I’d like to remind everyone that the idea I’m about to present is an existing position in our portfolio. We may close out our position at any time.
Core Lab is an oilfield service business that helps energy companies analyze their reservoirs, and increase their oil and gas recovery.

It has a $5 billion market cap.

Core Lab has two segments: Reservoir Description and Production Enhancement.

Reservoir Description is an asset-light, lab-based business that analyzes reservoir rocks and fluids.

Core is considered the technological leader in the field, and in 2016 this segment accounted for 71% of revenues.

Major oil companies who do much of this work in-house rely on Core for analysis of their most complex reservoirs, where Core has earned a reputation for being best in class.

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*Image used with permission of Warren Miller; The New Yorker Collection/The Cartoon Bank.*
The segment’s revenues and margins have been fairly stable because it specializes in multi-year projects, especially offshore and deepwater.

Source: Bloomberg LP, retrieved May 5, 2017. Segment descriptions from CLB 2016 Form 10K. Reservoir Management reassigned to other segments as described on Slide 9.
Production Enhancement provides tools and services related to well completion and production.

In 2016 this segment generated 29% of revenue.

Source: Bloomberg LP, retrieved May 5, 2017. Segment descriptions from CLB 2016 Form 10K. Reservoir Management reassigned to other segments as described on Slide 9. Image used with permission of Zachary Kanin; The New Yorker Collection/The Cartoon Bank.
This business sells perforating guns and charges primarily to frackers, and offers well diagnostic services to global E&P companies.

Guns and charges are a competitive market in which Core competes against Titan, Schlumberger and others.

Over two-thirds of this segment’s revenue comes from products rather than services, which makes Production Enhancement a typical commodity-price-sensitive oilfield business.

Source: Bloomberg LP, retrieved May 5, 2017. Segment descriptions from CLB 2016 Form 10K. Reservoir Management reassigned to other segments as described on Slide 9.
Production Enhancement is the smaller and less profitable part of the business.

Source: Bloomberg LP, retrieved May 5, 2017. Segment descriptions from CLB 2016 Form 10K. Reservoir Management reassigned to other segments with Reservoir Description receiving 75% and Production Enhancement receiving 25%.
Core Lab is not cheap. On consensus estimates, the stock trades at 35x next year’s earnings and nearly 27x 2019 estimates.

Massive premium

<table>
<thead>
<tr>
<th>Name</th>
<th>2018e</th>
<th>2019e</th>
<th>Prior Peak</th>
<th>2018e</th>
<th>2019e</th>
<th>Prior Peak</th>
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<tr>
<td>Schlumberger</td>
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<td>16.0x</td>
<td>12.9x</td>
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<tr>
<td>Baker Hughes</td>
<td>34.2</td>
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<td>14.1</td>
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<td>16.9</td>
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<td>Oceaneering Intl.</td>
<td>n.m.</td>
<td>28.8</td>
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<td>40.3</td>
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<tr>
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<tr>
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<tr>
<td>Average</td>
<td>40.1x</td>
<td>19.8x</td>
<td>9.0x</td>
<td>25.9x</td>
<td>13.5x</td>
<td>6.7x</td>
</tr>
<tr>
<td>Core Lab</td>
<td>35.0x</td>
<td>26.8x</td>
<td>19.4x</td>
<td>29.1x</td>
<td>21.5x</td>
<td>14.9x</td>
</tr>
</tbody>
</table>

And it trades at a massive premium to its oilfield service peers – more than twice the multiple of prior peak earnings.

Two reasons bulls give to justify this are Core’s seemingly secular growth, and its industry-leading Return on Invested Capital (ROIC).

Source: Bloomberg LP, retrieved May 5, 2017. Peer constituents selected in the sole discretion of Greenlight. 2018 P/E presentation excludes Oceaneering Intl ratio of 129.5 in the sole discretion of Greenlight as this is not a meaningful figure for investors.
The great thing about high-return businesses is you can compound your earnings by reinvesting your profits at high returns.

Core is a non-capital-intensive business. Analytically, the ROIC in a non-capital-intensive business is irrelevant, because you can’t reinvest your profits to grow your earnings at the stated ROIC. Core could have twice as much lab equipment without gaining any new customers.

It is flawed to value the stock based on its “industry leading ROIC.”

Image licensed under a Creative Commons Attribution-NonCommercial 2.5 License.
As for the secular growth, we think this is a misunderstanding that dates back to 2009, and still persists today.

_Bizarro_ used with permission of Dan Piraro, King Features Syndicate and the Cartoonist Group. All rights reserved.
Let’s look at the last cycle.

When the oil price briefly collapsed in 2008, the revenue of most oil field service companies collapsed along with it.

Core’s revenue fell too, but only barely and much less than others in the industry. Core managed to maintain sales and even grow margins. Subsequently, revenues and margins continued to climb.

Faced with this dissonance, analysts needed an explanation. And the one they came up with was wrong.

Core’s stability through the down-cycle followed by growth in the recovery gave the false impression that Core is a secular growth company.

_Bizarro_ used with permission of Dan Piraro, King Features Syndicate and the Cartoonist Group. All rights reserved.
A “secular growth” story

FBR, July 2013: “CLB is one of the most attractive secular growth stories as its core competency of improving reservoir recovery fits in the sweet spot of our technology thesis.”

RBC, April 2014: “The company continues to establish itself as one of the best secular growth stories in the oilfield service sector with a suite of technologies geared toward the exploration and development of offshore and onshore unconventional oil plays with out-sized leverage to deep water field development.”

Morgan Stanley, September 2013: “Given our expectation for long-term secular growth, we believe the appropriate valuation methodology for CLB is discounted cash flow analysis. This differs from most of the stocks in our coverage universe, which we value on multiples (typically P/E and EV/EBITDA) because they tend to exhibit cyclical rather than secular growth.”

Analysts began hyping the company as a “secular growth story” generally immune to oil price volatility.
Investors agreed and re-rated Core to a non-cyclical growth stock multiple.

Core became a market darling and its valuation diverged sharply from other global oilfield service companies.

Analysts were so convinced that at year-end 2014, after oil prices had already been cut in half, they still projected that Core could maintain earnings through the downturn.

The analysts and their projections were wrong.

And though a 74% decline in earnings over two years should have made analysts and investors reconsider the narrative, they haven’t.

Instead they continue to value the company as a secular grower.

In reality, Core is a cyclical business whose particular product suite was less affected by the 2009 downturn than other companies in the industry. Core was in the right place at the right time in the last cycle, but not this time.

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www.dayspring.com
Like all oilfield service businesses, Core has two primary revenue drivers:

One is the price of oil, which we will come back to later.

The other is the end markets where investment dollars are being spent.
Reading the annual reports, you’d conclude that Core Lab happens to be steeped in the hottest parts of the energy market in any given year.

Let’s have a look.
2007

Core will continue to emphasize execution of its time-proven strategies to produce additional growth internationally and in the natural resource plays of North America, which include the Canadian oil sands, as well as tight-gas sand and gas-shale reservoirs.

At the end of 2007, when natural gas prices were spiking, Core’s “time proven strategy” was about exploration in Canadian oil sands, tight gas sand, and shale gas reservoirs.

Over the past seven years, we have focused on international crude oil developments to capitalize on our peak-oil theory [...] The Company has focused on international development and production-related crude oil projects almost to the exclusion of more cyclical, exploration-related activities.

By 2009, Core reframed its history, forgot about natural gas, and said that for the last seven years it had focused on international development and production related crude-oil projects “almost to the exclusion of more cyclical, exploration-related activities.”

2011

Our continued focus on international crude-oil-related developments and unconventional oil from shale reservoirs enabled Core’s earnings per share growth to outpace almost all energy-related entities and industrial companies.

At the end of 2011 when shale was the market darling, Core’s “continued” international crude oil focus morphed to include shale.

The Company’s laser focus on international crude oil related developments, especially those located in deepwater, continue to serve our shareholders well [...] Core Laboratories will continue to laser focus its attention on worldwide deepwater developments, and that will position us very well for success and growth over the next decade.

A year later shale was out, and Core had a laser focus on international deepwater oil, which it promised investors would position the company for growth over the next decade.

In 2013, shale came back everywhere. Not just in North America, but in the U.K., Russia, North Africa, the Mideast, China, Australia, and “other places.”

2014-2015

Our continued focus on worldwide crude oil related and large natural gas liquefaction projects, especially those related to the development of deepwater fields off West and East Africa, the eastern Mediterranean region and increased activity in the Gulf of Mexico.

In 2014 and 2015, Core wanted us to be sure that it wasn’t missing out on the liquefied natural gas, or LNG, boom.

Reading Core’s annual reports is like opening a time capsule preserving the history of energy market hype.

You’d almost expect them to start talking about machine learning.

Big data! Neural networks! AI!

“Finally, the fourth major trend deals with the use of big data, neural networks related to machine learning, artificial intelligence and data analytics to increase our clients’ efficiency and reduce cost in evaluating their reservoirs.”

Core CEO David Demshur, Q1 2017 earnings call

Oh...

Source: April 20, 2017 Q1 2017 CLB earnings call.
Hype aside, let’s look at where Core actually makes money.

Image used with permission of Richard Cline; The New Yorker Collection/The Cartoon Bank.
The GAAP reporting understates Core’s foreign exposure because when Core sends fluids from a well in offshore Angola to its labs in Houston, it counts it as U.S. revenue.

In earnings calls and company reports going back to 2009, Core says 70% or more of its revenue *originates* from reservoirs outside the U.S., and last year it was closer to 80%.

Source: Revenues by region from:
- October 22, 2009 Q3 2009 CLB earnings call
- September 7, 2011 Barclays CEO Energy Power Conference
- December 4, 2012 Dahlman Rose & Co Ultimate Oil Service & E&P Conference
- January 31, 2013 Q4 2012 CLB earnings call
- October 23, 2014 Q3 2014 CLB earnings call
Remember, Core is best positioned in the most complex reservoirs, so it is no surprise that deepwater drilling is its most important end market.

Source: CEO David Demshur at Barclay’s Americas Select Franchise Conference held on May 21, 2013.
Core to the core

“So if you want to characterize Core Lab in a statement, we tend to work for big companies in big fields outside the U.S.”

David Demshur, May 2013

Core is a company whose prime customers are big companies in big fields outside the U.S.

Source: CEO David Demshur at Barclay’s Americas Select Franchise Conference held on May 21, 2013.
Fundamentally, Core is tied to capital spending outside of North America.

Image used with permission of Mick Stevens; The New Yorker Collection/The Cartoon Bank.
International crude-oil projects come with multi-million dollar budgets and typically last for several years, which makes them less susceptible to the short-term volatility of commodity prices.

When oil prices collapsed in 2008, capex outside North America barely fell. Oil quickly recovered above $90 a barrel in 2009 on its way to $100, where it hovered for the next four years. This led to a flurry of international capital spending.

And because Core’s business is tied to this, its revenue held up in the down-cycle and then grew in the recovery right along with capex outside North America.

In this down-cycle, oil prices have fallen further and stayed down longer. Foreign capex has collapsed and this time, so have Core’s revenues.

Unlike its more U.S.-focused peers, Core was riding the international capex cycle all along.

It was never a secular growth story.

Image used with permission of J.B. Handelsman; The New Yorker Collection/The Cartoon Bank.
With today's oil price outlook, there are fewer new multi-million dollar, multi-year, international deepwater projects that benefitted Core in the last cycle.

These are some companies with heavy offshore exposure.

Clearly the market understands the outlook here.

These companies are crawling along the bottom, trading at very small multiples of prior peak earnings, because that capital spending is not poised to recover anytime soon.

Offshore spending, which today generates close to 50% of Core’s revenues and even more of its profits, is likely to decline for years to come.

And it’s here where Core really needs a recovery to make its story work.

Leaders of Schlumberger and Halliburton point out that only North American shale investment is growing.

This is a problem for Core because North America isn’t a big opportunity in the high-margin Reservoir Description segment.

Shale doesn’t have complex reservoirs so there’s little need for the ultra-high tech services that Core specializes in.

While a 1,000 foot core from deepwater offshore West Africa is a $2-$3 million opportunity, a similar core from North American shale generates only one-tenth the revenue.

Source: April 20, 2017 Q1 2017 CLB earnings call.
What Core really needs is more deepwater drilling to generate more high-margin rocks to analyze.

Unfortunately for Core, its opportunity in shale is mostly in the lower margin Production Enhancement segment where it sells really big guns in a competitive market.

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Image used with permission of Dan Abromowitz and Eli Dreyfus; The New Yorker Collection/The Cartoon Bank.
“The Company continues to benefit from increasing activity in the U.S. as Core’s land revenue in its Production Enhancement segment increased 32% on a sequential quarterly basis.”

CLB Q1 2017 earnings release

Still, Core management knows a sexy number when it sees one, so in Core’s last earnings release, the company trumpeted its 32% sequential growth in the U.S. land portion of its Production Enhancement segment.

Source: CLB Q1 2017 earnings release on April 19, 2017.
But this is such a small percentage of its business that Core doesn’t even disclose it.

Core bragging about a 32% increase on what we estimate to be 10-15% of its total revenue is a bit like Congress bragging about a 32% increase in its approval rating.

Of course, the sell side is confused. UBS mistakenly thinks U.S. shale is 30-35% of revenues.

Core’s business is not a secular growth story.

Like every other oilfield service company, Core always was, and remains, a cyclical business.

And this time around, it’s exposed to the least desirable part of the sector.

For it to recover, it needs much higher oil prices – the kind that will bring back the most adventurous offshore and foreign exploration efforts.

"Sometimes the future is bright, sometimes it’s dark—it’s all cyclical.”

Image used with permission of Frank Cotham; The New Yorker Collection/The Cartoon Bank.
Core CEO David Demshur knows this, and he’s happy to tell you where oil prices are going.

As a peak oil guy, he’s convinced oil prices can only go one way.

Source: February 2015 EnerCom Oil and Services Conference.
In January 2013, he said that robust economic growth could push Brent back to $150 a barrel. A year later, he called for it to stay above $100.

In October 2014, with oil plunging, he called for a return to early-2014 levels by early 2015.

Nine months later, he called the bottom, added that oil couldn’t go below $40 and called for Brent to be above $80 by the end of 2015.

Brent finished the year at $36.

And in July 2016, Demshur switched from being an oil expert to a technical analyst, arguing that once oil breached the $50 resistance it would move into the 60-dollar range.

Source:
• January 31, 2013 Q4 2012 CLB earnings call: “If we get some robust economic growth around the world, we’re going to see crude prices, Brent prices, right back at 150.”
• January 30, 2015 Q4 2014 CLB earnings call: “So our outlook is that Brent stays north of $100, and for 2014 going forward, spare capacity becomes less and less.”
• October 23, 2014 Q3 2014 CLB earnings call: “We believe crude oil markets will balance early in 2015 with crude oil prices strengthening to earlier 2014 levels.”
• July 28, 2015 David Demshur interview on Mad Money: “Don’t think [sub-40 WTI] is a distinct possibility”; “I think we will see WTI somewhere between $70 and $80 by year-end... We are bottoming right now on crude oil prices” available at https://www.youtube.com/watch?v=4p8tMOYDoEo.
• July 20, 2016 David Demshur interview on Mad Money: “Once oil breaks through $50, it will go to $60-range” available at https://www.youtube.com/watch?v=G4Yk_GhMNMU.
In the company’s most recent earnings call, Core claims to have called the bottom of what it insists will be a V-shaped recovery.

Source: CLB Q1 2017 earnings release on April 19, 2017.
And not for the first time.

David Demshur has been calling for a V-shaped recovery since early 2015 when oil was at $48 and he said we’d see the recovery in late 2015.

If he’s right this time, he will have called seven of the last one bottoms.

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Source: Bloomberg LP pricing, retrieved May 5, 2017 and:

- January 30, 2015 Q4 2014 CLB earnings call: “As was the case in 2009, Core sees a V shaped recovery starting to occur in late 2015, and that echoes comments from Harold Hamm most recently.” ; “So, that’s why we are predicting as we did back in 2008-2009 as a V-shaped recovery.”
- April 23, 2015 Q1 2015 CLB earnings call: “Core sees a V shaped recovery led by higher commodity prices and then shortly there followed by increased worldwide drilling activities in the start--in early 2016.”
- July 23, 2015 Q2 2015 CLB earnings call: “Core sees the V-shape recovery, led by higher commodity prices and followed by worldwide drilling activities, starting to increase in early 2016.”
- October 22, 2015 Q3 2015 CLB earnings call: “Core continues to see a V-shaped recovery getting underway in 2016. The industry is still on the left hand side of this V going into Q4 perhaps with activity upticks in early 2016.”
- April 21, 2016 Q1 2016 CLB earnings call: “Therefore, our second quarter 2016 results should mark the bottom of our anticipated V-shaped commodity recovery that should lead to increased crude oil prices followed by increased industry activity levels.”
- July 21, 2016 Q2 2016 CLB earnings call: “Therefore, our second quarter 2016 results should mark the bottom of our anticipated V-shape worldwide commodity recovery, followed by increased crude oil prices and expanded industry activity levels worldwide.”
- January 26, 2017 Q4 2016 CLB earnings call: “As projected by Core in early 2016, the third quarter of 2016 marked the bottom of the V-shaped recovery which is now underway. This recovery should continue to strengthen, with higher commodity prices and subsequent activity levels as 2017 progresses.”
In fact, we don’t believe there is a V-shaped recovery – certainly not in oil prices.

Image used with permission of www.cartoonstock.com.
Sometimes, if the V you hoped for doesn’t occur, you create your own V. Look at this graphic from the annual report published last week. You’d think the price of oil had recovered.

It might surprise Core to learn that when you start at $79 and finish at $55 you are lower than where you began.

Following that theme, analysts are calling for a V-shaped recovery in Core’s revenues over the next four years.

We don’t see any such thing.

We think Core is likely to miss. With its dependence on offshore and international capex, Core should underperform some of the same North American oriented peers that it outperformed last time.

Source: Greenlight estimates. CLB consensus revenues and margin from Bloomberg LP, retrieved May 2017.
Taking all of this together: we expect Core’s earnings to disappoint over the next few years.

On our estimates, Core is trading at over 36x 2019 earnings.

Source: Greenlight estimates. CLB consensus earnings per share from Bloomberg LP, retrieved May 2017.
Looking at the 10-year history, it’s arguable that there is no secular earnings growth here. A generous valuation would be a market multiple on mid-cycle earnings of $3.50, which we don’t think Core is likely to obtain until at least 2021. This gets us a fair value of $62 or 45% below today’s price.

At current prices investors are paying a peak multiple for earnings that are poised to disappoint.

And investors aren’t the only ones overpaying.

Image used with permission of Bruce Eric Kaplan; The New Yorker Collection/The Cartoon Bank.
Just as Kanye loves himself...

...David Demshur seems to love his stock at any price.
Over the past upcycle, Core bought back stock every quarter, apparently regardless of share price and operational outlook. Core even resorted to drawing on its revolver to fund more buybacks, a practice that continued as late as 2015, even as peers were preparing their balance sheets for a protracted downturn.

Buy high / Sell low

MARKET NEWS | Wed May 11, 2016 | 8:48pm EDT

BRIEF-Core Lab prices upsized public offering of 1.5 mln share

By mid-2016, Core was forced to reverse course and sell equity to avoid tripping an EBITDA covenant that could have put its dividend at risk.

From 2012 through 2015, we estimate Core issued roughly $230 million in debt to purchase stock at an average price of $144 per share; then in 2016 Core sold $200 million in stock at $118 per share to repay that debt.

Source: Greenlight estimates and calculations using Bloomberg data on net borrowings, cash spent on share repurchases, and CLB’s average price each quarter using beginning and ending prices.
Core also likes to pay a dividend. For the last 5 quarters, rather than cut the dividend, the company has paid out more than it has earned.

It has funded the shortfall by selling stock.

When a company raises fresh money from new investors to sustain the income requirements of existing investors, there is a name for that.