

## California Resource Corporation (CRC:NYSE)

– Crash and Burn!

### The Babson College Fund is initiating coverage on

**CRC** with a **Sell** rating and a **\$2** target price, representing a potential downside of **77%**. The goal of this pitch is to introduce a hedging strategy against our long positions. We outline our screening process, fundamental research, and option execution strategy.

We believe this strategy will help to protect our long holdings against the oil price going down further. We intend to buy put option contracts with a strike price of \$2 against CRC in order to hedge against our long holdings in PXD, EOG, CVX, SOI and XLE.

### Company Overview

*Founded 2013, HQ: Santa Clarita, California*

CRC is an oil and gas company in California with 4 major assets and a total production of 130,000 BOEPD:

- (1) Sacramento Basin: 5,000 BOE per day
- (2) San Joaquin Basin: 94,000 BOE per day, 7 Drilling rigs in 3Q2019
- (3) Ventura Basin: 5,000 BOE per day, 1 drilling rig in 3Q2019
- (4) Los Angeles Basin: 24,000 BOE per day, 2 drilling rigs in 3Q2019

### Short Thesis

- (1) High correlation with EOG and PXD and Oil
- (2) CRC has very poor fundamentals for an oil and gas company: stagnating production and higher OPEX and CAPEX than peers
- (3) Highly levered; Net Debt/EBITDA of over 4.8x

### Valuation

Our weighted average target price of \$2 is derived from a discounted cash flow based on total production and oil price (75%) and a comparative company analysis (25%).

Stock Rating   SELL			
Price Target			\$2
Current Price			\$9
Downside			-77.3%
Consensus			\$17
Recommended Weight (of energy)			5-10%
Benchmark Weight (XLE)			0.0%
Key Statistics			
52-Wk Range	\$4.68		\$31.20
Avg. Daily Vol (3M) in MM			3.98
Market Value (MM)			\$430
Ent Value (MM)			\$6,380
Shares Out (MM)			49
Dividend Yield			0.00%
Beta 2y			1.99
% Short Interest of float			35.0%
Insider Buying			5.0%
Key Financials \$MM			
	2019E	2020E	2021E
Sales	2,932	3,016	3,091
Y/Y Growth	-3.8%	2.9%	2.5%
EBIT	586	826	755
EBITDA	1,067	1,346	1,275
FCF	(345)	557	393
EV / EBITDA	6.0x	4.7x	N/A
P / E	1.5x	1.5x	N/A
FCF Yield	-11.8%	18.5%	12.7%
Share Price			
	1M	3M	12M
CRC	4.5%	(14.0%)	(68.0%)
S&P 500	6.0%	6.0%	11.2%
XLE	9.0%	2.0%	(11.0%)

### Comparative Stock Price (YTD)



■ XLE □ CRC ■ S&P

### Short Thesis 1: CRC has a high correlation with EOG, PXD and Oil

Our goal for this pitch was to find the stock with the highest correlation with our upstream holdings and with the Oil price, that also has the highest Beta and worst fundamentals. That way we could guarantee when our holding stocks fall, our hedge position will go down even more. We ran a correlation analysis on Bloomberg between all the upstream oil and gas companies, the XLE and Crude to find the below list of companies in relation to each other and Crude. Based off this list, we looked into the upstream companies: XOM, CVX, WLL, CLR, WPX, MEG, MUR and CRC. We know that XOM, CVX are two large integrated and move the most with oil and have the largest % of XLE but are both strong/solid companies that would not be good to short. We then looked at the fundamentals of WLL, CLR, WPX, MUR, and CRC which are higher risk, higher beta companies. Out of these CRC has the highest beta, highest debt and based on our further research, CRC is clearly the greatest short, which we will explain in our further thesis points below.

**Correlation analysis:**

11/07/2018 - 11/07/2019		Daily		Calculation		Correlation		Local CCY						
<Filter>		Correlation Matrix (25 Rows x 25 Columns)												
Security	USCRWT	XLE	XOM	CVX	WLL	CLR	WPX	MEG	MUR	SLB	VLO	PXD	EOG	
11) USCRWT	1.000	0.664	0.583	0.512	0.700	0.690	0.633		0.617	0.557	0.322	0.570	0.656	
12) XLE	0.664	1.000	0.906	0.830	0.684	0.776	0.794		0.724	0.813	0.687	0.793	0.858	
13) XOM	0.583	0.906	1.000	0.802	0.546	0.642	0.657		0.599	0.694	0.621	0.648	0.721	
14) CVX	0.512	0.830	0.802	1.000	0.534	0.553	0.584		0.517	0.609	0.539	0.538	0.618	
15) WLL	0.700	0.684	0.546	0.534	1.000	0.791	0.734		0.731	0.619	0.310	0.657	0.689	
16) CLR	0.690	0.776	0.642	0.553	0.791	1.000	0.797		0.755	0.668	0.418	0.731	0.790	
17) WPX	0.633	0.794	0.657	0.584	0.734	0.797	1.000		0.692	0.652	0.483	0.769	0.797	
18) MEG									1.000	0.664	0.320	0.652	0.709	
19) MUR	0.617	0.724	0.599	0.517	0.731	0.755	0.692		1.000	0.664	0.320	0.652	0.709	
20) SLB	0.557	0.813	0.694	0.609	0.619	0.668	0.652		0.664	1.000	0.514	0.683	0.695	
21) VLO	0.322	0.687	0.621	0.539	0.310	0.418	0.483		0.320	0.514	1.000	0.480	0.493	
22) PXD	0.570	0.793	0.648	0.538	0.657	0.731	0.769		0.652	0.683	0.480	1.000	0.828	
23) EOG	0.656	0.858	0.721	0.618	0.689	0.790	0.797		0.709	0.695	0.493	0.828	1.000	
24) HAL	0.599	0.793	0.650	0.567	0.678	0.725	0.703		0.701	0.818	0.470	0.696	0.722	
25) GPOR	0.477	0.632	0.509	0.454	0.670	0.641	0.590		0.665	0.593	0.322	0.598	0.619	
26) APC	0.311	0.453	0.314	0.122	0.306	0.435	0.475		0.400	0.358	0.231	0.595	0.531	
27) WMB	0.420	0.751	0.661	0.591	0.410	0.572	0.528		0.529	0.602	0.543	0.541	0.605	
28) TRP	0.460	0.527	0.497	0.420	0.289	0.386	0.381		0.328	0.382	0.369	0.356	0.402	
29) CRC	0.623	0.698	0.591	0.511	0.710	0.693	0.635		0.670	0.672	0.402	0.634	0.645	
30) COG	0.083	0.408	0.320	0.360	0.213	0.261	0.300		0.273	0.345	0.280	0.346	0.347	

(Color Bands Based on Statistical Significance: Most Significant, Significant, Less Significant, Least Significant)

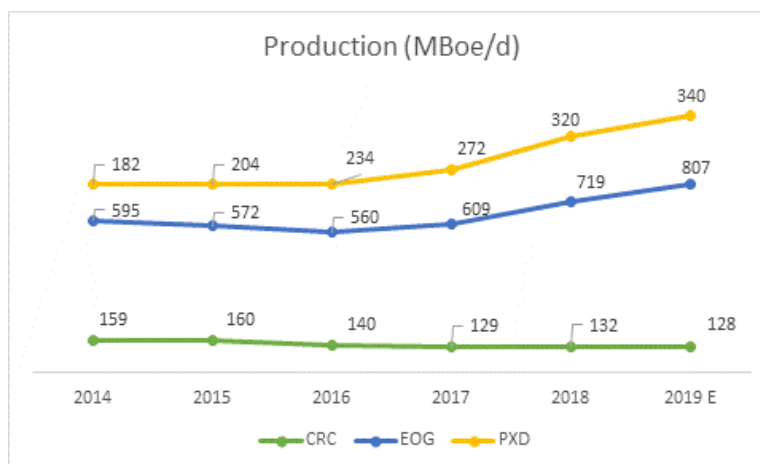
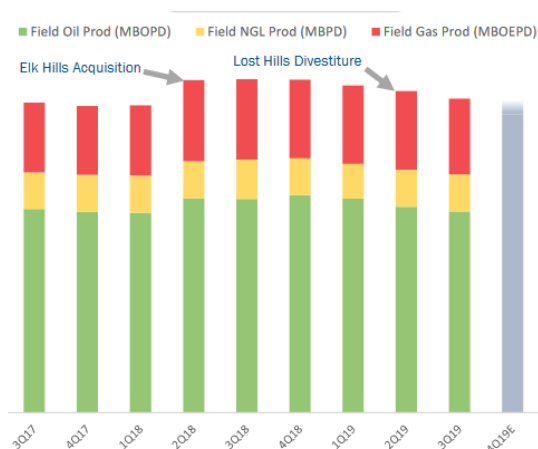


**Short Thesis 2: CRC has very poor fundamentals for an oil and gas company: stagnating production and higher OPEX and CAPEX than peers**

Out of all the oil and gas upstream in the lower 48 states, CRC has some of the worst fundamentals, primarily their production curve and opex and capex costs.

Since the spin-off from Occidental in 2013, CRC's topline production volume has fallen from over 150 thousand boe per day (MBOED) in 2013 to around 130 MBOED in 2017 and stayed flat since then. This is poor performance compared to other leading producers whose production has been climbing during that time.

### CRC production (MBOEPD):



### CRC fundamentals compared to Comps:

Company Name	Daily Production (MBOE/D)	5 year production Growth	Operating Cost (\$/BOE)	EBITDAX Margin	net Debt/EBITDA	Dividend
PXD	351	13.3%	\$9.70	41%	0.5x	1.30%
EOG	464	6.3%	\$8.87	46%	0.5x	1.60%
CRC	130	-4.2%	\$19.17	36%	4.8x	0%

In order to maintain this production level, CRC needs to spend an average of \$400 million per year on Capex. This Capex is all spent on work overs, re-drilling and some new wells to replace declining production. Any future production growth is farmed out to Joint Venture partners to attract further capital to drill new wells. In 2019, CRC will trade 90% of future revenue on oil from wells in core areas for \$225 million in additional capital. These JV partners receive 90% of the revenues until they hit an undisclosed IRR.

With such poor fundamentals, and production in decline, CRC is a great candidate for a short to hedge against or long positions.

### Investment Thesis 3: High Debt, with no end in sight

When CRC spun off from Occidental in 2013, they brought along over \$5 billion in debt with interest payments of over \$400 million per year. CRC net debt/EBITDA is over 4.6x, making it the highest leveraged E&P company in the lower 48 states. CRC has managed to scrape by with LIBOR rates at 1.9%, but at current production levels and oil price there is not enough cash after interest to invest in growth. As a result, CRC has been forced to farm out its assets to JV partners in exchange for future revenue, crippling its revenue growth, and limiting any future cash flow to pay down debt. We believe this debt is so crippling, any sustained oil price less than \$65 will cause the company to shrink in size and be worth considerably less than what it is today.

CRC Debt Schedule	Interest	LIBOR	\$MM	
Name	LIBOR +	1.9%	30-Sep-19% of total	
2014 Revolving Credit Facility	3.6%	5.52%	514	10.3%
2017 Credit Agreement	4.8%	6.65%	1,300	26.0%
2016 Credit Agreement	10.4%	12.28%	1,000	20.0%
Second Lien Notes		8.00%	1,838	36.8%
5% Senior Notes due 2020		5.00%	100	2.0%
5.5% Senior Notes due 2021		5.50%	100	2.0%
6% Senior Notes due 2024		6.00%	144	2.9%
Total debt			4,996	
Less: Short-term borrowings			(100)	
Total long-term debt			4,896	
Weighted Average cost of Debt				<b>8.08%</b>

### Short Catalysts

**1) Drop in Oil price:** Since we cannot predict oil prices, our strategy is to short the worst E&P company to protect against oil price decline. We have shown in our model that any small drop in oil price will significantly reduce CRC's valuation. Oil prices are currently increasing but this will not be the trend forever. As we implement this strategy, we will execute the puts at higher oil price and wait for the price to drop to realize the gain in the put option.

**2) Poor Quarterly earnings:** Any earnings miss will cause a significant downward swing in CRC's stock price. This is a likely possibility as they have missed earnings 50% of the time over the last 5 years. In addition, we do not see them being able to significantly increase revenue even if they increase production due to their JV agreements.

**3) Inability to pay down debt:** As mentioned in our third thesis point, we don't see any end in sight for CRC's high leverage ratios. The company has issued guidance that they can reduce debt and working capital by 10-15% but we don't see that happening on the debt side with little to no extra cash available from financing after Capex.

**4) Further divestment through Joint Venture:** The Company has announced 3 major JV divestments (appendix) that they have spun as a positive advancement to help them reduce capital requirements and increase production. We have back calculated CRC's working interest and see through the noise. CRC only receives 36.5% of their production since the farm outs. If a further JV is announced, this percentage share will decrease further, which will further reduce CRC's top line revenue.

**5) Increased regulation from California government:** California is one of the highest regulated states in the Country, with very strict drilling and hydraulic fracturing laws. Furthermore, CA takes large overriding royalty interests (ORRI) in terms of top line revenue, in addition to above EBIT taxes specifically for oil and gas companies. Any further regulations in the form of higher taxes, royalties, or higher restrictions on drilling, could immediately hurt CRC's future revenues.

**6) Fire or other natural disaster in California:** During the 3Q2019 earnings call, the company CEO disclosed that one of their producing assets is near a large fire in the LA area. Although the CEO said there is no immediate concern, we believe that with the current dire situation with wild fires in CA it is feasible that CRC's operations could be impacted negatively.

### Risks on the upside

**1) Oil Price Increase:** Conversely to our first catalyst, if oil prices increase, CRC's valuation will increase. To mitigate the risk of our investments, we will only buy Put options instead of having full short exposure. Therefore, if oil prices continue to increase over 6 months, we will only lose the dollar value of the put contract. (roughly \$4,000 as explained below).

**2) CRC gets acquired:** If CRC is acquired by a better capitalized company that wants to try their hand at developing the California assets, this will positively effect CRC's share price, and the option contracts would no longer be of value. We don't see this as a near term risk with average \$60 oil prices and the high regulatory environment in California.

**3) Higher than expected production.** Higher production could increase CRC's revenues, but that requires them to invest money they do not have. CRC's oil wells are old conventional wells with pretty stable and predictable production, so we do not see any unforeseen production increase as a near term risk to our Short thesis.

### How is our view different from consensus?

- 1) There are currently very few analysts covering the stock, with no published models. The consensus numbers only reflect 3 analysts which have numbers very different from each other and to our own. We believe we have done more work dissecting the production % share and the \$/BOE costs on every line item, while consensus basis their assumptions on historical average growth.
- 2) **BCF edge:** We hope to generate alpha based on our experience working in oil, gas and energy companies. We have the familiarity with breaking down working interest % and PSC share to get what we believe is a more accurate picture of CRC's future production, revenue and profitability prospects.
- 3) Regarding revenue assumptions: We see revenue increasing if oil prices stay flat and production increases slightly. If oil price drops, Revenue drops and vice versa. Oil price has the biggest impact on Revenue and we show the 2020 range from \$60 - \$70 in our model.
- 4) Capex assumptions: We calculate Capex as a % of revenue which in turn is based on production. In the bull case, much more capex is required to produce additional production, so we increase our % of revenue by 35% which is in line with company guidance for drilling and completion costs per well (\$1 - \$3 million) and average initial production per well (100 boepd for the first 30 days and then declining thereafter).
- 5) Interest expense: We have forecasted interest expense using the revolver credit facility when CRC goes to a negative cash balance.
- 6) Shares outstanding: We have kept shares constant at 49 million which is unrealistic since they will need to issue shares to raise capital. This makes our EPS much higher than consensus.

**We will execute our Short position by buying Puts:**

This is not a standalone investment. Our strategy with this pitch is to back up our long positions in CVX, EOG and PXD, and to a lesser extent SOI with a short position in CRC. We hope this will protect us against large swings in the upstream energy markets like the 50% down run in EOG and PXD earlier this year. Holding EOG and PXD will make money as oil price increases, and company fundamentals improve (increased dividend, higher FCF, and share buybacks). However, as the cycle moves into a downturn, all our energy stocks will trade down, and CRC will lose the most based on its inferior fundamentals (lack of dividend, higher costs, low FCF, and flat production). In order to reduce our exposure to oil price volatility and not hold the risk associated with a Short position, we will buy put options on CRC close to our target price of \$2.

Our current Energy holdings are as follows:

Company	Shares	Price	total value
CVX	287	\$ 121.89	\$ 34,982.43
EOG	382	\$ 74.74	\$ 28,550.68
PXD	150	\$ 136.57	\$ 20,485.50
SOI	1975	\$ 11.61	\$ 22,929.75
HAL	509	\$ 20.96	\$ 10,668.64
XLE	309	\$ 60.94	\$ 18,830.46
total			\$ 136,447.46

Therefore, we intend to buy 96 Put option contracts to hedge against \$84,000 of EOG, PXD and CVX stock. This will cost us roughly \$4,320 in purchasing option contracts on CRC. If the energy markets increase and CRC follows, we will let these options expire and lose the \$4,320 cost of Put option contracts, while we will make gains in EOG, PXD and our other energy positions. If the energy markets fall and we lose 10-20% in the whole portfolio, we expect CRC to underperform by at least 50%. Although our EOG and PXD stocks might take a 15 – 20% hit, the exposure to the Puts will make back those losses and we will be hedged.

The current Ask Price on \$2.00 strike price Put option contracts is \$0.45:

If our basket of EOG, PXD, and CVX stocks drop 10% or 20%, our puts need to make back approximately 2x and 4x, assuming CRC falls at least as far, which we are very confident about based on our short thesis:

Basket Down	10%	(8,401.86)	=	Puts have to go up	194%	to	0.88
	20%	(16,803.72)	=	Puts have to go up	389%	to	1.75
	30%	(25,205.58)	=	Puts have to go up	583%	to	2.63

Option Monitor for CRC:

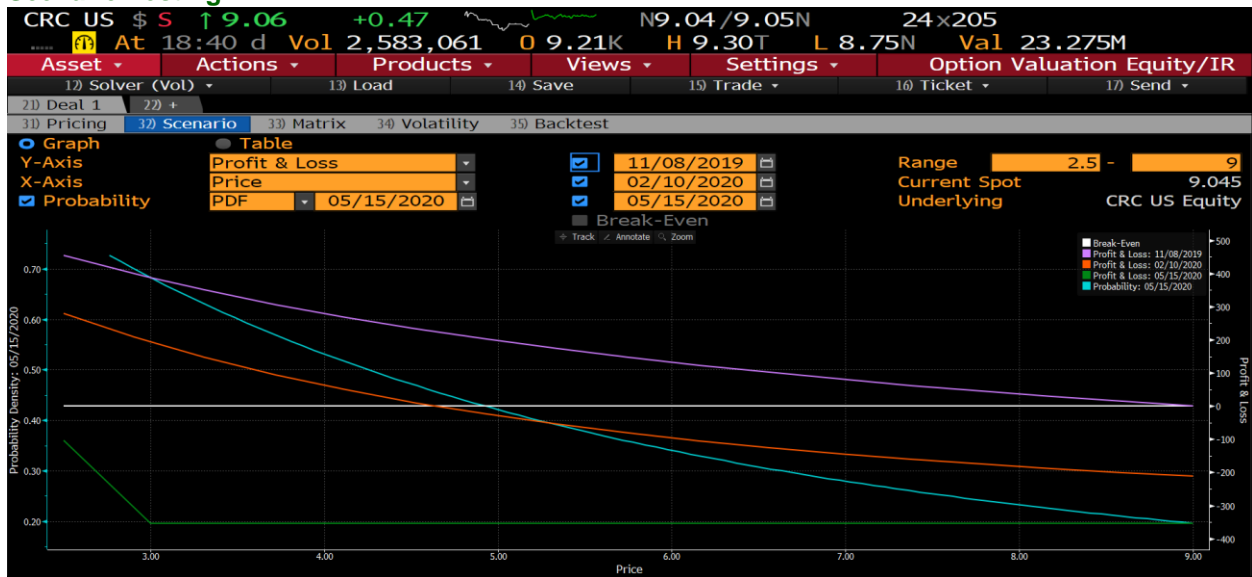
CRC US 05/15/20 P3 \$ ↓ .56 -0.14 .55 / .80X 21x10										
At 14:08 d OpInt 34 Vol 1 0 .56Q H .56Q L .56Q Prev .70										
Option Monitor										
CALIFORNIA RESOU 9.06 .47 5.4715% 9.04 / 9.05 Hi 9.30 Lo 8.75 Volm 2583061 HV 160.38										
Center 9.06 Strikes 25 Exp 15-May-20 Exch US Composite 92) 02/26/20 E   ERN »										
Calc Mode As of 07-Nov-2019										
81) Center Strike 82) Calls/Puts 83) Calls 84) Puts 85) Term Structure 87) Moneyness										
Strike	Ticker	Bid	Ask	Last	IVM	Volm	OInt	DB	DA	
22	15-May-20 (190d); CSize 100; IBrw 14.25; R 1.92; IFwd 8.42									
1.00	1) CRC 5/20 P1	.05	.25		218.88			-.01	-.02	
2.00	2) CRC 5/20 P2	.20	.45	.40y	182.52		122	-.03	-.04	
3.00	3) CRC 5/20 P3	.55	.80	.56	177.96	1	34	-.07	-.07	
4.00	4) CRC 5/20 P4	.85	1.15	1.25y	164.67		393	-.10	-.10	
5.00	5) CRC 5/20 P5	1.25	1.45	1.35	152.62	71	226	-.14	-.14	
6.00	6) CRC 5/20 P6	1.65	2.05	1.85	149.67	2	1037	-.19	-.18	
7.00	7) CRC 5/20 P7	2.15	2.45	2.35	140.51	8	729	-.23	-.22	
8.00	8) CRC 5/20 P8	2.60	3.00	2.85	134.27	12	4618	-.28	-.27	
9.00	9) CRC 5/20 P9	3.20	3.70	3.60	132.36	92	95	-.33	-.30	
10.00	10) CRC 5/20 P10	3.80	4.40	4.00y	130.01		250	-.38	-.34	
11.00	11) CRC 5/20 P11	4.50	5.10	4.60y	127.18		29	-.43	-.38	
12.00	12) CRC 5/20 P12	5.30	6.10	5.35y	132.23		2469	-.47	-.39	
13.00	13) CRC 5/20 P13	6.10	6.80	6.40y	129.96		15	-.50	-.42	
14.00	14) CRC 5/20 P14	6.80	7.60		127.74			-.55	-.45	
15.00	15) CRC 5/20 P15	7.70	8.50	7.60y	129.15		15	-.58	-.47	
16.00	16) CRC 5/20 P16	8.50	9.30	8.90y	126.13		255	-.62	-.50	
17.00	17) CRC 5/20 P17	9.40	10.20	10.20y	127.72		303	-.64	-.52	
18.00	18) CRC 5/20 P18	10.20	11.00	10.63y	124.03		767	-.68	-.55	
19.00	19) CRC 5/20 P19	11.10	11.90	11.80y	123.52		105	-.71	-.57	

Option Valuation Scenario:

CRC US \$ S ↑ 9.06 +0.47 N9.04 / 9.05N 24x205										
At 18:40 d Vol 2,583,061 0 9.21K H 9.30T L 8.75N Val 23.275M										
Option Valuation Equity/IR										
17) Solver (Vol) 13) Load 14) Save 15) Trade 16) Ticket 17) Send										
21) Deal 1 22) +										
33) Pricing 32) Scenario 33) Matrix 34) Volatility 35) Backtest										
Underlying CRC US Equity CALIFORNIA RESOU Trade 11/07/2019 19:11										
Und. Price Mid 9.045 USD Settle 11/08/2019										
Results										
Price (Total)	353.79	Currency	USD	Vega	4.23	Time Value	353.79			
Price (Share)	0.7076	Delta (%)	-6.69	Theta	-2.07	Gearing	12.78			
Price (%)	7.8229	Gamma (%)	0.0959	Rho	-0.03	Break-Even (%)	-74.66			
American Vanilla Leg 1										
Style	Vanilla									
Exercise	American									
Call/Put	Put									
Direction	Buy									
Strike	3.00									
Strike % Money	66.83% OTM									
Shares	500.00									
Expiry	05/15/2020 16:30									
Time to Expiry	189 21:19									
Model	BS - disc.									
Vol BVOL	Ask 187.540%									
Forward Carry	9.1311									
USD Rate MMkt	1.861%									
Dividend Yield	0.000%									
Discounted Div Flow	0.00									
Borrow Cost	0.000%									



**Scenario Testing:**



CRC makes huge gains when the oil price increases, for example an Oil price increase of just \$2 led to a 65% CRC increase. When the oil price goes down by a similar amount, CRC decreases between 30% and 40%. We will buy puts on low strike prices when the oil price is high and hope to capture similar % drops on the downside.



### Company Overview

California oil production started in 1876. California Resources is an independent oil and gas exploration and production company (E&P) with interests in four fields in the lower 48 states, all in California. It is the largest producer in California on a gross operated basis and the company believes that it has the largest privately-held mineral acreage position in the state (2.2 million net acres spanning the state's four major oil and gas basins). The company has proved reserves of more than 700 million boe and average daily production of 130,000 boe per day.

#### Operations:

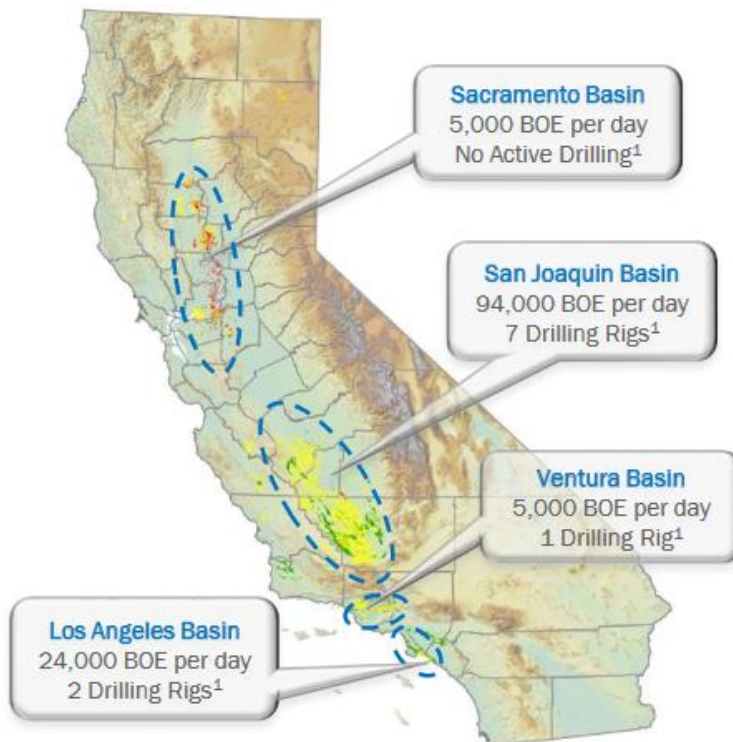
California Resources produces around 130,000 boepd from about 30,000 net identified drilling locations across its four oil and gas basins. These are lower risk conventional assets with vertical wells that typically produce no more than 100 boepd compared to unconventional basins like Permian and Midland that have horizontal wells producing over 1,000 boepd. You can see that with such a large asset and well base, CRC has some wells only producing 2 or 3 boepd.

**San Joaquin, LA:** Southern part of CA central valley provides majority of California's resources hydrocarbon output and revenue. CRC has 8,000 net productive oil wells and 160 net productive gas wells in the basin. It accounts for about two-thirds of the company's proved reserves and 75% of its average daily production.

**Los Angeles Basin:** 8 fields account for nearly 25% of company's proved reserves and 20% of daily production. 1,500 net productive oil wells.

**Ventura Basin** has more than 25 oilfields that hold 5% of companies proved reserves, 5% daily output.

**Sacramento Basin:** 55 fields for 2% of proved reserves and 4% of daily production, mostly dry-gas



CRC sells all its output into California refining markets due to advantage pricing for local producers. CRC achieves a premium on Brent which is very good for a land based O&G company. Major customers include Phillips 66 and Valero. 90% of revenue is from oil, gas and natural gas (NGL). The remaining 10% is selling electricity.

Future Investments have mostly been in San Joaquin and LA basins. CRC spent \$396 drilling wells, \$98 million on workovers, \$129 million on facilities and compression expansion in 2018. They recently acquired Chevron’s interest in Elk Hills field, its biggest producing asset which includes processing facilities with combined capacity of 520 MMCF/d.

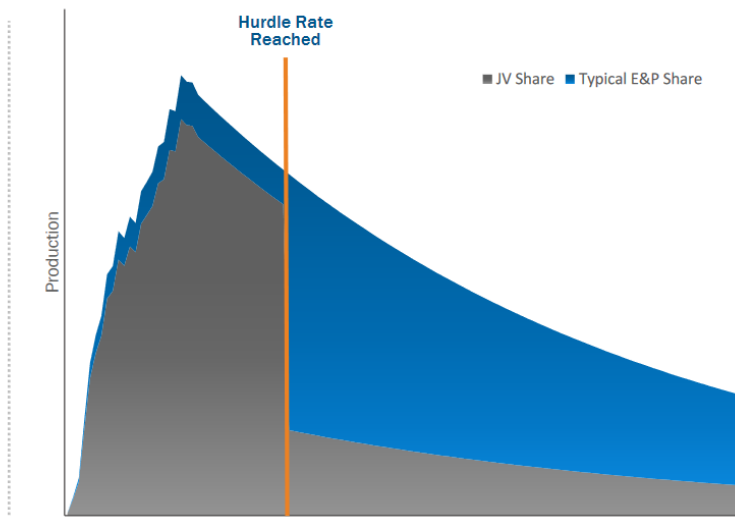
In early 2019, CRC acquired the remaining working, surface, and mineral interests in Chevron’s 47,000-acre Elk Hills field in CA San Juaquin Basin. They paid \$460 in cash and issued 2.85MM shares to Chevron. Chevron is now the largest insider owner of CRC stock at over 3%, but they have been selling recently.

**Controversial Joint Venture structure:** CRC has been farming out working interest in their assets to JV partners in order to pay down debt. CRC financial performance will suffer as a result over the next several years because they will be giving up natural production from oil and gas revenues in wells that were funded by JV partners. It takes over 2 years for JV partners to receive their capital back plus the required IRR, after which the wells will be in declining production. CRC then has to invest in workovers, nitrogen cleanouts and other high capital-intensive projects in order to regain the higher levels of production on each well. As a result, CRC will need at least \$65 oil or above to generate free cash flow. JV investment to date has been around \$400 million with \$272 remaining.

In addition to JV agreements, 25% of CRC’s production is subject to PSC sharing contracts with the state of California. These are structured so that only CRC carries all the costs, but only receives a portion of revenues. As oil prices go down, they receive a smaller % of revenues.

### Typical DrillCo JV Structure

- Based on recent industry JV deals, a typical DrillCo structure is
  - Partner pays 80-100% Capital
  - Partner receives 80-100% Working Interest in wells drilled
  - Typical hurdle rate:
    - 10% - 20% IRR
  - Partner’s working interest if hurdle rate is achieved:
    - 5% - 25%



As a result of their JV and PSC, CRC only receives 35% of their own production.

Even though the company reports leverage was decreasing in earlier 2019 (4.1x), after backing out distributions to JV partners that were made in exchange for much needed Capex, leverage would be closer to 4.6x.

CRC shows in the IR presentation that at \$65 Brent crude oil and \$3 per 1,000 cubic feet for natural gas, the PV of developed reserves (1P) would be \$6.7 billion. However, since they failed to generate any free cash flow, the market value of these assets is worth substantially less. Furthermore, increased regulation in the state of California will limit the drilling activity of these assets and hydraulic fracturing as well, which will limit the production CRC can realize out of their reserves.

Prices on CRC second lien bonds have fallen below 50 cents as investors expect to lose money:



Shares outstanding has been consistently increasing since March 2016, as CRC has desperately tried to increase production, acquired strategic assets, and paid down small amounts of debt.



### Ownership

CALIFORNIA RESOURCES CORP								CUSIP 130570
<span>1) Current</span> <span>2) Historical</span> <span>3) Matrix</span> <span>4) Ownership Summary</span> <span>5) Insider Transactions</span> <span>6) Options</span> <span>7) Debt</span>								
Search Name <b>All Holders, Sorted by Size</b> <span>21) Save Search</span> <span>22) Delete Search</span> <span>23) Refine Search</span>								
Text Search <span>Holder Group</span> <b>All Holders</b> <span>Investment Manager View</span>								
24) Color Legend <span>Shrs Out</span> <b>49.1M</b> <span>% Out</span> <b>72.40</b> <span>Float/Shrs Out</span> <b>93.70</b> <span>SI % Out</span> <b>33.59</b>								
Holder Name	Portfolio Name	Source	Opt	Position	% Out	Latest Chg	File Dt	
1. Vanguard Group Inc/The	ALL	ULT-AGG	- ALL -	4,045,349	8.24	355,908	06/30/19	
2. BlackRock Inc	ULT-AGG	ULT-AGG		3,290,863	6.70	124,552	06/30/19	
3. State Street Corp	ULT-AGG	ULT-AGG		3,136,252	6.39	-152,783	06/30/19	
4. Cyrus Capital Partners LP	CYRUS CAPITAL	13F		2,039,633	4.15	2,039,633	06/30/19	
5. Chevron USA Inc	13G	13G		1,950,000	3.97	-900,000	05/16/18	
6. Masters Capital Management LLC	MASTERS CAPIT	13F	Y	1,543,188	3.14	-2,256,812	06/30/19	
7. Fortune SG Fund Management Co Ltd/China	Multiple Portfo	MF-AGG		1,075,392	2.19	287,440	06/30/19	
8. Royal Bank of Canada	ULT-AGG	ULT-AGG		1,051,992	2.14	166,863	06/30/19	
9. Dimensional Fund Advisors LP	DIMENSIONAL F	13F		929,307	1.89	95,638	06/30/19	
10. Ares Management LLC	ARES MANAGEME	13F		899,984	1.83	0	06/30/19	
11. Deutsche Bank AG	ULT-AGG	ULT-AGG		800,640	1.63	414,756	06/30/19	
12. Geode Capital Management LLC	GEODE CAPITAL	13F		699,027	1.42	156,999	06/30/19	
13. Elm Ridge Management LLC	ELM RIDGE MAN	13F		687,837	1.40	189,814	06/30/19	
14. FMR LLC	ULT-AGG	ULT-AGG		680,462	1.39	15	06/30/19	
15. Orbis Allan Gray Ltd	ORBIS ALLAN G	13F		660,658	1.35	-235,611	06/30/19	
16. Northern Trust Corp	NORTHERN TRU	13F		580,323	1.18	18,975	06/30/19	
17. Goldman Sachs Group Inc/The	ULT-AGG	ULT-AGG		564,908	1.15	23,355	06/30/19	
18. Crescent Park Management LP	CRESCENT PARK	13F		429,546	0.87	-269,000	06/30/19	
19. Bank of America Corp	BANK OF AMER	13F	Y	358,936	0.73	-69,779	06/30/19	
20. Restructuring Capital Associates LP	RESTRUCTURIN	13F		354,674	0.72	-272,668	03/31/19	
21. FUNDPARTNER SOLUTIONS	ULT-AGG	ULT-AGG		352,566	0.72	0	07/31/19	
22. Teachers Insurance & Annuity Association of America	ULT-AGG	ULT-AGG		336,566	0.69	-31,632	06/30/19	
23. Spark Investment Management LLC	SPARK INVESTM	13F		320,082	0.65	-521,100	06/30/19	
24. Norges Bank	NORGES BANK	13F		305,328	0.62	305,328	12/31/18	
25. Charles Schwab Corp/The	ULT-AGG	ULT-AGG		283,656	0.58	11,250	06/30/19	
26. ArrowMark Colorado Holdings LLC	ARROWMARK PA	13F		275,333	0.56	16,000	06/30/19	
27. PanAgora Asset Management Inc	PANAGORA ASSE	13F		266,300	0.54	-1,041	06/30/19	
28. JPMorgan Chase & Co	ULT-AGG	ULT-AGG		265,496	0.54	26,152	06/30/19	

### Management



President & CEO: Todd Stevens is CRC's President & CEO since 2014. Before, he worked for Oxy as VP of Corporate Development from 2012 to 2014, VP of California Operations from 2008 to 2012 and VP of Acquisitions and Corporate Finance from 2004 to 2012. He holds an MBA degree from USC and a Bachelor of Science degree from The US Military Academy.



Senior Executive VP and CFO: Marshall D Smith "Mark" is CRC's CFO since 2014. Before, he worked for Ultra Petroleum as Senior VP and CFO from 2011 to 2014 and CFO from 2005 to 2011. He holds an MBA degree from Oklahoma City University and a Bachelor of Science in Petroleum Engineering from University of Oklahoma.



Executive Vice President-Operations and Geoscience: Darren Williams joined CRC in 2014 as VP of Exploration, before becoming executive VP in 2018. Before, he worked for Marathon Upstream as Exploration Manager for Africa operations from 2013 to 2014 and Subsurface Manager at for Oklahoma operations from 2010 to 2013.



### Managements Expertise:

We believe that management has strong knowledge about the oil industry as well as managing Oil & Gas exploration and production businesses. Although the CEO has previous knowledge about M&A and corporate finance and the CFO has worked in the same position before, neither of them has a strong degree in finance nor previous experience in turnaround and restructuring. In our opinion, the critical financial situation of CRC would require one of the leaders to have a strong background and previous success in restructuring distressed companies, which is not the case here.

### Compensation:

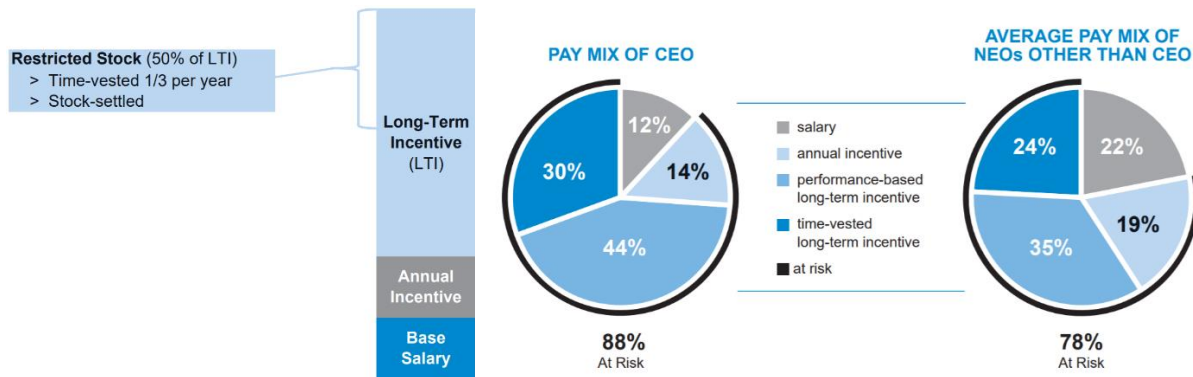
Although the company has a strong proportion of the compensation in long term incentives, the compensation is also based on a comparison with the Enterprise Value and Asset Value of peer groups. We disagree with this methodology, since CRC's high leverage, negative book value and poor equity value must be compared as well. In our opinion, the base salary within peer groups, is not aligned with shareholder's interest in that shareholders have much more to lose than management. Management has goals to reduce debt. However, the incentive and variable proportion of the remuneration was not clear in the proxy statement. In our opinion, the company should decrease the base salary, which is within the industry average, but maintain or increase the variable and long-term portion. It would result in a better gain-gain for management and shareholders.

#### 2019 Peer Group

In July 2018, the Compensation Committee reviewed the compensation peer companies and determined that no changes were needed for 2019 compensation planning purposes, other than removing RSP Permian, Inc., in light of its pending acquisition.

Company	Enterprise Value (June 2018)	Asset Value (June 2018)
Diamondback Energy, Inc.	\$14,922	\$ 8,225
Cabot Oil & Gas Corporation	\$ 11,303	\$ 4,538
Parsley Energy, Inc.	\$ 11,076	\$ 8,941
Cimarex Energy Co.	\$ 10,733	\$ 5,260
WPX Energy, Inc.	\$ 9,332	\$ 8,127
Newfield Exploration Company	\$ 8,214	\$ 5,122
Range Resources Corporation	\$ 8,154	\$11,730
Energen Corporation	\$ 7,850	\$ 5,206
Murphy Oil Corporation	\$ 7,813	\$ 9,938
Whiting Petroleum Corporation	\$ 7,630	\$ 7,533
Oasis Petroleum Inc.	\$ 6,932	\$ 7,639
Southwestern Energy Company	\$ 6,518	\$ 7,713
QEP Resources, Inc.	\$ 5,365	\$ 7,609
SM Energy Company	\$ 5,138	\$ 6,660
PDC Energy, Inc.	\$ 5,107	\$ 4,522
Denbury Resources Inc.	\$ 5,206	\$ 4,487
EP Energy Corporation	\$ 4,857	\$ 4,989
Gulfport Energy Corporation	\$ 4,304	\$ 6,028
Matador Resources Company	\$ 4,171	\$ 2,276
Carrizo Oil & Gas, Inc.	\$ 3,896	\$ 2,539
Callon Petroleum Company	\$ 3,095	\$ 2,836
Laredo Petroleum, Inc.	\$ 3,039	\$ 2,088
25th Percentile	\$ 4,919	\$ 4,526
50th Percentile	\$ 6,725	\$ 5,644
75th Percentile	\$ 8,199	\$ 7,695
California Resources Corporation	\$ 7,471	\$ 6,699
Percentile Rank	56%	57%

### 2018 Compensation Program Elements:



### Third Quarter Earnings Release - Fourth Quarter Guidance and 2020 comments

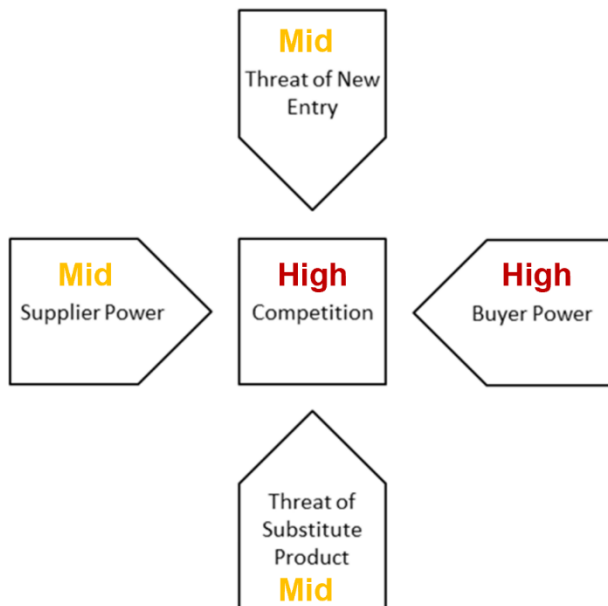
In the last quarter earnings report, the company gave some guidance for the fourth quarter that includes keeping production at ~ 125 MBOE per day and a small decrease in costs of about \$ 40MM. However, such cost is accrual base and will have cash effect along 2020. Maintenance Capex is estimated at \$150MM and there is no forecast for Expansion Capex. Also, management commented that they could sell \$200MM in assets to repurchase debt, not more than that and that is not guaranteed. There were no comments to repay debt in the future, the company believes that they have a strong asset base that could value a lot, but not at a \$ 60/barrel scenario. In our opinion, holding these assets could be risky, because if oil price drops even more, they would be in a more difficult situation to repay debt. Furthermore, selling only \$200MM in assets to repurchase debt does not change its leverage significantly, it would change from \$4.9 to \$4.7 billion.

## Industry Overview & Competitive Landscape Analysis

We summarized the industry overview and competitive landscape in the definition for the industry cycle and Porter's "5 forces" analyses:

Industry cycle: Mature.

### Porter Analyses – CRC



**Threat of new Entry:** Mid. Strong asset base concentrated in California. However, imports are more competitive than they used to be 10 years ago.

**Suppliers Power:** Mid. In low oil price market, upstream companies can negotiate for lower prices. However, because the California basins are not hot areas and not many service companies will want to go there, suppliers do have some bargain power.

**Threat of Substitutes:** Mid. Although Oil and Gas are the most demanded sources of energy in the world. In the State of California, the high pressure from society and new regulation for alternative clean sources, such as renewable energy and battery is an eminent risk for CRC.

**Buyer Power:** High. The market sets the price of oil essentially, and all CRC can do is control their costs and investments. The buyers pay market price for oil and gas, and CRC has little to no bargaining power.

**Competition:** High. CRC competes with other very strong oil and gas companies regionally, as well as indirect competitors that supply hydrocarbons and energy from overseas.

### End Use:

CRC main clients are the Refineries, which have facilities in the state of California and the West Coast, such as: Andeavor (acquired by Marathon), Shell, Valero and Phillips 66. Because of the large number of upstream companies in California and the possibility to import Oil arriving in the State's ports, there is a high bargain power from these buyers.



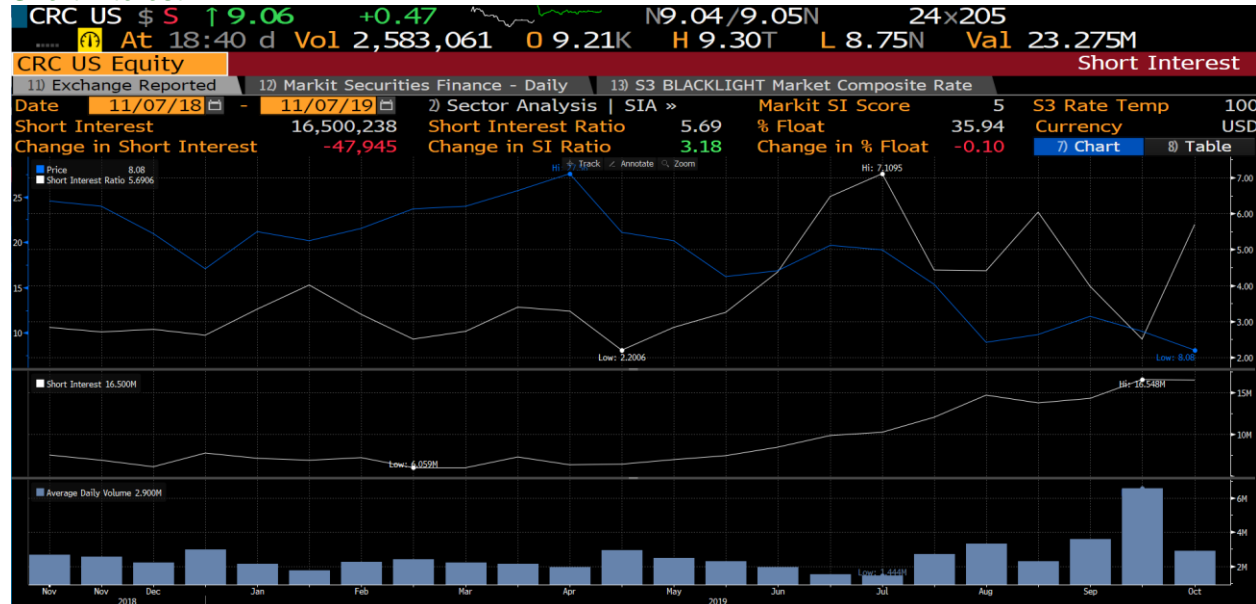
### Technical Analysis:

RSI shows that CRC's stock is generally oversold. IFS's 50-day and 100-day moving average crossed below its 200-day moving average in January. Previously CRC broke its 100-day resistance line in April but dropped back below in June. Technical analysis would support that CRC is currently trading low compared to historic levels, which makes sense because the company fundamentals are so poor right now. Furthermore, short interest is around 35% which is very high, but supports our thesis that the CRC is a great short opportunity to execute as a Put. It's a very volatile stock, which is very actively traded both in the securities and the option market. It has a long way to go until zero and we hope to capture that underperformance on the downside.

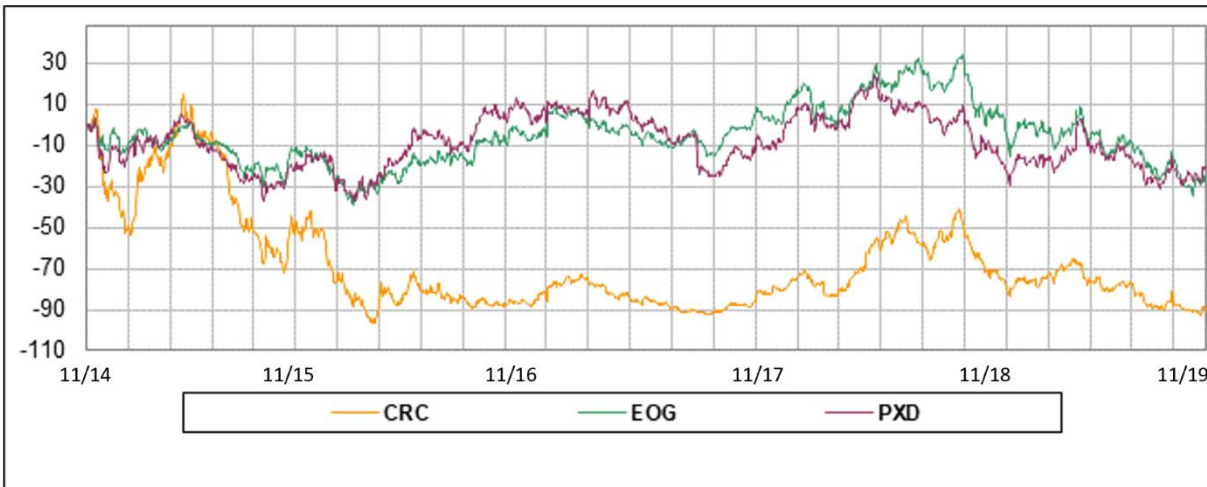
### RSI Index:



### Short interest



### Historic Share Price Performance 5 Years (% change)



### Valuation

#### Comparative Company Analysis

The comp analysis uses seven exclusively E&P companies that most closely align with CRC's market cap, P/B, beta and leverage. We performed a screen to find companies for which the stock price change is correlated with CRC's. It was difficult to find such characteristics in comparable companies, since CRC is an outlier in the industry in that it has the highest leverage and is the only one with negative Book Value. Our target price derived from this analysis uses a 50% 2019 metrics, 50% 2020 metrics valuation.

For 2019, since the company has negative book value and high leverage, we used the median of Comps and a 12.5% weight for Price Sales, 12.5% for P/E and 37.5% weight for both EV/EBITDA and P/B. For 2020, as we do not have the Book Value Forecast for all companies and CRC has the highest debt, we decided to weight the indicator EV/EBITDA with 75%, leaving both EV/Sales and P/E with 12.5% each. We did not include our other holdings, EOG and PXD in the Compco, because these are superior companies with much larger market caps and better fundamentals all around.

Comparable Companies Analysis											
Date		11/4/2019									
SUS MM											
Company Name	Ticker	Subsector	HQ	Beta	Share Price	TSO	Market Cap	Net Debt/EBITD	Price/Book	Book Value	PEG
Whiting Petroleum Corp.	NYSE: WLL	E&P	Denver, CO	2.9	\$7.60	91	694	2.8x	0.2x	\$4,201	0.0
Berry Petroleum Corp.	NYSE: BRY	E&P	Dallas, TX	1.67	\$10.60	81	858	1.4x	0.9x	\$952	0.0
WPX Energy, Inc.	NYSE: WPX	E&P	Tulsa, OK	1.67	\$10.69	417	4,455	1.5x	1.0x	\$4,643	0.7
QEP Resources Inc.	NYSE: QEP	E&P	Denver, CO	1.99	\$3.73	238	887	2.9x	0.3x	\$2,770	0.7
Chesapeake Energy Corp.	NYSE: CHK	E&P	Oklahoma City, OK	2.26	\$1.53	1,955	2,991	3.8x	0.7x	\$4,191	0.0
Gulfport Energy Corp.	NYSE: GPOR	E&P	Oklahoma City, OK	1.43	\$3.51	160	561	2.5x	0.2x	\$3,559	0.3
Murphy Oil Corp	NYSE: MUR	E&P	El Dorado, AR	1.42	\$24.32	157	3,824	1.3x	0.7x	\$5,677	2.0
Average				1.91			2,038	2.5	0.55	3,713	0.5
Min				1.42			561	1.3x	0.2x	952	0.0
Max				2.90			4,455	3.8x	1.0x	5,677	2.0
Median				1.67			887	2.5x	0.7x	4,191	0.3
California Resources Corp.	NYSE: CRC	E&P	Los Angeles, CA	3.30	\$8.76	49	430	4.7x	(1.1x)	(\$408)	0.00
EOG	NYSE: EOG	E&P	Houston, TX	1.29	\$74.70	582	43,458	0.4x	2.0x	\$21,761	1.6
Pioneer	NYSE: PXD	E&P	Irving, TX	1.29	\$134.99	166	22,361	0.4x	1.8x	\$12,245	0.8

Total Debt	Cash	Net Debt	Minority Interest	TEV	Div yield (19E)	Sales		EBITDA		EPS		P/E		TEV / Sales		TEV / EBITDA		EBITDA Margin	
						2019E	2020E	2019E	2020E	2019E	2020E	2019E	2020E	2019E	2020E	2019E	2020E	2019E	2020E
2,847	7	2,840	0	3,534	0.3%	1,638	1,665	999	1,047	(0.56)	0.11	(13.6x)	69.1x	2.2x	2.1x	3.5x	3.4x	61%	63%
397	0	397	0	1,255	4.8%	569	648	288	282	1.31	1.20	8.1x	8.8x	2.2x	1.9x	4.4x	4.5x	51%	43%
2,201	182	2,019	0	6,474	0.0%	2,443	2,660	1,373	1,540	0.34	0.53	31.4x	20.2x	2.7x	2.4x	4.7x	4.2x	56%	58%
2,081	92	1,989	29	2,904	2.1%	1,190	1,283	679	852	0.21	0.52	17.8x	7.2x	2.4x	2.3x	4.3x	3.0x	57%	66%
9,701	228	9,473	39	12,503	0.0%	8,911	8,566	2,504	2,511	(0.26)	(0.19)	(5.9x)	(8.1x)	1.4x	1.5x	5.0x	5.0x	28%	29%
2,199	145	2,055	74	2,689	0%	1,349	1,150	825	718	1.02	0.41	3.4x	8.6x	2.0x	2.3x	3.3x	3.7x	61%	62%
2,779	435	2,344	640	6,808	4.1%	2,853	3,022	1,794	1,913	1.02	0.78	23.8x	31.2x	2.4x	2.3x	3.8x	3.6x	63%	63%
3,172	156	3,017	112	5,167	0	2,708	2,713	1,209	1,266	0.44	0.48	9	20	2.2	2.1	4.1	4.0	0.5	0.6
397	0	397	0	1,255	0.0%	569	648	288	282	(0.56)	(0.19)	(13.6x)	(8.1x)	1.4x	1.5x	3.3x	3.4x	28%	29%
9,701	435	9,473	640	12,503	4.8%	8,911	8,566	2,504	2,511	1.31	1.20	31.4x	69.1x	2.7x	2.4x	5.0x	5.0x	63%	66%
2,201	145	2,055	29	3,534	0.0%	1,638	1,665	999	1,047	0.34	0.52	8.09x	8.8x	2.2x	2.3x	4.3x	3.7x	57%	62%
5,066	22	5,044	906	6,380	0.0%	2,932	3,016	1,067	1,346	5.26	5.85	1.5x	1.5x	2.2x	2.1x	6.0x	4.7x	36%	45%
5,177	1,705	3,472	2	46,932	1.5%	17,474	18,732	7,908	8,429	4.88	5.15	15.3x	14.5x	2.7x	2.5x	5.9x	5.6x	45%	45%
2,286	797	1,489	0	23,850	1.3%	9,245	10,254	3,603	4,081	7.98	8.94	16.9x	15.1x	2.6x	2.3x	6.6x	5.8x	39%	40%

**Valuation 2020**

Metric	EV / Sales 2020	EV / EBITDA 2020	P / E 2020
TEV	6,793	5,040	6,675
Cash and Equivalents	22	22	22
Minority Interest	906	906	906
Total Debt	5,066	5,066	5,066
Fair Equity Value	843	0	2,537
TSO	49	49	49
Expected Stock Price	\$17	\$0	\$52
Weight	12.5%	75.0%	12.5%

**Valuation 2019**

Metric	EV / Sales 2019	EV / EBITDA 2019	P / E 2019	P / B 2019
TEV	6,467	4,565	8,041	5,726
Cash and Equivalents	22	22	22	22
Minority Interest	906	906	906	906
Total Debt	5,066	5,066	5,066	5,066
Fair Equity Value	517	0	2,091	0
TSO	49	49	49	49
Expected Stock Price	\$10.52	\$0.00	\$42.57	\$0.00
Weight	12.5%	37.5%	12.5%	37.5%

lot of debt

Fair Value Stock Price	\$8.60
Current Stock Price	\$9
Up / Downside potential	(2%)

Fair Value Stock Price	\$6.64
Current Stock Price	\$9
Up / Downside potential	(24%)

**Discounted Cash Flow Analysis: Based on production and oil price inputs.**

The DCF analysis uses company guidance for 2019 Oil production per Barrel Oil Equivalent (BOE) and \$/BOE Revenue, which is essentially the oil price. We used historical production, reported revenue, and \$/BOE revenue to back calculate CRC's working interest which is 36.5% after Production Sharing Contracts (PSC) and JV's are taken into account. We then assume production increase by 1,000 BOE per day every 2 years, which is reasonable considering their historical production and their planned drilling activities going into the 4<sup>th</sup> Quarter. For the Base case we take the current oil price of \$62 and escalate it at 2.5% for three years, then keep it constant till 2025. We use an EV/EBITDA exit multiple as oil and gas companies don't have perpetual growth due to well decline rates. All other line items are based on historical \$/BOE or %/revenue. Below is a summary of each of our assumptions:

Income Statement													
m=1,000													
<b>Total Production (MBOEPD)</b>	Base	159	160	140	129	132	130	130	130	131	131	132	132
	Base	159	160	140	129	132	129.5	130.0	130.0	131.0	131.0	132.0	132.0
	97% Bear	159	160	140	129	132	126	126	126	127	127	128	128
	102% Bull	159	160	140	129	132	129.5	133	133	134	134	135	135
<b>Oil price growth</b>			-42.8%	-26.7%	41.4%	48.6%	0.0%	2.5%	2.5%	2.5%	0.0%	0.0%	0.0%
<b>Oil Price (Rev\$/Boe)</b>	Base	72	41	30	43	63	62	64	65	67	67	67	67
	Base	72	41	30	43	63	62	64	65	67	67	67	67
	97% Bear	72	41	30	43	63	60	62	63	65	65	65	65
	103% Bull	72	41	30	43	63	64	65	67	69	69	69	69
<b>Revenue Calculation</b>													
Total Revenue Historical		4,171	2,410	1,540	2,015	3,049							
Total production revenue		11,426	6,595	4,221	5,520	8,352	8,032	8,262	8,468	8,747	8,747	8,813	8,813
% working interest to CRC		36.5%	36.5%	36.5%	36.5%	36.5%	36.5%	36.5%	36.5%	36.5%	36.5%	36.5%	36.5%
<b>Revenue</b>	0	4,171	2,410	1,540	2,015	3,049	2,932	3,016	3,091	3,193	3,193	3,217	3,217
<b>Production Cost</b>	Base	1,056	954	796	880	907	907	949	996	956	1,004	964	964
	Base	1,056	954	796	880	907	907	949	996	956	1,004	964	964
	Bear	1,056	954	796	880	907	941	985	1,034	993	1,042	1,000	1,000
	Bull	1,056	954	796	880	907	843	900	945	907	953	914	914
<b>Production Cost \$/BOE</b>	Base	18	16	16	19	19	19	20	21	20	21	20	20
	Base	18	16	16	19	19	19	20	21	20	21	20	20
	107% Bear						21	21	22	21	22	21	21
	93% Bull						18	19	20	19	20	19	19
<b>SG&amp;A \$</b>	Base	297	328	234	250	297	300	304	308	311	311	313	313
	Base	297	328	234	250	297	300	304	308	311	311	313	313
	Bear	297	328	234	250	297	306	309	314	317	317	319	319
	Bull	297	328	234	250	297	285	294	299	301	301	303	303
<b>SG&amp;A \$/BOE</b>	Base	5.1	5.6	4.6	5.3	6.2	6.3	6.4	6.5	6.5	6.5	6.5	6.5
	Base	5.1	5.6	4.6	5.3	6.2	6.3	6.4	6.5	6.5	6.5	6.5	6.5
	105% Bear						6.7	6.7	6.8	6.8	6.8	6.8	6.8
	95% Bull						6.0	6.1	6.2	6.2	6.2	6.2	6.2
<b>D&amp;A</b>	Base	1,197	1,007	556	547	499	481	520	520	524	524	528	528
	Base	1,197	1,007	556	547	499	481	520	520	524	524	528	528
	Bear	1,197	1,007	556	547	499	466	504	504	508	508	512	512
	Bull	1,197	1,007	556	547	499	481	530	530	534	534	539	539
<b>D&amp;A \$/BOE</b>	Base	20.7	17.2	10.9	11.6	10.4	10.2	11.0	11.0	11.0	11.0	11.0	11.0
	Base	20.7	17.2	10.9	11.6	10.4	10.2	11.0	11.0	11.0	11.0	11.0	11.0
	100% Bear						10.2	11.0	11.0	11.0	11.0	11.0	11.0
	100% Bull						10.2	11.0	11.0	11.0	11.0	11.0	11.0
<b>Asset Impairments</b>		3,402	4,852	-	-	-	0	0	0	0	0	0	0
<b>Taxes other than income</b>	Base	217	181	143	137	148	159	159	159	161	161	162	162
	Base	217	181	143	137	148	159	159	159	161	161	162	162
	Bear	217	181	143	137	148	139	139	139	140	140	141	141
	Bull	217	181	143	137	148	175	179	179	180	180	182	182
<b>Taxes other than income \$/B</b>	Base	3.7	3.1	2.8	2.9	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	Base	3.7	3.1	2.8	2.9	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	90% Bear						3.0	3.0	3.0	3.0	3.0	3.0	3.0
	110% Bull						3.7	3.7	3.7	3.7	3.7	3.7	3.7
<b>Exploration expense</b>	Base	139	36	23	22	34	33	28	28	29	29	29	29
	Base	139	36	23	22	34	33	28	28	29	29	29	29
	Bear	139	36	23	22	34	32	28	28	28	28	28	28
	Bull	139	36	23	22	34	33	29	29	29	29	29	29
<b>\$/BOE</b>	Base	2.4	0.6	0.4	0.5	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
	Base	2.4	0.6	0.4	0.5	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
	100% Bear						0.7	0.6	0.6	0.6	0.6	0.6	0.6
	100% Bull						0.7	0.6	0.6	0.6	0.6	0.6	0.6
<b>Other Expenses % Rev</b>	Base	207	167	79	106	399	465	229	323	334	334	336	336
	Base	5.0%	6.9%	5.1%	5.3%	13.1%	15.9%	7.6%	10.5%	10.5%	10.5%	10.5%	10.5%
<b>Tax Rate</b>	Base		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	Base	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	100% Bear			0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	100% Bull			0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%

**Production:**  
 2019E based off reported earnings 2020E onward: based on increasing 1,000 boe per day which is a bullish assumption due to their historical decline.

**Oil Price:**  
 2019E based off reported earnings 2020E onward: escalating at 2.5% which is industry standard, then keeping flat.

**Revenue:**  
 2019E based off reported earnings 2020E onward: based off Total production \* Oil price \* CRC working interest

**Production Cost:**  
 Analyzed historical production costs per \$/BOE. BCF: increasing over the next few years based on higher production rates than keep constant

**SG&A:**  
 2019E based on company guidance. BCF: kept \$/BOE increasing slightly

**D&A:**  
 \$/BOE, increases as production increases

**Taxes other than Income:**  
 2019E Based on company guidance. 2020 kept constant as it is the State share of revenue. Bull increases and Bear decreases per higher/lower production

**Exploration & Production:**  
 2019E Company guidance of \$/BOE. 2020E: Based on historical average

**Tax rate:**  
 Analyzed historical tax benefits. CRC has over \$1 billion in losses so we assume it will not pay federal income tax, but will eventually pay some state income tax

Balance Sheet		2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E
<b>Δ NWC</b>	<b>Base</b>	(343)	134	210	68	7	54	0	(2)	20	(10)	12	0
<b>NWC</b>	<b>Base</b>	(343)	(211)	2	70	77	131	131	129	149	139	150	150
<b>AR</b>	<b>Base</b>	30	308	200	232	277	328	338	346	357	357	360	360
	Base	30	308	200	232	277	328	338	346	357	357	360	360
	Bear	30	308	200	232	277	328	338	346	357	357	360	360
	Bull	30	308	200	232	277	328	338	346	357	357	360	360
<b>AR Days</b>	<b>Base</b>	3	47	47	42	33	41	41	41	41	41	41	41
	Base	3	47	47	42	33	41	41	41	41	41	41	41
	100% Bear						41	41	41	41	41	41	41
	100% Bull						41	41	41	41	41	41	41
<b>Inventory</b>	<b>Base</b>	75	71	58	58	56	60	63	66	64	67	64	64
	Base	75	71	58	58	56	60	63	66	64	67	64	64
	Bear	75	71	58	58	56	63	66	69	66	70	67	67
	Bull	75	71	58	58	56	56	60	63	61	64	61	61
<b>DIO</b>	<b>Base</b>	26	27	26	24	22	24	24	24	24	24	24	24
	Base	26	27	26	24	22	24	24	24	24	24	24	24
	100% Bear						24	24	24	24	24	24	24
	100% Bull						24	24	24	24	24	24	24
<b>AP</b>	<b>Base</b>	448	590	256	220	256	258	270	283	272	286	274	274
	Base	448	590	256	220	256	258	270	283	272	286	274	274
	Bear	448	590	256	220	256	268	280	294	282	296	284	284
	Bull	448	590	256	220	256	240	256	269	258	271	260	260
<b>AP Days</b>	<b>Base</b>	155	226	117	91	103	104	104	104	104	104	104	104
	Base	155	226	117	91	103	104	104	104	104	104	104	104
	100% Bear						104	104	104	104	104	104	104
	100% Bull						104	104	104	104	104	104	104

**Accounts Receivable**

**Days:**

Based 2019 company guidance and 2020E based on historical average

**Days Inventory Outstanding:**

2019 based on Company guidance and 2020E onward based on historical average

**Accounts Payable**

**Days:**

Based 2019 company guidance and 2020E based on historical average

Cash Flow Statement		2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E
<b>Maintenance Capex</b>	<b>Base</b>	<b>2,089</b>	<b>401</b>	<b>75</b>	<b>371</b>	<b>690</b>	<b>624</b>	<b>789</b>	<b>809</b>	<b>835</b>	<b>835</b>	<b>842</b>	<b>842</b>
	Base	2,089	401	75	371	690	624	789	809	835	835	842	842
	Bear	2,089	401	75	371	690	920	947	970	1,002	1,002	1,010	1,010
	Bull	2,089	401	75	371	690	1,035	1,065	1,092	1,127	1,127	1,136	1,136
<b>Capex % Sales</b>	<b>Base</b>			<b>4.9%</b>	<b>18.4%</b>	<b>22.6%</b>	<b>26.2%</b>	<b>26.2%</b>	<b>26.2%</b>	<b>26.2%</b>	<b>26.2%</b>	<b>26.2%</b>	<b>26.2%</b>
	Base	50.1%	16.6%	4.9%	18.4%	22.6%	26.2%	26.2%	26.2%	26.2%	26.2%	26.2%	26.2%
	120% Bear						31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%
	135% Bull						35.3%	35.3%	35.3%	35.3%	35.3%	35.3%	35.3%
<b>Divestiture</b>													
Change in revenue from M&A transactions		0	0	0	20	33	183	0	0	0	0	0	0
<b>Acquisition</b>													
		44	292	-152	0	0	551	0	0	0	0	0	0
<b>Total Capex</b>	<b>Base</b>	<b>2,133</b>	<b>693</b>	<b>(77)</b>	<b>391</b>	<b>723</b>	<b>1,358</b>	<b>789</b>	<b>809</b>	<b>835</b>	<b>835</b>	<b>842</b>	<b>842</b>
	Base	2,133	693	(77)	391	723	1,358	789	809	835	835	842	842
	Bear	2,089	401	75	371	690	920	947	970	1,002	1,002	1,010	1,010
	Bull	2,089	401	75	371	690	1,035	1,065	1,092	1,127	1,127	1,136	1,136

**Maintenance Capex:**

2019E Maintenance Capex is given by company guidance. 2020E and onwards uses a % revenue calculation.

This capex is just for maintaining current production with no growth.

**Divestiture and Acquisition:**

2019E is given, but no announcements or assumptions are given so we kept it zero going forward.

**BULL Capex:**

Our Bull Case increases top line production by 5,000 boe per day by 2025. In order to achieve this production level and realize the 100% of the revenues (without farming the Capex out to JV and not getting the revenues), CRC would need to increase Capex by 135 percent. This includes drilling approximately 50 new wells per year, in addition to the 26% of revenues to maintain current production.

A bear, base, and bull case were analyzed. The bull and bear cases vary by increasing or decreasing total production volume, oil price, and \$/BOE costs, in addition to the Capex. The base case uses an Exit multiple of 5.0x EV/EVITDA which is on the high end of the current Comparable multiples. We feel this is generous. A WACC of 8.6% is used in the base case. The bear case uses an exit multiple of 4.0x EV/EBITDA and a WACC of 8.7%, which yields a negative share price so we just use 0 in our final analysis. The Bull Case uses a 6.0x Exit multiple and a 8.6% WACC. This is a blue sky scenario as currently not even Pioneer has a EV/EBITDA multiple of 6.0x. The WACC was calculated using a historical beta of 1.99, which makes sense for such a volatile company. The company has a huge amount of debt so the weight of debt in the WACC calculation is 92%, which reduces the WACC significantly to 8.6%. We feel this is an accurate representation of the discount rate at current interest rate levels. If Libor rates change and increase from the current 1.9% levels, the discount rate will change a lot and would affect our DCF to go down.

**WACC Calculation**

Assumption	Notes	Low	Base	High	
Market Risk Premium (MRP)	Bloomberg	6.7%	6.7%	6.7%	bloomberg
Risk Free Rate (R <sub>f</sub> )	Spot rate 10 year Treasury as of 11/07/1	1.9%	1.9%	1.9%	bloomberg
Long-Term Predicted Beta	Estimated	1.99	1.99	1.99	bloomberg
Sensitivity Adjustment	+ / - 1.0% from Base	(1.0%)	-	1.0%	
<b>Cost of Equity (K<sub>E</sub>)</b>	<b>Calculated using CAPM model</b>	<b>14.2%</b>	<b>15.2%</b>	<b>16.2%</b>	
Pre-tax Cost of Debt	Wtd. Average Interest Rate	8.1%	8.1%	8.1%	calculated
Effective Tax Rate	2019E	0.0%	0.0%	0.0%	company 1
<b>Post-tax Cost of Debt</b>	<b>After-Tax Cost of Debt</b>	<b>8.1%</b>	<b>8.1%</b>	<b>8.1%</b>	
Debt / Total Cap	Based on Current Trading Data	92.3%	92.3%	92.3%	
<b>WACC</b>	<b>K<sub>E</sub>*E/(D+E)+K<sub>D</sub>*(1-t)*D/(D+E)</b>	<b>8.6%</b>	<b>8.6%</b>	<b>8.7%</b>	

Base Case: Exit multiple of 5.0x and WACC of 8.6%

	Historical					Forecast						
	2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Revenue	4,171	2,410	1,540	2,015	3,049	2,932	3,016	3,091	3,193	3,193	3,217	3,217
Production Cost	1,056	954	796	880	907	907	949	996	956	1,004	964	964
Gross Margin	74.7%	60.4%	48.3%	56.3%	70.2%	69.1%	68.5%	67.8%	70.0%	68.5%	70.0%	70.0%
SG&A	297	328	234	250	297	300	304	308	311	311	313	313
D&A	1,197	1,007	556	547	499	481	520	520	524	524	528	528
Taxes other than Income	217	181	143	137	148	159	159	159	161	161	162	162
Exploration expense	139	36	23	22	34	33	28	28	29	29	29	29
Other expenses	207	167	79	106	399	465	229	323	334	334	336	336
EBIT	1,057	(262)	(292)	74	763	586	826	755	878	830	885	885
% Sales	25.4%	-10.9%	-19.0%	3.7%	25.0%	20.0%	27.4%	24.4%	27.5%	26.0%	27.5%	27.5%
Add: D&A	1,197	1,007	556	547	499	481	520	520	524	524	528	528
EBITDA	2,255	745	264	620	1,263	1,067	1,346	1,275	1,402	1,354	1,413	1,413
% Sales	54.1%	30.9%	17.2%	30.8%	41.4%	36.4%	44.6%	41.2%	43.9%	42.4%	43.9%	43.9%
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%
NOPAT	1,057	(262)	(292)	74	763	586	826	679	790	747	796	796
Plus: D&A	1,197	1,007	556	547	499	481	520	520	524	524	528	528
Less: Capex	2,133	693	(77)	391	723	1,358	789	809	835	835	842	842
Less: ΔNWC	(343)	134	210	68	7	54	0	(2)	20	(10)	12	0
Unlevered FCF	465	(82)	131	161	533	(345)	557	393	459	447	471	483
% of Sales	11.1%	(3.4%)	8.5%	8.0%	17.5%	-11.8%	18.5%	12.7%	14.4%	14.0%	14.7%	15.0%
Discount Period						0.25	1.25	2.25	3.25	4.25	5.25	6.25
Discount Factor						0.98	0.90	0.83	0.76	0.70	0.65	0.60
PV of FCF						(338)	502	326	351	314	305	288

**Exit Multiple Method**

Cumulative PV of FCF	1,747
Terminal Year EBITDA	1,413
Exit Multiple	5.0x
Terminal Value	7,065
Discount factor	0.60
PV of TV	4,208
<b>Enterprise Value</b>	<b>5,956</b>

Less: Total Debt	5,066
Less: Preferred Stock	0
Less: Noncontrolling Interest	906
Plus: Cash and Cash Equivalents	22
<b>Implied Equity Value</b>	<b>6</b>

Shares Outstanding	49
<b>Implied Share Price</b>	<b>\$0.11</b>

Current Price	\$8.76
Downside	(98.7%)

## Bear Case: Exit Multiple of 4.0x and WACC of 8.7%

	Historical					Forecast						
	2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Revenue	4,171	2,410	1,540	2,015	3,049	2,758	2,837	2,908	3,004	3,004	3,027	3,027
Production Cost	1,056	954	796	880	907	941	985	1,034	993	1,042	1,000	1,000
Gross Margin	74.7%	60.4%	48.3%	56.3%	70.2%	65.9%	65.3%	64.4%	67.0%	65.3%	67.0%	67.0%
SG&A	297	328	234	250	297	306	309	314	317	317	319	319
D&A	1,197	1,007	556	547	499	466	504	504	508	508	512	512
Taxes other than Income	217	181	143	137	148	139	139	139	140	140	141	141
Exploration expense	139	36	23	22	34	32	28	28	28	28	28	28
Other expenses	207	167	79	106	399	438	216	304	314	314	316	316
EBIT	1,057	(262)	(292)	74	763	436	656	585	704	655	710	710
% Sales	25.4%	-10.9%	-19.0%	3.7%	25.0%	15.8%	23.1%	20.1%	23.4%	21.8%	23.4%	23.4%
Add: D&A	1,197	1,007	556	547	499	466	504	504	508	508	512	512
EBITDA	2,255	745	264	620	1,263	903	1,161	1,089	1,213	1,163	1,222	1,222
% Sales	54.1%	30.9%	17.2%	30.8%	41.4%	32.7%	40.9%	37.4%	40.4%	38.7%	40.4%	40.4%
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%
NOPAT	1,057	(262)	(292)	74	763	436	656	526	634	589	639	639
Plus: D&A	1,197	1,007	556	547	499	466	504	504	508	508	512	512
Less: Capex	2,089	401	75	371	690	866	891	913	943	943	950	950
Less: ΔNWC	(343)	134	210	68	7	27	(1)	(3)	20	(11)	12	0
Unlevered FCF	509	210	(21)	181	566	10	271	120	179	165	189	201
% of Sales	12.2%	8.7%	(1.3%)	9.0%	18.6%	0.4%	9.5%	4.1%	6.0%	5.5%	6.2%	6.6%
Discount Period						0.25	1.25	2.25	3.25	4.25	5.25	6.25
Discount Factor						0.98	0.90	0.83	0.76	0.70	0.64	0.59
PV of FCF						10	244	100	137	116	122	119

**Exit Multiple Method**

Cumulative PV of FCF	846
Terminal Year EBITDA	1,222
Exit Multiple	4.0x
Terminal Value	4,887
Discount factor	0.59
PV of TV	2,898
<b>Enterprise Value</b>	<b>3,744</b>

Less: Total Debt	5,066
Less: Preferred Stock	0
Less: Noncontrolling Interest	906
Plus: Cash and Cash Equivalents	22
<b>Implied Equity Value</b>	<b>(2,206)</b>

Shares Outstanding	49
<b>Implied Share Price</b>	<b>(\$44.90)</b>

Current Price	\$8.76
Downside	(612.6%)



**Bull Case: Exit Multiple of 6.0x and WACC of 8.6%**

	Historical					Forecast						
	2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E
<b>Revenue</b>	4,171	2,410	1,540	2,015	3,049	3,020	3,168	3,247	3,354	3,354	3,380	3,380
<b>Production Cost</b>	1,056	954	796	880	907	843	900	945	907	953	914	914
<i>Gross Margin</i>	74.7%	60.4%	48.3%	56.3%	70.2%	72.1%	71.6%	70.9%	73.0%	71.6%	73.0%	73.0%
<b>SG&amp;A</b>	297	328	234	250	297	285	294	299	301	301	303	303
<b>D&amp;A</b>	1,197	1,007	556	547	499	481	530	530	534	534	539	539
<b>Taxes other than Income</b>	217	181	143	137	148	175	179	179	180	180	182	182
<b>Exploration expense</b>	139	36	23	22	34	33	29	29	29	29	29	29
<b>Other expenses</b>	207	167	79	106	399	479	241	340	351	351	353	353
<b>EBIT</b>	1,057	(262)	(292)	74	763	723	994	925	1,051	1,006	1,059	1,059
<i>% Sales</i>	25.4%	-10.9%	-19.0%	3.7%	25.0%	23.9%	31.4%	28.5%	31.3%	30.0%	31.3%	31.3%
<b>Add: D&amp;A</b>	1,197	1,007	556	547	499	481	530	530	534	534	539	539
<b>EBITDA</b>	2,255	745	264	620	1,263	1,204	1,525	1,456	1,586	1,540	1,598	1,598
<i>% Sales</i>	54.1%	30.9%	17.2%	30.8%	41.4%	39.9%	48.1%	44.8%	47.3%	45.9%	47.3%	47.3%
<i>Tax Rate</i>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%
<b>NOPAT</b>	1,057	(262)	(292)	74	763	723	994	833	946	905	953	953
Plus: D&A	1,197	1,007	556	547	499	481	530	530	534	534	539	539
Less: Capex	2,089	401	75	371	690	1,066	1,119	1,147	1,185	1,185	1,194	1,194
Less: ΔNWC	(343)	134	210	68	7	78	4	(1)	20	(10)	11	0
<b>Unlevered FCF</b>	509	210	(21)	181	566	60	402	217	276	265	287	298
<i>% of Sales</i>	12.2%	8.7%	(1.3%)	9.0%	18.6%	2.0%	12.7%	6.7%	8.2%	7.9%	8.5%	8.8%
Discount Period						0.25	1.25	2.25	3.25	4.25	5.25	6.25
Discount Factor						0.98	0.90	0.83	0.77	0.71	0.65	0.60
PV of FCF						59	363	181	211	187	186	178

**Exit Multiple Method**

Cumulative PV of FCF	1,364
Terminal Year EBITDA	1,598
Exit Multiple	6.0x
Terminal Value	9,586
Discount factor	0.60
PV of TV	5,736
<b>Enterprise Value</b>	<b>7,100</b>

Less: Total Debt	5,066
Less: Preferred Stock	0
Less: Noncontrolling Interest	906
Plus: Cash and Cash Equivalents	22
<b>Implied Equity Value</b>	<b>1,150</b>

Shares Outstanding	49
<b>Implied Share Price</b>	<b>\$23.41</b>

Current Price	\$8.76
Upside	167.2%

## Sensitivity Analysis

### Sensitivity Tables

		Exit Multiple				
		4.00x	4.50x	5.00x	5.50x	6.00x
WACC	7.1%	(\$8.71)	\$0.63	\$9.98	\$19.32	\$28.67
	7.6%	(\$11.57)	(\$2.49)	\$6.59	\$15.66	\$24.74
	8.1%	(\$14.34)	(\$5.52)	\$3.30	\$12.12	\$20.93
	8.6%	(\$17.02)	(\$8.45)	\$0.11	\$8.68	\$17.25
	9.1%	(\$19.62)	(\$11.30)	(\$2.97)	\$5.35	\$13.68

### Football Field

Bull Case Exit Mult 6x, WACC 8.6%

Base Case Exit Mult 5x, WACC 8.6%

CompCo (2020E Base Case)

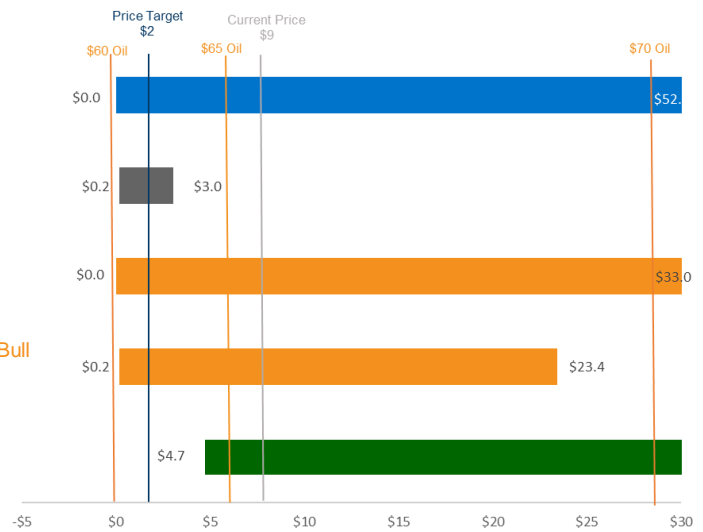
EV/Sales vs. EV/EBITDA

DCF Base Case Production Range 129Mboepd - 133Mboepd

DCF Base Case 2020 Oil price range \$60 - \$70

DCF (Oil price escalating from \$62 at 2.5% for 3 years) Base - Bull

52-Week Trading



## Earnings Per Share

EPS											
Shares Outstanding	49										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Sales	4,171	2,410	1,540	2,015	3,049	2,932	3,016	3,091	3,193	3,193	3,217
Production Cost	1,056	954	796	880	907	907	949	996	956	1,004	964
SG&A	297	328	234	250	297	300	304	308	311	311	313
D&A	1,197	1,007	556	547	499	481	520	520	524	524	528
Taxes other than Income	217	181	143	137	148	159	159	159	161	161	162
Exploration expense	139	36	23	22	34	33	28	28	29	29	29
Other Expenses	207	167	79	106	399	465	229	323	334	334	336
EBIT	1,057	(262)	(292)	74	763	586	826	755	878	830	885
Interest and debt expense, net	72	326	328	343	379	439	486	548	708	646	585
net gain on early extinguishment of debt	0	20	805	4	57	144					
Gain on asset divestitures	0	0	30	21	5	0					
other operating expenses	(5)	(56)	(13)	(17)	(23)	(24)	(27)	(27)	(27)	(27)	(27)
(Loss) Income Before Income Taxes	980	(624)	202	(261)	423	267	314	181	143	157	273
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%
Net Income	980	(624)	202	(261)	423	267	314	163	129	142	246
NCI	-	-	-	4	101	9	10	5	4	5	8
% of NI					3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
NI to CRC	980	(624)	202	(265)	322	258	303	157	125	137	237
EPS	\$19.96	(\$12.71)	\$4.11	(\$5.40)	\$6.56	\$5.26	\$6.17	\$3.20	\$2.54	\$2.79	\$4.83
% growth						(19.8%)	17.3%	(48.1%)	(20.8%)	10%	73.3%
NOPAT						586	826	679	790	747	796
Depreciation						481	520	520	524	524	528
NWC						54	0	(2)	20	(10)	12
Capex						(1,358)	(789)	(809)	(835)	(835)	(842)
FCF						(237)	557	389	499	426	494
Cash BoP before CFF						22	(215)	342	731	1,230	1,656
Cash EoP before CFF						(215)	342	731	1,230	1,656	2,150
Principal						-	(100)	(1,614)	(3,138)	-	(144)
Interest						(404)	(399)	(242)	(9)	(9)	-
Cash flow after Financial Activity						(641)	58	(1,467)	(2,647)	417	350
Cash BoP						22	(619)	(561)	(2,028)	(4,675)	(4,258)
Cash EoP						(619)	(561)	(2,028)	(4,675)	(4,258)	(3,907)
Min cash balance						22	22	22	22	22	22
Revolving Debt						237	583	2,050	4,697	4,280	3,929
Interest			14.9%			(35)	(87)	(305)	(700)	(638)	(585)

### Interest Expense:

Interest is calculated using the current debt schedule and a revolving credit facility. When CRC goes to negative cash, they require to borrow more from the revolver and their interest expense increases.

### NCI:

Takes as a % of NI based on historical average.

### EPS:

Uses a constant shares outstanding. This is unrealistic however because CRC will need to issue new shares in order to fund their business and pay down debt. That is why our EPS numbers are so high.

## BCF versus Consensus

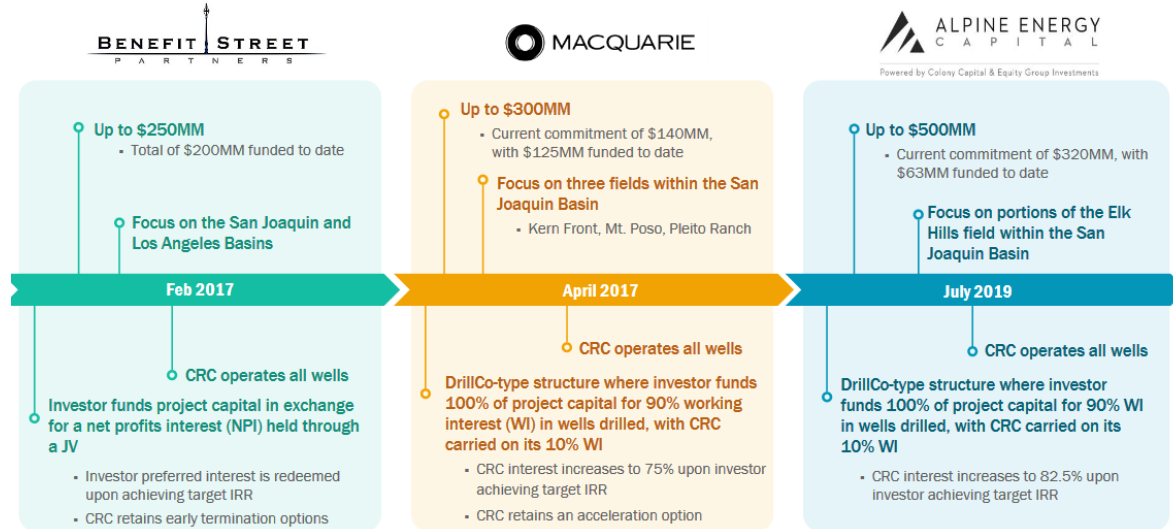
BCF projections vs. Consensus						
	BCF			Consensus (Mean)		
	2019E	2020E	2021E	2019E	2020E	2021E
Revenue	2,932	3,016	3,091	2,488	2,317	1,970
% Growth		2.9%	2.5%	(18.8%)	(6.9%)	(15.0%)
COGS	907	949	996	989	1,015	
% Growth		4.7%	5.0%	(30.1%)	2.7%	
SG&A Expense	300	304	308	321	320	
% Growth		1.2%	1.6%	7.2%	(0.2%)	
Exploration Expense	33	28	28	38	36	
% Growth		(14.7%)	0.0%	11.0%	(4.6%)	
EBITDA	1,067	1,346	1,275	1,016	877	816
% Growth		26.1%	(5.3%)	(20.3%)	(13.7%)	(6.9%)
D&A	481	520	520	480	493	
% Growth		8.1%	0.0%	(4.4%)	2.7%	
EBIT	586	826	755	535	602	414
% Growth		40.8%	(8.6%)	(30.8%)	12.6%	(31.3%)
Tax Rate	0.0%	0.0%	10.0%	0.0%	0.0%	
Net Income	258	287	143	66	40	(170)
% Growth		11.2%	(50.2%)	8.0%	(38.5%)	(518.5%)
EPS	\$5.26	\$5.85	\$2.91	\$2.05	\$1.90	(\$3.61)
% Growth		11.2%	(50.2%)	61.1%	(7.0%)	(289.7%)

## Final Target Price Calculation

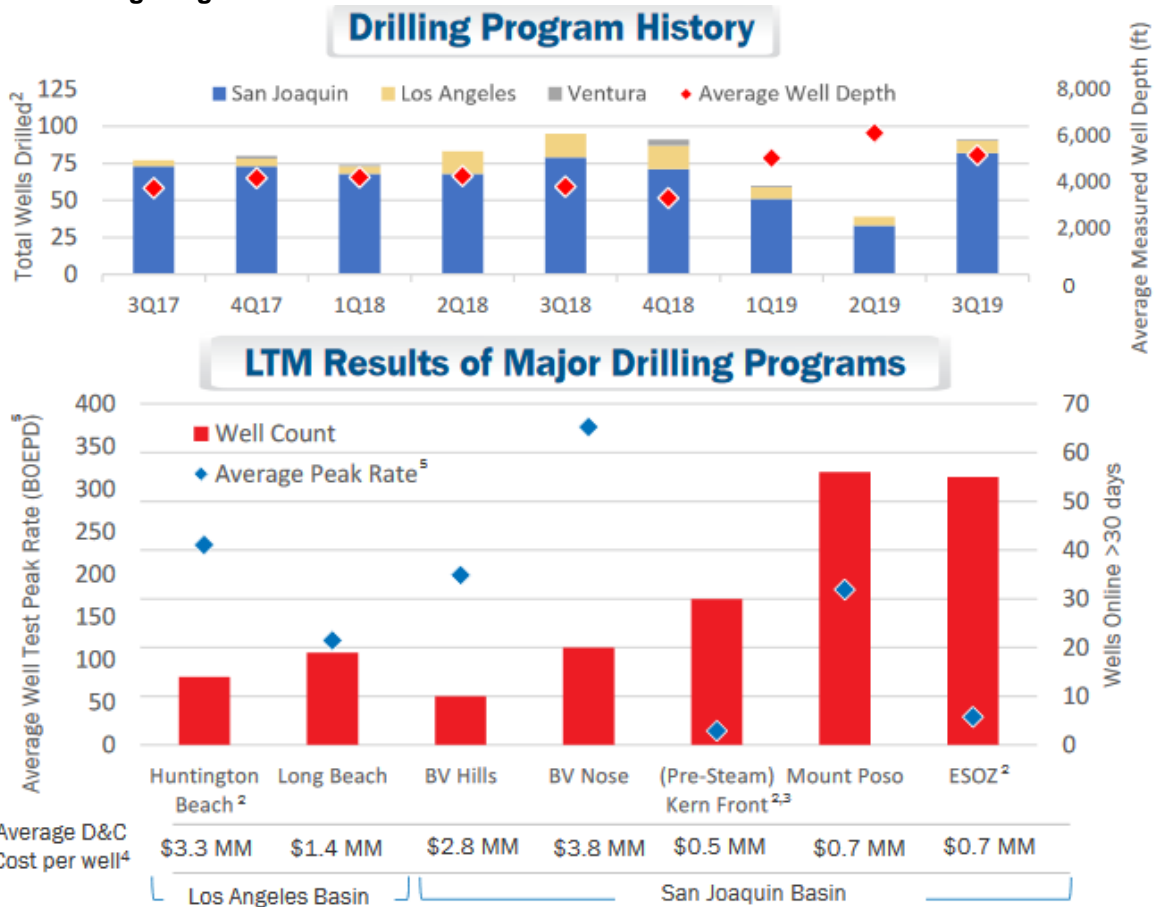
Target Price Calculation		
	Price	% Weight
CompCo	\$7.62	25%
DCF	\$0.11	75%
<b>Target Price (Base)</b>	<b>\$2.0</b>	
Current Share Price	\$9	
<b>Downside</b>	<b>-77%</b>	
Consensus Price Target	17	
Different from Consensus	-88%	
Consensus Rating	3 Buy/ 3 Hold / 1 Sell	

**Appendix, Company slides:**

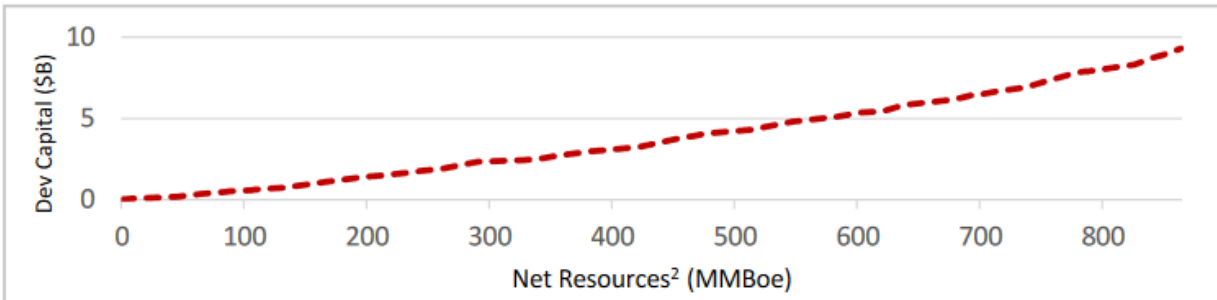
**JV partners:**



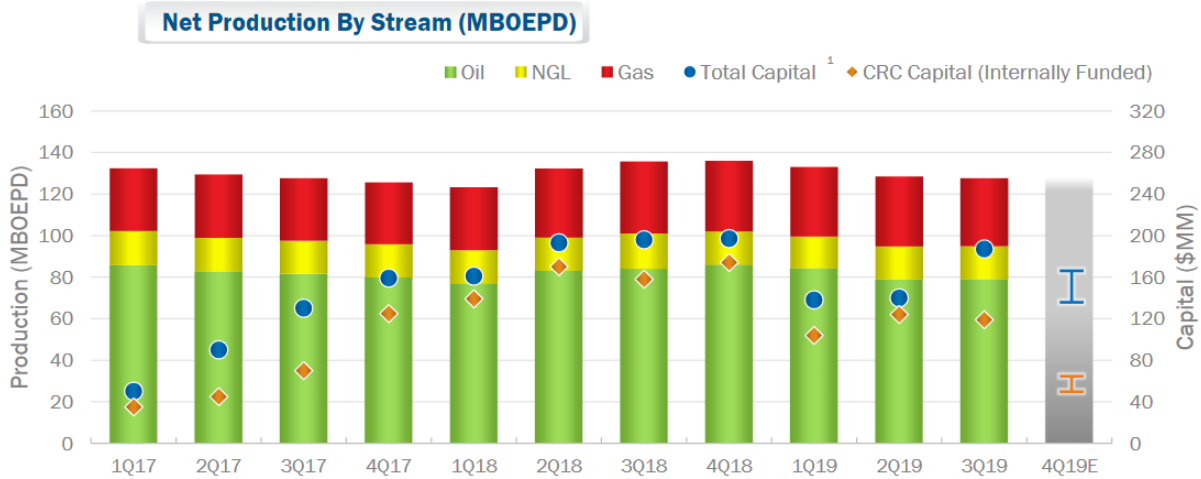
**CRC Drilling Program:**



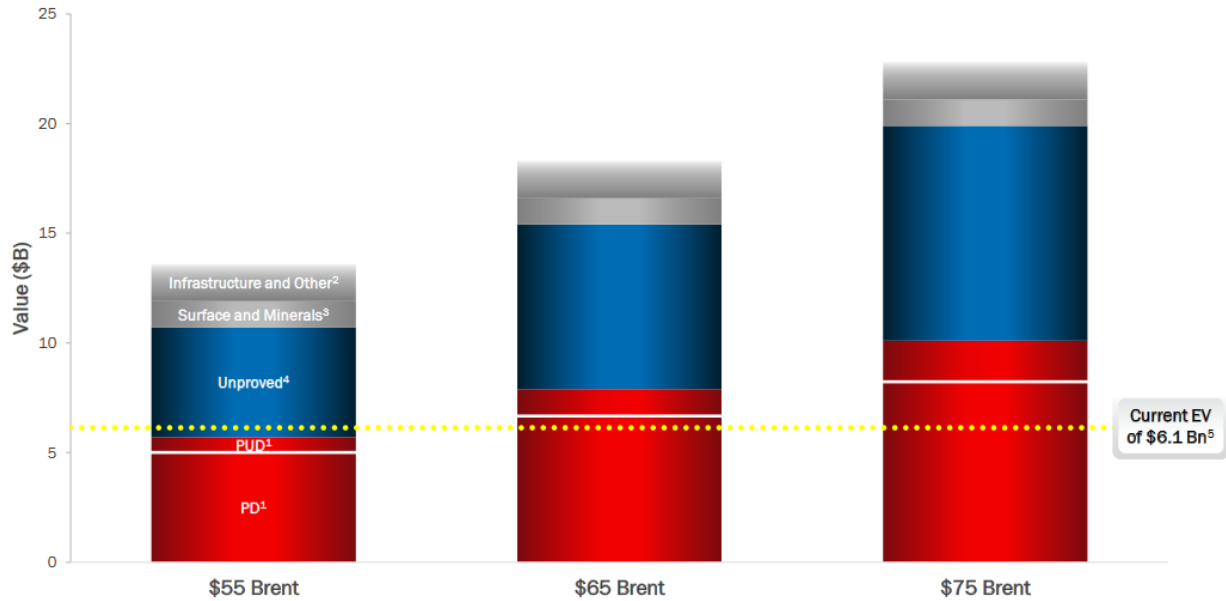
**Required CAPEX:**



**Sources of CAPEX (JV vs CRC CAPITAL)**



**CRC Reserve Base:**

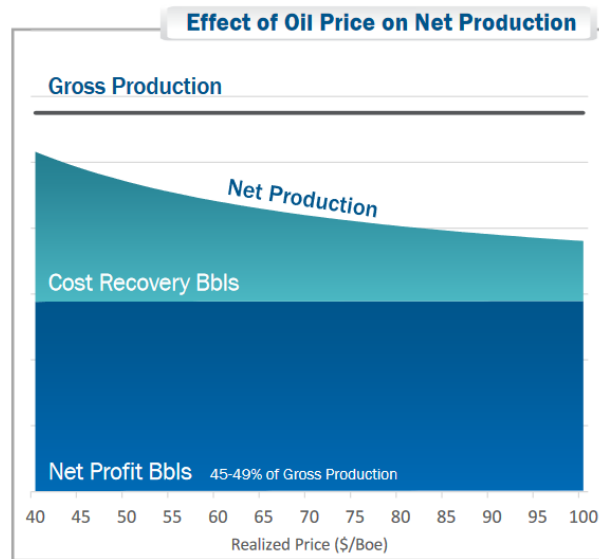


**Example PSC Contract:**

**Wilmington Production Sharing Contracts**

- Over 25% of CRC's oil production is subject to Production Sharing Contracts
- PSC Mechanics
  - CRC pays our partners' share of the Operating and Capital Cost
  - CRC recovers our partners' portion of the cost in barrels
  - CRC receives 45-49% of the gross production as "Profit Barrels"
- As prices rise, fewer barrels are required to recover our partners' portion of the cost

**Higher oil prices result in higher cash flow, but lower net production**



## Disclosures

### Babson College Fund

The Babson College Fund (BCF) is an academic program in which selected students manage a portion of the Babson College endowment. The program seeks to provide a rich educational experience through the development of investment research skills and the acquisition of equity analysis and portfolio management experience. Please visit <http://cutler.babson.edu> for more information.

### Definition of Ratings

**BUY:** Expected to outperform the S&P 500 producing above average returns.

**HOLD:** Expected to perform in line with the S&P 500 producing average returns.

**SELL:** Expected to underperform the S&P 500 producing below average returns.

### References

FactSet  
Capital IQ  
Thomson/Reuters Eikon  
Bloomberg  
Company Investor Relations Materials  
Various Analyst reports  
JP Morgan analyst  
Barclays Analyst  
Company Investor Relations

### Analyst

Eduardo Coser  
[ecoser1@babson.edu](mailto:ecoser1@babson.edu)

George Massey  
[gmassey1@babson.edu](mailto:gmassey1@babson.edu)

Isabelle Tabak  
[itabak1@babson.edu](mailto:itabak1@babson.edu)