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COURT

COURT OF QUEEN'S BENCH OF ALBERTA

JUDICIAL CENTRE

**CALGARY** 

IN THE MATTER OF THE COMPANIES' CREDITORS

ARRANGEMENT ACT, RSC 1985, c C-36, AS AMENDED

AND IN THE MATTER OF CALGARY OIL & GAS SYNDICATE GROUP LTD., CALGARY OIL AND GAS INTERCONTINENTAL GROUP LTD. (IN ITS OWN CAPACITY AND IN ITS CAPACITY AS GENERAL PARTNER OF T5 SC OIL AND GAS LIMITED PARTNERSHIP), CALGARY OIL AND SYNDICATE PARTNERS

LTD., and PETROWORLD ENERGY LTD.

**DOCUMENT** 

### SUPPLEMENTAL AFFIDAVIT

ADDRESS FOR SERVICE AND CONTACT INFORMATION OF

PARTY FILING THIS

DOCUMENT

Matti Lemmens / Tiffany Bennett

Borden Ladner Gervais LLP

1900, 520 3<sup>rd</sup> Ave. S.W.

Calgary, AB T2P 0R3

Telephone: (403) 232-9511 / (403) 232-9199

Facsimile: (403) 266-1395

Email: MLemmens@blg.com / TiBennett@blg.com

## SUPPLEMENTAL AFFIDAVIT OF RYAN MARTIN

Sworn on February 10, 2021

I, Ryan Martin, of the City of Alberta, in the Province of Alberta, SWEAR AND SAY THAT:

I am the President, Secretary and sole director of the Applicants, Calgary Oil and Gas Intercontinental Group Ltd., formerly Triple Five Intercontinental Group Ltd. ("Intercontinental") and Petroworld Energy Ltd. ("Petroworld"). I have been the President of Intercontinental and Petroworld since September 4 and 10, 2020, respectively, and have been involved with the companies since their incorporation. Through my involvement with Intercontinental and Petroworld, I have also gained personal knowledge relating to their parent companies and related entities, Calgary Oil & Gas Syndicate Group Ltd., formerly Triple Five Energy Ltd. ("Syndicate Group"), Calgary Oil and Syndicate

Partners Ltd., formerly T5 Energy Partners Ltd. ("Syndicate Partners", and all Applicants are collectively referred to herein as the "Companies"). As such, I have personal knowledge of the matters to which I depose in this Affidavit, except where such matters are stated to be based on information and belief, in which case I have stated the source of my information and, in all cases, I believe such information to be true.

- 2. I previously swore an affidavit in support of the Companies' Application for an Initial Order for certain relief pursuant to the *Companies' Creditors Arrangement Act*, RSC 1985, c C-36, which affidavit was sworn on February 5, 2020 and filed on February 8, 2020 (the "Martin Affidavit"). I make this Affidavit to supplement the First Martin Affidavit, to address certain typographical errors therein, and to respond to allegations set out in the Affidavit of Adam Jenkins, sworn on February 9, 2021 (the "Jenkins Affidavit"). I would have further responses to the Jenkins Affidavit if additional time was given.
- 3. Unless otherwise defined herein, all capitalized meanings have the terms ascribed thereto in the First Martin Affidavit.

### Collaboration with the Sunchild First Nation

- 4. Intercontinental the Limited Partnership have enjoyed a positive relationship with the Sunchild First Nation (the "Nation") since Intercontinental and the Nation, through Sunchild Oil & Gas Ltd., first entered into contractual arrangements in respect of the relevant Ferrier assets in or around June 2014.
- 5. During the course of the near 7-year relationship between Intercontinental, the Limited Partnership and the Nation, Intercontinental and the Nation have considered various options to provide the Nation with greater value in its business dealings with Intercontinental and the Limited Partnership. Intercontinental and the Nation are canvassing potential further collaboration in relation to the Ferrier assets to expand on the value created together.
- 6. The Nation has advised Intercontinental that it supports the continued operation of the Ferrier assets by Intercontinental and the Limited Partnership. It is uncertain whether the Nation would support the operation of the assets by a third-party purchaser and provide a band council resolution to do so.

## The Companies' Restructuring Efforts

- 7. Based on 2020 reserve reports prepared by Sproule Associates Limited ("Sproule"), if the proposed Initial Order is granted, the Companies will likely be in the position to: (a) pay approximately \$7.5 million of the existing trade creditor claims by the end of 2022, and (b) pay Crown Capital monthly interest amounts totalling approximately \$5.7 million and repayment on the principal of the loan totalling approximately \$2.4 million.
- 8. The Companies are presently in confidential negotiations with a third party in respect of a potential transaction that would see Crown Capital's indebtedness fully paid out in the next two months. The name of the third party and the details of the potential transaction cannot be disclosed at this time as it may jeopardize the transaction to do so. The third party has provided a Letter of Intent with a view to paying the debtor of Crown Capital and a portion of the unsecured creditors' claims.

## Responses to the Jenkins Affidavit

- 9. In response to paragraph 15 of the Jenkins Affidavit, based on the Companies' calculations and records, the outstanding interest and production payment amounts alleged in the Jenkins Affidavit is incorrect. The Companies' own calculations and records indicate that, as of February 8, 2021, the interest owing to Crown Capital is \$297,459.17 and the production payment owing is approximately \$199,856, based on the estimated amount of \$60,000.00 owing for January 2021. This is in contrast to the numbers presented in the Jenkins Affidavit, which are \$910,455.45 and \$94,609.14, respectively. Overall, the Jenkins Affidavit suggests that \$1,005,064.59 is owing when, in fact, the Limited Partnership owe less than half of that amount. Crown Capital has been paid out by the Companies in interest payments of \$5,499,265 and royalty payments of \$1,347,485 to date at an effective interest rate of approximately 14%. The Companies further deny that a prepayment fee is due and owing.
- 10. In response to paragraphs 27 to 46 of the Jenkins Affidavit, which relate to allegations relating to the Companies' financial forecasts:
  - (a) Although the Jenkins Affidavit alleges concerns relating to the Limited Partnership's forecasts, those forecasts were provided to Crown Capital and Crown

- Capital continued to advance additional funds to the Limited Partnership;
- (b) Crown Capital was constantly kept abreast of the situation via the monthly lease operating statements, constant management reporting, quarterly financials, along with an annual qualified third party reserves report from Sproule. It was with this information that they would base funding;
- (c) Crown Capital was preparing its own analyses and assessments of the Companies over time. When those were communicated to the Companies, the Companies expressed concerns about the validity of those assessments. The Companies are not privy to the confidential exhibits set out in the Jenkins Affidavit but question their validity given the Companies' historical concern with Crown Capital's assessments.
- (d) In preparing their forecasts, the Companies relied on independent third-party valuations prepared by Sproule. All forecasts provided by the Companies to Crown Capital were apparent by Sproule's valuations.
- 11. Crown Capital's recount of difficulties with production is not accurate. I provide further details below, and would be able to provide more if given more time to respond. Crown Capital contributed to delays in drilling programs, which when combined with the market volatility, resulted in decreased production compared to the forecasts. This is not uncommon in the oil and gas industry and certainly not uncommon in the past several years when the industry has been contending with market declines.
- 12. In response to paragraph 36 and 62 of the Jenkins Affidavit, the August 2019 Forecast contemplated production from new wells in November 2019 and the Limited Partnership was unable to launch drilling operations due to Crown Capital's delay in closing the financing on October 31, 2019. The Limited Partnership initially intended to undertake drilling activities in or around July 2019 in order to ensure production for the fall or winter of 2019. However, the Limited Partnership was unable to launch its drilling program until early November and the wells were not in production until March 2020, which is a normal timeframe for an operation of this nature at this time of year. We had missed the peak of winter pricing, with flush production because of the delay in funding from original term

- sheet and intent use of funds to capture strong winter pricing, rather than weaker pricing during summer months and the COVID-19 pandemic.
- 13. The Limited Partnership's revenue generation was affected by the decline of commodity prices for condensates and other liquids. By way of illustration, condensate pricing decreased from \$80.69/bbl in January 2020 to a low of \$16.26/bbl in May 2020, and propane prices decreased from \$6.43/bbl in January 2020 to a low of \$0.31/bbl in March 2020. In turn, the Limited Partnership's condensate revenues in January 2020 was \$422,989 versus \$101,460 in May 2020, representing a 76% decrease. The Limited Partnership's overall liquids revenues in January 2020 was \$501,487 versus \$239,916 in May 2020, representing a 52% decrease. There was a material negative impact to the cash flow of the company during this period.
- 14. In response to paragraph 38 of the Jenkins Affidavit, the Limited Partnership yielded positive results from the 2018 drilling program. Production in the Ferrier assets increased from 2,892 boe/day to 5,200 boe/day in March 2019 following the completion of the 2018 drilling program. However, natural gas prices declined significantly in the period of April to September 2019, with average prices of \$0.98/mcf. This severely restrained cash flow for the 6 months following commencement of production from the new wells. Nevertheless, reserve valuations prepared by Sproule confirmed that ultimate recovery from these wells were the same as initially expected over a longer payout period.
- 15. In response to paragraphs 39 and 41 of the Jenkins Affidavit, natural gas prices have experienced a decline since 2018, prior to the COVID-19 pandemic. Average natural gas prices for the years 2017 to 2020 were as follows: \$2.37/mcf in 2017, \$1.65/mcf in 2018, \$1.89 mcf in 2019. Current pricing is much stronger than the previous months and is expected to be going improving; it is further expected that market conditions and market value of the assets should increase with this commodity recovery in the coming months.
- 16. In response to paragraph 51 of the Jenkins Affidavit, contrary to the assertions that the Blocked Account was not administratively burdensome, in fact it was. The Blocked Account was incompatible with trade creditors that may require upfront payments prior to the provision of goods and services, as was the case with respect to the delay in the Limited Partnership's tubing and maintenance program.

- 17. In response to paragraph 53 of the Jenkins Affidavit, production royalty payments to Crown Capital were waived in August 2020, and only payments owing for October to December 2020 are presently in arrears. The interest payment was waived for the month of November 2020. If the proposed Initial Order is granted, the Companies anticipate being in a position to make payment of production royalties from October to December 2020 and interest for November 2020 to Crown Capital imminently.
- 18. In response to paragraph 62 of the Jenkins Affidavit, wherein he asserts that the COVID-19 pandemic has not had a significant impact on the business, in fact the COVID-19 pandemic and the OPEC+ production announcements have had a significant impact on the Limited Partnership's revenue generation and cash flow. The Limited Partnership's corporate netbacks decreased by more than half as a result of the COVID-19 pandemic and the OPEC+ production announcements, and gas prices were below the annual average. For comparison, the average realized cash flow netback for 2019 was \$5.36/boe, while it was \$2.12/boe for 2020.
- 19. In response to paragraph 65 of the Jenkins Affidavit, during the height of the COVID-19 pandemic (between March to October 2020), the average cash flow netback was approximately \$2, in comparison to a normalized period of an average cash flow netback of \$5 and at times as high as \$8. During those 8 months, the average production was 4,200 boe/day at a netback differential of \$3, resulting in a negative impact on cash flow of approximately \$2.7 million.
- 20. In response to paragraph 69 of the Jenkins Affidavit, the decline rate in production is normal for reserves of the size and nature of the Ferrier assets. The decline in production is accounted for in Sproule's reserve valuations and does not pose a significant risk to the value of the Ferrier assets. As detailed in the First Martin Affidavit, the Ferrier assets are expected to have decades of active production. A decline in production at the rate contemplated does not substantially affect a short-term loan in the nature of the Credit Facility.
- 21. In response to paragraph 71 of the Jenkins Affidavit, the Companies deny that there had been a track record of underperformance by the Limited Partnership. Sproule has validated the Limited Partnership's wells to be on industry average for a reservoir and wells of such

nature and assigned an average of 6.7 bcf per well on a PDP basis, and 8.4 bcf per well for proved probable reserves. This is consistent with similar wells and operators in the surrounding area. Sproule has provided reserve valuations on an annual basis, and the same were provided to Crown Capital. Historical forecasts and assumptions are subject to drilling results and ultimate commodity pricing. Natural gas pricing is now strong and liquids pricing (which affect natural gas liquids production) has recovered or is in the process of recovery to pre-COVID-19 levels.

- 22. In response to paragraph 72 of the Jenkins Affidavit, the Companies have presented two proposals to Crown Capital to refinance the Credit Facility, and pay out Crown Capital or provide further funding for ongoing operations alongside Crown Capital on a *pari passu* basis. Crown Capital rejected these proposals for refinancing.
- 23. In response to paragraph 73 of the Jenkins Affidavit, the Companies deny that there has been a history of failing to pay trade creditors. The Limited Partnership has consistently paid trade creditors in the ordinary course, and sought additional funding to enable same where necessary. The majority of trade creditors with active proceedings against the Companies filed their claims in the last few months, with the earliest claim being filed on June 12, 2020 by Halliburton. The Companies further deny that the Limited Partnership has failed to execute and implement capital programs and drilling programs effectively. The sole delay relating to the implementation of new drilling programs arose as a result of Crown Capital's delay in closing the transaction for further funding.
- 24. In response to paragraph 74 of the Jenkins Affidavit, the Companies deny that the sale of the Ferrier assets is in the best interest of the trade creditors. There is no assurance from Crown Capital that the trade creditors will recover any of the amounts owing to them should the Ferrier assets be sold in the present market. Given that Crown Capital is the first secured creditor and the market price for oil and gas assets similar to the Ferrier assets do not presently reflect the reserve valuations thereof due to a general deterioration in the industry, I believe it is unlikely that the trade creditors would see any recovery in a liquidation scenario. Further, I believe it is unlikely that the trade creditors would continue to provide goods and services to the Ferrier assets under different ownership or operatorship if they do not see any payment toward amounts already owing. In contrast,

- the Companies expect to be able to provide some repayment to the trade creditors should the proposed Initial Order be granted.
- Further, it is unclear how the sales process contemplated in the Forbearance Agreement 25. could have proceeded in a cost-effective manner. I am advised by Matti Lemmens of Borden Ladner Gervais LLP, counsel to the Companies, and do believe, that the existence of various liens against the Ferrier assets would likely have necessitated the application for a vesting order and engaged the court process for same. In Crown Capital's proposed amendment to the Forbearance Agreement (a copy of which is attached as Exhibit V of the Jenkins Affidavit), it was contemplated that FTI Consulting Canada Inc., Crown Capital's proposed interim receiver ("FTI") would act as financial advisor and its fees would be paid by the Limited Partnership and its guarantors. Further, irrespective of whether the Companies proceeded with liquidation or restructuring, payment of critical suppliers would have been necessary until the finalization of same. In my view, despite the assertions set out in the Jenkins Affidavit, a proposed sales process, whether under the Forbearance Agreement or in a receivership proceeding, would not likely result in recovery for the trade creditors and would place the burden of additional administrative and legal costs upon these trade creditors given Crown Capital's priority position.
- 26. Since signing the Forbearance Agreement, the situation has evolved such that a sales process is not likely to provide the best outcome for the Companies' stakeholders. At the time the parties entered into the Forbearance Agreement, there was still uncertainty arising from the COVID-19 pandemic. However, news reports from November 9, 2020 on the confirmation of the first effective COVID-19 vaccine of which the Government of Canada had already ordered doses provided greater certainty to the market. In 2021, as the vaccination program has commenced, the market has improved even further.
- 27. In response to paragraph 79 of the Jenkins Affidavit, the Companies deny that there is any risk of deterioration of value arising from further delay to the proposed sales process or otherwise. There is no evidence that a delay in the sale of the assets would result in any deterioration of value. As set out in the First Martin Affidavit, the Ferrier assets are expected to have a production life of between 36 to 50 years. Commodity prices are now recovering following the COVID-19 pandemic and OPEC+ production curtailment. The

Companies' cash flow forecast is based on Sproule's reserve valuations and the Financial Advisor's strip pricing, the latter of which was approved through the very sales process that Crown Capital seeks to pursue. Further, Crown Capital's proposed amendment to the Forbearance Agreement (a copy of which is attached as Exhibit V to the Jenkins Affidavit) contemplated delays to the timelines for the sales process, including the execution of a definitive purchase and sale agreement by April 15, 2021. There has been no material change in market conditions nor specifically with respect to the Ferrier assets between the time Crown Capital presented its proposed amendment to the present so as to constitute a risk of deterioration in value.

- 28. The Ferrier assets are very productive. One well operated by the Limited Partnership, the "T5 Energy HZ Ferrer 8-11-43-10" well, was listed by Scotiabank as one of the 20 most productive gas wells drilled in Alberta in 2017, despite the fact that Scotiabank's calculations did not take into account significant operational delays. The Partnership did not use wellhead compression, a technique commonly used to increase the yields of gas wells, on this well during the relevant period. Attached hereto and marked as Exhibit "A" is a true copy of Scotiabank's Top Oil & Gas Well Report for 2017, dated February 13, 2018 and June 8, 2018, which lists at pages 7 and 8 the rankings for 2017 and 2018.
- 29. Another well operated by the Partnership, the "T5 Energy Ferrier 3-7-43-9" was also listed by Scotiabank as one of the top 40 most productive wells drilled in Alberta between March 2018 and March 2019. Attached hereto and marked as Exhibit "B" is a true copy of Scotiabank's Oil & Gas E&P for 2018, dated May 6, 2019, which lists the relevant ranking at page 17. The AER most recently assessed 7 of the 8 wells operated by Intercontinental as wells with a minimum production of over 6,000 m³/yr. Attached hereto and marked as Exhibit "C" is a true copy of a 2020 Invoice for Administration Fees dated September 15, 2020, which lists the relevant ranking at page 2.
- 30. In response to paragraph 80 of the Jenkins Affidavit, the assets are not at risk in the month of February 2021 nor in the foreseeable future. The Companies are in negotiations with related entities with respect to obtaining interim financing or equity financing to pay for costs in relation to any significant operational issues or services required to preserve the value and integrity of the Ferrier assets.

## Corrections of Typographical Errors in the First Martin Affidavit

- 31. At paragraphs 5 and 122 of the First Martin Affidavit, I erroneously referred to a charge in favour of the Critical Suppliers to a maximum amount of \$100,000.00 and a charge in favour of the directors and officers of the Companies to a maximum amount of \$60,000.00. For clarification, the charges and priorities thereof sought by the Companies are as set out in the Companies' Application filed on February 8, 2020, being:
  - (a) First, an Administration Charge to a maximum amount of \$350,000.00;
  - (b) Second, a Critical Suppliers' Charge to a maximum amount of \$60,000.00; and
  - (c) Third, a Directors' Charge to a maximum amount of \$100,000.00.
- 32. At paragraphs 8 and 14 of the First Martin Affidavit, I erroneously referred to Intercontinental's head office and principal office, which office space is managed through Petroworld, as being located in Edmonton, Alberta. Intercontinental's <u>registered</u> office is located in Edmonton, Alberta. However, Intercontinental's <u>head office and principal office</u> from which its operations are conducted is located in Calgary, Alberta.
- 33. I swear this Supplemental Affidavit in support of the Companies' Application for an Initial Order for certain relief pursuant to the *CCAA*, in opposition to the application of Crown Capital to appoint an interim receiver and receiver, and for no improper purpose.

SWORN BEFORE ME at Calgary, Alberta, this 10 <sup>th</sup> day of February 2021	
Diory	) May the
A Commissioner for Oaths in and for Alberta	) RYAN MARTIN
-	)

DONNA FLORY

A Commissioner for Oaths in and for Alberta
My Commission Expires on June 17, 20

# This is Exhibit "A"

Referred to in the Supplemental Affidavit of Ryan Martin

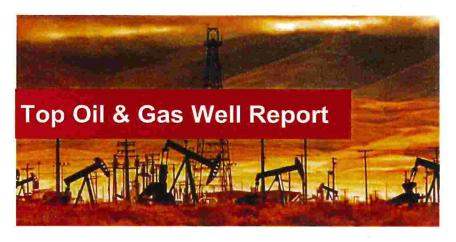
Sworn before me this 10<sup>th</sup> day of February, 2021

A Commissioner for Oaths in and for Alberta

# **DONNA FLORY**

A Commissioner for Oaths in and for Alberta My Commission Expires on June 17, 20 2





## Alberta and Saskatchewan Edition

#### December 2017 Alberta and Saskatchewan Production Rates

Each month, we compile data on the top producing oil and gas wells in Alberta and Saskatchewan as disclosed in geoSCOUT. We rank the wells placed on production during the most recent two months (the "new wells") and the wells placed on production over the previous 12 months by their production rates in the current month for which data are available. We also rank the top producing confidential wells, the top 90-day initial production (IP) rates, and the top cumulative production from wells placed on production during the previous 12 months. This month, we have production data for December 2017.

#### ANALYST TEAM

Cameron Bean | Analyst 403-218-6786 Scotia Capital Inc. – Canada Erik Kuhn, CFA | Associate 403-213-7349 Scotia Capital Inc. — Canada

#### Notable Alberta Oil/Wellhead Condensate Results

Seven Generations Energy Ltd. (VII-T) dominated the oil/wellhead condensate rankings with 13 of the top 18 calendar day rates (including six of the top seven) among wells placed onstream over the previous 12 months (see Exhibit 4). The company's Kakwa and Montney play delivered the 19 of the top 20 90-day IP rates and 18 of the top 19 cumulative production rates among wells placed onstream over the previous 12 months (see Exhibits 6 and 7).

The Surge Energy Inc. (SGY-T) 5-7 Valhalla Doig well was the top well by calendar day rate among both new wells and wells placed onstream over the previous 12 months at 2,142 bbl/d and 1.8 mmcf/d of associated gas, respectively (see Exhibits 2 and 4).

The Kelt Exploration Ltd. (KEL-T) 1-5 Valhalla Montney well ranked 10th by calendar day rate and fifth by producing day rate among new wells (see Exhibits 2 and 3). The well averaged 771 bbl/d with 1.7 mmcf/d of associated gas over its first 18 days onstream (see Exhibits 2 and 3).

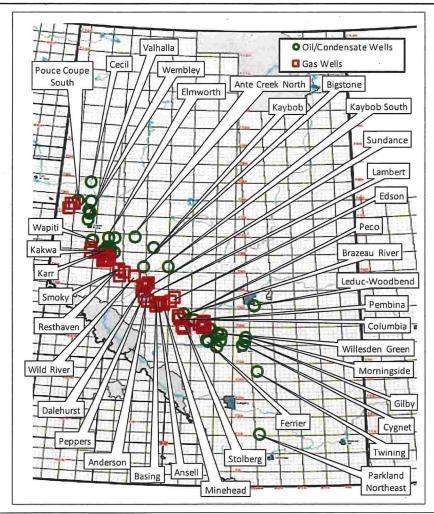
Obsidian Energy Ltd. (OBE-T) had three new wells from its Willesden Green Cardium play rank among the top 13 wells by producing day rate with rates ranging from 569 bbl/d to 838 bbl/d over six to eight days onstream (see Exhibit 3).

Vesta Energy Ltd. (private) had four of the top 20 new well calendar day rates from its East Shale Basin Duvernay play (see Exhibit 2). The wells (all in their second month onstream) averaged 359-400 bbl/d during the month. The company also had four of the top 19 confidential well production rates (see Exhibit 5). Elsewhere in the East Shale Basin Duvernay, Artis Exploration Ltd. (private) had two of the top 11 confidential well production rates with average production of 475 bbl/d and 567 bbl/d.

Hammerhead Resources Inc. (private) had three of the top 15 wells by calendar day rate among wells placed onstream over the previous 12 months (see Exhibit 4). The wells also ranked second through fourth among confidential wells placed onstream over the previous 12 months (see Exhibit 5).



Exhibit 1: Locations of the Notable Wells in Alberta



Source: geoSCOUT; Scotiabank GBM.

#### Notable Alberta Raw Gas Results

The Tourmaline Oil Corp. (TOU-T) 7-30 Lambert Cardium well delivered the top well by calendar day rate among both new wells and wells placed onstream over the previous 12 months with 16.3 mmcf/d (see Exhibits 8 and 10). The company also had 12 additional new wells from its Deep Basin Spirit River plays rank among the top 19 new well calendar day rates (see Exhibit 8). The company's 4-35 Kakwa Falher well was the top new well by producing day rate at 16.2 mmcf/d over its first 17 days onstream, while its 16-25 Anderson Cardium well was the top well ranked by cumulative production (3.7 bcf) among wells placed onstream over the previous 12 months (see Exhibits 9 and 13). Tourmaline also had seven of the top 17 calendar day rates, 10 of the top 19 90-day IP rates, and six of the top 17 cumulative production volumes among wells placed onstream over the previous 12 months (see Exhibits 10, 12, and 13).

Peyto Exploration and Development Corp. (PEY-T) had the top two 90-day IP rates from its Stolberg Notikewin play at 14.9 mmcf/d and 14.8 mmcf/d, respectively (see Exhibit 12). The company's 13-21 Stolberg Notikewin well ranked sixth among new well calendar day rates and 11th among wells placed onstream over the previous 12 months (see Exhibits 8 and 10).

The Bellatrix Exploration Ltd. (BXE-T) 1-36 Ferrier Upper Mannville well rapked 18th by new well calendar day rate (see Exhibit 8). The company also had five wells from its Willesden Green Upper Manville and Notikewin plays rank among the top 20 cumulative production rates among placed onstream over the previous 12 months (see Exhibit 13).

The Cenovus Energy Inc. (CVE-T) 16-4-Willesden Green Falher well was the second-ranked new well by producing day rate at 14.4 mmcf/d over 11 days onstream during the month of December (see Exhibit 9).

Jupiter Resources Inc. (private) had three wells targeting the Falher formation rank among the top 13 calendar day rates among wells placed onstream during the previous 12 months with average production of 11.5-14.3 mmcf/d (see Exhibit 10).

TS

February 13, 2018

# Exhibit 10: Top Alberta Gas Wells - Onstream in the Last 12 Months (December 2017, Calendar Day Rate)

Operator				First Prod.	Calendar D	ay Rate <sup>1</sup>	Cumulative	Production
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	Raw Gas (mcf/d)4	Oil/C5 (bbl/d)3	Raw Gas (mmcf)4	Oil/C5 (mbbl)3
Tourmaline Oil Corp     Jupiter Rsrcs Inc	TOURMALINE HZ LAMBERT 7-30-50-22	Lambert	Cardium Formation	2017/11	16,306	0	546.5	0.4
	JUPITER HZ SMOKY 16-11-59-2	Smoky	Falher Member	2017/06	14,297	0	2,829.2	0.0
Jupiter Rsrcs Inc     Perpetual Operating Corp	JUPITER HZ 102 SMOKY 16-14-59-2	Resthaven	Falher Member	2017/10	14,095	0	792.7	0.2
	POC HZ EDSON 4-23-51-16	Edson	Wilrich Member	2017/12	14,063	15	435.9	0.5
5 Seven Generations Enrg Lt	7GEN HZ 106 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/10	13,704	4	588.7	1.6
6 Seven Generations Enrg Lt 7 Tourmaline Oil Corp	7GEN HZ 103 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/10	12,818	4	587.9	2.1
8 Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 2-34-51-23	Lambert	Notikewin Member	2017/11	11,990	0	407.0	0.0
9 Tourmaline Oil Corp	TOURMALINE HZ PEPPERS 4-9-52-23	Peppers	Notikewin Member	2017/11	11,976	0	379.1	0.0
10 Modern Rsrcs Inc	TOURMALINE HZ WILD RIV 13-29-57-25	Wild River	Falher Member	2017/11	11,800	0	620.8	0.0
11 Peyto Expl&Dvlp Corp	MODERN HZ KAKWA 11-5-64-8	Kakwa	Wilrich Member	2017/10	11,800	0	701.9	0.0
12 Kelt Expl Ltd	PEYTO STOLBERG 13-21-43-14	Stolberg	Notikewin Member	2017/11	11,675	0	807.1	0.0
13 Jupiter Rsrcs Inc	KELT EXP 103 HZ PCOUPES 16-25-77-13	Pouce Coupe South	Montney Formation	2017/02	11,643	0	1,929.8	1.7
14 Modern Rsrcs Inc	JUPITER 102 HZ SMOKY 1-14-59-2	Resthaven	Falher Member	2017/06	11,543	0	2,579.1	0.0
15 Tourmaline Oil Corp	MODERN HZ KAKWA 6-5-64-8	Kakwa	Wilrich Member	2017/10	11,507	0	664.4	0.0
16 Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 15-29-57-25	Wild River	Falher Member	2017/11	10,925	0	534.3	0.0
17 Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 16-29-57-25	Wild River	Falher Member	2017/11	10,843	0	491.4	0.0
18 Seven Generations Enro Lt	TOURMALINE HZ02 SUNDANCE 16-1-55-23	Sundance	Falher Member	2017/11	10,839	0	514.0	0.0
9 Triple 5 Intenti Grp Ltd	7GEN HZ 102 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/11	10,763	3	458.6	0.9
20 Seven Concrations Enro Lt	T5 ENERGY HZ FERRIER 8-11-43-10	Ferrier	Mannville Group	2017/08	10,612	20	903.3	1.6
Lo octon ocholostions Ellig Lt	7GEN HZ 105 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/11	10,430	4	431.3	1.0
See page 13 for notes.								

Source: geoSCOUT; Scotiabank GBM.

Exhibit 11: Top Alberta Confidential Gas Wells (December 2017, Calendar Day Rate)

0					First Prod.	Confidential	Calendar I	Day Rate <sup>1</sup>	Cumulative	Production	
Operator	7.0	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	Release Date	Raw Gas (mcf/d)4	Oil/C5 (bbl/d)3	Raw Gas (mmcf)4	Oil/C5 (mbbl)3	
1 Tourmaline O		TOURMALINE HZ LAMBERT 7-30-50-22	Lambert	Cardium Formation	2017/11	Nov. 09, 2018	16,306	0	546.5	0.4	•0
2 Perpetual Ope		POC HZ EDSON 4-23-51-16	Edson	Wilrich Member	2017/12	Sep. 25, 2018	14,063	15	435.9	0.5	
3 Seven Genera		7GEN HZ 106 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/10	Jun. 15, 2018	13,704	4	588.7	1.6	
4 Seven Genera		7GEN HZ 103 KAKWA 6-12-63-5	Kakwa	<ul> <li>Montney Formation</li> </ul>	2017/10	Jul. 09, 2018	12,818	4	587.9	2.1	
5 Tourmaline O		TOURMALINE HZ LAMBERT 2-34-51-23	Lambert	Notikewin Member	2017/11	Nov. 10, 2018	11,990	. 0	407.0	0.0	
6 Tourmaline O		TOURMALINE HZ PEPPERS 4-9-52-23	Peppers	Notikewin Member	2017/11	Oct. 24, 2018	11,976	0	379.1	0.0	
7 Tourmaline O		TOURMALINE HZ WILD RIV 13-29-57-25	Wild River	Falher Member	2017/11	Sep. 10, 2018	11,800	0	620.8	0.0	
8 Modern Rsrcs		MODERN HZ KAKWA 11-5-64-8	Kakwa	Wilrich Member .	2017/10	Jul. 25, 2018	11,800	- 0	701.9	0.0	
9 Peyto Expl&D		PEYTO STOLBERG 13-21-43-14	Stolberg	Notikewin Member	2017/11	Oct. 15, 2018	11,675	0	807.1	0.0	
10 Modern Rsrcs		MODERN HZ KAKWA 6-5-64-8	Kakwa	Wilrich Member	2017/10	Sep. 24, 2018	11,507	0	664.4	0.0	
11 Tourmaline Oi		TOURMALINE HZ WILD RIV 15-29-57-25	Wild River	Falher Member	2017/11	Sep. 29, 2018	10,925	0	534.3	0.0	
12 Tourmaline Oi		TOURMALINE HZ WILD RIV 16-29-57-25	Wild River	Falher Member	2017/11	Oct. 17, 2018	10,843	0	491.4	0.0	
13 Seven Genera		7GEN HZ 102 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/11	Apr. 22, 2018	10,763	3	458.6	0.9	
14 Triple 5 Intcntl		T5 ENERGY HZ FERRIER 8-11-43-10	Ferrier	Mannville Group	2017/08	Mar. 09, 2018	10,612	20	903.3	1.6	
15 Seven Genera		/GEN HZ 105 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/11	May. 19, 2018	10,430	4	431.3	1.0	
16 Seven Genera		7GEN HZ KAKWA 3-29-62-4	Kakwa	Montney Formation	2017/05	Feb. 14, 2018	10,365	1	2,674.6	0.4	
17 Tourmaline Oi		TOURMALINE ANDERSN 9-25-50-23	Anderson	Gething Formation	2017/11	Oct. 16, 2018	9,398	Ó	331.1	0.3	
18 Seven Genera		7GEN HZ KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/10	May. 26, 2018	8,242	3	520.2	2.7	
19 Seven Genera		7GEN HZ 102 KAKWA 10-12-63-5	Kakwa	Montney Formation	2017/10	Jun. 30, 2018	8,201	2	506.8	2.4	
20 Tourmaline Oi	I Corp	TOURMALINE HZ ANDERSN 16-25-50-23	Anderson	Cardium Sandstone	2017/01	Jan. 04, 2018	7,997	ō	3,719.6	21.1	
See page 13 for	notes.										

Source: geoSCOUT; Scotiabank GBM.

No Compressión



Exhibit 12: Top Alberta Gas Wells - Onstream in the Last 12 Months (First Three Months, Calendar Day Rate)

					First Prod.	Calendar D	Day Rate <sup>1</sup>	Cumulative	Production
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	Raw Gas (mcf/d)4	OiVC5 (bbl/d)3	Raw Gas (mmcf)4	Oil/C5 (mbbl) <sup>3</sup>
1	Peyto Expl&DMp Corp	PEYTO STOLBERG 4-29-43-14	Stolberg	Notikewin Member	2017/07	14,944	0	2,768.2	0.1
2	Peyto Expl&Dvlp Corp	PEYTO STOLBERG 11-21-43-14	Stolberg	Notikewin Member	2017/05	14,788	13	3,033.6	1.3
3	Seven Generations Enrg Lt	7GEN HZ KAKWA 3-29-62-4	Kakwa	Montney Formation	2017/05	13,362	2	3,590.4	6.4
4	Tourmaline Oil Corp	TOURMALINE HZ DALEHST 2-11-53-24	Dalehurst	Notikewin Member	2017/08	13,176	3	2,208.9	0.3
5	Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 6-24-56-26	Wild River	Falher Member	2018/02	12,245	0	1,117.4	0.0
6	Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 7-30-50-22	Lambert	Cardium Sandstone	2017/11	12,090	4	2,496.0	0.4
7	Peyto Expl&Dvlp Corp	PEYTO STOLBERG 13-21-43-14	Stolberg	Notikewin Member	2017/11	11,919	. 0	1,703.8	0.0
8	NuVista Enrg Ltd	NUVISTA HZ WAPITI 13-32-65-6	Wapiti	<ul> <li>Montney Formation</li> </ul>	2018/02	11,810	2	1,077.6	0.2
9	Perpetual Operating Corp	POC HZ EDSON 4-23-51-16	Edson	Wilrich Member	2017/12	11,384	6	1,651.1	0.6
10	D Jupiter Rsrcs Inc	JUPITER HZ RESTHA 3-12-60-2	Resthaven	Falher Member	2018/02	10,830	0	988.3	0.0
1	1 Tourmaline Oil Corp	TOURMALINE HZ KAKWA 1-21-62-5	Kakwa	Falher Member	2017/06	10,729	2	1,917.5	0.2
12	2 Jupiter Rsrcs Inc	JUPITER HZ RESTHA 3-15-60-2	Resthaven	Falher Member	2018/02	10,679	0	974.5	0.0
13	3 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 16-11-59-2	Smoky	Falher Member	2017/06	10,341	0	4,289.3	0.0
14	4 Jupiter Rsrcs Inc	JUPITER 102 HZ SMOKY 1-14-59-2	Resthaven	Falher Member	2017/06	10,254	0	3,595.8	0.0
15	5 Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 13-29-57-25	Wild River	Falher Member	2017/11	10,157	0	1,570.6	0.0
16	6 Tourmaline Oil Corp	TOURMALINE HZ SUNDANCE 14-24-54-23	Sundance	Notikewin Member	2018/01	9,778	0	1,143.3	0.0
17	7 Tourmaline Oil Corp	TOURMALINE HZ BASING 16-12-49-21	Basing	Notikewin Member	2017/07	9,707	0	2,043.9	0.0
18	8 Tourmaline Oil Corp	TOURMALINE HZ PECO 5-30-46-15	Peco	Viking Sandstone	2017/08	9,659	136	1,941.1	27.5
19	9 Jupiter Rsrcs Inc	JUPITER HZ RESTHA 16-2-60-2	Resthaven	Falher Member	2018/02	9,395	0	857.3	0.0
20	O Jupiter Rsrcs Inc	JUPITER HZ KAKWA 13-29-61-5	Kakwa	Falher Member	2017/07	9,287	0	2,790.0	0.0

Source: geoSCOUT; Scotiabank GBM.

Exhibit 13: Top Alberta Gas Wells - Onstream in the Last 12 Months (Cumulative Production to April 30, 2018)

					First Prod.	Cumulative	Production	Implied Cum. Cal	endar Day Rate <sup>6</sup>
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	Raw Gas (mmcf)4	Oil/C5 (mbbl)3	Raw Gas (mcf/d)4	Oil/C5 (bbl/d)3
	1 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 16-11-59-2	Smoky	Falher Member	2017/06	4,289.3	0.0	12,881	0 .
	2 Jupiter Rsrcs Inc	JUPITER 102 HZ SMOKY 1-14-59-2	Resthaven	Falher Member	2017/06	3,595.8	0.0	10,798	0
	3 Seven Generations Enrg Lt	7GEN HZ KAKWA 3-29-62-4	Kakwa	Montney Formation	2017/05	3,590.4	6.4	9,864	18
	4 Peyto Expl&DVp Corp	PEYTO STOLBERG 11-21-43-14	Stolberg	Notikewin Member	2017/05	3,033.6	1.3	8,334	3
	5 Jupiter Rsrcs Inc	JUPITER HZ KAKWA 13-29-61-5	Kakwa	Falher Member	2017/07	2,790.0	0.0	9,208	0
	6 Peyto Expl&Dvlp Corp	PEYTO STOLBERG 4-29-43-14	Stolberg	Notikewin Member	2017/07	2,768.2	0.1	9,136	0
	7 Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 7-30-50-22	Lambert	Cardium Sandstone	2017/11	2,496.0	0.4	13,867	2
	8 Seven Generations Enrg Lt	7GEN HZ 106 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/10	2,472.3	15.4	11,717	73
	9 Seven Generations Enrg Lt	7GEN HZ 105 KAKWA 15-19-63-4	Kakwa	Montney Formation	2017/05	2,432.2	171.1	6,682	470
	10 Seven Generations Enrg Lt	7GEN HZ 103 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/10	2,306.2	12.2	10,930	58
	11 Seven Generations Enrg Lt	7GEN HZ KAKWA 7-19-63-4	Kakwa	Montney Formation	2017/06	2,246.3	138.0	6,746	415
	12 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 16-19-63-4	Kakwa	Montney Formation	2017/05	2,229.5	122.2	6,125	336
	13 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 10-12-63-5	Kakwa	Montney Formation	2017/10	2,216.5	12.8	10,505	61
	14 Tourmaline Oil Corp	TOURMALINE HZ DALEHST 2-11-53-24	Dalehurst	Notikewin Member	2017/08	2,208.9	0.3	8,121	1
	15 Seven Generations Enrg Lt	7GEN HZ 106 KAKWA 7-8-64-5	Kakwa	Montney Formation	2017/07	2,115.8	316.4	6,983	1,044
(	16 Triple 5 Intentl Grp Lta	T5 ENERGY HZ FERRIER 8-11-43-10	Ferrier	Mannville Group	2017/08	2,106.7	2.0	7,745	7
	17 Tourmaline Oil Corp	TOURMALINE HZ KAKWA 9-16-62-5	Kakwa	Falher Member	2017/06	2,076.8	0.0	6,237	0
,	18 Seven Generations Enrg Lt	7GEN HZ 104 KAKWA 10-19-63-4	Kakwa	Montney Formation	2017/06	2,067.5	135.4	6,209	407
	19 Jupiter Rsrcs Inc	JUPITER HZ 102 SMOKY 16-14-59-2	Resthaven	Falher Member	2017/10	2,051.2	0.2	9,721	1
, i	20 Tourmaline Oil Corp	TOURMALINE HZ BASING 16-12-49-21	Basing	Notikewin Member	2017/07	2,043.9	0.0	6,746	0

Source: geoSCOUT; Scotiabank GBM.

ASSume - most fall others were being pulled on compression.
- ours come on in NOV 2017 - most cum'd in 6 Mths



## Exhibit 8: Top Alberta Gas Wells - Onstream in the Last Two Months (December 2017, Calendar Day Rate)

				First Prod.	Calendar I	Day Rate <sup>1</sup>	Cumulative	Production
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	Raw Gas (mcf/d)4	Oil/C5 (bbl/d)3	Raw Gas (mmcf)4	Oil/C5 (mbbl) <sup>3</sup>
1 Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 7-30-50-22	Lambert .	Cardium Formation	2017/11	16,306	0	546.5	0.4
2 Perpetual Operating Corp	POC HZ EDSON 4-23-51-16	Edson	Wilrich Member	2017/12	14,063	15	435.9	0.5
3 Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 2-34-51-23	Lambert	Notikewin Member	2017/11	11,990	0	407.0	0.0
4 Tourmaline Oil Corp	TOURMALINE HZ PEPPERS 4-9-52-23	Peppers	Notikewin Member	2017/11	11,976	0	379.1	0.0
5 Tourmaline Oil Corp	TOURMALINE HZ WILD RIV_13-29-57-25	Wild River	Falher Member	2017/11	11,800	0	620.8	0.0
6 Peyto Expl&Dvlp Corp	PEYTO STOLBERG 13-21-43-14	Stolberg	Notikewin Member	2017/11	11,675	0	807.1	0.0
7 Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 15-29-57-25	Wild River	Falher Member	2017/11	10,925	0	534.3	0.0
8 Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 16-29-57-25	Wild River	Falher Member	2017/11	10,843	0	491.4	0.0
9 Tourmaline Oil Corp	TOURMALINE HZ02 SUNDANCE 16-1-55-23	Sundance	Falher Member	2017/11	10,839	0	514.0	0.0
10 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/11	10,763	3	458.6	0.9
11 Seven Generations Enrg Lt	7GEN HZ 105 KAKWA 6-12-63-5	Kakwa	Montney Formation	2017/11	10,430	4	431.3	1.0
12 Tourmaline Oil Corp	TOURMALINE HZ STOLBERG 15-16-43-14	Stolberg	Notikewin Member	2017/11	10,412	0	546.7	0.0
13 Husky Oil Oprtns Ltd	HUSKY HZ MINEHEAD 13-26-49-19	Minehead	Wilrich Member	2017/12	10,063	8	312.0	0.2
14 Tourmaline Oil Corp	TOURMALINE HZ STOLBERG 12-16-43-14	Stolberg	Notikewin Member	2017/11	10,030	0	541.3	0.0
15 Tourmaline Oil Corp	TOURMALINE HZ SMOKY-14-22-58-1	Smoky	Wilrich Member	2017/11	9,871	0	310.9	0.0
16 Tourmaline Oil Corp	TOURMALINE ANDERSN 9-25-50-23	Anderson	Gething Formation	2017/11	9,398	0	331.1	0.3
17 Tourmaline Oil Corp	TOURMALINE HZ KAKWA 4-35-61-6	Kakwa	Falher Member	2017/12	8,976	0	278.2	0.0
18 Bellatrix Expl Ltd	BELLATRIX UMNV FERRIER 1-36-44-10	Ferrier	Upper Mannville Formation	2017/11	8,792	0	523.8	0.0
19 Tourmaline Oil Corp	TOURMALINE HZ KAKWA 8-36-61-6	Kakwa	Falher Member	2017/12	8,588	0	266.2	0.0
20 Seven Generations Enrg Lt	7GEN HZ KAKWA 3-13-63-5	Kakwa	Montney Formation	2017/11	8,182	3	413.7	1.8

See page 13 for notes.

Source: geoSCOUT; Scotiabank GBM.

Exhibit 9: Top Alberta Gas Wells - Onstream in the Last Two Months (December 2017, Producing Day Rate)

				First Prod.	Hours			Cumulative	Production
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	On-Stream	Raw Gas (mcf/d)4	Oil/C5 (bbl/d)3	Raw Gas (mmcf)4	Oil/C5 (mbbl
Tourmaline Oil Corp	TOURMALINE HZ KAKWA 4-35-61-6	Kakwa	Falher Member	2017/12	413	16,169	0 .	278.2	0.0
Cenovus Enrg Inc	CVE 102 HZ WILLGR 16-4-44-9	Willesden Green	Falher Member	2017/11	255	14,408	0	167.1	0.0
Tourmaline Oil Corp	TOURMALINE HZ KAKWA 8-36-61-6	Kakwa	Falher Member	2017/12	465	13,740	0	266.2	0.0
Tourmaline Oil Corp	TOURMALINE HZ KAKWA 5-35-61-6	Kakwa	Wilrich Member	2017/12	352	12,801	2	187.8	0.0
Husky Oil Oprtns Ltd	HUSKY HZ ANSELL 1-10-50-20	Ansell	Wilrich Member	2017/11	479	11,988	0	472.2	0.0
Husky Oil Oprtns Ltd	HUSKY HZ ANSELL 12-9-50-20	Ansell	Wilrich Member	2017/12	312	11,583	0	150.6	0.0
Husky Oil Oprtns Ltd	HUSKY HZ MINEHEAD 13-26-49-19	Minehead	Wilrich Member	2017/12	672	11,141	9	312,0	0.2
Tourmaline Oil Corp	TOURMALINE HZ02 SUNDANCE 16-1-55-23	Sundance	Falher Member	2017/11	739	10,912	0	514.0	0.0
Tourmaline Oil Corp	TOURMALINE HZ SMOKY 14-22-58-1	Smoky	Wilrich Member	2017/11	691	10,628	0	310.9	0.0
Peyto Expl&Dvip Corp	PEYTO SUNDANCE 16-28-55-22	Sundance	Notikewin Member	2017/12	509	10,577	0	224.3	0.0
Tourmaline Oil Corp	TOURMALINE HZ STOLBERG 15-16-43-14	Stolberg	Notikewin Member	2017/11	741	10,454	0	546.7	0.0
2 Tourmaline Oil Corp	TOURMALINE HZ STOLBERG 12-16-43-14	Stolberg	Notikewin Member	2017/11	744	10,030	0	541.3	0.0
Tourmaline Oil Corp	TOURMALINE HZ KAKWA 1-36-61-6	Kakwa	Wilrich Member	2017/12	510	9,247	3	196.5	0.1
Bellatrix Expl Ltd	BELLATRIX UMNV FERRIER 1-36/44-10	Eerrier	Upper Mannville Formation	2017/11	722	9,060	0	523.8	0.0
Seven Generations Enrg Lt	7GEN HZ KAKWA 3-13-63-5	Kakwa	Montney Formation	2017/11	732	8,316	3	413.7	1.8
Bonavista Enro Corp	BEC HZ EDSON 4-21-50-17	Edson	Wilrich Member	2017/12	425	8,016	8	142.0	0.1
Husky Oil Oprtns Ltd	HUSKY HZ MINEHEAD 5-38-49-19	Minehead	Wilrich Member	2017/11	744	8,016	0	586.2	0.0
TAQA North Ltd	TON HZ FERRIER 8-8-4-10	Ferrier	Notikewin Member	2017/11	741	7,790	0	398.9	0.0
Tourmaline Oil Corp	TOURMALINE HZ COLUMBIA 12-33-45-15	Columbia	Viking Formation	2017/12	593	7,725	2	190.9	0.0
Birchcliff Enra Ltd	BIR 16-15 HZ 1W0 PCOUPES 13-22-77-12	Pouce Coupe South	Montney Formation	2017/11	609	7,253	0	224.8	0.0

See page 13 for notes.

# This is Exhibit "B"

Referred to in the Supplemental Affidavit of Ryan Martin

Sworn before me this  $10^{th}$  day of February, 2021

'Il Norg

A Commissioner for Oaths in and for Alberta

# **DONNA FLORY**

A Commissioner for Oaths in and for Alberta My Commission Expires on June 17, 20







## Oil & Gas - E&P

# Well Watch – Analyzing Potential Catalysts for the SMID-Cap E&P Space (May 2019)

**OUR TAKE:** Our Well Watch report provides analysis on a selection of new and upcoming well results for our SMID-Cap E&P coverage group. The report includes:

- Detailed area maps showing land positions, offsetting well results and key infrastructure,
- Historical well plots and Scotiabank GBM type curves to provide context for the new and upcoming well results,
- Scotiabank GBM type curve economics with commodity sensitivity analysis,
- Commentary on past area results, our expectations for the new wells, and potential corporate implications.
- Top oil and gas well results for Alberta, British Columbia, and Saskatchewan.

### **FEATURED IN THIS EDITION**

**Inga Montney condensate-rich gas.** Kelt Exploration Ltd. (KEL-T; SO; \$9.00/share TP).

**Glacier Middle Montney liquids-rich gas.** Advantage Oil and Gas Ltd. (AAV-T; SO; \$6.50/share TP).

West Septimus Montney condensate-rich gas. Crew Energy Inc. (CR-T; SO; \$1.80 TP).

**Valhalla Montney liquids-rich gas –** *Update.* Advantage Oil and Gas Ltd. and Kelt Exploration Ltd.

**Pouce Coupe Montney liquids-rich gas –** *Update.* Birchcliff Energy Ltd. (BIR-T; SO; \$7.00/share TP).

**Also Featured.** Exhibits 11 to 28 show the top-producing wells from Alberta, British Columbia, and Saskatchewan for March 2019.

#### **ANALYST TEAM**

Link to ScotiaView

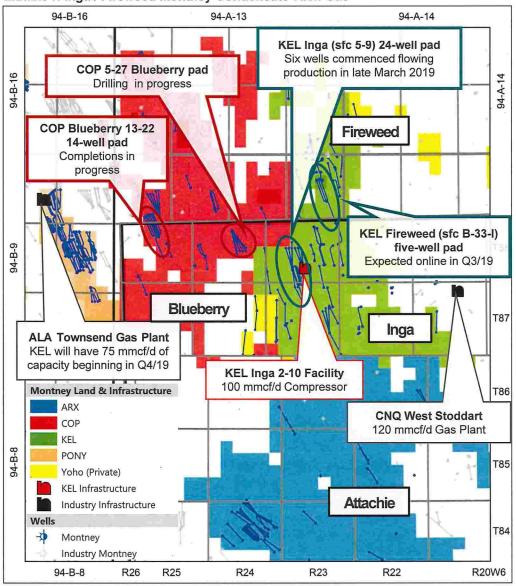
Cameron Bean | Analyst 403-218-6786 Scotia Capital Inc. - Canada Jessica Fu, CA, CFA | Associate 403-213-7349 Scotia Capital Inc. - Canada

Dissemination: May 06, 2019, 18:32 ET. Production: May 06, 2019, 18:25 ET.





Source: geoSCOUT; company reports; Scotiabank GBM.



# All Eyes on Inga

## Kelt (KEL)

Public data shows that the first six wells from KEL's 24-well Inga Montney 5-9 pad commenced clean-up in late March 2019. Initial flows from the wells show high condensate to gas ratios (CGR; average >550 bbl/mmcf) and large volumes of frac water recovery over short term producing periods (1.5 to 8.5 days). We expect more detailed information on the wells with KEL's Q1/19 results (expected on May 8, 2019; see our preview report).

KEL had previously indicated it would test plug and perf completions in three of the first six wells (one in each of the Upper, Middle and IBZ Montney layers) and compare the results with ball drop completions in the other wells. The company has used ball drop completions in the majority of its wells to date; however, other operators in the region (and in other condensate-rich Montney plays) have successfully migrated to plug and perf technology in order to achieve tighter cluster spacing and higher frac intensity.

Our analysis of the 2017 and 2018 vintage wells in the Inga / Fireweed / Blueberry / Attachie region (see Exhibit 1) indicates that wells completed with plug and perf technology delivered 60% more wellhead condensate per 1,000 feet of lateral length over their first 12 months and twelfth month CGRs >100% higher as compared to wells completed with ball drop technology. Notably, the average frac stage spacing was identical for the two completion technologies, while the plug and perf wells were completed with ~40% more proppant. While the small sample size (23 wells) and potential confounding variables (surface location, Montney layer, etc.) limit the statistical significance of this analysis, we believe that the data provides compelling evidence in favour of further testing of plug and perf completions in the play.

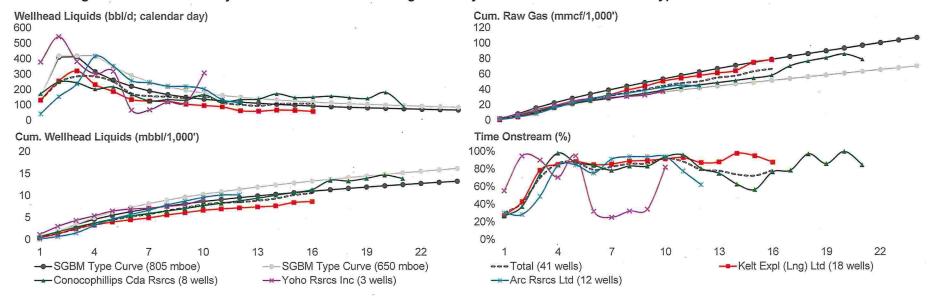
KEL has noted that it will use the results from its comparative tests on the first six wells from the 5-9 pad to determine the completion technology for the remaining 18 wells on the pad. The company plans to bring the second and third six-well tranches onstream in Q3/19 and Q4/19, respectively. KEL also plans to bring the five-well Fireweed B-33-I pad expected onstream in Q3/19.

Also of note in the area, ConocoPhillips (COP-N) has commenced completion operations on its 14-well 13-22 Blueberry Montney pad and spud the new 5-27 pad adjacent to KEL's Inga lands. COP has typically used plug and perf technology and has tested the highest intensity completion in the play to date (5.4 tonnes per metre; >8,000 tonnes total proppant).

See Exhibit 2 for area well plots and type curve economics.



#### Exhibit 2: Inga / Fireweed / Blueberry / Attachie 2016 to 2019 Vintage Montney Wells and Scotiabank GBM Type Curve Economics



Scotiabank GBM T	ype Curve	Base	Oil Sen	sitivity	Gas Se	nsitivity	Base	Oil Ser	sitivity	Gas Se	nsitivity
AECO	[C\$/mcf]	\$1.60	\$1.60	\$1.60	\$1.10	<b>\$2.10</b>	\$1.60	\$1.60	\$1.60	\$1.10	<b>\$2.10</b>
Cdn Light Oil	[C\$/bbl]	\$70.00	\$60.00	<b>\$80.00</b>	\$70.00	\$70.00	\$70.00	<b>\$60.00</b>	<b>\$80.00</b>	\$70.00	\$70.00
EUR	[mboe]	805	805	805	805	805	650	650	650	650	650
% Gas	[%]	58%	58%	58%	58%	58%	47%	47%	47%	47%	47%
DC&T Capital	[\$000]	\$5,800	\$5,510	\$6,090	\$5,800	\$5,800	\$5,800	\$5,510	\$6,090	\$5,800	\$5,800
NPV (after-tax)	[\$000]	\$2,921	\$2,104	\$3,728	\$2,396	\$3,444	\$3,923	\$2,949	\$4,889	\$3,567	\$4,279
PIR (after-tax)	[x]	1.51x	1.38x	1.62x	1.42x	1.60x	9 1.68x	1.54x	1.81x	1.62x	1.74x
IRR (after-tax)	[%]	47%	37%	57%	41%	54%	68%	53%	81%	63%	73%
Payback 1st Yr Cap Eff Break-even	[months] [\$/boe/d] [C\$/bbl]	9 17 \$12,086 8 \$45.97	20 \$11,482 \$42.96	14 \$12,690 \$49.02	18 \$12,086 \$50.33	15 \$12,086 \$41.61	± \$13,166 ≈ \$41.22	15 \$12,508 \$38.64	11 \$13,825 \$43.84	13 · \$13,166 \$43.85	12 \$13,166 \$38.60
Midcycle Capital	[\$000]	\$45.97 \$6,136 \$2,660	\$5,830	\$6,443	\$6,136	\$6,136	\$41.22 E \$6,136 \$3,666	\$5,830	\$6,443	\$6,136	\$6,136
NPV (after-tax) PIR (after-tax)	[\$000] [x]	1.44x	\$1,856 1.32x	\$3,454 1.54x	\$2,134 1.35x	\$3,185 1.52x	1.60x	\$2,705 1.47x	\$4,618 1.72x	\$3,309 1.54x	\$4,022 1.66x
IRR (after-tax)	[%]	40%	31%	49%	34%	46%	58%	46%	70%	54%	63%
Payback	[months]	19	24	16	21	17	14	17	12	15	13
1st Yr Cap Eff Break-even	[\$/boe/d] [C\$/bbl]	\$12,787 \$48.17	\$12,147 \$45.03	\$13,426 \$51.35	\$12,787 \$52.53	\$12,787 \$43.81	\$13,930 \$43.16	\$13,233 \$40.46	\$45.90	\$13,930 \$45.79	\$40.54
Implied F&D	[C\$/boe]	\$7.62	\$7.24	\$8.01	\$7.62	\$7.62	\$9.44	\$8.97	\$9.91	\$9.44	\$9.44
Implied Recycle	[x]	2.1x	1.8x	2.3x	1.9x	2.3x	2.3x	2.0x	2.5x	2.2x	2.4x

Base Type Curve Economic Estimates. Our base Inga Montney condensate-rich gas type curve anticipates a 1.9 mmcf/d (220 bbl/mmcf CGR) peak month rate and 805 mboe (~42% liquids) EUR at a ~\$5.8M drill, complete, equip, and tie-in (DCET) cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 47% IRR and 17 month payback period.

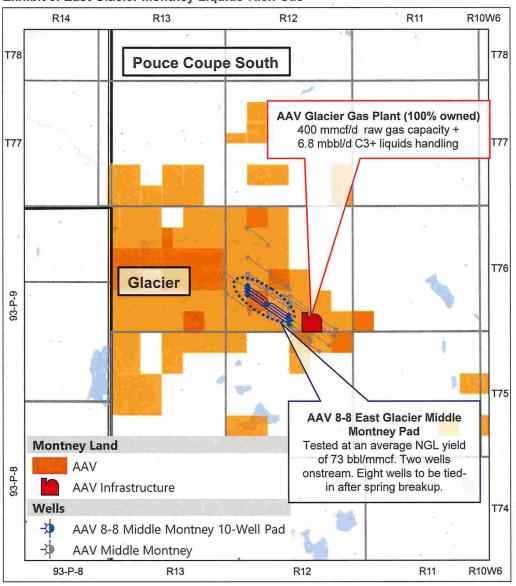
Higher CGR Type Curve Economic Estimates. Our higher CGR type curve anticipates a 1.3 mmcf/d (330 bbl/mmcf CGR) peak month rate and 650 mboe (~53% liquids) EUR at a ~\$5.8M DCET cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 68% IRR and 12 month payback period.

Note: Economics based on 1) 9% (after-tax) discount rate; 2) flat commodity pricing and costs; and 3) +4% condensate, -75% butane, -60% propane and -90% ethane NGL differentials. Midcycle Capital includes drilling, completion and tie-in (DC&T), go-forward infrastructure and dry hole costs.

Source for all exhibits: geoSCOUT; company reports; Scotiabank GBM estimates.



Exhibit 3: East Glacier Montney Liquids-Rich Gas



# East Glacier Montney Advancing

# Advantage (AAV)

AAV released production test details from its 10-well East Glacier Middle Montney 8-8 pad with its Q1/19 results release (see our note). The company noted that the average natural gas production rates from the wells were ~20% above its Middle Montney type curve, while the initial NGL yields averaged ~73 bbl/mmcf (near the high end of the company's 50 to 80 bbl/mmcf range for the area. For context, AAV's Glacier Middle Montney type curve anticipates a 30-day IP rate of 5.0 mmcf/d and a natural gas EUR of 5.0 Bcf. Our calendar day rate based type curves anticipate a similar EUR, but lower peak month production (see Exhibit 4).

Two wells from the pad are currently on production and the company expects to tie-in the remaining eight wells after spring breakup. AAV has indicated that it plans to bring the wells on production through the balance of 2019; however we expect the pad to make significant contributions to the expected post spring breakup NGL ramp-up in Q3/19.

While Valhalla and Wembley have captured most of the attention as key components in AAV's liquids production growth plan, we believe that the East Glacier Montney play can be a meaningful contributor in the program with consistent NGL yields above 50 bbl/mmcf. We also believe that the proximity of the play to AAV's existing infrastructure (i.e., right under the Glacier plant – see Exhibit 3) provides material cost and control advantages.

We believe that longer-term flow rates (both gas and NGLs) from the 8-8 pad wells will provide key data for the economic potential of the play. Production profiles consistent with our 6.1 Bcfe (53 bbl/mmcf life of well NGL yield) type curve estimates (see Exhibit 4) should provide reasonable payback periods (under two years) and solid returns that compliment those from the Valhalla and Wembley Montney plays.

See Exhibit 4 for area well plots and type curve economics.

Source: geoSCOUT; company reports; Scotiabank GBM.

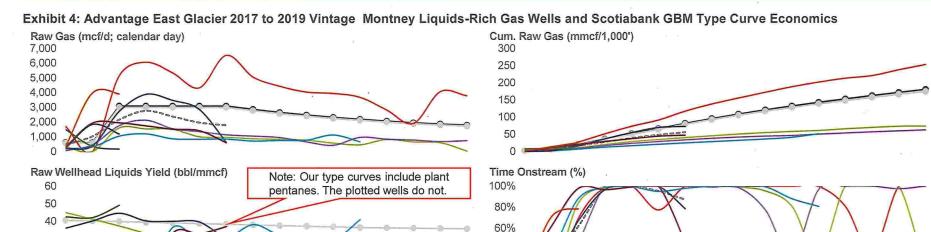


30

20

10

0



16

40%

20%

0%

Scotiabank GBM T	ype Curve		Base	Oil Ser	sitivity	Gas Se	nsitivity		Base	Oil Ser	nsitivity	Gas Se	nsitivity
AECO Cdn Light Oil	[C\$/mcf] [C\$/bbl]	E	\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00		\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00
EUR % Gas	[Bcfe] [%]	9	5.7 81%	5.7 81%	5.7 81%	5.7 81%	5.7 81%	e e	6.1 74%	6.1 74%	6.1 74%	6.1 74%	6.1 74%
DC&T Capital NPV (after-tax) PIR (after-tax) IRR (after-tax) Payback 1st Yr Cap Eff Break-even	[\$000] [\$000] [x] [%] [months] [\$/boe/d] [C\$/mcf]	22 bbl/mmcf CGR type curve	\$4,600 \$1,992 1.44x 26% 31 \$9,917 \$0.67	\$4,370 \$1,738 1.40x 24% 33 \$9,421 \$0.81	\$4,830 \$2,233 1.47x 28% 29 \$10,413 \$0.53	\$4,600 \$931 1.20x 17% 44 \$9,917 \$0.67	\$4,600 \$3,055 1.67x 37% 24 \$9,917 \$0.67	bl/mmcf CGR type curv	\$4,600 \$3,637 1.80x 45% 20 \$9,282 -\$0.21	\$4,370 \$3,180 1.73x 40% 22 \$8,818 \$0.06	\$4,830 \$4,089 1.85x 48% 18 \$9,746 -\$0.47	\$4,600 \$2,631 1.58x 34% 24 \$9,282 -\$0.21	\$4,600 \$4,661 2.02x 56% 17 \$9,282 -\$0.21
Midcycle Capital NPV (after-tax) PIR (after-tax) IRR (after-tax) Payback 1st Yr Cap Eff Break-even Implied F&D Implied Recycle	[\$000] [\$000] [X] [%] [months] [\$/boe/d] [C\$/mcf] [C\$/boe] [X]	5.7 Bcfe – 22 bl	\$4,957 \$1,707 1.35x, 22% 35 \$10,687 \$0.81 \$5.22 2.2x	\$4,710 \$1,469 1.31x 21% 38 \$10,153 \$0.93 \$4.96 2.2x	\$5,205 \$1,934 1.37x 24% 32 \$11,222 \$0.68 \$5.48 2.3x	\$4,957 \$639 1.13x 14% 51 \$10,687 \$0.81 \$5.22 1.8x	\$4,957 \$2,775 1.56x 31% 26 \$10,687 \$0.81 \$5.22 2.7x	6.1 Bcfe – 35 bl	\$4,957 \$3,359 1.68x 38% 22 \$10,003 -\$0.06 \$4.88 2.9x	\$4,710 \$2,917 1.62x 35% 25 \$9,503 \$0.20 \$4.63 2.8x	\$5,205 \$3,795 1.73x 42% 20 \$10,503 -\$0.31 \$5.12 3.1x	\$4,957 \$2,350 1.48x 29% 28 \$10,003 -\$0.06 \$4.88 2.5x	\$4,957 \$4,385 1.89x 49% 19 \$10,003 -\$0.06 \$4.88 3.4x

13

10

Base Type Curve Economic Estimates. Our base Glacier Middle Montney liquids-rich gas type curve anticipates a 2.8 mmcf/d (25 bbl/mmcf CGR) peak month rate and 5.7 Bcfe (~19% liquids) EUR at a ~\$4.6M drill, complete, equip, and tie-in (DCET) cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 26% IRR and 31 month payback period.

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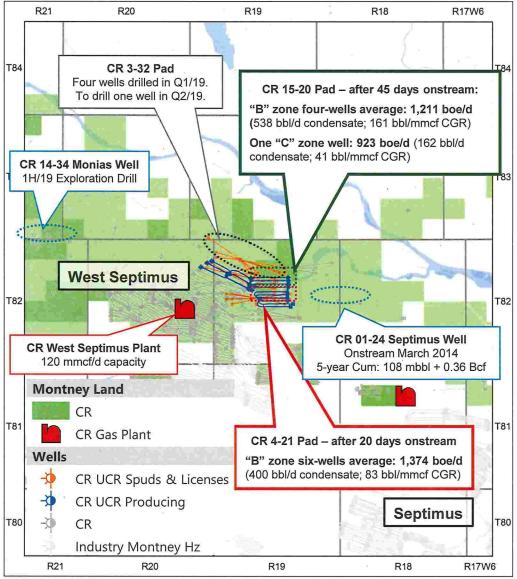
Condensate-Rich Type Curve Economic Estimates. Our higher CGR type curve anticipates a 2.7 mmcf/d (40 bbl/mmcf CGR) peak month rate and 6.1 Bcfe (~26% liquids) EUR at a ~\$4.6M DCET cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 45% IRR and 20 month payback period.

Note: Economics based on 1) 9% (after-tax) discount rate; 2) flat commodity pricing and costs; and 3) +4% condensate, -75% butane, -60% propane and -90% ethane NGL differentials. Midcycle Capital includes drilling, completion and tie-in (DC&T), go-forward infrastructure and dry hole costs.

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### Exhibit 5: West Septimus Montney Ultra Condensate-Rich ("UCR") Area



# West Septimus UCR Back on the Radar Crew (CR)

CR's West Septimus Ultra Condensate Rich Montney sub play first attracted attention in 2016 after the company announced a pair of wells that yielded 90-day IP CGRs of 150 to 200 bbl/mmcf. CR continued to advance the play in 2017 and 2018 with mixed results; however, recent well design modifications have shown promising potential that could put the play back on the radar

The design modifications include: (1) longer laterals (2,500 to 3,000 metres), (2) cased hole plug and perf completions (see page 2 for discussion on this technology in the Inga Montney play), (3) increased number for fracture initiation points, (4) tighter inter-well spacing (250 metres versus 400 metres previously); (5) enhanced completion fluids.

With the design modifications, CR has reported strong early production rates from the Montney "B" zone wells on its **15-20** pad (UCR Area) and **4-21** pad (Transition Zone). Unfortunately, the company reports condensate production as gas equivalent volumes in the public data from the play, so we are unable to consistently track the results. However, early flow data that included condensate volumes confirms that two of the three reporting wells from the 15-20 pad delivered initial production exceeding our UCR type curve peak month estimate (see Exhibit 6).

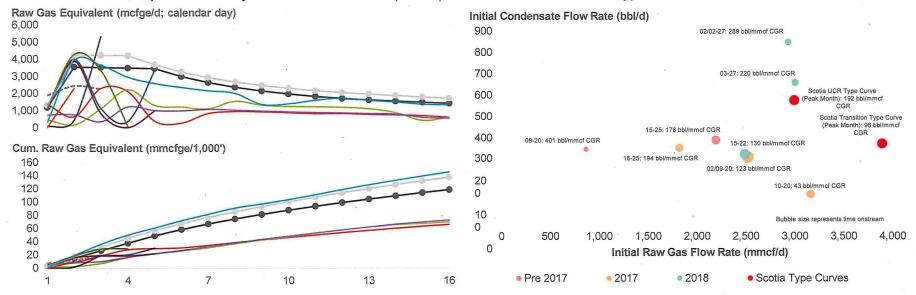
Ultimately, we will need to see longer term data to assess the decline profile of the wells constructed with the new design parameters. However, if CR can deliver results in line with our UCR type curve, we believe the play has the potential help the company increase liquids production and rapidly recycle capital while running cash flow linked budgets.

See Exhibit 6 for area well plots and type curve economics.

Source: geoSCOUT; company reports; Scotiabank GBM.



## Exhibit 6: Crew West Septimus Montney Ultra Condensate-Rich ("UCR") Wells and Scotiabank GBM Type Curve Economics



Scotiabank GBM T	ype Curve		Base	Oil Ser	sitivity	Gas Se	nsitivity		Base	Oil Ser	sitivity	Gas Se	nsitivity
AECO Cdn Light Oil	[C\$/mcf] [C\$/bbl]	E	\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00		\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00
EUR % Gas	[Bcfe] [%]	ij	5.4 63%	5.4 63%	5.4 63%	5.4 63%	5.4 63%		6.0 72%	6.0 72%	6.0 72%	6.0 72%	6.0 72%
DC&T Capital NPV (after-tax) PIR (after-tax)	[\$000] [\$000]	curve	\$7,000 \$4,496 1.65x	\$6,650 \$3,510 1.53x	\$7,350 \$5,471 1.75x	\$7,000 \$3,830 1.55x	\$7,000 \$5,088 1.73x	oe curve	\$7,000 \$2,391 1.34x	\$6,650 \$1,721 1.26x	\$7,350 \$3,039 1,42x	\$7,000 \$1,519 1.22x	\$7,000 \$3,156 1.45x
IRR (after-tax) Payback	[x] [%] [months]	type	95% 9	73% 11	116% 8	81% 10	107% 8	one typ	38% 19	29%	46% 16	27% 24	48% 15
1st Yr Cap Eff Break-even	[\$/boe/d] [C\$/mcf]	UCR Area	\$9,665 -\$1.17	\$9,182 -\$0.52	\$10,148 -\$1.78	\$9,665 -\$1.17	\$9,665 -\$1.17	sition Z	\$10,031 \$0.41	\$9,529 \$0.75	\$10,532 \$0.08	\$10,031 \$0.41	\$10,031 \$0.41
Midcycle Capital NPV (after-tax) PIR (after-tax)	[\$000] [\$000] [x]	5.4 Bcfe U	\$7,430 \$4,156 1.56x	\$7,058 \$3,189 1.46x	\$7,801 \$5,111 1.66x	\$7,430 \$3,490 1.47x	\$7,430 \$4,749 1.64x	Bcfe Tran	\$7,430 \$2,043 1.28x	\$7,058 \$1,386 1.20x	\$7,801 \$2,673 1.35x	\$7,430 \$1,165 1.16x	\$7,430 \$2,810 1.38x
IRR (after-tax) Payback	[%] [months]	2	78% 10	60% 12	96%	67% 11	89% 9	6.0	31% 21	24%	38% 18	22%	40% 17
1st Yr Cap Eff Break-even Implied F&D	[\$/boe/d] [C\$/mcf] [C\$/boe]		\$10,258 -\$0.97 \$8.25	\$9,745 -\$0.34 \$7.84	\$10,771 -\$1.57 \$8.67	\$10,258 -\$0.97 \$8.25	\$10,258 -\$0.97 \$8.25		\$10,647 \$0.57 \$7.43	\$10,114 \$0.90 \$7.06	\$11,179 \$0.25 \$7.80	\$10,647 \$0.57 \$7.43	\$10,647 \$0.57 \$7.43
Implied Recycle	[x]		2.0x	1.8x	2.2x	1.8x	2.2x		1.5x	1.4x	1.7x	1.3x	1.7x

UCR Area Type Curve Economic Estimates. Our West Septimus UCR Area Condensate-rich gas type curve anticipates a 2.8 mmcf/d (200 bbl/mmcf CGR) peak month rate and 5.4 Bcfe (~37% liquids) EUR at a ~\$7.0M drill, complete, equip, and tie-in (DCET) cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 95% IRR and nine-month payback period.

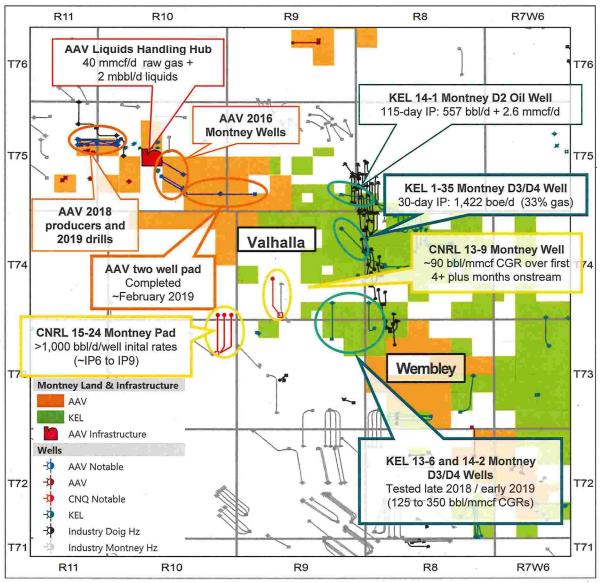
Transition Zone Type Curve Economic Estimates. Our West Septimus Transition Zone type curve anticipates a 3.6 mmcf/d (100 bbl/mmcf CGR) peak month rate and 6.0 Bcfe (~28% liquids) EUR at a ~\$7.0M DCET cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 38% IRR and 19 month payback period.

Note: Economics based on 1) 9% (after-tax) discount rate; 2) flat commodity pricing and costs; and 3) +4% condensate, -75% butane, -60% propane and -90% ethane NGL differentials. Midcycle Capital includes drilling, completion and tie-in (DC&T), go-forward infrastructure and dry hole costs.

Source for all exhibits: geoSCOUT; company reports; Scotiabank GBM estimates.



Exhibit 7: Valhalla Montney Condensate-Rich Gas



# Valhalla Yields Rising Advantage (AAV) and Kelt (KEL)

# Update

AAV's Q1/19 results release indicated that the two Middle Montney wells featured in our previous Well Watch report (AVN HZ VALHALLA 13-2-75-10 and AVN HZ VALHALLA 14-5-75-9 AVN HZ VALHALLA 14-5-75-9) have been completed and will be tied-in for production after spring breakup.

AAV also drilled five (4.7 net) additional wells on the northwest portion of its Valhalla lands during Q1/19. The company plans to complete and tie in these wells during Q3/19.

March 2019 production data provided the first look at the new Canadian Natural Resources Limited (CNQ-T) **15-24**Montney pad. Early flow rates from the wells show >1,000 bbl/d per well of oil production over the first six to nine days onstream. Our interpretation of the public data indicates that these are the furthest northwest oil wells in the greater Wembley Montney play placed onstream to date. We view these as significant data points given the strong initial oil-weighted productivity and the proximity to AAV's Valhalla block (~three miles south) and KEL's northwest Wembley block (~four miles west).

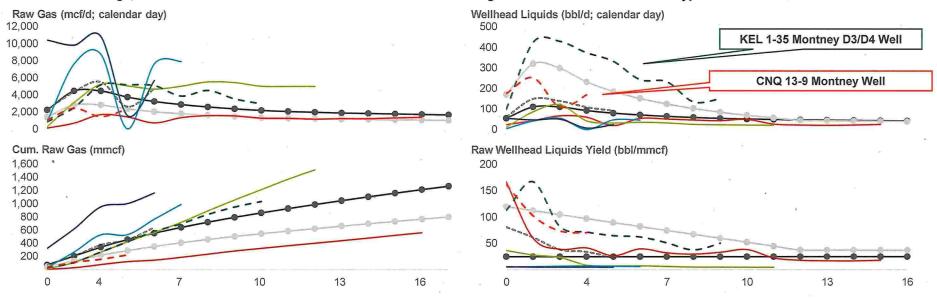
As previously noted, public data indicates that KEL has recently tested the offsetting KELT EXP HZ VALHALLA 13-6-74-8 and KELT EXP HZ VALHALLA 14-2-74-9 Upper Middle Montney wells (it is possible that we could see details with Q1/19 results).

See Exhibit 8 for area well plots and type curve economics.

Source: geoSCOUT; company reports; Scotiabank GBM.



## Exhibit 8: Advantage, Select CNRL and Select Kelt Valhalla 2017 and 2018 Vintage Wells and Scotiabank GBM Type Curve Economics



Scotiabank GBM 7	ype Curve		Base	Oil Ser	sitivity	Gas Se	nsitivity	,	Base	Oil Ser	sitivity	Gas Se	nsitivity
AECO Cdn Light Oil	[C\$/mcf] [C\$/bbl]	4	\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00		\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00
EUR % Gas	[Bcfe] [%]	ve	6.8 81%	6.8 81%	6.8 81%	6.8 81%	6.8 81%	rve	4.3 73%	4.3 73%	4.3 73%	4.3 73%	4.3 73%
DC&T Capital NPV (after-tax) PIR (after-tax) IRR (after-tax) Payback 1st Yr Cap Eff Break-even	[\$000] [\$000] [x] [%] [months] [\$/boe/d] [C\$/mcf]	5 bbl/mmcf CGR type curve	\$4,800 \$2,855 1.60x 33% 28 \$8,920 \$0.45	\$4,560 \$2,539 1.56x 31% 30 \$8,474 \$0.60	\$5,040 \$3,143 1.63x 35% 26 \$9,366 \$0.30	\$4,800 \$1,617 1.34x 22% 38 \$8,920 \$0.45	\$4,800 \$4,087 1.86x 46% 21 \$8,920 \$0.45	bl/mmcf CGR type cur	\$5,000 \$2,747 1.55x 50% 16 \$10,651 -\$0.29	\$4,750 \$2,296 1.49x 42% 20 \$10,119 \$0.07	\$5,250 \$3,179 1.61x 59% 13 \$11,184 -\$0.65	\$5,000 \$2,017 1.41x 38% 20 \$10,651 -\$0.29	\$5,000 \$3,492 1.70x 63% 13 \$10,651 -\$0.29
Midcycle Capital NPV (after-tax) PIR (after-tax) IRR (after-tax) Payback 1st Yr Cap Eff Break-even Implied F&D Implied Recycle	[\$000] [\$000] [X] [%] [months] [\$/boe/d] [C\$/mcf] [C\$/boe] [X]	6.8 Bcfe – 25 bb	\$5,173 \$2,559 1.50x 28% 31 \$9,614 \$0.57 \$4.56 -2.6x	\$4,915 \$2,260 1.46x 26% 34 \$9,134 \$0.71 \$4.34 2.5x	\$5,432 \$2,832 1.53x 30% 29 \$10,095 \$0.44 \$4.79 2.6x	\$5,173 \$1,316 1.26x 18% 43 \$9,614 \$0.57 \$4.56 2.0x	\$5,173 \$3,796 1.74x 39% 24 \$9,614 \$0.57 \$4.56 3.1x	4,3 Bcfe – 45 bb	\$5,383 \$2,450 1.46x 40% 20 \$11,468 -\$0.07 \$7.51 2.2x	\$5,114 \$2,014 1.40x 34% 25 \$10,895 - \$0.27 \$7.14 2.1x	\$5,653 \$2,868 1.51x 47% 16 \$12,041 -\$0.41 \$7.89 2.3x	\$5,383 \$1,717 1.32x 30% 25 \$11,468 -\$0.07 \$7.51 1.9x	\$5,383 \$3,198 1.60x 51% 16 \$11,468 -\$0.07 \$7.51 2.5x

Base Type Curve Economic Estimates. Our base Valhalla Montney liquids-rich gas type curve anticipates a 4.1 mmcf/d (35 bbl/mmcf NGL yield) peak month rate and 6.8 Bcfe (~19% liquids) EUR at a ~\$4.8M drill, complete, equip, and tie-in (DCET) cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 33% IRR and 28 month payback period.

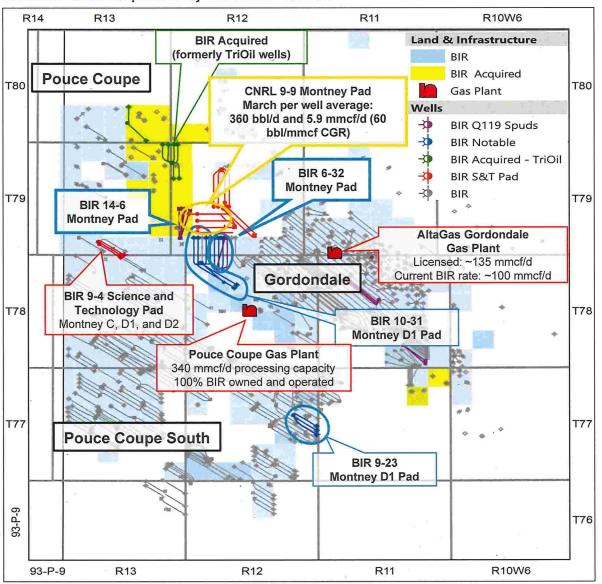
Condensate-Rich Type Curve Economic Estimates. Our higher CGR type curve anticipates a 2.6 mmcf/d (150 bbl/mmcf NGL yield) peak month rate and 4.3 Bcfe (~27% liquids) EUR at a ~\$5.0M DCET cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 50% IRR and 16-month payback period.

Note: Economics based on 1) 9% (after-tax) discount rate; 2) flat commodity pricing and costs; and 3) +4% condensate, -75% butane, -60% propane and -90% ethane NGL differentials. Midcycle Capital includes drilling, completion and tie-in (DC&T), go-forward infrastructure and dry hole costs.

Source for all exhibits: geoSCOUT; company reports; Scotiabank GBM estimates.



Exhibit 9: Pouce Coupe Montney Condensate-Rich Gas



# Pouce Coupe Shows Liquids Potential

Birchcliff (BIR)

# Update

In our <u>previous Well Watch report</u> we highlighted this play and noted the recent Canadian Natural Resources Limited (CNQ-T) Montney oil wells adjacent to BIR's upcoming 6-32 and 14-6 pads.

March data from the CNQ **9-9 pad** showed a per well production average of ~360 bbl/d and 5.9 mmcf/d. While the wells are classified as oil producers, the volumetric results are essentially equivalent to ~60 bbl/mmcf CGRs. In our view, these results provide an encouraging read-through for the upcoming BIR pads for both natural gas flow rates and initial oil / condensate production rates.

We have also reviewed the oil analysis data for the wells in the region. The CNQ oil wells offsetting BIR's lands produce oil in the mid to low 40° API range (light oil), while the BIR wells further to the north produce low 50° API range condensate.

We have plotted production data the CNQ Montney oil wells and the two BIR condensate reporting wells in the area in Exhibit 10. We note a similar natural gas production profile, with materially higher wellhead liquids yields from the CNQ wells.

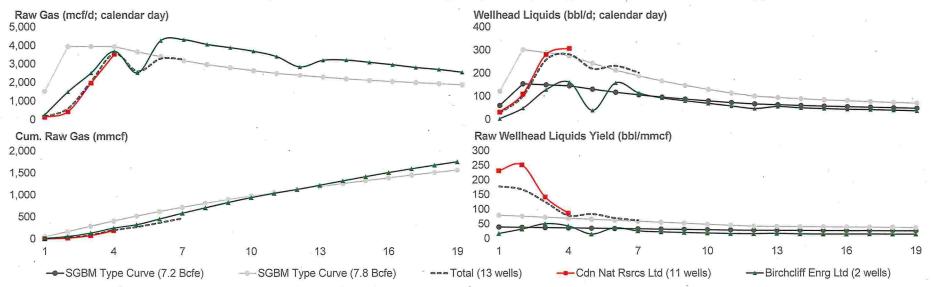
Public production data shows that BIR's **6-32 pad** came onstream in March 2019, so we may see commentary on the wells with BIR's Q1/19 results release (expected May 15, 2019; see our <u>preview report</u>). We expect details on the **14-6** pad later in 2019.

See Exhibit 10 for area well plots and type curve economics.

Source: geoSCOUT; company reports; Scotiabank GBM.



## Exhibit 10: Birchcliff and CNRL Pouce Coupe North 2017 and 2018 Vintage Liquids Reporting Wells and Scotiabank GBM Type Curve Economics



Scotiabank GBM 7	Type Curve		Base	Oil Ser	sitivity	Gas Se	nsitivity		Base	Oil Ser	sitivity	Gas Se	nsitivity
AECO Cdn Light Oil	[C\$/mcf] [C\$/bbl]	1	\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00		\$1.60 \$70.00	\$1.60 <b>\$60.00</b>	\$1.60 <b>\$80.00</b>	<b>\$1.10</b> \$70.00	<b>\$2.10</b> \$70.00
EUR % Gas	[Bcfe] [%]	9/	7.2 84%	7.2 84%	7.2 84%	7.2 84%	7.2 84%	9/	7.7 79%	7.7 79%	7.7 79%	7.7 79%	7.7 79%
DC&T Capital NPV (after-tax) PIR (after-tax) IRR (after-tax) Payback 1st Yr Cap Eff Break-even	[\$000] [\$000] [x] [%] [months] [\$/boe/d] [C\$/mcf]	23 bbl/mmcf CGR type curve	\$4,700 \$3,563 1.76x 51% 17 \$7,569 \$0.29	\$4,465 \$3,217 1.73x 47% 19 \$7,190 \$0.44	\$4,935 \$3,900 1.80x 55% 16 \$7,947 \$0.14	\$4,700 \$2,201 1.47x 34% 23 \$7,569 \$0.29	\$4,700 \$4,935 2.06x 71% 14 \$7,569 \$0.29	bl/mmcf CGR type cun	\$4,700 \$5,834 2.25x 123% 9 \$6,459 -\$0.60	\$4,465 \$5,224 2.18x 108% 10 \$6,136 -\$0.33	\$4,935 \$6,428 2.31x 138% 8 \$6,782 -\$0.85	\$4,700 \$4,488 1.96x 96% 10 \$6,459 -\$0.60	\$4,700 \$7,223 2.55x 154% 8 \$6,459 -\$0.60
Midcycle Capital NPV (after-tax) PIR (after-tax) IRR (after-tax) Payback 1st Yr Cap Eff Break-even Implied F&D Implied Recycle	[\$000] [\$000] [x] [w] [months] [\$/boe/d] [C\$/mcf] [C\$/boe] [x]	7.2 Bcfe – 23 bb	\$4,988 \$3,340 1.67x 45% 19 \$8,032 \$0.38 \$4.16 2.8x	\$4,738 \$3,007 1.64x 41% 21 \$7,631 \$0.52 \$3.95 2.7x	\$5,237 \$3,664 1.70x 48% 18 \$8,434 \$0.23 \$4.36 2.8x	\$4,988 \$1,975 1.40x 29% 26 \$8,032 \$0.38 \$4.16 2.1x	\$4,988 \$4,714 1.95x 62% 15 \$8,032 \$0.38 \$4.16 3.4x	7.7 Bcfe – 34 bb	\$4,988 \$5,615 2.13x 107% 9 \$6,854 -\$0.51 \$3.88 3.5x	\$4,738 \$5,020 2.07x 94% 10 \$6,512 -\$0.25 \$3.69 3.4x	\$5,237 \$6,196 2.19x 119% 9 \$7,197 -\$0.76 \$4.08 3.7x	\$4,988 \$4,269 1.86x 83% 11 \$6,854 -\$0.51 \$3.88 2.9x	\$4,988 \$7,005 2.41x 135% 8 \$6,854 -\$0.51 \$3.88 4.2x

Base Type Curve Economic Estimates. Our base Pouce Coupe Montney liquids-rich gas type curve anticipates a 3.8 mmcf/d (50 bbl/mmcf NGL yield) peak month rate and 7.2 Bcfe (~16% liquids) EUR at a ~\$4.7M DCET cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 51% IRR and 17-month payback period.

High CGR Type Curve Economic Estimates. Our higher CGR type curve anticipates a 3.8 mmcf/d (100 bbl/mmcf NGL yield) peak month rate and 7.7 Bcfe (~21% liquids) EUR at a ~\$4.7M DCET cost. At \$1.60/mmbtu AECO and \$70/bbl Canadian light oil, we estimate a 123% IRR and nine month payback period.

Note: Economics based on 1) 9% (after-tax) discount rate; 2) flat commodity pricing and costs; and 3) +4% condensate, -75% butane, -60% propane and -90% ethane NGL differentials. Midcycle Capital includes drilling, completion and tie-in (DC&T), go-forward infrastructure and dry hole costs.

Source for all exhibits: geoSCOUT; company reports; Scotiabank GBM estimates.



# In the Hopper: Other Wells We Are Watching

Advantage Oil and Gas Ltd. and Kelt Exploration Ltd. We expect both AAV and KEL to begin ramping up production from the Wembley Montney oil play in Q3/19 with the planned commissioning of third-party processing infrastructure. CNQ has delivered strong production rates from its wells in the area and both AAV and KEL have successfully tested their land bases which sit immediately to the east (see Exhibit 7).

**NuVista Energy Ltd. (NVA-T; SO; \$8.00/share TP).** NVA is currently drilling its first eight-well Pipestone South Montney pad. The company plans to place wells in four Montney layers as part of a cube style development plan. We expect these results onstream in late 2019 when NVA's Pipestone South compressor station is commissioned. We are also watching for longer-term production data from the Pipestone Energy Corp. (PIPE-V) 15-14 pad that is adjacent to NVA's block. We may also see data later in 2019 from the NUVISTA WEMBLEY 13-19-72-9 well on the Pipestone North block if the company proceeds with completion operations.

Paramount Resources Ltd. (POU-T; SU; \$7.25/share TP). We expect to see results from POU's first two Wapiti Montney pads over the next several months. The company plans to gradually ramp up production from the 9-3 pad after the Keyera Wapiti plant is commissioned and expects to bring volumes from the 5-3 pad onstream later in the year as required.

NuVista Energy Ltd. and Paramount Resources Ltd. With Q1/19 results, Seven Generations Energy Ltd. (VII-T) announced a 30-day IP rate of 1,250 boe/d (63% condensate) from its latest Kakwa Lower Montney well and noted that it is currently tying-in its first "triple-stack" (three Montney layer) pad with results expected later in 2019. We expect further attention on this emerging layer as additional results from several operators are released during 2019. Within our coverage universe both NVA and POU have successfully tested the Lower Montney in the Bilbo / Karr area immediately north of Kakwa and have additional wells planned in this area, Wapiti / Gold Creek and Pipestone for 2019.

Painted Pony Energy Ltd. (PONY-T; SP; \$2.25/share TP). We are watching for follow-up results to PONY's 2018 South Townsend condensate-rich wells (see our <u>note</u>). The company has drilled one well further to the south (PAINTED PONY HZ KOBES D- 005-H/094-B-09) and licensed three others from a common surface location.



# Exhibit 11: Top Alberta Oil Wells - Onstream in the Last 12 Months (March 2019, Calendar Day Rate)

				First	and the second of the second o			Production Raw Gas
0	Well Name	F1-1-1/X	Formation/Zone <sup>2</sup>	Production (YYYY/MM)	Oil (bbl/d)	(mcf/d) <sup>4</sup>	Oil (mbbl)	(mmcf) <sup>4</sup>
Operator	Well Name	Field/Area						
1 Surge Enrg Inc	SURGE ENERGY 103 VALHALLA 10-18-75-8	Valhalla	Doig Formation	2019/02	1,035	1,738	54.6	84.3
2 NEP Cda ULC	NEP HZ LEDUC-WB 15-8-51-26	Leduc-Woodbend	Nisku Formation	2018/11	1,004	1,663	116.3	167.4
3 Rampart Oil Inc	RAMPART PARKLDNE 14-8-14-25	Parkland Northeast	Glauconitic Sandstone	2018/10	777	201	107.0	38.8
4 Cdn Nat Rsrcs Ltd	CNRL HZ WEMBLEY 3-5-72-8	Wembley	Montney Formation	2019/01	769	2,943	47.3	142.3
5 Murphy Oil Co Ltd	MURPHY 16-25A KAYBOB 14-20-65-19	Kaybob	Duvernay Formation	2019/02	736	540	28.8	21.3
6 Anegada Oil Corp	ANEGADA HZ 15D SMOKY 15-13-61-1	Smoky	Montney Formation	2019/01	663	1,145	51.0	80.7
7 Whitecap Rsrcs Inc	WHITECAP FERRIER 16-20-38-7	Ferrier	Cardium Sandstone	2019/03	656	468	20.3	14.5
8 Hammerhead Rsrcs Inc	HHR 103 HZ KARR 12-24-66-4	Karr	Montney Formation	2018/10	559	4,284	87.7	512.1
9 Cdn Nat Rsrcs Ltd	CNRL HZ WEMBLEY 4-5-72-8	Wembley	Montney Formation	2018/10	548	2,382	59.7	227.0
10 Kelt Expl Ltd	KELT EXP 102 HZ VALHALLA 14-1-75-9	Valhalla	Montney Formation	2018/10	547	2,675	81.1	386.3
11 Velvet Enrg Ltd	VELVET KARR 16-17-64-2	Karr	Montney Formation	2018/04	528	641	146.9	250.1
12 Anegada Oil Corp	ANEGADA HZ 16D VALHALLA 16-35-75-8	Valhalla	Charlie Lake Formation	2018/10	516	769	104.9	109.4
13 NEP Cda ULC	NEP 102 HZ LEDUC-WB 1-10-49-25	Leduc-Woodbend	Nisku Formation	2018/10	501	1,142	127.2	282.3
14 Repsol O&G Cda Inc	ROGCI HZ 03 GILBY 8-28-40-4	Gilby	<b>Duvernay Formation</b>	2018/11	496	560	25.1	32.0
15 Tangle Creek Enrg Ltd	TANGLE CREEK 103 WAHIGAN 11-15-64-23	Waskahigan	Cadomin Formation	2019/03	480	251	14.9	7.8
16 Inplay Oil Corp	INPLAY OIL HZ WILLGR 13-26-41-6	Willesden Green	Cardium Sandstone	2019/03	479	409	14.8	12.7
17 Insignia Enrg Ltd	INSIGNIAENERGY PCOUPES 15-34-77-11	Pouce Coupe South	Montney Formation	2018/11	466	2,900	81.9	368.5
18 Kelt Expl Ltd	KELT EXP HZ PCOUPES 5-18-78-11	Pouce Coupe South	Montney Formation	2018/10	460	3,756	88.0	650.4
19 Inplay Oil Corp	INPLAY OIL 102 HZ WILLGR 13-26-41-6	Willesden Green	Cardium Sandstone	2019/03	455	417	14.1	12.9
20 Anegada Oil Corp	ANEGADA HZ 13C VALHALLA 13-36-75-9	Valhalla	Charlie Lake Formation	2018/10	445	420	76.9	41.4
21 TAQA North Ltd	TQN HZ PCOUPES 9-4-78-11	Pouce Coupe South	Montney Formation	2018/11	439	884	40.4	76.5
22 Modern Rsrcs Inc	MODERN 102 HZ WAPITI 4-16-67-8	Wapiti	Cardium Sandstone	2018/12	432	470	21.1	19.5
23 Insignia Enrg Ltd	INSIGNIAENERGY 03 PCOUPES 2-27-77-11	Pouce Coupe South	Montney Formation	2019/01	427	1,708	44.7	107.0
24 Boulder Enra Ltd	BLDR 9B-33 HZ 103 BRAZR 6-35-46-14	Brazeau River	Belly River Group	2018/10	409	1,025	39.3	73.5
25 Birchcliff Enrg Ltd	BIR 2-2 HZ PCOUPES 4-35-77-11	Pouce Coupe South	Montney Formation	2019/02	401	782	21.6	31.1
26 Acqstn Oil Corp	AQUISITION OIL HZ CRAN 11-6-95-5	Cranberry	Slave Point Formation	2018/11	398	355	44.5	37.8
27 Hammerhead Rsrcs Inc	HHR HZ KARR 12-24-66-4	Karr	Montney Formation	2018/10	395	2.997	77.2	445.5
28 Yangarra Rsrcs Corp	YANGARRA HZ WILLGR 13-7-42-5	Willesden Green	Cardium Sandstone	2019/02	395	1,248	26.0	50.5
29 Rising Star Rsrcs Ltd	R S R HZ MIRAGE 1-10-79-7	Mirage	Charlie Lake Formation	2019/01	392	1.044	39.2	69.9
30 Ridgeback Rsrcs Inc	RIDGEBACK HZ KAYBOB 16-26-63-19	Kaybob	Montney Formation	2018/11	388	1,714	71.0	181.8
31 NEP Cda ULC	NEP 103 HZ LEDUC-WB 11-34-50-26	Leduc-Woodbend	Nisku Formation	2018/11	378	374	43.0	46.7
32 Birchcliff Enra Ltd	BIR 2-2 HZ 102 PCOUPES 4-35-77-11	Pouce Coupe South	Montney Formation	2019/02	373	1.464	28.4	79.7
33 Ridgeback Rsrcs Inc	RIDGEBACK HZ KAYBOB 8-26-63-19	Kaybob	Montney Formation	2018/09	371	1.890	67.1	190.9
34 Velvet Enra Ltd	VELVET 102 HZ ELM 16-10-68-3	Elmworth	Montney Formation	2018/11	370	6,040	49.3	748.2
35 Repsol O&G Cda Inc	ROGCI HZ WILLGR 13-16-40-4	Willesden Green	Duvernay Formation	2018/11	367	343	16.5	16.6
36 Velvet Enra Ltd	VELVET HZ ELM 13-11-68-3	Elmworth	Montney Formation	2019/03	366	1,642	11.3	50.9
37 NEP Cda ULC	NEP 102 HZ LEDUC-WB 8-10-49-25	Leduc-Woodbend	Nisku Formation	2018/10	363	1,155	77.9	231.9
38 Cdn Nat Rsrcs Ltd	CNRL HZ PCOUPE 13-8-79-12	Pouce Coupe	Montney Formation	2018/10	363	5,600	26.5	276.8
39 Cdn Nat Rsrcs Ltd	CNRL HZ WEMBLEY 13-31-73-9	Wembley	Halfway Formation	2019/03	357	726	11.1	22.5
	VELVET 102 HZ BEZAN 4-10-69-3	Bezanson	Montney Formation	2018/09	355	1.801	86.5	365.0
40 Velvet Enrg Ltd	VELVET TUZ FIZ DEZAN 4-10-09-3	Dezailsuil	Worldley Formation	2010/09	333	1,001	00.5	303.0



## Exhibit 12: Top Alberta Oil Wells - Onstream in the Last Two Months (March 2019, Calendar Day Rate)

				First Production	Calendar Oil	Day Rate <sup>1</sup> Raw Gas	Cumulative Oil	Production Raw Gas
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(bbl/d)	(mcf/d) <sup>4</sup>	(mbbl)	(mmcf) <sup>4</sup>
1 Surge Enrg Inc	SURGE ENERGY 103 VALHALLA 10-18-75-8	Valhalla	Doig Formation	2019/02	1,035	1,738	54.6	84.3
2 Murphy Oil Co Ltd	MURPHY 16-25A KAYBOB 14-20-65-19	Kaybob	Duvernay Formation	2019/02	736	540	28.8	21.3
3 Whitecap Rsrcs Inc	WHITECAP FERRIER 16-20-38-7	Ferrier	Cardium Sandstone	2019/03	656	468	20.3	14.5
4 Tangle Creek Enrg Ltd	TANGLE CREEK 103 WAHIGAN 11-15-64-23	Waskahigan	Montney Formation	2019/03	480	251	14.9	7.8
5 Inplay Oil Corp	INPLAY OIL HZ WILLGR 13-26-41-6	Willesden Green	Cardium Sandstone	2019/03	479	409	14.8	12.7
6 Inplay Oil Corp	INPLAY OIL 102 HZ WILLGR 13-26-41-6	Willesden Green	Cardium Sandstone	2019/03	455	417	14.1	12.9
7 Birchcliff Enrg Ltd	BIR 2-2 HZ PCOUPES 4-35-77-11	Pouce Coupe South	Montney Formation	2019/02	401	782	21.6	31.1
8 Yangarra Rsrcs Corp	YANGARRA HZ WILLGR 13-7-42-5	Willesden Green	Cardium Sandstone	2019/02	395	1,248	26.0	50.5
9 Birchcliff Enrg Ltd	BIR 2-2 HZ 102 PCOUPES 4-35-77-11	Pouce Coupe South	Montney Formation	2019/02	373	1,464	28.4	79.7
10 Velvet Enrg Ltd	VELVET HZ ELM 13-11-68-3	Elmworth	Montney Formation	2019/03	366	1,642	11.3	50.9
11 Cdn Nat Rsrcs Ltd	CNRL HZ WEMBLEY 13-31-73-9	Wembley	Halfway Formation	2019/03	357	726	11.1	22.5
12 Velvet Enrg Ltd	VELVET 102 HZ ELM 14-11-68-3	Elmworth	Montney Formation	2019/02	335	2,460	15.6	110.8
13 Birchcliff Enrg Ltd	BIR 2-2 HZ 103 PCOUPES 4-35-77-11	Pouce Coupe South	Montney Formation	2019/01	333	1,593	26.3	80.5
14 Surge Enrg Inc	SURGE ENERGY 102 VALHALLA 11-29-73-8	Valhalla	Doig Formation	2019/03	332	1,163	10.3	36.1
15 Prairie Storm Enrg Corp	PSEC 102 HZ WILLGR 4-7-40-5	Willesden Green	Cardium Sandstone	2019/02	309	254	10.3	8.3
16 Cdn Nat Rsrcs Ltd	CNRL 102 HZ WEMBLEY 16-36-73-10	Wembley	Halfway Formation	2019/03	303	795	9.4	24.7
17 Birchcliff Enrg Ltd	BIR 2-2 HZ PCOUPES 3-35-77-11	Pouce Coupe South	Montney Formation	2019/01	294	2,092	21.6	111.7
18 Anegada Oil Corp	ANEGADA HZ 5C VALHALLA 5-30-75-7	Valhalla	Charlie Lake Formation	2019/03	275	143	8.5	4.4
19 Tourmaline Oil Corp	TOURMALINE HZ VALHALLA 13-12-78-7	Valhalla	Charlie Lake Formation	2019/03	271	272	8.4	8.4
20 Torxen Rsrcs Ltd	TXNR 3-30 HZ ALDSON 7-31-14-13	Alderson	Sunburst Sandstone	2019/02	269	29	8.4	0.9

Source: geoSCOUT; Scotiabank GBM.

Exhibit 13: Top Alberta Oil Wells - Onstream in the Last Two Months (March 2019, Producing Day Rate)

				First			Day Rate⁵			
					Production	Hours	Oil	Raw Gas	Oil	Raw Gas
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	On-Stream	(bbl/d)	(mcf/d) <sup>4</sup>	(mbbl)	(mmcf) <sup>4</sup>
1	Cdn Nat Rsrcs Ltd	CNRL 102 HZ WEMBLEY 16-36-73-10	Wembley	Halfway Formation	2019/03	152	1,485	3,893	9.4	24.7
2	Cdn Nat Rsrcs Ltd	CNRL HZ WEMBLEY 13-31-73-9	Wembley	Halfway Formation	2019/03	206	1,289	2,620	11.1	22.5
3	Surge Enrg Inc	SURGE ENERGY 103 VALHALLA 10-18-75-8	Valhalla	Doig Formation	2019/02	673	1,145	1,922	54.6	84.3
4	Whitecap Rsrcs Inc	WHITECAP FERRIER 16-20-38-7	Ferrier	Cardium Sandstone	2019/03	517	945	674	20.3	14.5
5	Tangle Creek Enrg Ltd	TANGLE CREEK 103 WAHIGAN 11-15-64-23	Waskahigan	Cadomin Formation	2019/03	384	929	486	14.9	7.8
6	Surge Enrg Inc	SURGE ENERGY 102 VALHALLA 11-29-73-8	Valhalla	Doig Formation	2019/03	280	883	3,091	10.3	36.1
7	Inplay Oil Corp	INPLAY OIL HZ WILLGR 13-26-41-6	Willesden Green	Cardium Sandstone	2019/03	479	744	636	14.8	12.7
8	Inplay Oil Corp	INPLAY OIL 102 HZ WILLGR 13-26-41-6	Willesden Green	Cardium Sandstone	2019/03	455	744	682	14.1	12.9
9	Cdn Nat Rsrcs Ltd	CNRL ET AL HZ KARR 16-11-66-4	Karr	Dunvegan Formation	2019/02	140	646	163	4.5	1.0
10	Cdn Nat Rsrcs Ltd	CNRL ET AL HZ KARR 15-11-66-4	Karr	<b>Dunvegan Formation</b>	2019/02	147	531	325	4.5	2.6
11	1 Petrus Rsrcs Corp	PETRUS HZ FERRIER 7-30-39-8	Ferrier	Cardium Sandstone	2019/03	144	515	1,696	3.1	10.2
12	2 Tamarack Acqstn Corp	TAC 15-7 HZ PEMBINA 6-16-43-4	Pembina	Cardium Formation	2019/03	307	490	394	6.3	5.0
13	3 Petrus Rsrcs Corp	PETRUS FERRIER 13-19-39-8	Ferrier	Cardium Sandstone	2019/03	144	457	1,784	2.7	10.7
14	4 Husky Oil Oprtns Ltd	HUSKY HZ 104 RAINBOWS 10-17-108-8	Rainbow South	Muskeg Formation	2019/02	96	442	2,020	15.0	53.0
15	5 Obsidian Enrg Ltd	OBE HZ WILLGR 13-35-42-8	Willesden Green	Cardium Sandstone	2019/03	306	441	307	5.6	3.9
16	6 ARC Rsrcs Ltd	ARC HZ ANTEN 8-12-66-25	Ante Creek North	Montney Formation	2019/03	240	421	796	4.2	8.0
17	7 Yangarra Rsrcs Corp	YANGARRA HZ WILLGR 13-7-42-5	Willesden Green	Cardium Sandstone	2019/02	731	402	1,270	26.0	50.5
18	3 Torxen Rsrcs Ltd	TXNR 3-1 HZ ALDSON 5-35-15-14	Alderson	Lower Mannville Formation	2019/03	288	397	150	4.8	1.8
19	9 Tamarack Acgstn Corp	TAC 12-33 HZ PEMBINA 7-36-44-6	Pembina	Cardium Formation	2019/03	105	386	255	1.7	1.1
	Blackspur Oil Corp	BLACKSPUR 102 HZ BANTRY 5-2-20-14	Bantry	Glauconitic Sandstone	2019/03	360	362	333	5.4	5.0



Exhibit 14: Top Alberta Wellhead Condensate Wells - Onstream in the Last 12 Months (March 2019, Calendar Day Rate)

				First Production		Calendar Day Rate <sup>1</sup> C5 Raw Gas		Production Raw Gas
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(bbl/d) <sup>3</sup>	(mcf/d) <sup>4</sup>	C5 (mbbl) <sup>3</sup>	(mmcf) <sup>4</sup>
1 Seven Generations Enro Lt	7GEN HZ KAKWA 13-1-63-5	Kakwa	Montney Formation	2018/10	1,061	9,459	98.5	836.9
2 Seven Generations Enro Lt	7GEN HZ KAKWA 4-31-63-5	Kakwa	Montney Formation	2019/03	1.044	4,282	32.4	132.8
3 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 12-1-63-5	Kakwa	Montney Formation	2018/10	996	7,939	97.7	724.5
4 Seven Generations Enrg Lt	7GEN HZ KARR 13-11-64-4	Karr	Montney Formation	2019/01	974	2,061	84.5	162.4
5 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 13-21-64-6	Kakwa	Montney Formation	2018/10	959	9.788	102.4	889.9
6 Seven Generations Enro Lt	7GEN HZ KAKWA 12-1-63-5	Kakwa	Montney Formation	2018/10	948	- 9,832	92.7	865.0
7 Seven Generations Enrg Lt	7GEN HZ KAKWA 3-31-63-5	Kakwa	Montney Formation	2019/02	938	3,190	29.3	99.4
8 Seven Generations Enrg Lt	7GEN HZ 104 KARR 9-10-64-4	Karr	Montney Formation	2019/01	894	1,916	84.3	166.9
9 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 3-31-63-5	Kakwa	Montney Formation	2019/02	826	3,218	28.1	108.6
10 Seven Generations Enrg Lt	7GEN HZ 103 KAKWA 14-12-64-6	Kakwa	Montney Formation	2018/10	729	9,810	73.0	901.4
11 Seven Generations Enrg Lt	7GEN HZ 100 KAKWA 3-6-64-5	Kakwa	Montney Formation	2018/07	722	2,921	343.2	1,413.5
12 Seven Generations Enrg Lt	7GEN HZ 102 KARR 12-11-64-4	Karr	Montney Formation	2019/01	719	1,245	70.0	123.9
13 Seven Generations Enrg Lt	7GEN HZ KARR 3-14-64-4	Karr	Montney Formation	2018/12	690	1,634	83.5	163.2
14 Seven Generations Enrg Lt	7GEN HZ 103 KAKWA 2-31-63-5	Kakwa	Montney Formation	2019/02	678	2,095	31.0	90.2
15 Seven Generations Enrg Lt	7GEN HZ KAKWA 12-21-64-6	Kakwa	Montney Formation	2018/10	673	9,840	80.7	958.7
16 Seven Generations Enrg Lt	7GEN HZ 103 KARR 14-11-64-4	Karr	Montney Formation	2019/01	657	1,959	75.6	171.9
17 Seven Generations Enrg Lt	7GEN HZ 104 KARR 14-11-64-4	Karr	Montney Formation	2019/01	609	1,343	69.1	126.5
18 Seven Generations Enrg Lt	7GEN HZ 102 KARR 14-11-64-4	Karr	Montney Formation	2019/01	596	1,267	60.2	111.0
19 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 8-6-64-5	Kakwa	Montney Formation	2018/07	594	2,309	272.0	994.4
20 Seven Generations Enrg Lt	7GEN HZ KAKWA 9-20-63-4	Kakwa	Montney Formation	2018/08	587	3,615	234.1	1,123.0
21 Seven Generations Enrg Lt	7GEN HZ KAKWA 6-6-64-5	Kakwa	Montney Formation	2018/07	573	2,032	311.7	1,133.8
22 Seven Generations Enrg Lt	7GEN KAKWA 14-20-64-4	Kakwa	Montney Formation	2018/05	539	2,213	299.3	799.3
23 Seven Generations Enrg Lt	7GEN HZ KAKWA 8-36-64-6	Kakwa	Montney Formation	2018/07	534	3,803	246.3	1,392.8
24 Seven Generations Enrg Lt	7GEN HZ KAKWA 12-11-63-4	Kakwa	Montney Formation	2018/08	526	2,462	231.6	706.8
25 Seven Generations Enrg Lt	7GEN HZ KAKWA 14-12-64-6	Kakwa	Montney Formation	2018/10	526	8,239	63.8	845.3
26 Seven Generations Enrg Lt	7GEN HZ KARR 13-11-64-4	Karr	Montney Formation	2019/01	525	1,241	48.3	98.4
27 Seven Generations Enrg Lt	7GEN HZ KAKWA 12-31-64-5	Kakwa	Montney Formation	2018/07	518	3,493	216.0	1,298.1
28 Seven Generations Enrg Lt	7GEN HZ KAKWA 14-21-64-4	Kakwa	Montney Formation	2018/05	486	1,201	138.7	308.9
29 Seven Generations Enrg Lt	7GEN HZ 103 KARR 13-11-64-4	Karr	Montney Formation	2019/01	479	1,337	68.6	129.0
30 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	477	1,392	14.8	43.1
31 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 16-23-64-6	Kakwa	Montney Formation	2018/06	475	7,470	244.9	2,162.3
32 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 16-20-64-4	Kakwa	Montney Formation	2018/06	471	1,818	145.5	326.4
33 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 6-21-63-4	Kakwa	Montney Formation	2018/08	441	2,193	181.6	706.2
34 Seven Generations Enrg Lt	7GEN HZ KAKWA 12-28-63-5	Kakwa	Montney Formation	2019/03	425	1,612	13.2	50.0
35 Seven Generations Enrg Lt	7GEN HZ KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	424	1,732	13.1	53.7
36 Seven Generations Enrg Lt	7GEN HZ KARR 12-25-63-3	Karr	Montney Formation	2019/01	418	3,034	61.7	194.0
37 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 15-20-64-4	Kakwa	Montney Formation	2018/05	411	2,295	218.1	657.3
38 Seven Generations Enrg Lt	7GEN HZ 103 KAKWA 12-21-63-4	Kakwa	Montney Formation	2018/08	408	2,833	175.9	870.9
39 Seven Generations Enrg Lt	7GEN HZ 104 KAKWA 8-9-64-4	Kakwa	Montney Formation	2018/05	403	3,097	317.1	1,347.7
40 Seven Generations Enrg Lt	7GEN HZ 105 KAKWA 3-21-64-5	Kakwa	Montney Formation	2018/07	396	2,490	231.9	1,018.0



Exhibit 15: Top Alberta Wellhead Condensate Wells - Onstream in the Last Two Months (March 2019, Calendar Day Rate)

					First	Calendar C5	Day Rate <sup>1</sup> Raw Gas	Cumulative C5	Production Raw Gas
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	Production (YYYY/MM)	(bbl/d) <sup>3</sup>	(mcf/d) <sup>4</sup>	(mbbl) <sup>3</sup>	(mmcf) <sup>4</sup>
	1 Seven Generations Enrg Lt	7GEN HZ KAKWA 4-31-63-5	Kakwa	Montney Formation	2019/03	1,044	4,282	32.4	132.8
	2 Seven Generations Enrg Lt	7GEN HZ KAKWA 3-31-63-5	Kakwa	Montney Formation	2019/02	938	3,190	29.3	99.4
	3 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 3-31-63-5	Kakwa	Montney Formation	2019/02	826	3,218	28.1	108.6
	4 Seven Generations Enrg Lt	7GEN HZ 103 KAKWA 2-31-63-5	Kakwa	Montney Formation	2019/02	678	2,095	31.0	90.2
	5 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	477	1,392	14.8	43.1
	6 Seven Generations Enrg Lt	7GEN HZ KAKWA 12-28-63-5	Kakwa	Montney Formation	2019/03	425	1,612	13.2	50.0
	7 Seven Generations Enrg Lt	7GEN HZ KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	424	1,732	13.1	53.7
	8 Seven Generations Enrg Lt	7GEN HZ KARR 12-25-63-3	Karr	Montney Formation	2019/01	418	3,034	61.7	194.0
	9 Seven Generations Enrg Lt	7GEN HZ KAKWA 13-28-63-5	Kakwa	Montney Formation	2019/03	341	1,414	10.6	43.8
•	10 Seven Generations Enrg Lt	7GEN HZ 102 KARR 1-19-63-3	Karr	Montney Formation	2019/03	306	451	9.5	14.0
•	11 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 13-28-63-5	Kakwa	Montney Formation	2019/03	285	1,088	8.8	33.7
	12 XTO Enrg Cda ULC	XTO HZ LATOR 4-32-62-2	Lator	Montney Formation	2019/02	284	1,973	10.6	73.9
•	13 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	271	1,126	8.4	34.9
3	14 Sitka Expl Ltd	SITKA EXPL 102 HZ GARR 1-17-35-4	Garrington	Ellerslie Member	2019/01	260	1,718	11.1	62.1
	15 Shell Cda Ltd	SCL HZ FC131B KAYBOB 7-6-64-19	Kaybob	<b>Duvernay Formation</b>	2019/03	220	631	6.8	19.6
P	16 Seven Generations Enrg Lt	7GEN HZ 103 KAKWA 15-18-63-3	Kakwa	Montney Formation	2019/03	215	427	6.7	13.2
	17 XTO Enrg Cda ULC	XTO D12 KAYBOBS 16-25-60-20	Kaybob South	<b>Duvernay Formation</b>	2019/02	187	1,304	6.1	42.5
	18 Chevron Cda Ltd	CHEVRON 103 HZ WAHIGAN 14-2-64-24	Waskahigan	<b>Duvernay Formation</b>	2019/03	184	191	5.7	5.9
7.	19 Peyto Expl&Dvlp Corp	PEYTO WILD RIV 2-8-56-24	Wild River	Cardium Formation	2019/03	182	1,406	5.6	43.6
2	20 Shell Cda Ltd	SCL HZ RMH91C WILLGR 3-10-41-7	Willesden Green	Duvernay Formation	2018/11	166	931	8.3	45.5

Source: geoSCOUT; Scotiabank GBM.

Exhibit 16: Top Alberta Wellhead Condensate Wells - Onstream in the Last Two Months (March 2019, Producing Day Rate)

		First						Production		
					Production	Hours	C5	Raw Gas	C5	Raw Gas
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	On-Stream	(bbl/d)	(mcf/d) <sup>4</sup>	(mbbl)	(mmcf) <sup>4</sup>
	1 Seven Generations Enrg Lt	7GEN HZ 102 KARR 1-19-63-3	Karr	Montney Formation	2019/03	151	3,019	2,222	9.5	14.0
2	2 Shell Cda Ltd	SCL HZ FC131B KAYBOB 7-6-64-19	Kaybob	<b>Duvernay Formation</b>	2019/03	139	2,353	3,376	6.8	19.6
3	3 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	335	2,118	3,090	14.8	43.1
2	4 Seven Generations Enrg Lt	7GEN HZ KAKWA 12-28-63-5	Kakwa	Montney Formation	2019/03	336	1,881	3,570	13.2	50.0
5	Seven Generations Enrg Lt	7GEN HZ KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	338	1,865	3,812	13.1	53.7
6	Seven Generations Enrg Lt	7GEN HZ KAKWA 13-28-63-5	Kakwa	Montney Formation	2019/03	291	1,743	3,616	10.6	43.8
7	7 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 13-28-63-5	Kakwa	Montney Formation	2019/03	245	1,731	3,303	8.8	33.7
8	8 Seven Generations Enrg Lt	7GEN HZ 103 KAKWA 15-18-63-3	Kakwa	Montney Formation	2019/03	187	1,712	1,697	6.7	13.2
ç	9 Chevron Cda Ltd	CHEVRON 103 HZ WAHIGAN 14-2-64-24	Waskahigan	<b>Duvernay Formation</b>	2019/03	183	1,498	775	5.7	5.9
1	0 Seven Generations Enrg Lt	7GEN HZ 102 KAKWA 11-28-63-5	Kakwa	Montney Formation	2019/03	297	1,357	2,820	8.4	34.9
1	1 XTO Enrg Cda ULC	XTO D12 KAYBOBS 16-25-60-20	Kaybob South	<b>Duvernay Formation</b>	2019/02	434	642	2,236	6.1	42.5
1	2 XTO Enrg Cda ULC	XTO D10 KAYBOBS 7-36-60-20	Kaybob South	<b>Duvernay Formation</b>	2019/03	259	567	1,548	3.1	16.7
1	3 XTO Enrg Cda ULC	XTO D13 KAYBOBS 4-31-60-19	Kaybob South	<b>Duvernay Formation</b>	2019/02	437	555	1,901	6.7	48.0
1	4 XTO Enrg Cda ULC	XTO D11 KAYBOBS 1-36-60-20	Kaybob South	<b>Duvernay Formation</b>	2019/03	261	433	1,067	2.4	11.6
1	5 XTO Enrg Cda ULC	XTO D14 KAYBOBS 4-19-60-19	Kaybob South	<b>Duvernay Formation</b>	2019/02	189	356	960	1.9	10.8
1	6 XTO Enrg Cda ULC	XTO D09 KAYBOBS 6-36-60-20	Kaybob South	<b>Duvernay Formation</b>	2019/03	237	334	300	1.7	3.0
1	7 Advantage O&G Ltd	AVN 102 HZ PCOUPES 13-8-76-12	Pouce Coupe South	Montney Formation	2019/03	144	188	2,978	0.6	17.9
1	8 Encana Corp	ECA HZ 102 WEMBLEY 12-13-72-9	Wembley	Montney Formation	2019/03	743	99	660	1.5	20.4
1	9 Bonavista Enrg Corp	BEC HZ GILBY 1-29-40-4	Gilby	Glauconitic Sandstone	2019/03	96	95	2,705	0.2	10.8
2	0 Peyto Expl&Dvlp Corp	PEYTO ANSELL 4-2-53-21	Ansell	Cardium Sandstone	2019/02	288	77	1,469	8.0	21.1



## Exhibit 17: Top Alberta Gas Wells - Onstream in the Last 12 Months (March 2019, Calendar Day Rate)

Production   Price   Production   Price   Production   Price   Production   Price   Production   Price   Production   Price					First	Calendar Day Rate <sup>1</sup>		Cumulative Production	
Control   Cont					Production	Raw Gas	Oil/C5	Raw Gas	Oil/C5
2   Tourmaline Oil Corp   TourmAll.NE Hz SUNDANCE 12-12-54-23   Sundance   Faiher Member   2018/10   16,165   0   1,878.6   0.0	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(mcf/d)4	(bbl/d)3	(mmcf) <sup>4</sup>	(mbbl) <sup>3</sup>
3 Jupiter Rarcs Inc   Jupiter Rarcs   Jupiter Rarcs   Smoky   Falher Member   2018/11   13,161   0 1,459   0.1     5 Jupiter Rarcs Inc   Jupiter Rarcs   Smoky   Falher Member   2018/11   13,161   0 1,469   0.1     5 Jupiter Rarcs   Smoky   Falher Member   2018/11   13,161   0 1,469   0.1     5 Jupiter Rarcs   Smoky   Falher Member   2018/11   12,642   1 1,468   0 0.1     6 Jupiter Rarcs   Smoky   Falher Member   2018/11   12,642   1 1,468   0 0.1     7 Fellatrik Expl Ltd   BELLATRIX UNNV WILLGR 3-26-44-7   Willedein Green   Notikewin Member   2018/11   12,387   0 1,405   0 0.0     9 Jupiter Rarcs Inc   Jupiter Rarcs   Jupiter Rarcs   Smoky   Falher Member   2018/11   12,387   0 1,405   0 0.0     9 Jupiter Rarcs   Jupiter Rarcs   Smoky   Falher Member   2018/11   12,092   0 1,685   1 0.0     10 Jupiter Rarcs   Jupiter Rarcs   Smoky   Falher Member   2018/11   12,092   0 1,685   1 0.0     11 Jupiter Rarcs   Smoky   Falher Member   2018/11   12,092   0 1,685   1 0.0     12 Jupiter Rarcs   Smoky   Falher Member   2018/11   12,092   0 1,685   1 0.0     13 Tournaline Oil Corp   TOURMALINE HZ LELAND 13-17-58-27   Leland   Wilrich Member   2018/02   11,602   0 424-3   0.0     13 Tournaline Oil Corp   TOURMALINE HZ LEPPERS 9-35-52-24   Undefined   Wilrich Member   2018/02   10,940   0 707.8   0.0     14 Tournaline Oil Corp   TOURMALINE HZ LEPPERS 9-35-52-24   Undefined   Wilrich Member   2018/02   10,940   0 707.8   0.0     15 Tournaline Oil Corp   TOURMALINE HZ LEMBERT EX-18-02   Undefined   Wilrich Member   2018/02   10,940   0 707.8   0.0     16 Tournaline Oil Corp   TOURMALINE HZ LEMBERT EX-18-02   Undefined   Wilrich Member   2018/08   9,973   0 1,800.5   0.0     17 Seven Generations Erng Lt   Seven Generations	1 Cdn Nat Rsrcs Ltd	CNRL HZ WAPITI 15-9-65-8	Wapiti	Falher Member	2018/07	16,630	0	2,624.3	0.7
4. Jupiter Rarcs Inc. Jupiter Ra	2 Tourmaline Oil Corp	TOURMALINE HZ SUNDANCE 12-12-54-23	Sundance	Falher Member	2019/01	16,416	0	1,478.6	0.0
5 Jupiter Risros Inc   JUPITER HZ SMOKY Y-122-59-1   Smoky Faiher Member   2018/11   12,682   1   1,468.0   0.1     7 Bellatrix Expl Ltd   BELLATRIX UMNV WILLOR 3-26-44-7   Willeaden Green   Notikewin Member   2018/11   12,387   0   1,405.6   0.0     9 Jupiter Risros Inc   JUPITER HZ SMOKY 4-34-59-1   Smoky Faiher Member   2018/11   12,082   0   1,665.1   0.0     9 Jupiter Risros Inc   JUPITER HZ SMOKY 4-34-59-1   Smoky Faiher Member   2018/11   12,092   0   1,665.1   0.0     10 Jupiter Risros Inc   JUPITER HZ SMOKY 4-32-259-1   Smoky Faiher Member   2018/11   11,092   0   1,665.1   0.0     11 Journaline Oil Corp   TOURMALINE HZ LELAND 13-17-58-27   Leland   Wilrich Member   2018/11   10,928   0   1,665.1   0.0     13 Tourmaline Oil Corp   TOURMALINE HZ LELAND 13-17-58-27   Leland   Wilrich Member   2018/11   10,928   0   1,682.1   0.0     14 Tourmaline Oil Corp   TOURMALINE HZ LEPPERES 9-35-52-24   Undefined   Wilrich Member   2018/01   10,940   0   707.8   0.0     15 TOURMALINE HZ LAMBERF 6-21-50-22   Undefined   Wilrich Member   2018/02   10,575   0   483.4   0.2     15 TO Enrg Cda ULC   TOURMALINE HZ LAMBERF 6-21-50-23   Kakwa   Monthey Formation   2018/09   9,973   0   1,800.5   0.0     16 Tourmaline Oil Corp   TOURMALINE HZ WILLOR HZ 2-45-6-6   Kakwa   Monthey Formation   2018/10   9,830   673   958.7   80.7     17 Seven Generations Enrg Lt   TGEN HZ KAKWA 12-18-4-6   Kakwa   Monthey Formation   2018/10   9,830   673   958.7   80.7     18 Seven Generations Enrg Lt   TGEN HZ KAKWA 13-18-3-5   Kakwa   Monthey Formation   2018/10   9,830   673   958.7   80.7     19 Seven Generations Enrg Lt   TGEN HZ KAKWA 13-18-3-5   Kakwa   Monthey Formation   2018/10   9,830   673   958.7   80.7     19 Seven Generations Enrg Lt   TGEN HZ KAKWA 13-18-3-5   Kakwa   Monthey Formation   2018/10   9,830   958.7   80.7     20 Seven Generations Enrg Lt   TGEN HZ KAKWA 13-18-3-5   Kakwa   Monthey Formation   2018/10   9,788   99.8   99.8   70.0   70.0   70.0   70.0   70.0   70.0   70.0   70.0   70.0   70.0   70.0   70.0   70.0	3 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 9-34-58-2	Smoky	Falher Member	2018/12	16,105	0	1,527.6	0.0
6 Jupifer Rarcs Inc JUPITER ET AL L/Z RESTHA 9-3-60-1 Resthaven Faiher Member 2018/07 12,440 0 3,527,8 0,0 Path Sellating Facility (1975) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 2-22-59-1	Smoky	Falher Member	2018/11	13,161	0	1,469.0	0.1
The Bellatrix Expl Ltd   Bellatrix LVMN VILLGR 3:26.44-7   Villesden Green   Notikewin Member   2018/11   12,387   0   1,405,6   0.0	5 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 1-22-59-1	Smoky	Falher Member	2018/11	12,642	1	1,468.0	0.1
8 Tourmaline Oil Corp JupiTER HZ SMOKY 4-34-59-1 Smoky Falher Member 2018/11 12,092 0 1,685 1 0.0 10 JupiTER HZ SMOKY 4-34-59-1 Smoky Falher Member 2019/01 11,749 0 765.1 0.0 11 Tourmaline Oil Corp TOURMALINE HZ LELAND 13-17-58-27 Leland Wilrich Member 2019/02 11,602 0 424.3 0.0 12 JupiTER HZ SMOKY 12-34-59-1 Smoky Falher Member 2019/02 11,602 0 424.3 0.0 12 JupiTER HZ SMOKY 12-34-59-1 Smoky Falher Member 2019/02 10,840 0 707.8 0.0 13 Tourmaline Oil Corp TOURMALINE HZ LELAND 13-17-58-27 Leland Wilrich Member 2019/02 10,840 0 707.8 0.0 14 Tourmaline Oil Corp TOURMALINE HZ LELAND 18-5-2-2 Lambert Cardium Sandstone 2019/02 10,840 0 707.8 0.0 15 XTO Erng Cda ULC XTO MH037/D03 KAKWA 12-36-61-3 Kakwa Montney Formation 2018/08 9,973 0 1,800.5 0.0 16 Tourmaline Oil Corp TOURMALINE HZ WILD RV 2-24-56-26 Wild River Falher Member 2019/02 10,840 0 707.8 0.0 17 Seven Generations Erng Lt 18 Seven Generations Erng Lt 19 Seven Generations Erng Lt 21 Advantage O&G Ltd AWN 102-18-16-16 XAKWA 14-12-64-6 Xakwa Montney Formation 2018/10 9,840 673 998.7 7GEN HZ KAKWA 14-12-64-6 Xakwa Montney Formation 2018/10 9,840 673 998.7 7GEN HZ KAKWA 14-12-64-6 Xakwa Montney Formation 2018/10 9,840 673 998.7 99.1 14 Jupiter Rarcs Inc JupiTER HZ SMOKY 10-34-58-2 Your All All All Septiment of the All Sept	6 Jupiter Rsrcs Inc	JUPITER ET AL HZ RESTHA 9-3-60-1	Resthaven	Falher Member	2018/07	12,440	0	3,527.6	0.0
9 Jupiter Rarcs Inc JUPITER HZ SMOKY 42-59-1 Smoky Falher Member 2019/01 11,749 0 1,665.1 0.0 1 Jupiter Rarcs Inc JUPITER HZ SMOKY 32-25-51 Smoky Falher Member 2019/02 11,602 0 424.3 0.0 1 Jupiter Rarcs Inc JUPITER HZ SMOKY 32-25-51 Smoky Falher Member 2019/02 11,602 0 424.3 0.0 1 Jupiter Rarcs Inc JUPITER HZ SMOKY 12-34-59-1 Smoky Falher Member 2018/11 10,928 0 1,582.1 0.0 1 Jupiter Rarcs Inc JUPITER HZ SMOKY 12-34-59-1 Smoky Falher Member 2018/11 10,928 0 1,582.1 0.0 1 Jupiter Rarcs Inc JUPITER HZ SMOKY 12-34-59-1 Smoky Falher Member 2018/11 10,928 0 1,582.1 0.0 1 Jupiter Rarcs Inc JUPITER HZ SMOKY 12-34-59-1 Smoky Falher Member 2018/11 10,928 0 1,582.1 0.0 1 Jupiter Rarcs Inc JUPITER HZ SMOKY 12-45-62 Wild River Falher Member 2019/02 10,575 0 483.4 0.2 Jupiter Rarcs Inc Ju	7 Bellatrix Expl Ltd	BELLATRIX UMNV WILLGR 3-26-44-7	Willesden Green	Notikewin Member	2018/11	12,387	0	1,405.6	0.0
10 Jupiter Rrcs Inc   JUPITER IZ SMOKY 3-22-59-1   Smoky   Falher Member   2019/01   11,749   0   765.1   0.0     11 Journaline Oil Corp   TOURNALINE HZ LELAND 13-17-58-27   Leland   Wilrich Member   2018/11   10,928   0   1,582.1   0.0     13 Tournaline Oil Corp   TOURNALINE HZ LERPEPERS 9-35-52-24   Undefined   Wilrich Member   2018/02   10,840   0   707.8   0.0     14 Tournaline Oil Corp   TOURNALINE HZ LEMBERT 6-21-50-22   Lambert   Cardium Sandstone   2019/02   10,575   0   483.4   0.2     15 XTO Erng Cda U.C   XTO Mi-1037003 KAKWA 12-36-61-3   Kakwa   Monthey Formation   2018/03   9,873   0   1,800.5   0.0     17 Seven Generations Erng Lt   TGEN HZ KAKWA 12-16-52-6   Wild River   Falher Member   2019/02   10,575   0   483.4   0.2     18 Seven Generations Erng Lt   TGEN HZ KAKWA 12-21-64-6   Kakwa   Monthey Formation   2018/10   9,840   673   955.7   80.7     19 Seven Generations Erng Lt   TGEN HZ KAKWA 14-12-64-6   Kakwa   Monthey Formation   2018/10   9,840   673   955.7   80.7     19 Seven Generations Erng Lt   TGEN HZ 103 KAKWA 14-12-64-6   Kakwa   Monthey Formation   2018/10   9,810   729   901.4   73.0     20 Seven Generations Erng Lt   TGEN HZ 103 KAKWA 14-12-64-6   Kakwa   Monthey Formation   2018/10   9,788   999   899   90.2     21 Advantage O&G Ltd   AWN 102 HZ VALHALLA 16-19-75-10   Valhalla   Doig Formation   2018/10   9,572   0   633.9   0.0     22 Advantage O&G Ltd   AWN 102 HZ VALHALLA 16-19-75-10   Valhalla   Doig Formation   2018/10   9,502   0   633.9   0.0     23 Seven Generations Erng Lt   TGEN HZ KAKWA 13-1-63-5   Kakwa   Monthey Formation   2018/10   9,502   0   633.9   0.0     24 Jupiter Rics Inc   JUPITER ET AL HZ RESTHA 8-3-60-1   Restaven   Falher Member   2018/10   9,459   1,061   836.9   98.5     25 Jupiter Rics Inc   JUPITER ET AL HZ RESTHA 8-3-60-1   Restaven   Falher Member   2018/10   9,459   1,061   836.9   98.5     26 Tournaline Oil Corp   TOURMALINE HZ LELAND 18-2-58-27   Leland   Mannthile Faller Member   2018/10   9,459   1,061   836.9   98.5   1,000   1,000   1,000	8 Tourmaline Oil Corp	TOURMALINE HZ SUNDANCE 8-24-54-24	Sundance	Spirit River Formation	2019/03	12,234	0	379.3	0.0
11 Tourmaline Oil Corp	9 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 4-34-59-1	Smoky	Falher Member	2018/11	12,092	0	1,665.1	0.0
12 Jupiter Rarcs Inc   JUPITER HZ SMOKY 12-34-59-1   Smoly   Falher Member   2018/11   10,928   0   1,582,1   0.0     13 Tourmaline Oil Corp   TOURMALINE HZ PEPPERS 9-35-52-24   Undefined   Wilrich Member   2019/02   10,840   0   707.8   0.0     14 Tourmaline Oil Corp   TOURMALINE HZ LAMBERT 6-21-50-22   Lambert   Cardium Sandstone   2019/02   10,840   0   707.8   0.0     15 XTO Enrg Cda ULC   XTO M-1037D03 KAKWA 12-36-61-3   Kakwa   Monthey Formation   2018/08   9,973   0   1,800.5   0.0     17 Seven Generations Enrg Lt   TOURMALINE HZ UNDE RIV-22-45-62-6   Wild River   Falher Member   2019/02   9,870   0   307.6   0.0     18 Seven Generations Enrg Lt   TOURMALINE HZ LAMBERT 6-21-50-5   Kakwa   Monthey Formation   2018/10   9,840   673   958.7   80.7     19 Seven Generations Enrg Lt   TOURMALINE HZ LAMBERT 6-21-64-6   Kakwa   Monthey Formation   2018/10   9,840   673   958.7   80.7     19 Seven Generations Enrg Lt   TOEN HZ KAKWA 14-12-64-6   Kakwa   Monthey Formation   2018/10   9,840   673   958.7   80.7     19 Seven Generations Enrg Lt   TOEN HZ LAMBERT 6-16-5   Kakwa   Monthey Formation   2018/10   9,840   673   958.7   80.7     19 Seven Generations Enrg Lt   TOEN HZ LAMBERT 6-16-5   Kakwa   Monthey Formation   2018/10   9,840   673   958.7   80.7     19 Seven Generations Enrg Lt   TOEN HZ LAMBERT 6-16-5   Kakwa   Monthey Formation   2018/10   9,840   673   958.7   80.7     19 Seven Generations Enrg Lt   TOEN HZ LAMBERT 6-18-6   Kakwa   Monthey Formation   2018/10   9,840   673   958.9   89.9   90.2     20 Seven Generations Enrg Lt   TOEN HZ LAMBERT 6-19-75-10   Valhalla   Doig Formation   2018/10   9,780   959   89.9   90.4     21 Advantage O&G Ltd   ANN 102 HZ VALHALLA 16-19-75-10   Valhalla   Doig Formation   2018/10   9,459   0.6   633.9   0.0     22 Seven Generations Enrg Lt   TOEN HZ KAKWA 13-16-5   Kakwa   Monthey Formation   2018/10   9,459   0.6   633.9   0.0     23 Seven Generations Enrg Lt   TOEN HZ KAKWA 13-16-5   Kakwa   Monthey Formation   2018/10   9,459   0.6   633.9   0.0     24 Seven Ge		JUPITER HZ SMOKY 3-22-59-1	Smoky	Falher Member	2019/01	11,749	0	765.1	0.0
13 Tourmaline Oil Corp TOURMALINE HZ PEPPERS 9-35-52-24 H2 Tourmaline Oil Corp TOURMALINE HZ LAWBERT 6-21-50-22 Lambert Cardium Sandstone 2019/02 10,575 0 483.4 0,2 15 XTO Enrg Cda ULC XTO MH037D03 KAKWA 12-36-61-3 Kakwa Montney Formation 17 Seven Generations Enrg Lt 18 Seven Generations Enrg Lt 19 AVAINAIRE HZ WILD RN 2-24-66-6 10 AVN 10-12 HZ VAKWA 12-164-6 10 AVN 10-12 HZ VAKWA 12-164-6 10 AVN 10-12 HZ VAKWA 12-164-6 10 AVN 10-12 HZ VAKWA 14-12-64-6 10 AVN 10-12 HZ VAKWA 14-16-15-10 10 AVN 10-12 HZ VAKWA 14-16-15-10 10 AVN 10-12 HZ VAKWA 14-16-16-12-15-10 10 AVN 10-12 HZ VAKWA 14-16-16-10 10 AVN 10-12 HZ VAKWA 14-16-	11 Tourmaline Oil Corp	TOURMALINE HZ LELAND 13-17-58-27	Leland	Wilrich Member	2019/02	11,602	0	424.3	0.0
13 Tourmaline Oil Corp	12 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 12-34-59-1	Smoky	Falher Member	2018/11	10,928	0	1,582,1	0.0
15 XTO Enrg Cda ULC   XTO MH037D03 KAKWA 12-36-61-3   Kakwa   Montney Formation   2018/08   9,973   0   1,800.5   0.0     16 Tourmaline Oil Corp   TOURMALINE HZ WILD RIV 2-24-56-26   Wild River   Falher Member   2019/02   9,870   0   307.6   0.0     17 Seven Generations Enrg Lt   TGEN HZ KAKWA 12-1-63-5   Kakwa   Montney Formation   2018/10   9,840   673   993.7   80.7     18 Seven Generations Enrg Lt   TGEN HZ KAKWA 12-1-63-5   Kakwa   Montney Formation   2018/10   9,840   673   993.7   80.7     18 Seven Generations Enrg Lt   TGEN HZ KAKWA 14-1-64-6   Kakwa   Montney Formation   2018/10   9,810   729   901.4   73.0     20 Seven Generations Enrg Lt   TGEN HZ 103 KAKWA 14-1-264-6   Kakwa   Montney Formation   2018/10   9,810   729   901.4   73.0     21 Advantage O&G Ltd   AVN 102 HZ VALHALLA 16-19-75-10   Valhalla   Doig Formation   2018/17   9,600   95   889.9   102.4     22 Advantage O&G Ltd   AVN PCOUPES 4-35-75-12   Pouce Coupe South   Doig Formation   2018/17   9,502   0   633.9   0.0     23 Seven Generations Enrg Lt   TGEN HZ KAKWA 13-1-63-5   Kakwa   Montney Formation   2018/17   9,502   0   633.9   0.0     24 Jupiter Rsrcs Inc   JUPITER ET AL HZ RESTHA 8-3-60-1   Kakwa   Montney Formation   2018/17   9,502   0   633.9   0.0     25 Jupiter Rsrcs Inc   JUPITER ET AL HZ RESTHA 8-3-60-1   Kakwa   Montney Formation   2018/17   9,502   0   633.9   0.0     26 Tourmaline Oil Corp   TOURMALINE HZ UELAND 9-21-58-27   Leland   Falher Member   2018/07   9,620   0   3,067.0   0.0     27 Tourmaline Oil Corp   TOURMALINE HZ WILD RIV 9-24-56-26   Wild River   Falher Member   2018/10   9,145   0   283.5   0.0     28 Westbrick Enrg Ltd   WESTBRICK 102 HZ PEMBINA 16-26-44-11   WIId River   Falher Member   2018/11   9,018   0   1,011.0   0.0     29 Tourmaline Oil Corp   TOURMALINE HZ UELAND 16-21-58-27   Leland   Mannville Group   2019/02   8,801   0   338.0   0.0     30 Tourmaline Oil Corp   TOURMALINE HZ UELAND 16-22-58-27   Leland   Mannville Group   2019/02   8,801   0   338.0   0.0     30 Tourmaline Oil Corp   TOURMA	13 Tourmaline Oil Corp			Wilrich Member	2019/02		0	707.8	0.0
15 XTO Enrg Cda ULC   XTO MH037D03 KAKWA 12-36-61-3   Kakwa   Montney Formation   2018/08   9,973   0   1,800.5   0.0     16 Tourmaline Oil Corp   TOURMALINE HZ WILD RIV 2-24-56-26   Wild River   Falher Member   2019/02   9,870   0   307.6   0.0     17 Seven Generations Enrg Lt   TGEN HZ KAKWA 12-1-63-5   Kakwa   Montney Formation   2018/10   9,840   673   993.7   80.7     18 Seven Generations Enrg Lt   TGEN HZ KAKWA 12-1-63-5   Kakwa   Montney Formation   2018/10   9,840   673   993.7   80.7     18 Seven Generations Enrg Lt   TGEN HZ KAKWA 14-1-64-6   Kakwa   Montney Formation   2018/10   9,810   729   901.4   73.0     20 Seven Generations Enrg Lt   TGEN HZ 103 KAKWA 14-1-264-6   Kakwa   Montney Formation   2018/10   9,810   729   901.4   73.0     21 Advantage O&G Ltd   AVN 102 HZ VALHALLA 16-19-75-10   Valhalla   Doig Formation   2018/17   9,600   95   889.9   102.4     22 Advantage O&G Ltd   AVN PCOUPES 4-35-75-12   Pouce Coupe South   Doig Formation   2018/17   9,502   0   633.9   0.0     23 Seven Generations Enrg Lt   TGEN HZ KAKWA 13-1-63-5   Kakwa   Montney Formation   2018/17   9,502   0   633.9   0.0     24 Jupiter Rsrcs Inc   JUPITER ET AL HZ RESTHA 8-3-60-1   Kakwa   Montney Formation   2018/17   9,502   0   633.9   0.0     25 Jupiter Rsrcs Inc   JUPITER ET AL HZ RESTHA 8-3-60-1   Kakwa   Montney Formation   2018/17   9,502   0   633.9   0.0     26 Tourmaline Oil Corp   TOURMALINE HZ UELAND 9-21-58-27   Leland   Falher Member   2018/07   9,620   0   3,067.0   0.0     27 Tourmaline Oil Corp   TOURMALINE HZ WILD RIV 9-24-56-26   Wild River   Falher Member   2018/10   9,145   0   283.5   0.0     28 Westbrick Enrg Ltd   WESTBRICK 102 HZ PEMBINA 16-26-44-11   WIId River   Falher Member   2018/11   9,018   0   1,011.0   0.0     29 Tourmaline Oil Corp   TOURMALINE HZ UELAND 16-21-58-27   Leland   Mannville Group   2019/02   8,801   0   338.0   0.0     30 Tourmaline Oil Corp   TOURMALINE HZ UELAND 16-22-58-27   Leland   Mannville Group   2019/02   8,801   0   338.0   0.0     30 Tourmaline Oil Corp   TOURMA	14 Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 6-21-50-22	Lambert	Cardium Sandstone	2019/02	. 10,575	0	483.4	0.2
17 Seven Generations Enrg Lt   7GEN HZ KAKWA 12-21-84-6   Kakwa   Montney Formation   2018/10   9,840   673   958.7   80.7			Kakwa	Montney Formation			0	1,800.5	0.0
18 Seven Generations Enrg Lt 7GEN HZ KAKWA 12-1-63-5 Kakwa Montney Formation 2018/10 9,832 948 865.0 92.7 19 Seven Generations Enrg Lt 7GEN HZ 103 KAKWA 14-12-64-6 Kakwa Montney Formation 2018/10 9,810 729 901.4 773.0 20 Seven Generations Enrg Lt 7GEN HZ 103 KAKWA 14-12-64-6 Kakwa Montney Formation 2018/10 9,810 959 889.9 102.4 21 Advantage 0.8G Ltd AWN 102 HZ VALHALLA 16-19-75-10 Valhalla Doig Formation 2018/10 9,640 95 1,291.7 8.9 22 Advantage 0.8G Ltd AWN 102 HZ VALHALLA 16-19-75-10 Valhalla Doig Formation 2018/10 9,640 95 1,291.7 8.9 23 Seven Generations Enrg Lt 7GEN HZ KAKWA 13-1-63-5 Kakwa Montney Formation 2018/10 9,459 1,061 836.9 98.5 24 Jupiter Rsrcs Inc JUPITER ET AL HZ RESTHA 8-3-60-1 Resthaven Falher Member 2018/10 9,459 1,061 836.9 98.5 24 Jupiter Rsrcs Inc JUPITER HZ SMOKY 10-34-58-2 Smoky Falher Member 2018/10 9,459 1,061 836.9 98.5 24 Jupiter Rsrcs Inc JUPITER HZ SMOKY 10-34-58-2 Smoky Falher Member 2018/10 9,459 1,061 836.9 98.5 24 Jupiter Rsrcs Inc JUPITER HZ SMOKY 10-34-58-2 Smoky Falher Member 2018/10 9,459 1,061 836.9 98.5 24 Jupiter Rsrcs Inc JUPITER HZ SMOKY 13-45-8-2 Smoky Falher Member 2018/12 9,166 0 1,463.4 0.0 26 Tourmaline Oil Corp TOURMALINE HZ LELAND 9-21-58-27 Leland Falher Member 2019/03 9,145 0 283.5 0.0 27 Tourmaline Oil Corp TOURMALINE HZ LELAND 13-20-60-26 Leland Wilrich Member 2018/11 9,018 0 1,011.0 0.0 29 Tourmaline Oil Corp TOURMALINE HZ LELAND 13-20-60-26 Leland Wilrich Member 2019/02 8,801 10 338.0 0.0 338.0 0.0 31 Bonavista Enrig Corp BEC HZ FBANK 13-2-44-28 Ferrybank Falher Member 2019/02 8,607 17 465.8 1.2 23 Jupiter Rsrcs Inc JUPITER HZ SMOKY 13-34-59-1 Smoky Falher Member 2018/11 8,572 0 1,395.0 0.0 34 Advantage 0&G Ltd AVN 102 HZ SINCLAIR 9-34-75-12 Sinclair Doig Formation 2018/10 8,335 0 1,013.5 0.0 35 Tourmaline Oil Corp TOURMALINE HZ LELAND 16-2-61-3 Kakwa Montney Formation 2018/10 8,335 0 1,035.5 0.2 37 Tourmaline Oil Corp TOURMALINE HZ DA 8-29-48-19 Minehead Notikewin Member 2019/02 8,311 0 419-7 0.0 37 Tourmaline Oil Corp TOURMALINE HZ SUNDANCE 3-25-54-23	16 Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 2-24-56-26	Wild River	Falher Member	2019/02	9,870	0	307.6	0.0
18 Seven Generations Enrg Lt 7GEN HZ KAKWA 12-1-63-5 Kakwa Montney Formation 2018/10 9,832 948 865.0 92.7 19 Seven Generations Enrg Lt 7GEN HZ 103 KAKWA 14-12-64-6 Kakwa Montney Formation 2018/10 9,810 729 901.4 73.0 20 Seven Generations Enrg Lt 7GEN HZ 103 KAKWA 14-12-64-6 Kakwa Montney Formation 2018/10 9,810 729 901.4 73.0 20 Seven Generations Enrg Lt 7GEN HZ 103 KAKWA 14-12-64-6 Kakwa Montney Formation 2018/10 9,810 729 901.4 73.0 24.4 21 Advantage 0&G Ltd AVN 102 HZ VALHALLA 16-19-75-10 Valhalla Doig Formation 2018/10 9,640 95 1,291.7 8.9 24.4 24.4 24.4 25.5 25.2 24.4 25.5 25.2 25.2	17 Seven Generations Enro Lt	7GEN HZ KAKWA 12-21-64-6	Kakwa	Montney Formation	2018/10	9,840	673	958.7	80.7
19 Seven Generations Enrg Lt 7GEN HZ 103 KAKWA 14-12-64-6 Kakwa Montney Formation 2018/10 9,810 729 901.4 73.0 20 Seven Generations Enrg Lt 7GEN HZ 102 KAKWA 13-21-64-6 Kakwa Montney Formation 2018/10 9,788 959 889.9 102.4 21 Advantage O&G Ltd A/N 102 HZ VALHALLA 16-19-75-10 Valhalla Doig Formation 2018/10 9,640 95 1,291.7 8.9 22 Advantage O&G Ltd A/N PCOUPES 4-35-75-12 Pouce Coupe South Doig Formation 2018/12 9,502 0 633.9 0.0 23 Seven Generations Enrg Lt 24 Jupiter Rsrcs Inc JUPITER ET AL HZ RESTHA 8-3-60-1 Resthaven Falher Member 2018/10 9,459 1,061 836.9 98.5 24 Jupiter Rsrcs Inc JUPITER ET AL HZ RESTHA 8-3-60-1 Resthaven Falher Member 2018/10 9,146 0 3,067.0 0.0 25 Jupiter Rsrcs Inc JUPITER HZ SMOKY 10-34-58-2 Leland Falher Member 2018/07 9,262 0 3,067.0 0.0 27 Tourmaline Oil Corp TOURMALINE HZ LELAND 9-21-58-27 Leland Falher Member 2019/03 9,145 0 283.5 0.0 27 Tourmaline Oil Corp TOURMALINE HZ ELELAND 18-20-60-26 Leland Wilrich Member 2019/02 9,131 1 283.6 0.0 29 Tourmaline Oil Corp TOURMALINE HZ LELAND 18-20-60-26 Leland Wilrich Member 2019/02 8,801 0 338.0 0.0 30 Tourmaline Oil Corp TOURMALINE HZ LELAND 18-20-60-26 Leland Wilrich Member 2019/02 8,801 0 338.0 0.0 31 Bonavista Enrg Corp BEC HZ FBAKK 13-2-44-28 Ferrybank Falher Member 2019/02 8,607 17 465.8 1.2 32 Jupiter Rsrcs Inc JUPITER HZ SMOKY 13-34-59-1 Smoky Falher Member 2018/12 8,343 1 405.6 0.0 33 Kakwa Montney Formation 2018/12 8,343 1 405.6 0.0 35 Tourmaline Oil Corp TOURMALINE DOIL RN 2-2-61-3 Kakwa Montney Formation 2018/12 8,343 1 405.6 0.0 35 Tourmaline Oil Corp TOURMALINE DOIL RN 2-2-45-24 Sinclair Doig Formation 2018/12 8,343 1 405.6 0.0 37 Tourmaline Oil Corp TOURMALINE DOIL RN 2-2-45-24 Sinclair Doig Formation 2018/12 8,343 1 405.6 0.0 35 Tourmaline Oil Corp TOURMALINE DOIL RN 2-2-45-24 Sinclair Doig Formation 2018/12 8,343 1 405.6 0.0 37 Tourmaline Oil Corp TOURMALINE DOIL RN 2-2-45-24 Sinclair Doig Formation 2018/12 8,343 1 405.6 0.0 37 Tourmaline Oil Corp TOURMALINE DOIL RN 2-2-4-52-4 Sinclair Doig Formation 2018/10 8,335 0 1,337.6 0		7GEN HZ KAKWA 12-1-63-5	Kakwa		2018/10		948	865.0	92.7
20 Seven Generations Enrg Lt 7GEN HZ 102 KAKWA 13-21-64-6 Kakwa Montney Formation Doig Formation Doig Formation 2018/10 9,788 959 889.9 102.4 21 Advantage O&G Ltd AVN 102 HZ VALHALLA 16-19-75-10 Valhalla Doig Formation 2018/07 9,640 95 1,291.7 8.9 1,22 Advantage O&G Ltd AVN PCOUPES 4-35-75-12 Pouce Coupe South Doig Formation 2018/10 9,459 1,061 836.9 9.5 1,291.7 8.9 1,061 836.9 98.5 1,061 836.9 1,061 836.9 1,061 836.9 1,061 836.9 1,061 836.9 1,061 836.9 1,061 836.9 1,061 836.9		7GEN HZ 103 KAKWA 14-12-64-6	Kakwa		2018/10	9.00	729	901.4	73.0
21 Advantage O&G Ltd			Kakwa				959	889.9	102.4
22 Advantage O&G Ltd			Valhalla		2018/07		95	1,291.7	8.9
23 Seven Generations Enrg Lt 7GEN HZ KAKWA 13-1-63-5 Kakwa Montney Formation 2018/10 9,459 1,061 836.9 98.5 24 Jupiter Rsrcs Inc JUPITER ET AL HZ RESTHA 8-3-60-1 Resthaven Falher Member 2018/07 9,262 0 3,067-0 0.0 25 Jupiter Rsrcs Inc JUPITER HZ SMOKPY 10-34-58-2 Smoky Falher Member 2018/07 9,262 0 1,463.4 0.0 26 Tourmaline Oil Corp TOURMALINE HZ LELAND 9-21-58-27 Leland Falher Member 2019/03 9,145 0 283.5 0.0 27 Tourmaline Oil Corp TOURMALINE HZ WILD RIV 9-24-56-26 Wild River Falher Member 2019/02 9,131 1 283.6 0.0 28 Westbrick Enrg Ltd WESTBRICK 102 HZ PEMBINA 16-26-44-11 Pembina Wilrich Member 2018/01 9,018 0 1,011.0 0.0 29 Tourmaline Oil Corp TOURMALINE HZ LELAND 13-20-60-26 Leland Wilrich Member 2019/02 8,801 0 338.0 0.0 30 Tourmaline Oil Corp TOURMALINE HZ LELAND 16-21-58-27 Leland Mannville Group 2019/03 8,792 0 272.6 0.0 31 Bonavista Enrg Corp BEC HZ FBANK 13-2-44-28 Ferrybank Falher Member 2019/02 8,607 17 465.8 1.2 Jupiter Rsrcs Inc JUPITER HZ SMOKY 13-34-59-1 Smoky Falher Member 2018/01 8,572 0 1,395.0 0.0 33 XTO Enrg Cda ULC XTO MH037D02 KAKWA 16-2-61-3 Kakwa Montney Formation 2018/08 8,401 0 1,013.6 0.0 34 Advantage O&G Ltd AVN 102 HZ SINCLAIR 9-34-75-12 Sinclair Doig Formation 2018/08 8,401 0 1,013.6 0.0 35 Tourmaline Oil Corp TOURMALINE DE LZ MINEHEAD 8-29-48-19 Minehead Notikewin Member 2018/10 8,335 0 1,305.5 0.2 36 Tourmaline Oil Corp TOURMALINE DE LZ MINEHEAD 8-29-48-19 Minehead Notikewin Member 2018/10 8,335 0 1,305.5 0.2 36 Tourmaline Oil Corp TOURMALINE DE LZ MINEHEAD 8-29-5-24 Wild River Notikewin Member 2018/10 8,335 0 1,305.5 0.2 37 Tourmaline Oil Corp TOURMALINE DE LZ MINEHEAD 8-29-5-24 Wild River Notikewin Member 2018/10 8,300 0 1,337.6 0.1 37 Tourmaline Oil Corp TOURMALINE DE LZ MINEHEAD 8-29-5-24 Wild River Notikewin Member 2018/12 8,300 0 1,337.6 0.1 37 Tourmaline Oil Corp TOURMALINE DE LZ MINEHEAD 8-29-5-24 Wild River Notikewin Member 2018/10 8,239 526 845.3 63.8 40 Jupiter Rsrcs Inc JUPITER ET AL 103 HZ RESTHA 1-3-60-1 Resthaven Falher Member 2018/07 8,216 0 0 3,096.6 0.0		AVN PCOUPES 4-35-75-12	Pouce Coupe South		2018/12	9,502	0	633.9	0.0
24 Jupiter Rsrcs Inc 25 Jupiter Rsrcs Inc 25 Jupiter Rsrcs Inc 26 Tourmaline Oil Corp 27 Tourmaline Oil Corp 28 Westbrick Enrg Ltd 29 Westbrick Enrg Ltd 29 Tourmaline Oil Corp 30 Tourmaline Oil Corp 31 Bonavista Enrg Corp 32 Jupiter Rsrcs Inc 32 Jupiter Rsrcs Inc 33 Jupiter Rsrcs Inc 34 Advantage O&G Ltd 34 ANY 102 Jtz SINCLAIR 9-34-75-12 36 Tourmaline Oil Corp 37 Tourmaline Oil Corp 38 Tourmaline Oil Corp 40 Tourmaline Oil Corp 50 Tourmaline Oil Corp 50 Tourmaline Oil Corp 50 Tourmaline Oil Corp 50 Tourmaline Oil Corp 60 BEC HZ FBANK 13-2-44-28 60 Ferrybank 61 Falher Member 61 Supiter Rsrcs Inc 61 Supiter Rsrcs Inc 70 Jupiter Rsrcs Inc 70 MH037D02 KAKWA 16-2-61-3 70 Kakwa 70 Jupiter Rsrcs Inc 70 Jupi							1.061	836.9	98.5
25 Jupiter Rsrcs Inc 26 Tourmaline Oil Corp 27 Tourmaline Oil Corp 28 Westbrick Enrg Ltd WeSTBRICK 102 HZ PEMBINA 16-26-44-11 Pembina Wilrich Member 2019/03 Wilrich Member 2018/11 Wil								3.067.0	
26 Tourmaline Oil Corp TOURMALINE HZ LELAND 9-21-58-27 Leland Falher Member 2019/03 9,145 0 283.5 0.0 27 Tourmaline Oil Corp TOURMALINE HZ WILD RIV 9-24-56-26 Wild River Reflier Member 2019/02 9,131 1 283.6 0.0 28 Westbrick Enrg Ltd WESTBRICK 102 HZ PEMBINA 16-26-44-11 Pembina Wilrich Member 2018/11 9,018 0 1,011.0 0.0 28 Tourmaline Oil Corp TOURMALINE HZ LELAND 13-20-60-26 Leland Wilrich Member 2018/11 9,018 0 1,011.0 0.0 28 Westbrick Enrg Ltd WESTBRICK 102 HZ PEMBINA 16-26-44-11 Pembina Wilrich Member 2018/11 9,018 0 1,011.0 0.0 0 30 Tourmaline Oil Corp TOURMALINE HZ LELAND 16-21-58-27 Leland Mannville Group 2019/03 8,792 0 272.6 0.0 31 Bonavista Enrg Corp BEC HZ FBANK 13-2-44-28 Ferrybank Falher Member 2019/02 8,801 17 465.8 1.2 32 Jupiter Rsrcs Inc JUPITER HZ SMOKY 13-34-59-1 Smoky Falher Member 2018/11 8,572 0 1,395.0 0.0 33 XTO Enrg Cda ULC XTO MH037D02 KAKWA 16-2-61-3 Kakwa Montney Formation 30 Tourmaline Oil Corp TOURMALINE 02 HZ MINEHEAD 8-29-48-19 Minehead Notikewin Member 2018/12 8,343 1 405.6 0.0 35 Tourmaline Oil Corp TOURMALINE D2 HZ MINEHEAD 8-29-48-19 Minehead Notikewin Member 2018/10 8,335 0 1,305.5 0.2 36 Tourmaline Oil Corp TOURMALINE HZ SUNDANCE 3-25-54-23 Sundance Notikewin Member 2018/12 8,380 0 1,337.6 0.1 38 Triple 5 Intcntf Grp Ltd T5 ENERGY FERRIER 3-7-43-9 Ferrier Falher Member 2018/12 8,284 46 758.4 4.0 39 Seven Generations Enrg Lt 7GEN HZ KAKWA 14-12-64-6 Kakwa Montney Formation Falher Member 2018/10 8,329 526 845.3 63.8 40 Jupiter Rsrcs Inc							0		
27 Tourmaline Oil Corp         TOURMALINE HZ WILD RIV 9-24-56-26         Wild River         Falher Member         2019/02         9,131         1         283.6         0.0           28 Westbrick Enrg Ltd         WESTBRICK 102 HZ PEMBINA 16-26-44-11         Pembina         Wilrich Member         2018/11         9,018         0         1,011.0         0.0           29 Tourmaline Oil Corp         TOURMALINE HZ LELAND 13-20-60-26         Leland         Wilrich Member         2019/02         8,801         0         338.0         0.0           30 Tourmaline Oil Corp         TOURMALINE HZ LELAND 16-21-58-27         Leland         Minchiel Group         2019/02         8,801         0         338.0         0.0           31 Bonavista Enrg Corp         BEC HZ FBANK 13-2-44-28         Ferrybank         Falher Member         2019/02         8,607         17         465.8         1.2           32 Jupiter Rercs Inc         JUPITER HZ SMOKY 13-34-59-1         Smoky         Falher Member         2018/11         8,572         0         1,395.0         0.0           33 XTO Enrg Cda ULC         XTO MH037D02 KAKWA 16-2-61-3         Kakwa         Monthey Formation         2018/08         8,401         0         1,013.6         0.0           34 Advantage O&G Ltd         AVN 102 HZ MINEHEAD 8-29-48-19         Minehead <td>the second secon</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td>	the second secon						0		
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31 Bonavista Enrg Corp  BEC HZ FBANK 13-2-44-28  Ferrybank  Falher Member  2019/02  8,607  17 465.8  1.2  32 Jupiter Rsrcs Inc  JUPITER HZ SMOKY 13-34-59-1  Smoky  Falher Member  2018/11  8,572  0 1,395.0  0.0  33 XTO Enrg Cda ULC  XTO MH037D02 KAKWA 16-2-61-3  Kakwa  Montney Formation  2018/08  8,401  0 1,013.6  0.0  34 Advantage O&G Ltd  AVN 102 HZ SINCLAIR 9-34-75-12  Sinclair  Doig Formation  2018/12  8,343  1 405.6  0.0  35 Tourmaline Oil Corp  TOURMALINE 02 HZ MINEHEAD 8-29-48-19  Minehead  Notikewin Member  2018/10  36 Tourmaline Oil Corp  TOURMALINE HZ 104 WILD RIV 2-24-55-24  Wild River  Notikewin Member  2018/12  8,300  0 1,337.6  0.1  37 Tourmaline Oil Corp  TOURMALINE HZ SUNDANCE 3-25-54-23  Sundance  Notikewin Member  2018/12  8,300  0 1,337.6  0.1  38 Triple 5 Intcntl Grp Ltd  T5 ENERGY FERRIER 3-7-43-9  Ferrier  Falher Member  2018/10  8,284  46  758.4  4.0  39 Seven Generations Enrg Lt  7GEN HZ KAKWA 14-12-64-6  Kakwa  Montney Formation  Falher Member  2018/10  8,239  526  845.3  63.8  40 Jupiter Rsrcs Inc  JUPITER ET AL 103 HZ RESTHA 1-3-60-1  Resthaven  Falher Member  2018/10  8,607  17  465.8  1.2  1.2  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.2  1.3  1.3	THE STATE OF THE S					120100000000000000000000000000000000000			
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34 Advantage O&G Ltd       AVN 102 HZ SINCLAIR 9-34-75-12       Sinclair       Doig Formation       2018/12       8,343       1       405.6       0.0         35 Tourmaline Oil Corp       TOURMALINE 02 HZ MINEHEAD 8-29-48-19       Minehead       Notikewin Member       2018/10       8,335       0       1,305.5       0.2         36 Tourmaline Oil Corp       TOURMALINE HZ104 WILD RIV 2-24-55-24       Wild River       Notikewin Member       2019/02       8,311       0       419.7       0.0         37 Tourmaline Oil Corp       TOURMALINE HZ SUNDANCE 3-25-54-23       Sundance       Notikewin Member       2018/12       8,300       0       1,337.6       0.1         38 Triple 5 Intcntl Grp Ltd       T5 ENERGY FERRIER 3-7-43-9       Ferrier       Falher Member       2018/12       8,284       46       758.4       4.0         39 Seven Generations Enrg Lt       7GEN HZ KAKWA 14-12-64-6       Kakwa       Monthey Formation       2018/10       8,239       526       845.3       63.8         40 Jupiter Rsrcs Inc       JUPITER ET AL 103 HZ RESTHA 1-3-60-1       Resthaven       Falher Member       2018/07       8,216       0       3,096.6       0.0									
35 Tourmaline Oil Corp TOURMALINE 02 HZ MINEHEAD 8-29-48-19 Minehead Notikewin Member 2018/10 8,335 0 1,305.5 0.2 36 Tourmaline Oil Corp TOURMALINE HZ104 WILD RIV 2-24-55-24 Wild River Notikewin Member 2019/02 8,311 0 419.7 0.0 37 Tourmaline Oil Corp TOURMALINE HZ SUNDANCE 3-25-54-23 Sundance Notikewin Member 2018/12 8,300 0 1,337.6 0.1 38 Triple 5 Intcntl Grp Ltd T5 ENERGY FERRIER 3-7-43-9 Ferrier Falher Member 2018/12 8,284 46 758.4 4.0 39 Seven Generations Enrg Lt 7GEN HZ KAKWA 14-12-64-6 Kakwa Montney Formation 2018/10 8,239 526 845.3 63.8 40 Jupiter Rsrcs Inc JUPITER ET AL 103 HZ RESTHA 1-3-60-1 Resthaven Falher Member 2018/07 8,216 0 3,096.6 0.0									
36 Tourmaline Oil Corp       TOURMALINE HZ104 WILD RIV 2-24-55-24       Wild River       Notikewin Member       2019/02       8,311       0       419.7       0.0         37 Tourmaline Oil Corp       TOURMALINE HZ SUNDANCE 3-25-54-23       Sundance       Notikewin Member       2018/12       8,300       0       1,337.6       0.1         38 Triple 5 Intcntl Grp Ltd       T5 ENERGY FERRIER 3-7-43-9       Ferrier       Falher Member       2018/12       8,284       46       758.4       4.0         39 Seven Generations Enrg Lt       7GEN HZ KAKWA 14-12-64-6       Kakwa       Montney Formation       2018/10       8,239       526       845.3       63.8         40 Jupiter Rsrcs Inc       JUPITER ET AL 103 HZ RESTHA 1-3-60-1       Resthaven       Falher Member       2018/07       8,216       0       3,096.6       0.0		STATE OF THE PERSON NAMED AND PARTY OF THE P					1.0		
37 Tourmaline Oil Corp       TOURMALINE HZ SUNDANCE 3-25-54-23       Sundance       Notikewin Member       2018/12       8,300       0       1,337.6       0.1         38 Triple 5 Intcntl Grp Ltd       T5 ENERGY FERRIER 3-7-43-9       Ferrier       Falher Member       2018/12       8,284       46       758.4       4.0         39 Seven Generations Enrg Lt       7GEN HZ KAKWA 14-12-64-6       Kakwa       Montney Formation       2018/10       8,239       526       845.3       63.8         40 Jupiter Rsrcs Inc       JUPITER ET AL 103 HZ RESTHA 1-3-60-1       Resthaven       Falher Member       2018/07       8,216       0       3,096.6       0.0									
38 Triple 5 IntentI Grp Ltd       T5 ENERGY FERRIER 3-7-43-9       Ferrier       Falher Member       2018/12       8,284       46       758.4       4.0         39 Seven Generations Enrg Lt       7GEN HZ KAKWA 14-12-64-6       Kakwa       Monthey Formation       2018/10       8,239       526       845.3       63.8         40 Jupiter Rsrcs Inc       JUPITER ET AL 103 HZ RESTHA 1-3-60-1       Resthaven       Falher Member       2018/07       8,216       0       3,096.6       0.0			No. 500 Annual Control Control						
39 Seven Generations Enrg Lt         7GEN HZ KAKWA 14-12-64-6         Kakwa         Montney Formation         2018/10         8,239         526         845.3         63.8           40 Jupiter Rsrcs Inc         JUPITER ET AL 103 HZ RESTHA 1-3-60-1         Resthaven         Falher Member         2018/07         8,216         0         3,096.6         0.0	100			3.50.00.00.00.00.00.00.00.00					
40 Jupiter Rsrcs Inc									
Source: neoSCOLIT: Scotiabank GBM			1 COURT OF THE PROPERTY OF THE	. G. IGI WEITIDEI	2010/01	0,210	•	0,000.0	0.0



Exhibit 18: Top Alberta Gas Wells - Onstream in the Last Two Months (March 2019, Calendar Day Rate)

	•	*	First			Calendar I	Day Rate <sup>1</sup>	<b>Cumulative Production</b>	
					Production	Raw Gas	Oil/C5	Raw Gas	Oil/C5
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(mcf/d) <sup>4</sup>	(bbl/d) <sup>3</sup>	(mmcf) <sup>4</sup>	(mbbl) <sup>3</sup>
1	Tourmaline Oil Corp	TOURMALINE HZ SUNDANCE 12-12-54-23	Sundance	Falher Member	2019/01	16,416	0	. 1,478.6	0.0
2	Tourmaline Oil Corp	TOURMALINE HZ SUNDANCE 8-24-54-24	Sundance	Spirit River Formation	2019/03	12,234	0	379.3	0.0
3	Tourmaline Oil Corp	TOURMALINE HZ LELAND 13-17-58-27	Leland	Wilrich Member	2019/02	11,602	0	424.3	0.0
4	Tourmaline Oil Corp	TOURMALINE HZ PEPPERS 9-35-52-24	Undefined	Wilrich Member	2019/02	10,840	0	707.8	0.0
5	Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 6-21-50-22	Lambert	Cardium Sandstone	2019/02	10,575	0	483.4	0.2
6	Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 2-24-56-26	Wild River	Falher Member	2019/02	9,870	0	307.6	0.0
7	Tourmaline Oil Corp	TOURMALINE HZ LELAND 9-21-58-27	Leland	Falher Member	2019/03	9,145	0	283.5	0.0
8	Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 9-24-56-26	Wild River	Falher Member	2019/02	9,131	1	283.6	0.0
9	Tourmaline Oil Corp	TOURMALINE HZ LELAND 13-20-60-26	Leland	Wilrich Member	2019/02	8,801	.0	338.0	0.0
10	Tourmaline Oil Corp	TOURMALINE HZ LELAND 16-21-58-27	Leland	Mannville Group	2019/03	8,792	0	272.6	0.0
11	Bonavista Enrg Corp	BEC HZ FBANK 13-2-44-28	Ferrybank	Falher Member	2019/02	8,607	17	465.8	1.2
12	2 Tourmaline Oil Corp	TOURMALINE HZ104 WILD RIV 2-24-55-24	Wild River	Notikewin Member	2019/02	8,311	0	419.7	0.0
13	3 Tourmaline Oil Corp	TOURMALINE LAMBERT 3-29-50-22	Lambert	Cardium Sandstone	2019/02	8,117	0	370.3	0.0
14	1 Tourmaline Oil Corp	TOURMALINE HZ LAMBERT 2-29-50-22	Lambert	Cardium Formation	2019/03	7,871	14	244.0	0.4
15	Jupiter Rsrcs Inc	JUPITER HZ SMOKY 4-22-59-1	Smoky	Falher Member	2019/02	7,474	0	576.3	0.1
16	Kicking Horse O&G Ltd	KCK 4-5 HZ KAKWA 1-4-64-6	Kakwa	Montney Formation	2018/11	7,452	0	333.0	4.4
17	7 Tourmaline Oil Corp	TOURMALINE HZ LELAND 12-17-58-27	Leland	Wilrich Member	2019/02	7,373	0	276.3	0.0
18	3 Tourmaline Oil Corp	TOURMALINE HZ102 SUNDANCE 1-10-54-23	Sundance	Falher Member	2019/01	7,315	0	751.4	0.0
19	Bellatrix Expl Ltd	BELLATRIX UMNV FERRIER 2-35-44-10	Ferrier	Notikewin Member	2019/02	7,100	1	260.4	0.0
20	Tourmaline Oil Corp	TOURMALINE HZ 102 LELAND 12-20-60-26	Leland	Wilrich Member	2019/02	7,026	0	288.0	0.0

Source: geoSCOUT; Scotiabank GBM.

Exhibit 19: Top Alberta Gas Wells - Onstream in the Last Two Months (March 2019, Producing Day Rate)

					riist		Producing Day Rates		Cumulative Production	
		, ×			Production	Hours	Raw Gas	Oil/C5	Raw Gas	Oil/C5
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	On-Stream	(mcf/d) <sup>4</sup>	(bbl/d)3	(mmcf) <sup>4</sup>	(mbbl) <sup>3</sup>
1	Tourmaline Oil Corp	TOURMALINE HZ SUNDANCE 8-24-54-24	Sundance	Spirit River Formation	2019/03	512	17,778	0	379.3	0.0
2	. Tourmaline Oil Corp	TOURMALINE HZ LELAND 9-21-58-27	Leland	Falher Member	2019/03	395	17,225	0	283.5	0.0
3	Tourmaline Oil Corp	TOURMALINE HZ LELAND 16-21-58-27	Leland	Mannville Group	2019/03	396	16,518	0	272.6	0.0
4	Tourmaline Oil Corp	TOURMALINE HZ SUNDANCE 12-12-54-23	Sundance	Falher Member	2019/01	741	16,482	0	1,478.6	0.0
5	Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 9-24-56-26	Wild River	Falher Member	2019/02	570	11,918	1	283.6	0.0
6	Tourmaline Oil Corp	TOURMALINE HZ LELAND 13-17-58-27	Leland	Wilrich Member	2019/02	743	11,617	0	424.3	0.0
7	Tourmaline Oil Corp	TOURMALINE HZ WILD RIV 2-24-56-26	Wild River	Falher Member	2019/02	713	10,299	0	307.6	0.0
8	Tourmaline Oil Corp	TOURMALINE HZ EDSON 1-26-50-18	Edson	Falher Member	2019/03	225	10,205	16	95.7	0.2
9	Tourmaline Oil Corp	TOURMALINE HZ COLUMBIA 12-3-46-15	Columbia	Viking Sandstone	2019/03	307	9,106	0	116.5	0.0
10	O Tourmaline Oil Corp	TOURMALINE HZ LELAND 13-20-60-26	Leland	Wilrich Member	2019/02	743	8,813	0	338.0	0.0
1.	1 Bonavista Enrg Corp	BEC HZ FBANK 13-2-44-28	Ferrybank	Falher Member	2019/02	734	8,724	17	465.8	1.2
12	2 Tourmaline Oil Corp	TOURMALINE HZ 102 SUNDANCE 5-9-54-21	Sundance	Spirit River Formation	2019/03	288	8,595	0	103.1	0.0
13	3 Tourmaline Oil Corp	TOURMALINE HZ104 WILD RIV 2-24-55-24	Wild River	Notikewin Member	2019/02	743	8,323	0	419.7	0.0
14	4 Bellatrix Expl Ltd	BELLATRIX UMNV FERRIER 2-35-44-10	Ferrier	Notikewin Member	2019/02	649	8,139	1	260.4	0.0
15	5 Bellatrix Expl Ltd	BELLATRIX UMNV FERRIER 4-35-44-10	Ferrier	Falher Member	2019/02	649	8,023	0	249.8	0.0
16	6 Jupiter Rsrcs Inc	JUPITER HZ SMOKY 4-22-59-1	Smoky	Falher Member	2019/02	743	7,484	0	576.3	0.1
17	7 Tourmaline Oil Corp	TOURMALINE HZ LELAND 12-17-58-27	Leland	Wilrich Member	2019/02	743	7,383	0	276.3	0.0
18	8 Tourmaline Oil Corp	TOURMALINE HZ102 SUNDANCE 1-10-54-23	Sundance	Falher Member	2019/01	741	7,345	0	751.4	0.0
19	9 Tourmaline Oil Corp	TOURMALINE HZ 102 LELAND 12-20-60-26	Leland	Wilrich Member	2019/02	743	7,036	0	288.0	0.0
20	0 Vermilion Enrg Inc	VEI HZ FERRIER 16-19-43-10	Ferrier	Notikewin Member	2019/02	735	6,762	0	343.4	0.0



Exhibit 20: Top British Columbia Oil / Wellhead Condensate Wells - Onstream in the Last 12 Months (March 2019, Calendar Day Rate)

				First	Calendar	Day Rate	Cumulative Production	
				Production	Oil/C5	Raw Gas	Oil/C5	Raw Gas
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(bbl/d)3	(mcf/d)4	(mbbl) <sup>3</sup>	(mmcf) <sup>4</sup>
1 Encana Corp	ECA HZ TOWER LAKE 103-09-081-17	Heritage	Montney Formation	2019/02	1,501	3,672	49.2	119.9
2 Encana Corp	ECA HZ TOWER LAKE G03-09-081-17	Heritage	Montney Formation	2019/02	1,210	2,317	53.8	102.7
3 Encana Corp	ECA HZ TOWER LAKE J03-09-081-17	Heritage	Montney Formation	2019/02	1,185	3,741	37.2	117.4
4 Encana Corp	ECA HZ TOWER LAKE H03-09-081-17	Heritage	Montney Formation	2019/02	914	2,821	41.7	127.2
5 Encana Corp	ECA HZ TOWER LAKE F03-09-081-17	Heritage	Montney Formation	2019/03	892	1,868	27.6	57.9
6 Encana Corp	ECA HZ TOWER LAKE 03-09-081-17	Heritage	Montney Formation	2019/02	829	2,601	43.5	128.2
7 Encana Corp	ECA HZ TOWER LAKE A03-09-081-17	Heritage	Montney Formation	2019/02	795	2,750	35.1	120.1
8 Encana Corp	ECA HZ TOWER LAKE B03-09-081-17	Heritage	Montney Formation	2019/02	752	2,893	26.7	102.4
9 Encana Corp	ECA HZ TOWER LAKE C03-09-081-17	Heritage	Montney Formation	2019/02	551	2,429	17.4	76.4
10 Kelt Expl (LNG) Ltd	KELT LNG ET AL HZ INGA A05-28-087-23	Inga	Doig Formation	2018/11	551	4,211	123.1	444.3
11 Encana Corp	ECA HZ TOWER LAKE E03-09-081-17	Heritage	Montney Formation	2019/03	432	1,059	13.4	32.8
12 Encana Corp	ECA HZ BRIAR RIDGE J14-19-077-14	Heritage	Montney Formation	2018/05	333	12,412	138.9	3,562.0
13 Encana Corp	ECA HZ TOWER LAKE Q04-08-081-17	Heritage	Montney Formation	2019/03	331	1,414	10.3	43.8
14 Encana Corp	ECA HZ BRIAR RIDGE D14-19-077-14	Heritage	Montney Formation	2018/05	323	13,360	111.6	3,680.9
15 Encana Corp	ECA HZ BRIAR RIDGE K14-19-077-14	Heritage	Montney Formation	2018/05	323	13,659	161.9	3,877.1
Source: geoSCOUT; Scot	tiabank GBM.							

Exhibit 21: Top British Columbia Oil / Wellhead Condensate Wells - Onstream in the Last Two Months (March 2019, Calendar Day Rate) Calendar Day Rate<sup>1</sup> Cumulative Production

,			Production	Oil/C5	Raw Gas	Oil/C5	Raw Gas
Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(bbl/d)3	(mcf/d) <sup>4</sup>	(mbbl) <sup>3</sup>	(mmcf) <sup>4</sup>
ECA HZ TOWER LAKE 103-09-081-17	Heritage	Montney Formation	2019/02	1,501	3,672	49.2	119.9
ECA HZ TOWER LAKE GÓ3-09-081-17	Heritage	Montney Formation	2019/02	1,210	2,317	53.8	102.7
ECA HZ TOWER LAKE J03-09-081-17	Heritage	Montney Formation	2019/02	1,185	3,741	37.2	117.4
ECA HZ TOWER LAKE H03-09-081-17	Heritage	Montney Formation	2019/02	914	2,821	41.7	127.2
ECA HZ TOWER LAKE F03-09-081-17	Heritage	Montney Formation	2019/03	892	1,868	27.6	57.9
ECA HZ TOWER LAKE 03-09-081-17	Heritage	Montney Formation	2019/02	829	2,601	43.5	128.2
ECA HZ TOWER LAKE A03-09-081-17	Heritage	Montney Formation	2019/02	795	2,750	35.1	120.1
ECA HZ TOWER LAKE B03-09-081-17	Heritage	Montney Formation	2019/02	752	2,893	26.7	102.4
ECA HZ TOWER LAKE C03-09-081-17	Heritage	Montney Formation	2019/02	551	2,429	17.4	76.4
ECA HZ TOWER LAKE E03-09-081-17	Heritage	Montney Formation	2019/03	432	1,059	13.4	32.8
	ECA HZ TOWER LAKE 103-09-081-17 ECA HZ TOWER LAKE G03-09-081-17 ECA HZ TOWER LAKE J03-09-081-17 ECA HZ TOWER LAKE H03-09-081-17 ECA HZ TOWER LAKE F03-09-081-17 ECA HZ TOWER LAKE 03-09-081-17 ECA HZ TOWER LAKE A03-09-081-17 ECA HZ TOWER LAKE B03-09-081-17 ECA HZ TOWER LAKE B03-09-081-17 ECA HZ TOWER LAKE C03-09-081-17	ECA HZ TOWER LAKE 103-09-081-17 Heritage ECA HZ TOWER LAKE G03-09-081-17 Heritage ECA HZ TOWER LAKE J03-09-081-17 Heritage ECA HZ TOWER LAKE H03-09-081-17 Heritage ECA HZ TOWER LAKE F03-09-081-17 Heritage ECA HZ TOWER LAKE 603-09-081-17 Heritage ECA HZ TOWER LAKE A03-09-081-17 Heritage ECA HZ TOWER LAKE B03-09-081-17 Heritage ECA HZ TOWER LAKE S03-09-081-17 Heritage ECA HZ TOWER LAKE C03-09-081-17 Heritage	ECA HZ TOWER LAKE 103-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE G03-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE J03-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE H03-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE 503-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE 03-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE A03-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE 803-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE C03-09-081-17 Heritage Montney Formation ECA HZ TOWER LAKE C03-09-081-17 Heritage Montney Formation	Well Name         Field/Area         Formation/Zone2         (YYYY/MM)           ECA HZ TOWER LAKE I03-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE G03-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE J03-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE H03-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE 503-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE 03-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE 803-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE B03-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE B03-09-081-17         Heritage         Montney Formation         2019/02           ECA HZ TOWER LAKE C03-09-081-17         Heritage         Montney Formation         2019/02	Well Name         Field/Area         Formation/Zone²         (YYYY/MM)         (bb/d)³           ECA HZ TOWER LAKE I03-09-081-17         Heritage         Montney Formation         2019/02         1,501           ECA HZ TOWER LAKE G03-09-081-17         Heritage         Montney Formation         2019/02         1,210           ECA HZ TOWER LAKE J03-09-081-17         Heritage         Montney Formation         2019/02         914           ECA HZ TOWER LAKE H03-09-081-17         Heritage         Montney Formation         2019/02         914           ECA HZ TOWER LAKE 503-09-081-17         Heritage         Montney Formation         2019/02         829           ECA HZ TOWER LAKE A03-09-081-17         Heritage         Montney Formation         2019/02         795           ECA HZ TOWER LAKE B03-09-081-17         Heritage         Montney Formation         2019/02         752           ECA HZ TOWER LAKE B03-09-081-17         Heritage         Montney Formation         2019/02         752           ECA HZ TOWER LAKE C03-09-081-17         Heritage         Montney Formation         2019/02         551	Well Name         Field/Area         Formation/Zone2         (YYYY/MM)         (bbl/d)³         (mcf/d)⁴           ECA HZ TOWER LAKE I03-09-081-17         Heritage         Montney Formation         2019/02         1,501         3,672           ECA HZ TOWER LAKE G03-09-081-17         Heritage         Montney Formation         2019/02         1,210         2,317           ECA HZ TOWER LAKE J03-09-081-17         Heritage         Montney Formation         2019/02         1,185         3,741           ECA HZ TOWER LAKE H03-09-081-17         Heritage         Montney Formation         2019/02         914         2,821           ECA HZ TOWER LAKE 503-09-081-17         Heritage         Montney Formation         2019/03         892         1,868           ECA HZ TOWER LAKE 03-09-081-17         Heritage         Montney Formation         2019/02         829         2,601           ECA HZ TOWER LAKE A03-09-081-17         Heritage         Montney Formation         2019/02         795         2,750           ECA HZ TOWER LAKE B03-09-081-17         Heritage         Montney Formation         2019/02         752         2,893           ECA HZ TOWER LAKE C03-09-081-17         Heritage         Montney Formation         2019/02         752         2,893           ECA HZ TOWER LAKE C03-09-081-17         H	Well Name         Field/Area         Formation/Zone²         (YYYY/MM)         (bbl/d)³         (mcf/d)⁴         (mbbl)³           ECA HZ TOWER LAKE I03-09-081-17         Heritage         Montney Formation         2019/02         1,501         3,672         49.2           ECA HZ TOWER LAKE G03-09-081-17         Heritage         Montney Formation         2019/02         1,210         2,317         53.8           ECA HZ TOWER LAKE J03-09-081-17         Heritage         Montney Formation         2019/02         1,185         3,741         37.2           ECA HZ TOWER LAKE H03-09-081-17         Heritage         Montney Formation         2019/02         914         2,821         41.7           ECA HZ TOWER LAKE 603-09-081-17         Heritage         Montney Formation         2019/03         892         1,868         27.6           ECA HZ TOWER LAKE 03-09-081-17         Heritage         Montney Formation         2019/02         829         2,601         43.5           ECA HZ TOWER LAKE A03-09-081-17         Heritage         Montney Formation         2019/02         795         2,750         35.1           ECA HZ TOWER LAKE B03-09-081-17         Heritage         Montney Formation         2019/02         752         2,893         26.7           ECA HZ TOWER LAKE B03-09-081-17 <t< td=""></t<>

Source: geoSCOUT; Scotiabank GBM.

Exhibit 22: British Columbia Oil / Wellhead Condensate Wells - Onstream in the Last Two Months (March 2019, Producing Day Rate)

				First		Producing	g Day Rate⁵	Cumulative	Production
				Production	Hours	Oil/C5	Raw Gas	Oil/C5	Raw Gas
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	On-Stream	(bbl/d)3	(mcf/d)4	(mbbl) <sup>3</sup>	(mmcf) <sup>4</sup>
1 Encana Corp	ECA HZ TOWER LAKE F03-09-081-17	Heritage	Montney Formation	2019/03	398	1,667	3,493	27.6	57.9
2 Encana Corp	ECA HZ TOWER LAKE 103-09-081-17	Heritage	Montney Formation	2019/02	696	1,605	3,926	49.2	119.9
3 Encana Corp	ECA HZ TOWER LAKE G03-09-081-17	Heritage	Montney Formation	2019/02	696	1,294	2,477	53.8	102.7
4 Encana Corp	ECA HZ TOWER LAKE J03-09-081-17	Heritage	Montney Formation	2019/02	684	1,289	4,069	37.2	117.4
5 Encana Corp	ECA HZ TOWER LAKE H03-09-081-17	Heritage	Montney Formation	2019/02	696	977	3,016	41.7	127.2
6 Encana Corp	ECA HZ TOWER LAKE 03-09-081-17	Heritage	Montney Formation	2019/02	696	886	2,780	43.5	128.2
7 Encana Corp	ECA HZ TOWER LAKE A03-09-081-17	Heritage -	Montney Formation	2019/02	696	849	2,940	35.1	120.1
8 Encana Corp	ECA HZ TOWER LAKE E03-09-081-17	Heritage	Montney Formation	2019/03	396	811	1,989	13.4	32.8
9 Encana Corp	ECA HZ TOWER LAKE B03-09-081-17	Heritage	Montney Formation	2019/02	696	803	3,092	26.7	102.4
10 Encana Corp	ECA HZ TOWER LAKE Q04-08-081-17	Heritage	Montney Formation	2019/03	314	784	3,350	10.3	43.8
Source: gooSCOLIT:	Sactishank CRM								

Calendar Day Rate<sup>1</sup> Cumulative Production



Exhibit 23: Top British Columbia Gas Wells - Onstream in the Last 12 Months (March 2019, Calendar Day Rate)

					First	Calendar	Day Rate <sup>1</sup>	Cumulative	Production
		8			Production	Raw Gas	Oil/C5	Raw Gas	Oil/C5
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(mcf/d) <sup>4</sup>	(bbl/d)3	(mmcf) <sup>4</sup>	(mbbl) <sup>3</sup>
1	Encana Corp	ECA HZ BRIAR RIDGE F14-19-077-14	Heritage	Montney Formation	2018/05	14,577	297	4,112.7	103.3
2	Encana Corp	ECA HZ BRIAR RIDGE K14-19-077-14	Heritage	Montney Formation	2018/05	13,659	323	3,877.1	161.9
3	Encana Corp	ECA HZ BRIAR RIDGE D14-19-077-14	Heritage	Montney Formation	2018/05	13,360	323	3,680.9	111.6
4	Encana Corp	ECA HZ BRIAR RIDGE E14-19-077-14	Heritage	Montney Formation	2018/05	12,503	254	3,437.2	102.6
5	Encana Corp	ECA HZ BRIAR RIDGE J14-19-077-14	Heritage	Montney Formation	2018/05	12,412	333	3,562.0	138.9
6	Encana Corp	ECA HZ BRIAR RIDGE H14-19-077-14	Heritage	Montney Formation	2018/05	11,942	227	3,928.9	120.2
7	Encana Corp	ECA HZ SUNRISE B01-05-080-17	Heritage	Montney Formation	2018/10	11,270	142	1,843.1	38.0
8	Shell Cda Ltd	SHELL HZ GROUNDBIRCH K03-21-080-19	Heritage	Montney Formation	2018/09	10,893	0	2,199.3	0.0
9	Encana Corp	ECA HZ BRIAR RIDGE 114-19-077-14	Heritage	Montney Formation	2018/05	10,847	113	3,898.9	93.1
10	Shell Cda Ltd	SHELL HZ GROUNDBIRCH J03-21-080-19	Heritage	Montney Formation	2018/08	10,097	0	2,367.3	0.0
11	Shell Cda Ltd	SHELL HZ GROUNDBIRCH L03-21-080-19	Heritage	Montney Formation	2018/08	10,042	0	2,129.1	0.0
12	Cdn Nat Rsrcs Ltd	CNRL HZ SEPTIMUS G03-31-081-19	Heritage	Montney Formation	2018/09	9,946	0	1,261.1	0.0
13	Shell Cda Ltd	SHELL HZ GROUNDBIRCH 103-21-080-19	Heritage	Montney Formation	2018/09	9,559	0	1,970.5	0.0
14	Shell Cda Ltd	SHELL HZ GROUNDBIRCH G03-21-080-19	Heritage	Montney Formation	2018/09	9,399	0	1,906.8	0.0
15	Tourmaline Oil Corp	TOURMALINE HZ TOWN A-C032-I/094-B-09	Northern Montney	Montney Formation	2018/10	9,387	130	1,406.6	25.0
0									

Source: geoSCOUT; Scotiabank GBM.

Exhibit 24: Top British Columbia Gas Wells - Onstream in the Last Two Months (March 2019, Calendar Day Rate)

				Production	Raw Gas	Oil/C5	Raw Gas	Oil/C5
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(mcf/d) <sup>4</sup>	(bbl/d) <sup>3</sup>	(mmcf) <sup>4</sup>	(mbbl) <sup>3</sup>
1 Murphy Oil Co Ltd	MURPHY HZ SWAN LAKE B-E045-A/093-P-09	Heritage	Montney Formation	2019/02	6,813	0	231.3	0.0
2 Encana Corp	ECA HZ SUNRISE G01-05-080-17	Heritage	Montney Formation	2019/03	6,025	265	186.8	8.2
3 Murphy Oil Co Ltd	MURPHY HZ SWAN LAKE B-D045-A/093-P-09	Heritage	Montney Formation	2019/02	5,760	0	216.9	0.0
4 Painted Pony Enrg Ltd	PAINTED PONY HZ TOWN C-F006-F/094-B-16	Northern Montney	Montney Formation	2019/02	5,513	- 0	224.3	0.0
5 Encana Corp	ECA HZ SUNRISE 101-05-080-17	Heritage	Montney Formation	2019/03	5,469	238	169.6	7.4
6 Painted Pony Enrg Ltd	PAINTED PONY HZ TOWN C-G006-F/094-B-16	Northern Montney	Montney Formation	2019/02	5,428	0	226.5	0.1
7 Crew Enrg Inc	CREW HZ WILDER D04-21-082-19	Wilder	Montney Formation	2019/03	5,290	0	164.0	0.0
8 Encana Corp	ECA HZ SUNRISE J01-05-080-17	Heritage	Montney Formation	2019/03	5,101	192	158.1	6.0
9 Crew Enrg Inc	CREW HZ WILDER 04-21-082-19	Heritage	Montney Formation	2019/03	4,415	0	136.9	0.0
10 Encana Corp	ECA HZ SUNRISE H01-05-080-17	Heritage	Montney Formation	2019/03	4,400	182	136.4	5.7
Source: geoSCOLIT: Scotial	nank GBM							

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Exhibit 25: British Columbia Gas Wells - Onstream in the Last Two Months (March 2019, Producing Day Rate)

		Filst				Froducing i	Jay Nates	Cultidiative Floudction		
					Production	Hours	Raw Gas	Oil/C5	Raw Gas	Oil/C5
. 2	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	On-Stream	(mcf/d) <sup>4</sup>	(bbl/d) <sup>3</sup>	(mmcf) <sup>4</sup>	(mbbl) <sup>3</sup>
1	Tourmaline Oil Corp	TOURMALINE HZ GUNDY C-B059-A/094-B-16	Northern Montney	Montney Formation	2019/03	156	20,283	8	131.8	0.1
2	Tourmaline Oil Corp	TOURMALINE HZ GUNDY C-C059-A/094-B-16	Northern Montney	Montney Formation	2019/03	120	17,881	8	89.4	0.0
3	Tourmaline Oil Corp	TOURMALINE HZ GUNDY C-A059-A/094-B-16	Northern Montney	Montney Formation	2019/03	178	16,982	5	126.0	0.0
4	Tourmaline Oil Corp	TOURMALINE HZ GUNDY C-1059-A/094-B-16	Northern Montney	Montney Formation	2019/03	192	10,176	12	81.4	0.1
5	Tourmaline Oil Corp	TOURMALINE HZ GUNDY C- 059-A/094-B-16	Northern Montney	Montney Formation	2019/03	166	9,872	2	68.3	0.0
6	Tourmaline Oil Corp	TOURMALINE HZ GUNDY C-E059-A/094-B-16	Northern Montney	Montney Formation	2019/03	187	9,290	13	72.4	0.1
7	Encana Corp	ECA HZ SUNRISE H01-05-080-17	Heritage	Montney Formation	2019/03	355	9,222	382	136.4	5.7
8	Encana Corp	ECA HZ SUNRISE 101-05-080-17	Heritage	Montney Formation	2019/03	444	9,165	399	169.6	7.4
9	Encana Corp	ECA HZ SUNRISE G01-05-080-17	Heritage	Montney Formation	2019/03	494	9,074	399	186.8	8.2
10	Encana Corp	ECA HZ SUNRISE J01-05-080-17	Heritage	Montney Formation	2019/03	499	7,606	287	158.1	6.0



#### Exhibit 26: Top Saskatchewan Oil Wells - Onstream in the Last 12 Months (March 2019, Calendar Day Rate)

		-		First		Day Rate <sup>1</sup>		Production
				Production	Oil	Raw Gas	Oil	Raw Gas
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(bbl/d)	(mcf/d) <sup>4</sup>	(mbbl)	(mmcf) <sup>4</sup>
1 Crescent Point Enrg Corp	CPEC HZ 16-33-1-16 16-9-2-16	Weyburn/Estevan	Torquay	2019/02	450	22	14.0	0.7
2 Whitecap Rsrcs Inc	WHITECAP THE BEVERLEY U 1 HZ 15-14-15-17 16-23-15-17	Swift Current	Cantuar Formation	2019/02	358	32	16.3	1.2
3 Whitecap Rsrcs Inc	WHITECAP HZ 15-14-15-17 16-23-15-17	Swift Current	Cantuar Formation	2019/02	339	52	15.5	2.0
4 Crescent Point Enrg Corp	CPEC HZ 13-7-2-11 4-6-2-11	Weyburn/Estevan	Torquay	2019/03	324	427	10.0	13.2
5 Astra Oil Corp	ASTRA HZ 14-35-2-4 14-2-3-4	Weyburn/Estevan	Midale Beds	2018/12	313	728	38.5	82.7
6 Whitecap Rsrcs Inc	WHITECAP HZ 9-15-11-19 9-14-11-19	Swift Current	Lower Shaunavon	2018/08	250	18	69.7	4.5
7 Crescent Point Enrg Corp	CPEC HZ 2-32-6-20 2-29-6-20	Swift Current	Lower Shaunavon	2019/01	246	56	14.2	2.2
8 TORC O&G Ltd	TORC O&G HZ 15-14-6-10 15-23-6-10	Weyburn/Estevan	Midale Beds	2018/11	244	12	27.5	1.4
9 TORC O&G Ltd	TORC O&G HZ 13-12-6-6 4-12-6-6	Weyburn/Estevan	Frobisher Beds	2019/02	243	92	11.3	4.1
10 TORC O&G Ltd	TORC 0&G HZ 1-32-9-8 3-33-9-8	Weyburn/Estevan	Frobisher/Alida Beds	.2018/11	237	17	35.2	2.4
11 Vermilion Enrg Inc	VERMILION HZ 8-2-4-4 1-1-4-4	Weyburn/Estevan	Midale Beds	2018/10	233	295	38.7	32.1
12 Whitecap Rsrcs Inc	WHITECAP HZ 9-22-11-19 9-23-11-19	Swift Current	Lower Shaunavon	2019/01	232	1	12.5	0.7
13 Vermilion Enrg Inc	VERMILION HZ 1-6-3-1 15-6-3-1	Weyburn/Estevan	Midale Beds	2019/02	229	652	9.8	23.1
14 Whitecap Rsrcs Inc	WHITECAP EAST CANTUAR U 1 HZ 4-21-16-16 12-16-16-16	Swift Current	Roseray Sandstone	2018/06	227	68	82.6	23.3
15 Crescent Point Enrg Corp	CPEC HZ 16-36-8-20 9-25-8-20	Swift Current	Lower Shaunavon	2019/01	226	123	12.9	4.5
16 Rife Rsrcs Ltd	RIFE 11HZ 16-12-47-25 1-13-47-25	Lloydminster	Cummings Member	2018/08	224	69	44.7	13.8
17 TORC O&G Ltd	TORC O&G 3HZ 6-28-5-6 14-28-5-6	Weyburn/Estevan	Frobisher Beds	2018/09	218	61	49.2	12.0
18 Pemoco Ltd	PEMOCO 4-27-9-33	Weyburn/Estevan	Souris Valley Beds	2019/03	216	33	6.7	1.0
19 Crescent Point Enrg Corp	CPEC HZ 2-12-8-20 1-1-8-20	Swift Current	Lower Shaunavon	2019/01	215	55	9.4	1.7
20 TORC O&G Ltd	TORC O&G 2HZ 4-25-5-6 2-26-5-6	Weyburn/Estevan	Frobisher Beds	2019/01	213	101	13.9	6.4
21 Crescent Point Enrg Corp	CPEC HZ 1-9-5-20 1-4-5-20	Swift Current	Lower Shaunavon	2018/12	211	29	17.1	1.9
22 Astra Oil Corp	ASTRA HZ 10-14-7-8 2-14-7-8	Weyburn/Estevan	Frobisher Beds	2019/02	210	76	6.7	2.4
23 Astra Oil Corp	ASTRA 2HZ 1-34-4-6 3-35-4-6	Weyburn/Estevan	Frobisher Beds	2019/02	208	558	16.6	35.0
24 Crescent Point Enrg Corp	CPEC HZ 15-2-5-20 15-11-5-20	Swift Current	Lower Shaunavon	2019/02	206	29	8.1	1.0
25 TORC O&G Ltd	TORC O&G 3HZ 5-28-5-6 13-28-5-6	Weyburn/Estevan	Frobisher Beds	2019/03	204	36	6.3	1.1
26 Vermilion Enrg Inc	VERMILION HZ 1-2-4-4 1-35-3-4	Weyburn/Estevan	Midale Beds	2018/10	203	408	37.3	40.9
27 Astra Oil Corp	ASTRA HZ 3-24-2-5 3-13-2-5	Weyburn/Estevan	Midale Beds	2019/01	202	433	12.1	19.4
28 Crescent Point Enrg Corp	CPEC HZ 15-19-10-6 2-19-10-6	Weyburn/Estevan	Middle Bakken Sandstone	2019/02	200	10	6.6	0.3
29 Whitecap Rsrcs Inc	WHITECAP EAGLE LAKE VIK V U HZ 4-6-31-20 4-1-31-21	Kindersley/Kerrobert	Viking Sandstone	2019/01	199	32	10.0	1.4
30 TORC O&G Ltd	TORC O&G HZ 9-18-5-3 2-18-5-3	Weyburn/Estevan	Frobisher Beds	2018/10	197	40	33.1	9.7
31 Crescent Point Enrg Corp	CPEC HZ 14-35-4-20 14-2-5-20	Swift Current	Upper Shaunavon	2019/02	195	32	8.7	1.1
32 Crescent Point Enrg Corp	CPEC HZ 13-35-7-19 4-3-8-19	Swift Current	Lower Shaunavon	2019/02	194	37	6.0	1.2
33 Crescent Point Enrg Corp	CPEC HZ 4-30-5-20 5-19-5-20	Swift Current	Upper Shaunavon	2019/02	190	39	5.9	1.2
34 Crescent Point Enrg Corp	CPEC HZ 2-22-10-6 15-22-10-6	Weyburn/Estevan	Middle Bakken Sandstone	2019/02	188	0	6.1	0.0
35 Crescent Point Enrg Corp	CPEC BATTRUM U 1 HZ 6-28-18-17 1-28-18-17	Swift Current	Roseray Sandstone	2018/12	186	27	33.6	2.0
36 Whitecap Rsrcs Inc	WHITECAP EAGLE LAKE VIK V U HZ 11-11-31-21 11-2-31-21	Kindersley/Kerrobert	Viking Sandstone	2019/02	185	15	6.9	0.6
37 Whitecap Rsrcs Inc	WHITECAP EAGLE LAKE VIK V U HZ 16-35-30-21 9-1-31-21	Kindersley/Kerrobert	Viking Sandstone	2019/02	184	42	9.1	1.6
38 Whitecap Rsrcs Inc	WHITECAP HZ 3-36-15-17 14-24-15-17	Swift Current	Cantuar Formation	2018/09	180	68	44.8	10.9
39 Crescent Point Enra Corp	CPEC HZ 13-7-2-11 13-19-2-11	Weyburn/Estevan	Torquay	2019/03	178	250	5.5	7.7
40 Crescent Point Enrg Corp	CPEC HZ 13-9-1-12 4-9-1-12	Weyburn/Estevan	Torquay	2018/10	175	330	17.8	22.3
			1>					



#### Exhibit 27: Top Saskatchewan Oil Wells - Onstream in the Last Two Months (March 2019, Calendar Day Rate)

				First	Calendar	Day Rate <sup>1</sup>	Cumulative	Production
				Production	Oil	Raw Gas	Oil	Raw Gas
Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	(bbl/d)	(mcf/d)4	(mbbl)	(mmcf) <sup>4</sup>
1 Crescent Point Enrg Corp	CPEC HZ 16-33-1-16 16-9-2-16	Weyburn/Estevan	Torquay	2019/02	450	22	14.0	0.7
2 Whitecap Rsrcs Inc	WHITECAP THE BEVERLEY U 1 HZ 15-14-15-17 16-23-15-17	Swift Current	Cantuar Formation	2019/02	358	32	16.3	1.2
3 Whitecap Rsrcs Inc	WHITECAP HZ 15-14-15-17 16-23-15-17	Swift Current	Cantuar Formation	2019/02	339	52	15.5	2.0
4 Crescent Point Enrg Corp	CPEC HZ 13-7-2-11 4-6-2-11	Weyburn/Estevan	Torquay	2019/03	324	427	10.0	13.2
5 TORC O&G Ltd	TORC O&G HZ 13-12-6-6 4-12-6-6	Weyburn/Estevan	Frobisher Beds	2019/02	243	92	11.3	4.1
6 Vermilion Enrg Inc	VERMILION HZ 1-6-3-1 15-6-3-1	Weyburn/Estevan	Midale Beds	2019/02	.229	652	9.8	23.1
7 Pemoco Ltd	PEMOCO 4-27-9-33	Weyburn/Estevan	Souris Valley Beds	2019/03	216	33	6.7	1.0
8 Astra Oil Corp	ASTRA HZ 10-14-7-8 2-14-7-8	Weyburn/Estevan	Frobisher Beds	2019/02	210	76	6.7	2.4
9 Astra Oil Corp	ASTRA 2HZ 1-34-4-6 3-35-4-6	Weyburn/Estevan	Frobisher Beds	2019/02	208	558	16.6	35.0
10 Crescent Point Enrg Corp	CPEC HZ 15-2-5-20 15-11-5-20	Swift Current	Lower Shaunavon	2019/02	206	29	8.1	1.0
11 TORC O&G Ltd	TORC O&G 3HZ 5-28-5-6 13-28-5-6	Weyburn/Estevan	Frobisher Beds	2019/03	204	36	6.3	1.1 .
12 Crescent Point Enrg Corp	CPEC HZ 15-19-10-6 2-19-10-6	Weyburn/Estevan	Middle Bakken Sandstone	2019/02	200	10	6.6	0.3
13 Crescent Point Enrg Corp	CPEC HZ 14-35-4-20 14-2-5-20	Swift Current	Upper Shaunavon	2019/02	195	32	8.7	1.1
14 Crescent Point Enrg Corp	CPEC HZ 13-35-7-19 4-3-8-19	Swift Current	Lower Shaunavon	2019/02	194	37	6.0	1.2
15 Crescent Point Enrg Corp	CPEC HZ 4-30-5-20 5-19-5-20	Swift Current	Upper Shaunavon	2019/02	190	39	5.9	1.2
16 Crescent Point Enrg Corp	CPEC HZ 2-22-10-6 15-22-10-6	Weyburn/Estevan	Middle Bakken Sandstone	2019/02	188	0	6.1	0.0
17 Whitecap Rsrcs Inc	WHITECAP EAGLE LAKE VIK V U HZ 11-11-31-21 11-2-31-21	Kindersley/Kerrobert	Viking Sandstone	2019/02	185	15	6.9	0.6
18 Whitecap Rsrcs Inc	WHITECAP EAGLE LAKE VIK V U HZ 16-35-30-21 9-1-31-21	Kindersley/Kerrobert	Viking Sandstone	2019/02	184	42	9.1	1.6
19 Crescent Point Enrg Corp	CPEC HZ 13-7-2-11 13-19-2-11	Weyburn/Estevan	Torquay	2019/03	178	250	5.5	7.7
20 Whitecap Rsrcs Inc	WHITECAP EAGLE LAKE VIK V U HZ 11-11-31-21 11-2-31-21	Kindersley/Kerrobert	Viking Sandstone	2019/02	172	18	7.6	0.8

Source: geoSCOUT; Scotiabank GBM.

Exhibit 28: Top Saskatchewan Oil Wells - Onstream in the Last Two Months (March 2019, Producing Day Rate)

					First		Producing	Day Rates	Cumulative	Production
					Production	Hours	Oil	Raw Gas	. Oil	Raw Gas
	Operator	Well Name	Field/Area	Formation/Zone <sup>2</sup>	(YYYY/MM)	On-Stream	(bbl/d)	(mcf/d)4	(mbbl)	(mmcf) <sup>4</sup>
1	Crescent Point Enrg Corp	CPEC HZ 16-33-1-16 16-9-2-16	Weyburn/Estevan	Torquay	2019/02	672	498	24	14.0	0.7
2	Pemoco Ltd	PEMOCO 4-27-9-33	Weyburn/Estevan	Souris Valley Beds	2019/03	401	400	62	6.7	1.0
3	Crescent Point Enrg Corp	CPEC HZ 13-7-2-11 4-6-2-11	Weyburn/Estevan	Torquay	2019/03	643	374	494	10.0	13.2
4	Whitecap Rsrcs Inc	WHITECAP THE BEVERLEY U 1 HZ 15-14-15-17 16-23-15-17	Swift Current	Cantuar Formation	2019/02	742	359	32	16.3	1.2
5	Whitecap Rsrcs Inc	WHITECAP HZ 15-14-15-17 16-23-15-17	Swift Current	Cantuar Formation	2019/02	734	344	53	15.5	2.0
6	Crescent Point Enrg Corp	CPEC HZ 14-12-1-12 14-13-1-12	Weyburn/Estevan	Torquay	2019/03	127	334	6	1.8	0.0
7	TORC O&G Ltd	TORC O&G 3HZ 5-28-5-6 13-28-5-6	Weyburn/Estevan	Frobisher Beds	2019/03	473	320	56	6.3	1.1
8	Crescent Point Enrg Corp	CPEC HZ 14-12-1-12 13-13-1-12	Weyburn/Estevan	Torquay	2019/03	286	315	224	3.8	2.7
9	Whitecap Rsrcs Inc	WHITECAP EAGLE LAKE VIK V U HZ 16-35-30-21 9-1-31-21	Kindersley/Kerrobert	Viking Sandstone	2019/02	509	269	61	9.1	1.6
10	7 Tundra O&G Ltd	TUNDRA HZ 13-14-2-31 15-15-2-31	Weyburn/Estevan	Frobisher Beds	2019/03	116	268	52	1.3	0.3
1	1 TORC O&G Ltd	TORC O&G HZ 13-12-6-6 4-12-6-6	Weyburn/Estevan	Frobisher Beds	2019/02	744	243	92	11.3	4.1
1:	2 Whitecap Rsrcs Inc	WHITECAP HZ 15-6-30-24 15-7-30-24	Kindersley/Kerrobert	Viking Sandstone	2019/03	408	240	403	4.1	6.9
13	3 Vermilion Enrg Inc	VERMILION HZ 1-6-3-1 15-6-3-1	Weyburn/Estevan	Midale Beds	2019/02	732	233	663	9.8	23.1
1.	4 Crescent Point Enrg Corp	CPEC HZ 3-18-3-11 14-19-3-11	Weyburn/Estevan	Torquay	2019/03	301	228	11	2.9	0.1
1	5 Astra Oil Corp	ASTRA 2HZ 1-34-4-6 3-35-4-6	Weyburn/Estevan	Frobisher Beds	2019/02	703	220	591	16.6	35.0
10	6 Astra Oil Corp	ASTRA HZ 10-14-7-8 2-14-7-8	Weyburn/Estevan	Frobisher Beds	2019/02	744	210	76	6.7	2.4
1	7 Crescent Point Enrg Corp	CPEC HZ 13-7-2-11 13-19-2-11	Weyburn/Estevan	Torquay	2019/03	638	207	291	5.5	7.7
18	8 Crescent Point Enrg Corp	CPEC HZ 15-2-5-20 15-11-5-20	Swift Current	Lower Shaunavon	2019/02	744	206	29	8.1	1.0
19	9 Crescent Point Enrg Corp	CPEC HZ 15-19-10-6 2-19-10-6	Weyburn/Estevan	Middle Bakken Sandstone	2019/02	744	200	10	6.6	0.3
2	Crescent Point Enrg Corp	CPEC HZ 2-36-6-8 2-25-6-8	Weyburn/Estevan	Middle Bakken Sandstone	2019/03	634	200	83	5.3	2.2



#### **Notes and Definitions**

The top well lists include wells classified as producing oil, gas, or crude bitumen (but not SAGD or CSS wells).

#### Notes:

- 1. Calendar Day Rate: Calculated using the full month, regardless of when the well was placed on production.
- 2. Formation/Zone: The producing formation or pool (if available) or the formation at total depth/projected formation at total depth.
- 3. Oil/C5 or C5: Oil and wellhead condensate or wellhead condensate. The quoted rates do not include plant-extracted condensate.
- 4. Raw Gas: Wellhead gas volumes measured before plant processing and natural gas liquids extraction.
- 5. Producing Day Rate: Calculated using the well's producing hours. The data set includes wells with a minimum of 96 hours onstream during the month.



#### **Pertinent Data**

#### Advantage Oil & Gas Ltd. (AAV-T)

Valuation: ~7.3x our blended '19E/'20E DACF estimate

Key Risks: Oil and natural gas prices; drilling program success.

#### Birchcliff Energy Ltd. (BIR-T)

Valuation: ~7.0x our blended '19E/'20E DACF estimate

Key Risks: Oil and natural gas prices; drilling program success.

#### Crew Energy Inc. (CR-T)

Valuation: ~4.8x our blended '19E/'20E DACF estimate

Key Risks: Oil and natural gas prices; drilling program success

#### Kelt Exploration Ltd. (KEL-T)

Valuation: ~8.0x our blended '19E/'20E DACF estimate

Key Risks: Oil and natural gas prices; drilling program success.

#### NuVista Energy Ltd. (NVA-T)

Valuation: ~6.5x our blended '19E/'20E DACF estimate

Key Risks: Oil and natural gas prices; drilling program success.

#### Painted Pony Energy Ltd. (PONY-T)

Valuation: ~5.5x our blended '19E/'20E DACF estimate

Key Risks: Oil and natural gas prices; drilling program success.

#### Paramount Resources Ltd. (POU-T)

Valuation: ~5.0x our blended '19E/'20E DACF estimate

Key Risks: Oil and natural gas prices; drilling program success



#### **Appendix A: Important Disclosures**

Company	Disclosures (see legend below	ow)*
Canadian Natural Resources Limited Kelt Exploration Ltd. NuVista Energy Ltd.	G, HH, I, U HH G, I, U	

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#### **Rating and Price Target History**

#### Advantage Oil & Gas Ltd. (AAV-T) as of May 03, 2019 (in CAD)



<sup>\*</sup>Represents the value(s) that changed.

Ratings Legend: FS=Focus Stock; SO=Sector Outperform; SP=Sector Perform; SU=Sector Underperform; T=Tender; UR=Under Review; CS=Coverage Suspended;

DC=Discontinued Coverage
Source: Scotiabank GBM estimates; FactSet.



<sup>\*</sup>Represents the value(s) that changed.

Ratings Legend: FS=Focus Stock; SO=Sector Outperform; SP=Sector Perform; SU=Sector Underperform; T=Tender; UR=Under Review; CS=Coverage Suspended;

DC=Discontinued Coverage

Source: Scotiabank GBM estimates; FactSet.



#### Crew Energy Inc. (CR-T) as of May 03, 2019 (in CAD)



| 12-20-2018 | 03-21-2019 | Price: 0.82 | Rating: SO | Target: 2.00 | Target: 1.80 |

Ratings Legend: FS=Focus Stock; SO=Sector Outperform; SP=Sector Perform; SU=Sector Underperform; T=Tender; UR=Under Review; CS=Coverage Suspended;

DC=Discontinued Coverage

Source: Scotiabank GBM estimates; FactSet.

#### Kelt Exploration Ltd. (KEL-T) as of May 03, 2019 (in CAD)



Ratings Legend: FS=Focus Stock; SO=Sector Outperform; SP=Sector Perform; SU=Sector Underperform; T=Tender; UR=Under Review; CS=Coverage Suspended;

DC=Discontinued Coverage

Source: Scotiabank GBM estimates; FactSet.

<sup>\*</sup>Represents the value(s) that changed.

<sup>\*</sup>Represents the value(s) that changed.

#### NuVista Energy Ltd. (NVA-T) as of May 03, 2019 (in CAD)



<sup>\*</sup>Represents the value(s) that changed.

Ratings Legend: FS=Focus Stock; SO=Sector Outperform; SP=Sector Perform; SU=Sector Underperform; T=Tender; UR=Under Review; CS=Coverage Suspended;

DC=Discontinued Coverage

Source: Scotiabank GBM estimates; FactSet.

#### Painted Pony Energy Ltd. (PONY-T) as of May 03, 2019 (in CAD)



<sup>\*</sup>Represents the value(s) that changed.

DC=Discontinued Coverage

Target: 3.50

Source: Scotiabank GBM estimates; FactSet.

Target: 1.90

Target: 2.25

Ratings Legend: FS=Focus Stock; SO=Sector Outperform; SP=Sector Perform; SU=Sector Underperform; T=Tender; UR=Under Review; CS=Coverage Suspended;



#### Paramount Resources Ltd. (POU-T) as of May 03, 2019 (in CAD)



<sup>\*</sup>Represents the value(s) that changed.

Ratings Legend: FS=Focus Stock; SO=Sector Outperform; SP=Sector Perform; SU=Sector Underperform; T=Tender; UR=Under Review; CS=Coverage Suspended;

DC=Discontinued Coverage

Source: Scotiabank GBM estimates; FactSet.



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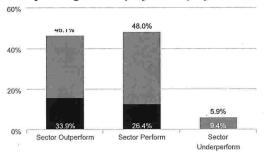
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\* As of April 30, 2019.

Source: Scotiabank GBM.



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#### This is Exhibit "C"

Referred to in the Supplemental Affidavit of Ryan Martin Sworn before me this  $10^{\rm th}$  day of February, 2021

A Commissioner for Oaths in and for Alberta

#### **DONNA FLORY**

A Commissioner for Oaths in and for Alberta My Commission Expires on June 17, 2029



Calgary Head Office Suite 1000, 250 - 5 Street SW Calgary, Alberta T2P 0R4 Canada

15 September 2020

SEP 1 6 2020

ATTENTION: CHIEF FINANCIAL OFFICER OR CONTROLLER TRIPLE FIVE INTERCONTINENTAL GROUP LTD. 3600, 700 - 2 ST SW CALGARY AB T2P 2W3

A6WA Triple Five Intercontinental Group Ltd.,

## **MPORTAN**

### 1 Invoice Enclosed:

Operator Invoice Number **Industry Sector Operator Name** Amount Code

OG20-306A Oil and Gas Triple Five Intercontinental Group Ltd.

A6WA \$33,284.81

Total \$33,284.81

Payment Due Date: 15 October 2020

Payment can be made by mail, drop off, or courier. Make cheque(s) payable to the Alberta Energy Regulator. Send your cheque(s) along with the Remittance Copy of your invoice(s) to: FINANCE BRANCH, ALBERTA ENERGY REGULATOR, Suite 1000, 250 - 5 Street SW, CALGARY, ALBERTA T2P 0R4

APPROVAL

ACCT/SUB CODE #. COST CENTRE LOC

Enclosure



Calgary Head Office Suite 1000, 250 – 5 Street SW Calgary, Alberta T2P 0R4 Canada

15 September 2020

## INVOICE

#### 2020 ADMINISTRATION FEES - OIL AND GAS SECTOR

ATTENTION: CHIEF FINANCIAL OFFICER OR CONTROLLER TRIPLE FIVE INTERCONTINENTAL GROUP LTD. 3600, 700 - 2 ST SW

3600, 700 - 2 ST SW CALGARY AB T2P 2W3 INVOICE NUMBER: OG20-306A

AMOUNT: \$33,284.81

DUE DATE:

15 October 2020

A6WA Triple Five Intercontinental Group Ltd.:

In accordance with the Alberta Energy Regulator (AER) Administration Fees Rules, the AER applies an administration fee on wells operated by your company. Detailed information pertaining to the determination of your fees is enclosed.

The Canadian Association of Petroleum Producers (CAPP) and The Explorers and Producers Association of Canada (EPAC) have jointly requested that the AER's administration fee process be used to collect \$4,078,000 to fund the Alberta Upstream Petroleum Research Fund (AUPRF) in 2020. The AER has agreed to assist and has included an amount for this funding in the oil and gas well administration fee invoices. As a result, the adjustment factor used for invoicing has increased from 2.152445 to 2.256598. AUPRF funds collected by the AER will be passed to the Petroleum Technology Alliance of Canada (PTAC). Payment of the AUPRF is voluntary. The AER is not involved in and does not make any decisions regarding the manner in which these funds are spent or to whom the funds are disbursed. On request, the AER may provide information to PTAC regarding paid and unpaid AUPRF amounts by operator.

This invoice includes 2020 AUPRF funding of \$1,536.28.

#### **IMPORTANT**

Under subsection 7(1) of the Rules, the AER will impose a penalty of 20% on any Administration Fees amounts owing to the AER that remain unpaid for more than 30 days following the date of this invoice. Amounts owed to PTAC for AUPRF funding are not subject to any late payment penalties.

## Appeals must be received in writing by our Calgary office before 4:00 PM on 15 October 2020. Your payment is due before 4:00 PM on 15 October 2020.

Well Class	Number of Wells	Base Fee/Well	AER Admin Fee	AUPRF Fee	Invoice Amount
. 01	0	\$70.00	\$0.00	\$0.00	\$0.00
02,	0	\$90.00	\$0.00	\$0.00	\$0.00
03	0	\$110.00	\$0.00	\$0.00	\$0.00
04	0	\$312.00	\$0.00	\$0.00	\$0.00
05	0	\$750.00	\$0.00	\$0.00	\$0.00
06	0	\$1,250.00	\$0.00	\$0.00	\$0.00
_07	1	\$1,625.00	\$3,497.72	\$169.25	\$3,666.97
08	10.7	\$1,875.00	\$28,250.81	\$1,367.03	\$29,617.84
Total	8		\$31,748.53	\$1,536.28	\$33,284.81

PLEASE PAY THIS AMOUNT \$33,284.81

GST Exempt

Payment due 15 October 2020

Please make all cheques payable to AER in Canadian Funds

Please direct questions concerning AER fees to Anila Kaceli at (403)297-6985 or AdminFeeCoordinator@aer.ca

Please direct questions concerning the AUPRF to CAPP at 403-267-1100 or communication@capp.ca or EPAC at 403-269-3454 or info@explorersandproducers.ca



## **Bulletin 2020-18**

www.aer.ca

September 10, 2020

#### 2020/21 AER Administration Fees (Industry Levy)

#### **Energy Regulation Program**

The Alberta Energy Regulator (AER) regulates energy resource development within Alberta and has a mandate to ensure the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

We are funded by an industry levy. In December 2019, we issued *Bulletin 2019-33* announcing that we would be reviewing the methodology used to calculate the levy. We then established a joint committee with representatives from the Canadian Association of Petroleum Producers (CAPP), the Explorers and Producers Association of Canada (EPAC), and the Coal Association of Canada (CAC), as well as Alberta Energy, to garner feedback. The committee's work has been divided into two phases: changes that are possible in the near term, and more substantial changes in the long term.

The committee completed the first phase of the review in spring 2020. Based on its advice, the AER's board of directors has approved reducing the base fees for service wells and wells producing less than 600 cubic metres (m³) per year for the 2020/21 industry levy. These revised fees are provided in the section "Oil and Gas."

The AER will provide details about the second phase of the review of the levy methodology in a separate communication to industry.

For 2020/21, the Government of Alberta approved a total industry levy of \$226.5 million. In March 2020, the government announced that it would provide \$113 million to cover the industry levy for six months (April to September). This relief was in response to the economic impacts of COVID-19 and record low commodity prices. We are now issuing the administration fees to collect the remaining \$113.5 million.



## **Frequently Asked Questions**

#### Bulletin 2020-18: 2020/21 AER Administration Fees (Industry Levy)

#### September 2020

- Q1. When are the administration fees due?
- A1. October 15, 2020.
- Q2. Who is responsible for paying the administration fees?
- A2. The invoice is sent to the operator of a facility (well, oil sands scheme, or coal mine) as of December 31, 2019, and is payable by that operator. If the operator fails to pay the fee, the licensee is responsible for paying the invoiced amount and any assessed penalty.
- Q3. What are the administration fees for?
- A3. The administration fees support the AER's operations. The fees are allocated according to industry sector—oil and gas, oil sands, and coal—and are based on our operational requirements for the specific sector.
- Q4. Who is responsible for paying the fees if wells or facilities were sold after December 31, 2019?
- A4. The operator on record as of December 31, 2019, is responsible for paying the 2020 administration fees, even if the wells or facilities were sold after that date.
- Q5. Where can I get a copy of my invoice?
- A5. Invoices will be mailed out on September 15, 2020, and addressed to the chief financial officer or controller. To request an extra copy or electronic version of your invoice, please contact adminfeecoordinator@aer.ca.
- Q6. Can I pay by credit card?
- A6. No. Cheques are the only method of payment accepted.
- Q7. Will I be charged a penalty if I do not pay the invoice by the due date?
- A7. Payments are due October 15, 2020. A late-payment penalty of 20 per cent will be charged on the portion of the AER administration fee that remains unpaid after October 15, 2020.

#### Q11. What if I disagree with details on my invoice?

#### A11. Any disagreements can be directed to

Anila Kaceli

Revenue & Cash Management Advisor, Financial Reporting & Operations

Finance Branch

Alberta Energy Regulator

Suite 1000, 250 - 5 Street SW

Calgary, AB T2P 0R4

Telephone: 403-297-6985

Email: anila.kaceli@aer.ca

#### Q12. How do I appeal the administration fees?

#### A12. Any appeal must be made in writing (faxes are not acceptable) to

Mike Dalton, CA

Vice President

Finance Branch

Alberta Energy Regulator

Suite 1000, 250 – 5 Street SW

Calgary, AB T2P 0R4

Telephone: 587-794-4374

Email: mike.dalton@aer.ca

Payment of all invoices is required by October 15, 2020, regardless of whether an appeal has been filed. Following a decision on the appeal, adjustments will be applied as needed.





February 21, 2020

To: 2020 AER Oil & Gas Administration Fees Recipients

#### Re: Industry Support for the Alberta Upstream Petroleum Research Fund (AUPRF)

On behalf of the Canadian Association of Petroleum Producers, the Explorers and Producers' Association of Canada, Alberta Energy, and Alberta Environment and Parks, we encourage your company's contribution to the voluntary Alberta Upstream Petroleum Research Fund (AUPRF).

We recognize the significant value the AUPRF applied research program provides the oil and gas industry, and believe that through innovation and collaborative R&D, we can minimize the environmental impact of our industry economically.

The 2020 budget necessary to implement this research program is \$4.078 million.

#### **Background**

- 461 Projects launched to date
- 38 Best Management Practices has been developed to date

#### **Performance Highlights**

- PTAC's AUPRF projects have a track record of success. They have allowed the Regulator to enact superior policies and guidelines based on scientific evidence. These policies are less costly to regulate and comply with, reducing Industry costs by \$78 million per year.
- The Air Committee's work is helping with cost effective methane detection and mitigation through programs such as Fugitive Emission Management Program (FEMP) Effectiveness Assessment and the Alberta Methane Field Challenge. PTAC's AUPRF program and methane mitigation technology program is targeting to reduce the cost by \$550 million dollars.
- The Reclamation Remediation Committee's work has a focus of using proper scientific methods which inform the creation of proper governmental regulations and policies which improve the outcomes. Three projects of high value have been the F2 and F3 Hydrocarbons Management Limits at Remote Alberta Green Zone Sites; the Subsoil SAR SST Implementation and the recently enacted Native Prairie Protocol Policy. These three projects are currently saving industry \$50 million/year.
- The Water Committee's work includes the creation of the Alberta Water Use Tool (https://alberta-watertool.com/) used by industry and others to collaborate on the use of water in central Alberta. They have been working on bridging gaps between operators to create a system of sharing flowback water (produced water) to minimize the need for fresh water for completion operations. Part of this investigation includes studies to de-risk the ability of using layflat hoses (rubber and other materials) to move salt water above ground.
- The Ecological Committee has conducted work on grizzly bears and linear features such as seismic lines and pipeline right of ways (Bears actually do better with these features). They have also conducted studies on caribou preferences to better help the AER manage lands,



Calgary Head Office Suite 1000, 250 - 5 Street SW Calgary, Alberta T2P 0R4 Canada

15 September 2020

## **INVOICE DETAILS**

#### 2020 ADMINISTRATION FEES - OIL AND GAS SECTOR

ATTENTION: CHIEF FINANCIAL OFFICER OR CONTROLLER TRIPLE FIVE INTERCONTINENTAL GROUP LTD. 3600, 700 - 2 ST SW CALGARY AB T2P 2W3

#### A6WA Triple Five Intercontinental Group Ltd.:

This attachment shows the information used in the calculation of invoice OG20-306A. See the tables at the end of this report for definitions and explanations of abbreviations.

			; Wel	l Status		Admin Fee		· · // • • · · · · · · · · · · · · · · · ·	_
Well Identifier	Facility ID	Fluid	Mode	Type Structure	Class	Production m <sup>3</sup>	Base Fee	Adjustment Factor	Fee Payable
00/03-07-043-09W5/0	ABBT0142830	Gas	Flow		08	63,731.4	\$1,875	2.256598	\$4,231.12
00/05-07-043-09W5/0	ABBT0142830	Gas:	Flow		08	51,054.3	\$1,875	2,256598	\$4,231.12
02/01-11-043-10W5/0	ABBT0142830	Gas	Flow		08	21,745.9	\$1,875	2,256598	\$4,231,12
00/08-11-043-10W5/0	ABBT0142830	Gas	Flow		. 80	49,234.7	\$1,875	2,256598	\$4,231.12
00/05-23-043-10W5/2	ABBT0142830	Gas	Flow		80	13,288.8	\$1,875	2,256598	\$4,231.12
00/13-23-043-10W5/0	ABBT0142830	Gas-	Flow		. 08	6,995.6	\$1,875	2,256598	\$4,231.12
00/08-24-043-10W5/0	ABBT0142830	Gas	Flow	•	08	8,229.4	\$1,875	2,256598	\$4,231.12
00/16-24-043-10W5/0	ABBT0142830	Gas	Flow		07	5,200.4	\$1,625	2,256598	\$3,666.97
Total Wells: 8			je ja Gala			219,480.5			\$33,284.81



Calgary Head Office Suite 1000, 250 – 5 Street SW Calgary, Alberta T2P 0R4 Canada

15 September 2020

## INVOICE

#### 2020 ADMINISTRATION FEES - OIL AND GAS SECTOR

ATTENTION: CHIEF FINANCIAL OFFICER OR CONTROLLER TRIPLE FIVE INTERCONTINENTAL GROUP LTD. 3600, 700 - 2 ST SW CALGARY AB T2P 2W3

INVOICE NUMBER:

OG20-306A

\$33,284.81

DUE DATE:

15 October 2020

A6WA Triple Five Intercontinental Group Ltd.:

In accordance with the Alberta Energy Regulator (AER) Administration Fees Rules, the AER applies an administration fee on wells operated by your company. Detailed information pertaining to the determination of your fees is enclosed.

The Canadian Association of Petroleum Producers (CAPP) and The Explorers and Producers Association of Canada (EPAC) have jointly requested that the AER's administration fee process be used to collect \$4,078,000 to fund the Alberta Upstream Petroleum Research Fund (AUPRF) in 2020. The AER has agreed to assist and has included an amount for this funding in the oil and gas well administration fee invoices. As a result, the adjustment factor used for invoicing has increased from 2.152445 to 2.256598. AUPRF funds collected by the AER will be passed to the Petroleum Technology Alliance of Canada (PTAC). Payment of the AUPRF is voluntary. The AER is not involved in and does not make any decisions regarding the manner in which these funds are spent or to whom the funds are disbursed. On request, the AER may provide information to PTAC regarding paid and unpaid AUPRF amounts by operator.

This invoice includes 2020 AUPRF funding of \$1,536.28.

#### **IMPORTANT**

Under subsection 7(1) of the Rules, the AER will impose a penalty of 20% on any Administration Fees amounts owing to the AER that remain unpaid for more than 30 days following the date of this invoice. Amounts owed to PTAC for AUPRF funding are not subject to any late payment penalties.

## Appeals must be received in writing by our Calgary office before 4:00 PM on 15 October 2020. Your payment is due before 4:00 PM on 15 October 2020.

Well Class	Number of Wells	Base Fee/Well	AER Admin Fee	AUPRF Fee	Invoice Amount
01	. 0	\$70.00	\$0.00	\$0.00	\$0.00
02	0	\$90.00	\$0.00	\$0.00	\$0.00
03	0	\$110.00	\$0.00	\$0.00	\$0.00
04	0	\$312.00	\$0.00	\$0.00	\$0.00
05	0	\$750.00	\$0.00	\$0.00	\$0.00
06	0	\$1,250.00	\$0.00	\$0.00	\$0.00
07	1	\$1,625.00	\$3,497.72	\$169.25	\$3,666.97
08	7	\$1,875.00	\$28,250.81	\$1,367.03	\$29,617.84
Total	8		\$31,748.53	\$1,536.28	\$33,284.81

PLEASE PAY THIS AMOUNT \$33,284.81

Please make all cheques payable to AER in Canadian Funds

Please direct questions concerning AER fees to Anila Kaceli at (403)297-6985 or AdminFeeCoordinator@aer.ca

Please direct questions concerning the AUPRF to CAPP at 403-267-1100 or communication@capp.ca or EPAC at 403-269-3454 or info@explorersandproducers.ca

Payment due 15 October 2020

**GST** Exempt

#### Oil and Gas

The administration fee in the conventional oil and gas sector is based on individual well production of oil/bitumen or gas and the number of production and service wells for the year ended December 31, 2019.

All operating wells are classified into one of eight base fee classes, as set out in the *Alberta Energy Regulator Administration Fees Rules* (*AFR*), and illustrated in the table below. In addition, an adjustment factor is specified and applied to each base fee. This adjustment factor ensures that the total administration fee collected for the sector satisfies the revenue requirement for the AER.

The table also shows the decrease in the base fees for service wells and wells producing less than 600 m<sup>3</sup> per year for the 2020/21 industry levy.

Class	Min. production (m³/yr)*	Max. production (m³/yr)	Base fee 2020/21	Base fee prior years
1	Service wells		\$70.00	\$100.00
2	0.01	300	\$90.00	\$100.00
3	300.1	600	\$110.00	\$125.00
4	600.1	1 200	\$312.00	\$312.00
5	1 200.1	2 000	\$750.00	\$750.00
6	2 000.1	4 000	\$1 250.00	\$1 250.00
7	4 000.1	6 000	\$1 625.00	\$1 625.00
8	6 000.1	× × × × × × × × × × × × × × × × × × ×	\$1 875.00	\$1 875.00

The adjustment factor is set at 2.152445 of the base fee specified for wells in all classes in the AFR.

#### Alberta Upstream Petroleum Research Fund

CAPP and EPAC have jointly requested that the AER's administration fee process be used to collect \$4 078 000 to fund the Alberta Upstream Petroleum Research Fund (AUPRF) in 2020. We have agreed to assist and have included an amount for this funding in the oil and gas well administration fee invoices. As a result, the adjustment factor used for invoicing has increased from 2.152445 to 2.256598. Payment of the AUPRF is voluntary. Funds that we collect will be passed to the Petroleum Technology Alliance of Canada (PTAC). We are not involved in and do not make any decisions regarding the manner in which these funds are spent or to whom the funds are disbursed. On request, we may provide information to PTAC regarding paid and unpaid AUPRF amounts by operator.

#### Oil Sands

Fees are levied in five categories based on operating information for the 2019 calendar year. An operator may have activities in more than one category. Each category is subject to an adjustment factor as identified below.

## Alberta Energy Regulator

## **Abbreviations**

#### Well Status Fluid

AA CIT DES	itus vana
Code	Description
Acid-G	Acid Gas
Air	Air
Alkh2o	Alkaline Water
Ammnit	Ammonium Nitrate
An Amm	Anhydrous Ammonia
Brine	Brine
Butane	Butanes
Cbmcls	Coalbed Methane-Coals Only
Cbmot	Coalbed Methane-Coals&oth Lith
Cbmsot	Cbm&shale&other Sources
Co2	Carbon Dioxide
Cond	Condensate
Cr O/b	Crude Oil/bit
Cr-Bit	Crude Bitumen
Cr-Oil	Crude Oil
Diesel	Diesel Oil
Entgas	Entrained Gas
Eth +	Ethane Plus
Ethane	Ethane
Gas	Gas
G-W	Gas-Water
Lpg	Liquid Petroleum Gas
Miclar	Micellar
Misc	Miscellaneous
N/a	Not Applicable
N2	Nitrogen
Naphth	Naphtha
Oil	Oil
Oxygen	Oxygen
Pent+	Pentanes Plus
Polym	Polymer
Propne	Propane
Sand	Sand
Shg	Shale Gas Only
Shgot	Shale Gas&other Sources
Sk Em	Skim Emulsion
Skim O	Skim Oil
Solv	Solvent
Srcwte	Source Water
Steam	Steam
Syn-Cr	Synthetic Crude
Und	Undesignated
Waste	Waste
Water	Water

#### Well Status Mode

Code	Description
Abd	Abandoned
Abdwhp	Abandoned & Whipstocked
Abrent	Abandoned & Re-Entered
Abzone	Abandoned Zone
Capped	Capped
Closed	Closed
D∁	Drilling And Completing
Drl&c	Drilled And Cased
Flow	Flowing
Gaslft	Gas Lift
J&a	Junked & Abandoned
N/a	Not Applicable
Pot	Potential
Preset	Preset
Pump	Pumping
Susp	Suspended
Test	Testing
Tstemp	Test Completed

## Alberta Energy Regulator

#### 2020 Rules Table

Class	Production	on R	ange (m3)	Base Fee Per Well
01	Service W	/ells		\$70.00
02	0.01	to	300,00	\$90.00
03	300,01	to	600.00	\$110.00
04	600.01	to	1200.00	\$312.00
05	1200,01	to	2000,00	\$750.00
06	2000.01	to	4000.00	\$1,250.00
07	4000.01	to	6000.00	\$1,625.00
80	6000.01	to	99999999.00	\$1,875.00

#### AER 2020 ADMINISTRATION FES BOOKING WORKSHEET

ABBT 0142830 100/08-24-043-10W5/00 1001-002 4,231.12			Cost					
ABBT 0142830 100/08-24-043-10W5/00 1001-002 4,231.12			Center	Amount				
ABBT 0142830 100/13-23-043-10W5/00 1001-003 4,231.12	ABBT 0138212	100/05-23-043-10W5/02	1001-001	4,231.12		•		
ABBT 0142830 100/16-24-043-10W5/00 1001-004 3,666.97  ABBT 0142830 100/08-11-043-10W5/00 1001-006 4,231.12  ABBT 0142830 102/01-11-043-10W5/00 1001-007 4,231.12  ABBT 0142830 100/03-07-043-09W5/00 1001-008 4,231.12  ABBT 0142830 100/05-07-043-09W5/00 1001-009 4,231.12  ABBT 0142830 100/15-07-043-09W5/03 1001-010	ABBT 0142830	100/08-24-043-10W5/00	1001-002	4,231.12			-	
ABBT 0142830 100/08-11-043-10W5/00 1001-006 4,231.12 ABBT 0142830 102/01-11-043-10W5/00 1001-007 4,231.12 ABBT 0142830 100/03-07-043-09W5/00 1001-008 4,231.12 ABBT 0142830 100/05-07-043-09W5/00 1001-009 4,231.12 ABBT 0142830 100/15-07-043-09W5/03 1001-010 4,231.12	ABBT 0142830	100/13-23-043-10W5/00	1001-003	4,231.12				
ABBT 0142830 102/01-11-043-10W5/00 1001-007 4,231.12 ABBT 0142830 100/03-07-043-09W5/00 1001-008 4,231.12 ABBT 0142830 100/05-07-043-09W5/00 1001-009 4,231.12 ABBT 0142830 100/15-07-043-09W5/03 1001-010 4,231.12	ABBT 0142830	100/16-24-043-10W5/00	1001-004	3,666.97				
ABBT 0142830 100/03-07-043-09W5/00 1001-008 4,231.12 ABBT 0142830 100/05-07-043-09W5/00 1001-009 4,231.12 ABBT 0142830 100/15-07-043-09W5/03 1001-010	ABBT 0142830	100/08-11-043-10W5/00	1001-006	4,231.12				
ABBT 0142830 100/05-07-043-09W5/00 1001-009 4,231.12 ABBT 0142830 100/15-07-043-09W5/03 1001-010	ABBT 0142830	102/01-11-043-10W5/00	1001-007	4,231.12				
ABBT 0142830 100/15-07-043-09W5/03 1001-010	ABBT 0142830	100/03-07-043-09W5/00	1001-008	4,231.12				
	ABBT 0142830	100/05-07-043-09W5/00	1001-009	4,231.12				
ABBT 0142830   100/04-23-043-10W5/02   1001-011	ABBT 0142830	100/15-07-043-09W5/03	1001-010	·				
	ABBT 0142830	100/04-23-043-10W5/02	1001-011					

	·		
TOTAL		33,284.81	

2020-Sep-22 : 03:15 pm, Elapsed:0:00.01 Pandell JV 4.7,8,140 - Pandell Technology Corp

User: JERRY Page 1 www.pandell.com/ollandgas (ra\_vchr\_desc)

# Triple 5 Intercontinental Group Ltd. Installation: T5INTG Voucher Summary with Descriptions -- Period: 2020/Sep Voucher: 2013 Entered: 2020-09-22 (JERRY) Processed: 2020-09-22 15:15:07 (JERRY)

Involce/Cheq	Volume	Credits	Debits	Pay	yy-mm-dd	Description	Code	I.D. Type
OG20-306A	0.0	33,284.81	0.00	0	2020-09-15	AP - TRADE		A Acct
						ALBERTA ENERGY REGULATOR	ALB0003	
						CALGARY HEAD OFFICE		Addr:
						SUITE 1000 250-5 STREET SW		•
						CALGARY, AB CANADA T2P 0R4		
OG20-306A	0.0	0.00	4,231.12	0	2020-09	OPERATING EXPENSE	9910	A0001 Acct:
						AER ADMIN FEES	230	S/F:
						SUNCHILD HZ 5-23-43 10W5 WELL	1001001	Cntr:
						SUNCHILD HZ 5-23-43-10W5	1	Splt
OG20-306A	0.0	0.00	4,231.12	0	2020-09	OPERATING EXPENSE	9910	A0002 Acct
						AER ADMIN FEES	230	S/F:
		4				T5 FERRIER HZ 8-24-43-10W5	1001002	Cntr;
						HZ 08-24-043-10W5	1	Splt
OG20-306A	. 0.0	0.00	4,231.12	ð	2020-09	OPERATING EXPENSE	9910	A0003 Acct:
						AER ADMIN FEES	230	8/F:
						SUNCHILD HZ 13-23-43-10W5	1001003	Cntr:
						SUNCHILD HZ 13-23-43-10W6	1	Splt:
OG20-306A	0.0	0,00	3,666,97	0	2020-09	OPERATING EXPENSE	9910	A0004 Acct:
						AER ADMIN FEES	230	S/F:
						HZ 16-24-43-10WS	1001004	Ontr:
						SUNCHILD HZ 16-24-43-10W6	1	Splt
OG20-306/	0.0	0.00	4,231.12	0	2020-09	OPERATING EXPENSE	9910	A0005 Acct
						AER ADMIN FEES	230	S/F;
					٠.	100/08-11-043-10W5M	1001006	Cntr:
						HZ 100/08-11-043-10W5M	1	Splt
OG20-306/	0.0	0.00	4,231.12	0	2020-09	OPERATING EXPENSE	9910	A0006 Acct
						AER ADMIN FEES	230	S/F:
						102/01-11-043-10W5M	1001007	Cntr
		•				HZ 102/01-11-043-10W5M	1	Splt
OG20-306/	0.0	0.00	4,231.12	0	2020-09	OPERATING EXPENSE	9910	A0007 Acot
						AER ADMIN FEES	230	S/F:
						HZ 03-07-043-09 10W5M	1001008	Cntr:
		š.				HZ 03-07-043-09 W6M	1 .	Splt:
OG20-306A	0.0	0.00	4,231.12	0	2020-09	OPERATING EXPENSE		A0008 Acct:
						AER ADMIN FEES		S/F:
						HZ 05-07-043-09 10W5M	1001009	
						HZ 04-07-043-09 W5M	1	Splt:
	0.0	33,284.81	33,284.81	*********				