

3 Consultant Average (McDaniel, GLJ and Sproule)

Summary of Price Forecasts

January 1, 2023

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	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					(8)	(9)								
History																					
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	0.75	0.745
2021	68.00	70.70	80.35	69.40	68.85	63.15	77.75		43.10	51.15	85.50	3.90	3.55	3.35	3.35	3.90	3.95	3.30	3.45	3.40	0.800
2022	94.65	100.75	120.55	99.05	98.85	90.65	114.10		50.35	61.20	123.05	6.40	5.55	5.35	5.35	6.70	5.80	5.00	5.15	6.85	0.770
Forecast																					
2023	80.33	84.67	103.76	77.46	76.54	68.44	99.13	13.75	39.80	53.88	106.22	4.74	4.23	4.03	4.03	5.29	4.68	3.77	4.08	0.0	0.745
2024	78.50	82.69	97.74	78.65	77.75	69.36	93.32	14.33	39.14	52.67	101.35	4.50	4.40	4.19	4.19	4.87	4.70	3.96	4.28	2.3	0.765
2025	76.95	81.03	95.27	78.42	77.55	69.92	90.90	13.77	39.74	51.42	98.94	4.31	4.21	4.00	4.00	4.61	4.47	3.78	4.11	2.0	0.768
2026	77.61	81.39	95.58	80.94	80.07	72.42	91.25	13.98	39.86	51.61	100.19	4.40	4.27	4.06	4.06	4.68	4.54	3.84	4.16	2.0	0.772
2027	79.16	82.65	97.07	82.78	81.89	74.29	92.67	14.20	40.47	52.39	101.74	4.49	4.34	4.12	4.12	4.76	4.61	3.90	4.23	2.0	0.775
2028	80.74	84.29	99.01	84.92	84.02	76.43	94.52	14.49	41.28	53.44	103.78	4.58	4.43	4.21	4.21	4.85	4.70	3.99	4.32	2.0	0.775
2029	82.36	85.98	100.99	86.65	85.73	78.01	96.42	14.79	42.11	54.51	105.85	4.67	4.51	4.29	4.29	4.95	4.80	4.07	4.40	2.0	0.775
2030	84.00	87.71	103.01	88.38	87.44	79.57	98.34	15.09	42.95	55.60	107.97	4.76	4.60	4.37	4.37	5.04	4.89	4.16	4.49	2.0	0.775
2031	85.69	89.46	105.07	90.15	89.20	81.17	100.31	15.39	43.81	56.71	110.13	4.86	4.69	4.46	4.46	5.14	4.99	4.24	4.58	2.0	0.775
2032	87.40	91.25	106.69	92.08	91.11	82.97	101.85	15.71	44.47	57.56	112.33	4.95	4.79	4.55	4.55	5.25	5.09	4.33	4.67	2.0	0.775
2033	89.15	93.07	108.83	93.92	92.93	84.63	103.89	16.02	45.35	58.71	114.58	5.05	4.88	4.64	4.64	5.35	5.19	4.42	4.76	2.0	0.775
2034	90.93	94.93	111.00	95.80	94.79	86.32	105.97	16.34	46.26	59.88	116.87	5.15	4.98	4.73	4.73	5.46	5.29	4.51	4.86	2.0	0.775
2035	92.75	96.83	113.22	97.71	96.69	88.05	108.09	16.67	47.19	61.08	119.21	5.26	5.08	4.83	4.83	5.57	5.40	4.60	4.95	2.0	0.775
2036	94.61	98.77	115.49	99.67	98.62	89.81	110.25	17.00	48.13	62.30	121.59	5.36	5.18	4.92	4.92	5.68	5.51	4.69	5.05	2.0	0.775
2037	96.50	100.74	117.80	101.66	100.59	91.60	112.46	17.34	49.09	63.55	124.02	5.47	5.29	5.02	5.02	5.79	5.62	4.78	5.15	2.0	0.775
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	0.775

(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. 2022 historical prices: 7A \$5.56/MMBTU, 5A \$5.34/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 - 2023 \$)

January 1, 2023

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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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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	0.75	0.745
2021	68.00	70.70	80.35	69.40	68.85	63.15	77.75		43.10	51.15	85.50	3.90	3.55	3.35	3.35	3.90	3.95	3.30	3.45	3.40	0.800
2022	94.65	100.75	120.55	99.05	98.85	90.65	114.10		50.35	61.20	123.05	6.40	5.55	5.35	5.35	6.70	5.80	5.00	5.15	6.85	0.770
Forecast																					
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2024	76.71	80.81	95.51	76.85	75.97	67.78	91.19		14.00	38.24	51.47	4.40	4.30	4.10	4.10	4.76	4.60	3.87	4.18	2.3	0.765
2025	73.72	77.63	91.27	75.13	74.29	66.98	87.09		13.19	38.07	49.26	4.13	4.03	3.83	3.83	4.42	4.28	3.62	3.93	2.0	0.768
2026	72.89	76.45	89.77	76.02	75.20	68.02	85.70		13.13	37.44	48.47	4.13	4.01	3.81	3.81	4.39	4.26	3.61	3.91	2.0	0.772
2027	72.89	76.10	89.39	76.22	75.40	68.41	85.33		13.08	37.27	48.24	4.13	4.00	3.80	3.80	4.38	4.25	3.59	3.90	2.0	0.775
2028	72.89	76.09	89.39	76.67	75.85	69.00	85.34		13.08	37.27	48.24	4.13	4.00	3.80	3.80	4.38	4.25	3.60	3.90	2.0	0.775
2029	72.89	76.10	89.39	76.69	75.88	69.04	85.34		13.09	37.27	48.24	4.13	4.00	3.80	3.80	4.38	4.25	3.60	3.90	2.0	0.775
2030	72.89	76.10	89.39	76.69	75.88	69.05	85.33		13.09	37.27	48.24	4.13	3.99	3.79	3.79	4.38	4.24	3.61	3.89	2.0	0.775
2031	72.89	76.10	89.39	76.69	75.88	69.05	85.33		13.09	37.27	48.24	4.13	3.99	3.79	3.79	4.37	4.24	3.61	3.89	2.0	0.775
2032	72.89	76.10	88.98	76.79	75.99	69.20	84.95		13.10	37.09	48.00	4.13	3.99	3.79	3.79	4.37	4.24	3.61	3.89	2.0	0.775
2033	72.89	76.10	88.98	76.79	75.99	69.20	84.95		13.10	37.09	48.00	4.13	3.99	3.79	3.79	4.37	4.24	3.61	3.89	2.0	0.775
2034	72.89	76.10	88.98	76.79	75.99	69.20	84.95		13.10	37.09	48.00	4.13	3.99	3.79	3.79	4.37	4.24	3.61	3.89	2.0	0.775
2035	72.89	76.10	88.98	76.79	75.99	69.20	84.95		13.10	37.09	48.00	4.13	3.99	3.79	3.79	4.37	4.24	3.61	3.89	2.0	0.775
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