

# **FORM 51-101 F1**

**Paleo Resources, Inc.**  
**(formerly Tanager Energy Inc.)**  
**Statement of reserves data**  
**and other oil and gas information**  
**as of December 31, 2018**

**Prepared by Deloitte**  
**April 18, 2019**

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## Part 1 Date of statement

Date of statement: April 18, 2019  
Effective date: December 31, 2018  
Preparation date: April 18, 2019

On April 11, 2019, Tanager Energy Inc. amended its articles of incorporation to change its name from Tanager Energy Inc. to Paleo Resources, Inc.

Paleo Resources, Inc.'s (the Company) Canadian oil and gas reserves were evaluated by Deloitte LLP (Deloitte), effective December 31, 2018. Deloitte was engaged by the Company to evaluate proved and proved plus probable reserves: no valuation of possible reserves or resources was undertaken. The Deloitte evaluation was prepared in accordance with National Instrument 51-101 – *Standards of Disclosure for Oil and Gas Activities* and the *Canadian Oil and Gas Evaluation Handbook* ("COGE Handbook").

Paleo Resources, Inc.'s (the Company) American oil and gas reserves were evaluated by Prator Bett, LLC effective December 31, 2018.

Prator Bett, LLC has been engaged to provide a reserves report for selected US assets located in Polk County, Texas. Prator Bett was engaged by the Company to evaluate proved and proved plus probable reserves: no valuation of possible reserves or resources was undertaken. The Prator Bett evaluation was prepared in accordance with National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities and the Canadian Oil and Gas Evaluation Handbook ("COGE Handbook")

The Company has assets located in both the United States and in Canada. The Company's Canadian oil and gas reserves are located ten miles northeast of Red Deer, Alberta in sections 22 and 23, township 39, range 26 W4M. The Company's American oil and gas reserves are located in Polk County, Texas.

The reserves on the property described herein are estimates only. By nature, such forecasting of reserves and related economic parameters and analyses are forward-looking statements based on predictions of future events. Actual events or results may differ materially. Furthermore, the estimated future net revenue contained in the following tables does not necessarily represent the fair market value of the reserves.

In certain instances, numbers may not total due to computer-generated rounding.

## Part 2 Disclosure of reserves data

### Item 2.1 Reserves data (forecast prices and costs)

#### Item 2.1.1 Breakdown of reserves (forecast case)

**Paleo Resources, Inc.**  
**NI 51-101 FORECAST CASE**  
**OIL AND GAS RESERVES SUMMARY**  
**Deloitte December 31, 2018 Forecast Pricing (CAD)**

Effective December 31, 2018

Canada

VOLUMES IN IMPERIAL UNITS																				
CATEGORY	Oil						Natural Gas						Natural Gas Liquids		Sulphur		Total BOE			
	Light/Medium Crude		Heavy Crude		Bitumen		Solution		Conventional		Coalbed Methane		W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net
	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net								
Mstb	Mstb	Mstb	Mstb	Mstb	Mstb	MMcf	MMcf	MMcf	MMcf	MMcf	MMcf	Mstb	Mstb	Mit	Mit	Mboe	Mboe			
PDP	2.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.5	0.0	0.0	0.4	0.3	0.0	0.0	3.4	3.0		
PDNP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PUD	105.7	80.9	0.0	0.0	0.0	0.0	0.0	0.0	321.9	280.6	0.0	0.0	34.4	23.2	1.4	1.1	193.7	150.9		
TP	108.1	83.1	0.0	0.0	0.0	0.0	0.0	0.0	325.9	284.1	0.0	0.0	34.8	23.4	1.4	1.1	197.1	153.9		
PB	<u>79.9</u>	<u>57.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>236.8</u>	<u>206.2</u>	<u>0.0</u>	<u>0.0</u>	<u>25.2</u>	<u>18.0</u>	<u>1.1</u>	<u>0.9</u>	<u>144.7</u>	<u>109.7</u>		
P+P	188.0	140.5	0.0	0.0	0.0	0.0	0.0	0.0	562.7	490.3	0.0	0.0	60.0	41.4	2.5	2.0	341.8	263.6		

  

VOLUMES IN METRIC UNITS																				
CATEGORY	Oil						Natural Gas						Natural Gas Liquids		Sulphur		Total E3m3e			
	Light/Medium Crude		Heavy Crude		Bitumen		Solution		Conventional		Coalbed Methane		W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net
	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net	W.I Gross	Co. Share Net								
E3m3	E3m3	E3m3	E3m3	E3m3	E3m3	E6m3	E6m3	E6m3	E6m3	E6m3	E6m3	E3m3	E3m3	E3t	E3t	E3m3e	E3m3e			
PDP	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.5	0.5		
PDNP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PUD	16.8	12.9	0.0	0.0	0.0	0.0	0.0	0.0	9.1	7.9	0.0	0.0	5.5	3.7	1.4	1.1	30.8	24.0		
TP	17.2	13.2	0.0	0.0	0.0	0.0	0.0	0.0	9.2	8.0	0.0	0.0	5.5	3.7	1.4	1.1	31.3	24.5		
PB	<u>12.7</u>	<u>9.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>6.7</u>	<u>5.8</u>	<u>0.0</u>	<u>0.0</u>	<u>4.0</u>	<u>2.9</u>	<u>1.1</u>	<u>0.9</u>	<u>23.0</u>	<u>17.4</u>		
P+P	29.9	22.3	0.0	0.0	0.0	0.0	0.0	0.0	15.9	13.9	0.0	0.0	9.5	6.6	2.5	2.0	54.3	41.9		

Light/Medium includes Tight and Synthetic Oil. Heavy includes Ultra Heavy and Pelican Lake Heavy in Alberta

Paleo Resources, Inc.  
NI 51-101 FORECAST CASE  
OIL AND GAS RESERVES SUMMARY  
Deloitte December 31, 2018 Forecast Pricing (CAD)

Effective December 31, 2018

United States

## VOLUMES IN IMPERIAL UNITS

CATEGORY	Oil				Natural Gas				Total BOE	
	Light/Medium Crude		Tight Oil		Conventional		Natural Gas Liquids			
	WI Gross Mstb	Co. Share Net Mstb	WI Gross Mstb	Co. Share Net Mstb	WI Gross MMcf	Co. Share Net MMcf	WI Gross Mstb	Co. Share Net Mstb	WI Gross Mboe	Co. Share Net Mboe
	PDP	0.0	0.0	0.0	0.0	104.7	42.2	0.0	0.0	17.5
PDNP	135.0	50.6	0.0	0.0	3,971.7	1,926.6	0.0	0.0	797.0	371.7
PUD	160.0	60.0	0.0	0.0	2,000.0	750.0	0.0	0.0	493.3	185.0
TP	295.0	110.6	0.0	0.0	6,076.4	2,718.9	0.0	0.0	1,307.7	563.7
PB	502.7	188.5	0.0	0.0	6,284.0	2,356.5	0.0	0.0	1,550.1	581.3
P+P	797.7	299.1	0.0	0.0	12,360.4	5,075.4	0.0	0.0	2,857.8	1,145.0

## VOLUMES IN METRIC UNITS

CATEGORY	Oil				Natural Gas				Total E <sup>3</sup> m <sup>3</sup> e	
	Light/Medium Crude		Tight Oil		Conventional		Natural Gas Liquids			
	WI Gross E <sup>3</sup> m <sup>3</sup>	Co. Share Net E <sup>3</sup> m <sup>3</sup>	WI Gross E <sup>3</sup> m <sup>3</sup>	Co. Share Net E <sup>3</sup> m <sup>3</sup>	WI Gross E <sup>6</sup> m <sup>3</sup>	Co. Share Net E <sup>6</sup> m <sup>3</sup>	WI Gross E <sup>3</sup> m <sup>3</sup>	Co. Share Net E <sup>3</sup> m <sup>3</sup>	WI Gross E <sup>3</sup> m <sup>3</sup> e	Co. Share Net E <sup>3</sup> m <sup>3</sup> e
	PDP	0.0	0.0	0.0	0.0	3.0	1.2	0.0	0.0	2.8
PDNP	21.5	8.0	0.0	0.0	112.5	54.6	0.0	0.0	126.7	59.1
PUD	25.4	9.5	0.0	0.0	56.6	21.2	0.0	0.0	78.4	29.4
TP	46.9	17.6	0.0	0.0	172.0	77.0	0.0	0.0	207.9	89.6
PB	79.9	30.0	0.0	0.0	177.9	66.7	0.0	0.0	246.4	92.4
P+P	126.8	47.6	0.0	0.0	350.0	143.7	0.0	0.0	454.3	183.0

**Item 2.1.2 Net present value of future net revenue (forecast case)**

**Paleo Resources, Inc.**  
**NI 51-101 FORECAST CASE**  
**SUMMARY OF NET PRESENT VALUE OF FUTURE NET REVENUE - WITH CORPORATE TAX POOLS**  
**Deloitte December 31, 2018 Forecast Pricing (CAD)**

<b>Effective: December 31, 2018</b>		<b>Canada</b>									
<b>BOE</b>											
<b>RESERVES CATEGORY</b>	<b>Before Income Taxes</b>					<b>After Income Taxes</b>					<b>10% BTAX \$/boe*</b>
	0%	5%	10%	15%	20%	0%	5%	10%	15%	20%	
	M\$	M\$	M\$	M\$	M\$	M\$	M\$	M\$	M\$	M\$	
Proved Developed Producing	-349.1	-213.3	-140.6	-98.9	-73.3	-349.1	-213.3	-140.6	-98.9	-73.3	(41.36)
Proved Developed Non-Producing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Proved Undeveloped	940.0	570.5	317.6	139.8	11.8	940.0	570.5	317.6	139.8	11.8	1.64
Total Proved	590.9	357.2	177.0	40.9	-61.6	590.9	357.2	177.0	40.9	-61.6	0.90
Probable	1,684.5	1,036.9	666.6	450.3	319.5	1,684.5	1,036.9	666.6	450.3	319.5	4.61
Total Proved + Probable	2,277.4	1,394.1	843.6	491.2	257.9	2,277.4	1,394.1	843.6	491.2	257.9	2.47

  

<b>Effective: December 31, 2018</b>		<b>United States</b>									
<b>BOE</b>											
<b>RESERVES CATEGORY</b>	<b>Before Income Taxes</b>					<b>After Income Taxes</b>					<b>10% BTAX \$/boe*</b>
	0%	5%	10%	15%	20%	0%	5%	10%	15%	20%	
	M\$	M\$	M\$	M\$	M\$	M\$	M\$	M\$	M\$	M\$	
Proved Developed Producing	54.5	54.3	54.0	53.7	53.4	54.5	54.3	54.0	53.7	53.4	3.1
Proved Developed Non-Producing	8,104.0	5,395.3	3,886.6	2,934.5	2,276.3	8,104.0	5,395.3	3,886.6	2,934.5	2,276.3	4.9
Proved Undeveloped	4,713.6	2,422.8	1,200.8	487.0	41.2	4,386.4	2,287.1	1,185.3	547.3	150.1	2.4
Total Proved	12,872.1	7,872.3	5,141.4	3,475.2	2,370.9	12,545.0	7,736.7	5,125.9	3,535.5	2,479.8	3.9
Probable	24,088.9	14,267.2	9,556.1	6,867.4	5,142.9	19,030.4	11,334.6	7,628.4	5,504.3	4,136.0	6.2
Total Proved + Probable	36,961.1	22,139.6	14,697.5	10,342.5	7,513.8	31,575.4	19,071.3	12,754.3	9,039.8	6,615.8	5.1

**Item 2.1.3 Additional information concerning future net revenue (forecast case)**

**Paleo Resources, Inc.**  
**NI 51-101 FORECAST CASE**  
**TOTAL FUTURE NET REVENUE – WITH CORPORATE TAX POOLS**  
**Deloitte December 31, 2018 Forecast Pricing**

Effective December 31, 2018

		<b>Canada</b>					<b>Future Net Revenue Before Income Tax</b>	<b>Income Taxes</b>	<b>Future Net Revenue After Income Tax</b>
<b>Category</b>	<b>Revenue</b>	<b>Royalties</b>	<b>Operating Costs</b>	<b>Investment Costs</b>	<b>Abandonment Costs</b>	<b>Well Abandonment Costs</b>	<b>Future Net Revenue Before Income Tax</b>	<b>Income Taxes</b>	<b>Future Net Revenue After Income Tax</b>
	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>
Proved Developed Producing	176.4	14.8	153.3	0.0	357.3	-349.1	0.0	-349.1	
Proved Undeveloped	11,929.0	2,711.3	7,502.2	775.0	0.0	940.0	0.0	940.0	
Total Proved	12,105.0	2,726.1	7,655.6	775.0	357.3	590.9	0.0	590.9	
Probable	10,958.0	2,774.4	6,457.3	0.0	40.3	4,763.0	0.0	4,763.0	
Total Proved + Probable	23,063.0	5,500.5	14,112.9	775.0	397.6	2,277.4	0.0	2,277.4	

  

		<b>United States</b>					<b>Future Net Revenue Before Income Tax</b>	<b>Income Taxes</b>	<b>Future Net Revenue After Income Tax</b>
<b>Category</b>	<b>Revenue</b>	<b>Royalties</b>	<b>Operating Costs</b>	<b>Investment Costs</b>	<b>Abandonment Costs</b>	<b>Well Abandonment Costs</b>	<b>Future Net Revenue Before Income Tax</b>	<b>Income Taxes</b>	<b>Future Net Revenue After Income Tax</b>
	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>	<b>M\$</b>
Proved Developed Producing	219.6	71.4	36.2	0.0	57.6	54.5	0.0	54.5	
Proved Developed Non-producing	18,895.3	5,990.2	2,030.9	2,611.4	158.8	8,104.0	0.0	8,104.0	
Proved Undeveloped	13,102.1	4,086.8	1,285.1	2,960.6	55.9	4,713.6	327.1	4,386.5	
Total Proved	32,217.0	10,148.4	3,352.2	5,572.0	272.3	12,872.1	327.1	12,545.0	
Probable	42,842.0	13,363.8	2,372.8	2,960.5	56.0	24,088.9	3,766.2	20,322.8	
Total Proved + Probable	75,059.0	23,512.2	5,725.1	8,532.5	328.3	36,961.1	4,093.3	32,867.8	

Royalties for the United States include freehold royalties, production taxes and ad valorem taxes.

**Paleo Resources, Inc.**  
**NI 51-101 FORECAST CASE**  
**FUTURE NET REVENUE BY PRODUCT TYPE**  
**Deloitte December 31, 2018 Forecast Pricing (CAD)**

**Effective December 31, 2018**

**Canada**

	Btax NPV @ 10% M\$	Unit Value \$/Primary product
<b>TOTAL PROVED</b>		
Light and Medium Crude Oil (including solution gas and by-products)	177.0	2.13
Conventional Natural Gas (including by-products but excluding solution and gas and by-products from oil wells)		
<b>Total</b>	177.0	1.15
<b>TOTAL PROVED + PROBABLE</b>		
Light and Medium Crude Oil (including solution gas and by-products)	843.6	6.01
Conventional Natural Gas (including by-products but excluding solution and gas and by-products from oil wells)		
<b>Total</b>	843.6	3.20

**United States**

	Btax NPV @ 10% M\$	Unit Value \$/Primary product
<b>TOTAL PROVED</b>		
Tight Oil (including solution gas and by-products)	5,141.4	3.93
<b>Total</b>	5,141.4	3.93
<b>TOTAL PROVED + PROBABLE</b>		
Tight Oil (including solution gas and by-products)	14,697.5	5.14
<b>Total</b>	14,697.5	5.14

**Item 2.2 Supplemental disclosure of reserves data (constant prices and costs)**

No supplemental disclosure using Constant Prices and Costs has been made.

**Part 3 Pricing assumptions**

**Item 3.1 Constant prices used in estimates**

Supplemental constant price estimates are not reported.



### Item 3.2 Forecast prices used in estimates

Forecast oil and gas prices are laid out in the Deloitte Price Forecast December 31, 2018 Table. All prices are stated in Canadian dollars unless otherwise indicated. Adjustments for oil differential and gas heating values are applied to these prices, as appropriate for each entity. Capital and operating costs are inflated.

**Deloitte Resource Evaluation & Advisory  
Canadian Domestic Forecast  
Base Case Forecast Effective December 31, 2018**

		Price Inflation Rate	Cost Inflation Rate	CAD to USD Exchange Rate	Crude Oil Pricing							Natural Gas Liquids Pricing Edmonton Par Prices				Natural Gas Pricing						Sulphur Alberta Plant Gate C\$/lt Current	
					WTI at Cushing		Edmonton		WCS		Bow River	Heavy Oil	Ethane	Propane	Butane	Pentanes +	Alberta Reference	Alberta AECO	Alberta AECO	B.C. Direct	NYMEX		NYMEX
					US\$/bbl Real	US\$/bbl Current	C\$/bbl Real	C\$/bbl Current	20.5 Deg. API C\$/bbl Current	25 Deg. API C\$/bbl Current	12 Deg. API C\$/bbl Current	C\$/bbl Current	C\$/bbl Current	C\$/bbl Current	C\$/bbl Current	C\$/mcf Current	Average Price C\$/mcf Current	Average Price C\$/mcf Real	Average Price C\$/mcf Current	Sales C\$/mcf Current	Hub US\$/Mcf Real		Hub US\$/Mcf Current
H	2008	2.4%	2.4%	0.943	\$116.90	\$99.57	\$120.69	\$102.80	\$82.95	\$83.90	\$73.08	\$22.59	\$56.96	\$83.54	\$109.77	\$7.88	\$9.58	\$8.16	\$8.20	\$10.40	\$8.86	\$303.83	
i	2009	0.3%	0.3%	0.880	\$70.66	\$61.65	\$75.76	\$66.10	\$58.66	\$59.80	\$54.40	\$11.61	\$34.62	\$56.21	\$69.49	\$3.85	\$4.54	\$3.96	\$4.17	\$4.53	\$3.95	(\$5.08)	
s	2010	1.8%	1.8%	0.971	\$90.72	\$79.40	\$88.90	\$77.80	\$67.22	\$68.18	\$60.62	\$11.53	\$45.19	\$68.79	\$84.02	\$3.76	\$4.58	\$4.01	\$4.01	\$5.01	\$4.39	\$56.94	
t	2011	2.9%	2.9%	1.012	\$106.51	\$94.88	\$107.24	\$95.54	\$77.12	\$78.42	\$69.60	\$10.30	\$52.41	\$86.98	\$105.24	\$3.46	\$4.08	\$3.63	\$3.34	\$4.49	\$4.00	\$101.60	
o	2012	1.5%	1.5%	1.001	\$102.56	\$94.11	\$94.34	\$86.57	\$73.10	\$74.41	\$64.07	\$6.73	\$30.80	\$75.47	\$99.67	\$2.25	\$2.60	\$2.39	\$2.29	\$3.00	\$2.75	\$126.81	
r	2013	0.9%	0.9%	0.972	\$105.08	\$97.91	\$100.20	\$93.36	\$74.97	\$76.29	\$65.49	\$8.68	\$38.54	\$77.44	\$103.52	\$2.98	\$3.41	\$3.17	\$3.11	\$4.00	\$3.73	\$62.17	
i	2014	1.9%	1.9%	0.906	\$99.15	\$93.26	\$99.93	\$94.00	\$81.06	\$81.49	\$73.70	\$12.46	\$42.93	\$59.43	\$101.47	\$4.22	\$4.79	\$4.50	\$4.16	\$4.67	\$4.39	\$88.99	
c	2015	1.1%	1.1%	0.783	\$50.77	\$48.69	\$59.44	\$57.00	\$44.80	\$45.23	\$39.63	\$7.49	\$5.35	\$33.70	\$55.15	\$2.56	\$2.81	\$2.69	\$1.81	\$2.74	\$2.63	\$107.45	
a	2016	1.4%	1.4%	0.755	\$44.50	\$43.15	\$53.84	\$52.22	\$38.90	\$39.23	\$34.08	\$6.04	\$8.71	\$31.45	\$52.43	\$1.93	\$2.23	\$2.16	\$1.75	\$2.59	\$2.52	\$45.40	
l	2017	1.6%	1.6%	0.771	\$51.71	\$50.88	\$62.89	\$61.88	\$50.53	\$50.86	\$45.01	\$6.11	\$27.92	\$40.98	\$63.65	\$2.13	\$2.23	\$2.19	\$1.56	\$3.03	\$2.99	\$41.85	
2	12 Mths H	2.3%	2.3%	0.773	\$65.20	\$65.20	\$68.89	\$68.89	\$52.24	\$52.56	\$45.10	\$6.36	\$29.65	\$46.90	\$77.14	\$1.24	\$1.52	\$1.52	\$1.24	\$3.20	\$3.20	\$79.73	
0	0 Mths F	0.0%	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
1	8	Avg.	N/A	0.773	\$65.20	\$65.20	\$68.89	\$68.89	\$52.24	\$52.56	\$45.10	\$6.36	\$29.65	\$46.90	\$77.14	\$1.24	\$1.52	\$1.52	\$1.24	\$3.20	\$3.20	\$79.73	
F	2019	0.0%	0.0%	0.760	\$58.00	\$58.00	\$65.80	\$65.80	\$50.00	\$49.80	\$43.00	\$5.70	\$32.90	\$29.60	\$75.65	\$1.55	\$1.75	\$1.75	\$1.45	\$3.00	\$3.00	\$75.00	
o	2020	2.0%	2.0%	0.760	\$60.00	\$61.20	\$71.05	\$72.45	\$57.75	\$59.20	\$52.65	\$6.10	\$36.25	\$39.90	\$79.70	\$2.00	\$2.15	\$2.20	\$1.90	\$3.10	\$3.15	\$76.50	
r	2021	2.0%	2.0%	0.770	\$62.00	\$64.50	\$75.30	\$78.35	\$60.80	\$64.80	\$55.60	\$6.95	\$39.15	\$50.95	\$86.20	\$2.30	\$2.40	\$2.50	\$2.20	\$3.30	\$3.45	\$78.05	
e	2022	2.0%	2.0%	0.790	\$65.00	\$69.00	\$77.20	\$81.95	\$64.45	\$68.15	\$59.15	\$7.85	\$40.95	\$53.25	\$90.10	\$2.60	\$2.65	\$2.80	\$2.50	\$3.40	\$3.60	\$79.60	
c	2023	2.0%	2.0%	0.800	\$70.00	\$75.75	\$82.50	\$89.30	\$71.70	\$75.25	\$66.30	\$8.95	\$44.65	\$58.05	\$98.25	\$3.00	\$2.95	\$3.20	\$2.85	\$3.55	\$3.85	\$81.20	
a	2024	2.0%	2.0%	0.800	\$70.00	\$77.30	\$82.50	\$91.10	\$73.15	\$76.75	\$67.60	\$9.90	\$45.55	\$59.25	\$100.20	\$3.30	\$3.20	\$3.55	\$3.20	\$3.75	\$4.15	\$82.80	
s	2025	2.0%	2.0%	0.800	\$70.00	\$78.85	\$82.50	\$92.90	\$74.60	\$78.25	\$69.00	\$10.70	\$46.45	\$60.40	\$102.20	\$3.60	\$3.40	\$3.85	\$3.50	\$3.90	\$4.40	\$84.45	
t	2026	2.0%	2.0%	0.800	\$70.00	\$80.40	\$82.50	\$94.75	\$76.10	\$79.85	\$70.35	\$11.10	\$47.40	\$61.65	\$104.25	\$3.75	\$3.45	\$3.95	\$3.60	\$3.95	\$4.55	\$86.15	
H	2027	2.0%	2.0%	0.800	\$70.00	\$82.00	\$82.50	\$96.65	\$77.60	\$81.45	\$71.75	\$11.50	\$48.35	\$62.85	\$106.35	\$3.85	\$3.50	\$4.10	\$3.75	\$4.00	\$4.70	\$87.85	
	2028	2.0%	2.0%	0.800	\$70.00	\$83.65	\$82.50	\$98.60	\$79.15	\$83.05	\$73.20	\$11.70	\$49.30	\$64.10	\$108.45	\$3.95	\$3.50	\$4.20	\$3.80	\$4.00	\$4.80	\$89.65	
	2029	2.0%	2.0%	0.800	\$70.00	\$85.35	\$82.50	\$100.55	\$80.75	\$84.70	\$74.65	\$11.95	\$50.30	\$65.40	\$110.60	\$4.00	\$3.50	\$4.25	\$3.90	\$4.00	\$4.90	\$91.40	
	2030	2.0%	2.0%	0.800	\$70.00	\$87.05	\$82.50	\$102.60	\$82.35	\$86.40	\$76.15	\$12.20	\$51.30	\$66.70	\$112.85	\$4.10	\$3.50	\$4.35	\$4.00	\$4.00	\$4.95	\$93.25	
	2031	2.0%	2.0%	0.800	\$70.00	\$88.80	\$82.50	\$104.65	\$84.00	\$88.15	\$77.70	\$12.45	\$52.30	\$68.05	\$115.10	\$4.20	\$3.50	\$4.45	\$4.05	\$4.00	\$5.05	\$95.10	
	2032	2.0%	2.0%	0.800	\$70.00	\$90.55	\$82.50	\$106.70	\$85.70	\$89.90	\$79.25	\$12.70	\$53.35	\$69.40	\$117.40	\$4.25	\$3.50	\$4.55	\$4.15	\$4.00	\$5.15	\$97.00	
	2033	2.0%	2.0%	0.800	\$70.00	\$92.35	\$82.50	\$108.85	\$87.40	\$91.70	\$80.80	\$12.95	\$54.45	\$70.80	\$119.75	\$4.35	\$3.50	\$4.60	\$4.20	\$4.00	\$5.30	\$98.95	
	2034	2.0%	2.0%	0.800	\$70.00	\$94.20	\$82.50	\$111.05	\$89.15	\$93.55	\$82.45	\$13.20	\$55.50	\$72.20	\$122.15	\$4.45	\$3.50	\$4.70	\$4.30	\$4.00	\$5.40	\$100.95	
	2035	2.0%	2.0%	0.800	\$70.00	\$96.10	\$82.50	\$113.25	\$90.95	\$95.40	\$84.10	\$13.45	\$56.65	\$73.65	\$124.60	\$4.55	\$3.50	\$4.80	\$4.40	\$4.00	\$5.50	\$102.95	
	2036	2.0%	2.0%	0.800	\$70.00	\$98.00	\$82.50	\$115.50	\$92.75	\$97.30	\$85.75	\$13.70	\$57.75	\$75.10	\$127.05	\$4.60	\$3.50	\$4.90	\$4.50	\$4.00	\$5.60	\$105.00	
	2037	2.0%	2.0%	0.800	\$70.00	\$100.00	\$82.50	\$117.85	\$94.60	\$99.25	\$87.50	\$14.00	\$58.90	\$76.65	\$129.60	\$4.70	\$3.50	\$5.00	\$4.55	\$4.00	\$5.70	\$107.10	
	2038	2.0%	2.0%	0.800	\$70.00	\$102.00	\$82.50	\$120.20	\$96.50	\$101.25	\$89.25	\$14.30	\$60.10	\$78.15	\$132.20	\$4.80	\$3.50	\$5.10	\$4.65	\$4.00	\$5.85	\$109.25	
	2038+	2.0%	2.0%	0.800	0.0%	2.0%	0.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	2.0%	

- Notes:
- All prices are in Canadian dollars except WTI and NYMEX gas which are in U.S. dollars
  - Edmonton city gate prices based on historical light oil par prices posted by the government of Alberta and Net Energy differential futures (40 Deg. API < 0.5% Sulphur)
  - Natural Gas Liquid prices are forecasted at Edmonton therefore an additional transportation cost must be included to plant gate sales point
  - 1 Mcf is equivalent to 1 mmbtu
  - Real prices listed in 2018 dollars with no escalation considered
  - Alberta gas prices, except AECO, include an average cost of service to the plant gate
  - NGL prices have been switched from a mix reference to a spec reference

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## Part 4 Reconciliation of changes in reserves

### Item 4.1 Reserves reconciliation

Paleo Resources, Inc.  
NI 51-101 FORECAST CASE  
RECONCILIATION OF COMPANY GROSS RESERVES BY PRINCIPAL PRODUCT TYPE

Effective December 31, 2018

Canada

Opening: Deloitte December 31, 2017 Forecast Pricing Closing: Deloitte December 31, 2018 Forecast Pricing

	Light & Medium Oil			Heavy Oil			Conventional Gas			Natural Gas Liquids		
	Proved	Probable	Proved + Probable	Proved	Probable	Proved + Probable	Proved	Probable	Proved + Probable	Proved	Probable	Proved + Probable
	Mstb	Mstb	Mstb	Mstb	Mstb	Mstb	MMcf	MMcf	MMcf	Mstb	Mstb	Mstb
Opening Balance	128.2	114.4	242.6	0.0	0.0	0.0	501.4	458.0	959.4	18.3	16.7	34.9
Production	-2.3	0.0	-2.3	0.0	0.0	0.0	-3.6	0.0	-3.6	-0.4	0.0	-0.4
Technical Revisions	-8.8	-35.0	-43.9	0.0	0.0	0.0	-138.7	-233.6	-372.4	17.9	8.2	26.0
Extensions & Improved Recovery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Discoveries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dispositions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Economic Factors	-9.0	0.5	-8.5	0.0	0.0	0.0	-33.2	12.5	-20.7	-1.0	0.4	-0.5
Infill Drilling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Closing Balance	108.1	79.9	188.0	0.0	0.0	0.0	325.9	236.8	562.7	34.8	25.3	60.0

Economic factors due to market price for each product were calculated based on reserves assigned to Paleo's Canadian assets as of December 31, 2017. B1 - 00/10-22-039-26W4/0 is the only producing oil well in the Joffre Property. A decrease in recent production rates has resulted in a reduction in both oil and gas reserves. Proved reserves and proved plus probable reserves have been reduced by 8.8 Mstb, and 43.9 Mstb respectively. Consequently, a negative change in gas reserves (by-product) in each reserve category can be observed as the solution gas oil ratio has stabilized in recent history. An increase in NGL yields have been observed in the past year, and adjustments have been made on NGL forecast which resulted in a growth in NGL reserves in proved and proved plus probable.

Technical revisions to the Canadian reserves are primarily due to review of the existing well performance, with minor adjustments to the proved oil volumes and material adjustments to the probable oil volumes. Material adjustments to the recoverable natural gas and natural gas liquids volumes were also made in recognition of the revised solution gas oil ratio.

Effective December 31, 2018

United States

Opening:  
Closing: Deloitte December 31, 2018 Forecast Pricing

	Tight Oil			Heavy Oil			Conventional Gas			Natural Gas Liquids		
	Proved	Probable	Proved + Probable	Proved	Probable	Proved + Probable	Proved	Probable	Proved + Probable	Proved	Probable	Proved + Probable
	Mstb	Mstb	Mstb	Mstb	Mstb	Mstb	MMcf	MMcf	MMcf	Mstb	Mstb	Mstb
Opening Balance	202.1	786.4	998.5	0.0	0.0	0.0	3,982.4	20,261.5	24,243.9	0.0	0.0	0.0
Production	0.0	0.0	0.0	0.0	0.0	0.0	-216.3	0.0	-216.3	0.0	0.0	0.0
Technical Revisions	92.9	-283.7	-200.8	0.0	0.0	0.0	2,310.3	-13,977.5	-11,667.2	0.0	0.0	0.0
Extensions & Improved Recovery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Discoveries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dispositions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Economic Factors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Infill Drilling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Closing Balance	295.0	502.7	797.7	0.0	0.0	0.0	6,076.4	6,284.0	12,360.4	0.0	0.0	0.0

Economic factors due to market price for each product were calculated based on reverses assigned to Paleo's US assets as of December 31, 2017. Only production came from the gas wells in the Yegua Property. Proved reserves have increased by 92.9 Mstb whereas proved plus probable reserves have decreased by 200.8 Mstb respectively. Consequently, Gas reserves (by-product) in each reserve category reflects the changes in oil reserves as Gas Oil ratio has stabilized in recent history.

Technical adjustments made to the Woodbine property are primarily a result of removing the Upper Woodbine reserves. Additional minor adjustments can also be attributed to a change in independent evaluators. Technical reserve adjustments to the proved developed producing volumes within the Yegua field are based production performance over the last year. Reserve adjustments to the undeveloped volumes in the Yegua field are a result of higher pipeline and well activation costs as well as minor changes to the overall ownership and royalty information.

## Part 5 Additional information relating to reserves data

### Item 5.1 Undeveloped reserves

#### Canada

Probable undeveloped reserves have been assigned to the B2 - 00/10-22-039-26W4/0, B3 - 02/10-22-039-26W4/0, and B4 - 00/14-22-039-26W4/2. These well have been drilled and are currently shut-in but has plans to be reactivated in Q3 2019, due to the large capital amount required, undeveloped reserves have been assigned. All locations in Project C are considered uneconomic at current price.

Canada		
Year	Undeveloped Reserves	
	Proved (Mstb)	Probable (Mstb)
2016	105.7	186.8
2017	0.0	0.0
2018	0.0	0.0

#### United States

Two immediate proven undeveloped offsets and one incremental probable undeveloped offset have been identified to be drilled in the Lower Woodbine. These locations are supported by subsurface mapping and 3D Seismic. The ultimate recoveries for these locations should be analogous to the ultimate recovery calculated for the Cain-Carter #1 and have been estimated at 333 MBOE.

No Upper Woodbine formation locations have been assigned as they are now considered to be not productive.

### Item 5.2 Significant factors or uncertainties

The process of estimating reserves is complex. It requires significant judgment and decisions based on available geological, geophysical, engineering and economic data. These estimates may change substantially as additional data from ongoing development activities and production performance becomes available and as economic conditions impacting oil and gas prices and costs change. The reserve estimates contained herein are based on current production forecasts, commodity prices and economic conditions. The Corporation's reserves are evaluated by Deloitte, an independent engineering firm.

Estimates made are reviewed and revised, either upward or downward, as warranted by the new information. Revisions are often required due to changes in well performance, commodity prices, economic conditions and governmental restrictions. Although every reasonable effort is made to ensure that reserve estimates are accurate, reserve estimation is an inferential science. The Company's actual production, revenues, taxes, development and operating expenditures with respect to its reserves may vary from such estimates, and such variances could be material. Reserve

estimates are subject to change with such factors as, updated production data, well performance and operational issues, ongoing development activities, price forecasts, and other economic conditions.

### Item 5.3 Future development costs

Canada				
Year	Undiscounted future costs net (M\$)		Discounted (10%) future costs net (M\$)	
	Proved	Proved + probable	Proved	Proved + probable
2018	775.0	0.0	736.3	0.0
Total	775.0	0.0	736.3	0.0

United States				
Year	Undiscounted future costs net (M\$)		Discounted (10%) future costs net (M\$)	
	Proved	Proved + probable	Proved	Proved + probable
2019	2,611.4	2,611.4	2,489.9	2,489.9
2020	2,960.6	5,921.1	2,566.2	5,132.3
2021	0.0	0.0	0.0	0.0
2022	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0
Total	5,572.0	8,532.5	5,056.1	7,622.2

## Part 6 Other oil and gas information

### Item 6.1 Oil and gas properties and wells

#### Canada

##### *Project B and C*

Joffre are located approximately 10 miles northeast of Red Deer, Alberta in Township 39, Range 26W4.

#### United States

##### *Polk County, Texas*

The Company's American oil and gas reserves in the Woodbine and Yegua formations are located in Polk County, Texas.

#### Geology - Canada

##### **Leduc**

The Late Devonian Leduc Formation is represented by large barrier reef and smaller pinnacle reef bioherms which grew on the Cooking Lake platform carbonates. Trending northeast to southwest, the limestones and dolostones of the Leduc/Cooking Lake Formations were deposited on the bathymetric highs of the Late Devonian seas. Hydrocarbons are trapped by lateral stratigraphic pinch-out of these dolomitic carbonates into deeper water shale sediments.

##### **Horseshoe Canyon/Bearpaw**

The Horseshoe Canyon Formation is part of the Upper Cretaceous Edmonton group which lies

unconformably on top of the Belly River Group and is overlain by the tertiary Scollard Formation. Sediments of the Horseshoe Canyon were deposited in a complex coastal environment with shore face sands, tidal channel sands, distributary sands and large back barrier peat bog swamps. The result of such an environment is a stratigraphic section of approximately 100 to 400 metres thick with the lower to middle Horseshoe Canyon containing multiple prospective coal seams and sandstones.

### **Basal Belly River/Pakowki**

The Upper Cretaceous Basal Belly River/Pakowki Formations represent a marginal marine fluvial/deltaic environment that deposited clastic sediments in series of north-south trending bar sands. Reservoirs are developed in sandstone lobes, and to a lesser extent, channel sands, as river systems supplied sediments to the prograding delta. Gas pools that are developed in deltaic lobe sandstones trapped stratigraphically as the reservoir sands grade laterally into siltstone and shale.

### **Upper Mannville**

The Early Cretaceous Upper Mannville Group consists of sandstones, siltstones, shales and coals deposited in a fluvial environment in which shorelines and sediments were moving northward. Sandstones of the Upper Mannville contain a significant amount of volcanic and feldspathic material. Hydrocarbons are trapped stratigraphically within porous sandstones that are truncated by tight, lithic Upper Mannville channels in an updip position or as the sandstones pinch-out or grade laterally into the surrounding siltstones and shales.

## **Geology – United States**

### **Upper Woodbine**

The Upper Woodbine is a rich deltaic sequence with abundant sand channels thinning on the edges with tight distal clay choked sands.

### **Lower Woodbine**

The lower Woodbine is a slope fan feature and is progradational in nature exhibiting a Bouma type sequence with the coarsest sands at the base then fining up. These sands are discontinuous and lenticular and vary in areal extent.

### **Yegua**

The Yegua Formation is a shallow sandstone reservoir that is the upper part of the Claiborne Group which is in the Tertiary System. The sandstones were deposited in a fluvial delta system and are typically considered to be channel sands.

## **Item 6.1.2 Gross and net oil and gas wells**

Country/Province	Oil		Gas		Non-producing		Total	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
<b>Canada</b>								
<b>Alberta</b>	1.0	0.5	0.0	0.0	5.0	2.2	6.0	2.7
<b>United States</b>								
<b>Texas</b>	0.0	0.0	2.0	1.3	4.0	2.7	6.0	4.0
<b>Total</b>	<b>1.0</b>	<b>0.5</b>	<b>2.0</b>	<b>1.3</b>	<b>9.0</b>	<b>4.9</b>	<b>12.0</b>	<b>6.7</b>

## **Item 6.2 Properties with no attributed reserves**

### **Canada**

The D0/15-22-039-26W4/0 well was forecast to have an initial rate of 12 bbl/d as of the effective date. This rate was based on the average daily rate of the most recent historical production month. Average daily rates have been used to forecast the rate as the field has been experiencing significant

operational issues downstream of the well; these issues are expected to be resolved based on discussions with Paleo. Proved developed producing remaining reserves of 10.2 Mstb have been assigned based on production performance prediction. The proved plus probable reserve case assumes the well will realize an initial rate of 12 bbl/d and will recover 25.2 Mstb.

The B1 – 00/10-22-039-26W4/0, B3 – 02/10-22-039-26W4/0, and B4 – 00/14-22-039-26W4/2 oil wells are scheduled to be re-activated in 2019. As with B1 - D0/15-22, proved producing reserves are based on both overall field production performance as well as a review of the pool's ultimate recovery factor. Proved undeveloped producing reserves are assigned to B1, B2 and B3 wells as the wells have demonstrated production over a number of years, yet reactivation requires high capital cost. The initial production rate of 35 bbl/d for all of these wells are based upon the historical performance as well as the increase in reservoir pressure. In addition, the forecasts for these wells are supported by the reported production for D0/15-22 and increased reservoir pressure.

There is also potential for a CO2 flood. Other CO2 floods in nearby fields have shown potential for incremental recoveries ranging from 12 to 25 percent. However, Paleo would need to conduct a study to determine if such an enhanced recovery scheme in this pool would be technically and economically feasible.

Within the Project C, the horizontal well C1 – 02/05-23-039-26W4/0 which was suspended since December 2008, is to be whipstocked in a southeast direction in the Leduc Formation and is estimated to start production July 2019. While proved reserves could be assigned to this well as it has demonstrated production over a number of years, the initial rate and recoverable volumes assigned are not economic.

The producing gas wells, C2 – 00/05-23-039-26W4/2 and C3 – 03/05-23-039-26W4/0 are currently uneconomic, no reserves have been assigned at this time.

As of December 31, 2018, the Company has an interest in nil gross (nil net) acres of its Joffre Alberta, Canada assets for which no reserves have been assigned. The Company is evaluating the potential for future additional drill locations on the existing acreage assigned with reserves.

## **United States**

### **Yegua**

As of December 31, 2018, the Company has an interest in oil and gas leases of approximately 766 gross (383 net) acres of undeveloped properties in Polk County, Texas with no reserves attributed. The Company has plans to continue its Yegua drilling program in 2019.

The Company's current joint venture partner agreements as of December 31, 2018 do not specify any contractual work commitments.

### **Item 6.3 Forward contracts**

There are no forward contracts applicable to any produced product.

### **Item 6.4 Tax Horizon**

The Company is not expected to pay income tax based on proved plus probable cash flow economics for the Canadian assets. The Company is expected to begin paying income tax in 2020 based on proved plus probable economics for the American assets.

### **Item 6.5 Costs incurred**

The following table summarizes Company's property acquisition costs, exploration costs and development costs incurred during the financial year ended December 31, 2018:

<b>Property Acquisitions and Capital Expenditures</b>	
<b>Nature of Cost</b>	<b>Amount (\$)</b>
Property Acquisition Costs	
Proved	-
Unproved	38,181
Exploration Costs	254,720
Development Costs	188,031
<b>Total</b>	<b>480,932</b>

#### **Item 6.6 Exploration and development activities**

##### **Yegua formation, Polk County, Texas**

The Company drilled and completed 6 gross (4.5 net) wells in 2017 in Polk County, Texas. 2 gross (1.3 net) natural gas wells started producing in September 2017. 1 gross (1 net) well produced non-commercial quantities of natural gas and water and in October 2017, the Company plugged and abandoned the well. The remaining 3 gross (2.2 net) natural gas wells have been completed but await completion of connection to pipelines expected to be completed in 2019.

**Item 6.7 Production estimates**

The following table discloses the total working interest volume for 2019 for each product type associated with the first year of the gross proved reserves and gross probable reserves reported in the Deloitte, and Prator Bett report effective December 31, 2018, based on forecast prices and costs:

<b>Forecast production working interest January 1, 2019 - December 31, 2019</b>		
	<b>Proved</b>	<b>Proved + probable</b>
<b>Joffre (Project B&amp;C), AB</b>		
Oil (Mbbbl)	9.5	9.8
Gas (MMcf)	26.7	27.3
NGL (Mbbbl)	2.8	2.9
<b>Woodbine formation, Polk Co, TX</b>		
Oil (Mbbbl)	0.0	0.0
Gas (MMcf)	0.0	0.0
NGL (Mbbbl)	0.0	0.0
<b>Yegua formation, Polk Co, TX</b>		
Oil (Mbbbl)	0.0	0.0
Gas (MMcf)	526.3	526.3
NGL (Mbbbl)	0.0	0.0
<b>Total</b>		
Oil (Mbbbl)	9.5	9.8
Gas (MMcf)	553.0	553.6
NGL (Mbbbl)	2.8	2.9

**Item 6.8 Production history**

The following table summarizes the share of the Company's average daily production, prices received, royalties paid, production taxes, operating expenses and operating netbacks for the periods indicated:

	<b>Total Company</b>			
	<b>Q1 2018</b>	<b>Q2 2018</b>	<b>Q3 2018</b>	<b>Q4 2018</b>
<b>Volumes</b>				
light oil + NGLs, bopd	7.5	6.0	8.8	7.5
gas, Mcf/d	798.1	668.7	514.1	434.6
Boe/d	140.6	117.4	94.5	79.9
<b>Light Oil and NGLs</b>				
averages, \$/bbl				
price	64.0	75.4	75.0	38.7
<b>Gas</b>				
averages, \$/Mcf				
price	3.7	3.4	3.8	4.7
Total petroleum and natural gas revenue	311,725	249,451	239,376	213,134
Royalties	68,000	75,358	61,639	51,300
Production taxes	24,010	16,071	12,768	16,368



Operating expenses	72,403	78,956	95,867	73,674
Netback (\$/Boe)	11.6	7.4	8.0	9.8

<b>Canada</b>				
	Q1 2018	Q2 2018	Q3 2018	Q4 2018
<b>Volumes</b>				
light oil + NGLs, bopd	7.5	6.0	8.8	7.4
gas, Mcf/d	11.8	7.6	11.8	8.6
Boe/d	9.5	7.2	10.8	8.9
<b>Light Oil and NGLs</b>				
averages, \$/bbl				
price	64.0	75.4	75.0	38.7
<b>Gas</b>				
averages, \$/Mcf				
price	2.0	1.4	1.4	1.9
Total petroleum and natural gas revenue	45,602	41,944	62,258	28,105
Royalties	6,713	8,065	13,242	3,417
Production taxes	-	-	-	-
Operating expenses	42,548	35,647	48,255	48,820
Netback (\$/Boe)	(4.3)	(2.7)	0.8	(29.5)

<b>USA</b>				
	Q1 2018	Q2 2018	Q3 2018	Q4 2018
<b>Volumes</b>				
light oil + NGLs, bopd	0.0	0.0	0.0	0.0
gas, Mcf/d	786.3	661.0	502.4	426.0
Boe/d	131.0	110.2	83.7	71.0
<b>Light Oil and NGLs</b>				
averages, \$/bbl				
price	0.0	0.0	0.0	0.0
<b>Gas</b>				
averages, \$/Mcf				
price	3.8	3.5	3.8	4.7
Total petroleum and natural gas revenue	266,123	207,507	177,118	185,029

Royalties	61,287	67,293	48,397	47,883
Production taxes	24,010	16,071	12,768	16,368
Operating expenses	29,855	43,309	47,612	24,854
Netback (\$/Boe)	12.8	8.1	8.9	14.7

## APPENDIX

**Forward looking statements**

**Reserve definitions**

**Glossary of abbreviations**

**FORM 51-101 F2 Report on Reserves Data by Independent Qualified Reserves Evaluator**

### FORWARD-LOOKING STATEMENTS

Certain statements contained in this Form 51-101F1 constitute forward-looking statements. These statements relate to future events or the Company's future performance. All statements other than statements of historical fact may be forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "potential", "targeting", "intend", "could", "might",

“should”, “believe”, “prospect”, “future”, “possible”, “can”, “speculative”, “perhaps” and similar expressions. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. The Company believes that the expectations reflected in those forward-looking statements are reasonable but no assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this Form 51-101F1 should not be unduly relied upon. These statements speak only as of the date of this Form 51-101F1. The Company does not intend, and does not assume any obligation, to update or revise these forward-looking statements except as required pursuant to applicable securities laws.

Forward-looking information and statements are included throughout this Form 51-101F1 and include, but are not limited to, statements pertaining to the following:

- corporate strategy;
- the Company’s reserves;
- estimates of present value or future net cash flow;
- capital expenditure programs, future capital requirements and the timing and method of financing thereof;
- the production of the Company’s assets;
- the Company’s access to adequate pipeline capacity and third-part infrastructure;
- the performance and characteristics of the Company’s oil and natural gas interest;
- the quantity and quality of the Company’s oil and natural gas reserves;
- tax horizon and taxability of the Company;
- supply and demand for oil, natural gas liquids and natural gas;
- industry conditions pertaining to the oil and gas industry; and
- abandonment and reclamation costs.

The Company’s actual results could differ materially from those anticipated in these forward-looking statements as a result of the risk factors set forth below and elsewhere in this Form 51-101F1:

- general economic conditions in Canada, the United States and globally including reduced availability of debt and equity financing generally;
- industry conditions, including fluctuations in the price of oil, NGL and natural gas;
- governmental regulation of the oil and gas industry, including environmental regulation;
- fluctuation in foreign exchange or interest rates;
- liabilities inherent in oil and natural gas operations;
- geological, technical, drilling and processing problems and other difficulties in producing reserves;
- uncertainties associated with estimating oil and natural gas reserves;
- incorrect assessments of the value of acquisitions;
- unanticipated operating events which can reduce production or cause production to be shut in or delayed;
- failure to obtain industry partner and other third party consents and approvals, when required;
- stock market volatility and market valuations;
- availability of financing on acceptable terms;
- competition for, among other things, capital, acquisitions of reserves, undeveloped land and skilled personnel;
- competition for and inability to retain drilling rigs and other services;
- rights to surface access;
- the need to obtain required approvals from regulatory authorities;
- general business and market conditions; and
- the liquidity and capital resources risks and business risks discussed in the Company’s management’s discussion and analysis for the years ended December 31, 2017.

These factors should not be considered exhaustive. Statements in respect of “reserves” are by their nature forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the reserves described can be profitably produced in the future. With respect to forward-looking statements contained in this Form 51-101F1, the Company has made assumptions regarding: future exchange rates; energy markets and the price of oil and natural gas; condition of

general economic, commodity and financial markets; current technology; cash flow; commodity prices; production rates; effects of regulation and environmental and tax laws; future operating costs and the Company's ability to obtain financing on acceptable terms. Readers are cautioned that the foregoing list of factors is not exhaustive.

The above summary of assumptions and risks related to forward-looking information has been provided in this Form 51-101F1 in order to provide readers with a more complete perspective on the Company's future operations and prospects. Readers are cautioned that this information may not be appropriate for other purposes.

**The forward-looking statements contained in this Form 51-101F1 are expressly qualified by this cautionary statement.**

#### **ROUNDING**

In certain instances, numbers may not total due to computer-generated rounding.

#### **NON-GAAP MEASURES**

This Form 51-101F1 uses "netback" which does not have standardized meanings prescribed by generally accepted accounting principles and therefore may not be comparable measures to other companies where similar terminology is used. Netback denotes petroleum and natural gas revenue less royalties, operating expenses and transportation and marketing expenses.

## Reserve definitions

Reserves are classified in accordance with the following definitions which meet the standards established by National Instrument 51-101, Standards of Disclosure for Oil and Gas Activities and found in Appendix 1 to Companion Policy 51-101 CP, Part 2 Definition of Reserves.

### Reserve categories

Reserves are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, from a given date forward, based on

- analysis of drilling, geological, geophysical and engineering data;
- the use of established technology; and
- specified economic conditions, which are generally accepted as being reasonable and are disclosed.

Reserves are classified according to the degree of certainty associated with the estimates:

Proved Reserves are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.

Probable Reserves are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.

Possible Reserves are those additional reserves that are less certain to be recovered than probable reserves. It is unlikely that the actual remaining quantities recovered will exceed the sum of the estimated proved plus probable plus possible reserves.

### Development and production status

Each of the reserves categories (proved, probable and possible) may be divided into developed and undeveloped categories:

Developed Reserves are those reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (for example, when compared to the cost of drilling a well) to put the reserves on production. The developed category may be subdivided into producing and non-producing.

Developed Producing Reserves are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing, or if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.

Developed Non-Producing Reserves are those reserves that either have not been on production, or have previously been on production, but are shut-in, and the date of resumption of production is unknown.

Undeveloped Reserves are those reserves expected to be recovered from known accumulations where a significant expenditure (for example, when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves classification (proved, probable, possible) to which they are assigned.

## SELECTED ABBREVIATIONS

Certain terms and abbreviations used in this document are defined below:

"bbl"	barrel of oil or NGL;
"bcf"	billion cubic feet of natural gas;
"bpd"	barrel of oil or NGL per day;
"Boe"	barrel of oil equivalent determined by converting a volume of natural gas to barrels using the ratio of 6 Mcf to one barrel;
"Boe/d"	barrel of oil equivalent per day;
"Mbbbl"	thousand barrels;
"MBoe"	thousand barrels of oil equivalent;
"Mcf"	thousand cubic feet of natural gas;
"Mcfe"	Mcf of gas equivalent determined by converting a volume of oil or NGL to Mcf using the ratio of 0.1667 barrels to 1 Mcf;
"Mcf/d"	thousand cubic feet of natural gas per day;
"MMcf"	million cubic feet of natural gas;
"MMcf/d"	million cubic feet of natural gas per day;
"Mstb"	thousand stock tank barrels;
"NGLs"	natural gas liquids;
"\$US"	United States dollar;
"\$Cdn"	Canadian dollar.

### Conversion

In this document measurements are given in standard Imperial or metric units only. The following table sets forth certain standard conversions.

To convert from:	To:	Multiply by:
Mcf	cubic metres	28.174
Cubic metres	cubic feet	35.494
bbls	cubic metres	0.159
cubic metres	bbls	6.290
feet	metres	0.305
metres	feet	3.281
miles	kilometres	1.609
kilometres	miles	0.621
acres	hectares	0.405
hectares	acres	2.471

In this Form 51-101F1, the calculation of barrels of Boe is calculated at a conversion rate of 6 Mcf for one bbl based on an energy equivalency conversion method. 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 to 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 as 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.



**NI 51-101 Form F2**  
**Report on reserves data by**  
**Independent qualified reserves evaluator or auditor**

To the Board of Directors of Paleo Resources, Inc. (the "Company"):

1. We have evaluated the Company's reserves data as at December 31, 2018. The reserves data are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2018, estimated using forecast prices and costs.
2. The reserves data are the responsibility of the Company's management. Our responsibility is to express an opinion on the reserves data based on our evaluation.
3. We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook as amended from time to time (the "COGE Handbook") maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter).
4. Those standards require that we plan and perform an evaluation to obtain reasonable assurance as to whether the reserves data are free of material misstatement. An evaluation also includes assessing whether the reserves data are in accordance with principles and definitions presented in the COGE Handbook.
5. The following table shows the net present value of future net revenue (before deduction of income taxes) attributed to proved plus probable reserves, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company evaluated for the year ended December 31, 2018, and identifies the respective portions thereof that we have evaluated and reported on to the Company's management/Board of Directors:

Independent qualified reserves evaluator or auditor	Effective date of report	Location of reserves (country or foreign geographic area)	Net present value of future net revenue (before income taxes; 10% discount rate)			
			Audited \$M	Evaluated \$M	Reviewed \$M	Total \$M
Deloitte LLP	Paleo Resources, Inc. Reserve estimation and economic evaluation December 31, 2018	Canada	-	\$843.6	-	\$843.6

6. In our opinion, the reserves data respectively evaluated by us have, in all material respects, been determined and are in accordance with the COGE Handbook, consistently applied. We express no opinion on the reserves data that we reviewed but did not audit or evaluate.
7. We have no responsibility to update our reports referred to in paragraph 5 for events and circumstances occurring after the effective date of our reports.
8. Because the reserves data are based on judgments regarding future events, actual events will vary and the variations may be material.

Executed as to our report referred to above:

Deloitte LLP  
700, 850 – 2<sup>nd</sup> Street S.W.  
Calgary, Alberta  
T2P 0R8

Original signed by: "Robin G. Bertram"  
Robin G. Bertram, P. Eng.  
Partner

Execution date: April 18, 2019

**FORM 51-101F2**  
**REPORT ON RESERVES DATA**  
**TANAGER ENERGY, (USA) INC. BY**  
**INDEPENDENT QUALIFIED RESERVES**  
**EVALUATOR**

To the board of directors of Tanager Energy, (USA) Inc. (the "Company"):

1. We have evaluated the Company's reserves data as of December 31, 2018. The reserves data consists of the following:

- (a) (i) Proved and oil and gas reserves estimated as of December 31, 2018 using Forecast prices and costs; and
- (ii) the related estimated future net revenue; and

2. The reserves data are the responsibility of the Company's management. Our responsibility is to express an opinion on the reserves data based on our evaluation.

We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook (the "COGE Handbook") prepared by the Society of Petroleum Engineers (Calgary Chapter).

3. Those standards require that we plan and perform an evaluation to obtain reasonable assurance as to whether the reserves data are free of material misstatement. An evaluation also includes assessing whether the reserves data are in accordance with principles and definitions presented in the COGE Handbook.



4. The following table sets forth the estimated future net revenue (before deduction of income taxes) attributed to the Proved reserves, estimated using Forecast prices and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company evaluated by us for the year ended December 31, 2018 and identifies the respective portions thereof that we have evaluated and reported on to the Company's management:

<u>Independent Qualified Reserves Evaluator</u>	<u>Description and Preparation Date of Evaluation Report</u>	<u>Project Area</u>	<u>Location of Reserves</u>	<u>Net Present Value of Future Net Revenue (before income taxes, 10% discount rate), CAD \$</u>
Prator Bett, L.L.C.	December 31, 2018	Woodbine	Texas	12,051,130
		Yegua	Texas	2,646,390
		Total	Texas	14,697,520

5. In our opinion, the reserves data respectively evaluated by us have, in all material respects, been determined and are in accordance with the COGE Handbook.
6. We have no responsibility to update our report referred to in paragraph 4 for events and circumstances occurring after the preparation date.
7. Because the reserves data are based on judgments regarding future events, actual results will vary and the variations may be material.

Executed as to our report referred to above:

PRATOR BETT, L.L.C.  
Houston, Texas, USA  
April 5, 2019

By 

Thomas G. Bett, P.E.

**FORM 51-101F3**  
**REPORT OF MANAGEMENT AND DIRECTORS**  
**ON OIL AND GAS DISCLOSURE**

Terms to which a meaning is ascribed in National Instrument 51-101 have the same meaning herein.

**Report of Management and Directors on Reserves Data and Other Information**

Management of Paleo Resources, Inc. (formerly Tanager Energy Inc.) (the “Company”) are responsible for the preparation and disclosure of information with respect to the Company’s oil and gas activities in accordance with securities regulatory requirements. This information includes reserves data which are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2018, estimated using forecast prices and costs.

An independent qualified reserves evaluator has evaluated and reviewed the Company’s reserves data. The report of the independent qualified reserves evaluator will be filed with securities regulatory authorities concurrently with this report.

The Reserves Committee of the Board of Directors of the Company has:

- (a) reviewed the Company’s procedures for providing information to the independent qualified reserves evaluator;
- (b) met with the independent qualified reserves evaluator to determine whether any restrictions affected the ability of the independent qualified reserves evaluator to report without reservation; and
- (c) reviewed the reserves data with management and the independent qualified reserves evaluator.

The Reserves Committee of the Board of Directors has reviewed the Company’s procedures for assembling and reporting other information associated with oil and gas activities and has reviewed that information with Management. The Board of Directors has, on the recommendation of the Reserves Committee, approved:

- (a) the content and filing with securities regulatory authorities of Form 51-101F1 containing reserves data and other oil and gas information;
- (b) the filing of Form 51-101F2 which is the report of the independent qualified reserves evaluator(s) on the reserves data; and
- (c) the content and filing of this report.

Because the reserves data are based on judgements regarding future events, actual results will vary and the variations may be material.

“Marc Rhoades”  
Marc Rhoades  
Chief Executive Officer

“Steven Vucurevich”  
Steven Vucurevich  
Chief Financial Officer

“Roger S. Braugh, Jr.”  
Roger S. Braugh, Jr.  
Executive Chairman of the Board

“Roy Hudson”  
Roy Hudson  
Director

“Thomas M. Crain, Jr.”  
Thomas M. Crain, Jr.  
President and Director

“Chris Pettit”  
Chris Pettit  
Director

Dated: April 29, 2019