Request for Bid

Fixed-Price Defined Scope of Work

Additional Site Characterization Activities

Solicitor

Mr. Jaswinder Bindra

Classic Super Petrol, Inc.

190 West Street Road
Feasterville, Pennsylvania 19053

PADEP Facility ID #: 09-30207 **PAUSTIF Claim #: 2019-0191(F)**

Date of Issuance

October 14, 2022

Table of Contents

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 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 to the Scope of Work 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 https://ustif.pa.gov.

Calendar of Events

Activity	**Date and Time**
Notification of Intent to Attend Site Visit	October 31, 2022 by 5 p.m.
Mandatory Pre-Bid Site Visit	November 1, 2022 at 10 a.m.
Deadline to Submit Questions	November 15, 2022 by 5 p.m.
Bid Due Date and Time	December 8, 2022 by 3 p.m.

Contact Information

Technical Contact
Christopher D. O'Neil, P.G. **Groundwater Sciences Corporation** **2550 Interstate Drive, Suite 303** **Harrisburg, PA 17110** **coneil@groundwatersciences.com**

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 **"Classic Super Petrol, Inc. – 2019-0191(F) – 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. Questions and their respective answers will become part of the RFB, which in turn, will become part of the final contract. Bidders are responsible to monitor questions and answers and address any changes, modifications or clarifications made to the RFB as a result of the questions and answers.

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 will 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. **A notice of the bidder's intent to attend this meeting is requested to be provided to the Technical Contact via email by the date listed in the Calendar of Events with the subject "Classic Super Petrol, Inc. – 2019-0191(F) – SITE MEETING ATTENDANCE NOTIFICATION".** The name and contact information of the company participant should be included in the body of the email. Notification of intent to attend is appreciated; however, it is not required. Attendance at the Pre-Bid Site Meeting is mandatory and each attendee must sign-in with the Technical Contact on site to record attendance. Due to the circumstances surrounding the COVID-19 pandemic, all attendees should follow CDC safety guidelines. 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-Bid-Submission@icf.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 send to RA-Bid-Submission@icf.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 emails. Bid responses will only be accepted from those companies that attended the Mandatory Pre-Bid Site Meeting. Bids attempted to be submitted through ground services such as USPS, UPS, Fed-Ex, etc. or hand delivery will not be considered for selection. PAUSTIF, in its discretion, reserves the right to reject or allow correction to bid submissions that are substantively deficient in some manner, but any late submission will be rejected.

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 deadline for submission may be extended. 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.

Bid Requirements

The Bid Submission Coversheet included as Attachment 1 to this RFB must be completed, signed by an authorized representative of the company, and included as the first page of the Bid Submission. Bids that are not signed may be rejected. The name and contact information of the person who is to be contacted in the event clarification is required and/or the bid is selected by the Solicitor must be listed on the Bid Submission Coversheet.

The Solicitor wishes to execute a mutually agreeable contract with the selected consultant ("Remediation Agreement"). The Remediation Agreement is included as Attachment 2 to this RFB. The bidder must indicate if the Remediation Agreement is accepted with no changes. If changes are proposed, bidder must identify and document proposed modifications to the Remediation Agreement language 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 must be listed on the Required Responses Submission Form (Attachment 3), including, but not limited to, terms and conditions, Exhibits A and B, Site-Specific Assumptions and Provisions; and, will be one of the criteria used to evaluate the bid and will need to be agreed upon by both the Solicitor and PAUSTIF (for funding).

The selected consultant will be provided an electronic copy 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 must complete and include in their bid response the Required Responses Submission Form, included as Attachment 3 to this RFB.

The bidder shall provide its bid cost only in the Bid Cost Submission Form (included as Attachment 4) with descriptions for each task provided in the body of the bid document. No cost information should be provided in the technical submittal. Bidders are responsible to ensure all costs are provided in the Bid Cost Submission Form, and calculations (including, but not limited to the total

bid cost) are accurate; the Bid Cost Submission Form must be signed by an authorized representative of the company. In addition, bidders are required to include, as backup for the Bid Cost Submission Form, a list of bid labor rates and a detailed breakdown of each milestone fixed-cost including, but not limited to, labor, subcontractor costs and mark-up, direct costs, and equipment. Copies of subcontractor quotes and/or estimates should be included as part of the cost submittal backup. The technical score for bids will be based solely on those tasks represented as milestones included in the Bid Cost Submission Form 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.

Each bid will be assumed to be valid for a period of up to 180 days after receipt unless otherwise noted. The costs quoted in the Bid Cost Submission Form 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.

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. Completed Bid Submission Coversheet (Attachment 1), Required Responses Submission Form (Attachment 3) and Bid Cost Submission Form (Attachment 4 and must include supporting documentation).

2. Demonstration of the bidder's understanding of the Site information provided in this RFB, standard industry practices, and objectives of the project.

3. 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).

Bidders must bid the Scope of Work as requested in this RFB. Recommendations for changes/additions to the Scope of Work proposed in this RFB shall be discussed, quantified, and priced separately; however, failure to also bid the SOW "as is" may result in a low technical score. 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.

4. 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.

5. The names and brief resumes and statement of 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)). Resumes should directly follow the Required Responses Submission Form.

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.) as part of the bid cost submission back up. 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. Key exceptions, assumptions, or special conditions that bidder proposes as modification to the Remediation Agreement must be identified and listed on the Required Responses Submission Form (Attachment 3). Please note that referencing extremely narrow or unreasonable assumptions, special conditions, and exceptions will be considered during bid evaluation and may negatively impact technical score.

Bid Review and Evaluation

1. Bid Review and Scoring

   Bid submissions where the bidder was represented at the mandatory pre-bid site meeting and that were properly submitted by the designated due date and time will be accepted for review.

   Clarification & Additional Information

   After receipt of the bids, the USTIF shall have the right to contact Bidders for the purpose of:

   - Seeking clarification of the Bid which informs the USTIF's understanding of statements or information in the Bid;
   - As a result of clarification, determining whether the bidder seeks to withdraw their bid.

   Administrative Evaluation

   USTIF will determine if a bid is administratively qualified based on certain criteria including, but not limited to acceptance of the Remediation Agreement, proposed modifications to the Remediation Agreement, history of terminated Remediation Agreements and demonstration of insurance requirements.

   Technical Scoring

   Bids that are considered administratively qualified are evaluated for technical viability before cost is considered. Bids that have technical scores that are equal to or greater than 70% of the highest technical score will advance to cost scoring. Bids with technical scores below 70% 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)) x 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 double or greater than double the amount of the lowest bid cost 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 TPA staff, and the TPR who assisted in developing the RFB will score all bids that are administratively qualified based on the above criteria. USTIF reserves the right to assign additional non-scoring members to the evaluation committee as needed. USTIF recognizes that several bids may be acceptable and receive similar numerical scores. At the conclusion of the scoring process, the claimant will receive those bids whose numerical scores place them in the category of meeting Reasonable and Necessary criteria and acceptable for USTIF funding. The claimant may select any of the consulting firms that had a technical score that allowed the bid to advance to cost scoring, 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 5. 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 5, the bidder should defer to the source documents. All figures, reports, and logs referenced in this Section are included in Attachment 5.

Site Name and Address

Classic Super Petrol, Inc., 190 West Street Road, Feasterville, Pennsylvania 19053

Facility Description

The facility is a retail fueling station and convenience store located along West Street Road, at the intersection of West Street Road and Pennsylvania Boulevard, in Feasterville, Lower Southampton Township, Bucks County, Pennsylvania (Figure 1, figures are included in Attachment 5a). The facility is connected to municipal water and sewer. As shown in Figure 2, the 0.6-acre property is surrounded by commercial properties, with a car dealership to the west (across Pennsylvania Boulevard), a shopping plaza to the east and south, and a credit union and office building to the north (across West Street Road).

The former underground storage tank (UST) system associated with PAUSTIF claim 2019-0191 was located between the west side of the retail store and Pennsylvania Boulevard (Figure 3) and was removed in January 2020. According to the PADEP storage tank database, three new USTs were installed in February 2020 within the former UST field location. The recently installed USTs consist of one 20,000-gallon unleaded gasoline UST (Tank 007), one 12,000-gallon unleaded gasoline UST (Tank 009), and one 8,000-gallon diesel fuel UST (Tank 008).

Previous Investigations

A Site Characterization Report Addendum/Remedial Action Completion Report (SCRA/RACR) was submitted to PADEP in December 2012 (Attachment 5b). The SCRA/RACR was associated with an historical release discovered in November 1994 during closure of one 1,000-gallon waste oil UST, one 1,000-gallon fuel oil UST, and replacement of product delivery lines and dispensers as part of a UST system upgrade. Two PAUSTIF claims were associated with this release (Claim Nos. 1996-0135 and 2019-0191). PADEP approved the SCRA/RACR in a letter dated February 11, 2013 (Attachment 5c).

Characterization and remediation activities included installation of 17 on-site monitoring wells and numerous soil borings, separate phase liquid (SPL) investigation, aquifer hydraulic testing, remedial feasibility testing, vacuum-enhanced groundwater extraction, two in-situ chemical oxidation remediation events, and high-vacuum groundwater extraction. Attainment sampling

revealed that soil and groundwater concentrations were below the non-residential (NR), used aquifer (UA) statewide health standard (SHS) medium-specific concentrations (MSCs) for constituents of interest.

Release Description

On October 3, 2019, PADEP was notified of a confirmed release at the facility. The release was a result of failed tightness tests for two of the four former 8,000-gallon USTs (Tanks 002 and 003) containing unleaded gasoline. PADEP Incident No. 53984 was assigned to the release.

PADEP subsequently requested a video inspection of the inside of the remaining two 8,000-gallon USTs (Tanks 001 and 004) containing diesel fuel and unleaded gasoline, respectively. Video inspection of Tanks 001 and 004 was performed on November 8, 2019, in which both tanks were determined to be in poor condition. All four USTs were removed from service following testing/inspection.

Former Tanks 001, 002, 003, and 004 were closed via removal on January 7, 2020. Localized soil and groundwater contamination was confirmed at the time of the closure. PADEP was notified of the release on January 8, 2020, in which PADEP Incident No. 54371 was assigned.

According to the Site Characterization Report (SCR) submitted to PADEP on January 24, 2022 (revised and resubmitted on May 12, 2022), a product line test was performed on an unspecified date prior to the recertification of the UST system with new tanks installed February 11, 2020 (Tanks 007, 008, and 009). The test revealed a failure of an unleaded gasoline product line. PADEP was notified of a release on March 12, 2020. According to the SCR, the product line was repaired, and no evidence of a release was documented in the SCR. The location of the product line failure was not specified in the SCR and is unknown at this time.

Characterization and Remedial Activities

An SCR was submitted to PADEP on January 24, 2022 (revised and resubmitted on May 12, 2022), and Remedial Action Plan (RAP) submitted on March 30, 2022 (Attachments 5d and 5e). PADEP approved the SCR and RAP in a letter to the claimant dated May 26, 2022 (Attachment 5f). The SCR and RAP identified the selected remediation standard as the SHS for soil and groundwater.

As discussed in the SCR, interim remedial actions were completed to remove potentially contaminated soil and groundwater following the January 7, 2020, closure of Tanks 001, 002, 003, and 004. According to the UST Closure Report (Appendix G of the SCR), approximately 873 tons of presumed impacted soil and approximately 32,000 gallons of water were removed from the excavation and managed offsite. The excavation limits are depicted in Figure 3.

According to the UST Closure Report, eight sidewall samples (SW-1 through SW-8) and two water samples (Grab Sample-1 and Grab Sample-2) were collected from within the excavation between

January 17 and 20, 2020, following removal of the UST system. From review of supplemental data provided by the Solicitor's consultant and not included in the UST Closure Report, an additional 14 soil samples (PB-1 through PB-12, PB-7 12', and PB-8 12') were collected from within the former UST area between January 8 and 9, 2020, and analyzed for PADEP unleaded gasoline short-list parameters (Attachment 5g). The samples were presumably collected from below the former UST locations based on depth information provided. The sample locations are shown in Attachment 5g. These data along with the UST closure excavation water sample results indicated the presence of petroleum-impacted soil and groundwater in the vicinity of the UST area.

Subsequent characterization activities described in the SCR consisted of the installation and sampling of ten monitoring wells (MW-1 through MW-10). Soil samples were collected during drilling of seven of the ten monitoring wells for analysis of the PADEP unleaded gasoline short-list parameters. Soil and groundwater samples collected during site characterization activities demonstrated additional on-site impacts to soil and groundwater. SPL was measured in one monitoring well (MW-9) and interim remedial actions were performed consisting of multiple enhanced fluid recovery (EFR) events using a vacuum tanker truck between March 2021 and March 2022. Absorbent socks were utilized for passive SPL recovery in MW-9 between EFR events.

Surface Topography

As shown on Figure 2, the topography of the site and surrounding area is relatively flat with a general southwestern slope. The elevation of the ground surface in the vicinity of the site is approximately 250 feet above mean sea level (amsl). The closest surface water body to the site is an unnamed tributary to Mill Creek located approximately 3,000 feet to the northwest.

Geology and Hydrogeology

According to Physiographic Provinces in Pennsylvania, compiled by W. D. Sevon, and published by the Commonwealth of Pennsylvania, Department of Conservation and Natural Resources (2000), the site is underlain by the Piedmont Upland Section of the Piedmont Physiographic Province. Bedrock underlying the site is mapped as Precambrian age felsic gneiss. Soil underlying the site is mapped by the United States Department of Agriculture (USDA) as Urban Land, zero to eight percent slopes.

Site-specific geologic information from previous characterization activities indicates that a soil thickness of up to 33 feet underlies the site, consisting of sandy silt and clay with some weathered bedrock. From March 2020 through January 2022, depth to groundwater measurements in monitoring wells ranged from approximately 14 to 21 feet below top of well casing (BTOC). The 2012 RACR notes historical depth to water at the site between eight and 28 feet BTOC.

As shown on Figure 4, the inferred direction of localized groundwater flow is to the northwest, based on water level data from January 24, 2022. The 2012 RACR indicates that the predominate

flow direction is to the north-northwest and west, however also states that the mapped flow direction has varied with fluctuations in groundwater levels between the northwest, west, southwest, south, and southeast.

As discussed in the 2012 RACR, calculated hydraulic conductivity values ranged from approximately 0.9 feet per day (ft/day) to 8.7 ft/day, with an average of 4.5 ft/day across the site based on analysis of data from rising head slug tests performed in monitoring wells. The slug test documentation is included in Appendix E of the RACR.

Soil Quality

Soil sample analytical data is presented in the UST Closure Report, supplemental UST closure soil sample data summary (Attachment 5g), the SCR, the RAP. According to the UST Closure Report, all excavation sidewall soil samples (SW-1 through SW-8) had no detections of the PADEP unleaded gasoline short-list parameters. However, as shown in Attachment 5g, all UST closure soil samples collected from below the former UST locations (PB-1 through PB-12, PB-7 12', and PB-8 12') had concentrations greater than the respective confirmatory sample action levels, except for PB-11.

Figure 5 depicts soil sample locations as part of the subsequent site characterization activities with concentrations greater than the NRUAMSCs. The seven soil characterization samples collected from borings (MW-1 through MW-5, MW-8, and MW-9) were presumed to be collected from saturated soil. Three of the seven soil characterization samples reported concentrations that exceeded the NRUAMSCs. All three of these borings were located within the paved area west of the dispenser area and northeast of the former UST field. Sample locations, depths, and parameters with concentrations greater than MSCs are as follows:

1. MW-2 (23.5 feet bgs) – benzene,
2. MW-8 (22.5 feet bgs) –1,2,4-trimethybenzene (124TMB), and
3. MW-9 (23 feet bgs) – naphthalene and 124TMB.

Groundwater Quality

Groundwater analytical data is presented in the UST Closure Report, SCR, and the RAP. According to the UST Closure Report, the benzene concentration in one of the two excavation water samples (Grab Sample-2) was greater than the respective confirmatory sample action level.

Figure 4 depicts the existing monitoring well locations. Four of the ten monitoring wells have concentrations greater than the NRUAMSCs, three of which coincide with the soil sample exceedance locations. Sample locations and parameters with concentrations greater than the NRUAMSCs are as follows:

1. MW-1 – benzene and methyl tert-butyl ether (MTBE),
2. MW-2 – benzene, naphthalene, toluene, 124TMB, and 1,3,5-trimethylbenzene (135TMB),
3. MW-8 – benzene, ethylbenzene, naphthalene, 124TMB, and 135TMB,

4. MW-9 – benzene, ethylbenzene, MTBE, naphthalene, toluene, 124TMB, 135TMB, and xylenes (total).

Separate-Phase Liquid

SPL has been consistently measured in monitoring well MW-9 since its installation in February 2021, at thicknesses ranging from 0.17 to 1.83 feet. The most recent thickness measurement discussed in the RAP was from February 2022 at 0.11 feet.

Scope of Work (SOW)

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. The RFB was presented to PADEP for possible review; no comments were received.

Objective

This SOW includes additional site characterization activities as part of a Defined Scope of Work RFB. Following completion of the SOW in this RFB, remaining corrective action activities necessary for the Solicitor to obtain relief from liability will either be competitively bid or the consultant selected for this RFB may be invited to continue work under a fixed-price remediation agreement.

Constituents of Concern (COCs)

The COCs for this Site are the PADEP unleaded gasoline short-list parameters that include benzene, toluene, ethylbenzene, xylenes (total), isopropylbenzene (cumene), MTBE, naphthalene, 124TMB, and 135TMB.

General SOW Requirements

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);

- Pennsylvania Code, Title 25, Chapter 250 - Administration of Land Recycling Program; and
- The PADEP Land Recycling Program Technical Guidance Manual dated March 27, 2021 (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, the selected consultant shall:[1]

- Conduct necessary, reasonable, and appropriate project planning and management activities. Such activities may include Solicitor communications/updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling, and other activities (e.g., utility location). 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. 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.

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

Site-Specific Guidelines

- **Responsibility**: Upon execution of the Remediation Agreement, the selected consultant shall become the consultant of record for the Site and the Solicitor. It is expected that the consultant will represent the interest of the Solicitor and PAUSTIF during the execution of all aspects of the project associated with this RFB.
- **Field Work**: Provide 72-hour advance notification to the Solicitor prior to field work activities. Field activities should be conducted Monday through Friday between 8:00 AM to 5:00 PM, unless authorized by the Solicitor.
- **Safety Measures**: Each bidder should determine the level of safety measures needed to appropriately complete the work. If a bidder believes it is appropriate and necessary to implement safety measures other than or beyond what is required in the SOW, it should be included in their bid response and fixed-price cost. If a bidder includes costs to conduct specific safety measures or activities, the bidder should specify it in the bid response and discuss why it is appropriate and necessary and indicate which methods will be utilized and to what extent. Cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures.
- **Investigation Derived Waste Disposal**: Investigation derived waste (IDW), including soil/rock cuttings, development and purge water, SPL (if present), and liquids, should be disposed of per the instructions included in the "General SOW Requirements" section of the RFB. The selected consultant will be responsible for arranging any off-site waste disposal (as required) and including costs in their bid response to cover the disposal of all potential waste related to the milestones included in the SOW. Containerized IDW may be temporarily stored on Site at a location agreeable to the Solicitor and should be removed from the Site in a timely manner. Except for IDW volumes specified in Milestones F and G, and Optional Milestones P and Q, PAUSTIF will not entertain any assumptions on the contract for costs regarding a volume of waste. Bidders are responsible for including costs to manage and dispose of all anticipated volumes of waste in your bid response based on professional opinion, experience, and data provided. Invoices submitted to cover additional costs for waste generated as part of activities included under the fixed price contract for this Site will not be paid.
- **Milestones Requiring Approval Prior to Initiation:** This RFB includes Optional Milestones K through T that may not be reasonable and necessary to perform based on the information gathered by the selected consultant upon completion of the SOW for Site-Specific Milestones A through J. Therefore, the selected consultant shall obtain approval from the Solicitor and PAUSTIF (for funding consideration) prior to initiating optional milestones.

Site-Specific Milestones

Bidders shall provide costs for each Milestone in Attachment 4. The cost for each Milestone shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, expenses, and waste handling.

Milestone A – Private Utility Mark-out. Conduct a private utility mark out to confirm locations of underground utilities within ten feet of the proposed soil borings and monitoring wells. The mark-out is to include notification to the Pennsylvania One Call System, discussions with the Solicitor regarding utilities, review of utility drawings for the facility, and a geophysical survey using ground-penetrating radar (GPR), metal detectors, and utility/line locators. The mark-out should include determining the location, construction, use, and depth of underground utilities (e.g., storm sewers, sanitary sewers, water supply lines, drainage pipelines, and conduits) and UST system components (tanks and pipelines).

Underground utilities and UST system components shall be marked on the ground surface with paint and/or stakes during the mark out and photographed. A report shall be prepared with the results of the private utility mark out, a figure showing locations of underground utilities, and a copy of the geophysical survey report. If any proposed boring or well locations require re-location by more than ten feet due to proximity to underground utilities, the selected bidder shall contact Solicitor and PAUSTIF for funding approval.

Milestone B – Obtain Off-Property Access. Secure off-site access to monitoring wells MW-6, MW-7, and MW-10 on the respective properties shown on Figure 3 (Parcel IDs 21-003-177-001 and 21-007-043) to perform well gauging, sampling, and abandonment services. According to the Solicitor's consultant, MW-10 was installed in 2021 and an agreement with Pennsylvania Department of Transportation (PennDOT) was executed to install and access the well location within PennDOT's right-of-way (ROW). No information was provided on access agreements for the MW-6 and MW-7 locations.

Prior to securing access, the selected consultant shall confirm if wells MW-6 and MW-7 are within the PennDOT ROW. If the wells are outside of the ROW, access shall be secured by obtaining contact information for the owner(s) of the respective properties, contacting the property owner(s) (verbally and/or in writing), answering questions from the property owner(s), preparing an access agreement, and executing the agreement. If these wells are located within the PennDOT ROW, the selected consultant shall obtain access through the appropriate channels.

The milestone schedule shall provide one week for Solicitor and PAUSTIF review of the draft access agreement(s). The final agreement(s) shall address comments received from the Solicitor and PAUSTIF on the draft agreement(s) before it is submitted to the property owner. The cost should also cover the required effort necessary to provide the PADEP with the information they would need to assist in facilitating access to the property.

Milestone B activities shall be completed as soon as possible following execution of the Remediation Agreement. Providing this cost does not commit the consultant to obtaining an access agreement.

Milestone C – Soil Boring Installation and Sampling. Soil boring installation and sampling shall be conducted to further assess the magnitude and extent of soil impacts. As shown on Figure 5, 11 soil borings shall be advanced to a depth of 21 feet bgs. Continuous geological logs shall be prepared for each boring by or under the supervision of a Pennsylvania-licensed Professional Geologist using an accepted classification system (i.e., Modified Burmister or Unified Soil Classification System [USCS]).

Soil borings shall be advanced using direct push technology (DPT) and screened for total volatile organic compounds (VOCs) at two-foot intervals via headspace measurements. Headspace measurements shall be collected using a calibrated photoionization detector (PID) or flame ionization detector (FID), and using a consistent head-space type analysis within 20 minutes of sample collection as follows:

- Transfer soil sample into a dedicated resealable polyethylene bag and seal the bag,
- Manually break up soil clumps and shake the bag,
- Allow headspace development for at least ten minutes at approximate room temperature,
- Introduce the instrument sampling probe through a small opening in the bag into the headspace, and
- Record the highest field screening response.

Two discrete samples per soil boring location shall be collected, one from unsaturated soil (approximately one to 13 feet bgs) and one from saturated soil (approximately 14 to 21 feet bgs) based on field screening results. Samples shall be collected in laboratory-provided containers and submitted for analysis at a PADEP-accredited laboratory using appropriate analytical methods and detection levels for the substances listed in the COC section of this RFB.

In addition to the discrete laboratory analytical samples, a total of five discrete soil samples shall be collected for grain size analysis including quantification of silt and clay content. Samples shall be collected from depths that provide a representative sampling of the stratigraphic and lithologic characteristics of the site. Samples shall be submitted to a laboratory for sieve and hydrometer analysis using American Society for Testing and Materials (ASTM) D422 or equivalent method.

Analytical results, including a particle-size distribution (gradation) curve, shall be provided in a report prepared by the laboratory. Samples shall be collected during drilling from any of the soil borings or monitoring wells described in Milestone D.

Milestone D – Monitoring Well Installation. Drill, sample, construct, and develop five monitoring wells, MW-11 through MW-15, at the locations shown on Figure 4. The well installations shall be completed under the supervision of a Pennsylvania-licensed Professional Geologist.

Each well location shall be pre-cleared prior to drilling. Pre-clearing shall be completed to a diameter equal to or greater than the diameter of the down-hole drilling equipment to a minimum depth of five feet bgs.

Prior to well construction activities, soil borings shall be completed with collection of soil samples at each corresponding monitoring well location using the methodology described in Milestone C.

Upon completion of soil borings and soil sample collection, the monitoring wells shall be completed and developed in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, included as Appendix A to the PADEP's Technical Guidance Manual (TGM) as follows:

- Complete two-inch diameter monitoring wells to depths of 30 feet bgs. The wells shall be installed using hollow-stem auger drilling methods and constructed using schedule 40 polyvinyl chloride (PVC) materials with screen installed from depths of 10 to 30 feet bgs.
- Each new monitoring well shall be developed no sooner than 24 hours following construction. The objective of development is to remove fine-grained material from the well/filter pack and provide hydraulic communication between the well screen and surrounding formation. A surge block combined with a water removal mechanism (e.g., air lift or pump) shall be used for development. The surge block shall be raised and lowered over the entire length of the well screen several times concurrent with water removal. Development should be performed for a minimum of one hour or until turbidity is measured at less than ten Nephelometric Turbidity Units (NTUs) in three consecutive discharge water samples, whichever is sooner.
- Bidders shall include in their bid response procedures for well drilling, construction, and development.

The wells shall be completed at the surface in a monitoring well manhole with a water-tight lid, set in concrete flush with the ground surface. A locking, pressure-fit, watertight cap shall be placed on each well to prevent surface water infiltration and to restrict unauthorized access.

A log for each well shall be prepared that includes classification of encountered soils/rock using a standard and consistent classification system procedure (e.g., Modified Burmister or USCS) and construction details. The headspace screening results must be recorded on all logs. The logs shall be prepared under the supervision of a Pennsylvania-licensed Professional Geologist.

Milestone E – Site Survey. Complete a site survey by a Pennsylvania-licensed Professional Land Surveyor. The survey should include the convenience store building, underground utilities identified during the private utility mark out, UST system components, existing monitoring wells, new monitoring wells, and property and right-of-way boundary lines.

The survey shall be referenced to the Pennsylvania State Plane coordinate system with reference to the North American Datum of 1983 (NAD 83) and feature elevations shall be surveyed to a vertical accuracy of 0.01 feet using the North American Vertical Datum (NAVD 88).

The Site survey results shall be documented in a report that is signed and sealed by a Pennsylvania-licensed Land Surveyor that includes the following:

- Scaled map showing surveyed features,
- Tabulated information for monitoring wells (top of well casing and ground surface elevations and geographic coordinates [northings and eastings]), and
- References to datums used for the survey.

Milestone F – Groundwater Monitoring and Sampling. Perform two rounds of groundwater monitoring and sampling, an initial event and second confirmatory event. The initial event (Milestone F1) includes the new Milestone D monitoring wells and shall be completed no sooner than two weeks following development. The second event (Milestone F2) is to include all existing and new monitoring wells (MW-1 through MW-15) and shall be completed no sooner than four weeks following the initial event. The second event shall be completed so it occurs during the calendar quarter following the most recent quarterly groundwater sampling event performed by the consultant retained by the claimant prior to the execution of the Remediation Agreement associated with this RFB.

During each event, the depth to groundwater and SPL thickness (if present) in all site wells shall be gauged (measured) prior to purging for sampling, and calculated groundwater elevations in each well shall be adjusted to account for SPL if present. If a measurable thickness of SPL (greater than 0.01 feet) is present in a well, the SPL shall be removed, and the volume removed measured and recorded prior to the collection of a groundwater sample. Absorbent socks previously installed in wells as part of Milestone G and Optional Milestone Q activities shall be removed, weighed, and replaced in accordance with the procedure described in Milestone G. For the purposes of this RFB, bidders shall assume that:

- Measurable SPL will be present in one well that needs to be removed prior to purging and sampling during each event,
- One absorbent sock will be removed, weighed, and replaced in one well in accordance with the procedure described in Milestone G,
- One gallon of SPL will be recovered and need to be containerized and disposed, and

- Recovered SPL shall be combined and disposed with recovered liquids from Milestone G or Optional Milestone Q.

All monitoring wells shall be purged using a low-flow method and sampled in general accordance with the Groundwater Monitoring Guidance document, included as Appendix A to the PADEP's TGM. Field parameters to be measured and recorded at each well during purging shall consist of pH, temperature, specific conductance, dissolved oxygen (DO), and oxidation/reduction potential (ORP). Groundwater and quality assurance/quality control (QA/QC) samples shall be collected in laboratory-provided containers and analyzed by a PADEP-accredited laboratory using appropriate analytical methods and detection levels for the substances listed in the COC section of this RFB.

Bidders are required to provide in their bid response document the following:

- Purging and sampling methods,
- SPL removal, containerization, and disposal procedures,
- QA/QC sample collection protocols, and
- Laboratory analysis methods.

Milestone G – Separate Phase Liquid Recoverability Assessment. An assessment of the recoverability of SPL at monitoring well MW-9 shall be performed. The assessment shall be performed once per week for one month followed by once every other week for three months (a total of ten events). Each event shall be performed using the steps listed below, performed in order.

1. Remove the petroleum absorbent sock from the well.
2. Allow the sock to completely drain of water prior to proceeding to Step 3. All recovered water shall be contained for proper treatment or disposal.
3. If the petroleum absorbent sock(s) was installed as part of this SOW (weighed prior to installation), weigh the petroleum absorbent sock and quantify the volume of SPL in gallons recovered via converting the weight to volume.
4. Using an electronic conductance-type interface probe with a 0.01-foot resolution, determine if measurable SPL is present in the well and record the measurement.
5. If measurable SPL is present at a thickness of 0.01 feet or greater, manually remove the SPL using a disposable bailer or peristaltic pump. The removal of SPL using a disposable bailer should be performed in a manner that maximizes the removal of SPL and minimizes the removal of groundwater and groundwater drawdown within the well. The volume of SPL removed from the well using a disposable bailer shall be quantified in gallons.
6. Install one new, pre-weighed petroleum absorbent sock in the well.

Following the SPL recoverability assessment, the results of the assessment shall be included with the Remedial Action Progress Report (RAPR) as part of Milestone H. Information from the

assessment shall include a summary of the field investigation performed as part of Milestone G and include a maximum extent practicable (MEP) evaluation for SPL recovery. The evaluation will include a tabulated summary of SPL thickness and recovery measurements, and a graphical depiction of SPL thickness and recovery estimates over time. The graphical depiction will include historical SPL measurements and groundwater elevations to provide an assessment of potential correlations between fluctuating water levels in the wells and SPL thicknesses.

The SPL recoverability assessment shall include a determination whether SPL has been removed to the MEP. If SPL has not been removed to the MEP, the assessment shall include recommendations for removing SPL to the MEP. Bidders are required to provide in their bid response document a description of the data analysis techniques that will be used as part of the MEP evaluation.

The SPL Recoverability Assessment shall be prepared in draft form and included as part of the RAPR described in Milestone H for review and comment by the Solicitor and the PAUSTIF in accordance with the timeframe described in Milestone H. In the event SPL is encountered in additional monitoring wells, an SPL Recoverability Assessment will be performed for each additional well as described in Optional Milestone Q with a discussion of the results included with the RAPR in Milestone H.

Bidders shall assume that one gallon of SPL will be recovered and treated or disposed during each of the ten monitoring/recovery events (total of ten gallons). Bidders are also required to provide SPL/water removal, containerization, and disposal procedures in their bid response document.

Milestone H – Preparation of Remedial Action Progress Report (RAPR). Prepare a RAPR presenting data and results generated during the completion of Milestones A through G. The RAPR shall include the following:

- Comprehensive well gauging data (water and SPL) in tabular form with calculated groundwater elevation values being adjusted for SPL if present,
- Comprehensive soil and groundwater quality analytical results in tabular form,
- One groundwater elevation contour map for each monitoring event with discussion of groundwater flow direction,
- Time versus concentration graphs for wells with COC concentrations in groundwater samples that exceed the NRUAMSCs,
- Iso-concentration maps for the substances that exceed the NRUAMSCs,
- Laboratory reports, chains of custody forms, and field sampling documentation,
- Geologic logs for soil borings installed in Milestone C and Optional Milestone K,
- Geologic, construction, and development logs for the wells installed in Milestone D and Optional Milestone N,
- Measurements of SPL in monitoring wells and amounts recovered, and

- Results of the SPL Recovery Assessment as described in Milestone G and Optional Milestone Q.

Groundwater elevation contour maps shall be contoured in feet amsl with evenly distributed contour values. Inferred direction of groundwater flow shall be illustrated using flow direction arrows.

Iso-concentration contour maps shall be constructed with the lowest contour value equal to the corresponding NRUAMSC for the respective COC. Contour interval values will then increase on a base-10 logarithmic scale from the base contour interval (e.g. benzene contours would consist of 5, 50, 500 µg/L contours, etc.).

The RAPR shall be prepared in draft form for review and comment by the Solicitor and the PAUSTIF. The draft RAPR shall be provided within 60 days following the completion of Milestones A through G. The timeframe for the completion of the RAPR shall provide two weeks for the Solicitor's and PAUSTIF's review and the selected consultant shall address comments received from the Solicitor and the PAUSTIF before submission of the RAPR to PADEP. The RAPR shall be signed and sealed by a Pennsylvania-licensed Professional Geologist.

Milestone I – Updated Conceptual Site Model (CSM) and Remedial Alternatives Report. An updated CSM shall be prepared based on evaluation of the results from historical site investigations and the additional site characterization activities performed as part of this SOW. The CSM shall be developed in accordance with 25 Pa. Code § 245.310 and consistent with guidance described in the PADEP's TGM and ASTM International E1689-95 (2008) *Standard Guide for Developing Conceptual Site Models for Contaminated Sites*. Information considered in developing the CSM shall consist of, but should not be limited to:

- Summary of stratigraphic and lithologic characteristics,
- Discussion of the type and characteristics of the released substance,
- Calculations of contaminant mass and distribution of the released substance in soil and groundwater,
- Discussion of groundwater elevations and flow direction,
- Summary of aquifer parameters,
- Assessment of contaminant fate-and-transport,
- Results of the SPL recovery assessment and conclusions as to whether SPL has been removed to the MEP,
- Discussion of current and projected future land use and institutional controls,
- Identification of potential sensitive receptors,
- Evaluation of exposure pathways, and
- Identification of data gaps

The exposure pathway evaluation shall identify all potential current and future exposure pathways from contaminated soil, soil vapor, groundwater, and SPL associated with the release, to onsite and offsite human and environmental receptors, and shall be conducted in accordance with 25 Pa. Code § 250.402 and guidance described in the PADEP TGM.

The evaluation shall include a vapor intrusion (VI) assessment. The first step in the assessment shall identify potential vapor intrusion sources as defined in Section IV of the TGM. Soil and groundwater data collected as part of Milestones C, D, and F shall be used for comparison to the SHS VI screening values. If soil or groundwater concentrations exceeding the SHS VI screening values are identified, the locations of the exceedances shall be reviewed relative to proximity distances in accordance with the TGM to determine whether the identified concentrations represent a potential VI source to the existing site building. The location(s) of SPL as identified in Milestones F and G shall also be reviewed relative to proximity distances. If no potential VI source is present, no additional evaluation is necessary. If the screening process demonstrates that a potential VI source is present, a sub-slab soil gas sampling program shall be conducted within the site building under Milestone J.

Upon completion of the updated CSM and exposure pathway evaluation and in accordance with 25 Pa. Code § 245.310 (a) (30), a summary of remedial action options shall be completed to evaluate cleanup alternatives/potential remedial actions that may be appropriate for attaining the SHS for soil and groundwater at the site. The evaluation should include a description of each option, conceptual design, and additional investigation and/or testing to complete the design of each option.

The updated CSM, results and discussion of the exposure pathway evaluation, and findings of the remedial alternatives will be presented in a stand-alone report. The report shall be prepared in draft form for review and comment by the Solicitor and the PAUSTIF. The draft report shall be provided within 90 days following completion of Milestones A through G, and Milestone J (if performed). The report shall be submitted in draft format for the Solicitor's and PAUSTIF's review and the selected consultant shall address comments received from the Solicitor and the PAUSTIF before finalizing the report. The report shall be signed and sealed by a Pennsylvania-licensed Professional Geologist and a Professional Engineer (if applicable).

Milestone J – Vapor Intrusion (VI) Sampling. The purpose of this milestone is to allow for VI sampling based on findings from Milestone I assessment results. Work performed under this Milestone is contingent upon the results of the VI assessment performed under Milestone I, the bidder successfully demonstrating that performing the work is reasonable and necessary, and performance of this Milestone has been agreed to by the Solicitor and PAUSTIF.

VI sampling shall be performed in accordance with Section IV of the TGM as follows:

- Install two sub-slab soil gas sampling points in the lowest accessible level of the site building. 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 Section IV of the TGM.
- The sampling points shall be sampled twice, and each sampling event shall utilize QA/QC procedures described in the TGM including a pre-sampling survey and chemical inventory, leak testing, and collection of one duplicate sample per sampling event. The sampling events shall be separated by at least 45-days.
- The sub-slab soil gas samples shall be analyzed by EPA Method TO-15 for substances listed in the COC section of this RFB.

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 elements 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, etc.).

Optional Milestones

All bidders shall provide the cost for each Optional Milestone included in this SOW in Attachment 4. The cost for each Optional Milestone shall include, but not be limited to, mobilizations, subcontracts, labor, equipment, expenses, and waste handling/disposal. The activation of Optional Milestones requires the prior approval from the Solicitor and PAUSTIF (for funding).

Optional Milestone K – Installation of Additional Soil Boring. Pre-clear and install one additional soil boring following the SOW in Milestone C as follows:

- Optional Milestone K1 – Install one additional soil boring during a separate mobilization event.
- Optional Milestone K2 – Install one additional soil boring as an add-on to Milestone C or Optional Milestone K1 where the mobilization cost has already been included.

Optional Milestone L – Soil Sampling. Collection and laboratory analysis of one soil sample during Milestone C and D activities in laboratory-provided containers and analyzed by a PADEP-accredited laboratory using appropriate analytical methods and detection levels for the substances listed in the COC section of this RFB. This cost will be used to modify the reimbursement for Milestones C and D, and Optional Milestones K and N in the event more or less than two soil samples are collected during the soil boring and monitoring well installation phases.

Optional Milestone M - Geotechnical Sampling. Collection and laboratory analysis of one geotechnical soil sample during Milestone C activities in accordance with methodology discussed in Milestone C. This cost will be used to modify the reimbursement for Milestone C, and Optional Milestone K in the event more or less than five geotechnical samples are collected during the soil boring and monitoring well installation phases.

Optional Milestone N – Installation of Additional Monitoring Well. Pre-clear, drill, sample soil, construct, and develop one additional monitoring well following the SOW in Milestone D as follows:

- Optional Milestone N1 – Install one additional monitoring well during a separate mobilization event.
- Optional Milestone N2 – Install one additional monitoring well as an add-on to Milestone D or Optional Milestone M1 where the mobilization cost has already been included.
- Optional Milestone N3 – Provide a per-foot cost to modify the reimbursement for installation of a monitoring well accounted for by Milestone D or Optional Milestones N1 and N2 if a well is advanced shallower or deeper than the prescribed depth of 30 feet bgs.

Optional Milestone O - Update Site Survey. Update site survey to include Optional Milestone N wells following the SOW in Milestone E.

Optional Milestone P – Additional Groundwater Monitoring and Sampling. Perform additional groundwater monitoring and sampling in accordance with the SOW in Milestone F as follows:

- Optional Milestone P1 – Complete one round of water level measurements from all site monitoring wells and one sampling event from all Site monitoring wells (MW-1 through MW-15) for the substances listed in the COC section of this RFB consistent with the procedures described in Milestone F.
- Optional Milestone P2 – Complete one round of water level measurements from all site monitoring wells and one sampling event from all existing site monitoring wells (MW-1 through MW-10) for the substances listed in the COC section of this RFB consistent with the procedures described in Milestone F.
- Optional Milestone P3 – Complete one round of water level measurements from all site monitoring wells and sample MW-11, MW-12, MW-13, MW-14, and MW-15 for the substances listed in the COC section of this RFB consistent with the procedures described in Milestone F.
- Optional Milestone P4 – Complete sampling of one monitoring well for the substances listed in the COC section of this RFB as an add-on to a Milestone or Optional Milestone where mobilization cost has already been included. This cost will be used to modify the reimbursement for Milestone F and Optional Milestone P in the event more or less than the prescribed number of monitoring wells are sampled during the groundwater monitoring and sampling tasks.

- Optional Milestone P5 – Complete SPL measurement, and removal, weighing, and replacement of one absorbent sock at one well in accordance with the SOW described in Milestone F.
- Optional Milestone P6 – Collect one additional gallon of SPL to be containerized and treated or disposed. This cost will be used to modify the reimbursement for Milestone F, G, and Optional Milestones P and Q in the event more or less than one gallon of SPL is recovered and collected during the groundwater monitoring and sampling tasks.

Optional Milestone Q – Separate Phase Liquid Recoverability Assessment. Perform additional SPL monitoring and recovery in accordance with the SOW in Milestone G as follows:

- Optional Milestone Q1 – Perform an additional SPL recoverability assessment at one additional well over the course of ten events, in accordance with the SOW described in Milestone G. This Optional Milestone assumes that mobilization costs have already been included in Milestone G.
- Optional Milestone Q2 – Perform one SPL measurement and recovery event at one well in accordance with the SOW in Milestone G. This stand-alone optional milestone shall include a mobilization cost and shall be used to modify the reimbursement for Milestone G and Optional Milestone Q in the event a reduction in the number of site visits is necessary (e.g., if SPL is no longer recovered prior to completing ten events).

Optional Milestone R – Additional Vapor Intrusion (VI) Sampling. Perform one additional sub-slab soil gas sampling event in accordance with the procedure described in Milestone J. The event would include sampling the two sub-slab soil gas sampling points installed as part of Milestone J.

Optional Milestone S – Preparation of Additional Remedial Action Progress Report (RAPR). Prepare and submit a RAPR to PADEP in accordance with the SOW in Milestone H. The purpose of Optional Milestone S is to facilitate reporting of additional groundwater monitoring data collected in Optional Milestone P as follows:

- Optional Milestone S1 - Monitoring and sampling in support of Optional Milestones P1 and P2.
- Optional Milestone S2 - Monitoring and sampling in support of Optional Milestone P3.

Optional Milestone T – Monitoring Well Repairs. Complete monitoring well surface completion repairs as indicated below. PAUSTIF reimbursement of well repair costs are considered on an individual basis. Prior approval (for reimbursement) shall be requested and should include documentation of the necessity of well repair, how the well was damaged (if known) and photos of the damaged well.

- Optional Milestone T1 – Minor repair of a well surface completion that includes the costs to replace manhole lid bolts, manhole lid O-ring, lockable monitoring well “J” plug, and lock. Assume the minor repair will be completed as an add-on to a Milestone or Optional

Milestone where mobilization cost has already been included.

- Optional Milestone T2 – Major repair of a well surface completion that includes the costs to remove, dispose of, and replace the concrete pad and manhole, and the replacement of the "J" plug and lock. Assume the major repair will be completed as an add-on to a Milestone or Optional Milestone where mobilization cost has already been included.
- Optional Milestone T3 – Major repair of a well surface completion that includes the costs to remove, dispose of, and replace the concrete pad and manhole, and the replacement of the "J" plug and lock. Assume the major repair will be completed as a stand-alone optional milestone where mobilization cost is included.

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 2, 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 (for funding consideration). PADEP approval may also be required.

List of Attachments

1. Bid Submission Coversheet
2. Remediation Agreement
3. Required Responses Submission Form
4. Bid Cost Submission Form
5. Site Information/Historic Documents
    a. Figures 1 through 5
        Figure 1 – Site Location Map
        Figure 2 – Site Features Map
        Figure 3 – Site Plan
        Figure 4 – Groundwater Data and Proposed Well Locations
        Figure 5 – Proposed Soil Boring Location Map
    b. Site Characterization Report Addendum / Remedial Action Completion Report, December 2012
    c. SCRA / RACR Approval, February 11, 2013
    d. Site Characterization Report, May 2022
    e. Remedial Action Plan, March 2022
    f. SCR / RAP Approval, May 26, 2022
    g. Supplemental UST Closure Soil Sample Data, January 8-9, 2020