Request for Bid

Fixed-Price Defined Scope of Work

Preparation of Remedial Action Plan, Implementation of Remedial Activities, Site Restoration, Quarterly Groundwater Monitoring/Reporting, and Preparation of Remedial **Action Completion Report**

Solicitor

James Doleski

Leo's #3 Car Wash

2938 West 26th Street Erie, PA 16506

PADEP Facility ID #: 25-90615 PAUSTIF Claim #: 2002-0013(I)

Date of Issuance

July 27, 2020

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The Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF), on behalf of the claimant who hereafter is referred to as the Client or Solicitor, is providing this Request for Bid (RFB) to prepare and submit a bid to complete the Scope of Work (SOW) for the referenced Site. The Solicitor is James Doleski, the current owner/operator of the Site. PAUSTIF has determined that the claim reported by the Solicitor is eligible for coverage from the PAUSTIF subject to the applicable statutes and regulations. Reimbursement of Solicitor approved reasonable and necessary costs, not to exceed the claim aggregate limit, for the corrective action work described in this RFB will be provided by PAUSTIF. Solicitor is responsible to pay any applicable deductible and/or proration. No proration is applicable and the deductible has been met.

Each bid response will be considered individually and consistent with the evaluation process described in the PAUSTIF Competitive Bidding Fact Sheet which can be downloaded from the PAUSTIF website <u>https://ustif.pa.gov</u>.

Calendar of Events

Activity	Date and Time
Required Notification of Intent to Attend Site Visit (due to COVID-19 pandemic this is a required activity)	August 7, 2020 by 5 p.m.
Mandatory Pre-Bid Site Visit (The Technical Contact will provide a scheduled time to each person who submits a Notification of Intent to Attend Site Visit)	August 12, 2020
Deadline to Submit Questions	August 28, 2020 by 5 p.m.
Bid Due Date and Time	September 18, 2020 by 3 p.m.

Contact Information

Technica	Contact

Chris O'Neil, P.G. Groundwater Sciences Corporation 2601 Market Place Street, Suite 310 Harrisburg, PA 17110 <u>coneil@groundwatersciences.com</u>

All questions regarding this RFB and the subject Site conditions must be directed via email to the Technical Contact identified above with the understanding that all questions and answers will be provided to all bidders. The email subject line must be "Leo's Car Wash – 2002-0013 – RFB QUESTION". Bidders must neither contact nor discuss this RFB with the Solicitor, PAUSTIF, the Pennsylvania Department of Environmental Protection (PADEP), or ICF unless approved by the Technical Contact. Bidders may discuss this RFB with subcontractors and vendors to the extent required for preparing the bid response.

Requirements

Mandatory Pre-Bid Site Meeting

On behalf of the Solicitor, the Technical Contact, or their designee will hold a mandatory Site visit on the date and time listed in the Calendar of Events to conduct a Site tour for one (1) participant per bidding company. The Technical Contact may answer questions at the Site meeting or may collect questions and respond via email. All questions and answers will be provided via email to all attendees. This meeting is mandatory for all bidders, no exceptions. This meeting will allow each bidding company to inspect the Site and evaluate Site conditions. Due to the circumstances surrounding the COVID-19 pandemic, the number of attendees on-site at the same time will be limited; and, all attendees should follow CDC safety guidelines. A notice of the bidder's intent to attend this meeting is required to be provided to the Technical Contact via email by the date listed in the Calendar of Events with the subject "Leo's Car Wash – 2002-0013 – SITE **MEETING ATTENDANCE NOTIFICATION**". The name and contact information of the company participant should be included in the body of the email. Attendance at the Pre-Bid Site Meeting is mandatory and each attendee must check in with the Technical Contact on site to record attendance. Changes to the Site meeting date and/or time due to inclement weather conditions or other unexpected circumstances will be posted at https://ustif.pa.gov/bids; and, the Technical Contact may notify via email all companies that provided Site Meeting Attendance Notification.

Submission of Bids

To be considered for selection, an electronic .pdf version of the signed bid package must be submitted to RA-BidSubmission@fms.icfwebservices.com by the bid due date and time in the Calendar of Events. Bid Cost Spreadsheets may be submitted in Microsoft Excel format. File sizes in excess of 5 MB are to be submitted using a file share service of your choosing. If you do not have access to a file share service, an email must be sent to RA-BidSubmission@fms.icfwebservices.com at least 24 hours prior to the bid due date and time to request access to PAUSTIF's third party administrator, ICF, file share service. Reply messages will be sent to acknowledge receipt of all emails. Bids attempted to be submitted through ground services such as USPS, UPS, Fed-Ex, etc. or hand delivery will not be considered for selection.

The bid must be received by 3 p.m., on the due date shown in the Calendar of Events. Bids will be opened immediately after the 3 p.m. deadline on the due date. Any bids received after this due date and time will be returned. If, due to inclement weather, natural disaster, or any other cause, the PAUSTIF's third party administrator, ICF's office is closed on the bid due date, the deadline for submission will automatically be extended to the next business day on which the office is open. The PAUSTIF's third party administrator, ICF, may notify all companies that attended the Mandatory Pre-Bid Site Meeting of an extended due date. The hour for submission

of bids shall remain the same. Submitted bid responses are subject to the Pennsylvania Rightto-Know Law.

Bid Requirements

The Solicitor wishes to execute a mutually agreeable contract with the selected consultant ("Remediation Agreement"). The Remediation Agreement is included as Attachment 1 to this RFB. The bidder must identify and document in their bid any modifications that they wish to propose to the Remediation Agreement language in Attachment 1 other than obvious modifications to fit this RFB (e.g., names, dates, and descriptions of milestones). The number and scope of any modifications to the standard agreement language will be one (1) of the criteria used to evaluate the bid. Any bid that does not clearly and unambiguously state whether the bidder accepts the Remediation Agreement language in Attachment 1 "as is", or that does not provide a cross-referenced list of requested changes to this agreement, will be considered non-responsive. This statement should be made in a Section in the bid entitled "Remediation Agreement". Any proposed changes to the agreement should be specified in the bid; however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PAUSTIF.

The selected consultant will be provided an electronic copy (template) of the draft Remediation Agreement in Microsoft Word format to allow agreement-specific information to be added. The selected consultant shall complete the agreement-specific portions of the draft Remediation Agreement and return the document to the Technical Contact within 10 business days from date of receipt.

The Remediation Agreement fixed costs shall be based on unit prices for labor, equipment, materials, subcontractors/vendors, and other direct costs. The total cost quoted in the bid by the selected consultant will be the maximum amount to be paid by the Solicitor unless a change in scope is authorized and determined to be reasonable and necessary. There may be deviations from and modifications to this SOW during the project. The Remediation Agreement states that any significant changes to the SOW will require approval by the Solicitor, PAUSTIF, and PADEP. NOTE: Any request for PAUSTIF reimbursement of the reasonable costs to repair or replace a well will be considered on a case-by-case basis.

The bidder shall provide its bid cost using the Bid Cost Spreadsheet (included as Attachment 2) with descriptions for each task provided in the body of the bid document. Please note, if costs are provided within the text of the submitted bid and there is a discrepancy between costs listed in the Bid Cost Spreadsheet and in the text, the costs listed within the Bid Cost Spreadsheet will be used in the evaluation of the bid and in the Remediation Agreement with the selected consultant. Bidders are responsible to ensure spreadsheet calculations are accurate. The technical score for bids will be based solely on those tasks represented as milestones included in the Bid Cost Spreadsheet and the total bid cost. Any optional bidder-defined tasks, milestones,

or cost adders that are not requested as part of this RFB will not be considered by the Bid Evaluation Committee in the technical review and technical score for the bid.

In addition, the bidder shall provide:

- 1. The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs, and equipment;
- 2. The bidder's proposed markup on other direct costs and subcontractors (if any);
- 3. The bidder's estimated total cost by task consistent with the proposed SOW identifying all level-of-effort and costing assumptions; and
- 4. A unit rate schedule that will be used for any out of scope work on this project.

Each bid will be assumed to be valid for a period of up to 120 days after receipt unless otherwise noted. The costs quoted in the Bid Cost Spreadsheet will be assumed to be valid for the duration of the Remediation Agreement.

Please note that the total fixed-price bid must include all costs, including those cost items that the bidder may regard as "variable". These variable cost items will not be handled outside of the total fixed-price quoted for the SOW unless the RFB requests costing alternatives for specific items or services. Any bid that disregards this requirement will be considered non-responsive to the bid requirements and, as a result, will be rejected and will not be evaluated.

The RFB is requesting a total fixed-price bid (unless the RFB requests costing alternatives for specific items or services). PAUSTIF will not agree to assumptions (in bids or the selected bidders executed Remediation Agreement) referencing a level of effort and/or hours. Costs provided in your bid should be developed using your professional opinion, experience, and the data provided. PAUSTIF will not reimburse costs for additional hours to complete activities included as part of the base bid/contract price.

Each bid response document must include at least the following:

- 1. Demonstration of the bidder's understanding of the Site information provided in this RFB, standard industry practices, and objectives of the project.
- 2. A clear description, specific details, and original language of how the proposed work scope will be completed for each milestone. The bid should specifically discuss all tasks that will be completed under the Remediation Agreement and what is included (e.g., explain groundwater purging/sampling methods, which guidance documents will be followed, what

will be completed as part of the Site specific work scope/SCR/RAP implementation). Recommendations for changes/additions to the Scope of Work proposed in this RFB shall be discussed, quantified, and priced separately; however, failure to bid the SOW "as is" may result in a bid not being considered. Bids should include enough original language conveying bidder's thought such that the understanding of site conditions, closure approach (if applicable), and approach to addressing the scope of work can be evaluated. Since bidders are not prequalified, the bid response must provide the Bid Evaluation Committee and Solicitor enough information to complete a thorough review of the bid and bidder.

- 3. A copy of an insurance certificate that shows the bidder's level of insurance consistent with the requirements of the Remediation Agreement. Note: The selected consultant shall submit evidence to the Solicitor before beginning work that they have procured and will maintain Workers Compensation, commercial general and contractual liability, commercial automobile liability, and professional liability insurance commensurate with the level stated in the Remediation Agreement and for the work to be performed.
- 4. The names and brief resumes/qualifications of the proposed project team including the proposed Professional Geologist and Professional Engineer (if applicable) who will be responsible for overseeing the work and applying a professional seal to the project deliverables (including any major subcontractor(s)).
- 5. Responses to the following specific questions:
 - a. Does your company employ a Pennsylvania-licensed Professional Geologist that is designated as the proposed project manager? How many years of experience does this person have?
 - b. How many Pennsylvania Chapter 245 projects is your company currently the consultant for in the PADEP Region where the Site is located? Please list up to 10.
 - c. How many Pennsylvania Chapter 245 Corrective Action projects involving an approved SCR, RAP, and RACR has your company and/or the Pennsylvanialicensed Professional Geologist closed (i.e., obtained Relief from Liability from the PADEP) using any standard?
 - d. Has your firm ever been a party to a terminated PAUSTIF-funded Fixed-Price (FP) or Pay-for-Performance (PFP) contract without attaining all of the milestones? If so, please explain.
- 6. A description of subcontractor involvement by task. Identify and describe the involvement and provide actual cost quotations/bids/proposals from all significant specialized subcontracted service (e.g., drilling/well installations, laboratory, etc.). If a bidder chooses to prepare its bid without securing bids for specialty subcontract services, it does so at its

own risk. Added costs resulting from bid errors, omissions, or faulty assumptions will not be considered for PAUSTIF reimbursement.

- 7. A detailed schedule of activities for completing the proposed SOW including reasonable assumptions regarding the timing and duration of Solicitor reviews (if any) needed to complete the SOW. Each bid must provide a schedule that begins with execution of the Remediation Agreement with the Solicitor and ends with completion of the final milestone proposed in this RFB. Schedules must also indicate the approximate start and end date of each of the tasks/milestones specified in the Scope of Work, and indicate the timing of all proposed key milestone activities (e.g., within 30 days of the contract being executed).
- 8. A description of how the Solicitor, ICF, and the PAUSTIF will be kept informed as to project progress and developments and how the Solicitor (or designee) will be informed of and participate in evaluating technical issues that may arise during this project.
- 9. A description of your approach to working with the PADEP. Describe how the PADEP would be involved proactively in the resolution of technical issues and how the PADEP case team will be kept informed of activities at the Site.
- 10. Key exceptions, assumptions, or special conditions applicable to the proposed SOW and/or used in formulating the proposed cost estimate. Please note that referencing extremely narrow or unreasonable assumptions, special conditions, and exceptions may result in the bid response being deemed "unresponsive".
- 11. The name and contact information of the person who is to be contacted in the event the bid is selected by the Solicitor and/or a Right to Know request is received by PAUSTIF.

Bid Review and Evaluation

1. Bid Review and Scoring

Bidders' submissions that are administratively qualified (attend the mandatory pre-bid site meeting, submission of the bid by the designated due date and time) will be evaluated.

Technical Scoring

Bids are evaluated for technical viability before cost is considered. Bids that have technical scores that fall within 75% of the highest technical score will advance to cost scoring. Bids with technical scores below 75% of the highest technical score are eliminated from further consideration.

Numerical values will be assigned for defined SOW bids for two categories:

- Understanding the problem and demonstrating knowledge of how to perform the work
- Qualifications and Experience

Numerical values will be assigned to three categories in those cases where there is a bid-to-result request:

- Understanding of the problem
- Technical and Regulatory Approach to Remediation
- Qualifications and Experience

Cost Scoring

Cost scores are determined by a cost formula. The bid(s) with the lowest total cost receives the maximum cost points available. The remaining bids are scored by applying the following cost formula: $(1-((B-A)/A)) \times C = D$

A = the lowest bid cost

- B = the bidder's cost being scored
- C = the maximum number of cost points available
- D = bidder's cost score (points)

If a bid cost is equal to, or greater than, twice the amount of the lowest bid cost, the formula calculation will result in a negative number and the bid will be assigned zero cost points.

2. Evaluation of Bids

A committee comprised of at least two members of the USTIF staff, two members of ICF staff, and the TPR who assisted in developing the bid package will score all bids that are administratively qualified based on the above criteria. USTIF recognizes that several bids may be acceptable and receive similar numerical scores. At the conclusion of the scoring process, the Solicitor will receive those bids whose numerical scores place them in the category of meeting Reasonable and Necessary criteria and acceptable for USTIF funding. The Solicitor may select any of the consulting firms that submitted a qualified bid package to implement the tasks described in the bid; however, USTIF will only provide funding up to the highest fixed price of those bids determined to be Reasonable and Necessary for USTIF funding.

General Site Background and Description

Each bidder should carefully review the existing information and documentation provided in Attachment 3. The information and documentation has not been independently verified. Bidders may wish to seek out other appropriate sources of information and documentation specific to this Site. If there is any conflict between the general Site background and description provided herein and the source documents within Attachment 3, the bidder should defer to the source documents.

Site Address

Leo's #3 Car Wash 2938 West 26th Street Erie, PA 16506 Millcreek Township, Erie County

Site Description and Operation History

The Leo's Car Wash facility (the "Site") is located at the intersection of West 26th Street and James Avenue in Millcreek Township, Erie County. A map showing the location of the Site is included as Figure 1.

The Site operated as a retail gasoline filling station and car wash. The three unleaded gasoline underground storage tanks (USTs) were closed by removal in 2006 and the car wash is no longer operational. There is currently an active, single-bay, drive-through oil change business located in the southwestern portion of the Site.

Surrounding Land Use

The land use in the vicinity of the Site is mixed commercial and residential. The properties located immediately east, west (beyond James Avenue), and south (beyond West 26th Street) of the Site are commercial while the properties northeast (beyond James Avenue), north, and northwest are residential. The Site and surrounding properties are reportedly connected to public water and sewer.

Physiography, Topography, and Regional Geology/Hydrogeology

Site Geology/Hydrogeology

The regional geology underlying the Site is the Devonian aged Northeast Shale Formation. The Northeast Shale Formation consists of medium-gray shale and some thin light-gray siltstone interbeds. Competent bedrock was not encountered at the Site during the drilling of soil borings and monitoring/recovery wells. Unconsolidated materials beneath the Site to approximately 15

feet below grade (fbg) consist mainly of silts, sands, and clays with weathered shale generally encountered at approximately 15 fbg. The depth-to-groundwater (under static conditions) is generally between 8 and 12 fbg and the direction of groundwater flow is to the north.

Nature of Confirmed Release and Subsequent Corrective Action Activities

Petroleum contaminated soil was encountered on January 23, 2002, during the construction of a new dispenser canopy at the Site. The source of contamination was determined to be the result of a loose swing joint associated with the regular unleaded gasoline product delivery piping connected to the middle dispenser. The swing joint was repaired and approximately five tons of soil was reportedly excavated and disposed of off-site prior to pouring the concrete for the new canopy footers.

On behalf of the Solicitor, American Environmental Associates, Inc. (AEA) initiated site characterization activities in 2002. The characterization activities performed in 2002 were documented in an *Initial Site Characterization Report* (Initial SCR), submitted to the PADEP by AEA on November 27, 2002. The Initial SCR documented a "Geoprobe investigation" that was performed on August 6, 2002, to "assess the extent of subsurface soil contamination". Although the location of the soil samples and the analytical results of the soil samples were not included in the Initial SCR (and could not be located for review), the document stated that "samples from the unleaded gasoline UST system area exhibited concentrations in excess of Act 2 Statewide Health Standards". The Initial SCR also documented the installation and sampling of six groundwater monitoring wells (MW-1 through MW-6) at the Site in October 2002.

Monitoring wells MW-1 through MW-6 were installed to depths ranging from approximately 20 to 25 fbg and one soil sample was collected from each well during installation. A soil sample was collected from the 8 to 10 fbg interval in monitoring wells MW-1, MW-4, and MW-6 and a soil sample was collected from the 3 to 5 fbg interval in monitoring wells MW-2, MW-3, and MW-5. All soil samples were analyzed for the substances listed on the Pennsylvania Department of Environmental Protection (PADEP) old short list of unleaded gasoline (benzene, toluene, ethylbenzene, total xylenes, methyl tert-butyl ether (MTBE), naphthalene, and cumene). The location of monitoring wells MW-1 through MW-6 are shown on Figure 2 in Attachment 3a and the results of the soil sample analysis are presented on Table 1 in Attachment 3b. As shown on Table 1, concentrations of unleaded gasoline substances were reported above the Non-Residential Used Aquifer (NRUA) Statewide Health Standard (SHS) Medium Specific Concentrations (MSCs) in soil samples collected from monitoring wells MW-4, MW-5, and MW-6.

Subsequent to the installation of MW-1 through MW-6, groundwater elevations and samples were collected for the analysis of the substances listed on the PADEP's old short list of unleaded gasoline substances. Concentrations of unleaded gasoline substances were reported above the NRUA SHS MSC in groundwater samples collected from MW-3, MW-5, and MW-6. As a result of a measurable thickness (1.68 feet) of separate phase liquid (SPL) in monitoring well MW-4, a groundwater sample was not collected from MW-4. Details of the characterization work, including

well logs for MW-1 through MW-6 are presented in the November 27, 2002 Initial SCR included as Attachment 3c.

In January 2003, AEA installed and sampled three additional groundwater monitoring wells. Monitoring wells MW-7, MW-8, and MW-9 were installed to a depth of 25 fbg and one soil sample was collected from each boring during installation. A soil sample was collected from the 5 to 8 fbg interval in monitoring well MW-7 and the 8 to 10 fbg interval in monitoring wells MW-8 and MW-9. All soil samples were analyzed for the substances listed on the PADEP old short list of unleaded gasoline. The location of monitoring wells MW-7, MW-8, and MW-9 are shown on Figure 2 in Attachment 3a and the results of the soil sample analysis are presented on Table 1 in Attachment 3b. As shown on Table 1, all concentrations of all unleaded gasoline substances were below the NRUA SHS MSC in the soil samples collected from monitoring wells MW-7, MW-8, and MW-9.

Subsequent to their installation, groundwater elevations and samples were collected from the monitoring well network (MW-1 through MW-9) at the Site. Concentrations of unleaded gasoline substances were reported above the NRUA SHS MSC in groundwater samples collected from monitoring wells MW-1, MW-2, and MW-5 through MW-8. As a result of a measurable thickness of SPL in MW-3 (0.90 feet) and MW-4 (3.00 feet), groundwater samples were not collected from MW-3 and MW-4. Details of the additional characterization work, including well logs for MW-7, MW-8, and MW-9, are presented in the *Interim Site Characterization Report*, dated February 13, 2003, included as Attachment 3d.

In April 2003, AEA installed and sampled three additional groundwater monitoring wells. Monitoring wells MW-10, MW-11, and MW-12 were installed to 25 fbg and one soil sample was collected from each boring during installation. A soil sample was collected from the 8 to 10 fbg interval in monitoring wells MW-10 and MW-12 and the 3 to 5 fbg interval in monitoring well MW-11. All soil samples were analyzed for the substances listed on the PADEP old short list of unleaded gasoline. The location of monitoring wells MW-10, MW-11, and MW-12 are shown on Figure 2 in Attachment 3a and the results of the soil sample analysis are presented on Table 1 in Attachment 3b. As shown on Table 1, all concentrations of all unleaded gasoline substances were below the NRUA SHS MSC in the soil samples collected from monitoring wells MW-10, MW-11, and MW-12.

Subsequent to their installation, groundwater elevations and samples were collected from the monitoring well network (MW-1 through MW-12) at the site. Concentrations of unleaded gasoline substances were reported above the NRUA SHS MSC in groundwater samples collected from monitoring wells MW-1, MW-2, MW-5, MW-6, MW-8, MW-9, MW-10, and MW-12. As a result of a measurable thickness of SPL in MW-3 (0.50 feet) and MW-4 (0.50 feet), groundwater samples were not collected from MW-3 and MW-4. Details of the additional characterization work, including well logs for MW-10, MW-11, and MW-12, are presented in the *Interim Site Characterization Report*, dated May 23, 2003, included as Attachment 3e.

In July 2003, AEA submitted a *Remedial Action Plan* (RAP) that provided the results of remedial feasibility testing and a remedial alternatives analysis. The RAP, which recommended a dual phase high vacuum extraction (DPE) system connected to monitoring wells MW-1, MW-3, MW-4, MW-5, and MW-6 as the selected remedial strategy, is included as Attachment 3f.

In correspondence dated July 28, 2003, the PADEP approved the RAP as a "conditional based approval" and stated that "site characterization activities should continue until the downgradient edge of the plume is adequately defined".

During the First Quarter 2005, the DPE remedial system, which included the conversion of monitoring wells MW-1, MW-3, MW-4, MW-5, and MW-6 to recovery wells RW-1, RW-3, RW-4, RW-5, and RW-6, respectively, was installed and activated. The DPE treatment system removes and treats groundwater from the recovery wells and discharges treated groundwater to the City of Erie Wastewater Treatment Facility under Permit No. GRP14-02.

In May 2005, AES entered into a Pay for Performance (PFP) contract with the PAUSTIF. The PFP contract established monitoring wells MW-5, MW-7, and MW-9 through MW-12 as point-of-compliance (POC) wells and wells K-1, K-2, and K-3 as "key wells" to evaluate achievement of milestones established within the PFP contract. Although the locations of the key wells are known (shown on Figure 2 in Attachment 3a), the construction details of the key wells are not.

In October 2006, the unleaded gasoline UST systems, including the three 8,000-gallon USTs and associated dispensers, were closed by removal. According to the *UST System Closure Report*, prepared by AEA and dated December 15, 2006, concentrations of unleaded gasoline substances were reported in samples collected from the vicinity of the USTs. The locations of the soil samples collected during the UST closure (S-1, S-2, S-3, L-1, L-2, and D-1) are shown on Figure 2 in Attachment 3a and the results of the soil sample analysis are presented on Table 1 in Attachment 3b. As shown on Table 1, concentrations of unleaded gasoline substances were reported in samples S-3 and D-1 above the NRUA SHS MSC. A copy of the closure report is included in Attachment 3g.

In correspondence dated August 26, 2008, the PADEP notified the Solicitor that the July 2008 Remedial Action Progress Report (RAPR) "indicated the continuing presence of free product on the groundwater table" and that the remediation system should be evaluated to "determine if modifications may be useful in the eventual closure of the site".

In July 2012, AEA submitted a *Revised Remedial Action Plan* (Revised RAP) that proposed the addition of four recovery wells, identified as RW-13 through RW-16, to the DPE system. A copy of the Revised RAP is included in Attachment 3h.

In correspondence dated September 21, 2012, the PADEP disapproved the Revised RAP, stating that "further downgradient characterization of groundwater has not been completed as required in the Department's approval of the Remedial Action Plan in July 2003" and that the "expansion

of the remediation system proposed in the RRAP fails to include the area of soil impact noted in the UST Closure Report submitted to the Department in December 2006". The PADEP's correspondence also noted that vapor intrusion had not been assessed. A copy of the PADEP's disapproval letter is included in Attachment 3i.

In correspondence dated November 15, 2012, AEA provided a proposal to the PADEP to address the deficiencies identified in the PADEP's Revised RAP disapproval. The proposal included the installation of two groundwater monitoring wells (MW-18 and MW-19) along the downgradient (northern) property boundary, an additional recovery well (RW-17) to "include the area of soil impact noted in the UST Closure Report that was submitted to the Department in December 2006", two vapor sampling points located near the southeastern and southwestern corners of the car wash building, and twelve systematic random soil samples to determine if soil attainment could be obtained.

Via email dated May 3, 2013, the PADEP approved the installation of additional groundwater monitoring wells and in July 2013, monitoring wells MW-18, MW-19, and MW-20 were installed to depths of 12 fbg, 18 fbg, and 17.5 fbg, respectively. Monitoring well MW-18 was installed on the down-gradient off-site property to the north, MW-19 was installed along the northern property boundary, and MW-20 was installed along the eastern property boundary. On March 27, 2014, at the direction of the PADEP, monitoring well MW-21 was installed on the down-gradient off-site property beyond monitoring well MW-19. The total depth of MW-21 was 12 fbg. Also on March 27, 2014, two soil vapor sampling points (VP1 and VP2) were installed on the off-site down-gradient properties. The locations of the monitoring wells are shown on Figure 2 in Attachment 3a and the locations of the vapor points are shown on Figure 3 in Attachment 3a.

Details on the installation and sampling of monitoring wells MW-18 through MW-21 and VP1 and VP2 are provided in the AEA's May 2014 *Site Characterization Report / Revised Remedial Action Plan* (SCR/RAP) included as Attachment 3j. The groundwater sampling results included in the May 2014 SCR/RAP showed that the benzene plume extended beyond the northern and eastern property boundary (concentrations greater than the NRUA SHS MSC in MW-19 and MW-20, respectively). Also shown in Attachment 3j, all analyzed unleaded gasoline substances in the two air samples collected from both off-site vapor points (VP1 and VP2) were below the applicable PADEP guidance values published at the time. The May 2014 report also proposed the expansion of the DPE remedial system to include five additional recovery wells (RW-13 through RW-17).

Subsequent to the installation of VP1 and VP2, AEA installed soil vapor sampling points VP3 and VP4 near the southwestern and southeastern corners of the car wash building, respectively. The installation dates and details on the construction of VP3 and VP4 are unknown and the soil vapor sampling points have never been sampled. The locations of VP3 and VP4 are shown on Figure 3 in Attachment 3a.

In correspondence dated June 10, 2014, the PADEP approved the May 2014 SCR/RAP. Subsequent to the PADEP's approval, AEA installed the five additional recovery wells. Although

the proposed recovery wells were initially identified as RW-13 through RW-17, the recovery wells were identified as RW-1A, RW-3A, RW-4A, RW-5A, and RW-6A after they were installed. The DPE treatment system was modified to include the new recovery wells. Details of the recovery well installations are not known; however, the locations of the recovery wells are shown on Figure 2 in Attachment 3a.

On August 18, 2016, AEA collected soil samples from the twelve random soil attainment borings (RS-1 through RS-12) identified in AEA's November 15, 2012, proposal and on August 19, 2016, AEA installed monitoring well MW-22 at the Site. Monitoring well MW-22 was installed to a depth of 19 fbg along West 26th Street and is considered an up-gradient POC well. The results of the soil attainment samples, the well log for MW-22, and the results of the first groundwater sample collected from MW-22 were presented in AEA's Third Quarter 2016 RAPR. The Third Quarter 2016 RAPR is included as Attachment 3k. The location of MW-22 and RS-1 through RS-12 are shown on Figure 2 in Attachment 3a. As shown in Attachment 3k, no analyzed unleaded gasoline substance was detected in the groundwater sample collected from monitoring well MW-22. The results of the soil samples are presented on Table 1 in Attachment 3b. As shown on Table 1, concentrations of unleaded gasoline substances were reported in samples RS-7, RS-9, RS-10, and RS-12 above the NRUA SHS MSC.

Prior to the Second Quarter 2018 groundwater sampling event, the DPE treatment system was not operational for several weeks. During the Second Quarter 2018 groundwater sampling event, a concentration of benzene (83 ug/l) above the NRUA SHS MSC was reported for the first time in a groundwater sample collected from the down-gradient POC well MW-19. The data, which was presented in the Second Quarter 2018 RAPR, prompted the PADEP to issue correspondence to the Solicitor on August 2, 2018, stating that "the data and drawings contained in the Report indicate the current remediation system is no longer reducing or adequately controlling the plume of contamination in groundwater at the site". The correspondence, which is attached as Attachment 3I, requested an evaluation of the DPE treatment system and the integrity of the groundwater monitoring wells and additional groundwater sampling and reporting.

Shortly after the Second Quarter 2018 groundwater sampling event, the DPE treatment system was reactivated. Concentrations of benzene in subsequent quarterly groundwater sampling events in MW-19 were below NRUA SHS MSCs.

To provide additional data to support the preparation of this RFB, RAR Engineering Group, Inc. (RAR) (formerly AEA) collected 70 soil samples from 28 soil borings (B-1 through B-28) drilled at the Site in March 2019. The March 2019 soil boring locations are shown on Figure 2 in Attachment 3a and the laboratory results of the soil sampling is presented on Table 1 in Attachment 3b. As shown on Table 1, concentrations of benzene, ethylbenzene, and naphthalene above the NRUA SHS MSC were reported in soil borings B-5 (9-10 fbg), B-8 (8-9 fbg), B-9 (5-6 and 11-12 fbg), B-12 (9-10 fbg), B-13 (7-8 and 11-12 fbg), B-18 (11-12 fbg), B-19 (6-7 fbg), B-22 (7-8 fbg), B-24 (11-12 fbg), and B-25 (8-9 and 11-12 fbg).

During the March 2019 soil sampling, RAR collected three soil samples each from soil borings SB-5 and SB-26 for sieve and hydrometer analysis by F.T. Kitlinski & Associates. The results of sieve and hydrometer analysis are included as Attachment 3m.

Currently the DPE remedial system removes groundwater and vapor from ten recovery wells (RW-1, RW-3, RW-4, RW-5, RW-6, RW-1A, RW-3A, RW-4A, RW-5A, and RW-6A). Recovery wells RW-1, RW-3, RW-4, RW-5, and RW-6 operate as one group while recovery wells RW-1A, RW-3A, RW-4A, RW-5A, and RW-6A operate as a second group, with each group's operation alternating every other week.

Separate Phase Liquid

Separate Phase Liquid (SPL) has been historically reported at the Site in groundwater monitoring wells MW-3 and MW-4. SPL has not been reported in site groundwater monitoring wells since 2013.

Soil and Groundwater Conditions at the Site

The primary COCs dissolved in groundwater at the Site is benzene. Benzene was detected above the NRUA SHS MSC in groundwater samples collected from groundwater monitoring wells MW-2 and MW-8 in 2019.

Concentrations of several unleaded gasoline constituents have been reported above the NRUA SHS MSCs in several soil samples collected from the central portion of the site. The locations of the soil borings that contained concentrations of analyzed substances greater than the NRUA SHS MSC are shown on Figure 2 in Attachment 3a.

Scope of Work (SOW)

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. In general, the SOW includes the excavation of petroleum-contaminated soil, the addition of Oxygen Release Compound (ORC®) Advanced to the open excavation, the installation of groundwater monitoring wells, site restoration activities, soil and groundwater attainment sampling, and the preparation of a Remedial Action Completion Report. The remedial approach contained within this RFB was developed based on input from the PADEP Case Manager (Mr. Lee Nageotte) to remediate soil and groundwater to the selected remedial goal, the NR SHS. The PADEP reviewed and provided comments on this RFB.

The services of RAR will be retained to perform quarterly groundwater sampling and maintain the existing DPE system for the purposes of hydraulic control and groundwater elevation depression until the large excavation described in Milestone F (soil excavation) is initiated. To the extent practicable, work associated with the small excavation (including portions of Milestone F and H) should be completed while the DPE system is operating. The selected bidder shall coordinate with RAR such that the DPE system is shut down no more than one day prior to the start of the large remedial excavation (the DPE system shall remain active during the small remedial excavation).

With regard to the bid response document, all bidders shall describe their approach for the remedial excavation that will include:

- The process for managing excavated contaminated soil (e.g., direct loading into trucks or staging on-site);
- The procedure to eliminate the potential for free liquids to leak from the trucks during transportation of contaminated soil;
- A plan for the work that minimizes the disruption to the Site and the operations of the active oil change business.

The selected bidder shall execute the SOW in general accordance with Project Timeline included as Attachment 3n.

Objective

This solicitation requests a fixed price to complete a remedial excavation to attain the NR SHS for soil and groundwater at the Site.

Constituents of Concern (COCs)

The COCs for this site are the constituents identified on the PADEP old shortlist of unleaded gasoline. Specifically, the COCs are benzene, toluene, ethylbenzene, total xylenes, cumene, naphthalene, and MTBE.

General SOW Requirements

The Milestones presented below are separated into two categories; Base Scope of Work Milestones and Optional Milestones. The Base Scope of Work Milestones (Milestones A through M) represent the level of effort deemed reasonable to successfully complete the corrective action process and obtain relief from liability for the Site. The Optional Milestones (Milestone N through V) capture unit costs to adjust the reimbursement for Base Scope of Work Milestones when deemed reasonable or necessary and/or represent additional activities that may be reasonable and necessary to achieve the objective of the SOW. The initiation of any of the Optional Milestones will require approval from the Solicitor and PAUSTIF for funding.

The bidder's approach to completing the SOW shall be in accordance with generally accepted industry standards/practices and all applicable federal, state, and local rules, regulations, guidance, and directives. The latter include, but are not limited to, meeting the applicable requirements of the following:

- The Storage Tank and Spill Prevention Act (Act 32 of 1989, as amended);
- Pennsylvania Code, Title 25, Chapter 245 Administration of the Storage Tank Spill and Prevention Program;
- The Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2), as amended);
- Title 25 Pennsylvania Code, Chapter 250 Administration of Land Recycling Program;
- The PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Technical Guidance Document 261-0300-101); and
- Pennsylvania's Underground Utility Line Protection Law, Act 287 of 1974, as amended by Act 121 of 2008.

During completion of the milestone objectives specified below the selected consultant shall:1

• Conduct necessary, reasonable, and appropriate project planning and management activities until the Remediation Agreement is completed. Such activities may include Solicitor communications/updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality

¹ As such, all bids shall include the costs of these activities and associated functions within the quote for applicable tasks/milestones.

assurance/quality control, scheduling, and other activities (e.g., utility location). Project planning and management activities will also include preparing and implementing plans for health and safety, waste management, field sampling/analysis, and/or other plans that are necessary and appropriate to complete the SOW, and shall also include activities related to establishing any necessary access agreements. Project planning and management shall include identifying and taking appropriate safety precautions to not disturb Site utilities including, but not limited to, contacting Pennsylvania One Call as required prior to any ground-invasive work. As appropriate, project management costs shall be included in each bidder's pricing to complete the milestones specified below.

- Be responsible for coordinating, managing, and completing the proper management, characterization, handling, treatment, and/or disposal of all impacted soils, water, and derivative wastes generated during the implementation of this SOW. The investigation-derived wastes, including purge water, shall be disposed in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Waste characterization and disposal documentation (e.g., manifests) shall be maintained and provided to the Solicitor and the PAUSTIF upon request. All investigation derived wastes shall be handled and disposed per PADEP's Regional Office guidance. It is the selected consultant's responsibility to conform with current PADEP Regional Office guidance requirements in the region where the Site is located.
- Be responsible for providing the Solicitor and facility operator with adequate advance notice prior to each visit to the property. The purpose of this notification is to coordinate with the Solicitor and facility operator to ensure that appropriate areas of the property are accessible. Return visits to the Site will not constitute a change in the selected consultant's SOW or result in additional compensation under the Remediation Agreement.

Project-Specific Guidelines

As part of this RFB, the selected consultant shall consider the following project-specific guidelines:

- <u>Scheduling</u>: The selected bidder shall provide a schedule for which each milestone is expected to be completed (i.e., within 30 days from the execution of the Remediation Agreement).
- <u>Field Activities:</u> The selected bidder shall provide a 72-hour notification of all pending on-site work to the Solicitor and a 72-hour notification of all pending off-site work to off-site property owners. Per the request of the PADEP, the selected bidder shall also provide a 72-hour notification to the PADEP of all pending field work except groundwater sampling.

- <u>Responsibility:</u> Upon execution of the Remediation Agreement, the selected bidder shall become the consultant of record for the Site and the Solicitor. It shall be expected that the selected bidder will represent the interest of the Solicitor and PAUSTIF during the execution of all aspects of the project associated with this RFB.
- <u>Safety Measures</u>: Each consultant should determine the level of safety measures needed to appropriately complete the milestones. Specifically, if a consultant feels it is appropriate and necessary to complete additional safety measures other than or beyond what is required in the SOW, the cost should be included in their proposal and costs. More importantly, if a consultant includes the cost to complete safety activities, they should specify it in their proposal and discuss why it is appropriate and necessary and indicate which methods will be utilized and to what extent. As discussed in the RFB, cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures.
- <u>Off-site Access</u>: Due to access being required to two off-site properties to complete the proposed SOW, the following timeframes have been established: The selected consultant should initiate Milestone A (Obtain Off-Site Access) within 10 days of contract execution. If after 30 days of the first attempt at gaining access to the two off-site properties; access is not secured or about to be secured; then the selected consultant should request assistance in obtaining access from the PADEP.
- <u>Milestones Requiring Approval Prior to Initiation</u>: The SOW contained within this RFB includes optional milestones that may not be reasonable and necessary to perform based on the information gathered by the selected bidder upon completion of the base scope of work milestones. For this reason, the selected bidder shall be required to obtain approval from the Solicitor and PAUSTIF (for funding consideration) prior to initiating any of the optional milestones (listed below) and any sub-milestone to the optional milestones. The optional milestones are as follows:
 - Optional Milestone O1 O2: Supplemental Groundwater Sampling
 - Optional Milestone P1 P2: Supplemental Groundwater Monitoring Well Installation, Survey, and Development
 - Optional Milestone Q1 Q3: Monitoring Well Repairs
 - Optional Milestone R: Preparation of Additional Remedial Action Progress Report
 - Optional Milestone S: Per-Gallon Vacuum Extraction and Disposal of Groundwater Cost Modifier
 - o Optional Milestone T: Per-Ton Soil Excavation and Disposal Cost Modifier
 - o Optional Milestone U1 U2: Sub-Slab Soil Gas Sampling
 - o Optional Milestone V: Per Square Foot Pavement Cost Modifier
 - o Optional Milestone W: Additional Abandonments

BASE SCOPE OF WORK MILESTONES

Milestone A: Obtain Off-Site Access

All bidders are required to provide in Attachment 2 the cost to secure off-site access to two adjacent residential properties for the purposes of collecting routine groundwater samples from monitoring wells MW-18 and MW-21. Providing this cost does not commit the consultant to obtain the access agreements.

The cost should cover the necessary time and materials needed to contact the off-site property owners, draft access agreements for the properties, and obtain approvals with one draft revision of each access agreement. The cost should also cover the required time and material needed to provide the PADEP with the information they will require to facilitate access to the property if necessary.

Milestone B: Geophysical Survey

All bidders are required to provide in Attachment 2 the cost to perform a geophysical survey of the areas proposed to be excavated. The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

The purpose of the geophysical survey is to attempt to identify and locate potential unknown USTs, conveyance lines, and other underground utilities and features in the areas of the proposed excavations shown on Figure 4 in Attachment 3a. It is anticipated that at least electromagnetic (EM) and ground-penetrating radar (GPR) technologies would be employed. The results of the geophysical survey shall be presented in the Revised Remedial Action Plan (Milestone C).

Milestone C: Preparation of a Revised Remedial Action Plan

All bidders are required to provide in Attachment 2 the cost to prepare a Revised Remedial Action Plan (RAP). The Revised RAP shall be prepared in general accordance with 25 Pa Code §245.311 and other applicable statutes, regulations and guidance, and shall be signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania. The Revised RAP shall include a summary of site characterization activities conducted at the Site and propose the use of petroleum hydrocarbon-contaminated soil removal, the removal of groundwater from the large open excavation, and the addition of pelletized ORC® Advanced as the selected remedial strategy to achieve the remedial goal of the NR SHS for soil and groundwater.

The Revised RAP shall be prepared in draft form for review and comment by the Solicitor and the PAUSTIF. The selected bidder shall complete Milestone C within 60 days of the execution of the Remediation Agreement. The timeframe for the completion of this Milestone shall provide two weeks for the Solicitor's and PAUSTIF's review. Tables, figures, and other attachments that support the text shall include, but not be limited to, the following:

- Comprehensive historical groundwater elevation data (including SPL elevations and thickness where applicable);
- Comprehensive groundwater and soil analytical data;
- The results of the geophysical survey performed as part of Milestone B;
- Site map(s) showing site boundaries, pertinent site features, existing soil borings and monitoring well locations;
- Site map(s) showing the anticipated excavation boundaries;
- A systematic random soil attainment sampling plan for each excavation;
- A plan for the addition of pelletized ORC® Advanced into the open excavations; and
- A post-remediation groundwater monitoring plan to demonstrate attainment of the NRUA SHS MSCs.

The cost for Milestone C will be reimbursed as follows:

- C1 RRAP Submittal: 75% of proposed Milestone cost
- C2 RRAP Approval: 25% of proposed Milestone cost

Milestone D: Secure Oil Change Business Operations

All bidders are required to provide in Attachment 2 the cost to secure the continued operation of the on-site oil change business during the removal of the canopy (described in Milestone E), the soil excavation (described in Milestone F), the vacuum extraction of groundwater (described in Milestone G), the application of pelletized ORC® Advanced (described in Milestone H), the surface paving (described in Milestone I), and the installation of groundwater monitoring wells (described in Milestone J). The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

The oil change business, with its primary area of operation in the southwestern portion of the Site, will remain active throughout the execution of the SOW. The oil change business provides oil changes and other minor automotive maintenance services to customers. Customers enter the oil change building from the west and, upon completion of the requested service, exit the building to the east.

To secure the oil change business (property, employees, and customers) from the work necessary to complete Milestones E through J the selected bidders shall provide traffic control services and install two temporary barriers in the areas shown on Figure 4 in Attachment 3a. The temporary barriers (Jersey barrier-type walls) must be capable of diverting and controlling vehicular traffic. One temporary barrier shall eliminate the

potential for customers to exit the eastern side of the oil change building, thereby requiring customers to reverse out of the oil change building (to the west) upon completion of their service. The second temporary barrier shall work in conjunction with the traffic control service such that a waiting line can form for customers waiting to enter the oil change building. The traffic control service shall direct customers into and out of the oil change business and prevent vehicles from entering areas of the Site where work associated with Milestones E through J is being performed.

The temporary barriers and traffic control service shall be in place prior to the initiation of Milestone E and shall remain in place until the installation of the groundwater monitoring wells described in Milestone J is complete, at which time the barriers shall be removed from the Site and the traffic control service shall cease. In addition to barriers and other traffic control equipment, traffic control services shall include an appropriate number of individuals capable of controlling traffic into and out of the oil change business (oil change business employees are not expected to manage traffic into and out of the business during the execution of the SOW). Traffic control personnel shall be on-site during the normal business hours of the oil change business for as long as the temporary barriers are present on Site.

Milestone E: Canopy Removal and Disposal

All bidders are required to provide in Attachment 2 the cost to remove and dispose of the former dispenser canopy in preparation for Milestone F. The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

For the purposes of this RFB, the canopy removal shall only include the above grade components of the canopy. The oil change business owner will be responsible for removing the car wash kiosk and car wash gate arm located beneath the canopy. The approximate locations of the kiosk and gate are shown on Figure 2 in Attachment 3a. Prior to the removal and disposal of the canopy, the selected bidder shall coordinate the removal of the former car wash kiosk and associated gate arm with the owner of the oil change business. The cost to remove the kiosk and gate arm should not be included in Attachment 2.

The selected bidder shall take all necessary steps to ensure utilities to the canopy (and excavation areas, if applicable) are properly de-energized/disconnected prior to initiating Milestone D and subsequent Milestones.

Milestone F: Soil Excavation, Off-Site Soil Disposal, Soil Attainment Sampling, and Excavation Backfilling

All bidders shall provide in Attachment 2, the cost to excavate petroleum-contaminated soil from the Site, transport and dispose of petroleum contaminated soil, perform soil attainment sampling, and backfill the excavations. The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

Two soil excavation areas are identified. One excavation area is in the vicinity of the former USTs and the other excavation area is in the vicinity of the former dispensers. Figure 4 in Attachment 3a shows the boundaries of the two excavations, which were created by circumscribing the areas of known petroleum contamination in soil, along with a listing of depth intervals of the contaminated soil that shall be removed from the excavation for disposal off-site. Both excavation areas shall extend downward from the ground surface to permanently saturated soil to a depth of 12 fbg. The total estimated volume of soil to be excavated for off-site disposal is estimated to be 581 cubic yards.

All bidders shall provide in Attachment 2 the cost to excavate and dispose of off-site the soil intervals prescribed on Figure 4 in Attachment 3a, collect soil attainment samples from the open excavations, and backfill the excavations to an elevation suitable for paving the area (Milestone H).

As discussed in the SOW introduction and shown on Attachment 3n, the small excavation in the vicinity of the former USTs shall be completed first (while the DPE system is operational) and the large excavation shall be initiated within one day of the DPE system being shut down and disconnected.

For the purposes of completing Attachment 2 for this Milestone, all bidders shall assume the following:

- The Revised RAP described in Milestone C will be approved by the PADEP;
- Concrete (dispenser island, etc.), pavement, well construction materials (manholes, casing, screen, etc.), and subsurface DPE treatment system components (piping, etc.) within the boundary of the excavation shall be disposed of off-site;
- To the extent it is reasonable to do so, canopy footers within the boundary of the excavation shall be disposed of off-site;
- The soil material overlying the prescribed intervals shall be excavated and segregated as "presumably uncontaminated". The presumably uncontaminated soil shall be sampled in general accordance with the PADEP Technical Document on the Closure Requirements for Underground Storage Tank Systems with a rapid

analytical turnaround time (24 hours) to allow for the material to be used as backfill (pending acceptable analytical results);

- The excavation shall be performed in accordance with Occupational Safety and Health Administration (OSHA) specifications for sloping and benching excavations (1926 Subpart P) and generally accepted safe work practices pertaining to excavations;
- If temporarily staged on-site, the excavated contaminated soil will be placed on and under plastic until it is hauled off-site for disposal;
- The excavated contaminated soil will not be considered hazardous waste;
- Shoring and/or sheet piling will not be employed;
- The collection of attainment soil samples from the bottom of the two excavations will not be necessary as both areas will be excavated into permanently saturated soil;
- Post-excavation systematic random soil samples shall be collected from the sidewalls from each of the two excavations in accordance with the plan included in the PADEP-approved Revised RAP;
- 1,000 tons of presumably contaminated soil shall be excavated and disposed of off-site;
- Wells K-1, K-3, MW-3/RW-3, RW-4A, MW-4/RW-4, RW-6A, MW-6/RW-6, and MW-5/RW-5 will be destroyed as part of the excavation work;
- The excavation shall be backfilled with the presumably uncontaminated soil (provided sampling results allows for such) and clean engineered material, compacted in two-foot depth intervals to a grade suitable for paving (Milestone I); and
- Following the backfilling of the excavation the Site will be broom swept.

All bidders shall include the following information in their bid response documents:

- The facility and method for which the excavated soil will be disposed; and
- If applicable, a description of the waste characterization data required by the disposal facility and the method and costs for obtaining the waste characterization data (costs shall be included with the cost for Milestone F in Attachment 2).

A per ton excavation and off-site disposal reduction cost (if less than 1,000 tons of presumably contaminated soil) and a per ton excavation and off-site disposal additional cost (if more than 1,000 tons of presumably contaminated soil) shall be included in the bid response document for Optional Milestone T in Attachment 2.

Prior to backfilling the excavation, the selected bidder shall remove groundwater from the open excavation using a vacuum truck. Details on the vacuum extraction of groundwater from the open excavation are provided in Milestone G below.

In the event that it is deemed reasonable by the selected bidder during the course of executing Milestone F to excavate beyond the prescribed excavation boundary and/or prescribed excavation depth in an attempt to achieve the NR SHS for soil and/or significantly reduce *in situ* petroleum contaminant mass to aid in achieving the NR SHS for groundwater, the selected bidder shall notify (via telephone and/or email) the Solicitor and PAUSTIF (ICF Claim Representative) within one business day of the decision to excavate additional contaminated soil. The notification should include, at a minimum, a detailed explanation on 1) why and where the additional soil excavation is planned, 2) the goal for the additional excavation, and 3) an estimate on the additional volume of soil planned for excavation. The reimbursement for Milestone F would then be adjusted accordingly using the per ton off-site disposal cost increase provided in Optional Milestone T in Attachment 2.

In the event that the excavation cannot safely or effectively proceed to the horizontal and/or vertical extents shown on Figure 4 in Attachment 3a, the selected bidder shall notify (via telephone and/or email) the Solicitor and PAUSTIF (ICF Claim Representative) within one business day of the decision to terminate the excavation of contaminated soil. At that time, based on Site conditions, it may be reasonable to excavate the maximum amount of petroleum-contaminated soil practicable for pursuit of the Site-Specific Standard. The notification should include, at a minimum, a detailed explanation on why and where the soil excavation was terminated. The reimbursement for Milestone F would then be adjusted accordingly using the per ton off-site disposal cost reduction provided in Optional Milestone T in Attachment 2.

Milestone G: Vacuum Extraction of Groundwater

All bidders are required to provide in Attachment 2 the cost to mobilize one vacuum truck to remove and dispose of groundwater from the large open excavation during the excavation. The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

The purpose of the vacuum extraction of groundwater is to remove dissolved-phase contamination and aid in removing soil below the water table. For the purposes of this RFB, all bidders shall assume 6,000 gallons of petroleum-contaminated groundwater will be removed from the large excavation. A per-gallon off-site disposal reduction cost (if less than 6,000 gallons of groundwater is removed) and a per-gallon off-site disposal additional cost (if more than 6,000 gallons of groundwater is removed) shall be included in the bid response document for Optional Milestone S in Attachment 2.

Milestone H: Addition of Regenesis Oxygen Release Compound (ORC®) Advanced

Based on site-specific data, Regenesis calculated an amount of pelletized ORC® Advanced to be added to the small (165 pounds) and large (551 pounds) excavations created as Milestone E. All bidders are required to provide in Attachment 2 the cost to

obtain 716 pounds of pelletized ORC® Advanced and distribute 165 pounds of the material in the small open excavation and 551 pounds of the material in the large open excavation. The specified amount of ORC® Advanced shall be spread out evenly across the bottom of each excavation such that the material is distributed throughout the exposed permanently saturated zone.

The costs included in Attachment 2 shall include, but not be limited to, the costs necessary to obtain all necessary permits for the addition of the ORC® Advanced to the excavations as well as all mobilizations, subcontractors, labor, equipment, and waste handling.

Milestone I: Paving

All bidders are required to provide in Attachment 2 the cost to pave the excavated areas of the Site. The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

For the purposes of completing Attachment 2 for this Milestone, all bidders shall assume the following:

- 3,000 square feet of area will be paved;
- Prior to paving the areas the selected bidder shall saw-cut a clean, straight edge along the existing pavement and remove the saw-cut debris from the area prior to laying the new pavement;
- All vertical surfaces which will contact the new asphalt paving shall be tack coated. The tack coat shall be allowed to cure before the asphalt placement, and shall be applied on surface that can be covered with an asphalt mixture during the same day; and
- The asphalt mix shall be compacted immediately after placement.

A per square foot paving reduction cost (if less than 3,000 square feet of paving is necessary) and a per square foot paving additional cost (if more than 3,000 square feet of paving is necessary) shall be included in the bid response document for Optional Milestone V in Attachment 2.

Milestone J: Groundwater Monitoring Well Replacement and Development

All bidders are required to provide in Attachment 2 the cost to install two two-inch diameter PVC groundwater monitoring wells (MW-23 and MW-24) in the approximate locations shown on Figure 4 in Attachment 3a. The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

Each well shall be installed upon completion of Milestone H using hollow stem auger drilling techniques to a total depth of 20 fbg and constructed with 15 feet of screen and 5

feet of riser. The groundwater monitoring wells shall be completed at the surface with a securable manhole, set in concrete flush with the ground surface. A locking, pressure fit, watertight cap shall be used to prevent the infiltration of surface runoff and rainwater and to restrict unauthorized access.

The tops of casings of the groundwater monitoring wells shall be vertically and horizontally surveyed into the network of remaining groundwater monitoring wells to allow for the calculation of groundwater elevations across the Site.

Following their installation the selected bidder shall develop the two new groundwater monitoring wells in accordance with generally-accepted practices as outlined in Appendix A (Groundwater Monitoring Guidance) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101).

Well logs shall be prepared by a Professional Geologist using a standard and consistent classification system procedure (Modified Burmister or USCS).

Milestones K1 – K12: Quarterly Post-Remediation Groundwater Sampling and Groundwater Attainment Sampling

All bidders shall provide in Attachment 2, the cost to perform up to twelve post-remediation quarterly groundwater sampling events, including up to four consecutive quarterly remediation evaluation groundwater sampling events, and up to eight consecutive quarterly post-remediation groundwater attainment sampling events. The quarterly remediation evaluation groundwater sampling events shall be performed during the effective period (up to one year) of the ORC® Advanced while the quarterly groundwater attainment sampling events shall be performed following the remediation evaluation sampling for the purposes of collecting sufficient groundwater chemistry data to demonstrate attainment of the NRUA SHS MSC.

Each quarterly groundwater sampling event shall include measuring the depth-to-water in each of the groundwater monitoring wells (MW-1, MW-2, MW-7 through MW-12, and MW-18 through MW-24) followed by the purging and sampling of each of the groundwater monitoring wells. The groundwater samples shall be collected in laboratory-provided containers and analyzed by EPA Method 8260B for the substances listed in the COC section of this RFB. If a groundwater sample cannot be obtained from one or more groundwater monitoring wells, the reimbursement for Milestones K1 through K12 will be reduced by the unit sampling cost included in Optional Milestone O2. All groundwater sampling events shall include the collection of monitored natural attenuation geochemical parameters, including dissolved oxygen, pH, and oxidation reduction potential.

The first quarterly remediation evaluation groundwater sampling event shall occur no sooner than 2 weeks following the completion of Milestone J and in a calendar quarter

following the most recent previous groundwater sampling event. The subsequent quarterly remediation evaluation groundwater sampling events (up to three) shall be performed during successive and consecutive calendar quarters with at least six weeks between sampling events. Remediation evaluation groundwater sampling events shall cease upon the selected bidder determining through geochemical parameter evaluation that the oxygen generation capability of the ORC® Advanced has been depleted. It is anticipated the ORC® Advanced will be depleted in less than one year following the application. Therefore, no more than four remediation evaluation groundwater sampling events shall be performed.

The first quarterly post-remediation groundwater attainment sampling event shall be performed no sooner than six weeks following the last remediation evaluation groundwater sampling event and in the calendar quarter following the last remediation evaluation groundwater sampling event. The subsequent quarterly groundwater attainment sampling events (up to seven) shall be performed during successive and consecutive calendar quarters with at least six weeks between sampling events. In the event that attainment of the NRUA SHS MSC can be achieved in fewer than eight quarters, the selected bidder shall petition the PADEP to allow for less than eight quarters of groundwater attainment sampling.

The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

Milestones L1 – L11: Preparation of Remedial Action Progress Reports

All bidders shall provide in Attachment 2, the cost to prepare up to eleven quarterly Remedial Action Progress Reports (RAPRs). Each RAPR shall present the data collected during each of the quarterly post-remediation groundwater sampling events performed as part of Milestone K with the exception of the last post-remediation groundwater sampling event (i.e., L1 will present the data collected as part of K1, L2 will present the data collected as part of K2, etc.). Provided attainment of the NR SHS can be demonstrated for soil and groundwater, the Remedial Action Completion Report (Milestone M) shall be prepared following the completion of the last quarterly groundwater attainment sampling event. Each RAPR shall be prepared in accordance with 25 Pa Code §245.312(c) and signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania.

Milestone M: Preparation of Remedial Action Completion Report

All bidders shall provide in Attachment 2 the cost to prepare a Remedial Action Completion Report (RACR) that requests relief from liability for the substances listed in the COC section of this RFB in soil and groundwater at the Site via the NR SHS. The RACR shall be prepared in accordance with 25 Pa Code §245.313 and other applicable statutes,

regulations and guidance, and shall be signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania.

Text, tables, figures, and other attachments that support the relief from liability shall include, but not be limited to, the following:

- Assuming that vapor intrusion is not a concern, a full evaluation of the vapor intrusion pathway indicating that there are no unacceptable risks in accordance with Section IV (Vapor Intrusion) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101);
- Comprehensive groundwater elevation data in table form;
- Comprehensive groundwater sampling results in table form;
- Comprehensive soil sampling results in table form;
- Comprehensive soil vapor and/or indoor air and/or sub-slab vapor sampling results in table form (if applicable);
- Time vs concentration graphs and statistical analyses for each COC reported above the NRUA SHS MSC in post-remediation groundwater samples;
- Scaled figures showing the location of monitoring wells, soil samples, and indoor air and/or vapor samples (if applicable);
- Scaled figures for each round of quarterly post-remediation groundwater sampling that shows groundwater elevation data, groundwater elevation contours, and inferred direction(s) of groundwater flow;
- Scaled figures for each analyte detected in post-remediation groundwater samples at concentrations above the NRUA SHS MSCs. Each figure should show analyte concentrations in each well and inferred dissolved-phase analyte plume contours;
- A fate and transport analysis for COCs in groundwater (if appropriate);
- Laboratory reports, chains of custody, and field sampling documentation for all media sampled as part of characterization;
- Logs for all soil borings and monitoring wells including well construction logs;
- Details of the remedial soil excavations, including plan view and cross section figures; and
- A demonstration of attainment of the NR SHS for soil and groundwater.

The RACR shall be prepared in draft form for review and comment by the Solicitor and the PAUSTIF. The selected bidder shall complete the RACR within 60 days following the completion of the final quarterly post-remediation groundwater sampling event. The timeframe for the completion of the RACR shall provide two weeks for the Solicitor's and PAUSTIF's review and the selected bidder shall address all of the comments received from the Solicitor and the PAUSTIF before submission of the RACR to PADEP.

The cost for Milestone M will be reimbursed as follows:

- M1 RACR Submittal: 75% of proposed Milestone cost
- M2 RACR Approval: 25% of proposed Milestone cost

Milestones N1 – N3: Site Restoration

All bidders shall provide in Attachment 2 the costs to abandon the groundwater monitoring wells, recovery wells, and soil vapor sampling points (Milestone N1), decommission the remaining components of the DPE system, excluding the shed (Milestone N2), and if requested by the Solicitor, remove and dispose of the shed (Milestone N3).

The owner of the oil change business has expressed an interest in retaining the empty DPE system shed on-site. For this reason, prior to the execution of Milestone N, the selected bidder shall contact the Solicitor to determine if the DPE shed (without the DPE system components) should be left on site for the Solicitor and/or the owner of the oil change business.

With regard to Milestone N1, all bidders shall assume that the groundwater monitoring wells and recovery wells abandoned as part of Milestone N1 will include MW-1, MW-2, MW-7 through MW-12, and MW-18 through MW-24, and wells K-2, RW-1A, RW-3A, and RW-5A, and the 4 soil vapor sampling points (VP1 through VP4). The costs included in Attachment 2 for Milestone N1 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

The groundwater monitoring wells shall be abandoned from the bottom to the top with grout delivered through a tremie pipe and the shallow vapor points shall be abandoned by removing the sampling tubing from the ground. All abandonments shall be conducted in accordance with generally accepted practices as outlined in Appendix A (Groundwater Monitoring Guidance) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101) and include the removal and disposal of concrete aprons and manholes and surface restoration.

With regard to Milestone N2, the decommissioning of the DPE system shall be coordinated with the Solicitor, RAR, and the electrical service provider. Work shall include, but not be limited to, disconnecting and closing out the electrical service, removing and disposing of all mechanical equipment located inside the shed, abandoning the conveyance piping, and disposing of all remaining waste inside the shed.

The disconnection and abandonment of the electrical service shall include, but not be limited to:

• Coordinating with the local utility provider and RAR to discontinue electrical service and close out the account,

- Disconnecting electrical service at the utility pole,
- Verifying that all electrical power has been disconnected,
- Removing all wiring from below grade conduits,
- Cutting and capping conduits below grade,
- Removing and disposing of power distribution panels and utility meter supports from the exterior of the shed,
- Sealing the building penetrations with a spray foam-type sealant (if the shed is left in-place), and
- Disposing of all waste.

The removal and disposal of the mechanical equipment located inside the shed shall include, but not be limited to:

- Draining the lubricant from the liquid ring blower,
- Evacuating any fluids from the above ground piping and knock out tank,
- Removing the liquid ring pump skid and associated above ground components,
- Removing two liquid-phase carbon drums and two vapor-phase carbon drums, and
- Disposing of all waste.

The abandonment of the conveyance piping shall include, but not be limited to:

- Removing all above grade piping systems, and one of the two following options pertaining to the removal of the shed:
 - If the shed is left in place, cutting all piping below the floor of the shed, grouting the piping closed, capping the piping below the shed floor, and sealing the building penetrations with a spray foam-type sealant.
 - If the shed is removed from the Site (Milestone N3), cutting all piping below grade, grouting the piping closed, and capping the piping below grade.
- Disposing of all waste.

With regard to Milestone N3, the removal of the shed shall include the physical removal and disposal of the shed and the repair of the former surface penetration area with cold patch-type asphalt.

All bidders shall assume that all components of the DPE system, including the shed, are recyclable, reclaimable, and/or disposable as non-hazardous waste. All bidders shall include in their bid response document the proposed waste handling and disposal methods for the DPE components (e.g, municipal waste, reclamation, recycling, etc.) and any proposed waste characterization sampling.

OPTIONAL and COST ADDER MILESTONES

Optional Milestone O: Supplemental Groundwater Sampling

The purpose of this optional milestone is to allow for additional groundwater sampling events and/or the collection and laboratory analysis of more or less groundwater samples during a groundwater sampling event. The activation of Optional Milestone O1 and the collection of additional groundwater samples via Optional Milestone O2 will require the prior approval of the Solicitor and PAUSTIF.

Optional Milestone O1 – All bidders shall provide in Attachment 2 the cost to complete one comprehensive groundwater sampling event. The sampling event costs shall include the gauging, purging, and sampling of groundwater monitoring wells MW-1, MW-2, MW-7 through MW-12, and MW-18 through MW-24 and the analysis of groundwater samples. The costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

Optional Milestone O2 – All bidders shall provide in Attachment 2 the cost to purge and collect one groundwater sample from one groundwater monitoring well as a cost modifier for another Milestone or Optional Milestone that includes mobilization and should therefore not include mobilization costs. The costs shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and will be used to modify (increase or decrease) as necessary the reimbursement for other Milestones and Optional Milestones.

Optional Milestone P: Supplemental Groundwater Monitoring Well Installation, Survey, and Development

The purpose of this optional milestone is to allow for the installation, development, and survey of additional groundwater monitoring wells, if deemed necessary. The activation of Optional Milestone P1 and P2 will require the prior approval of the Solicitor and PAUSTIF.

Optional Milestone P1 – All bidders shall provide in Attachment 2 the cost to install, survey, and develop one two-inch diameter PVC groundwater monitoring well using hollow stem auger techniques, constructed in a manner comparable to the groundwater monitoring wells installed as part of Milestone J. The costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

Optional Milestone P2 – All bidders shall provide in Attachment 2 the cost to install, survey, and develop one additional groundwater monitoring well, constructed in a manner comparable to the groundwater monitoring well installed as part of Optional Milestone P1 and as an add-on to Optional Milestone P1 (which accounts for mobilization costs). The costs shall include, but not be limited to, labor, equipment, subcontractors, and waste handling.

Optional Milestone Q: Monitoring Well Repairs

The purpose of this optional milestone is to allow for minor and major monitoring well surface completion repairs.

All bidders are required to provide in Attachment 2, the cost to repair (Optional Milestone Q1) and replace (Optional Milestones Q2 and Q3) one monitoring well surface completion. The activation of Optional Milestones Q1, Q2, and Q3 will require the prior approval of the Solicitor and PAUSTIF.

Optional Milestone Q1 – All bidders shall provide in Attachment 2 the cost to repair one existing groundwater monitoring well surface completion. The repair shall include the costs associated with replacing the manhole lid bolts, manhole lid o-ring, lockable monitoring well "J" plug, and lock. All bidders shall assume that Optional Milestone Q1 can be completed as part of another milestone that incorporates mobilization costs. Costs for Optional Milestone Q1 shall include, but not be limited to, labor, equipment, subcontractors, and waste handling.

Optional Milestone Q2 – All bidders shall provide in Attachment 2 the cost to replace one existing groundwater monitoring well surface completion. The replacement shall include the costs to remove, dispose of, and replace the concrete pad and manhole, and the replacement of the "J" plug and lock. All bidders shall assume that Optional Milestone Q2 shall be performed as a stand-alone optional milestone; therefore the costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

Optional Milestone Q3 – All bidders shall provide in Attachment 2 the cost to replace one existing groundwater monitoring well surface completion as an add-on to Optional Milestone Q2 (which already accounts for mobilization costs). The replacement shall include the costs to remove, dispose of, and replace the concrete pad and manhole and the replacement of the "J" plug and lock. Costs for Optional Milestone Q3 shall include, but not be limited to, labor, equipment, subcontractors, and waste handling.

Optional Milestone R: Preparation of Additional Remedial Action Progress Report

The purpose of this optional milestone is to allow for the preparation and submission of a RAPR to convey to the PADEP data associated with a quarterly groundwater sampling event performed in conjunction with Optional Milestone O. The activation of Optional Milestone R will require the prior approval of the Solicitor and PAUSTIF.

All bidders shall provide in Attachment 2 the cost to prepare and submit to the PADEP a RAPR prepared in accordance with 25 Pa Code §245.312(c).

Optional Milestone S: Vacuum Extraction of Groundwater

The purpose of this optional milestone is to allow for reimbursement modifiers for more or less groundwater vacuumed for disposal. The activation of Optional Milestone S will require the prior approval of the Solicitor and PAUSTIF.

All bidders shall provide in Attachment 2 the per-gallon cost to vacuum and dispose of petroleum-contaminated groundwater as a reimbursement modifier for Milestone G in the event that more or less than 6,000 gallons of petroleum-contaminated groundwater is vacuumed for off-site disposal.

Optional Milestone T: Per-Ton Soil Excavation and Disposal Cost Modifier

The purpose of this optional milestone is to allow for a modification of the reimbursement for Milestone F. All bidders shall provide in Attachment 2 the per-ton cost to excavate, transport, and dispose of soil in the event that more or less than the 1,000 tons of soil is excavated and disposed of as part of Milestone F.

Optional Milestone U: Sub-Slab Soil Gas Sampling

The purpose of this optional milestone is to allow for the evaluation of vapor intrusion via sub-slab soil gas sampling. The activation of Optional Milestones U1 and U2 will require the prior approval of the Solicitor and PAUSTIF. The costs associated with Optional Milestones U1 and U2 shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

Optional Milestone U1 – All bidders shall provide in Attachment 2 the cost to install two sub-slab soil gas sampling points in the former Car Wash Building and perform one sub-slab soil gas sampling event. The soil gas sampling points shall be installed through the concrete slab at locations determined by the selected bidder based on professional judgment and in accordance with the Section IV (Vapor Intrusion) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101).

All bidders are required to provide in their bid response document a description of how the sub-slab soil gas sampling points would be installed, purged, and sampled. The QA/QC actions associated with the collection of the sub-slab soil gas samples shall also be described (e.g., pre-sampling survey and chemical inventory, leak testing, duplicate samples, ambient air samples, etc.).

The sub-slab soil gas samples (and QA/QC samples, if applicable) shall be analyzed for the substances in the COC Section of this RFB.

Optional Milestone U2 – All bidders shall provide in Attachment 2 the cost to complete an additional comprehensive sub-slab soil gas sampling event that includes the two subslab soil gas sampling points installed as part of Optional Milestone U1. The sub-slab soil gas samples (and QA/QC samples, if applicable) collected as part of Optional Milestone U2 shall be collected and analyzed in accordance with the procedures used to collect the samples in Optional Milestone U1.

Optional Milestone V: Per-Square Foot Pavement Cost Modifier

The purpose of this optional milestone is to allow for a modification of the reimbursement for Milestone I. All bidders shall provide in Attachment 2 the cost to pave one square foot of the Site in the event that more or less than the 3,000 square feet is paved. The activation of Optional Milestones V will require the prior approval of the Solicitor and PAUSTIF.

Optional Milestone W: Additional Abandonments

The purpose of this optional milestone is to provide a per-well and per-soil vapor sampling point abandonment cost to allow for a modification of the reimbursement for Milestone N1 (which accounts for mobilization) in the event more or less groundwater monitoring wells and/or soil gas vapor points are abandoned as part of Milestone N1. The activation of Optional Milestones W1 and W2 will require the prior approval of the Solicitor and PAUSTIF. The costs shall include, but not be limited to, labor, equipment, subcontractors, and waste handling.

Optional Milestone W1 – All bidders shall provide in Attachment 2 the cost to abandon one groundwater monitoring well. All bidders shall assume the groundwater monitoring well is constructed as a two-inch diameter PVC well installed to a total depth of 20 fbg and will be abandoned from the bottom to the top with grout delivered through a tremie pipe. The abandonment shall be conducted in accordance with generally accepted practices as outlined in Appendix A (Groundwater Monitoring Guidance) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101) and include surface restoration and the removal and disposal of concrete and manhole.

Optional Milestone W2 – All bidders shall provide in Attachment 2 the cost to abandon one soil vapor sampling point. All bidders shall assume the vapor point will be abandoned by removing the sampling tubing from the ground. All abandonments shall be conducted in accordance with generally accepted practices as outlined in Appendix A (Groundwater Monitoring Guidance) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101) and include surface restoration and the removal and disposal of concrete and manhole.

Additional Information

In order to facilitate PAUSTIF's review and reimbursement of invoices submitted under this claim, the Solicitor requires that project costs be invoiced by the milestone identified in the executed Remediation Agreement. Actual milestone payments will occur only after successful and

documented completion of the work defined for each milestone. The selected consultant will perform only those tasks/milestones that are necessary to reach the Objective identified in this RFB. Selected consultant will not perform, invoice, or be reimbursed for any unnecessary work completed under a milestone.

Any "new conditions", as defined in Attachment 1, arising during the execution of the SOW for any of the milestones may result in termination of or amendments to the Remediation Agreement. Modifications to the executed Remediation Agreement will require the written approval of the Solicitor and the PAUSTIF. PADEP approval may also be required.

List of Attachments

- 1. Remediation Agreement
- 2. Bid Cost Spreadsheet
- 3. Site Information/Historic Documents
 - a. Figure 1 Site Location Map
 Figure 2 Site Map Showing Soil Sample Concentrations
 Figure 3 Expanded Site Map
 Figure 4 Soil Excavation Plan
 - b. Table 1 Soil Chemistry Data Table
 - c. Initial Site Characterization Report, November 27, 2002
 - d. Interim Site Characterization Report, February 13, 2003
 - e. Interim Site Characterization Report, May 23, 2003
 - f. Remedial Action Plan, July 2003
 - g. UST Closure Report, 2006
 - h. Revised Remedial Action Plan, July 2012
 - i. PADEP RRAP disapproval letter, September 21, 2012
 - j. Site Characterization Report/Revised Remedial Action Plan, May 2014
 - k. Third Quarter 2016 Remedial Action Progress Report
 - I. PADEP Correspondence, August 2, 2018
 - m. F.T. Kitlinski & Associates sieve and hydrometer analysis
 - n. General Sequence of Events for Milestones D through J