



Management's Discussion & Analysis

For the three and twelve months ended December 31, 2019

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The following management discussion and analysis ("MD&A") of the financial condition and results of operations of Kaisen Energy Corp. ("Kaisen" or the "Company") is dated April 17, 2020, and should be read in conjunction with the accompanying audited financial statements and related notes for the year ended December 31, 2019 with comparisons to the year ended December 31, 2018. The audited financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. The reporting and the measurement currency is the Canadian dollar.

Unless otherwise stated, tabular amounts herein are in Canadian dollars ("C\$ or "CDN\$") and amounts in text are in Canadian dollars. The Company may also reference the United States dollars ("US\$"). In this MD&A, production and reserves information may be presented on a "barrel of oil equivalent" or "boe" basis with six thousand cubic feet ("mcf") of natural gas being equivalent to one barrel ("bbl") of crude oil or natural gas liquids. Boe's may be misleading, particularly if used in isolation. A boe conversion ratio of 6 mcf:1 bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Given that the value ratio based on the current price of crude oil compared to natural gas is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

In accordance with Canadian industry practice, production volumes, reserve volumes and revenues are reported on a Company interest basis (working interest plus royalty interest), before deduction of Crown and other royalties, unless otherwise indicated. The Company's results of operations are dependent on production volumes of heavy crude oil, natural gas and natural gas liquids and the prices received for this production. Prices for these commodities have shown significant volatility during recent years and are determined by supply and demand factors, including weather, general economic conditions and changes in the Canadian/United States ("US") currency exchange rate.

About Kaisen Energy Corp.

Kaisen is a Calgary based energy company primarily focused on heavy oil development and production in Saskatchewan and was incorporated in Alberta Canada on November 6, 2012. The Company's principal place of business is located at 400, 522 - 11th Avenue S.W. Calgary, Alberta, Canada, T2R 0C8.

FOURTH QUARTER HIGHLIGHTS

- Recorded an operating netback of \$7.47 per boe compared to negative \$14.52 per boe recorded in the same quarter of 2018.
- Produced an average of 773 boe per day, 15% higher than the fourth quarter of 2018.
- Realized \$3,288,593 in petroleum and natural gas sales, a \$1,812,642 increase from the prior year comparative quarter.
- Recorded a funds flow from operations deficit of \$94,906 compared to a funds flow from operations deficit of \$1,469,294 in the fourth quarter of 2018.
- \$926,000 of committed financing remains available from the Company's committed obligation debentures.
- The Company exited the quarter with net debt of \$4,729,574.
- The Company entered into a series of amending loan agreements in the fourth quarter and subsequent to year end, postponing principal payments and extending the loan redetermination period.

FINANCIAL AND OPERATING RESULTS SUMMARY

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Operating				
Average daily production (boe/d)	773	672	777	908
WCS heavy oil benchmark price (C\$/bbl)	54.30	36.01	58.77	52.34
Operating netback ⁽¹⁾ (\$/boe)				
Realized sales price	46.27	23.88	51.58	43.68
Royalties	(7.69)	(4.30)	(8.60)	(8.08)
Saskatchewan resource tax	(2.64)	(2.01)	(1.15)	(0.59)
Operating expenses	(26.08)	(29.04)	(28.44)	(26.14)
Transportation expenses	(2.39)	(3.05)	(2.62)	(2.52)
Operating netback	7.47	(14.52)	10.77	6.35
Realized loss on risk management contracts	(4.77)	(7.85)	(7.56)	(8.84)
Operating netback after hedging	2.70	(22.37)	3.21	(2.49)
Financial (\$'s except for share amounts)				
Petroleum and natural gas sales	3,288,593	1,475,951	14,630,549	14,468,581
Funds flow from operations deficit ⁽¹⁾	(94,906)	(1,469,294)	(292,013)	(3,301,795)
Per share – basic and diluted	(0.00)	(0.03)	(0.01)	(0.07)
Net loss	(3,823,138)	(23,768,928)	(7,607,830)	(32,699,279)
Per share – basic and diluted	(0.08)	(0.52)	(0.17)	(0.72)
Expenditures on oil and gas properties	145,586	503,078	1,792,130	3,441,108
Net debt ⁽¹⁾ – end of period				
Adjusted working capital deficit ⁽¹⁾⁽²⁾	2,879,574	1,698,511	2,879,574	1,698,511
Bank loan	-	2,095,587	-	2,095,587
Term loan	1,850,000	-	1,850,000	-
Long-term lease liabilities	-	-	-	-
	4,729,574	3,794,098	4,729,574	3,794,098
Issued convertible debentures ⁽³⁾ – end of period	6,577	5,377	6,577	5,377
Weighted average shares outstanding				
Basic & diluted	45,420,029	45,420,029	45,420,029	45,420,029
Outstanding shares – end of period	45,420,029	45,420,029	45,420,029	45,420,029

⁽¹⁾ Refer to "Non-GAAP Measures"

⁽²⁾ Adjusted working capital is defined as current assets net of current liabilities excluding risk management contracts

⁽³⁾ As at December 31, 2019, the total face value of the 6,577 (2018 - 5,377) convertible debentures plus accrued undeclared interest was \$7,248,000 (2018 - \$5,540,000). Upon a liquidity event and at the election of each holder, they would convert to 131,540,000 (2018 - 107,540,000) common shares and owed interest of \$670,548 (2018 - \$163,000).

Operating Results

Throughout 2019, the Company conducted minimal capital development activity, investing a total of \$1,792,130 in development activities as the Company remained committed to conservative cash flow management. As a result, 2019 production averaged 777 boe per day, a 14% decrease from 2018. Fourth quarter 2019 production averaged 773 boe per day, a 15% increase relative to the 672 boe per day produced in the prior year comparative period, and a 4% decrease from the 802 boe per day produced in the third quarter 2019. The 2 wells (1.3 net) drilled in the third quarter of 2019 contributed net 86 boe per day to fourth quarter production.

Financial Results

The impact of realized losses on risk management contracts throughout 2019, combined with a collapse in global oil prices in 2020, have lowered the Company's projected cash flows over the next twelve months. For more information, refer to the "Liquidity, Capital Resources and Going Concern" section of this MD&A.

The Company achieved positive fourth quarter 2019 operating netbacks of \$7.47 per boe compared to negative operating netbacks of \$14.52 per boe recorded in the fourth quarter of 2018. This positive variance is largely attributed to the abrupt widening in WCS differentials during the end of the fourth quarter of 2018. As a result, realized pricing on commodity sales and royalties in the fourth quarter of 2019 were \$22.39 and \$3.39 per boe higher, respectively, than in the same quarter of 2018. Operating and transportation expenses were a combined \$28.47 per boe in the fourth quarter of 2019, an 11% decrease from the same quarter of 2018. Saskatchewan resource taxes increased \$0.63 per boe from the prior year comparative quarter as a result of additional charges in the fourth quarter of 2019 relating to a government audit of the Company's 2014 to 2018 Saskatchewan resource taxes. On an annual basis, 2019 operating netbacks were \$10.77 per boe, a 70% increase over 2018. The majority of this variance is due to stronger realized pricing per boe throughout 2019.

During the three and twelve months ended December 31, 2019, the Company recorded a funds flow from operations deficit of \$94,906 and \$292,013, respectively, versus a funds flow deficit of \$1,469,294 and \$3,301,795, respectively, recorded in the prior year comparative periods. Funds flow from operations in both the current and prior year were negatively impacted by realized losses on risk management contracts. Three and twelve month realized losses on risk management contracts in 2019 were \$339,213 and \$2,144,282 compared to losses of \$485,392 and \$2,929,008 recorded in the same periods of 2018, respectively. Impairment indicators identified at December 31, 2019 led to the Company recording a \$2,911,000 impairment write-down to property, plant and equipment. As a result of these factors, the Company recorded a net loss of \$7,607,830 in 2019 compared to a net loss of \$32,699,279 in 2018.

The Company exited the year with an adjusted working capital deficit⁽¹⁾ of \$2,879,574 and net debt⁽¹⁾ of \$4,729,574, compared to \$1,698,511 and \$3,794,098, respectively, at the close of 2018. In 2019, the Company and its lender entered into an agreement whereby the existing revolving credit facility of \$2,500,000 was converted to a \$2,280,000 term loan. A total of \$430,000 in principal payments towards the term loan were made in 2019, resulting in a term loan balance of \$1,850,000 as at December 31, 2019. On December 11, 2019, the Company and its lender entered into an amending agreement whereby the scheduled borrowing base determination date was extended from November 30, 2019 to January 31, 2020, the interest rate was raised to prime plus 3.5% per annum, and it was agreed upon that the Company shall make principal payments of \$240,000 per month commencing February 29, 2020 until the term loan was repaid in full. In connection with the new term loan, the Company issued an additional \$1,000,000 in convertible debentures to fund the 2 wells (1.3 net) drilled in August 2019, and fund principal payments of the term loan. Year to date, a total of 1,200 in convertible debentures were issued for total gross and net proceeds of \$1,200,000. Funding of \$926,000 remains available through Obligation Debentures not yet called as at the date of this MD&A.

On April 15th, 2020, the Company issued a \$160,000 subordinated secured promissory note ("Promissory Note") to Azimuth Capital Management for the purpose of funding current working capital requirements. The Promissory Note is due on demand and bears interest at a rate of 8% per annum, accruing daily. The repayment of principal is due on demand and subrogated in right of payment in full of all senior indebtedness (see note 10 of the Company's December 31, 2019 financial statements). The Promissory Note is secured by the Company's present and after-acquired personal and real property, subordinate to any claims to such property by the holders of its Term loan.

Economic Environment

Subsequent to year-end, significant declines and abnormal volatility in financial markets and global crude oil prices have occurred as a result of a coronavirus pandemic and a concurrent oil market share conflict. The scale and duration of these developments remain uncertain. In response, the Company has shut-in all production except for its Dolcy property. Management continues to monitor the situation and economic environment and will continue to adapt our business operations in a manner that best preserves shareholder value.

⁽¹⁾ Refer to "Non-GAAP Measures"

2019 FOURTH QUARTER AND YEAR TO DATE FINANCIAL AND OPERATING RESULTS

Oil and Gas Production Volumes

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Sales volumes				
Crude oil (bbls/d)	758	656	762	891
Natural gas liquids ("NGL") (bbls/d)	3	2	2	3
Natural gas (Mcf/d)	72	87	76	82
Total average daily production (boe/d)	773	672	777	908
Production by area (boe/d)				
Lone Rock, Saskatchewan	28	53	42	129
Edam, Saskatchewan	308	273	310	241
Lloydminster, Saskatchewan	263	241	257	358
Coleville, Saskatchewan	82	13	76	76
Other	92	92	92	104
Total average daily production (boe/d)	773	672	777	908

Kaisen's production in the fourth quarter 2019 averaged 773 boe per day, representing a 15% increase from the prior year comparative quarter and relatively consistent with third quarter 2019 production of 802 boe per day. Compared to the fourth quarter of 2018, production increased as the Company shut-in approximately half of its production in November and December of 2018, much of which was brought back online in 2019. The 2 wells (1.3 net) drilled in the third quarter of 2019 contributed net 86 boe per day to fourth quarter production.

During the twelve months ended December 31, 2019, Kaisen's production averaged 777 boe per day, a 14% decrease from the 908 boe per day averaged in the comparative prior year period which was reflective of year over year declines offset by the incremental production generated from the third quarter 2019 drilling.

Oil and Gas Realized Revenues and Pricing

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Petroleum and natural gas revenues (\$)				
Crude oil	3,261,162	1,460,287	14,557,798	14,363,049
Natural gas	13,664	8,448	35,926	31,955
NGL's	13,767	7,216	36,825	73,577
	3,288,593	1,475,951	14,630,549	14,468,581
Realized prices				
Crude oil (\$/bbl)	46.76	24.21	52.34	44.18
Natural gas (\$/mcf)	2.06	1.06	1.30	1.07
NGL's (\$/bbl)	49.88	51.54	50.45	62.25
Corporate average realized price (\$/boe)	46.27	23.88	51.58	43.68
Average benchmark prices				
WTI oil (US\$/bbl) ⁽¹⁾	56.96	58.81	57.03	64.76
WCS differential (US\$/bbl) ⁽²⁾	(15.69)	(31.55)	(12.95)	(24.36)
WCS heavy oil (US\$/bbl)	41.27	27.26	44.08	40.40
WCS differential %	28	54	23	38
AECO natural gas (CDN\$/mcf) ⁽³⁾	2.34	1.94	1.62	1.54
US\$:CDN\$	0.76	0.76	0.75	0.77
WCS heavy oil (CDN\$/bbl)	54.30	36.01	58.77	52.34

⁽¹⁾ WTI represents posting price of West Texas Intermediate oil.

⁽²⁾ WCS refers to the average posting price for benchmark WCS heavy oil.

⁽³⁾ AECO refers to the AECO arithmetic average month-ahead index price published by the Canadian Gas Price Reporter.

Realized Pricing

The Company realized heavy oil prices of \$46.76 and \$52.34 per barrel during the three and twelve months ended December 31, 2019, respectively. Realized pricing for the current quarter was \$22.55 per barrel higher than the prior year comparative period, while on a year to date basis, realized heavy oil prices increased by \$8.16 per barrel. Realized pricing during both the three- and twelve-month periods ended December 31, 2019 were positively impacted by improved WCS differentials, outweighing the impact of weaker WTI pricing.

Risk Management Contracts

The Company routinely enters into crude oil financial contracts to manage the volatility of commodity prices and may, from time to time, also enter into foreign exchange financial contracts. Kaisen's current policy is to hedge no more than 60% of forecasted net production volumes using a combination of financial instruments including puts, costless collars, swaps, or fixed price contracts to limit exposure to fluctuations in commodity prices. Gains and losses on risk management contracts are composed of both realized gains or losses, representing the portion of risk management contracts that have settled in cash during the period, and unrealized gains or losses that represent the change in the mark-to-market position of those contracts throughout the period.

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Realized loss	\$ (339,213)	\$ (485,392)	\$ (2,144,282)	\$ (2,929,008)
Unrealized gain (loss)	153,195	3,600,095	(506,501)	1,304,824
Gain (loss) on risk management contracts	\$ (186,018)	\$ 3,114,703	\$ (2,650,783)	\$ (1,624,184)

Kaisen recorded realized losses on risk management contracts for the three and twelve months ended December 31, 2019 of \$339,213 and \$2,144,282, respectively, (2018 - losses of \$485,392 and \$2,929,008) as a result of higher oil prices relative to lower fixed oil priced contract positions. The Company recorded an unrealized gain of \$153,195 for the three months ended December 31, 2019 (2018 - gain of \$3,600,095) and an unrealized loss of \$506,501 for the twelve-months ended December 31, 2019 (2018 - gain of \$1,304,824). For further information, refer to the "Risk Management" section of this MD&A.

Crown and Freehold Royalties

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Crown	\$ 221,792	\$ 86,445	\$ 1,030,095	\$ 875,296
Freehold	324,959	179,063	1,409,964	1,800,620
Royalties	\$ 546,751	\$ 265,508	\$ 2,440,059	\$ 2,675,916
\$ per Boe	7.69	4.30	8.60	8.08
% of revenue	16.6	18.0	16.7	18.5

Approximately 80% of Kaisen lands are held under Crown leases with the remaining held under freehold leases. Crown royalty rates range from ~2% to 30% depending upon the type and vintage of wells, commodity type, volume of daily production, and market prices. Kaisen is currently forecasting a royalty rate of approximately 17% to 20% blended for both Crown and freehold rates in the current price environment. As a percentage of revenue, royalties were 16.6% and 16.7% for the three and twelve months ended December 31, 2019, respectively (2018 - 18.0% and 18.5%). The decrease in rates is reflective of the decline on high royalty rate wells at Neilburg and Forest Bank.

Saskatchewan Resource Tax

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Saskatchewan resource tax	\$ 187,835	\$ 124,406	\$ 326,016	\$ 196,496
\$ per Boe	2.64	2.01	1.15	0.59

Under Saskatchewan provincial legislation, the Company is charged a resource tax based on its Saskatchewan production. The resource tax rate is 1.70% for all oil and gas wells with a finished drilling date on or after October 1, 2002, and for incremental oil related to new or expanded enhanced oil recovery projects or water flood projects having a commencement date on or after October 1, 2002. The resource tax rate for all other oil and gas wells is 3.0%.

For the three and twelve months ended December 31, 2019, the Company incurred Saskatchewan resource taxes of \$187,835 and \$326,016, respectively (2018 - \$124,406 and \$196,496). The increase in both periods is the result of an audit of the Company Saskatchewan resource tax returns from 2014 to 2018. The audit resulted in the Company owing an additional \$87,905 in Saskatchewan resource tax and \$21,002 in interest, which was recorded under net finance expenses.

Operating Expenses

	Three months ended December 31,		Twelve months ended December 31,	
	2019	2018	2019	2018
Operating expenses	\$ 1,853,679	\$ 1,794,796	\$ 8,067,144	\$ 8,660,105
\$ per Boe	26.08	29.04	28.44	26.14

Operating expenses, excluding crude oil transportation costs, are driven by both fixed and variable costs. Kaisen's primary fixed cost drivers include contract operator wages, property taxes, freehold mineral rentals, and surface rentals, while primary variable cost drivers include emulsion treating, produced wastewater and sand trucking and disposal, utilities, heating fuel, and routine maintenance. Primary non-routine expenses include minor and major workovers. Kaisen continually works closely with suppliers and service providers to seek out cost reductions, increased operating efficiencies, and decreased labour costs.

Fourth quarter 2019 operating costs of \$1,853,679 (\$26.08 per boe) increased 3% from the \$1,794,796 (\$29.04 per boe) recorded in the fourth quarter of 2018. Production curtailments that took place in the fourth quarter of 2018 had a negative impact on per boe operating costs, as a result current quarter operating costs per boe were lower than the prior year comparative period. On a year to date basis, operating costs were \$8,067,144 (\$28.44 per boe) a 7% decrease from the \$8,660,105 (\$26.14 per boe). The year over year per boe increases were attributed to the additional operating costs incurred to restore shut in production combined with the effect of decreased production over a fixed operating cost base.

Transportation Expenses

	Three months ended December 31,		Twelve months ended December 31,	
	2019	2018	2019	2018
Transportation expenses	\$ 169,962	\$ 188,183	\$ 743,310	\$ 835,766
\$ per boe	2.39	3.05	2.62	2.52

Transportation expenses relate specifically to the cost of trucking produced emulsion to the sales point where it is then cleaned and blended for market. Costs related to water and sand transportation are included within operating costs. The majority of the Company's crude oil production is trucked to sales facilities near Lloydminster, Edam, and Coleville, Saskatchewan. Bottlenecking of trucks at sales facilities and seasonal delays may impact the cost of transportation in any given period; however, the Company's transportation expense has typically trended in the range of \$1.85 to \$2.50 per boe since inception. During the three and twelve months ended December 31, 2019, the Company recorded transportation expenses of \$2.39 and \$2.62 per boe, respectively (2018 – \$3.05 and \$2.52 per boe).

Operating Netback

The components of operating netback for the three and twelve months ended December 31, 2019 and 2018 are set forth below.

(\$ per boe)	Three months ended December 31,		Twelve months ended December 31,	
	2019	2018	2019	2018
Realized sales price ⁽¹⁾	46.27	23.88	51.58	43.68
Royalties	(7.69)	(4.30)	(8.60)	(8.08)
Saskatchewan surcharge tax	(2.64)	(2.01)	(1.15)	(0.59)
Operating expenses	(26.08)	(29.04)	(28.44)	(26.14)
Transportation expenses	(2.39)	(3.05)	(2.62)	(2.52)
Operating netback⁽²⁾	7.47	(14.52)	10.77	6.35
Realized loss on risk management contracts	(4.77)	(7.85)	(7.56)	(8.84)
Operating netback⁽²⁾ (after hedging)	2.70	(22.37)	3.21	(2.49)

⁽¹⁾ Excludes other income

⁽²⁾ Refer to "Non-GAAP Measures"

General and Administrative ("G&A") Expenses

	Three months ended December 31,		Twelve months ended December 31,	
	2019	2018	2019	2018
Gross G&A expenses	\$ 300,748	\$ 157,221	\$ 1,341,125	\$ 1,805,315
Capitalized G&A expenses	(62,400)	(92,499)	(249,600)	(376,664)
G&A expenses	\$ 238,348	\$ 64,722	\$ 1,091,525	\$ 1,428,651

G&A expenses are primarily fixed by nature and therefore fluctuate on a per barrel basis with the rate of production. Kaisen capitalizes to property, plant, and equipment a percentage of technical staff salaries and share-based compensation expense for engineering and geological work at a rate that is commensurate with the extent of work required to execute on the Company's capital program.

For the three and twelve months ended December 31, 2019, G&A expenses were \$238,348 and \$1,091,525, respectively (2018 – \$64,722 and \$1,428,651). Compared to the prior year comparative quarter, G&A expenses increased as a result of a one-time \$110,000 recovery recorded in the fourth quarter of 2018. On a year to date basis, G&A expenses have decreased due to continued corporate overhead cost reductions. The adoption of IFRS 16 - Leases (refer to Note 3 of the Company's December 31, 2019 financial statements) reduced G&A expenses by \$24,909 and \$98,751 for the three and twelve months ended December 31, 2019.

Net Finance Expenses

	Three months ended		Twelve months ended	
	December 31,		December 31,	
	2019	2018	2019	2018
Interest expense on term and bank loans	\$ 34,625	\$ 16,927	\$ 115,957	\$ 112,221
Interest on Saskatchewan resource taxes	21,002	-	21,002	-
Accretion on decommissioning obligations	66,199	65,279	259,371	258,882
Capital lease interest	454	-	3,714	-
Net finance expenses	\$ 122,280	\$ 82,206	\$ 400,044	\$ 371,103

Interest expense relates to interest charges and related service fees on the Company's banking facility. Interest on Saskatchewan resource tax relates to the additional liabilities incurred from the audit of the Company's 2014 to 2018 resource tax returns. Accretion expense relates to the Company's decommissioning obligation for the future abandonment and reclamation of its lands and well sites. The estimated future decommissioning obligation is discounted at a risk-free rate in accordance with the Company's accounting policies and recorded as a liability on the Statement of Financial Position. This liability is increased monthly to account for the passage of time, with the monthly increase recorded as accretion expense. Material changes in accretion expense are typically driven by new well additions (removals) in each period due to the Company's drilling program and acquisitions (divestitures). Capital lease interest was recognized as a result of adopting IFRS 16 (refer to Note 3 of the Company's December 31, 2019 financial statements).

Share-Based Compensation

The Company has a share option plan pursuant to which options to purchase common shares of the Company may be granted by the Board of Directors to directors, officers, employees and consultants of the Company. Pursuant to the plan, the exercise price of each option may shall be fixed by the Board of Directors when such option is granted, provided that from and after the date that the common shares are listed on a stock exchange (the "Exchange"), such price shall not be less than the price permitted by such Exchange. Compensation expense is recognized as options vest. Unless otherwise determined by the Board of Directors, vesting typically occurs one third on each of the next three anniversaries of the date of the grant as recipients render continuous serve to the Company, and the share options typically expire five years from the date of the grant. The maximum number of common shares issuable on the exercise of outstanding share options at any time is limited to 10% of the issued and outstanding common shares. The Company's current share-based compensation plans consist of share options, executive incentive options, and performance warrants.

In 2019, the Company granted 6,200,000 incentive options, 800,000 share options and 2,000,000 performance warrants to directors, employees and contractors serving in capacity of employees of the Company. Vesting and expiry conditions associated with the grants are similar to prior year grants. As at December 31, 2019, Kaisen had 10,700,000 share options, 11,000,000 Incentive Options, and 34,250,999 performance warrants outstanding. During the three and twelve months ended December 31, 2019, the Company recorded share-based compensation expenses of \$128,424 and \$400,044, respectively (2018 – \$276,959 and \$1,346,909).

Depletion and Depreciation

	Three months ended		Twelve months ended	
	December 31,		December 31,	
	2019	2018	2019	2018
Depletion	\$ 762,024	\$ 762,460	\$ 2,978,864	\$ 4,050,416
Depreciation	13,778	5,491	57,381	26,498
Depletion and depreciation	\$ 775,802	\$ 767,951	\$ 3,036,245	\$ 4,076,914

Depletion expense is a product of depletable assets multiplied by total production divided by estimated proved and probable oil and natural gas reserves at the beginning of each period, while also considering the estimated future development costs necessary to bring those reserves into production. Depreciation expense is recorded based on corporate assets and is calculated on a declining basis. The right-of-use ("ROU") assets recognized upon the Company's adoption of IFRS 16 are depreciated over their estimated useful lives on a straight-line basis (refer to Note 3 of the Company's December 31, 2019 financial statements).

As at December 31, 2019, \$77.8 million in future development costs (December 31, 2018 – \$93.3 million) less total salvage values of the assets of \$2.6 million (December 31, 2018 – \$2.6 million) were included in the production asset cost bases for depletion calculation purposes. For the three and twelve months ended December 31, 2019, per boe depletion expenses decreased by 13% and 14% respectively, in comparison to both prior year comparative periods due to impairments recorded in the fourth quarter 2018 and lower production throughout 2019. Depreciation expenses for the three and twelve months ended December 31, 2019 included \$9,604 and \$38,417, respectively, in charges relating to the adoption of IFRS 16, which increased the Company’s property and equipment balance by ROU assets totaling \$46,586 on January 1, 2019.

Impairment of Property, Plant and Equipment

At December 31, 2019, the Company assessed whether there were indicators of impairment present. The assessment factored in reserves, change in year over year commodity prices, the health of the sector and the general economy, and near-term development plans. It was determined that the carrying amount of all CGU’s exceeded their recoverable amount. The recoverable amount was calculated as the fair value of assets less costs of disposal. The fair value was determined using an after-tax discount rate of 19.2% (2018 – 19.6%) and forecasted cash flows. The forecasted cash flows are based on the year-end total proved reserves and pricing used by the Company’s independent reserve engineers. An impairment write-down of \$2,911,000 was recorded for the year (2018 - \$24,830,000). Recoverable amounts of the Company’s CGU’s at December 31, 2019 were \$28.4 million (2018 - \$32.6 million).

PROPERTY, PLANT AND EQUIPMENT (DEVELOPMENT) EXPENDITURES

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Land	\$ -	\$ 24,521	\$ 5,305	\$ 53,959
Geological and geophysical	5,363	(38,575)	7,403	(33,215)
Drilling, completions and optimizations	77,823	107,970	1,498,155	1,841,784
Equipment and facilities	-	316,663	30,617	1,199,990
Capitalized G&A	62,400	92,499	249,600	376,664
Corporate	-	-	1,050	1,926
Development expenditures	\$ 145,586	\$ 503,078	\$ 1,792,130	\$ 3,441,108

During the three and twelve months ended December 31, 2019, the Company made development expenditures of \$145,586 and \$1,792,130, respectively (2018 – \$503,078 and \$3,441,108). Fourth quarter capital spending was minimal due to capital restraints. For the year 2019, the majority of development spending related to the 2 well (1.3 net) drilling program at Forest Bank, drilled in August of 2019.

LIQUIDITY, CAPITAL RESOURCES, AND GOING CONCERN

	December 31, 2019	December 31, 2018
Net debt	\$ 4,729,574	\$ 3,794,098
Shareholders’ equity	\$ 11,076,311	\$ 16,765,669

Kaisen exited the quarter in a net debt position \$4,729,574, which included an adjusted working capital deficit of \$2,879,574, and a term loan balance of \$1,850,000. The Company’s policy is to maintain a strong capital base to provide flexibility in the future development of the business and to maintain the confidence of investors and lenders. The Company periodically reviews certain quantitative measures of its capital structure to understand its position relative to industry peers but does not set certain limits or ranges with respect to these quantitative measures. The Company is not subject to any external restrictions on its capital structure. Management closely monitors debt leverage to ensure the Company maintains financial flexibility and balance sheet strength sufficient to manage unforeseen events and opportunities as they arise.

These financial statements have been prepared in accordance with generally accepted accounting principles applicable to a going concern, which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future. The Company incurred a loss of \$7,607,830 during the year ended December 31, 2019, and as of that date, the Company’s current liabilities exceeded its current assets by \$5,454,097. The impact of realized losses on risk management contracts throughout 2019 combined with the collapse in global oil prices in 2020 have put pressure on the Company’s current and projected cash flows. As at December 31, 2019, the Company still had access to \$926,000 in available financing from unissued convertible debentures.

Management believes that the current level of financing is not sufficient to pay for expected cash expenditures over the next 12 months. Although the Company has been successful in the past in obtaining financing, there is no assurance that it will be able to secure adequate financing in the future or that such financing will be on terms acceptable to the Company. The recoverability of the underlying value of the Company's assets is entirely dependent on the Company's ability to obtain the necessary financing to complete the development of its assets and achieve future profitable production. As a result, there is a material uncertainty that may cast significant doubt on the Company's ability to continue as a going concern. These financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate. If the going concern basis were not appropriate for these financial statements, then adjustments would be necessary in the carrying value of the assets and liabilities, the reported revenues and expenses, and the balance sheet classifications used. These adjustments could be material.

Term Loan

On July 15, 2019, the Company completed an arrangement with its lender for a \$2,280,000 term loan, which discharged and replaced the \$2,500,000 revolving bank loan previously in place with the same lender. When entered, the term loan bore interest at a rate of prime plus 1.25% per annum, was payable in full on demand by the lender, and required the Company to make the monthly principal payments up until May 31, 2020, when the term loan was scheduled to be repaid in full. A total of \$430,000 in principal payments were made on the term loan in 2019 subsequent to its signing. On December 11, 2019, the Company and its lender entered into an amending agreement whereby the scheduled borrowing base determination date was extended from November 30, 2019 to January 31, 2020, the interest rate was raised to prime plus 3.5% per annum, and it was agreed upon that the Company shall make principal payments of \$240,000 per month commencing February 29, 2020 until the term loan was repaid in full. Subsequent to year end the Company and its lender entered into second and third amending agreements, with the latter amendment deferring the borrowing base determination date to March 31, 2019 and deferring the requirement for monthly \$240,000 principal repayments to April 30, 2020.

The term loan is classified as current on the statement of financial position and is principally secured by fixed and floating security interest over all present and after acquired assets of the Company. The term loan arrangement contains industry standard representation and warranties, positive and negative covenants and events of default, and does not contain financial covenants. During the twelve months ended December 31, 2019, \$430,000 in principal payments were made on the new term loan.

Convertible Debentures

During the year, the Company issued a total of 1,200 convertible debentures for total gross and net proceeds of \$1,200,000. Since being introduced, the Company has issued 6,577 out of a total 7,503 convertible debentures. As at December 31, 2019, a total of 926 obligation debentures remain uncalled, representing an additional \$926,000 in funding available to the Company.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. Liquidity risk also includes the risk of not being able to liquidate assets in a timely manner at a reasonable price. The Company's approach to managing liquidity is to ensure that it will have sufficient liquidity to meet liabilities when due, under both normal and unusual conditions without incurring unacceptable losses or jeopardizing the Company's business objective. The Company manages this risk by preparing cash flow forecasts to assess whether additional funds are required. The Company's liquidity is dependent on the Company's expected business growth and changes in its business environment.

Undiscounted cashflows relating to financial liabilities as at December 31, 2019 were as follows:

	Undiscounted amount	Less than 1 year	1 – 3 years	4 – 5 years
Accounts payable and accrued liabilities	\$ 4,514,745	\$ 4,514,745	\$ -	\$ -
Risk management contracts	724,523	724,523	-	-
Term loan	1,850,000	1,850,000	-	-
Financial liabilities	\$ 7,089,268	\$ 7,089,268	\$ -	\$ -

RISK MANAGEMENT

Management of cash flow variability is an integral component of the Company's business strategy. Changing business conditions are monitored regularly and, where material, reviewed with the Board of Directors to establish risk management guidelines used by Management to carry out the Company's strategic risk management program. The risk exposure inherent in the movements of the price of crude oil and fluctuations in CDN\$:US\$ exchange rates are all proactively reviewed by Kaisen and may be managed through the use of derivative contracts as considered appropriate.

The Company has elected not to apply IFRS prescribed "hedge accounting" rules. Accordingly, the fair value of financial derivative contracts is recorded at each period-end. The fair value may change substantially from period to period depending on market conditions. As a result, net earnings may fluctuate considerably based on the period ending commodity forward strip prices compared to the prices in any derivative contracts.

Commodity Price Risk

The Company is exposed to commodity price movements as part of its operations, particularly in relation to prices received for its oil production. Commodity prices for oil are impacted by the world and continental/regional economy and other events that dictate the levels of supply and demand. Consequently, these changes could also affect the value of the Company's properties, the level of spending for exploration and development and the ability to meet obligations as they come due. The following is a summary of all risk management contracts in place at December 31, 2019:

Type	Period	Volume	Price/unit ⁽¹⁾
WTI - Call option ⁽²⁾	January 1, 2020 – December 31, 2020	500 bbl/d	US\$60.00
<i>(1) Based on the weighted average price/bbl for the duration of the contract</i>			
<i>(2) The Call Option contract provides ATB with an option (at only their election) to exercise the contract terms (on a month to month basis) throughout the term of the contract.</i>			

As at December 31, 2019, the fair value associated with these risk management contracts was a net liability of \$724,523 (2018 - \$218,022 liability), all of which is reported as a current liability reflecting contracts which will settle by December 31, 2020.

Changes to Accounting Policies

The Company adopted IFRS 16 on January 1, 2019 which requires the recognition of a ROU asset and associated lease liability for most leasing arrangements where the Company is acting as the lessee. Prior to the adoption of this standard, when the Company was a lessee, leases were categorized as either operating or finance lease, and operating lease were not subject to recognition on the statements of financial position. The Company elected to apply IFRS using the modified retrospective approach which does not require the restatement of prior period information. The modified retrospective approach recognizes the cumulative effect of IFRS 16 as an adjustment to opening accumulated deficit at January 1, 2019 and applies the standard prospectively.

On adoption of IFRS 16, the Company recognized lease liabilities in relation to leases under the principles of the new standard measured at the present value of the remaining lease payments, discounted using the interest rate implicit in the lease or the Company's incremental borrowing rate as at January 1, 2019. The associated ROU assets were measured at the amount equal to the lease liability on January 1, 2019 less any amount previously recognized for onerous office leases, with no impact on opening retained earnings.

The Company identified ROU lease assets and liabilities related to head office space. The impact on the consolidated statement of financial position as at January 1, 2019 was as follows:

	January 1, 2019
ROU asset (included in property plant and equipment)	\$ 46,586
Increase in total assets	\$ 46,586
Short-term portion of lease liability (included in accounts payable and accrued liabilities)	\$ 95,038
Onerous leases	(61,911)
Other long-term liabilities	13,459
Increase in total liabilities and shareholder's equity	\$ 46,586

Certain of the Company's performance measures including funds flow from operations and net debt, are impacted by the adoption of IFRS 16. Where lease payments for certain arrangements were previously in G&A expense, these payments are now reflected as payments of interest and lease obligations, which increase total funds flow from operations. In addition, lease liabilities are now recognized in the determination of net debt. Further information regarding the adoption of IFRS 16 is included in Note 3 "Changes in Accounting Policies" of the Company's December 31, 2019 financial statements.

SUMMARY OF QUARTERLY RESULTS

<i>(\$000's except share, per share, boe amounts)</i>	Q4 2019	Q3 2019	Q2 2019	Q1 2019	Q4 2018	Q3 2018	Q2 2018	Q1 2018
Petroleum and natural gas sales	3,289	3,884	4,086	3,373	1,476	4,715	4,513	3,765
Realized gain (loss) on risk mgmt. contracts	(339)	(540)	(782)	(483)	(485)	(1,217)	(1,180)	(47)
Funds flow from operations (deficit) ⁽¹⁾	(95)	(212)	122	(108)	(1,469)	(421)	(1,275)	(137)
Net income (loss)	(3,823)	(638)	542	(3,689)	(23,768)	(1,341)	(4,074)	(3,515)
Expenditures on oil & gas properties	146	1,112	252	283	503	915	631	1,393
Net debt ⁽¹⁾	(4,730)	(4,489)	(4,165)	(4,036)	(3,794)	(3,122)	(3,786)	(3,956)
Sales Volumes (boe per day)	773	802	769	764	672	972	926	1,064
Operating Netbacks (\$/boe) ⁽¹⁾								
Realized sales price	46.27	52.61	58.38	49.08	23.88	52.74	53.55	39.31
Royalties	(7.69)	(8.88)	(10.30)	(7.52)	(4.30)	(9.36)	(10.04)	(7.60)
Saskatchewan surcharge tax	(2.64)	(0.62)	(0.74)	(0.59)	(2.01)	(0.28)	0.11	(0.59)
Operating expenses	(26.08)	(32.50)	(26.38)	(28.64)	(29.04)	(27.40)	(26.19)	(23.06)
Transportation expenses	(2.39)	(2.48)	(2.81)	(2.82)	(3.05)	(2.72)	(2.19)	(2.29)
Operating netback	7.47	8.13	18.15	9.51	(14.52)	12.98	15.24	5.78
Realized gain/(loss) on risk mgmt. contracts	(4.77)	(7.31)	(11.18)	(7.03)	(7.85)	(13.61)	(14.00)	(0.50)
Operating netback after hedging	2.70	0.82	6.97	2.48	(22.37)	(0.63)	1.24	5.28

⁽¹⁾ See "Non-GAAP Measures".

NON-GAAP MEASURES

This MD&A contains terms commonly used in the oil and natural gas industry, including funds flow from operations per share, operating netback and net debt. These terms do not have a standardized meaning under IFRS and may not be comparable to similar measures presented by other companies. Shareholders and investors are cautioned that these measures should not be construed as alternatives to cash provided by operating activities, net income, total liabilities, or other measures of financial performance as determined in accordance with GAAP. Management uses these non-GAAP measures for its own performance measurement and to provide stakeholders with measures to compare the Company's operations over time.

Funds Flow from Operations

The Company calculates funds flow from operations (deficit) per share by dividing funds flow from operations by the weighted average number of common shares outstanding during the applicable period.

A reconciliation of funds flow from operations (deficit) to cash provided by (used in) operating activities is presented as follows:

	Three months ended		Twelve months ended	
	December 31,		December 31,	
	2019	2018	2019	2018
Cash flow from (used-in) operating activities	\$ (239,252)	\$ (1,719,465)	\$ 1,095,454	\$ (1,645,044)
Less change in non-cash working capital	144,346	250,171	(1,387,467)	(1,656,751)
Funds flow from operations (deficit)	\$ (94,906)	\$ (1,469,294)	\$ (292,013)	\$ (3,301,795)

Operating Netback

The Company uses operating netback as a key performance indicator of field results. Operating netback is presented on a per barrel of oil equivalent basis and is calculated by deducting royalties, Saskatchewan resource tax, transportation expenses and operating expenses from petroleum and natural gas sales. If applicable the Company also discloses operating netback both prior to realized gains or losses on derivatives and after the impacts of derivatives are included. Realized gains or losses represent the portion of risk management contracts that have settled in cash during the period, disclosing this provides Management and investors with transparent measures that reflect how the Company's risk management program can impact netback metrics. The Company considers operating netback to be a key measure as it demonstrates Kaisen's profitability relative to current commodity prices. This measurement assists Management and investors in evaluating operating results on a per barrel of oil equivalent basis to analyze performance on a historical basis.

The following table calculates operating netback for the periods indicated:

	Three months ended		Twelve months ended	
	2019	December 31, 2018	2019	December 31, 2018
Petroleum sales	\$ 3,288,593	\$ 1,475,951	\$ 14,630,549	\$ 14,468,581
Royalties	(546,751)	(265,508)	(2,440,059)	(2,675,916)
Saskatchewan resource tax	(187,835)	(124,406)	(326,016)	(196,496)
Operating expenses	(1,853,679)	(1,794,796)	(8,067,144)	(8,660,105)
Transportation expenses	(169,962)	(188,183)	(743,310)	(835,766)
Operating netback	\$ 530,366	\$ (896,942)	\$ 3,054,020	\$ 2,100,298
Production (boe's)	71,077	61,797	283,634	331,255
Operating netback (\$/boe)	\$ 7.47	\$ (14.52)	\$ 10.77	\$ 6.35

Net Debt and Adjusted Working Capital

The Company uses net debt, which includes an adjusted measure of working capital, to assess its true debt and liquidity position and to manage capital and liquidity risk. Adjusted working capital subtracts current liabilities from current assets, excluding any current balances related to debt and risk management contracts. Net debt is calculated as the Company's bank loan plus (less) the adjusted working capital deficit (surplus). The following table summarizes net debt for the periods indicated:

	December 31, 2019	December 31, 2018
Current assets	\$ (1,635,171)	\$ (911,929)
Add back risk management contracts (if in an asset position)	-	484,417
Accounts payable and accrued liabilities	4,514,745	2,126,023
Adjusted working capital deficit (surplus)	2,879,574	1,698,511
Bank loan	-	2,095,587
Term loan	1,850,000	-
Net debt	\$ 4,729,574	\$ 3,794,098

Following the adoption of IFRS 16, the Company now recognizes lease liabilities in its determination of net debt. Lease liabilities are affected by the amount of future lease payments, anticipated lease terms, and the Company's estimated incremental borrowing rate for a specific lease arrangement. Changes to the Company's lease obligations could have a material impact on the Company's net debt (refer to Note 3 of the Company's December 31, 2019 financial statements).

BOE CONVERSION

Within this document, petroleum and natural gas volumes are converted to a common unit of measure, referred to as a barrel of oil equivalent ("boe"), using a ratio of 6,000 cubic feet of natural gas to one barrel of oil. Use of the term boe may be misleading, particularly if used in isolation. The conversion ratio is based on an energy equivalent method and does not necessarily represent a value of equivalency at the wellhead.

ADVISORY ON FORWARD LOOKING STATEMENTS

In the interest of providing Kaisen shareholders and potential investors with information regarding the Company, including Management's assessment of Kaisen's future plans and operations, certain statements contained in this MD&A constitute forward-looking statements or information (collectively referred to herein as "forward-looking statements") within the meaning of the "safe harbor" provisions of applicable securities legislation. Forward-looking statements are typically identified by words such as "anticipate", "believe", "expect", "plan", "intend", "forecast", "target", "project" or similar words suggesting future outcomes or statements regarding an outlook. Forward-looking information in this MD&A includes, but is not limited to:

- *Future development plans;*
- *Future financing plans and goals;*
- *The ability of the Company to fund capital programs with existing working capital and cash flow from operating activities*
- *The Company continuing as a going concern*
- *The impact of adjustments to drilling and completion techniques; and*
- *General business strategies and objectives*

Such forward-looking information is based on a number of assumptions, including: future commodity prices; royalty rates, taxes and capital, operating, general and administrative and other costs; foreign currency exchange rates and interest rates; general business, economic and market conditions; the ability of the Company to obtain the require capital to finance its exploration, development and other operations and meet its commitments and financial obligations; the ability of Kaisen to obtain equipment, services, supplies and personnel in a timely manner and at an acceptable cost to carry out its activities; the ability of Kaisen to market its oil and natural gas successfully to current and new customers; the ability of Kaisen to obtain drilling success (including in respect of anticipated production volumes, reserve additions and resource recoveries) and operational improvements, efficiencies and results consistent with expectations; the timely receipt of governmental and regulatory approvals; and anticipated timelines and budgets being met in respect of drilling programs and other operations (including well completions and tie-ins and the construction, commissioning and start-up of new and expanded facilities).

Although Kaisen believes that the expectations reflected in such forward-looking information is reasonable, undue reliance should not be placed on them as the Company can give no assurance that such assumptions will prove to be correct. Forward-looking information is based on expectations, estimates and projections that involve a number of risks and uncertainties which could cause actual results to differ materially from those anticipated by Kaisen and described in the forward-looking information. The material risks and uncertainties include, but are not limited to: fluctuations in commodity prices, foreign currency exchange rates and interest rates; estimates and projections relating to future revenue, future production, reserve additions, resource recoveries, royalty rates, taxes and costs and expenses; operational risks in exploring for, developing and producing, oil and natural gas; the ability to obtain equipment, services, supplies and personnel in a timely manner and at an acceptable cost; potential disruptions, delays or unexpected technical or other difficulties in designing, developing, expanding or operating new, expanded or existing facilities; processing and pipeline infrastructure outages, disruptions and constraints; risks and uncertainties involving the geology of oil and gas deposits; uncertainty of reserves and resources estimates; general business, economic and market conditions; changes in, or in the interpretation of, laws, regulations or policies (including environmental laws); the ability to obtain required governmental or regulatory approvals in a timely manner, and to enter into and maintain leases and licenses; the effects of weather and other factors including wildlife and environmental restrictions which affect field operations and access; the timing and cost of future abandonment and reclamation obligations and potential liabilities for environmental damage and contamination; uncertainties regarding aboriginal claims and in maintaining relationships with local populations and other stakeholders; the outcome of existing and potential lawsuits, regulatory actions, audits and assessments. and other risks and uncertainties described elsewhere in Kaisen's other filings.

Statements relating to "reserves" are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the resources and reserves described exist in the quantities predicted or estimated, and can be profitably produced in the future. Although Kaisen believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. Readers are cautioned that the foregoing list of important factors is not exhaustive. Furthermore, the forward-looking statements contained in this MD&A are made as of the date of this MD&A, and Kaisen does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. The forward-looking statements contained in this MD&A are expressly qualified by this cautionary statement.

ADDITIONAL INFORMATION

For additional information regarding the Company and its business and operations, please contact the Company at Kaisen Energy Ltd. 400, 522 – 11th Avenue S.W., Calgary, Alberta, Canada T2R 0C8 or by e-mailing [Rachelle Bien-Barnard \(info@kaisenenergy.com\)](mailto:info@kaisenenergy.com)

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