

**McDaniel & Associates Consultants Ltd.**  
**Summary of Price Forecasts**  
**January 1, 2003**

Year	WTI Crude Oil \$/BBL (1)	Brent Crude Oil \$/BBL (2)	Edmonton Light Crude Oil \$/BBL (3)	Bow River Medium Crude Oil \$/BBL (4)	Heavy Crude Oil \$/BBL (5)	Alberta Average Natural Gas \$/Mmbtu (6)	Edmonton Cond. & Natural Gasolines \$/Bbl	Edmonton Propane \$/Bbl	Edmonton Butanes \$/Bbl	Edmonton NGL Mix \$/Bbl (7)	Inflation %	US/CAN Exchange Rate \$/US/\$CAN
<b>History</b>												
1986	15.00		20.50	15.11	na	2.35	20.10	13.96	17.30	16.40	4.2	0.719
1987	19.30		24.30	20.79	na	1.64	23.80	9.98	16.80	15.10	4.4	0.755
1988	16.00		18.70	14.41	na	1.44	18.30	8.19	12.95	11.90	4.0	0.812
1989	19.60		22.20	18.09	na	1.47	21.80	8.14	10.35	11.60	5.0	0.844
1990	24.50		27.60	21.06	16.00	1.45	27.00	13.67	16.21	17.20	4.8	0.857
1991	21.40		23.40	15.07	9.05	1.18	22.90	11.91	15.25	15.30	5.6	0.873
1992	20.55		23.50	17.52	12.95	1.22	23.00	10.55	14.05	14.30	1.5	0.828
1993	18.60		21.90	16.70	13.30	1.89	21.50	14.10	13.55	15.40	1.8	0.775
1994	17.20		22.20	18.43	15.00	1.83	21.75	12.50	13.45	14.70	0.2	0.732
1995	18.45		24.25	20.80	17.25	1.18	23.76	13.90	13.80	15.80	2.2	0.729
1996	22.10		29.35	25.11	20.05	1.50	28.75	22.20	17.15	21.70	1.6	0.733
1997	20.55	19.09	27.80	21.22	14.40	1.85	31.10	18.60	19.05	21.30	1.6	0.722
1998	14.40	12.77	20.35	14.60	9.40	1.90	21.85	10.95	11.90	13.50	1.0	0.687
1999	19.25	17.86	27.60	23.35	19.65	2.60	27.60	15.45	17.73	18.70	1.7	0.673
2000	30.31	28.40	44.72	34.35	27.80	5.20	46.25	31.55	35.00	35.70	2.7	0.674
2001	25.97	24.42	39.60	25.07	17.97	5.25	42.42	29.15	28.45	31.60	2.0	0.646
2002	26.05	24.95	39.90	31.50	27.35	3.87	40.80	19.70	19.70	23.90	2.0	0.637
<b>Forecast</b>												
2003	26.00	24.50	39.60	32.60	27.60	5.15	39.60	24.10	26.10	27.90	2.0	0.640
2004	24.00	22.47	35.90	30.29	25.19	4.85	35.90	23.20	23.70	25.90	2.0	0.650
2005	22.90	21.34	33.70	27.98	22.78	4.65	33.70	22.00	22.20	24.40	2.0	0.660
2006	22.80	21.21	33.00	27.16	21.86	4.65	33.00	21.80	21.80	24.00	2.0	0.670
2007	23.30	21.68	33.20	27.25	21.83	4.65	33.20	21.80	21.90	24.10	2.0	0.680
2008	23.80	22.14	33.90	27.83	22.31	4.70	33.90	22.20	22.40	24.60	2.0	0.680
2009	24.30	22.61	34.60	28.41	22.78	4.80	34.60	22.70	22.80	25.10	2.0	0.680
2010	24.80	23.08	35.30	28.98	23.24	4.90	35.30	23.10	23.30	25.60	2.0	0.680
2011	25.30	23.54	36.00	29.56	23.70	5.00	36.00	23.60	23.70	26.10	2.0	0.680
2012	25.80	24.01	36.70	30.13	24.15	5.10	36.70	24.10	24.20	26.70	2.0	0.680
2013	26.30	24.47	37.50	30.80	24.70	5.20	37.50	24.60	24.70	27.20	2.0	0.680
2014	26.80	24.93	38.20	31.36	25.14	5.30	38.20	25.00	25.20	27.70	2.0	0.680
2015	27.30	25.40	38.90	31.92	25.58	5.40	38.90	25.50	25.60	28.20	2.0	0.680
2016	27.80	25.86	39.60	32.49	26.02	5.50	39.60	25.90	26.10	28.70	2.0	0.680
2017	28.40	26.42	40.40	33.14	26.55	5.60	40.40	26.40	26.60	29.30	2.0	0.680
2018	29.00	26.98	41.30	33.90	27.17	5.70	41.30	27.00	27.20	29.90	2.0	0.680
2019	29.60	27.54	42.20	34.65	27.79	5.85	42.20	27.60	27.80	30.60	2.0	0.680
2020	30.20	28.10	43.00	35.30	28.30	5.95	43.00	28.10	28.40	31.20	2.0	0.680
2021	30.80	28.66	43.90	36.04	28.90	6.10	43.90	28.80	28.90	31.90	2.0	0.680
2022	31.40	29.21	44.70	36.69	29.40	6.20	44.70	29.30	29.50	32.50	2.0	0.680
Thereafter	31.40	29.21	44.70	36.69	29.40	6.20	44.70	29.30	29.50	32.50	0.0	0.680

- (1) West Texas Intermediate at Cushing Oklahoma 40 degrees API/0.5% sulphur  
(2) North Sea Brent Blend 37 degrees API/1.0% sulphur  
(3) Edmonton Light Sweet 40 degrees API, 0.5% sulphur  
(4) Bow River Medium 25 degrees API/2.1% sulphur at Hardisty Alberta  
(5) Heavy crude oil 12 degrees API at Hardisty Alberta (after deduction of blending costs to reach pipeline quality)  
(6) Average Alberta field price  
(7) NGL Mix based on 45 percent propane, 35 percent butane and 20 percent natural gasolines.

G030101 - Effective January 1, 2003

**McDaniel & Associates Consultants Ltd.**  
**Summary of Natural Gas Price Forecasts**  
**January 1, 2003**

Year	U.S. Henry Hub Gas Price \$/US/Mmbtu	AECO Spot Price \$/GJ	Alberta Average Plantgate \$/Mmbtu	Aggregator Plantgate \$/Mmbtu	Alberta Spot Sales Plantgate \$/Mmbtu	Sask. Prov. Gas Plantgate \$/Mmbtu	Sask. Spot Sales Plantgate \$/Mmbtu	British Columbia CanWest Plantgate \$/Mmbtu	British Columbia CanWest Wellhead \$/Mcf	B.C. Spot Sales Plantgate \$/Mmbtu
			(1)							
<b>History</b>										
1986	1.75	-	2.35	2.59	-	2.51	-	-	-	-
1987	1.50	-	1.64	1.82	-	1.86	-	-	-	-
1988	1.85	-	1.44	1.66	1.21	1.86	-	-	-	-
1989	1.68	-	1.47	1.57	1.28	1.60	-	-	-	-
1990	1.67	-	1.45	1.64	1.20	1.67	-	-	-	-
1991	1.54	-	1.18	1.31	0.97	1.61	-	-	-	1.13
1992	1.79	-	1.22	1.30	1.04	1.51	-	1.47	1.11	1.10
1993	2.13	-	1.89	1.60	2.16	2.16	-	1.73	1.37	2.13
1994	1.92	1.88	1.83	1.81	1.86	1.92	-	1.81	1.45	1.87
1995	1.62	1.12	1.18	1.23	1.02	1.35	-	1.29	0.90	1.12
1996	2.50	1.39	1.54	1.63	1.34	1.52	-	1.51	1.14	1.47
1997	2.59	1.71	1.84	1.86	1.67	1.85	-	1.78	1.43	1.98
1998	2.06	1.96	1.90	1.88	1.84	2.05	-	1.94	1.59	2.00
1999	2.28	2.79	2.60	2.46	2.78	2.82	2.96	2.52	2.19	2.77
2000	4.31	5.32	5.20	4.57	5.38	4.78	4.83	5.27	5.05	4.88
2001	3.98	5.15	5.25	5.25	5.25	5.70	6.15	6.75	6.58	6.30
2002	3.32	3.23	3.87	3.82	3.89	4.08	4.20	3.55	3.17	3.80
<b>Forecast</b>										
2003	4.08	5.01	5.15	5.15	5.15	5.30	5.30	5.05	4.85	5.15
2004	3.81	4.75	4.85	4.85	4.85	5.00	5.00	4.75	4.50	4.85
2005	3.63	4.57	4.65	4.65	4.65	4.80	4.80	4.55	4.30	4.65
2006	3.58	4.54	4.65	4.65	4.65	4.80	4.80	4.55	4.30	4.65
2007	3.66	4.57	4.65	4.65	4.65	4.80	4.80	4.55	4.30	4.65
2008	3.69	4.61	4.70	4.70	4.70	4.85	4.85	4.60	4.30	4.70
2009	3.77	4.71	4.80	4.80	4.80	4.95	4.95	4.70	4.40	4.80
2010	3.85	4.81	4.90	4.90	4.90	5.05	5.05	4.80	4.50	4.90
2011	3.93	4.90	5.00	5.00	5.00	5.20	5.20	4.90	4.60	5.00
2012	4.00	5.00	5.10	5.10	5.10	5.30	5.30	5.00	4.70	5.10
2013	4.08	5.10	5.20	5.20	5.20	5.40	5.40	5.10	4.80	5.20
2014	4.16	5.19	5.30	5.30	5.30	5.50	5.50	5.20	4.90	5.30
2015	4.24	5.29	5.40	5.40	5.40	5.60	5.60	5.30	5.00	5.40
2016	4.31	5.38	5.50	5.50	5.50	5.70	5.70	5.40	5.10	5.50
2017	4.41	5.50	5.60	5.60	5.60	5.80	5.80	5.50	5.15	5.60
2018	4.50	5.62	5.70	5.70	5.70	5.90	5.90	5.60	5.25	5.70
2019	4.59	5.73	5.85	5.85	5.85	6.05	6.05	5.75	5.40	5.85
2020	4.69	5.85	5.95	5.95	5.95	6.15	6.15	5.85	5.50	5.95
2021	4.78	5.97	6.10	6.10	6.10	6.30	6.30	6.00	5.65	6.10
2022	4.87	6.08	6.20	6.20	6.20	6.40	6.40	6.10	5.75	6.20
Thereafter	4.87	6.08	6.20	6.20	6.20	6.40	6.40	6.10	5.75	6.20

(1) This forecast also applies to direct sales contracts and the Alberta gas reference price used in the crown royalty calculations.