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Edition: #170

September 24, 2018

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Equity and commodity performance

- The S&P TSX Composite Oil & Gas E&P Index was down 1% last week, while the overall market was up 1%. Notable top performers w/w in the Canadian Junior & Intermediate E&P space were YGR, ATH and JOY (Figure 1).
- Last week, Edmonton Par was up 3% and the heavy crude oil benchmark WCS was down 5% (Figure 6). NYMEX Henry Hub natural gas up 8% and the Canadian benchmark, AECO, was up 4% (Figure 9).
- With Brent trading near the \$80/bbl mark most of last week and closing at a new 4+ year high of \$81.20/bbl on Monday, we also saw Colombia's Vasconia heavy oil blend price move higher, now trading at a \$2.44/bbl premium to WTI. We expect this high pricing to translate into strong cash flows for our Colombian heavy oil producers in Q3 and Q4, including PXT, GTE, FEC and GPRK (Figure 5).

Licenses

- In our coverage universe, the following wells were licensed last week: BTE licensed 1 Viking well, 1 Basal Mannville well, and 3 Cummings wells; BXE licensed 1 Upper Mannville well; CJ licensed 1 Midale well, and 1 Mannville well; CPG licensed 4 Oungre Evaporite wells, and 2 Bakken wells; HSE licensed 2 Lloydminster wells, 15 Midale wells, 1 Sparky well, 1 Rex well, and 2 Duperow wells; TOG licensed 1 Midale well, and 1 Frobisher Alida well; VET licensed 2 Frobisher wells, 1 Bakken well, 1 Midale Well, and 2 Ellerslie wells; WCP licensed 1 Rush lake well; YGR licensed 1 Cardium well.

Land sales

- In the September 19, AB land sale, a total of ~110k acres were sold for a total bonus of ~\$10.5M which translates to ~\$95 /acre average.
- Eagle: ~43 sections (27,520 acres) sold in the Eagle area to broker for a total bonus of ~\$2.1M or ~\$77/acre, with various rights posted including Montney rights. Companies active in the area include CNQ targeting the Shunda, and Long Run targeting the Wabamun.
- Anten: ~4 sections (2,560 acres) sold in the Anten area to broker for a total bonus of ~\$4.2M or ~\$1,650/acre, with Montney rights available in the package. Companies active in the area include ARC and BIR targeting the Montney.

Recent publications, announcements, and estimate changes

- On the Canadian E&P side, [TVE](#) provided an operational update and increased its production guidance. We have also made minor adjustments to our PONY estimates (Figure 26).
- On the oilfield service side, we lowered our targets for pumpers to reflect the more [turbulent domestic completion market](#).

Oilfield services corner

- The WCSB rig count decreased by 29 w/w with an active fleet of 195, down 11% from prior year levels (see Figure 19). Meanwhile, the US rig count decreased by 2 w/w with an active fleet of 1053, remaining relatively unchanged from the prior week (Figure 20).
- In our OFS chart of the week, we highlight y/y change in cash flow in 2H18 for a wide subset of junior and intermediate producers based on consensus expectations (Figure 23).

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The recommendations and opinions expressed in this research report accurately reflect the research analyst's personal, independent and objective views about any and all the companies and securities that are the subject of this report discussed herein.

For important information, please see the Important Disclosures beginning on page 19 of this document.

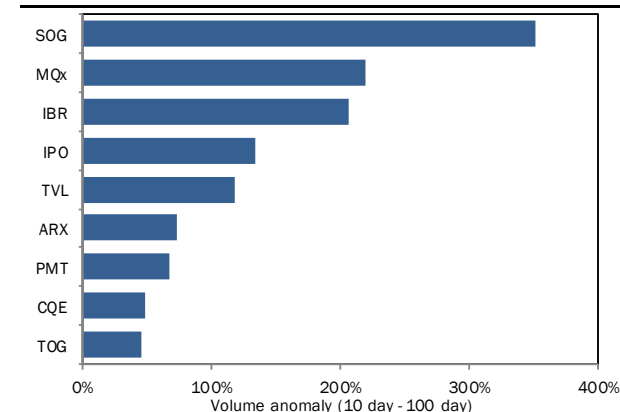
Equity returns

Figure 1: Canadian E&P equities – weekly returns (priced as of market close on Friday September 21, 2018)

Top performers			Price	w/w	Bottom performers			Price	w/w
1	YGR	Yangarra Resources Ltd	\$4.97	16%	1	TGL	TransGlobe Energy Corp	\$4.25	-11%
2	ATH	Athabasca Oil Corp	\$1.50	9%	2	SRX	Storm Resources Ltd	\$2.45	-6%
3	JOY	Journey Energy Inc	\$1.93	7%	3	CR	Crew Energy Inc	\$1.62	-5%
4	VII	Seven Generations Energy Ltd	\$14.93	7%	4	PSK	PrairieSky Royalty Ltd	\$22.91	-4%
5	CPG	Crescent Point Energy Corp	\$8.09	6%	5	RZE	Razor Energy Corp	\$2.99	-4%
6	PON	Painted Pony Energy Ltd	\$2.84	6%	6	BXE	Bellatrix Exploration Ltd	\$1.20	-3%
7	SGY	Surge Energy Inc	\$2.56	5%	7	BTE	Baytex Energy Corp	\$3.46	-3%
8	IMO	Imperial Oil Ltd	\$40.76	5%	8	GTE	Gran Tierra Energy Inc	\$4.45	-3%
9	CVE	Cenovus Energy Inc	\$12.06	4%	9	PXX	BlackPearl Resources Inc	\$1.18	-2%
10	BIR	Birchcliff Energy Ltd	\$4.56	4%	10	PSH	Petroshale Inc	\$1.76	-2%
S&P/TSX Composite Index			2,270.38	1%	S&P/TSX Composite Index			2,270.38	1%
S&P/TSX Composite Energy Index			1,515.23	2%	S&P/TSX Composite Energy Index			1,515.23	2%
S&P/TSX Composite O&G E&P Index			3.28	-1%	S&P/TSX Composite O&G E&P Index			3.28	-1%

Note: stocks under \$1.00/share are excluded from top and bottom performers.
Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Figure 2: Most active stocks by volume anomaly



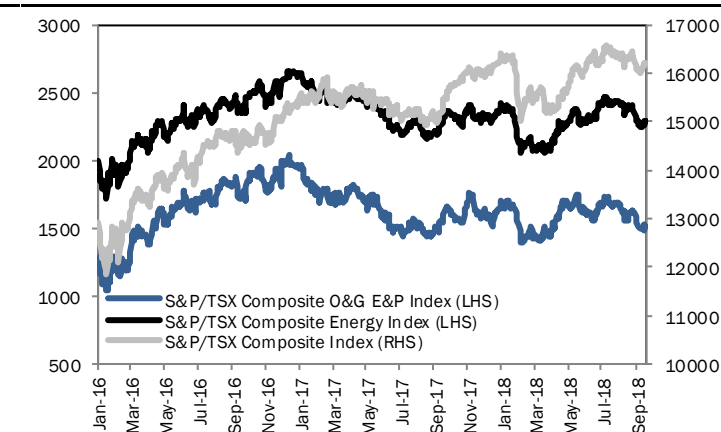
Note: volume anomaly is 10-day average vs. 100-day average
Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Figure 3: Canadian E&P equities – YTD returns (priced as of market close on Friday September 21, 2018)

Top performers			Price	YTD	Bottom performers			Price	YTD
1	TGL	TransGlobe Energy Corp	\$4.25	124%	1	CR	Crew Energy Inc	\$1.62	-49%
2	RZE	Razor Energy Corp	\$2.99	89%	2	BXE	Bellatrix Exploration Ltd	\$1.20	-44%
3	TVE	Tamarack Valley Energy Ltd	\$4.89	71%	3	GXO	Granite Oil Corp	\$1.79	-42%
4	ATH	Athabasca Oil Corp	\$1.50	40%	4	BNP	Bonavista Energy Corp	\$1.32	-41%
5	GXE	Gear Energy Ltd	\$1.15	35%	5	POU	Paramount Resources Ltd	\$13.31	-31%
6	GTE	Gran Tierra Energy Inc	\$4.45	30%	6	PEY	Peyto Exploration & Development Corp	\$10.38	-31%
7	ERF	Enerplus Corp	\$15.38	25%	7	PSK	PrairieSky Royalty Ltd	\$22.91	-29%
8	SGY	Surge Energy Inc	\$2.56	22%	8	FRU	Freehold Royalties Ltd	\$11.21	-20%
9	HSE	Husky Energy Inc	\$21.72	22%	9	OBE	Obsidian Energy Ltd	\$1.25	-20%
10	BNE	Bonterra Energy Corp	\$18.18	19%	10	PSH	Petroshale Inc	\$1.76	-18%
S&P/TSX Composite Index			2,270.38	-4%	S&P/TSX Composite Index			2,270.38	-4%
S&P/TSX Composite Energy Index			1,515.23	-8%	S&P/TSX Composite Energy Index			1,515.23	-8%
S&P/TSX Composite O&G E&P Index			3.28	-39%	S&P/TSX Composite O&G E&P Index			3.28	-39%

Note: stocks under \$1.00/share are excluded from top and bottom performers.
Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Figure 4: Key index performance

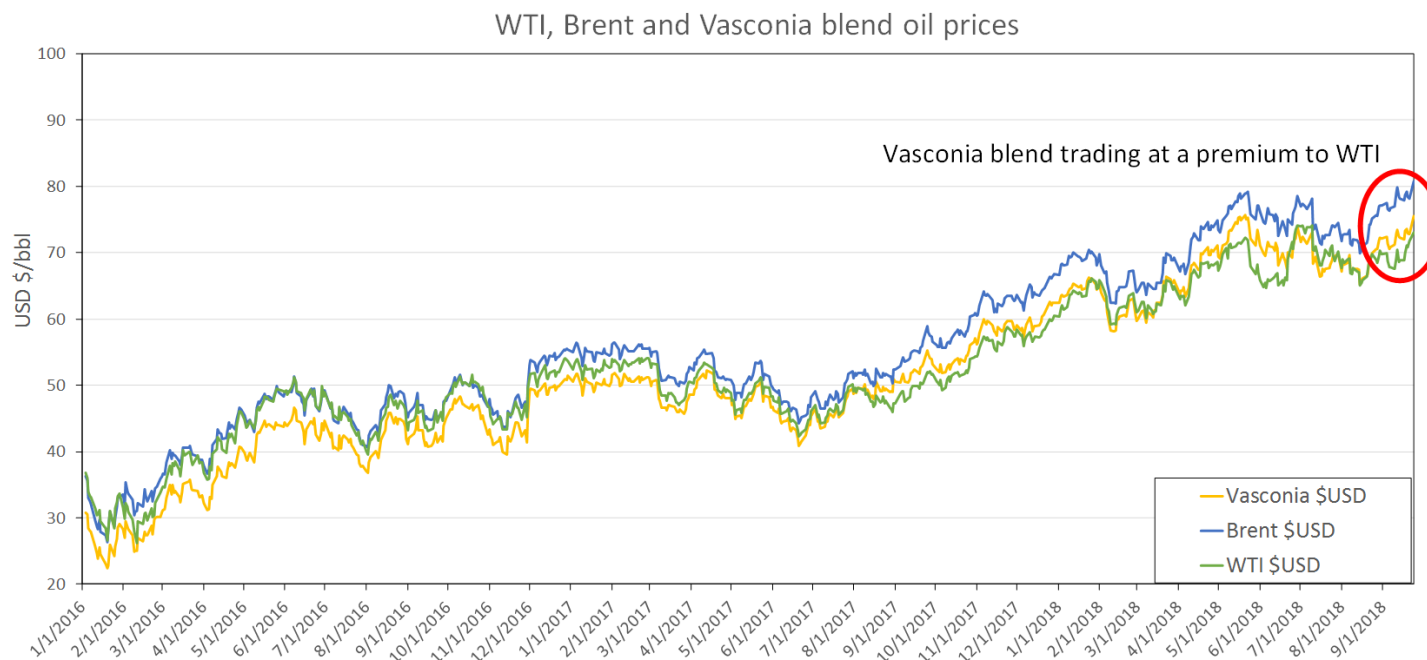


Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Chart of the week: Vasconia heavy oil blend

Figure 5: WTI, Brent and Vasconia blend prices

- With Brent trading near the \$80/bbl mark most of last week and closing at a new 4+ year high of \$81.20/bbl on Monday, we also saw Vasconia heavy oil blend price move higher.
- Vasconia is the blend that most of our Colombian producers sell their heavy crude into, including PXT, GTE, FEC and GPRK.
- Vasconia oil blend is currently receiving merely a US\$5.24/bbl discount to Brent and a \$2.44/bbl premium to WTI, due to high demand for heavy, sweet crude by US Gulf Coast and Asian refineries, while reduced supply of Mexican, Venezuelan, OPEC and Canadian heavy crudes.
- The premium to WTI is of particular interest, considering that Vasconia is a ~24° API heavy oil blend, while WTI is a ~40° API light oil blend.
- As a result, we forecast that our Colombian heavy oil producers are generating netbacks of up to \$50/bbl, which we expect to translate into strong cash flows in Q3 and Q4.
- Companies that stand to benefit from this trend include PXT, GTE, FEC and GPRK.

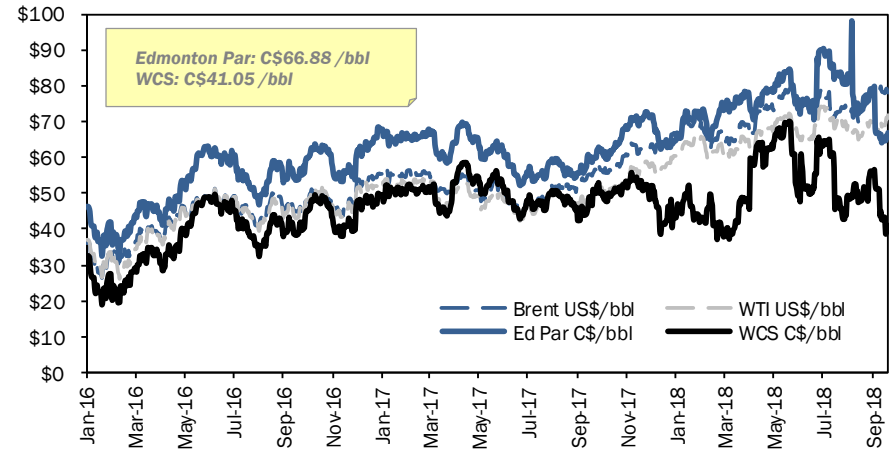


Source: Company Reports, Canaccord Genuity estimates

Crude oil fundamentals

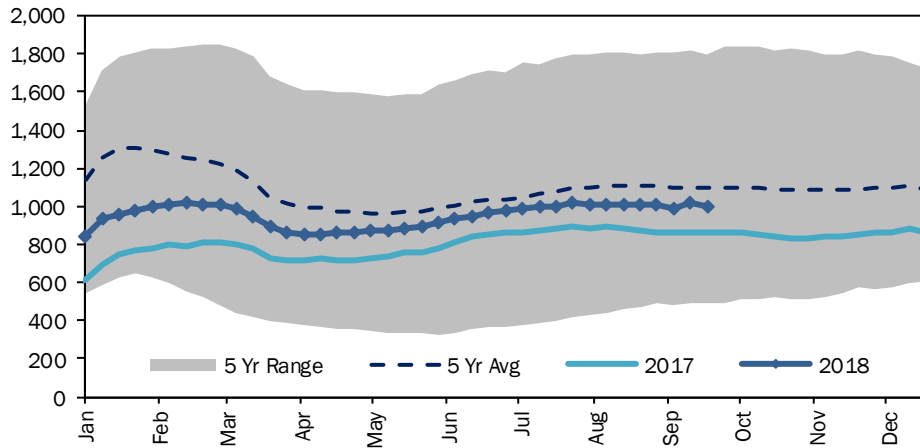
- Last week, the Brent crude oil benchmark was flat, and WTI crude oil benchmark was up 4%.
- Year-to-date, Brent is up 41%, while WTI is up 34%.
- Brent traded at a US\$6.27 /bbl premium to WTI at the close on Friday.
- Last week in Canada, the light crude oil benchmark, Edmonton Par up 3% and the heavy crude oil benchmark, WCS, was down 5% (prompt month prices quoted).
- Year to date, Edmonton Par is down 1%, while WCS is down 17%.
- The WTI - Ed Par differential sits at US\$20.00 /bbl, while the WTI - WCS differential sits at US\$40.00 /bbl (prompt month prices quoted).
- The onshore North American oil rig count is 16% above this time last year.
- U.S. Crude oil inventories are down 17% from last year.

Figure 6: Select crude oil benchmark prices



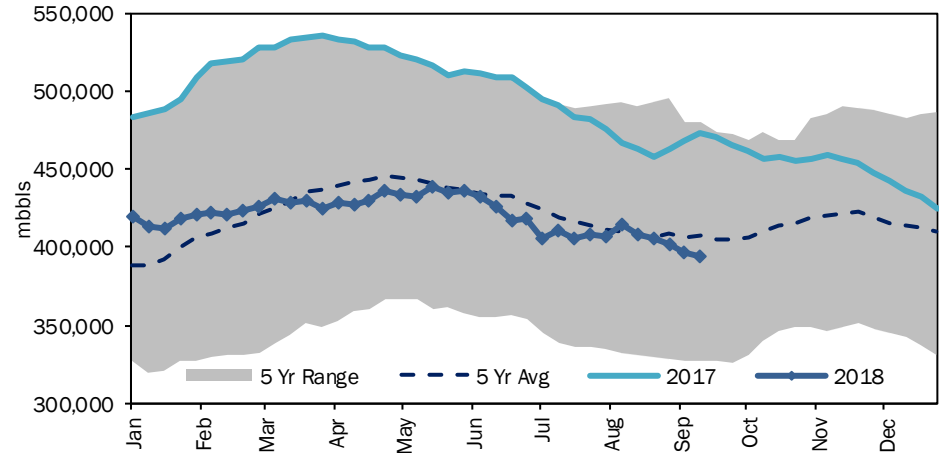
Source: Bloomberg Finance L.P., NET Energy

Figure 7: North American oil rig count



Source: Baker Hughes

Figure 8: U.S. crude oil inventories (excl. SPR)

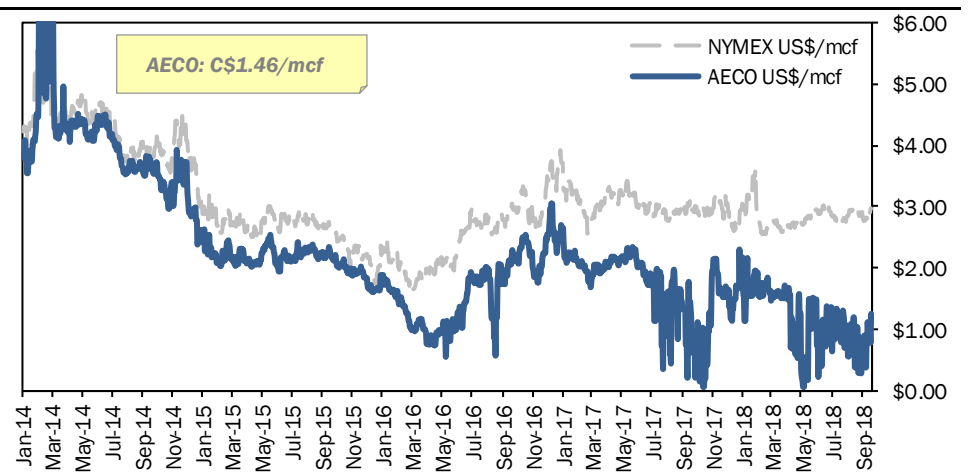


Source: U.S. Department of Energy

Natural gas fundamentals

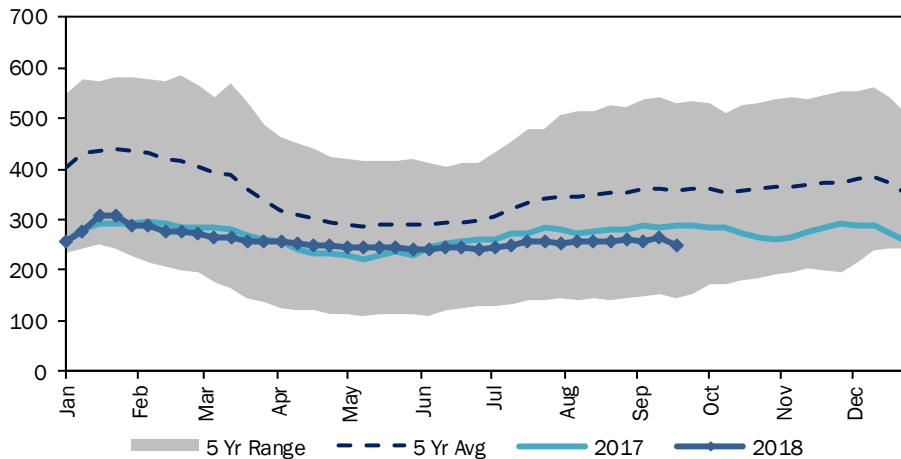
- Last week, the NYMEX Henry Hub natural gas benchmark was up 8% and the Canadian benchmark, AECO, was up 4%.
- Year to date, Henry Hub is down 20% and AECO is down 59%.
- The onshore North American gas rig count is down 16% from last week.
- At ~3.3 Tcf, North American natural gas inventories are down 15% below the 5-year average and are down 19% from last year.

Figure 9: Select natural gas benchmark prices



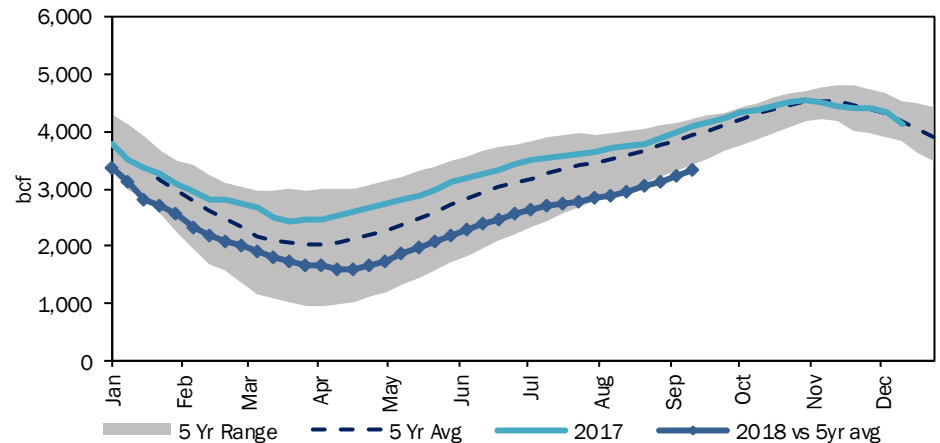
Source: Bloomberg Finance L.P., NYMEX

Figure 10: North American gas rig count



Source: Baker Hughes

Figure 11: North American natural gas inventories



Source: EIA, Canadian Enerdata Ltd.

Weekly WCSB well licensing

Figure 12: Selected well licenses by target formation (September 17 – September 24, 2018)

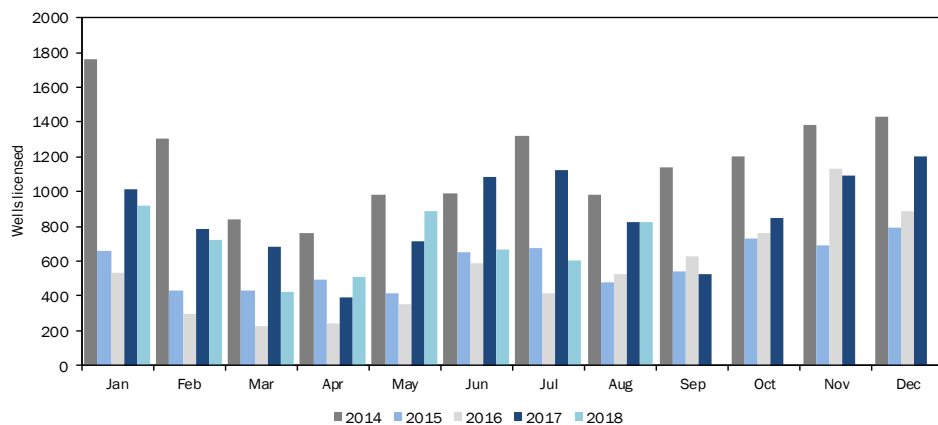
- There were 104 well licenses issued last week compared to 145 the week prior.
- Baytex licensed 1 Viking well, 1 Basal Mannville well, and 3 Cummings wells.
- Bellatrix licensed 1 Upper Mannville well.
- Cardinal licensed 1 Midale well, and 1 Mannville well.
- Crescent Point licensed 4 Oungre Evaporite wells, and 2 Bakken wells.
- Husky licensed 2 Lloydminster wells, 15 Midale wells, 1 Sparky well, 1 Rex well, 2 General Petroleum wells, and 2 Duperow wells.
- TORC licensed 1 Midale well, and 1 Frobisher Alida well.
- Vermillion licensed 2 Frobisher wells, 1 Bakken well, 1 Midale Well, and 2 Ellerslie wells.
- Whitecap licensed 1 Rush lake well.
- Yangara licensed 1 Cardium well.

	Montney	Cardium	Frobisher	Oungre Evaporite	Bakken	Mannville	Rush Lake	Spirit River	Lloydminster	Wasasca	Midale	Frobisher Alida	Lower Shaunavon	Mannville	Pekisko	Viking	Basal Mannville	Ellerslie	Cooking Lake	Sparky	Viking	Beaverhill Lake	Rex	Upper Mannville	Cummings	General Petroleum	Duperow	McLaren	Lotsberg	Gething	Peace River	Clearwater	Charlie Lake	Total		
Artis Expl Ltd																			1																1	
Baytex Enrg Ltd																1	1									3										5
Bellatrix Expl Ltd																									1											1
Caltex Rsrcs Ltd									6																											6
Cardinal Enrg Ltd											1																									1
Cardinal Enrg Ltd(2)						1																														1
Crescent Point Enrg Corp				4	2																															6
Deltastream Enrg Corp																																	3			3
Full Circle Enrg Ltd													1																							1
Gain Enrg Ltd		2																																		2
Gear Enrg Ltd																												1								1
Highrock Rsrcs Ltd			7																																	7
Husky Oil Oprtns Ltd								2	15										1				1			2	2									23
Insignia Enrg Ltd	2																																			2
Karve Enrg Inc																						1														1
Keystone Rylty Corp			2																																	2
Outlier Rsrcs Ltd																															2					2
Pembina NGL Corp																												1								1
Perpetual Operating Corp								2																												2
Repsol O&G Cda Inc																							2													2
Ridgeback Rsrcs Inc		1			1																															2
Sitka Expl Ltd																			2																	2
Sphere Enrg Corp																				1																1
Spur PetrL Ltd																																	2			2
Teine Enrg Ltd																3																				3
TORC O&G Ltd										1	1																									2
Torxen Rsrcs Ltd													1	1																						2
Tourmaline Oil Corp	2						3																										1		5	11
Vermilion Enrg Inc			2	1						1								2																		6
West Lake Enrg Corp																								1												1
Whitecap Rsrcs Inc							1																													1
Yangarra Rsrcs Corp		1																																		1
Grand Total	4	4	11	5	3	1	1	3	10	15	3	1	1	1	1	4	1	4	1	2	1	2	2	1	3	2	2	1	1	2	1	5	5	104		

Source: GeoScout, Canaccord Genuity

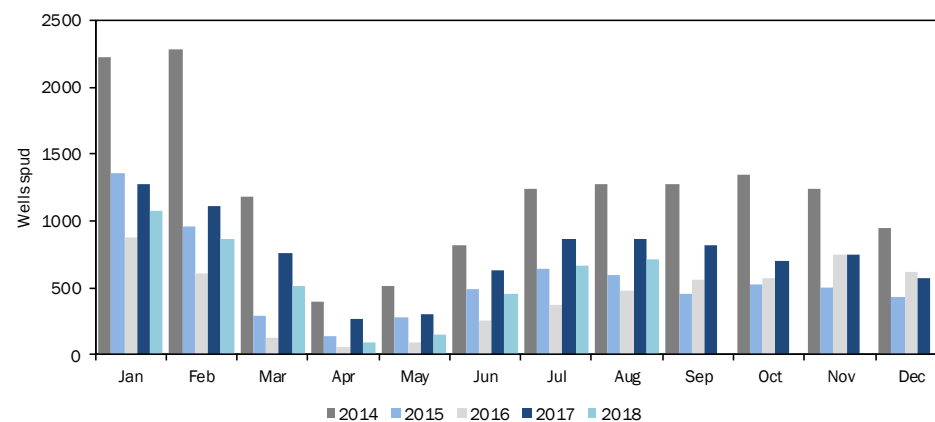
YTD WCSB wells licensed and spud

Figure 13: Wells licensed by month



Source: GeoScout, Canaccord Genuity

Figure 14: Wells spud by month



Source: GeoScout, Canaccord Genuity

Wells licensed

- In 2018 year to date, wells licensed are down 16% y/y in the Western Canadian Sedimentary Basin (WCSB).
- August saw 823 wells licensed vs. 824 the prior year.

Wells spud

- In 2018 year to date, wells spud was down 25% in the WCSB.
- August saw 707 wells spud vs. 867 the prior year.
- The most active drillers YTD were CNQ, CPG, CVE, RRX, DVN, Teine, & WCP.

Land Sale Activity

September 19, AB land sale summary:

- In the September 19, AB land sale, a total of ~110k acres were sold for a total bonus of ~\$10.5M which translates to ~\$95/acre average.

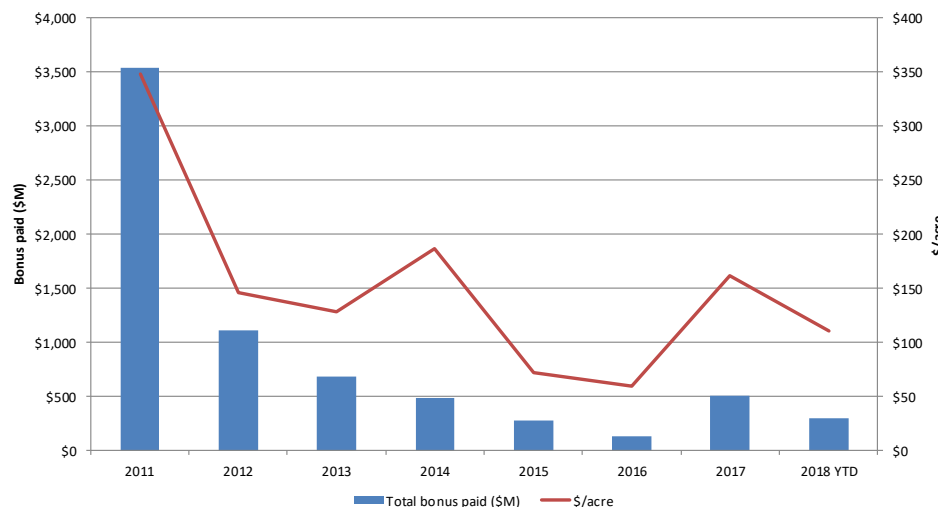
Highlights from the sale include:

- Eagle:** ~43 sections (27,520 acres) sold in the Eagle area to broker for a total bonus of ~\$2.1M or ~\$77/acre, with various rights posted including Montney rights. Companies active in the area include CNQ targeting the Shunda, and Long Run targeting the Wabamun.
- Anten:** ~4 sections (2,560 acres) sold in the Anten area to broker for a total bonus of ~\$4.2M or ~\$1,650/acre, with Montney rights available in the package. Companies active in the area include ARC and BIR targeting the Montney.

Next AB land sale: October 3:

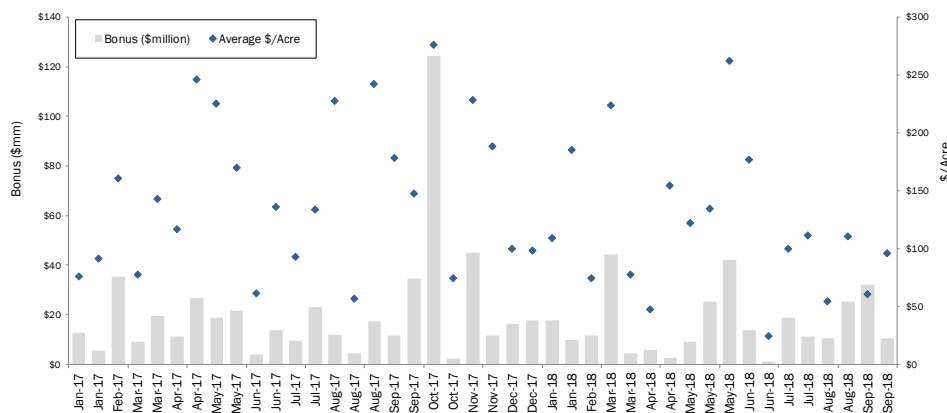
- In the next land sale, AB has ~200k acres available for sale, with packages available scattered across the province.
- Rycoft / Shane:** ~150 sections (96,000 acres) for sale in the Rycoft / Shane area with various rights posted including Montney rights. Companies active in the area include CNQ targeting the Montney, and TOU targeting the Charlie Lake.

Figure 15: Historical bonuses collected from AB land sales



Source: Company Reports, Canaccord Genuity estimates

Figure 16: Historical AB land sale bonuses and avg \$/acre



Source: GeoScout, Canaccord Genuity

Figure 17: Upcoming land sales in the WCSB

Alberta	B.C.	Sask
3-Oct-18	10-Oct-18	2-Oct-18
17-Oct-18	14-Nov-18	4-Dec-18
31-Oct-18	12-Dec-18	

Upcoming land sales:

Alberta – October 3, 2018: A total of ~200,000 acres are for sale in the next AB land sale.

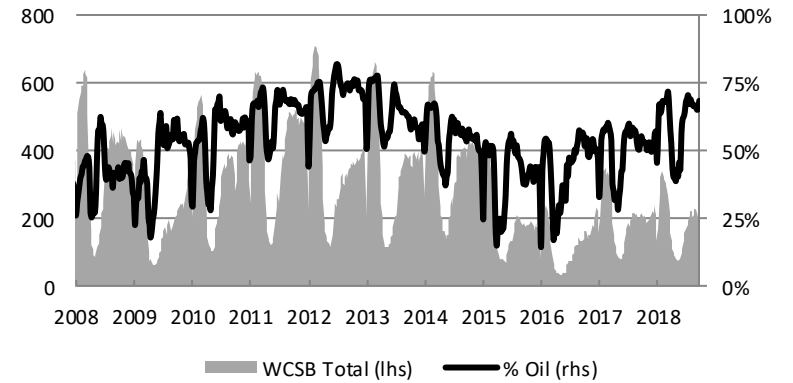
British Columbia – October 10, 2018: A total of ~22,830 acres are for sale in the next BC land sale.

Saskatchewan – October 2, 2018: A total of ~27,100 acres are for sale in the next SK land sale.

Rig Count

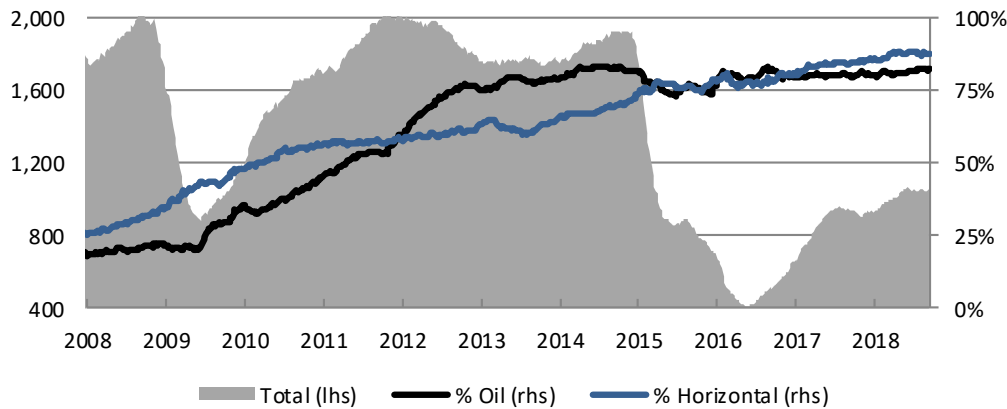
- The WCSB rig count decreased by 29 w/w. The active fleet of 195 has decreased by 11% from prior year levels.
- The US rig count was down (at 1,053 active) from the prior week. The US oil directed rig count decreased one to 866. Meanwhile, the US gas directed rig count was flat at 186.
- The Permian rig count increased five w/w to 488.

Figure 18: WCSB rig count



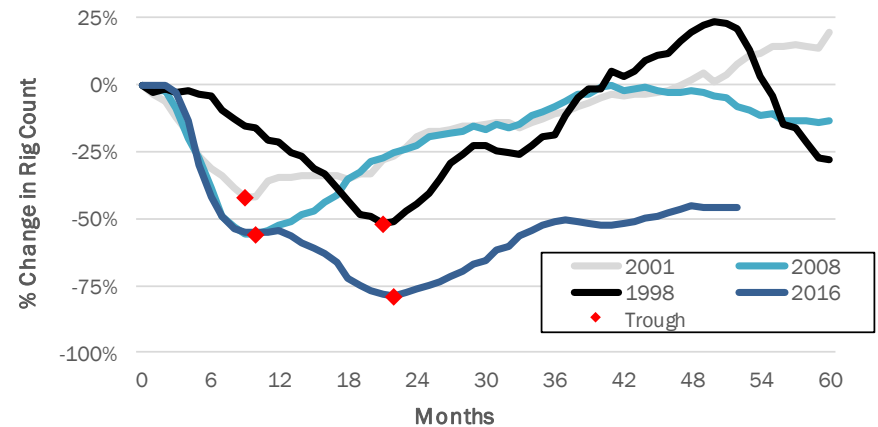
Source: Baker Hughes

Figure 19: US rig count



Source: Baker Hughes

Figure 20: Historical US rig count cyclical declines (peak to trough)



Source: Baker Hughes

WCSB Drilling Activity – Operators and Contract Drillers

Figure 21: Average active rigs – E&P (Week of 9/21)

Seniors	Sep. 21	Prior	
	2018	Week	Year
CNRL	11.0	11.0	6.0
Husky	7.4 ↓	9.2	6.6
Encana	6.0 ↓	8.0	7.8
Seven Generations	4.2 ↓	7.0	4.0
Devon	3.4 ↓	4.0	3.8
Cenovus	3.0 ↓	3.2	5.2
XTO Energy Canada	3.0	3.0	2.0
Chevron	2.0	2.0	2.0
Conocophillips	1.0	1.0	3.0
Nexen	1.0	1.0	0.0
Shell	1.0	1.0	5.0
Sinopec	1.0	1.0	0.0
Suncor	1.0	1.0	1.0
Juniors & Intermediates			
Crescent Point	13.8 ↓	15.6	15.2
Tourmaline	13.6 ↑	13.2	15.8
Peyto	5.6 ↓	5.8	8.0
Teine	4.0	4.0	2.6
TORC	4.0	4.0	1.0
Whitecap	4.0 ↓	6.0	3.6
Vermillion	3.6 ↓	5.0	0.0
Baytex	3.0 ↓	3.8	1.0
Bonavista	3.0	3.0	4.0
Raging River	3.0 ↓	4.2	4.0

Source: JuneWarren-Nickle's

- CNRL, Husky and Encana were the most active seniors.
- Crescent Point and Tourmaline were the most active intermediate E&Ps.
- Western was the most active driller in our coverage universe in Canada while Precision was most active in the US.
- In our OFS chart of the week, we highlight y/y change in cash flow in 2H18 for a wide subset of junior and intermediate producers based on consensus expectations.

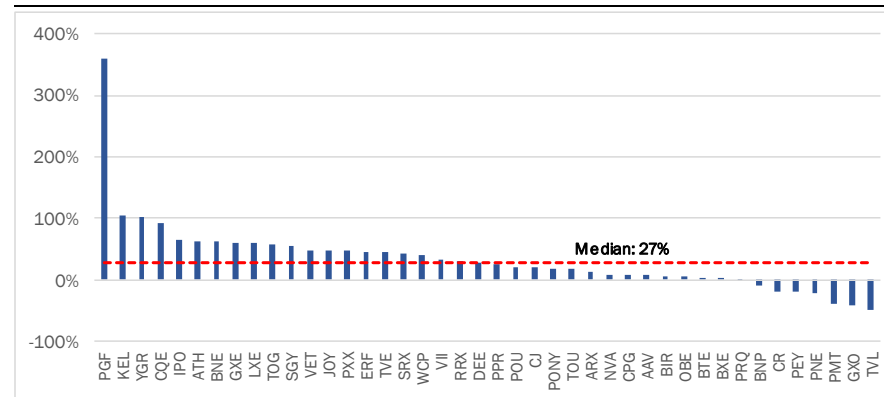
Figure 22: Driller average active rigs & utilization (Week of 9/21)

Driller	WCSB			US	
	Sep. 21 2018	Prior Week	Prior Year	Sep. 21 2018	Prior Week
Akita Drilling	4 / 18% ↓	6 / 27%	9 / 32%	--	--
Ensign Drilling	12 / 23% ↓	17 / 32%	16 / 29%	40 / 58%	40 / 58%
Nabors Drilling	13 / 31% ↓	18 / 41%	13 / 28%	105 / 46% ↓	106 / 47%
Precision Drilling	35 / 26% ↓	49 / 37%	49 / 36%	73 / 71%	73 / 71%
Total Energy Services	14 / 18% ↓	23 / 30%	18 / 38%	9 / 36% ↓	10 / 40%
Trinidad Drilling	24 / 36% ↓	29 / 42%	28 / 39%	43 / 63% ↑	42 / 62%
Western	19 / 38% ↓	23 / 45%	21 / 42%	4 / 67%	4 / 67%
Industry Average	152 / 25% ↓	209 / 34%	200 / 32%	1,053 ↓	1055

Source: JuneWarren-Nickle's, Rigdata

Figure 23: OFS Chart of the Week

Junior & intermediate E&P cash flow expectations – 2H18 versus prior year (Consensus)



Source: Factset, Canaccord Genuity

Week-over-week estimate changes

Figure 24: Week-over-week estimate changes (Changes as of 09-24-2018)

Company	Ticker	Analyst	Target		Change %	Rating Current	CG deck	Futures	2018E CFPS		Change %	2019E CFPS		Change %	2018E Prod. (mboe/d)		Change %	2019E Prod. (mboe/d)		Change %
			2P NAV Current	2P NAV Current			Current	Prior	Current	Prior		Current	Prior		Current	Prior		Current	Prior	
Senior E&P / Integrated																				
Canadian Natural Resources Ltd.	CNQ	DF	\$60.00	\$60.00		BUY	\$41.93	\$22.89	\$8.07	\$8.07		\$8.65	\$8.65		1,099.4	1,099.4		1,140.8	1,140.8	
Cenovus Energy Inc.	CVE	DF	\$15.00	\$15.00		HOLD	\$14.07	\$4.57	\$2.20	\$2.20		\$2.65	\$2.65		498.1	498.1		490.6	490.6	
Encana Corp.	ECA	DF	US\$19.00	US\$19.00		BUY	US\$7.72	US\$5.54	US\$2.04	US\$2.04		US\$3.08	US\$3.08		359.9	359.9		419.5	419.5	
Husky Energy Inc.	HSE	DF	\$25.00	\$25.00		HOLD	\$21.22	\$17.72	\$4.84	\$4.84		\$5.07	\$5.07		303.9	303.9		321.2	321.2	
Imperial Oil Ltd.	IMO	DF	\$50.00	\$50.00		HOLD	\$51.07	\$32.66	\$5.82	\$5.82		\$6.67	\$6.67		364.4	364.4		386.4	386.4	
Suncor Energy Inc.	SU	DF	\$67.00	\$67.00		BUY	\$58.75	\$47.60	\$6.77	\$6.77		\$8.62	\$8.62		739.7	739.7		838.0	838.0	
Avg Seniors / Integrated																				
0%																				
Mid-Caps (>50 mboe/d)																				
Baytex Energy Corp.	BTE	DF	\$7.00	\$7.00		BUY	\$2.13	\$0.66	\$1.46	\$1.46		\$1.72	\$1.72		79.0	79.0		97.1	97.1	
Birchcliff Energy Ltd.	BIR	DF	\$6.50	\$6.50		BUY	\$3.40	\$1.83	\$1.19	\$1.19		\$1.66	\$1.66		77.2	77.2		81.8	81.8	
Crescent Point Energy Corp.	CPG	AP	\$15.00	\$15.00		BUY	\$15.75	\$9.51	\$3.68	\$3.68		\$4.04	\$4.04		177.1	177.1		178.4	178.4	
Enerplus Corp.	ERF	DF	\$21.00	\$21.00		BUY	\$8.01	\$6.46	\$2.85	\$2.85		\$3.70	\$3.70		91.7	91.7		102.4	102.4	
Freehold Royalties Ltd.	FRU	DF	\$17.00	\$17.00		BUY	\$14.01	\$13.75	\$1.19	\$1.19		\$1.38	\$1.38		11.8	11.8		12.1	12.1	
Peyto Exploration & Development Corp.	PEY	AP	\$18.00	\$18.00		BUY	\$8.53	\$3.41	\$3.05	\$3.05		\$2.81	\$2.81		94.7	94.7		95.5	95.5	
PrairieSky Royalty Ltd.	PSK	DF	\$29.00	\$29.00		BUY	\$20.00	\$19.73	\$1.07	\$1.07		\$1.32	\$1.32		23.7	23.7		25.3	25.3	
Vermilion Energy Inc.	VET	DF	\$60.00	\$60.00		BUY	\$35.16	\$37.82	\$6.41	\$6.41		\$8.70	\$8.70		87.4	87.4		104.1	104.1	
Whitecap Resources Ltd.	WCP	AP	\$13.00	\$13.00		BUY	\$9.54	\$6.65	\$1.90	\$1.90		\$2.02	\$2.02		74.5	74.5		77.2	77.2	
Avg Mid-Caps (>50 mboe/d)																				
0%																				
Jr & Intermediates (10-50 mboe/d)																				
Abraxas Petroleum Corp.	AXAS	SR	US\$3.50	US\$3.50		BUY	US\$2.98	US\$2.33	US\$0.58	US\$0.58		US\$0.82	US\$0.82		11.0	11.0		13.4	13.4	
Athabasca Oil Corp.	ATH	DF	\$2.75	\$2.75		SPEC BUY	\$0.65	n.a.	\$0.26	\$0.26		\$0.57	\$0.57		41.2	41.2		48.5	48.5	
BlackPearl Resources Inc.	PXX	SR	\$1.75	\$1.75		BUY	\$2.98	\$2.83	\$0.21	\$0.21		\$0.44	\$0.44		11.6	11.6		16.1	16.1	
Bellatrix Exploration Ltd.	BXE	AP	\$1.25	\$1.25		HOLD	\$3.25	n.a.	\$0.80	\$0.80		\$0.31	\$0.31		35.1	35.1		32.1	32.1	
Bonterra Energy Corp.	BNE	AP	\$22.50	\$22.50		BUY	\$15.25	\$8.27	\$3.92	\$3.92		\$4.64	\$4.64		13.3	13.3		14.1	14.1	
Cardinal Energy Ltd.	CJ	SR	\$6.50	\$6.50		BUY	\$7.44	\$6.22	\$1.00	\$1.00		\$1.55	\$1.55		21.0	21.0		21.3	21.3	
Crew Energy Inc.	CR	AP	\$4.00	\$4.00		BUY	\$3.54	\$0.67	\$0.64	\$0.64		\$0.74	\$0.74		23.8	23.8		26.2	26.2	
NuVista Energy Ltd.	NVA	SR	\$11.00	\$11.00		BUY	\$6.24	\$5.29	\$1.39	\$1.39		\$1.76	\$1.76		41.0	41.0		56.6	56.6	
Painted Pony Energy Ltd.	PONY	AP	\$4.00	\$4.00		SPEC BUY	\$6.45	\$1.35	\$0.91	\$0.91	1%	\$0.78	\$0.86	-8%	60.1	60.0	0%	60.7	60.8	0%
Pengrowth Energy Corp.	PGF	DF	\$1.00	\$1.00		HOLD	\$0.48	n.a.	\$0.13	\$0.13		\$0.24	\$0.24		22.4	22.4		22.1	22.1	
Pine Cliff Energy Ltd.	PNE	AP	\$0.60	\$0.60		BUY	\$0.22	\$0.08	\$0.04	\$0.04		\$0.12	\$0.12		19.6	19.6		20.1	20.1	
Obsidian Energy Ltd.	OBE	SR	\$1.80	\$1.80		SPEC BUY	\$2.79	\$2.58	\$0.28	\$0.28		\$0.46	\$0.46		29.6	29.6		32.7	32.7	
Surge Energy Inc.	SGY	AP	\$3.75	\$3.75		BUY	\$3.75	\$2.22	\$0.63	\$0.63		\$0.78	\$0.78		18.3	18.3		23.0	23.0	
Tamarack Valley Energy Ltd.	TVE	AP	\$5.50	\$5.50		BUY	\$2.54	\$1.18	\$1.08	\$1.03	5%	\$1.37	\$1.29	6%	24.4	23.7	3%	26.1	25.2	3%
TORC Oil & Gas Ltd.	TOG	AP	\$11.00	\$11.00		BUY	\$7.25	\$3.04	\$1.50	\$1.50		\$1.80	\$1.80		25.1	25.1		28.8	28.8	
Avg Jr & Intermediates (10-50mboe/d)																				
3%																				
Small Caps (<10 mboe/d)																				
Chinook Energy Inc.	CKE	AP	\$0.35	\$0.35		SPEC BUY	\$0.27	\$0.14	\$0.04	\$0.04		\$0.07	\$0.07		4.1	4.1		4.4	4.4	
Gear Energy Ltd.	GXE	SR	\$1.75	\$1.75		SPEC BUY	\$1.73	\$1.66	\$0.30	\$0.30		\$0.48	\$0.48		7.6	7.6		9.8	9.8	
InPlay Oil Corp.	IPO	SR	\$2.75	\$2.75		BUY	\$3.89	\$3.60	\$0.57	\$0.55	3%	\$0.91	\$0.85	8%	4.7	4.6	2%	5.4	5.1	6%
Journey Energy Inc.	JOY	SR	\$2.25	\$2.25		SPEC BUY	\$8.59	\$7.93	\$0.63	\$0.63		\$1.28	\$1.28		10.1	10.1		10.2	10.2	
Leucrotta Exploration Inc.	LXE	AP	\$2.00	\$2.00		HOLD	\$0.77	\$0.53	\$0.08	\$0.08		\$0.10	\$0.10		3.7	3.7		4.1	4.1	
PetroShale Inc.	PSH	SR	\$3.00	\$3.00		BUY	\$2.44	\$2.21	\$0.41	\$0.41		\$0.89	\$0.89		6.4	6.4		12.3	12.3	
Iron Bridge Resources Inc.	IBR	AP	\$0.845	\$0.845		HOLD	\$0.75	\$0.41	\$0.06	\$0.06		\$0.15	\$0.15		2.4	2.4		4.0	4.0	
Razor Energy Corp.	RZE	SR	\$3.50	\$3.50		SPEC BUY	\$9.52	\$8.93	\$1.65	\$1.65		\$2.09	\$2.09		5.0	5.0		5.4	5.4	
Yangarra Resources Ltd.	YGR	SR	\$7.00	\$7.00		SPEC BUY	\$7.57	\$6.36	\$1.04	\$1.04		\$1.84	\$1.84		9.0	9.0		13.5	13.5	
Avg small caps <10 mboe/d																				
3%																				
Total																				
0%																				
2%																				
0%																				
1%																				
2%																				

Source: Company Reports, Canaccord Genuity estimates.

Figure 25: Comparables; Ratings, targets, valuation multiples (2018 CG Price Deck: US\$65.00/bbl WTI, C\$75/bbl EdPar, US\$2.91/mcf Nymex, C\$1.69/mcf AECO)

September 24, 2018	Ratings and targets							Capitalization					NAV Multiples				CG deck			DACF multiples										
	Ticker	Exch	Analyst	Price	Target	Rating	Yield	Implied Return	Sh's out \$MM	Market cap \$MM	Net debt \$MM	Current EV \$MM	Debt to EV %	2P NAV CG deck P/NAV	2P NAV CG deck Tgt/NAV	2P NAV Futures P/NAV	2P NAV Futures Tgt/NAV	Contingent NAV CG deck P/NAV	Contingent NAV CG deck Tgt/NAV	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E		
Senior E&Ps / Integrate																														
Canadian Natural Resources Ltd.	CNQ	TSX	DF	\$41.89	\$60.00	BUY	3%	46%	1,219	\$51,069	\$20,705	\$71,775	29%	1.0x	1.4x	1.8x	2.6x	0.7x	1.0x	9.6x	6.8x	6.0x	9.6x	6.8x	6.1x	9.6x	6.9x	6.1x		
Cenovus Energy Inc.	CVE	TSX	DF	\$12.06	\$15.00	HOLD	2%	26%	1,229	\$14,819	\$8,330	\$23,150	36%	0.9x	1.1x	2.6x	3.3x	0.7x	0.9x	6.5x	7.1x	5.8x	6.3x	4.9x	5.8x	6.5x	8.3x	6.4x		
Encana Corp.	ECA	NYSE	DF	US\$12.65	US\$19.00	BUY	0%	51%	956	US\$12,097	US\$4,260	US\$16,357	26%	1.6x	2.5x	2.3x	3.4x	0.7x	1.0x	10.0x	7.2x	4.8x	10.8x	6.2x	4.9x	10.0x	6.9x	4.5x		
Husky Energy Inc.	HSE	TSX	DF	\$21.72	\$25.00	HOLD	1%	17%	1,005	\$21,831	\$2,107	\$24,804	8%	1.0x	1.2x	1.2x	1.4x	0.8x	1.0x	6.8x	4.8x	4.3x	6.8x	4.8x	4.3x	6.8x	4.8x	4.2x		
Imperial Oil Ltd.	IMO	TSX	DF	\$40.76	\$50.00	HOLD	2%	24%	792	\$32,267	\$3,683	\$35,950	10%	0.8x	1.0x	1.2x	1.5x	0.7x	0.9x	12.7x	7.3x	6.3x	12.7x	7.3x	6.3x	12.7x	7.3x	6.3x		
Suncor Energy Inc.	SU	TSX	DF	\$50.48	\$67.00	BUY	3%	36%	1,617	\$81,639	\$14,445	\$96,084	15%	0.9x	1.1x	1.1x	1.4x	0.7x	1.0x	10.7x	7.8x	6.0x	10.7x	7.8x	6.0x	10.7x	7.8x	5.9x		
Avg Seniors							2%	33%						1.0x	1.4x	1.7x	2.3x	0.7x	1.0x	9.4x	6.8x	5.5x	9.5x	6.3x	5.6x	9.4x	7.0x	5.6x		
Midcaps (>50 mboe/d)																														
Baytex Energy Corp.	BTE	TSX	DF	\$3.46	\$7.00	BUY	0%	102%	551	\$1,907	\$2,108	\$4,015	52%	1.6x	3.3x	1.1x	n.a.	0.4x	0.9x	8.3x	6.4x	3.7x	8.5x	5.6x	3.7x	8.3x	6.6x	3.9x		
Birchcliff Energy Ltd.	BIR	TSX	DF	\$4.56	\$6.50	BUY	2%	45%	266	\$1,212	\$633	\$1,887	34%	1.3x	1.9x	2.5x	3.6x	0.6x	0.9x	5.4x	5.3x	3.6x	5.8x	5.4x	4.0x	5.4x	4.7x	3.8x		
Crescent Point Energy Corp.	CPG	TSX	AP	\$8.09	\$15.00	BUY	4%	90%	547	\$4,426	\$4,011	\$8,437	48%	0.5x	1.0x	0.9x	1.6x	0.6x	1.1x	4.4x	3.9x	3.3x	4.7x	3.7x	3.4x	4.4x	3.7x	3.0x		
Enerplus Corp.	ERF	TSX	DF	\$15.38	\$21.00	BUY	1%	37%	245	\$3,768	\$488	\$4,256	11%	1.9x	2.6x	2.4x	3.3x	0.8x	1.1x	7.6x	5.6x	4.1x	7.5x	5.4x	4.1x	7.6x	5.5x	4.2x		
Freehold Royalties Ltd.	FRU	TSX	DF	\$11.21	\$17.00	BUY	6%	57%	118	\$1,326	\$59	\$1,386	4%	0.8x	1.2x	0.8x	1.2x	0.7x	1.0x	11.1x	9.6x	7.9x	11.1x	9.6x	7.9x	11.1x	9.4x	8.0x		
Peyto Exploration & Development Co.	PEY	TSX	AP	\$10.38	\$18.00	BUY	7%	80%	165	\$1,711	\$1,192	\$2,903	41%	1.2x	2.1x	3.0x	5.3x	0.8x	1.3x	4.7x	5.2x	5.9x	5.2x	7.2x	6.0x	4.7x	5.1x	6.4x		
PrairieSky Royalty Ltd.	PSK	TSX	DF	\$22.91	\$29.00	BUY	3%	30%	235	\$5,378	(\$24)	\$5,354	0%	1.1x	1.5x	1.2x	1.5x	0.8x	1.0x	18.4x	21.1x	16.9x	18.4x	21.1x	16.9x	18.4x	20.3x	16.8x		
Vermilion Energy Inc.	VET	TSX	DF	\$42.18	\$60.00	BUY	6%	49%	152	\$6,427	\$1,625	\$8,052	20%	1.2x	1.7x	1.1x	1.6x	0.7x	1.0x	11.9x	8.2x	5.5x	12.0x	7.9x	5.4x	11.9x	7.9x	5.1x		
Whitecap Resources Ltd.	WCP	TSX	AP	\$8.06	\$13.00	BUY	4%	65%	417	\$3,363	\$1,241	\$4,604	27%	0.8x	1.4x	1.2x	2.0x	0.7x	1.1x	8.6x	5.3x	4.9x	8.3x	5.0x	4.6x	8.6x	4.9x	4.1x		
Avg >50 mboe/d							4%	67%						1.2x	2.0x	1.7x	2.9x	0.6x	1.0x	7.3x	5.7x	4.4x	7.4x	5.7x	4.4x	7.3x	5.5x	4.4x		
Jr & Intermediates (10-50 mboe/d)																														
Athabasca Petroleum Corp.	AXAS	NASDAQ	SR	US\$2.40	US\$3.50	BUY	0%	46%	167	US\$400	US\$164	US\$564	29%	0.8x	1.2x	1.0x	1.5x	0.7x	1.0x	9.6x	5.3x	3.6x	10.9x	4.5x	3.3x	9.6x	5.2x	3.5x		
Athabasca Oil Corp.	ATH	TSX	DF	\$1.50	\$2.75	SPEC BUY	0%	43%	516	\$774	\$431	\$1,204	36%	2.3x	3.1x	n.a.	n.a.	0.6x	1.1x	7.6x	6.2x	3.1x	7.6x	6.1x	3.1x	7.6x	4.9x	4.3x		
BlackPearl Resources Inc.	PXX	TSX	SR	\$1.18	\$1.75	BUY	0%	48%	337	\$397	\$131	\$528	25%	0.4x	0.6x	0.4x	0.6x	0.4x	0.6x	8.2x	6.8x	2.8x	8.3x	5.5x	2.7x	8.2x	6.0x	2.8x		
Bellatrix Exploration Ltd.	BXE	TSX	AP	\$1.20	\$1.25	HOLD	0%	4%	62	\$74	\$434	\$508	85%	0.4x	0.4x	n.a.	n.a.	0.9x	0.9x	5.4x	6.1x	8.8x	8.3x	4.9x	8.8x	5.4x	5.7x	9.9x		
Bonterra Energy Corp.	BNE	TSX	AP	\$18.18	\$22.50	BUY	7%	30%	33	\$606	\$326	\$932	35%	1.2x	1.5x	2.2x	2.7x	0.9x	1.1x	7.8x	6.2x	5.2x	7.8x	6.2x	5.2x	7.8x	5.7x	4.6x		
Cardinal Energy Ltd.	CJ	TSX	SR	\$5.04	\$6.50	BUY	8%	37%	114	\$576	\$258	\$833	31%	0.7x	0.9x	0.8x	1.0x	0.7x	0.9x	9.4x	6.6x	4.1x	8.0x	4.8x	4.0x	9.4x	6.5x	4.3x		
Crew Energy Inc.	CR	TSX	AP	\$1.62	\$4.00	BUY	0%	147%	152	\$246	\$325	\$571	57%	0.5x	1.1x	2.4x	5.9x	0.4x	0.9x	4.9x	4.7x	4.6x	5.3x	4.5x	4.6x	4.9x	4.4x	4.6x		
NuVista Energy Ltd.	NVA	TSX	SR	\$7.39	\$11.00	BUY	0%	49%	226	\$1,671	\$509	\$2,180	23%	1.2x	1.8x	1.4x	2.1x	0.7x	1.0x	8.8x	7.1x	5.1x	9.0x	6.6x	4.9x	8.8x	7.0x	4.9x		
Painted Pony Energy Ltd.	PONY	TSX	AP	\$2.84	\$4.00	SPEC BUY	0%	41%	161	\$457	\$377	\$835	45%	0.4x	0.6x	2.1x	3.0x	0.3x	0.5x	6.4x	4.8x	5.6x	9.7x	6.0x	5.6x	6.4x	4.6x	6.8x		
Pengrowth Energy Corp.	PGF	TSX	DF	\$0.95	\$1.00	HOLD	0%	5%	552	\$525	\$733	\$1,257	58%	2.0x	2.1x	n.a.	n.a.	0.9x	1.0x	8.6x	10.0x	6.6x	6.1x	7.3x	6.8x	8.6x	9.0x	6.5x		
Obsidian Energy Ltd.	OBE	TSX	SR	\$1.25	\$1.80	SPEC BUY	0%	44%	507	\$634	\$446	\$1,080	41%	0.4x	0.6x	0.5x	0.7x	0.5x	0.7x	5.7x	8.8x	4.4x	6.9x	5.7x	4.0x	5.7x	6.5x	3.9x		
Pine Cliff Energy Ltd.	PNE	TSX	AP	\$0.33	\$0.60	BUY	0%	85%	307	\$100	\$56	\$155	36%	1.5x	2.7x	3.9x	7.2x	0.9x	1.7x	4.9x	12.5x	4.0x	5.6x	12.5x	4.0x	4.9x	11.1x	5.1x		
Surge Energy Inc.	SGY	TSX	AP	\$2.56	\$3.75	BUY	4%	51%	306	\$784	\$386	\$1,170	33%	0.7x	1.0x	1.2x	1.7x	0.8x	1.1x	8.7x	6.8x	4.4x	8.4x	6.5x	4.4x	8.7x	6.1x	3.7x		
Tamarack Valley Energy Ltd.	TVE	TSXV	AP	\$4.89	\$5.50	BUY	0%	12%	228	\$1,115	\$199	\$1,314	15%	1.3x	1.4x	4.1x	4.7x	0.8x	0.9x	7.8x	5.0x	3.7x	8.1x	4.6x	3.7x	7.8x	4.7x	3.3x		
TORC Oil & Gas Ltd.	TOG	TSX	AP	\$6.36	\$11.00	BUY	4%	77%	214	\$1,358	\$415	\$1,774	23%	0.9x	1.5x	2.1x	3.6x	0.6x	1.1x	7.5x	5.4x	4.0x	7.5x	5.4x	4.0x	7.5x	5.0x	3.5x		
Avg 10-50 mboe/d							2%	51%						1.0x	1.4x	1.8x	2.9x	0.7x	1.0x	7.4x	6.8x	4.7x	7.8x	6.4x	4.6x	7.4x	6.4x	4.8x		
Smallcaps (<10 mboe/d)																														
Chinook Energy Inc.	CKE	TSX	AP	\$0.21	\$0.35	SPEC BUY	0%	67%	224	\$47	\$2	\$49	4%	0.8x	1.3x	1.5x	2.5x	0.6x	1.0x	6.2x	5.5x	3.5x	n.a.	n.a.	n.a.	6.2x	4.7x	3.7x		
Gear Energy Ltd.	GXE	TSX	SR	\$1.15	\$1.75	SPEC BUY	0%	52%	217	\$250	\$85	\$335	25%	0.7x	1.0x	0.7x	1.1x	0.7x	1.0x	6.4x	5.2x	2.6x	6.2x	4.4x	2.6x	6.4x	4.9x	2.8x		
InPlay Oil Corp.	IPO	TSX	SR	\$1.65	\$2.75	BUY	0%	67%	68	\$112	\$44	\$156	28%	0.4x	0.7x	0.5x	0.8x	0.4x	0.7x	6.1x	3.8x	2.3x	6.4x	3.5x	2.3x	6.1x	3.6x	2.4x		
Journey Energy Inc.	JOY	TSX	SR	\$1.93	\$2.25	SPEC BUY	0%	17%	39	\$74	\$131	\$205	64%	0.2x	0.3x	0.2x	0.3x	0.2x	0.3x	5.5x	6.3x	3.6x	5.7x	4.4x	3.4x	5.5x	6.1x	3.8x		
Leucrotta Exploration Inc.	LXE	TSXV	AP	\$1.87	\$2.00	HOLD	0%	7%	200	\$375	(\$8)	\$367	-2%	2.4x	2.6x	3.5x	3.8x	1.0x	1.1x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
PetroShale Inc.	PSH	TSXV	SR	\$1.76	\$3.00	BUY	0%	70%	191	\$336	\$163	\$499	33%	0.7x	1.2x	0.8x	1.4x	0.6x	1.1x	n.a.	6.1x	2.5x	n.a.	5.7x	2.5x	n.a.	5.9x	2.4x		
Razor Energy Corp.	RZE	TSXV	SR	\$2.99	\$3.50	SPEC BUY	0%	17%	16	\$47	\$43	\$90	48%	0.3x	0.4x	0.3x	0.4x	0.4x	0.4x	7.3x	2.9x	2.2x	7.4x	2.6x	2.2x	7.3x	2.5x	2.0x		
Iron Bridge Resources Inc.	IBR	TSX	AP																											

Figure 26: Comparables; Leverage, liquidity, production, growth and hedging

Ticker	Leverage						Liquidity		Production			Production			Growth			Hedging								
	Net debt to cash flow						Credit capacity \$MM	% drawn Incl. WC	Production			EV/boe/d			Production growth			DAPPS growth			Hedged prod'n %					
	CG deck 2017A	2018E	2019E	2017A	Futures 2018E	2019E			2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Senior E&Ps / Integratads																										
CNOQ	3.2x	2.0x	1.5x	3.2x	2.1x	2.1x	\$11,050	1%	962.3	1099.4	1140.8	\$75,878	\$64,817	\$58,554	29%	24%	24%	19%	14%	4%	13%	10%	4%	2%	4%	0%
CVE	2.9x	2.9x	2.0x	2.9x	3.6x	3.6x	\$4,500	0%	470.5	498.1	490.6	\$49,742	\$45,555	\$43,398	23%	18%	18%	73%	6%	-1%	31%	-5%	-1%	51%	30%	4%
ECA	2.7x	2.0x	1.1x	2.7x	1.8x	1.8x	US\$4,500	12%	313.2	359.9	419.5	\$49,976	US\$44,343	US\$36,330	59%	54%	54%	-11%	15%	17%	-11%	16%	17%	61%	120%	90%
HSE	0.9x	0.4x	0.2x	0.9x	0.4x	0.4x	\$4,850	0%	322.9	303.9	321.2	\$80,295	\$80,867	\$73,186	28%	27%	27%	0%	-6%	6%	0%	-6%	6%	0%	0%	0%
IMO	1.4x	0.6x	0.2x	1.4x	0.6x	0.6x	\$8,000	0%	375.3	364.4	386.4	\$95,940	\$96,197	\$86,850	5%	6%	6%	-3%	-3%	6%	-2%	2%	9%	0%	0%	0%
SU	1.5x	1.2x	0.6x	1.5x	1.2x	1.2x	\$4,489	20%	685.3	739.7	838.0	\$138,613	\$128,074	\$106,727	0%	0%	0%	10%	8%	13%	7%	10%	13%	0%	0%	0%
Avg Seniors	2.1x	1.5x	0.9x	2.1x	1.6x	1.6x		6%				\$81,741	\$76,642	\$67,508	24%	21%	21%	15%	6%	7%	6%	5%	8%	19%	26%	16%
Midcaps (>50 mboe/d)																										
BTE	5.1x	4.2x	2.1x	5.1x	4.3x	4.3x	\$742	77%	70.2	79.0	97.1	\$51,648	\$51,563	\$40,053	20%	18%	18%	1%	13%	23%	-21%	-10%	6%	31%	11%	5%
BIR	1.9x	1.8x	0.9x	1.9x	1.5x	1.5x	\$950	67%	68.0	77.2	81.8	\$27,248	\$23,557	\$20,176	79%	80%	80%	38%	14%	6%	9%	3%	19%	16%	31%	49%
CPG	2.4x	1.9x	1.6x	2.4x	1.8x	1.4x	\$3,600	50%	176.0	177.1	178.4	\$48,194	\$47,131	\$44,288	10%	10%	10%	5%	1%	1%	-16%	2%	6%	32%	35%	28%
ERF	0.8x	0.5x	0.1x	0.8x	0.5x	0.5x	\$800	0%	84.7	91.7	102.4	\$49,269	\$45,285	\$37,654	52%	47%	47%	-9%	8%	12%	-8%	11%	21%	32%	36%	23%
FRU	0.6x	0.3x	n.a.	0.6x	0.3x	0.3x	\$180	33%	12.3	11.8	12.1	\$113,751	\$115,775	\$105,628	45%	45%	45%	1%	-4%	3%	-5%	-3%	9%	0%	0%	0%
PEY	2.1x	2.4x	2.8x	2.1x	2.3x	3.1x	\$1,300	52%	102.6	94.7	95.5	\$28,298	\$30,640	\$31,576	91%	90%	90%	6%	-8%	1%	-3%	-11%	0%	73%	69%	22%
PSK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	\$225	0%	25.3	23.7	25.3	\$211,110	\$225,504	\$209,143	52%	52%	52%	8%	-6%	7%	5%	-6%	8%	0%	0%	n.a.
VET	2.2x	1.7x	0.9x	2.2x	1.6x	1.6x	\$1,600	79%	68.0	87.4	104.1	\$113,752	\$91,730	\$73,404	53%	48%	48%	7%	28%	19%	2%	11%	17%	15%	33%	19%
WCP	2.6x	1.5x	1.1x	2.6x	1.3x	0.9x	\$1,700	38%	57.5	74.5	77.2	\$81,948	\$60,669	\$55,992	18%	15%	15%	25%	30%	4%	10%	22%	8%	32%	32%	15%
Avg >50 mboe/d	2.5x	2.0x	1.4x	2.5x	1.9x	1.9x		52%				\$57,194	\$50,082	\$43,306	46%	44%	44%	10%	12%	9%	-4%	4%	11%	33%	35%	23%
Jr & Intermediates (10-50 mboe/d)																										
AXAS	2.2x	1.5x	0.8x	2.2x	1.5x	0.8x	\$175	n.a.	n.a.	n.a.	n.a.	\$69,138	US\$50,009	US\$38,215	24%	23%	23%	20%	48%	22%	2%	44%	29%	0%	38%	22%
ATH	3.8x	3.2x	1.1x	3.8x	6.3x	6.3x	\$120	0%	35.4	41.2	48.5	\$30,645	\$28,874	\$22,824	10%	14%	14%	196%	16%	18%	25%	8%	29%	86%	25%	0%
PXX	1.8x	1.8x	0.3x	1.8x	1.5x	0.2x	\$120	48%	9.7	11.6	16.1	\$52,019	\$45,402	\$27,149	1%	1%	1%	2%	20%	39%	-20%	22%	61%	0%	38%	25%
BXE	7.2x	9.5x	>10.0x	7.2x	8.3x	>10.0x	\$100	92%	36.9	35.1	32.1	\$13,423	\$14,466	\$16,420	75%	71%	71%	3%	-5%	-8%	-8%	-16%	-9%	53%	35%	0%
BNE	3.1x	2.3x	1.7x	3.1x	2.1x	1.4x	\$380	86%	12.8	13.3	14.1	\$72,237	\$68,365	\$61,708	31%	31%	31%	1%	4%	6%	-7%	7%	11%	0%	0%	0%
CJ	3.4x	2.2x	1.1x	3.4x	2.1x	1.2x	\$325	60%	18.7	21.0	21.3	\$45,528	\$39,468	\$36,080	16%	13%	13%	28%	12%	1%	-32%	15%	9%	0%	62%	7%
CR	3.2x	3.3x	3.3x	3.2x	3.0x	3.2x	\$235	13%	23.1	23.8	26.2	\$25,710	\$23,702	\$23,371	74%	74%	74%	1%	3%	10%	-26%	-29%	5%	55%	21%	14%
NVA	1.0x	1.7x	1.4x	1.0x	1.7x	1.3x	\$450	55%	29.7	41.0	56.6	\$62,761	\$52,653	\$39,261	61%	60%	60%	21%	38%	38%	13%	-1%	35%	0%	52%	18%
PONY	3.4x	2.5x	3.0x	3.4x	2.4x	3.9x	\$400	47%	42.9	60.1	60.7	\$19,148	\$13,814	\$13,737	92%	91%	91%	85%	40%	1%	-1%	25%	2%	72%	48%	27%
PGF	9.7x	9.6x	5.4x	9.7x	7.9x	7.9x	\$330	0%	40.4	22.4	22.1	\$29,676	\$55,050	\$55,502	38%	21%	21%	-29%	-45%	-1%	-10%	-53%	0%	70%	34%	0%
OBE	2.0x	3.2x	1.9x	2.0x	2.5x	1.5x	\$440	84%	31.7	29.6	32.7	\$32,055	\$36,862	\$32,893	38%	35%	35%	-42%	-7%	10%	-46%	-14%	12%	0%	53%	12%
PNE	2.0x	3.9x	1.2x	2.0x	3.4x	1.6x	\$11	238%	21.4	19.6	20.1	\$7,409	\$7,776	\$7,015	95%	94%	94%	-5%	-9%	3%	7%	-9%	5%	4%	0%	0%
SGY	2.3x	2.5x	1.4x	2.3x	2.1x	1.1x	\$350	110%	14.9	18.3	23.0	\$66,228	\$64,127	\$48,978	20%	18%	18%	16%	22%	26%	-4%	-7%	19%	41%	31%	0%
TVE	1.1x	0.6x	0.2x	1.1x	0.6x	0.1x	\$265	75%	20.1	24.4	26.1	\$63,983	\$52,328	\$45,410	40%	36%	36%	95%	21%	7%	5%	28%	16%	40%	23%	3%
TOG	1.3x	1.2x	0.6x	1.3x	1.1x	0.4x	\$500	83%	20.9	25.1	28.8	\$78,515	\$68,995	\$55,600	12%	12%	12%	12%	20%	15%	1%	12%	17%	11%	12%	0%
Avg 10-50 mboe/d	3.2x	3.3x	2.2x	3.2x	3.1x	2.7x		71%				\$44,565	\$41,459	\$34,944	42%	40%	40%	27%	12%	12%	-7%	2%	16%	29%	31%	9%
Smallcaps (<10 mboe/d)																										
CKE	0.2x	n.a.	0.7x	0.2x	n.a.	0.7x	\$18	10%	3.4	4.1	4.4	\$14,143	\$11,035	\$13,258	86%	85%	85%	-38%	20%	8%	-40%	4%	2%	45%	0%	0%
GXE	1.0x	1.3x	0.5x	1.0x	1.2x	0.5x	\$115	57%	6.5	7.6	9.8	\$44,988	\$43,257	\$30,760	14%	11%	11%	26%	16%	29%	18%	3%	31%	0%	40%	18%
IPO	2.1x	1.1x	0.6x	2.1x	1.0x	0.6x	\$75	49%	4.0	4.7	5.4	\$41,110	\$32,917	\$26,905	33%	29%	29%	105%	17%	17%	65%	20%	22%	0%	17%	0%
JOY	3.4x	5.1x	2.6x	3.4x	5.0x	2.7x	\$100	66%	10.0	10.1	10.2	\$17,763	\$20,190	\$20,007	54%	53%	53%	14%	1%	1%	-21%	-3%	1%	0%	34%	12%
LXE	n.a.	n.a.	0.7x	n.a.	n.a.	0.6x	\$20	0%	2.9	3.7	4.1	\$124,366	\$100,650	\$94,353	71%	73%	73%	176%	29%	11%	121%	24%	6%	0%	0%	0%
PSH	4.3x	2.4x	0.7x	4.3x	2.3x	0.7x	\$121	0%	2.4	6.4	12.3	\$174,138	\$80,593	\$37,328	23%	12%	12%	51%	160%	90%	123%	91%	113%	0%	19%	0%
RZE	3.4x	1.6x	1.1x	3.4x	1.3x	0.9x	\$45	0%	3.8	5.0	5.4	\$18,854	\$17,901	\$15,358	11%	13%	13%	n.a.	31%	9%	n.a.	39%	17%	0%	52%	9%
IBR	n.a.	2.1x	2.0x	n.a.	1.7x	1.8x	\$10	130%	3.3	2.4	4.0	\$32,858	\$61,748	\$44,334	68%	67%	67%	-58%	-27%	64%	-50%	-16%	33%	4%	0%	0%
YGR	1.8x	1.4x	0.5x	1.8x	1.3x	0.5x	\$150	77%	5.7	9.0	13.5	\$90,171	\$61,232	\$37,746	43%	40%	40%	94%	56%	51%	118%	46%	60%	0%	37%	3%
Avg <10 mboe/d	2.3x	2.1x	1.0x	2.3x	2.0x	1.0x		61%				\$62,043	\$47,725	\$35,561	45%	43%	43%	46%	34%	31%	42%	23%	32%	5%	22%	5%

Source: Company Reports, Canaccord Genuity estimates

Figure 27: Comparables; Cash flow, dividends, capex and payout ratios

Ticker	Cash flows and payout ratios																			
	Cash flow			CF growth		Dividends			Dividend payout			E&D Capex			Capex/cash flow			Total payout ratio		
	2017A	2018E	2019E	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Senior E&Ps / Integrated																				
CNQ	\$6,963	\$9,914	\$10,596	42%	7%	\$1.08	\$1.29	\$1.34	18%	16%	15%	\$4,574	\$4,524	\$4,500	66%	46%	42%	84%	61%	58%
CVE	\$2,914	\$2,702	\$3,247	-7%	20%	\$0.20	\$0.20	\$0.20	8%	9%	8%	\$1,670	\$1,770	\$1,474	57%	66%	45%	57%	74%	53%
ECA	US\$1,303	US\$1,958	US\$2,943	50%	50%	US\$0.06	US\$0.06	US\$0.06	4%	3%	2%	US\$1,796	US\$1,758	US\$2,168	138%	90%	74%	142%	93%	76%
HSE	\$3,433	\$4,865	\$5,105	42%	5%	\$0.00	\$0.33	\$0.50	0%	7%	10%	\$2,220	\$2,979	\$3,496	65%	61%	68%	65%	68%	78%
IMO	\$2,763	\$4,686	\$5,228	70%	12%	\$0.63	\$0.73	\$0.76	19%	13%	11%	\$993	\$1,336	\$1,339	36%	29%	26%	55%	41%	37%
SU	\$9,139	\$11,110	\$14,151	22%	27%	\$1.28	\$1.44	\$1.44	23%	21%	17%	\$6,551	\$5,466	\$4,577	72%	49%	32%	95%	70%	48%
Avg Seniors				36%	20%				12%	11%	10%				72%	57%	48%	83%	68%	58%
Midcaps (>50 mboe/d)																				
BTE	\$334	\$519	\$946	55%	82%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$326	\$571	\$760	98%	110%	80%	98%	110%	80%
BIR	\$309	\$319	\$443	3%	39%	\$0.10	\$0.10	\$0.10	9%	8%	6%	\$417	\$259	\$245	135%	81%	55%	144%	89%	61%
CPG	\$1,724	\$2,022	\$2,217	17%	10%	\$0.36	\$0.36	\$0.36	11%	10%	9%	\$1,855	\$1,783	\$1,575	108%	88%	71%	119%	98%	80%
ERF	\$511	\$712	\$927	39%	30%	\$0.12	\$0.12	\$0.12	6%	4%	3%	\$461	\$513	\$600	90%	72%	65%	96%	76%	68%
FRU	\$124	\$141	\$164	14%	16%	\$0.58	\$0.63	\$0.63	55%	53%	46%	\$5	\$4	\$4	4%	3%	2%	58%	55%	48%
PEY	\$574	\$502	\$464	-12%	-8%	\$1.32	\$0.72	\$0.72	38%	24%	26%	\$521	\$234	\$460	91%	47%	99%	129%	72%	125%
PSK	\$290	\$252	\$310	-13%	23%	\$0.75	\$0.78	\$0.78	61%	73%	59%	\$290	\$7	\$15	100%	3%	5%	160%	75%	64%
VET	\$593	\$913	\$1,342	54%	47%	\$2.58	\$2.72	\$2.76	53%	42%	32%	\$313	\$500	\$568	53%	55%	42%	86%	91%	72%
WCP	\$509	\$795	\$848	56%	7%	\$0.28	\$0.32	\$0.32	21%	17%	16%	\$340	\$449	\$515	67%	56%	61%	87%	73%	77%
Avg >50 mboe/d				30%	30%				20%	15%	13%				92%	73%	68%	108%	87%	80%
Jr & Intermediates (10-50 mboe/d)																				
AXAS	US\$51	US\$97	US\$138	92%	42%	US\$0.00	US\$0.00	US\$0.00	0%	0%	0%	US\$108	US\$104	US\$100	214%	107%	72%	214%	107%	72%
ATH	\$82	\$132	\$297	n.a.	n.a.	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$210	\$184	\$213	255%	140%	72%	255%	140%	72%
PXX	\$59	\$72	\$150	n.a.	n.a.	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$170	\$95	\$60	286%	133%	40%	286%	133%	40%
BXE	\$58	\$46	\$19	-21%	-58%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$123	\$50	\$40	212%	110%	207%	212%	110%	207%
BNE	\$102	\$131	\$155	28%	18%	\$1.20	\$1.20	\$1.20	39%	31%	26%	\$78	\$75	\$75	76%	58%	48%	115%	88%	74%
CJ	\$82	\$115	\$178	40%	56%	\$0.42	\$0.42	\$0.42	48%	42%	27%	\$69	\$55	\$70	84%	48%	39%	133%	91%	66%
CR	\$109	\$98	\$112	-10%	15%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$238	\$84	\$160	219%	86%	142%	219%	86%	142%
NVA	\$203	\$280	\$399	38%	43%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$315	\$338	\$465	155%	121%	117%	155%	121%	117%
PONY	\$107	\$149	\$126	39%	-15%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$303	\$153	\$130	282%	102%	103%	282%	102%	103%
PGF	\$69	\$74	\$130	6%	76%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$118	\$65	\$125	170%	88%	96%	170%	88%	96%
OBE	\$192	\$144	\$233	-25%	62%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$141	\$190	\$205	73%	132%	88%	73%	132%	88%
PNE	\$29	\$13	\$35	-54%	166%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$13	\$10	\$24	47%	75%	68%	47%	75%	68%
SGY	\$103	\$157	\$240	53%	53%	\$0.09	\$0.10	\$0.13	20%	17%	16%	\$98	\$98	\$160	96%	62%	67%	115%	79%	83%
TVE	\$158	\$247	\$312	56%	26%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$187	\$228	\$222	118%	92%	71%	118%	92%	71%
TOG	\$209	\$309	\$388	48%	26%	\$0.24	\$0.25	\$0.26	22%	17%	15%	\$133	\$188	\$220	64%	61%	57%	77%	72%	66%
Avg 10-50 mboe/d				22%	39%				9%	7%	6%				157%	94%	86%	165%	101%	91%
Smallcaps (<10 mboe/d)																				
CKE	\$8	\$8	\$17	7%	109%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$39	\$3	\$30	520%	35%	179%	520%	35%	179%
GXE	\$44	\$61	\$111	39%	83%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$48	\$52	\$84	110%	85%	76%	110%	85%	76%
IPO	\$25	\$39	\$62	55%	60%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$49	\$49	\$55	197%	126%	89%	197%	126%	89%
JOY	\$30	\$25	\$49	-17%	96%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$32	\$33	\$50	106%	130%	101%	106%	130%	101%
LXE	\$10	\$17	\$19	n.a.	12%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$94	\$33	\$35	n.a.	n.a.	182%	n.a.	n.a.	182%
PSH	\$21	\$72	\$172	240%	140%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$50	\$123	\$120	238%	171%	70%	238%	171%	70%
RZE	\$7	\$26	\$33	261%	27%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$10	\$34	\$24	137%	129%	73%	137%	129%	73%
IBR	\$2	\$9	\$23	487%	160%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$47	\$49	\$50	3064%	553%	216%	3064%	553%	216%
YGR	\$53	\$91	\$159	72%	75%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$83	\$122	\$120	158%	135%	75%	158%	135%	75%
Avg <10 mboe/d				143%	85%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$50	\$55	\$63	566%	170%	118%	566%	170%	118%

Source: Company Reports, Canaccord Genuity estimates

Figure 28: Comparables; Group averages

September 24, 2018	Capitalization			NAV Multiples						DACF multiples								
	Yield	Implied Return	Debt to EV %	2P NAV CG deck		2P NAV Futures		Contingent NAV CG deck		CG deck Incl. hedges			CG deck excl. Hedges			Futures Incl. hedges		
				P/NAV	Tgt/NAV	P/NAV	Tgt/NAV	P/NAV	Tgt/NAV	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Avg Seniors	2%	33%	21%	1.0x	1.4x	1.7x	2.3x	0.7x	1.0x	9.4x	6.8x	5.5x	9.5x	6.3x	5.6x	9.4x	7.0x	5.6x
Avg >50 mboe/d	4%	67%	33%	1.2x	2.0x	1.7x	2.9x	0.6x	1.0x	7.3x	5.7x	4.4x	7.4x	5.7x	4.4x	7.3x	5.5x	4.4x
Avg 10-50 mboe/d	2%	51%	38%	1.0x	1.4x	1.8x	2.9x	0.7x	1.0x	7.4x	6.8x	4.7x	7.8x	6.4x	4.6x	7.4x	6.4x	4.8x
Avg <10 mboe/d	1%	46%	34%	0.8x	1.1x	1.2x	1.5x	0.6x	0.8x	6.8x	6.5x	3.4x	7.1x	6.0x	3.4x	6.8x	5.9x	3.4x
Avg CG universe	2%	48%	31%	1.0x	1.5x	1.6x	2.4x	0.7x	1.0x	7.7x	6.6x	4.5x	7.9x	6.2x	4.5x	7.7x	6.3x	4.5x
Avg oil weighted	2%	50%	31%	0.9x	1.4x	1.2x	1.7x	0.7x	0.9x	8.2x	6.0x	4.2x	8.0x	5.4x	4.2x	8.2x	6.0x	4.1x
Avg balanced	1%	37%	28%	1.1x	1.5x	1.6x	2.1x	0.6x	0.9x	8.3x	6.7x	4.3x	8.7x	5.7x	4.2x	8.3x	6.3x	4.1x
Avg gas weighted	1%	53%	34%	1.1x	1.5x	2.6x	4.2x	0.7x	1.0x	5.4x	7.6x	5.4x	6.7x	8.8x	5.8x	5.4x	6.8x	5.9x

Ticker	Leverage						Production						Growth						Hedging		
	Net debt to cash flow						EV/boe/d			Natural gas weight %			Production growth			DAPPS growth			Hedged prod'n %		
	CG deck		Futures				2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Avg Seniors	2.1x	1.5x	0.9x	2.1x	1.6x	1.6x	\$81,741	\$76,642	\$67,508	24%	21%	21%	15%	6%	7%	6%	5%	8%	19%	26%	16%
Avg >50 mboe/d	2.5x	2.0x	1.4x	2.5x	1.9x	1.9x	\$57,194	\$50,082	\$43,306	46%	44%	44%	10%	12%	9%	-4%	4%	11%	33%	35%	23%
Avg 10-50 mboe/d	3.2x	3.3x	2.2x	3.2x	3.1x	2.7x	\$44,565	\$41,459	\$34,944	42%	40%	40%	27%	12%	12%	-7%	2%	16%	29%	31%	9%
Avg <10 mboe/d	2.3x	2.1x	1.0x	2.3x	2.0x	1.0x	\$62,043	\$47,725	\$35,561	45%	43%	43%	46%	34%	31%	42%	23%	32%	5%	22%	5%
Avg CG universe	2.7x	2.5x	1.5x	2.7x	2.4x	2.0x	\$59,788	\$51,051	\$42,883	39%	37%	37%	22%	15%	15%	4%	6%	17%	22%	28%	11%
Avg oil weighted	2.9x	2.3x	1.2x	2.9x	2.3x	1.8x	\$60,944	\$58,492	\$48,273	18%	16%	16%	29%	19%	16%	10%	11%	20%	18%	24%	7%
Avg balanced	1.9x	2.0x	1.1x	1.9x	1.9x	1.3x	\$59,966	\$50,578	\$40,338	50%	47%	47%	21%	20%	19%	7%	12%	22%	19%	48%	23%
Avg gas weighted	2.9x	3.6x	2.7x	2.9x	3.2x	2.9x	\$32,512	\$31,932	\$29,360	81%	81%	81%	23%	6%	11%	1%	-3%	7%	36%	23%	12%

Ticker	CF growth %		Dividend payout %			Capex/cash flow %			Total payout ratio %		
	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
	Avg Seniors	36%	20%	12%	11%	10%	72%	57%	48%	83%	68%
Avg >50 mboe/d	30%	30%	20%	15%	13%	92%	73%	68%	108%	87%	80%
Avg 10-50 mboe/d	22%	39%	9%	7%	6%	157%	94%	86%	165%	101%	91%
Avg <10 mboe/d	143%	85%	0%	0%	0%	566%	170%	118%	566%	170%	118%
Avg CG universe	55%	47%	10%	8%	7%	221%	100%	84%	230%	108%	90%
Avg oil weighted	64%	42%	11%	10%	8%	125%	86%	61%	135%	95%	69%
Avg balanced	33%	54%	8%	6%	5%	111%	103%	79%	117%	109%	83%
Avg gas weighted	55%	47%	5%	4%	4%	571%	136%	139%	577%	140%	143%

CG pric deck: WTI crude oil US\$65.00/bbl in 2018, US\$65.00/bbl in 2019+; Edpar C\$75.00/bbl in 2018, C\$75.00 in 2019+; NYMEX natural gas US\$2.91/mcf in 2018, US\$3.00/mcf in 2019+; AECO C\$1.69 in 2018, C\$2.00 in 2019+.
Notes: Royalty companies (FRU and PSK) excluded from group averages.
Source: Company Reports, FactSet, Canaccord Genuity estimates.

International E&P comparative valuation tables

Figure 29: International E&P peer comps

PRICING																
September 24, 2018				Price					Shares	Market	EV	Average	Short	52 Week		
Company	Symb.	Analyst	Exch.	Rating	Price (C\$)	Target (C\$)	Dividend Yield	Total Return	O/S (M)	Cap. (CSM)	(C\$M)	Daily Vol. (k)	Interest (k)	Short Int % of Float	High (C\$)	Low (C\$)
Canacol Energy Ltd.	CNE	JX	TSX	HOLD	\$4.05	\$5.00	0%	23%	177	\$717	\$980	88	156	0.1	\$4.76	\$3.83
Frontera Energy Corp.	FEC	JX	TSX	BUY	\$18.41	\$33.00	0%	79%	100	\$1,841	\$1,719	115	NA	NA	\$26.40	\$16.50
GeoPark Ltd.	GPRK	JX	NYSE	BUY	US\$20.00	US\$25.00	0%	25%	61	US\$1,212	US\$1,612	276	NA	NA	US\$21.88	US\$8.02
Gran Tierra Energy Inc.	GTE	JX	TSX	BUY	\$4.82	\$7.00	0%	45%	385	\$1,857	\$2,224	672	20,723	5.3	\$4.82	\$2.54
Parex Resources Inc.	PXT	JX	TSX	BUY	\$21.46	\$31.50	0%	47%	155	\$3,321	\$3,052	747	6,389	4.4	\$26.78	\$14.63
Renaissance Oil Corp.	ROE	JX	TSXV	SPECULATIVE BUY	\$0.21	\$0.80	0%	290%	278	\$57	\$42	250	NA	NA	\$0.36	\$0.16
TransGlobe Energy Corp.	TGL	JX	TSX	SPECULATIVE BUY	\$4.45	\$6.00	2%	37%	72	\$321	\$350	160	505	0.8	\$5.45	\$1.49
Average								2%	78%		\$1,386	\$1,497	330			

VALUATION METRICS																		
Symb.	P/CF			EV/EBITDA			EV/DACF			EV/boe/d (C\$)			EV/2017 reserves 1P 2P (C\$/boe)		Base NAV 2018E (C\$/sh) (P/NAV)		Contingent NAV 2018E (C\$/sh) (P/NAV)	
	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	(C\$/boe)	(C\$/boe)	(C\$/sh)	(P/NAV)	(C\$/sh)	(P/NAV)
CNE	6.6x	5.4x	3.3x	NM	5.6x	3.2x	6.7x	5.5x	3.6x	\$59,781	\$47,123	\$29,402	\$15.71	\$9.99	\$4.30	94%	\$6.20	65%
FEC	4.4x	3.5x	2.5x	6.5x	3.4x	1.9x	4.1x	2.8x	2.2x	\$22,786	\$23,869	\$25,035	\$13.37	\$9.96	\$31.55	58%	\$33.16	56%
GPRK	2.7x	4.4x	3.6x	4.5x	4.6x	3.7x	3.6x	5.2x	4.0x	US\$58,432	US\$45,033	US\$38,772	US\$16.62	US\$10.13	US\$20.00	100%	US\$25.00	80%
GTE	4.5x	4.2x	3.4x	5.9x	4.0x	3.1x	5.1x	4.7x	3.6x	\$70,783	\$61,175	\$50,614	\$30.01	\$16.24	\$4.80	100%	\$7.00	69%
PXT	7.2x	6.9x	4.3x	6.6x	3.8x	2.9x	6.4x	6.0x	3.3x	\$85,859	\$70,021	\$59,193	\$31.94	\$18.81	\$24.15	89%	\$31.60	68%
ROE	NM	NM	5.9x	NM	NM	6.0x	NM	NM	4.9x	\$25,722	\$26,373	\$9,023	NM	NM	\$0.17	121%	\$0.83	25%
TGL	4.7x	3.1x	2.8x	NM	2.1x	1.5x	4.5x	3.1x	2.1x	\$22,560	\$23,749	\$21,969	\$12.73	\$7.63	\$5.20	86%	\$6.05	74%
Average																		
	5.0x	4.6x	3.7x	5.9x	3.9x	3.2x	5.1x	4.6x	3.4x	\$51,993	\$44,462	\$35,138	\$20.92	\$12.65	\$13.76	93%	\$16.79	62%

FINANCIAL & OPERATING METRICS																										
Ticker	CFPS fd			DACF (\$M)			Capex (\$M)			Net debt (\$M)			Net D/CF			Production (kboe/d, before royalties)			Gas % of production			CF netbacks (\$/boe)			2017 reserves (M boe) PDP %	
	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E
CNE	\$ 0.48	\$ 0.58	\$ 0.93	\$115	\$136	\$197	\$125	\$93	\$84	\$214	\$184	\$131	2.5x	1.8x	0.8x	16.4	20.8	33.3	80%	91%	96%	\$14.17	\$13.55	\$13.49	98.1	39%
FEC	\$ 7.07	\$ 3.96	\$ 5.44	\$378	\$460	\$577	\$222	\$498	\$297	(\$60)	(\$2)	(\$250)	-0.2x	0.0x	-0.5x	75.5	72.0	68.7	8%	6%	4%	\$13.54	\$15.90	\$21.72	172.6	29%
GPRK	\$ 2.79	\$ 4.22	\$ 5.15	\$219	\$293	\$343	\$106	\$142	\$137	\$370	\$336	\$162	2.2x	1.3x	0.5x	27.6	35.8	41.6	17%	14%	12%	\$17.56	\$19.75	\$20.56	159.2	18%
GTE	\$ 0.52	\$ 0.82	\$ 1.02	\$232	\$342	\$422	\$251	\$290	\$252	\$268	\$251	\$95	1.2x	0.8x	0.2x	31.4	36.4	43.9	1%	0%	0%	\$19.08	\$24.08	\$24.82	137.0	32%
PXT	\$ 1.73	\$ 2.29	\$ 3.66	\$282	\$372	\$604	\$207	\$284	\$191	(\$163)	(\$167)	(\$576)	-0.6x	-0.5x	-1.0x	35.5	43.6	51.6	1%	1%	1%	\$21.57	\$23.19	\$31.87	162.2	31%
ROE	(C\$0.04)	C\$0.00	C\$0.04	(C\$3)	C\$0	C\$18	C\$5	C\$14	C\$26	(C\$6)	(C\$4)	(C\$31)	NM	NM	-1.8x	1.6	1.6	4.6	61%	62%	48%	(C\$3.13)	C\$0.96	C\$10.42	1.3	40%
TGL	\$ 0.76	\$ 1.15	\$ 1.28	\$62	\$89	\$99	\$38	\$44	\$32	\$19	(\$16)	(\$73)	0.3x	-0.2x	-0.8x	15.5	14.7	15.9	7%	6%	6%	\$9.82	\$15.70	\$16.14	45.9	42%
Average													0.9x	0.5x	-0.3x	29.1	32.1	37.1	25%	26%	24%	\$13.34	\$16.13	\$19.51	110.9	33%

Sources: Company reports, Canaccord Genuity estimates, FactSet, Bloomberg Finance L.P. All estimates are in US\$, unless otherwise indicated.

Oilfield Services comparative valuation tables

Figure 30: Pricing and Valuation

Pricing (Sep. 24, 2018)

Company	Ticker	Rating	Price	Target Price	Dividend Yield	Total Return	Shares O/S	Market Cap	Net Debt	EV	Return			
											1 Wk.	1 Mnth.	3 Mnth.	YTD
Calfrac Well Services	CFW	Buy	4.25	6.00	0.0%	41%	144.2	612.9	1,039.0	1,651.9	(5%)	(19%)	(24%)	(29%)
CES Energy Solutions	CEU	Buy	4.46	7.00	1.3%	58%	268.9	1,199.4	410.9	1,610.3	5%	(9%)	(2%)	(32%)
Ensign Energy Services	ESI	Hold	6.47	6.50	7.4%	8%	156.9	1,015.1	726.6	1,741.7	0%	(4%)	14%	0%
ENTREC	ENT	Hold	0.17	0.20	0.0%	18%	109.8	18.7	156.5	175.1	1%	(6%)	(15%)	(15%)
Essential Energy Services	ESN	Hold	0.47	0.65	0.0%	40%	141.9	66.0	22.6	88.5	(6%)	(12%)	(15%)	(35%)
McCoy Global	MCB	Hold	1.20	1.60	0.0%	33%	27.7	33.2	(12.3)	20.9	(13%)	(13%)	(13%)	(14%)
Mullen Group	MTL	Hold	15.11	17.50	4.0%	20%	104.1	1,573.7	450.6	2,024.3	2%	(7%)	4%	(4%)
Precision Drilling	PD	Hold	4.65	5.25	0.0%	13%	293.2	1,363.6	1,641.2	3,004.7	0%	(7%)	15%	22%
Secure Energy Services	SES	Buy	8.70	11.00	3.1%	30%	163.4	1,421.9	344.8	1,766.7	7%	5%	23%	(1%)
Source Energy Services	SHLE	Buy	4.40	8.00	0.0%	82%	62.9	276.5	162.1	438.7	(1%)	(10%)	(8%)	(52%)
Tervita Corporation	TEV	Buy	8.69	12.50	0.0%	44%	117.6	1,021.5	748.2	1,769.7	(0%)	(6%)	NA	NA
Total Energy Services	TOT	Buy	11.05	17.00	2.2%	56%	46.2	510.9	303.3	814.2	(8%)	(4%)	(2%)	(26%)
Trican Well Service	TCW	Buy	2.22	3.25	0.0%	46%	326.8	725.6	58.7	784.3	(9%)	(23%)	(23%)	(46%)
Trinidad Drilling	TDG	Buy	1.85	2.00	0.0%	8%	273.5	505.9	470.6	976.5	2%	3%	3%	9%
Western Energy Services	WRG	Hold	0.71	1.00	0.0%	41%	92.2	65.4	225.6	291.0	(5%)	(24%)	(29%)	(44%)
Median					0.0%	40%		612.9	344.8	976.5	(0%)	(7%)	(5%)	(20%)
Average					1.2%	36%		694.0	449.9	1,143.9	(2%)	(9%)	(5%)	(19%)

Valuation & Balance Sheet Metrics

Ticker	EBITDA			EV/EBITDA			EPS			Debt/EBITDA			Interest Coverage		
	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
CFW	186.2	290.0	313.2	8.1x	5.4x	4.9x	0.04	(0.05)	0.35	4.8x	3.3x	3.0x	2.2x	2.7x	3.9x
CEU	152.8	173.3	215.8	8.9x	7.9x	6.6x	0.14	0.19	0.26	1.0x	1.0x	1.0x	3.8x	7.3x	9.9x
ESI	201.8	240.5	301.0	8.5x	7.1x	5.4x	(0.24)	(0.80)	(0.64)	3.5x	2.9x	2.0x	4.9x	6.0x	8.0x
ENT	11.3	14.1	24.7	15.0x	12.2x	6.5x	(0.13)	(0.14)	(0.05)	13.4x	10.8x	5.8x	1.3x	1.4x	2.9x
ESN	18.6	24.0	27.6	4.6x	3.9x	3.5x	(0.02)	0.03	0.03	1.0x	1.1x	1.1x	15.1x	16.0x	15.8x
MCB	(4.2)	0.5	5.5	NA	42.8x	4.0x	(0.59)	(0.25)	(0.08)	Nmf	Nmf	Nmf	Nmf	2.1x	23.3x
MTL	180.3	194.8	245.0	11.1x	10.3x	8.0x	0.63	0.55	0.94	2.4x	2.2x	1.6x	99.4x	Nmf	9.3x
PD	311.8	392.5	510.6	9.9x	7.6x	5.6x	(0.45)	(0.29)	0.00	5.5x	4.2x	2.9x	2.3x	3.3x	4.4x
SES	156.7	185.4	230.8	10.7x	9.5x	7.5x	(0.21)	0.12	0.28	1.7x	1.8x	1.4x	12.6x	10.9x	17.8x
SHLE	40.6	97.9	119.6	10.3x	4.4x	3.3x	(0.21)	0.55	0.80	3.5x	1.6x	1.0x	1.4x	5.3x	6.5x
TEV	156.0	189.0	267.2	9.1x	9.4x	6.5x	(0.78)	0.19	0.50	2.5x	4.0x	2.6x	3.2x	3.1x	3.9x
TOT	73.9	117.9	153.9	9.3x	6.8x	4.7x	(0.29)	0.50	1.00	2.3x	2.5x	1.4x	5.2x	8.5x	14.9x
TCW	183.3	125.7	183.3	4.7x	6.3x	3.9x	0.13	(0.18)	0.11	0.8x	0.5x	Nmf	13.5x	14.8x	Nmf
TDG	129.9	153.6	190.3	8.1x	6.7x	5.3x	(0.29)	(0.28)	(0.29)	4.2x	3.4x	2.7x	3.1x	4.1x	5.0x
WRG	35.5	37.8	51.5	8.0x	7.4x	5.1x	(0.49)	(0.40)	(0.31)	6.2x	5.7x	3.8x	1.6x	1.9x	2.6x
Median	152.8	153.6	190.3	9.0x	7.4x	5.3x	(0.21)	(0.05)	0.11	3.0x	2.7x	2.0x	3.5x	4.7x	7.3x
Average	122.3	149.1	189.3	9.0x	9.8x	5.4x	(0.18)	(0.02)	0.19	3.8x	3.2x	2.3x	12.1x	6.3x	9.2x

Source: Company Reports, Canaccord Genuity estimates, FactSet

Figure 31: International E&P week-over-week estimate changes

Company name	Ticker	Analyst	12-month Price Target (C\$)			% chg	Recommendation		2018E Contingent NAV (C\$)			% chg	2018E Prodn (kboe/d)		% chg	2019E Prodn (kboe/d)		% chg	2018E CFPS (US\$)			% chg	2019E CFPS (US\$)			% chg
			Current	Prior			Current	Prior	Current	Prior	Current		Prior	Current		Prior	Current		Prior	Current	Prior		Current	Prior	Current	
Canacol Energy Ltd.	CNE	JX	\$5.00	\$5.00		HOLD	HOLD	\$6.20	\$6.20		20.8	20.8		33.3	33.3		\$0.58	\$0.58		\$0.93	\$0.93					
Frontera Energy Corp.	FEC	JX	\$33.00	\$33.00		BUY	BUY	\$33.16	\$33.16		72.0	72.0		68.7	68.7		\$3.96	\$3.96		\$5.44	\$5.44					
GeoPark Limited	GPRK	JX	US\$25.00	US\$25.00		BUY	BUY	US\$25.00	US\$25.00		35.8	35.8		41.6	41.6		\$4.22	\$4.22		\$5.15	\$5.15					
Gran Tierra Energy Inc.	GTE	JX	\$7.00	\$7.00		BUY	BUY	\$7.00	\$7.00		36.4	36.4		43.9	43.9		\$0.82	\$0.82		\$1.02	\$1.02					
Parex Resources Inc.	PXT	JX	\$31.50	\$31.50		BUY	BUY	\$31.60	\$31.60		43.6	43.6		51.6	51.6		\$2.29	\$2.29		\$3.66	\$3.66					
Renaissance Oil Corp.	ROE	JX	\$0.80	\$0.80		SPEC BUY	SPEC BUY	\$0.81	\$0.83		1.6	1.6		4.6	4.6		\$0.00	\$0.00		\$0.04	\$0.04					
TransGlobe Energy Corp.	TGL	JX	\$6.00	\$6.00		SPEC BUY	SPEC BUY	\$6.05	\$6.05		14.7	14.7		14.7	14.7		\$1.15	\$1.15		\$1.28	\$1.28					
Average					0%					0%					0%						0%					0%

Source: Canaccord Genuity estimates

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Investment Recommendation

Date and time of first dissemination: September 25, 2018, 09:25 ET

Date and time of production: September 25, 2018, 09:25 ET

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	#	%	%
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Hold	214	24.29%	29.44%
Sell	11	1.25%	27.27%
Speculative Buy	105	11.92%	66.67%
	881*	100.0%	

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