

Request for Bid

Fixed-Price Defined Scope of Work to Complete a RAP

Solicitor

JMD Corporation DBA Bristol Amoco

7601 Bristol Pike

Levittown, PA 19057

PADEP FACILITY ID #09-03262

PAUSTIF CLAIM #2009-0001(S)

Date of Issuance

September 4, 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. 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 13, 2013 by 5 p.m.
Mandatory Pre-Bid Site Visit	September 17, 2013 at 11 a.m.
Deadline to Submit Questions	September 25, 2013 by 5 p.m.
Bid Due Date and Time	October 3, 2013 by 3 p.m.

Contact Information

ICF International	Solicitor	Technical Contact
<p>Ms. Patricia Condran ICF International 4000 Vine Street Middletown, PA 17057 Email – Patricia.Condran@icfi.com</p>	<p>Mr. Tony Parashar JMD Corporation DBA Bristol Amoco 7601 Bristol Pike Levittown, PA 19057</p>	<p>Mr. Mark Bedle B&B Diversified Enterprises, Inc. PO Box 16 Barto, PA 19504 Phone – 610-845-0640 Fax – 610-845-0650 Email – mbedle@bbde.com</p>

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 “[insert site name and claim number provided on cover page] – 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 “[insert site name and claim number provided on cover page]– 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 # [insert claim number provided on cover page]".** 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 Address

Bristol BP Amoco
7601 Bristol Pike
Levittown, PA 19057
Bristol Township, Bucks County

Site Location and Operation Information

The Site is located at 7601 Bristol Pike, Levittown, PA. The Site is owned by JMD Corporation DBA Bristol Amoco and is currently operated as a retail gasoline/diesel station and a convenience store. The site has been operated as a gasoline station for over 20 years. The Site is occupied by a single-story, slab on grade block building. The current UST system, installed in December 2008, consists of four, double wall fiberglass USTs (12,000-gallon diesel, 10,000-gallon gasoline, 5,000-gallon gasoline, 3,000-gallon kerosene), two gasoline dispensers, one diesel dispenser, one kerosene dispenser, associated product piping, and canopy. The former UST system, which was excavated on December 23, 2008, consisted of two 10,000-gallon gasoline tanks, one 10,000-gallon diesel tank, and one 10,000-gallon kerosene tank. In 1998, the former USTs were internally lined and new double wall product piping was installed. The product lines were reused when the current UST system was installed within the footprint of the former system. The properties surrounding the Site consist of mixed commercial and residential land use. The closest bodies of water to the Site are the Pennsylvania Canal, located approximately 50 feet towards the north, and the Delaware River, located approximately 1,500 feet southeast. The Site is served water from an on-site supply well. Surrounding properties are reportedly served water from either a private supply well or the Bucks County Sewer and Water Authority (BCSWA). The claimant has indicated that a combination of Site Specific Standards and Statewide Health Standards for both soil and groundwater would be acceptable.

Site Background Information

On September 5, 2008, a third party UST inspection was conducted at the Site. The inspection report titled Assessment of Internally Lined USTs, indicated that the 10,000-gallon diesel UST was inspected for remaining wall thickness, any visual evidence of lining failure, and defects in lining continuity, hardness, and thickness. The tank failed inspection because it did not meet the minimum thickness requirements of 100 mils.

In a letter dated September 19, 2008, PADEP acknowledged receiving and reviewing the UST lining inspection report dated September 5, 2008. The PADEP states that based on the failed results for the diesel tank, all the tanks must be removed and the tank system permanently closed.

The UST closure activities were conducted at the Site in December 2008 and summarized in an UST Closure Report Form (UCR) dated February 17, 2009. The UCR states that four 10,000-gallon USTs (two gasoline, one diesel, one kerosene) were excavated and removed from the Site. The product piping was left in the ground and reused with the current UST system present at the Site. Approximately 32 tons of contaminated soil was removed during the UST excavation and properly disposed of off-site. No groundwater was encountered in the excavation. The tanks were reported to be in "fair" condition. Thirteen soil samples were collected during the closure activities and were laboratory analyzed for BTEX, methyl tertiary-butyl-ether (MTBE), naphthalene, cumene, 1,2,4-Trimethylbenzene (TMB), and 1,3,5-TMB. The analytical results indicated all COC concentrations less than their respective PADEP SHS except for TMBs in sample 006 East End, collected from the southeastern end of the kerosene UST. The location and analytical data of the soil samples can be found in the February 17, 2009 UCR.

On December 18, 2008, a NORR was submitted to the PADEP due to a suspected petroleum release discovered during UST closure activities.

On December 30, 2008, a NOV was issued by the PADEP due to the reported December 18, 2008 petroleum release.

In a letter dated May 26, 2009, the PADEP acknowledged receiving the February 17, 2009 UCR and indicated that since contamination above SHS still remains in the soil and/or groundwater at the Site, corrective action is required.

On June 24, 2009, a NOV was issued by the PADEP indicating that a request for a SCR submission extension was disapproved. On July 9, 2010, an Enforcement Action Notice letter was issued by the PADEP because the Department had still not received the SCR that was due on June 20, 2009.

A Site Characterization Report (SCR) was prepared for the Site and dated April 2012. A summary of key facts included in the SCR follows:

- A former gas station was confirmed to have existed on the property located adjacent, and northeast to the Site, at 7603 Bristol Pike. In November 2010, a PADEP case file review of this property indicated that it was formally operated as a Shell gasoline station. In 1994, UST closure activities were conducted at the Shell site, and evidence of a release from the gasoline dispensers was reported. Six hundred and seventy four tons of contaminated soils were excavated and removed from the site during the UST closures. Three monitoring wells were installed at the Shell property in 2004. An on-site potable well was also reported. Eight quarters of groundwater samples were collected from the monitoring wells and COCs identified by the laboratory analytical results were benzene, 1,2-dibromomethane (EDB) and dissolved lead. The PADEP granted the Shell property a Release of Liability (ROI) for both soil and groundwater in July 2007.
- On July 17, 2009, nine soil borings were advanced at the Site utilizing a Geoprobe® direct push sampling rig. The borings were advanced to refusal at bedrock, approximately 20 feet below surface grade (ftbsg). No groundwater was encountered in any of the soil borings. One soil sample was collected from each boring at the soil/bedrock interface and was laboratory analyzed for BTEX, MTBE, naphthalene, cumene, and TMBs. The analytical results indicated all COC concentrations below their respective PADEP SHS except for TMBs in sample SB-3, collected southeast of the kerosene and diesel USTs.
- Four groundwater monitoring wells (MW-1 through MW-4) were installed at the Site on November 8 and 9, 2010, and one well (MW-5) was installed on August 1, 2011. The wells were installed utilizing an auger drill rig and advanced to depths ranging from 25 to 30 ftbsg. The wells were constructed with four-inch PVC well casing with groundwater encountered during drilling activities at depths ranging from 12 to 20 ftbsg. The monitoring well construction logs are included in the SCR.
- The SCR summarized four groundwater sampling events that were conducted from December 2010 through September 2011. During each event, the samples were laboratory analyzed for BTEX, MTBE, naphthalene, cumene, and TMBs. Groundwater analytical data is summarized in the SCR.
- A PAGWIS database search identified 22 wells within one-half mile of the Site: four industrial, three domestic, five unused, eight public supply, one air conditioning, and one test well. A well search utilizing the PADEP eMap website indicated 15 public and private supply wells within one-half mile of the Site. Available information included in the

SCR indicates that there are no potable wells located immediately down-gradient of the Site.

- On July 11, 2011 an indoor air sample was collected from the Site building using a 24-hour, six liter suma canister. The sample was laboratory analyzed for BTEX, MTBE, naphthalene, cumene, and TMBs and the results indicated concentrations of ethylbenzene, naphthalene, and TMBs greater than their respective PADEP Non-Residential Indoor Air Criteria. The laboratory analytical results are summarized in the SCR.
- A slug test was conducted at the Site on May 2, 2011. Monitoring wells MW-1 through MW-3 were monitored for both rising head and falling head data. The monitoring wells reportedly recovered completely in a short time. The hydraulic conductivity (K) value calculated with the slug test data was 0.862 feet per day.
- Groundwater flow direction at the Site is reported in the SCR as towards the southeast with a hydraulic gradient of approximately 0.002 feet per foot. Depth to groundwater at the Site (on December 14, 2011) ranged from 11.10 (MW-5) to 17.47 (MW-4).

A Remedial Action Plan (RAP) was prepared for the Site and dated September 2012. A summary of key facts included in the RAP follows:

- On July 18, 2012, monitoring wells MW-1 through MW-5, and the Supply Well were sampled and laboratory analyzed for BTEX, MTBE, naphthalene, cumene, and TMBs. Laboratory analytical results indicated the following COC concentrations greater than their respective PADEP SHS: benzene (MW-2 and MW-5), naphthalene (MW-2 and MW-5), 1,2,4-TMB (MW-1, MW-2 and MW-5), and 1,3,5-TMB (MW-2 and MW-5). Groundwater analytical data is summarized in the RAP.
- Groundwater sampling results from the July 18, 2012 event indicated the detection of benzene, MTBE, naphthalene, and 1,3,5-TMB concentrations above the applicable SWHS in monitoring well MW-5 for the first time since sampling was first conducted in March 2011.
- The remedial action chosen for the Site was to monitor natural attenuation. This was recommended as the appropriate remedial strategy for the Site due to the low levels of COCs present in the shallow groundwater. Fate and transport modeling indicated that groundwater contaminants at the Site will not persist in groundwater at concentrations greater than their respective edge criteria to impact water quality. Four consecutive quarters of groundwater monitoring well and supply well sampling are recommended before a Remedial Action Closure Report (RACR) is submitted to the PADEP.

- The RAP recommended a SHS for BTEX, MTBE, naphthalene, cumene, and TMBs in soil as well as for toluene, ethylbenzene, xylenes and cumene in groundwater. Because levels of benzene, MTBE, naphthalene, and TMBs are greater than their respective PADEP SHS, a Site Specific Standard (SSS) utilizing pathway elimination is recommended for these aforementioned compounds in groundwater.

In November 2012, an additional round of groundwater samples were collected at the Site. The analytical results were similar to the results from events conducted at the Site prior to the July 2012 groundwater sampling. With regard to monitoring well MW-5, the analytical results indicated that none of the COCs were present above the applicable PADEP standards and were in line with data presented from events conducted from March 2011 through April 2012.

In a letter dated December 13, 2012, PADEP disapproved the RAP. The letter states disapproval because “the Point of Compliance (POC) well (MW-5) has increasing levels of site-related contaminants. These increased concentrations could be impacting the stormwater and wastewater systems. Therefore, these receptors should be characterized. Additionally, following completion of a fully delineated characterization, it may be necessary to revise the RAP. In order to assess potential impacts to human health and the environment posed by releases at this facility, further site characterization activities should be conducted.”

On February 14, 2013, the PADEP sent a NOV to the claimant for failure to submit a RAP for the Site. According to the NOV, the SCR was approved by the PADEP on June 27, 2012 and as such a RAP would have been due to the PADEP by August 16, 2012. Available information indicates that a copy of the PADEP approval letter was not received by the solicitor, consultant, ICF, or USTIF. As such, a copy of the letter mentioned in the recent NOV is not attached to this RFB.

Scope of Work (SOW)

This RFB seeks competitive bids from qualified contractors to perform the activities in the Scope of Work (SOW) specified herein.

Objective

This RFB is seeking qualified firms to prepare and submit a fixed price proposal to complete a Defined Scope of Work. Specifically, this RFB seeks competitive bids to complete additional characterization activities, prepare an appropriate RAP, and facilitate progress towards site closure in a timely, efficient, and cost effective manner. A petroleum release has been confirmed at the Site in both soil and groundwater. The scope of work was presented to the PADEP for review and comment. No response was received from the PADEP.

Constituents of Concern (COCs)

The list of COCs for this Site include the following:

- Benzene
- Toluene
- Ethylbenzene
- Xylenes
- MTBE
- Naphthalene
- Cumene
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene

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:¹

- 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

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

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 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

As part of this RFB, the selected consultant will need to consider the following site specific guidelines:

- **Scheduling:** As part of this RFB, the selected consultant shall provide a clear deadline (i.e. within 30 days of the contract being executed) as to when each of the milestones will be completed. This includes the expected date (i.e. within 90 days of the contract being executed) when the draft SCR will be submitted to the Solicitor, PAUSTIF and B&B for review. All on-site work should be completed during the normal working days and hours of 8 am to 5 pm from Monday through Friday.
- **Responsibility:** The selected consultant will be the consultant of record for the Site. They will be required to take ownership and responsibility for the project and will be responsible for representing the interests of the Solicitor and ICF/PAUSTIF with respect

to the project. This includes utilizing their professional judgment to ensure reasonable and appropriate actions are recommended and undertaken to protect sensitive receptors, adequately characterize the Site, and move the Site towards closure.

- **Scope of Work:** Please bid the scope of work as provided in the RFB. Consultants are welcome to propose or suggest a change in the SOW; however the consultant should bid the SOW as presented in the RFB and provide any suggested modification to the SOW and provide the cost difference (+ or -) separately in the proposal.
- **Safety Measures:** Each consultant should determine the level of safety measures needed to appropriately complete the milestones. Specifically, if a consultant feels it is appropriate and necessary to complete activities such as hole clearing activities, the cost should be included in their proposal and costs. More importantly, if a consultant includes the cost to complete safety activities, they should specify it in their proposal and discuss why it is appropriate and necessary and indicate which methods will be utilized and to what extent. As discussed in the RFB, cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures.
- **Waste Disposal:** The IDW waste (including soil/rock cuttings, development water, and liquids generated during installation and aquifer testing) should be disposed of per the instructions included in the “General SOW Requirements” section of the RFB. Bidders will be responsible for arranging any offsite waste disposal (if required) and including costs in their bid response to cover the disposal of all potential waste related to the milestones included in the SOW. Containerized soil and groundwater may be temporarily stored on site, but should be removed from the Site in a timely manner. In an effort to eliminate or minimize the need for change orders on a fixed price contract, please include costs to dispose of all anticipated volumes of waste in your bid response. PAUSTIF will not entertain any assumptions on the contract with regards to a volume of waste (i.e. Project costs assume that no more than 1,000 gallons of groundwater will require disposal after the completion of the pump test). Bidders will be responsible for including costs in their bid response to cover the disposal of all potential waste related to the milestones included in the SOW. Please estimate the volume of waste using your professional opinion, experience, and the data provided. Invoices submitted to cover additional costs on waste generated as part of activities included under the fixed price contract for this Site will not be paid.
- **Optional Cost Adder Milestones:** Milestone A through Milestone E represents the base Scope of Work for this RFB solicitation. These milestones have been specifically developed in an effort to complete the PADEP’s site characterization requirements. In addition to the above base Scope of Work, the Optional Cost Adder Milestones

(Milestone F through Milestone I) need to be addressed in your bid response. These cost adders will not be part of your initially approved contract. However, if it becomes necessary to complete any of these activities, they will be completed under the Remediation Agreement signed as part of this project.

The following Milestones are to be included in bid responses:

Milestone A – Sensitive Receptor Survey – A Sensitive Receptor Survey (SRS) should be conducted for this Site. Sensitive receptors evaluated for this Site should include area water usage, surface water bodies, and subsurface underground utilities and basements. Submitted bids should specify what activities will be included in the SRS activities (i.e. review of tax maps and property assessment records; area canvass; PNDI search, etc.). A 1,000-foot radius water usage survey should be completed as part of the SRS in an effort to document the area water use. As part of the water usage survey, the selected consultant should complete the following:

1. Conduct a private and public well search by obtaining an area specific report;
2. Obtain and review tax maps for the area;
3. Contact the local municipality and water authority to confirm water usage in the area of the Site and any local restrictions on water usage;
4. Review of previously completed sensitive receptor surveys;
5. Review of county property assessment records;
6. Canvass of the area; and
7. Field verification of water supply to surrounding properties.

Results of the SRS are to be taken into consideration during the execution of the project and are to be summarized and included in the SCR to be submitted to PADEP.

Milestone B – Overburden Monitoring Well Installation – Based on information provided in previously submitted reports, two (2) additional overburden monitoring wells (MW-6 and MW-7) are to be installed at the Site. Specifically, the two (2) additional wells are being installed due to the following:

- **Monitoring Well MW-6** – Monitoring Well MW-6 is to be installed immediately adjacent to historical soil boring SB-3. Soil boring logs completed for both SB-3 and SB-4 indicated the presence of free product from approximately 18 ftbsg to 20 ftbsg and 18.5 ftbsg to 20 ftbsg, respectively. In addition, the logs indicated that PID readings of 2,654

ppm and 665 ppm were detected during the advancement of SB-3 and SB-4, respectively. The boring logs were included in Attachment D of the April 2009 SCR. With regards to free product, the soil characterization section of the SCR makes no mention of the free product noted on the 2009 boring logs. The groundwater characterization section of the SCR discusses free product as follows:

“No free product has been observed in any of the monitoring wells installed on the Site to date, or the potable well located within the study area. No free product was identified down gradient from the source area within the PA Canal and no free product was identified during the tank removal activities in 2008.”

The purpose of the monitoring well MW-6 is to confirm whether free product is present in the area of soil boring SB-3 and whether further investigation is warranted in this area.

- **Monitoring Well MW-7** – Monitoring Well MW-7 is to be installed along the southern property boundary between monitoring well MW-1 and MW-5 in an effort to provide an additional monitoring point on the reportedly downgradient property boundary.

The proposed locations of the shallow water monitoring wells are provided on the attached Figure 1. As part of the installation of the overburden monitoring wells, the selected consultant should consider the following:

- All monitoring wells will be advanced in the locations proposed in the RFB, unless the presence of utilities, obstructions, or safety concerns requires a change in the location. Prior to the advancement of the soil borings, the selected consultant will be required to complete a private markout at the Site to identify the location of obstructions and underground utilities. The proposed locations of the monitoring wells are provided on the attached Site Plan.
- For the two (2) overburden monitoring wells, the borehole will be drilled to the completed depth of approximately 25 ftbsg, and a monitoring well will be constructed using approximately 5 feet of four-inch diameter, schedule 40 PVC flush threaded casing and approximately 20 feet of four-inch diameter, schedule 40 PVC flush threaded 0.010 slot size screening. The total depth and screening interval provided are approximated. The estimated construction specifications provided above may need to be altered during drilling as dictated by actual site conditions (i.e. actual depth to bedrock, actual depth to groundwater, etc.).
- A flush-mounted manhole shall be cemented into place to complete the well at grade level. A locking, pressure fit, watertight cap will be used to prevent the

infiltration of surface runoff and rainwater and to restrict access by unauthorized individuals.

- The wells should be drilled and constructed in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, dated January 1, 1999 (Document # 383-3000-001). Based on anticipated drilling conditions, a Pennsylvania-licensed driller should install the wells using air-rotary methods.
- Drilling should be conducted under the supervision of a Pennsylvania-licensed Professional Geologist, although a field supervisor may be used in the field on a day-to-day basis. The field supervisor should visually inspect subsurface materials encountered during drilling, screen cuttings with a PID, and complete field well construction logs. When encountered, soils should be described using the Unified Soil Classification System. Bedrock should be described using USGS descriptive protocol, with the identification of the depth of and size of potential fractures and/or other subsurface anomalies.
- All wells are to be installed to the specifications included in the RFB. If the RFB indicates that the well should be overburden then it would only be installed as overburden. If installation of an overburden well in a location is deemed not feasible by a P.G. due to the shallow presence of competent bedrock after an appropriate attempt has been documented and logged, then a well would not be installed in that location and a credit/cost adjustment would be given to the claimant for that well not being installed.
- The newly installed monitoring wells should be developed to promote adequate hydraulic connection between the aquifer and the well. Depending on the depth and amount of sediment in the well, development should be completed via mechanical surging using either a bailer or an electric submersible pump, or by airlift techniques.
- Compile the field findings into comprehensive monitoring well construction diagrams and logs.

Milestone C – Site Survey – Following the installation of the proposed monitoring wells, a professional survey of the Site by a Pennsylvania-licensed surveyor including all current site features (e.g., buildings, property boundaries, monitoring wells, supply well, etc.) shall be completed. All monitoring wells, the Site building, property boundaries and other important Site features are to be surveyed with the purpose of placing their horizontal coordinates on a scaled site map. In addition, the vertical coordinates of the monitoring well top of casings and surface grade are to be surveyed. The benchmark elevation shall be obtained by referencing the approximate ground surface elevation of the property or from an available benchmark from a USGS topographic map or benchmark elevation marker located at the Site. In conjunction with collecting depth to groundwater readings during sampling events and in an effort to establish groundwater flow at the Site, tops of casing for the existing monitoring wells are to be surveyed to facilitate the construction of a Site wide groundwater flow map. In addition, the presence of SPL (if detected) needs to be taken into consideration when calculating the static water levels in the wells and constructing a Site wide groundwater flow map. Groundwater elevation data collected following the installation of the additional monitoring wells along with data from the site survey will be utilized to produce a series of summary figures which will provide additional information as to the groundwater flow direction in the monitored aquifer.

Milestone D – Groundwater Monitoring and Sampling – For this RFB, please assume the total number of groundwater monitoring and sampling events that will be needed is two (2) events. During each of the two (2) groundwater monitoring and sampling events, the selected consultant shall collect groundwater samples from monitoring wells MW-1 through MW-7. In addition, the selected consultant will collect a sample from the Site's supply well during each of the groundwater monitoring and sampling event. Please note that USTIF will only pay the selected consultant for the actual number of events conducted (i.e. if a firm includes the costs to complete two (2) events, but only one (1) event is conducted; then the firm will only be paid for the one (1) event completed). The selected consultant should be prepared to conduct the first groundwater sampling event at the Site approximately two (2) weeks after the installation and development of the two (2) proposed monitoring wells. Each event should include the following:

- Collect water level readings from each of the monitoring wells using an interface probe capable of distinguishing water and/or the presence or absence of product to the nearest 0.01 feet.
- Record the depth to water readings from the monitoring wells and then use the data to determine water level elevations such that groundwater flow direction can be confirmed.

- Groundwater sampling activities should be conducted in accordance with generally accepted practices as outlined in the final version of the PADEP Groundwater Monitoring Guidance Manual.
- Prior to the collection of groundwater samples, the water column in each of the monitoring wells should be purged by either the removal of approximately three (3) volumes of the water column or via low flow sampling method.
- Sampling equipment should be decontaminated prior to sample collection in accordance with generally accepted industry practices.
- Following purging activities, groundwater samples should be collected as quickly as practical from each of the wells directly from a bailer into laboratory supplied bottleware.
- Samples should be properly handled under chain of custody documentation protocol and kept cold from sample collection until the samples are relinquished to the accredited laboratory.
- Groundwater samples collected during each of the events will be sent to an accredited laboratory to be tested for the required constituents of concern in accordance with Pennsylvania's Storage Tank Regulation procedures and cleanup standard criteria as specified in Pennsylvania's Act 2. Specifically, each sample will be analyzed for BTEX, MTBE, naphthalene, cumene, 1,2,4-TMB and 1,3,5-TMB.
- The supply well sample collected during each of the events will be sent to an accredited laboratory to be tested for the required constituents of concern in accordance with Pennsylvania's Storage Tank Regulation procedures and cleanup standard criteria as specified in Pennsylvania's Act 2. Specifically, each sample will be analyzed for benzene, toluene, ethylbenzene, total xylenes, MTBE, naphthalene, cumene, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene. Results from the supply monitoring and sampling events will be summarized and presented to the PADEP in the RAP.

- In addition to the samples collected from the monitoring wells and supply well, one (1) duplicate sample and one (1) equipment blank sample will be collected and submitted per day of sampling.
- The laboratory to be utilized should be identified in the bid package. Upon receipt of the results, the consultant should forward a copy of the analytical data to the solicitor and PAUSTIF (or its designated representative). Following collection of the second round of groundwater monitoring and sampling data, a determination will be made whether additional rounds of data need to be completed before an appropriate RAP can be submitted. The selected consultant will keep PAUSTIF and the Technical Contact updated on the progress of the investigation.

Milestone E – Preparation of a Remedial Action Plan (RAP). Following the completion of the activities proposed in Milestone A through Milestone D; the selected consultant will prepare a RAP for the Site. The information gathered during the aforementioned milestones should be incorporated into a comprehensive RAP that will be submitted to the PADEP and will facilitate the objective to complete regulatory requirements governing the RAP and gain PADEP approval for the report. For this RAP, please assume that the RAP will be selecting Monitored Natural Attenuation as the remediation strategy. If it is determined later that the data does not support Monitored Natural Attenuation as a viable strategy for this Site, then feasibility testing and an expanded RAP will be handled under an amendment to the fixed price contract.

The RAP should summarize the results of the recent investigations, the findings of the previous investigations, a comprehensive Site history, sensitive receptor information, discussion on the completed remediation efforts, and a series of summary tables, appendices, and figures illustrating the information provided in the report. It should also present a clear discussion and a structured argument as to why the selected remedial strategy is appropriate and applicable for this Site. The RAP should also provide specifications as to how the remedial strategy will be implemented at the Site.

The format and content of the report shall be generally consistent with 25 PA Code §245.309 and §245.310. The RAP shall be sealed by a Professional Geologist and a Professional Engineer registered in the State of Pennsylvania. A draft copy of the report shall be submitted electronically (in Adobe PDF format) and in hard copy to the Solicitor and Technical Contact for review / comment prior to finalizing the RAP. Once the selected consultant has addressed comments on the draft, the selected consultant shall finalize and issue the report to the PADEP. The report submission is to be submitted no later than the date specified in the schedule presented by the selected consultant. All AutoCAD maps / plans included in the report (e.g., site plan / base map, groundwater elevation maps, dissolved plume maps, soil contaminant distribution maps, etc.) and appendices (e.g., boring logs, tables, disposal documentation, lab

data, and sensitive receptor information) shall also be submitted electronically on CD to the Solicitor and Technical Contact.

Milestone F – Additional Groundwater Monitoring and Sampling (Cost Adder Milestone) – Provide a Unit Cost to complete an additional groundwater monitoring and sampling event. The scope of work for this cost adder should follow Milestone D.

- **Milestone F1** - The cost provided should be to complete only one (1) event with all wells (existing and proposed) in the network being sampled as well as the supply well. The provided cost would be to cover all labor, equipment, laboratory, waste, etc.
- **Milestone F2** - The cost provided should be to sample one (1) additional monitoring well during a groundwater sampling event. The provided cost would be to cover all labor, equipment, laboratory, waste, etc.

Milestone G – Preparation of Summary Progress Report (Cost Adder Milestone) – Provide a Unit Cost to Prepare a Summary Progress Report for submittal to the PADEP. The Progress Report should detail the observations documented during the event, summarize the analytical results, map the groundwater flow direction for the Site, provide iso-concentration maps for compounds exceeding the SWHS, provide hydro-graphs, discuss the interim remediation efforts (if any), and provide additional scheduling details for upcoming events. Once the report is approved by the Solicitor, PAUSTIF and the Technical Contact, the report can be finalized and submitted to the PADEP. The progress reports discussed are being proposed to meet the PADEP obligation on progress reporting.

Milestone H – Installation of additional overburden Monitoring Wells (Cost Adder Milestone) – Provide a Unit Cost to install one (1) additional overburden monitoring well. The scope of work for this cost adder should follow Milestone B construction guidelines. Please provide costs for the following:

- **Milestone H1** – Installation of one (1) additional overburden monitoring well during a separate event. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.

- ***Milestone H2*** - Installation of one (1) additional overburden monitoring well as an add-on to a drilling investigation. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.

Milestone I – Update Survey (Cost Adder Milestone) – Provide a Unit Cost to update the Site’s survey to include any additional on-site or off-site well location(s). The scope of work for this cost adder should follow Milestone C.

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. Proposed Monitoring Well Location Map
 - b. February 2009 UST Closure Report Form
 - c. January 2011 RAPR
 - d. April 2012 SCR
 - e. September 2012 RAP
 - f. November 2012 groundwater sampling data
 - g. December 2012 PADEP Correspondence
 - h. February 2013 NOV