

Table 1
GLJ Petroleum Consultants
Crude Oil and Natural Gas Liquids
Price Forecast
Effective October 1, 2016

Year	Inflation %	CADUSD Exchange Rate USD/CAD	NYMEX WTI Near Month Contract Crude Oil at Cushing, OK		ICE Brent Near Month Contract Crude Oil	Light, Sweet 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 2016 \$ 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	Then Current CAD/bbl	Spec Ethane CAD/bbl	Edmonton Propane CAD/bbl	Edmonton Butane CAD/bbl	Edmonton C5+ Stream Quality CAD/bbl
2006	2.0	0.8818	78.49	66.22	66.16	73.21	51.82	50.66	41.84	66.38	62.26	N/A	43.85	60.18	75.41		
2007	2.1	0.9352	84.13	72.39	72.71	77.06	53.64	52.38	43.42	71.13	65.71	N/A	49.56	61.78	77.38		
2008	2.4	0.9428	113.34	99.64	98.30	102.90	84.31	82.95	74.94	96.08	93.10	N/A	58.38	75.33	104.78		
2009	0.4	0.8798	68.61	61.78	62.50	66.32	60.18	58.66	54.46	63.84	62.96	N/A	38.03	48.17	68.17		
2010	1.8	0.9711	87.96	79.52	80.25	77.87	68.45	67.27	60.76	76.58	73.76	N/A	46.84	65.91	84.27		
2011	2.9	1.0115	103.39	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	99.48	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	101.92	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	95.83	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	49.32	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 Q1	1.6	0.7281	33.46	33.46	35.09	40.85	27.60	26.30	19.04	38.42	35.95	N/A	6.12	29.01	47.18		
2016 Q2	1.6	0.7762	45.70	45.70	46.97	54.95	42.41	41.75	36.18	53.42	50.91	N/A	9.72	31.92	56.99		
2016 Q3 (e)	1.2	0.766	44.86	44.86	46.90	54.68	41.71	40.91	35.35	53.61	50.99	N/A	12.09	33.79	56.12		
2016 Q4	2.0	0.750	48.00	48.00	50.00	60.00	45.60	45.00	38.60	58.80	55.80	9.44	18.00	39.00	63.00		
2016 Full Year	1.6	0.755	43.01	43.01	44.74	52.62	39.33	38.49	32.29	51.06	48.41	N/A	11.48	33.43	55.82		
2017	2.0	0.775	52.94	54.00	56.00	65.81	51.00	50.34	43.81	64.49	61.20	9.60	19.74	46.06	68.77		
2018	2.0	0.800	55.75	58.00	61.00	68.75	55.00	54.31	48.16	67.38	63.94	9.60	20.63	51.56	71.50		
2019	2.0	0.825	59.37	63.00	66.00	71.52	59.36	58.64	52.60	70.08	66.51	10.34	25.03	53.64	75.45		
2020	2.0	0.850	61.90	67.00	70.00	74.12	62.63	61.89	56.11	72.64	68.93	11.09	25.94	55.59	77.82		
2021	2.0	0.850	64.31	71.00	74.00	78.82	67.39	66.61	60.76	77.25	73.31	12.05	27.59	59.12	82.76		
2022	2.0	0.850	66.60	75.00	78.00	83.53	72.25	71.42	65.66	81.86	77.68	12.73	29.24	62.65	87.29		
2023	2.0	0.850	68.77	79.00	82.00	88.24	76.76	75.88	69.99	86.47	82.06	13.40	30.88	66.18	92.21		
2024	2.0	0.850	70.84	83.00	86.00	92.94	81.32	80.39	74.51	91.08	86.44	14.04	32.53	69.71	96.66		
2025	2.0	0.850	72.00	86.05	89.64	95.61	85.09	84.14	78.26	93.70	88.92	14.34	33.46	71.71	100.39		
2026+	2.0	0.850	72.00	+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		

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

Table 2
GLJ Petroleum Consultants
Natural Gas and Sulphur
Price Forecast
 Effective October 1, 2016

Year	NYMEX Henry Hub Near Month Contract		Midwest Price at Chicago	AECO/NIT Spot Then Current	Alliance Transfer Pool Spot Then Current	Alberta Plant Gate			Saskatchewan Plant Gate			British Columbia		Sulphur	Alberta Sulphur
	Constant 2016 \$	Then Current	Then Current	Spot Then Current	Spot Then Current	Spot			SaskEnergy	Spot	Sumas Spot	Westcoast Station 2	Spot Plant Gate	FOB Vancouver	at Plant Gate
	USD/MMBtu	USD/MMBtu	USD/MMBtu	CAD/MMBtu	CAD/MMBtu	Constant 2016 \$	Then Current	ARP	CAD/MMBtu	CAD/MMBtu	USD/MMBtu	CAD/MMBtu	CAD/MMBtu	USD/lt	CAD/lt
2006	8.28	6.99	6.93	6.52	N/A	7.46	6.29	6.57	6.67	6.42	6.05	6.58	6.40	55.07	19.27
2007	8.27	7.12	6.83	6.45	N/A	7.23	6.23	6.20	6.18	6.35	6.52	6.40	6.16	81.66	42.03
2008	10.12	8.90	8.91	8.16	N/A	9.02	7.94	7.88	8.07	8.04	6.47	8.21	7.99	497.39	488.63
2009	4.63	4.16	4.05	3.99	N/A	4.21	3.79	3.85	3.87	3.83	3.80	3.90	3.70	57.06	24.57
2010	4.86	4.40	4.53	4.01	N/A	4.18	3.78	3.77	3.96	3.85	4.12	3.78	3.63	88.94	48.26
2011	4.38	4.03	4.21	3.62	N/A	3.72	3.42	3.46	3.57	3.58	3.90	3.33	3.18	217.16	171.93
2012	2.98	2.83	2.92	2.40	N/A	2.33	2.21	2.25	2.31	2.26	2.70	2.30	2.12	201.03	157.91
2013	3.88	3.73	3.81	3.18	N/A	3.08	2.96	2.98	3.09	3.10	3.71	3.14	2.94	105.74	74.02
2014	4.41	4.28	5.36	4.50	N/A	4.38	4.26	4.22	4.39	4.42	4.37	4.29	4.07	145.41	110.41
2015	2.66	2.63	2.85	2.70	N/A	2.49	2.47	2.56	2.71	2.61	2.31	1.80	1.59	139.61	128.14
2016 Q1	1.99	1.99	2.24	1.83	1.92	1.62	1.62	1.86	2.09	1.74	1.76	1.41	1.20	93.30	78.70
2016 Q2	2.25	2.25	1.94	1.43	1.81	1.21	1.21	1.15	1.26	1.33	1.55	1.25	0.75	84.33	58.64
2016 Q3 (e)	2.79	2.79	2.76	2.33	2.53	2.09	2.09	2.09	2.21	2.23	2.49	1.95	1.97	74.50	47.22
2016 Q4	3.20	3.20	3.30	2.95	2.95	2.71	2.71	2.71	2.81	2.85	3.20	2.60	2.42	75.00	50.00
2016 Full Year	2.56	2.56	2.56	2.14	2.30	1.91	1.91	1.95	2.09	2.04	2.25	1.80	1.59	81.78	58.64
2017	3.14	3.20	3.25	3.00	3.00	2.70	2.76	2.76	2.86	2.90	2.90	2.70	2.51	100.00	79.03
2018	3.08	3.20	3.25	3.00	3.00	2.65	2.76	2.76	2.86	2.90	2.90	2.70	2.52	125.00	106.25
2019	3.20	3.40	3.45	3.21	3.21	2.80	2.97	2.97	3.07	3.11	3.20	2.96	2.78	127.50	104.55
2020	3.33	3.60	3.65	3.43	3.43	2.94	3.19	3.19	3.29	3.33	3.40	3.18	2.99	130.05	103.00
2021	3.44	3.80	3.85	3.71	3.71	3.14	3.46	3.46	3.56	3.61	3.60	3.46	3.27	132.65	106.06
2022	3.55	4.00	4.05	3.91	3.91	3.25	3.66	3.66	3.76	3.81	3.80	3.66	3.47	135.30	109.18
2023	3.66	4.20	4.25	4.10	4.10	3.35	3.85	3.85	3.95	4.00	4.00	3.85	3.66	138.01	112.36
2024	3.75	4.39	4.44	4.29	4.29	3.44	4.03	4.03	4.13	4.19	4.19	4.04	3.85	140.77	115.61
2025	3.75	4.48	4.53	4.37	4.37	3.45	4.12	4.12	4.22	4.27	4.28	4.12	3.93	143.59	118.93
2026+	3.75	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	3.45	+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 gas gathering and processing charges are deducted.

AECO/NIT Spot refers to the same-day spot price averaged over the period.

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Table 3
GLJ Petroleum Consultants
International and Frontier
Price Forecast
Effective October 1, 2016

Year	Inflation %	CADUSD	GBPUSD	EURUSD	NYMEX WTI Near Month Contract Crude Oil at Cushing, OK		Light Louisiana Sweet Crude Oil		Mexican Mayan Crude Oil		ICE Brent Near Month Contract Crude Oil FOB North Sea		NYMEX Henry Hub Near Month Contract		Nova Scotia Goldboro		National Balancing Point (UK)	
		Exchange Rate	Exchange Rate	Exchange Rate	Then	Then	Then	Then	Then	Then	Then	Then	Then	Then	Then	Then	Then	Then
		USD/CAD	USD/GBP	USD/EUR	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current
2006	2.0	0.8818	1.8428	1.2068	66.22	75.08	63.89	72.41	52.16	59.13	66.16	75.01	6.99	7.94	6.20	7.04	8.34	9.48
2007	2.1	0.9352	2.0017	1.3393	72.39	76.89	75.36	80.13	59.69	63.30	72.71	77.33	7.12	7.65	6.33	6.84	6.14	6.44
2008	2.4	0.9428	1.8514	1.4573	99.64	104.27	102.31	107.04	83.90	87.62	98.30	102.81	8.90	9.36	8.32	8.77	11.41	12.12
2009	0.4	0.8798	1.5649	1.3930	61.78	69.57	64.31	72.52	56.46	63.55	62.50	70.47	4.16	4.75	3.35	3.87	4.95	5.68
2010	1.8	0.9711	1.5465	1.3274	79.52	81.85	82.78	85.20	70.29	72.35	80.25	82.58	4.40	4.53	3.83	3.96	6.39	6.58
2011	2.9	1.0115	1.6038	1.3920	95.12	94.02	112.33	111.03	98.60	97.52	110.86	109.57	4.03	3.98	3.62	3.58	9.35	9.25
2012	1.5	1.0009	1.5854	1.2861	94.21	94.11	111.77	111.62	99.60	99.50	111.71	111.57	2.83	2.82	2.72	2.72	9.38	9.37
2013	0.9	0.9711	1.5645	1.3285	97.96	100.95	106.19	109.32	97.26	100.13	108.77	112.04	3.73	3.84	5.78	5.94	10.50	10.82
2014	1.9	0.9055	1.6472	1.3288	93.00	102.50	94.24	103.88	85.79	94.53	99.71	109.89	4.28	4.72	7.11	7.86	8.25	9.12
2015	1.1	0.7831	1.5283	1.1097	48.78	62.12	49.43	62.97	44.02	55.99	53.60	68.23	2.63	3.36	3.92	4.94	6.52	8.31
2016 Q1	1.6	0.7281	1.4311	1.1028	33.46	45.89	35.11	48.13	26.01	35.67	35.09	48.10	1.99	2.74	2.30	3.21	4.36	6.00
2016 Q2	1.6	0.7762	1.4349	1.1296	45.70	58.90	47.58	61.31	37.79	48.71	46.97	60.53	2.25	2.89	1.46	1.87	4.49	5.78
2016 Q3 (e)	1.2	0.766	1.313	1.116	44.86	58.54	46.58	60.77	38.89	50.74	46.90	61.19	2.79	3.64	1.96	2.56	4.06	5.29
2016 Q4	2.0	0.750	1.300	1.125	48.00	64.00	49.50	66.00	41.50	55.33	50.00	66.67	3.20	4.27	2.90	3.87	5.56	7.41
2016 Full Year	1.6	0.755	1.370	1.118	43.01	56.83	44.69	59.05	36.05	47.61	44.74	59.12	2.56	3.39	2.16	2.88	4.62	6.12
2017	2.0	0.775	1.300	1.125	54.00	69.68	55.44	71.54	47.04	60.70	56.00	72.26	3.20	4.13	3.17	4.09	5.74	7.41
2018	2.0	0.800	1.300	1.125	58.00	72.50	60.39	75.49	51.85	64.81	61.00	76.25	3.20	4.00	3.17	3.96	6.10	7.63
2019	2.0	0.825	1.300	1.125	63.00	76.36	65.34	79.20	56.76	68.80	66.00	80.00	3.40	4.12	3.37	4.08	6.29	7.62
2020	2.0	0.850	1.300	1.125	67.00	78.82	69.30	81.53	60.90	71.65	70.00	82.35	3.60	4.24	3.57	4.19	6.51	7.66
2021	2.0	0.850	1.300	1.125	71.00	83.53	73.26	86.19	65.12	76.61	74.00	87.06	3.80	4.47	3.76	4.43	6.67	7.84
2022	2.0	0.850	1.300	1.125	75.00	88.24	77.22	90.85	69.42	81.67	78.00	91.76	4.00	4.71	3.96	4.66	6.81	8.01
2023	2.0	0.850	1.300	1.125	79.00	92.94	81.18	95.51	72.98	85.86	82.00	96.47	4.20	4.94	4.16	4.89	6.98	8.21
2024	2.0	0.850	1.300	1.125	83.00	97.65	85.14	100.16	76.54	90.05	86.00	101.18	4.39	5.16	4.35	5.12	7.14	8.40
2025	2.0	0.850	1.300	1.125	86.05	101.24	88.74	104.40	79.78	93.86	89.64	105.46	4.48	5.27	4.44	5.22	7.26	8.54
2026+	2.0	0.850	1.300	1.125	+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

A historical futures contract price is an average of the daily settlement price of the near month contract over the calendar month