

**DRAFT**

**Request for Bid**

**Fixed-Price Defined Scope of Work**

**Performance of Additional Site Characterization and Remedial Action Activities and  
Associated Reporting**

**Solicitor**

**Estate of Leonard W. Hanzo**

**Former Hanzo Citgo Station Facility**

**16869 State Route 198**

**Saegertown, Hayfield Township, Crawford County, PA**

**PADEP Facility ID #: 20-90481      PAUSTIF Claim #: 2002-0238(F)**

**Date of Issuance**

**February 27, 2014**

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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. 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

<b>Activity</b>	<b>Date and Time</b>
Notification of Intent to Attend Site Visit	March 12, 2014 by 5 p.m.
Mandatory Pre-Bid Site Visit	March 13, 2014 at 11 a.m.
Deadline to Submit Questions	March 27, 2014 by 5 p.m.
Bid Due Date and Time	April 3, 2014 by 3 p.m.

## Contact Information

ICF International	Solicitor	Technical Contact
Gerald Hawk ICF International, Inc. 4000 Vine Street Middletown, PA 17507 Phone: 800.888.7843 jerryhawk@comcast.net	Estate of Leonard W. Hatzog c/o Emil M. Spadafore, Jr., Esq. 935 Market Street Meadville, PA 16335	J. Neil Ketchum, P.G. Groundwater Sciences Corporation 2601 Market Place Street Suite 310 Harrisburg, PA 17110 Phone: 717.901.8197 nketchum@groundwatersciences.com

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 **“Former Hatzog Citgo Station Facility PAUSTIF #2002-0238(F) – 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 "Former Hatzog Citgo Station Facility PAUSTIF #2002-0238(F) – SITE MEETING ATTENDANCE NOTIFICATION".** The name and contact information of the company participant should be included in the body of the e-mail. **PLEASE NOTE THAT SHOULD WEATHER CONDITIONS REQUIRE POSTPONEMENT OF THE PRE-BID SITE MEETING, AN EMAIL WILL BE SENT TO ALL BIDDERS THAT PROVIDE A NOTICE OF INTENT TO ATTEND AND THE POSTING ON PAUSTIF'S BID OPPORTUNITIES WEBPAGE WILL BE UPDATED. PLEASE CHECK THE WEBSITE PRIOR TO THE SCHEDULED SITE MEETING DATE.**

### 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 # 2002-0238(F)".** 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.

**Site Name / Address / Location:** Former Hatzog Citgo Station Facility, 16869 State Route 198, Saegertown, Hayfield Township, Crawford County, PA. The approximate latitude and longitude of the Site are: 41d 42m 55.63s / 80d 12m 14.31s.

**Site Use Description:** The property has been used as a filling and service station since the late 1960's. Retail fuel distribution ended in 2004 with the closure and removal of the underground storage tanks on the property. The Site is operated by the current owners as a auto service center and a transportation business.

**Nature of Confirmed Release and Subsequent Activities:** The following information is based on the documents provided in Attachment 3.

Phase I and Phase II environmental site assessments (ESAs) were performed for the property during the summer of 2002 as part of due diligence for the sale of the property. Four monitoring wells were installed and soil and groundwater were sampled as part of the Phase II ESA. The sampling results confirmed petroleum impacts to soil and groundwater beneath the Site in the vicinity of the petroleum underground storage tanks.

On January 2, 2003, a work plan for additional investigation activities was submitted to the PADEP. This work plan called for the installation of additional monitoring wells and the collection of soil samples.

Point-of-entry treatment (POET) systems were installed on the Site water supply well and the water supply well on the adjacent property (ACUTECH Precision Machining, Inc. (ACUTECH)) on March 19, 2003.

A Site Characterization Report (SCR) for the Site was submitted to the PADEP on April 22, 2003 and approved by the PADEP on May 9, 2003.

A Remedial Action Work Plan was submitted to the PADEP on July 2, 2003 proposing to install recovery wells around the USTs and to begin groundwater pump and treat. This work plan was approved as a Remedial Action Plan (RAP) on July 11, 2003.

In December 2003, a NPDES permit was granted for the Site and the proposed groundwater pump-and-treat system was operational at the Site by March 2004. The initial system included groundwater extraction from two recovery wells located in the vicinity of the former USTs and subsequent treatment with a sediment filter followed by two in-line 800-pound fiberglass activated carbon units. The treated groundwater is discharged to a catch basin located on Site which flows to an unnamed tributary to the Cussewago Creek under a NPDES permit.

In January 2004, the USTs were closed by removal. Closure of the USTs was documented in a UST Closure Report dated March 2004. This report stated that obvious, extensive contamination was encountered during the closure activities. According to the report, approximately 960 tons of petroleum-contaminated soil was excavated and disposed of during the closure activities.

On March 19, 2004, a Soil Attainment Report was submitted to the PADEP documenting attainment of the Statewide Health Standard (SHS) for the soil around the former USTs. This report was approved by the PADEP and Relief from Liability was granted for soil on May 7, 2004.

A Buyer-Seller agreement was entered into by the claimant, the PADEP, and the current owners of the property in December 2004.

During the First Quarter of 2005, five soil gas sampling points (SV-A through SV-E) were installed at the Site. Two sampling points were installed outside of the office building and three sampling points were installed outside of the service station building. Soil gas samples were collected from each sampling point on February 16, 2005 and on April 18, 2005. During each sampling event, a sample was collected from a depth of five feet below grade (fbg) from each soil gas sampling point and one sample was collected from a depth of 10 fbg from sampling point SV-C. Each sample was collected in laboratory provided Summa canisters and analyzed for the substances on the old PADEP short list for unleaded gasoline (benzene, cumene, ethylbenzene, MTBE, naphthalene, toluene, and total xylenes). According to the June 29, 2005 report submitted to the PADEP entitled *Soil Vapor Attainment Report for Site Closure Under the Statewide Health Standards*, "all laboratory results were found within the Residential MSCs for all gasoline contaminants tested for in this soil vapor evaluation".

In December 2006, a Revised RAP was submitted to the PADEP proposing the installation of two additional recovery wells and the installation of injection wells for the injection of treated water from the extraction system. The Revised RAP was approved by the PADEP on January 4, 2007. The two additional recovery wells and the five injection wells were installed in July 2007. The recovery wells are installed around the former UST area while the injection wells are

installed within the former UST area. Two injection pilot tests were conducted, one from August 2, 2007 to November 2, 2007 and one from May 7, 2008 to July 2, 2008.

On August 26, 2008, a Groundwater Injection Pilot Study Report was submitted to the PADEP documenting the results of the groundwater injection. According to the report, the anticipated results were achieved by the groundwater injection. The report recommended periodic/cyclic injection and recovery of groundwater to recover contamination in the unsaturated zone.

On November 7, 2011, transducers were installed in monitoring wells MW-1, MW-2, MW-4, MW-6, MW-7, RW-1, and RW-2. Following the installation of the transducers, the recovery well pumps were turned off to evaluate natural static water levels.

On November 7 and 8, 2011, six soil borings were advanced at the Site in the vicinity of RW-1 and MW-1. One soil boring was advanced within the UST excavation while five soil borings were advanced outside of the UST excavation. The five soil borings advanced outside of the UST excavation contained analyzed substances above SHS MSCs.

On November 22, 2011, a pump test was conducted at the Site.

According to the Discharge Monitoring Reports (DMRs) for the months of March, April, and May 2012, the flow rate of the system was 2.06, 2.19, and 1.79 gallons per minute, respectively.

**Current Conditions:** The four most-recent Remedial Action Progress Reports (RAPRs) have been included in Attachment 3. These documents include summaries of the chemistry, water level, and operation and maintenance of the existing treatment system as well as groundwater elevation and groundwater chemistry contour maps.

As shown in the third quarter 2013 RAPR, concentrations of benzene in groundwater are above the SHS MSCs in MW-1 and RW-1. Concentrations of MTBE in groundwater are above the SHS MSCs in MW-1, MW-2, MW-8, IW-1, and RW-1. Additionally, concentrations of toluene, ethylbenzene, and naphthalene are above SHS MSCs in MW-1.

Benzene, toluene, ethylbenzene, and MTBE are present at concentrations above the SHS MSCs in soil borings advanced to the north of the UST excavation between 2 and 15 fbg.

**Underground Storage Tanks (USTs) on Site:** Three registered USTs, which provided retail gasoline distribution, were present on the Site (two 6,000-gallon and one 4,000-gallon) were closed by removal in January 2004. There are no known USTs currently present on the site.

## **Scope of Work (SOW)**

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. This defined SOW has been reviewed by the PADEP.

### **Objective**

This defined SOW is designed to gather additional soil chemistry, groundwater chemistry, and hydrogeological information required to evaluate site conditions and develop a robust site conceptual model. Following the completion of these activities, the remaining corrective action activities necessary for the Solicitor to obtain relief from liability will either be competitively bid or the Solicitor may choose to retain the consultant selected for this RFB.

For clarification purposes, a table showing the anticipated milestone completion times is included as Table 1. For the purposes of this RFB please assume the PADEP approval of the Revised Remedial Action Plan (RRAP) (Milestone A) proposing a reduction of the POET sampling frequency (Milestone K) will be received within 60 days of the RRAP submission (90 days from the execution of the Remediation Agreement).

### **Constituents of Concern (COCs)**

The constituents of concern (COCs) at the Site are the substances on the pre-2008 PADEP short list for unleaded gasoline (benzene, cumene, ethylbenzene, MTBE, naphthalene, toluene, and total xylenes).

### **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:<sup>1</sup>

- 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. 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.
  - **If the site is located in PADEP Southwest Region:** All investigation derived wastes shall be handled and disposed of per PADEP's Southwest Regional Office guidance. Investigation derived wastes include personal protective equipment, disposable equipment, soil and drill cuttings and groundwater obtained through monitoring well development and purging, as well as equipment decontamination fluids. Investigation derived wastes must be containerized in DOT-approved drums and staged on-site in a pre-determined location, pending results of laboratory analyses and selection of final disposal

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

method(s). Each container must be labeled to indicate contents, site location and date of generation. It is the selected consultant's responsibility to conform with current PADEP Southwest Regional Office guidance requirements.

- **If the site is located in any PADEP Region other than Southwest:** 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.      Preparation and Submission of a Revised Remedial Action Plan**

Bidders shall provide a fixed price to prepare a Revised Remedial Action Plan (RRAP). The purpose of the RRAP will be to propose soil excavation for source removal as the revised remedial approach for soil and groundwater. The RRAP would specify the Residential Used Aquifer (RUA) SHS Medium Specific Concentrations (MSCs) for soil and groundwater at the Site as the remedial goal. Additionally, the RRAP shall petition the PADEP for a reduction in the sampling frequency of the POET systems on the Site water supply well and the ACUTECH water supply well (adjacent property). The sample reduction would be from semi-monthly (twice per month) to quarterly. The RRAP shall be submitted to the PADEP within 30 days of the execution of the Remediation Agreement.

Please note, the PADEP has reviewed this RFB and provided no comments. Additionally, the PADEP has approved (via email) the termination of the operation of the groundwater extraction treatment system.

#### **Milestone B.      Conduct Point-of-Entry Treatment System Sampling**

Bidders shall provide a fixed price to sample the POET systems installed on the Site water supply well and the water supply well on the adjacent property (ACUTECH) semi-monthly (twice per month) for 90 days (three months). The POET sampling shall include the collection of two samples (raw and treated discharge) from each of the two water supply wells.

All POET samples shall be collected in laboratory-provided containers to be analyzed by EPA Method 524.2 for the substances identified as the current and historical COCs specified above.

For the purposes of this RFB, please assume six semi-monthly POET sampling events will occur. Additionally, for the purposes of this RFB, please assume that no major repairs, modifications, carbon change-outs, etc. will be necessary for the duration of this milestone.

The intent of Milestone B is to continue the existing POET system sampling schedule until the PADEP approves the RRAP (Milestone A) which allows for the POET system sampling to be reduced to quarterly.

### **Milestone C. Pre-Excavation Groundwater Sampling and Reporting**

Bidders shall provide a fixed price to perform and report one groundwater sampling event. The groundwater sampling event shall include the measurement of depth-to-water in, and the sampling of, wells MW-1 through MW-11, IW-1 through IW-5, and RW-1 through RW-4 (20 wells). The groundwater samples shall be collected in laboratory-provided containers to be analyzed by EPA Method 8260B for the substances identified as the current and historical COCs specified above.

The sampling event should occur during the calendar quarter following the last quarterly groundwater sampling event performed by the current consultant.

Bidders shall also prepare and submit a RAPR detailing the work conducted under this Milestone and Milestone B. The RAPR shall be submitted within 30-days following the quarter in which the groundwater sampling event occurred. The RAPR shall be prepared in accordance with Chapter 245.312 (b) and (c).

Additionally, bidders shall provide an all-inclusive fixed unit cost (per well) for the reduction in the number of wells sampled. This unit rate will be used to adjust the Milestone reimbursement in the event all of the proposed wells are not sampled.

### **Milestone D. Performance of a Professional Land Survey**

Bidders shall provide a fixed price to have a professional land survey of the Site conducted by a Pennsylvania-licensed land surveyor. The survey shall include all principal site features such as buildings, walkways, areas of pavement, concrete, and grass, monitoring wells (including the top of casing of the wells) and the Site's property lines and rights of way. The survey shall be completed within 60 days of the execution of the Remediation Agreement and shall be used to prepare a new base map.

**Milestone E.      Possible Monitoring Well Installation and Development**

Bidders shall provide a fixed cost to install and develop one monitoring well (MW-12) on the subject property along the western property boundary. The installation of MW-12 is contingent on the available property between MW-9 and the western most property boundary, as identified by the land survey conducted as part of Milestone D. If less than 20 feet of property exists between MW-9 and the western-most property boundary, then the well will not be installed. If 20 feet or greater of Site property exists between MW-9 and the western most property boundary, as identified by the land survey conducted as part of Milestone D, then the successful bidder shall install the proposed point-of-compliance (POC) monitoring well MW-12 along the western property boundary as close to the property line as practical. The approximate location of the proposed POC well is shown on Figure 1.

The proposed POC monitoring well should be installed and constructed in a similar manner (depth, screened interval, etc.) as monitoring well MW-9. The successful bidder shall conduct continuous geological characterization (boring logs) and screening of soil from the well boring using a photoionization detector (PID) for headspace measurements. A continuous geological log shall be prepared by or under the supervision of a Professional Geologist licensed in the Commonwealth (PG) for the boring using standard and consistent classification system procedures (Modified Burmister or USCS) and shall include the well completion details. The proposed POC monitoring well shall be completed at the surface with a securable manhole, set in concrete flush with the ground surface. A locking, pressure fit, watertight cap shall be used to prevent the infiltration of surface runoff and rainwater and to restrict access by unauthorized individuals.

Following the completion of the proposed POC well, the selected bidder shall develop the monitoring well in accordance with generally-accepted practices as outlined in the PADEP's Groundwater Monitoring Guidance Manual, dated December 1, 2001 (Document #383-3000-01). The well top of casing of the proposed well shall be surveyed (horizontally and vertically) and the survey results shall be incorporated into the Site map and the physical well database for the purpose of calculating groundwater elevations in the well.

Provided the results from the survey described in Milestone D allow for the installation of MW-12, the proposed POC well shall be installed within 90 days of the execution of the Remediation Agreement.

**Milestone F.      Advancement of Soil Borings and the Collection of Soil Samples**

Bidders shall provide a fixed price to conduct soil boring drilling and soil sampling activities to delineate the impacts to soil identified in November 2011 (Soil borings SB-1 through SB-6 on Figure 1) and to determine the extent of the proposed source removal soil excavation

described in Milestone I. The soil borings should be advanced to the top of bedrock (estimated to be approximately 15 fbg to the north, northeast, and east (radially) from the November 2011 soil borings). Four soil borings shall be advanced in the general locations identified on Figure 1. Four additional soil borings shall be advanced in locations beyond the first four borings (further to the north, northeast, and east) at the selected bidder's discretion based on PID responses and field observations made during the first four soil borings.

For the purposes of this RFB, please assume that eight soil borings shall be advanced at the Site. Continuous geological logs shall be prepared by or under the supervision of Professional Geologist licensed in the Commonwealth (PG) for each boring using the same standard and consistent classification system procedure (Modified Burmister or USCS) used during the installation of the monitoring well described in Milestone E. Soil samples shall be screened at two-foot intervals with a PID using headspace measurements.

For each soil boring, a minimum of two discrete soil samples shall be collected. The samples should be collected from both:

- a depth interval with a PID response significantly greater than the typical reading for that boring and that has a PID response greater than 100 ppm (if present), and/or
- a depth immediately above the top of bedrock.

Assume for the purpose of this RFB, that 16 soil samples will be collected (two soil samples from each of the eight soil borings). Soil samples shall be collected in laboratory-provided containers in accordance with EPA Method 5035 and analyzed by EPA Method 8260B for the substances identified as the current and historical COCs specified in above.

Milestone F shall be completed within 90 days of the execution of the Remediation Agreement.

### **Milestone G.      Preparation of an Excavation and Attainment Sampling Plan**

Bidders shall provide a fixed price to prepare an excavation and soil attainment sampling plan for submission to the PADEP based on the historic soil data collected by others (included in Attachment 3) and the data gathered in Milestone F. The plan shall be provided to PAUSTIF for review and comment two weeks prior to submitting to the PADEP. The intent of the soil excavation is to remove the soil impacted above the RUA SHS MSC that remains on site as delineated by data from existing samples and data from the samples proposed in Milestone F. The excavation plan shall include the estimated plan-view area, volume, and tonnage of impacted soil planned to be excavated for disposal, the estimated volume and tonnage of soil planned to be returned to the excavation, and the disposal

method for the contaminated soil. Additionally, the plan shall specify that the excavation shall be backfilled with uniform engineered stone to a depth of approximately five feet below grade. Compacted, engineered stone will be used to fill in the remainder of the excavation in one-foot compacted lifts. Finally, the excavation plan shall describe the steps to be taken and equipment used to ensure the safety of those affected by the excavation. The soil attainment sampling plan shall be based on the excavation plan and describe the method(s) by which 12 systematic random soil samples would be collected in a safe manner from the proposed open excavation to demonstrate attainment of the RUA SHS MSC.

It is anticipated that Milestone G would be completed approximately 120 days following the execution of the Remediation Agreement.

**Milestone H.      Conduct Soil Excavation, Attainment Sampling, Monitoring Well Replacement, and Surface Restoration**

Bidders shall provide a fixed price to conduct the soil excavation and soil attainment sampling in accordance with the excavation plan following PAUSTIF's and PADEP's review of and comment on the plan described in Milestone G. This milestone has been divided into four components or sub-milestones (H1 – H4). Milestone H will be paid following completion of all four components or sub-milestones.

The actual volume of excavated soil will depend on many factors including soil quality, benching and sloping, depth to water, protection of nearby structures and safety considerations. For the purpose of this bid, please assume a total of 350 cubic yards of soil will be excavated to a depth of 15 feet and that the top five feet of material will be presumed uncontaminated, stockpiled, sampled in accordance to the PADEP Technical Document for Closure for Underground Storage Tank Systems (263-4500-601), and used to backfill the excavation in compacted lifts. The remainder of the excavation shall be backfilled with engineered stone in compacted lifts.

During the preparation of the excavation and attainment plan by the selected consultant (Milestone G), the anticipated volume and tonnage of the excavation, backfill, and material to be disposed of offsite will be agreed upon (by the selected consultant, the Solicitor, and the PAUSTIF) and a deviation of more than 25% from the agreed-upon number will require prior written authorization from the Solicitor and the PAUSTIF. **PAUSTIF must be provided notice of at least 10 business days prior to the initiation of the excavation activities.**

**Sub-Milestone H1**

Bidders shall provide a fixed price for the excavation of 350 **cubic yards** of soil and backfilling in compacted lifts of 120 **cubic yards** (upper one-third of excavation) of

presumed uncontaminated soil (following confirmatory sampling). In addition, the bidder must include a fixed unit rate per cubic yard addition/reduction if more or less than 350 **cubic yards** are excavated as necessary and appropriate. **Please note that this is a volume-based milestone** and reimbursement will be based on a PAUSTIF review of the excavation footprint and depth along with an estimate of the volume of the presumed uncontaminated soil pile. The fixed price and fixed unit rate provided by the bidder must include all associated tasks including but not limited to: excavation, backfilling and compaction of confirmed uncontaminated soil, soil pile sampling, traffic control and other safety necessities, and excavation dewatering (if necessary).

#### Sub-Milestone H2

Bidders shall provide a separate fixed price for the loading, transportation, and offsite disposal of 350 **tons** (approximately 230 cubic yards) of presumed contaminated soil (the lower two-thirds of excavation) and the backfilling of the excavation with an equivalent volume of compacted or self-compacting engineered stone. In addition, the bidder must include a fixed unit rate per ton addition/reduction if more or less than 350 **tons** of soil is disposed of offsite. **Please note that this is a weight-based milestone** and reimbursement will be based on PAUSTIF review of the weights on the receipts/tickets for the contaminated soil at the receiving disposal facility. The fixed price and fixed unit rates provided by the bidder must include all associated tasks including but not limited to: backfilling with engineered material in compacted lifts, transportation and disposal of contaminated material, and waste characterization.

#### Sub-Milestone H3

Bidders shall provide a fixed price for the collection and analysis of the 12 soil attainment samples discussed above in Milestone G. The locations of these samples will be selected based on a systematic random sampling plan outlined in the excavation and attainment plan (Milestone G). The soil attainment samples will be collected in laboratory-provided containers in accordance with EPA Method 5035 and analyzed by EPA Method 8260B for the substances identified as the current and historical COCs above.

#### Sub-Milestone H4

Bidders shall provide a fixed price to complete the surface restoration of the excavation area. For the purposes of this bid, assume an area of 111 square yards of surface will require restoration consisting of bituminous paving material consistent with the area disturbed by the excavation.

Bidders shall also provide a per square yard addition or reduction cost if more or less than 111 square yards is paved as necessary and appropriate.

It is anticipated that Milestone H would be completed approximately 150 days following the execution of the Remediation Agreement.

**Milestone I. Replacement Monitoring Well Installation and Development**

Bidders shall provide a fixed cost to replace and develop monitoring well MW-1 if this well is destroyed during the excavation activities. The replacement well (MW-1R) will be constructed in a similar manner (depth, screened interval, etc.) and in a similar location as monitoring well MW-1. A continuous geological log shall be prepared by or under the supervision of a Professional Geologist licensed in the Commonwealth (PG) for the boring using the same standard and consistent classification system procedures (Modified Burmister or USCS) used in Milestones E and F and shall include the well completion details. The replacement monitoring well shall be completed at the surface with a securable manhole, set in concrete flush with the ground surface. A locking, pressure fit, watertight cap shall be used to prevent the infiltration of surface runoff and rainwater and to restrict access by unauthorized individuals.

Following the completion of the replacement well, the selected bidder shall develop the monitoring well in accordance with generally-accepted practices as outlined in the PADEP's Groundwater Monitoring Guidance Manual, dated December 1, 2001 (Document #383-3000-01). The top of casing of the replacement well shall be surveyed (horizontally and vertically) and the survey results shall be incorporated into the Site map and the physical well database for the purpose of calculating groundwater elevations in the well.

The replacement well shall be installed within 150 days of the execution of the Remediation Agreement.

**Milestone J. Quarterly Groundwater Sampling and Reporting**

Bidders shall provide a fixed cost to perform four quarterly sampling and reporting events. Each quarterly event shall include the sampling of the POET systems installed on the Site water supply well and the water supply well on the adjacent property (ACUTECH) (subject to the PADEP's approval of the RRAP) and a comprehensive round of groundwater sampling. Each groundwater sampling event shall include the measurement of depths-to-water in, and the sampling of, monitoring wells MW-1R through MW-12, IW-1 through IW5, and RW-1 through RW-4. The first quarterly sampling event shall occur during the calendar quarter following the comprehensive groundwater sampling event detailed in Milestone C and should follow the completion of the excavation activities associated with Milestone H and the potential restoration of well MW-1 (Milestone I). The groundwater samples shall be

collected in laboratory-provided containers to be analyzed by EPA Method 8260B for the substances identified as the current and historical COCs specified above. The POET samples shall be collected in laboratory-provided containers to be analyzed by EPA Method 524.2 for the substances identified as the current and historical constituents of concern specified above.

The selected bidder shall prepare and submit a RAPR detailing the work conducted during each of the four quarters. Each RAPR shall be submitted within 30-days of the quarter in which the groundwater sampling event occurred. The RAPR shall be prepared in accordance with Chapter 245.312 (b) and (c).

Additionally, the bidders shall provide an all-inclusive fixed unit cost (per well) for the reduction in the number of wells sampled. This unit rate will be used to adjust the Milestone reimbursement in the event all of the proposed wells are not sampled.

#### **Milestone K.      Preparation of Remediation Summary Report**

Bidders shall provide a fixed price for the preparation of a Remediation Summary Report. The successful bidder shall prepare a report summarizing the activities conducted with regard to this RFB. The summary report shall discuss the data obtained and the conclusions drawn from the completion of the work contained within this RFB.

The selected bidder shall incorporate a vapor intrusion evaluation for future potential structures on the property into the Remediation Summary Report. Although the potential for vapor intrusion into the service building and the office building was assessed by the previous consultant in 2005, the selected bidder shall compare the soil and groundwater data collected as a result of work described within this RFB to the PADEP's Vapor Intrusion Guidance Screening Values.

Tables, figures, and other attachments that support the text shall include but not be limited to the following:

- Updated comprehensive historical groundwater elevation data;
- Updated comprehensive historical groundwater analytical data;
- Site map (showing property boundaries and pertinent site features);
- Monitoring well and soil boring locations;
- Groundwater head potential contour maps for each sampling round;
- Groundwater isoconcentration contour (plume) maps for each substance found to be above the SHS MSC (for each sampling round);
- Soil excavation map showing the extent of the soil excavation and attainment sampling locations;

- Laboratory analytical reports for groundwater and soil with chains of custody and field sampling documentation; and,
- Soil boring logs for new soil borings and well construction logs for new groundwater monitoring wells
- Vapor intrusion evaluation for future potential structures on the property

The selected bidder shall prepare the summary report in draft form for review and comment by the Solicitor and the PAUSTIF prior to submitting it to the PADEP. The bidders' schedule shall provide two weeks for this review.

### **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
  - a. Table 1: Table of Anticipated Milestone Completion Times
  - b. Figure 1: Site Map Showing Proposed Soil Boring and POC Well Locations
  - c. 2002 Phase I and Phase II Environmental Site Assessments
  - d. Buyer-Seller Agreement
  - e. January 2003 Work Plan
  - f. January 2003 PADEP Letter
  - g. April 2003 Site Characterization Report
  - h. May 2003 PADEP SCR Approval Letter
  - i. July 2003 Remedial Action Work Plan
  - j. July 2003 PADEP RAP Approval Letter
  - k. March 2004 UST Closure Report
  - l. March 2004 Soil Attainment Report
  - m. May 2004 PADEP Soil Attainment Approval Letter
  - n. June 2005 Soil Vapor Attainment Report
  - o. December 2006 Revised Remedial Action Plan
  - p. January 2007 PADEP Revised RAP Approval Letter
  - q. August 2008 Groundwater Injection Pilot Study Report
  - r. November 2011 Additional Investigation Activities Results Tables and Figures
  - s. Fourth Quarter 2012 Remedial Action Progress Report
  - t. First Quarter 2013 Remedial Action Progress Report
  - u. Second Quarter 2013 Remedial Action Progress Report
  - v. Third Quarter 2013 Remedial Action Progress Report