CANACCORD Genuity

To us there are no foreign markets."

Canadian Equity Research 10 May 2018

10 1010 2010

SPECULATIVE BUY

| PRICE TARGET Price (8-May) Ticker | C\$1.50 C\$0.57 GIII.CA-TSXV | |
|---|------------------------------------|-------------|
| | •)- | 0.54.0.00 |
| 52-Week Range (C | \$): | 0.51 - 0.98 |
| Avg Daily Vol (000s | 5) : | 79.3 |
| Market Cap (C\$M) | : | 38.1 |
| Shares Out., Basic | + Dil. (M) : | 66.8 |
| Proforma Shares 0 | ut., Basic : | 143.9 |
| Enterprise Value (| C\$M): | 32.6 |

| FYE Dec | 2018E | 2019E | 2020E |
|------------------------------|--------|-------|-------|
| Sales ¹ (C\$M) | 0.0 | 55.3 | 160.4 |
| EV/Sales (x) | NA | 2.2 | 0.4 |
| EV/EBITDA (x) | NA | 4.4 | 0.8 |
| EBITDA Adj (C\$M) | (3.8) | 27.1 | 85.3 |
| EPS pf (C\$) | (0.06) | 0.08 | 0.33 |
| P/E (x) pf | NA | 7.3 | 1.7 |
| Net Debt (Cash) pf (C\$M) | (16) | 24 | (52) |

¹Estimates assume plant is commissioned in Q3/19E. Proforma estimates assume total financing of \$120 million raised through equity (80 MM shares at \$0.60/sh) and debt (\$72 million) in Q3/18. EV multiples calculated using average forward net debt estimates.



Priced as of close of business 8 May 2018

Gen III Oil Corporation (GIII:TSX-V) is an oil processing company currently developing a proprietary technology to recycle used oil into feedstock for synthetic-grade motor oils. In doing so, Gen III hopes to capitalize on the growing trend toward synthetic motor oils. The company was founded on September 27, 1984 and is headquartered in Vancouver, Canada. Kimberly Hedlin | Associate Analyst | Canaccord Genuity Corp. (Canada) | khedlin@canaccordgenuity.com | 1.403.508.3854

Initiation of Coverage

An industry-disrupting oil change

We are initiating research coverage of Gen III Oil Corporation (Gen III) with a SPECULATIVE BUY recommendation and a C\$1.50/sh target price. Gen III is developing a proprietary disruptive technology, known as ReGen[™], to recycle used oil into feedstock for synthetic-grade motor oils. In doing so, Gen III hopes to capitalize on growing demand for premium Group III base oil and a supply shortage in North America (filled by ~13,000 b/d of imports). The re-refinery will be located 100 km north of Calgary, AB, on the site of an idle refinery. With processing capacity of 2,800 b/d, the plant is expected to produce 1,400 b/d of Group III base oil, which currently sells for ~\$275/bbl. If the company can secure project financing, we believe it has the potential to generate significant returns for shareholders. The top reasons for our SPECULATIVE BUY are as follows:

- Industry-disrupting technology substantially de-risked. To date, over \$37 million
 has been invested by patent holders to de-risk the ReGen[™] technology. Numerous
 engineering studies have validated the technology and, quite significantly, Stantec
 (STN:TSX, \$32.79 | HOLD, covered by Yuri Lynk) has provided a process guarantee.
 Gen III has partnered with other industry leaders and has signed a non-binding debt
 term sheet for \$72 million; while the facility is not final, we believe it is a very positive
 indicator given that Stantec's FEED study is still underway. Finally, we believe the right
 management and strategy are in place to execute on this project.
- Low-cost, high-value production. The unique characteristic of ReGen[™] is its ability to produce high volumes of Group III base oils at a low cost through solvent extraction. We are forecasting steady-state EBITDA margins of 50-55% on \$190 million in revenues. Moreover, owing to its cost advantages, Gen III estimates that its Group III margins will be 60% higher than its closest refining competitor.
- Attractive market conditions. In our view, local market conditions for Group III oil are quite attractive, characterized by high prices (\$275/bbl), growing demand (>3%/year), local supply shortages (estimated at 75%), high barriers to entry, and stable margins. Used motor oil (UMO) is an abundant and inexpensive feedstock, and we expect that its use in an eco-friendly product should appeal to a broad range of stakeholders.
- **Potential catalysts**. In our view, the next major potential catalysts will be FEED study results and a construction quote in Q3/18. With greater project certainty, we believe these events should lower Gen III's cost of capital; current financing requirements are projected at \$120 million and we estimate that financing could close in Q3/18. Other potential catalysts over the next 12-18 months include UMO supply contracts, construction milestones, refinery commissioning and expansion opportunities.

Discounted valuation with attractive risk/reward profile

Using a DCF model (14.5% WACC and an assumed equity raise of \$48 MM at \$0.60/ sh), we arrive at an unrisked value of \$2.70/sh. We risk this by ~55% to arrive at our \$1.50/ sh target. We believe our estimates are conservative considering that HollyFrontier purchased its refinery at 5.2x EBITDA, versus our 2020E target multiple of 2.4x. Our target also correlates to a 2020E EV/sales multiple of 1.3x, which is in line with disruptive tech peers at 1.2x. Although our one-year target implies a potential return of 163%, we believe uncertainties surrounding financing and post-commissioning refinery performance warrant a speculative qualifier and additional risking.

Canaccord Genuity is the global capital markets group of Canaccord Genuity Group Inc. (CF : TSX)

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

For important information, please see the Important Disclosures beginning on page 65 of this document.

Gen III Oil Corporation

Process Industries

Figure 1: Corporate snapshot

Gen III Oil Corporation

http://www.geniiioil.com/

Avg daily volumes (000s)

| Reccommendation | |
|-------------------------------|-------------------------|
| Name | Gen III Oil Corporation |
| Ticker | GIII:TSX-V |
| Rating | Speculative Buy |
| Implied return | |
| Price (08-May-18) | \$0.57 |
| Target price | \$1.50 |
| Implied return | 163% |
| Size | |
| Shares outstanding (MM): | 63.7 |
| Shares fully diluted (MM): | 66.8 |
| Market capitalization (\$MM): | \$38.1 |
| Net debt/(cash) (\$MM) | -\$5.5 |
| Enterprise value (\$MM) | \$32.6 |
| Trading | |
| 52-Week high/low | \$0.98/\$0.51 |
| Avg daily volumes (000s) | 79 |

| Management | |
|--------------------------|---------------------------------|
| Gregory Clarkes | CEO & Chairman |
| Gordon Driedger, P.Eng | COO & President |
| Rick Low, CPA, CA | CFO |
| George Davidson, MBA | Executive Vice President |
| Mark Redcliffe, MBA, CMA | EVP, Corporate Finance |
| Denis Dionne, P.Eng | Process Engineer |

| Annual summary | 2018E | 2019E | 2020E | 2021E |
|----------------------------------|--------|--------------|--------|--------|
| Revenue (\$MM) | - | \$55 | \$160 | \$190 |
| Revenue growth | - | n/a | 190% | 19% |
| Refinery utilization | - | 27% | 78% | 90% |
| Average \$/barrel of refined UMO | - | \$4.47 | \$4.55 | \$4.67 |
| EV/Sales | - | 2.2x | 0.4x | nfm |
| Target EV/Sales | - | 4.7x | 1.3x | 0.7x |
| EBITDA (\$MM) | (\$4) | \$27 | \$85 | \$103 |
| Margin (%) | - | 49% | 53% | 54% |
| EV/EBITDA | - | 4.4x | 0.8x | nfm |
| Target EV/EBITDA | - | 9.5x | 2.4x | 1.4x |
| Earnings (\$MM) | (\$5) | \$ 12 | \$52 | \$66 |
| EPS | (0.06) | 0.08 | 0.33 | 0.42 |
| P/E | - | 7.3x | 1.7x | 1.3x |
| ROE | -10% | 16% | 68% | 44% |
| ROIC | -5% | 10% | 33% | 31% |
| FFO (\$MM) | (\$7) | \$19 | \$76 | \$77 |
| FFO per share | (0.08) | 0.13 | 0.49 | 0.49 |
| P/FFO | - | 4.5x | 1.2x | 1.2x |
| Long-term debt (\$MM) | \$72 | \$58 | \$43 | \$29 |
| Avg. net debt/CF | 1.8 | 1.8x | (0.3x) | (1.2x) |
| Interest payments (\$MM) | 3.5 | 8.3 | 6.4 | 4.6 |
| Quarterly earnings | 2018E | 2019E | 2020E | |
| Q1 | (0.01) | (0.02) | 0.08 | |
| Q2 | (0.02) | (0.02) | 0.08 | |
| Q3 | (0.01) | 0.02 | 0.07 | |
| Q4 | (0.02) | 0.08 | 0.10 | |

*Per share estimates use proforma shares. EV calculated using projected avg. net debt

| Significant shareholders | |
|--|--------------------|
| Institutions | % |
| StoneCastle Investment Management, Inc. | 0.5% |
| Insiders / Stakeholders | 12.3% |
| Gregory Clarkes | 5.9% |
| John Detmold | 3.0% |
| Others | 3.4% |
| Company description | |
| Gen III Oil Corporation (GIII:TSX-V) is an oil proce | ssing |
| company currently developing a proprietary tech | nology to |
| recycle used oil into feedstock for synthetic-grad | de motor |
| oils. In doing so, Gen III hopes to capitalize on th | ne |
| growing trend toward synthetic motor oils. The c | ompany |
| was founded on September 27, 1984 and is | |
| headquartered in Vancouver, Canada. | |
| Price (CAD) | Volume |
| \$1.10 T | (000's) - r 800 |
| \$1.00 + | - 700 |
| \$0.80 \$ \$ \$ | - 600 |
| \$0.70 JA WAVN NUMPAN 1 | |



Source: FactSet

Source: Company Reports, Canaccord Genuity estimates, FactSet

Gen III is developing a disruptive technology to recycle used oil into feedstock for synthetic-grade motor oils

Initiating coverage with SPEC BUY rating and C\$1.50/sh price target

Gen III Oil Corporation (Gen III) is a Vancouver-based company currently developing a proprietary disruptive technology to recycle used oil into feedstock for synthetic-grade motor oils. In doing so, Gen III hopes to capitalize on the growing trend toward premium motor oils and a supply shortage of these oils in North America.

The company is in the process of designing a re-refinery 100 km north of Calgary, AB, on the site of Parkland Fuel's (PKI-TSX: \$30.89 | BUY, covered by Derek Dley), idle Bowden Refinery. The plant is expected to process 2,800 b/d of used motor oil (UMO), yielding 50% premium Group III base oils, along with lower-value Group II base oil (25%), ULS diesel (8%), naphtha (1%) and asphalt (13%).

Figure 2: Bowden Refinery site, including proposed site design for re-refinery



Source: Company Reports

Gen III could become the second largest Group III base oil producer in North America Assuming production at the Bowden facility meets expectations, Gen III could become the second largest Group III base oil producer in North America. Group III base oils are considered high quality and can be marketed as synthetic-grade oils depending on their purity and performance. Current prices for the company's closest comparable are US\$5.10/gallon, or ~\$275/bbl (Figure 3).

Figure 3: Base oil comparison

| API base oil | Sulphur | Saturates | Viscosity | | N.A. price | Refining | |
|--------------|--------------|-----------------|------------|-------------------------|---------------|----------------|--------------------|
| category | (%) | (%) | Index | Quality | (US\$/gallon) | process | Primary uses |
| Group I | >0.03 | <90 | 80-120 | Lower | \$3.30 - 3.65 | Solvent | Marine, industrial |
| Group II | < 0.03 | >90 | 80-120 | | \$2.74 - 4.00 | Hydtrotreated | Motor oil |
| Group III* | <0.03 | >90 | >120 | $\overline{\mathbf{v}}$ | \$3.18 - 5.18 | Hydrocracked | Premium motor oil |
| Group IV* | Poly-alpha-o | lefin synthetic | lubricants | Higher | | Gas to liquids | Premium motor oil |
| Group V | All | other base oil | S | | | Various | Various |

* considered synthetic grade

Source: Source: Company Reports, Lubes'n'Greases U.S. Base Oil Price Report, American Petroleum Institute API 1509 Appendix E, http://www.selectsynthetics.com/base-oil-groups.html

With a current share price of \$0.57 and market capitalization of \$38 million, Gen III is trading at a substantial discount to our unrisked per-share value of \$2.70. We are initiating research coverage with a SPECULATIVE BUY recommendation and C\$1.50/share target. While our one-year target implies a potential return of 163%, the key risk to our target price will be the company's ability to finance the Bowden rerefinery, along with post-commissioning operating performance. These risks are the basis for our SPECULATIVE qualifier.

In the following section we outline the top reasons for our SPECULATIVE BUY recommendation.

1. Industry disrupting technology substantially de-risked

Since the company's proprietary ReGen[™] process was patented in 2005, over \$37 million has been invested by previous patent holders and Gen III (to a much lesser extent) to de-risk the technology. Work by previous patent holders included a 5 b/d pilot plant which ran for over 6,000 total hours, along with numerous engineering studies that validated the technology.

The ReGen[™] technology has been validated through 6,000 hours of pilot plant testing and numerous engineering studies. We believe solvent extraction is the unique aspect of the process The company's three-stage Re-Gen[™] process is depicted in Figure 4. The patented process uses standard refining techniques such as distillation, solvent extraction, and hydroprocessing in the CSU, MSU and MTU, respectively. However, from a re-refining perspective, ReGen[™] is unique in its placement of solvent extraction ahead of hydroprocessing. The core patent, which covers a solvent extraction step between distillation and hydroprocessing, expires in 2025. Technological improvements made since then are protected through 2038.



We view Stantec's process guarantee as a major vote of confidence in the ReGen[™] technology

Since acquiring the ReGen™ patents in January 2017, Gen III has made significant progress toward commercializing its technology we believe it has a very high chance of succeeding. As part of its Front End Engineering Design (FEED) contract, Stantec Consulting has provided a process guarantee covering all three phases of the process. The process guarantee has a maximum remediation equivalent to all fees and bonuses paid to Stantec (plus specific lump sum guarantee fees from its subcontractors).

Gen III has also partnered with industry leaders such as:

- PCL Construction, a private construction company with over \$6 billion in annual revenues
- Koch Modular Systems (KMPS), a subsidiary of Koch Industries and expert in customized liquids-liquids extraction
- Process Dynamics (PD), the inventor of IsoTherming® hydroprocessing, a technology that was sold in part to DowDupont Inc. in 2007 (DWDP: \$64.33 | Not rated)
- Parkland Fuel, one of North America's fastest growing independent marketers of fuel and petroleum products

in Since acquiring exclusive rights to the ReGen[™] patents in January 2017, Gen III has made substantial progress toward commercializing the technology. Major milestones include:

- Completing pre-FEED studies in partnership with Stantec and WSP
- Securing a five-year offtake agreement with Elbow River Marketing (a subsidiary of Parkland Fuel)
- Signing a 20-year lease for the Bowden Refinery site
- Signing a letter of intent for a \$72 million credit facility
- Contracting PCL to construct the Bowden facility

The Bowden re-refinery is expected to be commissioned in mid-2019 with an estimated construction cost of ~\$90 million The company has also raised ~\$12.7 million in equity since 2017 at a weighted average price of \$0.35/share and range of \$0.10-0.70/share. Contingent on further financing, the plant is expected to be commissioned in mid-2019 with an estimated construction cost of ~\$90 million.

Gen III's technology partners have a high level of confidence that the technology can be scaled up

We do not expect movements in underlying WTI prices to materially impact project economics

We believe Gen III's management team has the experience needed to successfully implement the Bowden rerefinery project

In our view, insider holdings of 13% is a good indicator of shareholder and management alignment

Our discussions with Gen III's technology partners reveal a high level of confidence that the technology can be scaled up following successful laboratory and pilot testing. Selected quotes from the process designers include the following:

- Stantec (CSU phase designer): "Flash distillation and fractionation are industry standard technologies that can be computer modeled very accurately for all hydrocarbons. Because of this, a large-scale pilot is unnecessary."
- KMPS (MSU phase designer): "We have a high, high level of confidence that the process can be scaled up based on the samples we've received to date."
- PD (MTU phase designer): "Scale up is highly linear. Our predictions have born out in the field for over 20 years and we've seen scale ups of 160,000 times the pilot size. These pilots have all worked exactly as predicted."

Third time's the charm: management and strategy in place to execute

In our view, two previous attempts to commercialize the ReGen[™] technology did not bear fruit due to vertical integration strategies (i.e. UMO collection) that were adversely impacted by oil price collapses and unfavourable market conditions.

Overall, we do not expect movements in underlying WTI prices to have a significant impact on Gen III due to:

- The correlation between used oil feedstock and base oil prices,
- The relatively fixed nature of base oil differentials to WTI, and
- The growing demand and ongoing supply shortages for Group III base oils.

We believe the ReGen[™] technology has matured to the point of commercialization and that the right strategy and individuals are in place to execute on a commercial rerefinery. In our opinion, Gen III's newly appointed President and COO, Gordon Driedger, has impressive credentials and we expect his oversight will ensure a relatively smooth project.

In our view, there are project parallels with the mining industry; to that end, CEO Greg Clarkes was founder and director of Skye Resources Inc., a mining company that was sold to HudBay Minerals Inc. in 2008 for \$460 million. Clarkes is also Gen III's largest shareholder with 5.9% of basic shares outstanding and 2.5 million options.

Overall, we believe insider holdings of 13% and options (equivalent to 9% of the basic share count) are a good indicator of the alignment between management and shareholders. Full bios of management and the board of directors are presented in Appendix I and Appendix II.

2. Low-cost, high-value Group III production

As shown in the following Figure, the ReGen[™] process is expected to have cost advantages and high Group III yields relative to traditional refiners and re-refiners.

In our view, solvent extraction (placed between distillation and hydrotreatment) is the key differentiator, as it allows Group III base oil to be produced without costly hydrotreatment. Consequently, only 25% of original feedstock volumes should require hydrotreatment in the ReGen process[™]. Additionally, Gen III is planning to use a more efficient hydrotreatment process known as IsoTherming®, which is expected to reduce operating and capital costs.

| Virgin refining | Traditional re-refining | ReGen™ |
|------------------------------|------------------------------|----------------------------------|
| | Process | |
| Hydrocracking \$\$\$ | | |
| Distillation \$ | Distillation \$ | Flash distillation \$ |
| Solvent dewaxing \$ | | Solvent extraction \$ |
| Trickle bed | Trickle bed | lsoTherming® |
| hydrotreatment \$\$\$ | hydrotreatment \$\$\$ | hydrotreatment <mark>\$\$</mark> |
| | Output | |
| Group II | Group I | Group III - 50% |
| Group III 🧡 | Group II | Group II - 25% 🤍 |

Figure 5: Refining cost/output comparison

Source: Company Reports, Canaccord Genuity estimates

Given these dynamics, we are forecasting steady state EBITDA margins of 50-55% on ~\$190 million in revenues, which is well above large competitors Holly Frontier (NYSE: HFC | Not Rated) and Safety-Kleen (a subsidiary of Clean Harbours - CLH: US\$52.23 | HOLD, covered by Bobby Burleson). We believe our estimates are reasonable, as outlined below.

- Holly Frontier is North America's dominant Group III refiner with 4,000 b/d of Group III production. In 2017, it reported 11% EBITDA margins on its lubricant segment, which also produces Group II base oils and finished lubricant products. Looking just at its Group III production, HFC estimated EBITDA of \$38 million for every 1,000 b/d produced at its Mississauga refinery. By comparison, Gen III is forecasting \$61 million of EBITDA for every 1,000 b/d of Group III production, a 60% premium to HFC. Based on HFC's Group III margin projections, in conjunction with average Group III prices for 2017, we extrapolate 43% EBITDA margins for Group III production. In our view, this provides some comfort surrounding our 50% margin estimates, given that Gen III should have a lower production cost than HFC.
- **Safety-Kleen** is the world's largest used motor oil re-refiner. In 2017 it reported EBITDA margins of 23%¹. While not a perfect comparison, the company does produce Group II base oil from its re-refining operations. Extrapolating Safety-Kleen's EBITDA margins to a 2017 average Group III price, we arrive at a potential EBITDA margin of 56%. Again, while this is not a perfect comparison, we believe it supports our 50% EBITDA margin estimate.

We are forecasting steady state EBITDA margins of 50-55% given the low-cost nature of the ReGen[™] process

¹ EBITDA margin for Holly Frontier taken from 2017 Annual Report, p. 40, for Lubricants and Specialty Products Segment. For this segment, Holly Frontier reported negative rack back (i.e. refinery) EBITDA margins and 10.9% EBITDA margins on its finished lubricant products. Safety-Kleen's margin was taken from *Clean Harbours 2017 Annual Report* (p. 29). Clean Harbours owns Safety-Kleen and reported adjusted EBITDA of \$250 million on \$1,088 million in revenues for its Safety-Kleen business unit. Safety-Kleen is the largest re-refiner of used oil in the world, but also provides a broad range of environmental services. As such, neither company is a perfect comparison. However, we believe both showcase the relative strength of Gen III's margins.

In our view, the re-refining market conditions for synthetic-grade Group III oil are very attractive owing to high prices, high barriers to entry, low-cost feedstock, margin stability, limited buyer power, and sustainability characteristics

3. Attractive market conditions

In our view, the market conditions for re-refined Group III oil are very attractive, characterized by:

- **High prices.** At US\$5.10/gallon, or \$275/bbl, Group III base oils sell at a 65% premium to lower quality Group II base oils. This is a result of growing consumer demand for synthetic motor oils, an estimated undersupply of 75% for Group III base oil in North America, and high import costs. The Group III market also has significant barriers to entry, including high capital costs and R&D for re-refining.
- **Inexpensive feedstock**. Used motor oil is a low-value feedstock, with inexpensive substitutes and ample supply. Used oil pricing generally sells at a 40% discount to No. 6 diesel, plus freight.
- Margin stability. Given the correlation between base oil prices and UMO feedstock, gross margins tend to be stable. Over the last five years, margins over UMO have ranged from US\$3-4/gallon for Group III base oil and \$1-2/gallon for Group II. We note that these margins incorporate freight costs for an all-in discount of 15% to No. 6 diesel.
- **Limited consumer power.** Gen III will likely sell its end products to a fragmented group of independent buyers, with a growing preference for high quality base oil.
- **Eco-friendly product**. Only half of all used oil is collected and of that, half is consumed in the burner fuel market. In our view, re-refining is an environmentally friendly alternative to managing waste oil. As such, we believe the Bowden project should appeal to a broad audience of stakeholders.

These factors are outlined in the Market Overview section of this report.

4. Near-term potential catalysts

In our view, Gen III has a number of potential catalysts that should help de-risk the story over the next 12-18 months. These include project financing, design finalization, plant pricing, UMO supply contracts, and the construction and commissioning of the Bowden facility. We outline these potential catalysts in Figure 6.

| Potential catalysts | CG estimated timeline | Potential impact | Comments |
|-----------------------------|-----------------------------|---------------------|---|
| Used oil supply contracts | Q2/18 | Medium | Should address concerns surrounding feedstock supplies and potentially provide details on benchmark pricing and freight rates. |
| FEED study | Q3/18 | Medium | Stantec FEED study likely to include updated yield and cost estimates to provide further certainty surrounding project economics; greater project certainty should reduce Gen III's cost of capital |
| Construction quote | Q3/18 | High | Dovetailing off FEED study, PCL Construction expected to provide Gen III with fixed price lump sum proposal for construction of Bowden re-refinery. Pricing will drive financing requirements. |
| Equity financing | Mid-2018 | High | Total project financing estimated at \$120 million. CG estimate of \$48 million in equity financing at \$0.60/share. |
| Finalized debt financing | Mid-2018 | High | Term sheet for \$72 million credit facility currently outstanding with closing contingent on due diligence and equity financing. |
| Start of construction | Q3/18 | Medium | Decommissioning at Bowden refinery to commence shortly after financing and take 1-2 months. Fabrication estimated at 9 months, commissioning/testing forecast at 4 months. |
| Plant commissioning | Q3/19 | High | Gen III to use Fast Track project delivery strategy, allowing construction to commence before detailed design is complete. Plant potentially commissioned within 13 months of financing. High-impact potential catalyst as generates cash flows and validates technology/design. |

Figure 6: Potential catalysts

5. Discounted valuation with upside potential through de-risking

Financial projections

Figures 7 and 8 provide an overview of our valuation methodology and key assumptions, which we elaborate on in the Financial projections and Valuation sections of this report. Assuming plant operations meet expectations, we forecast adjusted EBITDA of \$102 million once the plant reaches full capacity in 2021E, with 50% pre-tax operating margins.

| | 2019E | 2020E | 2021E | 2022E. <u>.</u> | 2038E |
|-------------------------------------|--------|--------|--------|-----------------|---------|
| Plant operating capacity | 27% | 78% | 90% | 90% | 90% |
| Plant output (b/d) | 767 | 2,183 | 2,532 | 2,532 | 2,532 |
| Y/Y change | | 185% | 16% | 0% | 0% |
| Average sales price/gallon | \$4.47 | \$4.55 | \$4.67 | \$4.78 | \$6.76 |
| less UMO | \$1.33 | \$1.33 | \$1.36 | \$1.39 | \$1.90 |
| less freight and marketing | \$0.55 | \$0.57 | \$0.58 | \$0.60 | \$0.93 |
| less operating costs | \$0.62 | \$0.45 | \$0.40 | \$0.41 | \$0.57 |
| Operating margin | \$1.97 | \$2.20 | \$2.33 | \$2.39 | \$3.36 |
| UMO as % of revenues | 30% | 29% | 29% | 29% | 28% |
| Freight and marketing | 12% | 12% | 13% | 13% | 14% |
| Other operating costs | 14% | 10% | 9% | 8% | 8% |
| Total opex as % of product revenues | 56% | 52% | 50% | 50% | 50% |
| (\$ millions) | | | | | |
| Revenues | \$55 | \$160 | \$190 | \$194 | \$271 |
| Adjusted EBITDA | \$27 | \$84 | \$102 | \$104 | \$144 |
| | | | ÷ | + - - | * 4 0 7 |

Figure 7: Valuation summary

Figure 8: Valuation summary (continued)

| DCF analysis (C\$ Millions, unless noted otherwise) | | | | | | | | | |
|---|---------|----|--------------|----------------------------------|--------------|--------|--------------|-------|--------|
| | 2018E | | 2019E | | 2020E | | 2021E | 2022E | 2038E |
| Product sales (\$ millions) | - | | 53 | | 153 | | 181 | 185 | 262 |
| GHG credits | - | | 3 | | 8 | | 9 | 9 | 9 |
| Total revenue | - | | 55 | | 160 | | 190 | 194 | 271 |
| Less: UMO costs | - | | 16 | | 45 | | 53 | 54 | 74 |
| Gross margin (\$ millions) | - | | 40 | | 116 | | 138 | 141 | 198 |
| SG&A and operating costs | 4 | | 12 | | 30 | | 34 | 35 | 53 |
| Plant maintenance | - | | 1 | | 2 | | 1 | 1 | 1 |
| EBITDA | (4) | | 27 | | 84 | | 102 | 104 | 144 |
| Less: Capital costs | (27) | | (63) | | - | | - | - | - |
| Less: Taxes | - | | - | | (3) | | (22) | (25) | (39) |
| Less: Working capital | - | | (12) | | (0) | | 0 | (0) | (0) |
| FCFF | (31) | | (48) | | 81 | | 80 | 79 | 105 |
| Time period | 0.7 | | 1.7 | | 2.7 | | 3.7 | 4.7 | 20.7 |
| DCF factor | 0.92 | | 0.80 | | 0.70 | | 0.61 | 0.53 | 0.06 |
| Discounted CF | (28) | | (38) | | 57 | | 49 | 42 | 6 |
| Multiples | | | | | | | | | |
| EV/EBITDA | | | 4.4 x | | 0.8x | | nfm | | |
| Target EV/EBITDA | | | 9.5x | | 2.4 x | | 1.4 x | | |
| Implied price at 5x EV/EBITDA | | \$ | 0.65 | \$ | 2.85 | \$ | 3.85 | | |
| Per share valuation | | | | Key | , assump | tions | 6 | | |
| Sum of DCF (EV) | 360.9 | | | WA | CC | | | | 14.5% |
| less: Proforma Debt | (72.0) | | | Bo۱ | wden cap | ital c | ost | | \$90.0 |
| plus: Proforma W/C | 128.4 | | | Nev | w debt (C | \$ mi | llions) | | \$72.0 |
| Total equity value | 417.2 | • | | Nev | w equity (| C\$ n | nillions) | | \$48.0 |
| Proforma # of shares | 155.4 | | | Eqι | uity issuar | nce p | orice/share | ! | \$0.60 |
| Unrisked value per share | \$ 2.70 | | | Current f/d shares (millions) | | | |) | 66.8 |
| Financing & commercial probability | 72% | | | Equity issuance (million shares) | | | | res) | 80.0 |
| Risked value per share | \$ 1.95 | | | Pro | forma f/c | l sha | res | | 155.4 |
| 12-month realizable | ~ 75% | 1 | | Gro | up III yield | b | | | 50% |
| Target price | \$ 1.50 | | | Group II yield | | | | | 25% |

Source: Company Reports, Canaccord Genuity estimates

Target price derivation

Using a DCF model, we arrive at an unrisked equity value of \$2.70/share using a weighted average cost of capital (WACC) of 14.5%. In our valuation, we assume:

- Total financing requirements of \$120 million, with a 60/40 debt to equity split.
- An equity price of \$0.60/share (roughly equal to the current 30-day VWAP), resulting in 80 million additional shares, and a 125% increase in the fully diluted share count.
- An 85% probability that the company will secure satisfactory financing and an 85% chance it will meet pre-commercialization operating targets.

In doing so, we arrive at a risked value of \$1.95/share. We believe the stock may trade at a discount until the Bowden re-refinery has been commissioned and is

Our 2020E Target EV/EBITDA multiple is 2.4x, which is well below refinery peers at 7.6x

Our 2020E Target EV/sales multiple is 1.3x, which is roughly in line with the disruptive technology peers at 1.2x

The key risks to our target price (and reason for our SPECULATIVE risk qualifier) are financing and postcommissioning operating performance

Following the FEED study, we would expect cost estimates to narrow to +/-10% operating as expected. We have therefore applied a \sim 25% discount to our risked estimate in establishing our 12-month target price of \$1.50/share.

Valuation

Our target price correlates to a forward EV/EBITDA multiple of 2.4x and 1.4x for 2020E and 2021E, respectively. For the same years, our target EV/Sales multiple is 1.3x and 0.7x, respectively. In our view, this is conservative, considering:

- HollyFrontier purchased its Petro-Canada lubricant refinery at a 5.2x EBITDA multiple in 2017 (based on a net purchase price of \$783 million for \$150 million in EBITDA). Currently, refining peers are trading at a 2020 multiple of 7.6x.
- Disruptive technologies peers are currently trading at ~1.2x 2020E sales, with limited visibility on EBITDA multiples (see Figure 46) for peer comps)

Given these factors, we believe the stock is trading at a substantial discount to its potential value, assuming financing can be secured. While our one-year target price implies a potential return of 163%, we believe further de-risking and potential international expansion could unlock additional upside for investors, as outlined in the Valuation section of our report.

Investment risks

The key risk to our target price, and reason for our SPECULATIVE risk qualifier, will be Gen III's ability to secure project financing. Thereafter, we believe the primary risks will be operating performance and base oil prices.

While the company has an LOI in place for a \$72 million credit facility, this facility is subject to ongoing due diligence and an equity issuance. We view the current LOI as a vote of confidence in the project, but not a financing guarantee. Notwithstanding, we believe Gen III should be able to finalize a debt facility given the project's robust economics and sustainability angle.

As the company has not yet completed its FEED study, cost uncertainties remain relatively high, potentially up to +/-30% relative to pre-FEED estimates. Following the FEED study, we would expect this range to narrow significantly to +/-10%. Our current estimates could change materially due to changes in assumptions relating to financing, WACC, project costs, operating costs, feedstock prices, and output yields.

Financing sensitivity analysis

Despite being a high-risk investment, we believe Gen III has a very favourable risk/reward profile. We see significant potential upside under various debt and equity financing splits (Figure 9).



Figure 9: Financing scenarios

Source: Company Reports, Canaccord Genuity estimates

Should Gen III be unable to secure full financing for the Bowden project, we believe it would first consider joint ventures, then licensing agreements, followed by a potential sale of the technology. In our view, a 50/50 joint venture still provides significant upside, with an unrisked value of \$1.85/share, as shown in Figure 9.

In the Valuation section of our report, we also provide sensitivities relating to EBITDA, WACC, expansion opportunities and various operating metrics. In all of the scenarios that we outline, there is considerable upside relative to the current share price.

Company overview

Gen III Oil Corporation is in the process of developing its first used motor oil re-refining facility. We believe it is important that prospective investors understand how the company transitioned from a mining company to a used oil re-refiner, along with the various reasons that the technology has yet to be commercialized. Overall, we see the lack of commercialization to date as a result of unfortunate timing and vertical integration strategies by the two previous patent holders, PetroTex and VeroLube.

Company history

From mining ...

Prior to entering the re-refining business, Gen III was a mining company by the name of PNG Gold Corporation (ticker PGK:TSX-V). The company held two exploration licences in eastern Papua New Guinea but due to a downturn in the mining sector, idled its rigs in July 2013. On October 4, 2016, the Mineral Resources Authority of Papua New Guinea refused PNG's exploration license renewal applications. As a result, the company lost its exploration rights and sold all its drilling equipment.

To re-refining...

In July 2014, PNG loaned VeroLube Inc. \$140,000. VeroLube was a related party and the owner of the patented ReGen[™] re-refining process, which it acquired from PetroTex Hydrocarbons LLC in 2013.

VeroLube's business plan included acquiring established used motor oil collectors, with the view of funding a ReGen[™] facility in Bowden, AB, with cashflows from the UMO collection business.

Due to the crash of oil prices in September 2014, VeroLube defaulted on its loan from PNG. Subsequently, PNG and VeroLube entered into the following loan transactions, which ultimately resulted in PNG acquiring all patents and exclusive rights to the ReGen[™] technology on a global basis.

- In November 2014, PNG entered into a loan agreement with VeroLube for \$500,000 (including the prior loan), secured by non-exclusive rights to the ReGen[™] technology in the Americas excluding the US.
- In July 2015, PNG agreed not to call the \$500,000 loan in exchange for nonexclusive rights to the ReGen[™] technology in the US.
- In April 2016, PNG agreed not to call the VeroLube loan (at \$770,000 including interest and an additional \$113,000 principal) in exchange for non-exclusive rights to the ReGen[™] technology worldwide. In the event of a default, PNG would acquire full rights to all ReGen[™] patents.
- On January 15, 2017, VeroLube defaulted on its loans and assigned the all patents for ReGen[™] to Gen III. This gave Gen III exclusive worldwide rights to the patent.

In our view, previous patent holders were unable to commercialize ReGen™ due to adverse market conditions and vertical integration strategies

Prior to entering the re-refining business, Gen III was a mining company by the name of PNG Gold Corporation

In 2017 PNG acquired all patents and exclusive rights to the ReGen[™] technology on a global basis

In addition to loans extended to VeroLube, PNG proposed an acquisition of VeroLube in May 2015. In February 2016, PNG announced it was no longer pursuing the acquisition. As a result of the proposed transaction, PNG's stock was halted from February 5, 2015 to May 26, 2016.

Where once there was PNG, now there is Gen III

On May 15, 2017, PNG changed its name to Gen III Oil Corporation and its ticker to GIII:TSX-V to reflect a change in its business from mining to UMO re-refining. Since acquiring the rights to its ReGen[™] technology, Gen III has made significant progress toward the construction of a ReGen[™] facility in Bowden, AB.:

- In February 2017, a letter of intent for the removal and replacement of existing refinery at the Bowden site was signed
- In March 2017, Stantec and WSP completed pre-FEED reports, validating previous yield expectations
- In September 2017, a Purchase and Sale Agreement with Elbow River was signed
- In January 2018, a FEED contract with Stantec, including detailed design and a process guarantee, was signed
- In January 2018, a 20-year lease with Parkland Refining for use of the Bowden Refinery site was signed. Existing infrastructure at this site is expected to result in savings of \$10 million and includes loading and unloading infrastructure, rail access, utilities, storage tanks and space to facilitate a modular construction strategy.
- In February 2018, a term sheet for a \$72 million secured credit facility was signed, contingent on equity financing and due diligence
- In March 2018, PCL was selected as EPC contractor

Additionally, the company has raised gross proceeds of \$12.7 million in equity since 2017 at a weighted average price of \$0.35/share.

Figure 10: Equity issuances (including debt settlement and warrant exercised)

| | Number of shares (millions) | lssue price | Gro ڊ (ڊ | ss proceeds 5 millions) |
|--|-----------------------------|----------------|-------------|----------------------------|
| December 31, 2015 | 26.2 | | \$ | 63.5 |
| Private placement - 2016 | 5.6 | \$0.10 | \$ | 0.6 |
| Private Placement - Feb 9, 2017 | 6.5 | \$0.10 | \$ | 0.6 |
| Private Placement - Mar 13, 2017 | 7.7 | \$0.30 | \$ | 2.3 |
| Debt settlement - Apr 19, 2017 | 2.0 | \$0.48 | \$ | 1.0 |
| Private Placement - Sept 27, 2017 | 9.3 | \$0.70 | \$ | 6.5 |
| Warrants exercised - 2017 | 4.2 | \$0.30 | \$ | 1.2 |
| Broker commissions - 2017 | 0.4 | \$0.70 | \$ | 0.3 |
| Debt settlement - 2018 | 0.2 | \$0.70 | \$ | 0.1 |
| Warrants exercised - 2018 YTD | 1.9 | \$0.30 | \$ | 0.6 |
| 2016 to 2018 YTD | 37.7 | \$0.35 | \$ | 13.2 |
| Balance as of April 16, 2018 | 63.9 | \$1.20 | \$ | 76.8 |
| Source: Company Baparts, Canadoord Convity actimates | | | | |

We highlight key events and the corresponding share price in the following Figure. A detailed history of the company from 2015 to present is also provided in Appendix III.

On May 15, 2017, PNG changed its name to Gen III Oil Corporation

To date, Gen III has made significant commercialization progress

Figure 11: Share price history - May 26, 2017 to present



Source: Bloomberg, FactSet, Company Reports, Canaccord Genuity estimates. As of April 28, 2018.

History of ReGen[™] Technology

In the following Figure we provide a high-level history overview of the ReGen[™] technology, with a detailed description in the following section.



Source: Company Reports, Canaccord Genuity estimates

Process inventor, Martin MacDonald, patented the ReGen™ process in March 2005.

From an idea to a pilot

In 2004, the ReGen[™] process inventor, Martin MacDonald, began designing a rerefining process for used motor oil. With a background in chemical engineering, MacDonald developed a process to extract Group III base oils from UMO and on March 8, 2005, the technology was patented.

In 2005, MacDonald co-founded PetroTex Hydrocarbons LLC to build a re-refinery. However, owing to unfavourable market conditions associated with the collapse of oil prices in 2008, the facility was put on hold and ultimately never constructed. From 2007-2009 and from 2013-2014, the ReGen™ pilot plant ran for over 6,000 total hours

In 2012, PetroTex sold the ReGen™ technology to VeroLube

In 2013, Wood Group Mustang and Tetra Tech reviewed the ReGen[™] technology. Both concluded the technology was sound and commercially viable

In 2017, Stantec and WSP endorsed the project as commercially viable with Group III yields of at least 50% Notwithstanding, PetroTex made significant progress validating the technology, notably with the construction and operation of a 5 b/d pilot facility.

The CSU and MSU proof of concept pilot plant operated from 2007 to 2009 in Cedar Hill, TX (and again by VeroLube in 2013-2014) for approximately 6,000 total hours. The pilot used various types and qualities of used motor oil feedstock sourced from around the globe. To test the Phase 3 (MTU) hydrotreatment process, PetroTex sent output from its pilot facility for laboratory testing. While some quality issues were encountered in the third phase trickle bed hydrotreatment tests, a modern technique known as IsoTherming® was later proposed as a means of addressing these issues.

At the end of the pilot, the US Department of Energy engaged Oak Ridge Laboratories to conduct an evaluation of the ReGen[™] lubricating oil re-refining process. The report concluded that scale-up appeared to be feasible and that the pilot was large enough to prepare pre-commercial base oils for evaluation. Simultaneously, Bechtel Engineering completed a draft engineering design.

Financing challenges lead to ReGen™ sale

In 2012, in the face of financing challenges, PetroTex sold the ReGen[™] technology to VeroLube for US\$4 million, plus an overriding royalty of 1-3% of gross revenues (royalties were dependent on jurisdictions and timeframes).

After securing the technology, Verolube reassembled the 5 b/d pilot plant and commissioned Wood Group Mustang to provide FEED work for a modular commercial scale project at a proposed site in Bowden, Alberta. Tests at the resurrected pilot plant mirrored test results completed three years earlier by PetroTex. In 2013, Verolube also had Wood Group Mustang and Tetra Tech review the ReGen[™] technology. The two engineering firms both concluded that the ReGen[™] technology is technically sound and commercially viable.

VeroLube twofold strategy hit by oil price collapse

VeroLube's vertical integration strategy involved the acquisition of used motor oil collection companies. With the collapse in oil prices in late 2014, market conditions deteriorated and VeroLube abandoned plans to acquire feedstock suppliers. It was at that time that the PNG provided loans to VeroLube, which VeroLube subsequently defaulted on.

Today: Commercialization momentum

Since acquiring rights to the ReGen[™] process, Gen III has accelerated R&D and commercialization efforts:

- In 2017, Gen III received pre-FEED reports from Stantec and WSP endorsing the project as commercially viable with Group III yields of at least 50%
- Gen III had independent economic and market assessments completed which highlighted robust potential project economics and strong demand for Group III base oil
- The company continues to refine the process through ongoing lab testing. These results will be integral to the facility design, which is currently underway.
- As discussed in our Company History section, several major commercialization contracts have been signed and financing efforts are underway, including a term sheet for \$72 million in debt.

The right management in place to execute

With over \$37 million having been invested to date, we believe the ReGen[™] technology has matured to the point of commercialization. We believe the right strategy and individuals are now in place to execute on the construction of Gen III's Bowden facility.

In our view, the right strategy and individuals are in place to execute on the construction of Gen III's Bowden facility

- Leading the charge is newly appointed President and COO **Gordon Driedger**, P.Eng. Driedger is an award-winning professional engineer with 35 years' experience in design, management and construction of a diverse spectrum of industrial, institutional and civil projects. Driedger has exceptional credentials and we believe his oversight should ensure a relatively smooth project with minimal project delays and scope creep.
- In addition to Driedger's construction management expertise, the current management team has many years of experience that should prove beneficial to the project. CEO Greg Clarkes was founder and director of Skye Resources Inc., a mining company that was sold to HudBay Minerals Inc. in 2008 for \$460 million.
- Other members of the management team and board have expertise in the mining industry. In our view, there are industry parallels between UMO re-refining and mining in that pre-commissioning research, planning, and execution are paramount to managing risks and meeting targeted budgets, timelines and operational performance.
- Finally, **George Davidson**, MBA and **Denis Dionne**, P.Eng have many years of experience working on refining and re-refining projects. We believe this expertise is invaluable to the project.

Bios of management and the board of directors are presented in Appendix I and Appendix II.

Near-term potential catalysts

In our view, Gen III has a number of potential catalysts that could move the stock price higher over the next 12-18 months. These include the following:

- **FEED study results**. A Front End Engineering and Design (FEED) study is currently being conducted by Stantec Consulting and is expected to be complete in July or August 2018. The study will likely include updated yield estimates (based on ongoing lab tests for each phase of the process) and revised cost estimates, which should provide further certainty surrounding project economics. We note that pre-FEED estimates typically have a confidence interval of +/-30%, whereas a FEED study is closer to +/-10%. As part of the FEED study contract, Stantec has provided a process guarantee covering all three phases of the process, with a maximum remediation equivalent to all fees and bonuses paid to Stantec (plus specific lump sum guarantee fees from its subcontractors).
- **Fixed price construction quote.** Dovetailing with Stantec's FEED study, PCL Construction is expected to provide Gen III with a fixed price lump sum proposal for the design and construction of the Bowden re-refinery. We believe this will provide certainty over costs and financing requirements, and we expect an announcement this summer.
- Equity financing. Project financing for the Bowden re-refinery project is currently estimated at \$120 million, including \$90 million in construction costs. We believe financing would likely follow the FEED study and construction quote given that these will help validate project economics. In our view, financing would be a gamechanger for Gen III. We are currently projecting \$48 million in equity at \$0.60/share (plus \$72 million in debt) to finance the project. We believe an equity issuance could close by July or August 2018.
- **Finalized debt financing.** On February 20, 2018, Gen III announced the signing of a 60-day exclusive term sheet for a \$72 million credit facility with a third-party lender. Specific terms were not provided but conditions included due diligence and the closing of equity financing. Although the 60-day exclusivity period has passed, we believe Gen III will finalize a debt facility once equity financing has closed. In our view, the project should appeal to a broad array of potential creditors due to its sustainability characteristics, use of proven technologies, and high margins.

- Used oil supply contracts. In our view, the signing of supply contracts for used motor oil should address concerns surrounding feedstock supplies. The company has expressions of interest from multiple suppliers, and larger UMO aggregators in Western Canada include GFL, Western Oil, Safety-Kleen and Terrapure. As the latter two have competing re-refineries, we believe they are less likely to become major suppliers. However, we believe Parkland Fuel (via its Elbow River subsidiary) could also become a UMO supplier given its vested interest in the project and general petrochemical distribution capabilities. We believe the company may also sign contracts with US aggregators and smaller collectors to ensure adequate UMO supplies.
- **Commencement of construction**. Post financing, we would expect decommissioning at the Bowden refinery to commence relatively quickly and wrap up within 1-2 months. Modular fabrication is expected to take nine months while commissioning and testing are forecast at four months.
- **Commissioning of plant**. The company plans on using a Fast Track project delivery strategy, which allows construction to commence before detailed design is complete. As such, the plant could be commissioned within 13 months of financing. We believe this will be an important step toward de-risking the project insofar as it proves saleability and validates yield expectations.

In addition to the Bowden project, we believe there is upside from potential expansion opportunities, which we elaborate on in the Valuation section of our report. At the high end of our estimates, future locations have the potential to more than double our unrisked valuation.

In order of upside magnitude, future expansion opportunities could include companyowned plants, joint ventures with other re-refiners, or licensing the technology for a fee and royalty. The company is considering future locations as outlined in the following Figure.

Figure 13: Gen III potential future locations

Gen III Project Map



At the high end of our estimates, future locations have the potential to double our unrisked valuation The ReGen™ re-refining process uses a combination of traditional refining practices such as distillation, solvent extraction and hydrotreatment

The use of solvent extraction (between distillation and hydrotreatment) is the unique aspect of ReGen as compared to traditional re-refining

Technology overview

The company defines its ReGen[™] re-refining process as a combination of traditional refining practices, assembled in a unique pattern, at specific temperature and pressure settings. With multiple patents protecting the process throughout the world, ReGen[™] differs from traditional re-refining in its ability to extract Group III base oils in high quantities.

The ReGen[™] process involves three key phases:

- Phase 1: The Contaminant Separation Unit Phase (CSU). This phase uses a series of distillations (flash and fractional) to remove water, contaminants, fuels and asphalts from UMO.
- Phase 2: The Molecular Separation Unit Phase (MSU). This second stage takes a specific cut from the CSU and uses solvent extraction to separate out "good" Group III base oils from lower quality base oils.
- Phase 3: The Molecular Treatment Unit Phase (MTU). Hydrotreatment is used to remove residual contaminants and upgrade feedstock into higher saturate base oils. The upgraded feedstock is then separated into diesel, naphtha and Group II (or higher) base oils through distillation and steam stripping.

This process is outlined in the following schematic and in the coming section we provide a detailed overview of each step. In our view, the MSU phase is a key differentiator relative to traditional re-refining due to its ability to extract high volumes of Group III base oil at a relatively low cost.



The CSU phase removes contaminants through distillation; this is possible because contaminants do not evaporate and therefore remain mixed with asphalt "bottoms"

CSU output includes:

- 3% water and light gases
- 9% fuel cuts
- 13% asphalt
- 75% base oil cuts

According to Stantec Consulting, the CSU process uses standard refining practises that do not require a largescale pilot

An nMP solvent will be used to extract Group III base oil from a specific CSU base oil cut

Step 1: The Contaminant Separation Unit Phase (CSU)

Following a potential pre-treatment of UMO, the Contaminant Separation Unit Phase (CSU) removes the bulk of UMO contaminants. The current design incorporates three flash distillations and one fractional distillation, which are detailed in Appendix IV. As context, we provide some background on distillation below.

- Distillation is a standard refining technique used to separate a mixture of liquids, which have different boiling points, into gas vapours prior to the gas condensing back into a liquid. The condensed vapours are known as "tops" while the residual non-vaporized molecules are known as "bottoms".
- Flash distillation involves the constant flow of a feedstock and application of pressure, while fractional distillation uses a column to separate different compounds based on their relative boiling points.

In general, during each CSU flash distillation, bottoms proceed to the next distillation tower. Tops such as water and light gases, which are expected to yield 3% of input volumes, are used in plant operations. Additionally, a diesel/naphtha fuel cut of 9% bypasses the MSU and is directed to the hydroprocessor for further upgrading. Distillation bottoms are comprised of base oils, asphalt and solid contaminants.

In traditional UMO re-refining, distillation is typically the first step after UMO pretreatment. ReGen^M is consistent with traditional re-refining in this step, although the distillation method differs from the commonly used thin film evaporator process.

CSU design

Stantec Consulting is currently designing the CSU process for the Bowden facility. According to senior engineers at the firm, the CSU process will apply industry standard practices. Additionally, because Stantec can use such reliable and extensively tested HYSYS computer simulations to design the process, Stantec believes large pilots are unnecessary. In our view, Stantec's process guarantee also ensures that risks are managed appropriately.

Step 2: The Molecular Separation Unit Phase (MSU)

The MSU phase uses a N-Methyl-2-pyrolidone ("nMP") solvent to separate desired Group III base oil from lower quality base oils. The process is similar to conventional solvent extraction; however, de-waxing is not a factor and the feedstock is of a much higher quality.

In the ReGen[™] process solvent and CSU output streams flow past each other based on their specific gravities. The solvent preferentially extracts non-linear hydrocarbon chains (i.e. the Group II precursor or "bad" base oil). When in balance, most of the solvent (over 99%) becomes entrained with the lower quality, heavier hydrocarbons.

In the same way that oil and vinegar separate, the solvent and heavier hydrocarbons settle to the bottom, while the good Group III oil floats to the top. This process is depicted in the following photograph, which was taken from the 2013 pilot plant. As shown below, the darker, lower quality oil settled to the bottom of the column, while clear Group III base oil separated into the middle of the column.

Figure 15: Pilot plant solvent extraction column



The solvent can be distilled and reused, making it a low-cost extraction method Source: Photo provided by Gen III management, modified by Canaccord Genuity

The company plans to extract Group III base oil using KMPS's proprietary Scheibel column. Based on current lab tests, which will be verified in an upcoming pilot study, Gen III expects to yield Group III base oil volumes of ~50% of initial feedstock or ~1,400 b/d.

The bottom portion from the MSU extraction column, which contains a mix of lower quality base oils and nMP solvent, will be distilled so that the solvent can be reused. The remaining "bad" base oil molecules, equal to $\sim 25\%$ of original feedstock volumes (700 b/d), will be sent to the MTU for hydrotreating.

Pilot plant hydrocarbon products from Steps 1 and 2 are shown in the following Figure.

Figure 16: CSU and MSU output from 2013 pilot plant



Legend

- 1 Used motor oil
- 2 Fuel cuts from distillation
- 3 Heavy asphalt
- 4 Intermediate cuts

- 5 Intermediate cuts
- 6 Lower quality base oil from extraction column (MTU feedstock)
- 7 Group III base oil from solvent extraction

Source: Photo provided by Gen III management, modified by Canaccord Genuity

Solvent extraction has applications in base oil refining and re-refining

KMPS is an industry leader in solvent extraction and will be designing the MSU process

During hydrotreatment, a controlled hydrogen reaction changes the molecular composition of "bad" base oils into durable saturates molecules While solvent extraction is commonly used in conventional refining, it is used less frequently in re-refining (because de-waxing is not a factor). Notwithstanding, we are aware of at least one re-refiner (Avista Oil) that uses solvent extraction in its UMO recycling process. To the best of our knowledge, Gen III's and Avista's processes are similar in terms of using distillation followed by solvent extraction. However, it is our understanding that Avista does not hydrotreat extraction raffinates and that it yields only 25% Group III oil.

MSU design

Koch Modular Process Systems has been subcontracted to design the MSU process. KMPS specializes in modular construction and design, particularly in the areas of developing technology and innovative chemistry. In addition to providing detailed designs, KMPS also advises on pilot plants, project execution and how to most efficiently run facilities. KMPS has experience in the lubricant refining and re-refining industries, including solvent extraction and downstream purification.

KMPS is planning to use its proprietary Scheibel column as part of the MSU design. The continuous extraction process is expected to function like a series of settling columns. According to KMPS, many Fortune 500 companies use the technology, which has been in use for decades.

Once a pilot is complete, KMPS has proven process for scaling up. Based on the feedstock used to date, KMPS has a high degree of confidence it can scale up the ReGen[™] solvent extraction process.

Step 3: Molecular Treatment Unit Phase (MTU)

In the Molecular Treatment Unit Phase (MTU), "bad" base oil from the MSU, and naphtha and diesel from the second and third flash distillations, are upgraded through hydrotreatment.

What is hydrotreatment?

During hydrotreatment, a controlled hydrogen reaction changes the molecular composition of "bad" base oils into saturates (which are long-chain carbon molecules, suitable for Group III base oil). In doing so, quality is improved as viscosity indexes increase by 2-4 points (in our Base Oil overview, we discuss why higher viscosity indexes command premium prices). Additionally, sulphur is stripped out in the form of sour water.

Hydrotreatment is standard operating practise in most modern UMO re-refining operations. Gen III's MTU process will function like virgin oil catalytic hydrotreatment. However, the company plans to use IsoTherming®, a more modern hydrotreatment technology that is growing in popularity.





Source: Process Dynamics, Inc.

MTU design

Process Dynamics is the original developer of IsoTherming® technology and has been contracted to design the MTU process. IsoTherming® hydrotreating reactors operate in a liquid full mode in lieu of a trickle bed mode, which offers significant benefits over traditional hydrotreatment. Based on our discussions with Process Dynamics, some of the expected benefits include:

- A more even temperature throughout the reaction, reducing the risk of fouling, hot spots and cracking (i.e. losses and light ends)
- Higher catalyst efficiency and longer catalyst lives
- Lower capital costs owing to a simplified process
- Lower hydrogen volumes and lower hydrogen losses
- Lower operating costs, as no gas recycling is required
- Increased operating flexibility

As the MTU process designers, Process Dynamics believes that scaling up is highly linear because the reactions take place in a liquid form (versus trickle bed reactors which can be very fickle in terms of feedstock velocity). According to PD, scaleups of up to 160,000 times have been successfully implemented with no issues. Finally, because the reaction takes place in a liquid form, volumes can also be turned down to a minimum, providing increased operating flexibility.

Based on our discussions with Process Dynamics, the feedstock for the MTU is not considered complex and should require minimal hydrotreatment. Notwithstanding, the key risk is feedstock cleanliness, which is expected to be addressed in the CSU (Contaminant Separation Unit).

Following hydrotreatment, end use products will be separated out through a steam stripper and knock out drum. Final MTU output (as a % of original feedstock volumes) is expected to be as follows:

IsoTherming® is believed to be a more efficient and flexible hydrotreatment method

MTU process designers, Process Dynamics, believe that scaling up is highly linear because IsoTherming® reactions take place in a liquid form

- Group II base oil 25%
- Ultra low sulphur (ULS) diesel 8%
- Naphtha 1%

Although Gen III plans to recycle hydrogen, hydrogen will be lost during chemical reactions and as part of the sour water output. Approximately 2.6 million litres of liquid hydrogen are expected to be consumed annually. According to Process Dynamics, the price of hydrogen is a derivative of natural gas and has correspondingly declined over the last decade.

Technical risk mitigation

In our view, Gen III remains heavily discounted due to risks associated with the ReGen[™] technology. We believe the primary risks are feedstock variability, commercial scalability and yield consistency. In the following section we provide an overview of each, along with the company's risk mitigation strategies for each. Overall, we believe the risks are managed and that the technology has a high probability of succeeding.

Feedstock variability

UMO feedstock is one of the most important considerations in the design and implementation of ReGen[™] technology, in our opinion. Off spec or variable input could result in fouling and blockages in the CSU (resulting in plant downtime), along with reduced yields and off spec output in later phases.

We believe the company is taking adequate measures to manage these risks through plant design, feedstock pre-treatment, and strict feedstock specifications. We elaborate on these risk mitigation strategies in Figure 19.

Commercial scalability

The Bowden facility represents the first commercial application of the ReGen[™] process. Although aspects of ReGen[™] are unique, all underlying technologies have been proven in a refining context. Other risk mitigation factors include Stantec's process guarantee and various third-party technical validations, which we elaborate on in Figure 19.

Yield consistency

Currently, the company estimates plant output as outlined in Figure 18. While there can be no guarantee yields will be exactly as forecast, we believe adequate measures have been taken to reduce the risk that commercial yields fall below expectations.

In our view, the primary technological risks are feedstock variability, commercial scalability and yield consistency. However, we believe they are well managed





Source: Company Reports, Canaccord Genuity

Yields from a 5 b/d pilot plant have been corroborated with computer simulations conducted by Stantec and WSP; KMPS pilot testing should further validate yields Thus far, the company has demonstrated the feasibility of a commercial scale implementation. Using a variety of feedstocks, yields from a 5 b/d pilot plant have been corroborated with HYSYS computer simulations conducted by Stantec and WSP, along with lab testing conducted by Matric Innovations, Koch Modular Systems and Process Dynamics. The company also plans to use process designers to train up new plant staff.

Figure 19 outlines the current risk mitigation strategies that have been deployed, or that are being considered, to ensure commercial yields correlate to lab results.

Figure 19: Technical risk mitigation strategies

Risk #1: Feedstock variability

Risk mitigation 1: Plant design to incorporate flexibility

- Stantec to incorporate bypass systems and back up equipment for high-risk areas or isolate high-risk areas
- Two days of feedstock tankage to blend off-spec UMO
- · Potential discretionary flashing step to distill off light hydrocarbons
- Stage 3 (MTU) IsoTherming® technology inherently flexible relative to traditional hydro-treatment

Risk mitigation 2: UMO pre-treatment

- · Potential pre-treatment of feedstock through ozone treatment, hydrogen peroxide, or acetic acid
- Potential use of soda ash baths, or other pre-treatments
- Potential inclusion of water distillation step ahead of first flash distillation

Risk mitigation 3: Feedstock specifications for UMO suppliers

- Specifications to suppliers to including minimum and/or maximum content limitations on saturates, sulphur, aromatics and polar compounds (contaminants), asphaltenes, water and PCBs
- Chemical analysis to be provided for incoming UMO suppliers

• Rigorous testing regime for all incoming feedstock

Risk #2: Commercial scalability

Risk mitigation 1: Stantec process guarantee

- Process guarantee covering all three phases of the process, including those designed by subcontractors
- Guarantee to cover process remediation, along with lost revenues associated with downtime
- · Maximum remediation equivalent to all fees and bonuses paid to Stantec plus lump sum fees from subcontractors

Risk mitigation 2: Other third-party validation

- Stantec 2017 pre-FEED study: "ReGen[™] technology is technically viable and capable of producing high quality base oils meeting requirements of API 1509 Groups II and III"
- WSP 2017 pre-FEED study: "ReGen™ refining technology process is technically sound and construction and operation of the proposed rerefinery should provide finished products equivalent or greater than those contained in previous engineering studies"
- 2013 engineering reviews by Wood Group Mustang and Tetra Tech concluded ReGen™ "technically sound and commercially viable"
- 2009 technical validation from a US Department of Energy laboratory (Oak Ridge National Laboratory) stated: "Based on models and pilot tests, scale up appears to be feasible" and "Pilot was large enough to prepare pre-commercial base oils for evaluation"

Risk mitigation 3: Proven technology

- Underlying technologies (i.e. flash distillation, fractionation, solvent extraction and hydro treatment) all proven in refining context
- Standard refining equipment and materials should result in predictable equipment performance and lower costs
- Stage 2 (MSU) solvent extraction differs from traditional re-refining process. However, nMP solvent extraction has been consistently
 proven in lab tests and has many commercial applications as effective solvent
- IsoTherming® has applications in lubricant refining and has been implemented in 23 hydro-processing facilities around the globe. Easily scaled up owing to use of liquid phase hydrogen

Risk #3: Production yields

Risk mitigation 1: Yield testing

- 5 b/d pilot facility operated from 2007 to 2009 for over 6,000 hours using UMO feedstock sourced from around globe. Output ratios similar to current estimates
- 5 b/d pilot reassembled by VeroLube in 2013. Tests at resurrected pilot mirrored those by PetroTex
- During Pre-FEED evaluations, HYSYS computer modeling simulations conducted by Stantec and WSP corroborated pilot plant results, with 50-55% Group III yields modeled
- Subcontractors Matric Innovations (CSU phase), KMPS (MSU phase), and Process Dynamics (MTU phase) currently running lab simulations for each phase as input into plant design. Output from preceding phase to be used as feedstock for subsequent phases
- Stantec indicates Stage 1 is industry standard technology with a low risk. KMPS highly confident pilot can be scaled up. Process

Dynamics has seen no issues treating the incoming feedstock, believes scaling up is highly linear

Risk mitigation 2: Operations training

 Process designers and commissioning contractor will train and supervise plant employees to ensure a smooth transition and proper operations training

Source: Company Reports, Canaccord Genuity estimates

Base oil market overview

First off, what is base oil?

Base oils are used to make lubricants, greases and motor oil

Base oils are used to make lubricants, greases, motor oil and metal processing fluids. On a technical level, they:

- Refer to lubrication grade oils initially produced from refining crude oil (mineral base oil) or through chemical synthesis (synthetic base oil)
- Have a boiling point of 285-565°C
- Consist of hydrocarbons having 18 to 40 carbon atoms and can be either paraffinic or naphthenic in nature
- Are categorized based on sulphur and saturates content, along with viscosity index.

Base oil categories

Base oil quality can differ significantly; Group I is considered the lowest quality, while Group IV PAO oils are the highest quality A breakdown of API 1509 Base Oil Categories is presented below. Groups I, II and III are derived from refined crude, while Group IV is considered synthetic. Base oil groups and quality are determined by saturate levels, sulphur content and viscosity index, as outlined below. Group IV poly-alpha-olefin (PAO) synthetic base oil is considered the highest quality, while Group I is the lowest, as shown in Figure 20.

Figure 20: API base oil categories

| API base oil | Sulphur | Saturates | Viscosity | | N.A. price | Refining | |
|--------------|--------------|------------------|------------|---------|-----------------|----------------|--------------------|
| category | (%) | (%) | Index | Quality | (US\$/gallon) | process | Primary uses |
| Group I | >0.03 | <90 | 80-120 | Lower | \$3.30 - 3.65 | Solvent | Marine, industrial |
| Group II | <0.03 | >90 | 80-120 | | \$2.74 - 4.00 | Hydtrotreated | Motor oil |
| Group III* | <0.03 | >90 | >120 | | \$3.18 - 5.18 | Hydrocracked | Premium motor oil |
| Group IV* | Poly-alpha-c | olefin synthetic | lubricants | Higher | | Gas to liquids | Premium motor oil |
| Group V | All | other base oil | S | | Various Various | | Various |
| | | | | | | | |

* considered synthetic grade

Source: Company Reports, Lubes'n'Greases U.S. Base Oil Price Report, American Petroleum Institute API 1509 Appendix E, http://www.selectsynthetics.com/base-oil-groups.html

When considering quality, durability and the ability to maintain viscosity are important factors as discussed below.

Base oils are categorized by their viscosity index and Sulphur and saturates content. These qualities determine durability and temperature resistance

- A higher viscosity index (VI) means that oil thickness is less susceptible to changes in temperature. Thus, a higher viscosity index allows an engine to start in very cold temperatures while retaining thickness to protect against friction in high temperatures.
- The greater the saturates content, the greater the molecular bond strength and more durable the base oil.² This results in greater oxidation resistance, which in turn prevents viscosity losses and oil degradation. Thus, a higher saturate content is generally indicative of a longer lasting, more durable oil.
- Given their very high saturates content, poly-alfa-olefin (PAO) synthetics inherently have better oxidation stability than mineral oils. This accounts for the slightly higher operating temperatures that synthetic oils can accommodate.³

² http://www.selectsynthetics.com/base-oil-groups.html accessed April 6, 2018

³ http://www.machinerylubrication.com/Read/28966/oil-oxidation-stability accessed April 6, 2018

• Finally, a lower sulphur content reduces corrosive and oxidation potential, improving durability.

In the next section we provide a brief overview of each base oil category.

Group I

Group I oil is solvent refined and is considered the lowest quality oil base oil. It is generally used in marine vessels and industrial applications but may also be used in drilling fluids. Although Group I oil remains the largest class of base oils, market share has declined materially since 2005 (from 75% of the base lube market in 2005 to 61% in 2015).⁴ The current US price of Group I oil is approximately US\$3.30-3.65/gallon. Appendix V provides a description of the solvent refining process used to produce Group I oil. We also provide a comparison to the ReGen[™] solvent extraction process.

Group II

Group II base oils undergo hydrotreatment processing, as described in Appendix V. By changing the molecular structure, hydrotreatment generates a higher saturate content (>90%) and lower sulphur content (<0.03%). Group II base oil is thinner than Group I and is used in the production of passenger car motor oil. As of 2015, Group II made up ~24% of the world base lube market, an increase of 4% since 2005.⁵ The current North American price for Group II oil ranges from US\$2.74-4.00/gallon.

Group III

Group III base oil is hydrocracked, a more severe form of hydrotreatment. This process increases the viscosity index (VI) to over 120. In conjunction with its purity, its viscosity stability makes it a desirable choice for high performance vehicles. Group III base oil can be classified as synthetic, insofar as it meets certain performance standards.

Demand for high quality Group III/III+ and IV base oil has increased significantly over the last decade, jumping from just 4% in 2005 to 14% in 2015.⁶ The current price of Group III oil is approximately US\$3.18-5.18/gallon.

Group IV: Poly-alpha-olefin synthetic oil (PAO)

Group IV base oil is considered synthetic as it is derived from gas to liquids technology (GTL). The GTL process breaks apart natural gas molecules and reassembles them into longer chains, appropriate for base oils. The result is a very pure base oil, with the same parameters of Group III oil, but higher quality in terms of purity, viscosity and saturate content. According to the 2017-2018 Lubes'n'Greases Lubricants Industry Factbook, POA production is only 700,000 tonnes per year, which works out to less than 12,500 b/d. Group IV pricing is difficult to obtain, likely due to the fact that refiners use it to produce their own blended motor oils rather than selling it as blending feedstock.

In Appendix V, we provide a detailed overview of the various refinery processes used to refine each grade of base oil.

Base oil competitive conditions analysis and trends

In our view, the North American Group III base oil competitive landscape is very favourable, characterized by high barriers to entry, low supplier and buyer bargaining power, and limited substitute products. Our assessment of these factors is outlined on

Group I base oil is solvent extracted and primarily used in industrial applications

hydroprocessed and used in the production of passenger car motor oil

Group II base oil is lightly

Group III base oil is hydrocracked, making it suitable for high performance vehicles

Group IV base oil is considered full synthetic and is produced in a gas to liquids process. As the highest quality base oil, it has a limited supply

⁴ Oil and Gas Journal, per Gen III June 30, 2017 Filing Statement

⁵ Oil and Gas Journal, per Gen III June 30, 2017 Filing Statement

⁶ Oil and Gas Journal, per Gen III June 30, 2017 Filing Statement

Figure 21 and we believe these competitive conditions could result in oversized margins for Gen III over the near term.

Figure 21: Group III re-refining industry rivalry analysis



- Fragmented group of independent buyers
- Growing trend toward environmentally friendly products

We elaborate on these in the following section.

Demand for higher quality oils increasing

As shown in Figures 22 and 23, the global market for Groups II and III base oil increased significantly from 2005 to 2015, making up \sim 38% of the global market in 2015 versus 25% in 2005.

Group III market share is increasing globally

As supply increased and consumers shifted toward more durable, higher quality oils, Group III (or higher) saw the biggest uptick from 2005-2015, adding 10% market share. Conversely, lower quality Group I production lost ~9% market share over the same period.



Group III demand is estimated at over 18,000 b/d in North America, with growth projections of 3-8% Group III demand is expected to remain strong. SK Lubricants (the world's largest producer of Group III base oil) is forecasting global demand growth for Group III oil to be around $3.5\%^7$. Additionally, Steve Ames of SBA Consulting puts North American growth at over 8% from 2017 to 2021⁸.

Gen III currently estimates demand in excess of 18,000 b/d. In our view, this is a reasonable, if not conservative, estimate; industry expert Steven Ames of SBA Consulting puts North American Group III consumption at 1.1-1.2 million metric tons,⁹ which is equivalent to over 20,000 b/d. Additionally, recent presentations from Holly Frontier put 2018 Americas demand around 19,000 b/d with a CAGR of 3% (see Figure 24).

⁷ https://fuelsandlubes.com/sk-lubricants-projects-3-5-average-growth-in-global-group-iii-base-oil-demand/

⁸ https://pubs.lubesngreases.com/lubereport/17_14/basestocks/Group-III-Expansion-Expected-for-N-America-11868-1.html. Ames predicts Group III demand in North America will increase to 1.5-1.6 million t/y by 2021 from 1.1-1.2 t/y in 2017.

⁹ https://pubs.lubesngreases.com/lubereport/17_14/basestocks/Group-III-Expansion-Expected-for-N-America-11868-1.html



Figure 24: Holly Frontier projected Americas demand vs. production capacity

Source: Kline 2017 data, taken from Holly Frontier March 2018 Corporate presentation

Consumer preferences are driving the demand for higher quality "designer" motor oils

Over the longer term, EVs could impact demand for base oils

We believe the growing demand for Group III base oil stems from the automotive industry. Specifically:

- Manufacturers are producing engines that require higher quality motor oil as part . of their regular maintenance requirements
- Cleaner oils are being regulated to reduce emissions
- The fleet of SUVs and larger vehicles (which require more motor oil per change) is growing
- Consumers are shifting toward higher quality blends that last longer (requiring fewer oil changes)

While automotive usage is currently elevating demand for Group III oils, we believe electric vehicles could become a threat over the longer term. However, we would expect a potential shift to electric vehicles to occur slowly over time. Moreover, it is our understanding that EVs will still require lubricants, although these lubricants may have different technical requirements. Finally, relative to other petroleum producers and refiners, we do not believe Gen III's risk would be any greater than their peers'.

North American Group III supply shortages expected to persist

In North America, there is a major shortage of Group III oil, with the continent producing just 25% of its requirements. Moreover, while North American demand represents ~15% of global production of 150,000 b/d, the continent produces just 3% of global Group III supplies as outlined in Figure 26.

Middle East &

Africa

27%

China 7%



Figure 25: Lubes'n'Greases global base oil supply

Source: Lubes'n'Greases 2017 Guide to Global Base Oil Refining, Canaccord Genuity

Source: Lubes'n'Greases 2017 Guide to Global Base Oil Refining, Canaccord Genuity

Figure 26: Lubes'n'Greases 2017 global Group III oil split

3%

Currently, North American Group III supply is estimated at only 4,800 b/d, dominated by a single refinery and comprised of the following:

- 4,000 b/d from Holly Frontier's Petro-Canada refinery in Mississauga, Ontario
- 400 b/d from Calumet's refinery in Shreveport, Louisiana
- 400 b/d from Avista Oil's re-refinery in Peachtree City, Georgia

Additionally, in 2017 Motiva (a subsidiary of Saudi Aramco) launched two Group III grades from its 40,300 b/d base oil refinery in Port Arthur, Texas. Group III capacity has not been disclosed but it is our understanding that the facility can divert Group II product for further treatment. We expect that this step would generate higher operating costs and volume losses. Moreover, we believe Motiva's Group III production may be on the low end of the quality spectrum, given that it is pricing closer to a Group II base oil.

Outside of Motiva, there is one small producer, Novvi LLC, which produces 250 b/d of plant-based synthetic oil, which we would consider a Group V base oil.

According to Lubes'n'Greases 2017 Guide to Global Base Oil Refining, minimal refining capacity is expected to be added in North America through 2021. The one project highlighted for capacity additions is Puraglobe's Florida re-refinery, which we understand has been put on hold.

We do see a risk that refiners upgrade their facilities (similar to Motiva's upgrades) to capture high Group III pricing. To that end, HollyFrontier has alluded to making feedstock modifications to increase Group III output. However, we do not believe this would have a material impact on Group III supplies.

Overall, we believe the additional capital and operating costs needed to refine Group III base oils are a deterrent to increasing supplies.

Minimal Group III refining capacity is expected to be added in North America through 2021

| | ACTITADUTTIONS | | | |
|---------------------------|-------------------------|-----------|----------------------------------|------|
| Company | Location | Туре | Size | Due |
| Naoming Dazetian | China - Maoming | New | 4,000 b/d Group I | 2017 |
| Panjin N. Asphalt | China - Liaoning | New | 5,700 b/d Naphthenic | 2017 |
| ExxonMobil | Netherlands - Rotterdam | New | 20,000 b/d Group 11 ¹ | 2018 |
| Hainan Handi | China - Hainan | New | 16,000 b/d Group II/III | 2018 |
| Hengli Petrochemical | China - Dalian | New | 13,670 b/d Group II/III | 2018 |
| Rosneft | Russia - Novo-Kuibyshev | Upgrade | 8,000 b/d Group II | 2018 |
| ExxonMobil | Singapore - Jurong | Expansion | 6,000 b/d Group II ¹ | 2019 |
| Lub-rref (Bangladesh)* | Bangladesh - Julda | New | 1,000 b/d Group II | 2019 |
| Puraglobe Florida* | Florida - Tampa | New | 1,100 b/d Group III | 2019 |
| HILL-KazMunayGas | Kazakhstan - Shymkent | New | 5,000 b/d Group II/III | 2020 |
| Lukoil | Russia - Volgograd | New | 4,900 b/d Group III | 2020 |
| Rosneft | Russia - Angarsk | Upgrade | 5,600 b/d Group I/11/111 | 2020 |
| Gazprom Neft | Russia - Omsk | Expansion | 4,900 b/d Group II/III | 2021 |
| Rafinerija ulja Modrica | Bosnia & Herz Modrica | Expansion | 4,100 b/d Group III | 2021 |
| IIIRES'N'GREASES estimate | | | | |

Figure 27: Upcoming capacity additions

CMAINE CARACITY ADDITIONS

Source: Lubes'n'Greases 2017 Guide to Global Base Oil Refining

We estimate a current shortfall of 13,200 to 15,200 b/d, equivalent to 73-76% of North American demand. This shortfall is currently filled with imports from the Middle East and Asia (primarily South Korea), with import costs of ~US\$0.25/gallon.¹⁰

Absent new supplies, the Group III shortage in North America is expected to grow as demand increases at a 3% CAGR from 2016-2026.

High import costs shelter North American prices from global Group III oversupply

Despite large Group III supply shortages in North America, the global market for Group III base oils is currently oversupplied with large plants having been built in Asia and the Middle East over the past two decades. However, growing demand for Group III oil has helped absorb excess supply, while shipping and distribution costs, along with a fragmented group of buyers have kept prices high in North America.

According to Lubes'n'Greases *Lube Report Asia (April 27, 2018 edition)* ¹¹ and *Lube Report EMEA (May 1, 2018 edition)* ¹² landed costs for Group III base oil ranges from US\$2.87-2.97/gallon. This represents a significant discount to local prices. However, we expect that unloading, storage, and continental freight costs add to the final price paid by blenders. Moreover, we believe importers require a sizeable markup to ship such large volumes (130,000-170,000 bbl per cargo).

On a go-forward basis, we estimate international Group III capacity additions of ~30,000 bopd based on the chart above (assuming even product splits when no breakdown is provided). At 5% annual demand growth, this would balance out incremental supplies. However, at 3.5% annual growth, we estimate incremental Group III oversupply equal to 5% of total capacity. This scenario could place pressure on international prices and consequently, North American prices.

We estimate a current shortfall of 13,200 to 15,200 b/d, equivalent to 73-76% of North American demand

Despite a North American shortage, the global market for Group III base oils is currently oversupplied

International capacity additions could put pressure on local Group III prices. However, North American prices should remain high relative to Asia and the Middle East

¹⁰ Source: Vertex Energy Investor Presentation, March 2018, pg 11

¹¹ Source: Lubes'n'Greases. https://pubs.lubesngreases.com/lubereport-asia/5_18/base-oil-report/Asia-Base-Oil-Price-Report-13339-1.html

¹² Source: Lubes'n'Greases. https://pubs.lubesngreases.com/lubereport-emea/1_18/base-oil-report/EMEA-Base-Oil-Price-Report-13332-1.html

North America has an oversupply of

Group II base oil

At this point, it is difficult to determine what impact international supply additions will have on local prices. While there could be some pricing pressure in a few years, we believe North American Group III prices will remain high relative to Asian and Middle Eastern markets due to shipping logistics and import mark ups.

North American Group II market large and oversupplied... but with minimal local refining capacity

Many refineries in North America and Europe were built at a time when Group II was considered a premium product. Conversely, as Asia and the Middle East industrialized after Western countries, they were able to capitalize on the trend toward Group III or higher base oils. North America is the second largest producer of Group II base oil, with much of this production being exported to South America, Asia and the Middle East.

Figure 28: Group II base oil production by global region



Source: Lubes'n'Greases 2017 Guide to Global Base Oil Refining, Canaccord Genuity

Despite the Group II oversupply in North America, we believe Gen III should be able to find a market for its Group II production. At 700 b/d, the company's Group II production is expected to comprise just 0.4% of North American supply. Moreover, as shown in the following Figure, the Bowden facility represents a strong strategic location; in Western Canada there are no traditional Group II refiners and only 400 b/d of re-refined Group II supply (at the Terrapure facility in North Vancouver). The next closest Group II refinery in Richmond, California, approximately 2,100 km from Bowden.

Gen III should be able to place its Group II production relatively easily given the small volumes and their strategic location

Figure 29: North America Group III and II supply & demand

| b/d | Group III | Group II |
|--|-----------|----------|
| Gen III prod (at 90% capacity) | 1,266 | 633 |
| NA total prod | 4,800 | 165,900 |
| NA total demand | 18,000 | 65,000 |
| NA over/(under) supply | (13,200) | 100,900 |
| Gen III % of capacity | 26.4% | 0.4% |
| Gen III % of demand | 7.0% | 1.0% |
| April 2018 NA price | | |
| (C\$/gallon) | \$6.54 | \$3.99 |
| Note: $NA = North America CAD/USD = 0.7$ | 8 | |

Figure 30: North America base oil refineries (Group I, II, III and Napthetic)



Source: Company Reports, Lubes'n'Greases 2017 Guide to Global Base Oil Refining, Source: Lubes'n'Greases 2017 Guide to Global Base Oil Refining, Canaccord Genuity Canaccord Genuity estimates (assume 90% operating capacity)

Group III base oil prices and UMO margins remain strong in face of weak oil prices With the growing demand for Group III base oil, prices have remained strong, even in the face of volatile crude oil markets.

Base oil prices are not always driven by broader crude oil prices

According to Lubes'n'Greases 2017-2018 Lubricants Industry Factbook, "Base oils move to a different rhythm, and not always in sync with each other or crude oil. As each API Group followed its own law of supply and demand, U.S. base oil prices last year showed impressive strength against crude's downward pull."

In the following Figures, we outline ten-year pricing trends.

Figure 31: 10-year Group II, III, UMO and WTI price history (US\$/gallon)



Note: UMO prices assumed to be 85% of No. 6 GC Diesel. Source: Lubes'n'Greases, US EIA, Company Reports, Canaccord Genuity estimates

Figure 32: 10-year Group II/III product margin over UMO (US\$/gallon)



Note: UMO prices assumed to be 85% of No. 6 GC Diesel. Source: Lubes'n'Greases, US EIA, Company Reports, Canaccord Genuity estimates

Figure 33: 10-year Group II/III product margin over UMO (C\$/gallon)



Note: UMO prices assumed to be 85% of No. 6 GC Diesel. Source: Lubes'n'Greases, US EIA, Company Reports, Canaccord Genuity estimates

Our analysis of pricing for Group II, III and UMO reveals the following:

- Group II and III US dollar (USD) base oil prices move in tandem with USD crude oil prices. However, they are less variable on a CAD basis owing to natural hedging (typically when oil prices fall, the Canadian dollar weakens, resulting in higher CAD revenues).
- As oil prices fall, UMO input cost falls, which protects margins. As such, margins over UMO have been relatively stable since 2013 at US\$3-4/gallon for Group III and US\$1-2/gallon for Group II.
- The five-year average margins for Group III and II (over UMO) are US\$3.50/gallon and US\$1.60/gallon, respectively. On a CAD basis, margins strengthened over this period of lower oil prices due to a weaker Canadian dollar.

Used motor oil market provides ample supply of low-value product

In our view, the local market for used base oils as a feedstock is quite attractive. We provide a detailed overview of the Used Motor Oil (UMO) market in Appendix VI, but our key conclusions are as follows:

- Used oil is a low value feedstock. Half of all UMO collected is sold as low value burner fuel which competes with inexpensive natural gas and low-grade bunker fuels. In our view, this makes it an attractive feedstock for re-refining.
- Of the remaining UMO that is collected, most is refined into lower value base oil or marine diesel. Currently, there is only 400 b/d of re-refined Group III oil in the North American market. Locally, there is minimal re-refinery competition.
- As Gen III will produce a higher value product, it should enjoy increased buyer power.
- There is ample local supply of used oil, with BC, Alberta and Saskatchewan collecting 112% of used Gen III's feedstock requirements.
- Collection rates in Alberta have been declining due to industry economics; Gen III
 has an opportunity to increase local recycling rates (and UMO supply) by offering
 premiums to sellers. In this way, the company could become an industry disruptor.

We believe the market for UMO is attractive given its low value and ample supply Large refiners tend to produce their own house-brand lubricants from base oils produced in their refineries. As such, we believe Gen III's buyers will be smaller independent lubricant producers

Figure 34: GHG sensitivity analysis, unrisked \$/sh estimate

| Value per share <u>CO2 price</u> | | | | | | | |
|-------------------------------------|-----------------|------------------|--|--|--|--|--|
| Tonnes/yr | \$25 | \$45 | | | | | |
| 180,000 | \$0.11 | \$0.20 | | | | | |
| 360,000 | \$0.23 | \$0.41 | | | | | |
| Source: Company Rep | orts, Canaccord | Genuity estimate | | | | | |

 Re-refined oil uses 78% less energy to produce than traditional base oil. In our view, this presents an opportunity to market ReGen oil as an environmentally friendly motor oil alternative.

Base oil buyers likely to be fragmented group of independent blenders

Large refiners like Chevron, Shell and Exxon tend to produce their own house-brand lubricants from base oils produced in their refineries. As such, we expect Gen III's target market will be a large, fragmented group of independent motor oil blenders. Often, these blenders are members of the Independent Lubricant Manufacturers Association (ILMA).

This group collectively produces over 30 percent of America's lubricants and 75 percent of metalworking fluids and other specialty industrial lubricants. These buyers have a growing preference for high quality Group II and III base oils. We believe consistency in terms of viscosity, content of sulphur, saturates, and aromatics, colour and evaporative losses will be essential in managing these relationships.

Environmental benefits with broad stakeholder appeal

From an environmental perspective, re-refining is an eco-friendly alternative to managing waste oil.

- The company currently estimates carbon savings of 360,000 tonnes per year which we believe is reasonable based on our research to date (summarized in Appendix VII).
- We expect that Gen III will be eligible for carbon credits once a Quantification Protocol has been established and approved. Our current estimates are ~\$9 million per year at \$25/tonne, which we value at \$0.23/share on a standalone basis. Should carbon prices increase to the \$50/tonne range, we believe revenue streams could be worth up to \$0.41/share as outlined on Figure 34 (assuming a \$5/discount on the carbon credit resale market).
- Given its robust economics, we believe Gen III will appeal to a broad audience of investors; in our view, attracting these investors is a matter of marketing the story, closing project financing and for less risk tolerant investors, demonstrating saleability through plant commissioning.
- From a supplier perspective, we believe EPC and other firms will be looking to augment their corporate resumes with successful "green" projects. As such, we believe Gen III should receive favourable contract terms in the construction of its Bowden facility. The Bowden project should also receive support from municipal, provincial and federal governments; at present, the company believes it may be eligible for provincial and federal loans and grants.

Financial projections

Assumptions

We use a DCF model to value Gen III's Bowden project. The key assumptions in our model include the following.

Figure 35: DCF assumptions

| | Units | 2019E | 2020E | 2021E | 2022E |
|---------------------------------|---------------|---------|---------|---------|---------|
| General | | | | | |
| Name plate capacity | b/d | 2,800 | 2,800 | 2,800 | 2,800 |
| FX | CAD/USD | 1.29 | 1.29 | 1.29 | 1.29 |
| WTI | USD/barrel | 60.00 | 60.00 | 61.20 | 62.42 |
| Plant operating capacity | % | 27% | 78% | 90% | 90% |
| Operating days ⁽¹⁾ | davs/vear | 100 | 285 | 330 | 330 |
| Output vield & C\$ price per | gallon | | | | |
| Group III | 50% | \$6.04 | \$6.20 | \$6.39 | \$6.55 |
| Group II | 25% | \$3.91 | \$3.91 | \$3.97 | \$4.04 |
| Asphalt flux | 13% | \$1.91 | \$1.91 | \$1.95 | \$1.99 |
| ULS diesel | 8% | \$2.58 | \$2.58 | \$2.63 | \$2.68 |
| Naphtha | 1% | \$1.90 | \$1.90 | \$1.93 | \$1.97 |
| Water | 3% | - | - | - | - |
| Weighted average ⁽²⁾ | 100% | \$4.47 | \$4.55 | \$4.67 | \$4.78 |
| Carbon credits | | | | | |
| CO ₂ savings | Tonnes (000s) | 109 | 311 | 360 | 360 |
| Carbon price | CAD/tonne | \$25.00 | \$25.00 | \$25.00 | \$25.00 |
| GHG credit | CAD millions | 2.7 | 7.8 | 9.0 | 9.0 |
| Costs | | | | | |
| Used oil | CAD/litre | 0.35 | 0.35 | 0.36 | 0.37 |
| Variable costs | CAD/litre | 0.04 | 0.04 | 0.04 | 0.04 |
| Freight ⁽³⁾ | CAD/litre | 0.13 | 0.14 | 0.14 | 0.15 |
| Sales and marketing $^{(4)}$ | % | 4.00% | 4.00% | 4.00% | 4.00% |
| Fixed costs (5) | CAD millions | 4.8 | 8.1 | 7.4 | 7.5 |
| Financial | | | | | |
| Interest payments | CAD millions | 8.3 | 6.4 | 4.6 | 2.7 |
| Principal payments | CAD millions | 14.4 | 14.4 | 14.4 | 14.4 |
| Effective tax rate | % | 0% | 4% | 24% | 27% |

⁽¹⁾ Assumes plant commissioning in September 2019 with general operating capacity of 330 days 60 additional maintenance days assumed in first year of operations for plant optimization

- ⁽²⁾ Weighted average price based on feedstock volumes vs. end-product sales volumes
- ⁽³⁾ Assumes round trip frieght expense
- ⁽⁴⁾ Applied to sales excluding ULS Diesel, net of freight

(5) Includes plant management, corporate G&A and annual lease expense of \$1.2 million Additional maintenance/optimization time assumed for 2020E, full capacity in 2021E

Source: Company Reports, Canaccord Genuity estimates

Some of the key considerations (and where we may differ from management) include the plant optimization period and initial Group III pricing. Adjusting for corporate G&A costs of \$2.6 million, our 2021E EBITDA estimates are ~7% below company guidance of \$113 million.

Our steady-state margins are 7% below company guidance. We believe our base oil pricing assumptions are likely driving the variance We expect the biggest variance relates to Group III pricing, where we have taken a conservative approach of applying 2017 average differentials rather than current differentials, which are slightly higher. Other key assumptions are as follows:

- Plant commissioning and operating capacity. We estimate a plant . commissioning date of September 2019 but have assumed some hiccups in the first year of operations, which could result in downtime. In total, we assume 60 extra maintenance days in the first year of operations.
- Commodity price differentials. Generally, our commodity pricing is a derivative of WTI, with set differentials for each product. Our differentials are based on average 2017 differentials, as reported in the Lubes'n'Greases US Base Oil Report.
- Group III realized pricing. We believe it may take some time to prove that a consistent Group III product can be delivered to buyers. As such, we have taken a conservative approach by reducing our Group III prices through 2020E (by ~\$0.25/litre).
- Used oil feedstock. Used oil is expected to be the single biggest expense for the company. We use a starting price of \$0.36/litre, which includes a 10% premium to current prices to account for a potential shift in demand.
- Working capital requirements. To calculate accounts receivable, we have assumed 15 days of sales receivable, while our accounts payable is based on 15 days of operating costs. We have modeled inventories based on storage tanks contemplated in the current project design. Under these assumptions, our working capital drawdown is a front loaded on plant commissioning, with minimal changes thereafter.
- Maintenance capital. We include ongoing plant maintenance in the operating . budget based on accounting guidance from management. Our estimate is approximately \$1.5 million per year.

| | | | - |
|--------------------------------|---------------|-----------------------------|----------------|
| Revenue | \$CAD Million | | 2019 |
| Refined product sales | 190.7 | Plant operating capacity | 27% |
| Greenhouse gas credits | 9.0 | Plant output (b/d) | 767 |
| Total Revenue | 199.7 | Y/Y change | |
| Expenses | | ., | |
| Used motor oil | 55.0 | Average sales price/gallon | \$4.47 |
| Finished product freight | 14.8 | | \$1.22 |
| Other variable operating costs | 7.8 | less freight and marketing | φ <u>1</u> .50 |
| Fixed operating costs | 2.2 | less freight and marketing | \$0.55 |
| Maintenance consumables | 0.9 | less operating costs | \$0.62 |
| Sales and marketing fees | 6.5 | Operating margin | \$1.97 |
| Depreciation | 4.5 | | |
| otal Expenses | 91.7 | UMO as % of revenues | 30% |
| Operating net income | 108.0 | Freight and marketing | 129 |
| Interest and income taxes | 33.0 | Other operating costs | 149 |
| let Income | 75.0 | Total opex as % of revenues | 56% |
| BITDA | 112.5 | | |
| | | (\$ millions) | |
| | | Revenues | \$55 |
| | | | |

Figure 36: Gen III steady state EBITDA breakdown

Source: Company Reports, Canaccord Genuity estimates

Speculative Buy Target Price C\$1.50 | 10 May 2018

Figure 37: Selected financial and operating results (CG estimates)

| | 2019E | 2020E | 2021E | 2022E |
|--|--------|--------|--------|--------|
| Plant operating capacity | 27% | 78% | 90% | 90% |
| Plant output (b/d) | 767 | 2,183 | 2,532 | 2,532 |
| Y/Y change | | 185% | 16% | 0% |
| Average sales price/gallon | \$4.47 | \$4.55 | \$4.67 | \$4.78 |
| less UMO | \$1.33 | \$1.33 | \$1.36 | \$1.39 |
| less freight and marketing | \$0.55 | \$0.57 | \$0.58 | \$0.60 |
| less operating costs | \$0.62 | \$0.45 | \$0.40 | \$0.41 |
| Operating margin | \$1.97 | \$2.20 | \$2.33 | \$2.39 |
| UMO as % of revenues | 30% | 29% | 29% | 29% |
| Freight and marketing | 12% | 12% | 13% | 13% |
| Other operating costs | 14% | 10% | 9% | 8% |
| Total opex as % of revenues | 56% | 52% | 50% | 50% |
| (\$ millions) | | | | |
| Revenues | \$55 | \$160 | \$190 | \$194 |
| Adjusted EBITDA | \$27 | \$84 | \$102 | \$104 |
| Funds flow from operations | \$19 | \$78 | \$77 | \$78 |
| Source: Company Reports, Canaccord Genuity estimates | | | | |

While Stantec's detailed FEED report will provide greater certainty for our estimates, on a preliminary basis we are projecting the following outcomes.

- We estimate operating margins of ~50% on a normalized ongoing basis.
- For the first full year of operations (in 2020E) we are forecasting revenues of \$160 million, EBITDA of \$84 million, and cash from operations of \$78 million.
- In our second full year of operations, our revenue and EBITDA estimates increase to \$190 and \$102 million, respectively. This is attributable to fewer maintenance days and higher Group III prices in 2021E. However, as we expect the company to become taxable in 2021E, our cash from operations estimate declines to \$77 million.

Assuming the plant performs as expected, we anticipate manageable debt payments of \$14.4 million per year, versus operating cash flows of over \$75 million. In addition to selected financial and operating results outlined above, our detailed financial statement projections can be found in Appendix VIII.

Valuation

Target price calculation

In our assessment, we assume a weighted average cost of capital equal to 14.5% based on the following:

- A total cost of equity equal to 18.75%. Using a build-up method, we arrive at an equity risk premium of 8.75% using CAPM. We add a size and risk premium of 2.5% each, along with a company risk premium of 5% to get a total cost of 18.75%.
- We assume \$72 million in new debt and \$48 million in new equity issued at \$0.60/share.
- Our after-tax cost of debt is 9.3%, including a 27% effective tax rate.
- Our targeted capital structure is 45% debt / 55% equity (60/40 project financing).

Figure 38: Proforma sources of capital (post financing)

Figure 39: Proforma capital structure and cost of capital

| | Market value | Weight | Cost of Capital | After-tax | WACC |
|----------------------|-----------------|--------|--------------------|-----------|-------|
| Proforma equity | \$88.6 | 55% | 18.75% | 18.75% | 10.3% |
| Proforma debt | \$72.0 | 45% | 12.75% | 9.31% | 4.2% |
| Total capitalization | \$160.6 | 100% | | | 14.5% |

Figures in millions

Source: Company Reports, Canaccord Genuity estimates, FactSet

Source: Company Reports, Canaccord Genuity estimates, FactSet

On an unrisked basis, we arrive at a pro-forma equity value of \$2.70/share. We have assumed a 72% probability of commercial success based on an 85% chance of financing, with an 85% chance of commercial success. The breakdown of our valuation is provided in the following Figure.

Figure 40: Equity valuation summary

| DCF analysis (C\$ Millions, unless ne | oted other | wise) | | | | | | | | |
|---------------------------------------|------------|--------|-----|------|--------------|----------------|--------------|--------|------|--------|
| | 2018E | 201 | .9E | | 2020E | | 2021E | 202 | 2E | 2038E |
| Product sales (\$ millions) | - | ļ | 53 | | 153 | | 181 | | 185 | 262 |
| GHG credits | - | | 3 | | 8 | | 9 | | 9 | 9 |
| Total revenue | - | ļ | 55 | | 160 | | 190 | | 194 | 271 |
| Less: UMO costs | - | : | 16 | | 45 | | 53 | | 54 | 74 |
| Gross margin (\$ millions) | - | 4 | 40 | | 116 | | 138 | | 141 | 198 |
| SG&A and operating costs | 4 | : | 12 | | 30 | | 34 | | 35 | 53 |
| Plant maintenance | - | | 1 | | 2 | | 1 | | 1 | 1 |
| EBITDA | (4) | : | 27 | | 84 | | 102 | | 104 | 144 |
| Less: Capital costs | (27) | () | 63) | | - | | - | | - | - |
| Less: Taxes | - | - | | | (3) | | (22) | | (25) | (39) |
| Less: Working capital | - | (1 | 12) | | (0) | | 0 | | (0) | (0) |
| FCFF | (31) | (4 | 48) | | 81 | | 80 | | 79 | 105 |
| Time period | 0.7 | 1 | 7 | | 2.7 | | 3.7 | | 4.7 | 20.7 |
| DCF factor | 0.92 | 0.8 | 80 | | 0.70 | | 0.61 | (|).53 | 0.06 |
| Discounted CF | (28) | (; | 38) | | 57 | | 49 | | 42 | 6 |
| Multiples | | | | | | | | | | |
| EV/EBITDA | | 4. | 4x | | 0.8x | | nfm | | | |
| Target EV/EBITDA | | 9. | 5x | | 2.4 x | | 1.4 x | | | |
| Implied price at 5x EV/EBITDA | | \$ 0.0 | 65 | \$ | 2.85 | \$ | 3.85 | | | |
| Per share valuation | | | | Key | assump | otion | S | | | |
| Sum of DCF (EV) | 360.9 | | | WAC | C | | | | | 14.5% |
| less: Proforma Debt | (72.0) | | | Bow | den cap | oital o | cost | | | \$90.0 |
| plus: Proforma W/C | 128.4 | | | New | debt (C | \$ mi | llions) | | | \$72.0 |
| Total equity value | 417.2 | | | New | equity | (C\$ r | nillions) | | | \$48.0 |
| Proforma # of shares | 155.4 | | | Equi | ity issua | nce | price/sha | are | | \$0.60 |
| Unrisked value per share | \$ 2.70 | | | Curr | ent f/d | shar | es (millior | ns) | | 66.8 |
| Financing & commercial probability | 72% | | | Equi | ity issua | nce | (million sl | hares) | | 80.0 |
| Risked value per share | \$ 1.95 | | | Prof | orma f/ | d sha | ares | | | 155.4 |
| 12-month realizable | ~ 75% | | | Grou | up III yie | ld | | | | 50% |
| Target price | \$ 1.50 | | | Grou | up II yiel | d | | | | 25% |

Note: Pro-forma W/C includes expected proceeds from dilutive equity. Source: Company Reports, Canaccord Genuity estimates, FactSet

Sensitivity analysis

In our view, two of the biggest risks to achieving our target will be securing satisfactory financing for the Bowden project and plant performance post-commissioning. To that end, in the following Figure we provide a sensitivity analysis outlining potential project financing scenarios.



Figure 41: Scenarios for financing mix, equity issuance price and 50/50 JV

Note: Assumes yield declines on Group III transferred to Group II production, which is standard in North America re-refining. Source: Canaccord Genuity estimates

Based on these scenarios, we note the following:

- In a downside scenario where the company fully finances the project with equity at a price of \$0.40/share, we still arrive at an unrisked value of \$1.00/sh. This implies upside of 69% relative to the current share price of \$0.57.
- If debt financing is cut in half (from \$72 million to \$36 million, with an equity price of \$0.60/share), we arrive at an unrisked value of \$1.80/share. This reflects potential upside of 216% from the current share price.
- If the company raises equity at \$0.80/sh (\$0.10/sh above 2017 private placement issuance prices) and finalizes \$72 million in debt financing, our unrisked value increases to \$3.15/share.
- If the company is unable to fully finance the Bowden project, we believe Gen III would first pursue joint ventures and then licensing agreements. In our view, a 50/50 JV provides material upside with an estimated value of \$1.85/sh. As shown in Figure 45, a licensing agreement would be valued at \$0.14-\$0.88/share, depending on the overriding royalty, timeframe and discount rate.

From an operating perspective, we find that our valuation is most sensitive to changes in crack spreads, followed by refinery utilization. Otherwise, our valuation is sensitive to project capital costs, largely due to changes in our equity assumptions (which drive WACC and proforma share counts). Interestingly, our valuation is less sensitive to Group III yields, if we assume a shift to Group II.

We outline our sensitivity analysis for these, and other, valuation drivers in the following Figure.



Figure 42: Sensitivity analysis (% chg. in unrisked value for 20% chg. in assumptions)

Note: Group III yield changes assumed to be allocated to Group II. 20% reduction equates to 40% Group III yield, while 20% increase equates to 60% Group III yields. Changes in project capital costs assumed to be balanced with equity, with corresponding changes in WACC and pro-forma share count. End product price changes independent of WTI, which has minimal impact on estimates. Refinery utilization reduced by 20% but increased to maximum of 95%.

Source: Canaccord Genuity estimates

In addition to operating performance, the company's cost of capital is an important driver of valuation. As such, we provide an EBITDA/WACC sensitivity analysis below.

| Figure 43: | Percent upside/downside to CG unrisked | Figure 44: EBITDA/WACC sensitivity analysis |
|------------|--|---|
| value | | |

19.5%

2.30

2.15

1.95

1.75

1.55

WACC

14.5%

3.25

2.95

2.70

2.40

2.15

9.5%

4.80

4.40

4.00

3.60

3.20



Source: Canaccord Genuity estimates

EBITDA +/-

EBITDA +20%

EBITDA +10%

EBITDA

EBITDA -10%

EBITDA -20%

Source: Canaccord Genuity estimates

In our view, the key takeaways are as follows:

- Our downside scenario, which includes a 20% reduction in our EBITDA estimates and a 5% increase in our WACC, still has 170% upside to the current share price.
- Our upside scenario, which includes a 20% increase in our EBITDA estimates and a 5% reduction in our WACC, yields an unrisked value just below \$5/share.

 Assuming no changes to our EBITDA, a 5% reduction in our WACC increases our unrisked value by 50% to \$4/share. This is approximately 8.4x the current share price.

In addition to a lower cost of capital, we believe expansion opportunities could generate material upside for investors. In the following Figure we outline upside potential from various licensing and expansion scenarios. While a licensing agreement would have a lower risk profile, we believe new facilities would provide significantly more upside potential (up to 130% of our unrisked value for a single company-owned facility).



Figure 45: Expansion upside

Note: Licensing agreements assume revenues to commence in 2 years. Source: Canaccord Genuity estimates

Peer comps

In our view, Gen III is a unique investment opportunity with limited peer comps. We believe potential peers fall into two categories: disruptive technologies and refiners. At this stage of development, we believe disruptive technologies are more indicative of the kind of trading multiples Gen III should expect, as traditional refiners and rerefiners have very different risk profiles. Notwithstanding, we believe the large refiners provide context, particularly in relation to potential takeout valuations.

Based on our forecasts and the comparative analysis below, at current prices Gen III would be trading at a significant discount to peers once it is fully operational in 2020E.

- We estimate a proforma trading multiple of 0.4x 2020E sales versus the group average of 1.2x and the historical multiple of 2.8x.
- We note that large cap refiners typically trade at around 0.6x to 0.7x sales, which is also above Gen III's multiple of 0.4x.
- On a forward EBITDA basis, the refiner group trades between 7.5x and 8.5x, whereas Gen III would be trading at less than 0.8x EBITDA in 2020E.

Figure 46: Disruptive technologies comparative analysis (CAD dollars)

| Peer Group | Ticker | Market Cap (C\$ M) | Enterprise Value (C\$ M) | Net Debt / LTM EBITDA | 2017 EV/Sales Multiple | 2018 EV/Sales Multiple | 2019 EV/Sales Multiple | 2020 EV/Sales Multiple | Hist. Avg. EV/Sales Multiple |
|---|-----------------------------|--------------------------------------|---|-----------------------------------|-------------------------------|--------------------------------|---------------------------------|------------------------------|------------------------------------|
| EcoSynthetix Inc. | ECO-CA | 107 | 45 | 8.1x | 2.0x | 1.4x | 0.9x | 0.5x | 1.7x |
| Ballard Power Systems Inc. | BLDP-CA | 704 | 645 | 17.5x | 4.1x | 4.3x | 3.4x | 2.8x | 4.0x |
| Hydrogenics Corporation | HYG-CA | 165 | 153 | 1.1x | 2.5x | 1.7x | 1.4x | 1.3x | 2.7x |
| Pioneering Technology Corp. | PTE-CA | 21 | 13 | 39.1x | 1.3x | 1.0x | 0.8x | N/A | 3.3x |
| Spectra7 Microsystems, Inc. | SEV-CA | 30 | 37 | (0.7x) | 2.7x | 2.1x | 1.2x | 0.7x | 2.3x |
| Westport Fuel Systems, Inc. | WPRT-CA | 435 | 437 | (0.0x) | 1.4x | 1.3x | 1.1x | 0.9x | 2.7x |
| Average | | 244 | 222 | 10.9 x | 2.3x | 2.0x | 1.5 x | 1.2 x | 2.8x |
| Gen III target multiples (CG est., proforma) | | 233 | 229 | N/A | N/A | N/A | 4.7x | 1.3x | N/A |
| GEN III Oil Corporation (CG est., proforma) | GIII-CA | 36 | 32 | N/A | N/A | N/A | 2.2x | 0.4x | N/A |
| EcoSynthetix Inc. | EcoSynthet industrial m | ix Inc. is a rene nanufacturing f | ewable chemicals of consumer produ | company specia ucts. | lizing in bio-b | ased product | ts that can be | e used as inp | uts in |
| Ballard Power Systems Inc. | Ballard Pov provides cle | ver Systems, In ean energy fue | c. engages in desi l cell products ena | gn, developmer bling optimized | nt, manufactu power syster | ure, sale and ms for a rang | service of fu e of applicati | el cell produc ons. | ts. It |
| Hydrogenics Corporation | Hydrogenic electrolysis | s Corp. designs technology an | s, develops and ma d proton exchange | anufactures hyd membrane teo | lrogen genera hnology. | ation and fue | l cell product | s based on w | /ater |

Pioneering Technology Corp. is an innovation company, which focuses on designing, engineering and producing state-of-theart technology that protect people and their property from cooking fires.

Spectra7 Microsystems, Inc. Spectra7 Microsystems Inc. operates as an analog semiconductor company, which delivers unprecedented speed, resolution, and signal fidelity to consumer and wireless infrastructure products.

Westport Fuel Systems, Inc. engages in the manufacture of alternative fuel systems and components. It operates through the following business segments: Transportation, CWI Joint Venture and Corporate.

Note: Priced as of May 8, 2018. Source: FactSet, Canaccord Genuity estimates

Figure 47: Refinery comparative analysis (US dollars)

| Peer Group | Ticker | Market Cap (US\$ M) | LTM EBITDA Margins (%) | Enterprise Value (US\$ M) | 2018 EV/EBITDA Multiple | 2019 EV/EBITDA Multiple | 2020 EV/EBITDA Multiple | 2018 EV/Sales Multiple | 2019 EV/Sales Multiple | 2020 EV/Sales Multiple | Hist. Avg. EV/Sales Multiple |
|--|---------|------------------------|---------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|------------------------------|------------------------------|------------------------------------|
| Clean Harbors, Inc. | CLH | 2,935 | 14.4 | 4,340 | 9.3x | 8.7x | 8.5x | 1.3x | 1.3x | 1.2x | 1.2x |
| HollyFrontier Corporation | HFC | 11,846 | 11.9 | 14,024 | 8.5x | 8.2x | 8.3x | 0.9x | 0.9x | 0.9x | 0.7x |
| Marathon Petroleum Corporation | MPC | 34,784 | 8.3 | 52,264 | 7.8x | 6.6x | 6.4x | 0.6x | 0.5x | 0.5x | 1.2x |
| Parkland Fuel Corporation | PKI-CA | 4,069 | 4.7 | 6,060 | 9.2x | 8.6x | 8.4x | 0.4x | 0.4x | 0.4x | 0.3x |
| PBF Energy, Inc. Class A | PBF | 4,450 | 5.4 | 6,834 | 6.5x | 5.8x | 5.5x | 0.3x | 0.3x | 0.3x | 0.2x |
| Phillips 66 | PSX | 54,154 | 4.1 | 67,310 | 10.2x | 9.1x | 8.9x | 0.6x | 0.5x | 0.5x | 0.4x |
| Valero Energy Corporation | VLO | 48,787 | 6.2 | 54,134 | 8.3x | 7.4x | 6.9x | 0.5x | 0.5x | 0.5x | 0.5x |
| Average | | 23,004 | 7.9 | 29,281 | 8.5x | 7.8x | 7.6x | 0.7x | 0.7x | 0.6x | 0.6x |
| Gen III target multiples (CG est., proforma, USD) | | 182 | 49.1 | 179 | N/A | 9.5x | 2.4x | N/A | 4.7x | 1.3x | N/A |
| GEN III Oil Corporation (CG est., proforma, USD) | GIII-CA | 28 | nfm | 25 | N/A | 4.4x | 0.8x | N/A | 2.2x | 0.4x | N/A |

Note: Priced as of May 8, 2018. Source: FactSet, Canaccord Genuity estimates

Target price risks

The biggest risk to our target price will be the company's ability to secure project financing. Delays in financing, construction and commissioning could negatively impact our estimates. Our estimates could also change due to variances in capital costs, operating costs, feedstock prices, base oil prices and, output yields. We outline these risks to our target in the following section.

Financing risks

Currently the company has no revenues and limited financial resources. As such, with an estimated capital cost of ~\$90 million to design and construct the Bowden facility, Gen III requires external financing. The company will also need working capital to fund operations once the plant has been commissioned.

Our 12-month target price assumes that Gen III will secure additional financing to commence construction of its Bowden facility, with commissioning currently projected for September 2019. In our model, we assume a share price issuance of \$0.60/share (roughly equal to the 30-day VWAP) for total gross proceeds of \$48 million. However, a lower share price issuance could negatively impact our target estimates.

On February 20, 2018, Gen III signed a term sheet for a \$72 million senior secured term loan credit facility. However, the term sheet is non-binding and closing is contingent upon an equity issuance (amongst other conditions). Therefore, an injection of capital, most likely in the form of equity, is paramount to commencing construction of the ReGen[™] facility at Bowden.

Should the company be unable to fully fund its Bowden project, we believe it may look at potentially entering into a joint venture or licensing its process.

ReGen™ technical feasibility and refinery operating performance

ReGen[™] has not been implemented on a commercial scale. As discussed in our Technical assessment, UMO feedstock variability, scalability and product yields are key concerns. Specifically, we believe nMP solvent is a relatively new technology in commercial UMO re-refining. However, as we explain in the Technical risk mitigation section of this report, we believe these risks are manageable. Still, as the plant is commissioned, there could be kinks in the process that need to be addressed. Moreover, there are no guarantees that output will mirror pilot or lab test results.

In our view, a major potential share price catalyst will be the commissioning and ramp up of production at the Bowden re-refinery to validate output and margins. Until the technology has been commercially proven, we believe shareholders will demand a higher rate of return on equity to compensate for the risky nature of the project. Moreover, some investors may avoid the story until it has been significantly de-risked.

Financing is the key risk to our target price and the basis for our SPECULATIVE risk qualifier

Post-commissioning refinery performance will be another key risk to our target

A decline in crack spreads (driven by supply and demand fundamentals) could adversely impact revenues

Increased shipping costs and limited take-away capacity could impact our estimates

As a small cap investment, Gen III will need to compete for retail and institutional attention

Intellectual property risks

Gen III currently holds four ReGen[™] patents that have been granted in North America and two other ReGen[™] patents that have been issued in India and Singapore. The company also holds 10 ReGen[™] patent applications worldwide that are pending.

In our view, these patents provide protection over Gen III's exclusive rights to the ReGen[™] technology. The company's initial patent, which covers the placement of solvent extraction between flash distillation and hydrotreatment, expires in 2025. However, the company has received subsequent patents, which do not expire for another 20 years. These new patents include process improvements which would likely make it more difficult for competitors to develop alternate solvent extraction processes.

Notwithstanding, we believe there remains a risk that the technology could be copied illegally, which could result in additional legal expenses. Moreover, other UMO rerefining processes appear to be using extraction methods but with different yields and finishing processes. As such, we highlight this as a potential patent infringement risk.

Commodity price risks

Both inputs and outputs for the ReGen[™] process are subject to broader oil price volatility. However, as there is a correlation between UMO prices and base oil prices, margins tend to be relatively stable. Notwithstanding, a decline in crack spreads (driven by supply and demand fundamentals) could adversely impact revenues.

Although there is currently an undersupply of Group III base oils in North America, large scale oil refineries and UMO re-refiners could modify operations to increase Group III and synthetic oil output. This could adversely impact base oil prices and make offtake more difficult. Moreover, increased foreign supplies could adversely impact local pricing. Over the longer term, an increase in the prevalence of electric vehicles (EVs) could have a negative impact on the demand for base oils, as EVs have different lubricant requirements than traditional combustion engines.

Product marketing risks

Increased product shipping costs could impact our estimates, as they comprise the second largest expense category in our estimates. At present, there are rail constraints in Canada due to an abundance of crude oil being transported via rail rather than pipeline. To mitigate this risk, the company is developing contingencies for traffic considerations affected by sales expectations, service, weather, strikes, etc.

Asphalt demand tends to be seasonal in Canada, which could make offtake more difficult in the winter. However, the asphalt product out of Gen III's facility is expected to be of a reasonably high quality and will be marketed to refineries. Prices are expected to be better in the summer but refineries accept deliveries year round.

Small cap capital markets competition

Gen III will need to compete for investor attention to broaden its investor base. Currently, shares of Gen III are tightly held with minimal institutional and retail holdings. Share volumes have averaged 106,000 per day over the last year, implying a rotation of ~70% annually. However, over the last 30 and 60 days, this has declined to an implied rotation of 44% and 49%, respectively. We believe this may be due to shareholders and potential shareholders delaying a share transaction until FEED results or an equity issuance is announced.

While an equity issuance may seem initially dilutive, it should improve trading liquidity, which could reduce the liquidity risk premium for Gen III. We believe an equity issuance would also improve certainty surrounding project timelines and debt financing.

We ascribe a small value of \$0.23/sh for GHG credits to our unrisked valuation. This could be a risk if the UPC party gets elected in Alberta in 2019

Construction and commissioning delays

Once construction has commenced, there could be project delays, cost overruns and delays in reaching full capacity at the Bowden plant. To mitigate this risk, management plans to use standard equipment and materials to ensure predictable equipment performance. Stantec has also provided process guarantees to cover lost output yields. Additionally, Gen III staff will be trained by the design engineers and equipment manufacturers to ensure operations conform to design. Finally, the Bowden site has significant infrastructure in place, which should reduce the timeline to commerciality and lower the overall cost by up to \$10 million.

Operational execution risks

At the corporate level, management and the board of Gen III have not implemented a re-refining project. Individuals collectively have years of experience in implementing major projects, particularly in the mining and construction space. However, if Gen III is unable to execute its business model, it may result in material and adverse effects on the company's profitability, operating results and financial condition.

Environmental risks

Currently, we include a recurring carbon credit of \$9 million in our estimates, which is valued at \$0.23/share. In our view, there is a risk that these revenues will not be realized if the company fails to receive a Quantification Protocol. Moreover, they may not be realized if Alberta's UPC party wins the 2019 general election, given that the party has campaigned on cutting carbon taxes if elected.

Gen III will be dealing with hydrocarbons and as such, oil spills are a risk. The rerefinery site has been monitored for pre-existing contaminants and will continue to be monitored. Should contaminant levels increase, Gen III would be responsible for any incremental environmental damages.

Appendix I: Management

Gregory Clarkes | Chief Executive Officer & Chairman of the Board of Directors

Mr. Clarkes is an experienced financier with over 30 years' experience in raising capital for private and public companies in the resource, industrial, entertainment and technology sectors. He has been a senior officer, director and major shareholder of many private and publicly listed companies. He was the founder, director, and significant shareholder of Skye Resources Inc., which was sold to HudBay Minerals Inc. in 2008 for \$460 million.

Gordon Driedger | Chief Operating Officer & President

Mr. Driedger is an award winning professional engineer with 35 years' experience in design, management, and construction of a diverse spectrum of industrial, institutional and civil projects including 20 years as founder/ owner/ manager of SILCO, an EPC firm; 10 years as VP, Project Delivery with Plenary Group, a leading North American developer of infrastructure utilizing public private partnerships; and 5 years in the role of Director, Project Management Office, University of Alberta, overseeing the University's \$2 billion capital program. He has successfully completed over 70 major capital projects to date.

George Davidson | Executive Vice President

Mr. Davidson studied civil engineering at the University of Western Ontario prior to a 35-year career which includes extensive experience in major construction projects as a site engineer, estimator, project manager and president in both Canadian and North African multi-million-dollar projects. More recently, after obtaining his MBA from the Richard Ivey School of Business, Mr. Davidson was VP Operations for a major North American supply chain company. He has led acquisitions teams for both private and public companies and commercial and industrial construction projects through planning, engineering design and implementation.

Rick Low | Chief Financial Officer

Mr. Low has over 20 years of progressive management experience in various industries in Canada and in international markets. He has held both CFO and Board Member positions in various public companies in industries such as mining, manufacturing, and services, with a focus on debt financing and financial policy.

Mr. Low graduated with a Bachelor of Commerce Degree from the University of British Columbia and is a qualified Chartered Professional Accountant (CA) with the Chartered Professional Accountants of BC.

Mark Redcliffe | Executive Vice President, Corporate Finance

Mr. Redcliffe joined Gen III in May 2018 with 21 years of experience in the securities industry. He was the founding President & CEO of Jordan Capital Markets Inc. and was most recently the EVP responsible for P&L at Mackie Research Capital Corp. in British Columbia. Mr. Redcliffe holds both an MBA and CPA, CMA designation. He has established ties in the investment industry and has successfully overseen more than 500 private placements, Initial Public Offerings and cross-border advisory mandates.

Denis Dionne | Process Engineer

Mr. Dionne is a chemical engineer with over 28 years of practice in the fields of refining, petrochemicals, energy, mining and metals and risks studies. During his first fifteen years of service, he gained production experience in the petrochemical industry, where he developed expertise in the optimization and improvement of facilities, feasibility and conceptual studies, construction, commissioning, problem solving and troubleshooting.

Appendix II: Board of Directors

In addition to Gregory Clarkes, who serves as CEO and Chairman of the Board, the company's board of directors is comprised of the following four individuals.

Larry Van Hatten | Managing Director

Mr. Van Hatten became a partner of Ernst & Young LLP in May 2005, leading its Vancouver assurance practice until announcing his retirement in June 2010. Prior to May 2005, Mr. Van Hatten was the managing partner of Ellis Foster, Chartered Accountants, a Vancouver-based firm that merged into Ernst & Young LLP in May 2005. Mr. Van Hatten's practice focused on advisory services to the investment community. Mr. Van Hatten received his Chartered Accountant designation in 1975 and his Fellow Chartered Accountant designation in 2009. In 2010, he completed the academic requirements for the Directors Education Program.

John Detmold | Director

Mr. Detmold has over 30 years of experience in corporate finance, banking, leasing and manufacturing. He is the founder and CEO of Invecture Group, S.A. de C.V., the holding company for Frontera Copper Corporation. He is the Chairman of Communicacion Xersa, S.A. de C.V., an FM radio broadcaster based in Mexico serving the San Diego market, and a Director of Black Iron Inc. Mr. Detmold graduated with honors from McGill University with a bachelor's degree in economics.

Bryan Nethery | Director

Mr. Nethery is a metallurgical engineer and Professional Engineer (BC) with over 30 years of domestic and international senior management and metallurgical engineering experience. He has extensive experience in all aspects of mining project development including scoping studies, pre-feasibility studies, "bankable" feasibility studies, metallurgical studies, valuations, due diligence studies, plant design, construction, commissioning and launching start-ups. He was previously Vice President of AMEC from 1994 to 2005. Since 2005, Mr. Nethery has been active in mining project development and management as a director and/or officer of various mining and resource related companies.

Paul DiPasquale | Director

Mr. Di Pasquale has been involved in the securities industry since 1969 and has held various executive positions with responsibility for sales and trading operations for a number of retail firms in his career, including, Brink, Hudson & LeFever Ltd., Yorkton Securities Inc., Haywood Securities Inc., Gardiner Watson Ltd., and Walwyn Stodgell. Latterly. He was an Executive Vice President and Branch Manager at Canaccord Genuity Corp. Mr. DiPasquale was on the Board of Governors of the Vancouver Stock Exchange from 1984 to 1990 and served on its Executive Committee and as Chairman of its Audit and Automated Trading Committees.

Appendix III: Company history

Figure 48: Company events: 2015 to present

| 2015 | | | | |
|-------------|--|--|--|--|
| 5-Feb-2015 | Vero lube business combination announced, stock halted | | | |
| 20-Jul-2015 | PNG agrees not to call VeroLube loan in exchange for non-exclusive rights to ReGen [™] technology in U.S. | | | |
| | 2016 | | | |
| 16-Feb-2016 | PNG announces no longer pursuing RTO, agrees not to call VeroLube loan | | | |
| 4-Apr-2016 | PNG agrees not to call VeroLube loan in exchange for global non-exclusive rights to ReGen $^{ m TM}$ technology | | | |
| 26-May-2016 | PNG stock resumes trading | | | |
| 6-0ct-2016 | PNG mining licences not renewed in Papua New Guinea | | | |
| 2-Nov-2016 | \$0.5-3.0 million private placement (at \$0.30/sh) announced for evaluation of ReGen [™] | | | |
| 10-Nov-2016 | Additional details surrounding ReGen [™] technology provided | | | |
| 29-Nov-2016 | George Davidson appointed President; Private placement repriced at \$0.10/sh, including 1 warrant at \$0.30/unit | | | |
| 13-Dec-2016 | 5.5 million units close in 1st tranche, raising \$555,000 (gross) | | | |
| 20-Dec-2016 | Stantec and WSP pre-FEED contracts negotiated | | | |
| | 2017 | | | |
| 3-Jan-2017 | 30-day extension granted to VeroLube in exchange for delivery of 3 originally executed copies of patents | | | |
| 26-Jan-2017 | PNG extends private placement, up to \$1.2 million | | | |
| 30-Jan-2017 | PNG settles \$345,000 of debt (to management & board) with shares at price of \$0.17/sh | | | |
| 9-Feb-2017 | PNG closes final tranche on \$1.2 million private placement | | | |
| 28-Feb-2017 | PNG signs LOI for Parkland Bowden plant | | | |
| 6-Mar-2017 | PNG announces private placement of \$3 million at \$0.30/sh | | | |
| 13-Mar-2017 | PNG closes financing of \$2.3 million at \$0.30/sh | | | |
| 13-Mar-2017 | PNG announces federal funding of \$180,000 for Pre-FEED and marketing and economic feasibility studies | | | |
| 20-Mar-2017 | Pre-FEED reports received, with results of Group III yields exceeding expectations | | | |
| 29-Mar-2017 | Conclusions from Pre-FEED reports announced, including Revenue and EBITDA estimates | | | |
| 3-Apr-2017 | Wesley Marstaller appointed as EVP | | | |
| 15-May-2017 | Name changed to Gen III Oil Corporation with new ticker (GIII) on TSX-Venture | | | |
| 18-May-2017 | 480,000 stock options granted to management, board and consultants at \$0.72/sh | | | |
| 23-May-2017 | Angelo Battiston appointed as COO, Wesley Marstaller departs | | | |
| 19-Jun-2017 | Gen III signs LOI with Elbow River for 5 year, 100% offtake of finished products | | | |
| 26-Jul-2017 | Gen III announces \$5 million private placement (7.15 million units at \$0.70 with 1/2 warrant at \$1/sh) | | | |
| 14-Sep-2017 | Gen III signs Purchase and Sale Agreement with Elbow River | | | |
| 26-Sep-2017 | Gen III private placement upsized to \$6.5 million | | | |
| 3-0ct-2017 | Grant Brown appointed EVP | | | |
| 26 Jan 2019 | Con III pagetistor EEED contract with Stanton including propose dupranton on output, eaching EDC proposels | | | |
| 17-lan-2018 | Gen III signs 20 year lease with Parkland Refining for use of Rowden facility | | | |
| 18-lan-2019 | Gordon Driedder annointed COO. Angelo Battison (former COO) denarts | | | |
| 20-Feb-2018 | Gen III signs term sheet for \$72 million secured credit facility: equity financing is among key contingencies | | | |
| 13-Mar-3018 | Gordon Driedøer appointed President | | | |
| 26-Mar-2018 | PCL selected as EPC contractor | | | |
| 29-Mar-2018 | Hybrid Financial retained for investor relations services | | | |
| 3-May-2018 | Gen III completes shares for debt settlement (\$121,000 at deemed price of \$0,70/sh) | | | |
| 7-May-2018 | Gen III Oil announces hiring of Mark Redcliffe as Executive Vice President. Corporate Finance | | | |
| | | | | |

Source: Company Reports, Canaccord Genuity estimates

Appendix IV: CSU technical background

Flash distillation

Broadly speaking, distillation is a technique used to separate a mixture of liquids, which have different boiling points, into a gas vapour, prior to the gas condensing back into a liquid. Flash distillation differs from traditional distillation through the constant flow of a feedstock and the application of pressure.

As depicted in Figure 49, in a Flash Distillation process, fluids are pumped into a heat exchanger under pressurized conditions and heated. After a valve is opened, the fluid's pressure drops, yielding a vapor and liquid (similar to how steam rises when a heavy lid is removed from a boiling pot).

Owing to different boiling points, the lighter compounds (with a lower boiling point) will vaporize while the heavier compounds (known as "bottoms") settle to the bottom. Next, a condenser reduces the temperature of the vapour returning the vapours to a liquid state (now referred to as "tops").

Figure 49: Schematic figure of flash distillation



Source: Liquid waste treatment with physicochemical tools for environmental protection - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/Schematic-figure-of-flash-distillation_fig8_303403872 [accessed 29 Mar, 2018]

- In the 1st ReGen[™] flash distillation column, the vapours are light hydrocarbons and other polar compounds (3.3% of feedstock).
- In the 2nd and 3rd flash distillation columns, the vapours are fuel fractions that will eventually be upgraded (in the MTU) to ultra-low sulfur diesel and naphtha.

Fractional distillation

Fractional distillation differs from distillation only in that it separates a mixture into a number of different parts, called fractions. A tall column is fitted above the mixture, with several condensers coming off at different heights. The column is hot at the bottom and cool at the top.

Substances with high boiling points condense at the bottom and substances with low boiling points condense at the top. Like distillation, fractional distillation works because the different substances in the mixture have different boiling points.

Figure 50: Oil and gas fractionation



Source: Craig Freudenrich, Ph.D. "How Oil Refining Works" 4 January 2001. HowStuffWorks.com. https://science.howstuffworks.com/environmental/energy/oil-refining.htm 9 May 2018

CSU flashing and fractionation

Output from the CSU must be of a relatively high quality to be used as feedstock for the MSU and MTU. To produce a high enough quality cut for the MSU, the company is proposing the following flash and fractional distillation steps.

- Flash 1: During this first step, water is removed through traditional distillation, before light gases are separated out in a flash distillation. In total, approximately 3.3% of the original feedstock volumes are removed in the form of water and light hydrocarbons. Gen III intends to use the distilled water and gas "tops" in plant operations as boiler feed and refinery fuel, respectively.
- Flash 2 / 3: The bottoms from Flash 1 proceed to the second and third flash distillation columns, where the fuel fractions of UMO (diesel and naphtha at ~7.3%) are separated from the lubricating oil portion. Diesel and naphtha tops bypass fractionation and solvent extraction and are routed directly to the Molecular Treatment Unit Phase (MTU) for hydrotreatment to produce ultra-low sulphur diesel and naphtha fuel.
- Fractionation: In the fractionation tower, asphalt is separated from base oils. The bulk of motor oil additives and contaminants are expected to comingle with the asphalt by-product. Current lab testing shows that the ReGen[™] process should yield ~13% asphalt which can be sold to the roofing and paving industry. The remaining base oil mix (at 75% of inputs) is directed to the Molecular Separation Unit where Group III oil is separated out from the remaining base oil.

Appendix V: Base oil refining processes

In the next section we provide a brief overview of the refining process for each base oil category.

Base oil refining processes

At less than 1% of refinery output, base oils can be produced through solvent refining (Group I), hydrotreatment (Group II) and hydrocracking (Group III).

Solvent refining

The solvent refining process, which is used to produce virgin Group I oil, is very similar to the ReGen process:

- Step 1: light oils are removed through distillation
- Step 2: lubricant fractions are treated with solvent to separate out 70-85% of aromatics (unsaturated carbon atoms with double and single bonds)
- Step 3: dewaxing
- Step 4: hydrotreatment may be used to remove some impurities.

In our view, there are several key differences between traditional solvent refining and the ReGen[™] process. We believe the biggest difference is feedstock quality, although solvent selection and dewaxing are also different.

- Feedstock: A relatively pure distillate cut is sent to the ReGen[™] MSU solvent extraction phase. Conversely, in traditional solvent refining, the solvent extraction feedstock would be a mix of low-quality hydrocarbon molecules. As such, the residual base oil output from traditional solvent extraction would require significant hydrotreating to increase its saturate content and remove impurities. Given that most automotive motor oil in North America is already made from of high quality oil (Group II, III or synthetic), Gen III expects to extract high quality Group III oil using only solvents.
- Solvent selection: An nMP solvent will be used in the ReGen process, whereas traditional refining solvents include phenol, furfural and sulphur dioxide¹³. These solvents are used to extract aromatics, while nMP will be used to separate Group III oil from a Group II precursor. Although a number of other solvent were tested during the ReGen[™] pilot, nMP produced the best results.
- Dewaxing: This step will be unnecessary as it was completed during initial refining.

Hydrotreatment refining

In traditional refining, Group II and III base oils are produced through hydroprocessing and hydrocracking. The difference in quality depends on the severity of the hydroprocessing, as the processes are generally the same for Group II and III production.

- Step 1: Hydrocracking is used to remove unwanted polar compounds (impurities) and to convert aromatic components into saturated hydrocarbons
- Step 2: Base oils are separated through distillation
- Step 3: Base oils are dewaxed
- Step 4: A 2nd hydrotreatment of base oils increases saturation and removes last traces of aromatic and polar compounds (Select Synthetics, 2015)

¹³ http://www.selectsynthetics.com/base-oil-groups.html

In our view, the key takeaway is that by the end this process, Group II and III base oils have relatively high saturate content (>90%), minimal sulphur (<0.03%) and very good viscosity indexes.

Given these properties, they are prevalent in North America automotive motor oils, which results in a good quality feedstock for the ReGen[™] process. We also note that, while hydrotreating is used to upgrade base oil stocks, it does reduce yields. As such, there is traditionally a trade-off in yields and quality.

Synthetic oil

Synthetic oil lubricants are manufactured through a chemical conversion. Typically, natural gas is transformed into lubricating oils, as one of several GTL output streams. However other raw materials can be used. Shell is the largest producer of synthetic base oils, with GTL plants in Malaysia and Qatar.

Appendix VI: Used Motor Oil: Market dynamics

Used Motor Oil (UMO) will be the biggest single expense for Gen III. As such, we believe an understanding of the lubricant lifecycle and market dynamics is important. After refining, base oils generally follow a path of blending, consumption, and disposal/recycling. This life cycle is depicted in the following diagram.



Figure 51: Motor oil / lubricant life cycle

Source: Gen III Oil Corporation, modified by Canaccord Genuity

In our view, there are several key considerations are as follows:

Re-refining more efficient than traditional refining

Only 1% of base oil is produced from traditional refining operations; however, a significant amount of energy is expended to generate this small volume of base oil.

According to the company, compared to normal crude oil production, the production of re-refined oil is expected to use 78% less energy¹⁴. Additionally, re-refining prevents oil from being burned; currently, 50% of UMO collections are lightly treated before being used as burner fuel.

We believe this represents a significant environmental benefit which could be monetized through carbon credits and marketing ReGen oils as environmentally friendly alternatives to traditional base oils. We elaborate on this Appendix VII.

Adequate UMO supplies UMO in Western Canada

Although collection rates could be improved, they remain relatively high in Alberta at 87% of "recoverable motor oil" (35.5% of motor oil sales are deemed unrecoverable). Alberta's relatively high collection rates are in part due to Environmental Handling

¹⁴ Gen III Oil Corporation Filing Statement, dated June 30, 2017

Charges (EHCs) on motor oil purchases, which fund Return Incentives of \$0.04-0.12/litre to UMO collectors.

In total, Alberta recovered 86 million litres of UMO in 2016, which represents ~59% of Gen III's input requirements (assuming 2,800 b/d capacity running for 330 days a year).

Looking at Western Canada, the 2016 supply of UMO in BC, Alberta, Saskatchewan and Manitoba was approximately 165 million litres, equivalent to ~112% of Gen III's input requirements (at 2,800 b/d for 330 days a year).

Figure 52: Canadian 2016 UMO collections

| | _ | Recoverable | | Recovered | | Potential to |
|------------------------------|-------|-------------|--------|-------------|--------|--------------|
| (millions litres) | Sales | % | Litres | % | Litres | recover |
| BC | 93 | 70% | 65 | 85% | 55 | 10 |
| Alberta | 153 | 65% | 99 | 87% | 86 | 13 |
| Saskatchewan | 38 | 70% | 27 | 69% | 18 | 8 |
| Manitoba | 29 | 65% | 19 | 75% | 14 | 5 |
| Western Canada | 313 | 67 % | 209 | 83 % | 174 | 36 |
| Quebec | 101 | 73% | 74 | 82% | 60 | 14 |
| Maritimes | 17 | 70% | 12 | 91% | 11 | 1 |
| UOMA Canada avg. | 431 | 68 % | 295 | 83 % | 245 | 50 |
| Rest of Canada east (CG est. | 664 | 68% | 454 | 83% | 376 | 77 |
| Canada total | 1,095 | 68 % | 749 | 83% | 621 | 128 |

Note: SK sales not provided, 70% potential recovery assumed

ON sales based on Canadian sales of 1.095 billion litres (per Labine Dionne), applying UOMA Canada average recoverable / recovered rates

Source: Respective Used Oil Management Associations of Canada 2016 Annual Reports, Labine Dionne, Canaccord Genuity estimates

Deducting current re-refining capacity from existing UMO supply, we estimate that Western Canadian supplies could still provide Gen III with 87% of its UMO needs as shown in the Figure below. Moreover, we estimate there is ~190 million litres of excess UNO supply in Eastern Canada, in addition to 2 billion litres of unrefined UMO in the US¹⁵.

¹⁵ Vertex Energy 2016 Presentation

Figure 53: UMO regional supply and UMO re-refining

| UMO (millions litres) | Western Canada | Eastern Canada | Canada Total |
|------------------------------------|-------------------|-------------------|-----------------|
| 2016 UMO supply | 174 | 447 | 621 |
| Less: re-refining capacity | | | |
| Terrapure | (36) | | (36) |
| HD Petroleum | (13) | | (13) |
| Safety-Kleen | | (188) | (188) |
| Veolia | | (71) | (71) |
| Current UMO excess | 125 | 188 | 313 |
| Gen III requirements | (147) | - | (147) |
| Excess/(shortage) post-Gen III | (22) | 188 | 166 |
| Potential to recover | 36 | 92 | 128 |
| Excess/(shortage) at full recovery | 14 | 280 | 294 |

Note: UMO estimates for Terrapure and Safety-Kleen provided by Labine-Dionne Indications Veolia re-refinery may be decommissioned

Source: Respective Used Oil Management Associations of Canada 2016 Annual Reports, Labine Dionne, Canaccord Genuity estimates

Overall, we believe there is adequate UMO to supply the Bowden facility and that Gen III will likely become the dominant UMO purchaser in the region given its high value end product. We note that UMO collections in Alberta have declined in recent years due to rising costs, lower sales prices, and fixed return incentives. Consequently, Gen III should play a role in reversing this trend and should receive government support in doing so.

Potential UMO competitors

Currently, there are few local competitors for used oil in Canada and the US West Coast regions. However, Safety-Kleen has a relatively large collection business and would compete with Gen III for re-refinery supplies.

- In the Seattle, WA area, Safety-Kleen operates its Emerald Used Oil Refinery. The facility would compete for UMO supplies, with feedstock requirements of ~975 b/d of UMO. However, as the plant produces low value marine diesel oil, Gen III will likely have greater buying power owing to its high-value end products.
- The only other UMO re-refinery in Canada is **Safety-Kleen's Breslau**, Ontario location with 2,500 b/d of Group II production. Safety-Kleen currently collects UMO in Alberta and would therefore compete for supplies. However, it may be economically advantageous to sell UMO from Western Canada to Gen III rather than incur shipping costs to Ontario (particularly if there is ample local supply in Eastern Canada and northeastern US to stock the Breslau, ON re-refinery).
- **Terrapure** is the sole re-refinery in Western Canada, with relatively low output volumes of 400 b/d. Given its North Vancouver location and proximity to the Canadian border, we believe it likely sources some of its feedstock from the US (along with BC and Alberta). The company is also a local UMO processor in Alberta and could become a UMO supplier to Gen III.

North America UMO pricing

Outside of the limited re-refining in North America, the main use for used oil remains low value burner fuel. As such, there is a limit to what UMO can be sold for in the current market. At present, the ceiling price is expected to be #6 diesel fuel/residual fuel oil, less a discount to encourage the purchase of UMO over diesel. Currently, this discount is ~60%. With #6 diesel prices at US0.35/litre (0.45), we estimate UMO prices of US0.21/litre (0.27). Depending on where UMO is sourced, freight charges are also expected to range from 0.04-0.08/litre. This puts total UMO costs at 0.31-0.35/litre versus our estimate of 0.35/litre.

Owing to commodity price declines in recent years, many companies have converted facilities over to propane or natural gas because it burns cleaner and more efficiently. As this trend continues, the demand for used oil should continue to decline, which could result in further price reductions.

Local demand curve for UMO may shift upward

As Gen III plans to produce a high-value revenue stream from a waste product, the demand curve for UMO in Western Canada may shift upward once the Bowden plant is operational. This may increase local prices but should also boost collection rates and provide collectors with a reliable purchaser. Consequently, we have included a ~10% premium in our UMO price estimates to account for a potential market disruption. This puts our projected cost at ~\$0.35/litre, assuming a \$0.06/litre freight charge.

Favourable competitive Global environment for UMO re-refining

Used motor oil is considered a major environmental hazard. The Alberta Used Motor Oil Association states that it "has long been recognized as Canada's single largest source of potentially hazardous material if not properly managed."

At just 17,700 b/d, there is minimal re-refining capacity in North America. This trend is worse around the globe, given that North America represents over 40% of current rerefining capacity. Overall, based on refining and re-refining capacity outlined in *Lubes'n'Greases 2017 Guide to Global Base Oil Refining*, we estimate that only 4% of global Group I, II, III production is re-refined back into base oils. *In our view, this presents an opportunity to deploy the ReGen technology in other jurisdictions.*





Source: Lubes'n'Greases 2017 Guide to Global Base Oil Refining, Canaccord Genuity

Appendix VII: Environmental opportunities

Gen III intends to pursue a Greenhouse Gas (GHG) strategy in both Alberta and BC. As such, we outline the regulatory environment in these provinces, along with the associated opportunities and challenges.

Alberta Cap and Trade Opportunity

In Alberta, energy consumers are charged a carbon tax on major fuels, while large emitters are subject to benchmarks establishing CO₂e (carbon dioxide equivalent) emission volumes (i.e. caps). Facilities that emit below their targeted CO₂e levels, along with companies offering low carbon solutions, can sell credits to organizations that have surpassed their limits.

The government's goal is to incent lower carbon emissions from energy consumers and carbon-intense industries, while attracting investment into "green" technologies. In our view, **this creates a favourable regulatory environment for Gen III, while providing a potential revenue stream in the form of carbon credits.**

Given that Gen III's re-refining facility would prevent used motor oil from being burned as fuel oil, the company believes carbon credits may become a future revenue stream. The following sources provide some guidance regarding potential CO₂e volumes:

- According to the BC Used Oil Management Association, recycling and re-refining UMO reduces emissions by ~2.5 kg CO₂e /litre.¹⁶
- Safety-Kleen states "we returned during 2017 approximately 190 million gallons of new re-refined oil, lubricants and by-products back into the marketplace. In 2017, our re-refining process eliminated more than two million metric tons of greenhouse gases. Applying this ratio to Gen III's facility, we arrive at just under 400,000 tonnes of CO₂e net reductions.
- The California Life Cycle Assessment of Used Oil estimates a net reduction of 0.21-0.46 kg CO₂e per kg from re-refining UMO.¹⁷

Assuming the Bowden facility operates at 90% capacity, and based on these parameters, we estimate potential CO_2e reductions of 75,000 to 395,000 tonnes per year.

With a current carbon levy of \$30 per tonne, we estimate that Gen III has an annual potential revenue stream of \$1.6 - 8.8 million in Alberta. Although credits would likely sell below the government mandated levy, carbon prices are expected to increase to \$40 per tonne in 2021 and \$50 thereafter (based on federally-imposed carbon pricing).

British Colombia Carbon Intensity (CI) diesel opportunity

British Colombia's *Renewable and Low Carbon Fuel Requirements Act* is designed to reduce greenhouse gas emissions associated with transportation fuels. Comprised of two parts, the regulations mandate both renewable content and reductions in Carbon Intensity (CI) in transportation fuels.

¹⁶ BCUOMA 2011 Report to Director. Pg 16.

http://www.usedoilrecycling.com/resources/file/BC/2011ReportToDirectorJun30-12.pdf

¹⁷ Life Cycle Assessment of Used Oil Management. Prepared for the American Petroleum Institute. January 2017. Environmental Resources Management (ERM) Pg 122.

http://www.api.org/~/media/Files/Certification/Engine-Oil-Diesel/Publications/LCA-of-Used-Oil-Mgmt-ERM-10012017.pdf

Gen III believes it may be able to capitalize on Carbon Intensity objectives through its diesel output, which it believes is less carbon intense than traditional diesel fuels.

Overall, the company sees a ~\$1 million per year potential revenues based on a 15% reduction in carbon intensity (at \$171/tonne).

GHG challenges

In our view, there are several challenges to Gen III's GHG strategy, which we outline below.

- Need for Quantification Protocol. In our view, the biggest challenge (and opportunity) will be developing a Quantification Protocol in Alberta. A Quantification Protocol establishes approved methodology for quantifying greenhouse gas emission reductions from energy efficiency measures. Currently no Quantification Protocols have been developed in Alberta (or elsewhere) for UMO re-refining. This means Gen III will be starting from scratch on developing a protocol, which can take 1-5 years for development and approval. Although the company would likely rely on external expertise, we believe it is worth pursuing given the potential revenue stream (of ~\$9 million per year) and favourable regulatory environment in Alberta. Moreover, we believe the process should be complete within 1-2 years given that the Quantification Protocol would be relatively simple and very specific to Gen III (versus having widespread industry implications).
- Need for diesel CI benchmark in BC. Like the Alberta Quantification Protocol, there are no comparable Carbon Intensity (CI) benchmarks set in BC for diesel derived from UMO. Management believes it could take up to six months for the development and approval of a CI score once the plant is operational. It would likely be another 4-12 months before credits would be available for sale to fuel suppliers.
- Stringent reporting requirements. In our view, both BC and Alberta will demand stringent reporting requirements. For diesel destined to BC, Gen III may require third party verification of all shipments delivered to BC. In Alberta, the company would be subject to annual Quantification and Verification audits, necessitating detailed data collection and documentation. It is notable that the federal government is also considering implementing a carbon intensity benchmark for fuels, which could simplify the reporting process.
- **Carbon credit volumes and values subject to change.** As a Quantification Protocol for UMO re-refining has not yet been established, the annual CO₂e emission reductions may fall below current estimates. Moreover, the carbon credit market in Alberta remains relatively illiquid. Additionally, Alberta's UPC Party has campaigned to eliminate the carbon tax and fight federally imposed carbon taxes if it is elected in 2019. Therefore, depending on environmental sentiment, regulations could change substantially.

Notwithstanding the challenges associated with a GHG strategy, we believe the potential payoff makes this a strategy worth pursuing.

Demand for sustainable investments with high returns

In our view, many sustainability investments rely heavily on government subsidies to generate attractive returns for investors. As the Bowden project is expected to be highly economic on a standalone basis, we believe it will appeal to institutional funds specializing in energy, sustainability, and small cap / growth equities. It may also be of interest to generalists looking to add clean tech or deeply discounted equities to their portfolios.

Appendix VIII: Financial Statements

Figure 55: Income statement (C\$ Millions)

| Income statement | 2017A | 2018E | 2019E | 2020E | 2021E |
|--|-------|-------|-------|-------|-------|
| Revenue | | | | | |
| Refined product sales | - | - | 52.6 | 152.7 | 181.4 |
| GHG credits | - | - | 2.7 | 7.8 | 9.0 |
| Total Revenue | - | - | 55.3 | 160.4 | 190.4 |
| Expenses | | | | | |
| Used motor oil | - | - | 15.7 | 44.7 | 52.7 |
| Finished product freight and marketing | - | - | 6.3 | 18.5 | 22.0 |
| Other variable operating costs | - | - | 1.8 | 5.1 | 6.0 |
| Fixed operating costs | - | - | 1.6 | 4.0 | 3.3 |
| G&A | 4.5 | 3.8 | 2.8 | 2.8 | 2.9 |
| Stock option expense | 0.6 | 0.2 | 0.3 | 0.3 | 0.5 |
| Depreciation | - | - | 2.0 | 6.1 | 6.3 |
| Total operating expenses | 5.1 | 4.0 | 30.4 | 81.5 | 93.8 |
| Operating income | (5.1) | (4.0) | 24.8 | 78.9 | 96.7 |
| Other expense (income) | | | | | |
| Interest expense/(income) | (0.0) | 4.6 | 8.8 | 7.6 | 5.8 |
| Foreign exchange loss/(gain) | 0.3 | - | - | - | - |
| Other expense/(income) | - | (0.1) | - | - | - |
| Total non-operating expenses | 0.3 | 4.5 | 8.8 | 7.6 | 5.8 |
| Net income before taxes | (5.4) | (8.6) | 16.0 | 71.2 | 90.9 |
| Taxes | | | | | |
| Current tax expense | - | - | - | 1 | 22 |
| Deferred tax expense | - | (2) | 4 | 18 | 3 |
| Total taxes | - | (2) | 4 | 19 | 25 |
| | | | | | |
| Net income | (5.4) | (6.2) | 11.7 | 52.0 | 66.3 |
| | | | | | |
| EBITDA | (4.5) | (3.8) | 27.1 | 85.3 | 103.5 |
| Adjusted EBITDA* | (4.5) | (3.8) | 26.7 | 84.1 | 102.3 |

* Our adjusted EBITDA cost deducts cash lease costs from operating income, as lease

payments treated as Right of Use Asset per IFRS 16

Source: Company Reports, Canaccord Genuity estimates

Figure 56: Statement of Cashflows

| Statement of cashflows | 2017A | 2018E | 2019E | 2020E | 2021E |
|--|-------|--------|--------|--------|--------|
| Cash flows from operating activities | | | | | |
| Net income | (5.3) | (6.3) | 11.7 | 52.0 | 66.3 |
| DD&A | - | - | 2.0 | 6.1 | 6.3 |
| Share based payments | 0.6 | 0.2 | 0.3 | 0.3 | 0.5 |
| Finance costs | (0.0) | - | 0.6 | 1.2 | 1.2 |
| Foreign exchange | 0.3 | - | - | - | - |
| Other | (0.1) | - | - | - | - |
| Deferred taxes | - | (2.3) | 4.3 | 18.0 | 2.7 |
| Funds flow from operations | (4.5) | (8.4) | 18.9 | 77.6 | 77.1 |
| Changes in working capital | 0.4 | 3.6 | (11.6) | (0.2) | 0.0 |
| Net cash flows from operations | (4.1) | (4.8) | 7.3 | 77.4 | 77.1 |
| Cash flows from financing activities | | | | | |
| Issuance of share capital | 10.7 | 48.3 | 6.3 | 1.1 | - |
| Share issuance costs | (0.8) | (3.6) | - | - | - |
| Borrowing (Repayments) | - | 72.0 | (14.4) | (14.4) | (14.4) |
| Lease payments and other | - | - | (2.4) | (1.2) | (1.2) |
| Net cash flow from financing activities | 10.0 | 116.7 | (10.5) | (14.5) | (15.6) |
| Cash flows from investing | | | | | |
| Capital additions | - | (27.0) | (63.0) | - | - |
| Divestitures | (0.0) | - | - | - | - |
| Other | - | - | - | - | - |
| Net cash flows from investing | (0.0) | (27.0) | (63.0) | - | - |
| Effects of foreign exchange | - | - | - | - | - |
| Net change in cash | 5.8 | 84.9 | (66.2) | 62.8 | 61.5 |
| Beginning balance | 0.4 | 6.3 | 91.1 | 24.9 | 87.8 |
| Ending balance | 6.3 | 91.1 | 24.9 | 87.8 | 149.3 |
| Source: Company Reports, Canaccord Genuity estimates | | | | | |

Speculative Buy Target Price C\$1.50 | 10 May 2018

| Balance sheet | 2017A | 2018E | 2019E | 2020E | 2021E |
|--|--------|--------|--------|--------|-------|
| Assets | | | | | |
| Current Assets | | | | | |
| Cash & cash equivalents | 6.3 | 91.1 | 24.9 | 87.8 | 149.3 |
| Accounts receivable | 0.1 | 0.1 | 8.1 | 8.3 | 8.2 |
| Prepaid expenses | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Inventory | - | - | 2.6 | 2.7 | 2.8 |
| Other | - | - | - | - | - |
| Total Current Assets | 6.6 | 91.4 | 35.8 | 98.9 | 160.5 |
| Property, Plant & Equipment | 0.0 | 27.0 | 88.2 | 82.6 | 76.8 |
| Right of use asset (Leased facility) | - | - | 9.0 | 8.6 | 8.1 |
| Deposit | - | - | 2.0 | 2.0 | 2.0 |
| Investments | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Assets | 6.6 | 118.5 | 135.2 | 192.2 | 247.4 |
| Liabilities and Equity | | | | | |
| Current liabilities | | | | | |
| Accounts, interest and other payables | 0.9 | 4.5 | 3.6 | 3.6 | 3.7 |
| Accrued tax provision | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Interest payable | - | - | - | - | - |
| Total Current Liabilities | 1.1 | 4.7 | 3.7 | 3.7 | 3.8 |
| Long-term Debt | - | 72.0 | 57.6 | 43.2 | 28.8 |
| Deferred tax liability | - | (2.3) | 2.0 | 20.0 | 22.7 |
| Lease liability | - | - | 9.5 | 9.5 | 9.5 |
| Other long-term liability | - | - | - | - | - |
| Total Liabilities | 1.1 | 74.3 | 72.8 | 76.4 | 64.8 |
| Shareholders' Equity | | | | | |
| Share Capital | 74.8 | 119.5 | 125.8 | 126.8 | 126.8 |
| Contributed Surplus | 8.2 | 8.4 | 8.7 | 9.0 | 9.5 |
| Retained earnings/accumulated deficity | (77.5) | (83.8) | (72.1) | (20.1) | 46.2 |
| Accumulated other comprehensive income | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 5.6 | 44.1 | 62.4 | 115.8 | 182.7 |
| Total Liabilities and Equity | 6.6 | 118.5 | 135.2 | 192.2 | 247.4 |

Figure 57: Balance Sheet (C\$ millions)

Source: Company Reports, Canaccord Genuity estimates

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Investment Recommendation

Date and time of first dissemination: May 10, 2018, 17:00 ET Date and time of production: May 10, 2018, 17:01 ET

Target Price / Valuation Methodology:

Gen III Oil Corporation - GIII.CA

Using a DCF model (including a 14.5% WACC and \$48 MM in equity at \$0.60/sh), we arrive at an unrisked value of \$2.70/sh. We risk this by ~55% to arrive at our \$1.50/sh target.

Risks to achieving Target Price / Valuation:

Gen III Oil Corporation - GIII.CA

The primary risks to achieving our target price will be financing, post-commissioning operating performance and base oil prices.

Distribution of Ratings:

Global Stock Ratings (as of 05/10/18)

| Rating | Coverag | IB Clients | |
|-----------------|---------|------------|--------|
| | # | % | % |
| Buy | 569 | 61.25% | 42.00% |
| Hold | 229 | 24.65% | 24.89% |
| Sell | 21 | 2.26% | 14.29% |
| Speculative Buy | 110 | 11.84% | 62.73% |
| | 929* | 100.0% | |

*Total includes stocks that are Under Review

Canaccord Genuity Ratings System

BUY: The stock is expected to generate risk-adjusted returns of over 10% during the next 12 months.

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