

**Oil and Gas Benchmark Prices to Estimate Year-End Petroleum Reserves and Values
Using U.S. Securities and Exchange Commission Guidelines from the
Modernization of Oil and Gas Reporting
Effective January 1, 2010**

In accordance with the new SEC pricing guidelines, Ryder Scott Company LP distributes the following “First-Day-of-the Month” pricing data for general information purposes only. This information was obtained from publishers of benchmark oil and gas prices. Ryder Scott makes no claims or warranties regarding the accuracy of information in this document. Users are encouraged to verify or confirm prices from other sources. These prices do not reflect any differentials related to transportation, quality, gravity, location or other considerations that may influence prices received or to be received by a seller.

It is extremely important that differentials be applied to these benchmark prices based on CONSISTENT methods of comparing actual sales prices to the appropriate benchmarks. It is NOT appropriate to apply the differential of sales prices and POSTED prices to benchmark SPOT prices or vice versa.

First Day-of-the-Month Benchmark Oil and Gas (FDOM) Prices

**Average of previous 12 months' First-Day-of-the-Month prices*

2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$60.42	\$65.80											\$52.89
Plains Marketing, L.P. POSTED Price for WTI (Midland – “All Other Areas”)	\$56.75	\$62.25											\$49.33
Europe BRENT SPOT Price F.O.B.	\$66.73	\$68.60											\$56.47
Propane Mont Belvieu,TX SPOT Price - \$/Bbl	\$41.29	\$35.95											\$32.60
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$3.58	\$3.21											\$2.99
Colorado Interstate Gas	\$3.44	\$2.38											\$2.58
AECO Canadian Gas	\$2.35	\$1.87											\$1.73

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$53.72	\$53.88	\$53.83	\$50.60	\$48.84	\$48.36	\$46.04	\$49.16	\$47.29	\$51.67	\$54.30	\$58.36	\$51.34
Plains Marketing, L.P. POSTED Price for WTI (Midland – “All Other Areas”)	\$50.25	\$50.25	\$50.25	\$47.00	\$45.25	\$44.75	\$42.50	\$45.75	\$43.75	\$48.25	\$50.75	\$54.75	\$47.79
Europe BRENT SPOT Price F.O.B.	\$54.96	\$55.79	\$55.72	\$52.20	\$50.41	\$50.41	\$47.08	\$50.77	\$53.15	\$57.02	\$60.98	\$64.57	\$54.42
Propane Mont Belvieu,TX SPOT Price - \$/Bbl	\$29.36	\$38.43	\$25.96	\$25.62	\$25.41	\$26.04	\$25.33	\$31.04	\$34.06	\$38.43	\$40.53	\$41.58	\$31.82
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$3.68	\$3.00	\$2.51	\$3.10	\$3.17	\$3.00	\$2.94	\$2.84	\$2.89	\$2.89	\$2.77	\$2.94	\$2.98
Colorado Interstate Gas	\$3.62	\$2.82	\$2.36	\$2.62	\$2.69	\$2.63	\$2.42	\$2.56	\$2.62	\$2.32	\$2.51	\$2.45	\$2.64
AECO Canadian Gas	\$2.62	\$2.03	\$1.73	\$2.08	\$2.15	\$2.12	\$1.70	\$1.45	\$1.43	\$0.46	\$1.85	\$1.53	\$1.76

First Day-of-the-Month Benchmark Oil and Gas (FDOM) Prices

**Average of previous 12 months' First-Day-of-the-Month prices*

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$37.04	\$31.62	\$34.40	\$36.79	\$45.92	\$49.01	\$48.99	\$40.06	\$43.16	\$48.24	\$46.67	\$51.06	\$42.75
Plains Marketing, L.P. POSTED Price for WTI (Midland – “All Other Areas”)	\$33.50	\$28.00	\$31.00	\$33.25	\$42.50	\$45.50	\$45.50	\$36.50	\$39.75	\$44.75	\$43.25	\$47.50	\$39.25
Europe BRENT SPOT Price F.O.B.	\$36.61	\$32.45	\$35.73	\$36.42	\$45.64	\$48.81	\$47.65	\$40.17	\$45.05	\$48.24	\$45.77	\$52.28	\$42.90
Propane Mont Belvieu, TX SPOT Price - \$/Bbl	\$16.93	\$14.49	\$18.02	\$18.27	\$20.92	\$21.25	\$21.38	\$17.98	\$18.31	\$22.89	\$23.77	\$25.37	\$19.97
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$2.31	\$2.25	\$1.62	\$1.93	\$1.91	\$2.09	\$2.90	\$2.94	\$2.94	\$2.84	\$2.80	\$3.29	\$2.49
Colorado Interstate Gas	\$2.38	\$2.19	\$1.38	\$1.68	\$1.73	\$1.87	\$2.52	\$2.68	\$2.64	\$2.57	\$2.39	\$3.16	\$2.27
AECO Canadian Gas	\$1.78	\$1.62	\$0.98	\$0.76	\$0.94	\$1.15	\$1.86	\$1.96	\$1.94	\$2.10	\$2.24	\$2.45	\$1.65

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$53.27	\$48.24	\$49.76	\$50.09	\$59.15	\$60.20	\$56.96	\$47.12	\$45.41	\$44.74	\$46.59	\$41.85	\$50.28
Plains Marketing, L.P. POSTED Price for WTI (Midland) ⁽³⁾	\$49.75	\$44.75	\$46.25	\$46.50	\$55.75	\$56.75	\$53.50	\$43.75	\$42.00	\$41.25	\$43.00	\$38.25	\$46.79
Plains Marketing, L.P. POSTED Price for WILLISTON BASIN Sweet	\$36.94	\$31.94	\$33.44	\$33.69	\$48.44	AS OF JUNE 1, 2015 PLAINS IS NO LONGER POSTING PRICES FOR THIS CRUDE.							
Europe BRENT SPOT Price F.O.B.	\$55.27	\$47.52	\$61.89	\$55.73	\$64.13	\$62.87	\$61.65	\$53.29	\$48.80	\$47.48	\$48.00	\$42.97	\$54.13
Propane Mont Belvieu, TX SPOT Price - \$/Bbl	\$20.41	\$21.04	\$25.83	\$22.30	\$22.81	\$19.03	\$17.56	\$15.92	\$17.56	\$19.57	\$18.69	\$18.10	\$19.90
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$3.00	\$2.68	\$2.77	\$2.62	\$2.57	\$2.64	\$2.77	\$2.77	\$2.68	\$2.47	\$1.94	\$2.09	\$2.58
Colorado Interstate Gas	\$3.12	\$2.30	\$2.55	\$2.20	\$2.32	\$2.37	\$2.62	\$2.61	\$2.51	\$2.31	\$1.75	\$2.13	\$2.40
AECO Canadian Gas	\$2.45	\$2.07	\$2.15	\$2.13	\$2.14	\$2.33	\$2.11	\$2.27	\$2.21	\$2.08	\$1.85	\$1.81	\$2.13

NOTE: St. James La Sweet (LLS) is no longer readily available in January 2015, so instead the Williston Basin Sweet POSTED price is being reported.

⁽³⁾ WTI Midland – “All Other Areas”

First Day-of-the-Month Benchmark Oil and Gas (FDM) Prices

**Average of previous 12 months' First-Day-of-the-Month prices*

2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$98.42	\$97.49	\$102.59	\$99.74	\$99.42	\$102.71	\$105.34	\$97.88	\$95.96	\$90.73	\$80.54	\$69.00	\$94.99
Plains Marketing, L.P. POSTED Price for WTI (Midland) ⁽³⁾	\$95.00	\$94.00	\$99.00	\$96.25	\$96.00	\$99.25	\$101.75	\$94.25	\$92.50	\$87.25	\$77.00	\$65.50	\$91.48
Plains Marketing, L.P. POSTED Price for WILLISTON BASIN Sweet	\$80.19	\$79.19	\$79.69	\$86.44	\$86.19	\$89.44	\$91.94	\$84.44	\$82.69	\$72.44	\$62.19	\$52.69	\$78.96
Europe BRENT SPOT Price F.O.B.	\$109.95	\$108.16	\$108.98	\$105.70	\$108.63	\$109.21	\$110.84	\$103.45	\$101.12	\$94.57	\$84.17	\$70.87	\$101.30
Propane Mont Belvieu, TX SPOT Price - \$/Bbl	\$53.13	\$65.39	\$46.83	\$44.56	\$44.98	\$43.93	\$44.48	\$42.04	\$43.47	\$43.39	\$37.59	\$28.27	\$44.84
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$4.35	\$5.01	\$4.70	\$4.47	\$4.78	\$4.49	\$4.42	\$3.74	\$4.02	\$4.14	\$3.80	\$4.24	\$4.35
Colorado Interstate Gas	\$4.31	\$5.34	\$6.30	\$4.26	\$4.64	\$4.27	\$4.26	\$3.68	\$3.79	\$3.88	\$3.46	\$4.24	\$4.37
AECO Canadian Gas	\$3.76	\$4.43	\$7.23	\$4.26	\$4.42	\$4.24	\$4.15	\$3.60	\$3.66	\$3.73	\$3.41	\$3.72	\$4.22

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$91.82	\$97.77	\$90.68	\$97.07	\$91.03	\$91.97	\$96.07	\$107.89	\$107.65	\$102.04	\$94.61	\$92.72	\$96.78
Plains Marketing, L.P. POSTED Price for WTI (Midland) ⁽³⁾	\$88.50	\$94.25	\$87.25	\$93.50	\$87.50	\$88.50	\$94.50	\$104.25	\$104.00	\$98.50	\$91.00	\$89.25	\$93.42
St. James_La Sweet (LLS) SPOT Price	\$110.87	\$117.37	\$109.83	\$113.92	\$102.03	\$100.12	\$103.27	\$112.84	\$111.32	\$105.09	\$97.96	\$96.13	\$106.73
Europe BRENT SPOT Price F.O.B.	\$110.80	\$115.55	\$110.14	\$108.76	\$98.34	\$100.43	\$103.19	\$109.94	\$115.97	\$107.32	\$105.78	\$111.07	\$108.11
Propane Mont Belvieu, TX SPOT Price - \$/Bbl	\$37.09	\$36.88	\$35.62	\$39.52	\$38.85	\$37.59	\$35.83	\$40.78	\$49.35	\$45.44	\$48.85	\$49.01	\$41.23
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$3.43	\$3.33	\$3.48	\$4.03	\$4.30	\$4.02	\$3.57	\$3.46	\$3.57	\$3.49	\$3.57	\$3.79	\$3.67
Colorado Interstate Gas	\$3.39	\$3.29	\$3.43	\$3.86	\$4.10	\$3.84	\$3.34	\$3.30	\$3.44	\$3.32	\$3.41	\$3.63	\$3.53
AECO Canadian Gas	\$3.04	\$3.02	\$3.13	\$3.52	\$3.72	\$3.48	\$2.89	\$2.61	\$2.15	\$1.88	\$3.30	\$3.42	\$3.01

⁽³⁾ WTI Midland – “All Other Areas”

First Day-of-the-Month Benchmark Oil and Gas (FDOM) Prices

**Average of previous 12 months' First-Day-of-the-Month prices*

2012	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$98.83	\$97.61	\$108.84	\$103.02	\$106.16	\$83.23	\$84.96	\$88.91	\$96.47	\$92.48	\$87.09	\$88.91	\$94.71
Plains Marketing, L.P. POSTED Price for WTI (Midland)	\$95.25	\$94.00	\$105.25	\$99.50	\$102.75	\$79.75	\$81.50	\$85.50	\$93.00	\$89.00	\$83.50	\$85.50	\$91.21
St. James_La Sweet SPOT Price	\$107.58	\$109.51	\$127.34	\$125.62	\$121.21	\$95.08	\$96.96	\$106.36	\$112.87	\$111.58	\$106.79	\$111.41	\$111.03
Europe BRENT SPOT Price F.O.B.	\$108.09 ⁽²⁾	\$111.96	\$125.76	\$123.41	\$119.57	\$98.63	\$94.17	\$106.78	\$113.93	\$112.58	\$108.84	\$110.84	\$111.21 ⁽²⁾
Propane Mont Belvieu,TX SPOT Price - \$/Bbl	\$58.59	\$53.55	\$51.87	\$52.04	\$47.25	\$29.99	\$34.48	\$36.71	\$38.01	\$39.44	\$41.79	\$35.20	\$43.24
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$2.98	\$2.51	\$2.44	\$2.00	\$2.09	\$2.34	\$2.74	\$3.20	\$2.72	\$3.08	\$3.50	\$3.46	\$2.76
Colorado Interstate Gas	\$2.81	\$2.38	\$2.23	\$1.70	\$1.90	\$2.19	\$2.54	\$3.02	\$2.51	\$2.89	\$3.41	\$3.20	\$2.57
AECO Canadian Gas	\$2.60	\$2.15	\$1.95	\$1.70	\$1.74	\$1.98	\$2.19	\$2.60	\$2.21	\$2.20	\$3.32	\$3.30	\$2.33

⁽²⁾ Correction to the January 2012 price for Brent was made on 12/17/2012, which also affects the year-end average price for Brent.

2011	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$91.38 ⁽¹⁾	\$90.77	\$99.63	\$107.94	\$113.93	\$100.29	\$94.94	\$94.89	\$88.93	\$79.20	\$92.19	\$100.20	\$96.19
Plains Marketing, L.P. POSTED Price for WTI (Midland)	\$88.00	\$87.25	\$96.00	\$104.50	\$110.50	\$96.75	\$91.50	\$91.25	\$85.50	\$75.75	\$88.75	\$96.75	\$92.71
St. James_La Sweet SPOT Price	\$95.59	\$102.52	\$119.18	\$121.49	\$128.73	\$116.09	\$107.94	\$118.17	\$115.33	\$103.70	\$110.69	\$111.15	\$112.55
Europe BRENT SPOT Price F.O.B.	\$93.52	\$100.40	\$113.34	\$118.63	\$126.59	\$116.15	\$109.82	\$116.37	\$116.43	\$105.42	\$106.97	\$108.83	\$111.04
Propane Mont Belvieu,TX SPOT Price - \$/Bbl	\$56.20	\$56.28	\$62.62	\$58.09	\$66.99	\$63.38	\$62.79	\$65.86	\$66.23	\$63.42	\$60.90	\$60.90	\$61.97
<u>GAS (in USD/MMBTU) – Cash Market Prices</u>													
Henry Hub Gas	\$4.23	\$4.42	\$3.93	\$4.31	\$4.51	\$4.63	\$4.28	\$4.26	\$3.97	\$3.68	\$3.66	\$3.53	\$4.12
Colorado Interstate Gas	\$4.15	\$4.45	\$3.79	\$3.94	\$4.26	\$4.31	\$4.01	\$3.93	\$3.83	\$3.45	\$3.48	\$3.51	\$3.93
AECO Canadian Gas	\$3.93	\$4.05	\$3.71	\$3.88	\$4.27	\$4.23	\$3.82	\$3.69	\$3.85	\$3.41	\$3.33	\$3.09	\$3.77

⁽¹⁾ According to the WSJ, their source did not provide a 12/31/10 price so they did not report one to the EIA; However, other sources did provide \$91.38 on 12/31/10, so this price was added to this table on 4/4/11.

First Day-of-the-Month Benchmark Oil and Gas (FDOM) Prices

**Average of previous 12 months' First-Day-of-the-Month prices*

2010	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG Previous 12 Mos *
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$79.36	\$74.43	\$78.70	\$84.87	\$86.15	\$72.58	\$72.95	\$78.95	\$73.91	\$81.58	\$82.95	\$86.75	\$79.43
Plains Marketing, L.P. POSTED Price for WTI (Midland)	\$76.00	\$71.00	\$75.25	\$81.25	\$82.75	\$69.00	\$69.50	\$75.50	\$70.50	\$78.00	\$79.50	\$83.25	\$75.96
Europe BRENT SPOT Price F.O.B.	\$77.91	\$71.58	\$76.07	\$82.63	\$86.19	\$73.08	\$71.73	\$77.50	\$75.53	\$82.69	\$84.06	\$88.56	\$78.96
Propane Mont Belvieu, TX SPOT Price - \$/Bbl	\$55.28	\$57.44	\$49.53	\$47.46	\$47.75	\$45.89	\$40.85	\$45.47	\$45.36	\$52.42	\$53.18	\$52.61	\$49.44
<u>GAS (in USD/MMBTU)</u>													
Henry Hub Gas Cash Market Price	\$5.83	\$5.25	\$4.75	\$3.92	\$3.95	\$4.31	\$4.53	\$4.81	\$3.80	\$3.85	\$3.36	\$4.16	\$4.38
Colorado Interstate Gas Cash Market Price	\$5.42	\$5.11	\$4.57	\$3.61	\$3.58	\$3.92	\$3.98	\$3.91	\$2.95	\$3.44	\$2.99	\$4.00	\$3.96
AECO Canadian Gas Cash Market Price	\$5.24	\$4.80	\$4.32	\$3.43	\$3.32	\$3.62	\$3.33	\$3.69	\$3.12	\$3.45	\$3.27	\$3.75	\$3.78

2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVG
<u>OIL (in USD/Bbl)</u>													
WTI Cushing, Okla SPOT Price	\$44.60	\$41.68	\$44.76	\$48.39	\$53.20	\$68.58	\$69.31	\$69.45	\$68.05	\$70.82	\$77.00	\$78.37	\$61.18
Plains Marketing, L.P. POSTED Price for WTI (Midland)	\$41.00	\$38.25	\$41.25	\$44.75	\$49.75	\$65.00	\$65.75	\$66.00	\$64.50	\$67.25	\$73.50	\$74.75	\$57.65
Europe BRENT SPOT Price F.O.B.	\$35.82	\$44.17	\$44.41	\$45.92	\$51.75	\$66.60	\$68.52	\$70.08	\$68.78	\$67.12	\$74.91	\$78.68	\$59.73
<u>GAS (in USD/MMBTU)</u>													
Henry Hub Gas Cash Market Price	\$5.61	\$4.77	\$4.05	\$3.58	\$3.24	\$3.92	\$3.70	\$3.34	\$2.40	\$3.26	\$4.12	\$4.42	\$3.87
Colorado Interstate Gas Cash Market Price	\$3.87	\$3.40	\$2.27	\$2.52	\$2.55	\$2.71	\$2.73	\$2.90	\$2.28	\$3.13	\$4.01	\$4.04	\$3.03
AECO Canadian Gas Cash Market Price	\$6.01	\$4.40	\$3.69	\$2.90	\$2.52	\$2.95	\$2.59	\$2.56	\$2.02	\$3.25	\$3.89	\$4.14	\$3.41