Request for Bid

Fixed-Price Defined Scope of Work

ADDITIONAL SITE CHARACTERIZATION, ATTAINMENT DEMONSTRATIONS, RACR PREPARATION AND SITE RESTORATION

Solicitor

Mr. Randy Ebersole
Ebersole, Inc.
1900 Cumberland Street
Lebanon, PA 17042

PADEP Facility ID #: 38-25931 PAUSTIF Claim #: 2004-0263(S)

Date of Issuance

September 12, 2013

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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 has an open claim with the PAUSTIF and the corrective action work will be completed under this claim. Reimbursement of Solicitor-approved, reasonable and necessary costs up to claim limits for the corrective action work described in this RFB will be provided by PAUSTIF subject to 90% proration. Solicitor is responsible to pay any applicable deductible and/or proration.

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 http://www.insurance.pa.gov.

Calendar of Events

Activity	**Date and Time**
Notification of Intent to Attend Site Visit	September 25, 2013 by 5 p.m.
Mandatory Pre-Bid Site Visit	September 30, 2013 at 11 a.m.
Deadline to Submit Questions	October 10, 2013 by 5 p.m.
Bid Due Date and Time	October 18 2013 by 3 p.m.

Contact Information

ICF International	Solicitor	Technical Contact
Ms. Bethany Smith **ICF International** **4000 Vine Street** **Middletown, PA 17057**	**Mr. Randy Ebersole** **1900 Cumberland Street** **Lebanon, PA 17042**	**Ms. Mary Lynn Yurko, P.G.** **Excalibur Group, LLC** **149 Stonegate Drive** **McMurray, PA 15317** **mlyurko@verizon.net**

All questions regarding this Request for Bid (RFB) and the subject site conditions must be directed via e-mail 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 **"Ebersole, Inc., Claim #2004-0263(S) – RFB QUESTION".** Bidders must neither contact nor discuss this RFB with the Solicitor, PAUSTIF, the Pennsylvania Department of Environmental Protection (PADEP), or ICF International (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

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 answer questions and conduct a site tour for one participant per bidding company. 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 "Ebersole, Inc., Claim #2004-0263(S) – SITE MEETING ATTENDANCE NOTIFICATION".** The name and contact information of the company participant should be included in the body of the e-mail.

Submission of Bids

To be considered for selection, **one hard copy of the signed bid package and one electronic copy (one PDF file on a compact disk (CD) included with the hard copy) must be provided directly to the PAUSTIF's third party administrator, ICF, to the attention of the Contracts Administrator.** The Contracts Administrator will be responsible for opening the bids and providing copies to the Technical Contact and the Solicitor. Bid responses will only be accepted from those companies that attended the mandatory pre-bid site meeting. **The ground address for overnight/next-day deliveries is ICF International, 4000 Vine Street, Middletown, PA 17057, Attention: Contracts Administrator. The outside of the shipping package containing the bid must be clearly marked and labeled with "Bid – Claim #2004-0263".** Please note that the use of U.S. Mail, FedEx, UPS, or other delivery method does not guarantee delivery to this address by the due date and time listed in the Calendar of Events for submission. Companies mailing bids should allow adequate delivery time to ensure timely receipt of their bid.

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 time-stamped and 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 site meeting of an extended due date. The hour for submission of bids shall remain the same. Submitted bid responses are subject to Pennsylvania Right-to-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 Request for Bid. 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 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 Scope of Work (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.

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. 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.

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.

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 ten.
    c. How many Pennsylvania Chapter 245 Corrective Action projects involving an approved SCR, RAP and RACR has your company and/or the Pennsylvania-licensed 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 of each of the tasks/milestones specified in the Scope of Work, and indicate the timing of all proposed key milestone activities.

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”.

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.

General Site History and Site Features

The Ebersole, Inc. (Ebersole) facility is located at 1900 Cumberland Street in Lebanon, Lebanon County, Pennsylvania (Attachment 3a - **Figure 1**) and currently supports a retail automobile dealership and related servicing operations. The parcel formerly consisted of undeveloped marshland that was graded and developed in 1959 when the Solicitor purchased the property. Existing features on this approximate 3.0-acre parcel consist of a one–story building located in the western portion of the property that houses an automobile showroom with adjoining office, parts storage, and auto maintenance areas. In addition, a single-story body shop building is located near the southeast property corner and a small storage shed is located in the central part of the property. The former UST basins and dispenser relevant to this RFB solicitation were located at the eastern side of the main showroom building. Storm water discharge flowing across the site discharges to Quittapahilla Creek which borders the southern property boundary. Traffic areas of the facility are asphalt-paved (including the former UST areas) and the former dispenser area is covered with concrete slabs and bollards. Nine permanent groundwater monitoring wells (MW-1 through MW-9) exist on the property and were installed during three previous phases of groundwater characterization activities.[1] Regarding buried utilities, a sanitary sewer line extends from east to west across the central portion of the property and storm sewer piping with catch basins extends from north to south across the center of the property. Information regarding other possible buried utilities (e.g., natural gas, public water) is not available. Overhead electric and telephone lines are present along the northern property boundary with Cumberland Street (a.k.a., Benjamin Franklin Highway or US Route 422). Key on-property features are depicted in Attachment 3a-**Figure 2**.

Properties immediately surrounding the Ebersole facility consist of commercial and residential parcels. Specifically, to the north, the facility is bordered by Cumberland Street; beyond which is a residential development. To the west, the facility is bordered by a Chinese restaurant and other commercial properties. The facility is bordered to the south by Quittapahilla Creek, beyond which are private residential properties. To the east, the facility is bordered by a corporate office center with several commercial properties and restaurants beyond.

[1] MW-1 through MW-5 were installed by Earth Resources Associates, Inc. (ERA) in September 2005; MW-6, MW-7 and MW-8 were installed by Tetrahedron Consultants, Inc. (Tetrahedron) in August 2008; and MW-9 was installed by Tetrahedron in July 2009.

Historical Underground Storage Tank Systems and Closures

July 1993 Removal of Original UST Systems

The original UST systems used at the Ebersole facility were installed in 1960 following property development and consisted of one 8,000-gallon diesel fuel UST and two 1,000-gallon leaded / unleaded gasoline USTs. These UST systems were formerly located along the east side of the Ebersole building (sales and service). The gasoline USTs were located to the south and the diesel UST was located to the north. The approximate locations are depicted in Attachment 3c.

In mid-1993, the Solicitor retained Envirocenter, Inc. (Envirocenter), Myer Oil Company, and Ginder Excavation to conduct the closure and removal of these three UST systems. The original USTs were removed and disposed off-property during the period from July 27 through 29, 1993 and were replaced with one 3,000-gallon No. 2 fuel oil UST installed in the former diesel fuel UST excavation and one 2,000-gallon unleaded gasoline UST placed in the former gasoline USTs excavation. The dispenser for the UST was located along the building (Attachment 3a - **Figure 3** - Site Layout). Additionally, an existing steel 500-gallon waste oil UST is reported to be located adjacent to the west side of the service department (Attachment 3c).

During closure of the 8,000-gallon steel diesel fuel UST, the tank was observed to be corroded with fully penetrating holes. The base of the tank was determined to be approximately 10 feet below ground surface (ft-bgs). Significant soil contamination was reported to be present and remedial soil excavation was completed until either: i) field screening indicated that the lateral extent of contamination was reached; ii) physical barriers limited further excavation; and/or iii) the presence of groundwater precluded further vertical investigation. Groundwater was observed to be present at about 11 ft-bgs within the excavation and free phase petroleum product was observed on the groundwater surface.

Envirocenter personnel collected four confirmation soil samples from the floor of the excavation, at a depth of about 11 ft-bgs, and one sample from each of the four excavation sidewalls to determine whether excessive soil impacts exceeding regulatory standards had been removed. Additionally, one grab groundwater sample was collected from the excavation pit water. Analytical results for these soil and groundwater samples indicated that an impact to soil and groundwater had occurred. Total Petroleum Hydrocarbon (TPH) was detected at 240 milligrams per kilogram (mg/kg) in Sample 01. TPH was detected at 0.956 micrograms per liter (ug/L) in the excavation water sample W-1. At that time, PADEP defined this level as Level B and generally required that owner/operators achieve as close to 100 mg/kg for cleanup.

During removal of the two 1,000-gallon gasoline USTs, the tanks were also observed to be corroded with fully penetrating holes. The base of the gasoline UST cavity was determined to be approximately 8 ft-bgs. Field screening results indicated that significant contamination was present and excavation of the contaminated soil was conducted based on the same criteria

stated above for the diesel fuel UST. A concrete pad was present beneath the two gasoline tanks which was also removed. Soil impacts were excavated to a depth of 10 ft-bgs at which point groundwater began to accumulate within the excavation. Free phase petroleum product was observed on the groundwater surface.

Three confirmatory soil samples were collected from the walls of the excavation, at a depth of approximately 10 ft-bgs, to confirm whether soil impacts exceeding the SHS had been removed. One grab groundwater sample was also obtained from the excavation. Analytical results for these soil and groundwater samples indicated that an impact to soil and groundwater had occurred, as benzene, toluene, ethylbenzene, and total xylenes (BTEX) and TPH exceeded one or more of the screening levels used by PADEP at that time (Level A, Level B, and Level C). Benzene concentrations ranged from 23.7 micrograms per kilogram (ug/kg) to 65,300 ug/kg, toluene concentrations at this excavation area ranged from 23 ug/kg to 106,000 ug/kg; ethylbenzene concentration in soil ranged from 16.1 ug/kg to 36,300 ug/kg; xylenes were detected from 83.8 ug/kg to 221,000 ug/kg; and TPH ranged from 2,190 ug/kg to 1,820,000 ug/kg in soil. Groundwater sample LW-1 from the excavation pit exceeded the benzene PADEP standard at 11.4 ug/L.

Approximately 200 to 300 tons of impacted soil were removed from the two UST cavities (UST System A and UST System B) and transported off-property for disposal. Following the UST removal / replacement work, Envirocenter Inc. submitted a UST Closure Report to the Pennsylvania Department of Environmental Resources (PADER) on August 16, 1993. The summary data table excerpted from the UST Closure Report is presented as Table 1 in Attachment 3b and a copy of the UST Closure Report is provided in Attachment 3c.

On December 16, 1993, PADER sent a letter to the Claimant (Ebersole) requesting further groundwater characterization. Earth Resource Associates (ERA) was contracted by Ebersole to complete an assessment of the degree and extent of groundwater contamination associated with the alleged leakage of diesel fuel and /or gasoline from three former USTs at the site.

Site Characterization was conducted by ERA in April and May of 1994. A Preliminary Assessment Report was prepared by ERA and submitted to PADER for review in June 1994. On October 25, 1994, the Solicitor was notified by the PADER that the Department had completed its review of ERA's report. PADER acknowledged the report was acceptable "as-is". PADER also stated no further action was necessary at that time.

December 2003 Removal of 1,000-Gallon Used Motor Oil UST

The Solicitor retained the services of GCI Environmental Services (GCI) to complete closure of a 1,000-gallon steel used motor oil UST that was formerly located along the west side of the Ebersole Pontiac building. The used motor oil tank was removed on 12/3/03 and disposed off-property. Reportedly, no significant pitting was observed and the tank interior was dry when removed. Two confirmation soil samples were collected (S-1 and S-2) and analyzed for the

PADEP short list of used motor oil parameters.[2] All results were below laboratory method detection limits for both samples. A copy of the UST Closure Report was issued by GCI to the PADEP on March 9, 2004. A copy of GCI's UST Closure Report is included in Attachment 3d.

September 2004 Removal of No. 2 Fuel Oil and Gasoline USTs

As part of its business plan, an expansion of Ebersole's operations was initiated in 2004 which included removal of the two remaining UST systems. On September 29-30, 2004, Almega Environmental, Inc. (Almega) removed the 3,000-gallon No. 2 fuel oil tank and the 2,000-gallon unleaded gasoline tank that were disposed off-property. When removed, the tanks showed no visible signs of leakage, however, the spill/overflow containment bucket at the top of the gasoline tank may have been compromised (as reported by ERA). This condition could potentially have resulted in the release of petroleum products into the environment considering that limited non-reportable overfills had reportedly occurred at the gasoline tank on several occasions. However, **no obvious contamination was observed by Almega during removal of the No. 2 fuel oil UST or the gasoline UST.** These USTs were formerly located at the eastern side of the main showroom building (Attachment 3a - Figure 3).

Following removal of the 3,000-gallon No. 2 fuel oil UST, two confirmation soil samples and two groundwater samples were collected and analyzed for benzene, ethylbenzene, isopropylbenzene, toluene, fluorene, and phenanthrene. Analytical results for both soil samples were reported as below laboratory method detection limits except for naphthalene, which was identified in one sample at a concentration of 151 ug/kg, which is substantially below the applicable soil to groundwater Statewide Health Standard (SHS) Medium Specific Concentration (MSC). Dissolved analyte concentrations were reported as below laboratory method detection limits for both groundwater samples. Four confirmation soil samples were collected from the 2,000-gallon unleaded gasoline UST excavation and analyzed for PADEP Short List of Unleaded gasoline constituents (benzene, toluene, ethylbenzene, xylenes (total), cumene, naphthalene, and MTBE). Laboratory results indicate that benzene in one of the soil samples ("Gas Mid") was present at a concentration of 1,340 ug/kg which exceeded the PADEP soil to groundwater SHS MSC of 500 ug/kg.[3] Target analyte concentrations in the other soil samples were either not detected or were below the applicable SHS MSCs. One groundwater sample was collected from the gasoline UST excavation and analyzed for the same compounds as the soil samples. Analytical results indicate that the groundwater sample contained MTBE at a concentration of 31.1 ug/L which exceeded the PADEP SHS MSC for methyl tert butyl ether (MTBE) (20 ug/L) in groundwater. There is no indication in the available reports that any over-excavation of impacted soil was completed in the 2,000-gallon unleaded gasoline UST cavity before it was backfilled. A summary of the analytical data for these UST removals is presented

[2] Required used motor oil parameters included (benzene, ethylbenzene, isopropylbenzene, naphthalene, toluene, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(ghi)perylene, chrysene, indeno(1,2,3-cd)pyrene, and pyrene).
[3] The sample identified as "Gas Mid" was collected from the base of the excavation at about 10 ft-bgs and beneath the approximate center of the tank.

in Attachment 3b-Table 2. A copy of Almega's UST closure report is included as Attachment 3e.

Summary of Historical Site Characterization Activities and Results

Overview of Site Geology and Hydrogeology

Unconsolidated deposits beneath the property have been described through historical site investigations and generally consist of imported fill materials underlain by natural sediments. More specifically, the fill materials consist of a stable soil sub-base 7-8 feet and were emplaced during site re-grading activities in 1959-1960. Drill logs indicate zones of cohesive and granular subsoils of the previous marshy area. The fill materials are underlain by silty clay with angular limestone fragments that appears to be uniformly distributed beneath the site to depths of approximately 9 to 11.5 feet. Beneath the silty clay is approximately 1.5 to 3.5 ft of greenish-gray to dark gray clay which is underlain to the north and northwest of the showroom building by about 0.5 to 4.5 ft of sandy gravel with traces of clay. Beneath these units is approximately 0.5 to 4.5 ft of dark gray to black laminated clay which immediately overlies the limestone bedrock. Limestone bedrock was encountered at a depth of approximately 15.3 ft-bgs during advancement of the borehole for well MW-9. Bedrock beneath the facility has been mapped by the Pennsylvania Topographic and Geologic Survey as the Middle Ordovician Age Epler Formation (Oe) which is a member of the Beekmantown Group (Geyer, 1958 et. al., 1983). The Epler Formation is chiefly an interbedded light-gray limestone and dark gray dolomite with an entire unit thickness reported between 650-1000 ft. (Royer, 1983).

The depth to groundwater for the shallow water table aquifer was measured between approximately 8.4 ft-bgs at MW-9 to 10.7 ft-bgs at MW-6 during the most recent August 2012 sampling event. Groundwater flow within the shallow unconsolidated deposits is toward the southeast in the general direction of Quittapahilla Creek. No aquifer testing has been conducted at the site to provide estimates of hydraulic parameters for the shallow water table aquifer.

April 1994 – ERA Preliminary Site Characterization Activities

Following the July 1993 UST removals, ERA commenced site characterization activities in April 1994 which generally consisted of soil, soil vapor and shallow groundwater sampling activities. The samples were obtained from 13 monitoring points advanced / installed in the vicinity of the UST excavation areas using direct-push drilling methods. The locations of these monitoring points are depicted in Attachment 3c as Figure 5. Composite soil samples were collected from five of the monitoring points (P-1 through P-5) and analyzed for benzene, toluene, ethylbenzene, and xylenes. After the soil samples were collected, piezometers were installed at the P-1 through P-5 locations to assess levels of potential dissolved contaminants in shallow groundwater. The groundwater samples collected at these locations in May 1994 were

analyzed for benzene, toluene, ethylbenzene, and xylenes. Soil vapor screening was conducted on thirteen probes. Two of the probes showed detectable levels of VOCs at 1 ppm in SP-3 and 2 ppm in SP-2.

Soil analytical results indicate that no detectable concentrations of BTEX or petroleum hydrocarbons (PHC) were present in the soil samples collected from monitoring points P-1 through P-5. Analytical results for groundwater samples collected from P-1 through P-5 were below laboratory detection limits for BTEX compounds. Results from the soil vapor survey indicate that detectable levels of VOCs were present only at the SP-2 and SP-3 locations which ranged from 1 ppm (SP-3) to 2.0 ppm (SP-2).

In June 1994, ERA issued a preliminary subsurface assessment report (Attachment 3c). The PADEP approved that report in a letter dated October 25, 1994 stating that no further action was needed (Attachment 3f).

July 2005 Soil and Groundwater Investigation

Site characterization activities were initiated by ERA in July 2005 in response to soil impacts that exceeded the applicable PADEP standard during closure of the 2,000-gallon unleaded gasoline tank in September 2004. In general, ERA conducted a soil and groundwater investigation consisting of advancing and sampling five test borings (TB-1 through TB-5) to refusal using direct-push technology. The locations of these borings are depicted in Attachment 3g.

Four of the borings (TB-2 through TB-5) were installed July 7, 2005 and were located in the vicinity of the former 3,000-gallon No. 2 fuel oil and unleaded gasoline tanks and boring TB-1 was located at the northern end of the excavation for the former #2 fuel oil tank. These borings were advanced to depths ranging from approximately 8 ft-bgs (TB-4) to 19 ft-bgs (TB-3) and soil samples were collected from the soil / water interface at the TB-1, TB-3, and TB-5 locations. No soil sample was collected from boring TB-2 because it was advanced in the backfill of the former unleaded gasoline UST cavity. No soil sample was obtained from TB-4 because the boring could not be completed past 8 ft-bgs due to stone and concrete debris in fill. Following the soil sampling activities, groundwater samples were collected from the TB-1, TB-2, TB-3, and TB-5 boring locations. Temporary well screens were set in the borings and exposed across the soil-water interface to permit collection of the groundwater samples. The soil and groundwater samples were submitted for laboratory analysis of the PADEP pre-March 2008 short-list of unleaded gasoline parameters (benzene, toluene, ethylbenzene, xylenes, cumene, MTBE, and naphthalene). Of the soil and groundwater samples collected, only one groundwater sample was found to contain a gasoline compound that exceeded the applicable PADEP SHS MSC. Specifically, the groundwater sample from TB-2 (sample TB-2W) contained MTBE at a concentration of 66.6 ug/L.

ERA installed five two-inch diameter groundwater monitoring wells (MW-1 through MW-5) in July 2005. The locations of these wells are indicated in Attachment 3a as Figure 2 and copies

of the monitoring well construction diagrams are included as Attachment 3h. Since their installation, wells MW-1 through MW-5 have been sampled during 10 events beginning in November 2005 through August 2012. Historical analytical data indicates that levels of dissolved-phase unleaded gasoline compounds have primarily been below laboratory detection limits, or detected only at trace levels, with the exception of MTBE in MW-2 which has exceeded the SHS MSC during most sampling events. However, concentrations of MTBE in MW-2 have historically been low, ranging from 10 to approximately 55 ug/l, and the MTBE concentration during the most recent August 2012 event was equivalent to the SHS MSC of 20 ug/l. Well MW-2 is identified as the source area well and was installed through the backfill of the former unleaded gasoline UST cavity. Groundwater samples collected from wells MW-1 through MW-5 were initially analyzed for the PADEP pre-March 2008 short-list of unleaded gasoline parameters with the addition of 1,2,4-trimethylbenzene (1,2,4-TMB) and 1,3,5-trimethylbenzene (1,3,5-TMB) in December 2006.

Tabulated soil and groundwater analytical results are provided in Attachment 3b – Table 3. A copy of ERA's August 2005 soil and groundwater investigation report is included as Attachment 3g.

2008 - 2009 Supplemental Site Characterization

The Solicitor retained Tetrahedron Consultants, Inc. (Tetrahedron) in May 2008 to complete supplemental site characterization activities as requested by the PADEP.[4] Tetrahedron's scope of work included:

- Surveying the existing monitoring wells, property lines, buildings, top of stream bank and other pertinent facility features for inclusion on the site base map;
- Installing three additional shallow monitoring wells at downgradient locations near the property boundary and Quittapahilla Creek;
- Conducting additional soil sampling during monitoring well installation;
- Collecting groundwater samples from existing wells MW-1 through MW-5 and from the three new wells; and
- Reviewing groundwater and soil data to determine a course of action and preparing a site characterization report in accordance with PADEP requirements.

The three new monitoring wells (MW-6, MW-7, and MW-8) were installed in August 2008. PADEP subsequently requested that Tetrahedron install an additional monitoring well downgradient of the unleaded gasoline UST, but closer to this contaminant source area than MW-6, MW-7 and MW-8. The additional well requested by the PADEP (MW-9) was installed in July 2009. The locations of these wells are indicated in Attachment 3a - Figure 2. Analytical results indicate that all target analytes in the soil samples obtained from well borings MW-6 through MW-9 were below the PADEP SHS MSCs. Since their installation, wells MW-6, MW-7

[4] Tetrahedron is the current consultant of record.

and MW-8 have been sampled during seven events beginning in August 2008 through August 2012. Well MW-9 has been sampled four times beginning in September 2009 through August 2012. Historical groundwater analytical results for these new wells have primarily been non-detect with only some very low to trace levels of naphthalene below the SHS MSC. All soil and groundwater samples from the four new wells have been analyzed for the PADEP post-March 2008 short-list of unleaded gasoline parameters.

Copies of the monitoring well construction logs are included as Attachment 3h[5] and a copy of Tetrahedron's March 2009 Supplemental Site Characterization Report (SSCR) is included as Attachment 3i. Comprehensive groundwater analytical data tables were prepared by Tetrahedron and ERA and are included as Attachment 3j. Tetrahedron's quarterly reports are included as Attachment 3k.

PADEP issued its review letter to the Solicitor on April 14, 2009 responding to the SSCR submittal by Tetrahedron. The PADEP approved the supplemental SCR with the following modifications:

1. The maps on the east side of the building in the UST decommissioning report did not match the SCR figures and the locations of the USTs and the boundaries of the excavation areas are not clear on the SCR figures. A map depicting the approximate former UST boundaries, UST excavation boundaries, dispenser location, and soil sample locations were requested.
2. A remediation standard needed to be selected.
3. Because the original five monitoring wells are located in or upgradient of the source area and the three recently installed monitoring wells are located 100 feet downgradient of the source area, the PADEP could not concur that MTBE contamination had not migrated. Consequently, installation and sampling of an additional well downgradient of the source well MW-2 (but closer to the source than MW-6 and MW-7) was requested to fill this data gap and assist with calibrating a contaminant fate and transport model.
4. A vapor intrusion analysis should be performed consistent with the Departments vapor intrusion guidance.
5. A Remedial Action Plan (RAP) should be submitted within 45 days after receipt of this letter.

[5] New wells MW-6 through MW-9, and existing wells MW-1 through MW-5, intersect shallow groundwater within the unconsolidated deposits and range in depth from approximately 15.5 to 20.0 ft-bgs. Wells MW-1 through MW-5 were constructed with 2-inch diameter polyvinylchloride (PVC) casing and wells MW-6 through MW-9 were installed using 4-inch diameter PVC casing. Screen lengths for the monitoring wells range from 7 to 10 feet.

It appears that none of the above modifications had been addressed by Tetrahedron except for Item Nos. 2 and 3. A copy of the PADEP's April 14, 2009 SSCR approval letter is included as Attachment 3l.

Remedial Action Plan

A RAP has not been prepared for this site. Based on current site conditions, the PADEP case manager has indicated that development of a RAP will not be necessary and that the site can proceed directly from the SSCR to attainment demonstrations and preparation of a RACR.

Scope of Work (SOW)

This RFB seeks competitive bids from qualified contractors to perform the activities in the Scope of Work (SOW) specified herein. Bidders should note that the RFB SOW was discussed with the PADEP – South Central Regional Office (SCRO) case manager.

Objective

The objective of this defined SOW RFB solicitation, as specified under Milestones A through F below, is to achieve site closure through a limited number of activities that generally include vapor intrusion screening, conducting soil and groundwater attainment demonstrations, preparing and submitting a Remedial Action Completion Report (RACR), and site closure. The Solicitor has elected to pursue site closure under the PADEP Act 2 SHS MSCs for a used aquifer in a residential setting for soil and groundwater.

Constituents of Concern (COCs)

The COCs in soil and groundwater consist of the PADEP short-list of unleaded gasoline parameters including: benzene, toluene, ethylbenzene, xylenes, MTBE, cumene, naphthalene, 1,2,4-TMB and 1,3,5-TMB.

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, Chapter 250 - Administration of Land Recycling Program, 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 and throughout implementation of the project, the selected consultant shall:[6]

- Conduct necessary, reasonable, and appropriate project planning and management activities until the project (i.e., Remediation Agreement) is completed. 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). 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.[7] 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 of 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.

[6] As such, all bids shall include the costs of these activities and associated functions within the quote for applicable tasks/milestones.
[7] Securing one or more off-property access agreements is not expected for completion of this RFB SOW. However, should an off-property access agreement, or agreements, become necessary, such additional work would be considered out-of-scope and subject to the changed conditions clause of the Fixed-Price Agreement.

All investigation derived wastes shall be handled and disposed of 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.

Site –Specific Milestones

Milestone A - <u>Site Vapor Intrusion Screening</u>

As described in the previous section, ERA had installed thirteen monitoring points (P1 through P-13) at various locations on the Ebersole property in June 1994 to assess the magnitude and extent of potential petroleum contaminants in the subsurface. Soil samples were collected from five locations (P-1 through P-5). At the remaining 8 points, a one and one half inch diameter blind steel probe was driven to a depth slightly above the desired sampling depth. Following withdrawal of the blind probe, a hollow tube with a perforated end was inserted into the open probe hole to permit collection of soil vapors. An OVM with a 100 electron volt (eV) lamp was used to screen these locations. The monitoring points revealed that only 2 of the 8 points showed any measurable concentration of organic vapors in shallow soil (1.0 to 2.0 ppm). However, due to the discovery of subsurface impacts following removal of the 2,000-gallon unleaded gasoline tank in September 2004, and because the previous soil vapor data likely was derived only from semi-quantitative field screening, the PADEP's April 14, 2009 SSCR review letter requested that a vapor intrusion evaluation be completed consistent with the Department's vapor intrusion guidance. A vapor intrusion evaluation to satisfy this PADEP request has not been conducted.

Therefore, under Milestone A, bidder's shall provide a firm fixed-price to first perform a determination as to whether a vapor intrusion evaluation (e.g., soil gas sampling) is necessary based on existing soil and groundwater analytical data and known subsurface conditions. The determination shall be completed <u>consistent with the requirements, guidance, and decision matrices contained in the *Land Recycling Program Technical Guidance Manual – Section IV.A.4, Vapor Intrusion into Buildings from Soil and Groundwater*. The selected consultant's determination methods and results shall be fully documented in the Remedial Action Completion Report (RACR) to be prepared under Milestone E. Milestone A activities shall commence immediately following execution of the fixed-price Agreement.</u>

Given the historical and current concentrations of COCs in site soil and groundwater, the need to conduct a vapor intrusion evaluation is not expected and is not a component of Milestone A. However, should the selected consultant determine that soil gas sampling or running a Johnson

& Ettinger (J & E) model is required based on its review of the existing site data and the PADEP vapor intrusion guidance, then this work would be considered out-of-scope and subject to the changed conditions clause of the Fixed-Price Remediation Agreement.

Milestone B - Professional Surveying of Well MW-9

Monitoring well MW-9, installed by Tetrahedron in July 2009, has never been professionally surveyed. Therefore, bidders shall provide a firm fixed-price cost to coordinate the surveying of this well by a professional surveyor licensed in the Commonwealth of Pennsylvania. The surveying work shall include determining elevations to the nearest 0.01-foot at: i) the ground surface adjacent to the manhole rim; ii) the top of the manhole rim; and iii) the top of the inner PVC pipe. The top of the manhole rim and inner PVC pipe where the elevation measurements were taken shall be described to serve as a reference for future groundwater level measurements. The horizontal coordinates for well MW-9 shall also be determined and tied into the grid previously referenced to locate wells MW-1 through MW-8. The datum used by the most recent professional surveyor of record was North American Vertical Datum of 1988 (NAVD88).[8] The surveyed location and elevations of well MW-9 shall be included on a revised site plan. The selected consultant shall prepare an "A" or "B" size site plan for more efficient manipulation and inclusion in future reports including the quarterly attainment Remedial Action Progress Reports (Milestone D) and the RACR (Milestone E).

Milestone C - Soil Attainment Demonstration

According to historical soil analytical data, the only sample that exceeded the applicable PADEP SHS MSCs was obtained from the base of the former 2,000-gallon gasoline UST cavity in September 2004. That sample ("Gas Mid") contained benzene at a concentration of 1,340 ug/kg which exceeded the PADEP Act 2 standard of 500 ug/kg. No soil over-excavation appears to have been completed at this location. Given the historical soil data, and considering the potential for the limited impacts at the former gasoline UST location to have degraded over almost nine years, bidders shall provide a firm fixed-price for developing and implementing a soil sample collection and analysis program to demonstrate compliance with 25 PA Code 250.703 (General Attainment Requirements for Soil). In general, sampling points for the soil attainment demonstration shall be randomly selected based on the systematic random sampling guidance set forth by the PADEP.

Specifically, the random soil sampling grid to be generated shall consider: i) samples collected from borings completed around the perimeter of the former excavation footprint of the former 2,000-gallon gasoline UST cavity; and ii) samples collected from borings completed at the floor of the backfilled former gasoline UST cavity, approximately 10 ft-bgs, given the elevated benzene levels previously reported for the "Gas Mid" sample (that may have attenuated to

[8] The professional surveyor of record that developed what is believed to be the most recent site plan (Rev. 12/11/08) is Matthew & Hockley Associates, LTD of Lebanon, PA.

below the SHS MSC since 2004).[9] The location, depth (UST cavity perimeter borings) and number of soil samples shall be determined using PADEP's systematic random sampling procedures and other relevant guidance, assuming that one soil sample per boring shall be submitted for laboratory analysis. For the purpose of this bid solicitation, bidders shall assume that 8 soil borings shall be advanced to a depth of 12 ft-bgs and the collection of 8 attainment soil samples for laboratory analysis[10]. In the event that more or fewer soil borings are required, bidders shall provide an all-inclusive unit cost per boring ($/boring) on the Bid Cost Spreadsheet in Attachment 2 that accounts for borehole advancement, logging, screening, sample collection / analysis, borehole sealing and waste management.

Soil samples shall be analyzed for the **post**-March 2008 PADEP short list of unleaded gasoline parameters using proper analytical methods and detection limits. Appropriate QA/QC samples shall also be obtained for laboratory analysis of the same parameters. The soil sampling results shall be evaluated based on PADEP's 75% / 10x Ad Hoc Rule. Results from the soil attainment demonstration shall be incorporated into the RACR (Milestone E).

Activities under Milestone C shall also include: 1) professional surveying of the soil boring locations for inclusion on the site plan (coincident with Milestone B); 2) sealing each boring with bentonite and an asphalt or concrete surface patch; and 3) managing the drilling and personal protective equipment wastes as previously directed. Additionally, although no subsurface utilities appear to exist in the general area of the former gasoline UST, bidders shall investigate and properly clear below grade utilities before advancing any soil borings which shall include, but not necessarily be limited to, contacting the PA One Call system.

Milestone D – Groundwater Attainment Demonstration

Considering that the downgradient point-of compliance (POC) wells have been predominantly free of detectable levels of the target COCs and none have had exceedances of the applicable SHS MSCs, bidders shall provide a firm fixed-price for completing eight (8) consecutive quarters of groundwater monitoring, sampling and reporting to demonstrate attainment of the SHS MSCs for groundwater. Each groundwater monitoring and sampling event shall include only POC wells MW-6, MW-7 and MW-8 and source area well MW-9 (four wells total per quarterly event). Bidders shall provide an all-inclusive fixed unit-cost per well for gauging, purging, sample collection, sample management and analysis should an additional well, or wells, be requested by the PADEP for inclusion in the groundwater attainment sampling program.

If warranted by favorable groundwater analytical data from the POC wells, the selected consultant shall petition the PADEP for conducting less than eight (8) quarters of groundwater attainment monitoring, sampling and reporting. More specifically, as applicable, a petition shall

[9] Care shall be exercised to ensure that only the natural soil below the backfill material is sampled at the base of the former gasoline UST cavity
[10] The number of soil borings/attainment soil samples is based on an estimate of 83 cubic yards of soil removed from the former UST cavity.

be submitted to the PADEP in the fourth quarterly RAPR to request a reduced program for groundwater attainment sampling. In the event that fewer or more than eight events are needed, the Milestone D quarterly unit cost will be used to adjust the compensation accordingly.[11] All work under Milestone D shall be conducted in accordance with 25 PA Code §250.702, §250.704, and §250.707.

During each quarterly event, the depth to groundwater and any potential separate-phase hydrocarbons (SPH) shall be gauged in all existing monitoring wells (MW-1 through MW-9) prior to purging the four wells designated for sample collection (MW-6, MW-7, MW-8, and MW-9). Groundwater level measurements obtained from the monitoring wells shall be converted to groundwater elevations for assessing groundwater flow direction and hydraulic gradient. Wells MW-6 through MW-9 shall then be purged and sampled in accordance with the PADEP Groundwater Monitoring Guidance Manual, any other applicable PADEP guidance, and standard industry practices. The conduct and results of each event shall be documented in a quarterly RAPR.

Purged groundwater and other investigation derived waste (IDW) shall be managed as prescribed in the General SOW Requirements section of this RFB. Any well exhibiting more than a sheen of SPH shall not be purged and sampled.

Groundwater samples shall be analyzed for the **post**-March 2008 PADEP short-list of unleaded gasoline parameters (benzene, toluene, ethylbenzene, xylenes, MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB) by a PADEP-accredited laboratory using appropriate analytical methods and detection levels. Appropriate QA/QC samples shall also be collected during each event and analyzed for the same parameters. In addition, each event shall include field measurements for these water quality parameters: pH, temperature, specific conductance, dissolved oxygen (measured in-situ), and oxidation/reduction potential.[12]

RAPRs describing the sampling methods and results will be provided to the PADEP on a quarterly basis and within 30 days of the receipt of analytical results for each quarter. At a minimum, each RAPR shall contain the following:

- A summary of site operations and progress made toward demonstrating groundwater attainment during the reporting period;
- A narrative description of the sampling procedures and results;
- Tabulated data collected from the monitored wells documenting the depth to groundwater and thickness of any free product encountered;
- Groundwater elevation contour maps depicting groundwater flow direction;
- Tabulated historical quantitative groundwater analytical results including results from the current quarter;
- Current quarter laboratory analytical report(s);

[11] USTIF will reimburse only for necessary quarterly attainment groundwater sampling / reporting events actually completed under this milestone.
[12] Each bidder's approach to implementing this task shall clearly identify the number of sampling events, number of wells / samples per event, well purging and sampling method(s), QA/QC measures, analytes, purge water management methods, and other key assumptions affecting the bid price.

- One site-wide isoconcentration contour map for each compound detected in any one well above the SHS during the quarter;[13]
- For each well exceeding SHS, a graphical depiction of historical key contaminant concentrations and groundwater elevations to provide an assessment of correlations between fluctuating water levels / precipitation events and contaminant concentrations;
- For each well exceeding SHS, a graphical depiction of recent key contaminant concentration trends;
- Discussion of the data to offer an updated assessment whether these data are consistent with a stable, shrinking, or expanding plume;
- Treatment and disposal documentation for waste generated during the reporting period; and
- Demonstration of compliance with any required Federal, State, and local permits and approvals.

Each quarterly RAPR shall be signed and sealed by a Professional Geologist and / or Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the RAPR). Analytical results provided from the quarterly groundwater attainment sampling program shall also be included in the RACR to be prepared under Milestone E.

Milestone E – Preparation and Submittal of a Draft and Final Remedial Action Completion Report

Under this Milestone, bidders shall provide a firm fixed-price for preparing a draft and final RACR following the successful completion of both Milestones C and D. The RACR shall contain all information required under 25 PA Code 245.313 and other applicable statutes, regulations, and guidance and shall be signed and sealed by a Professional Geologist **and/or** Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the RACR). The RACR shall request a Relief of Liability (ROL) relative to soil and groundwater for the petroleum release identified in PAUSTIF Claim #2004-0263(S) by demonstrating compliance with the PADEP Act 2 SHS MSCs for a used aquifer in a residential setting (excluding the need for any activity or use limitations or institutional / engineering controls). The RACR shall be of sufficient quality and content to reasonably expect PADEP approval and issuance of a ROL for the release area associated with this PAUSTIF claim.

The project schedule shall allow two (2) weeks for Solicitor and PAUSTIF review of the draft RACR before a final version is submitted to the PADEP. Following Solicitor / PAUSTIF review

[13] All figures included in each RAPR (e.g., site plan, groundwater elevation maps, dissolved plume maps, etc.) shall be available in electronic format from the Solicitor upon request.

of the draft document, the selected consultant shall address any comments and submit the final RACR to the PADEP. Bids shall include time to address any PADEP comments received on the RACR since Milestone F (Site Restoration) will be performed following PADEP approval of the report.

Milestone F – Site Restoration

Under this milestone, the bidder shall describe and provide a firm fixed-price cost for properly closing the site. Following PADEP approval of the RACR and after a ROL has been granted, the following site restoration activities shall be completed:

a. Decommissioning of the nine groundwater monitoring wells (MW-1 through MW-9) in accordance with the PADEP Groundwater Monitoring Guidance Manual. The selected consultant shall discuss and verify the well decommissioning procedures with the PADEP case manager prior to initiating this task;
b. Surface restoration: After sealing each well, the ground surface shall be restored consistent with the existing surface material (e.g., asphalt, concrete, vegetated soil, etc.);
c. Photo-documenting the site restoration work; and
d. Completion of well abandonment forms and submittal of the forms to the PADEP and the PA Bureau of Topographic and Geologic Survey.

Additionally, copies of the photographs and forms shall be provided to PAUSTIF and the Solicitor.

Work under Milestone F shall be completed within 60 days of RACR approval by the PADEP and shall be conducted in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Well abandonment and restoration activities will be coordinated with the Solicitor.

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 tasks identified in the bid. The standard practice of tracking total cumulative costs by milestone will also be required to facilitate invoice review. 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. All necessary modifications to the executed Remediation Agreement will require the prior 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

Attachment 3a: Figures
- Figure 1 – Site Location Map
- Figure 2 – Site Layout Map
- Figure 3 – Site Layout – Former UST Excavations/Locations

Attachment 3b: Data Summary Tables
- Table 1 – June 1993 Confirmation Soil Sampling Data
- Table 2 – September 29-30, 2004 UST Closure Soil Samples
- Table 3 – July 2005 ERA Site Characterization Soil and Groundwater Data

Attachment 3c: 1994 – ERA Preliminary Assessment and Closure Reports
Attachment 3d: GCI – 1,000-Gallon Used Motor Oil UST Closure Report
Attachment 3e: Almega September 2004 UST Closure Report
Attachment 3f: PADER October 25, 1994 No Further Action Letter
Attachment 3g: ERA August 11, 2005 Letter (Soil and Groundwater Investigation)
Attachment 3h: Monitoring Well Construction Logs and Summary Construction Details
Attachment 3i: Tetrahedron SSCR (March 2009)
Attachment 3j: Comprehensive Groundwater Data
Attachment 3k: Tetrahedron Quarterly Reports
Attachment 3l: *PADEP* April 14, 2009 SSCR Review Letter