

3 Consultant Average (McDaniel, GLJ and Sproule)

Summary of Price Forecasts

January 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. & Natural 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	%	\$/\$/CAN
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					(8)	(9)									
History																						
2010	79.55	79.90	77.50	68.50	67.25	61.45	73.80		46.80	66.05	84.25	4.40	4.15	3.90	3.85		3.95	3.90			1.75	0.970
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	39.20	41.75	45.00	36.45	35.35	30.70	43.70		16.35	22.20	49.15	2.05	2.25	2.05	2.05	2.30	2.45	2.05	2.20		0.20	0.745
Forecast																						
2021	47.17	49.42	55.76	45.36	44.63	39.87	53.77	8.91	18.18	26.36	59.24	2.83	2.78	2.58	2.58	3.04	2.68	2.52	2.71		0.0	0.768
2022	50.17	52.85	59.89	48.96	48.18	43.20	57.31	8.65	21.91	32.85	63.19	2.87	2.70	2.50	2.50	2.99	2.60	2.42	2.62		1.3	0.765
2023	53.17	56.04	63.48	52.91	52.10	46.86	60.68	8.35	24.57	39.20	67.34	2.90	2.61	2.41	2.41	2.93	2.51	2.34	2.53		2.0	0.763
2024	54.97	57.87	65.76	54.95	54.10	48.67	62.90	8.46	25.47	40.65	69.77	2.96	2.65	2.44	2.44	2.97	2.54	2.37	2.56		2.0	0.763
2025	56.07	59.00	67.13	56.05	55.19	49.65	64.22	8.63	26.00	41.50	71.18	3.02	2.70	2.49	2.49	3.03	2.59	2.42	2.61		2.0	0.763
2026	57.19	60.15	68.53	57.16	56.29	50.65	65.57	8.81	26.54	42.36	72.61	3.08	2.76	2.54	2.54	3.09	2.65	2.47	2.67		2.0	0.763
2027	58.34	61.33	69.95	58.30	57.42	51.67	66.94	8.99	27.09	43.24	74.07	3.14	2.81	2.59	2.59	3.15	2.70	2.52	2.72		2.0	0.763
2028	59.50	62.53	71.40	59.47	58.57	52.71	68.35	9.17	27.65	44.14	75.56	3.20	2.87	2.64	2.64	3.21	2.75	2.57	2.77		2.0	0.763
2029	60.69	63.75	72.88	60.66	59.74	53.76	69.78	9.36	28.23	45.06	77.08	3.26	2.92	2.69	2.69	3.28	2.81	2.62	2.83		2.0	0.763
2030	61.91	65.03	74.34	61.87	60.93	54.84	71.19	9.54	28.79	45.96	78.62	3.33	2.98	2.74	2.74	3.34	2.86	2.68	2.88		2.0	0.763
2031	63.15	66.33	75.83	63.10	62.15	55.94	72.61	9.74	29.37	46.88	80.20	3.39	3.04	2.80	2.80	3.41	2.92	2.73	2.94		2.0	0.763
2032	64.41	67.66	77.34	64.37	63.40	57.05	74.06	9.93	29.95	47.82	81.80	3.46	3.10	2.85	2.85	3.48	2.98	2.79	3.00		2.0	0.763
2033	65.70	69.01	78.89	65.65	64.66	58.20	75.55	10.13	30.55	48.77	83.44	3.53	3.16	2.91	2.91	3.55	3.04	2.84	3.06		2.0	0.763
2034	67.01	70.39	80.47	66.97	65.96	59.36	77.06	10.33	31.16	49.75	85.10	3.60	3.23	2.97	2.97	3.62	3.10	2.90	3.12		2.0	0.763
2035	68.35	71.80	82.08	68.31	67.28	60.55	78.60	10.54	31.79	50.74	86.81	3.67	3.29	3.03	3.03	3.69	3.16	2.96	3.18		2.0	0.763
Thereafter	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr		2.0	0.763

(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

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Summary of Price Forecasts (Real Prices - 2021 \$)

January 1, 2021

Year	Crude Oil Price Forecasts							Liquids Price Forecasts					Gas Price Forecasts								US/CAN Exchange Rate
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	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	%	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					(8)	(9)								
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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
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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
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2024	52.14	54.89	62.37	52.12	51.32	46.17	59.66	8.02	24.16	38.56	66.18	2.81	2.51	2.31	2.31	2.82	2.41	2.25	2.43	2.0	0.763
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