

Table 1
GLJ, Sproule, McDaniel
Crude Oil and Natural Gas Liquids
3 Consultants' Average (2023-04)
Effective April 1, 2023

Year	Inflation %	CADUSD Exchange Rate USD/CAD	NYMEX WTI Near Month Futures Contract Crude Oil at Cushing, Oklahoma		Brent Blend Crude Oil FOB North Sea	MSW, Light Crude Oil (40 API, 0.3%S) at Edmonton	Bow River Crude Oil Stream Quality at Hardisty	WCS Crude Oil Stream Quality at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Sour Crude Oil (35 API, 1.2%S) at Cromer	Medium Crude Oil (29 API, 2.0%S) at Cromer	Alberta Natural Gas Liquids (Then Current Dollars)			
			Constant 2023 \$ USD/bbl	Then Current USD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Spec Ethane CAD/bbl	Edmonton Propane CAD/bbl	Edmonton Butane CAD/bbl
2023 Q2-Q4	0.0	0.7444	76.83	76.83	81.22	99.26	81.45	80.54	72.45	99.73	95.33	9.45	35.38	49.70	101.88
2024	2.3	0.7567	75.39	77.15	80.90	97.18	80.52	79.61	70.80	97.63	93.34	11.99	38.10	51.12	100.87
2025	2.0	0.7600	72.89	76.09	80.16	95.30	78.87	78.00	69.45	95.75	91.54	13.89	39.00	50.21	99.06
2026	2.0	0.7633	72.89	77.61	81.39	96.79	80.30	79.41	70.52	97.24	92.96	14.10	39.59	50.99	101.48
2027	2.0	0.7633	72.89	79.16	82.65	98.73	84.25	83.35	74.99	99.19	94.82	14.39	40.38	52.01	103.51
2028	2.0	0.7633	72.90	80.75	84.29	100.70	86.44	85.52	77.15	101.17	96.72	14.69	41.19	53.05	105.58
2029	2.0	0.7633	72.89	82.36	85.98	102.71	88.19	87.26	78.74	103.19	98.65	14.99	42.01	54.11	107.69
2030	2.0	0.7633	72.89	84.01	87.70	104.77	89.95	89.00	80.32	105.26	100.62	15.29	42.85	55.19	109.85
2031	2.0	0.7633	72.89	85.69	89.46	106.87	91.75	90.78	81.93	107.37	102.64	15.60	43.71	56.29	112.04
2032	2.0	0.7633	72.89	87.40	91.25	109.00	93.58	92.60	83.58	109.51	104.69	15.92	44.59	57.42	114.28
2033	2.0	0.7633	72.89	89.15	93.07	111.18	95.45	94.45	85.25	111.70	106.78	16.24	45.48	58.57	116.57
2034	2.0	0.7633	72.89	90.93	94.93	113.41	97.36	96.34	86.96	113.94	108.92	16.56	46.39	59.74	118.90
2035	2.0	0.7633	72.89	92.75	96.83	115.68	99.31	98.27	88.70	116.22	111.10	16.89	47.32	60.94	121.28
2036	2.0	0.7633	72.89	94.60	98.77	117.99	101.30	100.23	90.47	118.54	113.32	17.23	48.26	62.16	123.70
2037	2.0	0.7633	72.89	96.49	100.74	120.35	103.32	102.24	92.28	120.91	115.59	17.58	49.23	63.40	126.18
2038	2.0	0.7633	72.89	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Historical futures contract price is an average of the daily settlement price of the near month contract over the calendar month.

Table 2
 GLJ, Sproule, McDaniel
 Natural Gas and Sulphur
 3 Consultants' Average (2023-04)
 Effective April 1, 2023

Alberta Plant Gate

Year	NYMEX Henry Hub Near Month Contract		Midwest Price at Chicago	AECO/NIT Spot	Dawn Price at Ontario	Spot		Saskatchewan Plant Gate				British Columbia		Sulphur @ Alberta Plant Gate	
	Constant 2023 \$ USD/MMBtu	Then Current USD/MMBtu	Then Current USD/MMBtu	Then Current CAD/MMBtu	Then Current USD/MMBtu	Constant 2023 \$ CAD/MMBtu	Then Current CAD/MMBtu	ARP CAD/MMBtu	SaskEnergy CAD/MMBtu	Spot CAD/MMBtu	Sumas Spot USD/MMBtu	Westcoast Station 2 CAD/MMBtu	Spot Plant Gate CAD/MMBtu	Sulphur FOB Vancouver USD/lit	CAD/lit
2023 Q2-Q4	3.02	3.02	2.80	2.97	2.95	2.67	2.67	2.67	3.24	2.75	3.19	2.77	2.46	155.25	88.77
2024	3.62	3.71	3.49	3.73	3.63	3.34	3.42	3.42	3.90	3.51	3.80	3.61	3.30	138.74	79.66
2025	4.05	4.23	4.02	4.25	4.15	3.78	3.94	3.94	4.41	4.03	4.33	4.15	3.84	121.56	73.30
2026	4.05	4.31	4.09	4.31	4.23	3.76	4.00	4.00	4.48	4.09	4.41	4.21	3.89	123.99	74.99
2027	4.05	4.40	4.18	4.41	4.32	3.77	4.09	4.09	4.57	4.19	4.50	4.30	3.98	126.47	77.24
2028	4.05	4.49	4.27	4.49	4.41	3.77	4.18	4.18	4.66	4.27	4.60	4.38	4.06	129.00	79.53
2029	4.05	4.57	4.35	4.58	4.50	3.77	4.26	4.26	4.75	4.36	4.69	4.47	4.15	131.58	81.87
2030	4.05	4.66	4.44	4.67	4.59	3.78	4.35	4.35	4.84	4.45	4.78	4.56	4.24	134.21	84.26
2031	4.05	4.76	4.53	4.77	4.68	3.78	4.44	4.44	4.94	4.55	4.88	4.65	4.32	136.89	86.69
2032	4.05	4.85	4.61	4.86	4.77	3.78	4.54	4.54	5.03	4.64	4.98	4.74	4.42	139.63	89.18
2033	4.05	4.95	4.71	4.96	4.87	3.78	4.63	4.63	5.13	4.74	5.08	4.83	4.50	142.43	90.96
2034	4.05	5.05	4.81	5.06	4.97	3.78	4.72	4.72	5.23	4.83	5.18	4.93	4.60	145.27	92.78
2035	4.05	5.15	4.91	5.16	5.07	3.78	4.81	4.81	5.34	4.93	5.28	5.03	4.69	148.18	94.64
2036	4.05	5.25	4.99	5.26	5.17	3.78	4.91	4.91	5.45	5.03	5.39	5.13	4.78	151.14	96.53
2037	4.05	5.36	5.09	5.37	5.27	3.78	5.01	5.01	5.56	5.13	5.50	5.23	4.88	154.16	98.46
2038	4.05	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	3.78	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Unless otherwise stated, the gas price reference point is the receipt point on the applicable provincial gas transmission system known as the plant gate.
 The plant gate price represents the price before raw gathering and processing charges are deducted.

Table 3
 GLJ, Sproule, McDaniel
 International
 3 Consultants' Average (2023-04)
 Effective April 1, 2023

Year	Inflation %	CADUSD	GBPUSD	EURUSD	NYMEX WTI Near Month Futures Contract Crude Oil at Cushing, Oklahoma		Light Louisiana Sweet Crude Oil		Maya Crude Oil	Brent Blend Crude Oil FOB North Sea		NYMEX Henry Hub Near Month Contract		National Balancing Point (UK)		Dutch TTF Natural Gas	JKM Natural Gas	
		Exchange Rate USD/CAD	Exchange Rate USD/GBP	Exchange Rate USD/EUR	Then Current USD/bbl	Then Current CAD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current USD/MMBtu	Then Current CAD/MMBtu	Then Current USD/MMBtu	Then Current CAD/MMBtu	Then Current USD/MMBtu	Then Current USD/MMBtu		
2023 Q2-Q4	0.0	0.7444	1.2217	1.0833	76.83	103.21	80.04	107.51	70.04	94.09	81.22	109.10	3.02	4.05	14.33	19.25	15.50	14.13
2024	2.3	0.7567	1.2400	1.0917	77.15	101.96	81.60	107.84	71.02	93.85	80.90	106.92	3.71	4.90	17.28	22.84	18.28	17.18
2025	2.0	0.7600	1.2600	1.1083	76.09	100.11	81.17	106.80	71.10	93.55	80.16	105.48	4.23	5.56	15.28	20.10	16.20	15.68
2026	2.0	0.7633	1.2750	1.1150	77.61	101.67	80.13	104.98	72.19	94.57	81.39	106.62	4.31	5.65	14.82	19.42	15.76	15.32
2027	2.0	0.7633	1.2833	1.1150	79.16	103.70	81.37	106.60	73.30	96.03	82.65	108.27	4.40	5.76	14.62	19.16	15.57	15.77
2028	2.0	0.7633	1.2833	1.1150	80.75	105.78	82.99	108.71	74.75	97.93	84.29	110.42	4.49	5.88	14.92	19.55	15.88	16.07
2029	2.0	0.7633	1.2833	1.1150	82.36	107.89	84.65	110.90	76.26	99.90	85.98	112.64	4.57	5.99	15.22	19.94	16.20	16.38
2030	2.0	0.7633	1.2833	1.1150	84.01	110.05	86.35	113.12	77.79	101.91	87.70	114.90	4.66	6.11	15.52	20.34	16.53	16.69
2031	2.0	0.7633	1.2833	1.1150	85.69	112.25	88.07	115.38	79.34	103.94	89.46	117.19	4.76	6.24	15.83	20.74	16.86	17.02
2032	2.0	0.7633	1.2833	1.1150	87.40	114.50	89.84	117.69	80.93	106.02	91.25	119.54	4.85	6.36	16.15	21.16	17.19	17.36
2033	2.0	0.7633	1.2833	1.1150	89.15	116.79	91.64	120.05	82.54	108.14	93.07	121.93	4.95	6.49	16.47	21.58	17.54	17.70
2034	2.0	0.7633	1.2833	1.1150	90.93	119.12	93.47	122.45	84.20	110.30	94.93	124.37	5.05	6.61	16.80	22.01	17.89	18.04
2035	2.0	0.7633	1.2833	1.1150	92.75	121.51	95.34	124.90	85.88	112.51	96.83	126.85	5.15	6.75	17.14	22.45	18.25	18.40
2036	2.0	0.7633	1.2833	1.1150	94.60	123.93	97.24	127.39	87.60	114.76	98.77	129.39	5.25	6.88	17.48	22.90	18.61	18.76
2037	2.0	0.7633	1.2833	1.1150	96.49	126.41	99.19	129.94	89.35	117.05	100.74	131.98	5.36	7.02	17.83	23.36	18.98	19.12
2038	2.0	0.7633	1.2833	1.1150	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Historical futures contract price is an average of the daily settlement price of the near month contract over the calendar month.

Table 4
 GLJ, Sproule, McDaniel
 US Liquids and Natural Gas
 3 Consultants' Average (2023-04)
 Effective April 1, 2023

Year	US Natural Gas Liquids (Then Current Dollars)					US Natural Gas (Then Current Dollars)				
	Conway			Mont Belvieu					Algonquin	City-Gates
	80%-20% E/P Mix USD/bbl	Propane USD/bbl	Butane USD/bbl	Condensate USD/bbl	Ethane USD/bbl	Propane USD/bbl	Butane USD/bbl	Condensate USD/bbl	Rockies Natural Gas USD/MMBtu	Natural Gas USD/MMBtu
2023 Q2-Q4	9.65	34.02	48.65	69.92	10.56	35.77	47.18	70.69	3.14	3.77
2024	11.86	34.99	50.22	70.21	12.97	36.75	48.75	70.98	3.40	5.59
2025	13.53	40.22	50.59	69.24	14.79	41.50	49.61	70.00	3.92	6.11
2026	13.79	41.02	51.60	70.62	15.09	42.33	50.60	71.40	4.00	6.19
2027	14.07	41.85	52.64	72.04	15.39	43.18	51.61	72.83	4.08	6.28
2028	14.36	42.68	53.69	73.48	15.70	44.04	52.64	74.29	4.17	6.37
2029	14.63	43.53	54.77	74.94	16.01	44.92	53.70	75.77	4.25	6.45
2030	14.92	44.41	55.86	76.45	16.32	45.82	54.77	77.29	4.34	6.54
2031	15.23	45.29	56.98	77.97	16.66	46.74	55.87	78.83	4.43	6.64
2032	15.53	46.20	58.12	79.53	16.99	47.68	56.98	80.41	4.52	6.73
2033	15.85	47.12	59.28	81.12	17.33	48.63	58.12	82.02	4.61	6.86
2034	16.15	48.07	60.47	82.75	17.67	49.60	59.29	83.66	4.70	6.98
2035	16.48	49.03	61.68	84.40	18.02	50.59	60.47	85.33	4.80	7.11
2036	16.81	50.01	62.91	86.09	18.38	51.60	61.68	87.03	4.90	7.24
2037	17.15	51.01	64.17	87.81	18.76	52.64	62.91	88.77	5.00	7.37
2038	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Butane prices at Conway and Mont Belvieu represent a blended price of two thirds normal butane and one third iso-butane.

Table 5
 GLJ, Sproule, McDaniel
 International Crude Oil
 3 Consultants' Average (2023-04)
 Effective April 1, 2023

Year	Inflation %	United States		Europe	Latin America	Mideast Gulf and Mediterranean						Africa	Asia-Pacific		Russia / C.I.S.	
		Cushing, OK WTI	Louisiana LLS*	UK Brent	Mexico Maya	Oman DME	OPEC Basket	Abu Dhabi Murban	Iran Iran Heavy	Algeria Saharan	Iraq Basrah Medium	Nigeria Bonny Light	Indonesia Minas	Malaysia Tapis	Russia ESPO**	Russia Sokol
		39.6 API	35.6 API	38.3 API	21.8 API	34 API	32.7 API	40.2 API	30.2 API	45.3 API	31.1 API	33.4 API	35.3 API	45.2 API	34.8 API	34.8 API
	0.24% S	0.37% S	0.37% S	3.33% S	2.00% S	1.77% S	0.79% S	1.77% S	0.09% S	2.58% S	0.16% S	0.09% S	0.03% S	0.62% S	0.29% S	
	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	
2023 Q2-Q4	0.0	76.83	80.04	81.22	70.04	78.86	77.90	80.98	76.35	80.74	77.16	80.71	78.64	83.68	58.74	72.29
2024	2.3	77.15	81.60	80.90	71.02	78.51	77.55	80.66	76.05	79.88	76.86	80.28	78.28	83.31	63.63	75.24
2025	2.0	76.09	81.17	80.16	71.10	77.69	76.71	79.92	75.35	79.09	76.16	79.50	77.46	82.62	64.00	76.96
2026	2.0	77.61	80.13	81.39	72.19	78.88	77.88	81.15	76.51	80.29	77.32	80.72	78.64	83.88	65.96	81.39
2027	2.0	79.16	81.37	82.65	73.30	80.10	79.08	82.40	77.69	81.54	78.51	81.96	79.86	85.17	68.07	86.78
2028	2.0	80.75	82.99	84.29	74.75	81.69	80.65	84.03	79.23	83.15	80.07	83.59	81.44	86.86	69.41	88.50
2029	2.0	82.36	84.65	85.98	76.26	83.33	82.28	85.73	80.82	84.83	81.68	85.27	83.08	88.60	70.81	90.28
2030	2.0	84.01	86.35	87.70	77.79	85.00	83.93	87.44	82.44	86.53	83.32	86.98	84.75	90.38	72.23	92.09
2031	2.0	85.69	88.07	89.46	79.34	85.70	85.60	89.19	84.09	88.26	84.98	88.72	86.44	92.19	73.67	93.93
2032	2.0	87.40	89.84	91.25	80.93	88.43	87.31	90.97	85.77	90.02	86.68	90.49	88.17	94.03	75.15	95.81
2033	2.0	89.15	91.64	93.07	82.54	90.20	89.06	94.31	88.70	91.82	88.42	92.30	89.93	95.91	76.65	97.41
2034	2.0	90.93	93.47	94.93	84.20	92.00	90.84	94.65	89.24	93.66	90.19	94.15	91.73	97.83	78.18	99.68
2035	2.0	92.75	95.34	96.83	85.88	93.84	92.65	96.54	91.02	95.53	91.99	96.03	93.57	99.78	79.75	101.67
2036	2.0	94.60	97.24	98.77	87.60	95.72	94.51	98.47	92.84	97.44	93.83	97.95	95.44	101.78	81.34	103.71
2037	2.0	96.49	99.19	100.74	89.35	97.63	96.40	100.44	94.70	99.39	95.70	99.91	97.35	103.82	82.97	105.78
2038	2	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

* LLS - Light Louisiana Sweet

** ESPO - Eastern Siberian Pacific Ocean Blend

Historical futures contract price is an average of the daily settlement price of the near month contract over the calendar month.

GLJ Forecasts a variety of other benchmarks that may not be presented and can be obtained upon request.