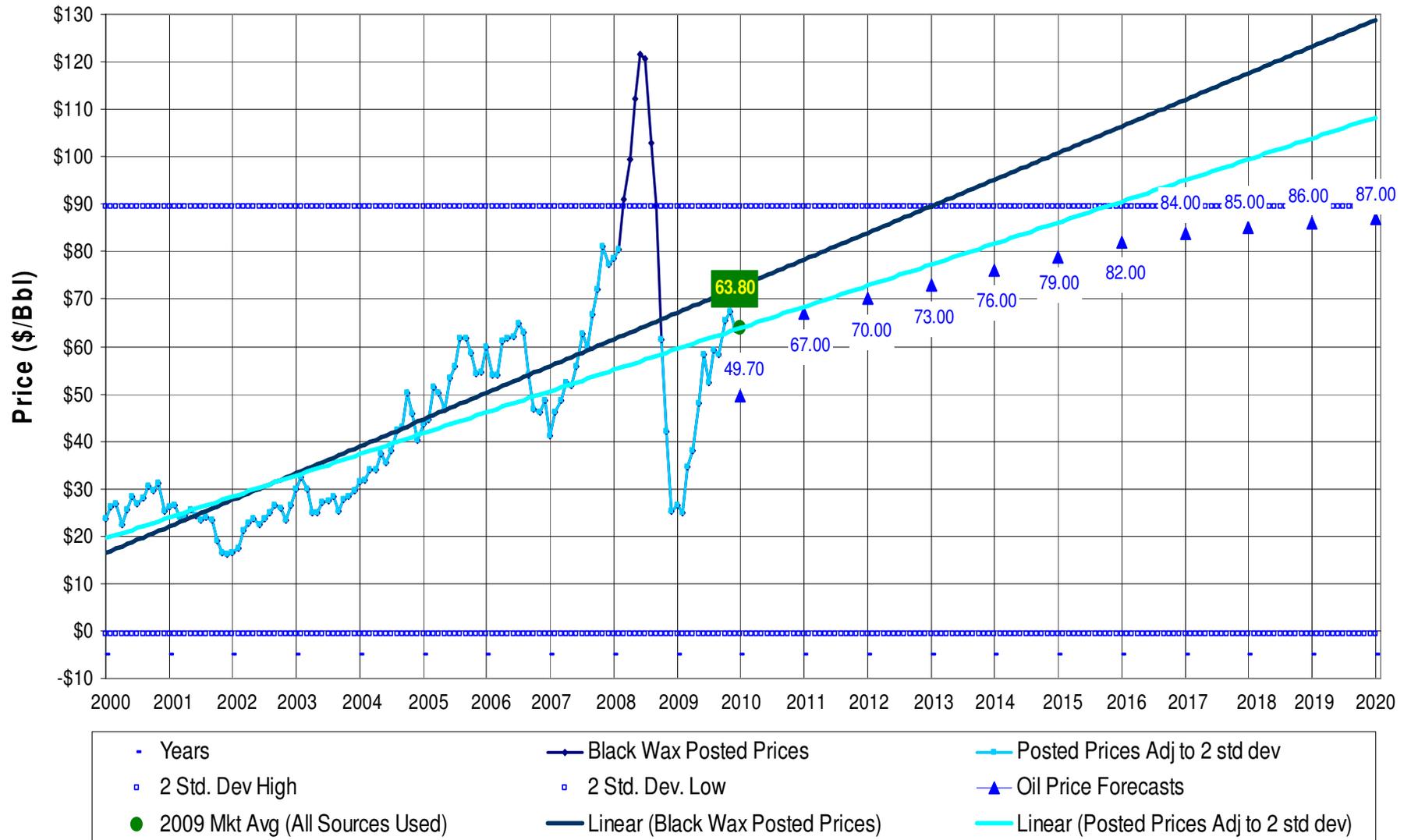
2 Std deviation High & Low Out



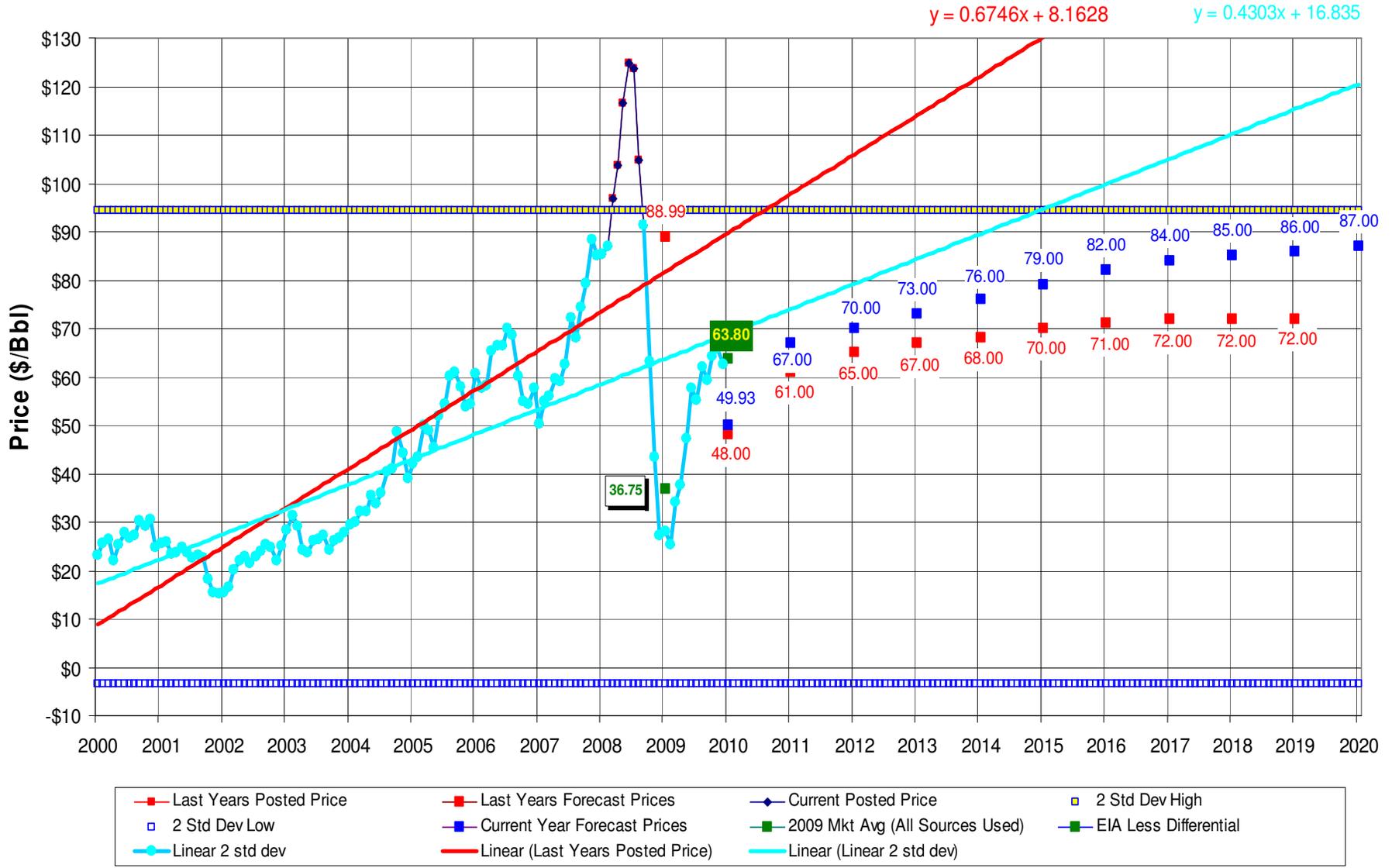
2010 Oil Price Forecast Black Wax 2 standard deviation High & low Out

$$y = 0.3702x + 19.104$$

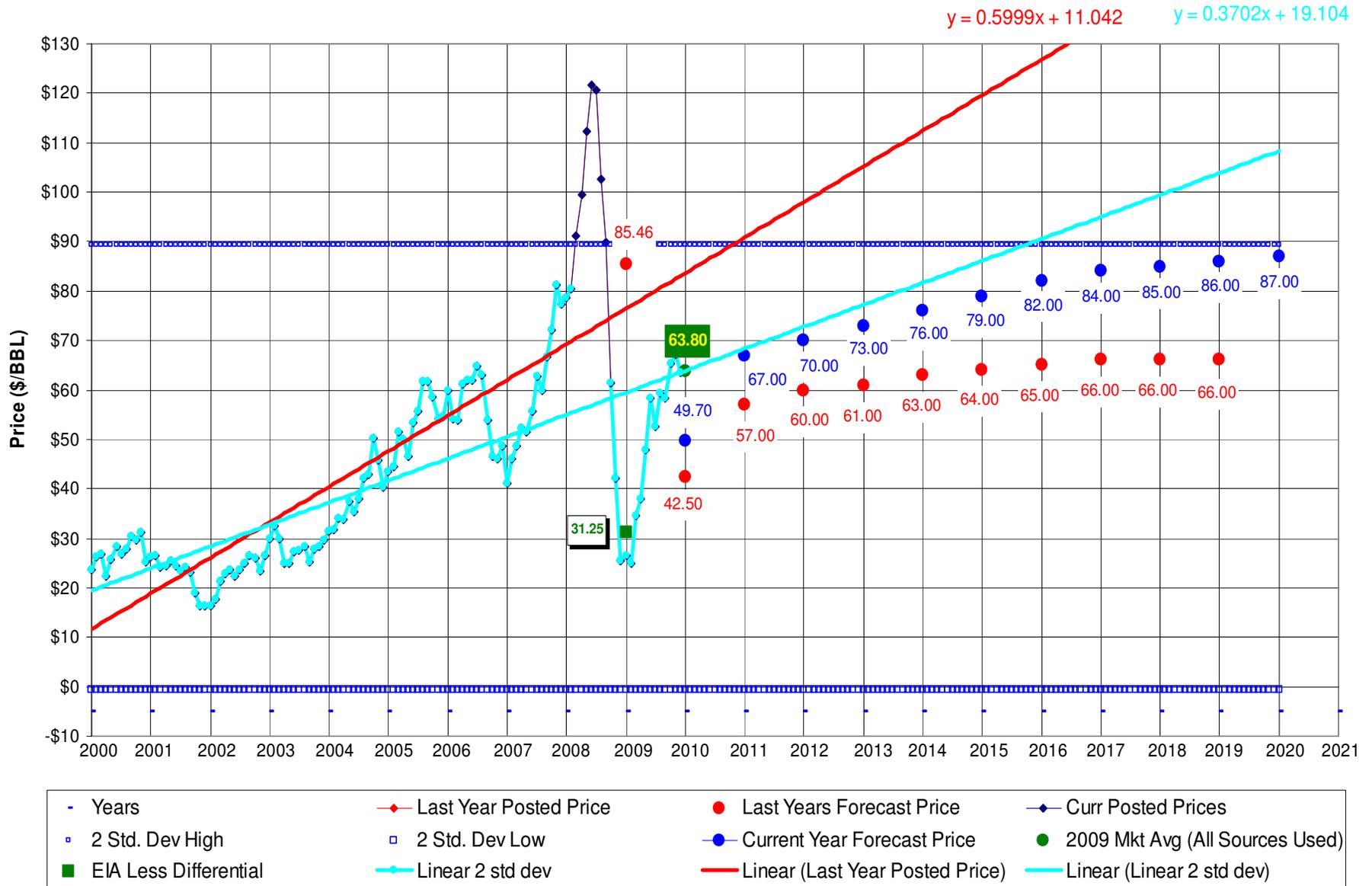
$$y = 0.4681x + 16.012$$



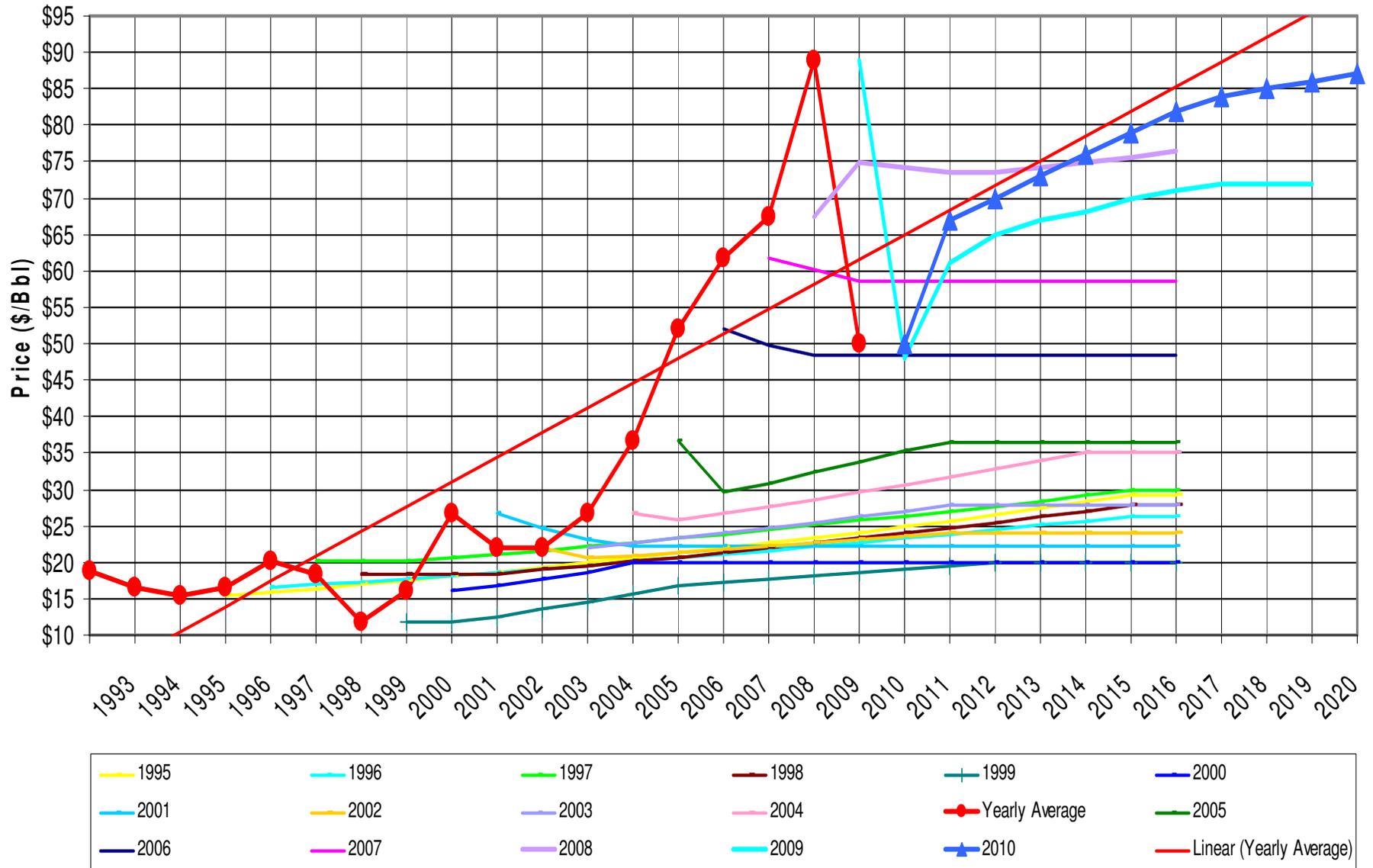
2010 Oil Price Forecast Paradox Comparison by Years



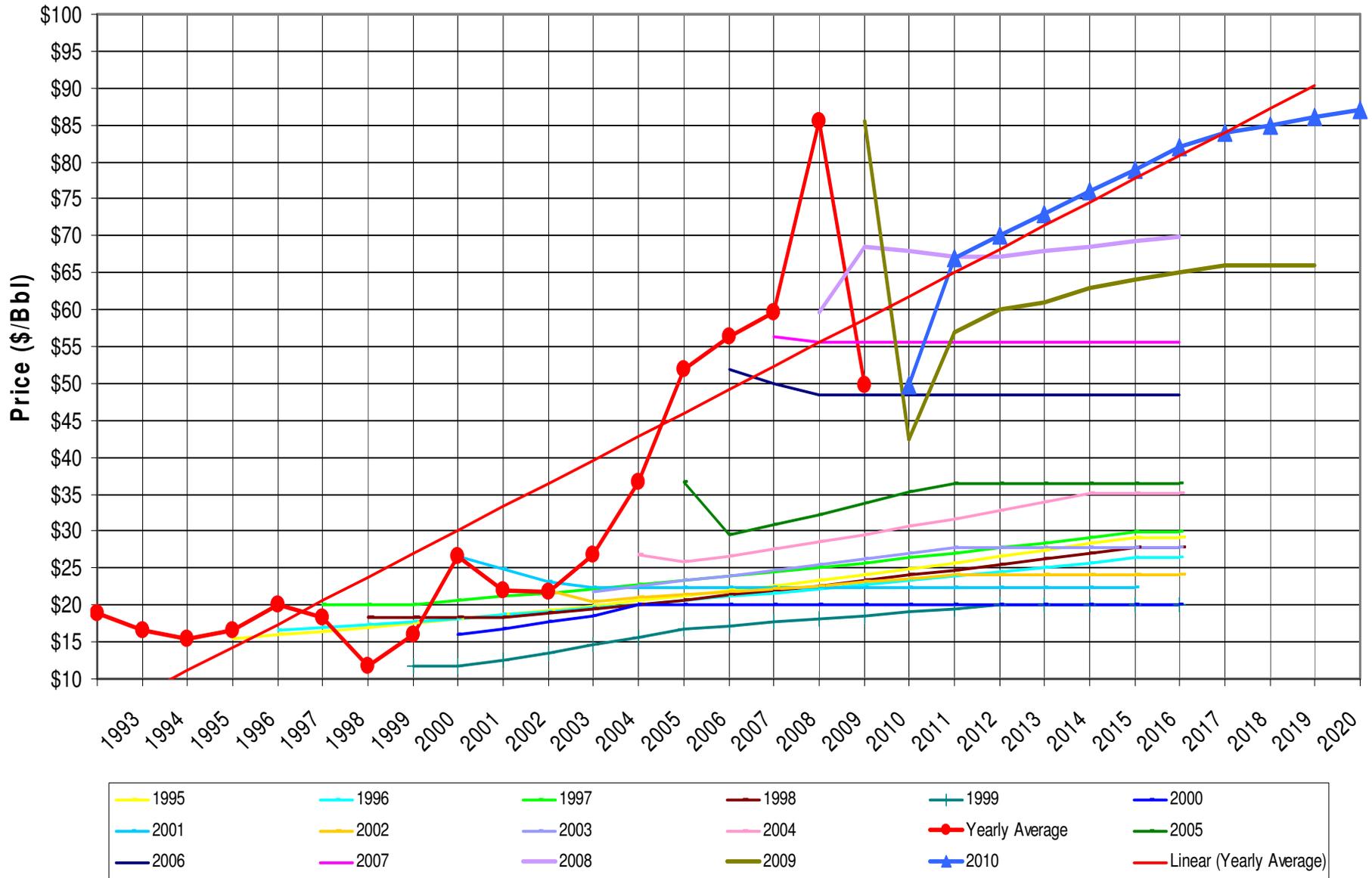
2010 Oil Price Forecast Black Wax Comparison by Years



Paradox Basin Yearly Average vs Estimated Oil Prices



Black Wax Yearly Average vs Estimated Oil Prices



Other Considerations:

- Special Transportation Charges?
- Special Pricing & Production?
- Remarks: Place remarks on the Oil & Gas questionnaire with special circumstances for that particular well.

Gas Price Forecast

The image features a close-up, low-angle shot of a gas burner with a bright blue flame. The flame is the central focus, with its base glowing in a vibrant cyan and transitioning to a deeper blue as it rises. The background is dark, making the flame stand out prominently. The text 'Gas Price Forecast' is centered in the upper half of the image in a clean, white, sans-serif font.

Sources of Henry Hub Futures Prices

US EIA Short Term – Energy Information Administration (section of the U.S. Dept. of Energy Annual Forecast)

NYMEX – New York Mercantile Exchange natural gas futures prices

Sproule Associates – Petroleum consultant company annual forecast

AJM Petroleum Consultants – Petroleum consultant company annual forecast

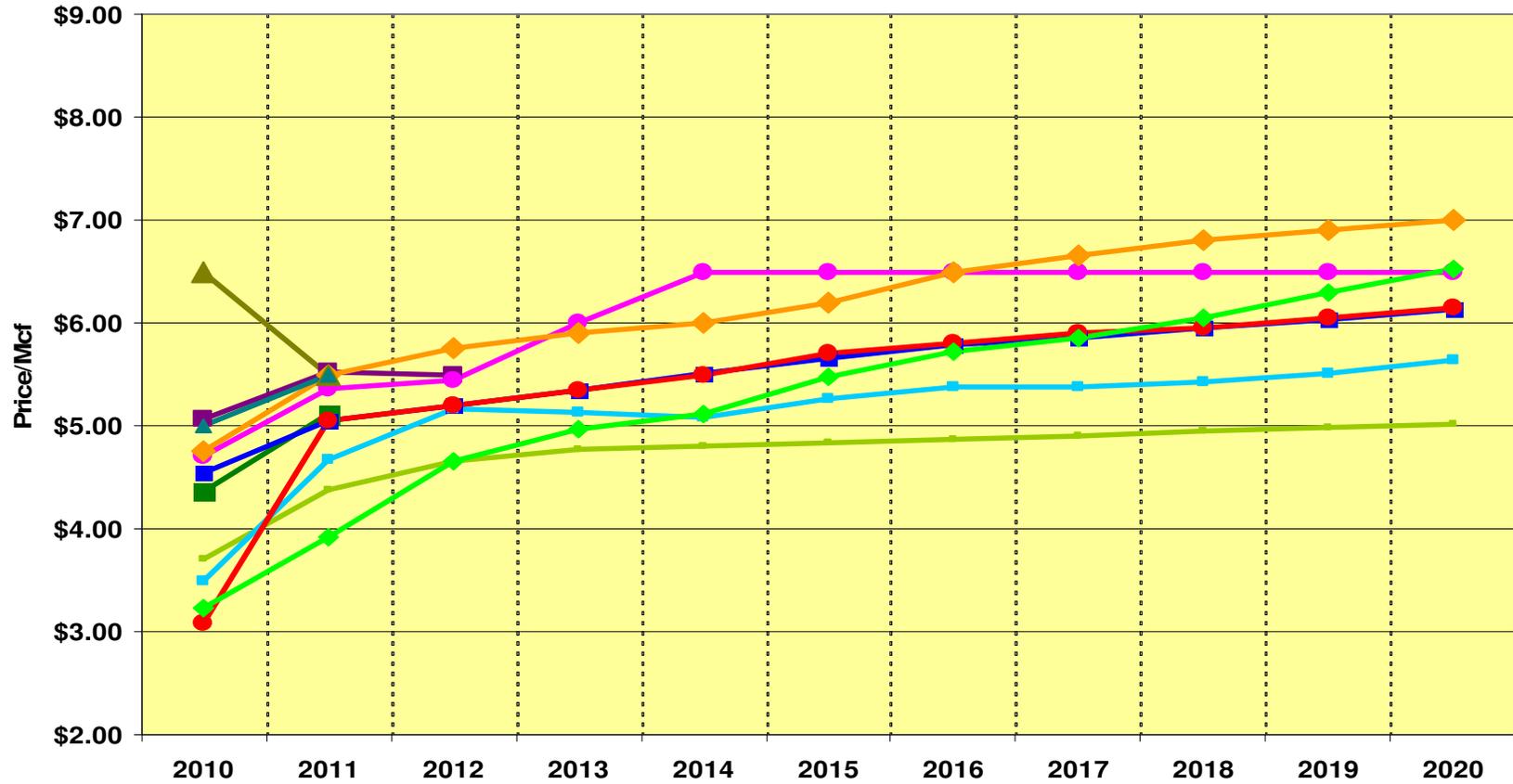
Tudor Pickering Holt – Energy investment bank

Goldman Sachs – Banking, finance, investment and consulting services

Macquarie Tristone – Energy bank survey

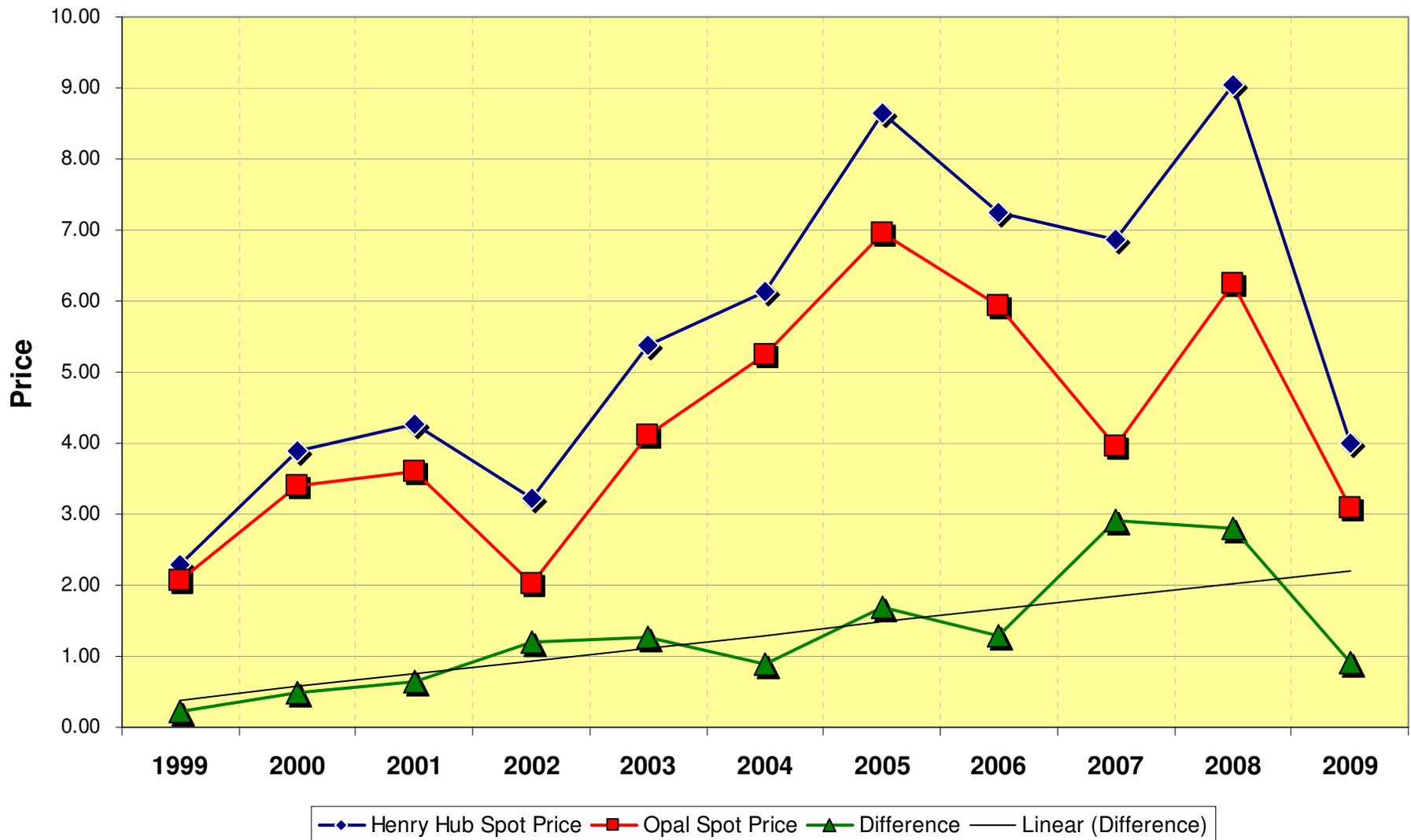
Texas Comptroller – Sets prices for the oil and natural gas industry assessment for the State of Texas

2010 Gas Price Estimate Comparison Adjusted to Opal, Wyoming



- US EIA Short Term
- NYMEX 1/4/10
- Sproule
- AJM Petroleum Consultants
- Tudor Pickering Holt
- Market (Average of All)
- Goldman Sachs
- Macquarie Tristone
- US EIA
- UT PTD
- Texas Comptroller

Henry Hub vs. Opal Wyoming Spot Price Differential



	UT PTD			US EIA			NYMEX 1/4/10			Goldman Sachs			Macquarie Tristone			Tudor Pickering Holt		
	Opal	Difftl	Opal	H Hub	Difftl	Opal	H Hub	Difftl	Opal	H Hub	Difftl	Opal	H Hub	Difftl	Opal	H Hub	Difftl	Opal
2010	3.09	0.00	3.09	4.50	1.00	3.50	6.06	1.00	5.06	6.00	1.00	5.00	4.71	1.00	3.71	7.50	1.00	6.50
2011	5.05	0.00	5.05	5.68	1.00	4.68	6.53	1.00	5.53	6.50	1.00	5.50	5.38	1.00	4.38	6.50	1.00	5.50
2012	5.20	0.00	5.20	6.17	1.00	5.17	6.49	1.00	5.49				5.65	1.00	4.65			
2013	5.35	0.00	5.35	6.13	1.00	5.13							5.77	1.00	4.77			
2014	5.50	0.00	5.50	6.09	1.00	5.09							5.80	1.00	4.80			
2015	5.70	0.00	5.70	6.27	1.00	5.27							5.84	1.00	4.84			
2016	5.80	0.00	5.80	6.38	1.00	5.38							5.87	1.00	4.87			
2017	5.90	0.00	5.90	6.38	1.00	5.38							5.91	1.00	4.91			
2018	5.95	0.00	5.95	6.43	1.00	5.43							5.95	1.00	4.95			
2019	6.05	0.00	6.05	6.51	1.00	5.51							5.98	1.00	4.98			
2020	6.15	0.00	6.15	6.64	1.00	5.64							6.02	1.00	5.02			

	Sproule			S EIA Short Term			AJM Petroleum Consultants			Texas Comptroller			Other Sources			Market (Average of All)
	H Hub	Difftl	Opal	H Hub	Difftl	Opal	H Hub	Difftl	Opal	H Hub	Difftl	Opal	H Hub	Difftl	Opal	
2010	5.70	1.00	4.70	5.36	1.00	4.36	5.75	1.00	4.75	4.23	1.00	3.23	1.00	-1.00		4.53
2011	6.36	1.00	5.36	6.12	1.00	5.12	6.50	1.00	5.50	4.91	1.00	3.91	1.00	-1.00		5.05
2012	6.44	1.00	5.44				6.75	1.00	5.75	5.66	1.00	4.66	1.00	-1.00		5.19
2013	7.00	1.00	6.00				6.90	1.00	5.90	5.96	1.00	4.96	1.00	-1.00		5.35
2014	7.50	1.00	6.50				7.00	1.00	6.00	6.11	1.00	5.11	1.00			5.50
2015	7.50	1.00	6.50				7.20	1.00	6.20	6.47	1.00	5.47	1.00			5.66
2016	7.50	1.00	6.50				7.50	1.00	6.50	6.72	1.00	5.72	1.00			5.79
2017	7.50	1.00	6.50				7.65	1.00	6.65	6.86	1.00	5.86	1.00			5.86
2018	7.50	1.00	6.50				7.80	1.00	6.80	7.05	1.00	6.05	1.00			5.95
2019	7.50	1.00	6.50				7.90	1.00	6.90	7.30	1.00	6.30	1.00			6.04
2020	7.50	1.00	6.50				8.00	1.00	7.00	7.53	1.00	6.53	1.00			6.14

Year	2010 Opal Gas Prices	2010 Henry Hub Gas Prices	2010 Differential	2009 Differential
AVERAGE				
10 year	4.44	5.87	1.43	1.36
5 year	5.18	7.15	1.97	1.97
3 year	4.43	6.63	2.20	2.43
1 year	3.09	3.99	0.91	2.79

2010 - Gas Price Forecast 2 Standard Deviations High and Low Out

$y = 0.015x + 3.5318$ $y = 0.0114x + 3.4262$

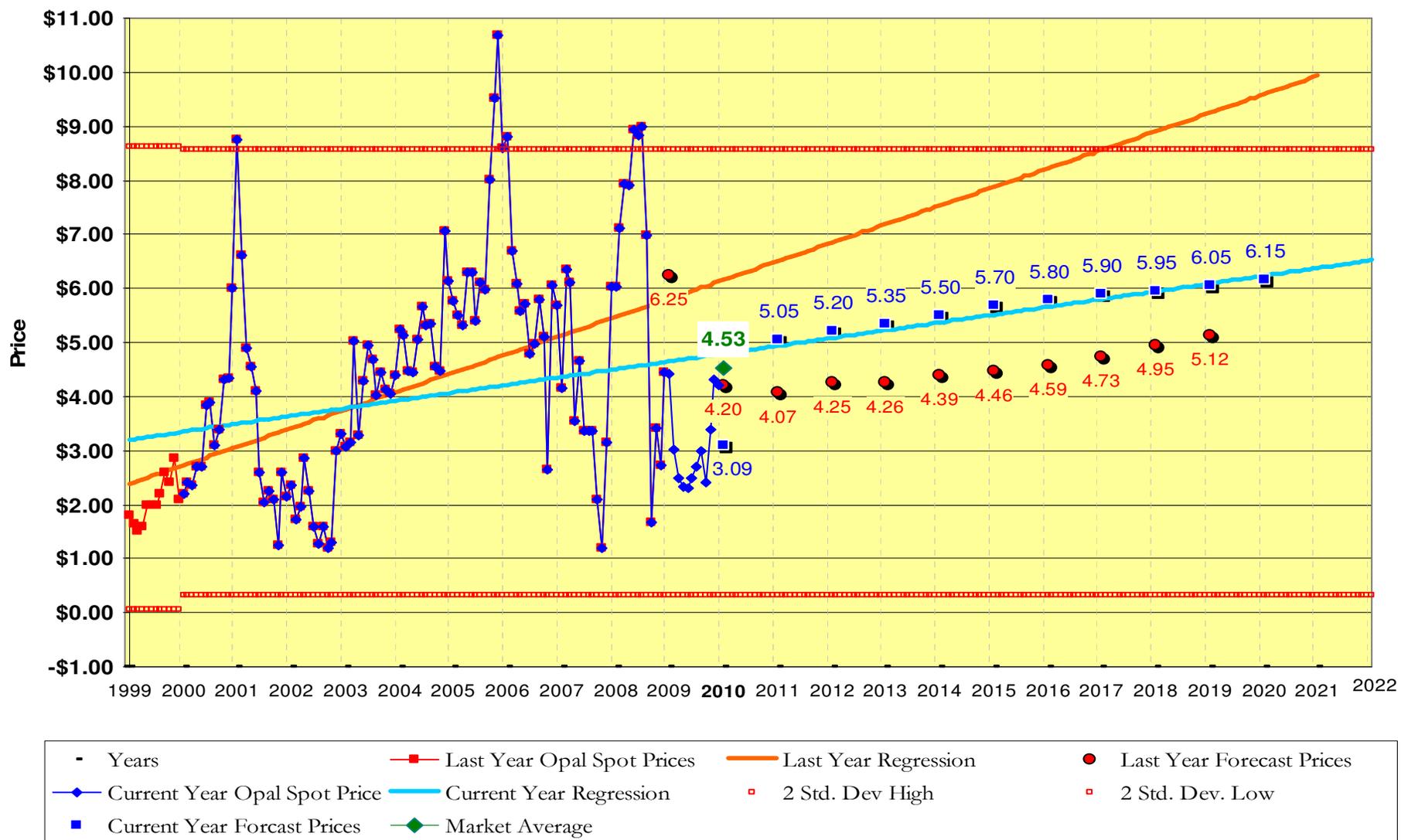


- ◆ Opal Spot Price
- Spot Price Adjusted to 2 Std Dev
- ◆ Market Average
- 2 Std. Dev High
- Forecast Price
- Linear (Opal Spot Price)
- 2 Std. Dev. Low
- Year
- Linear (Spot Price Adjusted to 2 Std Dev)

2010 Gas Price Forecast Opal, Wyoming Summary

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Average 2008 price	6.25											
Forecast with High & Low OUT		3.09	5.05	5.20	5.35	5.50	5.70	5.80	5.90	5.95	6.05	6.15
% Change			63.4%	3.0%	2.9%	2.8%	3.6%	1.8%	1.7%	0.8%	1.7%	1.7%

2010 - Gas Price Forecast/Regression Comparison by Year





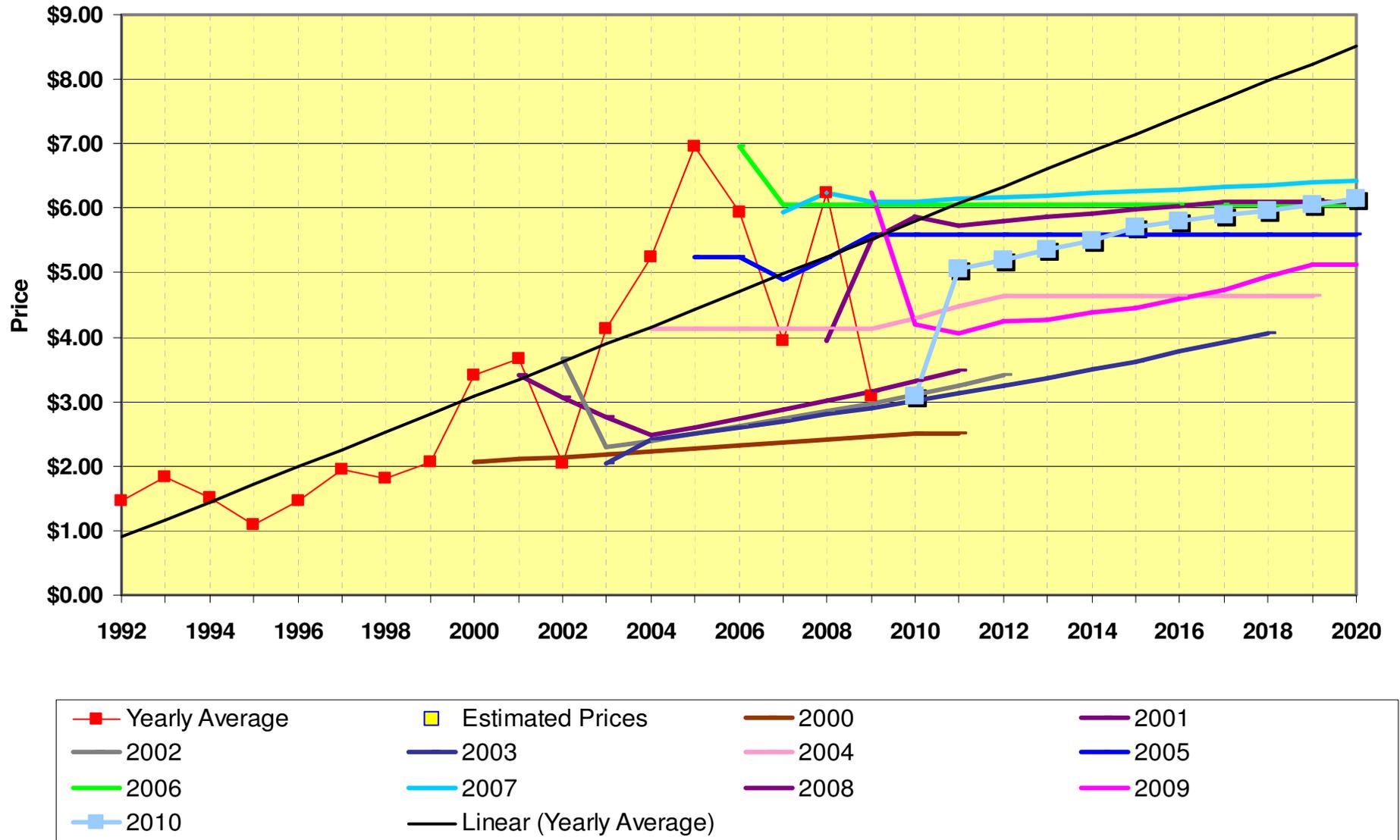
Improving Rockies Export Capacity and Proposed Pipeline Expansions

- **Ruby, Kern, Bison & Grasslands to add 2.3+ Bcf/d capacity by summer 2011**
- **Additional capacity proposed**

<u>Name</u>	<u>Owner</u>	<u>Point to Point</u>	<u>Capacity MMcf/d</u>	<u>Est. Completion Timing</u>
Ruby	El Paso	Opal, WY to Malin, OR	Up to 1500	2Q 2011*
Kern River Expansion	Kern River	Add'l compression added to current system	400	4Q 2010 and 4Q 2011
Bison	TransCanada Northern Border	Powder River, WY to Northern Border Pipeline	400 - 600	4Q 2010
Grasslands	Williston Basin Interstate	Expand capacity from NE WY to western ND	40	August 2009
Sunstone	Williams	Additional pipeline from Opal, WY to Stanfield, OR	1200	June 2011 (under assessment)
Rockies Alliance Pipeline	Questar and Alliance	Wamsutter, WY to Chicago, IL	1300 (+ up to 1700)	4Q 2012 (likely delayed)
Chicago Express	Kinder Morgan	Wamsutter, WY to NGPL st. 109 to Chicago, IL	1200	4Q 2012 (likely delayed)
Pathfinder	TransCanada	Wamsutter, WY to NBPL, then to Emerson	1200 - 2000	Future project

*Applied for FERC certificate Jan. 2009

Yearly Average vs Estimated Gas Prices



Electronic Submission

- In Excel format
- Must include all items required on the paper version
- Email / CD

Worksheet Information must include

- **1. GENERAL INFORMATION**
- **2. GAS SELLING PRICE (GROSS)**
- **3. NGL SELLING PRICE**
- **4. NGL RATIO**
- **5. PHASE**
- **6. OIL TYPE**
- **7. INDIAN TAX RATES**
- **8. EXEMPT ROYALTY OWNERSHIP INTEREST**
- **9. GATHERING**
- **10. TOTAL OPERATING COSTS**
- **11. TRANSPORTATION OF OIL**
- **12. TRANSPORTATION OR GATHERING OF GAS**
- **13. MISCELLANEOUS VARIABLE COSTS**
- **14. CAPITAL REPAIRS & REPLACEMENTS / WORKOVERS**
- **15. COMMENTS**

Questionnaire Worksheet Templates available at:
<http://propertytax.utah.gov>

O&G Information Preparation

O&G Information Preparation Overview

- Definitions
- Sources of Information
- Reconciliation of Sources
- Determination of Value

O&G Information Preparation Definitions

- **CAS (Centrally Assessed System)**
Information system used by the Property Tax Division to manage and maintain taxpayer and property information
- **OGRE (Oil & Gas Reserves Evaluation)**
Software tool used to determine income-based value of oil or natural gas wells using a DCF approach
- **DOGGM (Division of Oil, Gas & Mining)**
State agency responsible for oversight of all operations for and related to the production of oil or natural gas

O&G Information Preparation Sources of Information

- DOGM
 - Well Completion and Production Data
- Taxpayer
 - Property Additions, Changes, and Deletions
 - Product Pricing, Operating Expenses, Severance Tax, Ownership Interest, and Future Capital Expenditures
- Site Visits
 - Well Location and Status, and Personal Property
- Audits
 - Verification of Information Provided by Taxpayers

O&G Information Preparation Reconciliation of Sources

- CAS Database is Central Repository
- CAS versus DOGM
 - Producing, Shut-in, Temporarily Abandoned, and Plugged & Abandoned Wells
 - Ownership and Entity/Unit Changes
- OGRE versus CAS
 - Producing and Shut-in Wells
 - Ownership and Entity/Unit Changes

O&G Information Preparation Determination of Value

- Determine Cost-based Value using CAS
 - Acquisition Cost and Year
 - Percent Good
- Determine Income-based Value using OGRE
 - DOGM Production & Taxpayer Operating Information
 - Product Price and Operating Expense Forecasts
 - Income Tax
- Add Income-based Value to CAS
- Prepare Notice of Assessment using CAS

2010 Oil and Gas Industry Discount Rate & Price Escalation

Discount Rate

The 2010 overall discount rate is **12.36%**. This is a composite of an equity rate of 14.41% at a weighting of 70% and a debt rate of 7.57% at a weighting of 30%.

Oil Price

For the 2010 assessment, in compliance with Utah State Tax Commission Rule R884-24P-10, the oil price will begin at the monthly average 2009-posted field price. For the 2011 year, the oil price will increase by 34.2% for Paradox Basin and by 34.8% for Uintah Black Wax. For all other years, both Paradox Basin and Uintah Black Wax prices will change at the same percentage. For years 2012 thru 2020, the oil price will increase from the prior year by the following percentages: 2012 - 4.5%, 2013 - 4.3%, 2014 - 4.1%, 2015 - 4.0%, 2016 - 3.8%, 2017 - 2.4%, 2018 - 1.2%, 2019 - 1.2%, and 2020 - 1.2%. After 2020, the price will be held flat. For estimating purposes, a 1-year average price differential (excluding outliers) between WTI and Paradox Basin of \$11.00, and a 1-year average price differential (excluding outliers) between WTI and Uintah Black Wax of \$11.00 were used.

Gas Price

For the 2010 assessment, in compliance with Utah State Tax Commission Rule R884-24P-10, the gas price will be the average 2009 market price per MCF received by an operator. For years 2011 thru 2020, the gas price will increase from the prior year by the following percentages: 2011 - 63.4%, 2012 - 3.0%, 2013 - 2.9%, 2014 - 2.8%, 2015 - 3.6%, 2016 - 1.8%, 2017 - 1.7%, 2018 - .8%, 2019 - 1.7% and 2020 - 1.7%. After 2020, the price will be held flat. For estimating purposes, a 1-year average price differential between Henry Hub and Opal Wyoming of \$1.00 was used.

Coal Seam Gas

Production forecasts for coal seam gas will be analyzed on a field-by-field basis.

Expenses

Expenses will utilize the individual oil and gas operator's projections for the 2010 cash flow as long as they are consistent with previous expenses and industry norms. Expense dollars per barrel of equivalent will be calculated for each property and compared to similar properties in the area or field. If no projection of expenses is given, then the 2009 actual expenses will be increased by 1%. After 2010, the expenses will increase by 1% for the life of the well.