

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM S-3**

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

**PERMA-FIX ENVIRONMENTAL SERVICES, INC.**

*(Exact name of registrant as specified in charter)*

**DELAWARE**  
*(State or other jurisdiction of  
incorporation or organization)*

**58-1954497**  
*(I.R.S. Employer  
Identification No.)*

**8302 Dunwoody Place, #250  
Atlanta, Georgia 30350  
(770) 587-9898**

*(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)*

**MARK DUFF  
President and Chief Executive Officer  
Perma-Fix Environmental Services, Inc.  
8302 Dunwoody Place, #250  
Atlanta, Georgia 30350  
(770) 587-9898**

*(Address, including zip code, and telephone number, including area code, of agent for service)*

Copy to:  
**Irwin H. Steinhorn, Esq.  
Conner & Winters, LLP  
One Leadership Square, Suite 1700  
211 North Robinson  
Oklahoma City, Oklahoma 73102  
(405) 272-5711**

**Approximate date of commencement of proposed sale to the public:** From time to time after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to a dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has selected 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.

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Number of Shares to be Registered	Proposed Maximum Offering Price Per Share <sup>(1)</sup>	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee <sup>(2)</sup>
Common Stock, \$0.01 par value	2,500,000	\$ 4.3528	\$ 10,882,000	\$ 1,318.90 <sup>(3)</sup>

Rights attached to above shares of Common Stock under Rights Agreement

(3) 2,500,000 \$ 0.00 \$ 0.00 \$ 0.00

- (1) The proposed maximum aggregate offering price, estimated solely for the purpose of calculating the registration fee, has been computed pursuant to Rule 457(c) of the Securities Act of 1933 and is based on the average of the high and low prices of Perma-Fix Environmental Services, Inc.'s common stock, \$0.001 par value, on May 7, 2019, as reported by The Nasdaq Capital Market.
- (2) Calculated at the rate of \$121.20 per million dollars.
- (3) Each share of common stock has a Right attached to it pursuant to the Registrant's Shareholder Rights Agreement dated May 2, 2018 (as more fully described beginning on page 16 of the prospectus). These Rights are also being registered in this registration statement.

**The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell securities, and it is not soliciting an offer to buy securities in any state where the offer or sale is not permitted.

Subject to completion, dated May 13, 2019



**PROSPECTUS**

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**2,500,000 Shares  
and the rights attached to the Shares**

**PERMA-FIX ENVIRONMENTAL SERVICES, INC.**

**Common Stock**

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Perma-Fix Environmental Services, Inc. may offer shares of its common stock from time to time. Each share of common stock includes an attached Right under our Rights Agreement, dated May 2, 2018. We will specify in an accompanying prospectus supplement the terms of any offering. Our common stock is traded on the NASDAQ Capital Market under the symbol "PESI". On April 15, 2019, the closing price of our common stock as reported on the NASDAQ Capital Market was \$4.14.

The aggregate market value of our outstanding common stock held by non-affiliates, computed by reference to the price at which our common stock was last sold on April 15, 2019 (\$4.14 per share), was approximately \$46,962,351, based on 12,054,439 shares of our common stock outstanding as of that date, of which 11,343,563 shares were held by non-affiliates. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in a public primary offering during the period of 12 calendar months immediately prior to and including the sale with a value exceeding more than one-third of our public float so long as our public float remains below \$75.0 million. We have not offered any of our securities pursuant to General Instruction 1.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus.

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You should read this prospectus, any prospectus supplement and the documents incorporated by reference in this prospectus or any prospectus supplement carefully before you invest. **This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.**

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**Investing in our common stock involves a high degree of risk. You should carefully consider the Risk Factors beginning on page 5 of this prospectus before you make an investment decision.**

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The common stock offered by this prospectus may be offered in amounts, at prices and at terms determined at the time of the offering and may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution." The net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

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**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.**

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The date of this prospectus is \_\_\_\_\_, 2019.

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Unless the context otherwise requires, references in this prospectus to “Perma-Fix,” “the company,” “we,” “our,” and “us” refer to Perma-Fix Environmental Services, Inc. and its consolidated subsidiaries.

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No person has been authorized to give any information or make any representations in connection with this offering other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement in connection with the offering described herein and therein, and, if given or made, such information or representations must not be relied upon as having been authorized by us. Neither this prospectus nor any prospectus supplement shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. Neither the delivery of this prospectus or any prospectus supplement nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement is correct as of any date subsequent to the date hereof or of such prospectus supplement.

## SUMMARY

*The following summary is qualified in its entirety by the more detailed information included in this prospectus or incorporated by reference in this prospectus. You should carefully consider the information set forth in this entire prospectus, including the "Risk Factors" section, the applicable prospectus supplement for such securities and the other documents we refer to or that we incorporate by reference.*

This prospectus is part of a Registration Statement on Form S-3 that we filed with the Securities and Exchange Commission (the "Commission"), utilizing a "shelf" registration process. Under this shelf registration process, we may, from time to time, sell up to an aggregate of 2,500,000 shares of our common stock in one or more offerings. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement, including the risk factors, together with additional information described below under the headings "Where You Can Find More Information" and "Incorporation by Reference."

### Perma-Fix

Perma-Fix Environmental Services, Inc. is an environmental and technology know-how company. We have three reportable segments. In accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 280, "Segment Reporting", we define an operating segment as:

- a business activity from which we may earn revenue and incur expenses;
- whose operating results are regularly reviewed by the chief operating decision maker ("CODM") to make decisions about resources to be allocated and assess its performance; and
- for which discrete financial information is available.

Our TREATMENT SEGMENT includes:

- nuclear, low-level radioactive, mixed (waste containing both hazardous and low-level radioactive waste), hazardous and non-hazardous waste treatment, processing and disposal services primarily through three uniquely licensed (Nuclear Regulatory Commission or state equivalent) and permitted (U.S. Environmental Protection Agency ("EPA") or state equivalent) treatment and storage facilities held by the following subsidiaries: Perma-Fix of Florida, Inc. ("PFF"), Diversified Scientific Services, Inc., ("DSSI"), and Perma-Fix Northwest Richland, Inc. ("PFNWR"). The presence of nuclear and low-level radioactive constituents within the waste streams processed by this segment creates different and unique operational, processing and permitting/licensing requirements; and
- Research and Development ("R&D") activities to identify, develop and implement innovative waste processing techniques for problematic waste streams.

We have completed the physical on-site closure and decommissioning activities at our East Tennessee Materials and Energy Corporation ("M&EC") facility (within our Treatment Segment and in closure status) in accordance with M&EC's license and permit requirements, with final closure of the facility subject to completion of final surveys and regulatory approvals. We continue to transition operational capabilities to our other Treatment Segment facilities, subject to customer requirements and regulatory approvals.

Our SERVICES SEGMENT includes:

- Technical services, which include:
  - professional radiological measurement and site survey of large government and commercial installations using advanced methods, technology and engineering;
  - integrated Occupational Safety and Health services including industrial hygiene ("IH") assessments; hazardous materials surveys, e.g., exposure monitoring; lead and asbestos management/abatement oversight; indoor air quality evaluations; health risk and exposure assessments; health & safety plan/program development, compliance auditing and training services; and Occupational Safety and Health Administration ("OSHA") citation assistance;
  - global technical services providing consulting, engineering, project management, waste management, environmental, and decontamination and decommissioning field, technical, and management personnel and services to commercial and government customers; and
  - on-site waste management services to commercial and governmental customers.

- Nuclear services, which include:
  - technology-based services including engineering, decontamination and decommissioning (“D&D”), specialty services, logistics, transportation, processing and disposal;
  - remediation of nuclear licensed and federal facilities and the remediation cleanup of nuclear legacy sites. Such services capability includes: project investigation; radiological engineering; partial and total plant D&D; facility decontamination, dismantling, demolition, and planning; site restoration; logistics; transportation; and emergency response; and
- A company owned equipment calibration and maintenance laboratory that services, maintains, calibrates, and sources (i.e., rental) health physics, IH and customized nuclear, environmental, and occupational safety and health (“NEOSH”) instrumentation.
- A company owned gamma spectroscopy laboratory for the analysis of oil and gas industry solids and liquids.

Our MEDICAL SEGMENT includes: R&D costs for the new medical isotope production technology from Perma-Fix Medical (“PF Medical”), our majority-owned Polish subsidiary (of which we own approximately 60.5% at December 31, 2018). The Medical Segment has not generated any revenue as it remains in the R&D stage. R&D costs consist primarily of employee salaries and benefits, laboratory costs, third party fees, and other related costs associated with the development of new technology. As previously disclosed, our Medical Segment ceased a substantial portion of its R&D activities for the new medical isotope production technology due to the need for substantial capital to fund such activities. We anticipate that our Medical Segment will not restart its full scale R&D activities until it obtains the necessary funding or partners with others willing to provide the necessary funding.

Our Treatment and Services Segments provide services to research institutions, commercial companies, public utilities, and governmental agencies (domestic and foreign), including the U.S. Department of Energy (“DOE”) and U.S. Department of Defense (“DOD”). The distribution channels for our services are through direct sales to customers or via intermediaries.

Our principal executive offices are located at 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350, and our telephone number is (770) 587-9898.

## THE COMMON STOCK WE MAY OFFER

We may offer up to an aggregate of 2,500,000 shares of common stock in one or more offerings. A prospectus supplement, which we will provide to you each time we offer securities, will describe the specific amounts, prices and terms of these securities. Each share of common stock includes an attached Right, as described beginning on page 16 of this prospectus.

We may sell the common stock to or through underwriters, dealers or agents or directly to purchasers. We and our agents reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. Each prospectus supplement will set forth the names of any underwriters, dealers or agents involved in the sale of the common stock described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

Common stock holders are entitled to receive dividends declared by our board of directors out of funds legally available for the payment of dividends, subject to rights, if any, of preferred stock holders. However, we have never paid a dividend, and we do not anticipate paying a dividend in the foreseeable future. Our current secured credit facility prohibits us from paying cash dividends on our common stock. Each holder of common stock is entitled to one vote per share. The holders of common stock have no preemptive rights or cumulative voting rights. A prospectus supplement will describe the specific amounts, prices and terms of any common stock to be issued.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference herein include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements in this prospectus and the information incorporated by reference herein other than a statement of historical fact are forward-looking statements that are subject to known and unknown risks, uncertainties and other factors, which could cause our actual results and performance to differ materially from such statements. The words "believe," "expect," "anticipate," "intend," "will," and similar expressions identify forward-looking statements. Forward-looking statements contained herein relate to, among other things,

- demand for our services;
- continue to focus on expansion into both commercial and international markets to increase revenues;
- closure of M&EC facility;
- improvement to working capital;
- reductions in the level of government funding in future years;
- R&D activity of our Medical Segment;
- reducing operating costs;
- expect to meet our financial covenant requirements in the next twelve months;
- cash flow requirements;
- government funding for our services;
- may not have liquidity to repay debt if our lender accelerates payment of our borrowings;
- our cash flows from operations, our available liquidity from our credit facility, loan proceeds of \$2,500,000, and finite sinking funds that we expect to receive are sufficient to service our operations;
- release of restricted finite risk sinking funds;
- manner in which the government will be required to spend funding to remediate federal sites;
- audit by the Internal Revenue Services of our net operating losses;
- funding operations;
- fund capital expenditures from cash from operations and/or financing;
- fund remediation expenditures for sites from funds generated internally;
- compliance with environmental regulations;
- future environmental policies affecting operations;
- potential effect of being a Potentially Responsible Party ("PRP");
- subject to fines and civil penalties in connection with violations of regulatory requirements;
- large business are more willing to team with small businesses;
- permit and license requirements represent a potential barrier to entry for possible competitors;
- process backlog during periods of low waste receipts, which historically has been in the first and fourth quarters;

- potential sites for violations of environmental laws and remediation of our facilities;
- delay in waste shipment should have positive effect for us in first half of 2019;
- continuation of contracts with federal government;
- loss of contracts;
- necessary capital for Medical Segment;
- disposal of our waste;
- exposure to one-time transition tax; and
- contract awards and estimated value of these contracts.

While we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance such expectations will prove to be correct. There are a variety of factors, which could cause future outcomes to differ materially from those described in this report, including, but not limited to:

- general economic conditions;
- material reduction in revenues;
- ability to meet PNC covenant requirements;
- inability to collect in a timely manner a material amount of receivables;
- increased competitive pressures;
- inability to maintain and obtain required permits and approvals to conduct operations;
- public not accepting our new technology;
- inability to develop new and existing technologies in the conduct of operations;
- inability to maintain and obtain closure and operating insurance requirements;
- inability to retain or renew certain required permits;
- discovery of additional contamination or expanded contamination at any of the sites or facilities leased or owned by us or our subsidiaries which would result in a material increase in remediation expenditures;
- delays at our third-party disposal site can extend collection of our receivables greater than twelve months;
- refusal of third-party disposal sites to accept our waste;
- changes in federal, state and local laws and regulations, especially environmental laws and regulations, or in interpretation of such;
- requirements to obtain permits for treatment, storage, and disposal (“TSD”) activities or licensing requirements to handle low level radioactive materials are limited or lessened;
- potential increases in equipment, maintenance, operating or labor costs;
- management retention and development;
- financial valuation of intangible assets is substantially more/less than expected;
- the requirement to use internally generated funds for purposes not presently anticipated;
- inability to continue to be profitable on an annualized basis;
- inability of the Company to maintain the listing of its Common Stock on the NASDAQ;
- terminations of contracts with federal agencies or subcontracts involving federal agencies, or reduction in amount of waste delivered to the Company under the contracts or subcontracts;
- renegotiation of contracts involving the federal government;
- federal government’s inability or failure to provide necessary funding to remediate contaminated federal sites;
- disposal expense accrual could prove to be inadequate in the event the waste requires re-treatment;
- inability to raise capital on commercially reasonable terms;
- inability to increase profitable revenue;
- lender refuses to waive non-compliance or revise our covenant so that we are in compliance; and
- risk factors contained in this prospectus.



## RISK FACTORS

*An investment in our securities involves a high degree of risk. You should carefully consider the risks described below before making an investment decision, as well as the risks and other information included and incorporated by reference in the applicable prospectus supplement when determining whether or not to purchase the securities offered under this prospectus and the applicable prospectus supplement. You should also refer to the other information in this prospectus incorporated by reference into this prospectus and the additional information in the other reports we file with the Commission.*

### **Risks Relating to our Operations**

**Failure to maintain our financial assurance coverage that we are required to have in order to operate our permitted treatment, storage and disposal facilities could have a material adverse effect on us.**

We maintain finite risk insurance policies and bonding mechanisms which provide financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure of those facilities. We are required to provide and to maintain financial assurance that guarantees to the state that in the event of closure, our permitted facilities will be closed in accordance with the regulations. In the event that we are unable to obtain or maintain our financial assurance coverage for any reason, this could materially impact our operations and our permits which we are required to have in order to operate our treatment, storage, and disposal facilities.

**If we cannot maintain adequate insurance coverage, we will be unable to continue certain operations.**

Our business exposes us to various risks, including claims for causing damage to property and injuries to persons that may involve allegations of negligence or professional errors or omissions in the performance of our services. Such claims could be substantial. We believe that our insurance coverage is presently adequate and similar to, or greater than, the coverage maintained by other companies in the industry of our size. If we are unable to obtain adequate or required insurance coverage in the future, or if our insurance is not available at affordable rates, we would violate our permit conditions and other requirements of the environmental laws, rules, and regulations under which we operate. Such violations would render us unable to continue certain of our operations. These events would have a material adverse effect on our financial condition.

**The inability to maintain existing government contracts or win new government contracts over an extended period could have a material adverse effect on our operations and adversely affect our future revenues.**

A material amount of our Treatment and Services Segments' revenues are generated through various government contracts or subcontracts involving specifically the U.S. government. Our revenues from governmental contracts and subcontracts relating to domestic governmental facilities within our segments were approximately \$34,811,000, or 70.3%, and \$37,019,000, or 74.4%, of our consolidated operating revenues for 2018 and 2017, respectively. Most of our government contracts or our subcontracts granted under government contracts are awarded through a regulated competitive bidding process. Some government contracts are awarded to multiple competitors, which increase overall competition and pricing pressure and may require us to make sustained post-award efforts to realize revenues under these government contracts. All contracts with, or subcontracts involving, the federal government are terminable, or subject to renegotiation, by the applicable governmental agency on 30 days notice, at the option of the governmental agency. If we fail to maintain or replace these relationships, or if a material contract is terminated or renegotiated in a manner that is materially adverse to us, our revenues and future operations could be materially adversely affected.

**Our existing and future customers may reduce or halt their spending on hazardous waste and nuclear services with outside vendors, including us.**

A variety of factors may cause our existing or future customers (including the federal government) to reduce or halt their spending on hazardous waste and nuclear services from outside vendors, including us. These factors include, but are not limited to:

- accidents, terrorism, natural disasters or other incidents occurring at nuclear facilities or involving shipments of nuclear materials;
- failure of the federal government to approve necessary budgets, or to reduce the amount of the budget necessary, to fund remediation of DOE and DOD sites;
- civic opposition to or changes in government policies regarding nuclear operations;
- a reduction in demand for nuclear generating capacity; or
- failure to perform under existing contracts, directly or indirectly, with the federal government.

These events could result in or cause the federal government to terminate or cancel its existing contracts involving us to treat, store or dispose of contaminated waste and/or to perform remediation projects, at one or more of the federal sites since all contracts with, or subcontracts involving, the federal government are terminable upon or subject to renegotiation at the option of the government on 30 days' notice. These events also could adversely affect us to the extent that they result in the reduction or elimination of contractual requirements, lower demand for nuclear services, burdensome regulation, disruptions of shipments or production, increased operational costs or difficulties or increased liability for actual or threatened property damage or personal injury.

**Economic downturns and/or reductions in government funding could have a material negative impact on our businesses.**

Demand for our services has been, and we expect that demand will continue to be, subject to significant fluctuations due to a variety of factors beyond our control, including economic conditions, reductions in the budget for spending to remediate federal sites due to numerous reasons, including, without limitation, the substantial deficits that the federal government has and is continuing to incur. During economic downturns and large budget deficits that the federal government and many states are experiencing, the ability of private and government entities to spend on waste services, including nuclear services, may decline significantly. Our operations depend, in large part, upon governmental funding, particularly funding levels at the DOE. Significant reductions in the level of governmental funding (for example, the annual budget of the DOE) or specifically mandated levels for different programs that are important to our business could have a material adverse impact on our business, financial position, results of operations and cash flows.

**The loss of one or a few customers could have an adverse effect on us.**

One or a few governmental customers or governmental related customers have in the past, and may in the future, account for a significant portion of our revenue in any one year or over a period of several consecutive years. Because customers generally contract with us for specific projects, we may lose these significant customers from year to year as their projects with us are completed. Our inability to replace the business with other similar significant projects could have an adverse effect on our business and results of operations.

**As a government contractor, we are subject to extensive government regulation, and our failure to comply with applicable regulations could subject us to penalties that may restrict our ability to conduct our business.**

Our governmental contracts, which are primarily with the DOE or subcontracts relating to DOE sites, are a significant part of our business. Allowable costs under U.S. government contracts are subject to audit by the U.S. government. If these audits result in determinations that costs claimed as reimbursable are not allowed costs or were not allocated in accordance with applicable regulations, we could be required to reimburse the U.S. government for amounts previously received.

Governmental contracts or subcontracts involving governmental facilities are often subject to specific procurement regulations, contract provisions and a variety of other requirements relating to the formation, administration, performance and accounting of these contracts. Many of these contracts include express or implied certifications of compliance with applicable regulations and contractual provisions. If we fail to comply with any regulations, requirements or statutes, our existing governmental contracts or subcontracts involving governmental facilities could be terminated or we could be suspended from government contracting or subcontracting. If one or more of our governmental contracts or subcontracts are terminated for any reason, or if we are suspended or debarred from government work, we could suffer a significant reduction in expected revenues and profits. Furthermore, as a result of our governmental contracts or subcontracts involving governmental facilities, claims for civil or criminal fraud may be brought by the government or violations of these regulations, requirements or statutes.

**We are a holding company and depend, in large part, on receiving funds from our subsidiaries to fund our indebtedness.**

Because we are a holding company and operations are conducted through our subsidiaries, our ability to meet our obligations depends, in large part, on the operating performance and cash flows of our subsidiaries.

**Loss of certain key personnel could have a material adverse effect on us.**

Our success depends on the contributions of our key management, environmental and engineering personnel. Our future success depends on our ability to retain and expand our staff of qualified personnel, including environmental specialists and technicians, sales personnel, and engineers. Without qualified personnel, we may incur delays in rendering our services or be unable to render certain services. We cannot be certain that we will be successful in our efforts to attract and retain qualified personnel as their availability is limited due to the demand for hazardous waste management services and the highly competitive nature of the hazardous waste management industry. We do not maintain key person insurance on any of our employees, officers, or directors.

**Changes in environmental regulations and enforcement policies could subject us to additional liability and adversely affect our ability to continue certain operations.**

We cannot predict the extent to which our operations may be affected by future governmental enforcement policies as applied to existing laws, by changes to current environmental laws and regulations, or by the enactment of new environmental laws and regulations. Any predictions regarding possible liability under such laws are complicated further by current environmental laws which provide that we could be liable, jointly and severally, for certain activities of third parties over whom we have limited or no control.

**Our Treatment Segment has limited end disposal sites to utilize to dispose of its waste which could significantly impact our results of operations.**

Our Treatment Segment has limited options available for disposal of its nuclear waste. Currently, there are only two disposal sites, each site having different owners, for our low level radioactive waste we receive from non-governmental sites, allowing us to take advantage of the pricing competition between the two sites. If either of these disposal sites ceases to accept waste or closes for any reason or refuses to accept the waste of our Treatment Segment, for any reason, we would be limited to only the one remaining site to dispose of our nuclear waste. With only one end disposal site to dispose of our waste, we could be subject to significantly increased costs which could negatively impact our results of operations.

**Our businesses subject us to substantial potential environmental liability.**

Our business of rendering services in connection with management of waste, including certain types of hazardous waste, low-level radioactive waste, and mixed waste (waste containing both hazardous and low-level radioactive waste), subjects us to risks of liability for damages. Such liability could involve, without limitation:

- claims for clean-up costs, personal injury or damage to the environment in cases in which we are held responsible for the release of hazardous or radioactive materials;
- claims of employees, customers, or third parties for personal injury or property damage occurring in the course of our operations; and
- claims alleging negligence or professional errors or omissions in the planning or performance of our services.

Our operations are subject to numerous environmental laws and regulations. We have in the past, and could in the future, be subject to substantial fines, penalties, and sanctions for violations of environmental laws and substantial expenditures as a responsible party for the cost of remediating any property which may be contaminated by hazardous substances generated by us and disposed at such property, or transported by us to a site selected by us, including properties we own or lease.

**As our operations expand, we may be subject to increased litigation, which could have a negative impact on our future financial results.**

Our operations are highly regulated and we are subject to numerous laws and regulations regarding procedures for waste treatment, storage, recycling, transportation, and disposal activities, all of which may provide the basis for litigation against us. In recent years, the waste treatment industry has experienced a significant increase in so-called “toxic-tort” litigation as those injured by contamination seek to recover for personal injuries or property damage. We believe that, as our operations and activities expand, there will be a similar increase in the potential for litigation alleging that we have violated environmental laws or regulations or are responsible for contamination or pollution caused by our normal operations, negligence or other misconduct, or for accidents, which occur in the course of our business activities. Such litigation, if significant and not adequately insured against, could adversely affect our financial condition and our ability to fund our operations. Protracted litigation would likely cause us to spend significant amounts of our time, effort, and money. This could prevent our management from focusing on our operations and expansion.

**Our operations are subject to seasonal factors, which cause our revenues to fluctuate.**

We have historically experienced reduced revenues and losses during the first and fourth quarters of our fiscal years due to a seasonal slowdown in operations from poor weather conditions, overall reduced activities during these periods resulting from holiday periods, and finalization of government budgets during the fourth quarter of each year. During our second and third fiscal quarters there has historically been an increase in revenues and operating profits. If we do not continue to have increased revenues and profitability during the second and third fiscal quarters, this could have a material adverse effect on our results of operations and liquidity.

**If environmental regulation or enforcement is relaxed, the demand for our services will decrease.**

The demand for our services is substantially dependent upon the public’s concern with, and the continuation and proliferation of, the laws and regulations governing the treatment, storage, recycling, and disposal of hazardous, non-hazardous, and low-level radioactive waste. A decrease in the level of public concern, the repeal or modification of these laws, or any significant relaxation of regulations relating to the treatment, storage, recycling, and disposal of hazardous waste and low-level radioactive waste would significantly reduce the demand for our services and could have a material adverse effect on our operations and financial condition. We are not aware of any current federal or state government or agency efforts in which a moratorium or limitation has been, or will be, placed upon the creation of new hazardous or radioactive waste regulations that would have a material adverse effect on us; however, no assurance can be made that such a moratorium or limitation will not be implemented in the future.

**We and our customers operate in a politically sensitive environment, and the public perception of nuclear power and radioactive materials can affect our customers and us.**

We and our customers operate in a politically sensitive environment. Opposition by third parties to particular projects can limit the handling and disposal of radioactive materials. Adverse public reaction to developments in the disposal of radioactive materials, including any high profile incident involving the discharge of radioactive materials, could directly affect our customers and indirectly affect our business. Adverse public reaction also could lead to increased regulation or outright prohibition, limitations on the activities of our customers, more onerous operating requirements or other conditions that could have a material adverse impact on our customers’ and our business.

**We may be exposed to certain regulatory and financial risks related to climate change**

Climate change is receiving ever increasing attention from scientists and legislators alike. The debate is ongoing as to the extent to which our climate is changing, the potential causes of this change and its potential impacts. Some attribute global warming to increased levels of greenhouse gases, including carbon dioxide, which has led to significant legislative and regulatory efforts to limit greenhouse gas emissions.

Presently there are no federally mandated greenhouse gas reduction requirements in the United States. However, there are a number of legislative and regulatory proposals to address greenhouse gas emissions, which are in various phases of discussion or implementation. The outcome of federal and state actions to address global climate change could result in a variety of regulatory programs including potential new regulations. Any adoption by federal or state governments mandating a substantial reduction in greenhouse gas emissions could increase costs associated with our operations. Until the timing, scope and extent of any future regulation becomes known, we cannot predict the effect on our financial position, operating results and cash flows.

**We may not be successful in winning new business mandates from our government and commercial customers or international customers.**

We must be successful in winning mandates from our government, commercial customers and international customers to replace revenues from projects that we have completed or that are nearing completion and to increase our revenues. Our business and operating results can be adversely affected by the size and timing of a single material contract.

**The elimination or any modification of the Price-Anderson Acts indemnification authority could have adverse consequences for our business.**

The Atomic Energy Act of 1954, as amended, or the AEA, comprehensively regulates the manufacture, use, and storage of radioactive materials. The Price-Anderson Act (“PAA”) supports the nuclear services industry by offering broad indemnification to DOE contractors for liabilities arising out of nuclear incidents at DOE nuclear facilities. That indemnification protects DOE prime contractors, but also similar companies that work under contract or subcontract for a DOE prime contract or transporting radioactive material to or from a site. The indemnification authority of the DOE under the PAA was extended through 2025 by the Energy Policy Act of 2005.

Under certain conditions, the PAA’s indemnification provisions may not apply to our processing of radioactive waste at governmental facilities, and may not apply to liabilities that we might incur while performing services as a contractor for the DOE and the nuclear energy industry. If an incident or evacuation is not covered under PAA indemnification, we could be held liable for damages, regardless of fault, which could have an adverse effect on our results of operations and financial condition. If such indemnification authority is not applicable in the future, our business could be adversely affected if the owners and operators of new facilities fail to retain our services in the absence of commercial adequate insurance and indemnification.

**We are engaged in highly competitive businesses and typically must bid against other competitors to obtain major contracts.**

We are engaged in highly competitive business in which most of our government contracts and some of our commercial contracts are awarded through competitive bidding processes. We compete with national and regional firms with nuclear and/or hazardous waste services practices, as well as small or local contractors. Some of our competitors have greater financial and other resources than we do, which can give them a competitive advantage. In addition, even if we are qualified to work on a new government contract, we might not be awarded the contract because of existing government policies designed to protect certain types of businesses and under-represented minority contractors. Although we believe we have the ability to certify and bid government contract as a small business, there are a number of qualified small businesses in our market that will provide intense competition. For international business, which we continue to focus on, there are additional competitors, many from within the country the work is to be performed, making winning work in foreign countries more challenging. Competition places downward pressure on our contract prices and profit margins. If we are unable to meet these competitive challenges, we could lose market share and experience an overall reduction in our profits.

**Our failure to maintain our safety record could have an adverse effect on our business.**

Our safety record is critical to our reputation. In addition, many of our government and commercial customers require that we maintain certain specified safety record guidelines to be eligible to bid for contracts with these customers. Furthermore, contract terms may provide for automatic termination in the event that our safety record fails to adhere to agreed-upon guidelines during performance of the contract. As a result, our failure to maintain our safety record could have a material adverse effect on our business, financial condition and results of operations.

**We may be unable to utilize loss carryforwards in the future.**

As of December 31, 2018, we have approximately \$21,277,000 and \$76,312,000 in net operating loss carryforwards for federal and state income tax purposes, respectively, which will expire in various amounts starting in 2021 if not used against future federal and state income tax liabilities, respectively. Our net loss carryforwards are subject to various limitations. Our ability to use the net loss carryforwards depends on whether we are able to generate sufficient income in the future years. Further, our net loss carryforwards have not been audited or approved by the Internal Revenue Service.

**If any of our permits, other intangible assets, and tangible assets becomes impaired, we may be required to record significant charges to earnings.**

Under accounting principles generally accepted in the United States ("U.S. GAAP"), we review our intangible and tangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Our permits are tested for impairment at least annually. Factors that may be considered a change in circumstances, indicating that the carrying value of our permit, other intangible assets, and tangible assets may not be recoverable, include a decline in stock price and market capitalization, reduced future cash flow estimates, and slower growth rates in our industry. We may be required, in the future, to record impairment charges in our financial statements, in which any impairment of our permit, other intangible assets, and tangible assets is determined. Such impairment charges could negatively impact our results of operations.

**We bear the risk of cost overruns in fixed-price contracts. We may experience reduced profits or, in some cases, losses under these contracts if costs increase above our estimates.**

Our revenues may be earned under contracts that are fixed-price in nature. Fixed-price contracts expose us to a number of risks not inherent in cost-reimbursable contracts. Under fixed price and guaranteed maximum-price contracts, contract prices are established in part on cost and scheduling estimates which are based on a number of assumptions, including assumptions about future economic conditions, prices and availability of labor, equipment and materials, and other exigencies. If these estimates prove inaccurate, or if circumstances change such as unanticipated technical problems, difficulties in obtaining permits or approvals, changes in laws or labor conditions, weather delays, cost of raw materials or our suppliers' or subcontractors' inability to perform, cost overruns may occur and we could experience reduced profits or, in some cases, a loss for that project. Errors or ambiguities as to contract specifications can also lead to cost-overruns.

**Adequate bonding is necessary for us to win certain types of new work and support facility closure requirements.**

We are often required to provide performance bonds to customers under fixed-price contracts, primarily within our Services Segment. These surety instruments indemnify the customer if we fail to perform our obligations under the contract. If a bond is required for a particular project and we are unable to obtain it due to insufficient liquidity or other reasons, we may not be able to pursue that project. In addition, we provide bonds to support financial assurance in the event of facility closure pursuant to state requirements. We currently have a bonding facility but, the issuance of bonds under that facility is at the surety's sole discretion. Moreover, due to events that affect the insurance and bonding markets generally, bonding may be more difficult to obtain in the future or may only be available at significant additional cost. There can be no assurance that bonds will continue to be available to us on reasonable terms. Our inability to obtain adequate bonding and, as a result, to bid on new work could have a material adverse effect on our business, financial condition and results of operations.

**Failure to maintain effective internal control over financial reporting or failure to remediate a material weakness in internal control over financial reporting could have a material adverse effect on our business, operating results, and stock price.**

Maintaining effective internal control over financial reporting is necessary for us to produce reliable financial reports and is important in helping to prevent financial fraud. If we are unable to maintain adequate internal controls, our business and operating results could be harmed. We are required to satisfy the requirements of Section 404(a) of Sarbanes Oxley and the related rules of the Commission, which require, among other things, management to assess annually the effectiveness of our internal control over financial reporting. If we are unable to maintain adequate internal control over financial reporting or effectively remediate any material weakness identified in internal control over financial reporting, there is a reasonable possibility that a misstatement of our annual or interim financial statements will not be prevented or detected in a timely manner. If we cannot produce reliable financial reports, investors could lose confidence in our reported financial information, the market price of our common stock could decline significantly, and our business, financial condition, and reputation could be harmed.

**Systems failures, interruptions or breaches of security and other cyber security risks could have an adverse effect on our financial condition and results of operations.**

We are subject to certain operational risks to our information systems. Because of efforts on the part of computer hackers and cyberterrorists to breach data security of companies, we face risk associated with potential failures to adequately protect critical corporate, customer and employee data. As part of our business, we develop and retain confidential data about us and our customers, including the U.S. government. We also rely on the services of a variety of vendors to meet our data processing and communications needs.

Despite our implemented security measures and established policies, we cannot be certain that all of our systems are entirely free from vulnerability to attack or other technological difficulties or failures or failures on the part of our employees to follow our established security measures and policies. Information security risks have increased significantly. Our technologies, systems, and networks may become the target of cyber-attacks, computer viruses, malicious code, or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of our or our customers' confidential, proprietary and other information and the disruption of our business operations. A security breach could adversely impact our customer relationships, reputation and operation and result in violations of applicable privacy and other laws, financial loss to us or to our customers or to our employees, and litigation exposure. While we maintain a system of internal controls and procedures, any breach, attack, or failure as discussed above could have a material adverse impact on our business, financial condition, and results of operations or liquidity.

There is also an increasing attention on the importance of cybersecurity relating to infrastructure. This creates the potential for future developments in regulations relating to cybersecurity that may adversely impact us, our customers and how we offer our services to our customers.

**Risks Relating to our Intellectual Property**

**If we cannot maintain our governmental permits or cannot obtain required permits, we may not be able to continue or expand our operations.**

We are a nuclear services and waste management company. Our business is subject to extensive, evolving, and increasingly stringent federal, state, and local environmental laws and regulations. Such federal, state, and local environmental laws and regulations govern our activities regarding the treatment, storage, recycling, disposal, and transportation of hazardous and non-hazardous waste and low-level radioactive waste. We must obtain and maintain permits or licenses to conduct these activities in compliance with such laws and regulations. Failure to obtain and maintain the required permits or licenses would have a material adverse effect on our operations and financial condition. If any of our facilities are unable to maintain currently held permits or licenses or obtain any additional permits or licenses which may be required to conduct its operations, we may not be able to continue those operations at these facilities, which could have a material adverse effect on us.

**We believe our proprietary technology is important to us.**

We believe that it is important that we maintain our proprietary technologies. There can be no assurance that the steps taken by us to protect our proprietary technologies will be adequate to prevent misappropriation of these technologies by third parties. Misappropriation of our proprietary technology could have an adverse effect on our operations and financial condition. Changes to current environmental laws and regulations also could limit the use of our proprietary technology.

## **Risks Relating to our Financial Position and Need for Financing**

### **Failure to become profitable could have a material adverse effect on us.**

We have not reported a profit for several years, and did not report a profit for the first quarter of 2019. Our main objective is to increase our revenues, returning the Company to profitability and to further evaluate various methods to increase our liquidity, when needed. If we are unable to return to profitability in the near future, this could have a material adverse effect on the Company.

### **Breach of any of the covenants in our credit facility could result in a default, triggering repayment of outstanding debt under the credit facility.**

Our credit facility with our bank contains financial covenants. A breach of any of these covenants could result in a default under our credit facility triggering our lender to immediately require the repayment of all outstanding debt under our credit facility and terminate all commitments to extend further credit. Our fixed charge coverage ratio fell below the minimum quarterly requirement under our credit facility in the fourth quarter of 2018; however, we have obtained a waiver for this non-compliance from our lender. Additionally, our lender also has provided certain amendments to our fixed charge coverage ratio requirements for 2019 which will enable us to meet our quarterly fixed charge coverage ratio requirements. If we fail to meet any of our financial covenants going forward, including the minimum quarterly fixed charge coverage ratio requirement, and our lender does not further waive the non-compliance or further revise our covenant requirement so that we are in compliance, our lender could accelerate the payment of our borrowings under our credit facility. In such event, we may not have sufficient liquidity to repay our debt under our credit facility and other indebtedness.

### **Our debt and borrowing availability under our credit facility could adversely affect our operations.**

At December 31, 2018, our aggregate consolidated debt was approximately \$3,302,000. Our Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated October 31, 2011, as subsequently amended (“Revised Loan Agreement”) provides for a total credit facility commitment of approximately \$18,100,000, consisting of a \$12,000,000 revolving line of credit and a term loan of \$6,100,000. The maximum we can borrow under the revolving part of the credit facility is based on a percentage of the amount of our eligible receivables outstanding at any one time reduced by outstanding standby letters of credit and any borrowing reduction that our lender may impose from time to time. At December 31, 2018, we had borrowings under the revolving part of our credit facility of approximately \$639,000 and borrowing availability of up to an additional \$2,368,000. A lack of positive operating results could have material adverse consequences on our ability to operate our business. Our ability to make principal and interest payments, to refinance indebtedness, and borrow under our credit facility will depend on both our and our subsidiaries’ future operating performance and cash flow. Prevailing economic conditions, interest rate levels, and financial, competitive, business, and other factors affect us. Many of these factors are beyond our control.

Our indebtedness could limit our financial and operating activities, and adversely affect our ability to incur additional debt to fund future needs.

As a result of our indebtedness, we could, among other things, be:

- required to dedicate a substantial portion of our cash flow to the payment of principal and interest, thereby reducing the funds available for operations and future business opportunities;
- make it more difficult for us to satisfy our obligations;
- limit our ability to borrow additional money if needed for other purposes, including working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes, on satisfactory terms or at all;
- limit our ability to adjust to changing economic, business and competitive conditions;
- place us at a competitive disadvantage with competitors who may have less indebtedness or greater access to financing;
- make us more vulnerable to an increase in interest rates, a downturn in our operating performance or a decline in general economic conditions; and
- make us more susceptible to changes in credit ratings, which could impact our ability to obtain financing in the future and increase the cost of such financing.

Any of the foregoing could adversely impact our operating results, financial condition, and liquidity. Our ability to continue our operations depends on our ability to generate profitable operations or complete equity or debt financings to increase our capital.



## **Risks Relating to our Common Stock**

### **Issuance of substantial amounts of our Common Stock could depress our stock price.**

Any sales of substantial amounts of our Common Stock in the public market could cause an adverse effect on the market price of our Common Stock and could impair our ability to raise capital through the sale of additional equity securities. The issuance of our Common Stock will result in the dilution in the percentage membership interest of our stockholders and the dilution in ownership value. At December 31, 2018, we had 11,936,573 shares of Common Stock outstanding.

In addition, at December 31, 2018, we had outstanding options to purchase 616,000 shares of our Common Stock at exercise prices ranging from \$2.79 to \$13.35 per share. Further, our preferred share rights plan, if triggered, could result in the issuance of a substantial amount of our Common Stock. The existence of this quantity of rights to purchase our Common Stock under the preferred share rights plan could result in a significant dilution in the percentage ownership interest of our stockholders and the dilution in ownership value. Future sales of the shares issuable could also depress the market price of our Common Stock.

### **We do not intend to pay dividends on our Common Stock in the foreseeable future.**

Since our inception, we have not paid cash dividends on our Common Stock, and we do not anticipate paying any cash dividends in the foreseeable future. Our credit facility prohibits us from paying cash dividends on our Common Stock without prior approval from our lender.

### **The price of our Common Stock may fluctuate significantly, which may make it difficult for our stockholders to resell our Common Stock when a stockholder wants or at prices a stockholder finds attractive.**

The price of our Common Stock on the NASDAQ Capital Market constantly changes. We expect that the market price of our Common Stock will continue to fluctuate. This may make it difficult for our stockholders to resell the Common Stock when a stockholder wants or at prices a stockholder finds attractive.

Future issuance of our Common Stock could adversely affect the price of our Common Stock, our ability to raise funds in new stock offerings and could dilute the percentage ownership of our common stockholders.

Future sales of substantial amounts of our Common Stock or equity-related securities in the public market, or the perception that such sales or conversions could occur, could adversely affect prevailing trading prices of our Common Stock and could dilute the value of Common Stock held by our existing stockholders. No prediction can be made as to the effect, if any, that future sales of shares of our Common Stock or the availability of shares of our Common Stock for future sale will have on the trading price of our Common Stock. Such future sales or conversions could also significantly reduce the percentage ownership of our common stockholders.

### **Delaware law, certain of our charter provisions, our stock option plans, outstanding warrants and our Preferred Stock may inhibit a change of control under circumstances that could give you an opportunity to realize a premium over prevailing market prices.**

We are a Delaware corporation governed, in part, by the provisions of Section 203 of the General Corporation Law of Delaware, an anti-takeover law. In general, Section 203 prohibits a Delaware public corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. As a result of Section 203, potential acquirers may be discouraged from attempting to effect acquisition transactions with us, thereby possibly depriving our security holders of certain opportunities to sell, or otherwise dispose of, such securities at above-market prices pursuant to such transactions. Further, certain of our option plans provide for the immediate acceleration of, and removal of restrictions from, options and other awards under such plans upon a “change of control” (as defined in the respective plans). Such provisions may also have the result of discouraging acquisition of us.

We have authorized and unissued 17,439,785 (which include shares issuable under outstanding options to purchase 616,000 shares of our Common Stock) shares of our Common Stock and 2,000,000 shares of our Preferred Stock as of December 31, 2018 (which includes 50,000 shares of our Preferred Stock reserved for issuance under our new shareholder share rights plan, discussed below). These unissued shares could be used by our management to make it more difficult for, and thereby discourage an attempt to acquire control of us.

### **We have adopted a shareholder rights plan that may discourage, delay or prevent a change in control of the Company.**

We have adopted a shareholder rights plan (“Rights Plan”) that could cause substantial dilution to a shareholder, and substantially increase the cost paid by a shareholder, who attempts to acquire us on terms not approved by our board of directors. This could prevent us from being acquired. See “Rights Attaching to Our Common Stock” for further information relating to the Rights Plan.

## USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities covered by this prospectus for general corporate purposes, which may include, but is not limited to, working capital, repayment of indebtedness, capital expenditures, research and development expenditures and acquisitions of new technologies or businesses, subject in all respects to the consent of our secured creditor. The precise amount, use and timing of the application of such proceeds will depend upon our funding requirements and the availability and cost of other capital. Additional information on the use of net proceeds from an offering of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

## PLAN OF DISTRIBUTION

We may sell the securities being offered pursuant to this prospectus to or through underwriters, through dealers, through agents, or directly to one or more purchasers or through a combination of these methods. The applicable prospectus supplement will describe the terms of the offering of the securities, including:

- the name or names of any underwriters, if, and if required, any dealers or agents;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed or traded.

We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices; or
- negotiated prices.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in an offering, we will execute an underwriting agreement with such underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement. The securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more investment banking firms or others, as designated. If an underwriting syndicate is used, the managing underwriter(s) will be specified on the cover of the prospectus supplement. If underwriters are used in the sale, the offered securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent, and the underwriters will be obligated to purchase all of the offered securities, if any are purchased.

We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price, with additional underwriting commissions or discounts, as may be set forth in a related prospectus supplement. The terms of any over-allotment option will be set forth in the prospectus supplement for those securities.

If we use a dealer in the sale of the securities being offered pursuant to this prospectus or any prospectus supplement, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The names of the dealers and the terms of the transaction will be specified in a prospectus supplement.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement.

We may authorize agents or underwriters to solicit offers by institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

In connection with the sale of the securities, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities for whom they act as agents, in the form of discounts, concessions or commissions. Underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agents. Underwriters, dealers and agents that participate in the distribution of the securities, and any institutional investors or others that purchase securities directly for the purpose of resale or distribution, may be deemed to be underwriters, and any discounts or commissions received by them from us and any profit on the resale of the common stock by them may be deemed to be underwriting discounts and commissions under the Securities Act. No FINRA member firm may receive compensation in excess of that allowable under FINRA rules, including Rule 5110, in connection with the offering of the securities.

We may provide agents, underwriters and other purchasers with indemnification against particular civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents, underwriters or other purchasers may make with respect to such liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

To facilitate the public offering of a series of securities, persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the market price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than have been sold to them by us. In exercising the over-allotment option granted to those persons. In addition, those persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to underwriters or dealers participating in any such offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time. We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above, if implemented, may have on the price of our securities.

Unless otherwise specified in the applicable prospectus supplement, any common stock sold pursuant to a prospectus supplement will be eligible for trading as quoted on the Nasdaq Capital Market. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice.

In order to comply with the securities laws of some states, if applicable, the securities offered pursuant to this prospectus will be sold in those states only through registered or licensed brokers or dealers. In addition, in some states securities may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and complied with.

## DESCRIPTION OF COMMON STOCK

Our certificate of incorporation authorizes us to issue up to 30,000,000 shares of common stock, \$0.001 par value. As of April 15, 2019, there were 12,054,439 shares of our common stock outstanding.

The holders of shares of our common stock are entitled to one vote per share on all matters to be voted on by stockholders. Common stock holders are entitled to receive dividends declared by the board of directors out of funds legally available for the payment of dividends, subject to the rights, if any, of preferred stock holders. However, we have never paid a dividend and we do not anticipate paying a dividend in the foreseeable future. Our current secured credit facility prohibits us from paying cash dividends on our common stock. Upon any liquidation, dissolution or winding up of our business, the holders of common stock are entitled to share equally in all assets available for distribution after payment of all liabilities and provision for liquidation preference of shares of preferred stock then outstanding. The holders of common stock have no preemptive rights and no rights to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to our common stock. All outstanding shares of common stock are fully paid and nonassessable.

Each share of our common stock includes an attached Right arising under and subject to the terms described in, the Rights Agreement dated May 2, 2018 between us and Continental Stock Transfer & Trust Company, as rights agent. The terms of such Rights are summarized in “Rights Attaching to Our Common Stock” below.

The transfer agent and registrar for the common stock is Continental Stock Transfer & Trust Company, One State Street Plaza, 30<sup>th</sup> Floor, New York, New York 10004-1561.

## RIGHTS ATTACHING TO OUR COMMON STOCK

On May 2, 2018, our Board of Directors declared a dividend distribution of one Right for each outstanding share of our common stock to our stockholders of record on May 12, 2018 (the “Record Date”). The Rights Agreement (as defined below) also contemplates the issuance of one Right for each share of common stock which is issued by the Company between the Record Date and the Distribution Date (or earlier redemption or termination of the Rights). The Rights are subject to the terms and conditions of a Shareholder Rights Agreement, a copy of which is attached as Exhibit 4.1 to our Form 8-A/12B Registration Statement filed on May 3, 2018 (“Rights Agreement”), and incorporated herein by reference, as well as a First Amendment to Shareholder Rights Agreement, dated May 2, 2019, a copy of which is attached as Exhibit 4.2 to our Current Report on Form 8-K filed on May 3, 2019, and incorporated herein by reference. A copy of the Rights Agreement is also available upon written request to us. Because the following is a summary, the description below of the Rights and the Rights Agreement necessarily omits certain terms, exceptions, or qualifications to the statements made therein. You are advised to review the entire Rights Agreement prior to making any investment decision.

Each Right entitles the registered holder to purchase from us one one-thousandth of a share of our Series B Junior Participating Preferred Stock, par value \$.001 per share (the “Preferred Shares”) at a purchase price of \$20.00 (the “Purchase Price”), subject to certain adjustments.

The Rights will not be exercisable until the earlier to occur of (i) the close of business on the 10th business day following a public announcement or filing that a person has, or a group of affiliated or associated persons or persons acting in concert have, become an “Acquiring Person,” which is defined as a person or group of affiliated or associated persons or persons acting in concert who, at any time after the date of the Rights Agreement, have acquired, or obtained the right to acquire, beneficial ownership of 15% or more of the Company’s outstanding shares of Common Stock, subject to certain exceptions, or (ii) the close of business on the 10th business day (or such other date as may be determined by action of the Board prior to such time as any person or group of affiliated or associated persons or persons acting in concert become an Acquiring Person) after the commencement of, or announcement of an intention to commence, a tender offer or exchange offer the consummation of which would result in any person becoming an Acquiring Person (the earlier of such dates being called the “Distribution Date”). Any existing stockholder or group that beneficially owns 15% or more of the Common Stock will be grandfathered at its current ownership level, but the Rights will become exercisable if at any time after the announcement of the Rights Agreement such stockholder or group increases its ownership of the Common Stock. Certain synthetic interests in securities created by derivative positions, whether or not such interests are considered to be ownership of the underlying common stock or are reportable for purposes of Regulation 13D of the Exchange Act, are treated as beneficial ownership of the number of shares of common stock equivalent to the economic exposure created by the derivative position, to the extent actual shares of the common stock are directly or indirectly held by counterparties to the derivatives contracts.

With respect to certificates representing shares of common stock outstanding as of the Record Date, until the Distribution Date, the Rights will be evidenced by such certificates for shares of common stock registered in the names of the holders thereof, and not by separate Rights Certificates, as described further below. With respect to book entry shares of common stock outstanding as of the Record Date, until the Distribution Date, the Rights will be evidenced by the balances indicated in the book entry account system of the transfer agent for the common stock. Until the earlier of the Distribution Date and the Expiration Date (as defined below), the transfer of any shares of common stock outstanding on the Record Date will also constitute the transfer of the Rights associated with such shares of common stock. As soon as practicable after the Distribution Date, separate certificates evidencing the Rights ("Right Certificates") will be mailed to holders of record of the common stock as of the close of business on the Distribution Date, and such separate Right Certificates alone will evidence the Rights.

The Rights, which are not exercisable until the Distribution Date, will expire at the earliest to occur of (i) the close of business on May 2, 2021; (ii) the time at which the Rights are redeemed pursuant to the Rights Agreement; (iii) the time at which the Rights are exchanged pursuant to the Rights Agreement; or (iv) the time at which the Rights are terminated upon the closing of any merger or other acquisition transaction involving the Company pursuant to a merger or other acquisition agreement that has been approved by the Board prior to any person becoming an Acquiring Person (the earliest of (i), (ii), (iii) and (iv) is referred to as the "Expiration Date").

Each share of Preferred Stock will be entitled to receive, when, as and if declared by the Board, a preferential per share quarterly dividend payment equal to the greater of (i) \$1.00 per share or (ii) 1,000 times the aggregate per share amount of all cash dividends declared per share of common stock, and 1,000 times the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions declared per share of common stock. Each share of Preferred Stock will entitle the holder thereof to 1,000 votes on all matters submitted to a vote of the stockholders of the Company. In the event of any merger, consolidation or other transaction in which shares of common stock are converted or exchanged, each share of Preferred Stock will be entitled to receive 1,000 times the amount received per share of common stock.

The Exercise Price payable, and the number of shares of Preferred Stock or other securities or property issuable, upon exercise of the Rights are subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on, or a subdivision, combination or reclassification of the Preferred Stock, (ii) upon the grant to holders of the Preferred Stock of certain rights, options or warrants to subscribe for or purchase Preferred Stock or convertible securities at less than the then-current market price of the Preferred Stock, or (iii) upon the distribution to holders of the Preferred Stock of evidences of indebtedness or assets (excluding regular periodic cash dividends or dividends payable in Preferred Stock) or of subscription rights, options or warrants (other than those referred to above). The number of outstanding Rights and the number of one one-thousandths of a share of Preferred Stock issuable upon exercise of each Right are also subject to adjustment in the event of a stock split, reverse stock split, stock dividends and other similar transactions.

In the event that, after a person or a group of affiliated or associated persons or persons acting in concert have become an Acquiring Person, the Company is acquired in a merger or other business combination transaction, or 50% or more of the Company's assets or earning power are sold, proper provision will be made so that each holder of a Right (other than Rights owned by an Acquiring Person) will thereafter have the right to receive, upon the exercise thereof at the then current exercise price of the Right, that number of shares of common stock of the acquiring company having a market value at the time of that transaction equal to two times the Exercise Price.

With certain exceptions, no adjustment in the Exercise Price will be required unless such adjustment would require an increase or decrease of at least one percent (1%) in the Exercise Price. No fractional shares of Preferred Stock will be issued (other than fractions which are integral multiples of one one-thousandth of a share of Preferred Stock, which may, at the election of the Company, be evidenced by depositary receipts) and, in lieu thereof, an adjustment in cash will be made based on the market price of the Preferred Stock on the trading day immediately prior to the date of exercise.

At any time after any person or group of affiliated or associated persons or persons acting in concert become an Acquiring Person and prior to the acquisition of beneficial ownership by such Acquiring Person of 50% or more of the outstanding shares of common stock, the Board, at its option, and in its sole discretion, may exchange each Right (other than Rights owned by such person or group of affiliated or associated persons or persons acting in concert which will have become void) in whole or in part, at an exchange ratio of one share of common stock per outstanding Right (subject to adjustment).

At any time before any person or group of affiliated or associated persons or persons acting in concert become an Acquiring Person, the Board may redeem the Rights in whole, but not in part, at a price of \$0.001 per Right (subject to certain adjustments) (the "Redemption Price"). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish.

Immediately upon the action of the Board electing to redeem or exchange the Rights, the Company shall make announcement thereof, and upon such election, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

Subject to the terms of the Rights Agreement, in the event that any person or group of affiliated or associated persons acting in concert become an Acquiring Person by acquiring 15% or more of the Company's common stock, except as otherwise provided in the Rights Agreement, each holder of a Right (other than the Acquiring Person) thereafter has the right to receive, upon exercise thereof and in accordance with the Rights Agreement, in lieu of a number of one one thousandth of a share of Preferred Stock, a number of shares of common stock of the Company equal to the result obtained by (A) multiplying the then current exercise price by the then number of one one-thousandth of a share of Preferred Stock for which a Right was or would have been exercisable and (B) dividing that product by 50% of the current market price of the Company's common stock.

In addition, if a Qualifying Offer (as described below) is made, a sufficient number of shares of common stock have been tendered into the Qualifying Offer and not withdrawn to meet the Minimum Tender Condition (as defined below) and the Board has not redeemed the outstanding Rights or exempted such offer from the terms of the Rights Agreement or has not called a special meeting of stockholders for the purpose of voting on whether or not to exempt such Qualifying Offer from the terms of the Rights Agreement, in each case after 90 calendar days from the commencement of the Qualifying Offer (the "Board Evaluation Period"), the record holders of at least 15% of the outstanding shares of common stock may request, no later than 90 calendar days following the Board Evaluation Period, the Board to submit to a vote of stockholders at a special meeting of the stockholders of the Company (a "Special Meeting") a resolution exempting such Qualifying Offer from the provisions of the Rights Agreement (the "Qualifying Offer Resolution"). If a Special Meeting is not held prior to 90 calendar days after such request or, if at the Special Meeting the holders of a majority of the shares of common stock outstanding (other than shares held by the offeror and its affiliated and associated persons) vote in favor of the Qualifying Offer Resolution, then the Board will exempt the Qualifying Offer from the provisions of the Rights Agreement or take such other action as may be necessary to prevent the Rights from interfering with the consummation of the Qualifying Offer.

A "Qualifying Offer" is an offer that is determined by the Board to have (among others) the following characteristics:

- (i) an offer that has commenced within the meaning of Rule 14d-2(a) under the Exchange Act;
- (ii) a fully-financed, all-cash tender offer, or an exchange offer offering shares of common stock of the offeror, or a combination thereof, in each such case for all of the outstanding shares of common stock at the same per-share consideration;
- (iii) an offer that is conditioned on a minimum of at least a majority of (a) the shares of the common stock outstanding on a fully-diluted basis; and (b) the outstanding shares of the common stock not held by the offeror (or such offeror's affiliates or associated persons) being tendered and not withdrawn as of the offer's expiration date, which condition shall not be waivable (the "Minimum Tender Condition");
- (iv) an offer that is subject only to the Minimum Tender Condition and other customary terms and conditions, which conditions shall not include any financing, funding or similar conditions or any requirements with respect to the offeror or its agents being permitted any due diligence on the Company; and
- (v) an offer pursuant to which the Company and its stockholders have received an irrevocable written commitment of the offeror that no amendments will be made to the offer to reduce the consideration being offered or to otherwise change the terms of the offer in a way that is adverse to a tendering stockholder.

Until a Right is exercised or exchanged, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends.

The Board may amend or supplement the Rights Agreement without the approval of any holders of Rights, including, without limitation, in order to (a) cure any ambiguity, (b) correct inconsistent provisions, (c) alter time period provisions or (d) make additional changes to the Rights Agreement that the Board deems necessary or desirable. However, from and after any person or group of affiliated or associated persons or persons acting in concert become an Acquiring Person, the Rights Agreement may not be supplemented or amended in any manner that would adversely affect the interests of the holders of Rights.

The Rights Agreement, as well as the certificate of designations establishing the Series B Preferred Stock, are included as Exhibit 4.1 and Exhibit 3.1(i) to our Registration Statement on Form 8-A/12B filed with the SEC on May 3, 2018, and is incorporated herein by reference. The Rights Agreement was amended on May 2, 2019, solely to extend the Final Termination Date (as defined in the Rights Agreement) of the Rights Agreement from May 2, 2019 to May 2, 2021. The First Amendment to Shareholder Rights Agreement is attached as Exhibit 4.2 to our Current Report on Form 8-K filed on May 3, 2019, and incorporated herein by reference. The foregoing description of the Rights does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement and the First Amendment to Shareholder Rights Agreement.

#### **LEGAL MATTERS**

Conner & Winters, LLP, Oklahoma City, Oklahoma will opine as to the validity of the issuance of the securities offered by this prospectus.

#### **EXPERTS**

The audited consolidated financial statements as of December 31, 2018 and 2017 and for the two years ended December 31, 2018 incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

#### **WHERE YOU CAN FIND MORE INFORMATION**

We have filed with the Commission a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which is part of the registration statement, omits certain information, exhibits, schedules and undertakings set forth in the registration statement. For further information pertaining to us and our securities, reference is made to our Commission filings and the registration statement and the exhibits and schedules to the registration statement. Statements contained in this prospectus as to the contents or provisions of any documents referred to in this prospectus are not necessarily complete, and in each instance where a copy of the document has been filed as an exhibit to the registration statement, reference is made to the exhibit for a more complete description of the matters involved.

In addition, registration statements and certain other filings made with the Commission electronically are publicly available through the Commission's web site at <http://www.sec.gov>. The registration statement, including all exhibits and amendments to the registration statement, has been filed electronically with the SEC.

We are subject to the information and periodic reporting requirements of the Exchange Act, and, in accordance with such requirements, will file periodic reports, proxy statements, and other information with the Commission. These periodic reports, proxy statements, and other information will be available for inspection and copying at the web site of the Commission referred to above. We also maintain a website at <http://www.perma-fix.com>, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the Commission. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

You should rely only on the information in this prospectus and the additional information described above and under the heading "Incorporation of Certain Information by Reference" below. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely upon it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus was accurate on the date of the front cover of this prospectus only. Our business, financial condition, results of operations and prospects may have changed since that date.

## INCORPORATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information contained in documents that we file with the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. Therefore, before you decide to invest in a particular offering under this shelf-registration, you should always check for reports we may have filed with the SEC after the date of this prospectus.

We incorporate by reference the documents listed below:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed April 1, 2019;
- Quarterly Report on Form 10-Q for the Quarter Ended March 31, 2019, filed May 9, 2019;
- Current Reports on Form 8-K filed January 23, 2019, March 28, 2019, April 1, 2019, April 4, 2019, May 3, 2019, and May 9, 2019 (six reports);
- The description of our Rights Agreement and Series B Junior Participating Preferred Stock, par value \$.001 per share, that is contained in the Form 8-A/12B Registration Statement, filed on May 3, 2018, including any amendments or reports filed for the purpose of updating such description.
- The description of our common stock that is contained in the Registration Statement on Form 8-A filed pursuant to Section 12 of the Exchange Act, that became effective on October 30, 1992, including any amendments or reports filed for the purpose of updating such description.

All documents subsequently filed by the Registrant with the SEC pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (other than documents or portions of documents deemed to be furnished pursuant to the Exchange Act), prior to the filing of a post-effective amendment which indicates that all securities offered 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 in a document 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 which also is incorporated or 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.



**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses of Issuance and Distribution**

The aggregate estimated (other than the registration fee) expenses to be paid by the Registrant in connection with this offering are as follows:

SEC Registration Fee	\$	1,248
Legal Fees (Including Blue Sky)	\$	15,000
Accounting Fees and Expenses	\$	*
Printing	\$	*
Miscellaneous	\$	*
<b>Total:</b>	<b>\$</b>	<b>*</b>

\* Estimated expenses not presently known.

**Item 15. Indemnification of Officers and Directors**

Section 145 of the Delaware Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he is or is threatened to be made a party by reason of such position, if such person shall have acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal proceeding, if such person had no reasonable cause to believe his conduct was unlawful; provided that, no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the adjudicating court determines that, despite the adjudication of liability but in view of all the circumstance of the case, such person is fairly and reasonably entitled to indemnification.

Article EIGHTH of our Restated Certificate of Incorporation, as amended, provides as follows with respect to the indemnification of our officers and directors:

All persons who the Corporation is empowered to indemnify pursuant to the provisions of Section 145 of the General Corporation Law of the State of Delaware (or any similar provision or provisions of applicable law at the time in effect), shall be indemnified by the Corporation to the full extent permitted thereby. The foregoing right of indemnification shall not be deemed to be exclusive of any other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. No repeal or amendment of this Article EIGHTH shall adversely affect any rights of any person pursuant to this Article EIGHTH which existed at the time of such repeal or amendment with respect to acts or omissions occurring prior to such repeal or amendment.

Our Restated Certificate of Incorporation, as amended, provides that no director shall be personally liable to us or its stockholders for any monetary damages for breaches of fiduciary duty as a director, provided that this provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to us or our stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) under Section 174 of the General Corporation Law of the State of Delaware; or (iv) for any transaction from which the director derived an improper personal benefit.

The indemnification discussed in this Item 15 is not exclusive of any other rights the party seeking indemnification may possess. We carry officer and director liability insurance with respect to certain matters, including matters arising under the Securities Act of 1933, as amended.

**Item 16. Exhibits.**

See the Exhibit Index immediately following the signature page of this Registration Statement.

**Item 17. 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 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 the 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 the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however*, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the registration statement is on Form S-3 or Form F-3, and 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 Sections 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of 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.

(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.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
  - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (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 Section 15(d) of the Securities Exchange Act of 1934 (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 the 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) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the 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.

**SIGNATURES**

Pursuant to the requirements of the Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Atlanta, State of Georgia, on the 13th day of May, 2019.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By: /s/ Mark Duff  
Mark Duff,  
President and Chief Executive Officer

**POWER OF ATTORNEY**

Each person whose signature appears below constitutes and appoints Mark Duff and Ben Naccarato, and each of them acting individually and without the other, as his true and lawful attorneys-in-fact and agents, with full power of substitution and re-substitution, for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments, exhibits thereto and other documents in connection therewith) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents, and each of them, 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 he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them individually, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

By <u>/s/ Dr. Louis F. Centofanti</u> Dr. Louis F. Centofanti, Director	Date <u>May 10 , 2019</u>
By <u>/s/ S. Robert Cochran</u> S. Robert Cochran, Director	Date <u>May 13 , 2019</u>
By <u>/s/ Joe R. Reeder</u> Joe R. Reeder, Director	Date <u>May 13 , 2019</u>
By <u>/s/ Larry M. Shelton</u> Larry M. Shelton, Chairman of the Board	Date <u>May 10 , 2019</u>
By <u>/s/ Zach P. Wamp</u> Zach P. Wamp, Director	Date <u>May 13 , 2019</u>
By <u>/s/ Mark A. Zwecker</u> Mark A. Zwecker, Director	Date <u>May 13 , 2019</u>

**PERMA-FIX ENVIRONMENTAL SERVICES, INC.**  
**REGISTRATION STATEMENT ON FORM S-3**

**EXHIBIT INDEX**

Exhibit No.	Description
3(i)	<a href="#">Restated Certificate of Incorporation, as amended, of Perma-Fix Environmental Services, Inc.<sup>(1)</sup></a>
3(ii)	<a href="#">Amended and Restated Bylaws, as amended effective July 28, 2016, of Perma-Fix Environmental Services, Inc.<sup>(2)</sup></a>
4.1	<a href="#">Shareholder Rights Agreement dated and effective as of May 2, 2018 between Perma-Fix Environmental Services, Inc. as the Company and Continental Stock Transfer &amp; Trust Company, as Rights Agent.<sup>(3)</sup></a>
4.2	<a href="#">First Amendment to Shareholder Rights Agreement, dated May 2, 2019, between Perma-Fix Environmental Services, Inc., and Continental Stock Transfer &amp; Trust Company as Rights Agent<sup>(4)</sup></a>
4.3	<a href="#">Amended and Restated Revolving Credit, Term Loan and Security Agreement between Perma-Fix Environmental Services, Inc. and PNC Bank, National Association (as Lender and as Agent), dated October 31, 2011.<sup>(5)</sup></a>
4.4	<a href="#">First Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated November 7, 2012, between the Company and PNC Bank, National Association.<sup>(6)</sup></a>
4.5	<a href="#">Second Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver, dated May 9, 2013, between the Company and PNC Bank, National Association.<sup>(7)</sup></a>
4.6	<a href="#">Third Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated August 2, 2013.<sup>(8)</sup></a>
4.7	<a href="#">Fourth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated April 14, 2014.<sup>(9)</sup></a>
4.8	<a href="#">Fifth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 25, 2014.<sup>(10)</sup></a>
4.9	<a href="#">Sixth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 28, 2014.<sup>(11)</sup></a>
4.10	<a href="#">Seventh Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated March 24, 2016.<sup>(12)</sup></a>
4.11	<a href="#">Eighth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated August 22, 2016.<sup>(13)</sup></a>
4.12	<a href="#">Ninth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated November 17, 2016.<sup>(14)</sup></a>
4.13	<a href="#">Tenth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 26, 2018.<sup>(15)</sup></a>
4.14	<a href="#">Eleventh Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated March 29, 2019.<sup>(16)</sup></a>
5.1	<a href="#">Opinion of Conner &amp; Winters, LLP, counsel to the Registrant, regarding the legality of the securities being registered.</a>
23.1	<a href="#">Consent of Grant Thornton LLP</a>
23.2	<a href="#">Consent of Conner &amp; Winters, LLP (included in Exhibit 5.1)</a>
24.1	<a href="#">Power of Attorney (included on signature page hereof)</a>

- 
- (1) Incorporated by reference from Exhibit 3(i) to the Registrant's Annual Report on Form 10-K filed on April 1, 2019.
  - (2) Incorporated by reference from Exhibit 3(ii) to the Registrant's Current Report on Form 8-K filed on August 1, 2016.
  - (3) Incorporated by reference from Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on May 2, 2018.
  - (4) Incorporated by reference from Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on May 3, 2019.
  - (5) Incorporated by reference from Exhibit 4.8 to the Registrant's 2016 Form 10-K filed on March 24, 2017.
  - (6) Incorporated by reference from Exhibit 4.4 to the Registrant's 2017 Form 10-K filed on March 16, 2018.
  - (7) Incorporated by reference from Exhibit 4.4 to the Registrant's 2018 Form 10-K filed on April 1, 2019.
  - (8) Incorporated by reference from Exhibit 4.5 to the Registrant's 2018 Form 10-K filed on April 1, 2019.
  - (9) Incorporated by reference from Exhibit 4.17 to the Registrant's 2013 Form 10-K filed on April 15, 2014.
  - (10) Incorporated by reference from Exhibit 4.1 to the Registrant's 8-K filed on July 31, 2014.
  - (11) Incorporated by reference from Exhibit 4.2 to the Registrant's 8-K filed on July 31, 2014.
  - (12) Incorporated by reference from Exhibit 4.17 to the Registrant's 2015 Form 10-K filed on March 24, 2016.
  - (13) Incorporated by reference from Exhibit 4.9 to the Registrant's Form 10-Q for the quarter ended June 30, 2016 filed on August 22, 2016.
  - (14) Incorporated by reference from Exhibit 4.10 to the Registrant's Form 10-Q for the quarter ended September 30, 2016 filed on November 18, 2016.
  - (15) Incorporated by reference from Exhibit 4.1 to the Registrant's Form 8-K filed on July 30, 2018.
  - (16) Incorporated by reference from Exhibit 4.14 to the Company's 2018 Form 10-K filed on April 1, 2019.



Conner & Winters, LLP  
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May 13, 2019

Perma-Fix Environmental Services, Inc.  
8302 Dunwoody Place, STE 250  
Atlanta, Georgia 30350

Re: *Perma-Fix Environmental Services, Inc. ("PESI");*  
*Registration Statement on Form S-3 covering 2,500,000 shares of Common Stock and the Rights attached thereto;*  
*Our File No. 07034-0113*

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Ladies and Gentlemen:

At the request of Perma-Fix Environmental Services, Inc. (the "Company"), we have examined the Registration Statement on Form S-3 (the "Registration Statement") to be filed by the Company with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), in connection with the registration of up to 2,500,000 shares of the Company's common stock, par value \$.001 per share (the "Shares") and the Rights attached to such Shares pursuant to the Company's Shareholder Rights Agreement, dated May 2, 2018, between the Company and Continental Stock Transfer & Trust Company, as Rights Agent, as amended by the First Amendment to Shareholder Rights Agreement dated May 2, 2019 (as so amended, the "Rights Plan"). The Shares are to be offered and sold in the manner set forth in the Registration Statement, the Prospectus contained therein (the "Prospectus") and any related supplement to the Prospectus (the "Prospectus Supplement"). This opinion is provided pursuant to the requirements of Item 16 of Form S-3 and Item 601(b)(5) of Regulation S-K promulgated under the Act.

We have examined such instruments, corporate records, certificates of officers, other documents and questions of law, as we have considered necessary or appropriate for the purposes of this opinion, including, without limitation, the Rights Plan. In such examination, we have assumed (a) the authenticity of original documents and the genuineness of all signatures, (b) the conformity to the originals of all documents submitted to us as copies and (c) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents instruments and certificates we have reviewed.

On the basis of such examination, review, and assumptions, we are of the opinion that (a) the Shares, when issued and sold in the manner described in the Registration Statement, the Prospectus and the Prospectus Supplement, will be validly issued, fully paid, and nonassessable shares of common stock of the Company, and (b) the Rights attached to the Shares, when issued pursuant to the terms of the Rights Plan, will be validly issued.

Our opinions expressed above are limited to the Delaware General Corporation Law.

We hereby consent to the filing of this opinion as an exhibit to the above-referenced Registration Statement and to the use of our name wherever it appears in the Prospectus constituting part of the Registration Statement and in any amendment or supplement thereto. In giving such consent, we do not believe that we are "experts" within the meaning of such term as used in the Act or the rules and regulations of the Commission issued thereunder with respect to any part of the Registration Statement, including this opinion as an exhibit or otherwise.

Very truly yours,

/s/ *Conner & Winters, LLP*

CONNER & WINTERS, LLP





**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our report dated April 1, 2019 with respect to the consolidated financial statements of Perma-Fix Environmental Services, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2018, which is incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement, and to the use of our name as it appears under the caption "Experts."

*/s/ GRANT THORNTON LLP*

Atlanta, Georgia  
May 13, 2019

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