



**CARDINAL**  
ENERGY LTD.

**Q2 2021**

**MANAGEMENT DISCUSSION & ANALYSIS**

## MANAGEMENT'S DISCUSSION AND ANALYSIS

This management's discussion and analysis ("MD&A") is a review of operations, financial position and outlook for Cardinal Energy Ltd. ("Cardinal" or the "Company") for the three and six months ended June 30, 2021 and is dated July 28, 2021. The MD&A should be read in conjunction with Cardinal's unaudited interim condensed financial statements as at and for the three and six months ended June 30, 2021 and the audited financial statements for the years ended December 31, 2020 and 2019. Financial data presented has been prepared in accordance with International Financial Reporting Standards ("IFRS" or, alternatively, "GAAP"), unless otherwise indicated. Certain prior period amounts have been reclassified to conform to current period presentation.

*All figures in tables are stated in thousands of Canadian dollars (except operational and per share amounts or as noted).*

### DESCRIPTION OF BUSINESS

Cardinal is engaged in the acquisition, development, optimization and production of crude oil and natural gas in the provinces of Alberta and Saskatchewan.

### Non-GAAP Measures

The terms "funds flow", "adjusted funds flow", "adjusted funds flow per share", "adjusted funds flow per diluted share", "adjusted working capital", "development capital expenditures", "free cash flow", "net operating expenses", "netback", "net debt", "net debt to adjusted funds flow", "net bank debt", and "total payout ratio" in this MD&A are not recognized under GAAP. Management believes that in addition to earnings and cash flow from operating activities as defined by GAAP, these terms are useful supplemental measures to evaluate operating performance. Users are cautioned however, that these measures should not be construed as an alternative to earnings or cash flow from operating activities determined in accordance with GAAP as an indication of Cardinal's performance and may not be comparable with the calculation of similar measurements by other entities.

Management utilizes "adjusted funds flow" as a key measure to assess the ability of the Company to generate the funds necessary for financing activities, operating activities, and capital expenditures. Adjusted funds flow excludes the change in non-cash working capital, and decommissioning expenditures since Cardinal believes the timing of collection, payment or incurrence of these items involves a high degree of discretion and variability. Expenditures on decommissioning obligations vary from period to period depending on the maturity of the Company's operating areas and availability of adjusted funds flow and are viewed as part of the Company's capital budgeting process. Funds flow excludes the change in non-cash operating working capital. Funds flow and adjusted funds flow are not intended to represent net cash provided by (used in) operating activities calculated in accordance with IFRS. The following table reconciles cash flow from operating activities to funds flow and adjusted funds flow:

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Cash flow from operating activities	22,463	(10,276)	n/m	35,738	11,765	204
Change in non-cash working capital	1,860	11,798	(84)	3,003	3,233	(7)
<b>Funds flow</b>	<b>24,323</b>	1,522	n/m	<b>38,741</b>	14,998	158
Decommissioning expenditures	977	543	80	2,708	2,015	34
<b>Adjusted funds flow</b>	<b>25,300</b>	2,065	n/m	<b>41,449</b>	17,013	144

"Adjusted funds flow per share" is calculated using adjusted funds flow divided by the weighted average basic shares outstanding adjusted for shares held in treasury.

"Adjusted funds flow per diluted share" is calculated using adjusted funds flow divided by the weighted average diluted shares outstanding adjusted for shares held in treasury.

"Adjusted working capital" is calculated as current liabilities less current assets (adjusted for the warrant liability, fair value of financial instruments, current decommissioning obligation and current lease liabilities). Adjusted

working capital is used by Cardinal to monitor its capital structure, liquidity, and its ability to fund current operations. The following table reconciles working capital to adjusted working capital:

	As at		
	Jun 30, 2021	Dec 31, 2020	Change %
<b>Working capital</b>	<b>(29,108)</b>	(25,690)	13
Lease liabilities	<b>1,585</b>	1,687	(6)
Decommissioning obligation	<b>3,352</b>	3,280	2
Fair value of financial instruments, net	<b>13,509</b>	6,909	96
Warrant liability	-	3,530	(100)
<b>Adjusted working capital deficiency</b>	<b>(10,662)</b>	(10,284)	4

"Development capital expenditures" represents expenditures on property, plant and equipment (excluding capitalized G&A, other assets and net acquisitions) as shown in the *Capital Expenditures* section below.

"Free cash flow" represents adjusted funds flow less development capital expenditures.

"Net operating expenses" is calculated as operating expense less processing and other revenue primarily generated by processing third party volumes at processing facilities where the Company has an ownership interest, and can be expressed on a per boe basis. As the Company's principal business is not that of a midstream entity, management believes this is a useful supplemental measure to reflect the true cash outlay at its processing facilities by utilizing spare capacity through processing third party volumes.

"Netback" is calculated on a boe basis and is determined by deducting royalties, net operating expenses, and transportation expenses from petroleum and natural gas revenue in accordance with the Canadian Oil and Gas Evaluation ("COGE") Handbook. Netback is utilized by Cardinal to better analyze the operating performance of its petroleum and natural gas assets against prior periods.

The term "net debt" is not recognized under GAAP and is calculated as bank debt plus the principal amount of convertible unsecured subordinated debentures ("convertible debentures"), secured notes and adjusted working capital. Net debt is used by management to analyze the financial position, liquidity and leverage of Cardinal.

"Net debt to adjusted funds flow" is calculated as net debt divided by adjusted funds flow for the trailing twelve month period. The ratio of net debt to adjusted funds flow is used to measure the Company's overall debt position and to measure the strength of the Company's balance sheet. Cardinal monitors this ratio and uses this as a key measure in making decisions regarding financing, capital expenditures and shareholder returns.

"Net bank debt" is calculated as net debt less the principal amount of convertible debentures and secured notes. Net bank debt is used by management to analyze the financial position, liquidity, leverage and borrowing capacity on Cardinal's bank line.

"Total payout ratio" represents the ratio of the sum of dividends declared plus development capital expenditures divided by adjusted funds flow. Total payout ratio is another key measure to assess Cardinal's ability to fund financing activities, operating activities, and capital expenditures.

### 51-101 Advisory

In accordance with *Standards for Disclosure of Oil and Gas Activities* ("NI 51-101"), natural gas volumes have been converted to barrels of oil equivalent using a conversion rate of six thousand cubic feet of natural gas to one barrel of oil. This ratio is based on an energy equivalency conversion method primarily applicable at the burner tip. It does not represent a value equivalency at the wellhead and is not based on either energy content or current prices. The term "boe" is useful for comparative measures and observing trends, it does not accurately reflect individual product value and may be misleading, particularly if used in isolation. Based on the current price of crude oil to natural gas, using a 6:1 conversion ratio may be misleading as an indication of value.



## SECOND QUARTER 2021 HIGHLIGHTS

- Second quarter 2021 adjusted funds flow increased to \$25.3 million from \$2.1 million in the same period in 2020;
- Production increased by 5% in the second quarter of 2021 over 2020;
- Revenue increased by 213% to \$99.1 million over the second quarter of 2020;
- Continued with a conservative capital program of \$10.3 million which included two Midale injection wells for our Enhanced Oil Recovery ("EOR") CO<sub>2</sub> injection program;
- Free cash flow reduced net debt by \$12.1 million in the second quarter of 2021. In the first six months of 2021, net debt has been reduced by \$40.5 million or 16% of the net debt level at December 31, 2020.

## OPERATIONS

### PRODUCTION

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Light oil (bbl/d)	7,129	7,117	-	7,086	7,454	(5)
Medium / heavy oil (bbl/d)	7,638	7,134	7	7,688	8,217	(6)
Crude oil (bbl/d)	14,767	14,251	4	14,774	15,671	(6)
Natural gas (mcf/d)	13,173	12,873	2	13,765	13,620	1
NGL (bbl/d)	986	772	28	1,097	804	36
<b>boe/d</b>	<b>17,949</b>	<b>17,169</b>	<b>5</b>	<b>18,166</b>	<b>18,745</b>	<b>(3)</b>
<b>% Crude oil and NGL production</b>	<b>88%</b>	<b>88%</b>	<b>-</b>	<b>87%</b>	<b>88%</b>	<b>(1)</b>

Second quarter 2021 production increased 5% over the same period in 2020 as the Company continues to recover from production shut-in during the second quarter of 2020 as a result of low commodity prices from the COVID-19 pandemic ("COVID-19"). In the second quarter of 2020, the Company shut-in a significant amount of its production for a period as commodity prices significantly declined due to COVID-19. As commodity prices strengthened in the last half of 2020 and into 2021, Cardinal has increased its well reactivation activity returning these wells to production. NGL production increased 28% in the second quarter of 2021 compared to the same period in 2020 due to higher liquids yields from a third party processing facility in the Grande Prairie area.

Production for the first six months of 2021 decreased 3% over the same period in 2020 due to the Company electing to defer drilling new wells since the first quarter of 2020 in response to low commodity prices caused by the effects of COVID-19. The Company resumed its drilling activity late in second quarter of 2021.

## PETROLEUM AND NATURAL GAS REVENUE

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Light oil	<b>46,595</b>	14,138	230	<b>85,750</b>	46,748	83
Medium / heavy oil	<b>45,939</b>	15,277	201	<b>84,863</b>	42,614	99
Crude oil	<b>92,534</b>	29,415	215	<b>170,613</b>	89,362	91
NGL	<b>2,645</b>	840	215	<b>5,871</b>	2,464	138
Natural gas	<b>3,927</b>	1,456	170	<b>8,169</b>	3,358	143
<b>Petroleum and natural gas revenue</b>	<b>99,106</b>	31,711	213	<b>184,653</b>	95,184	94
<b>Cardinal average prices</b>						
Light oil (\$/bbl)	<b>71.82</b>	21.83	229	<b>66.86</b>	34.46	94
Medium / heavy oil (\$/bbl)	<b>66.09</b>	23.53	181	<b>60.98</b>	28.49	114
Natural gas (\$/mcf)	<b>3.28</b>	1.24	164	<b>3.28</b>	1.35	143
<b>Equivalent (\$/boe)</b>	<b>60.68</b>	20.30	199	<b>56.16</b>	27.90	101
<b>Benchmark prices</b>						
Crude oil - WTI (US \$/bbl)	<b>66.07</b>	27.85	137	<b>61.96</b>	37.01	67
Crude oil - Edmonton light (Cdn \$/bbl)	<b>77.07</b>	29.56	161	<b>71.76</b>	40.59	77
Crude oil - WCS (Cdn \$/bbl)	<b>66.99</b>	22.42	199	<b>62.21</b>	28.27	120
Natural gas - AECO Spot (Cdn \$/gj)	<b>2.93</b>	1.89	55	<b>2.96</b>	1.91	55
Exchange rate - (US/Cdn)	<b>0.81</b>	0.72	13	<b>0.80</b>	0.73	10

Petroleum and natural gas revenue increased 213% in the second quarter of 2021 as compared to the same period in 2020 due to a 199% increase in realized commodity prices. In the second quarter of 2021, the Company's 229% light oil price increase over the same period in 2020, was greater than the benchmark price increase of 161% as Cardinal had certain fixed price contracts in the second quarter of 2020 that were below the market price at the time. During the second quarter of 2021, Cardinal's realized medium/heavy oil price increase approximated the Western Canadian Select ("WCS") benchmark price increase as compared with the same period in 2020. The Company's second quarter 2021 natural gas price increased 164% over the same period in 2020 as compared to the AECO benchmark increase of 55% due to the Company ending its lower priced Chicago based natural gas sales contract in the fourth quarter of 2020.

For the first six months of 2021, Cardinal's light and medium/heavy realized prices increased proportionately with the associated Edmonton light and WCS benchmarks when compared to the same period in 2020. The Company's natural gas price increased by 143% over the same period in 2020 compared to a 55% increase in the AECO benchmark due to the Company ending its lower priced Chicago based natural gas sales contract in the fourth quarter of 2020.

## FINANCIAL INSTRUMENTS - COMMODITY

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Realized gain/(loss) - commodity contracts	<b>(13,715)</b>	3,308	n/m	<b>(27,516)</b>	11,529	n/m
Unrealized gain/(loss) - commodity contracts	<b>2,051</b>	(13,984)	(115)	<b>(6,600)</b>	(5,808)	14

Managing the variability in funds flow and adjusted funds flow is an integral component of Cardinal's business strategy. Changing business conditions are monitored regularly and reviewed with our Board of Directors to establish risk management guidelines used by management in carrying out the Company's risk management program. The risk exposure inherent in movements in the price of crude oil, natural gas and foreign exchange rates are proactively managed by Cardinal through the use of derivatives with investment-grade counterparties. The Company considers these derivative contracts to be an effective means to manage cash flow from operating activities, and adjusted funds flow.

Cardinal utilizes a variety of derivatives including swaps, collars and puts to protect against downward commodity price movements and foreign exchange fluctuations and avoids entering into more complex derivative structures. Contracts settled in the period result in realized gains or losses based on the market price compared to the contract price. Changes in the fair value of the contracts, as measured at the balance sheet date, are reported as unrealized gains or losses in the period as the forward markets for commodities and currencies fluctuate and as new contracts are executed. For commodities, Cardinal's risk management program allows for hedging a forward profile of three years, of up to 75% of average forecasted 12 months of gross production and up to 50% and 30% of the following 12 and 24 months, respectively. During the second quarter of 2021, Cardinal had a \$13.7 million realized hedging loss due to the significant increase in oil prices experienced during the quarter. In the second quarter, approximately 39% of the Company's oil production was hedged which decreases to approximately 20% in the third quarter of 2021.

As of the date of this MD&A Cardinal had the following commodity derivatives, referenced to WTI, WCS, and AECO outstanding:

Commodity	Financial Instrument	Period	Average Volume	Average Strike Price
<b>Crude Oil</b>				
	CDN WTI Swap	Jul - Sep 2021	1,000 bbl/d	\$ 59.00
		Jul - Dec 2021	1,500 bbl/d	\$ 55.83
<b>Natural Gas</b>				
	AECO Swap	Jul - Dec 2021	11,000 gj/d	\$ 2.64
<b>Acquired through Venturion Transaction</b>				
<b>Crude Oil</b>				
	CDN WCS Differential Swap	Jul - Sep 2021	700 bbl/d	\$ (15.65)
	USD WTI Swap	Jul - Sep 2021	700 bbl/d	\$ 51.25
	USD WTI Collar	Jul - Sep 2021	500 bbl/d	Floor \$ 40.00 Ceiling \$ 49.00
		Oct - Dec 2021	750 bbl/d	Floor \$ 50.00 Ceiling \$ 63.20

## ROYALTIES

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Royalties	<b>17,220</b>	4,054	n/m	<b>30,187</b>	14,338	111
Percent of revenue	<b>17.4%</b>	12.8%	36	<b>16.3%</b>	15.1%	8
\$/boe	<b>10.54</b>	2.59	n/m	<b>9.18</b>	4.20	119

Royalties are either paid or taken in kind and are owed to land and mineral rights owners and to provincial governments. The terms of the land and mineral rights owner agreements and provincial royalty regimes impact Cardinal's overall corporate royalty rate.

Royalties as a percentage of revenue increased during the second quarter and for the first six months of 2021 as compared to the same periods in 2020 due to the increase in commodity prices. Crown royalty rates are on a sliding scale therefore an increase in pricing generally leads to an increase in royalty rates.

## NET OPERATING EXPENSES

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Operating expenses	<b>36,306</b>	23,526	54	<b>72,540</b>	62,207	17
Less: Processing and other revenue	<b>(1,088)</b>	(383)	184	<b>(1,936)</b>	(1,000)	94
Net operating expenses <sup>(1)</sup>	<b>35,218</b>	23,143	52	<b>70,604</b>	61,207	15
\$/boe	<b>21.56</b>	14.81	46	<b>21.47</b>	17.94	20

(1) See non-GAAP measures.

During the second quarter of 2021, net operating expenses per boe increased by 46% over the same period in 2020 due to higher Alberta electricity costs, increased well reactivations and normalized labor costs. In the second quarter of 2020, in response to COVID-19, Cardinal reduced all non-essential well reactivations and cut salaries and wages of contractors and employees. In the second quarter of 2021, well reactivation activity normalized and salaries and wages were restored to pre-pandemic rates. In addition, in the second quarter of 2021, Alberta power rates have significantly increased by 250% over the same period in 2020. Reduced supply and increased demand caused Alberta power rates to average approximately \$105/MWh as compared to approximately \$30/MWh in the same period in 2020. These high power rates have increased our second quarter total Alberta net operating expenses by approximately \$2.90/boe in comparison to the same period in 2020.

For the first six months of 2021, increased well reactivations, normalized labor rates and a significant increase in electricity rates have increased the Company's net operating expenses per boe by 20% over the same period in 2020.

## TRANSPORTATION EXPENSES

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Transportation expenses	<b>495</b>	370	34	<b>991</b>	945	5
\$/boe	<b>0.30</b>	0.24	25	<b>0.30</b>	0.28	7

Transportation costs and transportation costs per boe increased in the second quarter and first six months of 2021 as compared with the same periods in 2020 as the Company's clean oil trucking activity increased from the reactivation of oil production required to be trucked due to lack of pipeline connectivity in certain areas.

## NETBACK

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Petroleum and natural gas revenue	<b>60.68</b>	20.30	199	<b>56.16</b>	27.90	101
Royalties	<b>10.54</b>	2.59	n/m	<b>9.18</b>	4.20	119
Net operating expenses	<b>21.56</b>	14.81	46	<b>21.47</b>	17.94	20
Transportation expenses	<b>0.30</b>	0.24	25	<b>0.30</b>	0.28	7
Netback <sup>(1)</sup>	<b>28.28</b>	2.66	n/m	<b>25.21</b>	5.48	n/m

(1) See non-GAAP measures.

Cardinal's second quarter and first six months of 2021 netback significantly increased as compared to the same periods in 2020 due to higher commodity prices partially offset by higher royalties and net operating costs.

## GENERAL AND ADMINISTRATIVE ("G&A")

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Gross G&A	4,650	3,576	30	8,720	9,383	(7)
Capitalized G&A and overhead recoveries	(867)	(652)	33	(1,870)	(1,585)	18
G&A	3,783	2,924	29	6,850	7,798	(12)
\$/boe	2.32	1.87	24	2.08	2.29	(9)

In the second quarter of 2021, G&A costs and G&A costs per boe have increased by 29% and 24%, respectively, over the same period in 2020. In response to COVID-19, Cardinal slashed its Board, Executive and office compensation beginning in the second quarter of 2020. In the second quarter of 2021, the Company restored compensation to pre-pandemic levels. In addition, reduced government subsidy grants have increased G&A in the second quarter of 2021 compared to the same period in 2020.

For the first six months of 2021, G&A costs were 12% lower than the same period in 2020 as the Company compensation costs continued to be cutback in the first quarter of 2021 and G&A was also impacted by government subsidies which were not available in the first quarter of 2020. For the remainder of 2021, with minimal incremental G&A cost additions from the acquisition described below in the *Acquisition* section, the Company forecasts its G&A per boe costs to decrease below the first half of 2021 level.

## SHARE-BASED COMPENSATION ("SBC")

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Gross SBC	1,100	994	11	1,955	2,554	(23)
Capitalized SBC	(119)	(133)	(11)	(210)	(272)	(23)
SBC	981	861	14	1,745	2,282	(24)
\$/boe	0.60	0.55	9	0.53	0.67	(21)

SBC expense increased in the second quarter of 2021 as compared to the same period in 2020 due to an increase in the grant fair value of restricted awards ("RAs") and performance awards ("PAs") outstanding.

For the first six months of 2021, less outstanding awards at a lower average value created a 24% decrease in SBC.

As at June 30, 2021, Cardinal had 3.8 million RAs and 1.5 million PAs outstanding.

## FINANCE

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Interest - bank debt	2,955	1,567	89	5,806	3,498	66
Other finance charges, net	366	204	79	790	518	53
Interest - convertible debentures	-	610	(100)	348	1,230	(72)
Interest - secured notes	620	-	100	1,212	-	100
Interest - capital leases	54	82	(34)	112	166	(33)
Accretion	1,849	2,207	(16)	3,786	4,399	(14)
Unrealized foreign exchange (gain) loss	-	(1,132)	-	-	(23)	-
Finance	5,844	3,538	65	12,054	9,788	23
\$/boe	3.58	2.26	58	3.67	2.87	28
Average bank debt	187,134	212,143	(12)	190,191	203,628	(7)
Interest rate - bank debt	6.3%	3.0%	110	6.2%	3.5%	77



In the second quarter and first six months of 2021, higher bank fees partially offset by lower average debt levels increased the interest on bank debt by 89% and 66%, respectively, over the same periods in 2020. In addition, for the second quarter and first six months of 2021 interest on the second lien secured notes was partially offset by reduced interest on the redeemed convertible debentures as described in the Capital Funding section below.

## DEPLETION AND DEPRECIATION ("D&D")

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Depletion and depreciation	<b>17,125</b>	14,055	22	<b>34,267</b>	37,562	(9)
\$/boe	<b>10.48</b>	9.00	16	<b>10.42</b>	11.01	(5)

Depletion is calculated based on capital expenditures incurred since inception of the Company, future development costs associated with proved and probable reserves, production rates, and proved and probable reserves. In addition to depletion, Cardinal records depreciation on other capital equipment and right-of-use assets not directly associated with proved and probable reserves.

D&D costs and D&D costs per boe increased 22% and 16%, respectively, in the second quarter of 2021 as compared to the same period in 2020 due to a higher property, plant and equipment depletable base from the Company's impairment reversal in the fourth quarter of 2020.

D&D costs decreased for the first six months of 2021 as compared with the same period in 2020 as the depletable base of the Company's property, plant and equipment has drastically fluctuated from the \$343 million impairment charge in the first quarter of 2020 partially reversed by \$122.7 million in the fourth quarter of 2020.

## DEFERRED TAXES

The Company has approximately \$1.4 billion of tax pools (\$1.3 billion are unrestricted) available to be applied against future income for tax purposes. Based on available pools and current commodity prices, Cardinal does not expect to pay current income taxes until 2027 or beyond. Any potential taxes payable beyond 2027 would be affected by commodity prices, capital expenditures and production.

In the fourth quarter of 2020, Cardinal received a proposal letter from the Canada Revenue Agency ("CRA") wherein the CRA stated that it proposed to reduce certain non-capital loss tax pools of approximately \$192 million carried forward in the tax return filed for the year ended December 31, 2015. Cardinal disagrees with CRA's position and firmly believes it will be successful in defending its position. Prior to the proposal letter, Cardinal had derecognized these tax assets in the first quarter of 2020.

## EARNINGS (LOSS), CASH FLOW FROM OPERATING ACTIVITIES, ADJUSTED FUNDS FLOW AND PAYOUT RATIOS

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Earnings (loss)	<b>9,095</b>	(27,546)	(133)	<b>(16,866)</b>	(478,490)	(96)
\$/share						
Basic and diluted	<b>0.06</b>	(0.24)	(125)	<b>(0.12)</b>	(4.22)	(97)
Cash flow from operating activities	<b>22,463</b>	(10,276)	n/m	<b>35,738</b>	11,765	204
Adjusted funds flow	<b>25,300</b>	2,065	n/m	<b>41,449</b>	17,013	144
\$/share						
Basic	<b>0.18</b>	0.02	n/m	<b>0.30</b>	0.15	100
Diluted	<b>0.16</b>	0.02	n/m	<b>0.30</b>	0.15	100
Total payout ratio	<b>40%</b>	38%	5	<b>38%</b>	153%	(75)

In the second quarter of 2021, increased oil and natural gas prices have positively impacted the Company's earnings, cash flow from operating activities, and adjusted funds flow. For the first six months of 2021, a rapid increase in forward oil prices has created realized and unrealized losses on commodity contracts impacting the loss by \$34.1 million. In addition, due to a significant increase in the Company's share price, Cardinal recorded a non-cash re-measurement loss of the warrant liability of \$12.9 million in the first quarter of 2021.

## CAPITAL EXPENDITURES

In the second quarter of 2021, the Company executed a capital expenditure program of \$10.3 million which included drilling of two CO<sub>2</sub> injection wells in the Midale EOR program. In addition, the Company continued with the CO<sub>2</sub> injection at Midale, Saskatchewan and added to our facility infrastructure in our Midale, Central and Southern Alberta areas. The Company also continued with its well reactivation program spending \$4.1 million on recompletions and workovers throughout its operating areas.

	Three months ended			Six months ended		
	Jun 30, 2021	Jun 30, 2020	Change %	Jun 30, 2021	Jun 30, 2020	Change %
Land	67	12	n/m	145	127	14
Drilling, completion, and recompletions	5,937	(137)	n/m	8,440	15,657	(46)
Equipment, facilities and pipelines	4,024	901	n/m	7,350	6,774	9
Total development capital expenditures <sup>(1)</sup>	10,028	776	n/m	15,935	22,558	(29)
Capitalized G&A	244	223	9	502	537	(7)
Other assets	33	57	(42)	69	102	(32)
Acquisitions, net	8	-	n/m	3,334	-	n/m
Total capital expenditures <sup>(2)</sup>	10,313	1,056	n/m	19,840	23,197	(14)

(1) Represents the total of exploration and evaluation and property, plant and equipment expenditures from the statements of cash flows less amounts recorded for capitalized G&A and other assets (included in the table of expenditures above).

(2) Expenditures exclude expenditures for the decommissioning obligation and non-cash capitalized share-based compensation.

The Company's Board of Directors has approved a 2021 capital budget of \$46 million.

## ACQUISITION

On July 15, 2021, the Company closed the acquisition of Venturion Oil Limited ("Venturion") for a purchase price of approximately \$47.5 million. The consideration consisted of 6.3 million of Cardinal's common shares and approximately \$27.5 million of cash, subject to certain holdbacks. The cash was utilized to repay Venturion's outstanding net debt at closing (including closing costs) with the residual being allocated to the shareholders on a pro-rata basis.

Concurrently, Cardinal issued \$12.5 million principal amount of subordinated second lien secured notes (the "Notes") which will bear interest at 10% per annum and have a three year term (the "Note Financing"). Interest will accrue semi-annually and be added to the principal amount and will be payable on maturity. As part of the Note Financing, Cardinal has also agreed to issue one common share purchase warrant ("Warrant") for each \$5.00 principal amount of Notes. Each Warrant will entitle the holder to acquire one common share of Cardinal at an exercise price equal to the deemed price of the common shares being issued pursuant to the Acquisition for a period of 36 months commencing six months from issue date. The Note Financing was fully funded by insiders of the Company.

## DECOMMISSIONING OBLIGATION

In the second quarter of 2021, the Company spent \$1.0 million on decommissioning obligations and also benefitted from government subsidies received through its service providers and further reduced our future decommissioning obligations by \$2.3 million. In aggregate, during the second quarter, the Company's spending and use of government subsidies has reduced its inactive wellsite and facility decommissioning liability by \$3.3 million.

For the first six months of 2021, Cardinal has completed acquisitions which included \$0.7 million of future asset retirement obligations and incurred \$2.7 million of decommissioning expenditures. In addition, the Company has benefitted from government subsidies through its service providers and reduced future expenditures by \$3.5 million in the first six months of 2021. In the first six months of 2021, Cardinal's spending and use of government subsidies has decreased its inactive wellsite and facility decommissioning liability by \$6.2 million.

## WARRANT LIABILITY

On December 30, 2020, as part of a private placement, Cardinal issued 8,122,000 units consisting of one common share and one warrant at \$0.50 per unit for net proceeds of \$4.0 million. At December 31, 2020 the warrants issued were classified as a financial liability as a result of a cashless exercise provision; however, during the first quarter of 2021, all of the warrant holders waived their right to cashless exercise the warrants. As a result, on the date when the warrant holders relinquished their right to cashless exercise, the Company fair valued the warrant liability and recorded the resulting re-measurement expense and reclassified the warrant liability to shareholder's equity.

## LIQUIDITY AND CAPITAL RESOURCES

Capitalization table	As at		
	Jun 30, 2021	Dec 31, 2020	Change %
Net bank debt <sup>(1)</sup>	188,901	202,399	(7)
Convertible debentures	-	28,207	(100)
Secured notes	17,429	16,217	7
Common shares, outstanding	144,171,598	121,348,705	19
Market price at end of period (\$ per share)	\$ 3.49	\$ 0.82	n/m
Market capitalization	503,159	99,506	n/m
Total capitalization	709,489	346,329	105

(1) See non-GAAP measures.

## CAPITAL FUNDING

### Bank debt

The Company's reserves-based revolving credit facility of \$225 million is comprised of a \$205 million syndicated term credit facility and a \$20 million non-syndicated operating line credit facility (the "Facilities"). On May 12, 2021, the Facilities were renewed on a revolving basis until May 31, 2022 and a maturity date of May 31, 2023, and may be extended for a further 364 day period, subject to approval by the syndicate. If not extended, the Facilities will cease to revolve, the applicable margins will increase by 0.5% and all outstanding advances will be repayable on May 31, 2023. There are no financial covenants related to the Facilities, provided that Cardinal is not in default of the terms of the Facilities. Cardinal was in compliance with the terms of the Facilities at June 30, 2021 and remains in compliance at the date of this MD&A or during the period ended.

The available lending limits of the Facilities are reviewed semi-annually based on the syndicate's interpretation of the Company's reserves, future commodity prices and costs. As the available lending limit of the Facilities is based on the syndicate's interpretation of the Company's reserves and future commodity prices and costs, there can be no assurance that the amount of the Facilities will not decrease at the next scheduled review.

Advances under the Facilities are available by way of either prime rate loans, which bear interest at the banks' prime lending rate plus 1.75% to 5.25% and bankers' acceptances, which are subject to fees and margins ranging from 2.75% to 6.25%. Interest and standby fees on the undrawn amounts of the Facilities depend upon certain ratios. The Facilities are secured by a general security agreement over all of the Company's assets.

### Convertible debentures

On February 4, 2021, Cardinal issued a notice of redemption for all of the outstanding debentures with a principal amount of \$28.2 million, effective March 11, 2021. Prior to the redemption date, Cardinal issued 22,410,000 common shares upon the conversion of \$28.0 million of principal amount of the debentures representing

approximately 99.3% of the outstanding debentures. The redemption of the remaining \$0.2 million principal amount of the 8% debentures was funded through the Company's credit facility.

#### Secured Notes

On December 30, 2020, Cardinal entered into a subscription agreements for a non-brokered private placement ("Private Placement") of \$16.9 million principal amount of second lien secured notes ("Secured Notes") issued at a 4% discount for net proceeds of \$16.2 million. The proceeds were utilized to repay the maturing 5.5% convertible debentures. As part of the offering, each subscriber was also required to subscribe for a pro rata number of units ("Units") totaling 8,122,000 Units, at a subscription price of \$0.50 per Unit for net proceeds of \$4.0 million. See Share Capital section.

The Secured Notes bear interest at 12% per annum, with interest compounded and accrued semi-annually and added to the principal amount outstanding, payable on maturity. The Secured Notes mature on June 30, 2022, and contain an extension provision, exercisable by either Cardinal or the holders on 30 days' prior written notice, to extend the maturity date to November 30, 2022.

## CAPITAL STRUCTURE

Cardinal manages its capital to provide a flexible structure to support production maintenance, capital programs and other operational strategies. Maintaining a strong financial position enables Cardinal to enhance business opportunities and supports Cardinal's strategy of providing shareholder return through growth of the business and reducing its cost structure.

One of the key measures that the Company utilizes in evaluating its capital structure is the credit available from the Facilities in relation to the Company's budgeted capital expenditure program and the ratio of net debt to adjusted funds flow (see non-GAAP measures).

To manage its capital structure, Cardinal considers its net debt to adjusted funds flow ratio, its capital expenditures program, the current level of credit available from the Facilities, the level of credit that may be attainable due to changes in petroleum and natural gas reserves and new equity if available on favourable terms. The Company prepares an annual capital expenditure budget, which is monitored monthly and updated as necessary.

	Twelve months ended	
	Jun 30, 2021	Dec 31, 2020
Bank debt	\$ 178,239	\$ 192,115
Secured notes	17,429	16,217
Principal amount of Convertible Debentures	-	28,207
Adjusted working capital deficiency <sup>(1)</sup>	10,662	10,284
Net debt <sup>(1)</sup>	\$ 206,330	\$ 246,823
Cash flow from operating activities	\$ 67,498	\$ 43,525
Change in non-cash working capital	(2,777)	(2,547)
Funds flow <sup>(1)</sup>	\$ 64,721	\$ 40,978
Decommissioning obligation expenditures	3,542	2,849
Adjusted funds flow <sup>(1)</sup>	68,263	43,827
Net debt to adjusted funds flow <sup>(1)</sup>	3.0	5.6

(1) See non-GAAP measures

Cardinal's ratio of net debt to adjusted funds flow as at June 30, 2021 was 3.0 to 1, lower than the ratio at December 31, 2020 but still above the Company's targeted range of 2.0 to 1. Lower adjusted funds flow from reduced oil prices experienced in 2020 has resulted in the ratio being well above the historical range. In response to this, during this period, Cardinal has taken numerous steps to mitigate the impact including reducing capital expenditures, operating and G&A costs. During the first half of 2021, the Company also strengthened its bank debt position and converted

\$28 million of convertible debentures into common shares. In addition, Cardinal has decreased its net bank debt by 7% over the balance at December 31, 2020. Under the budgeted scenario, Cardinal expects the net debt to adjusted funds flow ratio to continue to be reduced throughout the year.

As discussed below in the *Liquidity* section, the Company currently has available capacity on its Facilities to satisfy its capital and asset retirement obligations for 2021 and the Company will continue to monitor this ratio and endeavors to return to a level of a 2.0 to 1 target ratio.

## LIQUIDITY

The Company relies on cash flow from operating activities, the unused portion of the Facilities and equity issuances to fund its capital requirements and provide liquidity. Cardinal had sufficient credit capacity to cover its adjusted working capital deficiency of \$10.7 million and continues to have sufficient available capacity as at the date of this MD&A.

The Company believes that it is well positioned to take advantage of its internally developed opportunities funded through its currently available Facilities combined with anticipated cash flow from operating activities. Present sources of capital are anticipated to be sufficient to satisfy the Company's capital program and decommissioning obligations for the 2021 fiscal year and beyond.

Since the second quarter of 2020, the Company's reduced cost structure and higher oil prices have provided for increased cash flow from operating activities through the second quarter of 2021. In May 2021, the extension of our Facilities to a May 31, 2023 maturity combined with the settlement of all outstanding convertible debentures has solidified the Company's liquidity position.

## DIVIDENDS

In March 2020, due to the effect of the effect of COVID-19 which caused a collapse in the price of crude oil, Cardinal has elected to suspend its dividend. The Company will continue to evaluate market conditions to determine when we could reinstate a dividend in the future.

## SHARE CAPITAL

The Company has a bonus award plan whereby RAs and PAs may be granted to directors, officers, employees and other service providers. In the case of PAs, the award value is adjusted for a payout multiplier which can range from 0.0 to 2.0 and is dependent on the performance of the Company relative to pre-defined corporate performance measures for a particular period. Awards are adjusted for dividends declared, either with a cash payment or incremental common shares, and may be settled in cash, common shares issued from treasury or common shares acquired by an independent trustee in the open market for such purposes.

During the six months ended June 30, 2021, the trustee purchased 823,046 treasury shares (2020 – 303,495) at an average price of \$2.43 (Q2 2020 - \$2.31) for the potential settlement of vesting RAs and PAs and the Company settled 1,885,132 RAs (Q2 2020 – 1,697,096) and 282,123 PAs (Q2 2020 – nil) with 1,235,539 treasury shares (Q2 2020 – 925,548) held by the trustee and a cash payment of \$2.1 million (Q2 2020 – \$0.8 million) for withholding taxes. At June 30, 2021, the trustee held a remaining balance of 936,631 (December 31, 2020 – 1,349,124) treasury shares.

In the first six months of 2021, Cardinal granted 1.8 million RAs and 1.0 million PAs to officers, directors and employees pursuant to the Company's bonus award plan.

On December 30, 2020, as part of the Private Placement, Cardinal issued 8,122,000 Units consisting of one common share and one warrant at \$0.50 per unit for net proceeds of \$4.0 million.



Equity Instruments as at	Jul 28, 2021	Jun 30, 2021	Dec 31, 2020
Common shares, issued	151,378,458	145,108,229	122,697,829
Treasury shares	(1,079,597)	(936,631)	(1,349,124)
Convertible debentures	-	-	22,565,600
Warrants	10,622,000	8,122,000	8,122,000
RAs	3,712,870	3,776,610	3,992,659
PAs	1,536,246	1,536,246	846,369

## OFF BALANCE SHEET ARRANGEMENTS

Cardinal does not have any special purpose entities nor is it a party to any arrangements that would be excluded from the balance-sheet.

## CONTRACTUAL OBLIGATIONS

At June 30, 2021, the Company had contractual obligations as follows:

	2021	2022	2023	2024	2025	Thereafter
Trade and other payables	55,502	-	-	-	-	-
Lease liabilities	941	1,489	1,228	72	2	-
Bank debt <sup>(1)</sup>	-	-	178,239	-	-	-
Secured notes	-	20,156	-	-	-	-
<b>Total contractual obligations</b>	<b>\$ 56,443</b>	<b>\$ 21,645</b>	<b>\$ 179,467</b>	<b>\$ 72</b>	<b>\$ 2</b>	<b>\$ -</b>

(1) Amount excludes interest

## ADDITIONAL INFORMATION

### CRITICAL ACCOUNTING ESTIMATES

There have been no changes in Cardinal's critical accounting estimates in the three and six months ended June 30, 2021. Further information on the Company's critical accounting policies and estimates can be found in the notes to the annual financial statements and MD&A for the year ended December 31, 2020.

### INTERNAL CONTROLS UPDATE

Cardinal is required to comply with National Instrument 52-109 "Certification of Disclosure on Issuers' Annual and Interim Filings". The certificate requires that Cardinal disclose in the interim MD&A any change in the Company's internal control over financial reporting ("ICOFR") that occurred during the period that have materially affected, or are reasonably likely to materially affect Cardinal's ICOFR. As of the date of this MD&A Cardinal confirms that there have been no such changes in Cardinal's ICOFR during the second quarter of 2021.

### ENVIRONMENTAL RISKS

The oil and gas industry has a number of environmental risks and hazards and is subject to regulation by all levels of government. Environmental legislation includes, but is not limited to, operational controls, site restoration requirements and restrictions on emissions of various substances produced in association with oil and natural gas operations. Compliance with such legislation could require additional expenditures and a failure to comply may result in fines and penalties which could, in the aggregate and under certain unlikely assumptions, become material.

Operations are continuously monitored to minimize the environmental impact and capital is allocated to reclamation and other activities to mitigate the impact on the areas in which we operate.

## OUTLOOK

Moving into the second half of 2021, the Company has confidence in its continued debt reduction strategy given the current macro environment and our conservative capital program. As our second half commodity hedging exposure decreases throughout the remainder of 2021 and into 2022, under forecast pricing, we expect to generate additional free cash flow enabling the Company to continue to reduce our debt.

## QUARTERLY DATA

	Jun 30, 2021	Mar 31, 2021	Dec 31, 2020	Sep 30, 2020
<b>Production</b>				
Oil (bbl/d)	14,767	14,781	15,149	14,582
Natural gas (mcf/d)	13,173	14,364	13,653	13,448
NGL (bbl/d)	986	1,210	1,200	834
Oil equivalent (boe/d)	17,949	18,385	18,625	17,657
<b>Financial</b>				
Revenue	99,106	85,547	66,065	61,982
Earnings (loss)	9,095	(25,961)	119,988	(4,659)
Basic per share (\$)	0.06	(0.20)	1.06	(0.04)
Diluted per share (\$)	0.06	(0.20)	1.04	(0.04)
Cash flow from operating activities	22,463	13,275	12,810	18,950
Adjusted funds flow <sup>(1)</sup>	25,300	16,149	13,608	13,206
Basic per share (\$)	0.18	0.12	0.12	0.12
Diluted per share (\$)	0.16	0.12	0.12	0.12
Adjusted working capital deficiency <sup>(1)</sup>	10,662	(12,655)	(10,284)	(10,898)
Total assets	747,248	750,410	749,133	633,024
Bank debt	178,239	188,984	192,115	204,018
Principal amount of convertible debentures	-	-	28,207	44,451
Secured notes	17,429	16,809	16,217	-
Total long-term liabilities <sup>(2)</sup>	275,153	287,370	316,952	102,579
Shareholders' equity	398,147	388,753	372,848	251,859
Common shares outstanding, net (000's) <sup>(3)</sup>	144,172	144,388	121,349	113,496
Diluted shares outstanding, net (000's) <sup>(3)</sup>	157,606	157,891	134,310	118,490

	Jun 30, 2020	Mar 31, 2020	Dec 31, 2019	Sep 30, 2019
<b>Production</b>				
Oil (bbl/d)	14,251	17,093	16,757	16,624
Natural gas (mcf/d)	12,873	14,368	15,459	15,022
NGL (bbl/d)	772	836	893	932
Oil equivalent (boe/d)	17,169	20,323	20,227	20,059
<b>Financial</b>				
Revenue	31,711	63,473	93,272	95,483
Earnings (loss)	(27,546)	(450,944)	(15,094)	359
Basic and diluted per share (\$)	(0.24)	(3.98)	(0.13)	-
Cash flow from operating activities	(10,276)	22,041	31,714	24,836
Adjusted funds flow <sup>(1)</sup>	2,065	14,948	28,864	27,571
Basic and diluted per share (\$)	0.02	0.13	0.25	0.24
Adjusted working capital deficiency <sup>(1)</sup>	(5,012)	(35,909)	(29,291)	(10,325)
Total assets	676,560	703,401	1,149,827	1,186,151
Bank debt	217,206	192,965	173,308	192,435
Principal amount of convertible debentures	44,451	44,931	45,000	45,000
Total long-term liabilities <sup>(2)</sup>	115,559	306,973	284,251	359,809
Shareholders' equity	253,804	280,608	737,902	758,263
Common shares outstanding, net (000's) <sup>(3)</sup>	113,382	113,354	113,657	114,333
Diluted shares outstanding, net (000's) <sup>(3)</sup>	118,712	118,797	118,271	119,088

(1) See non-GAAP measures

(2) Includes lease liabilities and decommissioning obligation.

(3) Net of treasury shares

Since the third quarter of 2019, production has been relatively consistent but fluctuations in commodity prices have resulted in revenue variances. In the second quarter of 2020, reduced oil demand due to concerns over the effect of COVID-19 has significantly impacted oil pricing and revenue. The Company shut-in higher cost production in the second quarter of 2020 and has subsequently brought back on certain production with supporting economics. Reduced production and low commodity prices significantly impacted revenue, cash flow from operating activities and adjusted funds flow in 2020. In the first six months of 2021, a rapid increase in oil prices created significant realized and unrealized hedging losses which negatively impacted earnings, cash flow from operating activities and adjusted funds flow.

The Company's earnings also fluctuate with non-cash impairment charges and reversals of previous impairments on its assets as shown with a \$23.4 million impairment charge in the fourth quarter of 2019 and an impairment charge of \$343 million in the first quarter of 2020. A portion of this impairment charge was reversed in the fourth quarter of 2020 when forecasted oil prices partially recovered which positively impacted earnings by \$122.7 million. As the Company did not have sufficient certainty regarding future utilization of all of its tax pools, Cardinal derecognized its deferred tax asset and recognized an expense of \$102.9 million in the first quarter of 2020. In the first quarter of 2021, the Company recognized a re-measurement loss on its warrant liability of \$12.9 million.

## FORWARD LOOKING STATEMENTS

This MD&A contains certain forward-looking statements and forward-looking information (collectively referred to herein as "forward-looking statements") within the meaning of applicable Canadian securities laws. All statements other than statements of present or historical fact are forward-looking statements. Forward-looking information is often, but not always, identified by the use of words such as "anticipate", "believe", "plan", "intend", "objective", "continuous", "ongoing", "estimate", "expect", "may", "will", "project", "should", or similar words suggesting future outcomes. In particular, this MD&A contains forward-looking statements relating, but not limited to:

- Cardinal's plan to decrease G&A per boe costs;
- estimated tax pools, future taxability and future taxable income;
- expectations with respect to the outcome of the CRA dispute;
- plans to manage liquidity and continue to reduce debt;
- 2021 capital expenditure plans;
- Cardinal's business strategy, goals and management focus;
- Cardinal's dividend plans;
- targeted net debt to adjusted funds flow ratio and plans to monitor this ratio;
- Cardinal's risk management strategy including the mitigation of our exposure to commodity price risk, medium crude oil differentials, foreign exchange risk on borrowings and the benefits to be obtained therefrom;
- sources of funds for the Company's operations, capital expenditures, and decommissioning obligations;
- plans to minimize the environmental impact of our operations;
- abandonment and reclamation spending plans including the timing thereof;
- anticipated costs of compliance with environmental legislation;
- future liquidity and the Company's access to sufficient debt and equity capital;
- Cardinal's asset base;
- expectations regarding the business environment, industry conditions, future commodity prices and differentials;
- Cardinal's capital management strategies; and
- treatment under governmental and other regulatory regimes and tax, environmental and other laws.

Forward-looking statements regarding Cardinal are based on certain key expectations and assumptions of Cardinal concerning the impact of COVID-19; anticipated financial performance, business prospects, strategies, regulatory developments, current and future commodity prices and exchange rates, applicable royalty rates, tax laws, production shut-ins, future well production rates and reserve volumes, future operating costs, the performance of existing and future wells, the success of our exploration and development activities, the sufficiency and timing of budgeted capital expenditures in carrying out planned activities, the timing and success of our cost cutting initiatives,

the availability and cost of labor and services, the impact of increasing competition, conditions in general economic and financial markets, availability of drilling and related equipment, effects of regulation by governmental agencies, the ability to obtain financing on acceptable terms which are subject to change based on commodity prices, market conditions, and drilling success .

These forward-looking statements are subject to numerous risks and uncertainties, certain of which are beyond Cardinal's control. Such risks and uncertainties include, without limitation: the impact of general economic conditions; volatility in market prices for crude oil and natural gas; impact of COVID-19 and the ability of the Company to carry on operations as contemplated in light of COVID-19; determinations by OPEC and other countries as to production levels; industry conditions; currency fluctuations; imprecision of reserve estimates; liabilities inherent in crude oil and natural gas operations; environmental risks; incorrect assessments of the value of acquisitions and exploration and development programs; competition from other producers; the lack of availability of qualified personnel, drilling rigs or other services; changes in income tax laws or changes in royalty rates and incentive programs relating to the oil and gas industry including government curtailment programs; hazards such as fire, explosion, blowouts, and spills, each of which could result in substantial damage to wells, production facilities, other property and the environment or in personal injury; and ability to access sufficient capital from internal and external sources.

Management has included the forward-looking statements above and a summary of assumptions and risks related to forward-looking statements provided in this MD&A in order to provide readers with a more complete perspective on Cardinal's future operations and such information may not be appropriate for other purposes. Cardinal's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits that Cardinal will derive there from. Readers are cautioned that the foregoing lists of factors are not exhaustive. These forward-looking statements are made as of the date of this MD&A and Cardinal disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.

#### Supplemental Information Regarding Product Types

This MD&A includes references to 2019, 2020 and 2021 production. The Company discloses crude oil production based on the pricing index that the oil is priced off of. The following table is intended to provide the product type composition as defined by NI 51-101.

	LIGHT/MEDIUM		CONVENTIONAL		TOTAL (BOE/D)
	CRUDE OIL	HEAVY OIL	NGL	NATURAL GAS	
Q2/21	56%	26%	6%	12%	17,949
Q1/21	54%	26%	7%	13%	18,385
Q4/20	55%	26%	7%	12%	18,625
Q3/20	56%	27%	5%	12%	17,657
Q2/20	57%	27%	4%	12%	17,169
Q1/20	56%	28%	4%	12%	20,323
Q4/19	56%	27%	4%	13%	20,227
Q3/19	54%	29%	5%	12%	20,059
1H/21	55%	26%	6%	13%	18,166
1H/20	57%	27%	4%	12%	18,745



## Frequently Used Terms

### *Term or abbreviation*

"bbl"	Barrel(s)
"bbl/d"	Barrel(s) per day
"boe"	Barrel(s) of oil equivalent
"boe/d"	Barrel(s) of oil equivalent per day
"COGE Handbook"	Canadian Oil and Gas Evaluation Handbook
"GJ"	Gigajoule
"gj/d"	Gigajoule(s) per day
"m" preceding a volumetric measure	1,000 units of the volumetric measure
"mcf"	Thousand cubic feet
"mcf/d"	Thousand cubic feet per day
"NGL"	Natural gas liquids
"n/m"	Not meaningful ie. absolute value greater than 300%
"US"	United States
"USD"	United States dollars
"WCS"	Western Canadian Select
"WTI"	West Texas Intermediate