

McDaniel & Associates Consultants Ltd.
Summary of Price Forecasts (Real Prices - 2021 \$)
October 1, 2021

Year	Crude Oil Price Forecasts							Liquids Price Forecasts					Gas Price Forecasts								US/CAN Exchange Rate	
	WTI Crude Oil	Brent Crude Oil	Edmonton Light Crude Oil	Alberta Bow River Hardisty Crude Oil	Western Canadian Select Crude Oil	Alberta Heavy Crude Oil	Sask Cromer Medium Crude Oil	Edmonton Ethane	Edmonton Propane	Edmonton Butanes	Edmonton Cond. & Gasolines	U.S. Henry Hub Gas Price	Alberta AECO Spot Price	Alberta Average Plantgate	Alberta Aggregator Plantgate	Empress	Sask. Prov. Gas Plantgate	British Columbia Average Plantgate	British Columbia Station 2	Inflation %		
	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu		%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					(8)	(9)									
History																						
2011	95.10	111.25	95.05	78.55	77.10	67.90	89.05		55.15	76.50	104.20	4.00	3.70	3.50	3.75	3.50	3.55	3.30	3.40	2.90	1.010	
2012	94.20	111.65	86.10	74.35	73.10	63.65	82.10		28.60	69.55	100.80	2.75	2.45	2.25	2.25	2.30	2.30	2.25	2.40	1.55	1.000	
2013	97.95	108.60	93.05	76.55	75.25	65.25	88.25		38.90	69.40	104.65	3.75	3.20	3.00	3.00	3.10	3.10	2.95	3.10	0.95	0.970	
2014	93.00	99.00	93.50	80.40	79.10	71.20	87.80		45.05	69.60	102.40	4.35	4.40	4.20	4.20	4.55	4.40	4.05	4.20	1.90	0.905	
2015	48.80	52.35	57.75	46.10	44.80	39.55	51.45		6.60	36.50	60.30	2.60	2.80	2.60	2.60	3.00	2.70	2.00	2.10	1.10	0.785	
2016	43.30	43.55	53.90	40.45	39.15	33.35	49.10		13.15	34.35	56.15	2.50	2.10	1.90	1.90	2.30	2.20	1.55	1.65	1.45	0.755	
2017	50.90	54.25	62.85	52.00	50.70	45.20	59.85		28.90	44.60	66.85	3.00	2.40	2.20	2.20	2.85	2.40	1.80	1.95	1.60	0.770	
2018	64.95	71.05	69.65	51.25	49.95	40.00	70.20		27.55	32.80	79.20	3.05	1.55	1.35	1.35	3.00	1.60	1.20	1.40	2.25	0.770	
2019	57.00	64.35	69.00	60.00	58.70	54.80	68.00		17.40	23.55	70.30	2.55	1.60	1.40	1.40	2.75	1.75	1.00	1.15	2.00	0.755	
2020	39.25	41.75	45.00	36.50	35.40	30.70	43.75		16.40	22.15	49.15	2.05	2.25	2.05	2.05	2.30	2.45	2.05	2.20	0.10	0.745	
2021 (9 mos)	64.85	67.70	75.90	66.00	65.40	60.20	73.75		38.25	41.25	80.70	3.60	3.10	2.90	2.90	3.25	3.50	2.90	3.05	1.40	0.800	
Forecast																						
2021 (3 mos)	74.50	77.00	88.68	76.26	78.04	70.94	86.02	17.20	62.08	70.94	93.18	5.50	4.50	4.30	4.30	4.80	4.65	4.25	4.40	0.0	0.795	
2022	70.00	72.50	81.88	68.37	70.41	61.41	77.78	14.20	40.94	53.22	86.38	4.25	3.75	3.55	3.55	3.90	4.00	3.50	3.65	0.0	0.800	
2023	65.00	67.50	75.12	60.85	63.10	52.59	71.37	11.80	37.56	48.83	79.62	3.25	3.15	2.95	2.95	3.30	3.40	2.90	3.05	2.0	0.800	
2024	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2025	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2026	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2027	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2028	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2029	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2030	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2031	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2032	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2033	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2034	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	
2035	61.00	63.50	70.12	56.80	58.90	49.09	66.62	10.60	35.06	45.58	74.62	3.00	2.85	2.65	2.65	3.00	3.10	2.60	2.75	2.0	0.800	

- (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, 0.3% sulphur
- (4) Bow River at Hardisty, Alberta (Heavy stream)
- (5) Western Canadian Select at Hardisty, Alberta
- (6) Heavy crude oil 12 degrees API at Hardisty, Alberta (after deduction of blending costs to reach pipeline quality)
- (7) Midale Cromer crude oil 29 degrees API, 2.0% sulphur
- (8) Historical prices based on AECO 7A (near month prices). 5A (daily price) expected to be equal to 7A over long term. 2019 historical prices: 7A \$1.60/MMBTU, 5A \$1.75/MMBTU
- (9) This forecast also applies to direct sales contracts and the Alberta gas reference price used in the Crown royalty calculations