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ENERGY

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Who Had the Best Reserve Report? 5 Items to Take Away

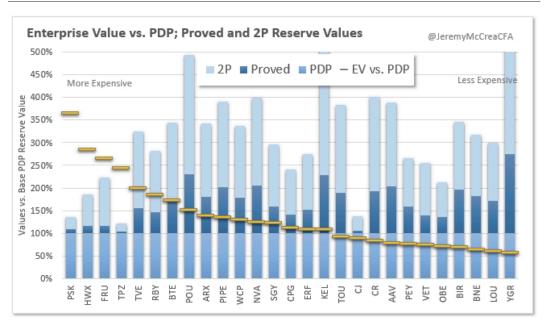
Reserve reports can provide a great deal of future information that is not readily foreseen with cashflow approaches. Although there is a lot of data in AIFs, a 'triangulation' of different metrics is still needed to determine which entity is likely to be the most profitable, have higher growth, and is the most 'valuable'. Through our note, we look at 5 different items as 'food for thought' as it relates to reserve data and where biases may be coming in the future.

1) Valuation

We highlight how operators trade today relative to their PDP reserve value, Proved Value, and 2P Value (based on YE engineer reserve figures). Although PDP reserve values are generally consistent across the space, different booking practices by operators make comparison of Proved and 2P reserves more difficult (depending on the amount of Future Development Capital booked relative to organic cashflow).

That said, we can still use the valuation as a directional basis in terms of potential upside. For gas-weighted names, Birchcliff and Peyto are among the least expensive names (relative to their PDP and 2P reserves). For oil-weighted names, Yangarra, Lucero, Bonterra, and Obsidian are among the least expensive names relative to their booked reserves.

Exhibit 1: Current Enterprise Value (vs. 2021 engineer PDP, Proved and 2P Reserve Value)



(1) Only includes reserves disclosed with YE 2022 results. EV based on closed transactions. I.e., BTE excludes reserve values/debt associated with the Ranger transaction; Crescent Point excludes Montney transaction.

		Current			Div.	
Company	Ticker	Price	Rating	Target Price	Yield	Suitability
Intermediate Oil & Gas						
	AAV-TSX	C\$7.68	MO2	C\$12.00	0.0%	MA/ACC
Advantage Energy Ltd. ARC Resources Ltd.	ARX-TSX	C\$15.80	MO2 MO2	C\$12.00 C\$20.00	3.9%	A/INC
	BIR-TSX	C\$15.80 C\$7.90	MO2 MO2			,
Birchcliff Energy Ltd.	CPG-TSX	C\$1.90 C\$10.13	MO2 MO2	C\$12.00	10.0% 4.4%	MA/ACC
Crescent Point Energy Corp.				C\$12.50		MA/ACC
Freehold Royalties Ltd.	FRU-TSX	C\$14.81	MO2	C\$21.00	6.9%	A/INC
Kelt Exploration Ltd.	KEL-TSX	C\$4.75	MP3	C\$6.00	0.0%	MA/ACC
NuVista Energy Ltd.	NVA-TSX	C\$11.45	MO2	C\$16.50	0.0%	MA/ACC
Paramount Resources Ltd.	POU-TSX	C\$31.02	MO2	C\$40.00	5.0%	MA/ACC
Peyto Exploration & Development Corp.	PEY-TSX	C\$12.22	MP3	C\$17.00	10.6%	MA/ACC
PrairieSky Royalty Ltd.	PSK-TSX	C\$21.89	MO2	C\$30.00	4.3%	A/INC
「amarack Valley Energy Ltd.	TVE-TSX	C\$4.12	MO2	C\$5.50	3.5%	MA/ACC
Гораz Energy Corp.	TPZ-TSX	C\$19.04	SB1	C\$28.00	6.2%	A/INC
Гourmaline Oil Corp.	TOU-TSX	C\$55.70	SB1	C\$90.00	1.6%	MA/ACC
/ermilion Energy Inc.	VET-TSX	C\$18.01	MO2	C\$31.00	2.2%	MA/ACC
Whitecap Resources Inc.	WCP-TSX	C\$10.81	SB1	C\$16.00	5.8%	A/INC
Junior Oil & Gas						
Bonterra Energy Corp.	BNE-TSX	C\$6.89	MO2	C\$10.00	0.0%	A/ACC
Cardinal Energy Ltd.	CJ-TSX	C\$7.35	MP3	C\$9.00	10.0%	A/ACC
Crew Energy Inc.	CR-TSX	C\$4.76	MO2	C\$7.00	0.0%	A/ACC
Headwater Exploration Inc.	HWX-TSX	C\$6.39	MO2	C\$9.00	6.1%	MA/ACC
Lucero Energy Corp.	LOU-TSXV	C\$0.53	MO2	C\$0.90	0.0%	A/ACC
Obsidian Energy Ltd.	OBE-TSX	C\$9.30	MO2	C\$13.50	0.0%	A/ACC
Pipestone Energy	PIPE-TSX	C\$2.84	MO2	C\$4.00	4.1%	MA/ACC
Spartan Delta Corp.	SDE-TSX	C\$14.09	MO2	C\$19.00	0.0%	MA/ACC
Surge Energy Inc.	SGY-TSX	C\$9.33	MO2	C\$14.00	5.4%	A/ACC
angarra Resources Ltd.	YGR-TSX	C\$1.91	MO2	C\$3.50	0.0%	MA/ACC

Note: SB1 - Strong Buy, MO2 - Outperform, MP3 - Market Perform, MU4 - Underperform, UR - Under Review, S - Suspended; M/INC - Moderate Risk/Provide Income, M/ACC - Moderate Risk/Wealth Accumulation, MA/INC - Moderately Aggressive Risk/Provide Income, M/ACC - Moderately Aggressive Risk/Wealth Accumulation, A/INC - Aggressive Risk/Provide Income, A/ACC - Aggressive Risk/Wealth Accumulation.

2) Value Creation - Return on Investment

We highlight the sector's profitability over a 3-year period, essentially measuring the increase in the PDP reserve value vs. the capital spent (including A&D). Similar to finding, development & acquisitions costs (FD&A) that look at volumes, we are looking at 'value', considering 'boes' all have different pricing points (gas vs. oil; operating/royalty costs; decline profile, etc).

Value Creation - Dollar Spent vs. Value Created: As mentioned, most companies typically have profitable half-cycle economics but on a full-cycle basis, the sector has historically struggled to deliver much value creation over the last decade. That said, the sector has shown a remarkable turnaround with a meaningful return on investment.

As seen, the mid-cap sector has spent \$38 bln over the last three years. With that, the value created was \$99 bln (looking at the change in PDP value from YE 2019 to YE 2022 and adding back FFO). Overall, for every dollar spent, the sector has created an additional \$1.70 in new value. If we were to include the impact of hedging, debt financing costs, taxes, etc, return on a dollar spent falls to \$1.40 in incremental value. We've been updating this chart since 2010 and only in the last couple of years, has this return been positive – and where there is a disconnect with the valuation proposition above. If most companies are creating positive value, most investors should be willing to pay a higher price than the current 1.2x EV/PDP average valuation (as noted in Part 1 above).

Unfortunately, there are two issues with this analysis still.

- 1. A company's profitability is greatly impacted by whether the company is 'growing' or 'maintaining reserves'. With growth, there is typically much more full-cycle costs required, that would ultimately impact profitability vs. a company that spends only to fill facilities.
- 2. It is backward looking and not necessarily indicative of future performance. Some companies have shown successful asset sales since 2019 while others may have 'paid-up' for acquisitions that were rich in high quality future inventory (i.e., Tamarack Valley).

Exhibit 2: Value Creation - Dollar Spent vs. Value Created

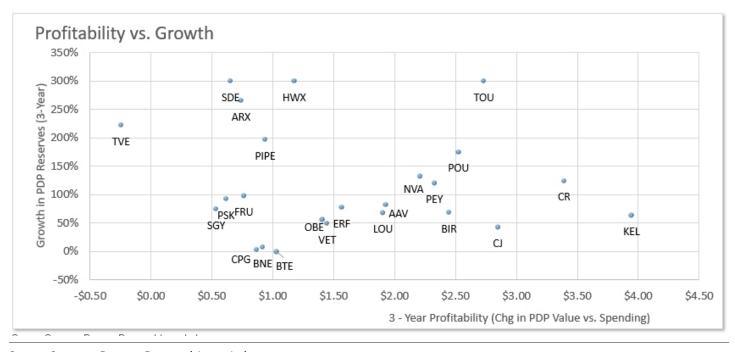
Kelt Exploration Ltd. KEL Crew Energy Inc. CR Cardinal Energy Ltd. CJ Lucero Energy Corp LOU Paramount Resources Ltd. POU Peyto Exploration Development PEY Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Corp. BNE Crescent Point Energy Corp. CPG Pipestone Energy Corp. PIPE	\$514 \$439 \$949 \$398 \$912 \$1,866 \$4,579 \$894 \$1,939 \$910 \$3,510	\$842 \$985 \$1,353 \$671 \$2,509 \$4,111 \$18,594 \$2,077 \$3,270 \$1,661	\$659 \$659 \$696 \$606 \$422 \$2,267 \$2,198 \$9,700 \$1,715 \$1,734	Value Added '20- 22 \$986 \$1,242 \$1,010 \$694 \$3,864 \$4,443 \$23,715 \$2,898	(\$691) (\$691) (\$441) (\$202) (\$161) (\$1,163) (\$1,082) (\$4,026)	A&D '20- 22 \$514 \$199 (\$43) (\$9) \$207 (\$48)	(\$177) (\$242) (\$245) (\$170) (\$956) (\$1,130)	3 Year Field ROC RANKED \$4.57 \$4.14 \$3.12 \$3.08 \$3.04 \$2.93	Corp: Hedging/ Interest/ Tax/ Other (\$111) (\$181) (\$67) (\$201) (\$496)	Corp Value Add '20-22 \$875 \$1,061 \$943 \$493	3 Year Corp ROC \$3.94 \$3.39 \$2.84 \$1.90
Crew Energy Inc. CR Cardinal Energy Ltd. CJ Lucero Energy Corp LOU Paramount Resources Ltd. POU Peyto Exploration Development PEY Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. CPG	\$439 \$949 \$398 \$912 \$1,866 \$4,579 \$894 \$1,939 \$910 \$3,510	\$985 \$1,353 \$671 \$2,509 \$4,111 \$18,594 \$2,077 \$3,270 \$1,661	\$696 \$606 \$422 \$2,267 \$2,198 \$9,700 \$1,715 \$1,734	\$1,242 \$1,010 \$694 \$3,864 \$4,443 \$23,715	(\$441) (\$202) (\$161) (\$1,163) (\$1,082) (\$4,026)	\$199 (\$43) (\$9) \$207 (\$48)	(\$242) (\$245) (\$170) (\$956)	\$4.57 \$4.14 \$3.12 \$3.08 \$3.04	(\$181) (\$67) (\$201)	\$1,061 \$943 \$493	\$3.39 \$2.84
Crew Energy Inc. CR Cardinal Energy Ltd. CJ Lucero Energy Corp LOU Paramount Resources Ltd. POU Peyto Exploration Development PEY Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. CPG	\$439 \$949 \$398 \$912 \$1,866 \$4,579 \$894 \$1,939 \$910 \$3,510	\$985 \$1,353 \$671 \$2,509 \$4,111 \$18,594 \$2,077 \$3,270 \$1,661	\$696 \$606 \$422 \$2,267 \$2,198 \$9,700 \$1,715 \$1,734	\$1,242 \$1,010 \$694 \$3,864 \$4,443 \$23,715	(\$441) (\$202) (\$161) (\$1,163) (\$1,082) (\$4,026)	\$199 (\$43) (\$9) \$207 (\$48)	(\$242) (\$245) (\$170) (\$956)	\$4.14 \$3.12 \$3.08 \$3.04	(\$181) (\$67) (\$201)	\$1,061 \$943 \$493	\$3.39 \$2.84
Cardinal Energy Ltd. CJ Lucero Energy Corp LOU Paramount Resources Ltd. POU Peyto Exploration Development PEY Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Energlus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$949 \$398 \$912 \$1,866 \$4,579 \$894 \$1,939 \$910 \$3,510	\$1,353 \$671 \$2,509 \$4,111 \$18,594 \$2,077 \$3,270 \$1,661	\$606 \$422 \$2,267 \$2,198 \$9,700 \$1,715 \$1,734	\$1,010 \$694 \$3,864 \$4,443 \$23,715	(\$202) (\$161) (\$1,163) (\$1,082) (\$4,026)	(\$43) (\$9) \$207 (\$48)	(\$245) (\$170) (\$956)	\$3.12 \$3.08 \$3.04	(\$67) (\$201)	\$943 \$493	\$2.84
Lucero Energy Corp LOU Paramount Resources Ltd. POU Peyto Exploration Development PEY Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Energlus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$398 \$912 \$1,866 \$4,579 \$894 \$1,939 \$910 \$3,510	\$671 \$2,509 \$4,111 \$18,594 \$2,077 \$3,270 \$1,661	\$422 \$2,267 \$2,198 \$9,700 \$1,715 \$1,734	\$694 \$3,864 \$4,443 \$23,715	(\$161) (\$1,163) (\$1,082) (\$4,026)	(\$9) \$207 (\$48)	(\$170) (\$956)	\$3.08 \$3.04	(\$201)	\$493	*
Paramount Resources Ltd. POU Peyto Exploration Development PEY Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. CPG	\$912 \$1,866 \$4,579 \$894 \$1,939 \$910 \$3,510	\$2,509 \$4,111 \$18,594 \$2,077 \$3,270 \$1,661	\$2,267 \$2,198 \$9,700 \$1,715 \$1,734	\$3,864 \$4,443 \$23,715	(\$1,163) (\$1,082) (\$4,026)	\$207 (\$48)	(\$956)	\$3.04			\$1.90
Peyto Exploration Development PEY Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. CPG	\$1,866 \$4,579 \$894 \$1,939 \$910 \$3,510	\$4,111 \$18,594 \$2,077 \$3,270 \$1,661	\$2,198 \$9,700 \$1,715 \$1,734	\$4,443 \$23,715	(\$1,082) (\$4,026)	(\$48)			(\$496)	.	
Tourmaline Oil Corp. TOU NuVista Energy Ltd. NVA Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$4,579 \$894 \$1,939 \$910 \$3,510	\$18,594 \$2,077 \$3,270 \$1,661	\$9,700 \$1,715 \$1,734	\$23,715	(\$4,026)		(\$1,130)	\$2.03		\$3,368	\$2.52
NuVista Energy Ltd. NVA Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$894 \$1,939 \$910 \$3,510	\$2,077 \$3,270 \$1,661	\$1,715 \$1,734			(CO 157)		\$2.55	(\$688)	\$3,755	\$2.32
Birchcliff Energy Ltd. BIR Advantage Energy Ltd. AAV Vermillon Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$1,939 \$910 \$3,510	\$3,270 \$1,661	\$1,734	\$2,898		(\$2,157)	(\$6,183)	\$2.84	(\$656)	\$23,059	\$2.73
Advantage Energy Ltd. AAV Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$910 \$3,510	\$1,661			(\$889)	\$93	(\$796)	\$2.64	(\$344)	\$2,554	\$2.21
Vermilion Energy Inc. VET Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$3,510			\$3,065	(\$885)	\$11	(\$874)	\$2.51	(\$56)	\$3,010	\$2.44
Enerplus Corporation ERF Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG			\$1,124	\$1,876	(\$518)	(\$32)	(\$550)	\$2.41	(\$268)	\$1,608	\$1.93
Baytex Energy Corp. BTE Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG		\$5,246	\$4,363	\$6,099	(\$1,294)	(\$668)	(\$1,962)	\$2.11	(\$1,306)	\$4,793	\$1.44
Obsidian Energy Ltd. OBE Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$1,761	\$3,126	\$2,722	\$4,087	(\$970)	(\$424)	(\$1,394)	\$1.93	(\$514)	\$3,573	\$1.56
Bonterra Energy Corp. BNE Crescent Point Energy Corp. CPG	\$2,211	\$2,197	\$3,012	\$2,998	(\$1,115)	\$26	(\$1,089)	\$1.75	(\$789)	\$2,209	\$1.03
Crescent Point Energy Corp. CPG	\$1,010	\$1,579	\$901	\$1,470	(\$513)	(\$38)	(\$551)	\$1.67	(\$145)	\$1,325	\$1.40
	\$586	\$632	\$415	\$461	(\$191)	\$0	(\$191)	\$1.42	(\$96)	\$365	\$0.91
Pipestone Energy Corp PIPE	\$6,090	\$6,288	\$5,596	\$5,794	(\$2,391)	(\$161)	(\$2,551)	\$1.27	(\$1,035)	\$4,759	\$0.87
	\$234	\$695	\$737	\$1,198	(\$542)	(\$0)	(\$542)	\$1.21	(\$149)	\$1,049	\$0.93
Headwater Exploration Inc. HWX	\$47	\$490	\$409	\$853	(\$387)	\$0	(\$387)	\$1.20	(\$12)	\$841	\$1.17
ARC Resources Ltd. ARX	\$2,212	\$8,096	\$8,881	\$14,765	(\$2,815)	(\$4,532)	(\$7,347)	\$1.01	(\$2,010)	\$12,755	\$0.74
Surge Energy Inc. SGY	\$603	\$1,055	\$720	\$1,172	(\$327)	(\$260)	(\$586)	\$1.00	(\$274)	\$898	\$0.53
Freehold Royalties Ltd. FRU	\$446	\$882	\$642	\$1,078	(\$0)	(\$578)	(\$578)	\$0.86	(\$60)	\$1,018	\$0.76
Yangarra Resources Ltd. YGR	\$414	\$522	\$354	\$462	(\$253)	\$0	(\$253)	\$0.82	(\$41)	\$421	\$0.66
Whitecap Resources Inc. WCP	\$3,283	\$6,563	\$5,009	\$8,289	(\$1,311)	(\$3,256)	(\$4,567)	\$0.81	(\$1,115)	\$7,174	\$0.57
Spartan Delta Corp. SDE	(\$0)	\$1,624	\$1,397	\$3,021	(\$641)	(\$1,054)	(\$1,695)	\$0.78	(\$223)	\$2,798	\$0.65
PrairieSky Royalty Ltd. PSK	\$786	\$1,512	\$987	\$1,714	\$0	(\$1,026)	(\$1,026)	\$0.67	(\$60)	\$1,654	\$0.61
Total / Weighted Average				\$97,253	(\$22,807)	1642 227	(\$36,043)	\$1.70	(\$10,897)	\$86.357	\$1.40

^{(1) 3-} Consultant Average Price Deck at YE 2022: 5-Year Average: WTI: US\$95/bbl; CDN Par (MSW): C\$121/bbl; AECO: C\$5.55/mcf

^{(2) 3-}Consultant Average Price Deck at YE 2019: 5-Year Average: WTI: US\$57/bbl; CDN Par (MSW): C\$69/bbl; AECO: C\$1.60/mcf

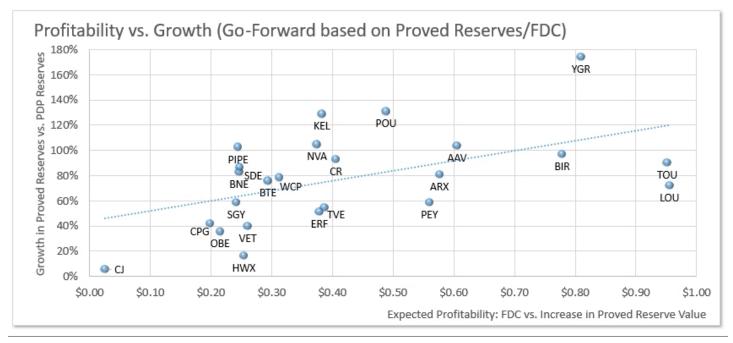
Profitability vs. Growth (Historical): Exhibit 3 looks at Profitability (as noted in the last exhibit) vs. the amount of growth seen in its PDP reserve value. Overall, Tourmaline comes out in first place, with the company growing its PDP reserve value ~300%+ (from \$4.5 bln in 2019 to \$18.6 bln in 2022) – all while spending only \$6.1 bln.

Exhibit 3: Profitability vs Reserve Growth (3-Year Historic)



Profitability vs. Growth (Go Forward Expectations): In Exhibit 4, we look at profitability vs. growth but on a go-forward basis. By looking at a company's reported Future Development Capital (Proved) vs. additional value expected to come from this spending, we can see what companies are expected to be the most profitable. Conversely, some of the profits might be hindered for companies that are growing quickly, so we include the element of growth as well. Overall, Tourmaline, Yangarra and Lucero show well on this metric.

Exhibit 4: Profitability vs Reserve Growth (Go-Forward Based on Proved Reserves)

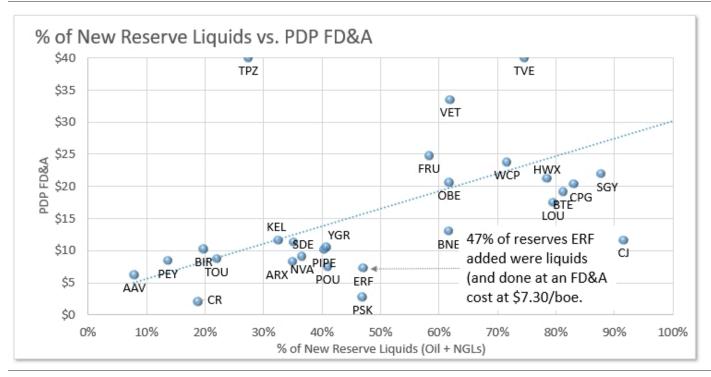


3) Finding, Development and Acquisition Costs (FD&A)

Unfortunately, the analysis above can be somewhat misleading given reserve values were highly impacted by the y/y change in commodity decks (from YE 2019 to YE 2022). Looking at FD&A costs (that use volumes) helps to overcome this challenge (but not without its own shortcoming). Typically, this is the 'recycle ratio' measure. The main issue with the recycle ratio is we're comparing apples to oranges. The netback of a company is the result of multiple years of drilling and production decisions whereas the PDP FD&A costs reflect the prior year's decisions only. More often, a company could have a higher liquids weighted netback but when comparing that figure to a PDP FD&A number that is reflecting of reserves (out in the future 40 years), we likely see that those reserves have a higher gas attribution. Thus, it gives the illusion of higher profitability than it should.

The exhibit below shows the PDP FD&A cost vs. the amount of new reserves that were liquids. There's other considerations such as the quality of oil (heavy vs. light), the associated opex/royalty/transport costs associated with these reserves as well (but unfortunately, these items are never disclosed – except within the analysis we showed in Part 1). Nevertheless, names such as Cardinal, Enerplus, and Paramount look relatively profitable, in terms of their PDP FD&A cost relative to the mixture of hydrocarbons they brought on stream in 2022.

Exhibit 5: 2022 % of New Reserves Liquids vs. PDP FD&A Cost

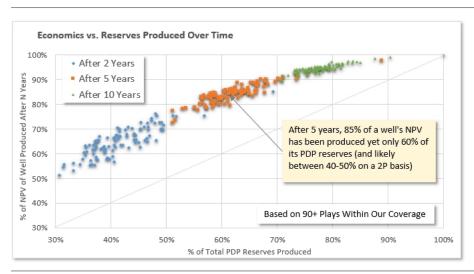


Pitfalls Using FD&A Costs

Although PDP FD&A figures are better than 1P or 2P figures, there is still a fundamental flaw in using PDP FD&A figures to construct the total cost structure of a company (and determine who is the lowest cost operator and at what break-even cost). The key issue here is there is no time-value-of-money implied in PDP FD&A reserve calculations (where PDP Value at 10% does include this element).

In Exhibit 6, we highlight our covered company play economics (90+ different plays). As highlighted, in the first five years of on-stream production, the average well has produced ~85% of its total NPV value, while only having produced 60% of its reserves. After 10 years, 95% of the NPV of the well has been accrued, while only 77% of its proved reserves have been produced. A combination of fixed costs, higher royalty rates, lower production, changing GOR/CGR and ultimately lower cashflow in subsequent years (when discounted back at 10%) leads to the difference in value versus volume. Effectively, the 10-year mark is the point where reserve volumes should be taken to calculate PDP FD&A costs, when 95% of the value has been accrued (and not in year 30+). In essence, we believe investors should be "grossing up" PDP FD&A costs, potentially by ~20-40%.

Exhibit 6: % of Well NPV Produced in the First 2, 5, and 10 Years Vs. Reserves Produced



4) 'Cashflow' Decline Rate vs. 'Production' Decline Rate

'Cashflow' Decline Rates and Sustainability: Investors often ask about maintenance capital but the difficulty within the E&P sector is that it is commonly based on production decline levels. With no standard definition on this metric, the use of a 'boe' basis can sometimes be misleading, especially if liquid volumes (i.e., main source of cashflow) are declining at a higher rate than gas volumes (and very common in resource style plays). One way to approximate the 'cashflow' decline is comparing the engineer Proved Developed Producing (PDP) reserve values at the different discount rates provided in the Annual Information Form.

For example, if the engineer's PDP reserve value using a 0% discount rate is the same as the PDP reserve value using a 20% discount, it implies that all of the cashflow occurs in the initial year (as there is no cashflow to discount in later years). The result is likely a very steep 'cashflow' decline rate and thus higher maintenance capital than what is implied with a stated production decline. High AROs can also influence these figures so in our analysis below, we compare PDP values using a 5% and a 20% discount. Overall, using a 'solver excel' tool, we can determine what the approximate cashflow decline of a company is (and normalize for declines).

Paramount, Headwater, Surge and Tamarack Valley have more of their PDP value being produced in the first year (and thus likely having higher cashflow declines than the sector average). That said, with strip prices in backwardation, these producers who produce more in their first year get the added torque. I.e., these higher oil prices today will add more to these companies PDP reserve value than the operators with lower declines. Going back to Exhibit 1 (showing valuation), these operators are likely not as expensive under strip pricing.

Exhibit 7: PDP Reserve Values at 5% Discount vs. 20% Discount

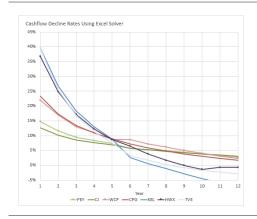
		PDP 5% /	PDP 0%				
Company		PDP 20% RANK	Value				
Peyto Exploration Development I	PEY	50%	\$8,960	\$5,603	\$4,111	\$3,306	\$2,807
Lucero Energy Corp	LOU	52%	\$1,325	\$887	\$671	\$546	\$465
Cardinal Energy Ltd.	CJ	53%	\$2,577	\$1,784	\$1,353	\$1,101	\$937
Advantage Energy Ltd.	AAV	56%	\$3,068	\$2,138	\$1,661	\$1,377	\$1,189
Topaz Energy Corp	TPZ	57%	\$2,253	\$1,620	\$1,278	\$1,064	\$918
Bircholiff Energy Ltd.	BIR	58%	\$5,411	\$4,099	\$3,270	\$2,731	\$2,359
Freehold Royalties Ltd.	FRU	59%	\$1,537	\$1,105	\$882	\$745	\$652
Crew Energy Inc.	CR	59%	\$1,650	\$1,228	\$985	\$832	\$728
PrairieSky Royalty Ltd.	PSK	61%	\$2,432	\$1,856	\$1,512	\$1,287	\$1,127
NuVista Energy Ltd.	NVA	61%	\$3,325	\$2,549	\$2,077	\$1,771	\$1,560
Bonterra Energy Corp.	BNE	61%	\$922	\$768	\$632	\$538	\$471
Yangarra Resources Ltd.	YGR	63%	\$815	\$632	\$522	\$449	\$397
Whitecap Resources Inc.	WCP	63%	\$9,551	\$7,916	\$6,563	\$5,638	\$4,984
Obsidian Energy Ltd.	OBE	63%	\$1,994	\$1,881	\$1,579	\$1,354	\$1,193
Crescent Point Energy Corp.	CPG	64%	\$9,407	\$7,530	\$6,288	\$5,448	\$4,845
ARC Resources Ltd.	ARX	66%	\$11,742	\$9,586	\$8,096	\$7,048	\$6,283
Tourmaline Oil Corp.	TOU	66%	\$27,257	\$22,049	\$18,594	\$16,202	\$14,453
Enerplus Corporation	ERF	66%	\$4,622	\$3,712	\$3,126	\$2,726	\$2,436
Vermilion Energy Inc.	VET	69%	\$7,323	\$6,076	\$5,246	\$4,648	\$4,197
Pipestone Energy Corp	PIPE	71%	\$929	\$796	\$695	\$619	\$562
Rubelite Energy Inc.	RBY	71%	\$121	\$104	\$91	\$82	\$74
Spartan Delta Corp.	SDE	72%	\$2,090	\$1,844	\$1,624	\$1,455	\$1,326
Baytex Energy Corp.	BTE	73%	\$2,821	\$2,485	\$2,197	\$1,978	\$1,809
Surge Energy Inc.	SGY	73%	\$1,244	\$1,180	\$1,055	\$948	\$862
Kelt Exploration Ltd.	KEL	73%	\$1,018	\$945	\$842	\$758	\$692
Paramount Resources Ltd.	POU	75%	\$2,545	\$2,760	\$2,509	\$2,262	\$2,062
Headwater Exploration Inc.	H₩X	76%	\$603	\$543	\$490	\$449	\$415
Tamarack Valley Energy Ltd	TVE	77%	\$2,267	\$2,030	\$1,842	\$1,692	\$1,570

Source: Company Reports, Raymond James Ltd.

Using Excel Solver, we can determine the cashflow projections that engineers have used by running a formula so that when this cashflow stream is discounted back at the various 0%, 5%, 10%, 15%, and 20% discount rates, it matches the values provided in the AIF reports.

On average, the sector will produce 27% of its PDP reserve value in year 1,17% in year 2,13% in year 3, and 73% of the value within the first five years. We highlight names that are on the high and low end of reserve decline figures below.

Exhibit 8: Cashflow Decline Using Solver (High/Medium/Low)



5) Leverage: Net Debt / PDP Reserve Value:

Banks will typically lend at 60% of PDP reserve value (depending on internal commodity prices). Although many companies are deleveraging much lower than this threshold, it provides another angle to assess risk (vs. D/EBITDA in the current strip environment).

Since reserves exclude the impact of hedging, we add back hedging gains or losses (as if they were monetized at the current value today). In essence, this provides a better sense of overall risk. Currently, the sector has a leverage ratio of 15%, down from 52% at YE 2020.

Overall, least leveraged names include Headwater, Paramount, Tourmaline and Kelt.

Exhibit 9: Debt to PDP Reserve Value

					_	
Company	TCK	PDP Rsv Value	D/PDP	D/PDP	D/PDP	D/PDP
Tamarack Valley Energy L	TVE	74%	48%	55%	34%	31%
Surge Energy Inc.	SGY	34%	61%	141%	66%	63%
Topaz Energy Corp	TPZ	31%	24%	-47%		
Rubellite Energy Inc.	RBY	31%	-10%			
Whitecap Resources Inc.	WCP	29%	27%	55%	37%	35%
Yangarra Resources Ltd.	YGR	26%	58%	64%	46%	40%
Peyto Exploration Develop	PEY	24%	40%	58%	62%	50%
Bonterra Energy Corp.	BNE	24%	49%	79%	50%	46%
Obsidian Energy Ltd.	OBE	23%	40%	67%	54%	47%
Vermilion Energy Inc.	VET	21%	53%	100%	57%	52%
PrairieSky Royalty Ltd.	PSK	21%	52%	7%	0%	1%
ARC Resources Ltd.	ARX	20%	44%	41%	40%	16%
Pipestone Energy Corp	PIPE	17%	46%	60%	73%	
Crescent Point Energy Cor	CPG	17%	35%	64%	45%	47%
Freehold Royalties Ltd.	FRU	15%	15%	18%	21%	18%
Crew Energy Inc.	CR	12%	63%	88%	83%	66%
Lucero Energy Corp	LOU	12%	34%	124%	83%	
Enerplus Corporation	ERF	8%	34%	41%	23%	17%
Spartan Delta Corp.	SDE	6%	46%	3%		
Cardinal Energy Ltd.	CJ	5%	17%	43%	27%	25%
NuVista Energy Ltd.	NVA	4%	36%	87%	66%	45%
Birchcliff Energy Ltd.	BIR	3%	25%	52%	42%	27%
Advantage Energy Ltd.	AAV	1%	12%	37%	37%	30%
Baytex Energy Corp.	BTE	0%	6%	2%	0%	-3%
Kelt Exploration Ltd.	KEL	-2%	5%	-8%	82%	60%
Tourmaline Oil Corp.	TOU	-10%	5%	30%	39%	36%
Paramount Resources Ltc	POU	-17%	6%	94%	60%	91%
Headwater Exploration Inc	HWX	-22%	-31%	-80%		
Simple Average		15%	30%	52%	47%	38%

1. Excludes acquisitions/dispositions done YTD

Intermediate Oil & Gas

ADVANTAGE ENERGY LTD. (AAV-TSX)

Outperform 2 Target Price C\$12.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$7.68
Market Cap (mln)	C\$1,485
Current Net Debt (mln)	C\$128
Enterprise Value (mln)	C\$1,616
Shares Outstanding (mln)	171.7
30-Day Avg. Daily Value (mln)	C\$7.4
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$7.27 - C\$12.19

KEY	FINA	IN C.	AL	RIL

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec	FY)			
2022A	0.57	0.98	0.52	0.62
2023E	0.60	0.50	0.56	0.66
2024E	0.80	0.59	0.63	0.79

	2022A	2023E	2024E
CFPS (C\$, Dec FY)			
	2.70	2.33	2.80

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		12.90	
Production (boe/	d) (Dec FY)		
	55,768	60,403	65,396

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

ARC RESOURCES LTD. (ARX-TSX)

Outperform 2 Target Price C\$20.00	
Suitability	A/INC
MARKET DATA	
Current Price (Apr-5-23)	C\$15.80
Market Cap (mln)	C\$9,456
Current Net Debt (mln)	C\$1,727
Enterprise Value (mln)	C\$10,758
Shares Outstanding (mln)	620.9
30-Day Avg. Daily Value (mln)	C\$60.8
Dividend	C\$0.60
Dividend Yield	3.9%
52-Week Range	C\$13.65 - C\$22.88

KEY FINANCIAL METRICS

	IQ	ZQ	эQ	40
CFPS (C\$, Dec FY)				
2022A	1.21	1.52	1.45	1.56
2023E	1.32	1.21	1.25	1.48
2024E	1.51	1.25	1.25	1.35
	2022A	;	2023E	2024E
CFPS (C\$, Dec FY)				
	5.74		5.25	5.34

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		20.25	
Production (boe/	d) (Dec FY)		
	345,613	347,101	347,602
% Natural Gas (De	ec FY)		
	60%	60%	59%

BIRCHCLIFF ENERGY LTD. (BIR-TSX)

Outperform 2 Target Price C\$12.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$7.90
Market Cap (mln)	C\$2,134
Current Net Debt (mln)	C\$128
Enterprise Value (mln)	C\$2,272
Shares Outstanding (mln)	266.0
30-Day Avg. Daily Value (mln)	C\$22.2
Dividend	C\$0.80
Dividend Yield	10.0%
52-Week Range	C\$7.49 - C\$12.48

KEY	FILE	I A N	ΛI	MACT	CDI	00
NET		IAN	 AL		I K I	

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022E	0.67	1.08	0.97	0.79
2023E	0.38	0.38	0.44	0.54
2024E	0.54	0.37	0.38	0.43
	2022E	2	.023E	2024E
CFPS (C\$, Dec FY)				
	3.50		1.73	1.73

	2022E	2023E	2024E
NAV (C\$, Dec FY)			
		10.55	
Production (boe/	d) (Dec FY)		
	76,926	78,410	78,439
% Natural Gas (De	ec FY)		
	81%	80%	77%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

CRESCENT POINT ENERGY CORP. (CPG-TSX)

Outperform 2 Target Price C\$12.50	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$10.13
Market Cap (mln)	C\$4,969
Current Net Debt (mln)	C\$1,137
Enterprise Value (mln)	C\$6,256
Shares Outstanding (mln)	550.9
30-Day Avg. Daily Value (mln)	C\$66.9
Dividend	C\$0.40
Dividend Yield	4.4%
52-Week Range	C\$7.57 - C\$13.74

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	1Q	2Q	3Q	4Q
CFPS (C\$, Dec	: FY)			
2022A	0.92	1.04	1.02	0.93
2023E	1.00	1.11	1.06	1.09
2024E	1.10	0.97	0.93	0.97

	2022A	2023E	2024E
CFPS (C\$, Dec FY)			
	3.90	4.26	3.98

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		12.60	
Production (boe/d)	(Dec FY)		
	132,282	161,278	173,859

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

FREEHOLD ROYALTIES LTD. (FRU-TSX)

Outperform 2 Target Price C\$21.00	
Suitability	A/INC
MARKET DATA	
Current Price (Apr-5-23)	C\$14.81
Market Cap (mln)	C\$2,365
Current Net Debt (mln)	C\$158
Enterprise Value (mln)	C\$2,493
Shares Outstanding (mln)	150.7
30-Day Avg. Daily Value (mln)	C\$8.8
Dividend	C\$1.08
Dividend Yield	6.9%
52-Week Range	C\$11.66 - C\$17.78

KEY FINANCIAL METRICS

CFPS (C\$, Dec	FY)			
2022A	0.48	0.56	0.54	0.53
2023E	0.43	0.44	0.43	0.45
2024E	0.44	0.42	0.42	0.43
	2022	A 20	023E	2024E
CFPS (C\$, Dec	FY)			
	2.1	0	1.75	1.71

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		20.25	
Production (boe/o	d) (Dec FY)		
	14,101	15,236	15,872
% Natural Gas (De	c FY)		
	38%	34%	33%

KELT EXPLORATION LTD. (KEL-TSX)

Market Perform 3 Target Price C\$6.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$4.75
Market Cap (mln)	C\$954
Current Net Debt (mln)	C\$(15)
Enterprise Value (mln)	C\$967
Shares Outstanding (mln)	192.0
30-Day Avg. Daily Value (mln)	C\$2.4
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$4.29 - C\$8.32

KEY	FILE	I A N	ΛI	MACT	CDI	00
NET		IAN	 AL		I K I	

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	0.38	0.48	0.33	0.47
2023E	0.42	0.30	0.29	0.32
2024E	0.46	0.39	0.38	0.41
	2022A	:	2023E	2024E
CFPS (C\$, Dec FY)				
	1.68		1.31	1.63

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		6.05	
Production (boe/o	d) (Dec FY)		
	27,236	33,310	38,259
% Natural Gas (De	c FY)		
	64%	63%	62%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

NUVISTA ENERGY LTD. (NVA-TSX)

Outperform 2 Target Price C\$16.50	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$11.45
Market Cap (mln)	C\$2,610
Current Net Debt (mln)	C\$252
Enterprise Value (mln)	C\$2,778
Shares Outstanding (mln)	219.3
30-Day Avg. Daily Value (mln)	C\$9.3
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$8.11 - C\$14.66

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	0.80	0.83	1.04	1.11
2023E	0.74	0.75	0.86	0.94
2024E	0.92	0.75	0.77	0.86
	2022A	2	2023E	2024E
CFPS (C\$, Dec FY)				
	3.78		3.29	3.30

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		16.00	
Production (boe/o	d) (Dec FY)		
	68,690	81,720	89,171
% Natural Gas (De	ec FY)		
	58%	61%	60%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

PARAMOUNT RESOURCES LTD. (POU-TSX)

Outperform 2 Target Price C\$40.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$31.02
Market Cap (mln)	C\$4,236
Current Net Debt (mln)	C\$155
Enterprise Value (mln)	C\$3,833
Shares Outstanding (mln)	142.0
30-Day Avg. Daily Value (mln)	C\$9.4
Dividend	C\$1.50
Dividend Yield	5.0%
52-Week Range	C\$22.16 - C\$40.73

KEY FINANCIAL METRICS

CFPS (C\$, Dec FY)

2022A	1.62	1.75	2.25	2.28
2023E	1.66	1.46	1.64	1.90
2024E	2.08	1.71	1.67	1.82
	2022	A 20	023E	2024E
CFPS (C\$, Dec F	Y)			
	7.90)	6.67	7.29

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		39.20	
Production (boe/	d) (Dec FY)		
	88,671	103,644	113,884

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding. CFPS may not match reported figures due to difference in adjustments to FFO for comparability purposes.

PEYTO EXPLORATION & DEVELOPMENT CORP. (PEY-TSX)

Market Perform 3		KEY FINANC	IAL ME
Target Price C\$17.00		CFPS (C\$, De	c FY)
Suitability	MA/ACC	2022A	1
Surtubility	mry/tee	2023E	1
MARKET DATA		2024E	1
Current Price (Apr-5-23)	C\$12.22		
Market Cap (mln)	C\$2,155	CFPS (C\$, De	c FV)
Current Net Debt (mln)	C\$853	C113 (C2, DC	,
Enterprise Value (mln)	C\$3,041		
Shares Outstanding (mln)	173.5		
30-Day Avg. Daily Value (mln)	C\$21.2		
Dividend	C\$1.32		
Dividend Yield	10.6%		
52-Week Range	C\$9.71 - C\$17.13		

	KEY	FINA	NCIA	L ME	TRICS
--	-----	------	------	------	-------

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec	FY)			
2022A	1.17	1.18	1.13	1.26
2023E	1.13	0.99	0.96	1.21
2024E	1.27	0.90	0.90	1.18
	2022	A 20	23E	2024E

4.73

4.29

4.26

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		14.45	
Production (boe/	d) (Dec FY)		
	103,548	111,583	116,472
% Natural Gas (De	ec FY)		
	87%	86%	86%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

PRAIRIESKY ROYALTY LTD. (PSK-TSX)

Outperform 2 Target Price C\$30.00	
Suitability	A/INC
MARKET DATA	
Current Price (Apr-5-23)	C\$21.89
Market Cap (mln)	C\$5,368
Current Net Debt (mln)	C\$315
Enterprise Value (mln)	C\$5,683
Shares Outstanding (mln)	238.9
30-Day Avg. Daily Value (mln)	C\$10.6
Dividend	C\$0.96
Dividend Yield	4.3%
52-Week Range	C\$15.08 - C\$23.55

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
CFPS (C\$, De	ec FY)			
2022A	0.44	0.67	0.52	0.50
2023E	0.43 A	0.44 A	0.45 A	0.48
2024E	0.48	0.46	0.46	0.49
	202	22A 2	2023E	2024E
CFPS (C\$, De	ec FY)			
	2	.11	1.80	1.88

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		31.20	
Production (boe/	d) (Dec FY)		
	25,201	26,398	27,898
% Natural Gas (D	ec FY)		
	43%	40%	37%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

TAMARACK VALLEY ENERGY LTD. (TVE-TSX)

Outperform 2 Target Price C\$5.50	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$4.12
Market Cap (mln)	C\$2,393
Current Net Debt (mln)	C\$1,360
Enterprise Value (mln)	C\$3,753
Shares Outstanding (mln)	556.4
30-Day Avg. Daily Value (mln)	C\$14.3
Dividend	C\$0.15
Dividend Yield	3.5%
52-Week Range	C\$3.28 - C\$6.48

KEY FINANCIAL METRICS

CFPS (C\$, Dec	FY)			
2022A	0.35	0.46	0.40	0.34
2023E	0.36	0.36	0.37	0.35
2024E	0.41	0.38	0.40	0.38
	2022	A 20	23E	2024E
CFPS (C\$, Dec	FY)			
	1.5	5 :	1.43	1.58

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		5.15	
Production (boe/	d) (Dec FY)		
	48,283	69,121	71,995
% Natural Gas (D	ec FY)		
	23%	19%	20%

2.33

2.15

TOPAZ ENERGY CORP. (TPZ-TSX)

Strong Buy 1 Target Price C\$28.00	
Suitability	A/INC
MARKET DATA	
Current Price (Apr-5-23)	C\$19.04
Market Cap (mln)	C\$2,835
Current Net Debt (mln)	C\$458
Enterprise Value (mln)	C\$3,241
Shares Outstanding (mln)	146.6
30-Day Avg. Daily Value (mln)	C\$9.5
Dividend	C\$1.20
Dividend Yield	6.2%
52-Week Range	C\$17.76 - C\$24.80

MEM	FINIA	NCIA	LAGET	DICC

CFPS (C\$, Dec FY)

	1Q	2Q	3Q	4Q	2022A	2023E	2024E
CFPS (C\$, Dec	FY)				Production (boe/d) (Dec FY)		
2022A	0.53	0.67	0.54	0.60	16,913	18,559	19,455
2023E	0.57	0.52	0.48	0.58	% Natural Gas (Dec FY)		
2024E	0.59	0.53	0.54	0.60	75%	71%	71%
	2022	۸ ۵	122E	20245			

2.26

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

TOURMALINE OIL CORP. (TOU-TSX)

Strong Buy 1 Target Price C\$90.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$55.70
Market Cap (mln)	C\$21,334
Current Net Debt (mln)	C\$(458)
Enterprise Value (mln)	C\$21,159
Shares Outstanding (mln)	342.3
30-Day Avg. Daily Value (mln)	C\$119.1
Dividend	C\$1.00
Dividend Yield	1.6%
52-Week Range	C\$52.34 - C\$84.33

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec	c FY)			
2022A	3.24	3.96	3.07	4.08
2023E	3.18	2.92	2.78	3.27
2024E	3.72	2.78	2.80	3.50

	2022A	2023E	2024E
CFPS (C\$, Dec FY)			
	14.37	12.15	12.80

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		85.25	
Production (boe/	d) (Dec FY)		
	500,831	532,133	558,408

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

VERMILION ENERGY INC. (VET-TSX)

Outperform 2 Target Price C\$31.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$18.01
Market Cap (mln)	C\$3,021
Current Net Debt (mln)	C\$1,045
Enterprise Value (mln)	C\$4,387
Shares Outstanding (mln)	163.2
30-Day Avg. Daily Value (mln)	C\$25.5
Dividend	C\$0.40
Dividend Yield	2.2%
52-Week Range	C\$16.41 - C\$39.21

KEY FINANCIAL METRICS

	IQ	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	2.32	2.68	3.01	1.70
2023E	1.89	1.84	2.11	2.52
2024E	2.32	1.84	1.81	2.15
	2022A	20	023E	2024E
CFPS (C\$, Dec FY)				
	9.71		8.37	8.12

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		28.70	
Production (boe/	d) (Dec FY)		
	85,187	85,742	90,153
% Natural Gas (De	ec FY)		
	47%	49%	51%

WHITECAP RESOURCES INC. (WCP-TSX)

Strong Buy 1 Target Price C\$16.00				
Suitability	A/INC			
MARKET DATA				
Current Price (Apr-5-23)	C\$10.81			
Market Cap (mln)	C\$6,105			
Current Net Debt (mln)	C\$1,845			
Enterprise Value (mln)	C\$8,037			
Shares Outstanding (mln)	608.7			
30-Day Avg. Daily Value (mln)	C\$27.1			
Dividend	C\$0.58			
Dividend Yield	5.8%			
52-Week Range	C\$7.70 - C\$12.71			

KEY FINANCIAL METRICS					
	1Q	2Q	3Q	4Q	
CFPS (C\$, Dec	: FY)				
2022A	0.80	1.08	0.89	0.98	
2023E	0.69	0.68	0.67	0.74	
2024E	0.75	0.66	0.62	0.70	

	2022A	2023E	2024E
CFPS (C\$, Dec FY)			
	3.77	2.78	2.72

2022A	2023E	2024E
Debt/EBITDA (Dec FY)		
0.5x	0.2x	
NAV (C\$, Dec FY)		
	14.50	
Production (boe/d) (Dec FY)		
144,390	160,999	174,304
% Natural Gas (Dec FY)		
29%	34%	36%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

Junior Oil & Gas

BONTERRA ENERGY CORP. (BNE-TSX)

Outperform 2 Target Price C\$10.00	
Suitability	A/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$6.89
Market Cap (mln)	C\$241
Current Net Debt (mln)	C\$155
Enterprise Value (mln)	C\$392
Shares Outstanding (mln)	36.9
30-Day Avg. Daily Value (mln)	C\$0.9
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$5.43 - C\$13.75

KEY	FINA	NCIAL	METR	ICS
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	10	20	JQ	7.0
CFPS (C\$, Dec FY)				
2022A	1.32	1.59	0.98	1.12
2023E	0.95	0.92	0.92	1.00
2024E	1.01	0.84	0.84	0.95
	2022A	2	2023E	2024E
CFPS (C\$, Dec FY)				
	5.08		3.60	3.46

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		9.05	
Production (boe/	d) (Dec FY)		
	13,407	13,649	14,117
% Natural Gas (De	ec FY)		
	39%	38%	39%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding. CFPS may not match reported figures due to difference in adjustments to FFO for comparability purposes.

CARDINAL ENERGY LTD. (CJ-TSX)

Market Perform 3 Target Price C\$9.00	
Suitability	A/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$7.35
Market Cap (mln)	C\$1,126
Current Net Debt (mln)	C\$34
Enterprise Value (mln)	C\$1,190
Shares Outstanding (mln)	155.8
30-Day Avg. Daily Value (mln)	C\$9.4
Dividend	C\$0.72
Dividend Yield	10.0%
52-Week Range	C\$6.26 - C\$9.96

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	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	0.53	0.82	0.50	0.43
2023E	0.43	0.44	0.42	0.41
2024E	0.42	0.40	0.39	0.39
	2022A		2023E	2024E
CFPS (C\$, Dec FY)				
	2.27		1.71	1.59

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		8.00	
Production (boe	d) (Dec FY)		
	21,471	21,732	22,619
% Natural Gas (D	ec FY)		
	12%	12%	11%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

CREW ENERGY INC. (CR-TSX)

Outperform 2 Target Price C\$7.00	
Suitability	A/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$4.76
Market Cap (mln)	C\$755
Current Net Debt (mln)	C\$92
Enterprise Value (mln)	C\$904
Shares Outstanding (mln)	154.4
30-Day Avg. Daily Value (mln)	C\$2.8
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$3.80 - C\$6.99

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	0.48	0.71	0.43	0.46
2023E	0.43	0.38	0.38	0.50
2024E	0.60	0.49	0.49	0.62
	2022A		2023E	2024E
CFPS (C\$, Dec FY)				
	2.09		1.65	2.14

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		7.15	
Production (boe/	d) (Dec FY)		
	33,277	31,769	40,206
% Natural Gas (D	ec FY)		
	78%	80%	80%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding. CFPS may not match reported figures due to difference in adjustments to FFO for comparability purposes.

HEADWATER EXPLORATION INC. (HWX-TSX)

Outperform 2 Target Price C\$9.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$6.39
Market Cap (mln)	C\$1,539
Current Net Debt (mln)	C\$(175)
Enterprise Value (mln)	C\$1,429
Shares Outstanding (mln)	233.9
30-Day Avg. Daily Value (mln)	C\$5.9
Dividend	C\$0.29
Dividend Yield	6.1%
52-Week Range	C\$4.79 - C\$8.18

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec	: FY)			
2022A	0.30	0.34	0.25	0.30
2023E	0.29	0.23	0.27	0.36
2024E	0.45	0.38	0.40	0.49
	2022	Δ 20	123F	2024F

	2022A	2023E	2024E
CFPS (C\$, Dec FY)			
	1.19	1.16	1.72

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		8.15	
Production (boe/	d) (Dec FY)		
	12,841	18,099	21,035

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding. CFPS may not match reported figures due to difference in adjustments to FFO for comparability purposes.

LUCERO ENERGY CORP. (LOU-TSXV)

Outperform 2 Target Price C\$0.90		KEY FINANCIAL M CFPS (C\$, Dec FY)
Suitability	A/ACC	2022A 2023E
MARKET DATA		2024E
Current Price (Apr-5-23)	C\$0.53	
Market Cap (mln)	C\$358	CFPS (C\$, Dec FY)
Current Net Debt (mln)	C\$50	C113 (C3, Dec11)
Enterprise Value (mln)	C\$435	
Shares Outstanding (mln)	662.4	
30-Day Avg. Daily Value (mln)	C\$0.2	
Dividend	C\$0.00	
Dividend Yield	0.0%	
52-Week Range	C\$0.40 - C\$0.97	

KEY FINANCIAL METRICS				
1Q	2Q	3Q	4Q	
Y)				
0.05	0.05	0.06	0.06	
0.06	0.06	0.06	0.06	
0.06	0.06	0.06	0.06	
	1Q (FY) 0.05 0.06	1Q 2Q FY) 0.05 0.05 0.06 0.06	1Q 2Q 3Q FY) 0.05 0.05 0.06 0.06 0.06 0.06	

2022A

0.22

2023E

0.23

2024E

0.23

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		0.90	
Production (boe/d	l) (Dec FY)		
	10,874	11,483	13,065
% Natural Gas (De	c FY)		
	19%	21%	21%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

OBSIDIAN ENERGY LTD. (OBE-TSX)

Outperform 2 Target Price C\$13.50	
Suitability	A/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$9.30
Market Cap (mln)	C\$762
Current Net Debt (mln)	C\$224
Enterprise Value (mln)	C\$1,134
Shares Outstanding (mln)	82.4
30-Day Avg. Daily Value (mln)	C\$4.0
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$7.75 - C\$15.67

KEY			

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CFPS (C\$, Dec FY)				
2022A	0.94	1.86	1.22	1.36
2023E	1.04	1.01	1.02	1.27
2024E	1.41	1.27	1.34	1.44
	2022A		2023E	2024E
CFPS (C\$, Dec FY)				
	5 25		4 27	5 39

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		12.80	
Production (boe/d	l) (Dec FY)		
	30,682	32,769	38,013
% Natural Gas (De	c FY)		
	35%	33%	31%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

PIPESTONE ENERGY (PIPE-TSX)

Outperform 2 Target Price C\$4.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$2.84
Market Cap (mln)	C\$826
Current Net Debt (mln)	C\$204
Enterprise Value (mln)	C\$943
Shares Outstanding (mln)	278.9
30-Day Avg. Daily Value (mln)	C\$1.0
Dividend	C\$0.12
Dividend Yield	4.1%
52-Week Range	C\$2.47 - C\$6.72

KEY FINANCIAL METRICS

CFPS (C\$, Dec FY)

2022A	0.30	0.39	0.30	0.36
2023E	0.30	0.28	0.28	0.37
2024E	0.40	0.30	0.28	0.34
CFPS (C\$, Dec FY)	2022A	20)23E	2024E
CFF3 (C3, Dec F1)	1.34		1.24	1.32

2Q

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		3.95	
Production (boe/	d) (Dec FY)		
	31,089	35,396	40,846

SPARTAN DELTA CORP. (SDE-TSX)

Outperform 2 Target Price C\$19.00	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$14.09
Market Cap (mln)	C\$2,533
Current Net Debt (mln)	C\$52
Enterprise Value (mln)	C\$2,668
Shares Outstanding (mln)	171.4
30-Day Avg. Daily Value (mln)	C\$7.9
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$9.43 - C\$16.04

KEY	FIN	I A N	CI	ΛI I	MET	DI	~
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	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	0.95	1.35	1.17	1.30
2023E	0.92	0.73	0.49	0.57
2024E	0.67	0.54	0.51	0.57
	2022A		2023E	2024E
CFPS (C\$, Dec FY)				
	4.77		2.72	2.29

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		18.85	
Production (boe/	d) (Dec FY)		
	73,085	52,426	40,139
% Natural Gas (De	ec FY)		
	62%	71%	81%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding.

SURGE ENERGY INC. (SGY-TSX)

Outperform 2 Target Price C\$14.00	
Suitability	A/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$9.33
Market Cap (mln)	C\$857
Current Net Debt (mln)	C\$349
Enterprise Value (mln)	C\$1,215
Shares Outstanding (mln)	96.5
30-Day Avg. Daily Value (mln)	C\$5.5
Dividend	C\$0.48
Dividend Yield	5.4%
52-Week Range	C\$7.15 - C\$13.68

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	0.75	0.91	0.93	0.79
2023E	0.78	0.76	0.79	0.78
2024E	0.81	0.69	0.68	0.69
	2022A		2023E	2024E
CFPS (C\$, Dec FY)				
	3.38		3.11	2.86

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		13.25	
Production (boe/	d) (Dec FY)		
	21,262	25,245	26,212
% Natural Gas (De	ec FY)		
	15%	15%	19%

Source: Thomson One, Raymond James Ltd. Quarterly figures may not add to full year due to rounding. CFPS may not match reported figures due to difference in adjustments to FFO for comparability purposes.

YANGARRA RESOURCES LTD. (YGR-TSX)

Outperform 2 Target Price C\$3.50	
Suitability	MA/ACC
MARKET DATA	
Current Price (Apr-5-23)	C\$1.91
Market Cap (mln)	C\$174
Current Net Debt (mln)	C\$142
Enterprise Value (mln)	C\$311
Shares Outstanding (mln)	94.8
30-Day Avg. Daily Value (mln)	C\$0.6
Dividend	C\$0.00
Dividend Yield	0.0%
52-Week Range	C\$1.68 - C\$4.07

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
CFPS (C\$, Dec FY)				
2022A	0.43	0.54	0.49	0.45
2023E	0.42	0.39	0.40	0.43
2024E	0.47	0.38	0.41	0.50
	2022A	:	2023E	2024E
CFPS (C\$, Dec FY)				
	1.92		1.65	1.75

	2022A	2023E	2024E
NAV (C\$, Dec FY)			
		3.50	
Production (boe/	d) (Dec FY)		
	11,022	12,886	14,450
% Natural Gas (De	ec FY)		
	55%	52%	53%

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Total Number of Companies	956	100%	245	100%	111	-	42	-

^{*} Columns may not add to 100% due to rounding

RJA Suitability Ratings (SR)

Moderate Risk/Provide Income (M/INC) Larger capitalization, lower volatility (beta) equities of companies with sound financials, consistent

^{*} Total does not include companies with a suspended rating.

earnings, and dividend yields meaningfully above that of the S&P 500. Many securities in this category are structured with a focus on providing a consistent dividend or return of capital. Moderate Risk/Wealth Accumulation (M/ACC) Larger capitalization equities of companies with sound financials, consistent earnings growth, the potential for long-term price appreciation, and often a dividend yield. Moderately Aggressive Risk/Provide Income (MA/INC) Generally equities of companies that are structured with a focus on providing a dividend meaningfully above that of the S&P 500. These companies typically feature sound financials, positive earnings, and the potential for long-term price appreciation. Moderately Aggressive Risk/Wealth Accumulation (MA/ACC) Generally equities of companies in fast growing and competitive industries with less predictable earnings (or losses), potentially more leveraged balance sheets, rapidly changing market dynamics, and potential risk of principal. Aggressive Risk/Provide Income (A/INC) Generally equities of companies that are structured with a focus on providing a meaningful dividend but may face less predictable earnings (or losses), more leveraged balance sheets, rapidly changing market dynamics, financial and competitive issues, higher price volatility (beta), and meaningful risk of loss of principal. Securities of companies in this category may have a more volatile income stream from dividends or distributions of capital. Aggressive Risk/Wealth Accumulation (A/ACC) Generally equities of companies with a short or unprofitable operating history, limited or less predictable revenues, high risk associated with success, high volatility (beta), potential significant financial or legal issues, and the meaningful risk of loss of principal.

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