

**AVALON ENERGY LTD.**

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**Evaluation of Petroleum Reserves  
Based on Forecast Prices and Costs  
As of April 1, 2019**



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Based on Forecast Prices and Costs  
As of April 1, 2019**

**Prepared For:**

**Avalon Energy Ltd.  
463, 1811 – 4<sup>th</sup> Street SW  
Calgary, Alberta  
T2S 1W2**

**Prepared By:**

**McDaniel & Associates Consultants Ltd.  
2200, 255 – 5<sup>th</sup> Avenue SW  
Calgary, Alberta  
T2P 3G6**

**June 2019**

# AVALON ENERGY LTD.

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Murray Lake

June 28, 2019

**Avalon Energy Ltd.**  
463, 1811 – 4<sup>th</sup> Street SW  
Calgary, Alberta  
T2S 1W2

Attention: Ms. Angela Frank, President

Reference: **Avalon Energy Ltd.**  
**Evaluation of Petroleum Reserves**  
**Forecast Prices and Costs**

Dear Ms. Frank:

Pursuant to your request, we have prepared an evaluation of the proved and probable petroleum reserves and the net present values of these reserves for the petroleum interests of Avalon Energy Ltd., hereinafter referred to as the "Company", as of April 1, 2019. The reserves estimates and future net revenue forecasts have been prepared and presented in accordance with the Canadian standards set out in the Canadian Oil and Gas Evaluation Handbook (COGEH) and National Instrument 51-101 (NI 51-101), except that income tax calculations have been excluded.

The future net revenues and net present values presented in this report were calculated using forecast prices and costs based on our opinion of the future crude oil, natural gas and natural gas product prices at April 1, 2019 and were presented in Canadian dollars.

All of the future net revenues and net present value estimates in this report are presented before income taxes. The future net revenues presented in this report may not necessarily represent the fair market value of the reserves estimates.

The properties evaluated in this report were indicated to include essentially all of the Company's petroleum interests in Canada. The Company's principal properties are located in the Murray Lake and the Hays areas in the Province of Alberta.

The Company's share of remaining reserves and net present values are presented on a total Company basis in the summary section of this report. The location of the Company's properties and a summary of the forecast production, net revenue and reserves distributions are presented graphically in the summary

section. In addition, the NI 51-101 summary section contains Company data in F1 format. Tables summarizing the reserves, production and revenues for the various reserves classes are presented in Appendices 1 to 6. A summary of the Company's interests and burdens in each property is presented in Appendix 7. Discussions of the assumptions and methodology employed to prepare the reserves estimates and future revenue forecasts are also contained in the "Evaluation Methodology" section.

Detailed reserves estimates, future net revenue forecasts and other supporting data for each of the properties that were reviewed in detail were provided in the Detailed Property Report in Appendix 8. Property discussions and a detailed description of the economic factors employed to derive the future net revenue forecasts were also included in the Detailed Property Report.

In preparing this report, we relied upon factual information including ownership, technical well data, production, prices, revenues, operating costs, capital costs, contracts, and other relevant data from public sources as well as non-public data supplied by the Company. The extent and character of all factual information supplied by the Company were relied upon by us in preparing this report and has been accepted as represented without independent verification. We have relied upon representations made by the Company as to the completeness and accuracy of the data provided and that no material changes in the performance of the properties has occurred nor is expected to occur, from that which was projected in this report, between the date that the data was obtained for this evaluation and the date of this report, and that no new data has come to light that may result in a material change to the evaluation of the reserves presented in this report.

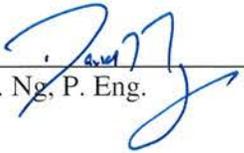
The reserves estimates presented in this report were prepared on the basis of an overall evaluation of the reserves of the Company. Individual property reserves estimates may not reflect the same confidence level as required by the reserves definitions for the overall group of properties. Consequently, McDaniel & Associates reserves the right to re-assess the reserves estimates and future net revenues for any individual property or group of properties if considered in isolation.

This report was prepared by McDaniel & Associates Consultants Ltd. for the exclusive use of Avalon Energy Ltd. and is not to be reproduced, distributed or made available, in whole or in part, to any person, company or organization other than Avalon Energy Ltd. without the knowledge and consent of McDaniel & Associates Consultants Ltd.

We reserve the right to revise any estimates provided herein if any relevant data existing prior to preparation of this report was not made available, if any data between the effective date of the evaluation and the date of this report were to vary significantly from that forecast, or if any data provided was found to be erroneous.

Sincerely,

**McDANIEL & ASSOCIATES CONSULTANTS LTD.**  
**APEGA PERMIT NUMBER: P3145**

  
\_\_\_\_\_  
D. Ng, P. Eng.

  
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Ronald F. Ott, P. Geol.

  
\_\_\_\_\_  
B. P. Best, P. Geol.

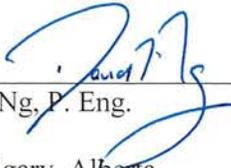
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[19-0078]

## CERTIFICATE OF QUALIFICATION

I, David Ng, Professional Engineer of 2200, 255 - 5th Avenue, S.W., Calgary, Alberta, Canada hereby certify:

1. That I am an Associate of McDaniel & Associates Consultants Ltd., APEGA Permit Number P3145, which Company did prepare, at the request of Avalon Energy Ltd., the report entitled "Avalon Energy Ltd., Evaluation of Petroleum Reserves, Based on Forecast Prices and Costs, As of April 1, 2019", dated June 28, 2019, and that I was involved in the preparation of this report.
2. That I attended the University of Calgary in the years 1995 to 2000 and that I graduated with a Bachelor of Science degree in Chemical Engineering, that I am a registered Professional Engineer with the Association of Professional Engineers and Geoscientists of Alberta; that I am a member of the Society of Petroleum Engineers and that I have in excess of 15 years of experience in oil and gas reservoir studies and evaluations.
3. That I have no direct or indirect interest in the properties or securities of Avalon Energy Ltd., nor do I expect to receive any direct or indirect interest in the properties or securities of Avalon Energy Ltd., or any affiliate thereof.
4. That the aforementioned report was not based on a personal field examination of the properties in question, however, such an examination was not deemed necessary in view of the extent and accuracy of the information available on the properties in question.



  
D. Ng, P. Eng.

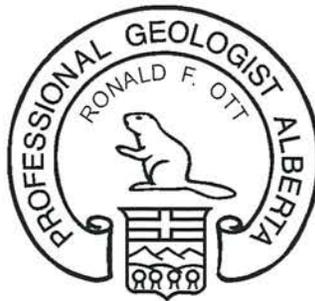
Calgary, Alberta

Dated: June 28, 2019

## CERTIFICATE OF QUALIFICATION

I, Ronald F. Ott, Petroleum Geologist of 2200, 255 - 5th Avenue, S.W., Calgary, Alberta, Canada hereby certify:

1. That I am a Vice President of McDaniel & Associates Consultants Ltd., APEGA Permit Number P3145, which Company did prepare, at the request of Avalon Energy Ltd., the report entitled "Avalon Energy Ltd., Evaluation of Petroleum Reserves, Based on Forecast Prices and Costs, As of April 1, 2019", dated June 28, 2019, and that I was involved in the preparation of this report.
2. That I attended the University of Calgary in the years 1984 to 1988, graduating with a Bachelor of Science degree in Geology; that I am a member of the Canadian Society of Petroleum Geologists; that I am a registered Professional Geologist with the Association of Professional Engineers and Geoscientists of Alberta and that I have in excess of 25 years of experience in oil and gas reservoir studies and evaluations.
3. That I have no direct or indirect interest in the properties or securities of Avalon Energy Ltd., nor do I expect to receive any direct or indirect interest in the properties or securities of Avalon Energy Ltd., or any affiliate thereof.
4. That the aforementioned report was not based on a personal field examination of the properties in question, however, such an examination was not deemed necessary in view of the extent and accuracy of the information available on the properties in question.





Ronald F. Ott, P. Geol.

Calgary, Alberta

Dated: June 28, 2019

## CERTIFICATE OF QUALIFICATION

I, Blair P. Best, Petroleum Geologist of 2200, 255 - 5th Avenue, S.W., Calgary, Alberta, Canada hereby certify:

1. That I am a Geologist for McDaniel & Associates Consultants Ltd., APEGA Permit Number P3145, which Company did prepare, at the request of Avalon Energy Ltd., the report entitled "Avalon Energy Ltd., Evaluation of Petroleum Reserves, Based on Forecast Prices and Costs, As of April 1, 2019", dated June 28, 2019, and that I was involved in the preparation of this report.
2. That I attended the University of Alberta in the years 1996 to 2000, graduating with a Bachelor of Science degree in Geology; that I am a member of the Canadian Society of Petroleum Geologists, the Petroleum Society of Canada, and I am registered as a Professional Geologist with the Association of Professional Engineers and Geoscientists of Alberta and that I have in excess of 10 years of experience in oil and gas reservoir studies and evaluations.
3. That I have no direct or indirect interest in the properties or securities of Avalon Energy Ltd., nor do I expect to receive any direct or indirect interest in the properties or securities of Avalon Energy Ltd., or any affiliate thereof.
4. That the aforementioned report was not based on a personal field examination of the properties in question, however, such an examination was not deemed necessary in view of the extent and accuracy of the information available on the properties in question.



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Blair P. Best, P. Geol.

Calgary, Alberta

Dated: June 28, 2019

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

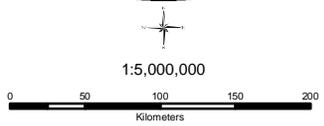
## Avalon Energy Ltd.

Table A

### Total Company Reserves and Net Present Value Forecast Prices and Costs as of April 1, 2019 Total Company

	PDP	PNP	PUD	TP	PADP	PANP	PAUD	TPA	PPDP	PPNP	PPUD	TPP
<b>Crude Oil (Mbbl)</b>												
Working Interest Volume	145.8	-	-	145.8	25.8	-	-	25.8	171.7	-	-	171.7
Royalty Interest Volume	-	-	-	-	-	-	-	-	-	-	-	-
Net Volume	141.0	-	-	141.0	24.2	-	-	24.2	165.2	-	-	165.2
<b>Total (MBOE) (1)</b>												
Working Interest Volume	145.8	-	-	145.8	25.8	-	-	25.8	171.7	-	-	171.7
Royalty Interest Volume	-	-	-	-	-	-	-	-	-	-	-	-
Net Volume	141.0	-	-	141.0	24.2	-	-	24.2	165.2	-	-	165.2
<b>Net Present Value Before Tax (M\$)</b>												
0.0%	3,652.0	-	-	3,652.0	786.8	-	-	786.8	4,438.7	-	-	4,438.7
5.0%	3,249.5	-	-	3,249.5	579.0	-	-	579.0	3,828.6	-	-	3,828.6
10.0%	2,899.9	-	-	2,899.9	437.7	-	-	437.7	3,337.6	-	-	3,337.6
15.0%	2,610.1	-	-	2,610.1	341.4	-	-	341.4	2,951.5	-	-	2,951.5
20.0%	2,372.3	-	-	2,372.3	274.3	-	-	274.3	2,646.6	-	-	2,646.6
<b>\$/BOE Before Tax (2)</b>												
0.0%	25.05	-	-	25.05	30.45	-	-	30.45	25.86	-	-	25.86
5.0%	22.29	-	-	22.29	22.41	-	-	22.41	22.30	-	-	22.30
10.0%	19.89	-	-	19.89	16.94	-	-	16.94	19.44	-	-	19.44
15.0%	17.90	-	-	17.90	13.21	-	-	13.21	17.19	-	-	17.19
20.0%	16.27	-	-	16.27	10.61	-	-	10.61	15.42	-	-	15.42

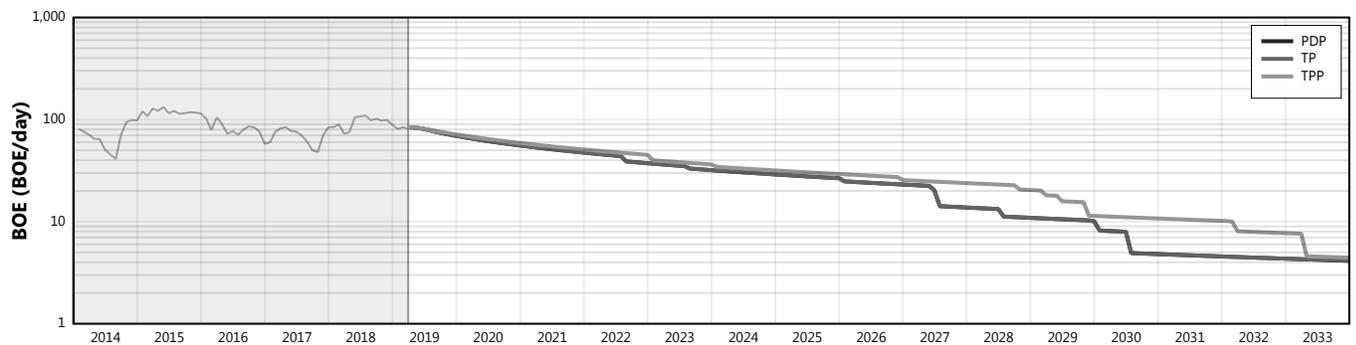
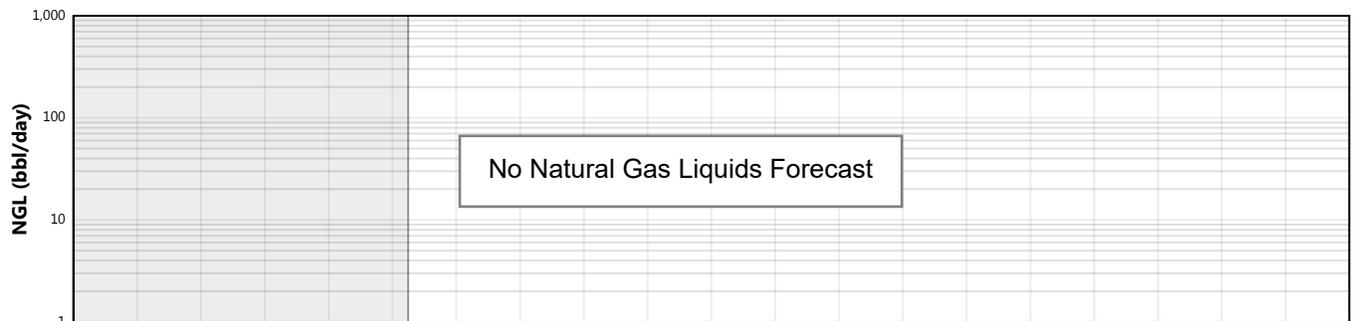
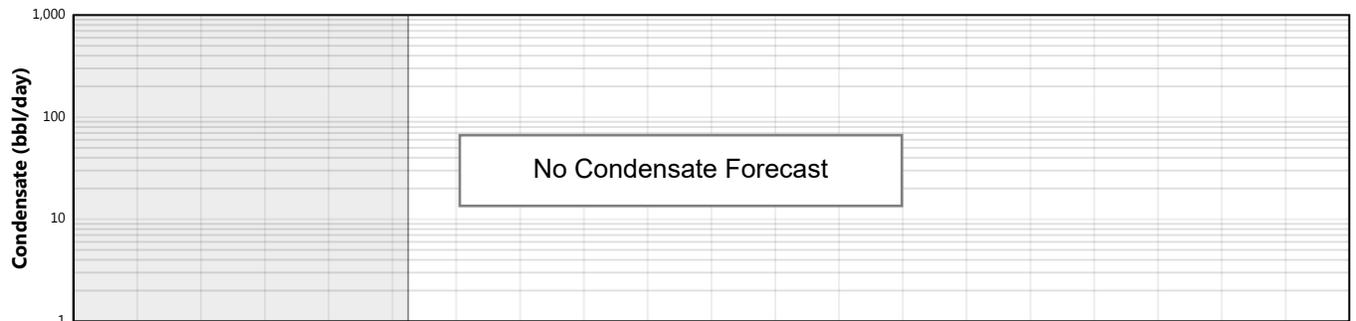
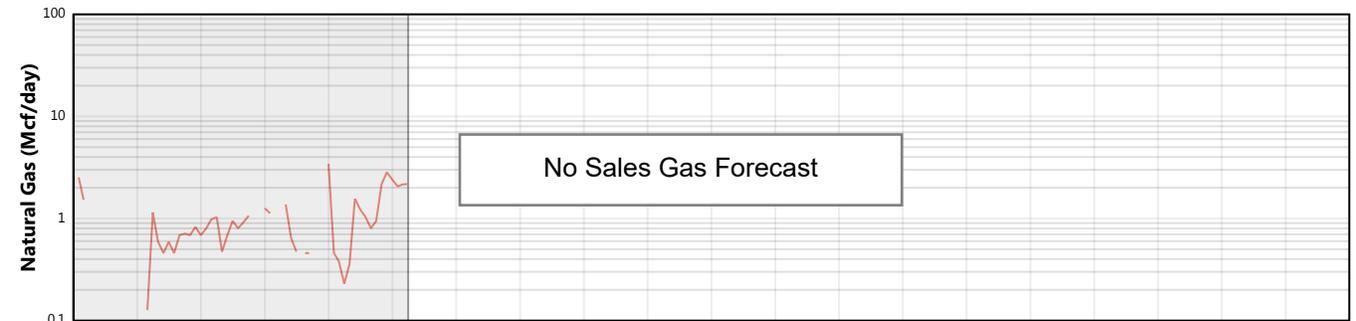
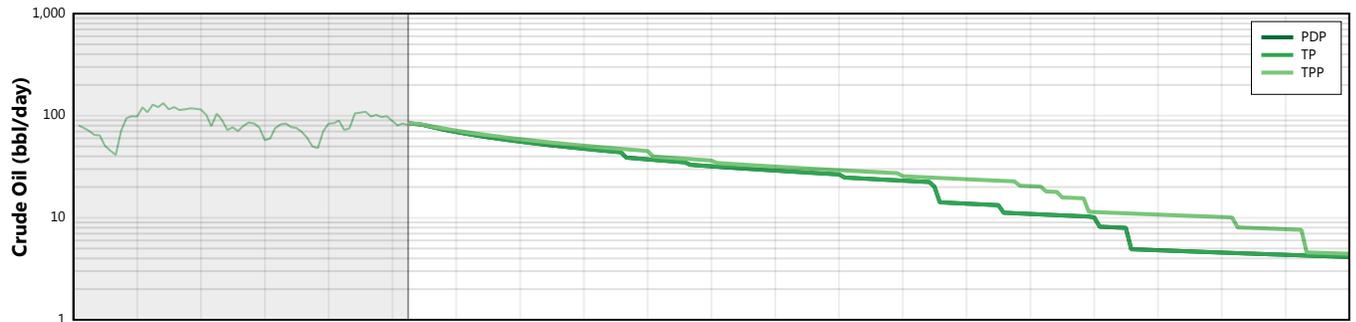
- (1) Barrels of Oil Equivalent based on 6:1 for Natural Gas, 1:1 for Condensate and C5+, 1:1 for Ethane, 1:1 for Propane, 1:1 for Butanes. BOE's may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf:1 bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.
- (2) NPV/BOE based on Company Share BOE reserves.



Avalon Energy Ltd.	
Property Location Map	
AB / imb 14-Jun-19	 McDaniel

# Avalon Energy Ltd.

## Company Share Sales Volumes Forecast Prices and Costs as of April 1, 2019 Total Reserves Total Company

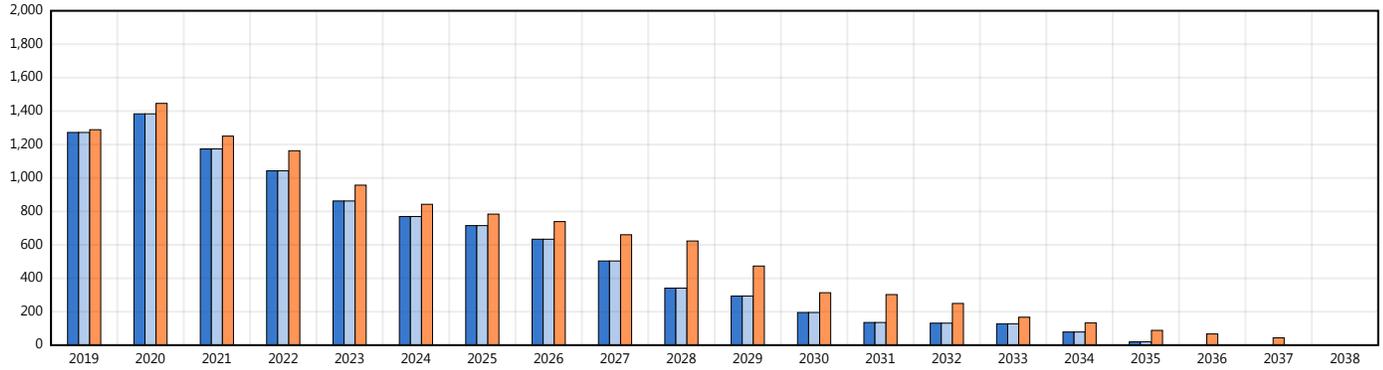


Historical production data is estimated based on the company share interest as of the reference date.

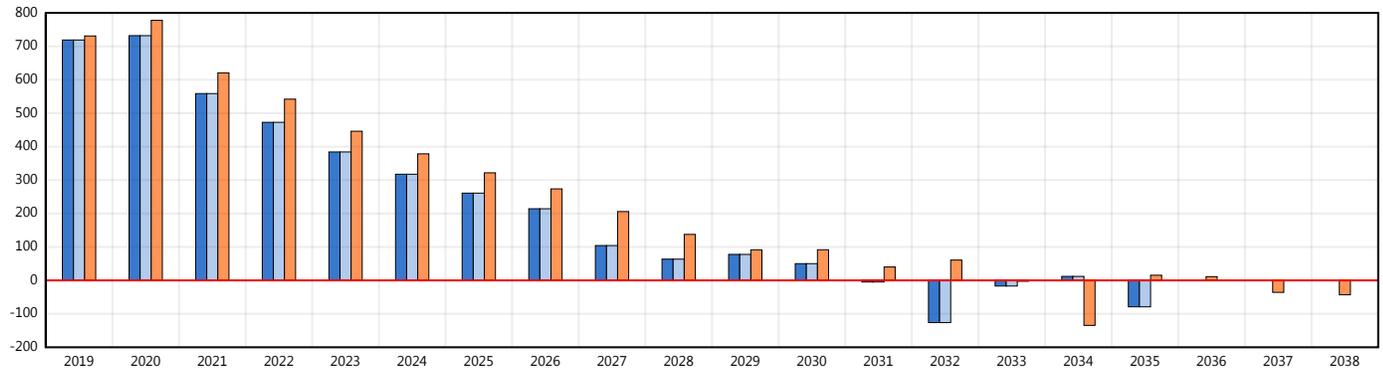
# Avalon Energy Ltd.

## Cash Flow Summary Forecast Prices and Costs as of April 1, 2019 Total Reserves Total Company

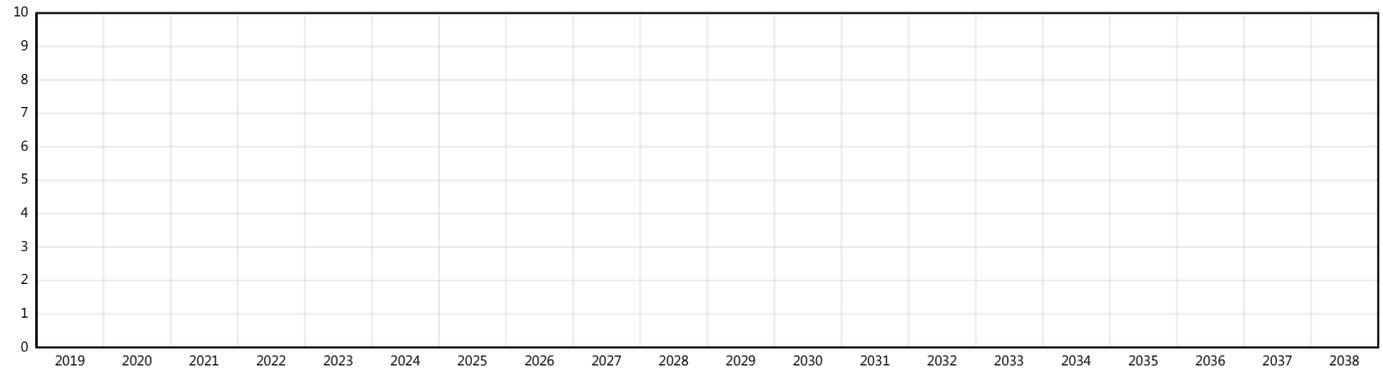
Company Share Revenue (M\$)



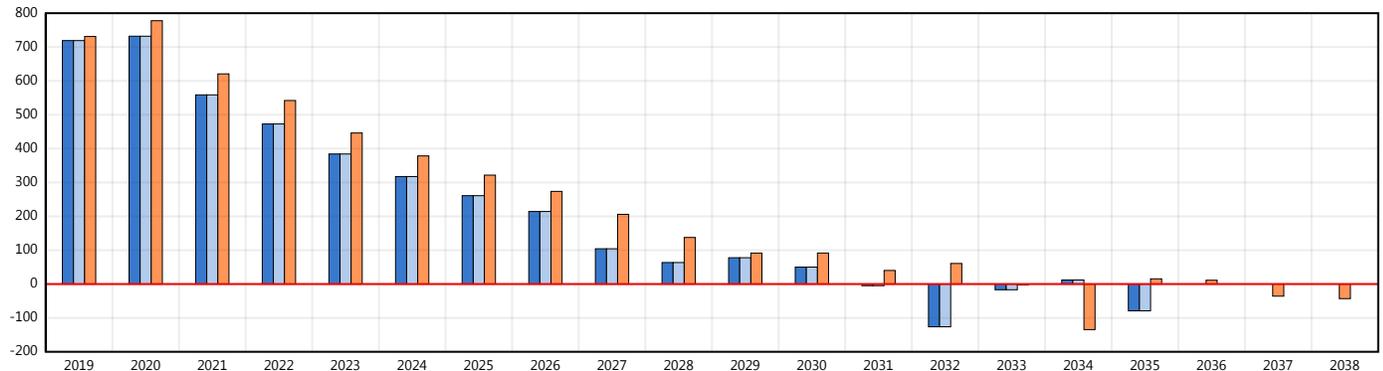
Net Operating Income (M\$)



Total Capital (M\$)



Future Net Revenue Before Tax (M\$)



■ PDP    ■ TP    ■ TPP

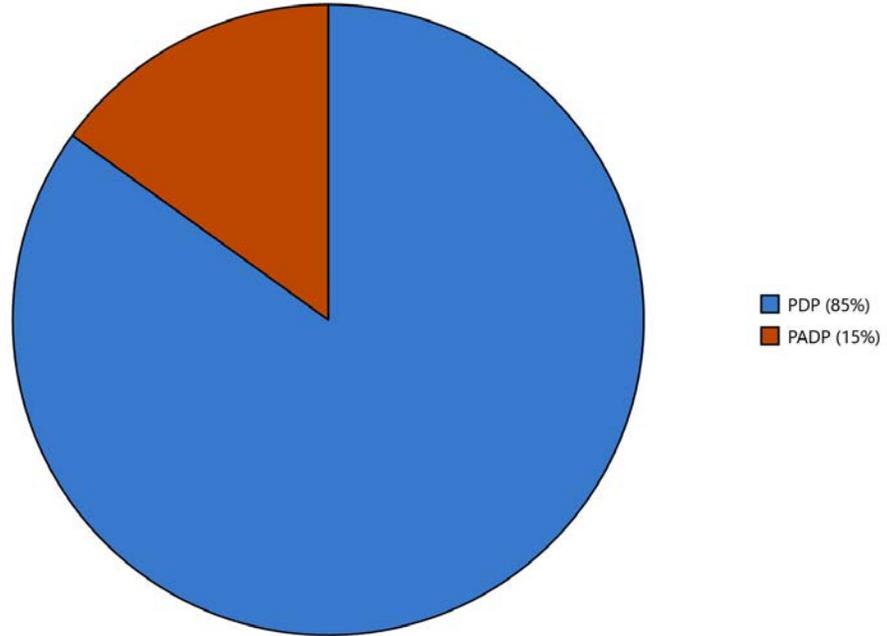
# Avalon Energy Ltd.

## Reserves Distribution by Reserves Class and Product Forecast Prices and Costs as of April 1, 2019

### Total Reserves

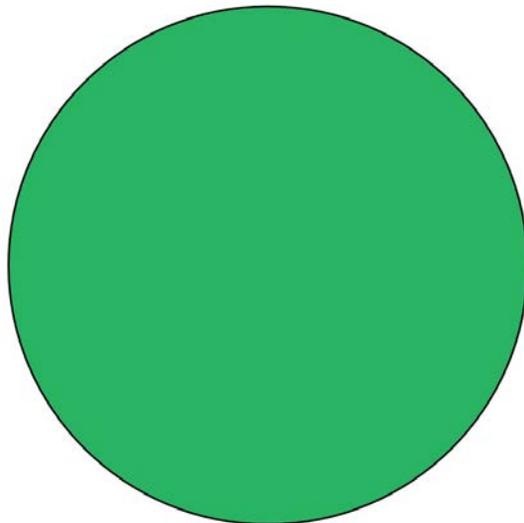
### Total Company

#### Reserves Distribution by Reserves Class



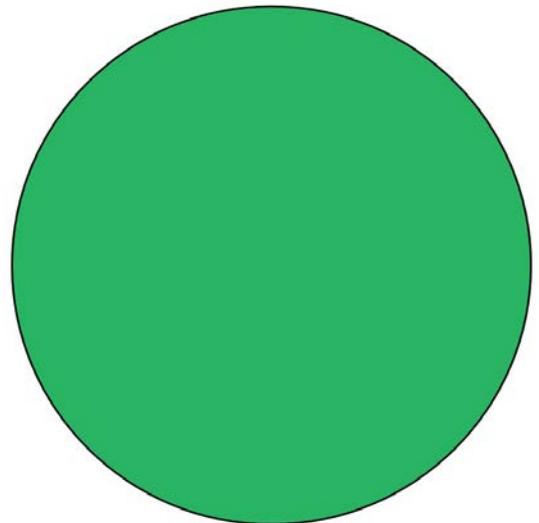
#### Reserves Distribution by Product

Total Proved Reserves



Oil (100%)

Total Proved + Probable Reserves



Oil (100%)

(1) Distribution percentages may not add up to 100% due to rounding.

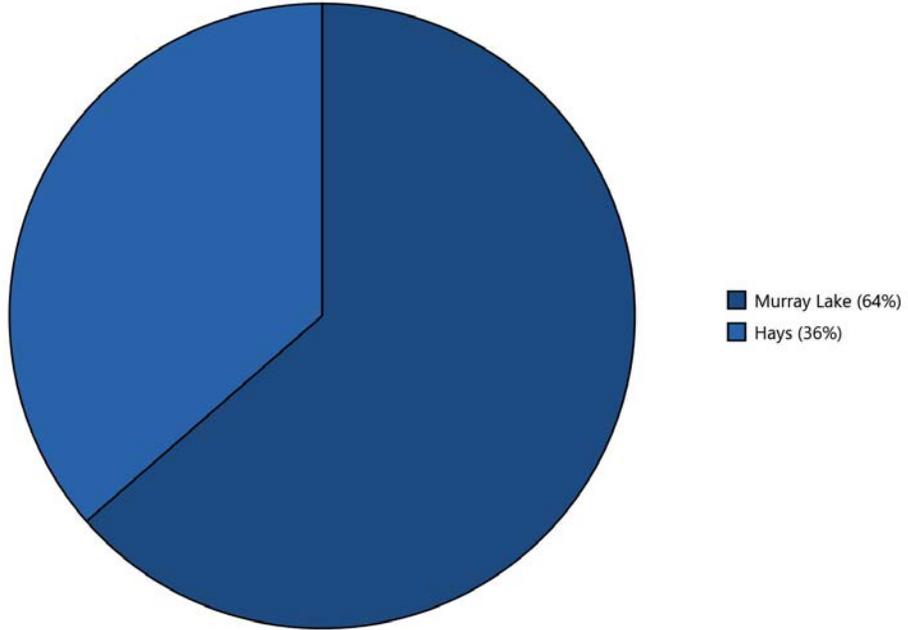
# Avalon Energy Ltd.

## Reserves and Net Present Value Distribution for Major Properties Forecast Prices and Costs as of April 1, 2019

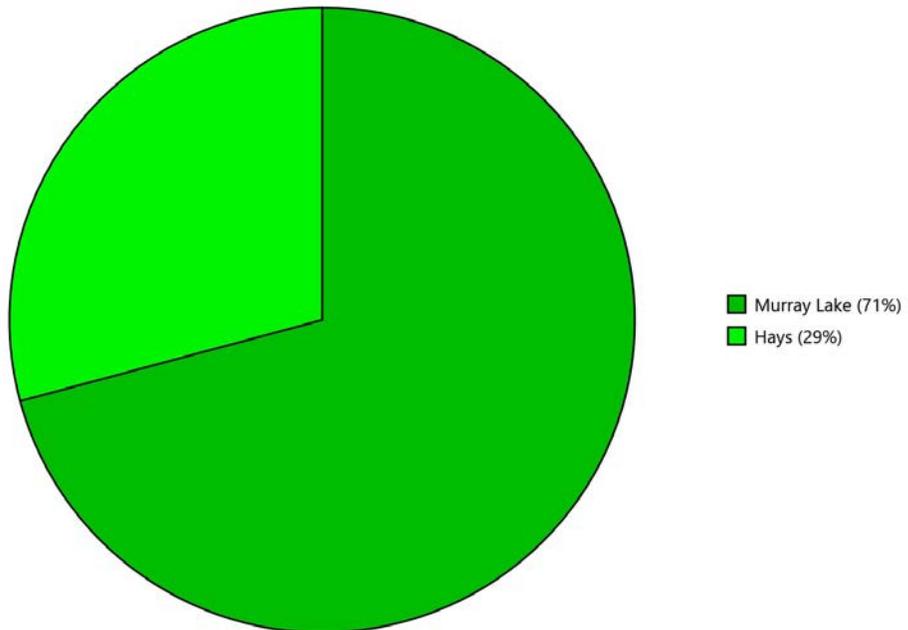
Total Proved + Probable Reserves

Total Company

Top Properties by 10% NPV



Top Crude Oil Properties by Volume



(1) Distribution percentages may not add up to 100% due to rounding.

## Avalon Energy Ltd.

### Summary of Oil and Gas Reserves Forecast Prices and Costs as of April 1, 2019 Total Reserves Total Company

Reserves Category	Reserves							
	Light & Medium Oil		Heavy Oil		Conventional Natural Gas		Natural Gas Liquids (3)	
	Gross (1) (Mbbbl)	Net (2) (Mbbbl)	Gross (1) (Mbbbl)	Net (2) (Mbbbl)	Gross (1) (MMcf)	Net (2) (MMcf)	Gross (1) (Mbbbl)	Net (2) (Mbbbl)
Proved								
Developed Producing	41.2	37.6	104.6	103.3	-	-	-	-
Developed Non-Producing	-	-	-	-	-	-	-	-
Undeveloped	-	-	-	-	-	-	-	-
<b>Total Proved</b>	41.2	37.6	104.6	103.3	-	-	-	-
<b>Total Probable</b>	8.9	7.9	16.9	16.3	-	-	-	-
<b>Total Proved + Probable</b>	50.1	45.6	121.6	119.6	-	-	-	-

- (1) Gross reserves are working interest reserves before royalty deductions.  
 (2) Net reserves are working interest reserves after royalty deductions plus royalty interest reserves.  
 (3) Natural Gas Liquids include Condensate volumes.

**Avalon Energy Ltd.**  
**Summary of Net Present Value of Future Net Revenue**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**Total Company**

**Net Present Values of Future Net Revenue**

<b>Reserves Category</b>	<b>Before Income Taxes Discounted at (%/year)</b>					<b>Unit Value</b>
	<b>@0.0%</b> <b>(M\$)</b>	<b>@5.0%</b> <b>(M\$)</b>	<b>@10.0%</b> <b>(M\$)</b>	<b>@15.0%</b> <b>(M\$)</b>	<b>@20.0%</b> <b>(M\$)</b>	<b>@10.0% (1)</b> <b>(\$/BOE)</b>
Proved						
Developed Producing	3,652.0	3,249.5	2,899.9	2,610.1	2,372.3	20.57
Developed Non-Producing	-	-	-	-	-	-
Undeveloped	-	-	-	-	-	-
<b>Total Proved</b>	<b>3,652.0</b>	<b>3,249.5</b>	<b>2,899.9</b>	<b>2,610.1</b>	<b>2,372.3</b>	<b>20.57</b>
<b>Total Probable</b>	<b>786.8</b>	<b>579.0</b>	<b>437.7</b>	<b>341.4</b>	<b>274.3</b>	<b>18.08</b>
<b>Total Proved + Probable</b>	<b>4,438.7</b>	<b>3,828.6</b>	<b>3,337.6</b>	<b>2,951.5</b>	<b>2,646.6</b>	<b>20.21</b>

(1) The unit values are based on net reserve volumes.

Prices: McDaniel Apr 2019  
Eff. Date: April 1, 2019  
Currency: CAD

## Avalon Energy Ltd.

Table F1-3

### Total Future Net Revenue (Undiscounted) Forecast Prices and Costs as of April 1, 2019 Total Reserves Total Company

<b>Reserves Category</b>	<b>Revenue (1) M\$</b>	<b>Royalties (2) M\$</b>	<b>Operating Costs M\$</b>	<b>Development Costs M\$</b>	<b>Abandonment &amp; Reclamation Costs M\$</b>	<b>Future Net Revenue Before Income Taxes M\$</b>
Total Proved Reserves	9,680	317	5,241	-	470	3,652
Total Proved + Probable Reserves	11,592	433	6,234	-	485	4,439

(1) Includes all product revenues and other revenues as forecast.

(2) Royalties include any net profits interests paid, as well as the Saskatchewan Corporation Capital Tax Surcharge.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Table F1-4

### Future Net Revenue by Product Type Forecast Prices and Costs as of April 1, 2019 Total Reserves Total Company

<b>Reserves Category</b>	<b>Product Type</b>	<b>Future Net Revenue Before Income Taxes (discounted @ 10%) M\$</b>	<b>Unit Value (1) \$/Mcf \$/bbl</b>
<b>Total Proved Reserves</b>	Light and Medium Oil (Including Solution Gas and By-products)	1,026	27.26
	Heavy Oil (Including Solution Gas and By-products)	1,874	18.13
	<b>Total</b>	<b>2,900</b>	
<b>Total Proved + Probable Reserves</b>	Light and Medium Oil (Including Solution Gas and By-products)	1,215	26.66
	Heavy Oil (Including Solution Gas and By-products)	2,122	17.75
	<b>Total</b>	<b>3,338</b>	

(1) Unit values are calculated using the 10% discount rate divided by the Major Product Type Net reserves for each group.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Table F1-5

### Future Capital, Abandonment and Reclamation Costs Forecast Prices and Costs as of April 1, 2019 Total Reserves Total Company

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Remaining	Total
<b>Development Cost Forecast (M\$)</b>																	
<b>Total Proved</b>																	
Undiscounted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Discounted @ 10.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Proved + Probable</b>																	
Undiscounted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Discounted @ 10.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Abandonment and Reclamation Cost Forecast (M\$)</b>																	
<b>Total Proved</b>																	
Undiscounted	-	-	-	-	-	-	-	-	35	36	-	-	37	154	39	170	470
Discounted @ 10.0%	-	-	-	-	-	-	-	-	16	15	-	-	12	43	10	30	126
<b>Total Proved + Probable</b>																	
Undiscounted	-	-	-	-	-	-	-	-	-	35	36	-	38	-	39	337	485
Discounted @ 10.0%	-	-	-	-	-	-	-	-	-	15	14	-	11	-	10	63	113

# McDaniel & Associates Consultants Ltd.

Table 1

## Summary of Crude Oil and Natural Gas Liquids Price Forecasts April 1, 2019

Year	WTI Crude Oil \$/US/bbl (1)	Brent Crude Oil \$/US/bbl (2)	Edmonton Light Crude Oil \$/C/bbl (3)	Alberta Bow River Hardisty Crude Oil \$/C/bbl (4)	Western Canadian Select Crude Oil \$/C/bbl (5)	Alberta Heavy Crude Oil \$/C/bbl (6)	Sask Cromer Medium Crude Oil \$/C/bbl (7)	Edmonton Cond. & Natural Gasolines \$/bbl	Edmonton Ethane \$/bbl	Edmonton Propane \$/bbl	Edmonton Butanes \$/bbl	Inflation %	US/CAN Exchange Rate \$/US/\$CAN
<b>History</b>													
1987	19.30		24.30	20.79				23.80		9.98	16.80		0.755
1988	16.00		18.70	14.41				18.30		8.19	12.95		0.812
1989	19.60		22.20	18.09				21.80		8.14	10.35		0.844
1990	24.50		27.60	21.06		16.00		27.00		13.67	16.21		0.857
1991	21.40		23.40	15.07		9.05		22.90		11.91	15.25		0.873
1992	20.55		23.50	17.52		12.95		23.00		10.55	14.05		0.828
1993	18.60		21.90	16.70		13.30		21.50		14.10	13.55		0.775
1994	17.20		22.20	18.43		15.00		21.75		12.50	13.45		0.732
1995	18.45		24.25	20.80		17.25		23.76		13.90	13.80		0.729
1996	22.10		29.35	25.11		20.05		28.75		22.20	17.15		0.733
1997	20.55	19.09	27.80	21.22		14.40		31.10		18.60	19.05		0.722
1998	14.40	12.77	20.35	14.60		9.40	17.00	21.85		10.95	11.90		0.687
1999	19.25	17.86	27.60	23.35		19.65	25.47	27.60		15.45	17.73		0.673
2000	30.31	28.40	44.72	34.35		27.80	40.10	46.25		31.55	35.00		0.674
2001	25.97	24.42	39.60	25.07		18.05	32.22	42.44		29.15	28.45		0.646
2002	26.10	24.95	39.95	31.65		27.60	34.93	40.79		19.85	26.10		0.637
2003	31.05	28.85	43.15	32.68		27.40	37.57	44.19		30.15	33.45		0.716
2004	41.40	38.30	52.54	37.60	36.14	30.40	45.94	54.09		33.28	39.45		0.770
2005	56.56	54.48	68.72	44.83	44.60	34.35	57.47	69.63		43.29	52.58		0.826
2006	66.23	65.20	72.80	51.55	51.22	43.14	61.25	75.06		44.05	60.10		0.880
2007	72.30	72.80	76.35	53.25	52.90	44.63	65.40	77.36	NA	49.45	63.75		0.935
2008	99.60	97.80	102.20	84.30	82.94	75.55	93.20	104.75	NA	58.40	75.25		0.943
2009	61.80	61.60	65.90	60.30	58.58	55.30	62.80	68.15	NA	38.60	49.25		0.880
2010	79.50	79.90	77.50	68.50	67.23	61.45	73.80	84.25	NA	46.70	66.05		0.971
2011	95.10	111.25	95.00	78.55	77.10	67.90	88.90	104.20	NA	55.15	76.50		1.012
2012	94.20	111.65	86.10	74.35	73.08	63.65	82.10	100.80	NA	28.60	69.55		1.000
2013	97.95	108.60	93.05	76.55	75.25	65.25	88.25	104.65	NA	38.90	69.40		0.971
2014	93.00	99.00	93.50	80.40	79.10	71.20	87.80	102.40	NA	45.05	69.60		0.906
2015	48.80	52.35	57.75	46.10	44.80	39.55	51.45	60.30	NA	6.65	35.55		0.780
2016	43.30	43.55	53.85	40.30	39.00	33.35	48.95	56.20	NA	13.15	34.35		0.760
2017	50.90	54.25	62.85	52.00	50.70	45.20	59.85	66.85	NA	28.90	44.60		0.770
2018	64.95	71.05	69.65	51.25	49.95	40.00	70.20	79.20	NA	27.55	32.80		0.770
2019 (3 mos)	54.80	62.80	65.45	57.55	56.55	52.10	64.00	67.25		16.80	5.80		0.750
<b>Forecast</b>													
2019 (9 mos)	60.00	68.00	72.00	61.90	61.20	53.60	69.10	76.00	6.20	22.00	17.10	0.0	0.750
2020	63.80	67.90	76.30	63.30	62.60	54.60	72.10	80.40	7.80	26.00	30.70	2.0	0.775
2021	67.60	70.70	78.40	65.10	64.30	56.10	72.90	82.60	9.40	28.80	43.10	2.0	0.800
2022	71.60	73.70	83.30	69.10	68.30	59.60	77.50	87.50	11.20	32.80	51.90	2.0	0.800
2023	73.10	75.30	85.00	70.60	69.70	60.80	79.10	89.30	11.80	33.70	52.90	2.0	0.800
2024	74.50	76.70	86.60	71.90	71.00	61.90	80.50	91.00	12.00	34.30	53.90	2.0	0.800
2025	76.00	78.30	88.40	73.40	72.50	63.20	82.20	92.90	12.00	34.90	55.00	2.0	0.800
2026	77.50	79.80	90.10	74.80	73.90	64.40	83.80	94.70	12.40	35.70	56.10	2.0	0.800
2027	79.10	81.40	92.00	76.40	75.40	65.80	85.60	96.70	12.60	36.40	57.30	2.0	0.800
2028	80.70	83.10	93.80	77.90	76.90	67.10	87.20	98.60	13.00	37.20	58.40	2.0	0.800
2029	82.30	84.70	95.70	79.40	78.50	68.40	89.00	100.60	13.00	37.80	59.60	2.0	0.800
2030	83.90	86.40	97.60	81.00	80.00	69.80	90.80	102.60	13.40	38.60	60.80	2.0	0.800
2031	85.60	88.10	99.50	82.60	81.60	71.10	92.50	104.60	13.80	39.40	62.00	2.0	0.800
2032	87.30	89.90	101.50	84.20	83.20	72.60	94.40	106.70	14.00	40.20	63.20	2.0	0.800
2033	89.10	91.70	103.60	86.00	85.00	74.10	96.30	108.90	14.40	41.10	64.50	2.0	0.800
Thereafter	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	2.0	0.800

- (1) West Texas Intermediate at Cushing Oklahoma 40 degrees API, 0.5% sulphur
- (2) North Sea Brent Blend 37 degrees API, 1.0% sulphur
- (3) Edmonton Light Sweet 40 degrees API, 0.3% sulphur
- (4) Bow River at Hardisty, Alberta (Heavy stream)
- (5) Western Canadian Select at Hardisty, Alberta
- (6) Heavy crude oil 12 degrees API at Hardisty, Alberta (after deduction of blending costs to reach pipeline quality)
- (7) Midale Cromer crude oil 29 degrees API, 2.0% sulphur

# McDaniel & Associates Consultants Ltd.

Table 2

## Summary of Natural Gas Price Forecasts April 1, 2019

Year	U.S. Henry Hub Gas Price \$/MMBtu	Alberta AECO Spot Price \$/MMBtu	Alberta Average Plantgate \$/MMBtu	Alberta Aggregator Plantgate \$/MMBtu	Empress \$/MMBtu	Sask. Prov. Gas Plantgate \$/MMBtu	British Columbia Average Plantgate \$/MMBtu	British Columbia Station 2 \$/MMBtu
(1)								
<b>History</b>								
1987	1.50		1.64	1.82				
1988	1.85		1.44	1.66				
1989	1.68		1.47	1.57				
1990	1.67		1.45	1.64				
1991	1.54		1.18	1.31			1.13	
1992	1.79		1.22	1.30			1.10	
1993	2.13		1.89	1.60			2.13	
1994	1.92		1.83	1.81			1.87	
1995	1.62		1.18	1.23			1.12	
1996	2.50	1.39	1.54	1.63			1.47	
1997	2.59	1.87	1.84	1.86			1.98	
1998	2.06	2.04	1.90	1.88		2.05	2.00	
1999	2.28	2.96	2.60	2.46		2.82	2.77	
2000	4.31	5.02	4.80	4.57		4.78	4.88	
2001	3.98	6.30	5.90	5.25		5.71	6.30	
2002	3.36	4.07	3.89	3.80		3.90	3.93	
2003	5.49	6.66	6.37	6.00		6.40	6.32	
2004	5.90	6.87	6.62	6.35		6.48	6.45	
2005	8.60	8.58	8.43	8.48		8.35	8.12	
2006	6.75	7.16	6.87	6.59		6.67	6.45	
2007	6.95	6.65	6.41	6.35		6.18	6.25	
2008	8.85	8.15	7.90	8.10		8.07	8.10	
2009	3.95	4.20	3.95	3.90		3.87	4.05	
2010	4.40	4.15	3.90	3.85		3.96	3.90	
2011	4.00	3.70	3.50	3.75		3.56	3.30	
2012	2.75	2.45	2.25	2.25		2.31	2.25	
2013	3.75	3.20	3.00	3.00		3.10	2.90	3.08
2014	4.35	4.40	4.20	4.20	4.53	4.40	4.10	4.20
2015	2.60	2.80	2.55	2.55	3.00	2.70	2.00	2.10
2016	2.50	2.10	1.90	1.90	2.31	2.20	1.55	1.68
2017	2.95	2.40	2.15	2.15	2.83	2.35	1.75	1.88
2018	3.05	1.55	1.35	1.35	2.85	1.60	1.20	1.40
2019 (3 mos)	2.85	1.90	1.65	1.65	3.60	1.95	1.05	1.25
<b>Forecast</b>								
2019 (9 mos)	2.85	1.75	1.55	1.55	2.75	1.65	1.15	1.30
2020	3.00	2.15	1.95	1.95	2.85	2.05	1.55	1.70
2021	3.15	2.55	2.35	2.35	3.00	2.45	2.05	2.21
2022	3.45	3.00	2.80	2.80	3.15	2.90	2.60	2.76
2023	3.60	3.15	2.95	2.95	3.30	3.05	2.75	2.91
2024	3.70	3.20	3.00	3.00	3.35	3.10	2.80	2.97
2025	3.75	3.25	3.00	3.00	3.40	3.10	2.75	2.92
2026	3.85	3.35	3.10	3.10	3.50	3.20	2.85	3.02
2027	3.90	3.40	3.15	3.15	3.60	3.25	2.90	3.08
2028	4.00	3.50	3.25	3.25	3.70	3.35	3.00	3.18
2029	4.05	3.50	3.25	3.25	3.70	3.35	3.00	3.18
2030	4.15	3.60	3.35	3.35	3.80	3.45	3.10	3.29
2031	4.25	3.70	3.45	3.45	3.90	3.60	3.20	3.39
2032	4.30	3.75	3.50	3.50	3.95	3.65	3.25	3.44
2033	4.40	3.85	3.60	3.60	4.05	3.75	3.35	3.55
Thereafter	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr

(1) This forecast also applies to direct sales contracts and the Alberta gas reference price used in the Crown royalty calculations.

# **AVALON ENERGY LTD.**

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## **Evaluation of Petroleum Reserves Based on Forecast Prices and Costs As of April 1, 2019**

### **Evaluation Methodology**

#### **INTRODUCTION**

Estimates of the proved and probable petroleum reserves and the associated net present values before income taxes attributable to the properties of the Company have been presented in this report as of April 1, 2019. Reserves estimates were prepared for three properties in which the Company was indicated to have an interest in Western Canada based on detailed studies of the reservoir and performance characteristics as well as historical revenues and costs.

The basic information employed in the preparation of this report was obtained from the Company's files, public sources and from our own non-confidential files. A field inspection of the properties was not conducted in view of the generally accepted reliability of the data sources for Western Canadian properties.

Detailed reserves estimates, future net revenue forecasts and other supporting data for each of the properties that were reviewed in detail were provided in the Detailed Property Report in Appendix 8. Property discussions and a detailed description of the economic factors employed to derive the future net revenue forecasts were also included in the Detailed Property Report.

The effective date of this report is April 1, 2019. The reserves estimates presented herein were based on the operating and economic conditions and development status as of that date except for changes planned for the immediate future or in the process of implementation. The reserves estimates and future net revenue forecasts have been prepared and presented in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook (COGEH) and National Instrument 51-101 (NI 51-101). A brief review of the methodology employed in arriving at the reserves and net present value estimates is presented in this section.

#### **RESERVES ESTIMATES**

##### **Crude Oil**

The crude oil reserves estimates presented in this report were based on a review of the volumetric data and performance characteristics of the individual wells and reservoirs in question. Volumetric estimates of the original oil in-place were based on individual well petrophysical interpretations, geological studies of pool configurations, and in some cases on published estimates. In those cases where indicative oil production decline and/or increasing gas-oil and oil cut trends were evident, the remaining reserves were determined by extrapolating these trends to economic limiting conditions. Where definitive production information

was not yet available, the reserves estimates were usually volumetrically determined using recovery factors based on analogy with similar wells or reservoirs or on estimates of recovery efficiencies. The cumulative production figures were taken from published sources or from records of the Company and estimated for those recent periods where such data were not available.

## RESERVES DEFINITIONS

The petroleum reserves estimates presented in this report have been based on the definitions and guidelines prepared by the Standing Committee on Reserves Definitions of the CIM (Petroleum Society) as presented in the COGE Handbook. A summary of those definitions is presented below.

### Reserves 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 shall be 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 + 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 + probable + possible reserves.

Other criteria that must also be met for the categorization of reserves are provided in the COGE Handbook.

### 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.

In multi-well pools it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to subdivide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities and completion intervals in the pool and their respective development and production status.

### Levels of Certainty for Reported Reserves

The qualitative certainty levels referred to in the definitions above are applicable to individual reserves entities (which refers to the lowest-level at which reserves calculations are performed) and to reported reserves (which refers to the highest-level sum of individual entity estimates for which reserves estimates are presented). Reported reserves should target the following levels of certainty under a specific set of economic conditions:

- at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimated proved reserves;
- at least a 50 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable reserves; and
- at least a 10 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable + possible reserves.

Additional clarification of certainty levels associated with reserves estimates and the effect of aggregation is provided in the COGE Handbook.

## NET PRESENT VALUE ESTIMATES

The net present values of the petroleum reserves were obtained by employing future production and revenue analyses. The future crude oil production was generally predicated on the anticipated performance characteristics of the individual wells and reservoirs in question.

The Company's share of future crude oil revenue was derived by employing the Company's share of production and the forecast reference crude oil price less the historical quality and transportation price differential for each respective field. Royalties and mineral taxes payable to the Crown were estimated based on the methods in effect as of April 1, 2019. Freehold and overriding royalties payable to others were estimated based on the indicated applicable rates. In those cases where a proportionate share of the natural gas gathering and processing charges were indicated to be payable by the Crown or royalties owned by others, these charges have been deducted in determining the net royalties payable.

In all cases, estimates of the applicable capital expenditures and operating costs with an allowance for inflation were deducted in arriving at the Company's share of future net revenues. An allowance for future well abandonment costs and well site reclamation was made for all of the Company's working interest wells assigned reserves. No allowance was made for the abandonment and reclamation of any facilities. The net present values were then obtained by employing 5, 10, 15 and 20 percent nominal annual discount rates compounded monthly.

The Company's share of remaining reserves and net present values are presented on a total Company basis in the summary section of this report. In addition, the NI 51-101 summary section contains Company data in F1 format.

All of the future net revenues and net present values estimated in this report are presented before income taxes.

The future net revenue forecasts and net present value estimates for the probable reserves were calculated by subtracting the total proved forecasts from the proved + probable forecasts.

Summaries of the Company's share of remaining reserves together with forecast future revenues, royalties, taxes, operating and capital costs, abandonments and reclamations, future net revenue, and net present values are presented in detailed tabulations for each reserves category in Appendices 1 to 6.

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves Total Company

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	12.0	21.5	59.20	1272.2	-	-	-	-	-	-	-	-	-	-	1272.2	79
2020	12.0	22.8	60.58	1383.6	-	-	-	-	-	-	-	-	-	-	1383.6	62
2021	12.0	18.9	62.24	1173.7	-	-	-	-	-	-	-	-	-	-	1173.7	52
2022	11.7	15.8	66.20	1042.7	-	-	-	-	-	-	-	-	-	-	1042.7	43
2023	10.7	12.8	67.56	862.3	-	-	-	-	-	-	-	-	-	-	862.3	35
2024	10.0	11.2	68.82	769.6	-	-	-	-	-	-	-	-	-	-	769.6	31
2025	10.0	10.2	70.27	715.1	-	-	-	-	-	-	-	-	-	-	715.1	28
2026	9.1	8.8	71.63	633.7	-	-	-	-	-	-	-	-	-	-	633.7	24
2027	7.3	6.9	73.08	503.4	-	-	-	-	-	-	-	-	-	-	503.4	19
2028	4.6	4.6	74.54	341.0	-	-	-	-	-	-	-	-	-	-	341.0	12
2029	4.0	3.9	76.09	293.9	-	-	-	-	-	-	-	-	-	-	293.9	11
2030	2.7	2.5	77.54	195.3	-	-	-	-	-	-	-	-	-	-	195.3	7
2031	2.0	1.7	79.09	135.4	-	-	-	-	-	-	-	-	-	-	135.4	5
2032	2.0	1.6	80.64	131.5	-	-	-	-	-	-	-	-	-	-	131.5	4
2033	2.0	1.5	82.39	127.6	-	-	-	-	-	-	-	-	-	-	127.6	4
Rem.	-	1.2	84.29	98.7	-	-	-	-	-	-	-	-	-	-	98.7	2
<b>Total</b>	-	<b>145.8</b>	<b>66.38</b>	<b>9679.7</b>	-	-	-	-	-	-	-	-	-	-	<b>9679.7</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	91.9	-	91.9	2.9	-	2.9	-	-	-	-	-	94.7	7.4	-
2020	53.7	-	53.7	3.4	-	3.4	-	-	-	-	-	57.0	4.1	-
2021	22.0	-	22.0	3.0	-	3.0	-	-	-	-	-	25.1	2.1	-
2022	14.0	-	14.0	2.9	-	2.9	-	-	-	-	-	16.9	1.6	-
2023	8.0	-	8.0	2.6	-	2.6	-	-	-	-	-	10.7	1.2	-
2024	5.5	-	5.5	2.4	-	2.4	-	-	-	-	-	8.0	1.0	-
2025	4.2	-	4.2	2.3	-	2.3	-	-	-	-	-	6.5	0.9	-
2026	3.4	-	3.4	2.1	-	2.1	-	-	-	-	-	5.6	0.9	-
2027	24.8	-	24.8	1.2	-	1.2	-	-	-	-	-	26.0	5.2	-
2028	17.1	-	17.1	-	-	-	-	-	-	-	-	17.1	5.0	-
2029	14.7	-	14.7	-	-	-	-	-	-	-	-	14.7	5.0	-
2030	9.8	-	9.8	-	-	-	-	-	-	-	-	9.8	5.0	-
2031	6.8	-	6.8	-	-	-	-	-	-	-	-	6.8	5.0	-
2032	6.6	-	6.6	-	-	-	-	-	-	-	-	6.6	5.0	-
2033	6.4	-	6.4	-	-	-	-	-	-	-	-	6.4	5.0	-
Rem.	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
<b>Total</b>	<b>293.9</b>	-	<b>293.9</b>	<b>22.7</b>	-	<b>22.7</b>	-	-	-	-	-	<b>316.6</b>	<b>3.3</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	458.4	21.33	-	719.1	-	-	-	719.1	719.1	695.0
2020	594.5	26.03	-	732.0	-	-	-	732.0	1451.1	651.6
2021	589.9	31.28	-	558.8	-	-	-	558.8	2009.8	452.0
2022	553.1	35.11	-	472.8	-	-	-	472.8	2482.6	347.6
2023	467.5	36.62	-	384.2	-	-	-	384.2	2866.8	256.7
2024	444.0	39.71	-	317.6	-	-	-	317.6	3184.3	192.9
2025	447.6	43.99	-	261.0	-	-	-	261.0	3445.4	144.1
2026	413.8	46.77	-	214.3	-	-	-	214.3	3659.7	107.6
2027	338.3	49.12	34.9	104.2	-	-	-	104.2	3763.9	47.9
2028	224.8	49.15	35.6	63.6	-	-	-	63.6	3827.4	26.6
2029	201.4	52.15	-	77.8	-	-	-	77.8	3905.2	29.3
2030	135.4	53.77	-	50.1	-	-	-	50.1	3955.3	17.3
2031	96.1	56.14	37.3	-4.8	-	-	-	-4.8	3950.5	-2.0
2032	97.5	59.77	153.6	-126.2	-	-	-	-126.2	3824.4	-35.6
2033	98.8	63.82	39.2	-16.8	-	-	-	-16.8	3807.6	-4.3
Rem.	79.5	-	169.8	-155.6	-	-	-	-155.6	3652.0	-26.9
<b>Total</b>	<b>5240.8</b>	-	<b>470.4</b>	<b>3652.0</b>	-	-	-	<b>3652.0</b>	-	<b>2899.9</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	145.8	145.8	-	141.0
<b>Total (MBOE)</b>	<b>145.8</b>	<b>145.8</b>	<b>-</b>	<b>141.0</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>3,652.0</b>	<b>3,249.5</b>	<b>2,899.9</b>	<b>2,610.1</b>	<b>2,372.3</b>

RLI 4.81 yrs  
 Remaining Life 16.08 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Bow Island</b>											
103/15-03-010-10W4/0	W-100.000	SAW	NRA	-	-	-	-	-	-	-	-
100/06-10-010-10W4/0	W-80.000	SAW	NRA	-	-	-	-	-	-	-	-
100/11-10-010-10W4/0	W-80.000	SAW	NRA	-	-	-	-	-	-	-	-
<b>Subtotal</b>				-	-	-	-	-	-	-	-
<b>Subtotal Bow Island</b>				-	-	-	-	-	-	-	-
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PDP	33.0	-	-	-	1194.6	1049.4	934.4	843.2
100/09-30-012-14W4/3	W-100.000	SAW	PDP	8.2	-	-	-	82.6	89.1	91.9	92.6
102/09-30-012-14W4/2	W-100.000	SAW	NRA	-	-	-	-	-	-	-	-
<b>Subtotal</b>				<b>41.2</b>	-	-	-	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Subtotal Hays</b>				<b>41.2</b>	-	-	-	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Murray Lake</b>											
<b>NRA</b>											
Murray Lake NRA Wells	W-100.000	ALL ZONES	NRA	-	-	-	-	-	-	-	-
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PDP	5.8	-	-	-	60.7	67.5	68.6	67.1
102/02-30-009-07W4/0	W-100.000	SUNB	PDP	9.4	-	-	-	223.9	208.6	191.7	175.9
100/07-30-009-07W4/0	W-100.000	SUNB	PDP	19.0	-	-	-	552.8	461.5	391.0	337.7
100/12-31-009-07W4/0	W-100.000	SUNB	PDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/12-31-009-07W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/14-31-009-07W4/0	W-100.000	SUNB	PDP	8.9	-	-	-	190.1	177.7	163.2	149.3
103/14-31-009-07W4/2	W-100.000	SUNB	PDP	10.4	-	-	-	244.7	223.5	202.0	182.7
102/08-35-009-08W4/3	W-100.000	SUNB	PDP	9.3	-	-	-	191.1	179.9	166.3	153.0
100/05-36-009-08W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/08-36-009-08W4/0	W-100.000	L MN A	PDP	10.1	-	-	-	171.7	154.9	136.9	120.9
100/12-36-009-08W4/0	W-100.000	SUNB	PDP	8.4	-	-	-	164.7	154.7	142.3	130.1
102/12-36-009-08W4/0	W-100.000	SUNB	PDP	3.3	-	-	-	-0.7	10.2	16.2	19.5
<b>Subtotal PDP Wells</b>				<b>104.6</b>	-	-	-	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Murray Lake</b>				<b>104.6</b>	-	-	-	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Alberta</b>				<b>145.8</b>	-	-	-	<b>3652.0</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>
<b>Total</b>				<b>145.8</b>	-	-	-	<b>3652.0</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>

# Avalon Energy Ltd.

## Summary of Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019

### Total Proved Reserves

### Total Company

Area	Company WI & RI Reserves Before Royalty				Company Net Reserves After Royalty				Net Present Value Before Tax (M\$)			
	Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>												
<b>Alberta</b>												
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-
Hays	41.2	-	-	-	37.6	-	-	-	1277.2	1138.5	1026.4	935.8
Murray Lake	104.6	-	-	-	103.3	-	-	-	2374.8	2111.1	1873.5	1674.3
<b>Subtotal Alberta</b>	<b>145.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>141.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3652.0</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>
<b>Total</b>	<b>145.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>141.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3652.0</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>

# Avalon Energy Ltd.

## Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Sorted By Company Oil Reserves

Rank		Company WI & RI Reserves					Net Present Value Before Tax (M\$)			Company Oil Reserves	
		Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	BOE (1) Mbbl	@ 5.0%	@ 10.0%	@ 15.0%	% of Total	Cumulative %
1	Murray Lake	104.6	-	-	-	104.6	2111.1	1873.5	1674.3	71.75	71.75
2	Hays	41.2	-	-	-	41.2	1138.5	1026.4	935.8	28.25	100.00
3	Bow Island	-	-	-	-	-	-	-	-	-	100.00
<b>Total</b>		<b>145.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>145.8</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>	<b>100.00</b>	<b>-</b>

(1) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix.

# Avalon Energy Ltd.

## Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Sorted By Company BOE Reserves

Rank		Company WI & RI Reserves					Net Present Value Before Tax (M\$)			Company BOE Reserves	
		Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	BOE (1) Mbbl	@ 5.0%	@ 10.0%	@ 15.0%	% of Total	Cumulative %
1	Murray Lake	104.6	-	-	-	104.6	2111.1	1873.5	1674.3	71.75	71.75
2	Hays	41.2	-	-	-	41.2	1138.5	1026.4	935.8	28.25	100.00
3	Bow Island	-	-	-	-	-	-	-	-	-	100.00
<b>Total</b>		<b>145.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>145.8</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>	<b>100.00</b>	<b>-</b>

(1) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix.

# Avalon Energy Ltd.

## Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company Sorted @10% Net Present Value

Rank		Company WI & RI Reserves					Net Present Value Before Tax (M\$)			@10.0% Net Present Value	
		Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	BOE (1) Mbbl	@ 5.0%	@ 10.0%	@ 15.0%	% of Total	Cumulative %
1	Murray Lake	104.6	-	-	-	104.6	2111.1	1873.5	1674.3	64.61	64.61
2	Hays	41.2	-	-	-	41.2	1138.5	1026.4	935.8	35.39	100.00
3	Bow Island	-	-	-	-	-	-	-	-	-	100.00
<b>Total</b>		<b>145.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>145.8</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>	<b>100.00</b>	<b>-</b>

(1) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix.

# Avalon Energy Ltd.

## First Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### 2019 Summary

Area	Production (1)					Revenue and Expenses				Average Values \$/BOE (2)			
	Oil bbl/d	Gas Mcf/d	Cond. bbl/d	NGL bbl/d	BOE/d	Gross Revenue M\$	Encumb. (3) M\$	Oper. Exp.(4) M\$	Net Op Inc. M\$	Gross Revenue	Encumb. (3)	Oper. Exp. (4)	Net Op Inc.
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	34.2	-	-	-	34.2	554.1	91.9	139.7	322.5	59.20	9.82	14.92	34.46
Murray Lake	44.3	-	-	-	44.3	718.1	2.9	318.7	396.5	59.20	0.24	26.27	32.69
<b>Subtotal Alberta</b>	<b>78.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>78.5</b>	<b>1,272.2</b>	<b>94.7</b>	<b>458.4</b>	<b>719.1</b>	<b>59.20</b>	<b>4.41</b>	<b>21.33</b>	<b>33.46</b>
<b>Total</b>	<b>78.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>78.5</b>	<b>1,272.2</b>	<b>94.7</b>	<b>458.4</b>	<b>719.1</b>	<b>59.20</b>	<b>4.41</b>	<b>21.33</b>	<b>33.46</b>

- (1) Includes working interest production before royalty deductions plus royalty interest production.
- (2) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix. NPV/BOE based on Gross BOE Reserves.
- (3) Royalties include any net profits interests, as well as the Saskatchewan Corporation Capital Tax Surcharge.
- (4) Includes abandonment expenses.

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Oil Production Forecast (Mbbbl) (1)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	9.4	8.5	6.2	4.3	2.6	2.2	1.9	1.6	1.5	1.3	39.3	1.9	41.2
Murray Lake	12.1	14.3	12.7	11.4	10.2	9.0	8.3	7.2	5.4	3.3	94.0	10.6	104.6
<b>Subtotal Alberta</b>	<b>21.5</b>	<b>22.8</b>	<b>18.9</b>	<b>15.8</b>	<b>12.8</b>	<b>11.2</b>	<b>10.2</b>	<b>8.8</b>	<b>6.9</b>	<b>4.6</b>	<b>133.4</b>	<b>12.4</b>	<b>145.8</b>
<b>Total</b>	<b>21.5</b>	<b>22.8</b>	<b>18.9</b>	<b>15.8</b>	<b>12.8</b>	<b>11.2</b>	<b>10.2</b>	<b>8.8</b>	<b>6.9</b>	<b>4.6</b>	<b>133.4</b>	<b>12.4</b>	<b>145.8</b>

(1) Company working interest production before royalty deductions plus royalty interest share of production.

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Gross Revenue Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	554.1	514.5	383.3	286.3	173.0	148.7	130.7	117.2	106.8	98.6	2,513.0	142.1	2,655.2
Murray Lake	718.1	869.1	790.4	756.5	689.3	620.9	584.4	516.5	396.7	242.4	6,184.2	840.3	7,024.5
<b>Subtotal Alberta</b>	<b>1,272.2</b>	<b>1,383.6</b>	<b>1,173.7</b>	<b>1,042.7</b>	<b>862.3</b>	<b>769.6</b>	<b>715.1</b>	<b>633.7</b>	<b>503.4</b>	<b>341.0</b>	<b>8,697.3</b>	<b>982.4</b>	<b>9,679.7</b>
<b>Total</b>	<b>1,272.2</b>	<b>1,383.6</b>	<b>1,173.7</b>	<b>1,042.7</b>	<b>862.3</b>	<b>769.6</b>	<b>715.1</b>	<b>633.7</b>	<b>503.4</b>	<b>341.0</b>	<b>8,697.3</b>	<b>982.4</b>	<b>9,679.7</b>

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Encumbrance Forecast (M\$) (1)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	91.9	53.7	22.0	14.0	8.0	5.5	4.2	3.4	5.3	4.9	213.1	7.1	220.2
Murray Lake	2.9	3.4	3.0	2.9	2.6	2.4	2.3	2.1	20.7	12.1	54.3	42.0	96.4
<b>Subtotal Alberta</b>	<b>94.7</b>	<b>57.0</b>	<b>25.1</b>	<b>16.9</b>	<b>10.7</b>	<b>8.0</b>	<b>6.5</b>	<b>5.6</b>	<b>26.0</b>	<b>17.1</b>	<b>267.5</b>	<b>49.1</b>	<b>316.6</b>
<b>Total</b>	<b>94.7</b>	<b>57.0</b>	<b>25.1</b>	<b>16.9</b>	<b>10.7</b>	<b>8.0</b>	<b>6.5</b>	<b>5.6</b>	<b>26.0</b>	<b>17.1</b>	<b>267.5</b>	<b>49.1</b>	<b>316.6</b>

(1) Royalties include any net profits interests paid, as well as the Saskatchewan Corporation Capital Tax Surcharge.

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Operating Expense Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	139.7	175.9	172.2	134.3	59.6	59.5	59.7	60.1	60.7	61.4	983.1	98.9	1,082.1
Murray Lake	318.7	418.7	417.7	418.7	407.8	384.5	387.9	353.7	277.6	163.4	3,548.8	609.9	4,158.7
<b>Subtotal Alberta</b>	<b>458.4</b>	<b>594.5</b>	<b>589.9</b>	<b>553.1</b>	<b>467.5</b>	<b>444.0</b>	<b>447.6</b>	<b>413.8</b>	<b>338.3</b>	<b>224.8</b>	<b>4,531.9</b>	<b>708.8</b>	<b>5,240.8</b>
<b>Total</b>	<b>458.4</b>	<b>594.5</b>	<b>589.9</b>	<b>553.1</b>	<b>467.5</b>	<b>444.0</b>	<b>447.6</b>	<b>413.8</b>	<b>338.3</b>	<b>224.8</b>	<b>4,531.9</b>	<b>708.8</b>	<b>5,240.8</b>

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Abandonment and Reclamation Cost Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	-	-	-	-	-	-	-	-	34.9	-	34.9	40.8	75.6
Murray Lake	-	-	-	-	-	-	-	-	-	35.6	35.6	359.2	394.7
<b>Subtotal Alberta</b>	-	-	-	-	-	-	-	-	<b>34.9</b>	<b>35.6</b>	<b>70.4</b>	<b>399.9</b>	<b>470.4</b>
<b>Total</b>	-	-	-	-	-	-	-	-	<b>34.9</b>	<b>35.6</b>	<b>70.4</b>	<b>399.9</b>	<b>470.4</b>

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Total Company

### Net Revenue Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	322.5	285.0	189.1	137.9	105.3	83.6	66.8	53.6	5.8	32.2	1,281.9	-4.7	1,277.2
Murray Lake	396.5	447.0	369.6	334.9	278.8	234.0	194.2	160.7	98.4	31.3	2,545.5	-170.8	2,374.8
<b>Subtotal Alberta</b>	<b>719.1</b>	<b>732.0</b>	<b>558.8</b>	<b>472.8</b>	<b>384.2</b>	<b>317.6</b>	<b>261.0</b>	<b>214.3</b>	<b>104.2</b>	<b>63.6</b>	<b>3,827.4</b>	<b>-175.5</b>	<b>3,652.0</b>
<b>Total</b>	<b>719.1</b>	<b>732.0</b>	<b>558.8</b>	<b>472.8</b>	<b>384.2</b>	<b>317.6</b>	<b>261.0</b>	<b>214.3</b>	<b>104.2</b>	<b>63.6</b>	<b>3,827.4</b>	<b>-175.5</b>	<b>3,652.0</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	12.0	21.8	59.20	1288.7	-	-	-	-	-	-	-	-	-	-	1288.7	80
2020	12.0	23.9	60.58	1446.1	-	-	-	-	-	-	-	-	-	-	1446.1	65
2021	12.0	20.1	62.24	1250.3	-	-	-	-	-	-	-	-	-	-	1250.3	55
2022	12.0	17.6	66.20	1162.7	-	-	-	-	-	-	-	-	-	-	1162.7	48
2023	12.0	14.2	67.56	957.0	-	-	-	-	-	-	-	-	-	-	957.0	39
2024	11.0	12.2	68.82	842.5	-	-	-	-	-	-	-	-	-	-	842.5	33
2025	10.0	11.2	70.27	783.8	-	-	-	-	-	-	-	-	-	-	783.8	31
2026	10.0	10.3	71.63	739.0	-	-	-	-	-	-	-	-	-	-	739.0	28
2027	9.0	9.0	73.08	660.3	-	-	-	-	-	-	-	-	-	-	660.3	25
2028	9.0	8.4	74.54	623.0	-	-	-	-	-	-	-	-	-	-	623.0	23
2029	8.0	6.2	76.09	473.2	-	-	-	-	-	-	-	-	-	-	473.2	17
2030	4.0	4.0	77.54	313.7	-	-	-	-	-	-	-	-	-	-	313.7	11
2031	4.0	3.8	79.09	302.5	-	-	-	-	-	-	-	-	-	-	302.5	10
2032	4.0	3.1	80.64	249.4	-	-	-	-	-	-	-	-	-	-	249.4	8
2033	3.0	2.0	82.39	167.0	-	-	-	-	-	-	-	-	-	-	167.0	6
Rem.	-	3.9	85.73	332.7	-	-	-	-	-	-	-	-	-	-	332.7	3
<b>Total</b>	-	<b>171.7</b>	<b>67.53</b>	<b>11591.9</b>	-	-	-	-	-	-	-	-	-	-	<b>11591.9</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	95.2	-	95.2	2.9	-	2.9	-	-	-	-	-	98.1	7.6	-
2020	66.3	-	66.3	3.5	-	3.5	-	-	-	-	-	69.8	4.8	-
2021	31.4	-	31.4	3.2	-	3.2	-	-	-	-	-	34.7	2.8	-
2022	21.7	-	21.7	3.1	-	3.1	-	-	-	-	-	24.8	2.1	-
2023	12.8	-	12.8	2.9	-	2.9	-	-	-	-	-	15.7	1.6	-
2024	9.0	-	9.0	2.7	-	2.7	-	-	-	-	-	11.8	1.4	-
2025	7.0	-	7.0	2.6	-	2.6	-	-	-	-	-	9.5	1.2	-
2026	5.7	-	5.7	2.4	-	2.4	-	-	-	-	-	8.2	1.1	-
2027	32.3	-	32.3	2.3	-	2.3	-	-	-	-	-	34.6	5.2	-
2028	30.5	-	30.5	2.2	-	2.2	-	-	-	-	-	32.7	5.3	-
2029	23.1	-	23.1	2.0	-	2.0	-	-	-	-	-	25.0	5.3	-
2030	15.7	-	15.7	-	-	-	-	-	-	-	-	15.7	5.0	-
2031	15.1	-	15.1	-	-	-	-	-	-	-	-	15.1	5.0	-
2032	12.5	-	12.5	-	-	-	-	-	-	-	-	12.5	5.0	-
2033	8.4	-	8.4	-	-	-	-	-	-	-	-	8.4	5.0	-
Rem.	16.6	-	16.6	-	-	-	-	-	-	-	-	16.6	5.0	-
<b>Total</b>	<b>403.4</b>	-	<b>403.4</b>	<b>29.9</b>	-	<b>29.9</b>	-	-	-	-	-	<b>433.3</b>	<b>3.7</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	459.5	21.11	-	731.2	-	-	-	731.2	731.2	706.5
2020	598.5	25.07	-	777.7	-	-	-	777.7	1508.9	692.0
2021	594.9	29.62	-	620.7	-	-	-	620.7	2129.6	501.9
2022	595.8	33.92	-	542.1	-	-	-	542.1	2671.7	398.5
2023	495.1	34.95	-	446.2	-	-	-	446.2	3117.9	298.1
2024	452.3	36.94	-	378.4	-	-	-	378.4	3496.3	229.9
2025	452.6	40.57	-	321.7	-	-	-	321.7	3818.0	177.6
2026	457.1	44.30	-	273.7	-	-	-	273.7	4091.8	137.4
2027	419.7	46.45	-	205.9	-	-	-	205.9	4297.7	94.0
2028	417.5	49.95	35.1	137.6	-	-	-	137.6	4435.3	56.5
2029	320.7	51.57	35.9	91.6	-	-	-	91.6	4526.9	34.0
2030	206.3	50.99	-	91.7	-	-	-	91.7	4618.6	31.4
2031	209.2	54.69	38.0	40.2	-	-	-	40.2	4658.8	13.1
2032	176.1	56.95	-	60.8	-	-	-	60.8	4719.6	17.3
2033	121.8	60.09	39.4	-2.5	-	-	-	-2.5	4717.0	-0.3
Rem.	257.3	-	337.0	-278.3	-	-	-	-278.3	4438.7	-50.2
<b>Total</b>	<b>6234.4</b>	-	<b>485.4</b>	<b>4438.7</b>	-	-	-	<b>4438.7</b>	-	<b>3337.6</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	171.7	171.7	-	165.2
<b>Total (MBOE)</b>	<b>171.7</b>	<b>171.7</b>	<b>-</b>	<b>165.2</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>4,438.7</b>	<b>3,828.6</b>	<b>3,337.6</b>	<b>2,951.5</b>	<b>2,646.6</b>

RLI 5.66 yrs  
 Remaining Life 18.42 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Bow Island</b>											
103/15-03-010-10W4/0	W-100.000	SAW	NRA	-	-	-	-	-	-	-	-
100/06-10-010-10W4/0	W-80.000	SAW	NRA	-	-	-	-	-	-	-	-
100/11-10-010-10W4/0	W-80.000	SAW	NRA	-	-	-	-	-	-	-	-
<b>Subtotal</b>				-	-	-	-	-	-	-	-
<b>Subtotal Bow Island</b>				-	-	-	-	-	-	-	-
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PPDP	40.6	-	-	-	1493.8	1265.7	1097.0	970.0
100/09-30-012-14W4/3	W-100.000	SAW	PPDP	9.5	-	-	-	114.3	118.1	118.5	116.9
102/09-30-012-14W4/2	W-100.000	SAW	NRA	-	-	-	-	-	-	-	-
<b>Subtotal</b>				<b>50.1</b>	-	-	-	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Subtotal Hays</b>				<b>50.1</b>	-	-	-	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Murray Lake</b>											
<b>NRA</b>											
Murray Lake NRA Wells	W-100.000	ALL ZONES	NRA	-	-	-	-	-	-	-	-
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PPDP	6.6	-	-	-	74.6	79.9	79.2	76.1
102/02-30-009-07W4/0	W-100.000	SUNB	PPDP	11.7	-	-	-	289.4	259.8	231.9	207.8
100/07-30-009-07W4/0	W-100.000	SUNB	PPDP	23.4	-	-	-	699.8	555.1	453.6	381.9
100/12-31-009-07W4/0	W-100.000	SUNB	PPDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/12-31-009-07W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/14-31-009-07W4/0	W-100.000	SUNB	PPDP	10.2	-	-	-	224.9	205.0	184.5	166.2
103/14-31-009-07W4/2	W-100.000	SUNB	PPDP	11.9	-	-	-	285.4	254.5	225.7	201.1
102/08-35-009-08W4/3	W-100.000	SUNB	PPDP	11.9	-	-	-	257.4	231.8	206.8	184.9
100/05-36-009-08W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/08-36-009-08W4/0	W-100.000	L MN A	PPDP	12.1	-	-	-	213.8	184.5	157.6	135.6
100/12-36-009-08W4/0	W-100.000	SUNB	PPDP	10.1	-	-	-	204.6	185.8	166.2	148.8
102/12-36-009-08W4/0	W-100.000	SUNB	PPDP	3.6	-	-	-	5.0	15.7	21.3	24.1
<b>Subtotal PDP Wells</b>				<b>121.6</b>	-	-	-	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Murray Lake</b>				<b>121.6</b>	-	-	-	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Alberta</b>				<b>171.7</b>	-	-	-	<b>4438.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>
<b>Total</b>				<b>171.7</b>	-	-	-	<b>4438.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>

# Avalon Energy Ltd.

## Summary of Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

Area	Company WI & RI Reserves Before Royalty				Company Net Reserves After Royalty				Net Present Value Before Tax (M\$)			
	Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>												
<b>Alberta</b>												
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-
Hays	50.1	-	-	-	45.6	-	-	-	1608.1	1383.9	1215.5	1087.0
Murray Lake	121.6	-	-	-	119.6	-	-	-	2830.6	2444.7	2122.1	1864.5
<b>Subtotal Alberta</b>	<b>171.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>165.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4438.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>
<b>Total</b>	<b>171.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>165.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4438.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>

# Avalon Energy Ltd.

## Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Sorted By Company Oil Reserves

Rank		Company WI & RI Reserves					Net Present Value Before Tax (M\$)			Company Oil Reserves	
		Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	BOE (1) Mbbbl	@ 5.0%	@ 10.0%	@ 15.0%	% of Total	Cumulative %
1	Murray Lake	121.6	-	-	-	121.6	2444.7	2122.1	1864.5	70.82	70.82
2	Hays	50.1	-	-	-	50.1	1383.9	1215.5	1087.0	29.18	100.00
3	Bow Island	-	-	-	-	-	-	-	-	-	100.00
<b>Total</b>		<b>171.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>171.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>	<b>100.00</b>	<b>-</b>

(1) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix.

# Avalon Energy Ltd.

## Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Sorted By Company BOE Reserves

Rank		Company WI & RI Reserves					Net Present Value Before Tax (M\$)			Company BOE Reserves	
		Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	BOE (1) Mbbbl	@ 5.0%	@ 10.0%	@ 15.0%	% of Total	Cumulative %
1	Murray Lake	121.6	-	-	-	121.6	2444.7	2122.1	1864.5	70.82	70.82
2	Hays	50.1	-	-	-	50.1	1383.9	1215.5	1087.0	29.18	100.00
3	Bow Island	-	-	-	-	-	-	-	-	-	100.00
<b>Total</b>		<b>171.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>171.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>	<b>100.00</b>	<b>-</b>

(1) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix.

# Avalon Energy Ltd.

## Reserves and Net Present Value by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Sorted @10% Net Present Value

Rank		Company WI & RI Reserves					Net Present Value Before Tax (M\$)			@10.0% Net Present Value	
		Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	BOE (1) Mbbbl	@ 5.0%	@ 10.0%	@ 15.0%	% of Total	Cumulative %
1	Murray Lake	121.6	-	-	-	121.6	2444.7	2122.1	1864.5	63.58	63.58
2	Hays	50.1	-	-	-	50.1	1383.9	1215.5	1087.0	36.42	100.00
3	Bow Island	-	-	-	-	-	-	-	-	-	100.00
<b>Total</b>		<b>171.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>171.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>	<b>100.00</b>	<b>-</b>

(1) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix.

# Avalon Energy Ltd.

## First Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### 2019 Summary

Area	Production (1)					Revenue and Expenses				Average Values \$/BOE (2)			
	Oil bbl/d	Gas Mcf/d	Cond. bbl/d	NGL bbl/d	BOE/d	Gross Revenue M\$	Encumb. (3) M\$	Oper. Exp.(4) M\$	Net Op Inc. M\$	Gross Revenue	Encumb. (3)	Oper. Exp. (4)	Net Op Inc.
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	34.9	-	-	-	34.9	565.1	95.2	140.2	329.6	59.20	9.97	14.69	34.54
Murray Lake	44.7	-	-	-	44.7	723.7	2.9	319.2	401.5	59.20	0.24	26.12	32.85
<b>Subtotal Alberta</b>	<b>79.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>79.5</b>	<b>1,288.7</b>	<b>98.1</b>	<b>459.5</b>	<b>731.2</b>	<b>59.20</b>	<b>4.51</b>	<b>21.11</b>	<b>33.59</b>
<b>Total</b>	<b>79.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>79.5</b>	<b>1,288.7</b>	<b>98.1</b>	<b>459.5</b>	<b>731.2</b>	<b>59.20</b>	<b>4.51</b>	<b>21.11</b>	<b>33.59</b>

- (1) Includes working interest production before royalty deductions plus royalty interest production.
- (2) Barrels of Oil Equivalent based on 6.0:1 for Natural Gas, 1.0:1 for Condensate and C5+, 1.0:1 for Ethane, 1.0:1 for Propane, 1.0:1 for Butanes, 1.0:1 for NGL Mix. NPV/BOE based on Gross BOE Reserves.
- (3) Royalties include any net profits interests, as well as the Saskatchewan Corporation Capital Tax Surcharge.
- (4) Includes abandonment expenses.

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

#### Oil Production Forecast (Mbbbl) (1)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	9.5	9.2	6.9	5.6	3.2	2.6	2.2	2.0	1.8	1.6	44.5	5.6	50.1
Murray Lake	12.2	14.7	13.2	12.0	11.0	9.7	8.9	8.4	7.3	6.8	104.1	17.5	121.6
<b>Subtotal Alberta</b>	<b>21.8</b>	<b>23.9</b>	<b>20.1</b>	<b>17.6</b>	<b>14.2</b>	<b>12.2</b>	<b>11.2</b>	<b>10.3</b>	<b>9.0</b>	<b>8.4</b>	<b>148.6</b>	<b>23.1</b>	<b>171.7</b>
<b>Total</b>	<b>21.8</b>	<b>23.9</b>	<b>20.1</b>	<b>17.6</b>	<b>14.2</b>	<b>12.2</b>	<b>11.2</b>	<b>10.3</b>	<b>9.0</b>	<b>8.4</b>	<b>148.6</b>	<b>23.1</b>	<b>171.7</b>

(1) Company working interest production before royalty deductions plus royalty interest share of production.

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Gross Revenue Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	565.1	556.7	430.1	369.0	213.6	176.5	156.2	140.9	128.8	119.4	2,856.2	438.0	3,294.2
Murray Lake	723.7	889.4	820.2	793.7	743.4	666.0	627.6	598.2	531.5	503.6	6,897.2	1,400.5	8,297.6
<b>Subtotal Alberta</b>	<b>1,288.7</b>	<b>1,446.1</b>	<b>1,250.3</b>	<b>1,162.7</b>	<b>957.0</b>	<b>842.5</b>	<b>783.8</b>	<b>739.0</b>	<b>660.3</b>	<b>623.0</b>	<b>9,753.4</b>	<b>1,838.5</b>	<b>11,591.9</b>
<b>Total</b>	<b>1,288.7</b>	<b>1,446.1</b>	<b>1,250.3</b>	<b>1,162.7</b>	<b>957.0</b>	<b>842.5</b>	<b>783.8</b>	<b>739.0</b>	<b>660.3</b>	<b>623.0</b>	<b>9,753.4</b>	<b>1,838.5</b>	<b>11,591.9</b>

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Encumbrance Forecast (M\$) (1)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	95.2	66.3	31.4	21.7	12.8	9.0	7.0	5.7	6.4	6.0	261.7	21.9	283.6
Murray Lake	2.9	3.5	3.2	3.1	2.9	2.7	2.6	2.4	28.2	26.7	78.3	71.4	149.7
<b>Subtotal Alberta</b>	<b>98.1</b>	<b>69.8</b>	<b>34.7</b>	<b>24.8</b>	<b>15.7</b>	<b>11.8</b>	<b>9.5</b>	<b>8.2</b>	<b>34.6</b>	<b>32.7</b>	<b>340.0</b>	<b>93.3</b>	<b>433.3</b>
<b>Total</b>	<b>98.1</b>	<b>69.8</b>	<b>34.7</b>	<b>24.8</b>	<b>15.7</b>	<b>11.8</b>	<b>9.5</b>	<b>8.2</b>	<b>34.6</b>	<b>32.7</b>	<b>340.0</b>	<b>93.3</b>	<b>433.3</b>

(1) Royalties include any net profits interests paid, as well as the Saskatchewan Corporation Capital Tax Surcharge.

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Operating Expense Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	140.2	178.0	174.5	173.8	70.5	60.8	60.9	61.3	61.8	62.4	1,044.1	280.2	1,324.3
Murray Lake	319.2	420.5	420.4	422.0	424.6	391.5	391.6	395.9	357.9	355.1	3,898.8	1,011.3	4,910.1
<b>Subtotal Alberta</b>	<b>459.5</b>	<b>598.5</b>	<b>594.9</b>	<b>595.8</b>	<b>495.1</b>	<b>452.3</b>	<b>452.6</b>	<b>457.1</b>	<b>419.7</b>	<b>417.5</b>	<b>4,943.0</b>	<b>1,291.5</b>	<b>6,234.4</b>
<b>Total</b>	<b>459.5</b>	<b>598.5</b>	<b>594.9</b>	<b>595.8</b>	<b>495.1</b>	<b>452.3</b>	<b>452.6</b>	<b>457.1</b>	<b>419.7</b>	<b>417.5</b>	<b>4,943.0</b>	<b>1,291.5</b>	<b>6,234.4</b>

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Abandonment and Reclamation Cost Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	-	-	-	-	-	-	-	-	-	35.1	35.1	43.1	78.2
Murray Lake	-	-	-	-	-	-	-	-	-	-	-	407.2	407.2
<b>Subtotal Alberta</b>	-	-	-	-	-	-	-	-	-	<b>35.1</b>	<b>35.1</b>	<b>450.3</b>	<b>485.4</b>
<b>Total</b>	-	-	-	-	-	-	-	-	-	<b>35.1</b>	<b>35.1</b>	<b>450.3</b>	<b>485.4</b>

# Avalon Energy Ltd.

## Ten Year Production, Revenues and Expenses by Area Name Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Total Company

### Net Revenue Forecast (M\$)

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Subtotal	Remainder	Total
<b>Canada</b>													
<b>Alberta</b>													
Bow Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Hays	329.6	312.4	224.2	173.5	130.3	106.6	88.3	73.8	60.6	15.8	1,515.3	92.8	1,608.1
Murray Lake	401.5	465.3	396.5	368.6	315.8	271.8	233.4	199.9	145.3	121.8	2,920.0	-89.4	2,830.6
<b>Subtotal Alberta</b>	<b>731.2</b>	<b>777.7</b>	<b>620.7</b>	<b>542.1</b>	<b>446.2</b>	<b>378.4</b>	<b>321.7</b>	<b>273.7</b>	<b>205.9</b>	<b>137.6</b>	<b>4,435.3</b>	<b>3.4</b>	<b>4,438.7</b>
<b>Total</b>	<b>731.2</b>	<b>777.7</b>	<b>620.7</b>	<b>542.1</b>	<b>446.2</b>	<b>378.4</b>	<b>321.7</b>	<b>273.7</b>	<b>205.9</b>	<b>137.6</b>	<b>4,435.3</b>	<b>3.4</b>	<b>4,438.7</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Probable Reserves

### Total Company

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	-	0.3	59.20	16.5	-	-	-	-	-	-	-	-	-	-	16.5	1
2020	-	1.0	60.58	62.5	-	-	-	-	-	-	-	-	-	-	62.5	3
2021	-	1.2	62.24	76.6	-	-	-	-	-	-	-	-	-	-	76.6	3
2022	0.3	1.8	66.20	119.9	-	-	-	-	-	-	-	-	-	-	119.9	5
2023	1.3	1.4	67.56	94.7	-	-	-	-	-	-	-	-	-	-	94.7	4
2024	1.0	1.1	68.82	73.0	-	-	-	-	-	-	-	-	-	-	73.0	3
2025	-	1.0	70.27	68.8	-	-	-	-	-	-	-	-	-	-	68.8	3
2026	0.9	1.5	71.63	105.3	-	-	-	-	-	-	-	-	-	-	105.3	4
2027	1.8	2.1	73.07	156.9	-	-	-	-	-	-	-	-	-	-	156.9	6
2028	4.4	3.8	74.53	282.0	-	-	-	-	-	-	-	-	-	-	282.0	10
2029	4.0	2.4	76.09	179.3	-	-	-	-	-	-	-	-	-	-	179.3	6
2030	1.3	1.5	77.53	118.4	-	-	-	-	-	-	-	-	-	-	118.4	4
2031	2.0	2.1	79.09	167.1	-	-	-	-	-	-	-	-	-	-	167.1	6
2032	2.0	1.5	80.64	117.9	-	-	-	-	-	-	-	-	-	-	117.9	4
2033	1.0	0.5	82.40	39.4	-	-	-	-	-	-	-	-	-	-	39.4	1
Rem.	-	2.7	86.35	234.0	-	-	-	-	-	-	-	-	-	-	234.0	2
<b>Total</b>	<b>-</b>	<b>25.8</b>	<b>74.00</b>	<b>1912.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1912.2</b>	<b>-</b>

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	3.3	-	3.3	0.0	-	0.0	-	-	-	-	-	3.3	20.1	-
2020	12.6	-	12.6	0.1	-	0.1	-	-	-	-	-	12.8	20.5	-
2021	9.4	-	9.4	0.2	-	0.2	-	-	-	-	-	9.6	12.5	-
2022	7.7	-	7.7	0.3	-	0.3	-	-	-	-	-	7.9	6.6	-
2023	4.8	-	4.8	0.3	-	0.3	-	-	-	-	-	5.1	5.3	-
2024	3.5	-	3.5	0.3	-	0.3	-	-	-	-	-	3.8	5.2	-
2025	2.8	-	2.8	0.3	-	0.3	-	-	-	-	-	3.1	4.5	-
2026	2.3	-	2.3	0.3	-	0.3	-	-	-	-	-	2.6	2.5	-
2027	7.5	-	7.5	1.1	-	1.1	-	-	-	-	-	8.6	5.5	-
2028	13.4	-	13.4	2.2	-	2.2	-	-	-	-	-	15.7	5.6	-
2029	8.4	-	8.4	2.0	-	2.0	-	-	-	-	-	10.3	5.8	-
2030	5.9	-	5.9	-	-	-	-	-	-	-	-	5.9	5.0	-
2031	8.4	-	8.4	-	-	-	-	-	-	-	-	8.4	5.0	-
2032	5.9	-	5.9	-	-	-	-	-	-	-	-	5.9	5.0	-
2033	2.0	-	2.0	-	-	-	-	-	-	-	-	2.0	5.0	-
Rem.	11.7	-	11.7	-	-	-	-	-	-	-	-	11.7	5.0	-
<b>Total</b>	<b>109.6</b>	<b>-</b>	<b>109.6</b>	<b>7.1</b>	<b>-</b>	<b>7.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>116.7</b>	<b>6.1</b>	<b>-</b>

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	1.1	3.84	-	12.1	-	-	-	12.1	12.1	11.5
2020	4.0	3.85	-	45.7	-	-	-	45.7	57.9	40.4
2021	5.0	4.09	-	61.9	-	-	-	61.9	119.8	49.9
2022	42.7	23.57	-	69.3	-	-	-	69.3	189.1	50.9
2023	27.6	19.72	-	62.0	-	-	-	62.0	251.1	41.4
2024	8.3	7.82	-	60.9	-	-	-	60.9	312.0	36.9
2025	5.0	5.09	-	60.7	-	-	-	60.7	372.7	33.5
2026	43.3	29.44	-	59.4	-	-	-	59.4	432.1	29.8
2027	81.4	37.92	-34.9	101.7	-	-	-	101.7	533.8	46.0
2028	192.7	50.93	-0.4	74.1	-	-	-	74.1	607.8	29.9
2029	119.3	50.62	35.9	13.8	-	-	-	13.8	621.7	4.7
2030	70.9	46.42	-	41.6	-	-	-	41.6	663.2	14.2
2031	113.1	53.52	0.7	45.0	-	-	-	45.0	708.2	15.0
2032	78.7	53.80	-153.6	187.0	-	-	-	187.0	895.2	52.8
2033	23.0	48.03	0.2	14.3	-	-	-	14.3	909.5	4.0
Rem.	177.8	-	167.2	-122.7	-	-	-	-122.7	786.8	-23.3
<b>Total</b>	<b>993.6</b>	<b>-</b>	<b>15.1</b>	<b>786.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>786.8</b>	<b>-</b>	<b>437.7</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	25.8	25.8	-	24.2
<b>Total (MBOE)</b>	<b>25.8</b>	<b>25.8</b>	<b>-</b>	<b>24.2</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>786.8</b>	<b>579.0</b>	<b>437.7</b>	<b>341.4</b>	<b>274.3</b>

RLI 50+ yrs  
 Remaining Life 18.42 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Probable Reserves

### Total Company

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PADP	7.6	-	-	-	299.3	216.4	162.6	126.8
100/09-30-012-14W4/3	W-100.000	SAW	PADP	1.3	-	-	-	31.7	29.0	26.6	24.3
<b>Subtotal</b>				<b>8.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>331.0</b>	<b>245.4</b>	<b>189.1</b>	<b>151.1</b>
<b>Subtotal Hays</b>				<b>8.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>331.0</b>	<b>245.4</b>	<b>189.1</b>	<b>151.1</b>
<b>Murray Lake</b>											
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PADP	0.8	-	-	-	13.9	12.4	10.6	8.9
102/02-30-009-07W4/0	W-100.000	SUNB	PADP	2.3	-	-	-	65.5	51.2	40.1	31.8
100/07-30-009-07W4/0	W-100.000	SUNB	PADP	4.4	-	-	-	147.0	93.6	62.6	44.2
102/14-31-009-07W4/0	W-100.000	SUNB	PADP	1.3	-	-	-	34.8	27.3	21.3	16.9
103/14-31-009-07W4/2	W-100.000	SUNB	PADP	1.5	-	-	-	40.7	31.0	23.7	18.4
102/08-35-009-08W4/3	W-100.000	SUNB	PADP	2.6	-	-	-	66.3	51.9	40.5	32.0
102/08-36-009-08W4/0	W-100.000	L MN A	PADP	2.0	-	-	-	42.1	29.6	20.7	14.8
100/12-36-009-08W4/0	W-100.000	SUNB	PADP	1.7	-	-	-	39.9	31.1	24.0	18.7
102/12-36-009-08W4/0	W-100.000	SUNB	PADP	0.3	-	-	-	5.7	5.5	5.1	4.6
<b>Subtotal PDP Wells</b>				<b>16.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>455.8</b>	<b>333.6</b>	<b>248.6</b>	<b>190.2</b>
<b>Subtotal Murray Lake</b>				<b>16.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>455.8</b>	<b>333.6</b>	<b>248.6</b>	<b>190.2</b>
<b>Subtotal Alberta</b>				<b>25.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>786.8</b>	<b>579.0</b>	<b>437.7</b>	<b>341.4</b>
<b>Total</b>				<b>25.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>786.8</b>	<b>579.0</b>	<b>437.7</b>	<b>341.4</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Proved Developed Producing Reserves

### Total Company

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	12.0	21.5	59.20	1272.2	-	-	-	-	-	-	-	-	-	-	1272.2	79
2020	12.0	22.8	60.58	1383.6	-	-	-	-	-	-	-	-	-	-	1383.6	62
2021	12.0	18.9	62.24	1173.7	-	-	-	-	-	-	-	-	-	-	1173.7	52
2022	11.7	15.8	66.20	1042.7	-	-	-	-	-	-	-	-	-	-	1042.7	43
2023	10.7	12.8	67.56	862.3	-	-	-	-	-	-	-	-	-	-	862.3	35
2024	10.0	11.2	68.82	769.6	-	-	-	-	-	-	-	-	-	-	769.6	31
2025	10.0	10.2	70.27	715.1	-	-	-	-	-	-	-	-	-	-	715.1	28
2026	9.1	8.8	71.63	633.7	-	-	-	-	-	-	-	-	-	-	633.7	24
2027	7.3	6.9	73.08	503.4	-	-	-	-	-	-	-	-	-	-	503.4	19
2028	4.6	4.6	74.54	341.0	-	-	-	-	-	-	-	-	-	-	341.0	12
2029	4.0	3.9	76.09	293.9	-	-	-	-	-	-	-	-	-	-	293.9	11
2030	2.7	2.5	77.54	195.3	-	-	-	-	-	-	-	-	-	-	195.3	7
2031	2.0	1.7	79.09	135.4	-	-	-	-	-	-	-	-	-	-	135.4	5
2032	2.0	1.6	80.64	131.5	-	-	-	-	-	-	-	-	-	-	131.5	4
2033	2.0	1.5	82.39	127.6	-	-	-	-	-	-	-	-	-	-	127.6	4
Rem.	-	1.2	84.29	98.7	-	-	-	-	-	-	-	-	-	-	98.7	2
<b>Total</b>	-	<b>145.8</b>	<b>66.38</b>	<b>9679.7</b>	-	-	-	-	-	-	-	-	-	-	<b>9679.7</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	91.9	-	91.9	2.9	-	2.9	-	-	-	-	-	94.7	7.4	-
2020	53.7	-	53.7	3.4	-	3.4	-	-	-	-	-	57.0	4.1	-
2021	22.0	-	22.0	3.0	-	3.0	-	-	-	-	-	25.1	2.1	-
2022	14.0	-	14.0	2.9	-	2.9	-	-	-	-	-	16.9	1.6	-
2023	8.0	-	8.0	2.6	-	2.6	-	-	-	-	-	10.7	1.2	-
2024	5.5	-	5.5	2.4	-	2.4	-	-	-	-	-	8.0	1.0	-
2025	4.2	-	4.2	2.3	-	2.3	-	-	-	-	-	6.5	0.9	-
2026	3.4	-	3.4	2.1	-	2.1	-	-	-	-	-	5.6	0.9	-
2027	24.8	-	24.8	1.2	-	1.2	-	-	-	-	-	26.0	5.2	-
2028	17.1	-	17.1	-	-	-	-	-	-	-	-	17.1	5.0	-
2029	14.7	-	14.7	-	-	-	-	-	-	-	-	14.7	5.0	-
2030	9.8	-	9.8	-	-	-	-	-	-	-	-	9.8	5.0	-
2031	6.8	-	6.8	-	-	-	-	-	-	-	-	6.8	5.0	-
2032	6.6	-	6.6	-	-	-	-	-	-	-	-	6.6	5.0	-
2033	6.4	-	6.4	-	-	-	-	-	-	-	-	6.4	5.0	-
Rem.	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
<b>Total</b>	<b>293.9</b>	-	<b>293.9</b>	<b>22.7</b>	-	<b>22.7</b>	-	-	-	-	-	<b>316.6</b>	<b>3.3</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	458.4	21.33	-	719.1	-	-	-	719.1	719.1	695.0
2020	594.5	26.03	-	732.0	-	-	-	732.0	1451.1	651.6
2021	589.9	31.28	-	558.8	-	-	-	558.8	2009.8	452.0
2022	553.1	35.11	-	472.8	-	-	-	472.8	2482.6	347.6
2023	467.5	36.62	-	384.2	-	-	-	384.2	2866.8	256.7
2024	444.0	39.71	-	317.6	-	-	-	317.6	3184.3	192.9
2025	447.6	43.99	-	261.0	-	-	-	261.0	3445.4	144.1
2026	413.8	46.77	-	214.3	-	-	-	214.3	3659.7	107.6
2027	338.3	49.12	34.9	104.2	-	-	-	104.2	3763.9	47.9
2028	224.8	49.15	35.6	63.6	-	-	-	63.6	3827.4	26.6
2029	201.4	52.15	-	77.8	-	-	-	77.8	3905.2	29.3
2030	135.4	53.77	-	50.1	-	-	-	50.1	3955.3	17.3
2031	96.1	56.14	37.3	-4.8	-	-	-	-4.8	3950.5	-2.0
2032	97.5	59.77	153.6	-126.2	-	-	-	-126.2	3824.4	-35.6
2033	98.8	63.82	39.2	-16.8	-	-	-	-16.8	3807.6	-4.3
Rem.	79.5	-	169.8	-155.6	-	-	-	-155.6	3652.0	-26.9
<b>Total</b>	<b>5240.8</b>	-	<b>470.4</b>	<b>3652.0</b>	-	-	-	<b>3652.0</b>	-	<b>2899.9</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	145.8	145.8	-	141.0
<b>Total (MBOE)</b>	<b>145.8</b>	<b>145.8</b>	<b>-</b>	<b>141.0</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>3,652.0</b>	<b>3,249.5</b>	<b>2,899.9</b>	<b>2,610.1</b>	<b>2,372.3</b>

RLI 4.81 yrs  
 Remaining Life 16.08 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Proved Developed Producing Reserves

### Total Company

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PDP	33.0	-	-	-	1194.6	1049.4	934.4	843.2
100/09-30-012-14W4/3	W-100.000	SAW	PDP	8.2	-	-	-	82.6	89.1	91.9	92.6
<b>Subtotal</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Subtotal Hays</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Murray Lake</b>											
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PDP	5.8	-	-	-	60.7	67.5	68.6	67.1
102/02-30-009-07W4/0	W-100.000	SUNB	PDP	9.4	-	-	-	223.9	208.6	191.7	175.9
100/07-30-009-07W4/0	W-100.000	SUNB	PDP	19.0	-	-	-	552.8	461.5	391.0	337.7
100/12-31-009-07W4/0	W-100.000	SUNB	PDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/14-31-009-07W4/0	W-100.000	SUNB	PDP	8.9	-	-	-	190.1	177.7	163.2	149.3
103/14-31-009-07W4/2	W-100.000	SUNB	PDP	10.4	-	-	-	244.7	223.5	202.0	182.7
102/08-35-009-08W4/3	W-100.000	SUNB	PDP	9.3	-	-	-	191.1	179.9	166.3	153.0
102/08-36-009-08W4/0	W-100.000	L MN A	PDP	10.1	-	-	-	171.7	154.9	136.9	120.9
100/12-36-009-08W4/0	W-100.000	SUNB	PDP	8.4	-	-	-	164.7	154.7	142.3	130.1
102/12-36-009-08W4/0	W-100.000	SUNB	PDP	3.3	-	-	-	-0.7	10.2	16.2	19.5
<b>Subtotal PDP Wells</b>				<b>104.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Murray Lake</b>				<b>104.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Alberta</b>				<b>145.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3652.0</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>
<b>Total</b>				<b>145.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3652.0</b>	<b>3249.5</b>	<b>2899.9</b>	<b>2610.1</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Proved + Probable Developed Producing Reserves

### Total Company

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	12.0	21.8	59.20	1288.7	-	-	-	-	-	-	-	-	-	-	1288.7	80
2020	12.0	23.9	60.58	1446.1	-	-	-	-	-	-	-	-	-	-	1446.1	65
2021	12.0	20.1	62.24	1250.3	-	-	-	-	-	-	-	-	-	-	1250.3	55
2022	12.0	17.6	66.20	1162.7	-	-	-	-	-	-	-	-	-	-	1162.7	48
2023	12.0	14.2	67.56	957.0	-	-	-	-	-	-	-	-	-	-	957.0	39
2024	11.0	12.2	68.82	842.5	-	-	-	-	-	-	-	-	-	-	842.5	33
2025	10.0	11.2	70.27	783.8	-	-	-	-	-	-	-	-	-	-	783.8	31
2026	10.0	10.3	71.63	739.0	-	-	-	-	-	-	-	-	-	-	739.0	28
2027	9.0	9.0	73.08	660.3	-	-	-	-	-	-	-	-	-	-	660.3	25
2028	9.0	8.4	74.54	623.0	-	-	-	-	-	-	-	-	-	-	623.0	23
2029	8.0	6.2	76.09	473.2	-	-	-	-	-	-	-	-	-	-	473.2	17
2030	4.0	4.0	77.54	313.7	-	-	-	-	-	-	-	-	-	-	313.7	11
2031	4.0	3.8	79.09	302.5	-	-	-	-	-	-	-	-	-	-	302.5	10
2032	4.0	3.1	80.64	249.4	-	-	-	-	-	-	-	-	-	-	249.4	8
2033	3.0	2.0	82.39	167.0	-	-	-	-	-	-	-	-	-	-	167.0	6
Rem.	-	3.9	85.73	332.7	-	-	-	-	-	-	-	-	-	-	332.7	3
<b>Total</b>	-	<b>171.7</b>	<b>67.53</b>	<b>11591.9</b>	-	-	-	-	-	-	-	-	-	-	<b>11591.9</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	95.2	-	95.2	2.9	-	2.9	-	-	-	-	-	98.1	7.6	-
2020	66.3	-	66.3	3.5	-	3.5	-	-	-	-	-	69.8	4.8	-
2021	31.4	-	31.4	3.2	-	3.2	-	-	-	-	-	34.7	2.8	-
2022	21.7	-	21.7	3.1	-	3.1	-	-	-	-	-	24.8	2.1	-
2023	12.8	-	12.8	2.9	-	2.9	-	-	-	-	-	15.7	1.6	-
2024	9.0	-	9.0	2.7	-	2.7	-	-	-	-	-	11.8	1.4	-
2025	7.0	-	7.0	2.6	-	2.6	-	-	-	-	-	9.5	1.2	-
2026	5.7	-	5.7	2.4	-	2.4	-	-	-	-	-	8.2	1.1	-
2027	32.3	-	32.3	2.3	-	2.3	-	-	-	-	-	34.6	5.2	-
2028	30.5	-	30.5	2.2	-	2.2	-	-	-	-	-	32.7	5.3	-
2029	23.1	-	23.1	2.0	-	2.0	-	-	-	-	-	25.0	5.3	-
2030	15.7	-	15.7	-	-	-	-	-	-	-	-	15.7	5.0	-
2031	15.1	-	15.1	-	-	-	-	-	-	-	-	15.1	5.0	-
2032	12.5	-	12.5	-	-	-	-	-	-	-	-	12.5	5.0	-
2033	8.4	-	8.4	-	-	-	-	-	-	-	-	8.4	5.0	-
Rem.	16.6	-	16.6	-	-	-	-	-	-	-	-	16.6	5.0	-
<b>Total</b>	<b>403.4</b>	-	<b>403.4</b>	<b>29.9</b>	-	<b>29.9</b>	-	-	-	-	-	<b>433.3</b>	<b>3.7</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	459.5	21.11	-	731.2	-	-	-	731.2	731.2	706.5
2020	598.5	25.07	-	777.7	-	-	-	777.7	1508.9	692.0
2021	594.9	29.62	-	620.7	-	-	-	620.7	2129.6	501.9
2022	595.8	33.92	-	542.1	-	-	-	542.1	2671.7	398.5
2023	495.1	34.95	-	446.2	-	-	-	446.2	3117.9	298.1
2024	452.3	36.94	-	378.4	-	-	-	378.4	3496.3	229.9
2025	452.6	40.57	-	321.7	-	-	-	321.7	3818.0	177.6
2026	457.1	44.30	-	273.7	-	-	-	273.7	4091.8	137.4
2027	419.7	46.45	-	205.9	-	-	-	205.9	4297.7	94.0
2028	417.5	49.95	35.1	137.6	-	-	-	137.6	4435.3	56.5
2029	320.7	51.57	35.9	91.6	-	-	-	91.6	4526.9	34.0
2030	206.3	50.99	-	91.7	-	-	-	91.7	4618.6	31.4
2031	209.2	54.69	38.0	40.2	-	-	-	40.2	4658.8	13.1
2032	176.1	56.95	-	60.8	-	-	-	60.8	4719.6	17.3
2033	121.8	60.09	39.4	-2.5	-	-	-	-2.5	4717.0	-0.3
Rem.	257.3	-	337.0	-278.3	-	-	-	-278.3	4438.7	-50.2
<b>Total</b>	<b>6234.4</b>	-	<b>485.4</b>	<b>4438.7</b>	-	-	-	<b>4438.7</b>	-	<b>3337.6</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	171.7	171.7	-	165.2
<b>Total (MBOE)</b>	<b>171.7</b>	<b>171.7</b>	<b>-</b>	<b>165.2</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>4,438.7</b>	<b>3,828.6</b>	<b>3,337.6</b>	<b>2,951.5</b>	<b>2,646.6</b>

RLI 5.66 yrs  
 Remaining Life 18.42 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Proved + Probable Developed Producing Reserves

### Total Company

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PPDP	40.6	-	-	-	1493.8	1265.7	1097.0	970.0
100/09-30-012-14W4/3	W-100.000	SAW	PPDP	9.5	-	-	-	114.3	118.1	118.5	116.9
<b>Subtotal</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Subtotal Hays</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Murray Lake</b>											
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PPDP	6.6	-	-	-	74.6	79.9	79.2	76.1
102/02-30-009-07W4/0	W-100.000	SUNB	PPDP	11.7	-	-	-	289.4	259.8	231.9	207.8
100/07-30-009-07W4/0	W-100.000	SUNB	PPDP	23.4	-	-	-	699.8	555.1	453.6	381.9
100/12-31-009-07W4/0	W-100.000	SUNB	PPDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/14-31-009-07W4/0	W-100.000	SUNB	PPDP	10.2	-	-	-	224.9	205.0	184.5	166.2
103/14-31-009-07W4/2	W-100.000	SUNB	PPDP	11.9	-	-	-	285.4	254.5	225.7	201.1
102/08-35-009-08W4/3	W-100.000	SUNB	PPDP	11.9	-	-	-	257.4	231.8	206.8	184.9
102/08-36-009-08W4/0	W-100.000	L MN A	PPDP	12.1	-	-	-	213.8	184.5	157.6	135.6
100/12-36-009-08W4/0	W-100.000	SUNB	PPDP	10.1	-	-	-	204.6	185.8	166.2	148.8
102/12-36-009-08W4/0	W-100.000	SUNB	PPDP	3.6	-	-	-	5.0	15.7	21.3	24.1
<b>Subtotal PDP Wells</b>				<b>121.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Murray Lake</b>				<b>121.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Alberta</b>				<b>171.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4438.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>
<b>Total</b>				<b>171.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4438.7</b>	<b>3828.6</b>	<b>3337.6</b>	<b>2951.5</b>

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

Reserve Estimates

## Summary of Reserve Estimates Forecast Prices and Costs as of April 1, 2019 Total Reserves Total Company

Area and Property	Company Interest %	Zones	Reserve Class	Crude Oil					Natural Gas					Condensate								
				Gross			Company Share		Gross			Company Share		Gross			Company Share					
				Orig. Res. Mbbl	Cum. Prod. Mbbl	Rem. Res. Mbbl	Rem. Res. Mbbl	2019 Rate bopd	Orig. Raw Res. MMcf	Cum. Prod. MMcf	Rem. Raw Res. MMcf	Surf. Loss %	Rem. Sales Res. MMcf	Rem. Sales Res. MMcf	2019 Rate Mcf/d	Orig. Res. Mbbl	Cum. Prod. Mbbl	Rem. Res. Mbbl	Rem. Res. Mbbl	2019 Rate bopd		
<b>Canada</b>																						
<b>Alberta</b>																						
<b>Hays</b>																						
100/10-07-012-14W4/3	W-100.0	SAW	TP	42	9	33	33	25	0	0	-	-	-	-	-	-	-	-	-	-		
			TPP	50	9	41	41	26	0	0	-	-	-	-	-	-	-	-	-	-		
100/09-30-012-14W4/3	W-100.0	SAW	TP	16	7	8	8	9	0	0	-	-	-	-	-	-	-	-	-	-		
			TPP	17	7	10	10	9	0	0	-	-	-	-	-	-	-	-	-	-		
<b>Total</b>			<b>TP</b>	<b>58</b>	<b>16</b>	<b>41</b>	<b>41</b>	<b>34</b>	<b>1</b>	<b>1</b>	-	-	-	-	-	-	-	-	-	-		
			<b>TPP</b>	<b>67</b>	<b>16</b>	<b>50</b>	<b>50</b>	<b>35</b>	<b>1</b>	<b>1</b>	-	-	-	-	-	-	-	-	-	-		
<b>Subtotal Hays</b>			<b>TP</b>	<b>58</b>	<b>16</b>	<b>41</b>	<b>41</b>	<b>34</b>	<b>1</b>	<b>1</b>	-	-	-	-	-	-	-	-	-	-		
			<b>TPP</b>	<b>67</b>	<b>16</b>	<b>50</b>	<b>50</b>	<b>35</b>	<b>1</b>	<b>1</b>	-	-	-	-	-	-	-	-	-	-		
<b>Murray Lake</b>																						
<b>PDP Wells</b>																						
100/01-30-009-07W4/2	W-100.0	SUNB	TP	26	20	6	6	3	49	49	-	-	-	-	-	-	-	-	-	-		
			TPP	26	20	7	7	3	49	49	-	-	-	-	-	-	-	-	-	-		
102/02-30-009-07W4/0	W-100.0	SUNB	TP	41	32	9	9	5	87	87	-	-	-	-	-	-	-	-	-	-		
			TPP	44	32	12	12	5	87	87	-	-	-	-	-	-	-	-	-	-		
100/07-30-009-07W4/0	W-100.0	SUNB	TP	42	23	19	19	6	28	28	-	-	-	-	-	-	-	-	-	-		
			TPP	46	23	23	23	7	28	28	-	-	-	-	-	-	-	-	-	-		
100/12-31-009-07W4/0	W-100.0	SUNB	TP	79	59	20	20	6	3	3	-	-	-	-	-	-	-	-	-	-		
102/14-31-009-07W4/0	W-100.0	SUNB	TP	38	29	9	9	4	32	32	-	-	-	-	-	-	-	-	-	-		
			TPP	39	29	10	10	4	32	32	-	-	-	-	-	-	-	-	-	-		
103/14-31-009-07W4/2	W-100.0	SUNB	TP	52	42	10	10	5	23	23	-	-	-	-	-	-	-	-	-	-		
			TPP	54	42	12	12	5	23	23	-	-	-	-	-	-	-	-	-	-		
102/08-35-009-08W4/3	W-100.0	SUNB	TP	55	46	9	9	5	16	16	-	-	-	-	-	-	-	-	-	-		
			TPP	58	46	12	12	5	16	16	-	-	-	-	-	-	-	-	-	-		
102/08-36-009-08W4/0	W-100.0	L MN A	TP	66	56	10	10	3	9	9	-	-	-	-	-	-	-	-	-	-		
			TPP	68	56	12	12	3	9	9	-	-	-	-	-	-	-	-	-	-		
100/12-36-009-08W4/0	W-100.0	SUNB	TP	75	66	8	8	4	27	27	-	-	-	-	-	-	-	-	-	-		
			TPP	77	66	10	10	4	27	27	-	-	-	-	-	-	-	-	-	-		
102/12-36-009-08W4/0	W-100.0	SUNB	TP	16	13	3	3	3	7	7	-	-	-	-	-	-	-	-	-	-		
			TPP	17	13	4	4	3	7	7	-	-	-	-	-	-	-	-	-	-		
<b>Subtotal PDP Wells</b>			<b>TP</b>	<b>490</b>	<b>385</b>	<b>105</b>	<b>105</b>	<b>44</b>	<b>280</b>	<b>280</b>	-	-	-	-	-	-	-	-	-	-		
			<b>TPP</b>	<b>507</b>	<b>385</b>	<b>122</b>	<b>122</b>	<b>45</b>	<b>280</b>	<b>280</b>	-	-	-	-	-	-	-	-	-	-		
<b>Subtotal Murray Lake</b>			<b>TP</b>	<b>490</b>	<b>385</b>	<b>105</b>	<b>105</b>	<b>44</b>	<b>280</b>	<b>280</b>	-	-	-	-	-	-	-	-	-	-		
			<b>TPP</b>	<b>507</b>	<b>385</b>	<b>122</b>	<b>122</b>	<b>45</b>	<b>280</b>	<b>280</b>	-	-	-	-	-	-	-	-	-	-		
<b>Total</b>			<b>TP</b>	<b>548</b>	<b>402</b>	<b>146</b>	<b>146</b>	<b>78</b>	<b>281</b>	<b>281</b>	-	-	-	-	-	-	-	-	-	-		
			<b>TPP</b>	<b>573</b>	<b>402</b>	<b>172</b>	<b>172</b>	<b>79</b>	<b>281</b>	<b>281</b>	-	-	-	-	-	-	-	-	-	-		

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Interest

### List of Interests and Burdens Forecast Prices and Costs as of April 1, 2019 Total Company

Zone	Interest Product	Ownership	Burdens	Crown Incentives/ Freehold Mineral Tax	Tract Factor	Pooling Factor	Payout
<b>Canada</b>							
<b>Alberta</b>							
<b>Bow Island</b>							
103/15-03-010-10W4/0	SAW	WI	100.000%	AB Crown		1.000	1.000
100/06-10-010-10W4/0	SAW	WI	80.000%	AB Crown		1.000	1.000
100/11-10-010-10W4/0	SAW	WI	80.000%	AB Crown		1.000	1.000
<b>Hays</b>							
100/10-07-012-14W4/3	SAW	WI	100.000%	AB Crown		1.000	1.000
100/09-30-012-14W4/3	SAW	WI	100.000%	AB Crown		1.000	1.000
102/09-30-012-14W4/2	SAW	WI	100.000%	AB Crown		1.000	1.000
<b>Murray Lake</b>							
<b>PDP Wells</b>							
100/01-30-009-07W4/2	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
102/02-30-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
100/07-30-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
100/12-31-009-07W4/0	SUNB	WI	100.000%	AB Crown		1.000	1.000
102/12-31-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
102/14-31-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
103/14-31-009-07W4/2	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
102/08-35-009-08W4/3	SUNB	WI	100.000%	AB Crown			
Lease 1		WI	100.000%	AB Crown	New Well Royalty Rate	0.780	1.000
Lease 2		WI	100.000%	Freehold	Proportionate Share	0.220	1.000
100/05-36-009-08W4/0	SUNB	WI	100.000%	AB Crown		1.000	1.000
102/08-36-009-08W4/0	L MN A	WI	100.000%	AB Crown		1.000	1.000
100/12-36-009-08W4/0	SUNB	WI	100.000%	AB Crown		1.000	1.000
102/12-36-009-08W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000

# Avalon Energy Ltd.

## Table of Contents Forecast Prices and Costs as of April 1, 2019

### Bow Island Area

#### Summation Tables

*For each Reserve Category with value as indicated on the Table A:*

Reserves and Net Present Value by Property

Table 2

#### Figures

Area Map

Figure 1

#### Entity Input Parameters and Results

List of Interests and Burdens

#### Detailed Property Evaluation Index

Individual Property Revenue and Production Forecasts

*"The analysis of this property as reported herein was conducted within the context of an evaluation of a distinct group of properties in aggregate. Extraction and use of this analysis outside of this context may not be appropriate without supplementary due diligence."*

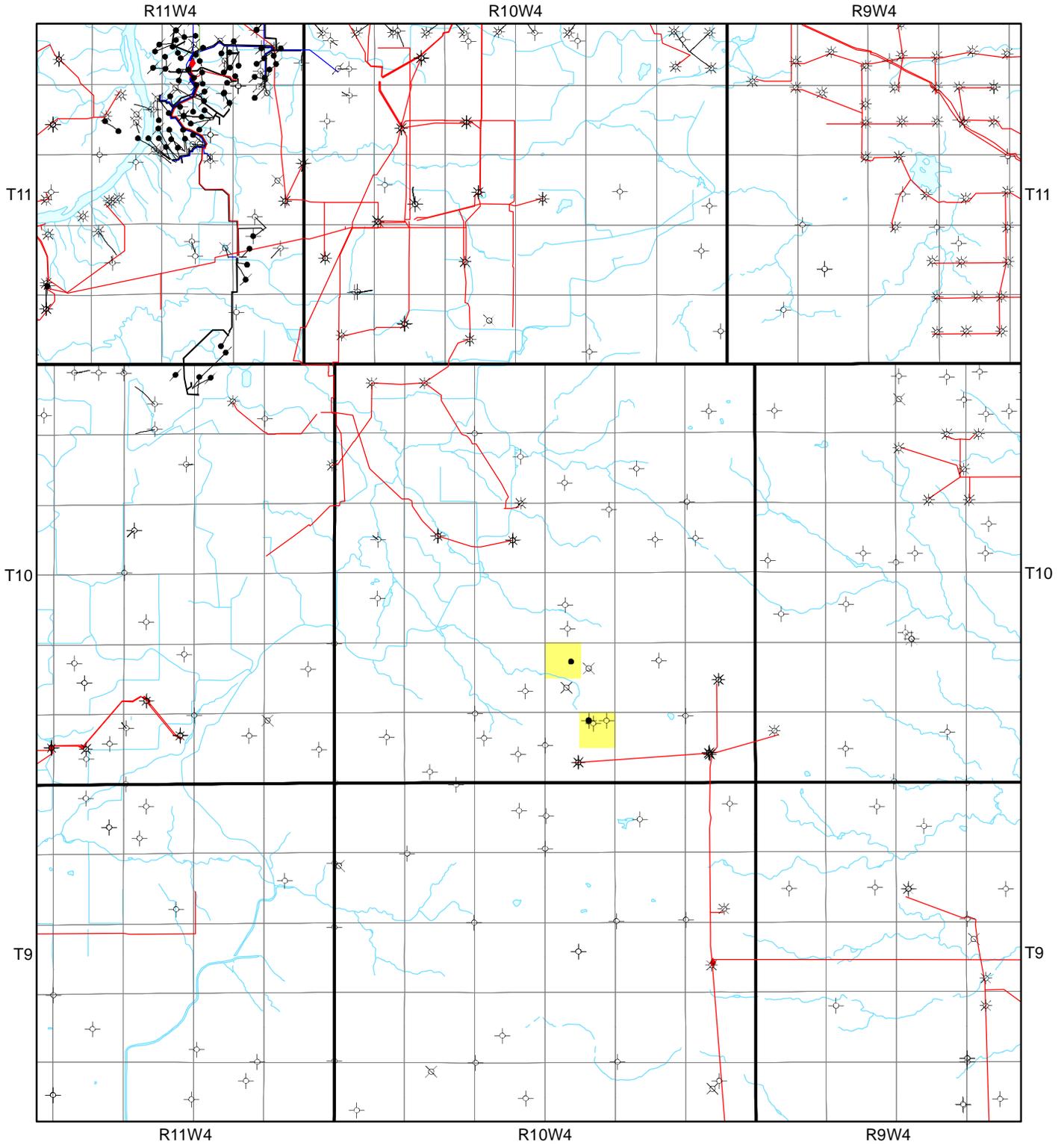
# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Bow Island

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Bow Island</b>											
103/15-03-010-10W4/0	W-100.000	SAW	NRA	-	-	-	-	-	-	-	-
100/06-10-010-10W4/0	W-80.000	SAW	NRA	-	-	-	-	-	-	-	-
100/11-10-010-10W4/0	W-80.000	SAW	NRA	-	-	-	-	-	-	-	-
<b>Subtotal Bow Island</b>				-	-	-	-	-	-	-	-
<b>Subtotal Alberta</b>				-	-	-	-	-	-	-	-
<b>Total</b>				-	-	-	-	-	-	-	-

Figure 1



**Legend**

• Oil	— Oil Gas
✦ Abandoned Oil	— Water
✧ Suspended Oil	— Other, Eff
✧ Oil & Gas	◆ Gas Plant
✧ Gas	
✧ Abandoned Gas	
✧ Suspended Gas	
✧ Dry & Abandoned	
✧ Service	
○ Location	
○ Injection	
○ Suspended Other	

1:130,000

Company Land

Avalon Energy Ltd.

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Bow Island

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**McDaniel**  
 & Associates Consultants Ltd.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Interest

### List of Interests and Burdens Forecast Prices and Costs as of April 1, 2019 Bow Island

	Zone	Interest Product	Ownership	Burdens	Crown Incentives/ Freehold Mineral Tax	Tract Factor	Pooling Factor	Payout
<b>Canada</b>								
<b>Alberta</b>								
<b>Bow Island</b>								
	103/15-03-010-10W4/0	SAW	WI	100.000%	AB Crown	1.000	1.000	
	100/06-10-010-10W4/0	SAW	WI	80.000%	AB Crown	1.000	1.000	
	100/11-10-010-10W4/0	SAW	WI	80.000%	AB Crown	1.000	1.000	

# Avalon Energy Ltd.

Detailed Property Evaluation Index  
Forecast Prices and Costs as of April 1, 2019  
Total Reserves

## Bow Island

### Canada

#### Alberta

#### Bow Island

103/15-03-010-10W4/0

100/06-10-010-10W4/0

100/11-10-010-10W4/0

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**Bow Island**  
**103/15-03-010-10W4/0**

**NRA**

Year	WI Well Count	Company Share										Total Royalties M\$ %	Operating Costs		Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Product	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue		M\$	\$/BOE						Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%	M\$	\$/BOE	M\$	M\$	M\$							
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Net Present Value Before Tax - M\$**

@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
0.0	0.0	0.0	0.0

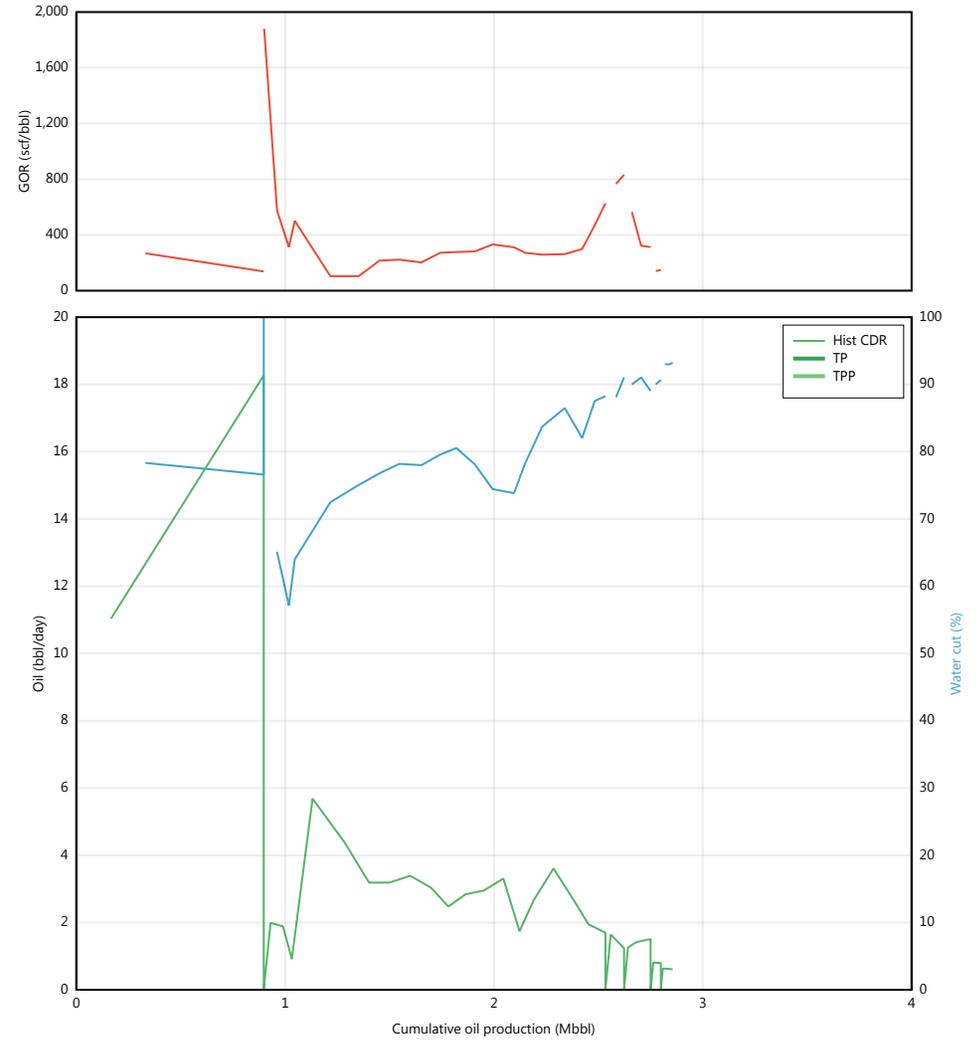
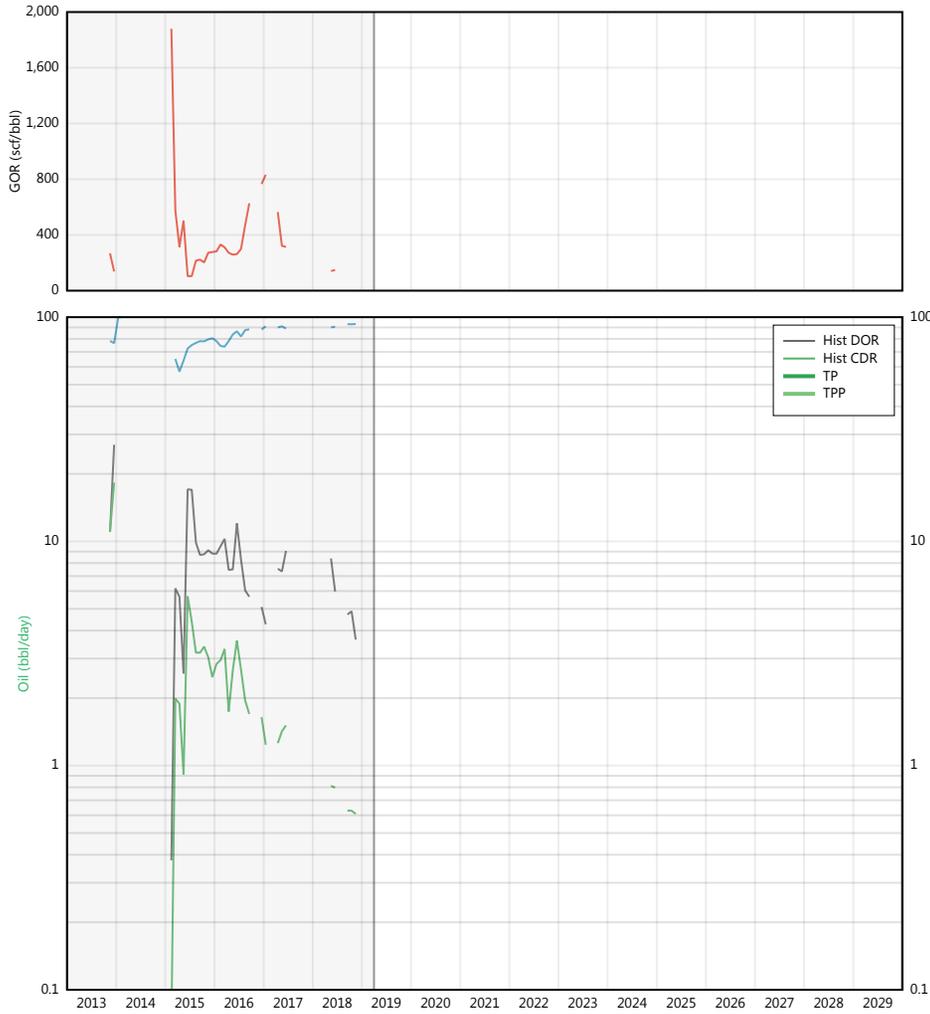
Econ. RLI -  
Rem. Life -

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates

#### Bow Island - 103/15-03-010-10W4/0



#### General Information

Well Name AVALON 103 BI 15-3-10-10  
 Pool Name Sawtooth Nn  
 Zone SAW  
 On Prod. Nov 2013  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Light and Medium Oil  
 Gas Type Solution Gas  
 # Wells 1  
 Avg. WI/RI - / -

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbbl
Recovery Factor	-	- %
Recoverable Oil	3	3 Mbbl
Cum. Production at 2018/11/30	3	3 Mbbl
Gross Lease Reserves	-	- Mbbl
Company Share Reserves	-	- Mbbl

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**Bow Island**  
**100/06-10-010-10W4/0**

**NRA**

Year	WI Well Count	Company Share										Total Royalties M\$ %	Operating Costs		Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Product	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue		M\$	\$/BOE						Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%	M\$	\$/BOE	M\$	M\$	M\$							
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

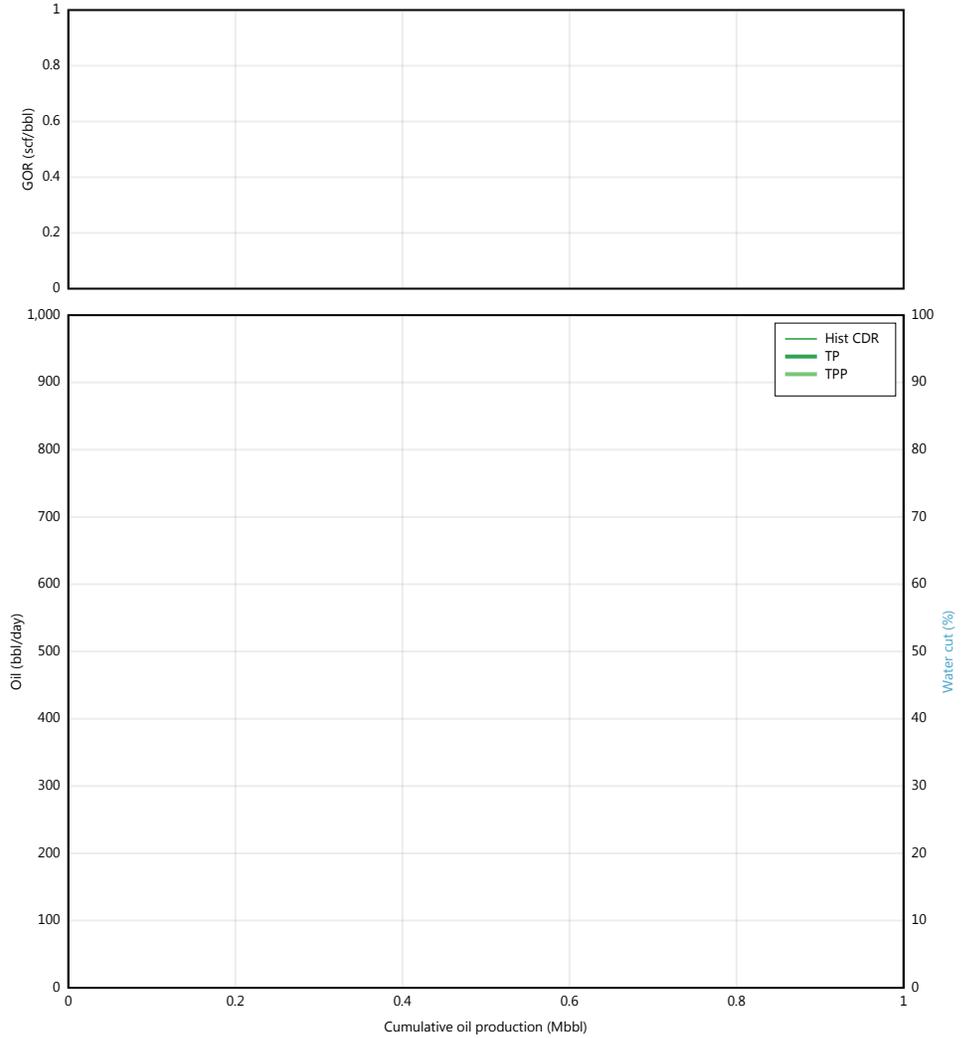
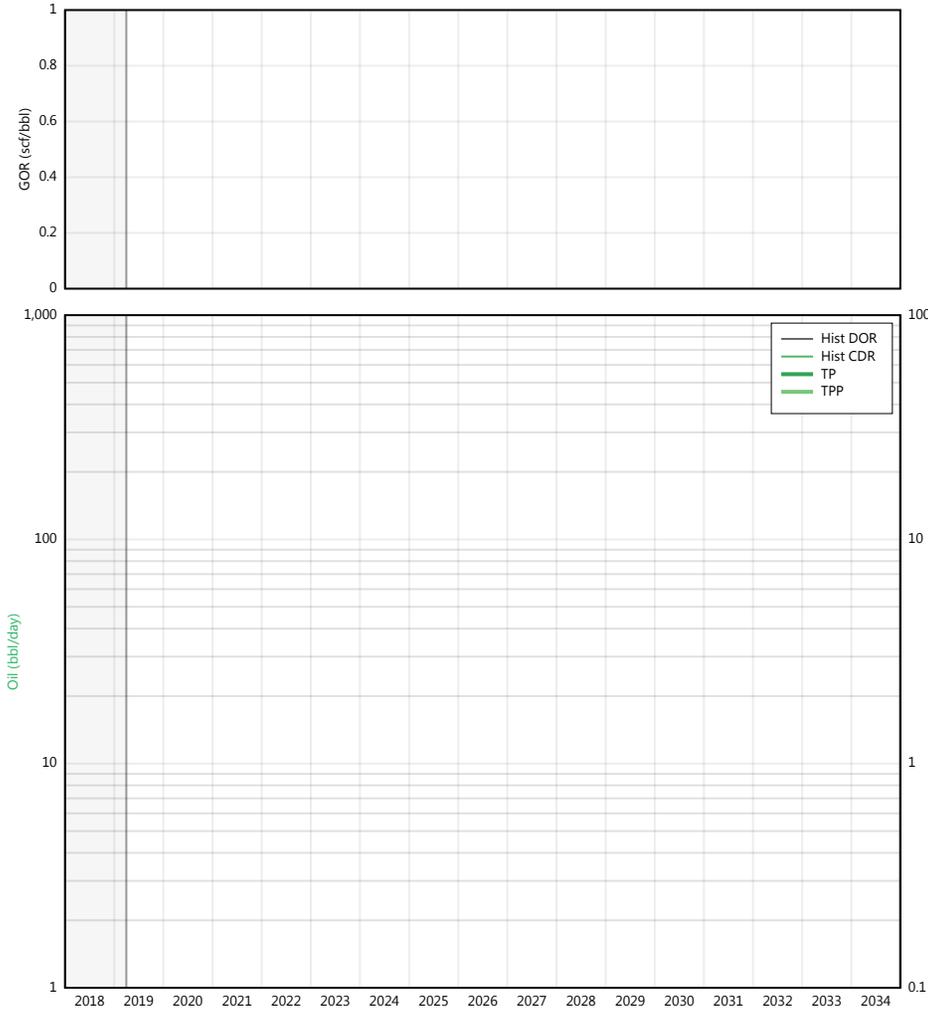
Net Present Value Before Tax - M\$			
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
0.0	0.0	0.0	0.0
	Econ. RLI	-	
	Rem. Life	-	

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates

#### Bow Island - 100/06-10-010-10W4/0



**General Information**

Well Name AVALON ET AL BI 6-10-10-10  
 Pool Name  
 Zone SAW  
 On Prod.  
 Prod. Status Drilled & Cased  
 Based on Performance Analysis  
 Oil Type Light and Medium Oil  
 Gas Type Solution Gas  
 # Wells 1  
 Avg. WI/RI - / -

**Reserves as of April 1, 2019**

Oil	TP	TPP
Discovered OOIP	-	- Mbbbl
Recovery Factor	-	- %
Recoverable Oil	-	- Mbbbl
Cum. Production	-	- Mbbbl
Gross Lease Reserves	-	- Mbbbl
Company Share Reserves	-	- Mbbbl

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**Bow Island**  
**100/11-10-010-10W4/0**

**NRA**

Year	WI Well Count	Company Share										Total Royalties M\$ %	Operating Costs		Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Product	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue		M\$	\$/BOE						Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%	M\$	\$/BOE	M\$	M\$	M\$							
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Net Present Value Before Tax - M\$**

@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
0.0	0.0	0.0	0.0

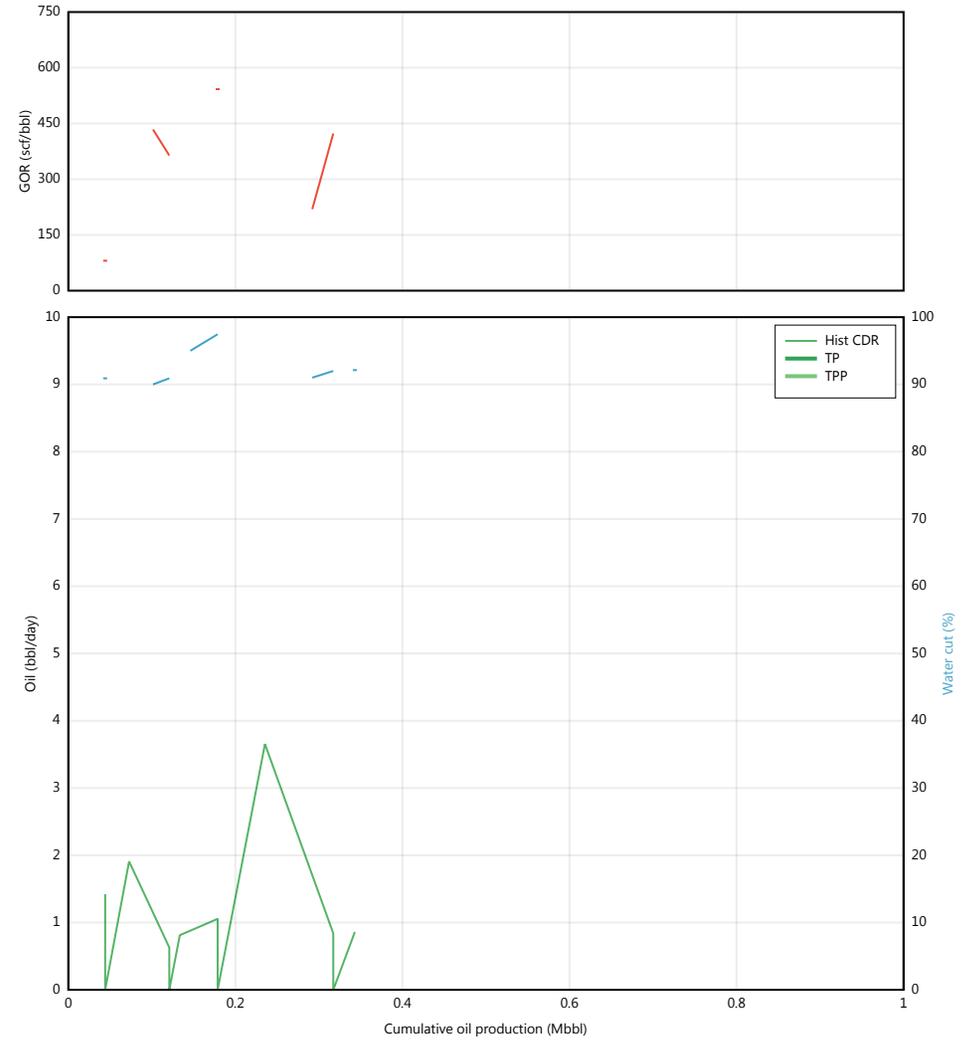
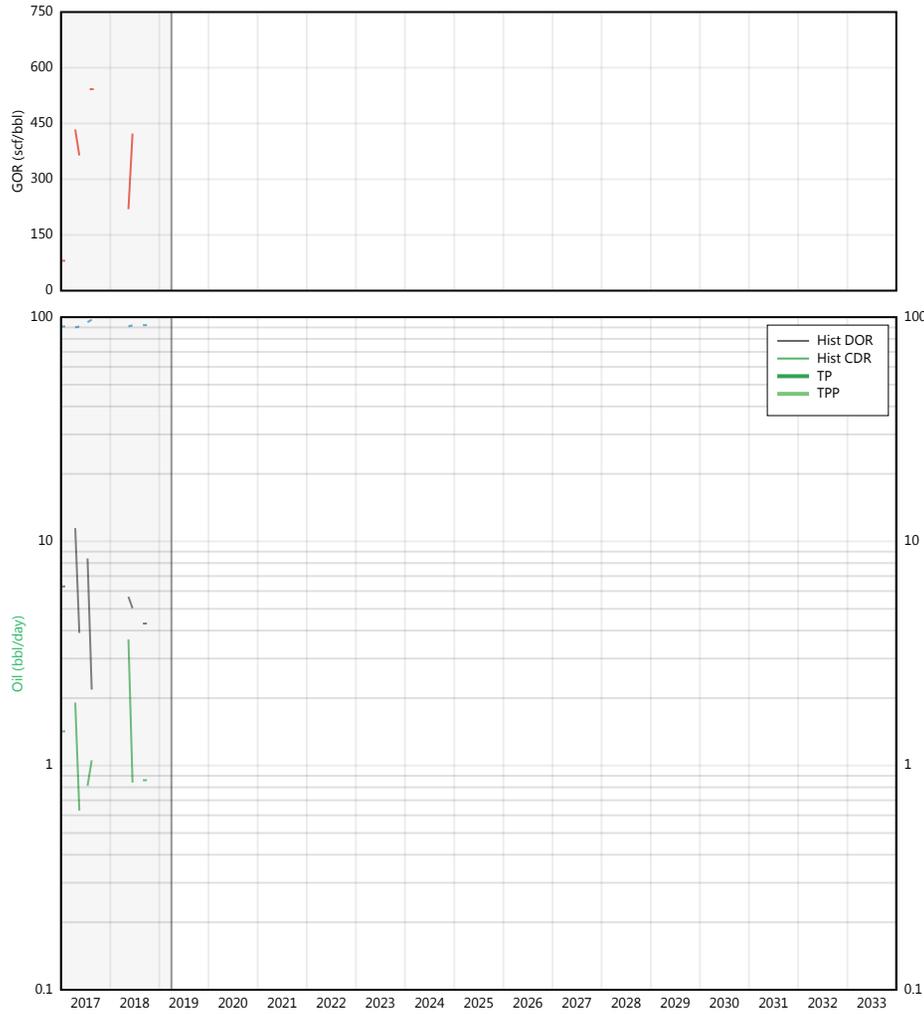
Econ. RLI -  
Rem. Life -

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates

#### Bow Island - 100/11-10-010-10W4/0



#### General Information

Well Name AVALON BI 11-10-10-10  
 Pool Name Saw Und  
 Zone SAW  
 On Prod. Jan 2017  
 Prod. Status Flowing Oil  
 Based on Performance Analysis  
 Oil Type Light and Medium Oil  
 Gas Type Solution Gas  
 # Wells 1  
 Avg. WI/RI - / -

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbb
Recovery Factor	-	- %
Recoverable Oil	0	0 Mbb
Cum. Production at 2018/09/30	0	0 Mbb
Gross Lease Reserves	-	- Mbb
Company Share Reserves	-	- Mbb

# Avalon Energy Ltd.

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### Hays Area

#### Property Discussion

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Entity Costs
Product Pricing and NGL Recoveries
Summary of Reserve Estimates
List of Interests and Burdens

#### Detailed Property Evaluation Index

Individual Property Revenue and Production Forecasts
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*"The analysis of this property as reported herein was conducted within the context of an evaluation of a distinct group of properties in aggregate. Extraction and use of this analysis outside of this context may not be appropriate without supplementary due diligence."*

# Avalon Energy Ltd.

## Property Discussion Forecast Prices and Costs as of April 1, 2019

### Hays Area

#### Introduction

The petroleum reserve estimates and their associated net present values were prepared for the Company's interests in the Hays Area in Alberta. The reserves were estimated at April 1, 2019 and the revenue forecasts and net present value estimates were calculated using the McDaniel & Associates April 1, 2019 price forecast and were presented in Canadian dollars.

The reserves estimates and future net revenue forecasts have been prepared in accordance with standards set out in the Canadian National Instrument NI 51-101 and the Canadian Oil and Gas Evaluation Handbook (COGEH) disclosure standards.

An overview of the property and a discussion of the methodology employed in arriving at the reserves and net present value estimates are presented in this section.

#### Property Overview

The Hays Area is located approximately 90 kilometres east of the City of Lethbridge, Alberta just north of the Canada/US border. The Company owns a 100 percent working interest in two producing oil wells in the field, which produce from the Sawtooth Formation.

Well counts in the area are summarized in the Summation Tables section by reserve category. Economic input parameters for the entities in the area are presented in the Entity Input Parameters and Results section. These tables outline the respective abandonment and reclamation costs, operating costs, capital costs, pricing reference streams and adjustments, gas heating values, gas shrinkage and natural gas liquid recoveries by date.

#### Geology

In the Hays Field, medium gravity oil is produced from the Middle Jurassic Sawtooth Formation of the Ellis Group. In the study area, the Sawtooth is characterized by quartzose, coarsening-upward shoreface sandstones, typically containing oil over water. The Sawtooth Formation unconformably overlies Mississippian strata here and is conformably overlain by shales of the Rierdon Formation. Pre-Jurassic erosion of the unconformity with Mississippian carbonates strongly influences the distribution and thickness of the Sawtooth Formation.

#### Reserves Classification

The petroleum reserves estimates presented in this report have been based on the Canadian reserves definitions and guidelines prepared by the Standing Committee on Reserves Definitions of the CIM (Petroleum Society) as presented in the COGEH Handbook. A summary of those definitions is presented below.

#### Reserves 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 shall be 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 + 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 + probable + possible reserves.

Other criteria that must also be met for the categorization of reserves are provided in the COGEH Handbook.

#### Development and Production Status

Each of the reserves categories (proved, probable + 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.

In multi-well pools, it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to subdivide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities and completion intervals in the pool and their respective development and production status.

#### Levels of Certainty for Reported Reserves

The qualitative certainty levels referred to in the definitions above are applicable to individual reserves entities (which refers to the lowest level at which reserves calculations are performed) and to reported reserves (which refers to the highest-level sum of individual entity estimates for which reserves estimates are presented). Reported reserves should target the following levels of certainty under a specific set of economic conditions:

- at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimated proved reserves;
- at least a 50 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable reserves; and
- at least a 10 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable + possible reserves.

Additional clarification of certainty levels associated with reserves estimates and the effect of aggregation is provided in the COGEH Handbook.

### **Revenue Forecasts**

The net present values of the petroleum reserves assigned to the area were based on future production and revenue analyses. The future revenue was derived by employing the production forecasts for each entity and using the McDaniel & Associates April 1, 2019 price forecast.

Operating costs were based on historical costs derived from lease operating statements and are summarized in the Entity Input Parameters and Results section. An allowance was made for well abandonment and reclamation costs estimated to be \$30,000/well.

A summary of the reserves and net present value estimates were presented in Table A and detailed revenue forecasts for the various reserves categories in Table 1. Reserves and net present value estimates are also summarized by entity in Table 2.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Table A

### Total Company Reserves and Net Present Value Forecast Prices and Costs as of April 1, 2019 Hays

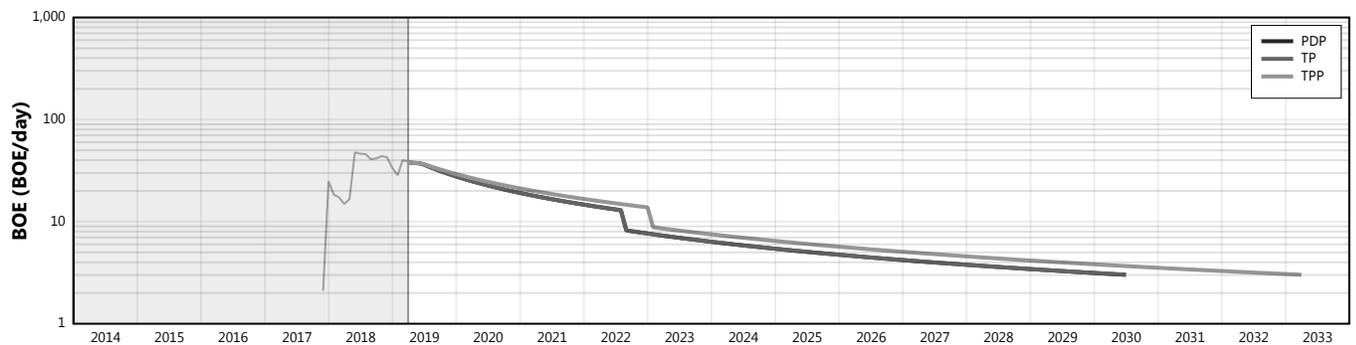
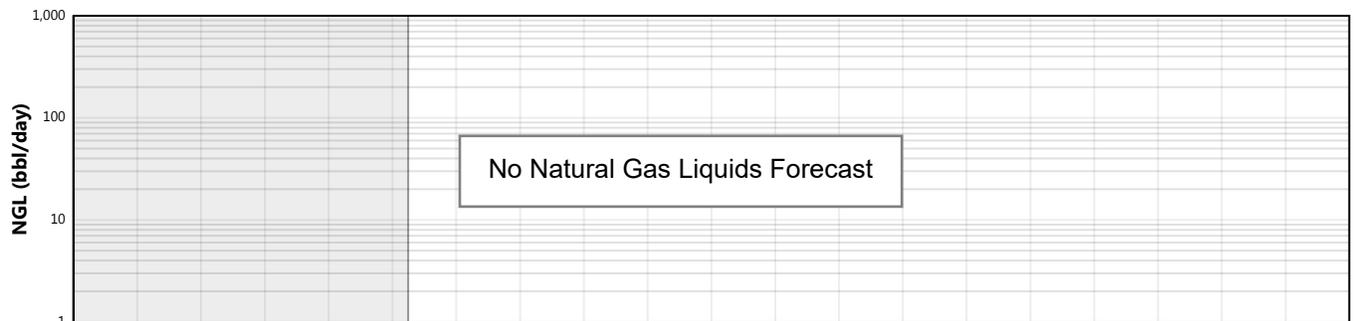
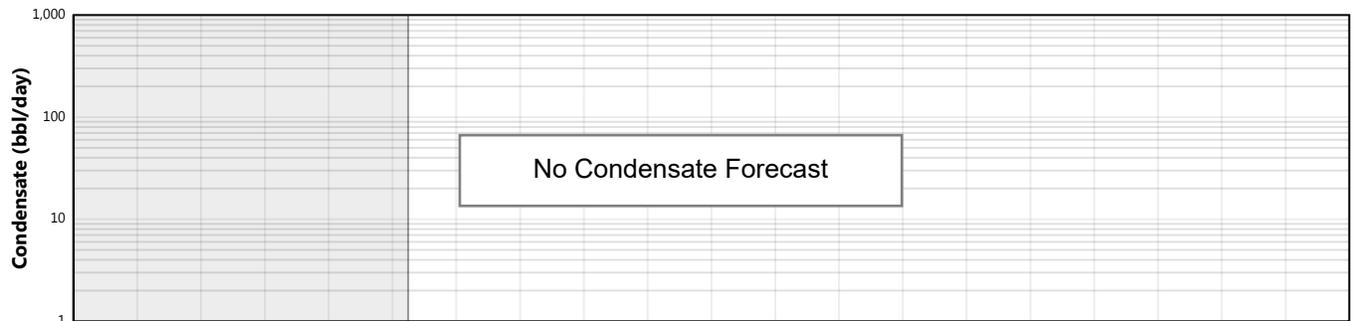
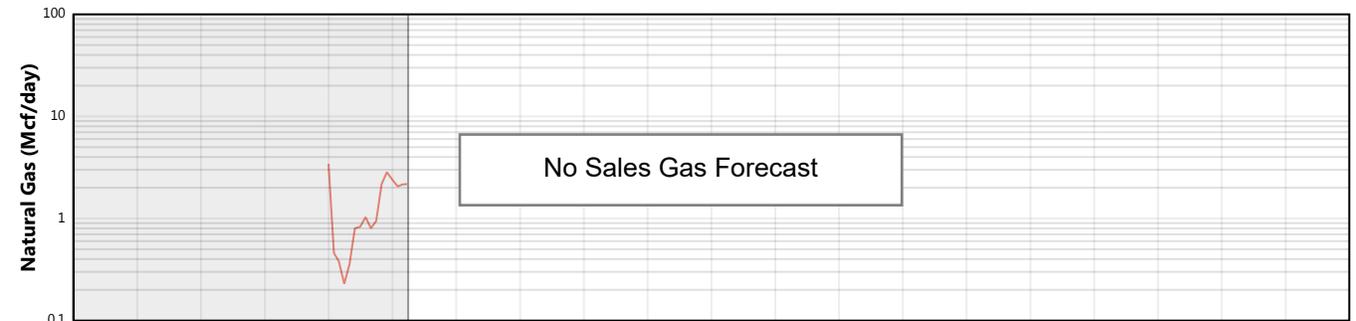
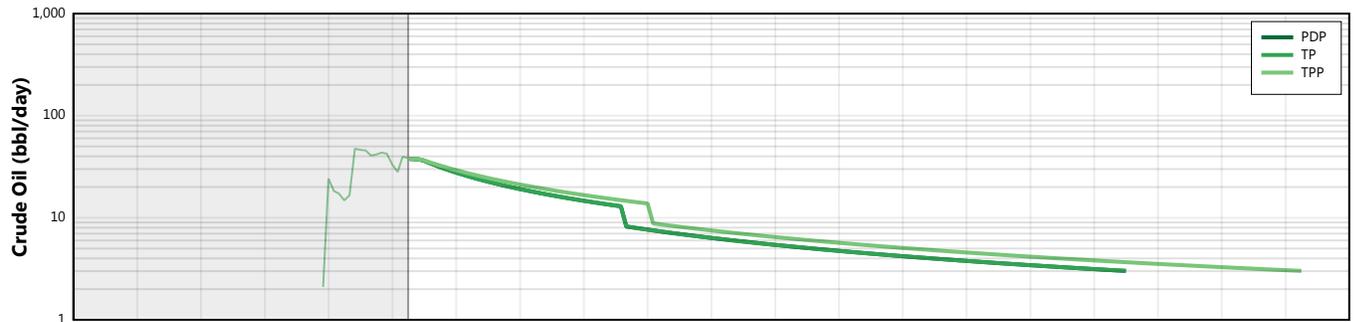
	PDP	PNP	PUD	TP	PADP	PANP	PAUD	TPA	PPDP	PPNP	PPUD	TPP
<b>Crude Oil (Mbbbl)</b>												
Working Interest Volume	41.2	-	-	41.2	8.9	-	-	8.9	50.1	-	-	50.1
Royalty Interest Volume	-	-	-	-	-	-	-	-	-	-	-	-
Net Volume	37.6	-	-	37.6	7.9	-	-	7.9	45.6	-	-	45.6
<b>Total (MBOE) (1)</b>												
Working Interest Volume	41.2	-	-	41.2	8.9	-	-	8.9	50.1	-	-	50.1
Royalty Interest Volume	-	-	-	-	-	-	-	-	-	-	-	-
Net Volume	37.6	-	-	37.6	7.9	-	-	7.9	45.6	-	-	45.6
<b>Net Present Value Before Tax (M\$)</b>												
0.0%	1,277.2	-	-	1,277.2	331.0	-	-	331.0	1,608.1	-	-	1,608.1
5.0%	1,138.5	-	-	1,138.5	245.4	-	-	245.4	1,383.9	-	-	1,383.9
10.0%	1,026.4	-	-	1,026.4	189.1	-	-	189.1	1,215.5	-	-	1,215.5
15.0%	935.8	-	-	935.8	151.1	-	-	151.1	1,087.0	-	-	1,087.0
20.0%	862.1	-	-	862.1	124.6	-	-	124.6	986.6	-	-	986.6
<b>\$/BOE Before Tax (2)</b>												
0.0%	31.01	-	-	31.01	37.23	-	-	37.23	32.11	-	-	32.11
5.0%	27.64	-	-	27.64	27.60	-	-	27.60	27.63	-	-	27.63
10.0%	24.92	-	-	24.92	21.28	-	-	21.28	24.27	-	-	24.27
15.0%	22.72	-	-	22.72	17.00	-	-	17.00	21.70	-	-	21.70
20.0%	20.93	-	-	20.93	14.01	-	-	14.01	19.70	-	-	19.70

- (1) Barrels of Oil Equivalent based on 6:1 for Natural Gas, 1:1 for Condensate and C5+, 1:1 for Ethane, 1:1 for Propane, 1:1 for Butanes. 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.
- (2) NPV/BOE based on Company Share BOE reserves.

# Avalon Energy Ltd.

## Company Share Sales Volumes Forecast Prices and Costs as of April 1, 2019 Total Reserves

**Hays**



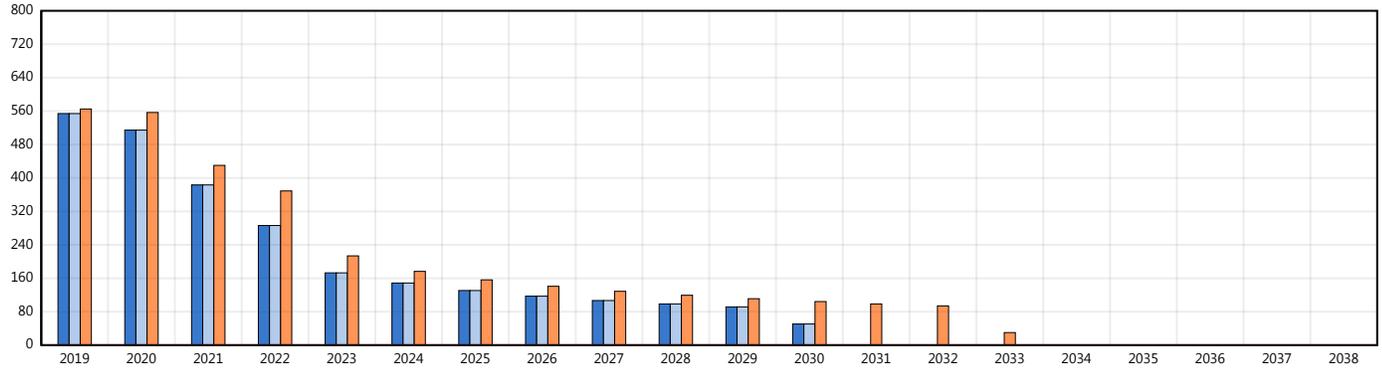
Historical production data is estimated based on the company share interest as of the reference date.

# Avalon Energy Ltd.

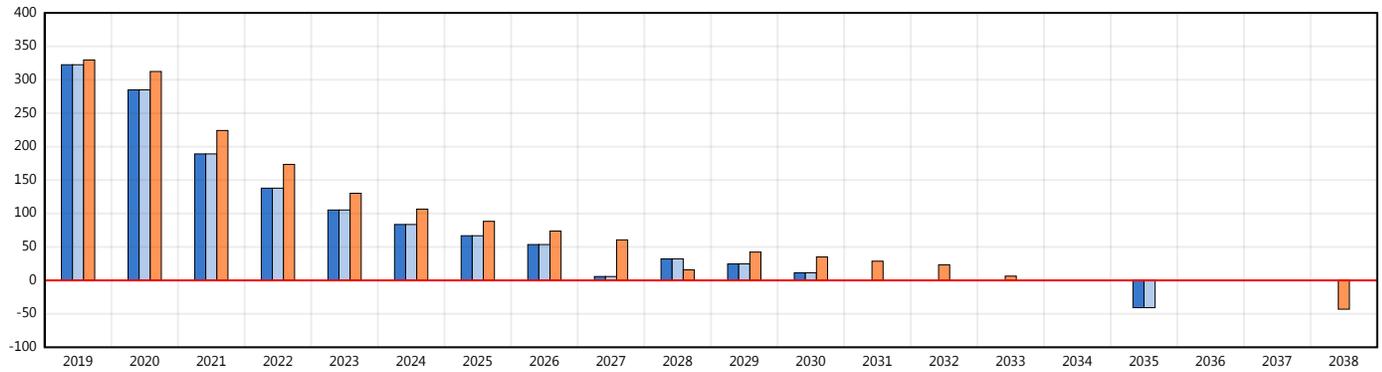
## Cash Flow Summary Forecast Prices and Costs as of April 1, 2019 Total Reserves

### Hays

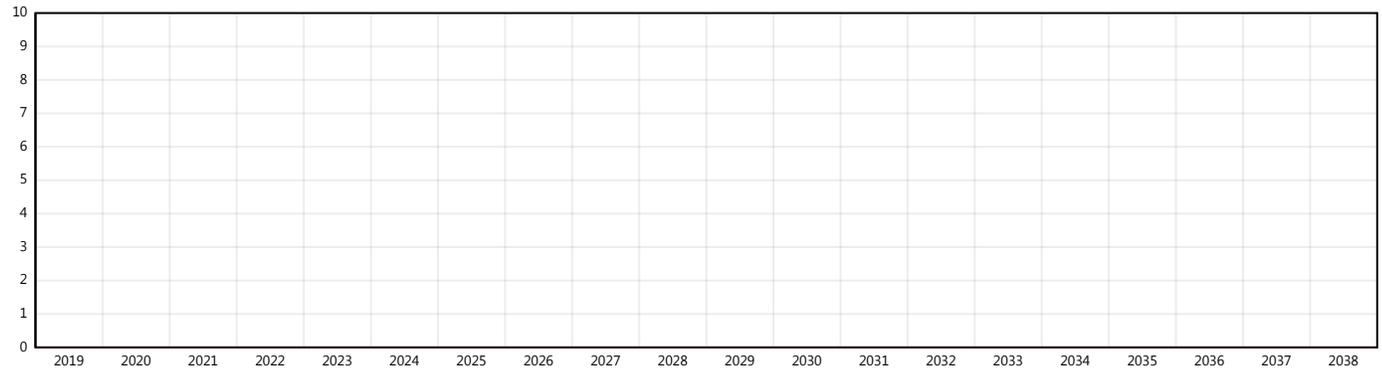
#### Company Share Revenue (M\$)



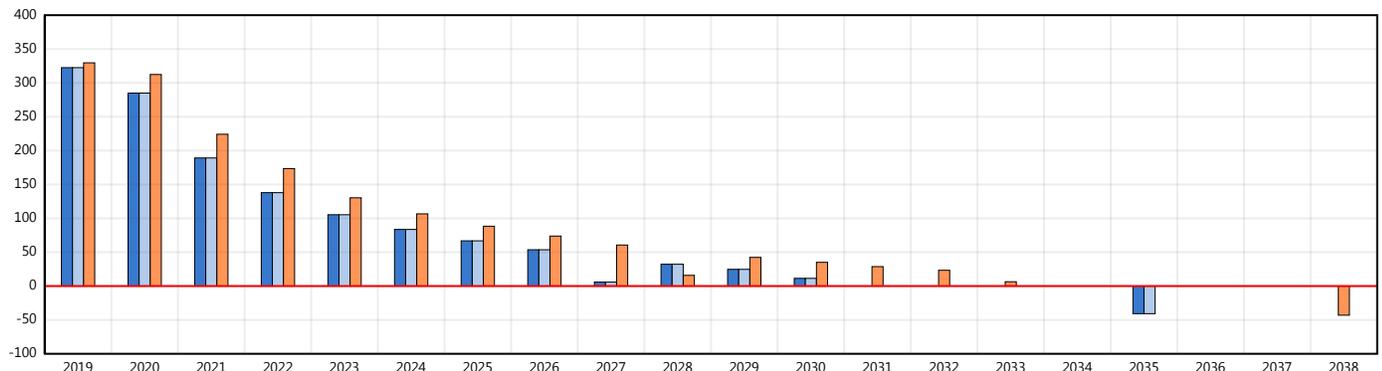
#### Net Operating Income (M\$)



#### Total Capital (M\$)



#### Future Net Revenue Before Tax (M\$)



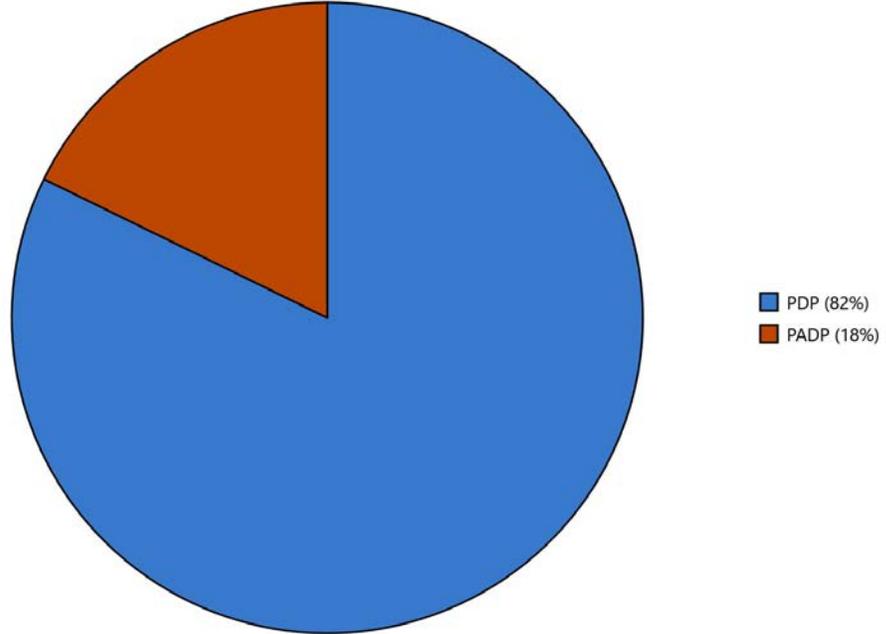
■ PDP    ■ TP    ■ TPP

# Avalon Energy Ltd.

## Reserves Distribution by Reserves Class and Product Forecast Prices and Costs as of April 1, 2019 Total Reserves

Hays

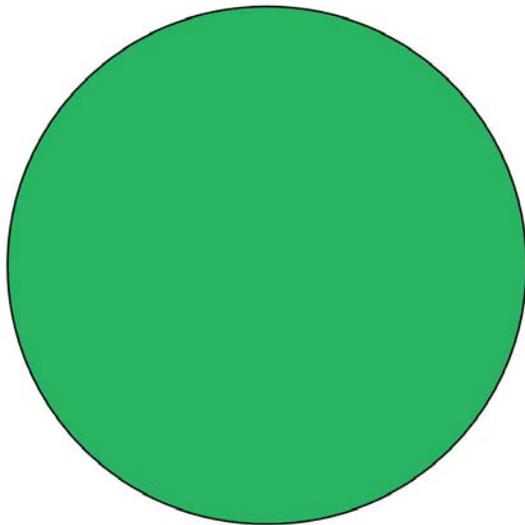
### Reserves Distribution by Reserves Class



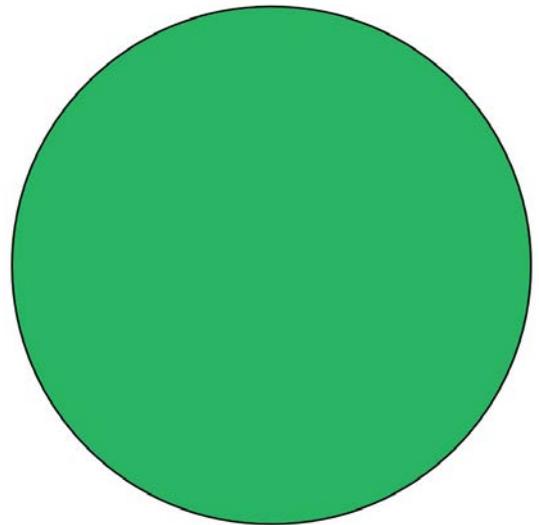
### Reserves Distribution by Product

Total Proved Reserves

Total Proved + Probable Reserves



Oil (100%)



Oil (100%)

(1) Distribution percentages may not add up to 100% due to rounding.

# Avalon Energy Ltd.

## Well Events Assigned Reserves Forecast Prices and Costs as of April 1, 2019 Total Reserves

### Hays

<b>Proved</b>	<b>Gross</b>	<b>Avg WI %</b>
Developed Producing	2.0	100.00
<b>Total Proved</b>	<b>2.0</b>	<b>100.00</b>

<b>Proved + Probable</b>	<b>Gross</b>	<b>Avg WI %</b>
Developed Producing	2.0	100.00
<b>Total Proved + Probable</b>	<b>2.0</b>	<b>100.00</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Hays

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	2.0	9.4	59.20	554.1	-	-	-	-	-	-	-	-	-	-	554.1	34
2020	2.0	8.5	60.58	514.5	-	-	-	-	-	-	-	-	-	-	514.5	23
2021	2.0	6.2	62.24	383.3	-	-	-	-	-	-	-	-	-	-	383.3	17
2022	1.7	4.3	66.20	286.3	-	-	-	-	-	-	-	-	-	-	286.3	12
2023	1.0	2.6	67.56	173.0	-	-	-	-	-	-	-	-	-	-	173.0	7
2024	1.0	2.2	68.82	148.7	-	-	-	-	-	-	-	-	-	-	148.7	6
2025	1.0	1.9	70.27	130.7	-	-	-	-	-	-	-	-	-	-	130.7	5
2026	1.0	1.6	71.63	117.2	-	-	-	-	-	-	-	-	-	-	117.2	4
2027	1.0	1.5	73.08	106.8	-	-	-	-	-	-	-	-	-	-	106.8	4
2028	1.0	1.3	74.54	98.6	-	-	-	-	-	-	-	-	-	-	98.6	4
2029	1.0	1.2	76.09	91.5	-	-	-	-	-	-	-	-	-	-	91.5	3
2030	0.6	0.7	77.55	50.6	-	-	-	-	-	-	-	-	-	-	50.6	2
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	<b>41.2</b>	<b>64.46</b>	<b>2655.2</b>	-	-	-	-	-	-	-	-	-	-	<b>2655.2</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	91.9	-	91.9	-	-	-	-	-	-	-	-	91.9	16.6	-
2020	53.7	-	53.7	-	-	-	-	-	-	-	-	53.7	10.4	-
2021	22.0	-	22.0	-	-	-	-	-	-	-	-	22.0	5.7	-
2022	14.0	-	14.0	-	-	-	-	-	-	-	-	14.0	4.9	-
2023	8.0	-	8.0	-	-	-	-	-	-	-	-	8.0	4.7	-
2024	5.5	-	5.5	-	-	-	-	-	-	-	-	5.5	3.7	-
2025	4.2	-	4.2	-	-	-	-	-	-	-	-	4.2	3.2	-
2026	3.4	-	3.4	-	-	-	-	-	-	-	-	3.4	2.9	-
2027	5.3	-	5.3	-	-	-	-	-	-	-	-	5.3	5.0	-
2028	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
2029	4.6	-	4.6	-	-	-	-	-	-	-	-	4.6	5.0	-
2030	2.5	-	2.5	-	-	-	-	-	-	-	-	2.5	5.0	-
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>220.2</b>	-	<b>220.2</b>	-	-	-	-	-	-	-	-	<b>220.2</b>	<b>8.3</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	139.7	14.92	-	322.5	-	-	-	322.5	322.5	311.9
2020	175.9	20.71	-	285.0	-	-	-	285.0	607.5	253.9
2021	172.2	27.96	-	189.1	-	-	-	189.1	796.6	153.2
2022	134.3	31.06	-	137.9	-	-	-	137.9	934.5	101.5
2023	59.6	23.29	-	105.3	-	-	-	105.3	1039.8	70.4
2024	59.5	27.55	-	83.6	-	-	-	83.6	1123.4	50.8
2025	59.7	32.10	-	66.8	-	-	-	66.8	1190.2	36.9
2026	60.1	36.75	-	53.6	-	-	-	53.6	1243.8	26.9
2027	60.7	41.57	34.9	5.8	-	-	-	5.8	1249.7	2.9
2028	61.4	46.45	-	32.2	-	-	-	32.2	1281.9	13.4
2029	62.2	51.76	-	24.7	-	-	-	24.7	1306.6	9.3
2030	36.7	56.23	-	11.4	-	-	-	11.4	1318.0	4.0
2031	-	-	-	-	-	-	-	-	1318.0	-
2032	-	-	-	-	-	-	-	-	1318.0	-
2033	-	-	-	-	-	-	-	-	1318.0	-
Rem.	-	-	40.8	-40.8	-	-	-	-40.8	1277.2	-8.6
<b>Total</b>	<b>1082.1</b>	-	<b>75.6</b>	<b>1277.2</b>	-	-	-	<b>1277.2</b>	-	<b>1026.4</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbl)	41.2	41.2	-	37.6
<b>Total (MBOE)</b>	<b>41.2</b>	<b>41.2</b>	<b>-</b>	<b>37.6</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>1,277.2</b>	<b>1,138.5</b>	<b>1,026.4</b>	<b>935.8</b>	<b>862.1</b>

RLI 3.02 yrs  
 Remaining Life 11.33 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Hays

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PDP	33.0	-	-	-	1194.6	1049.4	934.4	843.2
100/09-30-012-14W4/3	W-100.000	SAW	PDP	8.2	-	-	-	82.6	89.1	91.9	92.6
102/09-30-012-14W4/2	W-100.000	SAW	NRA	-	-	-	-	-	-	-	-
<b>Subtotal Hays</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Subtotal Alberta</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Total</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Hays

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	2.0	9.5	59.20	565.1	-	-	-	-	-	-	-	-	-	565.1	35	
2020	2.0	9.2	60.58	556.7	-	-	-	-	-	-	-	-	-	556.7	25	
2021	2.0	6.9	62.24	430.1	-	-	-	-	-	-	-	-	-	430.1	19	
2022	2.0	5.6	66.20	369.0	-	-	-	-	-	-	-	-	-	369.0	15	
2023	2.0	3.2	67.56	213.6	-	-	-	-	-	-	-	-	-	213.6	9	
2024	1.0	2.6	68.82	176.5	-	-	-	-	-	-	-	-	-	176.5	7	
2025	1.0	2.2	70.27	156.2	-	-	-	-	-	-	-	-	-	156.2	6	
2026	1.0	2.0	71.63	140.9	-	-	-	-	-	-	-	-	-	140.9	5	
2027	1.0	1.8	73.08	128.8	-	-	-	-	-	-	-	-	-	128.8	5	
2028	1.0	1.6	74.54	119.4	-	-	-	-	-	-	-	-	-	119.4	4	
2029	1.0	1.5	76.09	111.1	-	-	-	-	-	-	-	-	-	111.1	4	
2030	1.0	1.3	77.54	104.3	-	-	-	-	-	-	-	-	-	104.3	4	
2031	1.0	1.2	79.09	98.6	-	-	-	-	-	-	-	-	-	98.6	3	
2032	1.0	1.2	80.64	93.9	-	-	-	-	-	-	-	-	-	93.9	3	
2033	1.0	0.4	82.41	30.1	-	-	-	-	-	-	-	-	-	30.1	1	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	<b>50.1</b>	<b>65.78</b>	<b>3294.2</b>	-	-	-	-	-	-	-	-	-	<b>3294.2</b>	-	

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	95.2	-	95.2	-	-	-	-	-	-	-	-	95.2	16.8	-
2020	66.3	-	66.3	-	-	-	-	-	-	-	-	66.3	11.9	-
2021	31.4	-	31.4	-	-	-	-	-	-	-	-	31.4	7.3	-
2022	21.7	-	21.7	-	-	-	-	-	-	-	-	21.7	5.9	-
2023	12.8	-	12.8	-	-	-	-	-	-	-	-	12.8	6.0	-
2024	9.0	-	9.0	-	-	-	-	-	-	-	-	9.0	5.1	-
2025	7.0	-	7.0	-	-	-	-	-	-	-	-	7.0	4.5	-
2026	5.7	-	5.7	-	-	-	-	-	-	-	-	5.7	4.1	-
2027	6.4	-	6.4	-	-	-	-	-	-	-	-	6.4	5.0	-
2028	6.0	-	6.0	-	-	-	-	-	-	-	-	6.0	5.0	-
2029	5.6	-	5.6	-	-	-	-	-	-	-	-	5.6	5.0	-
2030	5.2	-	5.2	-	-	-	-	-	-	-	-	5.2	5.0	-
2031	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
2032	4.7	-	4.7	-	-	-	-	-	-	-	-	4.7	5.0	-
2033	1.5	-	1.5	-	-	-	-	-	-	-	-	1.5	5.0	-
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>283.6</b>	-	<b>283.6</b>	-	-	-	-	-	-	-	-	<b>283.6</b>	<b>8.6</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	140.2	14.69	-	329.6	-	-	-	329.6	329.6	318.7
2020	178.0	19.37	-	312.4	-	-	-	312.4	642.1	278.2
2021	174.5	25.25	-	224.2	-	-	-	224.2	866.2	181.4
2022	173.8	31.18	-	173.5	-	-	-	173.5	1039.7	127.6
2023	70.5	22.29	-	130.3	-	-	-	130.3	1170.0	87.1
2024	60.8	23.72	-	106.6	-	-	-	106.6	1276.7	64.8
2025	60.9	27.40	-	88.3	-	-	-	88.3	1365.0	48.8
2026	61.3	31.15	-	73.8	-	-	-	73.8	1438.9	37.1
2027	61.8	35.04	-	60.6	-	-	-	60.6	1499.5	27.7
2028	62.4	38.98	35.1	15.8	-	-	-	15.8	1515.3	5.9
2029	63.2	43.26	-	42.4	-	-	-	42.4	1557.7	16.0
2030	64.0	47.59	-	35.1	-	-	-	35.1	1592.7	12.0
2031	64.9	52.08	-	28.7	-	-	-	28.7	1621.5	9.0
2032	65.9	56.59	-	23.3	-	-	-	23.3	1644.8	6.6
2033	22.2	60.71	-	6.4	-	-	-	6.4	1651.2	1.7
Rem.	-	-	43.1	-43.1	-	-	-	-43.1	1608.1	-7.0
<b>Total</b>	<b>1324.3</b>	-	<b>78.2</b>	<b>1608.1</b>	-	-	-	<b>1608.1</b>	-	<b>1215.5</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	50.1	50.1	-	45.6
<b>Total (MBOE)</b>	<b>50.1</b>	<b>50.1</b>	-	<b>45.6</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>1,608.1</b>	<b>1,383.9</b>	<b>1,215.5</b>	<b>1,087.0</b>	<b>986.6</b>

RLI 3.67 yrs  
 Remaining Life 14.08 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Hays

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PPDP	40.6	-	-	-	1493.8	1265.7	1097.0	970.0
100/09-30-012-14W4/3	W-100.000	SAW	PPDP	9.5	-	-	-	114.3	118.1	118.5	116.9
102/09-30-012-14W4/2	W-100.000	SAW	NRA	-	-	-	-	-	-	-	-
<b>Subtotal Hays</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Subtotal Alberta</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Total</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Probable Reserves

### Hays

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	-	0.2	59.20	11.0	-	-	-	-	-	-	-	-	-	-	11.0	1
2020	-	0.7	60.58	42.2	-	-	-	-	-	-	-	-	-	-	42.2	2
2021	-	0.8	62.24	46.8	-	-	-	-	-	-	-	-	-	-	46.8	2
2022	0.3	1.2	66.19	82.7	-	-	-	-	-	-	-	-	-	-	82.7	3
2023	1.0	0.6	67.56	40.6	-	-	-	-	-	-	-	-	-	-	40.6	2
2024	-	0.4	68.82	27.8	-	-	-	-	-	-	-	-	-	-	27.8	1
2025	-	0.4	70.27	25.6	-	-	-	-	-	-	-	-	-	-	25.6	1
2026	-	0.3	71.63	23.7	-	-	-	-	-	-	-	-	-	-	23.7	1
2027	-	0.3	73.08	22.1	-	-	-	-	-	-	-	-	-	-	22.1	1
2028	-	0.3	74.54	20.8	-	-	-	-	-	-	-	-	-	-	20.8	1
2029	-	0.3	76.09	19.6	-	-	-	-	-	-	-	-	-	-	19.6	1
2030	0.4	0.7	77.53	53.7	-	-	-	-	-	-	-	-	-	-	53.7	2
2031	1.0	1.2	79.09	98.6	-	-	-	-	-	-	-	-	-	-	98.6	3
2032	1.0	1.2	80.64	93.9	-	-	-	-	-	-	-	-	-	-	93.9	3
2033	1.0	0.4	82.41	30.1	-	-	-	-	-	-	-	-	-	-	30.1	1
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	<b>8.9</b>	<b>71.89</b>	<b>639.1</b>	-	-	-	-	-	-	-	-	-	-	<b>639.1</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	3.3	-	3.3	-	-	-	-	-	-	-	-	3.3	29.9	-
2020	12.6	-	12.6	-	-	-	-	-	-	-	-	12.6	30.0	-
2021	9.4	-	9.4	-	-	-	-	-	-	-	-	9.4	20.1	-
2022	7.7	-	7.7	-	-	-	-	-	-	-	-	7.7	9.3	-
2023	4.8	-	4.8	-	-	-	-	-	-	-	-	4.8	11.8	-
2024	3.5	-	3.5	-	-	-	-	-	-	-	-	3.5	12.6	-
2025	2.8	-	2.8	-	-	-	-	-	-	-	-	2.8	10.9	-
2026	2.3	-	2.3	-	-	-	-	-	-	-	-	2.3	9.7	-
2027	1.1	-	1.1	-	-	-	-	-	-	-	-	1.1	5.0	-
2028	1.0	-	1.0	-	-	-	-	-	-	-	-	1.0	5.0	-
2029	1.0	-	1.0	-	-	-	-	-	-	-	-	1.0	5.0	-
2030	2.7	-	2.7	-	-	-	-	-	-	-	-	2.7	5.0	-
2031	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
2032	4.7	-	4.7	-	-	-	-	-	-	-	-	4.7	5.0	-
2033	1.5	-	1.5	-	-	-	-	-	-	-	-	1.5	5.0	-
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>63.3</b>	-	<b>63.3</b>	-	-	-	-	-	-	-	-	<b>63.3</b>	<b>9.9</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	0.6	3.00	-	7.1	-	-	-	7.1	7.1	6.8
2020	2.1	3.03	-	27.4	-	-	-	27.4	34.6	24.3
2021	2.3	3.09	-	35.1	-	-	-	35.1	69.6	28.3
2022	39.5	31.59	-	35.6	-	-	-	35.6	105.2	26.1
2023	10.8	18.03	-	25.0	-	-	-	25.0	130.2	16.7
2024	1.3	3.28	-	23.0	-	-	-	23.0	153.2	14.0
2025	1.2	3.34	-	21.6	-	-	-	21.6	174.8	11.9
2026	1.1	3.41	-	20.2	-	-	-	20.2	195.0	10.1
2027	1.1	3.48	-34.9	54.8	-	-	-	54.8	249.8	24.8
2028	1.0	3.55	35.1	-16.4	-	-	-	-16.4	233.4	-7.4
2029	0.9	3.62	-	17.7	-	-	-	17.7	251.1	6.7
2030	27.3	39.45	-	23.7	-	-	-	23.7	274.8	8.0
2031	64.9	52.08	-	28.7	-	-	-	28.7	303.5	9.0
2032	65.9	56.59	-	23.3	-	-	-	23.3	326.8	6.6
2033	22.2	60.71	-	6.4	-	-	-	6.4	333.2	1.7
Rem.	-	-	2.3	-2.3	-	-	-	-2.3	331.0	1.6
<b>Total</b>	<b>242.2</b>	-	<b>2.6</b>	<b>331.0</b>	-	-	-	<b>331.0</b>	-	<b>189.1</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	8.9	8.9	-	7.9
<b>Total (MBOE)</b>	<b>8.9</b>	<b>8.9</b>	<b>-</b>	<b>7.9</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>331.0</b>	<b>245.4</b>	<b>189.1</b>	<b>151.1</b>	<b>124.6</b>

RLI 50+ yrs  
 Remaining Life 14.08 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Probable Reserves

### Hays

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PADP	7.6	-	-	-	299.3	216.4	162.6	126.8
100/09-30-012-14W4/3	W-100.000	SAW	PADP	1.3	-	-	-	31.7	29.0	26.6	24.3
<b>Subtotal Hays</b>				<b>8.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>331.0</b>	<b>245.4</b>	<b>189.1</b>	<b>151.1</b>
<b>Subtotal Alberta</b>				<b>8.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>331.0</b>	<b>245.4</b>	<b>189.1</b>	<b>151.1</b>
<b>Total</b>				<b>8.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>331.0</b>	<b>245.4</b>	<b>189.1</b>	<b>151.1</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Proved Developed Producing Reserves

### Hays

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	2.0	9.4	59.20	554.1	-	-	-	-	-	-	-	-	-	-	554.1	34
2020	2.0	8.5	60.58	514.5	-	-	-	-	-	-	-	-	-	-	514.5	23
2021	2.0	6.2	62.24	383.3	-	-	-	-	-	-	-	-	-	-	383.3	17
2022	1.7	4.3	66.20	286.3	-	-	-	-	-	-	-	-	-	-	286.3	12
2023	1.0	2.6	67.56	173.0	-	-	-	-	-	-	-	-	-	-	173.0	7
2024	1.0	2.2	68.82	148.7	-	-	-	-	-	-	-	-	-	-	148.7	6
2025	1.0	1.9	70.27	130.7	-	-	-	-	-	-	-	-	-	-	130.7	5
2026	1.0	1.6	71.63	117.2	-	-	-	-	-	-	-	-	-	-	117.2	4
2027	1.0	1.5	73.08	106.8	-	-	-	-	-	-	-	-	-	-	106.8	4
2028	1.0	1.3	74.54	98.6	-	-	-	-	-	-	-	-	-	-	98.6	4
2029	1.0	1.2	76.09	91.5	-	-	-	-	-	-	-	-	-	-	91.5	3
2030	0.6	0.7	77.55	50.6	-	-	-	-	-	-	-	-	-	-	50.6	2
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	<b>41.2</b>	<b>64.46</b>	<b>2655.2</b>	-	-	-	-	-	-	-	-	-	-	<b>2655.2</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	91.9	-	91.9	-	-	-	-	-	-	-	-	91.9	16.6	-
2020	53.7	-	53.7	-	-	-	-	-	-	-	-	53.7	10.4	-
2021	22.0	-	22.0	-	-	-	-	-	-	-	-	22.0	5.7	-
2022	14.0	-	14.0	-	-	-	-	-	-	-	-	14.0	4.9	-
2023	8.0	-	8.0	-	-	-	-	-	-	-	-	8.0	4.7	-
2024	5.5	-	5.5	-	-	-	-	-	-	-	-	5.5	3.7	-
2025	4.2	-	4.2	-	-	-	-	-	-	-	-	4.2	3.2	-
2026	3.4	-	3.4	-	-	-	-	-	-	-	-	3.4	2.9	-
2027	5.3	-	5.3	-	-	-	-	-	-	-	-	5.3	5.0	-
2028	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
2029	4.6	-	4.6	-	-	-	-	-	-	-	-	4.6	5.0	-
2030	2.5	-	2.5	-	-	-	-	-	-	-	-	2.5	5.0	-
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>220.2</b>	-	<b>220.2</b>	-	-	-	-	-	-	-	-	<b>220.2</b>	<b>8.3</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	139.7	14.92	-	322.5	-	-	-	322.5	322.5	311.9
2020	175.9	20.71	-	285.0	-	-	-	285.0	607.5	253.9
2021	172.2	27.96	-	189.1	-	-	-	189.1	796.6	153.2
2022	134.3	31.06	-	137.9	-	-	-	137.9	934.5	101.5
2023	59.6	23.29	-	105.3	-	-	-	105.3	1039.8	70.4
2024	59.5	27.55	-	83.6	-	-	-	83.6	1123.4	50.8
2025	59.7	32.10	-	66.8	-	-	-	66.8	1190.2	36.9
2026	60.1	36.75	-	53.6	-	-	-	53.6	1243.8	26.9
2027	60.7	41.57	34.9	5.8	-	-	-	5.8	1249.7	2.9
2028	61.4	46.45	-	32.2	-	-	-	32.2	1281.9	13.4
2029	62.2	51.76	-	24.7	-	-	-	24.7	1306.6	9.3
2030	36.7	56.23	-	11.4	-	-	-	11.4	1318.0	4.0
2031	-	-	-	-	-	-	-	-	1318.0	-
2032	-	-	-	-	-	-	-	-	1318.0	-
2033	-	-	-	-	-	-	-	-	1318.0	-
Rem.	-	-	40.8	-40.8	-	-	-	-40.8	1277.2	-8.6
<b>Total</b>	<b>1082.1</b>	-	<b>75.6</b>	<b>1277.2</b>	-	-	-	<b>1277.2</b>	-	<b>1026.4</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbl)	41.2	41.2	-	37.6
<b>Total (MBOE)</b>	<b>41.2</b>	<b>41.2</b>	<b>-</b>	<b>37.6</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>1,277.2</b>	<b>1,138.5</b>	<b>1,026.4</b>	<b>935.8</b>	<b>862.1</b>

RLI 3.02 yrs  
 Remaining Life 11.33 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Proved Developed Producing Reserves

### Hays

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PDP	33.0	-	-	-	1194.6	1049.4	934.4	843.2
100/09-30-012-14W4/3	W-100.000	SAW	PDP	8.2	-	-	-	82.6	89.1	91.9	92.6
<b>Subtotal Hays</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Subtotal Alberta</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>
<b>Total</b>				<b>41.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1277.2</b>	<b>1138.5</b>	<b>1026.4</b>	<b>935.8</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Proved + Probable Developed Producing Reserves Hays

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	2.0	9.5	59.20	565.1	-	-	-	-	-	-	-	-	-	565.1	35	
2020	2.0	9.2	60.58	556.7	-	-	-	-	-	-	-	-	-	556.7	25	
2021	2.0	6.9	62.24	430.1	-	-	-	-	-	-	-	-	-	430.1	19	
2022	2.0	5.6	66.20	369.0	-	-	-	-	-	-	-	-	-	369.0	15	
2023	2.0	3.2	67.56	213.6	-	-	-	-	-	-	-	-	-	213.6	9	
2024	1.0	2.6	68.82	176.5	-	-	-	-	-	-	-	-	-	176.5	7	
2025	1.0	2.2	70.27	156.2	-	-	-	-	-	-	-	-	-	156.2	6	
2026	1.0	2.0	71.63	140.9	-	-	-	-	-	-	-	-	-	140.9	5	
2027	1.0	1.8	73.08	128.8	-	-	-	-	-	-	-	-	-	128.8	5	
2028	1.0	1.6	74.54	119.4	-	-	-	-	-	-	-	-	-	119.4	4	
2029	1.0	1.5	76.09	111.1	-	-	-	-	-	-	-	-	-	111.1	4	
2030	1.0	1.3	77.54	104.3	-	-	-	-	-	-	-	-	-	104.3	4	
2031	1.0	1.2	79.09	98.6	-	-	-	-	-	-	-	-	-	98.6	3	
2032	1.0	1.2	80.64	93.9	-	-	-	-	-	-	-	-	-	93.9	3	
2033	1.0	0.4	82.41	30.1	-	-	-	-	-	-	-	-	-	30.1	1	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	<b>50.1</b>	<b>65.78</b>	<b>3294.2</b>	-	-	-	-	-	-	-	-	-	<b>3294.2</b>	-	

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	95.2	-	95.2	-	-	-	-	-	-	-	-	95.2	16.8	-
2020	66.3	-	66.3	-	-	-	-	-	-	-	-	66.3	11.9	-
2021	31.4	-	31.4	-	-	-	-	-	-	-	-	31.4	7.3	-
2022	21.7	-	21.7	-	-	-	-	-	-	-	-	21.7	5.9	-
2023	12.8	-	12.8	-	-	-	-	-	-	-	-	12.8	6.0	-
2024	9.0	-	9.0	-	-	-	-	-	-	-	-	9.0	5.1	-
2025	7.0	-	7.0	-	-	-	-	-	-	-	-	7.0	4.5	-
2026	5.7	-	5.7	-	-	-	-	-	-	-	-	5.7	4.1	-
2027	6.4	-	6.4	-	-	-	-	-	-	-	-	6.4	5.0	-
2028	6.0	-	6.0	-	-	-	-	-	-	-	-	6.0	5.0	-
2029	5.6	-	5.6	-	-	-	-	-	-	-	-	5.6	5.0	-
2030	5.2	-	5.2	-	-	-	-	-	-	-	-	5.2	5.0	-
2031	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
2032	4.7	-	4.7	-	-	-	-	-	-	-	-	4.7	5.0	-
2033	1.5	-	1.5	-	-	-	-	-	-	-	-	1.5	5.0	-
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>283.6</b>	-	<b>283.6</b>	-	-	-	-	-	-	-	-	<b>283.6</b>	<b>8.6</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	140.2	14.69	-	329.6	-	-	-	329.6	329.6	318.7
2020	178.0	19.37	-	312.4	-	-	-	312.4	642.1	278.2
2021	174.5	25.25	-	224.2	-	-	-	224.2	866.2	181.4
2022	173.8	31.18	-	173.5	-	-	-	173.5	1039.7	127.6
2023	70.5	22.29	-	130.3	-	-	-	130.3	1170.0	87.1
2024	60.8	23.72	-	106.6	-	-	-	106.6	1276.7	64.8
2025	60.9	27.40	-	88.3	-	-	-	88.3	1365.0	48.8
2026	61.3	31.15	-	73.8	-	-	-	73.8	1438.9	37.1
2027	61.8	35.04	-	60.6	-	-	-	60.6	1499.5	27.7
2028	62.4	38.98	35.1	15.8	-	-	-	15.8	1515.3	5.9
2029	63.2	43.26	-	42.4	-	-	-	42.4	1557.7	16.0
2030	64.0	47.59	-	35.1	-	-	-	35.1	1592.7	12.0
2031	64.9	52.08	-	28.7	-	-	-	28.7	1621.5	9.0
2032	65.9	56.59	-	23.3	-	-	-	23.3	1644.8	6.6
2033	22.2	60.71	-	6.4	-	-	-	6.4	1651.2	1.7
Rem.	-	-	43.1	-43.1	-	-	-	-43.1	1608.1	-7.0
<b>Total</b>	<b>1324.3</b>	-	<b>78.2</b>	<b>1608.1</b>	-	-	-	<b>1608.1</b>	-	<b>1215.5</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	50.1	50.1	-	45.6
<b>Total (MBOE)</b>	<b>50.1</b>	<b>50.1</b>	-	<b>45.6</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>1,608.1</b>	<b>1,383.9</b>	<b>1,215.5</b>	<b>1,087.0</b>	<b>986.6</b>

RLI 3.67 yrs  
 Remaining Life 14.08 yrs  
 Price Schedule G190401

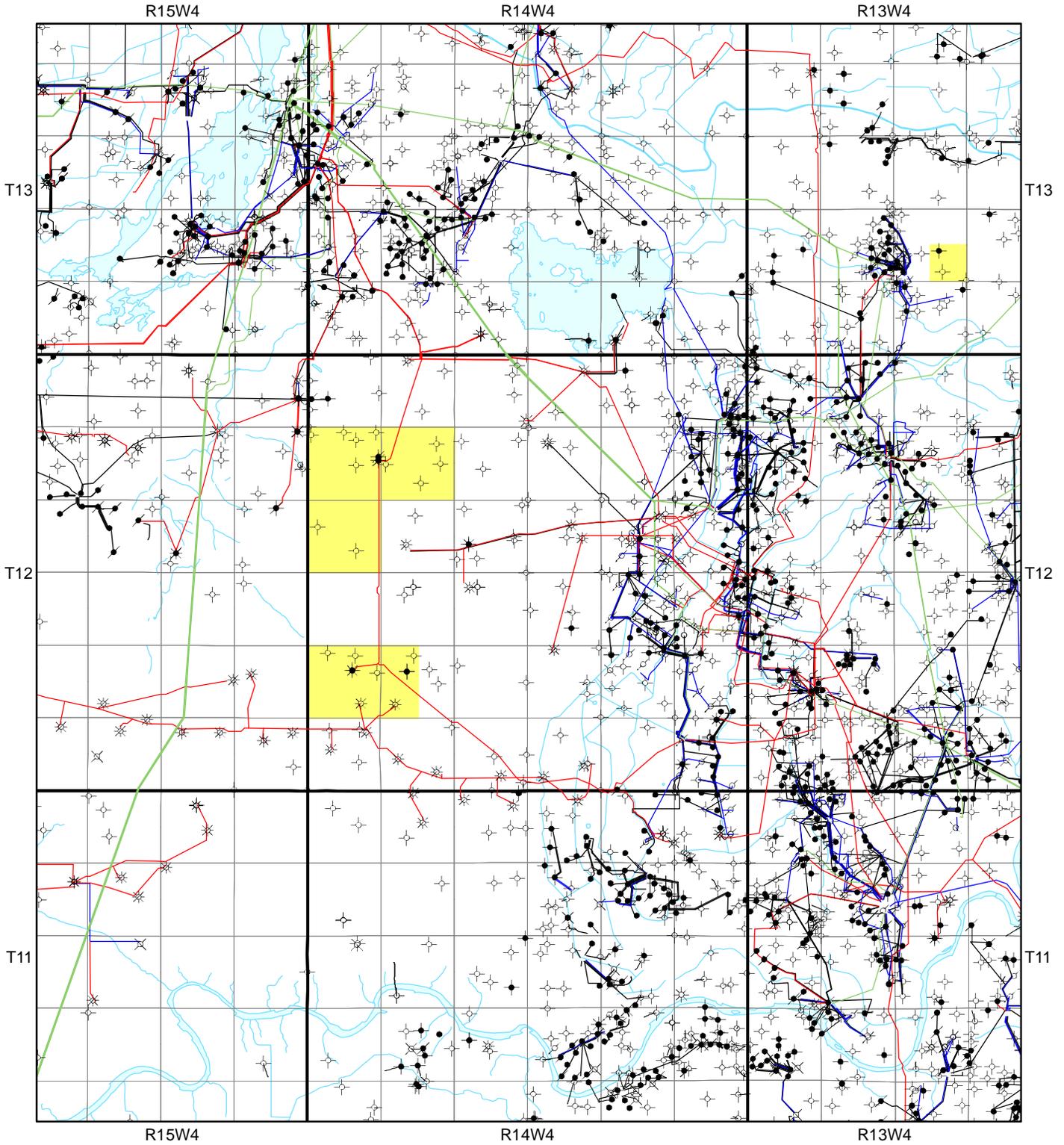
# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Proved + Probable Developed Producing Reserves

### Hays

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Hays</b>											
100/10-07-012-14W4/3	W-100.000	SAW	PPDP	40.6	-	-	-	1493.8	1265.7	1097.0	970.0
100/09-30-012-14W4/3	W-100.000	SAW	PPDP	9.5	-	-	-	114.3	118.1	118.5	116.9
<b>Subtotal Hays</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Subtotal Alberta</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>
<b>Total</b>				<b>50.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1608.1</b>	<b>1383.9</b>	<b>1215.5</b>	<b>1087.0</b>

Figure 1



**Legend**

• Oil	— Oil
✦ Abandoned Oil	— Gas
✧ Suspended Oil	— Water
✧ Oil & Gas	— Other, Eff
✧ Gas	◆ Gas Plant
✧ Abandoned Gas	
✧ Suspended Gas	
✧ Dry & Abandoned	
✧ Service	
○ Location	
○ Injection	
✧ Suspended Other	

1:125,000

Company Land

Avalon Energy Ltd.

Hays

McDaniel  
& Associates Consultants Ltd.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

Economic Parameters

## Economic Parameters - Entity Costs Forecast Prices and Costs as of April 1, 2019 Hays

Primary Product	Zone	Interest (1)		Reserve Category	Abd. & Reclam. (2)		2019/04	Operating Costs						Capital Costs					
		WI %	RI %		Cost M\$	Delay months		Fixed M\$/Year	Fixed M\$/Month	Fixed \$/Well-yr	Fixed \$/Well-mo	Variable Oil \$/bbl	Variable Sales Gas \$/Mcf	Variable Water \$/bbl	Drill M\$	Compl. M\$	Other M\$	Total M\$	
<b>Canada</b>																			
<b>Alberta</b>																			
<b>Hays</b>																			
100/10-07-012-14W4/3	Oil	SAW	100.0	-	PDP	30	60	2019/04	-	-	-	4,000	3.00	-	-	-	-	-	-
100/09-30-012-14W4/3	Oil	SAW	100.0	-	PDP	30	60	2019/04	-	-	-	8,400	3.00	-	-	-	-	-	-

(1) Interest is based on Total Proved + Probable economic reserves.  
 (2) Abandonment and reclamation costs have not been forecast for wells with no reserves assigned.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Economic Parameters

### Economic Parameters - Product Pricing and NGL Recoveries Forecast Prices and Costs as of April 1, 2019

#### Hays

Zone	Reserve Category	Oil Reference Price	Gas Reference Price	Price Adjustments (\$/bbl or \$/Mcf or %)							Gas Heat Content Btu/scf	Total Shrink. %	NGL Recoveries (Sales Basis, bbl/MMcf)			
				Oil	Gas	C2	C3	C4	C5+	Cond.			C2	C3	C4	C5+
<b>Canada</b>																
<b>Alberta</b>																
<b>Hays</b>																
100/10-07-012-14W4/3	SAW	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	-	-	-	-
100/09-30-012-14W4/3	SAW	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	-	-	-	-

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

Reserve Estimates

## Summary of Reserve Estimates Forecast Prices and Costs as of April 1, 2019 Total Reserves

### Hays

Area and Property	Company Interest %	Zones	Reserve Class	Crude Oil					Natural Gas					Condensate						
				Gross			Company Share		Gross			Company Share		Gross			Company Share			
				Orig. Res. Mbbl	Cum. Prod. Mbbl	Rem. Res. Mbbl	Rem. Res. Mbbl	2019 Rate bopd	Orig. Raw Res. MMcf	Cum. Prod. MMcf	Rem. Raw Res. MMcf	Surf. Loss %	Rem. Sales Res. MMcf	Rem. Sales Res. MMcf	2019 Rate Mcf/d	Orig. Res. Mbbl	Cum. Prod. Mbbl	Rem. Res. Mbbl	Rem. Res. Mbbl	2019 Rate bopd
<b>Canada</b>																				
<b>Alberta</b>																				
<b>Hays</b>																				
100/10-07-012-14W4/3	W-100.0	SAW	TP	42	9	33	33	25	0	0	-	-	-	-	-	-	-	-	-	-
			TPP	50	9	41	41	26	0	0	-	-	-	-	-	-	-	-	-	-
100/09-30-012-14W4/3	W-100.0	SAW	TP	16	7	8	8	9	0	0	-	-	-	-	-	-	-	-	-	-
			TPP	17	7	10	10	9	0	0	-	-	-	-	-	-	-	-	-	-
<b>Total</b>			<b>TP</b>	<b>58</b>	<b>16</b>	<b>41</b>	<b>41</b>	<b>34</b>	<b>1</b>	<b>1</b>	-	-	-	-	-	-	-	-	-	-
			<b>TPP</b>	<b>67</b>	<b>16</b>	<b>50</b>	<b>50</b>	<b>35</b>	<b>1</b>	<b>1</b>	-	-	-	-	-	-	-	-	-	-

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Interest

### List of Interests and Burdens Forecast Prices and Costs as of April 1, 2019 Hays

	Zone	Interest Product	Ownership	Burdens	Crown Incentives/ Freehold Mineral Tax	Tract Factor	Pooling Factor	Payout
<b>Canada</b>								
<b>Alberta</b>								
<b>Hays</b>								
100/10-07-012-14W4/3	SAW		WI 100.000%	AB Crown		1.000	1.000	
100/09-30-012-14W4/3	SAW		WI 100.000%	AB Crown		1.000	1.000	
102/09-30-012-14W4/2	SAW		WI 100.000%	AB Crown		1.000	1.000	

# Avalon Energy Ltd.

Detailed Property Evaluation Index  
Forecast Prices and Costs as of April 1, 2019  
Total Reserves

Hays

## Canada

### Alberta

#### Hays

100/10-07-012-14W4/3

100/09-30-012-14W4/3

102/09-30-012-14W4/2

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

## Revenue Forecast Forecast Prices and Costs as of April 1, 2019 Total Reserves

Hays  
 100/10-07-012-14W4/3

### Proved Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves									
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net		
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$					\$/BOE	Product
2019 (9)	1.0	6.9	59.20	-	-	-	-	-	-	-	409.6	25.3	87.2	21.3	56.8	8.20	-	-	265.6	256.9	Crude Oil (Mbbbl)	33.0	33.0	-	29.6
2020	1.0	5.9	60.58	-	-	-	-	-	-	-	359.6	16.2	50.4	14.0	66.4	11.19	-	-	242.8	216.3	<b>Total (MBOE)</b>	<b>33.0</b>	<b>33.0</b>	<b>-</b>	<b>29.6</b>
2021	1.0	4.1	62.24	-	-	-	-	-	-	-	255.9	11.3	20.8	8.1	62.1	15.10	-	-	173.0	140.0	<b>Net Present Value Before Tax - M\$</b>				
2022	1.0	3.2	66.20	-	-	-	-	-	-	-	208.9	8.6	13.0	6.2	60.3	19.12	-	-	135.5	99.7	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	
2023	1.0	2.6	67.56	-	-	-	-	-	-	-	173.0	7.0	8.0	4.7	59.6	23.29	-	-	105.3	70.4	<b>1,194.6</b>	<b>1,049.4</b>	<b>934.4</b>	<b>843.2</b>	
2024	1.0	2.2	68.82	-	-	-	-	-	-	-	148.7	5.9	5.5	3.7	59.5	27.55	-	-	83.6	50.8	Econ. RLI	3.81 yrs			
2025	1.0	1.9	70.27	-	-	-	-	-	-	-	130.7	5.1	4.2	3.2	59.7	32.10	-	-	66.8	36.9	Rem. Life	11.33 yrs			
2026	1.0	1.6	71.63	-	-	-	-	-	-	-	117.2	4.5	3.4	2.9	60.1	36.75	-	-	53.6	26.9					
2027	1.0	1.5	73.08	-	-	-	-	-	-	-	106.8	4.0	5.3	5.0	60.7	41.57	-	-	40.7	18.6					
2028	1.0	1.3	74.54	-	-	-	-	-	-	-	98.6	3.6	4.9	5.0	61.4	46.45	-	-	32.2	13.4					
2029	1.0	1.2	76.09	-	-	-	-	-	-	-	91.5	3.3	4.6	5.0	62.2	51.76	-	-	24.7	9.3					
2030 (7)	1.0	0.7	77.55	-	-	-	-	-	-	-	50.6	3.1	2.5	5.0	36.7	56.23	-	-	11.4	4.0					
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.8	-	-40.8	-8.6					
<b>Total</b>	-	<b>33.0</b>	<b>65.23</b>	-	-	-	-	-	-	-	<b>2,151.0</b>	-	<b>210.0</b>	<b>9.8</b>	<b>705.6</b>	<b>21.40</b>	<b>40.8</b>	-	<b>1,194.6</b>	<b>934.4</b>					

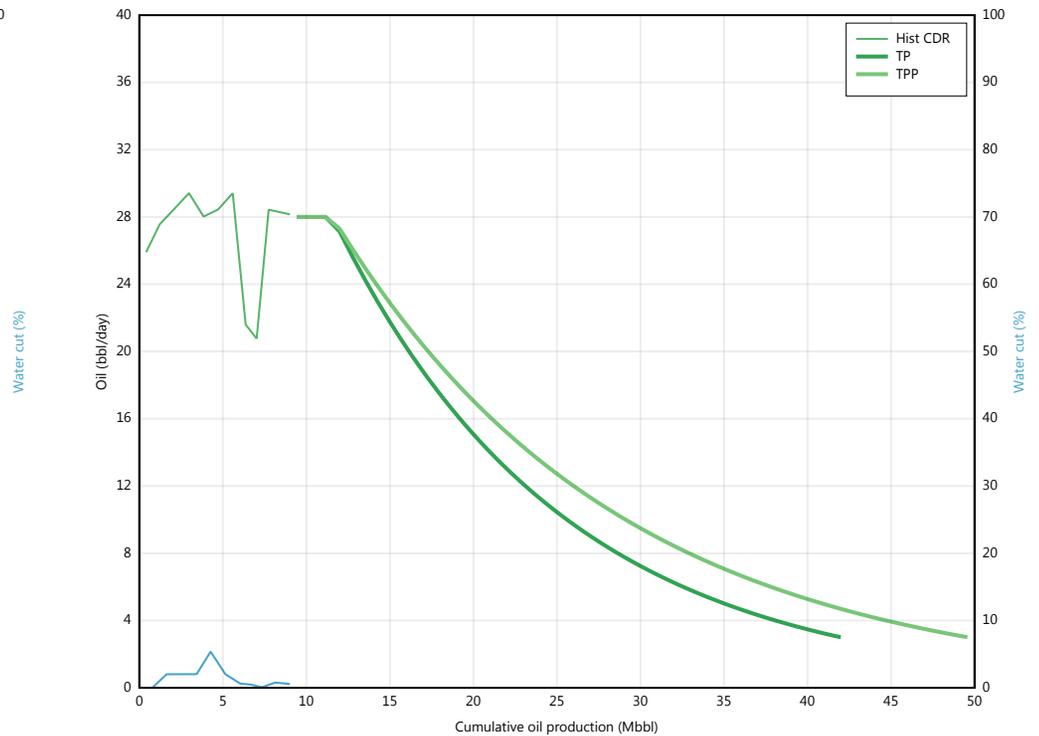
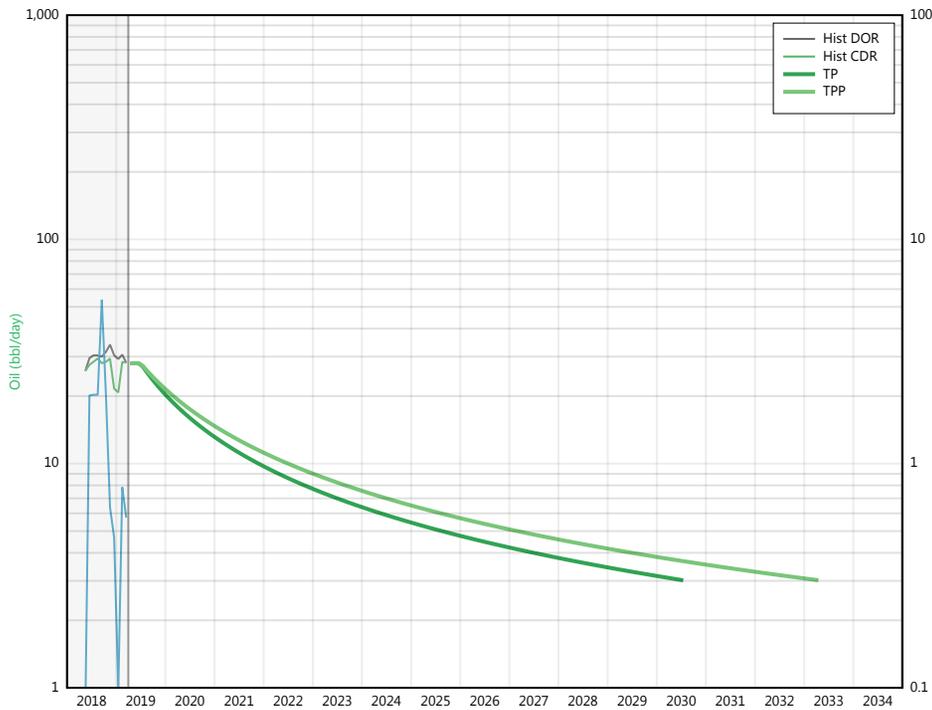
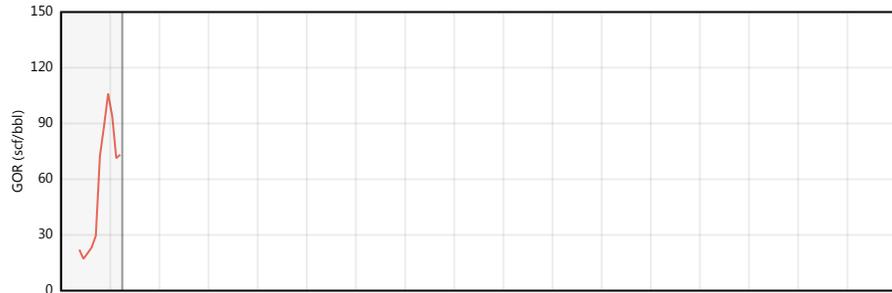
### Proved + Probable Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves									
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net		
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$					\$/BOE	Product
2019 (9)	1.0	7.0	59.20	-	-	-	-	-	-	-	417.3	25.8	90.0	21.6	57.1	8.11	-	-	270.2	261.1	Crude Oil (Mbbbl)	40.6	40.6	-	36.3
2020	1.0	6.5	60.58	-	-	-	-	-	-	-	392.0	17.7	61.9	15.8	68.0	10.51	-	-	262.0	233.3	<b>Total (MBOE)</b>	<b>40.6</b>	<b>40.6</b>	<b>-</b>	<b>36.3</b>
2021	1.0	4.7	62.24	-	-	-	-	-	-	-	290.5	12.8	29.2	10.0	63.8	13.67	-	-	197.5	159.8	<b>Net Present Value Before Tax - M\$</b>				
2022	1.0	3.7	66.20	-	-	-	-	-	-	-	242.3	10.0	19.3	8.0	61.9	16.92	-	-	161.1	118.4	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	
2023	1.0	3.0	67.56	-	-	-	-	-	-	-	203.5	8.3	12.6	6.2	61.1	20.28	-	-	129.8	86.7	<b>1,493.8</b>	<b>1,265.7</b>	<b>1,097.0</b>	<b>970.0</b>	
2024	1.0	2.6	68.82	-	-	-	-	-	-	-	176.5	7.0	9.0	5.1	60.8	23.72	-	-	106.6	64.8	Econ. RLI	4.56 yrs			
2025	1.0	2.2	70.27	-	-	-	-	-	-	-	156.2	6.1	7.0	4.5	60.9	27.40	-	-	88.3	48.8	Rem. Life	14.08 yrs			
2026	1.0	2.0	71.63	-	-	-	-	-	-	-	140.9	5.4	5.7	4.1	61.3	31.15	-	-	73.8	37.1					
2027	1.0	1.8	73.08	-	-	-	-	-	-	-	128.8	4.8	6.4	5.0	61.8	35.04	-	-	60.6	27.7					
2028	1.0	1.6	74.54	-	-	-	-	-	-	-	119.4	4.4	6.0	5.0	62.4	38.98	-	-	51.0	21.2					
2029	1.0	1.5	76.09	-	-	-	-	-	-	-	111.1	4.0	5.6	5.0	63.2	43.26	-	-	42.4	16.0					
2030	1.0	1.3	77.54	-	-	-	-	-	-	-	104.3	3.7	5.2	5.0	64.0	47.59	-	-	35.1	12.0					
2031	1.0	1.2	79.09	-	-	-	-	-	-	-	98.6	3.4	4.9	5.0	64.9	52.08	-	-	28.7	9.0					
2032	1.0	1.2	80.64	-	-	-	-	-	-	-	93.9	3.2	4.7	5.0	65.9	56.59	-	-	23.3	6.6					
2033 (4)	1.0	0.4	82.41	-	-	-	-	-	-	-	30.1	3.0	1.5	5.0	22.2	60.71	-	-	6.4	1.7					
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43.1	-	-43.1	-7.0					
<b>Total</b>	-	<b>40.6</b>	<b>66.70</b>	-	-	-	-	-	-	-	<b>2,705.4</b>	-	<b>269.1</b>	<b>9.9</b>	<b>899.3</b>	<b>22.17</b>	<b>43.1</b>	-	<b>1,493.8</b>	<b>1,097.0</b>					

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

## Reserve Estimates Hays - 100/10-07-012-14W4/3



### General Information

Well Name AVALON ENCHANT 10-7-12-14  
 Pool Name Saw Und  
 Zone SAW  
 On Prod. May 2018  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Light and Medium Oil  
 Gas Type Solution Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbb
Recovery Factor	-	- %
Recoverable Oil	42	50 Mbb
Cum. Production at 2019/03/31	9	9 Mbb
Gross Lease Reserves	33	41 Mbb
Company Share Reserves	33	41 Mbb

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**Hays**  
**100/09-30-012-14W4/3**

**Proved Developed Producing**

Year	WI Well Count	Company Share											Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue	Total Royalties					Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d					M\$	%	M\$	\$/BOE			
2019 (9)	1.0	2.4	59.20	-	-	-	-	-	-	144.5	8.9	4.7	3.3	82.9	33.97	-	-	56.9	55.0				
2020	1.0	2.6	60.58	-	-	-	-	-	-	154.9	7.0	3.3	2.1	109.5	42.82	-	-	42.1	37.7				
2021	1.0	2.0	62.24	-	-	-	-	-	-	127.4	5.6	1.2	0.9	110.1	53.78	-	-	16.1	13.1				
2022 (8)	1.0	1.2	66.21	-	-	-	-	-	-	77.4	4.8	1.1	1.4	74.0	63.28	-	-	2.4	1.8				
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34.9	-	-34.9	-15.7				
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>8.2</b>	<b>61.39</b>	-	-	-	-	-	-	<b>504.2</b>	-	<b>10.2</b>	<b>2.0</b>	<b>376.4</b>	<b>45.83</b>	<b>34.9</b>	-	<b>82.6</b>	<b>91.9</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	8.2	8.2	-	8.0
<b>Total (MBOE)</b>	<b>8.2</b>	<b>8.2</b>	-	<b>8.0</b>
<b>Net Present Value Before Tax - M\$</b>				
@ 0.0%	<b>82.6</b>	@ 5.0%	<b>89.1</b>	@ 10.0%
		@ 15.0%	<b>91.9</b>	<b>92.6</b>
		Econ. RLI	2.62 yrs	
		Rem. Life	3.42 yrs	

**Proved + Probable Developed Producing**

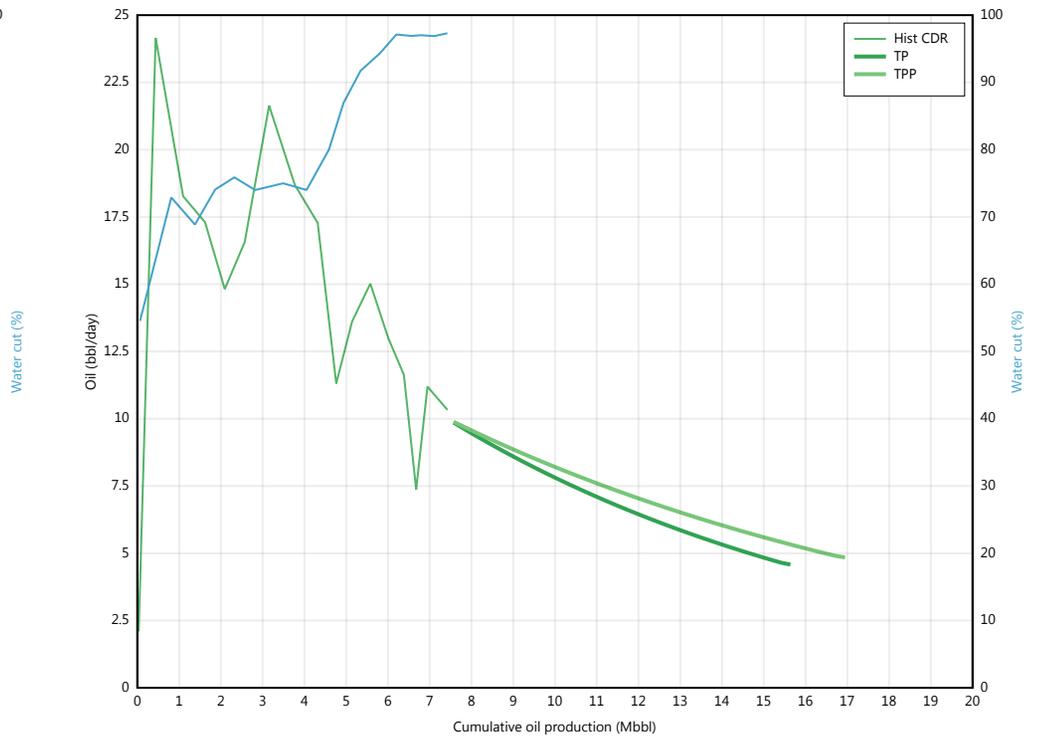
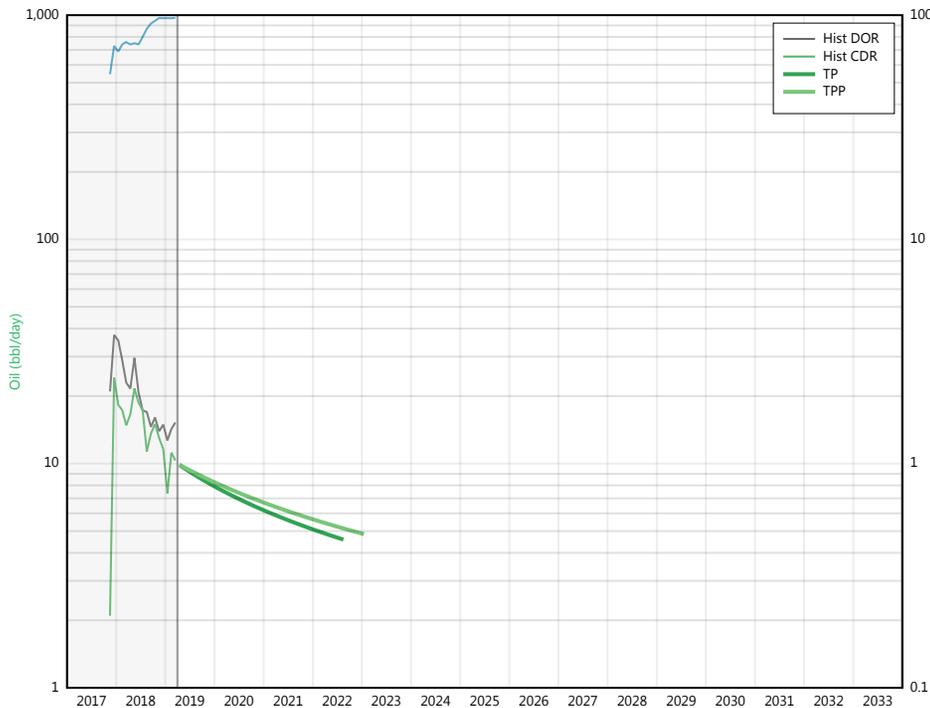
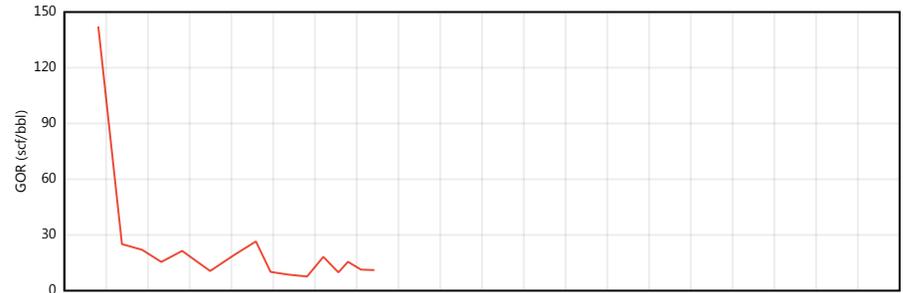
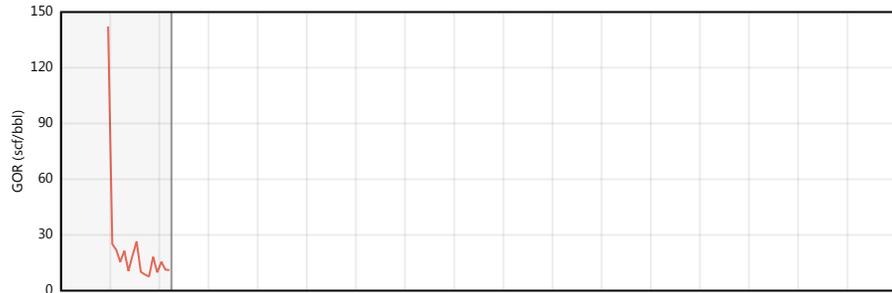
Year	WI Well Count	Company Share											Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue	Total Royalties					Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d					M\$	%	M\$	\$/BOE			
2019 (9)	1.0	2.5	59.20	-	-	-	-	-	-	147.7	9.1	5.2	3.5	83.1	33.30	-	-	59.5	57.5				
2020	1.0	2.7	60.58	-	-	-	-	-	-	164.7	7.4	4.4	2.7	109.9	40.44	-	-	50.4	44.9				
2021	1.0	2.2	62.24	-	-	-	-	-	-	139.6	6.1	2.3	1.6	110.7	49.34	-	-	26.7	21.7				
2022	1.0	1.9	66.20	-	-	-	-	-	-	126.7	5.2	2.4	1.9	111.9	58.46	-	-	12.4	9.2				
2023 (1)	1.0	0.2	67.58	-	-	-	-	-	-	10.2	4.9	0.2	2.0	9.4	62.50	-	-	0.6	0.4				
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.1	-	-35.1	-15.2				
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>9.5</b>	<b>61.85</b>	-	-	-	-	-	-	<b>588.9</b>	-	<b>14.4</b>	<b>2.4</b>	<b>425.0</b>	<b>44.64</b>	<b>35.1</b>	-	<b>114.3</b>	<b>118.5</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	9.5	9.5	-	9.3
<b>Total (MBOE)</b>	<b>9.5</b>	<b>9.5</b>	-	<b>9.3</b>
<b>Net Present Value Before Tax - M\$</b>				
@ 0.0%	<b>114.3</b>	@ 5.0%	<b>118.1</b>	@ 10.0%
		@ 15.0%	<b>118.5</b>	<b>118.5</b>
		Econ. RLI	2.95 yrs	
		Rem. Life	3.84 yrs	

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

## Reserve Estimates Hays - 100/09-30-012-14W4/3



### General Information

Well Name AVALON HAYS 9-30-12-14  
 Pool Name Sawtooth R  
 Zone SAW  
 On Prod. Nov 2017  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Light and Medium Oil  
 Gas Type Solution Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbb
Recovery Factor	-	- %
Recoverable Oil	16	17 Mbb
Cum. Production at 2019/03/31	7	7 Mbb
Gross Lease Reserves	8	10 Mbb
Company Share Reserves	8	10 Mbb

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**Hays**  
**102/09-30-012-14W4/2**

**NRA**

Year	WI Well Count	Company Share										Total Royalties M\$ %	Operating Costs		Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Product	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue		M\$	\$/BOE						Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%	M\$	\$/BOE	M\$	M\$	M\$							
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

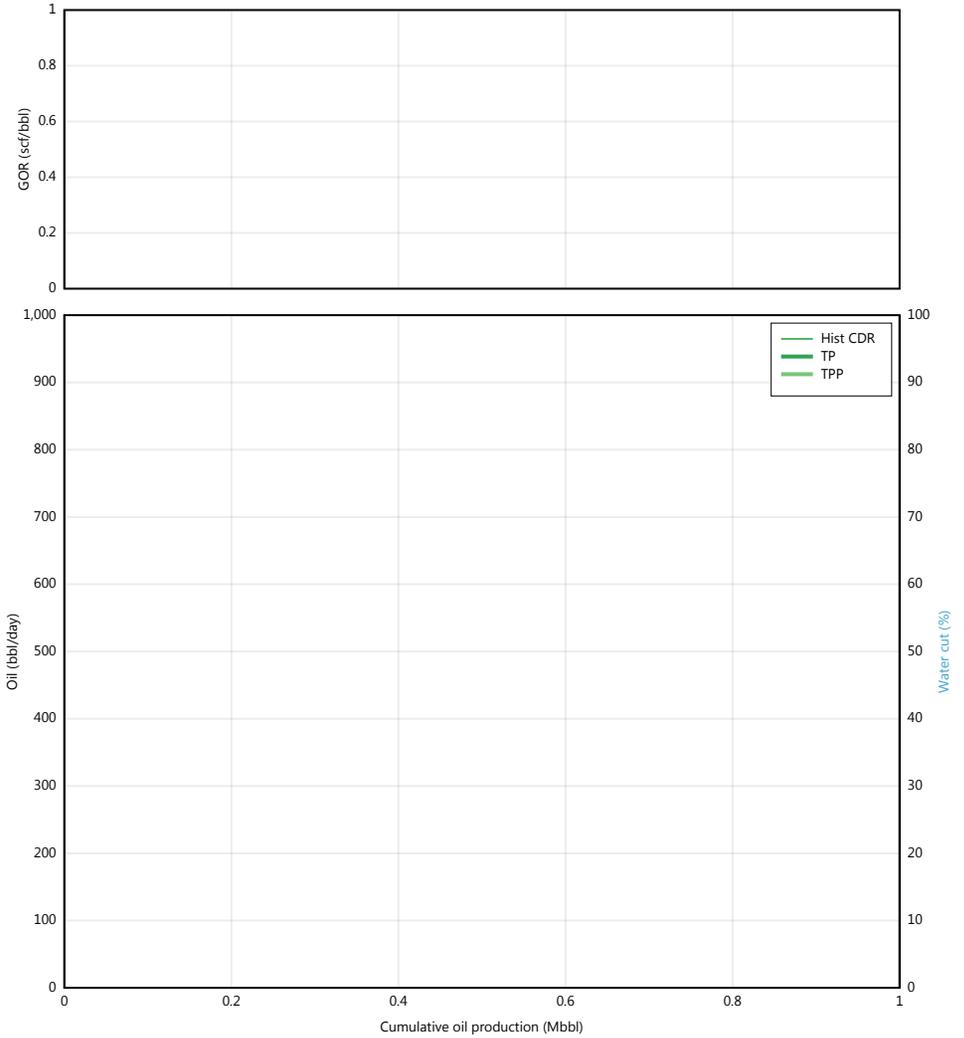
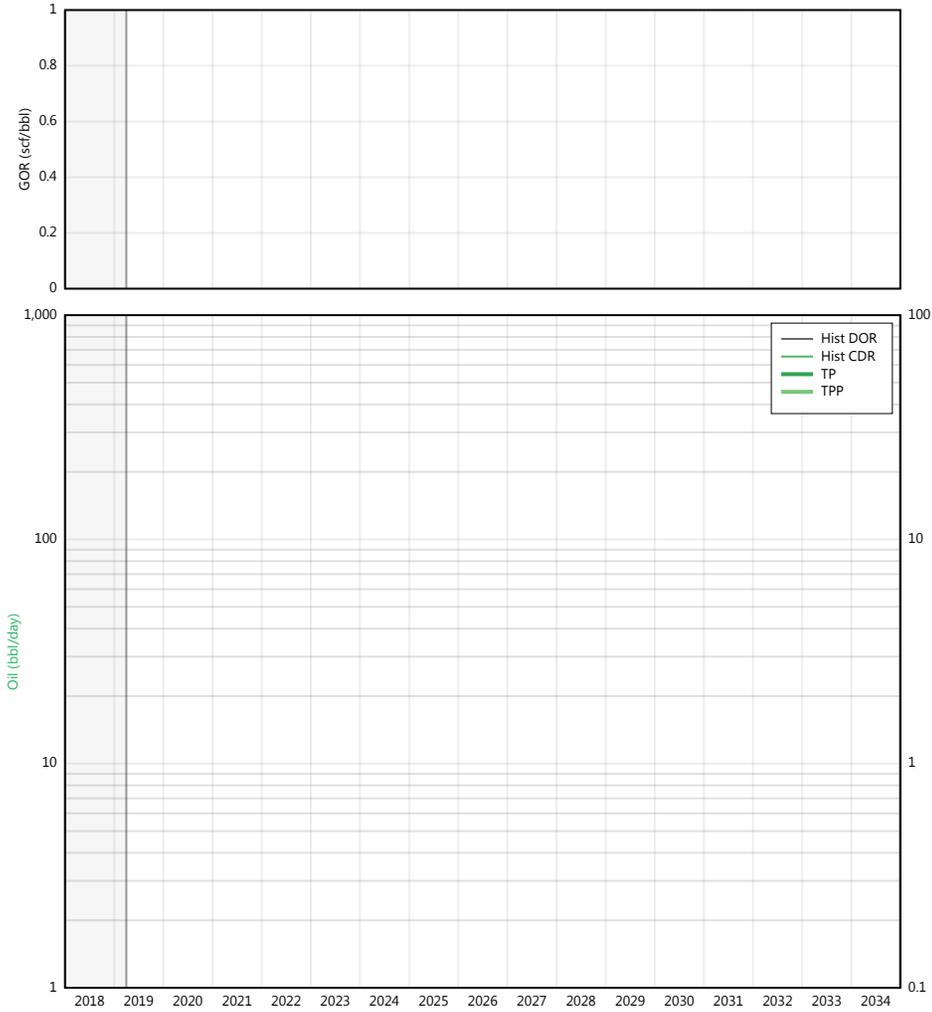
  

Net Present Value Before Tax - M\$			
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
0.0	0.0	0.0	0.0
	Econ. RLI	-	
	Rem. Life	-	

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

## Reserve Estimates Hays - 102/09-30-012-14W4/2



### General Information

Well Name AVALON 02 HAYS 9-30-12-14  
 Pool Name Saw Und  
 Zone SAW  
 On Prod.  
 Prod. Status Wtr Injection  
 Based on Performance Analysis  
 Oil Type Light and Medium Oil  
 Gas Type Solution Gas  
 # Wells 1  
 Avg. WI/RI - / -

### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbbbl
Recovery Factor	-	- %
Recoverable Oil	-	- Mbbbl
Cum. Production at 2019/03/31	-	- Mbbbl
Gross Lease Reserves	-	- Mbbbl
Company Share Reserves	-	- Mbbbl

# Avalon Energy Ltd.

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### Murray Lake Area

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Entity Costs
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Summary of Reserve Estimates
List of Interests and Burdens

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Individual Property Revenue and Production Forecasts
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*"The analysis of this property as reported herein was conducted within the context of an evaluation of a distinct group of properties in aggregate. Extraction and use of this analysis outside of this context may not be appropriate without supplementary due diligence."*

# Avalon Energy Ltd.

## Property Discussion Forecast Prices and Costs as of April 1, 2019

### Murray Lake Area

#### Introduction

The petroleum reserve estimates and their associated net present values were prepared for the Company's interests in the Murray Lake Area in Alberta. The reserves were estimated at April 1, 2019 and the revenue forecasts and net present value estimates were calculated using the McDaniel & Associates April 1, 2019 price forecast and were presented in Canadian dollars.

The reserves estimates and future net revenue forecasts have been prepared in accordance with standards set out in the Canadian National Instrument NI 51-101 and the Canadian Oil and Gas Evaluation Handbook (COGEH) disclosure standards.

An overview of the property and a discussion of the methodology employed in arriving at the reserves and net present value estimates are presented in this section.

#### Property Overview

The Murray Lake Area is located approximately 40 kilometres southwest of the City of Medicine Hat, Alberta just north of the Canada/US border. The Company owns a 100 percent working interest in 10 producing oil wells in the field, which produce predominately from the Sunburst Formation.

Well counts in the area are summarized in the Summation Tables section by reserve category. Economic input parameters for the entities in the area are presented in the Entity Input Parameters and Results section. These tables outline the respective abandonment and reclamation costs, operating costs, capital costs, pricing reference streams and adjustments, gas heating values, gas shrinkage and natural gas liquid recoveries by date.

#### Geology

The Sunburst Formation in the study area is a basal member of the Lower Mannville Group, deposited during the Early Cretaceous. The Sunburst sandstone (including associated basal Mannville deposits such as the Rierdon and Sawtooth Formations) unconformably overly Mississippian carbonates in this area, and are subsequently overlain by other sandstones, mudstones, and siltstones of the Lower Cretaceous Mannville.

Deposition of the Sunburst in the area was strongly controlled by the topography of the underlying Mississippian unconformity. Sands were deposited in both channel and shoreface environments controlled by paleotopographic highs and lows of the unconformity. Sedimentation is believed to be within southwesterly flowing fluvial systems that were part of a much larger northwesterly flowing drainage system. Subsequent deposition was in response to the Clearwater-Ostracod transgression and resulted in the deposition of a shaley sand which caps and flanks the Sunburst sands in the area. The sandstone is primarily unconsolidated with variably sorted, fine to medium grained quartz, chert and minor pyrite constituents. Kaolinite and other clay and silica cements are also common in consolidated portions. Hydrocarbons are interpreted to have been trapped stratigraphically where the Sunburst sands are in juxtaposition to tight shales.

Oil in the range of 16 -24 API gravity has been produced from this reservoir, from both vertical and horizontal wells. For mapping purposes, net pay averaging 2.6 metres has an average porosity of 20 percent and water saturation of 40 percent. The Sunburst occurs at an average depth of approximately 885 metres.

#### Reserves Classification

The petroleum reserves estimates presented in this report have been based on the Canadian reserves definitions and guidelines prepared by the Standing Committee on Reserves Definitions of the CIM (Petroleum Society) as presented in the COGEH Handbook. A summary of those definitions is presented below.

### Reserves 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 shall be 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 + 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 + probable + possible reserves.

Other criteria that must also be met for the categorization of reserves are provided in the COGEH Handbook.

### Development and Production Status

Each of the reserves categories (proved, probable + 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.

In multi-well pools, it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to subdivide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities and completion intervals in the pool and their respective development and production status.

### Levels of Certainty for Reported Reserves

The qualitative certainty levels referred to in the definitions above are applicable to individual reserves entities (which refers to the lowest level at which reserves calculations are performed) and to reported reserves (which refers to the highest-level sum of individual entity estimates for which reserves estimates are presented). Reported reserves should target the following levels of certainty under a specific set of economic conditions:

- at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimated proved reserves;
- at least a 50 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable reserves; and
- at least a 10 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable + possible reserves.

Additional clarification of certainty levels associated with reserves estimates and the effect of aggregation is provided in the COGEH Handbook.

### Revenue Forecasts

The net present values of the petroleum reserves assigned to the area were based on future production and revenue analyses. The future revenue was derived by employing the production forecasts for each entity and using the McDaniel & Associates April 1, 2019 price forecast.

Operating costs were based on historical costs derived from lease operating statements and are summarized in the Entity Input Parameters and Results section. An allowance was made for well abandonment and reclamation costs estimated to be \$30,000/well.

A summary of the reserves and net present value estimates were presented in Table A and detailed revenue forecasts for the various reserves categories in Table 1. Reserves and net present value estimates are also summarized by entity in Table 2.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Table A

### Total Company Reserves and Net Present Value Forecast Prices and Costs as of April 1, 2019 Murray Lake

	PDP	PNP	PUD	TP	PADP	PANP	PAUD	TPA	PPDP	PPNP	PPUD	TPP
<b>Crude Oil (Mbbl)</b>												
Working Interest Volume	104.6	-	-	104.6	16.9	-	-	16.9	121.6	-	-	121.6
Royalty Interest Volume	-	-	-	-	-	-	-	-	-	-	-	-
Net Volume	103.3	-	-	103.3	16.3	-	-	16.3	119.6	-	-	119.6
<b>Total (MBOE) (1)</b>												
Working Interest Volume	104.6	-	-	104.6	16.9	-	-	16.9	121.6	-	-	121.6
Royalty Interest Volume	-	-	-	-	-	-	-	-	-	-	-	-
Net Volume	103.3	-	-	103.3	16.3	-	-	16.3	119.6	-	-	119.6
<b>Net Present Value Before Tax (M\$)</b>												
0.0%	2,374.8	-	-	2,374.8	455.8	-	-	455.8	2,830.6	-	-	2,830.6
5.0%	2,111.1	-	-	2,111.1	333.6	-	-	333.6	2,444.7	-	-	2,444.7
10.0%	1,873.5	-	-	1,873.5	248.6	-	-	248.6	2,122.1	-	-	2,122.1
15.0%	1,674.3	-	-	1,674.3	190.2	-	-	190.2	1,864.5	-	-	1,864.5
20.0%	1,510.3	-	-	1,510.3	149.7	-	-	149.7	1,660.0	-	-	1,660.0
<b>\$/BOE Before Tax (2)</b>												
0.0%	22.70	-	-	22.70	26.89	-	-	26.89	23.28	-	-	23.28
5.0%	20.18	-	-	20.18	19.68	-	-	19.68	20.11	-	-	20.11
10.0%	17.91	-	-	17.91	14.67	-	-	14.67	17.46	-	-	17.46
15.0%	16.00	-	-	16.00	11.22	-	-	11.22	15.34	-	-	15.34
20.0%	14.44	-	-	14.44	8.83	-	-	8.83	13.65	-	-	13.65

- (1) Barrels of Oil Equivalent based on 6:1 for Natural Gas, 1:1 for Condensate and C5+, 1:1 for Ethane, 1:1 for Propane, 1:1 for Butanes. 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.
- (2) NPV/BOE based on Company Share BOE reserves.

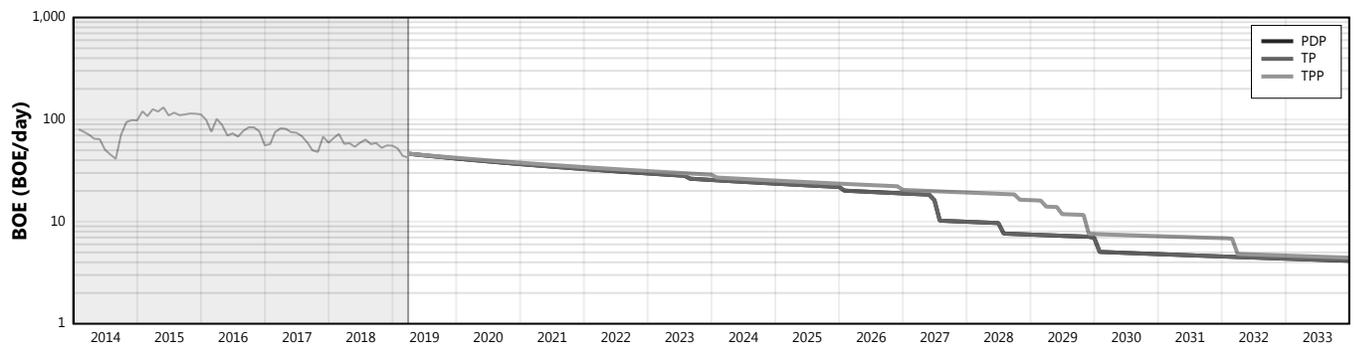
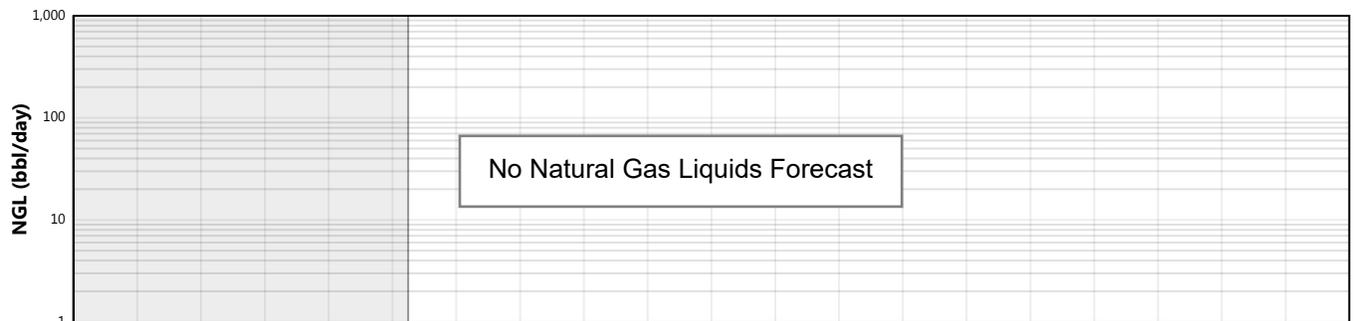
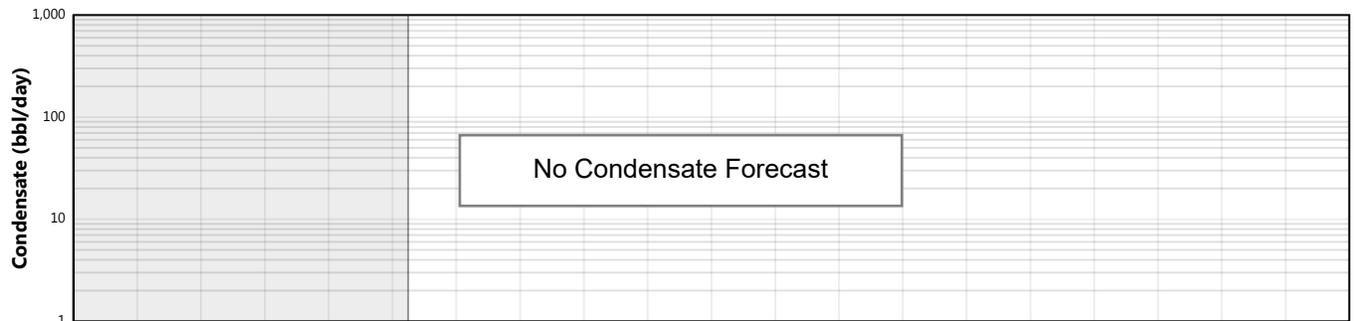
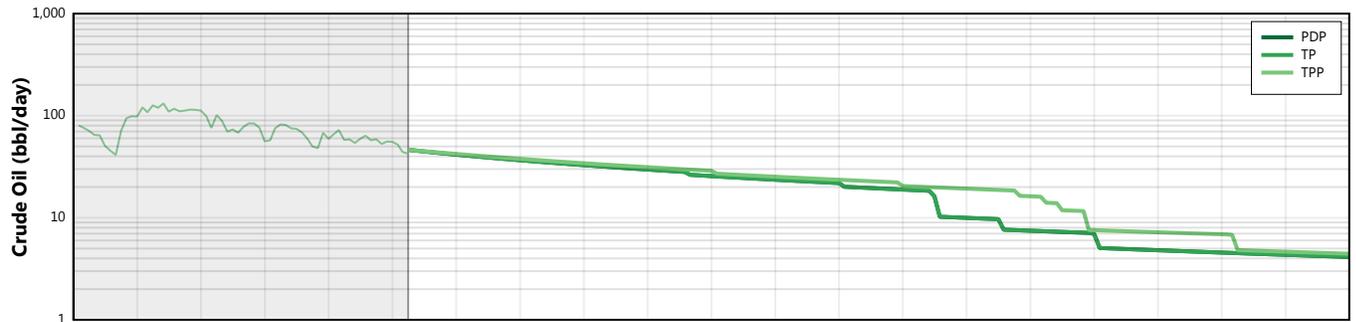


# Avalon Energy Ltd.

## Company Share Sales Volumes Forecast Prices and Costs as of April 1, 2019

### Total Reserves

### Murray Lake



Historical production data is estimated based on the company share interest as of the reference date.

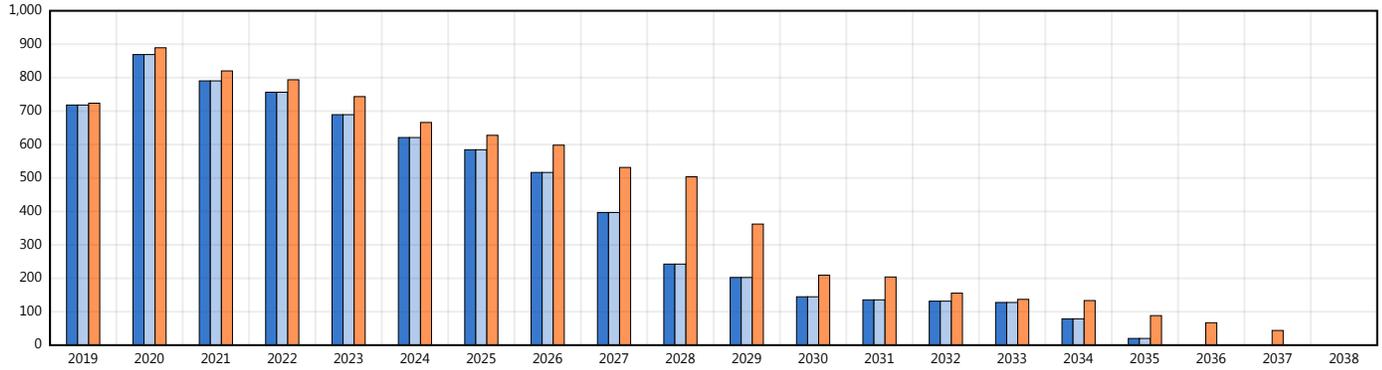
# Avalon Energy Ltd.

## Cash Flow Summary Forecast Prices and Costs as of April 1, 2019

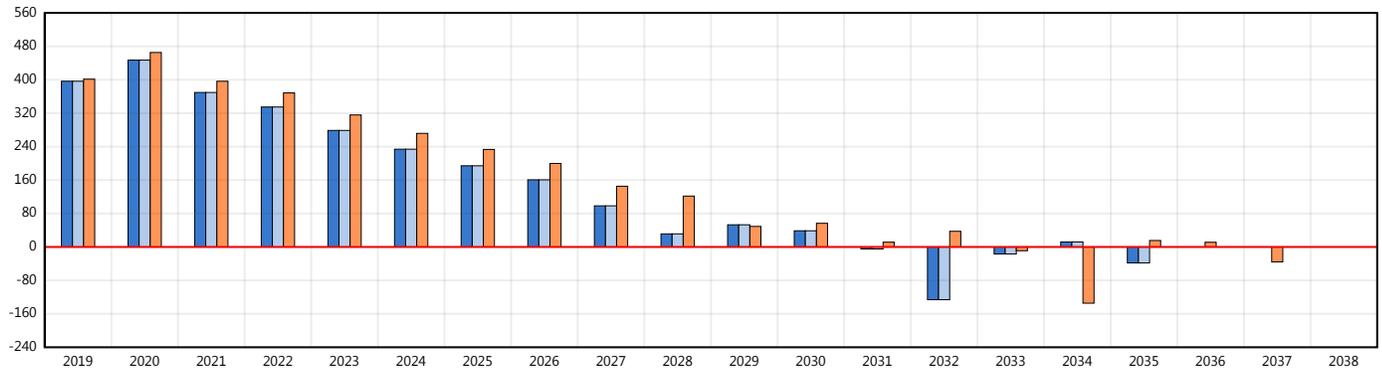
### Total Reserves

### Murray Lake

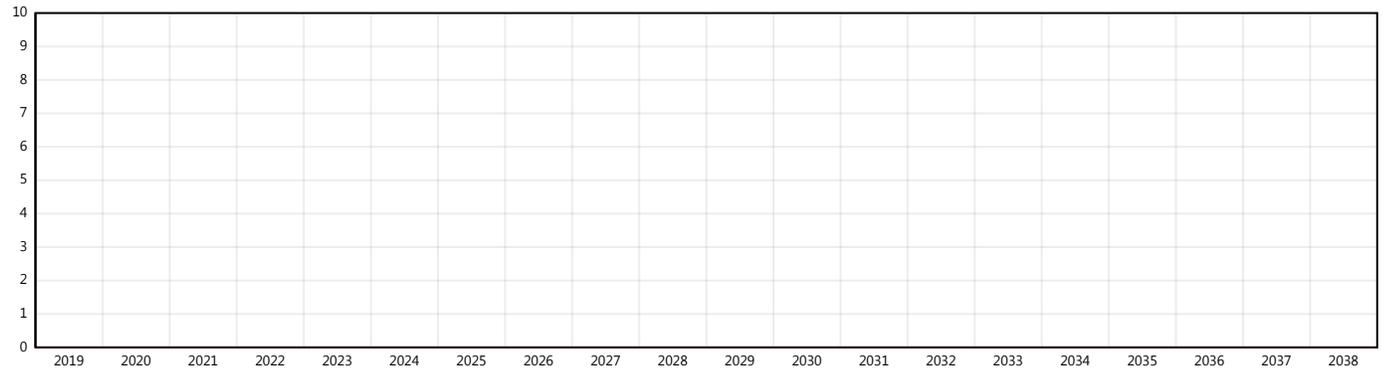
#### Company Share Revenue (M\$)



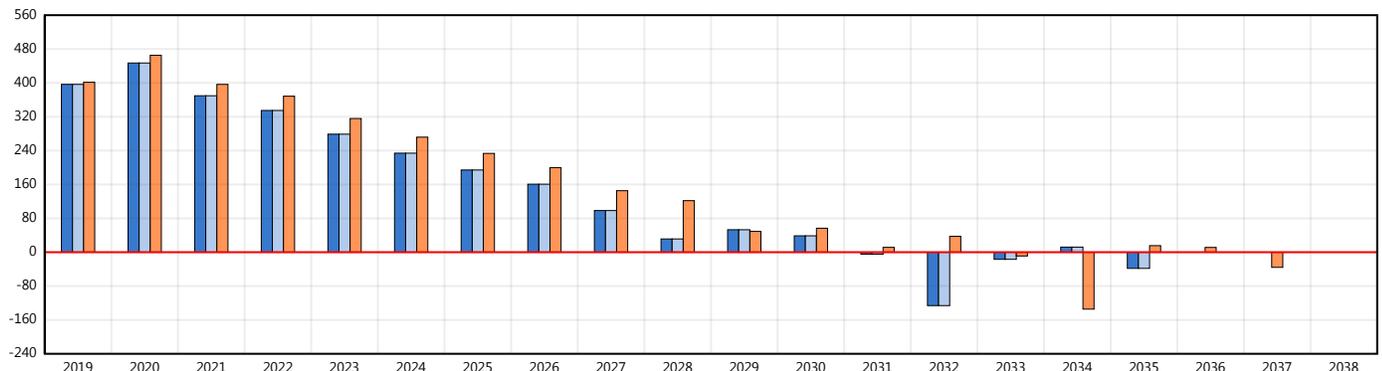
#### Net Operating Income (M\$)



#### Total Capital (M\$)



#### Future Net Revenue Before Tax (M\$)



■ PDP    ■ TP    ■ TPP

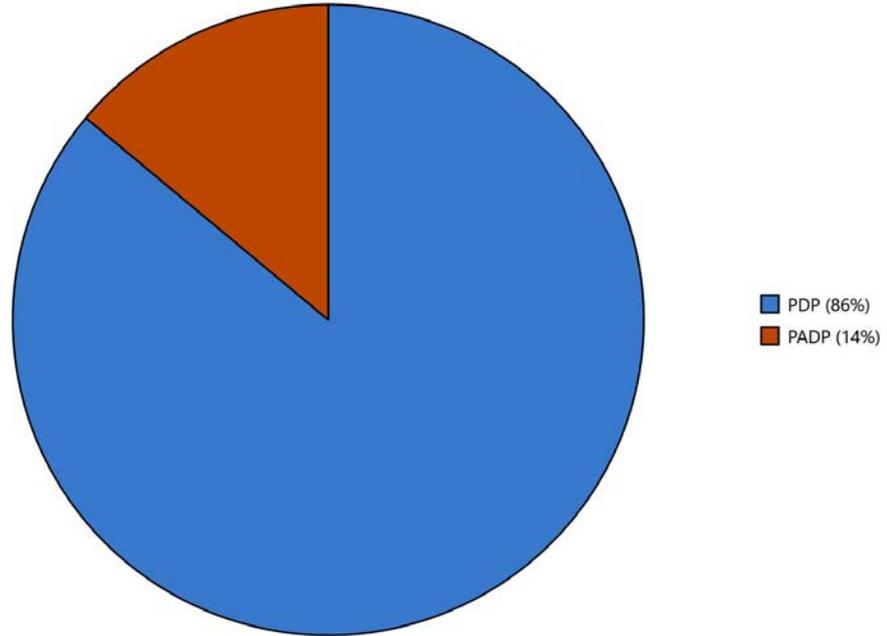
# Avalon Energy Ltd.

## Reserves Distribution by Reserves Class and Product Forecast Prices and Costs as of April 1, 2019

### Total Reserves

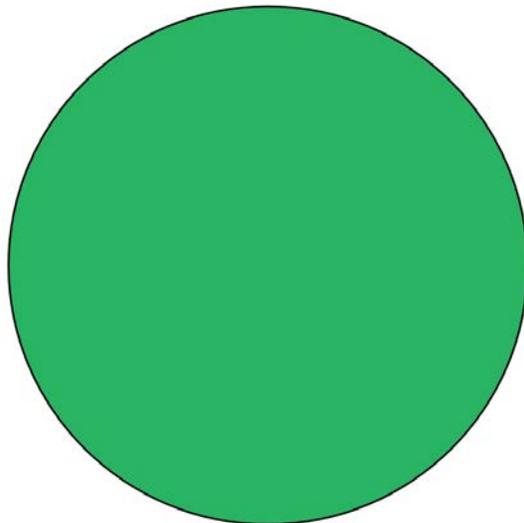
#### Murray Lake

### Reserves Distribution by Reserves Class



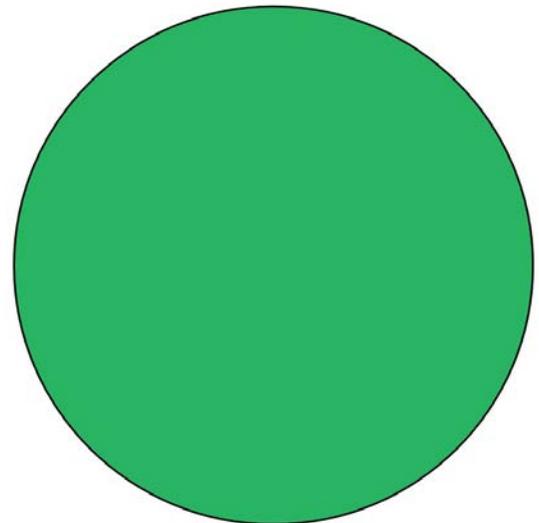
### Reserves Distribution by Product

Total Proved Reserves



Oil (100%)

Total Proved + Probable Reserves



Oil (100%)

(1) Distribution percentages may not add up to 100% due to rounding.

# Avalon Energy Ltd.

## Well Events Assigned Reserves Forecast Prices and Costs as of April 1, 2019 Total Reserves

### Murray Lake

<b>Proved</b>	<b>Gross</b>	<b>Avg WI %</b>
Developed Producing	10.0	100.00
<b>Total Proved</b>	<b>10.0</b>	<b>100.00</b>

<b>Proved + Probable</b>	<b>Gross</b>	<b>Avg WI %</b>
Developed Producing	10.0	100.00
<b>Total Proved + Probable</b>	<b>10.0</b>	<b>100.00</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Murray Lake

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	10.0	12.1	59.20	718.1	-	-	-	-	-	-	-	-	-	-	718.1	44
2020	10.0	14.3	60.58	869.1	-	-	-	-	-	-	-	-	-	-	869.1	39
2021	10.0	12.7	62.24	790.4	-	-	-	-	-	-	-	-	-	-	790.4	35
2022	10.0	11.4	66.20	756.5	-	-	-	-	-	-	-	-	-	-	756.5	31
2023	9.7	10.2	67.56	689.3	-	-	-	-	-	-	-	-	-	-	689.3	28
2024	9.0	9.0	68.82	620.9	-	-	-	-	-	-	-	-	-	-	620.9	25
2025	9.0	8.3	70.27	584.4	-	-	-	-	-	-	-	-	-	-	584.4	23
2026	8.1	7.2	71.63	516.5	-	-	-	-	-	-	-	-	-	-	516.5	20
2027	6.3	5.4	73.08	396.7	-	-	-	-	-	-	-	-	-	-	396.7	15
2028	3.6	3.3	74.54	242.4	-	-	-	-	-	-	-	-	-	-	242.4	9
2029	3.0	2.7	76.09	202.4	-	-	-	-	-	-	-	-	-	-	202.4	7
2030	2.1	1.9	77.54	144.7	-	-	-	-	-	-	-	-	-	-	144.7	5
2031	2.0	1.7	79.09	135.4	-	-	-	-	-	-	-	-	-	-	135.4	5
2032	2.0	1.6	80.64	131.5	-	-	-	-	-	-	-	-	-	-	131.5	4
2033	2.0	1.5	82.39	127.6	-	-	-	-	-	-	-	-	-	-	127.6	4
Rem.	-	1.2	84.29	98.7	-	-	-	-	-	-	-	-	-	-	98.7	2
<b>Total</b>	-	<b>104.6</b>	<b>67.14</b>	<b>7024.5</b>	-	-	-	-	-	-	-	-	-	-	<b>7024.5</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2020	-	-	-	3.4	-	3.4	-	-	-	-	-	3.4	0.4	-
2021	-	-	-	3.0	-	3.0	-	-	-	-	-	3.0	0.4	-
2022	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2023	-	-	-	2.6	-	2.6	-	-	-	-	-	2.6	0.4	-
2024	-	-	-	2.4	-	2.4	-	-	-	-	-	2.4	0.4	-
2025	-	-	-	2.3	-	2.3	-	-	-	-	-	2.3	0.4	-
2026	-	-	-	2.1	-	2.1	-	-	-	-	-	2.1	0.4	-
2027	19.5	-	19.5	1.2	-	1.2	-	-	-	-	-	20.7	5.2	-
2028	12.1	-	12.1	-	-	-	-	-	-	-	-	12.1	5.0	-
2029	10.1	-	10.1	-	-	-	-	-	-	-	-	10.1	5.0	-
2030	7.2	-	7.2	-	-	-	-	-	-	-	-	7.2	5.0	-
2031	6.8	-	6.8	-	-	-	-	-	-	-	-	6.8	5.0	-
2032	6.6	-	6.6	-	-	-	-	-	-	-	-	6.6	5.0	-
2033	6.4	-	6.4	-	-	-	-	-	-	-	-	6.4	5.0	-
Rem.	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
<b>Total</b>	<b>73.6</b>	-	<b>73.6</b>	<b>22.7</b>	-	<b>22.7</b>	-	-	-	-	-	<b>96.4</b>	<b>1.4</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	318.7	26.27	-	396.5	-	-	-	396.5	396.5	383.1
2020	418.7	29.18	-	447.0	-	-	-	447.0	843.6	397.7
2021	417.7	32.90	-	369.6	-	-	-	369.6	1213.2	298.8
2022	418.7	36.65	-	334.9	-	-	-	334.9	1548.1	246.1
2023	407.8	39.97	-	278.8	-	-	-	278.8	1826.9	186.3
2024	384.5	42.62	-	234.0	-	-	-	234.0	2060.9	142.1
2025	387.9	46.64	-	194.2	-	-	-	194.2	2255.1	107.2
2026	353.7	49.05	-	160.7	-	-	-	160.7	2415.8	80.7
2027	277.6	51.15	-	98.4	-	-	-	98.4	2514.2	45.0
2028	163.4	50.24	35.6	31.3	-	-	-	31.3	2545.5	13.2
2029	139.2	52.33	-	53.1	-	-	-	53.1	2598.6	20.0
2030	98.7	52.91	-	38.7	-	-	-	38.7	2637.4	13.3
2031	96.1	56.14	37.3	-4.8	-	-	-	-4.8	2632.6	-2.0
2032	97.5	59.77	153.6	-126.2	-	-	-	-126.2	2506.4	-35.6
2033	98.8	63.82	39.2	-16.8	-	-	-	-16.8	2489.6	-4.3
Rem.	79.5	-	129.0	-114.8	-	-	-	-114.8	2374.8	-18.2
<b>Total</b>	<b>4158.7</b>	-	<b>394.7</b>	<b>2374.8</b>	-	-	-	<b>2374.8</b>	-	<b>1873.5</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	104.6	104.6	-	103.3
<b>Total (MBOE)</b>	<b>104.6</b>	<b>104.6</b>	<b>-</b>	<b>103.3</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>2,374.8</b>	<b>2,111.1</b>	<b>1,873.5</b>	<b>1,674.3</b>	<b>1,510.3</b>

RLI 6.28 yrs  
 Remaining Life 16.08 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Proved Reserves

### Murray Lake

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Murray Lake</b>											
<b>NRA</b>											
Murray Lake NRA Wells	W-100.000	ALL ZONES	NRA	-	-	-	-	-	-	-	-
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PDP	5.8	-	-	-	60.7	67.5	68.6	67.1
102/02-30-009-07W4/0	W-100.000	SUNB	PDP	9.4	-	-	-	223.9	208.6	191.7	175.9
100/07-30-009-07W4/0	W-100.000	SUNB	PDP	19.0	-	-	-	552.8	461.5	391.0	337.7
100/12-31-009-07W4/0	W-100.000	SUNB	PDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/12-31-009-07W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/14-31-009-07W4/0	W-100.000	SUNB	PDP	8.9	-	-	-	190.1	177.7	163.2	149.3
103/14-31-009-07W4/2	W-100.000	SUNB	PDP	10.4	-	-	-	244.7	223.5	202.0	182.7
102/08-35-009-08W4/3	W-100.000	SUNB	PDP	9.3	-	-	-	191.1	179.9	166.3	153.0
100/05-36-009-08W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/08-36-009-08W4/0	W-100.000	L MN A	PDP	10.1	-	-	-	171.7	154.9	136.9	120.9
100/12-36-009-08W4/0	W-100.000	SUNB	PDP	8.4	-	-	-	164.7	154.7	142.3	130.1
102/12-36-009-08W4/0	W-100.000	SUNB	PDP	3.3	-	-	-	-0.7	10.2	16.2	19.5
<b>Subtotal PDP Wells</b>				<b>104.6</b>	-	-	-	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Murray Lake</b>				<b>104.6</b>	-	-	-	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Alberta</b>				<b>104.6</b>	-	-	-	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Total</b>				<b>104.6</b>	-	-	-	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Murray Lake

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	10.0	12.2	59.20	723.7	-	-	-	-	-	-	-	-	-	-	723.7	45
2020	10.0	14.7	60.58	889.4	-	-	-	-	-	-	-	-	-	-	889.4	40
2021	10.0	13.2	62.24	820.2	-	-	-	-	-	-	-	-	-	-	820.2	36
2022	10.0	12.0	66.20	793.7	-	-	-	-	-	-	-	-	-	-	793.7	33
2023	10.0	11.0	67.56	743.4	-	-	-	-	-	-	-	-	-	-	743.4	30
2024	10.0	9.7	68.82	666.0	-	-	-	-	-	-	-	-	-	-	666.0	26
2025	9.0	8.9	70.27	627.6	-	-	-	-	-	-	-	-	-	-	627.6	24
2026	9.0	8.4	71.63	598.2	-	-	-	-	-	-	-	-	-	-	598.2	23
2027	8.0	7.3	73.08	531.5	-	-	-	-	-	-	-	-	-	-	531.5	20
2028	8.0	6.8	74.54	503.6	-	-	-	-	-	-	-	-	-	-	503.6	18
2029	7.0	4.8	76.09	362.1	-	-	-	-	-	-	-	-	-	-	362.1	13
2030	3.0	2.7	77.54	209.4	-	-	-	-	-	-	-	-	-	-	209.4	7
2031	3.0	2.6	79.09	203.9	-	-	-	-	-	-	-	-	-	-	203.9	7
2032	3.0	1.9	80.64	155.5	-	-	-	-	-	-	-	-	-	-	155.5	5
2033	2.0	1.7	82.39	136.9	-	-	-	-	-	-	-	-	-	-	136.9	5
Rem.	-	3.9	85.73	332.7	-	-	-	-	-	-	-	-	-	-	332.7	3
<b>Total</b>	-	<b>121.6</b>	<b>68.25</b>	<b>8297.6</b>	-	-	-	-	-	-	-	-	-	-	<b>8297.6</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2020	-	-	-	3.5	-	3.5	-	-	-	-	-	3.5	0.4	-
2021	-	-	-	3.2	-	3.2	-	-	-	-	-	3.2	0.4	-
2022	-	-	-	3.1	-	3.1	-	-	-	-	-	3.1	0.4	-
2023	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2024	-	-	-	2.7	-	2.7	-	-	-	-	-	2.7	0.4	-
2025	-	-	-	2.6	-	2.6	-	-	-	-	-	2.6	0.4	-
2026	-	-	-	2.4	-	2.4	-	-	-	-	-	2.4	0.4	-
2027	25.9	-	25.9	2.3	-	2.3	-	-	-	-	-	28.2	5.3	-
2028	24.5	-	24.5	2.2	-	2.2	-	-	-	-	-	26.7	5.3	-
2029	17.5	-	17.5	2.0	-	2.0	-	-	-	-	-	19.5	5.4	-
2030	10.5	-	10.5	-	-	-	-	-	-	-	-	10.5	5.0	-
2031	10.2	-	10.2	-	-	-	-	-	-	-	-	10.2	5.0	-
2032	7.8	-	7.8	-	-	-	-	-	-	-	-	7.8	5.0	-
2033	6.8	-	6.8	-	-	-	-	-	-	-	-	6.8	5.0	-
Rem.	16.6	-	16.6	-	-	-	-	-	-	-	-	16.6	5.0	-
<b>Total</b>	<b>119.9</b>	-	<b>119.9</b>	<b>29.9</b>	-	<b>29.9</b>	-	-	-	-	-	<b>149.7</b>	<b>1.8</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	319.2	26.12	-	401.5	-	-	-	401.5	401.5	387.8
2020	420.5	28.65	-	465.3	-	-	-	465.3	866.9	413.8
2021	420.4	31.91	-	396.5	-	-	-	396.5	1263.4	320.5
2022	422.0	35.20	-	368.6	-	-	-	368.6	1632.0	270.8
2023	424.6	38.59	-	315.8	-	-	-	315.8	1947.8	211.0
2024	391.5	40.45	-	271.8	-	-	-	271.8	2219.6	165.1
2025	391.6	43.85	-	233.4	-	-	-	233.4	2453.0	128.8
2026	395.9	47.40	-	199.9	-	-	-	199.9	2652.9	100.3
2027	357.9	49.22	-	145.3	-	-	-	145.3	2798.2	66.3
2028	355.1	52.55	-	121.8	-	-	-	121.8	2920.0	50.6
2029	257.5	54.12	35.9	49.2	-	-	-	49.2	2969.2	18.0
2030	142.3	52.69	-	56.6	-	-	-	56.6	3025.8	19.4
2031	144.3	55.96	38.0	11.5	-	-	-	11.5	3037.3	4.1
2032	110.2	57.17	-	37.5	-	-	-	37.5	3074.8	10.6
2033	99.7	59.96	39.4	-8.9	-	-	-	-8.9	3065.8	-2.0
Rem.	257.3	-	294.0	-235.3	-	-	-	-235.3	2830.6	-43.1
<b>Total</b>	<b>4910.1</b>	-	<b>407.2</b>	<b>2830.6</b>	-	-	-	<b>2830.6</b>	-	<b>2122.1</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	121.6	121.6	-	119.6
<b>Total (MBOE)</b>	<b>121.6</b>	<b>121.6</b>	<b>-</b>	<b>119.6</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>2,830.6</b>	<b>2,444.7</b>	<b>2,122.1</b>	<b>1,864.5</b>	<b>1,660.0</b>

RLI 7.29 yrs  
 Remaining Life 18.42 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Proved + Probable Reserves

### Murray Lake

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Murray Lake</b>											
<b>NRA</b>											
Murray Lake NRA Wells	W-100.000	ALL ZONES	NRA	-	-	-	-	-	-	-	-
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PPDP	6.6	-	-	-	74.6	79.9	79.2	76.1
102/02-30-009-07W4/0	W-100.000	SUNB	PPDP	11.7	-	-	-	289.4	259.8	231.9	207.8
100/07-30-009-07W4/0	W-100.000	SUNB	PPDP	23.4	-	-	-	699.8	555.1	453.6	381.9
100/12-31-009-07W4/0	W-100.000	SUNB	PPDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/12-31-009-07W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/14-31-009-07W4/0	W-100.000	SUNB	PPDP	10.2	-	-	-	224.9	205.0	184.5	166.2
103/14-31-009-07W4/2	W-100.000	SUNB	PPDP	11.9	-	-	-	285.4	254.5	225.7	201.1
102/08-35-009-08W4/3	W-100.000	SUNB	PPDP	11.9	-	-	-	257.4	231.8	206.8	184.9
100/05-36-009-08W4/0	W-100.000	SUNB	NRA	-	-	-	-	-	-	-	-
102/08-36-009-08W4/0	W-100.000	L MN A	PPDP	12.1	-	-	-	213.8	184.5	157.6	135.6
100/12-36-009-08W4/0	W-100.000	SUNB	PPDP	10.1	-	-	-	204.6	185.8	166.2	148.8
102/12-36-009-08W4/0	W-100.000	SUNB	PPDP	3.6	-	-	-	5.0	15.7	21.3	24.1
<b>Subtotal PDP Wells</b>				<b>121.6</b>	-	-	-	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Murray Lake</b>				<b>121.6</b>	-	-	-	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Alberta</b>				<b>121.6</b>	-	-	-	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Total</b>				<b>121.6</b>	-	-	-	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Total Probable Reserves

### Murray Lake

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	-	0.1	59.20	5.5	-	-	-	-	-	-	-	-	-	-	5.5	0
2020	-	0.3	60.58	20.3	-	-	-	-	-	-	-	-	-	-	20.3	1
2021	-	0.5	62.24	29.8	-	-	-	-	-	-	-	-	-	-	29.8	1
2022	-	0.6	66.20	37.2	-	-	-	-	-	-	-	-	-	-	37.2	2
2023	0.3	0.8	67.55	54.1	-	-	-	-	-	-	-	-	-	-	54.1	2
2024	1.0	0.7	68.82	45.1	-	-	-	-	-	-	-	-	-	-	45.1	2
2025	-	0.6	70.27	43.2	-	-	-	-	-	-	-	-	-	-	43.2	2
2026	0.9	1.1	71.63	81.7	-	-	-	-	-	-	-	-	-	-	81.7	3
2027	1.8	1.8	73.07	134.8	-	-	-	-	-	-	-	-	-	-	134.8	5
2028	4.4	3.5	74.53	261.2	-	-	-	-	-	-	-	-	-	-	261.2	10
2029	4.0	2.1	76.09	159.7	-	-	-	-	-	-	-	-	-	-	159.7	6
2030	0.9	0.8	77.54	64.7	-	-	-	-	-	-	-	-	-	-	64.7	2
2031	1.0	0.9	79.09	68.5	-	-	-	-	-	-	-	-	-	-	68.5	2
2032	1.0	0.3	80.65	24.0	-	-	-	-	-	-	-	-	-	-	24.0	1
2033	-	0.1	82.39	9.3	-	-	-	-	-	-	-	-	-	-	9.3	0
Rem.	-	2.7	86.35	234.0	-	-	-	-	-	-	-	-	-	-	234.0	2
<b>Total</b>	<b>-</b>	<b>16.9</b>	<b>75.11</b>	<b>1273.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1273.1</b>	<b>-</b>

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	-	-	-	0.0	-	0.0	-	-	-	-	-	0.0	0.7	-
2020	-	-	-	0.1	-	0.1	-	-	-	-	-	0.1	0.7	-
2021	-	-	-	0.2	-	0.2	-	-	-	-	-	0.2	0.7	-
2022	-	-	-	0.3	-	0.3	-	-	-	-	-	0.3	0.7	-
2023	-	-	-	0.3	-	0.3	-	-	-	-	-	0.3	0.5	-
2024	-	-	-	0.3	-	0.3	-	-	-	-	-	0.3	0.6	-
2025	-	-	-	0.3	-	0.3	-	-	-	-	-	0.3	0.7	-
2026	-	-	-	0.3	-	0.3	-	-	-	-	-	0.3	0.4	-
2027	6.4	-	6.4	1.1	-	1.1	-	-	-	-	-	7.5	5.6	-
2028	12.4	-	12.4	2.2	-	2.2	-	-	-	-	-	14.6	5.6	-
2029	7.4	-	7.4	2.0	-	2.0	-	-	-	-	-	9.4	5.9	-
2030	3.2	-	3.2	-	-	-	-	-	-	-	-	3.2	5.0	-
2031	3.4	-	3.4	-	-	-	-	-	-	-	-	3.4	5.0	-
2032	1.2	-	1.2	-	-	-	-	-	-	-	-	1.2	5.0	-
2033	0.5	-	0.5	-	-	-	-	-	-	-	-	0.5	5.0	-
Rem.	11.7	-	11.7	-	-	-	-	-	-	-	-	11.7	5.0	-
<b>Total</b>	<b>46.2</b>	<b>-</b>	<b>46.2</b>	<b>7.1</b>	<b>-</b>	<b>7.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>53.4</b>	<b>4.2</b>	<b>-</b>

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	0.5	5.50	-	5.0	-	-	-	5.0	5.0	4.8
2020	1.9	5.56	-	18.3	-	-	-	18.3	23.3	16.2
2021	2.7	5.66	-	26.9	-	-	-	26.9	50.2	21.7
2022	3.2	5.78	-	33.7	-	-	-	33.7	83.9	24.7
2023	16.8	20.98	-	37.0	-	-	-	37.0	120.9	24.7
2024	7.0	10.63	-	37.9	-	-	-	37.9	158.8	23.0
2025	3.8	6.13	-	39.2	-	-	-	39.2	197.9	21.6
2026	42.2	36.98	-	39.2	-	-	-	39.2	237.1	19.6
2027	80.3	43.56	-	46.9	-	-	-	46.9	284.0	21.2
2028	191.7	54.70	-35.6	90.4	-	-	-	90.4	374.4	37.3
2029	118.3	56.40	35.9	-3.9	-	-	-	-3.9	370.6	-2.0
2030	43.6	52.20	-	17.9	-	-	-	17.9	388.5	6.1
2031	48.1	55.59	0.7	16.2	-	-	-	16.2	404.7	6.1
2032	12.8	42.88	-153.6	163.7	-	-	-	163.7	568.4	46.2
2033	0.8	7.18	0.2	7.9	-	-	-	7.9	576.2	2.3
Rem.	177.8	-	165.0	-120.4	-	-	-	-120.4	455.8	-24.9
<b>Total</b>	<b>751.4</b>	<b>-</b>	<b>12.5</b>	<b>455.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>455.8</b>	<b>-</b>	<b>248.6</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	16.9	16.9	-	16.3
<b>Total (MBOE)</b>	<b>16.9</b>	<b>16.9</b>	<b>-</b>	<b>16.3</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>455.8</b>	<b>333.6</b>	<b>248.6</b>	<b>190.2</b>	<b>149.7</b>

RLI 50+ yrs  
 Remaining Life 18.42 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Total Probable Reserves

### Murray Lake

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Murray Lake</b>											
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PADP	0.8	-	-	-	13.9	12.4	10.6	8.9
102/02-30-009-07W4/0	W-100.000	SUNB	PADP	2.3	-	-	-	65.5	51.2	40.1	31.8
100/07-30-009-07W4/0	W-100.000	SUNB	PADP	4.4	-	-	-	147.0	93.6	62.6	44.2
102/14-31-009-07W4/0	W-100.000	SUNB	PADP	1.3	-	-	-	34.8	27.3	21.3	16.9
103/14-31-009-07W4/2	W-100.000	SUNB	PADP	1.5	-	-	-	40.7	31.0	23.7	18.4
102/08-35-009-08W4/3	W-100.000	SUNB	PADP	2.6	-	-	-	66.3	51.9	40.5	32.0
102/08-36-009-08W4/0	W-100.000	L MN A	PADP	2.0	-	-	-	42.1	29.6	20.7	14.8
100/12-36-009-08W4/0	W-100.000	SUNB	PADP	1.7	-	-	-	39.9	31.1	24.0	18.7
102/12-36-009-08W4/0	W-100.000	SUNB	PADP	0.3	-	-	-	5.7	5.5	5.1	4.6
<b>Subtotal PDP Wells</b>				<b>16.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>455.8</b>	<b>333.6</b>	<b>248.6</b>	<b>190.2</b>
<b>Subtotal Murray Lake</b>				<b>16.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>455.8</b>	<b>333.6</b>	<b>248.6</b>	<b>190.2</b>
<b>Subtotal Alberta</b>				<b>16.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>455.8</b>	<b>333.6</b>	<b>248.6</b>	<b>190.2</b>
<b>Total</b>				<b>16.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>455.8</b>	<b>333.6</b>	<b>248.6</b>	<b>190.2</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Proved Developed Producing Reserves

### Murray Lake

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	10.0	12.1	59.20	718.1	-	-	-	-	-	-	-	-	-	718.1	44	
2020	10.0	14.3	60.58	869.1	-	-	-	-	-	-	-	-	-	869.1	39	
2021	10.0	12.7	62.24	790.4	-	-	-	-	-	-	-	-	-	790.4	35	
2022	10.0	11.4	66.20	756.5	-	-	-	-	-	-	-	-	-	756.5	31	
2023	9.7	10.2	67.56	689.3	-	-	-	-	-	-	-	-	-	689.3	28	
2024	9.0	9.0	68.82	620.9	-	-	-	-	-	-	-	-	-	620.9	25	
2025	9.0	8.3	70.27	584.4	-	-	-	-	-	-	-	-	-	584.4	23	
2026	8.1	7.2	71.63	516.5	-	-	-	-	-	-	-	-	-	516.5	20	
2027	6.3	5.4	73.08	396.7	-	-	-	-	-	-	-	-	-	396.7	15	
2028	3.6	3.3	74.54	242.4	-	-	-	-	-	-	-	-	-	242.4	9	
2029	3.0	2.7	76.09	202.4	-	-	-	-	-	-	-	-	-	202.4	7	
2030	2.1	1.9	77.54	144.7	-	-	-	-	-	-	-	-	-	144.7	5	
2031	2.0	1.7	79.09	135.4	-	-	-	-	-	-	-	-	-	135.4	5	
2032	2.0	1.6	80.64	131.5	-	-	-	-	-	-	-	-	-	131.5	4	
2033	2.0	1.5	82.39	127.6	-	-	-	-	-	-	-	-	-	127.6	4	
Rem.	-	1.2	84.29	98.7	-	-	-	-	-	-	-	-	-	98.7	2	
<b>Total</b>	-	<b>104.6</b>	<b>67.14</b>	<b>7024.5</b>	-	-	-	-	-	-	-	-	-	<b>7024.5</b>	-	

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2020	-	-	-	3.4	-	3.4	-	-	-	-	-	3.4	0.4	-
2021	-	-	-	3.0	-	3.0	-	-	-	-	-	3.0	0.4	-
2022	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2023	-	-	-	2.6	-	2.6	-	-	-	-	-	2.6	0.4	-
2024	-	-	-	2.4	-	2.4	-	-	-	-	-	2.4	0.4	-
2025	-	-	-	2.3	-	2.3	-	-	-	-	-	2.3	0.4	-
2026	-	-	-	2.1	-	2.1	-	-	-	-	-	2.1	0.4	-
2027	19.5	-	19.5	1.2	-	1.2	-	-	-	-	-	20.7	5.2	-
2028	12.1	-	12.1	-	-	-	-	-	-	-	-	12.1	5.0	-
2029	10.1	-	10.1	-	-	-	-	-	-	-	-	10.1	5.0	-
2030	7.2	-	7.2	-	-	-	-	-	-	-	-	7.2	5.0	-
2031	6.8	-	6.8	-	-	-	-	-	-	-	-	6.8	5.0	-
2032	6.6	-	6.6	-	-	-	-	-	-	-	-	6.6	5.0	-
2033	6.4	-	6.4	-	-	-	-	-	-	-	-	6.4	5.0	-
Rem.	4.9	-	4.9	-	-	-	-	-	-	-	-	4.9	5.0	-
<b>Total</b>	<b>73.6</b>	-	<b>73.6</b>	<b>22.7</b>	-	<b>22.7</b>	-	-	-	-	-	<b>96.4</b>	<b>1.4</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	318.7	26.27	-	396.5	-	-	-	396.5	396.5	383.1
2020	418.7	29.18	-	447.0	-	-	-	447.0	843.6	397.7
2021	417.7	32.90	-	369.6	-	-	-	369.6	1213.2	298.8
2022	418.7	36.65	-	334.9	-	-	-	334.9	1548.1	246.1
2023	407.8	39.97	-	278.8	-	-	-	278.8	1826.9	186.3
2024	384.5	42.62	-	234.0	-	-	-	234.0	2060.9	142.1
2025	387.9	46.64	-	194.2	-	-	-	194.2	2255.1	107.2
2026	353.7	49.05	-	160.7	-	-	-	160.7	2415.8	80.7
2027	277.6	51.15	-	98.4	-	-	-	98.4	2514.2	45.0
2028	163.4	50.24	35.6	31.3	-	-	-	31.3	2545.5	13.2
2029	139.2	52.33	-	53.1	-	-	-	53.1	2598.6	20.0
2030	98.7	52.91	-	38.7	-	-	-	38.7	2637.4	13.3
2031	96.1	56.14	37.3	-4.8	-	-	-	-4.8	2632.6	-2.0
2032	97.5	59.77	153.6	-126.2	-	-	-	-126.2	2506.4	-35.6
2033	98.8	63.82	39.2	-16.8	-	-	-	-16.8	2489.6	-4.3
Rem.	79.5	-	129.0	-114.8	-	-	-	-114.8	2374.8	-18.2
<b>Total</b>	<b>4158.7</b>	-	<b>394.7</b>	<b>2374.8</b>	-	-	-	<b>2374.8</b>	-	<b>1873.5</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	104.6	104.6	-	103.3
<b>Total (MBOE)</b>	<b>104.6</b>	<b>104.6</b>	<b>-</b>	<b>103.3</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>2,374.8</b>	<b>2,111.1</b>	<b>1,873.5</b>	<b>1,674.3</b>	<b>1,510.3</b>

RLI 6.28 yrs  
 Remaining Life 16.08 yrs  
 Price Schedule G190401

# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Proved Developed Producing Reserves

### Murray Lake

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbl	Gas MMcf	Cond. Mbbl	NGL Mbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Murray Lake</b>											
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PDP	5.8	-	-	-	60.7	67.5	68.6	67.1
102/02-30-009-07W4/0	W-100.000	SUNB	PDP	9.4	-	-	-	223.9	208.6	191.7	175.9
100/07-30-009-07W4/0	W-100.000	SUNB	PDP	19.0	-	-	-	552.8	461.5	391.0	337.7
100/12-31-009-07W4/0	W-100.000	SUNB	PDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/14-31-009-07W4/0	W-100.000	SUNB	PDP	8.9	-	-	-	190.1	177.7	163.2	149.3
103/14-31-009-07W4/2	W-100.000	SUNB	PDP	10.4	-	-	-	244.7	223.5	202.0	182.7
102/08-35-009-08W4/3	W-100.000	SUNB	PDP	9.3	-	-	-	191.1	179.9	166.3	153.0
102/08-36-009-08W4/0	W-100.000	L MN A	PDP	10.1	-	-	-	171.7	154.9	136.9	120.9
100/12-36-009-08W4/0	W-100.000	SUNB	PDP	8.4	-	-	-	164.7	154.7	142.3	130.1
102/12-36-009-08W4/0	W-100.000	SUNB	PDP	3.3	-	-	-	-0.7	10.2	16.2	19.5
<b>Subtotal PDP Wells</b>				<b>104.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Murray Lake</b>				<b>104.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Subtotal Alberta</b>				<b>104.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>
<b>Total</b>				<b>104.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2374.8</b>	<b>2111.1</b>	<b>1873.5</b>	<b>1674.3</b>

# Avalon Energy Ltd.

## Forecast of Production and Revenue Before Tax - Company Share Forecast Prices and Costs as of April 1, 2019 Proved + Probable Developed Producing Reserves

### Murray Lake

Year	Crude Oil				Natural Gas			Condensate			Natural Gas Liquids			Sulphur & Other Revenue M\$	Company Share Revenue M\$	BOE/d
	WI Wells	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume MMcf	Sales Price \$/Mcf	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$	WI & RI Volume Mbbbl	Sales Price \$/bbl	Sales Revenue M\$			
2019 (9)	10.0	12.2	59.20	723.7	-	-	-	-	-	-	-	-	-	-	723.7	45
2020	10.0	14.7	60.58	889.4	-	-	-	-	-	-	-	-	-	-	889.4	40
2021	10.0	13.2	62.24	820.2	-	-	-	-	-	-	-	-	-	-	820.2	36
2022	10.0	12.0	66.20	793.7	-	-	-	-	-	-	-	-	-	-	793.7	33
2023	10.0	11.0	67.56	743.4	-	-	-	-	-	-	-	-	-	-	743.4	30
2024	10.0	9.7	68.82	666.0	-	-	-	-	-	-	-	-	-	-	666.0	26
2025	9.0	8.9	70.27	627.6	-	-	-	-	-	-	-	-	-	-	627.6	24
2026	9.0	8.4	71.63	598.2	-	-	-	-	-	-	-	-	-	-	598.2	23
2027	8.0	7.3	73.08	531.5	-	-	-	-	-	-	-	-	-	-	531.5	20
2028	8.0	6.8	74.54	503.6	-	-	-	-	-	-	-	-	-	-	503.6	18
2029	7.0	4.8	76.09	362.1	-	-	-	-	-	-	-	-	-	-	362.1	13
2030	3.0	2.7	77.54	209.4	-	-	-	-	-	-	-	-	-	-	209.4	7
2031	3.0	2.6	79.09	203.9	-	-	-	-	-	-	-	-	-	-	203.9	7
2032	3.0	1.9	80.64	155.5	-	-	-	-	-	-	-	-	-	-	155.5	5
2033	2.0	1.7	82.39	136.9	-	-	-	-	-	-	-	-	-	-	136.9	5
Rem.	-	3.9	85.73	332.7	-	-	-	-	-	-	-	-	-	-	332.7	3
<b>Total</b>	-	<b>121.6</b>	<b>68.25</b>	<b>8297.6</b>	-	-	-	-	-	-	-	-	-	-	<b>8297.6</b>	-

Year	Crown Royalties			Freehold Royalties			Overriding Royalties			Mineral Tax M\$	Sask. Cap. Surch. M\$	Total Royalties & Taxes		NPI Pymts. M\$
	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$	Unadj. Royalty M\$	Royalty Adj. M\$	Adj. Royalty M\$			M\$	%	
2019 (9)	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2020	-	-	-	3.5	-	3.5	-	-	-	-	-	3.5	0.4	-
2021	-	-	-	3.2	-	3.2	-	-	-	-	-	3.2	0.4	-
2022	-	-	-	3.1	-	3.1	-	-	-	-	-	3.1	0.4	-
2023	-	-	-	2.9	-	2.9	-	-	-	-	-	2.9	0.4	-
2024	-	-	-	2.7	-	2.7	-	-	-	-	-	2.7	0.4	-
2025	-	-	-	2.6	-	2.6	-	-	-	-	-	2.6	0.4	-
2026	-	-	-	2.4	-	2.4	-	-	-	-	-	2.4	0.4	-
2027	25.9	-	25.9	2.3	-	2.3	-	-	-	-	-	28.2	5.3	-
2028	24.5	-	24.5	2.2	-	2.2	-	-	-	-	-	26.7	5.3	-
2029	17.5	-	17.5	2.0	-	2.0	-	-	-	-	-	19.5	5.4	-
2030	10.5	-	10.5	-	-	-	-	-	-	-	-	10.5	5.0	-
2031	10.2	-	10.2	-	-	-	-	-	-	-	-	10.2	5.0	-
2032	7.8	-	7.8	-	-	-	-	-	-	-	-	7.8	5.0	-
2033	6.8	-	6.8	-	-	-	-	-	-	-	-	6.8	5.0	-
Rem.	16.6	-	16.6	-	-	-	-	-	-	-	-	16.6	5.0	-
<b>Total</b>	<b>119.9</b>	-	<b>119.9</b>	<b>29.9</b>	-	<b>29.9</b>	-	-	-	-	-	<b>149.7</b>	<b>1.8</b>	-

Year	Operating Costs		Abd. & Recl. Costs M\$	Net Op. Income M\$	Capital Costs			Future Net Revenue Before Tax		
	M\$	\$/BOE			Drilling & Compl. M\$	Equip. & Facility M\$	Total Capital M\$	Annual M\$	Cum. M\$	NPV @10.0% M\$
2019 (9)	319.2	26.12	-	401.5	-	-	-	401.5	401.5	387.8
2020	420.5	28.65	-	465.3	-	-	-	465.3	866.9	413.8
2021	420.4	31.91	-	396.5	-	-	-	396.5	1263.4	320.5
2022	422.0	35.20	-	368.6	-	-	-	368.6	1632.0	270.8
2023	424.6	38.59	-	315.8	-	-	-	315.8	1947.8	211.0
2024	391.5	40.45	-	271.8	-	-	-	271.8	2219.6	165.1
2025	391.6	43.85	-	233.4	-	-	-	233.4	2453.0	128.8
2026	395.9	47.40	-	199.9	-	-	-	199.9	2652.9	100.3
2027	357.9	49.22	-	145.3	-	-	-	145.3	2798.2	66.3
2028	355.1	52.55	-	121.8	-	-	-	121.8	2920.0	50.6
2029	257.5	54.12	35.9	49.2	-	-	-	49.2	2969.2	18.0
2030	142.3	52.69	-	56.6	-	-	-	56.6	3025.8	19.4
2031	144.3	55.96	38.0	11.5	-	-	-	11.5	3037.3	4.1
2032	110.2	57.17	-	37.5	-	-	-	37.5	3074.8	10.6
2033	99.7	59.96	39.4	-8.9	-	-	-	-8.9	3065.8	-2.0
Rem.	257.3	-	294.0	-235.3	-	-	-	-235.3	2830.6	-43.1
<b>Total</b>	<b>4910.1</b>	-	<b>407.2</b>	<b>2830.6</b>	-	-	-	<b>2830.6</b>	-	<b>2122.1</b>

Product	Remaining Reserves			
	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	121.6	121.6	-	119.6
<b>Total (MBOE)</b>	<b>121.6</b>	<b>121.6</b>	<b>-</b>	<b>119.6</b>

Net Present Value Before Tax - M\$				
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	@ 20.0%
<b>2,830.6</b>	<b>2,444.7</b>	<b>2,122.1</b>	<b>1,864.5</b>	<b>1,660.0</b>

RLI 7.29 yrs  
 Remaining Life 18.42 yrs  
 Price Schedule G190401

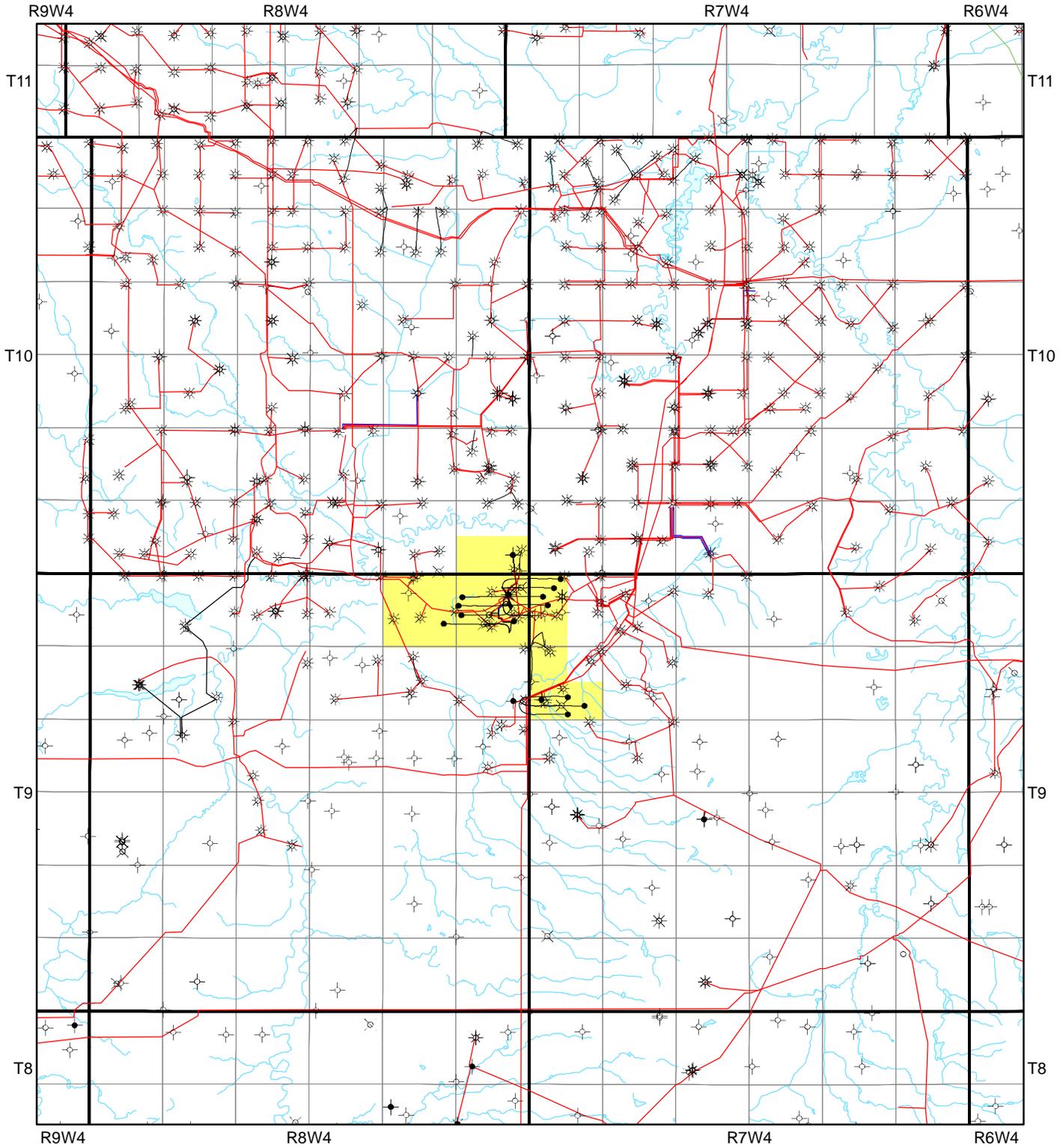
# Avalon Energy Ltd.

## Reserves and Net Present Value by Property Forecast Prices and Costs as of April 1, 2019 Proved + Probable Developed Producing Reserves

### Murray Lake

Area and Property	Company Interest %	Zones	Reserve Class	Company WI & RI Reserves				Net Present Value Before Tax (M\$)			
				Oil Mbbbl	Gas MMcf	Cond. Mbbbl	NGL Mbbbl	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>Canada</b>											
<b>Alberta</b>											
<b>Murray Lake</b>											
<b>PDP Wells</b>											
100/01-30-009-07W4/2	W-100.000	SUNB	PPDP	6.6	-	-	-	74.6	79.9	79.2	76.1
102/02-30-009-07W4/0	W-100.000	SUNB	PPDP	11.7	-	-	-	289.4	259.8	231.9	207.8
100/07-30-009-07W4/0	W-100.000	SUNB	PPDP	23.4	-	-	-	699.8	555.1	453.6	381.9
100/12-31-009-07W4/0	W-100.000	SUNB	PPDP	20.0	-	-	-	575.7	472.7	395.3	338.1
102/14-31-009-07W4/0	W-100.000	SUNB	PPDP	10.2	-	-	-	224.9	205.0	184.5	166.2
103/14-31-009-07W4/2	W-100.000	SUNB	PPDP	11.9	-	-	-	285.4	254.5	225.7	201.1
102/08-35-009-08W4/3	W-100.000	SUNB	PPDP	11.9	-	-	-	257.4	231.8	206.8	184.9
102/08-36-009-08W4/0	W-100.000	L MN A	PPDP	12.1	-	-	-	213.8	184.5	157.6	135.6
100/12-36-009-08W4/0	W-100.000	SUNB	PPDP	10.1	-	-	-	204.6	185.8	166.2	148.8
102/12-36-009-08W4/0	W-100.000	SUNB	PPDP	3.6	-	-	-	5.0	15.7	21.3	24.1
<b>Subtotal PDP Wells</b>				<b>121.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Murray Lake</b>				<b>121.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Subtotal Alberta</b>				<b>121.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>
<b>Total</b>				<b>121.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2830.6</b>	<b>2444.7</b>	<b>2122.1</b>	<b>1864.5</b>

Figure 1



**Legend**

• Oil	— Oil Gas
✦ Abandoned Oil	— Water
✧ Suspended Oil	— Other, Eff
✧ Oil & Gas	◆ Gas Plant
✧ Gas	
✧ Abandoned Gas	
✧ Suspended Gas	
✧ Dry & Abandoned	
✧ Service	
○ Location	
○ Injection	
○ Suspended Other	

1:125,000

Company Land

Avalon Energy Ltd.

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Murray Lake

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**McDaniel**  
 & Associates Consultants Ltd.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Economic Parameters

### Economic Parameters - Entity Costs Forecast Prices and Costs as of April 1, 2019 Murray Lake

Primary Product	Zone	Interest (1)		Reserve Category	Abd. & Reclam. (2)			Operating Costs					Capital Costs					
		WI %	RI %		Cost M\$	Delay months		Fixed M\$/Year	Fixed M\$/Month	Fixed \$/Well-yr	Fixed \$/Well-mo	Variable Oil \$/bbl	Variable Sales Gas \$/Mcf	Variable Water \$/bbl	Drill M\$	Compl. M\$	Other M\$	Total M\$
<b>Canada</b>																		
<b>Alberta</b>																		
<b>Murray Lake</b>																		
<b>PDP Wells</b>																		
100/01-30-009-07W4/2	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
102/02-30-009-07W4/0	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
100/07-30-009-07W4/0	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
100/12-31-009-07W4/0	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
102/14-31-009-07W4/0	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
103/14-31-009-07W4/2	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
102/08-35-009-08W4/3	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
102/08-36-009-08W4/0	Oil	L MN A	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
100/12-36-009-08W4/0	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-
102/12-36-009-08W4/0	Oil	SUNB	100.0	-	PDP	30	60	2019/04	-	-	-	2,800	5.50	-	-	-	-	-

(1) Interest is based on Total Proved + Probable economic reserves.

(2) Abandonment and reclamation costs have not been forecast for wells with no reserves assigned.



Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Economic Parameters

### Economic Parameters - Product Pricing and NGL Recoveries Forecast Prices and Costs as of April 1, 2019 Murray Lake

Zone	Reserve Category	Oil Reference Price	Gas Reference Price	Price Adjustments (\$/bbl or \$/Mcf or %)							Gas Heat Content Btu/scf	Total Shrink. %	NGL Recoveries (Sales Basis, bbl/MMcf)				
				Oil	Gas	C2	C3	C4	C5+	Cond.			C2	C3	C4	C5+	
<b>Canada</b>																	
<b>Alberta</b>																	
<b>Murray Lake</b>																	
<b>PDP Wells</b>																	
100/01-30-009-07W4/2	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
102/02-30-009-07W4/0	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
100/07-30-009-07W4/0	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
100/12-31-009-07W4/0	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
102/14-31-009-07W4/0	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
103/14-31-009-07W4/2	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
102/08-35-009-08W4/3	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
102/08-36-009-08W4/0	L MN A	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
100/12-36-009-08W4/0	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-
102/12-36-009-08W4/0	SUNB	PDP	Western Canada Select	AECO - C Spot	2019/04	-\$2.00						1,000	100.0	-	-	-	-

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

Reserve Estimates

## Summary of Reserve Estimates Forecast Prices and Costs as of April 1, 2019 Total Reserves

### Murray Lake

Area and Property	Company Interest %	Zones	Reserve Class	Crude Oil					Natural Gas					Condensate						
				Gross		Company Share			Gross		Company Share			Gross		Company Share				
				Orig. Res. Mbbl	Cum. Prod. Mbbl	Rem. Res. Mbbl	Rem. Res. Mbbl	2019 Rate bopd	Orig. Raw Res. MMcf	Cum. Prod. MMcf	Rem. Raw Res. MMcf	Surf. Loss %	Rem. Sales Res. MMcf	Rem. Sales Res. MMcf	2019 Rate Mcf/d	Orig. Res. Mbbl	Cum. Prod. Mbbl	Rem. Res. Mbbl	Rem. Res. Mbbl	2019 Rate bopd
<b>Canada</b>																				
<b>Alberta</b>																				
<b>Murray Lake</b>																				
<b>PDP Wells</b>																				
100/01-30-009-07W4/2	W-100.0	SUNB	TP	26	20	6	6	3	49	49	-	-	-	-	-	-	-	-	-	
			TPP	26	20	7	7	3	49	49	-	-	-	-	-	-	-	-	-	
102/02-30-009-07W4/0	W-100.0	SUNB	TP	41	32	9	9	5	87	87	-	-	-	-	-	-	-	-	-	
			TPP	44	32	12	12	5	87	87	-	-	-	-	-	-	-	-	-	
100/07-30-009-07W4/0	W-100.0	SUNB	TP	42	23	19	19	6	28	28	-	-	-	-	-	-	-	-	-	
			TPP	46	23	23	23	7	28	28	-	-	-	-	-	-	-	-	-	
100/12-31-009-07W4/0	W-100.0	SUNB	TP	79	59	20	20	6	3	3	-	-	-	-	-	-	-	-	-	
102/14-31-009-07W4/0	W-100.0	SUNB	TP	38	29	9	9	4	32	32	-	-	-	-	-	-	-	-	-	
			TPP	39	29	10	10	4	32	32	-	-	-	-	-	-	-	-	-	
103/14-31-009-07W4/2	W-100.0	SUNB	TP	52	42	10	10	5	23	23	-	-	-	-	-	-	-	-	-	
			TPP	54	42	12	12	5	23	23	-	-	-	-	-	-	-	-	-	
102/08-35-009-08W4/3	W-100.0	SUNB	TP	55	46	9	9	5	16	16	-	-	-	-	-	-	-	-	-	
			TPP	58	46	12	12	5	16	16	-	-	-	-	-	-	-	-	-	
102/08-36-009-08W4/0	W-100.0	L MN A	TP	66	56	10	10	3	9	9	-	-	-	-	-	-	-	-	-	
			TPP	68	56	12	12	3	9	9	-	-	-	-	-	-	-	-	-	
100/12-36-009-08W4/0	W-100.0	SUNB	TP	75	66	8	8	4	27	27	-	-	-	-	-	-	-	-	-	
			TPP	77	66	10	10	4	27	27	-	-	-	-	-	-	-	-	-	
102/12-36-009-08W4/0	W-100.0	SUNB	TP	16	13	3	3	3	7	7	-	-	-	-	-	-	-	-	-	
			TPP	17	13	4	4	3	7	7	-	-	-	-	-	-	-	-	-	
<b>Total</b>			<b>TP</b>	<b>490</b>	<b>385</b>	<b>105</b>	<b>105</b>	<b>44</b>	<b>280</b>	<b>280</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
			<b>TPP</b>	<b>507</b>	<b>385</b>	<b>122</b>	<b>122</b>	<b>45</b>	<b>280</b>	<b>280</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

Interest

### List of Interests and Burdens Forecast Prices and Costs as of April 1, 2019 Murray Lake

Zone	Interest Product	Ownership	Burdens	Crown Incentives/ Freehold Mineral Tax	Tract Factor	Pooling Factor	Payout
<b>Canada</b>							
<b>Alberta</b>							
<b>Murray Lake</b>							
<b>PDP Wells</b>							
100/01-30-009-07W4/2	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
102/02-30-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
100/07-30-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
100/12-31-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
102/12-31-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
102/14-31-009-07W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
103/14-31-009-07W4/2	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
102/08-35-009-08W4/3	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000
Lease 1		WI	100.000%	AB Crown	New Well Royalty Rate	0.780	1.000
Lease 2		WI	100.000%	Freehold	Proportionate Share	0.220	1.000
100/05-36-009-08W4/0	SUNB	WI	100.000%	AB Crown		1.000	1.000
102/08-36-009-08W4/0	L MN A	WI	100.000%	AB Crown		1.000	1.000
100/12-36-009-08W4/0	SUNB	WI	100.000%	AB Crown		1.000	1.000
102/12-36-009-08W4/0	SUNB	WI	100.000%	AB Crown	New Well Royalty Rate	1.000	1.000

# Avalon Energy Ltd.

Detailed Property Evaluation Index  
Forecast Prices and Costs as of April 1, 2019  
Total Reserves

## Murray Lake

### Canada

#### Alberta

#### Murray Lake

##### NRA

Murray Lake NRA Wells

##### PDP Wells

100/01-30-009-07W4/2

102/02-30-009-07W4/0

100/07-30-009-07W4/0

100/12-31-009-07W4/0

102/12-31-009-07W4/0

102/14-31-009-07W4/0

103/14-31-009-07W4/2

102/08-35-009-08W4/3

100/05-36-009-08W4/0

102/08-36-009-08W4/0

100/12-36-009-08W4/0

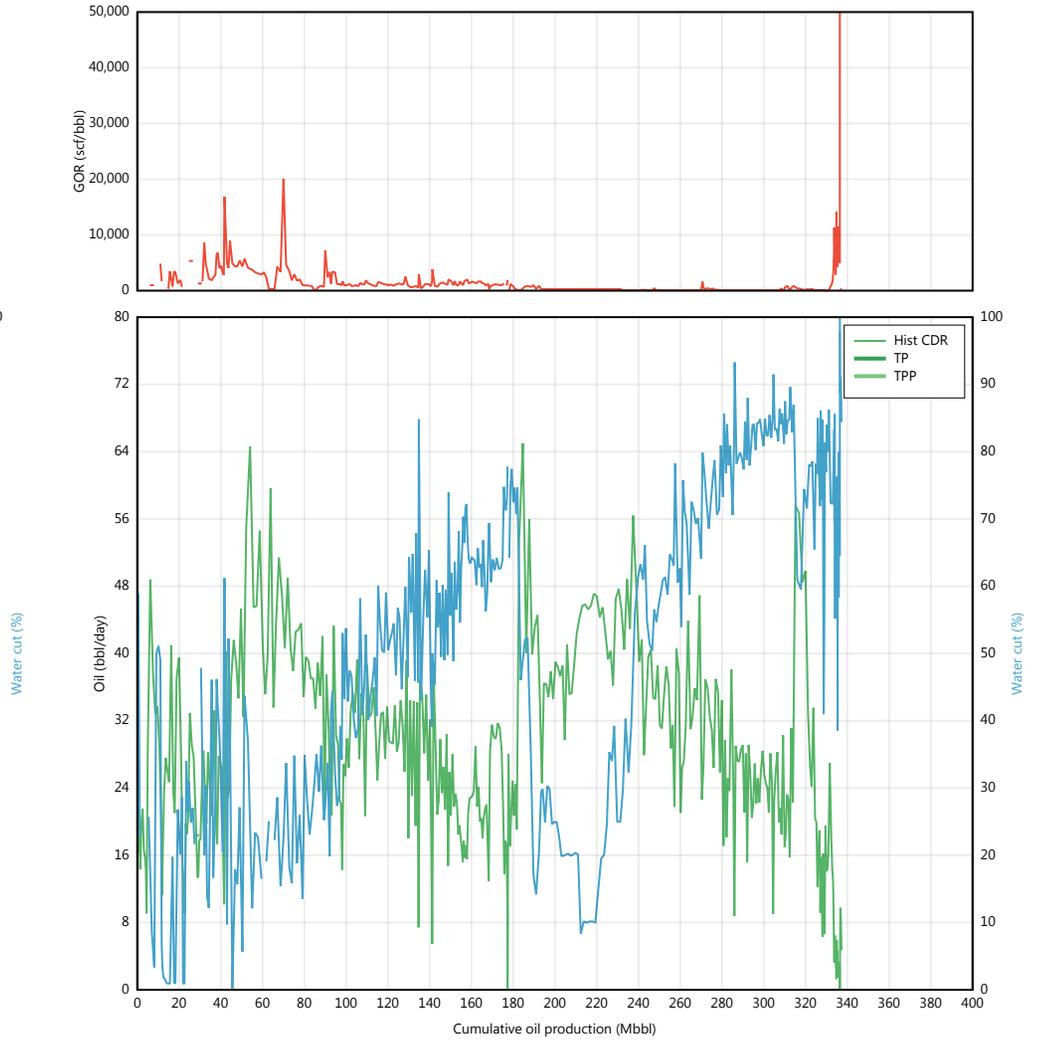
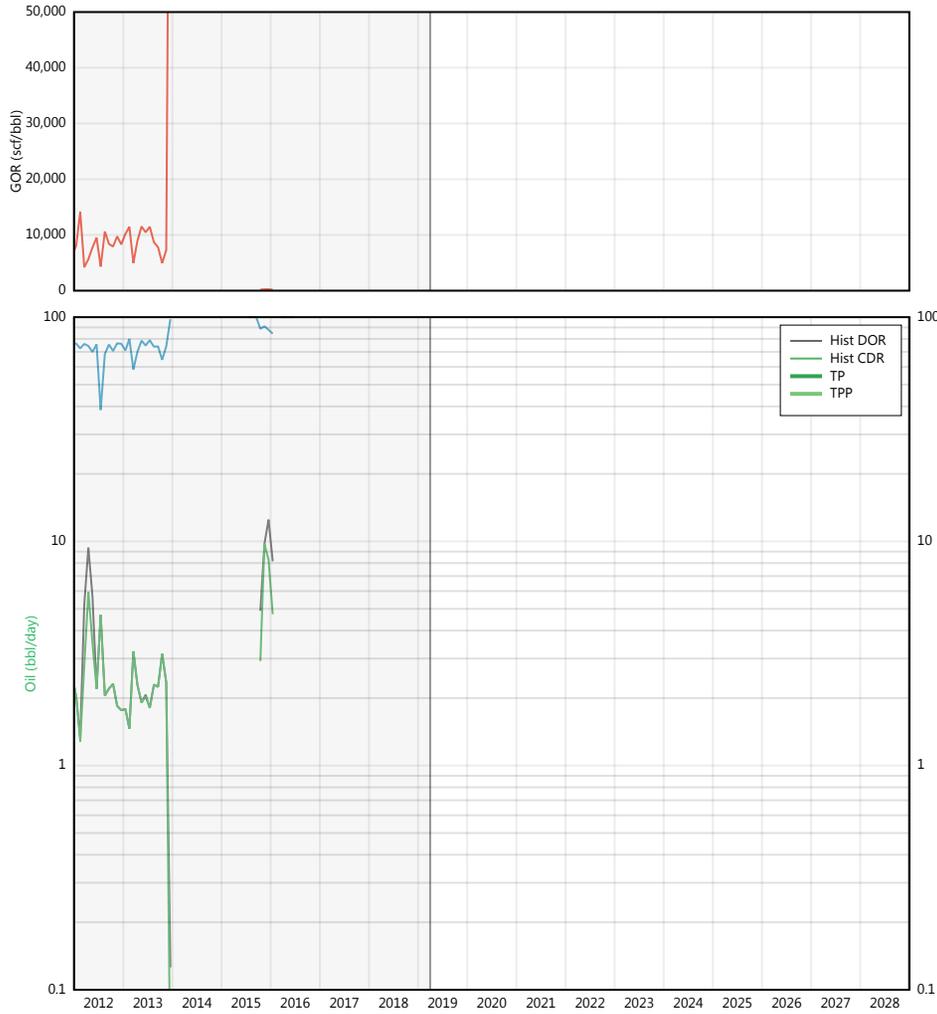
102/12-36-009-08W4/0



Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates NRA - Murray Lake NRA Wells



#### General Information

Well Name Murray Lake NRA Wells  
 Pool Name Lower Mannville A  
 Zone ALL ZONES  
 On Prod. Sep 1979  
 Prod. Status  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 9  
 Avg. WI/RI - / -

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	1,642	- Mbb
Recovery Factor	21	- %
Recoverable Oil	337	337 Mbb
Cum. Production at 2019/03/31	337	337 Mbb
Gross Lease Reserves	-	- Mbb
Company Share Reserves	-	- Mbb

Prices: McDaniel Apr 2019  
Eff. Date: April 1, 2019  
Currency: CAD

## Avalon Energy Ltd.

### Entity List Forecast Prices and Costs as of April 1, 2019 Total Reserves

#### NRA Murray Lake NRA Wells

Murray Lake NRA Wells  
100/05-30-009-07W4/0  
104/05-30-009-07W4/0  
100/05-31-009-07W4/0  
102/05-31-009-07W4/2  
103/06-31-009-07W4/2  
102/08-25-009-08W4/0  
102/06-36-009-08W4/0  
103/06-36-009-08W4/0  
100/10-36-009-08W4/0



Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Revenue Forecast Forecast Prices and Costs as of April 1, 2019 Total Reserves

#### PDP Wells 100/01-30-009-07W4/2

#### Proved Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					M\$	%	M\$	\$/BOE					M\$
2019 (9)	1.0	0.9	59.20	-	-	-	-	-	-	-	53.6	3.3	-	-	30.2	33.32	-	-	23.4	22.6				
2020	1.0	1.1	60.58	-	-	-	-	-	-	-	64.1	2.9	-	-	39.8	37.61	-	-	24.3	21.6				
2021	1.0	0.9	62.24	-	-	-	-	-	-	-	57.6	2.5	-	-	39.8	43.06	-	-	17.7	14.4				
2022	1.0	0.8	66.20	-	-	-	-	-	-	-	54.5	2.3	-	-	40.0	48.62	-	-	14.5	10.7				
2023	1.0	0.7	67.56	-	-	-	-	-	-	-	50.1	2.0	-	-	40.4	54.38	-	-	9.8	6.5				
2024	1.0	0.7	68.82	-	-	-	-	-	-	-	46.6	1.8	-	-	40.8	60.21	-	-	5.8	3.6				
2025	1.0	0.6	70.27	-	-	-	-	-	-	-	43.5	1.7	-	-	41.2	66.56	-	-	2.3	1.3				
2026 (1)	1.0	0.1	71.65	-	-	-	-	-	-	-	3.6	1.7	-	-	3.5	68.84	-	-	0.1	0.1				
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37.3	-	-37.3	-12.1				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>5.8</b>	<b>64.41</b>	-	-	-	-	-	-	-	-	<b>373.6</b>	-	-	<b>275.6</b>	<b>47.52</b>	<b>37.3</b>	-	<b>60.7</b>	<b>68.6</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	5.8	5.8	-	5.8
<b>Total (MBOE)</b>	<b>5.8</b>	<b>5.8</b>	-	<b>5.8</b>

**Net Present Value Before Tax - M\$**

@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>60.7</b>	<b>67.5</b>	<b>68.6</b>	<b>67.1</b>

Econ. RLI 4.90 yrs  
Rem. Life 6.84 yrs

#### Proved + Probable Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					M\$	%	M\$	\$/BOE					M\$
2019 (9)	1.0	0.9	59.20	-	-	-	-	-	-	-	54.0	3.3	-	-	30.2	33.13	-	-	23.8	23.0				
2020	1.0	1.1	60.58	-	-	-	-	-	-	-	65.4	2.9	-	-	39.9	36.96	-	-	25.5	22.7				
2021	1.0	1.0	62.24	-	-	-	-	-	-	-	59.5	2.6	-	-	40.0	41.85	-	-	19.5	15.8				
2022	1.0	0.9	66.20	-	-	-	-	-	-	-	56.9	2.4	-	-	40.2	46.83	-	-	16.6	12.2				
2023	1.0	0.8	67.56	-	-	-	-	-	-	-	52.7	2.1	-	-	40.6	51.99	-	-	12.1	8.1				
2024	1.0	0.7	68.82	-	-	-	-	-	-	-	49.3	2.0	-	-	41.0	57.21	-	-	8.3	5.1				
2025	1.0	0.7	70.27	-	-	-	-	-	-	-	46.3	1.8	-	-	41.5	62.90	-	-	4.9	2.7				
2026	1.0	0.6	71.63	-	-	-	-	-	-	-	43.8	1.7	-	-	42.0	68.64	-	-	1.8	0.9				
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.0	-	-38.0	-11.3				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>6.6</b>	<b>65.09</b>	-	-	-	-	-	-	-	-	<b>428.0</b>	-	-	<b>315.4</b>	<b>47.97</b>	<b>38.0</b>	-	<b>74.6</b>	<b>79.2</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	6.6	6.6	-	6.6
<b>Total (MBOE)</b>	<b>6.6</b>	<b>6.6</b>	-	<b>6.6</b>

**Net Present Value Before Tax - M\$**

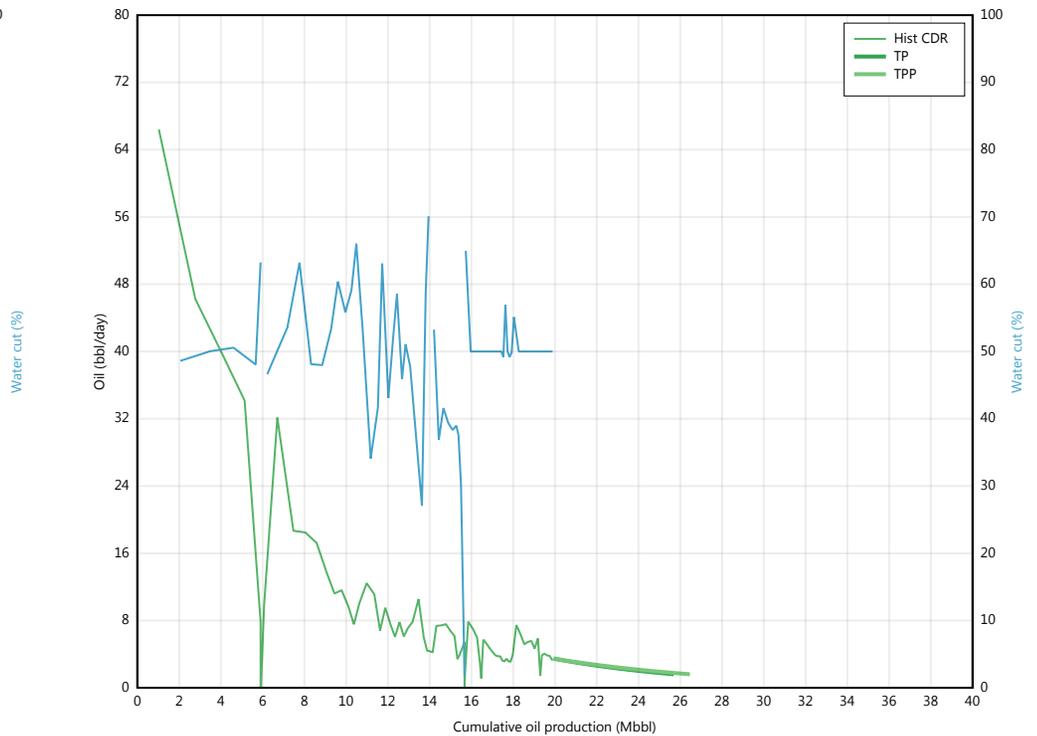
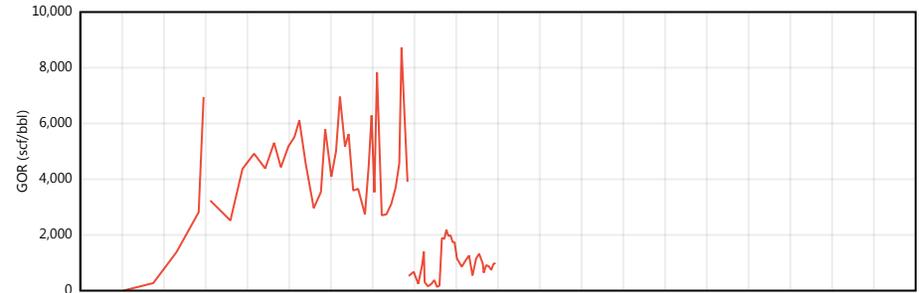
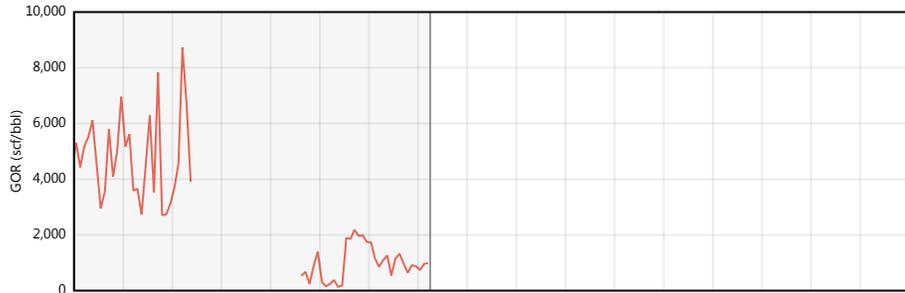
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>74.6</b>	<b>79.9</b>	<b>79.2</b>	<b>76.1</b>

Econ. RLI 5.51 yrs  
Rem. Life 7.75 yrs

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 100/01-30-009-07W4/2



#### General Information

Well Name Avalon Medhat 3-30-9-7  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Dec 2010  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbbbl
Recovery Factor	-	- %
Recoverable Oil	26	26 Mbbbl
Cum. Production at 2019/03/31	20	20 Mbbbl
Gross Lease Reserves	6	7 Mbbbl
Company Share Reserves	6	7 Mbbbl

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**PDP Wells**  
**102/02-30-009-07W4/0**

**Proved Developed Producing**

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$	\$/BOE				
2019 (9)	1.0	1.4	59.20	-	-	-	-	-	-	80.4	5.0	-	-	32.7	24.06	-	-	47.7	46.1					
2020	1.0	1.6	60.58	-	-	-	-	-	-	94.2	4.2	-	-	42.5	27.37	-	-	51.6	45.9					
2021	1.0	1.3	62.24	-	-	-	-	-	-	83.1	3.7	-	-	42.1	31.56	-	-	41.0	33.1					
2022	1.0	1.2	66.20	-	-	-	-	-	-	77.7	3.2	-	-	42.1	35.84	-	-	35.6	26.2					
2023	1.0	1.0	67.56	-	-	-	-	-	-	70.7	2.9	-	-	42.1	40.28	-	-	28.5	19.1					
2024	1.0	0.9	68.82	-	-	-	-	-	-	65.1	2.6	-	-	42.4	44.78	-	-	22.8	13.8					
2025	1.0	0.9	70.27	-	-	-	-	-	-	60.4	2.4	-	-	42.7	49.66	-	-	17.7	9.8					
2026	1.0	0.8	71.63	-	-	-	-	-	-	56.6	2.2	-	-	43.1	54.60	-	-	13.4	6.8					
2027 (6)	1.0	0.4	73.09	-	-	-	-	-	-	27.0	2.0	1.3	5.0	21.7	58.86	-	-	3.9	1.8					
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.4	-	-38.4	-10.9					
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>9.4</b>	<b>65.21</b>	-	-	-	-	-	-	<b>615.1</b>	-	<b>1.3</b>	<b>0.2</b>	<b>351.5</b>	<b>37.26</b>	<b>38.4</b>	-	<b>223.9</b>	<b>191.7</b>					

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	9.4	9.4	-	9.4
<b>Total (MBOE)</b>	<b>9.4</b>	<b>9.4</b>	-	<b>9.4</b>
<b>Net Present Value Before Tax - M\$</b>				
@ 0.0%	<b>223.9</b>	@ 5.0%	<b>208.6</b>	@ 10.0%
			<b>191.7</b>	@ 15.0%
				<b>175.9</b>
		Econ. RLI	5.33 yrs	
		Rem. Life	8.25 yrs	

**Proved + Probable Developed Producing**

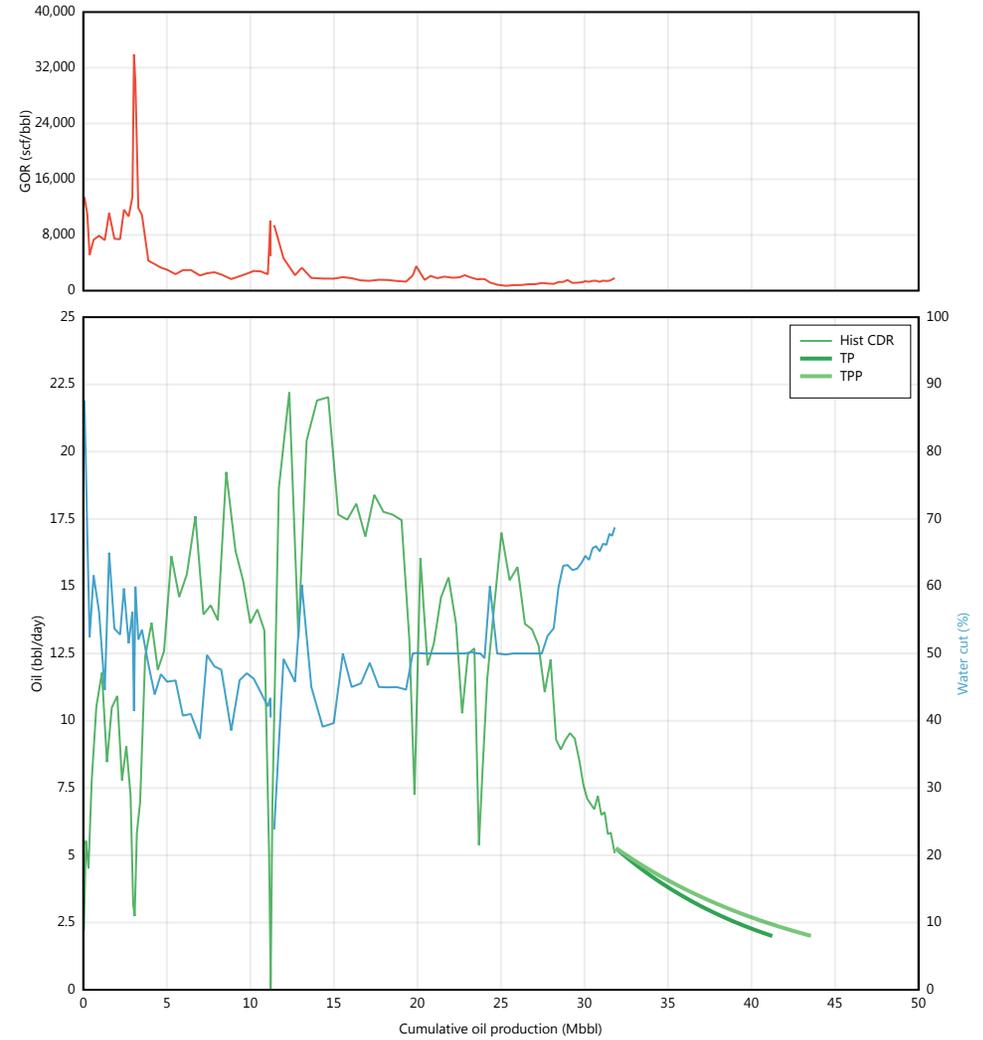
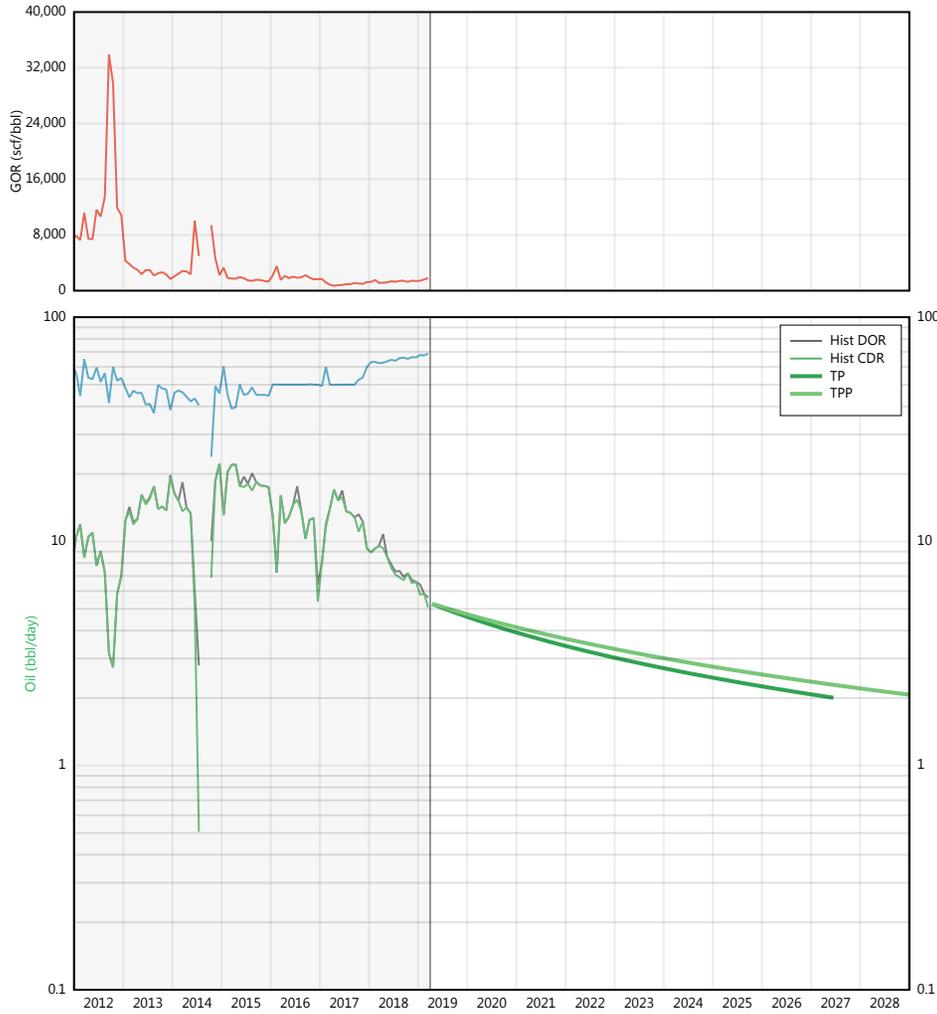
Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$	\$/BOE				
2019 (9)	1.0	1.4	59.20	-	-	-	-	-	-	81.5	5.0	-	-	32.8	23.81	-	-	48.7	47.0					
2020	1.0	1.6	60.58	-	-	-	-	-	-	98.0	4.4	-	-	42.9	26.50	-	-	55.1	49.0					
2021	1.0	1.4	62.24	-	-	-	-	-	-	88.6	3.9	-	-	42.6	29.96	-	-	45.9	37.1					
2022	1.0	1.3	66.20	-	-	-	-	-	-	84.3	3.5	-	-	42.6	33.48	-	-	41.7	30.6					
2023	1.0	1.2	67.56	-	-	-	-	-	-	77.8	3.2	-	-	42.8	37.12	-	-	35.1	23.4					
2024	1.0	1.1	68.82	-	-	-	-	-	-	72.6	2.9	-	-	43.0	40.81	-	-	29.5	17.9					
2025	1.0	1.0	70.27	-	-	-	-	-	-	68.0	2.7	-	-	43.4	44.83	-	-	24.6	13.6					
2026	1.0	0.9	71.63	-	-	-	-	-	-	64.2	2.5	-	-	43.8	48.88	-	-	20.4	10.2					
2027	1.0	0.8	73.08	-	-	-	-	-	-	60.9	2.3	3.0	5.0	44.3	53.08	-	-	13.6	6.2					
2028	1.0	0.8	74.54	-	-	-	-	-	-	58.3	2.1	2.9	5.0	44.8	57.29	-	-	10.6	4.4					
2029 (6)	1.0	0.4	76.10	-	-	-	-	-	-	28.1	2.0	1.4	5.0	22.6	61.25	-	-	4.1	1.6					
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.9	-	-39.9	-9.4					
<b>Total</b>	-	<b>11.7</b>	<b>66.60</b>	-	-	-	-	-	-	<b>782.2</b>	-	<b>7.4</b>	<b>0.9</b>	<b>445.5</b>	<b>37.93</b>	<b>39.9</b>	-	<b>289.4</b>	<b>231.9</b>					

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	11.7	11.7	-	11.6
<b>Total (MBOE)</b>	<b>11.7</b>	<b>11.7</b>	-	<b>11.6</b>
<b>Net Present Value Before Tax - M\$</b>				
@ 0.0%	<b>289.4</b>	@ 5.0%	<b>259.8</b>	@ 10.0%
			<b>231.9</b>	@ 15.0%
				<b>207.8</b>
		Econ. RLI	6.53 yrs	
		Rem. Life	10.25 yrs	

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 102/02-30-009-07W4/0



#### General Information

Well Name Avalon Medhat 2-30-9-7  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Sep 2011  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbb
Recovery Factor	-	- %
Recoverable Oil	41	44 Mbb
Cum. Production at 2019/03/31	32	32 Mbb
Gross Lease Reserves	9	12 Mbb
Company Share Reserves	9	12 Mbb

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Revenue Forecast Forecast Prices and Costs as of April 1, 2019 Total Reserves

#### PDP Wells 100/07-30-009-07W4/0

#### Proved Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves									
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue M\$	Total Revenue M\$					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net		
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					M\$	%	M\$	\$/BOE					Product	19.0
2019 (9)	1.0	1.8	59.20	-	-	-	-	-	-	-	104.5	6.4	-	-	34.9	19.77	-	-	69.6	67.2	Crude Oil (Mbbbl)	19.0	19.0	-	18.7
2020	1.0	2.1	60.58	-	-	-	-	-	-	-	125.8	5.7	-	-	45.4	21.88	-	-	80.3	71.4	<b>Total (MBOE)</b>	<b>19.0</b>	<b>19.0</b>	-	<b>18.7</b>
2021	1.0	1.8	62.24	-	-	-	-	-	-	-	113.7	5.0	-	-	44.9	24.60	-	-	68.7	55.6	<b>Net Present Value Before Tax - M\$</b>				
2022	1.0	1.6	66.20	-	-	-	-	-	-	-	108.2	4.5	-	-	44.7	27.37	-	-	63.4	46.6	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	
2023	1.0	1.5	67.56	-	-	-	-	-	-	-	99.9	4.0	-	-	44.7	30.23	-	-	55.2	36.8	<b>552.8</b>	<b>461.5</b>	<b>391.0</b>	<b>337.7</b>	
2024	1.0	1.4	68.82	-	-	-	-	-	-	-	93.1	3.7	-	-	44.8	33.13	-	-	48.3	29.3	Econ. RLI	8.23 yrs			
2025	1.0	1.2	70.27	-	-	-	-	-	-	-	87.2	3.4	-	-	45.0	36.29	-	-	42.2	23.3	Rem. Life	15.00 yrs			
2026	1.0	1.1	71.63	-	-	-	-	-	-	-	82.3	3.1	-	-	45.4	39.48	-	-	37.0	18.5					
2027	1.0	1.1	73.08	-	-	-	-	-	-	-	78.2	2.9	3.9	5.0	45.8	42.78	-	-	28.5	13.0					
2028	1.0	1.0	74.54	-	-	-	-	-	-	-	74.8	2.7	3.7	5.0	46.3	46.09	-	-	24.8	10.3					
2029	1.0	0.9	76.09	-	-	-	-	-	-	-	71.5	2.6	3.6	5.0	46.8	49.73	-	-	21.2	8.0					
2030	1.0	0.9	77.54	-	-	-	-	-	-	-	68.7	2.4	3.4	5.0	47.3	53.39	-	-	18.0	6.2					
2031	1.0	0.8	79.09	-	-	-	-	-	-	-	66.3	2.3	3.3	5.0	47.9	57.18	-	-	15.1	4.7					
2032	1.0	0.8	80.64	-	-	-	-	-	-	-	64.3	2.2	3.2	5.0	48.6	60.95	-	-	12.5	3.5					
2033	1.0	0.8	82.39	-	-	-	-	-	-	-	62.3	2.1	3.1	5.0	49.3	65.15	-	-	9.9	2.6					
Rem.	-	0.2	83.96	-	-	-	-	-	-	-	15.1	2.0	0.8	5.0	12.4	68.84	43.8	-	-41.9	-6.1					
<b>Total</b>	-	<b>19.0</b>	<b>69.28</b>	-	-	-	-	-	-	-	<b>1,316.0</b>	-	<b>25.1</b>	<b>1.9</b>	<b>694.3</b>	<b>36.55</b>	<b>43.8</b>	-	<b>552.8</b>	<b>391.0</b>					

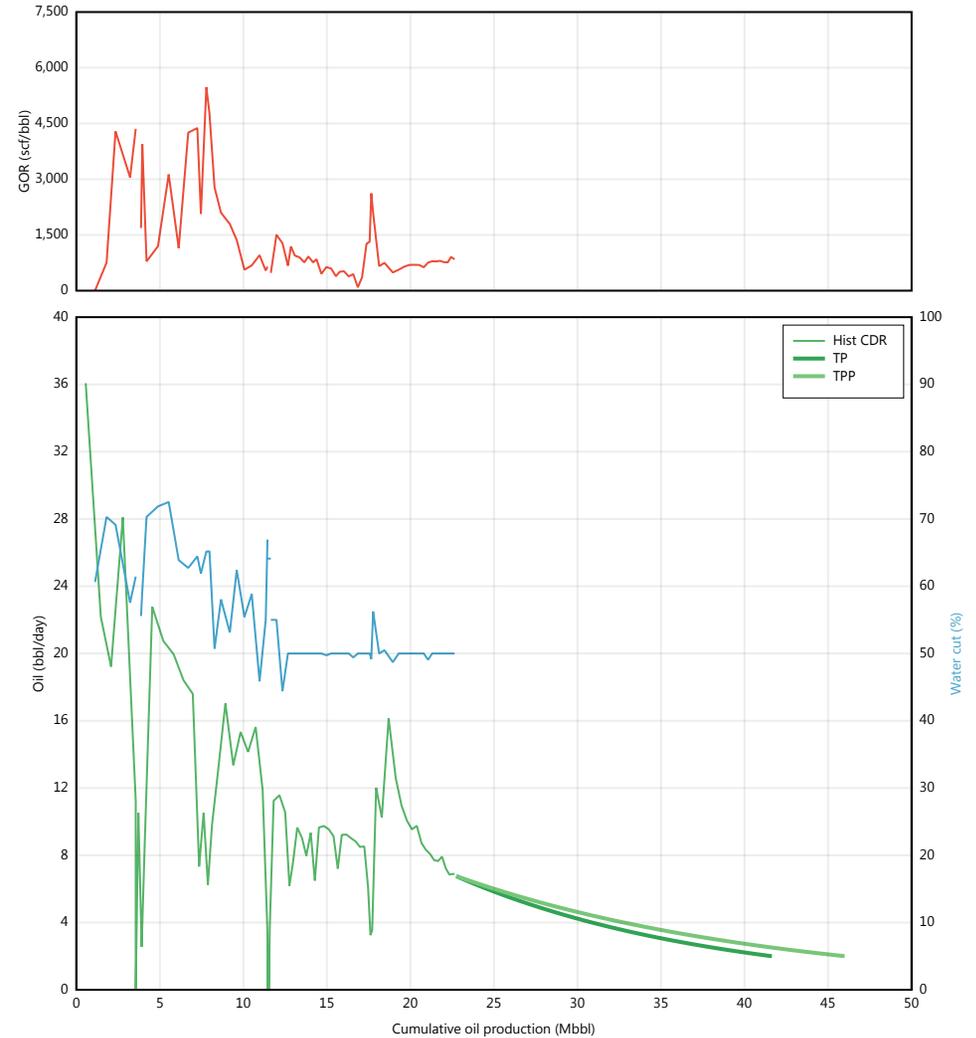
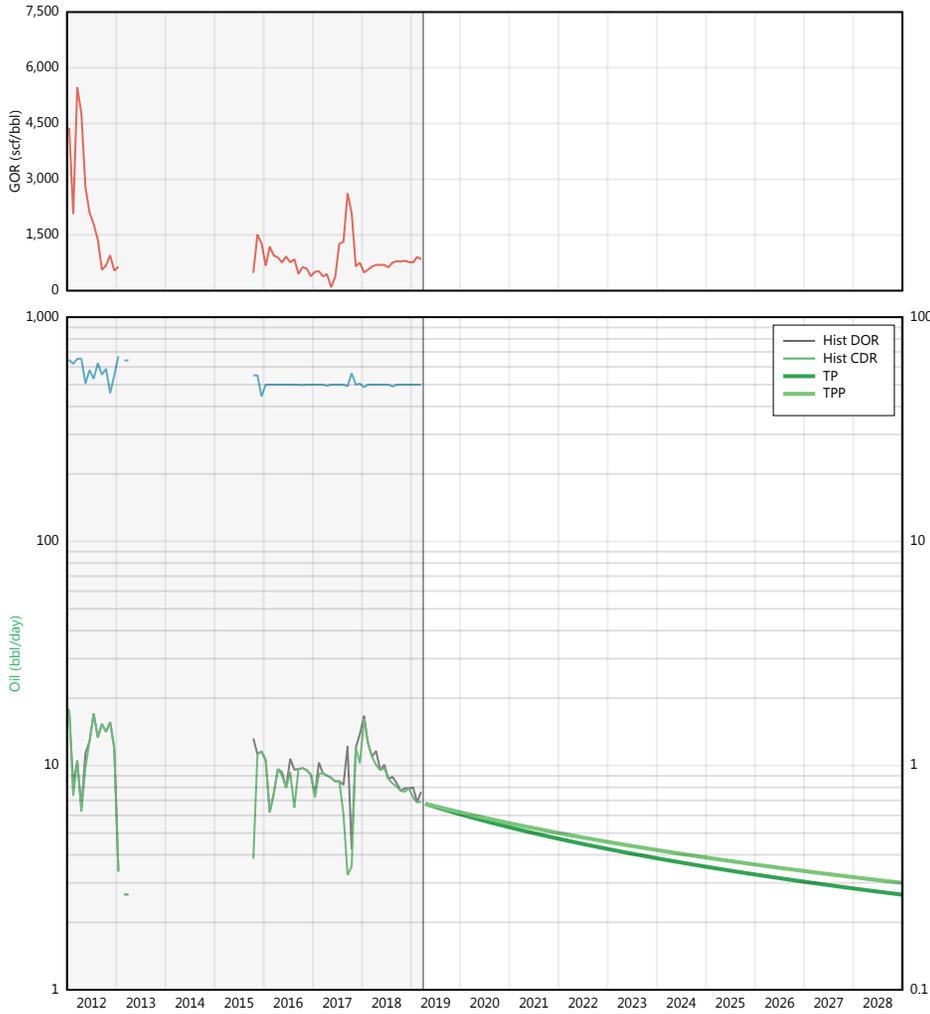
#### Proved + Probable Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves									
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue M\$	Total Revenue M\$					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net		
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					M\$	%	M\$	\$/BOE					Product	23.4
2019 (9)	1.0	1.8	59.20	-	-	-	-	-	-	-	105.6	6.5	-	-	35.0	19.63	-	-	70.6	68.2	Crude Oil (Mbbbl)	23.4	23.4	-	22.8
2020	1.0	2.1	60.58	-	-	-	-	-	-	-	129.8	5.9	-	-	45.8	21.38	-	-	84.0	74.7	<b>Total (MBOE)</b>	<b>23.4</b>	<b>23.4</b>	-	<b>22.8</b>
2021	1.0	1.9	62.24	-	-	-	-	-	-	-	119.6	5.3	-	-	45.5	23.66	-	-	74.1	59.9	<b>Net Present Value Before Tax - M\$</b>				
2022	1.0	1.7	66.20	-	-	-	-	-	-	-	115.5	4.8	-	-	45.4	25.99	-	-	70.2	51.6	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	
2023	1.0	1.6	67.56	-	-	-	-	-	-	-	108.0	4.4	-	-	45.4	28.39	-	-	62.6	41.8	<b>699.8</b>	<b>555.1</b>	<b>453.6</b>	<b>381.9</b>	
2024	1.0	1.5	68.82	-	-	-	-	-	-	-	101.8	4.0	-	-	45.6	30.81	-	-	56.2	34.1	Econ. RLI	9.98 yrs			
2025	1.0	1.4	70.27	-	-	-	-	-	-	-	96.2	3.8	-	-	45.8	33.46	-	-	50.4	27.8	Rem. Life	18.42 yrs			
2026	1.0	1.3	71.63	-	-	-	-	-	-	-	91.5	3.5	-	-	46.2	36.13	-	-	45.4	22.8					
2027	1.0	1.2	73.08	-	-	-	-	-	-	-	87.5	3.3	4.4	5.0	46.6	38.89	-	-	36.6	16.7					
2028	1.0	1.1	74.54	-	-	-	-	-	-	-	84.2	3.1	4.2	5.0	47.1	41.66	-	-	32.9	13.7					
2029	1.0	1.1	76.09	-	-	-	-	-	-	-	81.0	2.9	4.0	5.0	47.6	44.71	-	-	29.3	11.1					
2030	1.0	1.0	77.54	-	-	-	-	-	-	-	78.2	2.8	3.9	5.0	48.2	47.77	-	-	26.1	8.9					
2031	1.0	1.0	79.09	-	-	-	-	-	-	-	75.7	2.6	3.8	5.0	48.8	50.94	-	-	23.2	7.2					
2032	1.0	0.9	80.64	-	-	-	-	-	-	-	73.7	2.5	3.7	5.0	49.4	54.08	-	-	20.6	5.8					
2033	1.0	0.9	82.39	-	-	-	-	-	-	-	71.7	2.4	3.6	5.0	50.1	57.59	-	-	18.0	4.6					
Rem.	-	2.9	86.20	-	-	-	-	-	-	-	249.1	2.1	12.5	5.0	190.2	65.80	46.9	-	-0.4	4.7					
<b>Total</b>	-	<b>23.4</b>	<b>71.49</b>	-	-	-	-	-	-	-	<b>1,669.3</b>	-	<b>40.1</b>	<b>2.4</b>	<b>882.5</b>	<b>37.79</b>	<b>46.9</b>	-	<b>699.8</b>	<b>453.6</b>					

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 100/07-30-009-07W4/0



#### General Information

Well Name Avalon Medhat 7-30-9-7  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Dec 2010  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

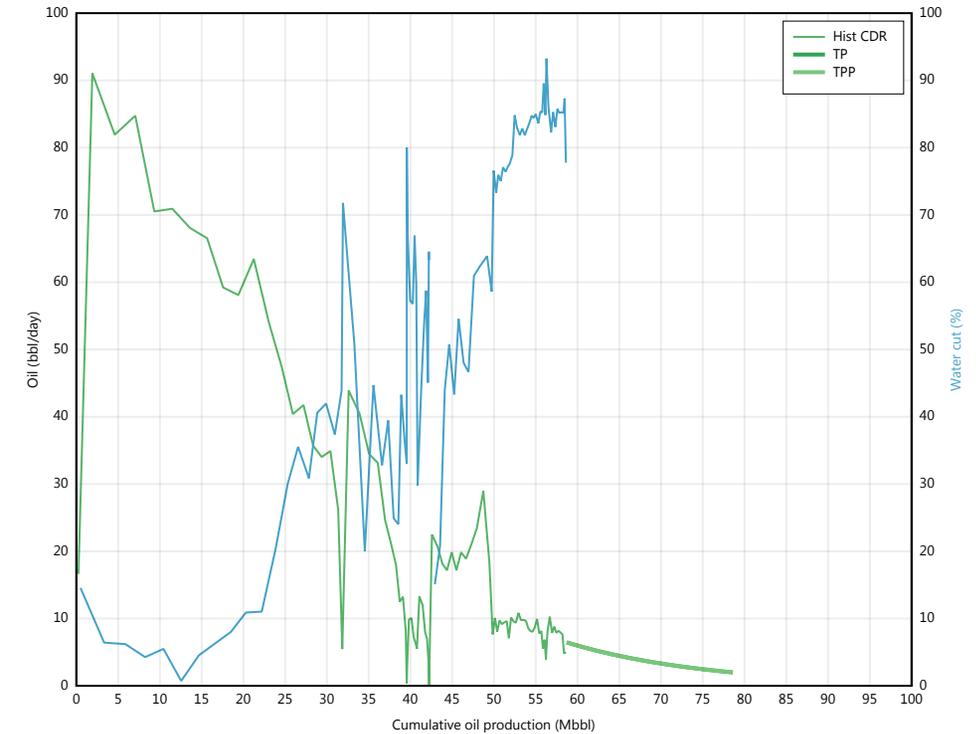
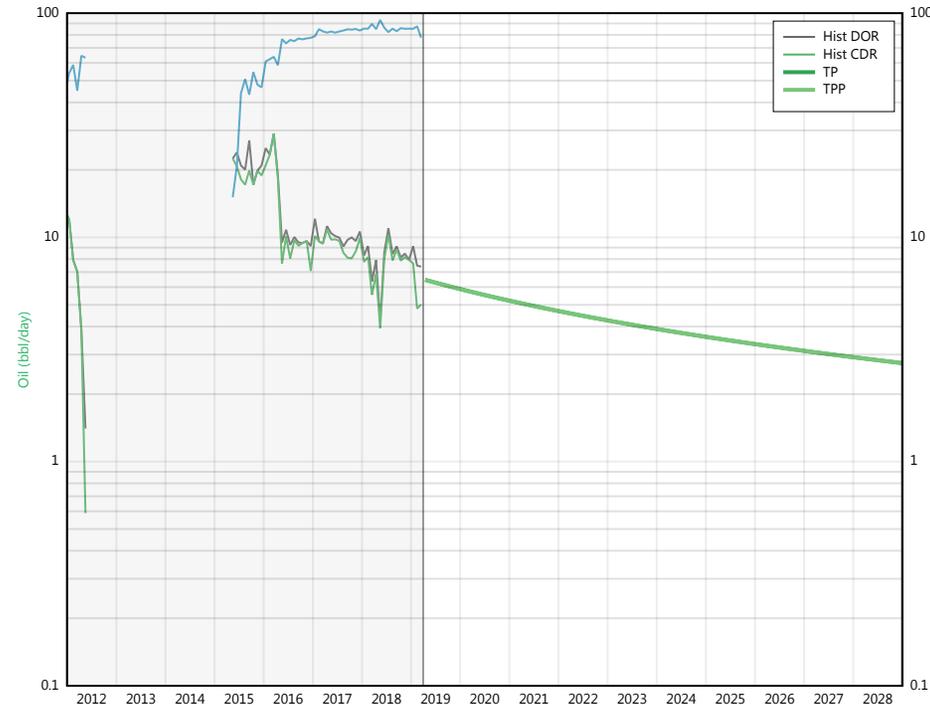
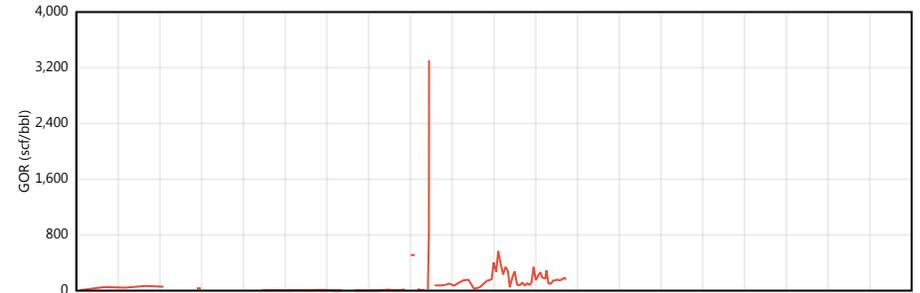
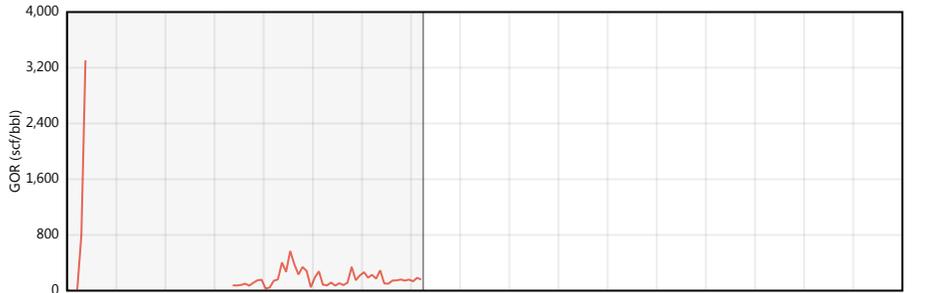
Oil	TP	TPP
Discovered OOIP	-	- Mbbl
Recovery Factor	-	- %
Recoverable Oil	42	46 Mbbl
Cum. Production at 2019/03/31	23	23 Mbbl
Gross Lease Reserves	19	23 Mbbl
Company Share Reserves	19	23 Mbbl



Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 100/12-31-009-07W4/0



#### General Information

Well Name Avalon Medhat 12-31-9-7  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Nov 2008  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbb
Recovery Factor	-	- %
Recoverable Oil	79	79 Mbb
Cum. Production at 2019/03/31	59	59 Mbb
Gross Lease Reserves	20	20 Mbb
Company Share Reserves	20	20 Mbb

#### Comments

Well SI to build reservoir pressure. Assumed back on Jan 2013.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**PDP Wells**  
**102/12-31-009-07W4/0**

**NRA**

Year	WI Well Count	Company Share										Total Royalties M\$ %	Operating Costs		Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Product	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue		M\$	\$/BOE						Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%	M\$	\$/BOE	M\$	M\$	M\$							
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Net Present Value Before Tax - M\$**

@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
0.0	0.0	0.0	0.0

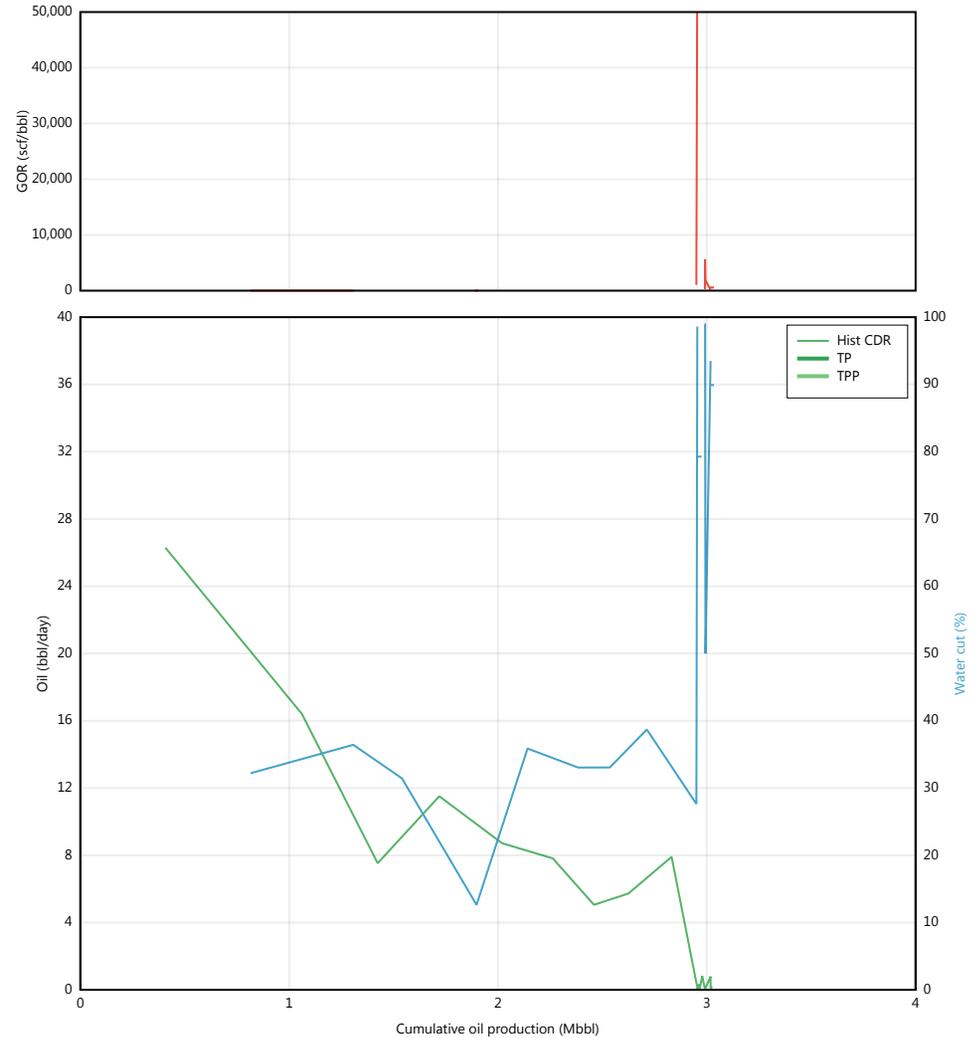
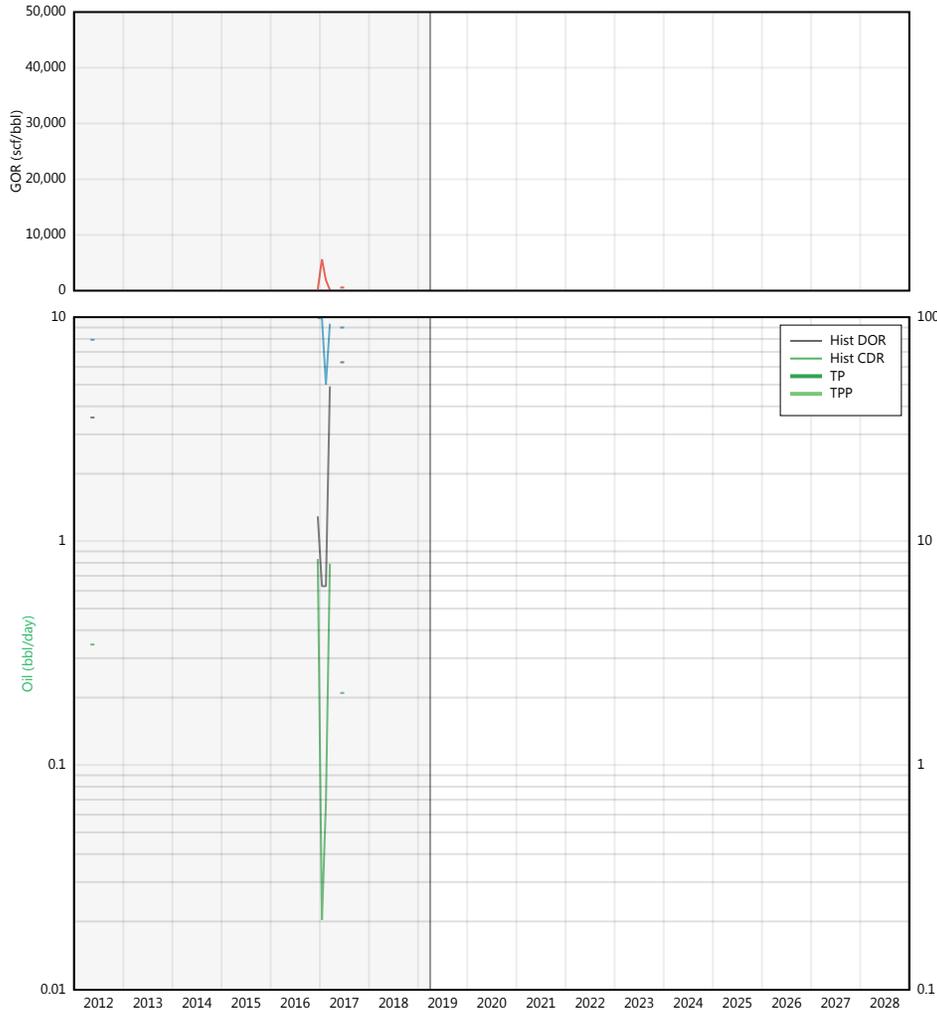
Econ. RLI -  
Rem. Life -

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates

#### PDP Wells - 102/12-31-009-07W4/0



**General Information**

Well Name Avalon Medhat 12-31-9-7  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Oct 2010  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI - / -

**Reserves as of April 1, 2019**

Oil	TP	TPP
Discovered OOIP	-	- Mbbi
Recovery Factor	-	- %
Recoverable Oil	3	3 Mbbi
Cum. Production at 2017/06/30	3	3 Mbbi
Gross Lease Reserves	-	- Mbbi
Company Share Reserves	-	- Mbbi

**Comments**

No prod Oct-11.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**PDP Wells**  
**102/14-31-009-07W4/0**

**Proved Developed Producing**

Year	WI Well Count	Company Share											Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue	Total Royalties					Operating Costs		Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d					M\$	%					M\$	\$/BOE	Product
2019 (9)	1.0	1.2	59.20	-	-	-	-	-	-	-	69.4	4.3	-	-	31.6	26.99	-	-	37.8	36.5	Crude Oil (Mbbbl)	8.9	8.9	-	8.9
2020	1.0	1.4	60.58	-	-	-	-	-	-	-	84.1	3.8	-	-	41.6	29.98	-	-	42.5	37.8	<b>Total (MBOE)</b>	<b>8.9</b>	<b>8.9</b>	-	<b>8.9</b>
2021	1.0	1.2	62.24	-	-	-	-	-	-	-	76.5	3.4	-	-	41.5	33.81	-	-	34.9	28.2	<b>Net Present Value Before Tax - M\$</b>				
2022	1.0	1.1	66.20	-	-	-	-	-	-	-	73.1	3.0	-	-	41.7	37.71	-	-	31.5	23.1	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	
2023	1.0	1.0	67.56	-	-	-	-	-	-	-	67.8	2.7	-	-	41.9	41.75	-	-	25.9	17.3	<b>190.1</b>	<b>177.7</b>	<b>163.2</b>	<b>149.3</b>	
2024	1.0	0.9	68.82	-	-	-	-	-	-	-	63.4	2.5	-	-	42.2	45.83	-	-	21.2	12.9	Econ. RLI	5.79 yrs			
2025	1.0	0.8	70.27	-	-	-	-	-	-	-	59.6	2.3	-	-	42.6	50.28	-	-	16.9	9.4	Rem. Life	8.33 yrs			
2026	1.0	0.8	71.63	-	-	-	-	-	-	-	56.4	2.2	-	-	43.1	54.77	-	-	13.3	6.7					
2027 (7)	1.0	0.4	73.09	-	-	-	-	-	-	-	31.6	2.0	1.6	5.0	25.4	58.75	-	-	4.6	2.1					
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.4	-38.4	-10.8					
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>Total</b>	-	<b>8.9</b>	<b>65.48</b>	-	-	-	-	-	-	-	<b>581.8</b>	-	<b>1.6</b>	<b>0.3</b>	<b>351.7</b>	<b>39.58</b>	<b>38.4</b>	-	<b>190.1</b>	<b>163.2</b>					

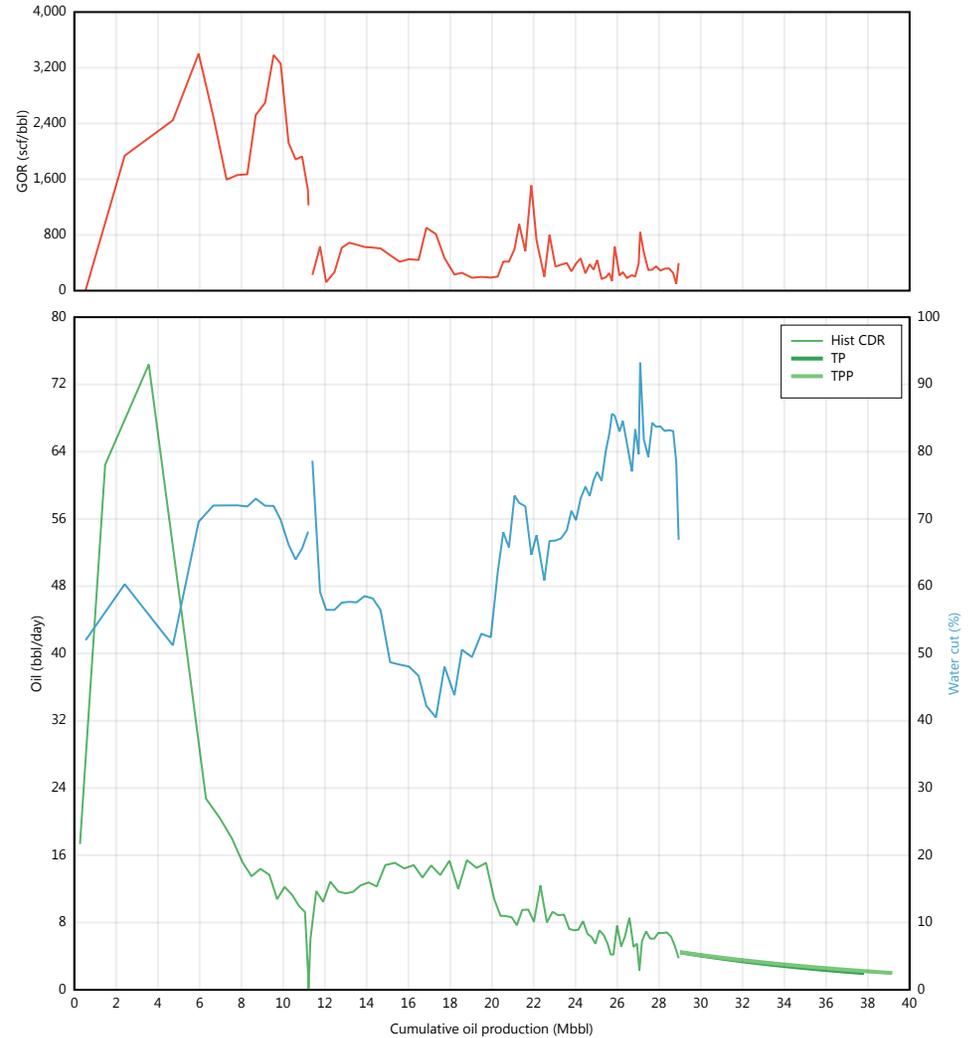
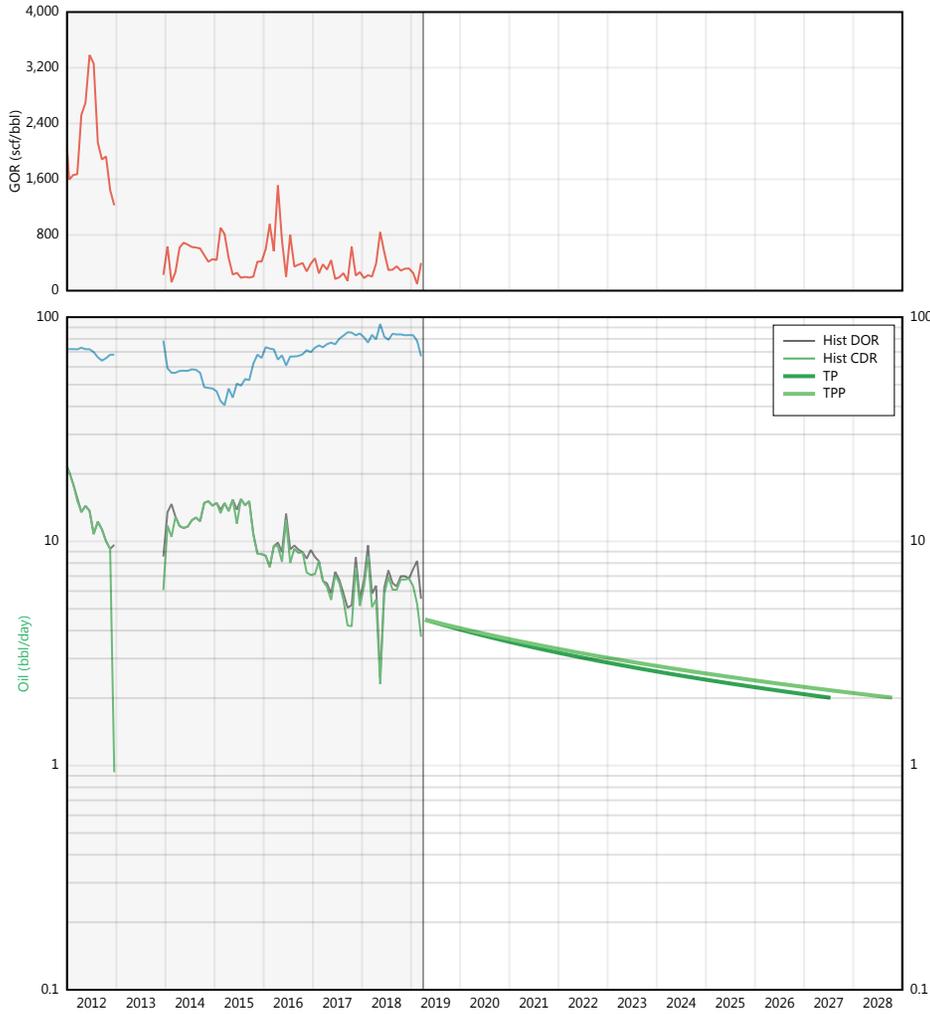
**Proved + Probable Developed Producing**

Year	WI Well Count	Company Share											Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue	Total Royalties					Operating Costs		Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d					M\$	%					M\$	\$/BOE	Product
2019 (9)	1.0	1.2	59.20	-	-	-	-	-	-	-	69.9	4.3	-	-	31.7	26.84	-	-	38.2	36.9	Crude Oil (Mbbbl)	10.2	10.2	-	10.2
2020	1.0	1.4	60.58	-	-	-	-	-	-	-	85.9	3.9	-	-	41.8	29.47	-	-	44.1	39.2	<b>Total (MBOE)</b>	<b>10.2</b>	<b>10.2</b>	-	<b>10.2</b>
2021	1.0	1.3	62.24	-	-	-	-	-	-	-	79.1	3.5	-	-	41.8	32.87	-	-	37.3	30.2	<b>Net Present Value Before Tax - M\$</b>				
2022	1.0	1.2	66.20	-	-	-	-	-	-	-	76.5	3.2	-	-	41.9	36.32	-	-	34.5	25.4	@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%	
2023	1.0	1.1	67.56	-	-	-	-	-	-	-	71.5	2.9	-	-	42.2	39.89	-	-	29.3	19.6	<b>224.9</b>	<b>205.0</b>	<b>184.5</b>	<b>166.2</b>	
2024	1.0	1.0	68.82	-	-	-	-	-	-	-	67.4	2.7	-	-	42.6	43.49	-	-	24.8	15.1	Econ. RLI	6.61 yrs			
2025	1.0	0.9	70.27	-	-	-	-	-	-	-	63.7	2.5	-	-	43.0	47.43	-	-	20.7	11.4	Rem. Life	9.59 yrs			
2026	1.0	0.8	71.63	-	-	-	-	-	-	-	60.6	2.3	-	-	43.5	51.40	-	-	17.1	8.6					
2027	1.0	0.8	73.08	-	-	-	-	-	-	-	57.9	2.2	2.9	5.0	44.0	55.51	-	-	11.0	5.0					
2028 (10)	1.0	0.6	74.54	-	-	-	-	-	-	-	46.7	2.1	2.3	5.0	37.1	59.27	-	-	7.2	3.0					
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.4	-39.4	-9.9					
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>Total</b>	-	<b>10.2</b>	<b>66.37</b>	-	-	-	-	-	-	-	<b>679.1</b>	-	<b>5.2</b>	<b>0.8</b>	<b>409.6</b>	<b>40.03</b>	<b>39.4</b>	-	<b>224.9</b>	<b>184.5</b>					

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 102/14-31-009-07W4/0



#### General Information

Well Name Avalon Medhat 14-31-9-7  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Aug 2011  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbb
Recovery Factor	-	- %
Recoverable Oil	38	39 Mbb
Cum. Production at 2019/03/31	29	29 Mbb
Gross Lease Reserves	9	10 Mbb
Company Share Reserves	9	10 Mbb

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Revenue Forecast Forecast Prices and Costs as of April 1, 2019 Total Reserves

#### PDP Wells 103/14-31-009-07W4/2

#### Proved Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$	\$/BOE				
2019 (9)	1.0	1.3	59.20	-	-	-	-	-	-	76.9	4.7	-	-	32.3	24.91	-	-	44.5	43.0					
2020	1.0	1.5	60.58	-	-	-	-	-	-	92.5	4.2	-	-	42.4	27.76	-	-	50.1	44.6					
2021	1.0	1.3	62.24	-	-	-	-	-	-	83.6	3.7	-	-	42.2	31.42	-	-	41.4	33.5					
2022	1.0	1.2	66.20	-	-	-	-	-	-	79.5	3.3	-	-	42.2	35.14	-	-	37.3	27.4					
2023	1.0	1.1	67.56	-	-	-	-	-	-	73.4	3.0	-	-	42.4	39.00	-	-	31.0	20.7					
2024	1.0	1.0	68.82	-	-	-	-	-	-	68.5	2.7	-	-	42.7	42.90	-	-	25.8	15.7					
2025	1.0	0.9	70.27	-	-	-	-	-	-	64.1	2.5	-	-	43.0	47.15	-	-	21.1	11.7					
2026	1.0	0.8	71.63	-	-	-	-	-	-	60.5	2.3	-	-	43.5	51.44	-	-	17.1	8.6					
2027	1.0	0.8	73.08	-	-	-	-	-	-	57.5	2.2	2.9	5.0	44.0	55.88	-	-	10.7	4.9					
2028 (7)	1.0	0.4	74.55	-	-	-	-	-	-	32.4	2.0	1.6	5.0	25.9	59.50	-	-	4.9	2.1					
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.2	-	-39.2	-10.0					
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>10.4</b>	<b>66.05</b>	-	-	-	-	-	-	<b>688.9</b>	-	<b>4.5</b>	<b>0.7</b>	<b>400.5</b>	<b>38.40</b>	<b>39.2</b>	-	<b>244.7</b>	<b>202.0</b>					

Product	Remaining Reserves				
	Gross Lease	W.I.	R.I.	Net	
Crude Oil (Mbbbl)	10.4	10.4	-	10.4	
<b>Total (MBOE)</b>	<b>10.4</b>	<b>10.4</b>	-	<b>10.4</b>	
<b>Net Present Value Before Tax - M\$</b>					
@ 0.0%	<b>244.7</b>	@ 5.0%	<b>223.5</b>	@ 10.0%	<b>202.0</b>
			@ 15.0%	<b>182.7</b>	
		Econ. RLI	6.15 yrs		
		Rem. Life	9.33 yrs		

#### Proved + Probable Developed Producing

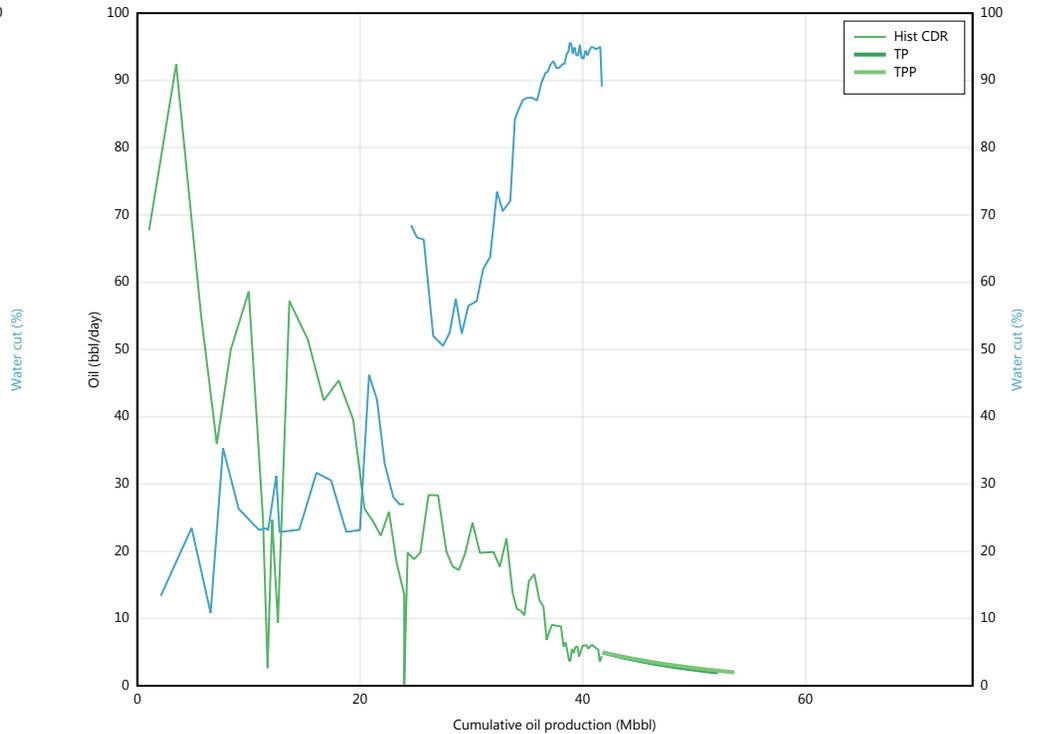
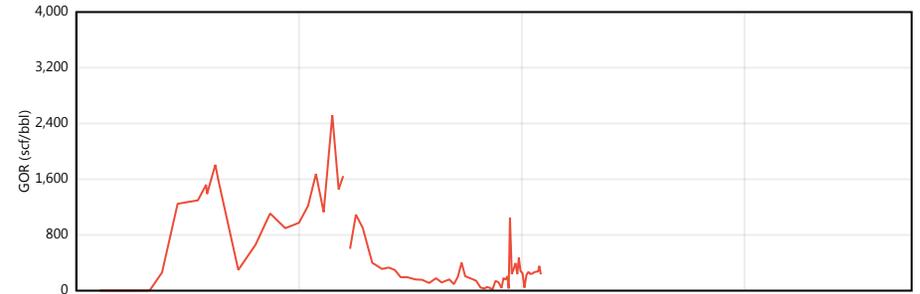
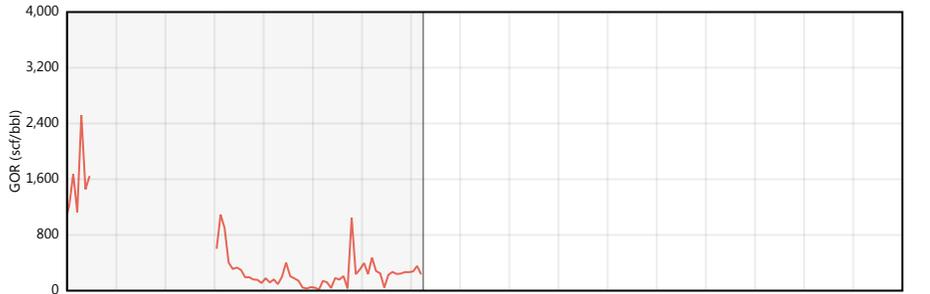
Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$	\$/BOE				
2019 (9)	1.0	1.3	59.20	-	-	-	-	-	-	77.4	4.8	-	-	32.4	24.78	-	-	45.0	43.5					
2020	1.0	1.6	60.58	-	-	-	-	-	-	94.4	4.3	-	-	42.6	27.30	-	-	51.9	46.1					
2021	1.0	1.4	62.24	-	-	-	-	-	-	86.4	3.8	-	-	42.4	30.57	-	-	44.0	35.5					
2022	1.0	1.3	66.20	-	-	-	-	-	-	83.1	3.4	-	-	42.5	33.89	-	-	40.5	29.8					
2023	1.0	1.1	67.56	-	-	-	-	-	-	77.3	3.1	-	-	42.7	37.33	-	-	34.6	23.1					
2024	1.0	1.1	68.82	-	-	-	-	-	-	72.6	2.9	-	-	43.0	40.80	-	-	29.6	18.0					
2025	1.0	1.0	70.27	-	-	-	-	-	-	68.4	2.7	-	-	43.4	44.58	-	-	25.0	13.8					
2026	1.0	0.9	71.63	-	-	-	-	-	-	64.9	2.5	-	-	43.8	48.41	-	-	21.0	10.6					
2027	1.0	0.8	73.08	-	-	-	-	-	-	61.9	2.3	3.1	5.0	44.3	52.36	-	-	14.5	6.6					
2028	1.0	0.8	74.54	-	-	-	-	-	-	59.4	2.2	3.0	5.0	44.9	56.32	-	-	11.6	4.8					
2029 (11)	1.0	0.7	76.09	-	-	-	-	-	-	52.3	2.1	2.6	5.0	41.7	60.61	-	-	8.0	3.0					
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.2	-	-40.2	-9.1					
<b>Total</b>	-	<b>11.9</b>	<b>66.96</b>	-	-	-	-	-	-	<b>798.2</b>	-	<b>8.7</b>	<b>1.1</b>	<b>463.9</b>	<b>38.91</b>	<b>40.2</b>	-	<b>285.4</b>	<b>225.7</b>					

Product	Remaining Reserves				
	Gross Lease	W.I.	R.I.	Net	
Crude Oil (Mbbbl)	11.9	11.9	-	11.8	
<b>Total (MBOE)</b>	<b>11.9</b>	<b>11.9</b>	-	<b>11.8</b>	
<b>Net Present Value Before Tax - M\$</b>					
@ 0.0%	<b>285.4</b>	@ 5.0%	<b>254.5</b>	@ 10.0%	<b>225.7</b>
			@ 15.0%	<b>201.1</b>	
		Econ. RLI	6.96 yrs		
		Rem. Life	10.67 yrs		

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 103/14-31-009-07W4/2



#### General Information

Well Name Avalon Medhat 16-36-9-8  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Oct 2010  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbbbl
Recovery Factor	-	- %
Recoverable Oil	52	54 Mbbbl
Cum. Production at 2019/03/31	42	42 Mbbbl
Gross Lease Reserves	10	12 Mbbbl
Company Share Reserves	10	12 Mbbbl

#### Comments

Well SI to increase reservoir pressure. Assumed to be back on Jan 2013.

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**PDP Wells**  
**102/08-35-009-08W4/3**

**Proved Developed Producing**

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$					\$/BOE
2019 (9)	1.0	1.3	59.20	-	-	-	-	-	-	-	76.3	4.7	2.9	3.7	32.3	25.04	-	-	41.2	39.8				
2020	1.0	1.5	60.58	-	-	-	-	-	-	-	90.6	4.1	3.4	3.7	42.2	28.22	-	-	45.0	40.1				
2021	1.0	1.3	62.24	-	-	-	-	-	-	-	80.9	3.6	3.0	3.7	41.9	32.27	-	-	35.9	29.1				
2022	1.0	1.2	66.20	-	-	-	-	-	-	-	76.3	3.2	2.9	3.7	41.9	36.39	-	-	31.5	23.1				
2023	1.0	1.0	67.56	-	-	-	-	-	-	-	69.9	2.8	2.6	3.7	42.1	40.67	-	-	25.2	16.8				
2024	1.0	0.9	68.82	-	-	-	-	-	-	-	64.8	2.6	2.4	3.7	42.4	45.00	-	-	20.0	12.2				
2025	1.0	0.9	70.27	-	-	-	-	-	-	-	60.4	2.4	2.3	3.7	42.7	49.71	-	-	15.4	8.5				
2026	1.0	0.8	71.63	-	-	-	-	-	-	-	56.7	2.2	2.1	3.7	43.1	54.47	-	-	11.5	5.8				
2027 (7)	1.0	0.4	73.09	-	-	-	-	-	-	-	31.6	2.0	2.4	7.6	25.4	58.67	-	-	3.8	1.8				
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.4	-	-38.4	-10.8				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>9.3</b>	<b>65.35</b>	-	-	-	-	-	-	-	<b>607.5</b>	-	<b>24.0</b>	<b>3.9</b>	<b>354.0</b>	<b>38.08</b>	<b>38.4</b>	-	<b>191.1</b>	<b>166.3</b>				

Product	Remaining Reserves				
	Gross Lease	W.I.	R.I.	Net	
Crude Oil (Mbbbl)	9.3	9.3	-	8.9	
<b>Total (MBOE)</b>	<b>9.3</b>	<b>9.3</b>	-	<b>8.9</b>	
<b>Net Present Value Before Tax - M\$</b>					
@ 0.0%	<b>191.1</b>	@ 5.0%	<b>179.9</b>	@ 10.0%	<b>166.3</b>
		@ 15.0%	<b>153.0</b>		
		Econ. RLI	5.53 yrs		
		Rem. Life	8.33 yrs		

**Proved + Probable Developed Producing**

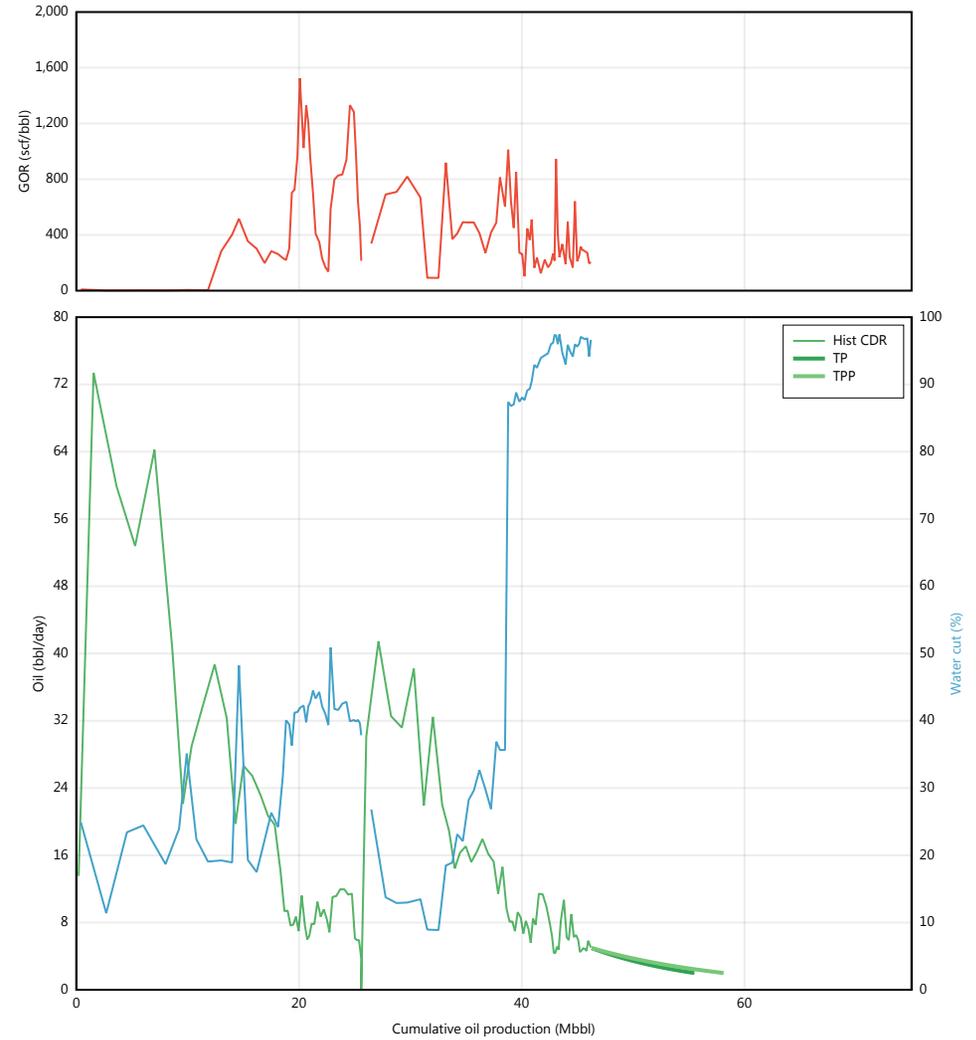
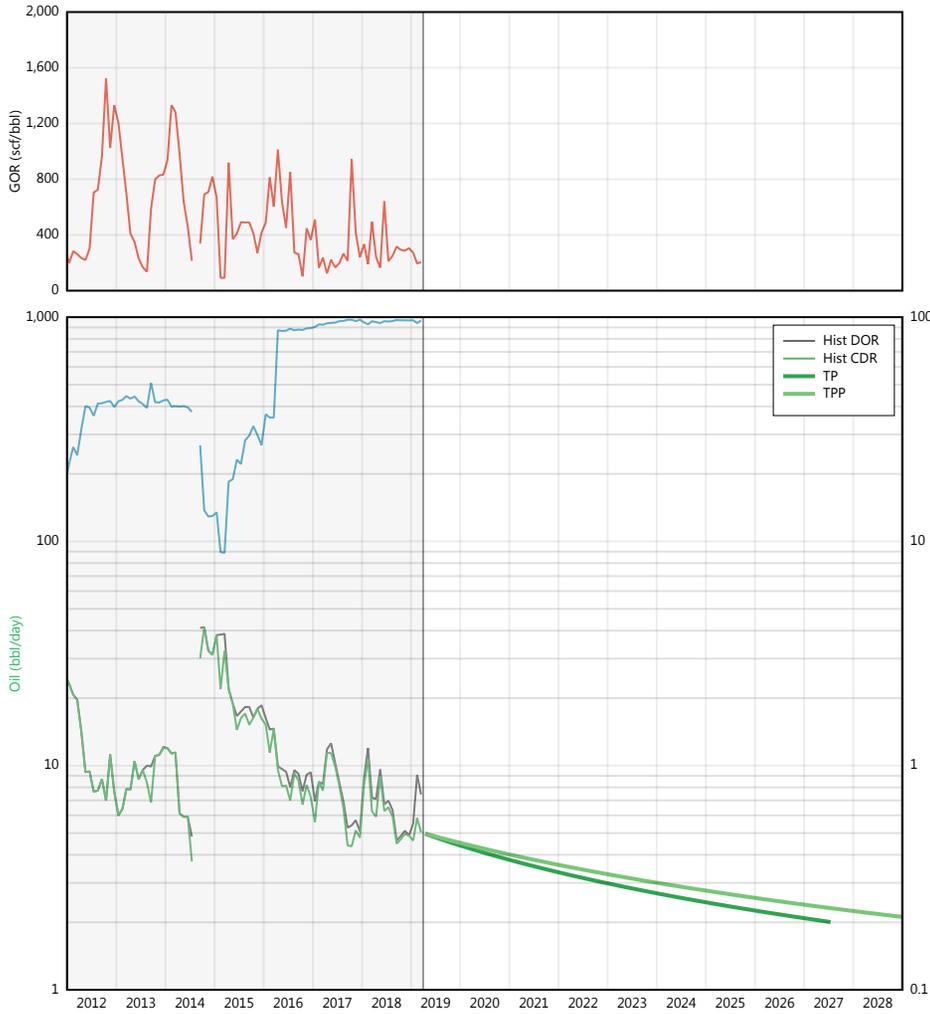
Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$					\$/BOE
2019 (9)	1.0	1.3	59.20	-	-	-	-	-	-	-	77.4	4.8	2.9	3.7	32.4	24.78	-	-	42.1	40.7				
2020	1.0	1.6	60.58	-	-	-	-	-	-	-	94.4	4.3	3.5	3.7	42.6	27.30	-	-	48.3	43.0				
2021	1.0	1.4	62.24	-	-	-	-	-	-	-	86.4	3.8	3.2	3.7	42.4	30.57	-	-	40.7	32.9				
2022	1.0	1.3	66.20	-	-	-	-	-	-	-	83.1	3.4	3.1	3.7	42.5	33.89	-	-	37.4	27.5				
2023	1.0	1.1	67.56	-	-	-	-	-	-	-	77.3	3.1	2.9	3.7	42.7	37.33	-	-	31.7	21.2				
2024	1.0	1.1	68.82	-	-	-	-	-	-	-	72.6	2.9	2.7	3.7	43.0	40.80	-	-	26.8	16.3				
2025	1.0	1.0	70.27	-	-	-	-	-	-	-	68.4	2.7	2.6	3.7	43.4	44.58	-	-	22.4	12.4				
2026	1.0	0.9	71.63	-	-	-	-	-	-	-	64.9	2.5	2.4	3.7	43.8	48.41	-	-	18.6	9.3				
2027	1.0	0.8	73.08	-	-	-	-	-	-	-	61.9	2.3	4.7	7.6	44.3	52.36	-	-	12.8	5.9				
2028	1.0	0.8	74.54	-	-	-	-	-	-	-	59.4	2.2	4.5	7.6	44.9	56.32	-	-	10.0	4.1				
2029 (11)	1.0	0.7	76.09	-	-	-	-	-	-	-	52.3	2.1	4.0	7.6	41.7	60.61	-	-	6.6	2.5				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.2	-	-40.2	-9.1				
<b>Total</b>	-	<b>11.9</b>	<b>66.96</b>	-	-	-	-	-	-	-	<b>798.2</b>	-	<b>36.6</b>	<b>4.6</b>	<b>463.9</b>	<b>38.91</b>	<b>40.2</b>	-	<b>257.4</b>	<b>206.8</b>				

Product	Remaining Reserves				
	Gross Lease	W.I.	R.I.	Net	
Crude Oil (Mbbbl)	11.9	11.9	-	11.4	
<b>Total (MBOE)</b>	<b>11.9</b>	<b>11.9</b>	-	<b>11.4</b>	
<b>Net Present Value Before Tax - M\$</b>					
@ 0.0%	<b>257.4</b>	@ 5.0%	<b>231.8</b>	@ 10.0%	<b>206.8</b>
		@ 15.0%	<b>184.9</b>		
		Econ. RLI	6.96 yrs		
		Rem. Life	10.67 yrs		

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 102/08-35-009-08W4/3



#### General Information

Well Name Avalon Medhat 6-36-9-8  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Nov 2010  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbbbl
Recovery Factor	-	- %
Recoverable Oil	55	58 Mbbbl
Cum. Production at 2019/03/31	46	46 Mbbbl
Gross Lease Reserves	9	12 Mbbbl
Company Share Reserves	9	12 Mbbbl

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**PDP Wells**  
**100/05-36-009-08W4/0**

**NRA**

Year	WI Well Count	Company Share										Total Royalties M\$ %	Operating Costs		Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Product	Remaining Reserves						
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue		M\$	\$/BOE						Gross Lease	W.I.	R.I.	Net			
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%	M\$	\$/BOE	M\$	M\$	M\$							
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Net Present Value Before Tax - M\$**

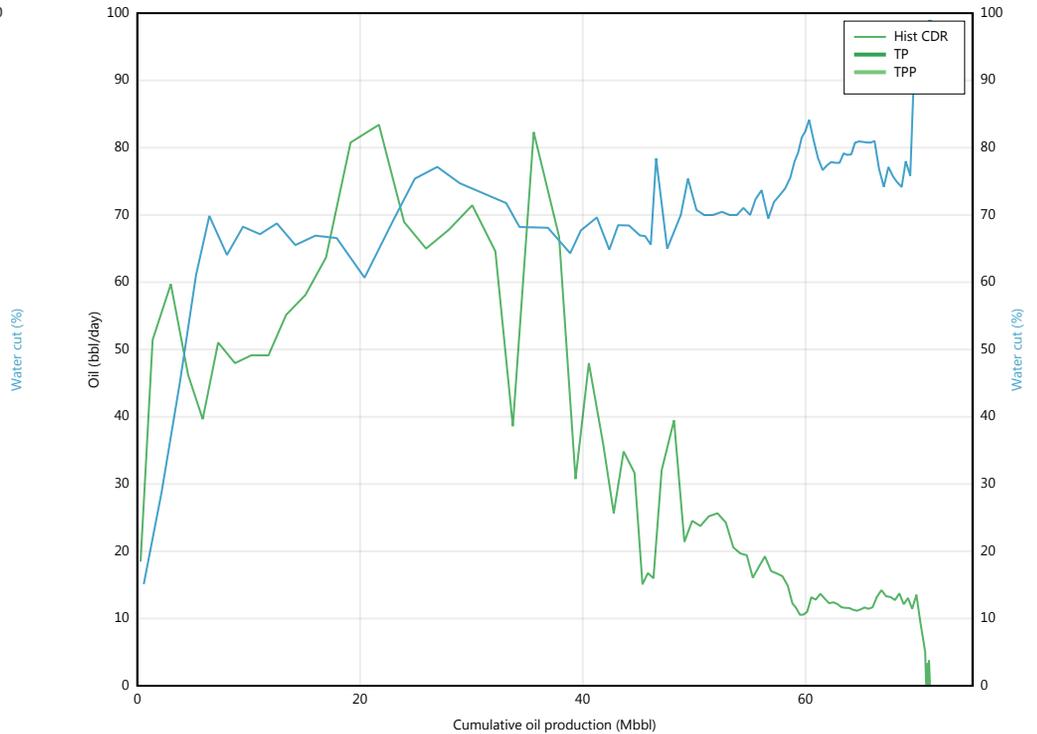
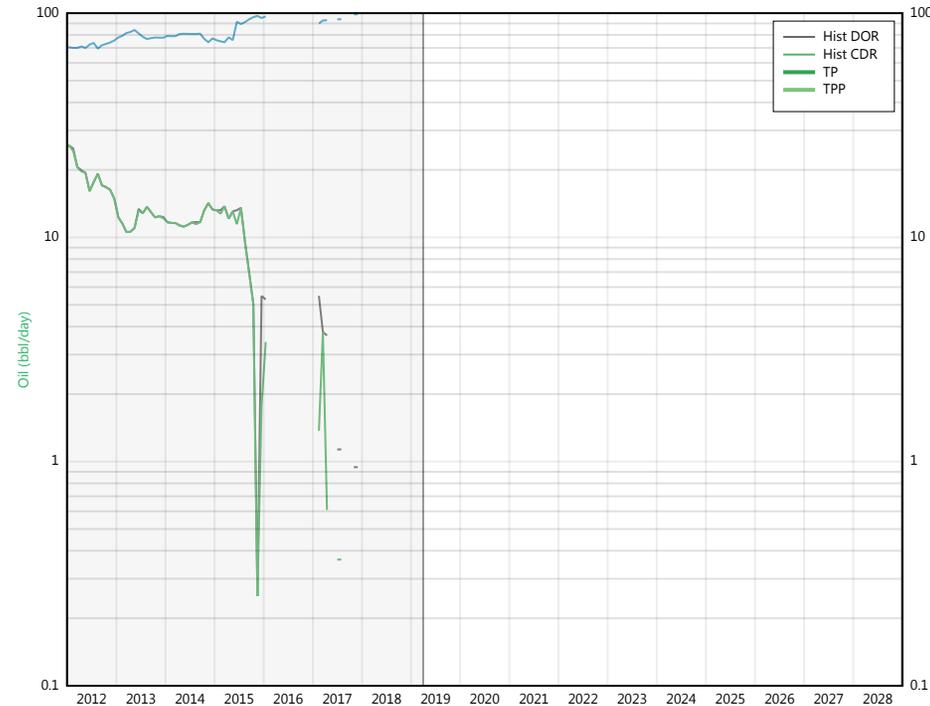
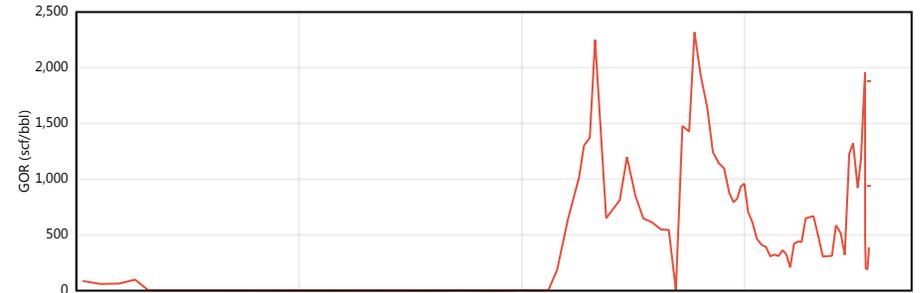
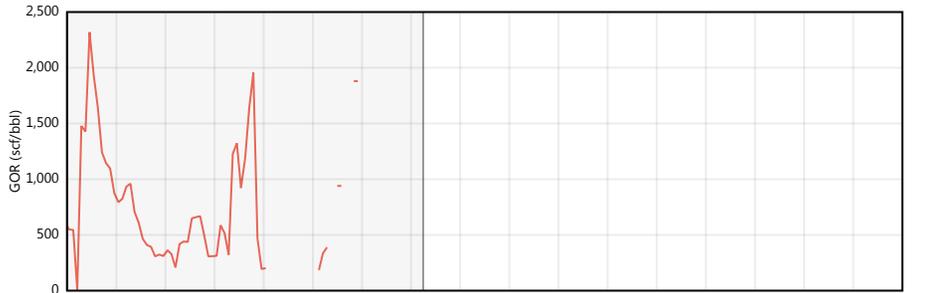
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
0.0	0.0	0.0	0.0

Econ. RLI -  
Rem. Life -

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 100/05-36-009-08W4/0



#### General Information

Well Name Avalon Medhat 5-36-9-8  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Dec 2008  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI - / -

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbbl
Recovery Factor	-	- %
Recoverable Oil	71	71 Mbbl
Cum. Production at 2017/11/30	71	71 Mbbl
Gross Lease Reserves	-	- Mbbl
Company Share Reserves	-	- Mbbl

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

# Avalon Energy Ltd.

## Revenue Forecast Forecast Prices and Costs as of April 1, 2019 Total Reserves

### PDP Wells 102/08-36-009-08W4/0

#### Proved Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue M\$	Total Revenue M\$					BOE/d	Total Royalties M\$ %		Operating Costs M\$ /\$BOE		Gross Lease	W.I.	R.I.	Net
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	Mbbl	\$/bbl					M\$	M\$		M\$	\$/BOE	M\$			
2019 (9)	1.0	0.9	59.20	-	-	-	-	-	-	-	52.5	3.2	-	-	30.1	33.89	-	-	22.5	21.7				
2020	1.0	1.1	60.58	-	-	-	-	-	-	-	68.1	3.1	-	-	40.1	35.73	-	-	27.9	24.8				
2021	1.0	1.1	62.24	-	-	-	-	-	-	-	66.1	2.9	-	-	40.6	38.25	-	-	25.5	20.6				
2022	1.0	1.0	66.20	-	-	-	-	-	-	-	66.7	2.8	-	-	41.1	40.77	-	-	25.6	18.8				
2023	1.0	1.0	67.56	-	-	-	-	-	-	-	64.8	2.6	-	-	41.6	43.38	-	-	23.2	15.5				
2024	1.0	0.9	68.82	-	-	-	-	-	-	-	63.2	2.5	-	-	42.2	45.97	-	-	21.0	12.7				
2025	1.0	0.9	70.27	-	-	-	-	-	-	-	61.6	2.4	-	-	42.8	48.86	-	-	18.8	10.3				
2026	1.0	0.8	71.63	-	-	-	-	-	-	-	60.1	2.3	-	-	43.4	51.74	-	-	16.7	8.4				
2027	1.0	0.8	73.08	-	-	-	-	-	-	-	58.9	2.2	2.9	5.0	44.1	54.72	-	-	11.9	5.4				
2028	1.0	0.8	74.54	-	-	-	-	-	-	-	57.9	2.1	2.9	5.0	44.8	57.65	-	-	10.2	4.2				
2029	1.0	0.7	76.09	-	-	-	-	-	-	-	56.7	2.0	2.8	5.0	45.5	60.97	-	-	8.4	3.2				
2030 (1)	1.0	0.1	77.56	-	-	-	-	-	-	-	4.5	1.9	0.2	5.0	3.8	65.89	-	-	0.4	0.2				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.4	-	-40.4	-9.0				
<b>Total</b>	-	<b>10.1</b>	<b>67.71</b>	-	-	-	-	-	-	-	<b>681.1</b>	-	<b>8.9</b>	<b>1.3</b>	<b>460.1</b>	<b>45.74</b>	<b>40.4</b>	-	<b>171.7</b>	<b>136.9</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	10.1	10.1	-	9.9
<b>Total (MBOE)</b>	<b>10.1</b>	<b>10.1</b>	-	<b>9.9</b>

**Net Present Value Before Tax - M\$**

@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>171.7</b>	<b>154.9</b>	<b>136.9</b>	<b>120.9</b>

Econ. RLI 8.58 yrs  
Rem. Life 10.84 yrs

#### Proved + Probable Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue M\$	Total Revenue M\$					BOE/d	Total Royalties M\$ %		Operating Costs M\$ /\$BOE		Gross Lease	W.I.	R.I.	Net
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	Mbbl	\$/bbl					M\$	M\$		M\$	\$/BOE	M\$			
2019 (9)	1.0	0.9	59.20	-	-	-	-	-	-	-	52.7	3.3	-	-	30.1	33.79	-	-	22.6	21.9				
2020	1.0	1.1	60.58	-	-	-	-	-	-	-	68.9	3.1	-	-	40.2	35.38	-	-	28.7	25.5				
2021	1.0	1.1	62.24	-	-	-	-	-	-	-	67.4	3.0	-	-	40.7	37.61	-	-	26.7	21.5				
2022	1.0	1.0	66.20	-	-	-	-	-	-	-	68.6	2.8	-	-	41.3	39.82	-	-	27.3	20.1				
2023	1.0	1.0	67.56	-	-	-	-	-	-	-	67.1	2.7	-	-	41.8	42.11	-	-	25.3	16.9				
2024	1.0	1.0	68.82	-	-	-	-	-	-	-	65.8	2.6	-	-	42.4	44.37	-	-	23.4	14.2				
2025	1.0	0.9	70.27	-	-	-	-	-	-	-	64.5	2.5	-	-	43.1	46.92	-	-	21.4	11.8				
2026	1.0	0.9	71.63	-	-	-	-	-	-	-	63.3	2.4	-	-	43.7	49.45	-	-	19.6	9.8				
2027	1.0	0.9	73.08	-	-	-	-	-	-	-	62.3	2.3	3.1	5.0	44.4	52.05	-	-	14.8	6.8				
2028	1.0	0.8	74.54	-	-	-	-	-	-	-	61.6	2.3	3.1	5.0	45.1	54.61	-	-	13.4	5.5				
2029	1.0	0.8	76.09	-	-	-	-	-	-	-	60.6	2.2	3.0	5.0	45.8	57.52	-	-	11.8	4.4				
2030	1.0	0.8	77.54	-	-	-	-	-	-	-	59.8	2.1	3.0	5.0	46.5	60.39	-	-	10.2	3.5				
2031	1.0	0.7	79.09	-	-	-	-	-	-	-	59.1	2.0	3.0	5.0	47.3	63.34	-	-	8.8	2.7				
2032 (3)	1.0	0.2	80.66	-	-	-	-	-	-	-	14.6	2.0	0.7	5.0	11.9	65.95	-	-	1.9	0.6				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42.1	-	-42.1	-7.6				
<b>Total</b>	-	<b>12.1</b>	<b>69.27</b>	-	-	-	-	-	-	-	<b>836.2</b>	-	<b>15.9</b>	<b>1.9</b>	<b>564.4</b>	<b>46.76</b>	<b>42.1</b>	-	<b>213.8</b>	<b>157.6</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	12.1	12.1	-	11.9
<b>Total (MBOE)</b>	<b>12.1</b>	<b>12.1</b>	-	<b>11.9</b>

**Net Present Value Before Tax - M\$**

@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
<b>213.8</b>	<b>184.5</b>	<b>157.6</b>	<b>135.6</b>

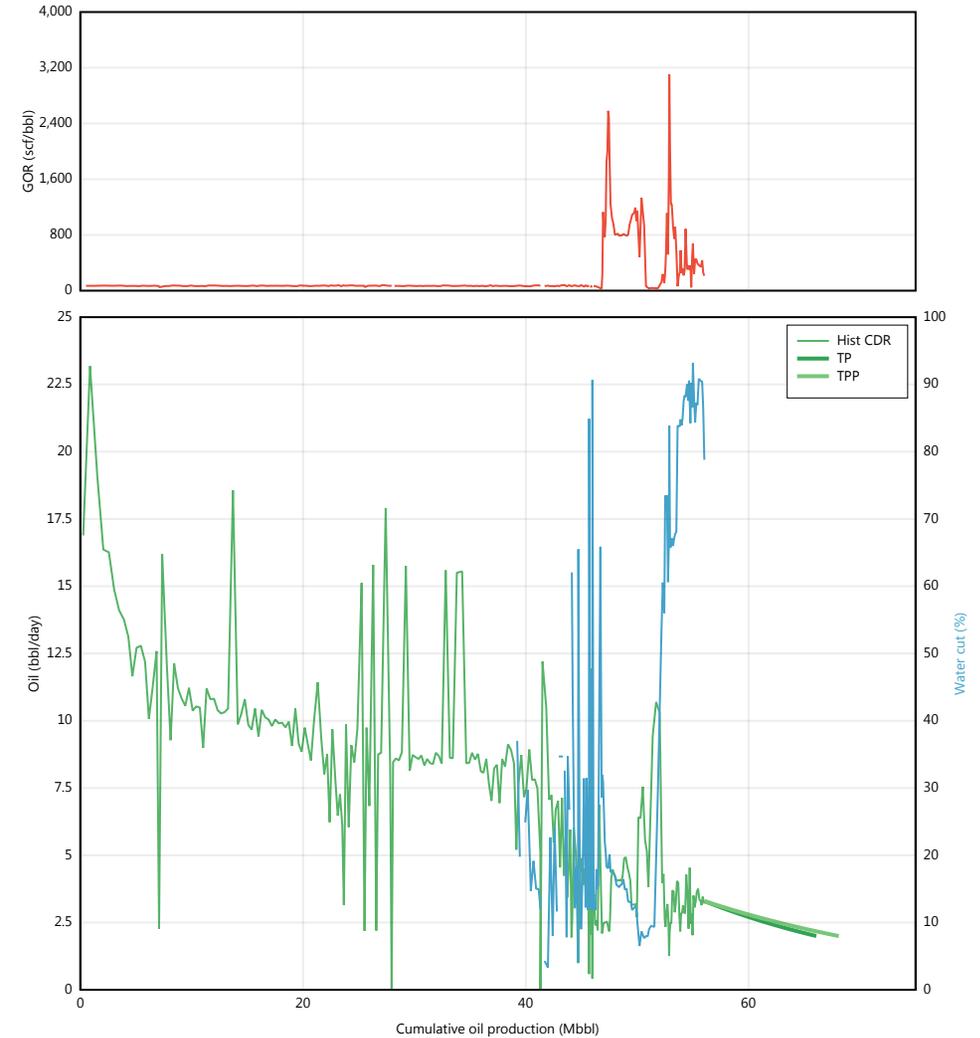
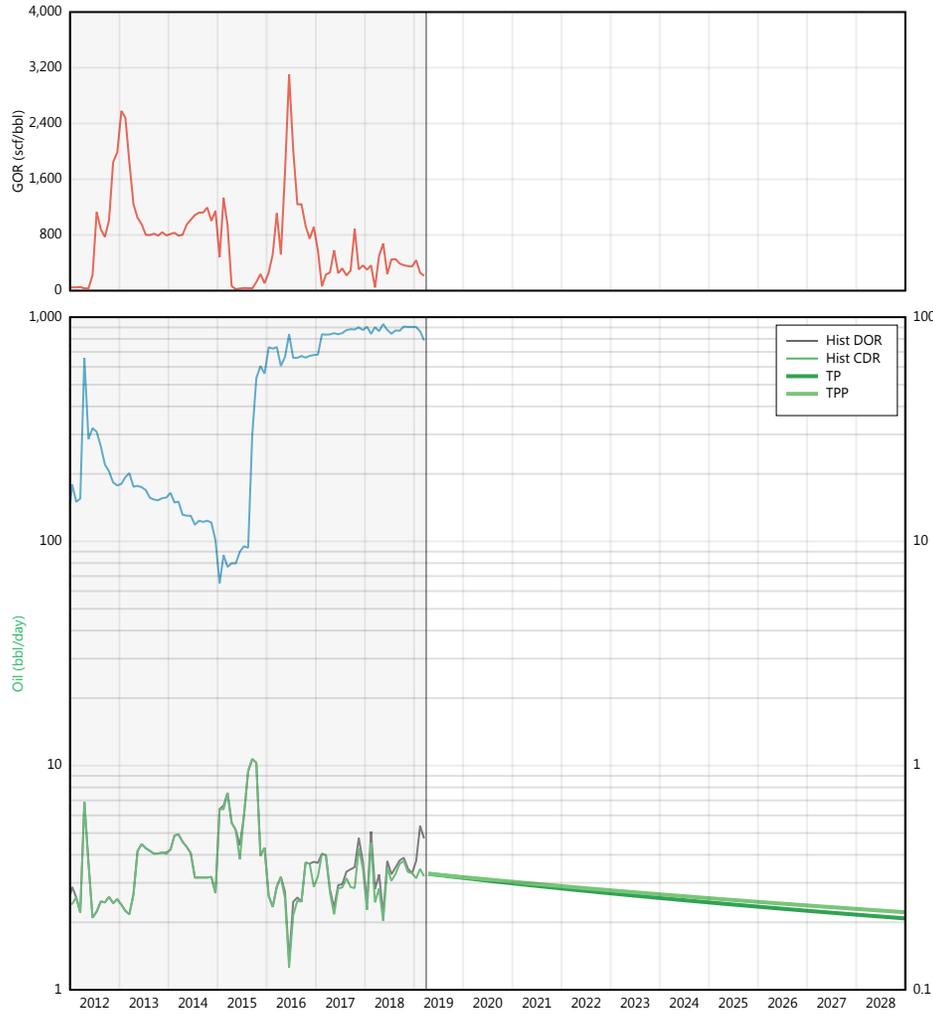
Econ. RLI 10.24 yrs  
Rem. Life 13.00 yrs

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates

#### PDP Wells - 102/08-36-009-08W4/0



#### General Information

Well Name Avalon Medhat 8-36-9-8  
 Pool Name Lower Mannville A  
 Zone L MN A  
 On Prod. Jun 1997  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	349	349 Mbbi
Recovery Factor	19	20 %
Recoverable Oil	66	68 Mbbi
Cum. Production at 2019/03/31	56	56 Mbbi
Gross Lease Reserves	10	12 Mbbi
Company Share Reserves	10	12 Mbbi

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Revenue Forecast Forecast Prices and Costs as of April 1, 2019 Total Reserves

#### PDP Wells 100/12-36-009-08W4/0

#### Proved Developed Producing

Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$					\$/BOE
2019 (9)	1.0	1.1	59.20	-	-	-	-	-	-	-	62.3	3.8	-	-	31.0	29.43	-	-	31.4	30.3				
2020	1.0	1.3	60.58	-	-	-	-	-	-	-	77.2	3.5	-	-	41.0	32.17	-	-	36.2	32.2				
2021	1.0	1.1	62.24	-	-	-	-	-	-	-	71.6	3.2	-	-	41.1	35.74	-	-	30.5	24.6				
2022	1.0	1.1	66.20	-	-	-	-	-	-	-	69.6	2.9	-	-	41.3	39.35	-	-	28.2	20.7				
2023	1.0	1.0	67.56	-	-	-	-	-	-	-	65.3	2.6	-	-	41.7	43.09	-	-	23.7	15.8				
2024	1.0	0.9	68.82	-	-	-	-	-	-	-	61.8	2.5	-	-	42.1	46.86	-	-	19.7	12.0				
2025	1.0	0.8	70.27	-	-	-	-	-	-	-	58.6	2.3	-	-	42.5	51.00	-	-	16.1	8.9				
2026	1.0	0.8	71.63	-	-	-	-	-	-	-	55.9	2.1	-	-	43.1	55.15	-	-	12.9	6.5				
2027 (7)	1.0	0.4	73.09	-	-	-	-	-	-	-	31.5	2.0	1.6	5.0	25.4	58.86	-	-	4.6	2.1				
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.4	-	-38.4	-10.8				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
<b>Total</b>	-	<b>8.4</b>	<b>65.63</b>	-	-	-	-	-	-	-	<b>553.8</b>	-	<b>1.6</b>	<b>0.3</b>	<b>349.2</b>	<b>41.37</b>	<b>38.4</b>	-	<b>164.7</b>	<b>142.3</b>				

Product	Remaining Reserves				
	Gross Lease	W.I.	R.I.	Net	
Crude Oil (Mbbbl)	8.4	8.4	-	8.4	
<b>Total (MBOE)</b>	<b>8.4</b>	<b>8.4</b>	-	<b>8.4</b>	
<b>Net Present Value Before Tax - M\$</b>					
@ 0.0%	<b>164.7</b>	@ 5.0%	<b>154.7</b>	@ 10.0%	<b>142.3</b>
		@ 15.0%	<b>130.1</b>		
		Econ. RLI	6.10 yrs		
		Rem. Life	8.33 yrs		

#### Proved + Probable Developed Producing

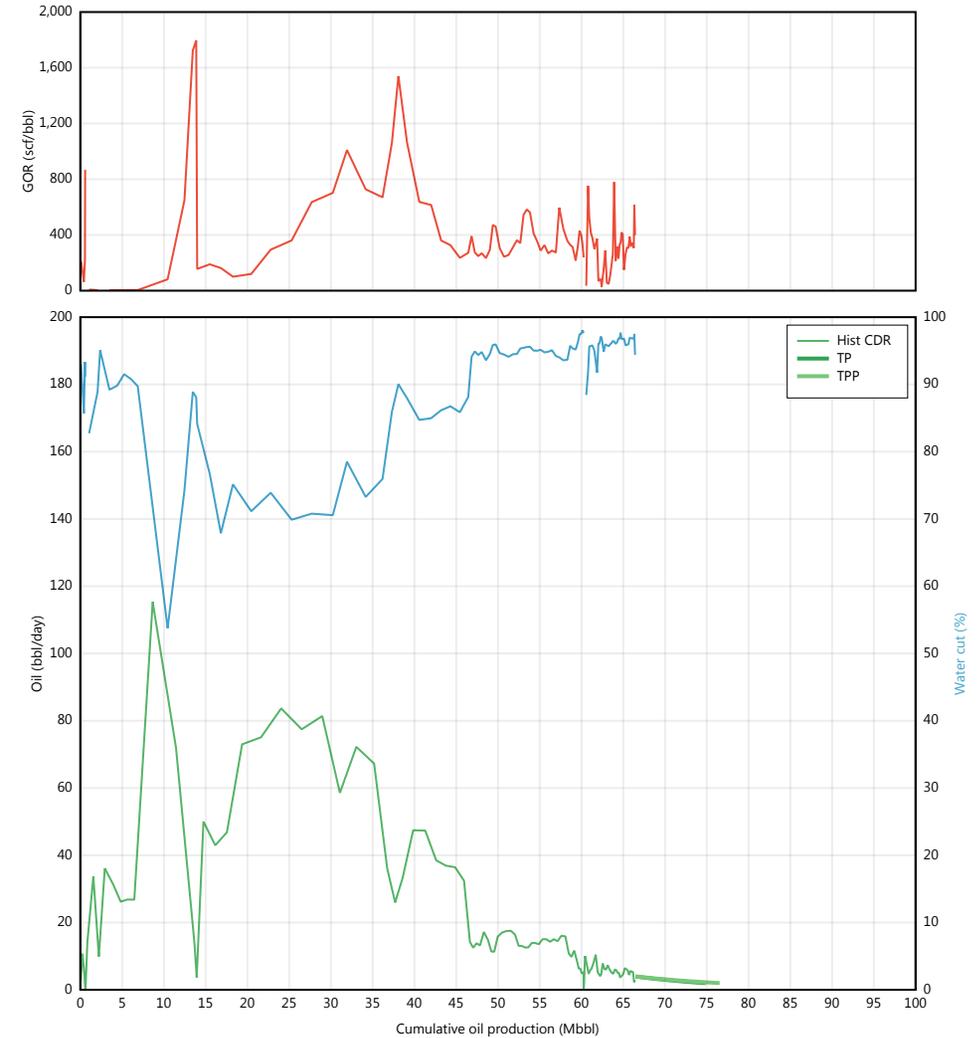
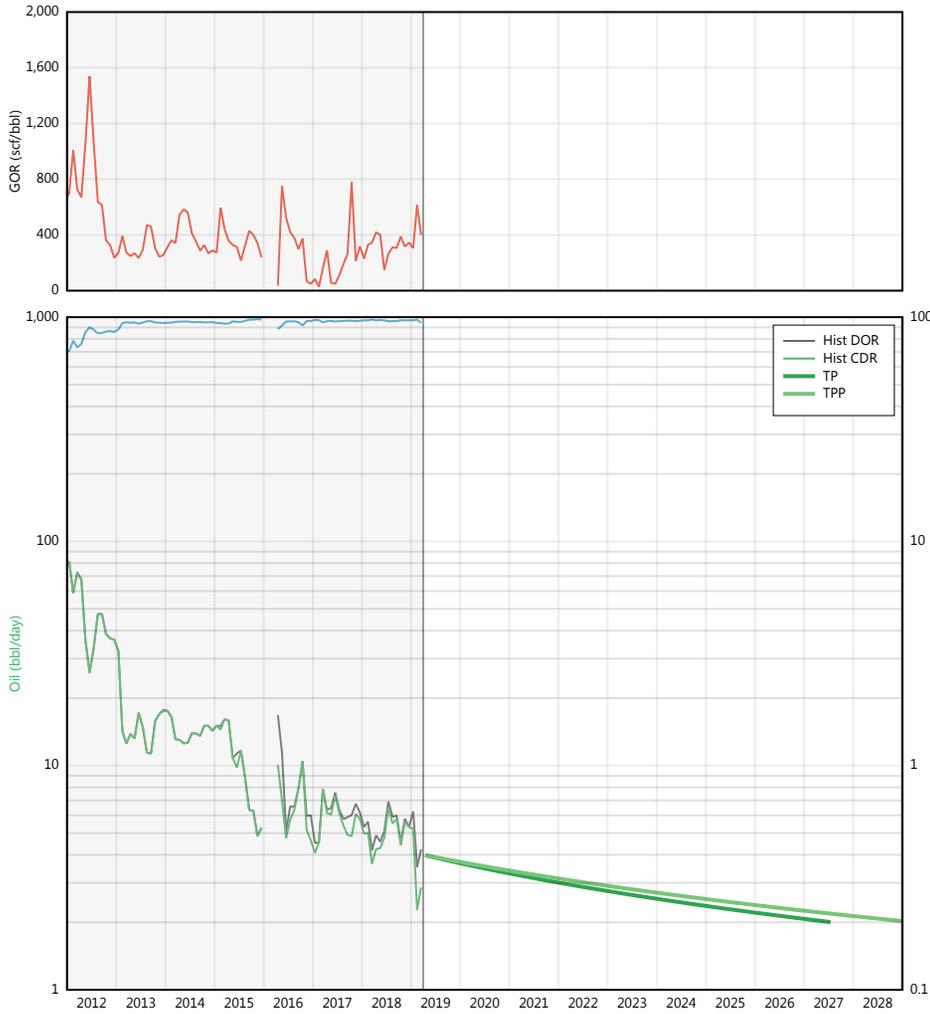
Year	WI Well Count	Company Share										Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves								
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue					Total Royalties		Operating Costs		Gross Lease	W.I.	R.I.	Net	
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$					BOE/d	M\$	%	M\$					\$/BOE
2019 (9)	1.0	1.1	59.20	-	-	-	-	-	-	-	62.8	3.9	-	-	31.0	29.26	-	-	31.8	30.7				
2020	1.0	1.3	60.58	-	-	-	-	-	-	-	78.9	3.6	-	-	41.1	31.60	-	-	37.7	33.5				
2021	1.0	1.2	62.24	-	-	-	-	-	-	-	74.2	3.3	-	-	41.3	34.67	-	-	32.9	26.6				
2022	1.0	1.1	66.20	-	-	-	-	-	-	-	73.0	3.0	-	-	41.6	37.78	-	-	31.3	23.0				
2023	1.0	1.0	67.56	-	-	-	-	-	-	-	69.2	2.8	-	-	42.0	41.00	-	-	27.2	18.2				
2024	1.0	1.0	68.82	-	-	-	-	-	-	-	66.1	2.6	-	-	42.5	44.23	-	-	23.6	14.3				
2025	1.0	0.9	70.27	-	-	-	-	-	-	-	63.1	2.5	-	-	42.9	47.79	-	-	20.2	11.1				
2026	1.0	0.8	71.63	-	-	-	-	-	-	-	60.6	2.3	-	-	43.5	51.36	-	-	17.2	8.6				
2027	1.0	0.8	73.08	-	-	-	-	-	-	-	58.5	2.2	2.9	5.0	44.0	55.06	-	-	11.5	5.2				
2028	1.0	0.8	74.54	-	-	-	-	-	-	-	56.7	2.1	2.8	5.0	44.7	58.74	-	-	9.2	3.8				
2029 (3)	1.0	0.2	76.11	-	-	-	-	-	-	-	13.7	2.0	0.7	5.0	11.2	62.46	-	-	1.8	0.7				
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.7	-	-39.7	-9.5				
<b>Total</b>	-	<b>10.1</b>	<b>66.82</b>	-	-	-	-	-	-	-	<b>676.7</b>	-	<b>6.4</b>	<b>1.0</b>	<b>426.0</b>	<b>42.07</b>	<b>39.7</b>	-	<b>204.6</b>	<b>166.2</b>				

Product	Remaining Reserves				
	Gross Lease	W.I.	R.I.	Net	
Crude Oil (Mbbbl)	10.1	10.1	-	10.0	
<b>Total (MBOE)</b>	<b>10.1</b>	<b>10.1</b>	-	<b>10.0</b>	
<b>Net Present Value Before Tax - M\$</b>					
@ 0.0%	<b>204.6</b>	@ 5.0%	<b>185.8</b>	@ 10.0%	<b>166.2</b>
		@ 15.0%	<b>148.8</b>		
		Econ. RLI	7.26 yrs		
		Rem. Life	10.00 yrs		

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 100/12-36-009-08W4/0



#### General Information

Well Name Avalon Medhat 12-36-9-8  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Dec 2008  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

#### Reserves as of April 1, 2019

Oil	TP	TPP
Discovered OOIP	-	- Mbb
Recovery Factor	-	- %
Recoverable Oil	75	77 Mbb
Cum. Production at 2019/03/31	66	66 Mbb
Gross Lease Reserves	8	10 Mbb
Company Share Reserves	8	10 Mbb

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

**Avalon Energy Ltd.**  
**Revenue Forecast**  
**Forecast Prices and Costs as of April 1, 2019**  
**Total Reserves**  
**PDP Wells**  
**102/12-36-009-08W4/0**

**Proved Developed Producing**

Year	WI Well Count	Company Share													Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves					
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue	Total Royalties		Operating Costs					Gross Lease	W.I.	R.I.	Net		
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%									M\$	\$/BOE
2019 (9)	1.0	0.7	59.20	-	-	-	-	-	-	41.5	2.6	-	-	29.1	41.45	-	-	12.4	12.0					
2020	1.0	0.8	60.58	-	-	-	-	-	-	49.9	2.3	-	-	38.5	46.68	-	-	11.5	10.2					
2021	1.0	0.7	62.24	-	-	-	-	-	-	45.1	2.0	-	-	38.7	53.36	-	-	6.4	5.2					
2022	1.0	0.6	66.20	-	-	-	-	-	-	42.9	1.8	-	-	39.0	60.16	-	-	3.9	2.9					
2023 (8)	1.0	0.4	67.57	-	-	-	-	-	-	26.8	1.6	-	-	26.2	66.12	-	-	0.6	0.4					
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.6	-	-35.6	-14.6					
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>Total</b>	-	<b>3.3</b>	<b>62.60</b>	-	-	-	-	-	-	-	<b>206.3</b>	-	-	-	<b>171.5</b>	<b>52.03</b>	<b>35.6</b>	-	<b>-0.7</b>	<b>16.2</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	3.3	3.3	-	3.3
<b>Total (MBOE)</b>	<b>3.3</b>	<b>3.3</b>	-	<b>3.3</b>

**Net Present Value Before Tax - M\$**

@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
-0.7	10.2	16.2	19.5

Econ. RLI 3.60 yrs  
Rem. Life 4.42 yrs

**Proved + Probable Developed Producing**

Year	WI Well Count	Company Share													Abd. Costs & Recl. M\$	Total Capital M\$	Net Revenue M\$	NPV @10.0% M\$	Remaining Reserves					
		Crude Oil		Natural Gas		Condensate		NGL		Other Revenue	Total Revenue	Total Royalties		Operating Costs					Gross Lease	W.I.	R.I.	Net		
		Mbbl	\$/bbl	MMcf	\$/Mcf	Mbbl	\$/bbl	Mbbl	\$/bbl	M\$	M\$	BOE/d	M\$	%									M\$	\$/BOE
2019 (9)	1.0	0.7	59.20	-	-	-	-	-	-	41.8	2.6	-	-	29.1	41.20	-	-	12.7	12.3					
2020	1.0	0.8	60.58	-	-	-	-	-	-	51.0	2.3	-	-	38.6	45.84	-	-	12.4	11.1					
2021	1.0	0.7	62.24	-	-	-	-	-	-	46.7	2.1	-	-	38.8	51.79	-	-	7.8	6.4					
2022	1.0	0.7	66.20	-	-	-	-	-	-	44.9	1.9	-	-	39.2	57.84	-	-	5.7	4.2					
2023	1.0	0.6	67.56	-	-	-	-	-	-	41.8	1.7	-	-	39.6	64.11	-	-	2.1	1.4					
2024 (1)	1.0	0.1	68.84	-	-	-	-	-	-	3.4	1.6	-	-	3.3	66.47	-	-	0.1	0.1					
2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.9	-	-35.9	-14.1					
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Rem.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>Total</b>	-	<b>3.6</b>	<b>63.00</b>	-	-	-	-	-	-	-	<b>229.5</b>	-	-	-	<b>188.6</b>	<b>51.78</b>	<b>35.9</b>	-	<b>5.0</b>	<b>21.3</b>				

Product	Gross Lease	W.I.	R.I.	Net
Crude Oil (Mbbbl)	3.6	3.6	-	3.6
<b>Total (MBOE)</b>	<b>3.6</b>	<b>3.6</b>	-	<b>3.6</b>

**Net Present Value Before Tax - M\$**

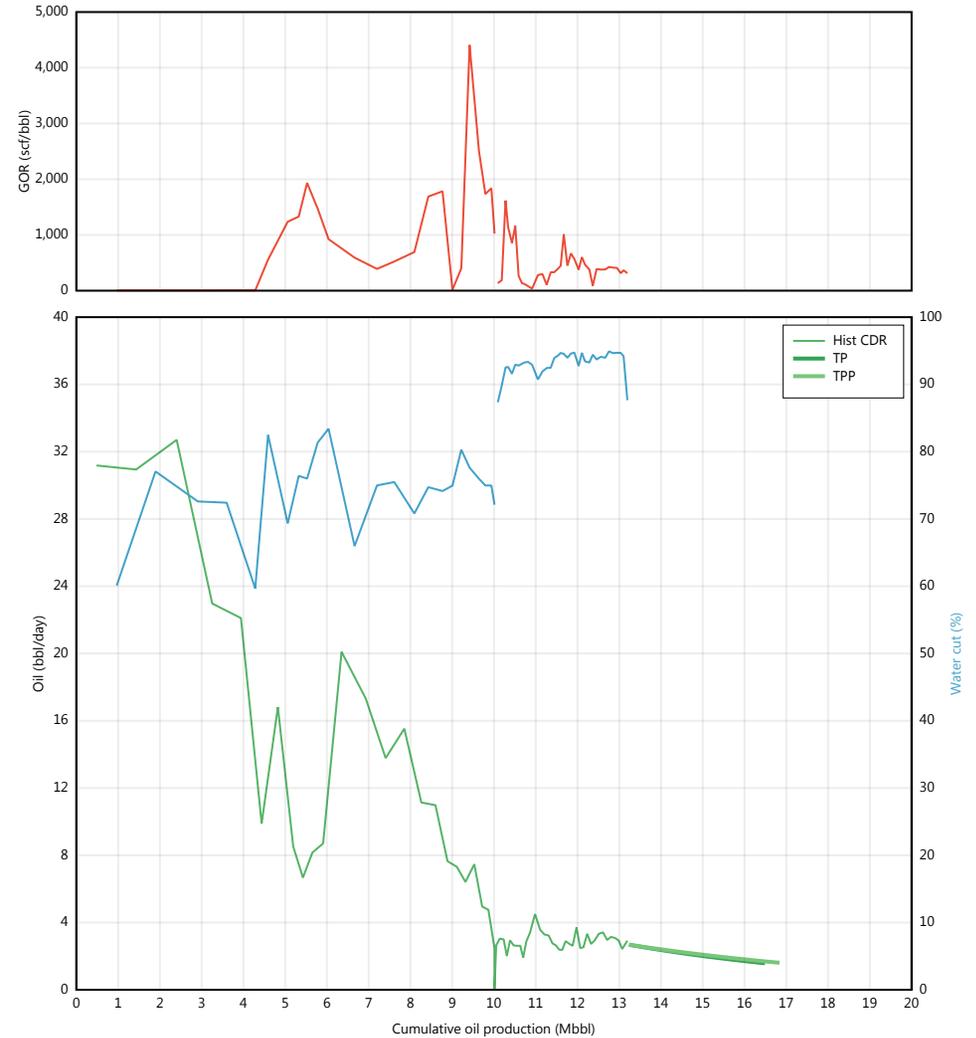
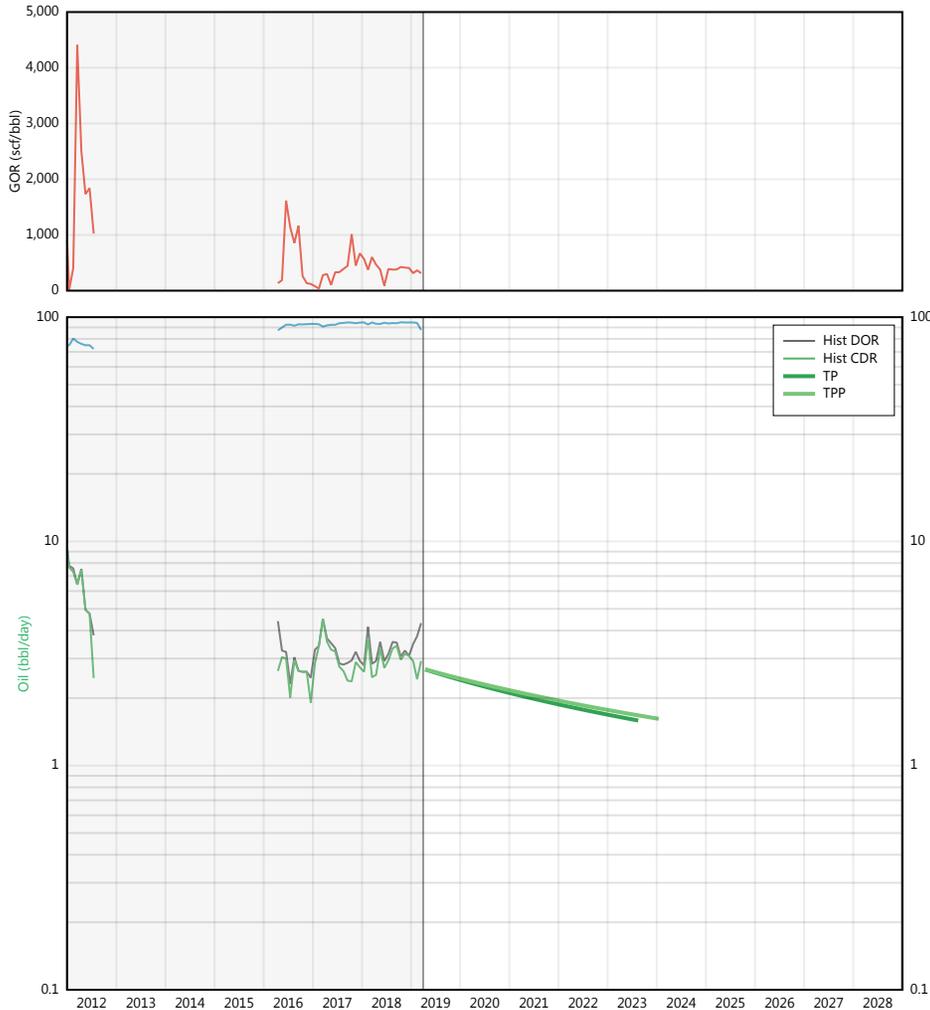
@ 0.0%	@ 5.0%	@ 10.0%	@ 15.0%
5.0	15.7	21.3	24.1

Econ. RLI 3.94 yrs  
Rem. Life 4.84 yrs

Prices: McDaniel Apr 2019  
 Eff. Date: April 1, 2019  
 Currency: CAD

## Avalon Energy Ltd.

### Reserve Estimates PDP Wells - 102/12-36-009-08W4/0



**General Information**

Well Name Avalon Medhat 12-36-9-8  
 Pool Name Lower Mannville A  
 Zone SUNB  
 On Prod. Aug 2010  
 Prod. Status Pumping Oil  
 Based on Performance Analysis  
 Oil Type Heavy Oil  
 Gas Type Natural Gas  
 # Wells 1  
 Avg. WI/RI 100% / - (TPP)

**Reserves as of April 1, 2019**

Oil	TP	TPP
Discovered OOIP	-	- Mbbbl
Recovery Factor	-	- %
Recoverable Oil	16	17 Mbbbl
Cum. Production at 2019/03/31	13	13 Mbbbl
Gross Lease Reserves	3	4 Mbbbl
Company Share Reserves	3	4 Mbbbl

**Comments**

Well SI to increase reservoir pressure. Assumed to be back on Jan 2013.