UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT No. 1 TO

FORM S-8

REGISTRATION STATEMENT **UNDER THE SECURITIES ACT OF 1933**

KLX ENERGY SERVICES HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization) 36-4904146

(I.R.S. Employer Identification No.)

1300 Corporate Center Way, Wellington, Florida

(Address of principal executive offices)

33414

(Zip Code)

KLX ENERGY SERVICES HOLDINGS, INC. LONG-TERM INCENTIVE PLAN KLX ENERGY SERVICES HOLDINGS, INC. EMPLOYEE STOCK PURCHASE PLAN KLX ENERGY SERVICES HOLDINGS, INC. NON-EMPLOYEE DIRECTORS STOCK AND DEFERRED COMPENSATION PLAN

(Full titles of the plans)

Thomas P. McCaffrey 1300 Corporate Center Way Wellington, Florida 33414 (561) 383-5100

(Name, address and telephone of agent for service)

Copies to:

Valerie Ford Jacob, Esq.

Freshfields Bruckhaus Deringer US LLP 601 Lexington Avenue New York, New York 10022 (212) 277-4000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

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If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. o

CALCULATION OF REGISTRATION FEE

Title of Securities	Amount to be	Proposed Maximum Offering Price	Proposed Maximum	Amount of
to be Registered	Registered	per Share	Aggregate Offering Price	Registration Fee(1)
Common stock, par value \$0.01 per share, to be issued				
pursuant to the KLX Energy Services Holdings, Inc. Long-				
Term Incentive Plan	3,225,000	\$27.19	\$87,687,750	\$10,917.12
Common stock, par value \$0.01 per share, to be issued				
pursuant to the KLX Energy Services Holdings, Inc.				
Employee Stock Purchase Plan	200,000	\$27.19	\$5,438,000	\$677.03
Common stock, par value \$0.01 per share, to be issued				
pursuant to the KLX Energy Services Holdings, Inc. Non-				
Employee Directors Stock and Deferred Compensation				
Plan	300,000	\$27.19	\$8,157,000	\$1,015.55
Total	3,725,000	N/A	\$101,282,750	\$12,609.70

⁽¹⁾ This Post-Effective Amendment No. 1 to the Registration Statement on Form S-8 (File No. 333-227321) (the "Registration Statement") does not register any additional shares. This Post-Effective Amendment No. 1 pertains to a portion of the shares previously registered on the Registration Statement. The

filing fees for the shares covered by this Post-Effective Amendment No. 1 were paid when the Registration Statement was filed with the U.S. Securities and Exchange Commission on September 13, 2018.

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EXPLANATORY NOTE

This Post-Effective Amendment No. 1 (this "Post-Effective Amendment") to the Registration Statement on Form S-8 (File No. 333-227321) (as amended through the date hereof, the "Registration Statement") is being filed by KLX Energy Services Holdings, Inc. (the "Registrant" or the "Company") with the U.S. Securities and Exchange Commission (the "Commission") solely for the purpose of filing the reoffer prospectus that forms a part of this Post-Effective Amendment No. 1 relating to the resale of control securities acquired or to be acquired by the Selling Stockholders (as defined below) pursuant to the KLX Energy Services Holdings, Inc. Long-Term Incentive Plan (the "Plan"). The reoffer prospectus contained herein has been prepared in accordance with the requirements of General Instruction C of Form S-8 and Part I of Form S-3 to be used in connection with reoffers and resales of control securities that have been or will be acquired by the Selling Stockholders. The Selling Stockholders may be considered affiliates of the Company, as defined in Rule 405 under the Securities Act of 1933, as amended (the "Securities Act"), and may be selling shares of common stock that constitute "control securities" within the meaning of Form S-8.

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PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information*

Item 2. Registrant Information and Employee Plan Annual Information*

* Information required by Part I to be contained in the Section 10(a) prospectus is omitted from this Post-Effective Amendment in accordance with Rule 428 under the Securities Act and the "Note" to Part I of Form S-8. The documents containing the information specified in this Part I of Form S-8 will be sent or given to the participants ("participants") in (i) the KLX Energy Services Holdings, Inc. Long-Term Incentive Plan, (ii) the KLX Energy Services Holdings, Inc. Employee Stock Purchase Plan and (iii) the KLX Energy Services Holdings, Inc. Non-Employee Directors Stock and Deferred Compensation Plan, respectively, covered by the Registration Statement, as specified by the Commission, pursuant to Rule 428(b)(1) under the Securities Act. Such documents are not required to be and are not filed with the Commission either as part of the Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424. These documents and the documents incorporated by reference in this Post-Effective Amendment pursuant to Item 3 of Part II hereof, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

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REOFFER PROSPECTUS

KLX Energy Services Holdings, Inc.

1,765,221 Shares of Common Stock (par value \$0.01 per share)

This reoffer prospectus relates to the reoffer and resale of up to 1,765,221 shares of common stock, par value \$0.01 per share, of KLX Energy Services Holdings, Inc. (the "Company" or "KLX Energy Services"), issuable pursuant to the terms of the KLX Energy Services Holdings, Inc. Long-Term Incentive Plan (the "Plan"), which may be offered for sale from time to time by certain of our stockholders (the "Selling Stockholders"), who have acquired or in some cases may hereafter acquire shares under the Plan, as described below under the caption "Selling Stockholders." We will not receive any proceeds from the sale of shares of common stock pursuant to this reoffer prospectus. The Selling Stockholders may resell all, a portion, or none of the shares of common stock to which this reoffer prospectus relates from time to time. The names of the Selling Stockholders and the amount of such shares are set forth below under the caption "Selling Stockholders." Any securities covered by this reoffer prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this reoffer prospectus. See "Selling Stockholders" beginning on page 10.

This reoffer prospectus has been prepared for the purpose of registering the shares of our common stock under the Securities Act of 1933, as amended (the "Securities Act"), to allow for future sales by the Selling Stockholders, on a continuous or delayed basis, to the public without restriction. Each Selling Stockholder that sells shares of our common stock pursuant to this reoffer prospectus may be deemed to be an "underwriter" within the meaning of the Securities Act. Any commissions received by a broker or dealer in connection with resales of shares may be deemed to be underwriting commissions or discounts under the Securities Act.

You should carefully read this reoffer prospectus, including the information it incorporates by reference, and any accompanying prospectus supplement before making a decision to purchase shares from the Selling Stockholders. The shares of common stock registered hereby may be sold from time to time directly by, or on behalf of, each of the Selling Stockholders in one or more transactions on the Nasdaq Global Select Market or on any other stock exchange on which our common stock may be listed at the time of sale, in privately negotiated transactions, or through a combination of such methods, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at fixed prices (which may be changed) or at negotiated prices. We will not receive any proceeds from any of these sales. We are paying the expenses incurred in registering the shares, but all selling and other expenses incurred by each Selling Stockholder will be borne by that Selling Stockholder. See "Plan of Distribution" beginning on page 12.

Investing in our common stock involves risks. In reviewing this reoffer prospectus, you should carefully consider the matters described in "Risk Factors" beginning on page 4.

Our common stock is listed on the Nasdaq Global Select Market under the trading symbol "KLXE." On September 18, 2018, the last reported sale price of our common stock on the Nasdaq Global Select Market was \$28.90 per share.

We are an "emerging growth company" as defined under the federal securities laws and, as such, we intend to elect to comply with certain reduced public company reporting requirements in our future filings. See "Summary—Implications of Being an Emerging Growth Company."

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this reoffer prospectus is September 19, 2018.

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As permitted under the rules of the Commission, this reoffer prospectus incorporates important business information about us that is contained in documents that we file with the Commission, but that are not included in or delivered with this reoffer prospectus. You may obtain copies of these documents, without charge, from the website maintained by the Commission at www.sec.gov, as well as other sources. See "Where You Can Find Additional Information" in this reoffer prospectus.

No person is authorized to give any information or represent anything not contained or incorporated by reference in this reoffer prospectus or any prospectus supplement. This reoffer prospectus and any prospectus supplement do not constitute an offer to sell or a solicitation of any offer to buy any securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. The information contained in this reoffer prospectus or any prospectus supplement, as well as information incorporated by reference, is current only as of the date of that information. Our business, financial condition and results of operations may have changed since that date.

Information on the shares offered pursuant to this reoffer prospectus, as listed below, does not necessarily indicate that the Selling Stockholders presently intend to sell any or all of the shares so listed.

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SUMMARY

This summary highlights information contained in this reoffer prospectus and provides an overview of the Company. For a more complete understanding of our business, you should read the entire prospectus carefully, particularly the discussion set forth under "Risk Factors," the information statement (the "information statement") filed as an exhibit to Amendment No. 2 to our Registration Statement on Form 10 (File No. 001-38609) and our audited and unaudited historical financial statements, our unaudited pro forma condensed financial statements and the respective notes to those statements appearing in the information statement and other documents incorporated by reference into this reoffer prospectus. Except as otherwise indicated or unless the context otherwise requires, "KLX Energy Services," "we," "us" and "our" refer to KLX Energy Services Holdings, Inc. and its consolidated subsidiaries after giving effect to the spin-off, and "KLX" refers to KLX Inc., its predecessors and its consolidated subsidiaries, other than, for all periods following the distribution, KLX Energy Services Holdings, Inc. and its consolidated subsidiaries.

Our Company

We are a leading provider of completion, intervention and production services and products (our "product service lines" or "PSLs") to the major onshore oil and gas producing regions of the United States. We offer a range of differentiated, complementary technical services and related tools and equipment in challenging environments that provide "mission critical" solutions for our customers throughout the life cycle of the well.

We serve many of the leading companies engaged in the exploration and development of North American onshore conventional and unconventional oil and natural gas reserves. Our customers include independent and major oil and gas companies and project management firms. We actively support these customer operations from 36 service facilities located in the key major shale basins. We manage our business in these basins on a geographic basis, including the Southwest Region (the Permian Basin and Eagle Ford Shale), the Rocky Mountains Region (the Bakken formation, Williston, DJ, Uinta and Piceance Basins and Niobrara Shale) and the Northeast Region (the Marcellus and Utica Shales as well as the Mid-Continent STACK and SCOOP and Haynesville). Our revenues, operating profits and identifiable assets are primarily attributable to these three reportable geographic segments. However, while we manage our business based upon these regional groupings, our assets and our technical personnel are deployed on a dynamic basis across all of our service facilities to optimize utilization and profitability.

We work with well operators to provide engineered solutions across the entire lifecycle of the well, by streamlining operations, reducing non-productive time and developing cost effective and often customized solutions and customized tools for our customers' most challenging service needs, which include technical, complex unconventional wells requiring extended reach horizontal laterals and greater completion intensity per well. We believe our growing reputation for delivering differential service outcomes has resulted in the number of our customer agreements growing by over 140%, from over 400 as of January 31, 2016 to over 1,000 as of January 31, 2018. These agreements enable us to work for many of the major and independent exploration and production ("E&P") companies in North America.

We offer a variety of targeted services that are differentiated by the technical competence and experience of our field service engineers and their deployment of a broad portfolio of specialized tools and equipment. Our innovative and adaptive approach to proprietary tool design has been employed by our in-house research and development ("R&D") organization and, in selected instances, by our technology partners to develop tools covered by 10 patents and 21 U.S. and foreign pending patent applications as well as 21 additional proprietary tools. Our technology partners include manufacturing and engineering companies that produce tools, which we design and utilize in our service offerings.

We utilize outside, dedicated manufacturers to produce our products, which, in many cases, our engineers have developed from the input and requests from our customers and customer-facing managers, thereby maintaining the integrity of our intellectual property while avoiding manufacturing startup and maintenance costs. We have found that doing so leverages our technical strengths as well as those of our technology partners. These services and related products, or PSLs, are modest in cost to the customer relative to its other well construction expenditures but have a high cost of failure and are, therefore, "mission critical" to our customers' outcomes. We believe our customers have come to depend on our decades of combined field experience to execute on some of the most challenging problems they face. We believe we are well positioned as a company for continued growth, as the oil and gas industry continues to drill and complete thousands of increasingly complex wells each year and as thousands of older legacy wells require remediation.

KLX Energy Services was formed from the combination and integration of seven private oilfield service companies

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acquired over the 2013 through 2014 time period. Each of the acquired businesses was regional in nature and brought one or two specific service capabilities to KLX Energy Services. Once the acquisitions were completed, we undertook a comprehensive integration of these businesses, to align our services, our people and our assets across all the geographic regions where we maintain a presence. We established a matrix management organizational structure, where each regional manager has the resources to provide a complete suite of services, supported by technical experts in our primary service categories. We have endeavored to create a "next generation" oilfield services company in terms of management controls, processes and operating metrics and have driven these processes down through the operating management structure in every region, which we believe differentiates us from many of our competitors. This allows us to offer our customers in all of our geographic regions discrete, comprehensive and differentiated services that leverage both the technical expertise of our skilled engineers and our in-house R&D team.

KLX Energy Services became an independent, publicly-traded company on September 14, 2018 (the "distribution date"), upon completion of the distribution (the "distribution") of common stock of KLX Energy Services to stockholders of KLX Inc. ("KLX") as part of a taxable spin-off (the "spin-off").

Implications of Being an Emerging Growth Company

We are an "emerging growth company." We intend to operate under the reduced reporting requirements and exemptions available to emerging growth companies until we are no longer an emerging growth company, including, but not limited to, the longer phase-in periods for the adoption of new or revised financial accounting standards, reporting fewer years of selected historical financial data than that reported by other public companies and reduced disclosure obligations regarding executive compensation in our periodic reports. See "Risk Factors—Risks Relating to Our Common Stock—Utilizing the reduced disclosure requirements applicable to 'emerging growth companies' may make our common stock less attractive to investors."

In addition, Section 107 of the JOBS Act provides that an emerging growth company can utilize the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for adopting new or revised financial accounting standards. We intend to operate under the longer phase-in periods for the adoption of new or revised financial accounting standards until we are no longer an emerging growth company. Our election to use the phase-in periods permitted by this election may make it difficult to compare our financial statements to those of non-emerging growth companies and other emerging growth companies that have opted out of the longer phase-in periods under Section 107 of the JOBS Act and who will comply with new or revised financial accounting standards. If we were to subsequently elect instead to comply with these public company effective dates, such election would be irrevocable pursuant to Section 107 of the JOBS Act.

We will cease to be an emerging growth company upon the earliest of:

- the last day of the fiscal year in which we have \$1.07 billion or more in annual revenues;
- the end of the fiscal year following the fifth anniversary of the spin-off;

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- the date on which we have, during the previous three-year period, issued more than \$1.0 billion in non-convertible debt securities; or
- the date on which we are deemed to be a "large accelerated filer" (which is the last day of the fiscal year during which the total market value of our common equity securities held by non-affiliates is \$700 million or more, calculated as of the end of the second quarter (July 31) of such fiscal year).

Other Information

KLX Energy Services Holdings, Inc. was incorporated in Delaware on June 28, 2018 and serves as the holding company for our operating subsidiaries. KLX Energy Services LLC, our principal operating subsidiary, started operations in 2013. Our headquarters are located at 1300 Corporate Center Way, Wellington, Florida 33414. Our telephone number is (561) 383-5100. Our website address is www.klxenergy.com. Information contained on, or connected to, our website or KLX's website does not and will not constitute part of this reoffer prospectus or the registration statement on Form S-8 of which this reoffer prospectus is a part.

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RISK FACTORS

You should carefully consider the following risk factors, as well as the risk factors contained in the information statement, which forms a part of Amendment No. 2 to our Registration Statement on Form 10 (File No. 001-38609), and our subsequent reports on Form 10-K and Form 10-Q filed with the Commission in evaluating the Company. Some of these risks and uncertainties relate to our business. Other risks relate principally to the securities markets and ownership of our common stock. If any of such events actually occur, our business, financial condition or results of operations could be materially adversely affected, the trading price of our common stock could decline and you could lose all or part of your investment. Additional risks and uncertainties that we do not presently know about or currently believe are not material may also adversely affect our business, financial condition and results of operations.

Risks Relating to Our Common Stock

We cannot be certain that an active trading market in our common stock will develop or be sustained, and the price of our common stock could fluctuate due to many factors. If the price of our common stock fluctuates significantly, stockholders could incur substantial losses of any investment in our common stock.

We cannot assure you that an active trading market for our common stock will develop or be sustained in the future. The lack of an active market may make it more difficult for you to sell our common stock and could lead to the price of our common stock being depressed or more volatile. We cannot predict the prices at which our common stock may trade. The price of our common stock could fluctuate widely in response to:

- · our quarterly and annual operating results;
- \cdot $\;$ changes in earnings estimates by securities analysts;
- · our ability to achieve results consistent with any publicly-issued earnings, estimates and targets that we share with the market;
- changes in our business;
- · changes in the market's perception of our business;
- · changes in the businesses, earnings estimates or market perceptions of our competitors or customers;
- changes in oil and gas prices or the E&P industry;
- · changes in our key personnel;
- \cdot $\;$ changes in general market or economic conditions; and
- · changes in the legislative or regulatory environment.

In addition, the stock market has experienced extreme price and volume fluctuations in recent years that have significantly affected the quoted prices of the securities of many companies, including companies in our industry. The changes often appear to occur without regard to specific operating performance. The price of our common stock could fluctuate based upon factors that have little or nothing to do with us or our performance, and these fluctuations could materially reduce our stock price.

Future sales of our common stock in the public market could reduce our stock price, and any additional capital raised by us through the sale of equity or convertible securities may dilute your ownership in us.

We may sell shares of common stock in the future. We may also issue additional shares of common stock, including as consideration in one or more acquisitions or other business combination transactions. In connection with the spin-off, KLX distributed approximately 20.1 million shares of our common stock to KLX's stockholders as of the record date. In addition, we have granted approximately 2 million shares of nonvested restricted stock, aggregating approximately 9% of our shares outstanding (giving effect to such grants), to certain members of our

management under the Plan on the distribution date. The shares of restricted stock granted on the distribution date will vest ratably over four years from the distribution date, with one quarter of the shares vesting on each anniversary of the distribution date, subject to accelerated vesting under certain circumstances.

In connection with the spin-off, we filed a registration statement on Form S-8 with the Commission providing for the registration of shares of our common stock issued or reserved for issuance under our equity plans. Subject to the satisfaction of vesting conditions and the requirements of Rule 144, shares registered under the registration statement on Form S-8 will be available for resale immediately in the public market without restriction. The registration statement of which this reoffer prospectus forms a part is also registering for resale 1,765,221 shares of our common stock held by certain members of our management, who are named herein as the Selling Stockholders. In addition, certain members of our management are entitled to registration rights with respect to their shares of restricted stock.

We cannot predict the size of future issuances of our common stock or securities convertible into common stock or the effect, if any, that future issuances and sales of shares of our common stock will have on the market price of our common stock. Sales of substantial amounts of our common stock (including shares issued in connection with an acquisition), or the perception that such sales could occur, may adversely affect prevailing market prices of our common stock. Sales of or other transactions relating to shares of our common stock by our directors, officers or employees could cause a perception in the market place that adverse events or trends have occurred or may be occurring at our company or that it is otherwise an advantageous time to sell shares of our common stock.

We cannot assure you that we will pay dividends on our common stock, and our indebtedness could limit our ability to pay dividends on our common stock.

We do not currently intend to pay dividends. Our dividend policy will be established by our board of directors ("our Board") based on our financial condition, results of operations and capital requirements, as well as applicable law, regulatory constraints, industry practice and other business considerations that our Board considers relevant. In addition, the terms of the agreements governing the debt facilities that we incur in connection with the spin-off or in the future may limit or prohibit the payments of dividends. We cannot assure you that we will pay dividends in the future or continue to pay any dividends if we do commence the payment of dividends.

Additionally, our future indebtedness could have important consequences for holders of our common stock. If we cannot generate sufficient cash flow from operations to meet our future debt-payment obligations, then our Board's ability to declare dividends on our common stock will be impaired and we may be required to attempt to restructure or refinance such debt, raise additional capital or take other actions such as selling assets, reducing or delaying capital expenditures or reducing any proposed dividends. We cannot assure you that we will be able to effect any such actions or do so on satisfactory terms, if at all, or that such actions would be permitted by the terms of our debt or our other credit and contractual arrangements.

Certain provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, and certain provisions of Delaware law, may prevent or delay an acquisition of our Company or other strategic transactions, which could decrease the trading price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain, and Delaware law contains, provisions that are intended to deter coercive takeover practices and inadequate takeover bids and to encourage prospective acquirers to negotiate with our Board rather than to attempt a hostile takeover.

In addition, because we have not chosen to be exempt from Section 203 of the General Corporation Law of the State of Delaware (the "DGCL"), this provision could also delay or effectively prevent a change of control that some stockholders may favor. In general, Section 203 provides that, subject to limited exceptions, persons that, together with their affiliates and associates, acquire ownership of 15 percent or more of the outstanding voting stock of a Delaware corporation shall not engage in any "business combination" with that corporation or its subsidiaries, including any merger or various other transactions, for a three-year period following the date on which that person became the owner of 15 percent or more of the corporation's outstanding voting stock.

We believe these provisions will protect our stockholders from coercive or otherwise unfair takeover tactics by requiring potential acquirers to negotiate with our Board and by providing our Board with more time to assess any acquisition proposal. These provisions are not intended to make us immune from takeovers. However, these provisions will apply even if the offer may be considered beneficial by some stockholders and could delay or effectively prevent an acquisition that our Board determines is not in the best interests of our company and our stockholders. These provisions may also prevent or discourage attempts to remove and replace incumbent directors.

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Our amended and restated bylaws designate courts in the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a different judicial forum for intra-corporate disputes with us or our directors, officers, employees or agents.

Our amended and restated bylaws provide that, unless we otherwise consent in writing to selection of an alternative forum, the Court of Chancery in the State of Delaware (or, if the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware) will be the sole and exclusive forum for any derivative action or proceeding brought on behalf of KLX Energy Services, any action asserting a claim of breach of a fiduciary duty owed by any director, officer, employee or agent of KLX Energy Services to KLX Energy Services or KLX Energy Services' stockholders, any action asserting a claim arising pursuant to any provision of the DGCL, KLX Energy Services' certificate of incorporation or the bylaws, or any action asserting a claim governed by the internal affairs doctrine. This provision may limit a stockholder's ability to bring a claim in a different judicial forum, including one that it may find favorable or convenient for intra-corporate disputes with us or our directors, officers, employees or agents, which may discourage such lawsuits. Alternatively, if a court were to find this provision of our amended and restated bylaws inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions.

Utilizing the reduced disclosure requirements applicable to "emerging growth companies" may make our common stock less attractive to investors.

We qualify as an "emerging growth company" and are therefore eligible to utilize certain reduced reporting and other requirements that are otherwise applicable generally to public companies. Pursuant to these reduced disclosure requirements, emerging growth companies are not required to, among other things, provide certain disclosures regarding executive compensation, hold stockholder advisory votes on executive compensation or obtain stockholder approval of any golden parachute payments not previously approved. In addition, emerging growth companies have longer phase-in periods for the adoption of new or revised financial accounting. We would cease to be an emerging growth company if we have more than \$1.07 billion in annual revenue, have more than \$700 million in market value of our common stock held by non-affiliates or issue more than \$1.0 billion of non-convertible debt over a three-year period.

We intend to utilize the reduced reporting requirements and exemptions, including the longer phase-in periods for the adoption of new or revised financial accounting standards, until we are no longer an emerging growth company. If we were to subsequently elect instead to comply with these public company effective dates, such election would be irrevocable.

We cannot predict if investors will find our common stock less attractive if we elect to rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our common stock price may be more volatile.

If securities or industry analysts do not publish research reports or publish unfavorable research about our business, the price and trading volume of our common stock could decline.

The trading market for our common stock depends in part on the research reports that securities or industry analysts publish about us or our business. If one or more of the analysts who covers us downgrades our securities, the price of our securities would likely decline. If one or more of these analysts ceases to cover us or fails to publish regular reports on us, interest in the purchase of our securities could decrease, which could cause the price of our common stock and its trading volume to decline.

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SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

We make forward-looking statements throughout this reoffer prospectus, including in, among others, the sections entitled "Summary" and "Risk Factors." These forward-looking statements reflect our current expectations and projections about our future results, performance and prospects and include all statements that are not historical in nature or are not current facts. We have tried to identify these forward-looking statements by using forward-looking words including "believe," "expect," "plan," "intend," "anticipate," "estimate," "predict," "potential," "continue," "may," "might," "should," "could," "will" or the negative of these terms or similar expressions.

These forward-looking statements are subject to a number of risks, uncertainties, assumptions and other factors that could cause our actual results, performance and prospects to differ materially from those expressed in, or implied by, these forward-looking statements. These factors include the risks, uncertainties, assumptions and other factors discussed under "Risk Factors," including the following factors:

- · regulation of and dependence upon the energy industry;
- the cyclical nature of the energy industry;
- market prices for fuel, oil and natural gas;
- competitive conditions;
- · legislative or regulatory changes and potential liability under federal and state laws and regulations;
- · decreases in the rate at which oil or natural gas reserves are discovered or developed;
- the impact of technological advances on the demand for our products and services;
- · delays of customers obtaining permits for their operations;
- hazards and operational risks that may not be fully covered by insurance;
- · the write-off of a significant portion of intangible assets;
- the need to obtain additional capital or financing, and the availability and/or cost of obtaining such capital or financing;
- · limitations that our organizational documents, debt instruments and U.S. federal income tax requirements may have on our financial flexibility, our ability to engage in strategic transactions or our ability to declare and pay cash dividends on our common stock;
- our credit profile;
- changes in supply and demand of equipment;
- oilfield anti-indemnity provisions;
- severe weather;
- · reliance on information technology resources and the inability to implement new technology;
- · increased labor costs or the unavailability of skilled workers;

- the inability to successfully consummate acquisitions or inability to manage potential growth; and
- the inability to achieve some or all of the benefits of the distribution of common stock of the Company to

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stockholders of KLX as part of the spin-off.

In light of these risks and uncertainties, you are cautioned not to put undue reliance on any forward-looking statements in this reoffer prospectus. These statements should be considered only after carefully reading this reoffer prospectus. Except as required under the federal securities laws and rules and regulations of the Commission, we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Additional risks that we may currently deem immaterial or that are not presently known to us could also cause the forward-looking events discussed in this reoffer prospectus not to occur.

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USE OF PROCEEDS

All proceeds from the sale of the common stock offered hereby will be for the accounts of the Selling Stockholders. We will not receive any of the proceeds from the sale from time to time of the common stock offered hereby. All expenses of registration incurred in connection with this offering are being borne by us, but all selling and other expenses incurred by any Selling Stockholder will be borne by such Selling Stockholder.

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SELLING STOCKHOLDERS

This reoffer prospectus relates to shares of common stock that are being registered for reoffer and resale by the Selling Stockholders who have received or acquired, or may hereafter receive or acquire, the shares pursuant to the Plan. The Selling Stockholders may resell all, a portion, or none of the shares of common stock from time to time.

The following table sets forth (a) the name of each Selling Stockholder; (b) the number of shares of common stock beneficially owned by each Selling Stockholder as of September 14, 2018; (c) the maximum number of shares of common stock that each Selling Stockholder may offer for sale from time to time pursuant to this reoffer prospectus, whether or not the Selling Stockholder has any present intention to do so and whether or not such shares have previously been issued to the Selling Stockholders or may be issued in the future if at all; and (d) the number of shares of common stock and the percentage of the Company's outstanding common stock that would be beneficially owned by each Selling Stockholder assuming the sale of all of that Selling Stockholder's shares offered hereby (and assuming the Selling Stockholders have not acquired additional shares). All information with respect to beneficial ownership has been furnished by the Selling Stockholders. The inclusion in the table below of the individuals named therein shall not be deemed to be an admission that any such individuals are, or in the future will be, our "affiliates" as that term is defined under Rule 405 under the Securities Act.

Beneficial ownership is determined in accordance with the rules of the Commission and generally includes voting or investment power with respect to securities. As of the date of this prospectus, 20,079,394 shares were outstanding as a result of the spin-off, and 1,985,874 shares were outstanding as a result of the grant of nonvested restricted stock to certain members of our management.

Information concerning the identities of the Selling Stockholders, the number of shares that may be sold by each Selling Stockholder and information about the shares beneficially owned by the Selling Stockholders may from time to time be updated in supplements to this reoffer prospectus, which will be filed with the Commission in accordance with Rule 424(b) of the Securities Act if and when necessary.

Any securities covered by this reoffer prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this reoffer prospectus. Information on the shares offered pursuant to this reoffer prospectus, as listed below, does not necessarily indicate that the Selling Stockholder presently intends to sell any or all of the shares so listed. Because the Selling Stockholders may sell none, some or all of the shares owned by them which are included in this reoffer prospectus, no estimate can be given as to the number of shares available for resale hereby that will be held by the Selling Stockholders upon the termination of the offering made hereby. We have therefore assumed, for purposes of the following table, that the Selling Stockholders will sell all of the shares owned by them that are being offered hereby, but will not sell any other shares of our common stock that they presently own.

The address of each Selling Stockholder is c/o KLX Energy Services Holdings, Inc., 1300 Corporate Center Way, Wellington, Florida 33414.

		Shares Beneficially Owned Prior to the Offering(1)		Number of Shares Benefici Shares Upon Comple Being Offerin		etion of the
Name	Position	Number	Percent	Offered(1)	Number	Percent
Amin J. Khoury(3)	Chairman of the Board, Chief Executive Officer					
	and President	1,165,187	5.3%	1,103,263	61,924	*
Thomas P. McCaffrey(4)	Senior Vice President and Chief Financial Officer	725,497	3.3%	661,958	63,539	*

- * Denotes less than 1%.
- (1) Beneficial ownership is determined in accordance with Rule 13d-3 under the Securities Exchange Act of 1934 (the "Exchange Act"). The actual number of shares offered for sale is subject to adjustment and could be materially less than the estimated amount indicated.

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- (2) Assumes all the shares offered hereby are sold to persons who are not affiliates of the Selling Stockholders and the Selling Stockholders sell no other shares they beneficially own.
- (3) Includes 1,103,263 shares of restricted stock that will become vested in four equal annual installments on each of the first four anniversaries of the distribution date, subject to continued employment or other service with KLX Energy Services on each applicable vesting date and subject to certain other terms contained in the Selling Stockholder's award agreement.
- (4) Includes 661,958 shares of restricted stock that will become vested in four equal annual installments on each of the first four anniversaries of the distribution date, subject to continued employment or other service with KLX Energy Services on each applicable vesting date and subject to certain other terms contained in the Selling Stockholder's award agreement.

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PLAN OF DISTRIBUTION

The shares of common stock covered by this reoffer prospectus are being registered by KLX Energy Services for the account of the Selling Stockholders. As used herein, "Selling Stockholders" includes donees and pledgees selling shares of common stock received from a named Selling Stockholder after the date of this reoffer prospectus.

The shares of common stock offered may be sold from time to time directly by or on behalf of each Selling Stockholder in one or more transactions on the Nasdaq Global Select Market or any other stock exchange on which the common stock may be listed at the time of sale, in privately negotiated transactions, or through a combination of such methods, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at fixed prices (which may be changed) or at negotiated prices. The Selling Stockholders may sell shares through one or more agents, brokers or dealers in one or more underwritten offerings, block trades or other sales processes or directly to purchasers. Such brokers or dealers may receive compensation in the form of commissions, discounts or concessions from the Selling Stockholders and/or purchasers of the shares or both. Such compensation as to a particular broker or dealer may be in excess of customary commissions. Each Selling Stockholder will act independently of us in making decisions with respect to the timing, manner and size of each sale or non-sale related transfer.

The Selling Stockholders and any of their pledgees, donees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of our common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. Each Selling Stockholder may use any one or more of the following methods when selling the shares of our common stock:

- · ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- · customary underwritten offerings;
- · block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- · purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- · an exchange distribution in accordance with the rules of the applicable exchange;
- · an over-the-counter market sale;
- · privately negotiated transactions;
- · settlement of short sales entered into after the date of this reoffer prospectus;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- · a combination of any such methods of sale;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise; or
- · any other method permitted pursuant to applicable law.

In connection with the sale of shares of our common stock, to the extent permitted by company policy and law, the Selling Stockholders may engage in hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares in the course of hedging the positions they assume. The Selling Stockholders may also sell the shares of our common stock short and deliver these shares to close out short positions, or loan or pledge the shares to broker-dealers or other financial institutions that in turn may sell these shares. The Selling Stockholders may also enter into options or other transactions with broker-dealers or other financial institutions that require the delivery to the broker-dealer or other financial institution of the shares of our common stock, which the broker-dealer or other financial institution may resell

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pursuant to this reoffer prospectus, or enter into transactions in which a broker-dealer makes purchases as a principal for resale for its own account or through other types of transactions.

In connection with the sales, the Selling Stockholders and any participating broker or dealer may be deemed to be "underwriters" within the meaning of the Securities Act, and any commissions they receive and the proceeds of any sale of shares of our common stock may be deemed to be underwriting discounts or commissions under the Securities Act. If a Selling Stockholder is deemed to be an "underwriter" within the meaning of Section 2(11) of the Securities Act, he will be subject to the prospectus delivery requirements of the Securities Act. The Selling Stockholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, Regulation M. Regulation M may limit the timing of purchases and sales of shares of our common stock by the Selling Stockholders and any other person. Furthermore, Regulation M may restrict, for a period of up to five business days prior to the commencement of the distribution, the ability of any person engaged in a distribution of shares of our Common Stock to engage in market-making activities with respect to these shares. All of the foregoing may affect the marketability of shares of our common stock and the ability of any person or entity to engage in market-making activities with respect to shares of our common stock.

To the extent required, the shares of our common stock, the names of the persons selling the shares, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this reoffer prospectus is a part. In addition, upon the Company being notified by a Selling Stockholder that a donee or pledgee intends to sell more than 500 shares, a supplement to this reoffer prospectus will be filed.

We are bearing all costs relating to the registration of the shares of common stock. Any commissions or other fees payable to brokers or dealers in connection with any sale of the shares will be borne by the Selling Stockholders or other party selling such shares. Sales of the shares must be made by the Selling Stockholders in compliance with all applicable state and federal securities laws and regulations, including the Securities Act.

In addition to any shares sold hereunder, Selling Stockholders may sell shares of common stock in compliance with Rule 144. There is no assurance that the Selling Stockholders will sell all or a portion of the common stock offered hereby.

The Selling Stockholders may agree to indemnify any broker, dealer or agent that participates in transactions involving sales of the shares against certain liabilities in connection with the offering of the shares arising under the Securities Act.

We have notified the Selling Stockholders of the need to deliver a copy of this reoffer prospectus in connection with any sale of the shares of our common stock.

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LEGAL MATTERS

Certain legal matters relating to the validity of the issuance of common stock in this offering are being passed upon for us by Freshfields Bruckhaus Deringer US LLP, New York, New York.

EXPERTS

The financial statements incorporated in this Reoffer Prospectus by reference from KLX Energy Services Holdings, Inc.'s Amendment No. 2 to Form 10 filed on August 24, 2018 have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the allocation of certain corporate expenses), which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarterly, and current reports, proxy statements and other information with the Commission. Our common stock is listed and traded on the Nasdaq Global Select Market under the trading symbol "KLXE." Our Commission filings can be read and copied at the Commission's public reference room at 450 Fifth Street, N.W., Washington, D.C. 20549. You may inspect and copy the documents that we have filed with the Commission at the Commission's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the Commission at (800) SEC-0330 for further information on the Public Reference Room. In addition, the Commission maintains an Internet site at www.sec.gov, from which you can electronically access the Form 10, including its exhibits.

You may obtain any of these documents at no cost, by writing or telephoning us at the following address:

Wellington, Florida 33414. (561) 383-5100

We maintain an Internet site at www.klxenergy.com. We do not incorporate our Internet site, or the information contained on that site or connected to that site, into this reoffer prospectus or our Registration Statement on Form S-8.

You should rely only on the information contained in this reoffer prospectus or to which we have referred you. We have not authorized any person to provide you with different information or to make any representation not contained in this reoffer prospectus. You should not assume that the information in this reoffer prospectus or any supplement is accurate as of any date other than the date on the front of this reoffer prospectus.

DOCUMENTS INCORPORATED BY REFERENCE

We are incorporating by reference certain information that we have filed with the Commission under the informational requirements of the Exchange Act, which means that we disclose important information to you by referring to another document filed separately with the Commission. The information contained in the documents we are incorporating by reference is considered to be a part of this reoffer prospectus, and the information that we later file with the Commission will automatically update and supersede the information contained or incorporated by reference in this reoffer prospectus.

The following documents filed with the Commission are incorporated by reference in this reoffer prospectus:

• our Quarterly Report on Form 10-Q for the quarterly period ended July 31, 2018 filed with the Commission on August 30, 2018;

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- · Amendment No. 2 to our Registration Statement on Form 10 (File No. 001-38609) filed with the Commission on August 24, 2018;
- the description of our common stock contained in the Information Statement, filed as Exhibit 99.1 to the Registration Statement on Form 10 (File No. 001-38609), filed with the Commission on August 24, 2018, including any amendment or report filed for the purpose of updating such description; and
- · our Current Report on Form 8-K, filed with the Commission on September 19, 2018.

All other documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (except for any portions of the Company's Current Reports on Form 8-K furnished pursuant to Item 2.02 or Item 7.01 thereof and any corresponding exhibits thereto not filed with the Commission, and other documents or information deemed furnished but not filed under the rules of the Commission), prior to the filing of a post-effective amendment to the registration statement of which this prospectus is a part that indicates that all securities registered on such registration statement have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents. Any statement contained herein or in a document all or a portion of which is incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this reoffer prospectus.

The Company will provide without charge to each person to whom a copy of this reoffer prospectus is delivered upon the written or oral request by such person, a copy of any or all documents that have been incorporated by reference herein (other than exhibits to such documents, unless such exhibits are specifically incorporated by reference in such documents). Written or oral requests should be directed to KLX Energy Services Holdings, Inc., 1300 Corporate Center Way, Wellington, Florida 33414 at (561) 383-5100, Attention: Jonathan Mann.

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KLX Energy Services Holdings, Inc. 1,765,221 Shares of Common Stock

REOFFER PROSPECTUS

September 19, 2018

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PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents filed by the Registrant with the Commission are incorporated as of their respective dates in this Registration Statement by reference:

• the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended July 31, 2018 filed with the Commission on August 30, 2018;

- · Amendment No. 2 to the Registrant's Registration Statement on Form 10 (File No. 001-38609) filed with the Commission on August 24, 2018;
- the description of the Registrant's Common Stock contained in the Registrant's Information Statement, filed as Exhibit 99.1 to the Registration Statement on Form 10 (File No. 001-38609), filed with the Commission on August 24, 2018, including any amendment or report filed for the purpose of updating such description; and
- the Registrant's Current Report on Form 8-K, filed with the Commission on September 19, 2018.

All other documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (except for any portions of the Registrant's Current Reports on Form 8-K furnished pursuant to Item 2.02 or Item 7.01 thereof and any corresponding exhibits thereto not filed with the Commission, and other documents or information deemed furnished but not filed under the rules of the Commission), prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. Any statement contained herein or in a document all or a portion of which is incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities

Not required.

Item 5. Interests of Named Experts and Counsel

None.

Item 6. Indemnification of Directors and Officers

Section 145 of the DGCL provides that a corporation may indemnify any person who was or is a party, or is threatened to be made a party, to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his/her conduct was unlawful. A similar standard is applicable in the case of derivative actions (i.e., actions by or in the right of the corporation), except that indemnification extends only to expenses, including attorneys' fees, incurred in connection with the defense or settlement of such action, and the statute requires court approval before there can be any indemnification where the person seeking indemnification has been found liable to the corporation.

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The Registrant's amended and restated certificate of incorporation provides that, to the fullest extent permitted by the DGCL, no director will be personally liable to the Registrant or to its stockholders for monetary damages for breach of fiduciary duty as a director. Notwithstanding this provision, pursuant to Section 102(b)(7) of the DGCL, a director can be held liable (1) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (2) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (3) under Section 174 of the DGCL (which concerns unlawful payments of dividends, stock purchases or redemptions) or (4) for any transaction from which the director derives an improper personal benefit.

While the amended and restated certificate of incorporation provides directors with protection from awards for monetary damages for breaches of their duty of care, it does not eliminate this duty. Accordingly, the amended and restated certificate of incorporation has no effect on the availability of equitable remedies such as an injunction or rescission based on a director's breach of his or her duty of care. The provisions of the amended and restated certificate of incorporation described above apply to an officer of the Registrant only if he or she is a director of the Registrant and is acting in his or her capacity as director and do not apply to officers of the Registrant who are not directors.

The amended and restated certificate of incorporation requires the Registrant to indemnify any person who was or is a party or is threatened to be made a party to, or was otherwise involved in (including, without limitation, as a witness), a legal proceeding by reason of the fact that he or she is or was a director or an officer of the Registrant or is or was serving at its request as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, to the fullest extent authorized by the DGCL, as it exists or may be amended, against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement by or on behalf of such person) actually and reasonably incurred in connection with such service (provided that, in the case of a proceeding initiated by such person, the Registrant will only indemnify such person if the proceeding was specifically authorized by the board of directors of the Registrant (the "Board")). This right of indemnity includes, with certain limitations and exceptions, a right to be paid by the Registrant the expenses incurred in defending such proceedings. The Registrant is authorized under its amended and restated certificate of incorporation to carry directors' and officers' insurance protecting the Registrant, any director, officer, employee or agent of the Registrant or another corporation, partnership, joint venture, trust or other enterprise against any liability, whether or not the Registrant would have the power to indemnify the person under the DGCL. The amended and restated certificate of incorporation also permits the Board to indemnify or advance expenses to any of the Registrant's employees or agents to the fullest extent permitted with respect to the Registrant's directors and officers in the amended and restated certificate of incorporation.

By its terms, the indemnification provided for in the amended and restated certificate of incorporation is not exclusive of any other rights that the indemnified party may be or become entitled to under any law, agreement, vote of stockholders or directors, provisions of the amended and restated certificate of incorporation or bylaws or otherwise. Any amendment, alteration or repeal of the amended and restated certificate of incorporation's indemnification provisions will be, by the terms of the amended and restated certificate of incorporation, prospective only and will not adversely affect the rights of any indemnitee in effect at the time of any act or omission occurring prior to such amendment, alteration or repeal.

The foregoing summaries are necessarily subject to the complete text of the DGCL, the amended and restated certificate of incorporation and the Registrant's amended and restated bylaws and the arrangements referred to above and are qualified in their entirety by reference thereto.

Item 7. Exemption from Registration Claimed

Not applicable.

Item 8. Exhibits

The exhibits listed on the exhibit index at the end of this Registration Statement are included in this Registration Statement.

Item 9. Undertakings

- (a) The undersigned Registrant hereby undertakes:
- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration

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Statement:

- (i) to include any prospectus required by Section 10(a)(3) of the Securities Act;
- (ii) to reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement; and
- (iii) to include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement;

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof; and
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) The undersigned Registrant hereby undertakes that, insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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EXHIBITS

Exhibit No.	Description
3.1	Amended and Restated Articles of Incorporation of KLX Energy Services Holdings, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Registration Statement on Form S-8 filed with the Commission on September 13, 2018).
3.2	Amended and Restated Bylaws of KLX Energy Services Holdings, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Registration Statement on Form S-8 filed with the Commission on September 13, 2018).

4.1 <u>KLX Energy Services Holdings, Inc. Long-Term Incentive Plan (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-8 filed with the Commission on September 13, 2018).</u>

4.2	Form of KLX Energy Services Holdings, Inc. Long-Term Incentive Plan Restricted Stock Award Agreement (incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-8 filed with the Commission on September 13, 2018).		
4.3	Form of KLX Energy Services Holdings, Inc. Long-Term Incentive Plan Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement on Form S-8 filed with the Commission on September 13, 2018).		
4.4	KLX Energy Services Holdings, Inc. Employee Stock Purchase Plan (incorporated by reference to Exhibit 4.4 to the Registrant's Registration Statement on Form S-8 filed with the Commission on September 13, 2018).		
4.5	KLX Energy Services Holdings, Inc. Non-Employee Directors Stock and Deferred Compensation Plan (incorporated by reference to Exhibit 4.5 to the Registrant's Registration Statement on Form S-8 filed with the Commission on September 13, 2018).		
5.1	Opinion of Freshfields Bruckhaus Deringer US LLP, counsel to the Registrant, regarding the legality of the securities being offered		

The Registrant. Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Village of Wellington, State of Florida on the 19th day of September, 2018.

KLX ENERGY SERVICES HOLDINGS, INC.

By: /s/ Thomas McCaffrey

Name: Thomas P. McCaffrey

Title: Senior Vice President and Chief Financial Officer

The Plan. Pursuant to the requirements of the Securities Act, the administrator of the KLX Energy Services Holdings, Inc. Employee Stock Purchase Plan has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Village of Wellington, State of Florida on the 19th day of September, 2018.

KLX ENERGY SERVICES HOLDINGS, INC.

By: /s/ Thomas McCaffrey

Name: Thomas P. McCaffrey

Title: Senior Vice President and Chief Financial Officer

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POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints each of Amin J. Khoury and Thomas McCaffrey as such person's true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any and all amendments to the Registration Statement, including post-effective amendments, and registration statements filed pursuant to Rule 462 under the Securities Act, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission, and does hereby grant unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that each said attorney-in-fact and agent, or any substitute therefor, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities indicated on the 19th day of September, 2018:

	Name	Title
		Chief Executive Officer and
By:	/s/ Amin J. Khoury	Chairman of the Board
	Amin J. Khoury	(Principal Executive Officer)

By:	/s/ Thomas McCaffrey Thomas McCaffrey	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)
By:	/s/ John T. Collins John T. Collins	Director
By:	/s/ Peter V. Del Presto Peter V. Del Presto	Director
By:	/s/ Richard G. Hamermesh Richard G. Hamermesh	Director
Ву:	/s/ Benjamin A. Hardesty Benjamin A. Hardesty	Director
By:	/s/ Stephen M. Ward, Jr. Stephen M. Ward, Jr.	Director
By:	/s/ Theodore L. Weise Theodore L. Weise	Director
By:	/s/ John T. Whates, Esq. John T. Whates, Esq.	Director

KLX Energy Services Holdings, Inc. 1300 Corporate Center Way Wellington, Florida

September 19, 2018

Ladies and Gentlemen:

We are acting as counsel to KLX Energy Services Holdings, Inc., a Delaware corporation (the *Company*), in connection with the preparation and filing with the Securities and Exchange Commission (the *Commission*) of a Post-Effective Amendment No. 1 to the Registration Statement on Form S-8 (as amended from time to time, the *Registration Statement*), under the Securities Act of 1933, as amended (the *Securities Act*), relating to shares of common stock (the *Shares*), par value \$0.01 per share, of the Company, issuable pursuant to the KLX Energy Services Holdings, Inc. Long-Term Incentive Plan, the KLX Energy Services Holdings, Inc. Employee Stock Purchase Plan and the KLX Energy Services Holdings, Inc. Non-Employee Directors Stock and Deferred Compensation Plan (collectively, the *Plans*). Capitalized terms not defined herein have the same meaning given to them in the Distribution Agreement, dated as of July 13, 2018 by and among KLX Inc., a Delaware corporation (*KLX*), the Company and KLX Energy Services LLC, a Delaware limited liability company and wholly-owned subsidiary of KLX (the *Distribution Agreement*).

This opinion is confined to the General Corporation Law of the State of Delaware, as currently in effect. Accordingly, we express no opinion herein with regard to any other laws. The opinions expressed herein are limited to the matters stated herein, and no opinion is implied or may be inferred beyond the matters expressly stated herein. We do not undertake to advise you of changes in law or facts that may come to our attention after the date of this letter.

In rendering the opinions expressed below, we have examined the following documents and agreements:

- (a) the Amended and Restated Certificate of Incorporation of the Company in effect as of the date hereof;
- (b) the Amended and Restated Bylaws of the Company in effect as of the date hereof;
- (c) the resolutions of the board of directors of KLX, dated as of August 24, 2018;
- (d) the written consent of the sole director of the Company adopted on September 13, 2018;
- (e) the Certificate of Good Standing of the Company, dated as of September 17, 2018, issued by the Secretary of State of the State of Delaware;
- (f) the Registration Statement;
- (g) the Plans; and
- (h) the Distribution Agreement.

In addition, we have examined and have relied as to matters of fact upon such corporate and other records, agreements, documents and other instruments and certificates or comparable documents of public officials and of officers and representatives of the Company and such other persons, and we have made such other investigations, as we have deemed relevant and necessary as a basis for the opinions expressed below.

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals and the conformity with authentic originals of all documents submitted to us as copies. As to any facts material to the opinions expressed herein that we did not independently establish or verify, we have

relied, without independent verification, upon oral or written statements and representations of public officials, officers and other representatives of the Company. We have also assumed that he individual grants or awards under the Plans have been duly authorized by all necessary corporate action and duly granted or awarded and exercised in accordance with the requirements of law and the Plans (and the agreements and awards duly adopted thereunder and in accordance therewith).

Based upon the foregoing, and subject to the limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares have been authorized by the Company and, when the Shares are issued by the Company in accordance with the terms of the Plans and the applicable award agreements pursuant to which the awards related to the Shares are made, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion with the Commission as Exhibit 5.1 to the Registration Statement. In giving this consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Freshfields Bruckhaus Deringer US LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Post-Effective Amendment No. 1 to Registration Statement No. 333-227321 on Form S-8 of KLX Energy Services Holdings, Inc. of our report dated June 20, 2018 (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the allocation of certain corporate expenses), relating to the financial statements of the Energy Services Group Business of KLX Inc., appearing in Amendment No. 2 to Form 10 of KLX Energy Services Holdings, Inc. filed on August 24, 2018, and to the reference to us under the heading "Experts" in the Reoffer Prospectus, which is part of this Registration Statement.

/s/ Deloitte & Touche LLP Boca Raton, Florida September 19, 2018