



Table 1
GLJ Ltd.
Domestic Crude Oil and Natural Gas Liquids
Price Forecast
Effective January 1, 2021

Year	Inflation %	CAD/USD Exchange Rate	WTI Crude Oil (39.6 API, 0.24%S) Cushing, OK		Brent Spot Crude Oil (38.3 API, 0.37%S) UK	MSW, Light Crude Oil (40 API, 0.3%S) at Edmonton	Bow River Crude Oil (21.4 API, 2.8%S) at Hardisty	WCS Crude Oil (20.9 API, 3.5%S) at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Sour Crude Oil (38 API, 1.1%S) at Cromer	Medium Crude Oil (29 API, 2.0%S) at Cromer	Alberta Natural Gas Liquids (Then Current Dollars) at Edmonton				
			Constant	Then	Then	Then	Then	Then	Then	Then	Then	Then	Ethane CAD/bbl	Propane CAD/bbl	Butane CAD/bbl	Condensate CAD/bbl
			2021 \$	Current	Current	Current	Current	Current	Current	Current	Current	Current				
			USD/bbl	USD/bbl	USD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl				
2011	2.9	1.0115	111.90	95.12	110.86	95.53	78.59	77.14	67.64	92.35	88.33	N/A	53.66	74.42	104.17	
2012	1.5	1.0009	107.70	94.21	111.71	86.60	74.42	73.13	63.64	84.51	81.37	N/A	29.04	66.70	100.84	
2013	0.9	0.9711	110.31	97.96	108.77	93.47	76.33	75.01	65.11	92.30	88.13	N/A	38.88	68.81	104.70	
2014	1.9	0.9055	103.70	93.00	99.71	94.58	81.08	81.03	73.73	92.68	89.67	N/A	45.53	69.20	102.44	
2015	1.1	0.7831	53.37	48.78	53.60	57.20	45.50	44.82	39.25	55.49	51.87	N/A	6.49	36.75	60.42	
2016	1.4	0.7551	46.92	43.38	45.05	53.08	39.83	38.96	32.78	51.46	48.84	N/A	13.40	34.49	56.25	
2017	1.6	0.7712	54.37	50.94	54.80	62.84	50.91	50.53	44.63	62.09	59.96	N/A	28.57	44.46	66.86	
2018	2.3	0.7719	67.97	64.73	71.55	69.22	49.03	49.52	39.80	72.94	69.60	N/A	26.79	32.96	78.60	
2019	1.9	0.7538	58.55	57.02	64.24	69.16	59.26	58.75	54.31	69.65	67.97	N/A	16.98	24.29	70.19	
2020 (est)	0.8	0.7462	39.71	39.35	43.19	45.15	36.08	35.50	30.24	45.32	43.88	N/A	16.12	22.10	49.38	
2021 Q1	0.0	0.780	48.00	48.00	50.75	55.13	45.27	44.87	39.26	54.58	53.47	8.62	17.09	24.26	60.26	
2021 Q2	0.0	0.775	48.00	48.00	50.75	55.48	45.56	45.16	39.52	54.93	53.82	8.62	18.68	26.63	60.65	
2021 Q2	0.0	0.775	48.00	48.00	50.75	55.48	45.56	45.16	39.52	54.93	53.82	8.62	20.16	28.85	60.65	
2021 Q4	0.0	0.770	48.00	48.00	50.75	55.84	45.85	45.45	39.78	55.29	54.17	8.62	21.78	31.27	61.04	
2021 Full Year	0.0	0.775	48.00	48.00	50.75	55.49	45.56	45.16	39.52	54.93	53.82	8.62	19.43	27.75	60.65	
2022	1.0	0.765	50.99	51.50	55.00	60.78	50.07	49.67	43.97	60.18	58.96	8.45	24.31	36.47	65.36	
2023	2.0	0.760	52.90	54.50	58.50	63.82	54.35	53.95	48.11	63.18	61.90	8.22	25.53	41.48	70.07	
2024	2.0	0.760	55.00	57.79	61.79	68.14	58.32	57.92	51.88	67.46	66.10	8.22	27.26	44.29	74.72	
2025	2.0	0.760	55.00	58.95	62.95	69.67	59.49	59.09	52.94	68.97	67.58	8.39	27.87	45.29	76.25	
2026	2.0	0.760	55.00	60.13	64.13	71.22	60.66	60.26	54.00	70.51	69.09	8.58	28.49	46.30	77.80	
2027	2.0	0.760	55.00	61.33	65.33	72.80	61.87	61.47	55.10	72.07	70.62	8.76	29.12	47.32	79.38	
2028	2.0	0.760	55.00	62.56	66.56	74.42	63.10	62.70	56.22	73.68	72.19	8.94	29.77	48.37	81.00	
2029	2.0	0.760	55.00	63.81	67.81	76.07	64.36	63.96	57.35	75.31	73.78	9.13	30.43	49.44	82.64	
2030	2.0	0.760	55.00	65.09	69.17	77.59	65.64	65.24	58.50	76.81	75.26	9.31	31.03	50.43	84.30	
2031+	2.0	0.760	55.00	+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 Ltd.
Domestic Natural Gas
Price Forecast
Effective January 1, 2021

Year	Henry Hub		Alberta				Saskatchewan		British Columbia		Huntingdon/ Sumas Spot	Dawn @ Ontario
	Constant	Then	AECO/NIT	Plant Gate			Plant Gate		Westcoast	Spot		
	2020 \$	Current	Spot	Spot	ARP	Empress	SaskEnergy	Spot	Station 2	Plant Gate		
	USD/MMBtu	USD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu		
2011	4.74	4.03	3.62	3.42	3.46	3.41	3.57	3.58	3.33	3.18	3.90	4.39
2012	3.23	2.83	2.40	2.21	2.25	2.30	2.31	2.26	2.30	2.12	2.70	3.04
2013	4.19	3.73	3.18	2.96	2.98	3.14	3.09	3.10	3.14	2.94	3.71	4.07
2014	4.77	4.28	4.50	4.26	4.22	4.72	4.39	4.42	4.29	4.07	4.37	5.98
2015	2.88	2.63	2.70	2.47	2.56	2.89	2.71	2.61	1.80	1.59	2.31	2.99
2016	2.76	2.55	2.18	1.94	1.93	2.36	2.18	2.09	1.77	1.60	2.18	2.56
2017	3.22	3.02	2.19	1.93	2.22	2.60	2.41	2.29	1.56	1.34	2.62	3.05
2018	3.22	3.07	1.54	1.33	1.36	3.06	1.68	2.71	1.24	1.03	3.60	3.09
2019	2.60	2.53	1.81	1.59	1.48	2.52	1.73	2.20	1.02	0.75	4.70	2.44
2020 (est)	2.15	2.13	2.25	2.02	2.01	2.24	2.28	2.05	2.20	1.95	2.16	1.87
2021 Q1	2.75	2.75	2.72	2.48	2.48	2.77	2.58	2.54	2.77	2.49	3.15	2.65
2021 Q2	2.75	2.75	2.72	2.48	2.48	2.77	2.58	2.54	2.77	2.49	2.55	2.65
2021 Q2	2.75	2.75	2.72	2.48	2.48	2.77	2.58	2.54	2.77	2.49	2.55	2.65
2021 Q4	2.75	2.75	2.72	2.48	2.48	2.77	2.58	2.54	2.77	2.49	2.55	2.65
2021 Full Year	2.75	2.75	2.72	2.48	2.48	2.77	2.58	2.54	2.77	2.49	2.70	2.65
2022	2.77	2.80	2.67	2.43	2.43	2.72	2.53	2.49	2.67	2.39	2.70	2.75
2023	2.77	2.85	2.60	2.36	2.36	2.65	2.46	2.42	2.60	2.33	2.75	2.80
2024	2.76	2.90	2.60	2.36	2.36	2.65	2.46	2.42	2.60	2.33	2.80	2.85
2025	2.75	2.95	2.65	2.41	2.41	2.70	2.51	2.47	2.65	2.38	2.85	2.90
2026	2.75	3.01	2.71	2.46	2.46	2.76	2.56	2.53	2.71	2.43	2.91	2.96
2027	2.75	3.07	2.76	2.52	2.52	2.81	2.62	2.58	2.76	2.49	2.97	3.02
2028	2.75	3.13	2.81	2.57	2.57	2.86	2.67	2.63	2.81	2.54	3.03	3.08
2029	2.75	3.19	2.87	2.62	2.62	2.92	2.72	2.69	2.87	2.59	3.09	3.14
2030	2.75	3.25	2.92	2.68	2.68	2.98	2.78	2.74	2.92	2.64	3.15	3.20
2031+	2.75	+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

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 Ltd.
International Crude Oil
Price Forecast
Effective January 1, 2021

	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	Colombia Vasconia	Oman DME	OPEC Basket	Abu Dhabi Murban	Iran Iran Heavy	Algeria Saharan	Iraq Basrah Light	Nigeria Bonny Light	Indonesia Minas	Malaysia Tapis	Russia ESPO**	Russia Urals
	39.6 API	35.6 API	38.3 API	21.8 API	24.5 API	34 API	32.7 API	40.2 API	30.2 API	45.3 API	30.5 API	33.4 API	35.3 API	45.2 API	34.8 API	31.7 API
	0.24% S	0.37% S	0.37% S	3.33% S	0.95% S	2.00% S	1.77% S	0.79% S	1.77% S	0.09% S	2.90% S	0.16% S	0.09% S	0.03% S	0.62% S	1.35% S
Year	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	USD/bbl
2021	48.00	52.00	50.75	45.68	46.75	50.45	50.60	50.95	48.55	50.50	51.25	51.50	49.75	50.05	52.25	50.25
2022	51.50	55.50	55.00	49.50	51.00	54.70	54.85	55.20	52.80	54.75	55.50	55.75	54.00	54.30	56.50	54.50
2023	54.50	58.50	58.50	52.65	54.50	58.20	58.35	58.70	56.30	58.25	59.00	59.25	57.50	57.80	60.00	58.00
2024	57.79	61.79	61.79	55.61	57.79	61.49	61.64	61.99	59.59	61.54	62.29	62.54	60.79	61.09	63.29	61.29
2025	58.95	62.95	62.95	56.65	58.95	62.65	62.80	63.15	60.75	62.70	63.45	63.70	61.95	62.25	64.45	62.45
2026	60.13	64.13	64.13	57.72	60.13	63.83	63.98	64.33	61.93	63.88	64.63	64.88	63.13	63.43	65.63	63.63
2027	61.33	65.33	65.33	58.80	61.33	65.03	65.18	65.53	63.13	65.08	65.83	66.08	64.33	64.63	66.83	64.83
2028	62.56	66.56	66.56	59.90	62.56	66.26	66.41	66.76	64.36	66.31	67.06	67.31	65.56	65.86	68.06	66.06
2029	63.81	67.81	67.81	61.03	63.81	67.51	67.66	68.01	65.61	67.56	68.31	68.56	66.81	67.11	69.31	67.31
2030	65.09	69.17	69.17	62.25	65.09	68.86	69.01	69.37	66.92	68.91	69.68	69.93	68.15	68.45	70.70	68.66
2031+	+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	+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.



Table 4
GLJ Ltd.
International Natural Gas & LNG
Price Forecast
Effective January 1, 2021

	US Natural Gas						European Natural Gas			Asia-Pacific	India
Year	Henry Hub Natural Gas USD/MMBtu	Midwest @ Chicago USD/MMBtu	Rockies Natural Gas USD/MMBtu	Algonquin Natural Gas USD/MMBtu	Malin Natural Gas USD/MMBtu	Permian Natural Gas USD/MMBtu	NBP Natural Gas USD/MMBtu	TTF Natural Gas USD/MMBtu	Russian Natural Gas USD/MMBtu	JKM Natural Gas USD/MMBtu	India Domestic Natural Gas USD/MMBtu
2021	2.75	2.60	2.55	3.50	2.70	2.25	6.50	6.40	6.40	7.50	4.44
2022	2.80	2.65	2.60	3.80	2.65	2.30	5.85	5.75	5.75	6.25	4.19
2023	2.85	2.70	2.65	3.80	2.70	2.35	5.85	5.80	5.80	6.15	4.12
2024	2.90	2.75	2.70	3.80	2.75	2.40	6.00	5.95	5.95	6.30	4.18
2025	2.95	2.80	2.75	3.90	2.80	2.45	6.15	6.10	6.10	6.45	4.28
2026	3.01	2.86	2.81	3.98	2.86	2.51	6.25	6.20	6.20	6.55	4.36
2027	3.07	2.92	2.87	4.06	2.92	2.57	6.35	6.30	6.30	6.65	4.44
2028	3.13	2.98	2.93	4.14	2.98	2.63	6.50	6.45	6.45	6.80	4.53
2029	3.19	3.04	2.99	4.22	3.04	2.69	6.65	6.60	6.60	6.95	4.63
2030	3.25	3.10	3.05	4.30	3.10	2.74	6.78	6.73	6.73	7.09	4.72
2031+	+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

NBP - National Balancing Point LNG

JKM - Japanese Korean Marker LNG

TTF - Title Transfer Facility LNG

Russian Gas - Average European import border price



Table 5
GLJ Ltd.
Natural Gas Liquids
Price Forecast
Effective January 1, 2021

Canadian Natural Gas Liquids						US Natural Gas Liquids							Asia/Europe/Other	
Year	Edmonton					Conway			Mont Belvieu				Far East Index	
	Ethane CAD/bbl	Propane CAD/bbl	Butane CAD/bbl	Condensate CAD/bbl	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	Propane USD/bbl	Butane USD/bbl
2021	8.62	19.43	27.75	60.65	8.25	24.00	31.68	43.20	10.31	25.44	31.20	42.24	38.06	43.14
2022	8.45	24.31	36.47	65.36	8.40	25.75	33.99	46.35	10.50	27.30	33.48	45.32	35.75	41.25
2023	8.22	25.53	41.48	70.07	8.55	27.25	35.97	49.05	10.69	28.88	35.43	47.96	38.02	43.88
2024	8.22	27.26	44.29	74.72	8.70	28.89	38.14	52.01	10.88	30.63	37.56	50.86	40.16	46.34
2025	8.39	27.87	45.29	76.25	8.85	29.48	38.91	53.06	11.06	31.24	38.32	51.88	40.92	47.21
2026	8.58	28.49	46.30	77.80	9.03	30.07	39.69	54.12	11.29	31.87	39.08	52.91	41.68	48.10
2027	8.76	29.12	47.32	79.38	9.21	30.67	40.48	55.20	11.51	32.50	39.86	53.97	42.46	49.00
2028	8.94	29.77	48.37	81.00	9.39	31.28	41.29	56.30	11.74	33.16	40.66	55.05	43.26	49.92
2029	9.13	30.43	49.44	82.64	9.57	31.90	42.11	57.43	11.96	33.82	41.48	56.15	44.08	50.86
2030	9.31	31.03	50.43	84.30	9.76	32.54	42.96	58.58	12.20	34.50	42.31	57.28	44.96	51.87
2031+	+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

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

*Conway E/P mix is blended at 80%-20%



Table 6
GLJ Ltd.
International Exchange Rates
Forecast
Effective January 1, 2021

Year	Inflation %	Canada CADUSD Exchange Rate CAD/USD	UK GBPUSD Exchange Rate GBP/USD	Euro EURUSD Exchange Rate EUR/USD	Norway NOKUSD Exchange Rate USD/NOK	Australia AUDUSD Exchange Rate AUD/USD	China USDCNY Exchange Rate USD/CNY	Japan USDJPY Exchange Rate USD/JPY
2021	0.0	0.775	1.330	1.215	9.500	0.750	7.00	110.00
2022	1.0	0.765	1.330	1.230	9.500	0.750	7.00	110.00
2023	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2024	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2025	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2026	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2027	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2028	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2029	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2030	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00
2031+	2.0	0.760	1.330	1.240	9.500	0.750	7.00	110.00

GLJ Forecasts a variety of other exchange rates that can be obtained upon request.



Table 7
GLJ Ltd.
Power and Refined Products
Forecast
Effective January 1, 2021

	Electricity	Hydrogen	Canadian Fuels			US Fuels		
	Alberta AESO	Alberta SMR w/o CCS & Capex	Diesel ULS*	Gasoline Regular	Heating Oil	Diesel ULS*	Gasoline Regular	Heating Oil
Year	CAD/MWh	CAD/kg	CAD/Ltr	CAD/Ltr	CAD/Ltr	USD/Gallon	USD/Gallon	USD/Gallon
2021	67.94	0.46	1.22	1.17	1.11	2.88	2.40	1.92
2022	66.71	0.45	1.34	1.28	1.22	3.09	2.58	2.06
2023	65.06	0.44	1.40	1.34	1.28	3.27	2.73	2.18
2024	65.06	0.44	1.50	1.43	1.36	3.47	2.89	2.31
2025	66.28	0.45	1.53	1.46	1.39	3.54	2.95	2.36
2026	67.63	0.46	1.57	1.50	1.42	3.61	3.01	2.41
2027	68.97	0.47	1.60	1.53	1.46	3.68	3.07	2.45
2028	70.32	0.48	1.64	1.56	1.49	3.75	3.13	2.50
2029	71.67	0.49	1.67	1.60	1.52	3.83	3.19	2.55
2030	73.10	0.50	1.71	1.63	1.55	3.91	3.25	2.60
2031+	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Canadian fuel prices are national average prices in CAD/Litre

US fuel prices are national average prices in USD/Gallon

* ULS - Ultra Low Sulphur