Heritage Cannabis Holdings Corp.

Heritage built on extraction experience

The Desjardins Takeaway

Heritage plans to make use of a manufacturing hub which is unique to the extraction space and which could foster long-term partnerships above and beyond what we have seen in the industry thus far. We believe this model could also provide better insulation against potential margin compression as industry extraction capacity ramps up. In addition, Heritage is one of the few extraction companies to have extensive direct cannabis extraction experience (under the old medical cannabis rules) across different extraction methods, which should help lower execution risk (extraction, formulation and specification) as it ramps while freeing up resources to spur new product growth. Its formulation expertise, which has won awards in the past, should give it an edge when courting new partners that wish to enter the budding cannabis CPG world.

Highlights

Unique business model that should stand out to potential partners. Heritage's plan to build a manufacturing hub whereby each partner would have a dedicated space to formulate, test and manufacture products (while utilizing Heritage's extraction and formulation expertise) should appeal to companies that wish to enter the cannabis space but want a more hands-on approach; this should also appeal to companies that do not want to obtain the necessary licences or build a greenfield facility on their own. This is expected to result in longer-term relationships compared with traditional extraction supply agreements and protect against industry margin compression.

One of the only extraction players with direct cannabis extraction experience and formulation/ product development expertise. The company has more than five years of cannabis and hemp extraction experience under the previous medical cannabis rules, which should help lower extraction execution risk and enable the company to focus on developing new products, technology and methods. It has also formulated and produced award-winning products for the medical market, which makes it unique in the extraction sector. This experience should help attract new customers and partners.

Medical technology angle. Through its 30% stake in Endocanna Health, Heritage has access to an interesting DNA test kit which helps users identify ideal cannabis formulations and absorption delivery forms for a more patient-friendly experience. This could eventually lead to personalized medical formulations and long-term margin potential.

Potential for higher and more sustainable margins. The manufacturing hub model should help limit the margin compression Heritage may experience as industry capacity ramps up, given its partners are firmly established in the facility and the cost and time of re-establishing operations elsewhere should act as a deterrent. As a result, we believe this should result in higher margins being more sustainable over the long term. This hub model also suggests that the majority of the company's extraction capacity should eventually be allocated to higher-margin white label services compared with low-margin tolling services.

Valuation

Our C$0.90 target is based on a 10.5x EV/EBITDA multiple on our 4Q FY20–3Q FY21 estimates.

Recommendation

We are initiating coverage of Heritage Cannabis Holdings Corp. with a Buy–Speculative rating.

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Company profile

Heritage is focused on advancing its expertise, scale and technological footprint both domestically and internationally. It is headquartered in Toronto, Ontario, and currently has 61 employees. The company's personnel have been in the cannabis space for more than five years (operating under the previous ACMPR regulations), in response to the need for access to medical cannabis care. The company's products were created to assist those with ailments from seizure affliction, to cancer, to daily pain. Heritage's experience should help make it a credible and trusted company in the medical cannabis realm, and should enable the company to better assist clients and partners with its products. Given that Heritage has been extracting and creating formulations for many years now, lower execution risk would be expected as it moves into the recreational cannabis space.

Heritage's strategy involves being engaged in many aspects of the value chain, including cultivation, extraction, product development and developing intellectual property (see Exhibit 1). Heritage intends to become a global competitor by seizing international opportunities through partnership agreements, such as the Truro agreement for the Caribbean and the Empower agreement for the US hemp-based CBD market (more on this later).

Exhibit 1: The Heritage strategy

Source: Company documents

Operational footprint—pieces of the puzzle

Heritage is the parent company of the subsidiaries CannaCure, Voyage Cannabis (75% stake), CALYX Life Sciences (formerly BriteLife Sciences), Purefarma Solutions and Endocanna Health (30% stake). CannaCure and Voyage hold Health Canada licences which enable cultivation, processing and medical sales. CALYX is a cannabis-based medical solutions provider. Purefarma specializes in proprietary methods and IP for premium extraction.

Endocanna Health has developed the interesting Endocannabinoid DNA test, which uses a home-based saliva collection kit to identify relevant genetic variants related to an individual's cannabinoid receptors and metabolism. In other words, it helps identify which cannabis formulations and delivery forms are ideal for a user.

CannaCure—cultivation and extraction. CannaCure holds Health Canada licences which enable cultivation, processing and medical sales. It currently operates in Fort Erie, Ontario, out of a fully owned 122,000sf facility which can be retrofitted to meet GMP standards if demand warrants it. To date, ~25,000sf of the facility is Health Canada–compliant, and the remainder of the facility will be retrofitted on an as-needed basis. This facility also houses two operational Vitalis Q90 machines for CO_2 extraction purposes which can process ~50,000kg of annual biomass each. There are an additional two machines onsite which are awaiting Health Canada approval.

Voyage Cannabis—greenhouse cultivation and extraction. Voyage holds Health Canada licences which enable cultivation, processing and medical sales. Voyage currently operates in Falkland, BC, out of 15,500sf of processing space, with another 16,000sf of greenhouse space. Voyage (of which Heritage owns a 75% stake) sits on 13 acres which can be used as cultivation space depending on demand. Two Vitalis Q90 machines are installed and operational at this facility.

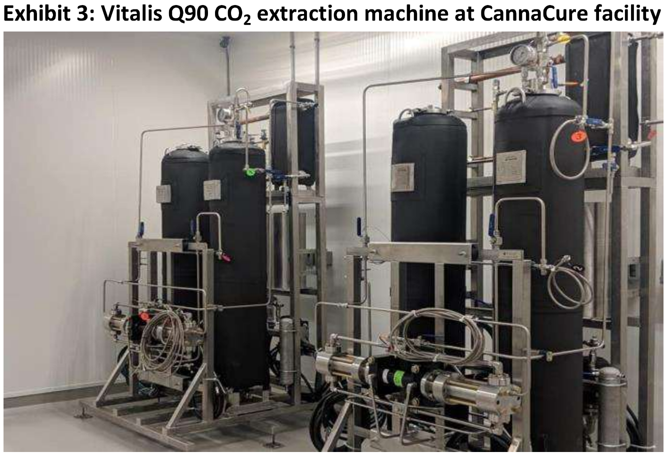
Exhibit 2: Voyage greenhouse

Source: Shuswap Passion

CALYX Life Sciences—medical products. Wholly owned CALYX is based in BC and assists Heritage in the development of medical products through existing formulations and IP. CALYX is expected to include an educational component that will be targeted at assisting patients with individualized customer solutions. Heritage does not intend to directly compete with any of its clients; it will, however, be producing under CALYX's medical labels within the next year.

Purefarma Solutions—extraction. Award-winning Purefarma has been conducting extraction activities for more than five years. It is based in Kelowna, BC, and has an experienced extraction team. The company provides turnkey extraction solutions, contract processing, toll processing and internally developed formulations, as well as formulations for external partners. Heritage currently has six Vitalis Q90 CO_2 extraction machines (four operational and two awaiting use at 50,000kg of annual biomass input capacity each) spread across its two licensed locations (CannaCure and Voyage). Purefarma has proprietary methods, IP for premium extraction manufacturing and experience with cannabis and hemp extraction. Purefarma created extracts that have won five first-place and two second-place awards from both the High Time Cannabis Cup (a medical and recreational cannabis competition held worldwide every year) and the Emerald Cup (Northern California medical cannabis competition). Lastly, Purefarma has formulation expertise in a variety of product forms, which makes it unique compared with other industry players. Purefarma was acquired in December 2018 for 33.3m shares at a price of C$0.195/share; earnouts over the next four years could bring the shares issued to 21.1m (based on C$100m in cumulative gross margin by December 31, 2023). Heritage will also pay an annual royalty based on the fiscal year's gross margin (set at 12% for FY20 and declining to 9%, 6% and 3% each subsequent year).

Exhibit 3: Vitalis Q90 CO_2 extraction machine at CannaCure facility



Source: Purefarma Solutions

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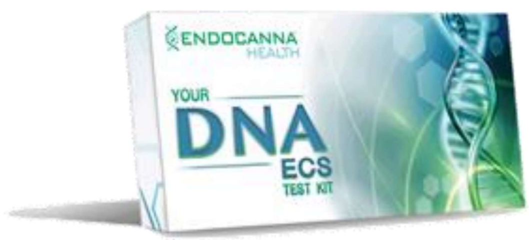
Endocanna Health. Heritage has a 30% stake in Endocanna (on July 26, Heritage issued 2.7m shares at C$0.485 for 10% of the common shares and purchased 3,265,497 shares of common stock, representing 20% of the common stock of Endocanna on a fully diluted basis for a total purchase price of ~US$2m). Endocanna is based in California and has developed the Endocannabinoid DNA test which uses a home-based saliva collection kit to identify clinically relevant genetic variants related to an individual's cannabinoid receptors and metabolism. Endocanna sells the DNA test kits for US$199 and provides end users with product recommendations, suggested dosage guides, methods of administration and so on. The results from the customer DNA test can be used for a more effective, solution-driven patient experience. Those who have done DNA tests through other means (for example, MyHeritage or 23AndMe) can obtain their results at the lower price of US$49.95. This kit could bring more new consumers to the cannabis segment, help reduce the number of first-time bad experiences and ultimately keep consumers as regular customers.

We find this transaction particularly interesting as it could take the company down the path of personalized medicine. The DNA kits help identify what form of cannabis may be most useful to users as it relates to the medical condition they are trying to address (eg anxiety, memory loss) as well as the ideal strain and delivery form (ie absorption); this should help remove the trial and error aspect of trying new medicine and provide a more effective user experience. Endocanna is currently selling these kits in the US and we would expect them to be available in Canada soon. Eventually, this could lead to Heritage producing personalized medicine for patients.

Exhibit 4: Endocanna Health DNA kit



Source: Endocanna Health

Manufacturing hub strategy—a key differentiator in the extraction sector

Heritage is the only extraction company we are aware of that plans to build a manufacturing hub whereby potential partners would have dedicated rooms to perform R&D, formulation and product development for cannabis 2.0–related products with the help of Heritage's expertise. Heritage could eventually have the entire facility fully licensed, which would remove the hassle of potential partners having to go through the licensing process. We believe Heritage's onsite extraction team improves efficiencies and collaborations to better formulate new products. The hub model/strategy, unlike other models, allows the partners to be onsite and hands-on with the development and production of the product. It also allows for ongoing collaboration with Heritage's team and possible collaboration with other onsite partners.

With a 122,000sf former GMP-certified pharmaceutical manufacturing site facility (previously owned by Patheon) available for conversion, Heritage has the ability to house a strategically located large-scale manufacturing hub/centre of excellence. Ideally, the space will be designed for Heritage's future partners in mind to work in a licensed facility. The dedicated rooms could be sized according to the partners' needs and specifications. The facility would house extraction, testing, R&D, storage, packaging lines and a loading dock/bay for distribution of products across Canada (and given its location, easy access to the US if/when that market becomes available). With dry flower prices already declining meaningfully, Heritage has the flexibility to convert its indoor growing rooms into areas for extraction, storage or other needs.

Exhibit 5: Manufacturing hub at the CannaCure facility

Source: Heritage Cannabis investor deck

An attractive proposition for CPG players who want a hands-on approach. We believe this approach could be very appealing to potential partners looking to get into the cannabis or hemp sector. Given the social stigma of cannabis and even hemp, a company may want to pay more attention to the R&D, formulation, product development and manufacturing than it would normally otherwise and likely prefers to have a dedicated team onsite overseeing the development of the products to ensure there are no issues and to protect the company's overall brand. CPG companies could normally do this internally, but because a special cannabis processing licence is required (and a separate room/facility away from the production of other food products is required), companies will likely opt to do this at an already-licensed third-party site.

Potential partners also have the opportunity to leverage Heritage's cultivation operations for biomass, CALYX for its turnkey formulations (ie use medical formulations for wellness products) and Heritage's onsite extraction services. This model is similar to what HEXO (HEXO, Buy–Average Risk, C$5.00 target price) is building in Belleville, but HEXO does not have any extraction expertise or much previous formulation expertise.

Longer-lasting relationships. This business model should drive higher-margin white label–related business and longer-term relationships than the 2–3-year contract agreements we are currently seeing in the industry. Having a dedicated space in a manufacturing hub likely makes it harder for the partner to leave for another extraction company (especially if none of the other players employs a manufacturing hub model, which they do not). This should also lead to better long-term sales visibility for Heritage.

Potential for higher margins. This manufacturing hub model not only means a product mix that may consist mostly of high-margin, white label–related agreements, but Heritage's involvement likely suggests additional value-added above and beyond a traditional white label agreement (packaging, labelling, testing and distribution). Having a partner establish operations at the facility fosters longer-term relationships and increases the opportunity cost of going elsewhere. Heritage may therefore be able to realize modestly higher margins, especially if industry margin pressure mounts.

Products and services

The company offers a standard set of products and services comparable with that of most other extraction companies. It also offers internal cultivation, which it uses for R&D, product development and formulation purposes, which can be attractive to potential customers. The manufacturing hub is unique to the company and is, in our view, a feature that makes it an attractive destination for potential CPG-focused customers.

Extraction capacity and leveraging previous cannabis extraction experience. With the four operational CO_2 machines, the company has capacity to extract up to 100,000kg of annual biomass (cannabis and hemp), with the potential to extract up to 300,000kg going forward. The company's capacity will vary depending on whether it is extracting higher-quality extracts (eg full spectrum, direct to vape)—which takes longer and reduces overall capacity but generates significantly higher value—or whether it is simply extracting the cannabis molecules.

Given the company's additional experience with hydrocarbon and ethanol extraction, we would not be surprised if it eventually offered these extraction methods down the road, which could substantially increase its overall capacity. Currently, there is only one extraction company that offers more than two extraction methods and Heritage has announced the most supply agreements in the industry, which may be due in part to the variety of the extraction methods it can offer to potential customers.

The fact that Heritage has approximately five years of experience in extraction (through its Purefarma subsidiary) should make it an attractive partner and reduce execution risk. In this new and budding industry, Heritage is one of the most longstanding players (as it was able to operate under the ACMPR regulations). It appears that Purefarma is ahead of the competition as it has the expertise to execute and formulate quality extracts.

Heritage is experienced in both subcritical and supercritical CO_2 extraction. Subcritical CO_2 requires less pressure and lower temperatures than supercritical CO_2 extraction. The subcritical CO_2 process is longer, but it keeps and protects fragile constituents like essential oils, terpenes and other sensitive chemicals within the plant, which is highly desirable when producing full-spectrum cannabis products.

Cultivation. Having its own cultivation should prove advantageous for Heritage as it allows for R&D and the company can cultivate specifically for formulations. However, it has the flexibility to convert its growing areas to other functions (extraction, product development, storage), especially with prices for dry flower continuing to decline. The company does not have a lot of capital tied up with its cultivation footprint and can retrofit it for other purposes as needed.

Formulation. The company has formulation expertise from two of its subsidiaries—CALYX, which has formulation and IP on the medical side, and Purefarma, which offers turnkey solutions and formulation, and has won awards previously for its expertise (see above for more details). Given its years of experience, the company is able to produce full-spectrum, direct-to-vape extracts that do not require additives, which makes Heritage stand out in the industry; essentially, the company is able to mimic the traits of the flower/strain without adding additives to its extracts, which should be attractive to potential partners/customers as it can offer a wide range of extracts (high end to low end).

Product development. CALYX and Purefarma have expertise in product development through medical and extract/distillate developments, respectively. Heritage can offer customers and partners a variety of turnkey solutions to their product development processes. Generally, the company's extracts will be used to formulate a wider array of products such as edibles, tinctures, capsules, topicals and vape pens, among other cannabis 2.0 products. Furthermore, the medical developments they produce could potentially be sold to big pharma.

Despite getting off to a slightly later start than some of its peers, Heritage has done a nice job catching up, especially on the product development side where its involvement is similar to that of other industry players. For example, Heritage will be filling vape pens provided by Cronos as part of its agreement and will aid in the formulations for Canntab's patented oral-dose pills. It is also exporting hemp CBD products to the Caribbean islands and is involved in the development of tinctures.

Supply agreements

Despite installing its first CO_2 extraction equipment only at the beginning of the year, Heritage signed four extraction agreements within a few months thereafter.

Cronos Group (CRON, TSX, market cap C$3,620.5m, cultivation production capacity of ~120,000kg). Heritage's first supply agreement with a major player in the cannabis industry, Cronos Group, speaks volumes about Heritage's platform expertise. On July 25, 2019, Heritage entered into a two-year contract manufacturing agreement with Cronos for the filling and packaging of vaporizer devices for the cannabis adult-use and medical market, with a potential contract value of C$35m. Heritage will provide extract, fill and package vaporizer devices (provided by Cronos) for the Spinach and Peace Naturals brands, utilizing multiple unique and proprietary formulations provided by Cronos. The contract can be extended, if agreed upon by both parties, at an annual potential contract value of C$35m.

The first deliveries, expected in December 2019, will be carried out at both CannaCure in Fort Erie, Ontario, and at Voyage in Falkland, BC, by Heritage's extraction experts. Cronos CEO Mike Gorenstein indicated: "Working with the Heritage group of companies gives us the quality and optionality that we are looking for as we introduce our proprietary vape pen formulations. […] We are committed to continuing to […] lead the industry responsibly as derivative products are introduced to the expanding Canadian marketplace".

Zenabis Global (ZENA, TSX, market cap of C$70.6m, cultivation production capacity of ~380,000kg). On May 9, 2019, Heritage entered into a binding term sheet which will form the basis for a mutual supply agreement as well as a services agreement with Zenabis. The term sheet calls for Purefarma to provide both toll extraction services and various formulated extracted oil products to Zenabis, whereby it will supply the dried flower and trim for extraction. The extraction will be carried out at both CannaCure in Fort Erie and at Voyage in Falkland. Zenabis will supply the cannabis product from each of its facilities in New Brunswick, Nova Scotia and BC.

The open-ended term sheet includes the option for both Heritage and Zenabis to jointly pursue the co-development of formulated CBD distillate, CBD isolate, liquid oil THC distillate, and THC and CBD concentrates. Scientists from Zenabis will look to collaborate with Heritage's medical sciences division to create a series of specialized products which will be marketed directly through various online portals, with the goal of those products with regulatory approval being made available to the public. The initial agreements will see Zenabis deliver a minimum of 500kg of dried flower and trim to Heritage, and in return Heritage will supply Zenabis with a minimum of 150kg of CBD or THC extracted distillate, both to be delivered by the end of 2019. Zenabis CEO Andrew Grieve highlighted: "This is a great opportunity to leverage the strengths of Zenabis and Heritage for the mutual benefit of both companies. […] We look forward to creating something special to bring to the market".

Sugarbud Craft Growers (SUGR, TSX-V, market cap of C$20.9m, cultivation production capacity of ~39,000kg). Heritage entered into a strategic supply and contract manufacturing agreement with Sugarbud, which will supply Heritage with a minimum of 100kg in premium dried cannabis per month for an initial term of 24 months commencing on May 1, 2020; Heritage will provide extraction, formulation and production services to Sugarbud for the development of pre-filled vape cartridges, utilizing proprietary additive-free formulations created by Sugarbud, subject to licensing and regulatory approvals.

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Canntab Therapeutics (PILL, CSE, market cap of C$12.7m, production capacity unknown). On May 30, 2019, Heritage signed a processing and supply term sheet with Canntab for the purpose of capsule manufacturing. This agreement will begin immediately and is open-ended, subject to a 120-day cancellation notice by either party. Canntab will supply the hemp for the production of the capsules and Purefarma will provide processing services to Canntab's specification. Heritage will provide Canntab with strategic support in the areas of packaging and distribution. Canntab CEO Jeff Renwick indicated that "Canntab has developed proprietary cannabinoid formulations, and it's our intention to become an industry leader in oral dosage cannabis".

Strategic partnerships

Heritage has entered into various strategic partnerships to further increase its economic reach and showcase its expertise in extraction.

Empower Clinics (CBDT, CSE, market cap of C$3.1m, production capacity unknown). On September 17, 2019, Heritage announced that it has signed a letter of intent to form a joint venture partnership with Empower, based in Sandy, Oregon, for the extraction of hemp for CBD oil production and formulated CBD products. Purefarma will install extraction units and related downstream extraction equipment inside Empower's existing licensed hemp processing facility. In addition, Purefarma will train and supervise Empower's staff on the proprietary methods of extraction and oil production that it produces in Canada. The JV will be equally funded by both companies, with Heritage investing an initial C$500,000 for start-up funds as the JV completes the build-out and secures high-quality hemp supply from local growers. Once operational, the JV will begin producing proprietary branded products for Empower's corporate-owned physician-staffed health clinics in Washington state, Oregon, Nevada and Arizona. These clinics include Sun Valley Health, a subsidiary of Empower, which has direct marketing access to more than 165,000 patients and the opportunity to reach more patients as Sun Valley expands its franchised network nationwide. The JV will utilize formulations from Heritage and manufacture the Sollievo-branded products Empower distributes throughout its clinic network. This could evolve into a very interesting CBD medical hub in the US which Heritage could have access to going forward.

Truro Cannabis (private company). On September 12, 2019, Heritage signed a hemp processing agreement with Truro. The agreement will see Heritage's subsidiary Voyage take possession of hemp biomass sourced by Truro and produce bulk crude oil or further formulate products for delivery and sale to final purchasers both within and outside Canada that are legally able to purchase the product identified by Truro. The agreement considers an initial export of medically focused product to the Caribbean, for which a Health Canada export permit has already been obtained by Voyage. The initial receipt of biomass was approximately 700kg.

Weed Me (private company, production capacity of ~4,000kg). On September 10, 2019, Heritage entered into two agreements with Weed Me to purchase a bulk order of cannabis biomass, and a right of first offer (ROFO) to secure future cannabis supply. Heritage received its first bulk shipment from Weed Me during the last week of August. The 24-month ROFO agreement (auto-renews every 12 months thereafter) provides Heritage with secured dried cannabis from Weed Me as each harvest is completed. This agreement contributes to Heritage's strategy of procuring high-quality biomass from industry-leading suppliers, which will assist the company in meeting the scheduled contracted production volume. As of the end of August, Heritage had procured more than 1,200kg of cannabis biomass and will be receiving additional shipments of cannabis from top-tier suppliers such as Weed Me as production continues. Heritage is not in the business of cultivation (although it has 13 acres available to cultivate) and its main focus continues to be extraction services, which offer higher margins.

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Financial overview and outlook

With edibles legalization in mid-October, Heritage is currently ramping up production and has not reported any revenue, EBITDA or earnings thus far other than interest and other income of C$156,912 for the quarter ended July 31, 2019. As the company continues to ramp up production, we estimate sales, margins and EBITDA would show very strong growth in the coming years. The three customer supply agreements it has announced should provide some sales visibility for the next few years at least.

Exhibit 6: Heritage financial snapshot

Year-end Oct-31 (C$m)	1Q19	2Q19	3Q19	4Q19E	2019E	1Q20E	2Q20E	3Q20E	4Q20E	2020E	2021E
Income statement											
Sales	0.0	0.1	0.2	2.6	2.8	4.0	7.0	14.2	24.1	49.2	110.3
COGS	0.0	0.0	0.0	-3.5	-3.5	-3.6	-4.5	-6.1	-8.2	-22.8	-39.4
Gross profit	0.0	0.1	0.2	0.1	0.4	1.0	2.4	7.1	14.9	25.5	70.9
Net income	-3.6	-3.4	-3.7	-2.2	-12.9	-1.8	-1.3	1.4	4.2	2.6	22.8
Gross margin (%)	NM	NM	NM	5.0	13.0	25.0	35.0	50.0	62.0	51.7	64.3
Adjusted EBITDA	-1.4	-2.0	-2.5	-2.7	-8.6	-2.2	-1.3	2.8	7.4	6.7	39.2
Adjusted EBITDA margin (%)	NM	NM	NM	NM	NM	-54.9	-18.7	20.0	30.5	13.6	35.5
Per-share data											
Adjusted EPS (C$)	0.0	0.0	0.0	0.0	-0.01	0.0	0.0	0.0	0.01	0.01	0.06
Shares O/S fully diluted (m)	352	419	468	468	427	468	468	468	468	468	468
Balance sheet											
Net debt	-3.7	-8.7	-11.5	-6.7	-6.7	-0.7	2.8	3.5	6.7	6.7	14.6
Capex	0.8	2.3	4.0	2.0	9.2	2.0	2.0	2.0	4.0	10.0	20.0

Source: Desjardins Capital Markets, company reports

Sales

We expect sales to show very strong growth as the company ramps up its cannabis and hemp extraction business in Canada. Supply contracts with Cronos, Zenabis, Sugarbud and Canntab should provide us with some sales visibility for the next few years, although detailed terms of each contract were not provided. Sales growth will be driven by the ramping up of its manufacturing hub and extraction capacity as we expect the company to announce additional supply agreements with both existing and new customers.

Sales visibility. Heritage has announced four extraction supply agreements, with the most notable being Cronos, where the two-year contract could be valued at up to C$35m/yr. While no minimum amount has been announced, we suspect it will be highly dependent on how well edibles as a whole are doing and how Cronos's products are selling in the marketplace. The Zenabis contract (open-ended, no time period announced) calls for a minimum of 500kg of biomass input, Sugarbud for 100kg/month, and the Canntab agreement (120-day notice to exit the agreement) does not specify any volume commitments. While sales visibility is still somewhat murky given the lack of details within the supply agreements, we take some comfort in knowing that the company has signed three agreements thus far. Canntab's agreement did not outline any contracted amounts or revenue.

Expanding capacity to drive growth. The company has four CO_2 machines online, with an additional two to be installed. The company is also expanding its footprint to include a 122,000sf manufacturing hub that could add additional extraction capacity beyond the 100,000kg it currently has. This should help attract new customer supply agreements.

Pricing to be a modest headwind going forward. The realized price likely declines on two fronts for the industry due to excess extraction capacity and mix (cannabis vs hemp). We have already seen a drop in realized prices from other industry players, and as new industry extraction supply comes online it should put additional pressure on prices. In addition, with the hemp harvest taking place in the fall (October/November), we should see a jump in industry hemp volume for processing in late 2019 and early 2020, which would skew prices downward (again, this would be more of a seasonal issue). However, given that Heritage needs to fill 100,000kg of capacity (and this is being built out in stages), we suspect the majority of its biomass will be cannabis rather than product mix.

Margins

Margins should increase significantly once the cannabis and hemp businesses ramp up and utilization rates improve. We have already seen some industry players post very good margins at low utilization rates and believe Heritage can do the same. We believe the company's strategy of employing a manufacturing hub could generate above-average industry margins as this model should result in a higher percentage of white label revenue and minimal tolling-related revenue once the manufacturing hub is fully utilized.

Improving capacity utilization. As Heritage's customers continue to ramp up cultivation production, we expect incoming biomass for extraction to rise significantly; as a result, the company's capacity utilization should improve and help drive margins higher. Of course, once the new expansion at Fort Erie is complete, it should act as a modest drag as the company ramps up its utilization rate. Given Heritage's relatively smaller extraction capacity (compared with industry leaders), the path to reaching full utilization—and hence run-rate margin equilibrium—could be faster vs those that have considerably more capacity to fill.

Volume mix changing. As the company's build-out of its manufacturing hub in Fort Erie nears completion, we suspect its volumes will consist more of tolling-related volumes; once the hub construction is complete, the volume mix should start to shift mostly to high-margin white label. This strategy should also offer longer-term sales visibility as customers/partners will have dedicated space within the manufacturing hub, which should foster a longer-term relationship than what is currently being announced in the industry (usually 2–3-year supply agreements). We also note that a shift to personalized medical formulations from leveraging Endocanna's DNA kits could result in longer-term margin upside, but we will need to see more progress before we start to factor that into our forecast.

Excess capacity and commoditization to be a modest drag. As we outlined in our industry section, we envision that the extraction sector (more so the basic tolling services segment) will see margin pressure as new capacity comes online and as some of the LPs move extraction in-house. Eventually, extraction is likely to become commoditized as well, but those companies that can offer value-added above and beyond basic extraction/tolling services should continue to thrive—and white label is one of those areas which can help minimize margin compression. Heritage's strategy for a manufacturing hub may insulate it better than most industry players as customers may be willing to offer a higher margin to Heritage in exchange for a dedicated space in the hub.

Balance sheet

The company had cash of C$1.4m and short-term investments of C$12.1m as of 3Q FY19 (ended July). Its cash and investment position were supported by an April 11, 2019 C$15.1m bought deal financing (28.4m units at C$0.53/unit; each unit contains one half warrant exercisable at C$0.70 for a period of 30 months).

Building out its manufacturing hub is expected to cost ~C$20m, but the expansion may be done in stages to alleviate some of the cost pressures. Some potential partners could contribute capital as well. The company may also explore debt as a means to help fund the expansion of its Fort Erie facility and would also consider a sale-leaseback as a means to secure additional funding.

Valuation

As discussed in the industry section, our valuation method looks at other established contract manufacturers (food and pharma) to provide a starting point for valuing the cannabis extraction industry; in this case, a forward EBITDA multiple of 10x seems reasonable as a starting point. Generally, we would add a premium multiple to these benchmark industries to reflect the cannabis extraction sector's superior growth outlook (both sales and EBITDA) but given the recent market weakness, for now, we are assigning a multiple that is more in line. We then add a modest premium to those extraction companies we believe are in the best position to excel—we use our extraction scorecard as a basis for determining how the companies in this report rank relative to each other.

Based on our scorecard, Heritage scored 70 points and ranks third; as such, it receives a modest discount multiple compared with the leading company in our scorecard. This factors in its base operations, supply agreements, growth prospects, execution risk, ability to provide value-added services (white labelling, etc) and US/international optionality. Given Heritage's overall score, we assign it a 10.5x EBITDA multiple, which is just above the industry benchmark of 10x but slightly below the higher ranked companies in our scorecard. This results in a one-year target price of C$0.90.

Scorecard summary. We provide more detail on Heritage in our scorecard and provide key differentiators as it relates to its peers. The company is a bit further behind the other companies as it got off to a later start. But we remind investors that while the company's score is factored into our valuation multiple, ultimately the expected rate of return is what drives our recommendation.

Exhibit 7: Our extraction scorecard[1]

	Heritage Cannabis	Neptune Wellness	Valens GroWorks	Notes
Operations				
Capacity, post-expansion (kg)	3	5	4	Have 100,000kg/yr currently, but expandable to 300,000kg/yr
Location	5	3	3	Ontario location has access to 80+ LPs within driving distance
Extraction methods	3	2	5	Plans for CO_2. Has experience with hydrocarbon and ethanol extraction
EU GMP	0	3	3	No plans to pursue at this time
Organic certification	0	1	2	
ISO 17025 accredited testing lab	0	0	2	
Cultivation	2	0	0	Has modest cultivation internally for formulations, R&D
R&D	1	2	3	
Onsite testing lab	0	1	2	
ESG	3	4	5	See ESG section for more details
Total	**17**	**21**	**29**	
Partnerships, supply agreements, products				
Partnerships	3	3	4	Has several partnerships; see text for more details
Customers	4	4	5	Has three customers; see text for more details
CPG-related customers	1	3	4	Modest exposure currently
White label agreements	3	4	5	Building out white label agreements
Own products	2	3	1	Won awards at High Time Cannabis Cup and Emerald Cup
Formulation	4	4	3	Has formulation expertise from old cannabis regulations
Length and size of contracts	3	4	5	Contracts are ~2 years; Cronos contract could be valued at C$35m/yr
Total	**20**	**25**	**27**	
Strategy outlook/execution				
Strategic partners	3	3	5	Empower Clinics, Truro (South Islands), Endocanna
Technology/IP	3	4	5	Built IP with CO_2 equipment tweaks and some formulations, DNA kits
Previous experience with extraction? (excl cannabis/hemp)	0	3	0	
Cannabis/hemp extraction experience?	5	1	4	Over five years of cannabis extraction experience
Formulation expertise	4	4	4	Building out formulation portfolio
Previous experience with wellness products?	1	5	2	Awarding winning products (see above)
White label focus	4	4	5	Manufacturing hub should focus mostly on white label
Manufacturing hub	5	0	0	Only extraction player employing this strategy
US optionality	3	5	1	JV with Empower gives exposure to US (Endocanna is US-based)
International markets	3	1	3	Truro partnership gives access to the Caribbean
Balance sheet/funding	2	3	5	~C$13.5m in cash and short-term investments as of July 31, 2019
Total	**33**	**33**	**34**	
Grand total	**70**	**79**	**90**	

[1] Each category based on a 0–5 score rating unless otherwise noted
Source: Desjardins Capital Markets, company documents

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Sensitivity analysis. Given the early stages of this industry and company, we provide a sensitivity table comprising certain key drivers (price, volume, margins, valuation multiple) to provide better context as to how each driver may impact our numbers and target.

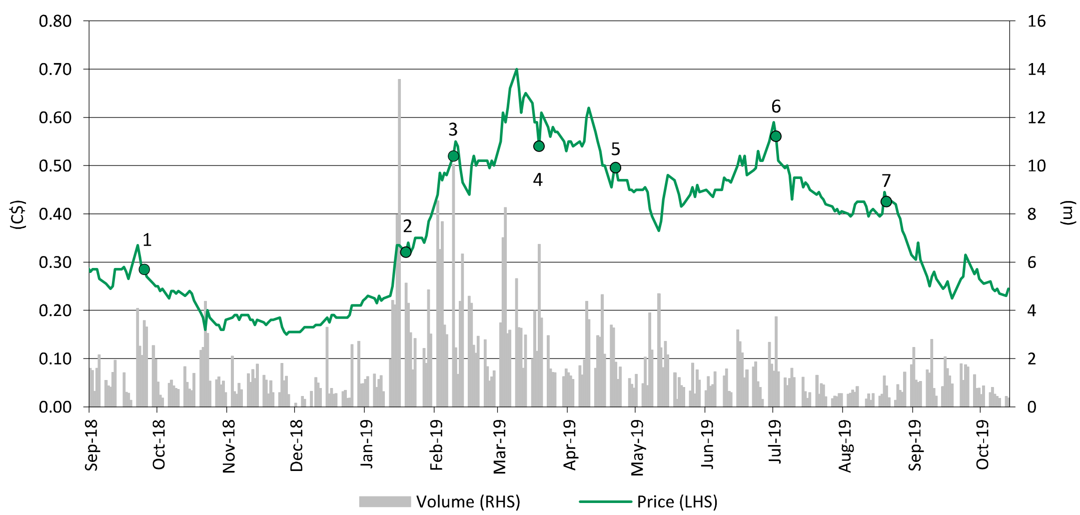
Exhibit 8: Sensitivity analysis

		Absolute impact		
Metric	**Delta**	**FY21E sales (C$m)**	**FY21E EBITDA (C$m)**	**Target price (C$)**
Price/gram—cannabis (C$)	0.10	8.1	2.9	0.05
Price/gram—hemp (C$)	0.01	0.6	0.2	0.01
Volume (kg)	10,000	12.3	4.5	0.11
Gross margin (%)	1.0		1.05	0.02
Multiple (x)	1			0.08

Source: Desjardins Capital Markets

We highlight the company's share price move alongside key company developments.

Exhibit 9: Heritage recent share price history and notable events



	Date	Event
1	18-Oct-18	Announces C$7.5m best-efforts financing for 30m special warrants at C$0.25/warrant (closed at C$16.5m)
2	11-Feb-19	Announces appointment of new COO, corporate secretary and director
3	4-Mar-19	Announces subsidiary was awarded cannabis processing licence
4	11-Apr-19	Announces C$15.1m bought deal for 28.4m units at C$0.53/unit (closed at C$17.3m)
5	15-May-19	Announces acquisition of 30% stake in Endocanna Health for total consideration of US$3m
6	25-Jul-19	Enters into supply agreement with Cronos to fill and package vaporizer devices
7	12-Sep-19	Announces agreement with Truro to process hemp for exportation

Source: Desjardins Capital Markets, FactSet, company documents

ESG evaluation

The nascent cannabis sector has been making efforts to improve in all areas of ESG while also trying to manage significant growth in an ever-evolving sector. Heritage complies with ESG practices and is building positive momentum, albeit from a lower base. There remains room for improvement in all areas, and we expect the company to continue to show improvement going forward. See below for a more detailed review of the company's ESG evaluation. We also note that ESG is a factor we consider in our scorecard and our valuation multiple.

Materiality issue	Management process, controls and measurement	Momentum
Environmental		
• **Ecological risk.** Risk that the water being used is contaminated before it enters the local water system; risk from using solvents; risk from waste material from extraction process.	• CANN recycles the CO_2 used in its processes (ie using a closed loop system). • CANN is developing processes to extract more cannabinoids from waste biomass. • **Metric** – Recycles all of its solvents using a closed loop system. – Water usage is minimal.	• **Positive.** The company is active in recycling solvents and trying to minimize waste.
• **Climate change.** Risk that the company's operations could be contributing to climate change (GHG emissions).	• One of its cultivation facilities is a greenhouse, which uses less energy than an indoor facility. • **Metric** – 100% of its cultivation capacity is grown in a greenhouse.	• **Positive.** With greater emphasis on extraction (vs cultivation), its carbon footprint should be smaller than that of a traditional cultivator.
Social		
• **Workplace health and safety.** Risk that the company does not have appropriate controls, processes and training in place to prevent on-the-job injuries and fatalities. Ethanol and hydrocarbon extraction can be dangerous (requires blast-proof rooms).	• CANN has a health and safety committee. • The company's level of automation is a means of reducing workplace injuries. • **Metric** – Adheres to workplace health and safety laws.	• **Positive.** The company has proper procedures in place.
• **Food safety.** Risk that the company does not have the proper procedures and food safety guidelines in place to ensure food/product quality and safety.	• Internally grown cannabis is rigorously tested based on stringent Health Canada standards. • **Metric** – Adheres to all food safety regulations.	• **Positive.** The company meets its regulatory obligations.
• **Local community relations.** Risk that the company does not have appropriate practices that support local communities; solid relationships and support are key to sustainability and future project development.	• In addition to being actively involved in the community, CANN is involved with the Kyla's Quest charity (advocates research into medical cannabis for sick children). • CANN hires local employees. • **Metric** – Wholly owned CALYX Life Sciences uses an educational component that will be targeted at assisting patients with individualized customer solutions.	• **Positive.** CANN is active in local communities and promotes medical solutions involving one of its subsidiaries.
Governance		
• **Diversity.** Risk that the company does not appropriately support diversity within the organization.	• CANN aims to establish a gender ratio of 50/50 throughout the entire office, although no formal rule is in place. • A whistleblower policy is in effect. • **Metric** – 40% of the board are women. – 35% of total employees are women.	• **Positive.** The gender composition of its board is balanced, and diversity with its total employee count should improve.
• **Legal and regulatory environment.** Risk that the company's failure to comply with laws or regulations could result in fines or penalties.	• The board has experience in highly regulated industries. • **Metric** – CANN fulfills its obligations to all regulatory bodies.	• **Positive.** The company is still in the early stages of building out its operations and continues to meet its legal and regulatory obligations.

Management and board of directors

The board of directors at Heritage is comprised of experienced industry professionals including Chairman Donald Ziraldo, who is concentrating on building vertically integrated Heritage to focus on investments that would yield the best return. Further, President and CEO Clinton B Sharples brings a history of successfully leading numerous companies in different industries. These board members and the individuals outlined below bring a strong team of working professionals with transferable skills to further strengthen the company.

Insiders currently own 6.70% of the company's ~425m shares; they have bought ~440,000 shares since May 2019.

Exhibit 10: Management and board of directors

Name	Position	Notes
Clinton B Sharples	CEO	Mr Sharples is a partner in a small private equity management company which was formed in 2005. His primary roles are CEO of Modu-Loc Fence Rentals (a Canada's Best Managed Company) and chairman of Strategic Aviation and Sky Café. He is responsible for more than 1,200 employees and C$80m in annual revenue. His primary role with Heritage is to lead overall corporate development and implement the strategic direction.
Erin Prohaska	CFO	Ms Prohaska is a business professional with more than 15 years of experience leading finance and operations teams in diverse industries. Prior to joining Heritage, Ms Prohaska was the CFO of a multinational consulting engineering firm with more than 2,500 employees. She has also managed and advised notable family offices on their finances and business holdings, including venture capital funds.
Dan Phaure	COO	Mr Phaure has held key leadership roles with a number of companies within the renewable, technology and infrastructure sectors. Over the course of his 20-year career, he has consulted and advised numerous companies in North America, Europe and Asia, providing strategic guidance in relation to M&A activity, capital transactions and operational changes. With his corporate and capital markets background, he brings a senior leadership skill that should help drive the build-out of Heritage's opportunities as well as in the execution of its partnership strategy. Mr Phaure has also served on various boards with exposure to both Canada and the US.
Donald Ziraldo	Non-executive chairman	Mr Ziraldo is a well-known Canadian winemaker and a member of the Order of Canada. He co-founded Inniskillin Winery in Niagara-on-the-Lake. Mr Ziraldo was granted the first winery licence in Ontario since prohibition, and helped make Canadian icewine a globally recognized luxury product. He has started his own brand of icewine and riesling table wines under the Ziraldo name.
Celine Arsenault	Director	Ms Arsenault is an experienced financial executive with more than 20 years' experience in international business and financial management. Her vast experience stems from several senior financial executive positions with various public and private companies in the renewable energy, insurance, private equity, electricity and telecommunications sectors. In addition to her extensive background, she brings disciplined financial reporting and governance skills to the board, having served on numerous non-profit boards and committees.
Debra Senger	Director	Ms Senger is the founder and CEO of Voyage Cannabis (formerly known as PhyeinMed) a Health Canada–licensed producer which is a subsidiary (75%) of Heritage. Ms Senger has more than 30 years of public company experience in various capacities, as co-chair of the board, director, CEO and CFO. She served in several key executive senior managerial roles with a TSX Venture–listed company and several of its subsidiaries for more than 22 years. She is an owner, shareholder and director of several private companies in cannabis, transportation, e-commerce, property and business management.
Graeme L Staley	Director	Mr Staley is the CEO of Purefarma Solutions, a wholly owned subsidiary of Heritage. Utilizing his background in refrigeration, mechanical engineering and winery operations, he has developed commercial standardized processes relevant to the new cannabis industry. Mr Staley provides the technical direction and execution of the team's strategies based on more than 20 years of project-related experience.

Source: Management information circular

Catalysts

In addition to the catalysts we highlighted in the industry section of this report, which apply to all extraction companies, we highlight other catalysts specific to the company.

- **Adding more white label contracts.** Increasing Heritage's higher-margin white label contracts should push overall margins higher.
- **Adding more biomass volumes in general.** As capacity utilization improves, so too should Heritage's margins.
- **Bringing on a major tenant.** Bringing in a major anchor client for its manufacturing hub, especially a CPG player, increases Heritage's credibility and likely helps attract other customers to its hub.
- **Increasing customer base.** If regulatory requirements move to stricter rules with cannabis 2.0 edibles, Heritage's private areas (manufacturing hub) can be a selling point for the extraction company.
- **Many acres for potential expansion.** The company currently owns 13 acres of available land for either extraction or cultivation at Voyage, located in Falkland, BC.
- **More regulations on cannabis 2.0 products.** Following the vaping issues in the US, Health Canada may impose stricter rules regarding the addition of additives to vape products, which is beneficial to Heritage given its extracts can mimic the characteristics of the flower (most cannot do this).

Risks

In addition to the risks we highlighted in the industry section of this report, which apply to all extraction companies, we highlight other risks specific to the company.

- **Problems ramping up capacity.** There is limited industry experience extracting oil from cannabis or hemp on a large commercial scale. Yields, processing times and extraction costs could differ from management's expectations.
- **Licence issues.** Any licensing delays for its expansion project or delays in renewing its processing licence (or suspension or revocation) could present significant risk to the company.
- **Loss of major customers.** Some of Heritage's larger customers may eventually opt to perform extraction services internally, which would result in the loss of significant processing volumes.
- **Regulations.** Health Canada could impose stricter rules around cannabis 2.0 products, which could make them costlier to manufacture and, in turn, negatively impact the company's margins.
- **Customer-related issues.** Major crop loss, financial difficulties or other issues could impact some of the company's customers such that biomass availability may fall short.
- **Funding shortfall.** To fully build out its manufacturing hub, which is estimated to cost ~C$20m, the company will likely need additional funding. We understand that it has been in discussions with lending institutions, and potential customers/partners could provide funding as well.

Financial statements

Exhibit 11: Heritage income statement

Year-end Oct-31 (C$m)	**1Q19**	**2Q19**	**3Q19**	**4Q19E**	**2019E**	**1Q20E**	**2Q20E**	**3Q20E**	**4Q20E**	**2020E**	**2021E**
Revenue	0.0	0.1	0.2	2.6	2.8	4.0	7.0	14.2	24.1	49.2	110.3
COGS	0.0	0.0	0.0	-3.5	-3.5	-3.6	-4.5	-6.1	-8.2	-22.8	-39.4
Gross profit	0.0	0.1	0.2	0.1	0.4	1.0	2.4	7.1	14.9	25.5	70.9
General & admin	-1.3	-1.9	-2.4	-2.6	-8.2	-3.8	-3.2	-3.6	-4.3	-13.9	-23.5
Marketing and promotion	-0.1	-0.2	-0.2	-0.3	-0.7	-0.4	-0.6	-0.7	-1.0	-2.6	-4.7
Stock-based compensation	-2.0	-0.8	-1.7	-0.3	-3.8	-0.2	-0.3	-0.6	0.0	-2.0	-5.0
Depreciation & amortization	-1.2	-0.4	-0.4	0.0	0.0	-0.1	-0.1	-0.3	-0.5	-1.0	-3.2
Operating income	-3.6	-3.3	-3.6	-3.0	-13.5	-2.5	-1.7	2.0	5.9	3.7	32.0
Interest expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.4
Other	0.0	-0.2	-0.1	0.0	-0.2	0.0	0.0	0.0	-1.0	0.0	0.0
Earnings before taxes	-3.6	-3.4	-3.7	-3.0	-13.7	-2.5	-1.7	2.0	5.8	3.6	31.6
Income taxes	0.0	0.0	0.0	0.9	0.9	0.7	0.5	-0.5	-0.6	-1.0	-8.9
Net income	-3.6	-3.4	-3.7	-2.2	-12.9	-1.8	-1.3	1.4	4.2	2.6	22.8
EPS basic (C$)	-0.01	-0.01	-0.01	0.00	-0.03	0.00	0.00	0.00	0.01	0.01	0.05
Adjusted EPS (C$)	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.01	0.01	0.06
Shares O/S basic (m)	352	419	468	468	427	468	468	468	468	468	468
Shares O/S fully diluted (m)	352	419	468	468	427	468	468	468	468	468	468
Gross margin (net sales) (%)	NM	NM	NM	5.0	13.0	25.0	35.0	50.0	62.0	51.7	64.3
Adjusted EBITDA	**-1.4**	**-2.0**	**-2.5**	**-2.7**	**-8.6**	**-2.2**	**-1.3**	**2.8**	**7.4**	**6.7**	**39.2**
Adjusted EBITDA margin (%)	**-**	**-**	**NM**	**NM**	**NM**	**-54.9**	**-18.7**	**20.0**	**30.5**	**13.6**	**35.5**
Increase in gross revenue (yoy%)	0.0	0.0	0.0	0.0	NM	NM	NM	NM	NM	NM	124.0
Effective tax rate (%)	0.0	28.0	28.0	28.0	6.2	28.0	28.0	28.0	28.0	28.0	28.0

Source: Desjardins Capital Markets, company reports

Exhibit 12: Heritage balance sheet

Year-end Oct-31 (C$m)	1Q19	2Q19	3Q19	4Q19E	2019E	1Q20E	2Q20E	3Q20E	4Q20E	2020E	2021E
Assets											
Current assets											
Cash and cash equivalents	5.5	10.4	13.4	8.6	8.6	2.6	0.0	0.0	0.0	0.0	0.0
Accounts receivable	0.7	0.4	1.3	1.3	1.3	1.9	2.8	2.8	4.8	4.8	9.3
Prepaid expenses	0.4	1.3	1.5	1.6	1.6	2.4	2.8	3.4	4.8	4.8	9.3
Inventory	0.0	0.0	2.0	2.6	2.6	4.0	4.2	4.5	6.8	6.8	11.6
Other	0.1	0.2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
Total current assets	**6.8**	**12.3**	**18.3**	**14.1**	**14.1**	**10.9**	**9.8**	**10.8**	**16.4**	**16.4**	**30.2**
Equipment and leaseholds	10.9	13.1	17.9	19.6	19.6	21.3	23.1	24.7	28.4	28.4	46.5
Investment in associate	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Intangible assets	42.0	41.6	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4
Other	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total assets	**60.1**	**67.4**	**81.0**	**78.2**	**78.2**	**76.7**	**77.3**	**80.0**	**89.2**	**89.2**	**121.1**
Liabilities and shareholders' equity											
Current liabilities											
Bank overdraft	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.6	4.8	4.8	12.7
Accounts payable and accrued liabilities	1.5	3.3	2.7	2.1	2.1	2.4	3.3	4.0	5.8	5.8	7.0
Other	0.0	1.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.0
Loans payable current portion	1.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total liabilities	3.8	5.7	4.9	4.2	4.2	4.6	6.4	7.7	12.7	12.7	21.8
Shareholders' equity											
Share capital	59.7	76.2	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
Contributed surplus	11.9	4.7	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Deficit	-17.3	-19.9	-22.6	-25.8	-25.8	-27.6	-28.8	-27.4	-23.2	-23.2	-0.4
Total shareholders equity	**55.5**	**61.0**	**75.5**	**73.3**	**73.3**	**71.5**	**70.3**	**71.7**	**75.9**	**75.9**	**98.7**
Total liabilities and shareholders' equity	**60.1**	**67.4**	**81.0**	**78.2**	**78.2**	**76.7**	**77.3**	**80.0**	**89.2**	**89.2**	**121.1**
Net debt (net cash position)	-3.7	-8.7	-11.5	-6.7	-6.7	-0.7	2.8	3.5	6.7	6.7	14.6
Capex	**0.8**	**2.3**	**4.0**	**2.0**	**9.2**	**2.0**	**2.0**	**2.0**	**4.0**	**10.0**	**20.0**

Source: Desjardins Capital Markets, company reports

Exhibit 13: Heritage cash flow statement

Year-end Oct-31 (C$m)	1Q19	2Q19	3Q19	4Q19E	2019E	1Q20E	2Q20E	3Q20E	4Q20E	2020E	2021E
Cash provided by (used in)											
Operating activities											
Net income	-3.6	-3.4	-3.7	-2.2	-12.9	-1.8	-1.3	1.4	4.2	2.6	22.8
Amortization of PPE	0.2	0.6	0.4	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
Amortization of intangible assets	0.0	0.0	0.0	0.2	0.2	0.3	0.3	0.3	0.3	0.2	2.0
Stock-based comp	0.0	0.0	3.5	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
Revaluation of financial instruments	2.0	0.8	-2.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Prepaid expenses	0.0	-0.9	-0.2	0.0	-1.1	0.0	0.0	0.0	0.0	0.0	0.0
Inventory	0.0	0.0	-2.0	0.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
A/P and accrued liabilities	-0.5	1.8	-0.6	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Chg in non-cash WC	-0.1	-0.1	0.1	-1.3	-1.4	-2.5	-0.5	-0.4	-3.8	-7.2	-12.6
Cash from operations after WC	-1.7	-0.9	-6.0	-3.3	-11.8	-4.0	-1.5	1.3	0.8	-3.4	12.1
Financing activities											
Proceeds from issuance of shares and warrants	0.0	-0.2	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Increase/decrease in ST debt	0.0	0.0	0.0	5.0	0.0	0.0	0.9	0.7	3.2	4.8	7.9
Proceeds from exercise of warrants	6.8	7.9	-6.6	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0
Issuance of LT debt	4.5	2.3	27.8	0.0	34.7	0.0	0.0	0.0	0.0	0.0	0.0
Net funds from financing	11.4	9.0	21.1	5.0	43.0	0.0	0.9	0.7	3.2	4.8	7.9
Investing activities											
Purchases and deposits of PPE	-0.8	-2.3	-4.0	-1.6	-8.7	-2.0	-2.0	-2.0	-4.0	-10.0	-20.0
Investment in associates	0.5	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investment in other financial assets	-5.0	-1.5	-19.7	0.0	-25.2	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	-0.3	10.8	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	-0.3	10.8	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0
Net funds from investing	-5.3	-4.7	-13.2	-1.6	-23.8	-2.0	-2.0	-2.0	-4.0	-10.0	-20.0
Net cash flow	4.3	4.9	2.0	-4.8	7.4	-6.0	-2.6	0.0	0.0	-8.6	-0.0
Net cash flow ex bank debt	4.3	4.9	2.0	-4.8	7.4	-6.0	-3.5	-0.7	-3.2	-13.4	-7.9
Free cash flow	**-2.5**	**-0.9**	**-6.0**	**-4.8**	**-11.9**	**-4.0**	**-1.5**	**1.3**	**0.8**	**-3.4**	**12.1**
Cash, beginning of period	1.2	5.5	10.4	13.4	1.2	8.6	2.6	0.0	0.0	8.6	0.0
Cash, end of period	5.5	10.4	13.4	8.6	8.6	2.6	0.0	0.0	0.0	0.0	0.0

Source: Desjardins Capital Markets, company reports

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