Request for Bid

Fixed-Price Defined Scope of Work to Complete Characterization

Solicitor

7-Eleven, Inc
PO Box 711
Dallas, TX 75221
PADEP FACILITY ID #01-11698
PAUSTIF CLAIM #2009-0171(F)

Date of Issuance

July 20, 2016

Table of Contents

Calendar of Events	
Contact Information	2
Requirements	3
Mandatory Pre-Bid Site Meeting	3
Submission of Bids	3
Bid Requirements	4
General Site Background and Description	8
Objective	15
Constituents of Concern (COCs)	15
General SOW Requirements	15
Site – Specific Guidelines	17
Site -Specific Milestones	21
Additional Information	38
List of Attachments	39

The Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF), on behalf of the claimant who hereafter is referred to as the Client or Solicitor, is providing this Request for Bid (RFB) to prepare and submit a bid to complete the Scope of Work (SOW) for the referenced Site. The Solicitor is the current owner and operator of the Site. PAUSTIF has determined that the claim reported by the Solicitor is eligible for coverage from the PAUSTIF subject to the applicable statutes and regulations. Reimbursement of Solicitor approved reasonable and necessary costs, not to exceed the claim aggregate limit, for the corrective action work described in this RFB will be provided by PAUSTIF. Solicitor is responsible to pay any applicable deductible and/or proration.

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

Calendar of Events

Activity	Date and Time
Notification of Intent to Attend Site Visit	August 9, 2016 by 5 p.m.
Mandatory Pre-Bid Site Visit	August 11, 2016 at 1 p.m.
Deadline to Submit Questions	August 18, 2016 by 5 p.m.
Bid Due Date and Time	September 2, 2016 by 3 p.m.

Contact Information

Technical Contact

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

All questions regarding this RFB and the subject Site conditions must be directed via email to the Technical Contact identified above with the understanding that all questions and answers will be provided to all bidders. The email subject line must be "[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 conduct a Site tour for one (1) participant per bidding company. The Technical Contact may answer questions at the Site meeting or may collect questions and respond via email. All questions and answers will be provided via email to all attendees. This meeting is mandatory for all bidders, no exceptions. This meeting will allow each bidding company to inspect the Site and evaluate Site conditions. 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 email. Notification of intent to attend is appreciated; however, it is not required. Attendance at the Pre-Bid Site Meeting is mandatory.

Submission of Bids

To be considered for selection, one (1) hard copy of the signed bid package and one (1) electronic copy (one (1) 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 Pre-Bid Site Meeting of an extended due date. The hour for submission of bids shall remain the same. Submitted bid responses are subject to the Pennsylvania 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 RFB. The bidder must identify and document in their bid any modifications that they wish to propose to the Remediation Agreement language in Attachment 1 other than obvious modifications to fit this RFB (e.g., names, dates, and descriptions of milestones). The number and scope of any modifications to the standard agreement language will be one (1) of the criteria used to evaluate the bid. Any bid that does not clearly and unambiguously state whether the bidder accepts the Remediation Agreement language in Attachment 1 "as is", or that does not provide a cross-referenced list of requested changes to this agreement, will be considered non-responsive. This statement should be made in a Section in the bid entitled "Remediation Agreement". Any proposed changes to the agreement should be specified in the bid; however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PAUSTIF.

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

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

The bidder shall provide its bid cost using the Bid Cost Spreadsheet (included as Attachment 2) with descriptions for each task provided in the body of the bid document. Please note, if costs are provided within the text of the submitted bid and there is a discrepancy between costs listed in the Bid Cost Spreadsheet and in the text, the costs listed within the Bid Cost Spreadsheet will be used in the evaluation of the bid and in the Remediation Agreement with the selected consultant. Bidders are responsible to ensure spreadsheet calculations are accurate. The technical score for bids will be based solely on those tasks represented as milestones included in the Bid Cost Spreadsheet and the total bid cost. Any optional bidder-defined tasks, milestones, or cost adders that are not requested as part of this RFB will not be considered by the Bid Evaluation Committee in the technical review and technical score for the bid.

In addition, the bidder shall provide:

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

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

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

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

Each bid response document must include at least the following:

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

proposed in this RFB shall be discussed, quantified, and priced separately; however, failure to bid the SOW "as is" may result in a bid not being considered.

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.

Note: As per Exhibit D of the Remediation Agreement, the Solicitor has spectific levels of insurance that must be obtained by the selected bidder. Please make sure your submitted insurance certificate documents that each of the required insurance levels can be met. If your current level of insurance does not meet Solicitor requirements, a statement should be included in your bid indicating willingness to obtain and provide proof of required insurance levels if your company is selected by the Solicitor.

- 4. The names and brief resumes/qualifications of the proposed project team including the proposed Professional Geologist and Professional Engineer (if applicable) who will be responsible for overseeing the work and applying a professional seal to the project deliverables (including any major subcontractor(s)).
- 5. Responses to the following specific questions:
 - a. Does your company employ a Pennsylvania-licensed Professional Geologist that is designated as the proposed project manager? How many years of experience does this person have?
 - b. How many Pennsylvania Chapter 245 projects is your company currently the consultant for in the PADEP Region where the Site is located? Please list up to 10.
 - c. How many Pennsylvania Chapter 245 Corrective Action projects involving an approved SCR, RAP, and RACR has your company and/or the 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 date of each of the tasks/milestones specified in the Scope of Work, and indicate the timing of all proposed key milestone activities (e.g., within 30 days of the contract being executed).
- 8. A description of how the Solicitor, ICF, and the PAUSTIF will be kept informed as to project progress and developments and how the Solicitor (or designee) will be informed of and participate in evaluating technical issues that may arise during this project.
- 9. A description of your approach to working with the PADEP. Describe how the PADEP would be involved proactively in the resolution of technical issues and how the PADEP case team will be kept informed of activities at the Site.
- 10. Key exceptions, assumptions, or special conditions applicable to the proposed SOW and/or used in formulating the proposed cost estimate. Please note that referencing extremely narrow or unreasonable assumptions, special conditions, and exceptions may result in the bid response being deemed "unresponsive".

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

7-Eleven 28214 403 Lincoln Way West New Oxford, PA 17350 Borough of New Oxford, Adams County

Site Location and Operation Information

The Site is an active 7-Eleven convenience store (store #28214) located at 403 Lincoln Way West in the borough of New Oxford, Adams County (Site). The Site covers an area of approximately 0.2 acres and is almost entirely covered with asphalt and concrete in addition to the roughly 2,200-square foot store building. There are residential properties to the north along Lincoln Way West and commercial properties to the east across Kohler Mill Road. There is a vacant lot to the west and south and residential properties further west along Lincoln Way West. The Site's underground storage tanks (USTs) were closed by removal in November 2009 and were not replaced. In 1976, three single-walled steel USTs were installed in the same tank pit. The USTs consisted of: one 10,000-gallon regular unleaded gasoline tank, one 6,000-gallon mid-grade unleaded gasoline tank, and one 6,000-gallon premium unleaded gasoline tank.

Bedrock under the Site is the Triassic-age New Oxford Formation, and shale was encountered between 4 feet below grade (ftbg) and 5 ftbg during previous drilling activities at the Site. Groundwater has been measured in the shallow zone monitoring well at the Site at depths between approximately 3 ftbg to 5 ftbg. In intermediate zone monitoring wells at the Site, the depth to water has typically been gauged between 8 ftbg and 12 ftbg.

Site Background Information

On September 30, 1996 through October 4, 1996, Fugro Kelley Omega, Inc. performed UST upgrade work on one 10,000 gallon and two 6,000 gallon steel, unleaded gasoline USTs at the Site. Four product dispensers, tank monitor, cathodic protection and lines, three overfill

protection devices were also installed. Kelley also repaired UST vent lines at this time. Product lines were replaced or uncovered at this time. During the course of excavating around the USTs, soil impacted with unleaded gasoline was noted in the vicinity of the fill ports of all three (3) USTs. Approximately 1.9 tons of impacted soil was excavated and stockpiled at the Site. One sample was collected from the impacted soil stockpile, which showed concentrations of total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) of 79 ppm and TPH - diesel range organics (DRO) of 340 ppm. No other soil samples were collected at this time.

On October 31, 1996, Bardon Environmental Services, Inc. transported the impacted soil previously stockpiled at the Site during UST upgrade activities to a disposal facility.

On April 10, 1997, ENSR completed one soil boring (SB-1) south of the UST field at the Site following the overfill of the mid-grade unleaded gasoline UST. During soil boring activities, red shale bedrock was encountered at a depth of one ftbg. The boring was then advanced with an air rotary drill rig to a depth of 15 ftbg. Groundwater was not observed during drilling activities. Soil sample S-1 was collected from one ftbg and soil sample S-2 was collected from soil cuttings from 15 ftbg. The soil samples were analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), MTBE, naphthalene, cumene, benzo(a)anthracene, and benzo(a)pyrene. Laboratory analysis of the soil samples showed no concentrations of analytes above laboratory detection limits.

On November 16, 2009 through November 19, 2009, AECOM supervised the removal of one 10,000 gallon and two 6,000 gallon steel, unleaded gasoline USTs at the Site, including product piping and dispensers. Strong gasoline odors and elevated photoionization detector (PID) readings were noted during the excavation of the USTs. A petroleum sheen was observed on ponded water within the UST excavation. Further gasoline-contaminated soil was observed during excavation activities, and 261 tons of soil was removed from the Site and transported to a disposal facility. A reportable release was reported to PADEP on November 16, 2009. A total of six soil samples were collected, designated SW-North, SW-East, SW-South, SW-West, Dispenser and P.D.L. following excavation. The soil samples were analyzed for BTEX, MTBE, naphthalene, cumene, 1,2,4-trimethylbnezne (124-TMB), 1,3,5-trimethylbenzene (1,3,5-TMB), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), and lead. The method detection limit (MDL) for EDB in soil sample SW-West collected from 6 ftbg. was above the PADEP residential, used aquifer medium specific concentration (MSC). Soil Sample "Dispenser", collected from 3 ftbg was found to have concentrations of 124-TMB and 135-TMB above their respective MSC in addition to also having a MDL above the MSC for EDB. All other samples did not have concentrations above detection limits or had concentrations below the respective MSCs.

On November 24, 2009, the PADEP sent a letter to 7-Eleven confirming that they had been notified of a reportable release at the Site on November 16, 2009 and detailing the actions required under Chapter 245 of the Pennsylvania Code.

On February 17, 2010 AECOM supervised a geophysical survey of the Site by TPI Environmental for the purpose of locating underground utility lines. Underground electric lines were discovered which ran from the southeastern corner of the Site building to light poles along Kohler Mill Road, and water and sanitary sewer lines were discovered running from the front of the Site building to the west of the former UST field and north to Lincoln Way West.

From February 17, 2010 through February 22, 2010, AECOM supervised the installation of four groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4) by Eichelberger's, Inc. using an air rotary drill rig. The wells were completed to depths ranging from 52 ftbg – 55 ftbg. The wells were constructed with steel casing set approximately 2.5 feet into bedrock, drilled to the total depth, and completed with 15 feet of slotted PVC screen Soil samples were collected from monitoring well MW-1 at 3 ftbg and from monitoring well MW-3 at 5 ftbg. Three soil borings (SB-1A, SB-2, and SB-3) were also completed at this time. The soil samples were analyzed for BTEX, MTBE, naphthalene, cumene, 124-TMB, 1,3,5-TMB, EDB, EDC and lead, with the exception of the soil sample from MW-3, collected from 5 ftbg, which was analyzed for EDB only. All soil samples were found not to have concentrations above detection limits or had concentrations below the respective MSCs.

On March 10, 2010, AECOM completed a groundwater sampling event at the Site. Laboratory analysis of the groundwater samples indicated that monitoring well MW-1 had a concentration of MTBE above the applicable MSC, monitoring well MW-3 had concentrations of EDC and MTBE above their respective MSCs, and monitoring well MW-4 had a concentration of MTBE above the applicable MSC. Observed water levels ranged from seven ftbg to ten ftbg.

On April 7, 2010, AECOM completed a groundwater sampling event at the Site. Laboratory analysis of the groundwater samples indicated that monitoring well MW-1 had a concentration of MTBE above the MSC, monitoring well MW-3 had concentrations of EDC and MTBE above their respective MSCs, and monitoring well MW-4 had a concentration of MTBE above the applicable MSC. Observed water levels ranged from nine ftbg to 12 ftbg.

On April 21, 2011, AECOM supervised the installation of four soil gas sampling points (designated SVP-1 through SVP-4) located north of the Site building, the north end of the Site property, and the east end of the Site property. The soil gas points were installed to depths ranging from 2 ftbg - 2.5 ftbg.

On May 10, 2010, AECOM submitted an UST System Closure Report for the Site detailing the work completed in November 2009.

On May 14, 2010, AECOM submitted a Site Characterization Report (SCR) for the Site detailing the site characterization work completed. The SCR noted that groundwater flow at the Site is to the south-southeast with an average hydraulic gradient of 0.0344 ft/ft. The SCR also noted that a well search indicated that 14 potable wells were present within one mile of the Site, with eight

wells listed as domestic, four wells listed as industrial, one well as public supply, and one well as unused. The SCR proposes to install and sample seven soil gas points, install two off-site monitoring wells to the south and southwest of the Site building, conduct additional groundwater sampling events, and complete a door to door survey for potable wells within 1,000 feet of the Site.

On August 12, 2010, PADEP approved the SCR with the condition that modifications are made. The correspondence indicated that the PADEP is requiring the installation of two additional shallow groundwater monitoring wells to determine whether there is a shallow water bearing zone and if free product was present. Additional characterization was also required in the area of monitoring well MW-3 to determine the extent of the contamination plume in this area.

On July 12, 2011, AECOM supervised the installation of two off-site monitoring wells. The two new monitoring wells (designated MW-5 and MW-6) were drilled to total depths of 50 ftbg and 54 ftbg, respectively. Monitoring well MW-5 was screened from 35 ftbg to 50 ftbg and MW-6 was screened from 39 ftbg to 54 ftbg.

On September 25, 2012, AECOM supervised the installation of two additional groundwater monitoring wells. The two new monitoring wells (designated MW-3A and MW-6A) were drilled to total depths of 24 ftbg and 26 ftbg, respectively. Monitoring well MW-3A was left with an open rock interval of 9 ftbg – 24 ftbg, and monitoring well MW-6A was left with an open rock interval of 11.5 ftbg – 26 ftbg.

On November 15, 2012, AECOM supervised the installation of four additional groundwater monitoring wells. Monitoring well MW-7 was drilled to 52 ftbg and screened from 37 ftbg - 52 ftbg. Monitoring well MW-7A was drilled to a depth of 23 ftbg and constructed with an open rock interval from 10.5 ftbg - 23 ftbg. Monitoring well MW-8 was drilled to a total depth of 54 ftbg and screened from 39 ftbg - 54 ftbg. Monitoring well MW-8A was drilled to 24 ftbg and constructed with an open rock interval from 11 ftbg - 24 ftbg.

On April 18, 2013, AECOM sent an email to PADEP detailing their recent work at the Site. The email stated that active remediation would likely be necessary at the Site, and pilot testing would be needed. AECOM estimated that the pilot testing would be completed in May 2013, followed by the submittal of a Remedial Action Plan (RAP) shortly afterward. An attached figure showed that off-site monitoring wells designated MW-5, MW-6, MW-6A, MW-7, MW-7A, MW-8, and MW-8A had been installed to the south and east of the Site. The figure also shows that MW-3A had been installed on Site, in close proximity to the previously installed MW-3. A groundwater concentration figure showed that concentrations of MTBE were observed to extend some distance off-site to the west in monitoring wells MW-6, MW-6A, MW-7, and MW-8.

On June 25, 2013, AECOM sent an email to ICF providing current information about the Site and the status of pilot testing. The email stated that AECOM had determined that down hole

geophysics would be most helpful in evaluating the aquifer. It was proposed that to complete the geophysics evaluation, three additional wells be installed near existing monitoring wells MW-3, MW-6, and MW-8. Attached figures show that groundwater flow direction is variable across the Site and surrounding are in the shallow and deep aquifers. An MTBE isoconcentration map provided shows that the majority of the contaminated groundwater plume is off Site to the west, with the extent not delineated.

On October 15, 2013, AECOM sent an email to ICF providing information relating to negotiations with an off-site property owner. The email states that the property to the west of the Site had recently been sold and a new access agreement was provided to the new owner. Following the acceptance of the access agreement by the new owner, AECOM expected to schedule and install the additional off-site monitoring wells.

On December 3, 2013 and December 4, 2013, AECOM supervised the installation of three additional monitoring wells. Monitoring wells MW-3D, MW-6D, and MW-9D were drilled to 55 ftbg and constructed with an open rock interval from 20 ftbg - 55 ftbg.

On December 11, 2013 and December 12, 2013, AECOM supervised the performance of a geophysical investigation by Earth Data Northeast, Inc.

On March 25, 2014, AECOM sent an email to ICF to provide information about completed Site activities and proposed additional activities. The email stated that the additional monitoring wells (MW-3D, MW-6D, and MW-9D) were installed, and the downhole geophysical survey was performed. The email stated that AECOM believed that the geophysical evaluation suggested that additional characterization may be required in the deep aquifer due to the apparent vertical flow component and migration of MTBE plume. The email also proposes that AECOM meet with PADEP regarding the next steps required for further characterization of the extent of the MTBE plume and if the installation of additional monitoring wells will be needed.

On April 16, 2014, AECOM prepared a Summary of Site Characterization Activities letter report detailing additional Site characterization work done since 2010. The letter report summarized the various well installation activities completed and stated that monitoring wells MW-1 through MW-6 were installed in to the intermediate zone, monitoring wells MW-3A, MW-6A, MW-7A, and MW-8A were installed into the shallow zone, and monitoring wells MW-3D, MW-6D, and MW-9D were installed into the intermediate zone for the purpose of a geophysical evaluation. The monitoring wells in the shallow zone are open-borehole bedrock wells extending to approximately 24 ftbg. The wells in the intermediate zone were installed with 15-foot screened intervals to an average depth of 53.5 ftbg. However, the three wells installed for the geophysical borehole logging were constructed with an open rock interval from 20 to 55 ftbg. The report proposed to redrill monitoring wells MW-3D and MW-6D and install two (2) new monitoring wells to a total depth of approximately 75 ftbg and screened from 60 – 75 ftbg in an effort to monitor

the "deep" aquifer. The report also proposed to complete a door to door survey to investigate water usage in the area and wells identified in the 2010 well search.

On May 20, 2014, PADEP approved the Summary of Site Characterization Activities letter report dated April 16, 2014. PADEP agreed that additional characterization of potential vertical groundwater flow component is necessary to develop a remedial action plan (RAP) for the Site.

On May 19, 2014 and May 20, 2014, AECOM supervised the redrilling of existing monitoring wells MW-3D and MW-6D and the installation of monitoring wells MW-7D and MW-8D. These wells were to a total depth of approximately 75 ftbg and screened from 60 ftbg – 75 ftbg in an effort to monitor the "deep" aquifer.

On May 22, 2014, AECOM completed a well search to identify potable wells in the vicinity of the Site. A Pennsylvania groundwater inventory system (PAGWIS) search identified 18 wells within a 0.7 mile radius of the Site. One (1) potable well for a restaurant was identified by a search of the PADEP eMapPA application.

On June 25, 2014, AECOM completed a door to door water usage survey at the properties identified during the well search completed in May 2014. The results of the survey indicate that five of the properties did not have a well present, ten of the properties had active potable wells, and responses had not been received for two properties.

On January 8, 2015, AECOM submitted an SCR Addendum (SCRA) to PADEP. The SCRA summarized the environmental history of the Site and detailed characterization work performed. The SCRA proposes to contact property owners again who have not responded to their efforts to ascertain their water usage. The SCRA also proposed that a site-specific standard (SSS) will be attained for groundwater, but that active remediation may be necessary to reduce the impact to groundwater, which could possibly allow for the attainment of Statewide Health Standards (SHS).

On February 2, 2015, PADEP sent a letter to 7-Eleven disapproving the SCRA prepared by AECOM dated January 6, 2015. The PADEP noted the following deficiencies:

- Additional characterization is required for lead at the Site, as concentrations documented in MW-3A were above the SHS, and lead was historically present in gasoline. The report stated that lead was naturally occurring at the site, but no evidence was presented to support the attainment of a background standard.
- Further investigation is required for vapor intrusion into buildings on and off-site since groundwater has been documented at less than five ftbg. In addition, one nearby residence in close proximity to impacted MW-7A appears to have a basement.
- The report referenced "Table 7", but none was provided.
- The report stated that soil gas samples were collected from soil gas sampling points

installed to depths of 2 -2.5 ftbg. PADEP recommends the use of tracer gas show that surface air is not being drawn into the point and diluting the sample. Since tracer gas was not used, the results obtained are questionable.

- The sampling of a nearby potable well at the Scozzaro's Old Mill Inn is required. The report did not address which compounds were being analyzed for during the property owner's own required monthly sampling. If this well is located with 2,500 feet of the former USTs at the Site, it must be sampled at least two (2) times for leaded gasoline compounds. If the sample results show concentrations of leaded gasoline compounds, PADEP will require the replacement of the well as per 25 PA Code, Section 303(c).
- The existing soil sample data set is not sufficient for the demonstration of attainment of SHSs of soil. Systematic random sampling must be completed at the Site if attainment of the SHSs is desired; however the attainment of SSSs may be possible.
- The extent of the groundwater contaminant plume has not been defined. Further investigation is needed, including the installation of additional groundwater monitoring wells.
- Groundwater fate and transport modeling was not provided.

The letter also stated that a Remedial Action Plan (RAP) is required to be submitted my March 16, 2015.

In August 2015, B&B contacted the PADEP to obtain the PADEP's opinion on several issues in an effort to assist with the development of the RFB scope of work. The correspondence requested specific guidance on issues relating to monitoring well construction and delineation of groundwater. The PADEP provided a response via email with suggestions that were taken into consideration when developing the RFB.

Scope of Work (SOW)

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. The SOW presented in this RFB was provided to the PADEP for review and comment. The PADEP indicated that there maybe a concern with regards to the soil vapor intrusion investigation. Specifically, the PADEP has advised that the Vapor Intrusion Guidance is currently being revised and as a result vapor assessments may change significantly. The aforementioned PADEP guidance document has not yet been finalized; however, it may be in place prior to the completion of the investigation included in this RFB. The PADEP has advised that the new draft guidance document is requiring that vapor points be constructed to near source sample depths. In an effort to cover both scenarios – completing the investigation with the revised guidance document in place as well as completing it under the current guidance document; the RFB is requesting two separate milestone costs to complete the task. Just prior to the time of contract execution, PAUSTIF, the solicitor and the selected consultant will make

the determination as to which milestone (Milestone G1 or Milestone G2) will be completed based on the status of the PADEP's Vapor Intrusion Guidance.

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 SCR, evaluate potential remedial strategies, 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.

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 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 in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Waste characterization and disposal documentation (e.g., manifests) shall be maintained and provided to the Solicitor and the PAUSTIF upon request. All investigation derived wastes shall be handled and disposed per PADEP's

16

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

- 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 Guidelines

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 (e.g. within 30 days of the contract being executed) as to when each of the milestones will be completed. This includes the expected date (e.g. within 90 days of the contract being executed) when the draft deliverables will be submitted to the Solicitor and PAUSTIF 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 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.
- <u>Selected Standards</u>: As indicated in the January 2015 SCR, the claimant has selected
 to remediate the groundwater at the Site to Site Specific Standards for all constituents of
 concern. With regards to soil, Statewide Health Standards may be feasible at the Site,
 however the PADEP will require additional soil sampling efforts be completed to
 demonstrate attainment. The systematic random sampling requested by the PADEP to

demonstrate attainment will be handled at a later date during the attainment phase of the project.

- Complete Characterization: Please note that the selected consultant should not proceed with preparing the SCR Addendum if the site is not fully characterized. Following the completion of the characterization milestones, the selected consultant should evaluate whether the Site is fully delineated and provide the claimant and USTIF with an update indicating that the Site is either fully delineated or recommending additional delineation with discussions as to why the additional activities are needed. SCR Addendum should not include language that recommends additional delineation is needed.
- Leaded Gasoline COCs: The documented release being characterized and reimbursed by PAUSTIF under this claim is for unleaded gasoline. Leaded gasoline constituents, specifically 1,2-dichloroethane (EDC), 1,2-dibromoethane (EDB), and lead, have been detected in groundwater samples collected at the Site, but not in soils (other than very minor levels of lead), during the investigation of the 2009 release. These leaded gasoline constituents are believed to be residual from a leaded gasoline release in the 1980s which predates the inception of the USTIF. Bidders are advised that characterization of leaded gasoline is not reimbursable from PAUSTIF and as such is not covered by this claim. However, PADEP has indicated that characterization of the leaded gasoline constituents will need to be completed. Therefore, please provide a separate written cost estimate for analysis of leaded gasoline target compounds as an optional cost adder in a separate section within the text of your bid response for consideration by the solicitor/claimant. Costs should be provided as follows:
 - Lump sum cost to add leaded gasoline target compounds analysis to all samples included in the bid base scope of work;
 - Per sample cost to add leaded gasoline target compounds to a groundwater sample (8260B);
 - Per sample cost to add leaded gasoline target compounds to potable well sample (524.2) (Lead analysis with a sufficiently low reporting limit must be included for these potable well samples); and
 - Per sample cost to add leaded gasoline target compounds to the soil vapor sampling.

These costs will be evaluated by the solicitor/clamant and may be contracted outside of the remediation agreement for direct payment by the solicitor/clamant.

<u>Safety Measures</u>: Each consultant should determine the level of safety measures
needed to appropriately complete the milestones. Specifically, if a consultant feels it is
appropriate and necessary to complete additional safety measures other than or beyond

what is required in the SOW, the cost should be included in their proposal and costs. More importantly, if a consultant includes the cost to complete safety activities, they should specify it in their proposal and discuss why it is appropriate and necessary and indicate which methods will be utilized and to what extent. As discussed in the RFB, cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures. Please note that the solicitor for this project has included a specific list of Safety Requirements in Exhibit D of the Remediation Agreement included in Attachment 1. Consultant's bids should address those Safety Requirements in both the text and the costs.

- Off-site Access Due to access being required to several off-site properties to complete the proposed SOW, a series of timeframes have been established with regards to this project. The selected consultant should be prepared to start attempting to secure access to all off-site properties within 10 days of contract execution. If after 30 days of the first attempt; access is not secured or about to be secured; then the selected consultant should request assistance in obtaining access from the PADEP and proceed with the drilling activities onsite and on any property where access has been obtained approximately 60 days after contract execution. In the event that some off-site wells are not able to be installed during the drilling mobilization outlined in Milestone E, then costs will be deducted from the Milestone E total cost using the costs requested in Milestones Q2, R2, and S2. Once access is obtained then the selected consultant will need to notify USTIF and the Solicitor and then additional mobilization(s) could be scheduled using the costs requested in Milestones Q, R, and S. If off-site access leads to a change in the number of monitoring wells to be sampled during an event, then the costs in Milestone J will be reduced using the costs provided in Milestone N3, N4, and N5. Please note that Milestones N through W were developed to provide some flexibility and to keep potential off-site access hardships from holding up the characterization of the Site. The selected consultant should document all efforts made to secure off-site access to all requested properties.
- 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. If your bid proposes to dispose of waste under a permit, then your bid needs to address the potential situation of a permit not being approved. Bids need to specifically indicate that your bid costs include the costs to dispose of the waste even if a permit is not approved. As indicated in the bid, there should be no assumptions on waste and assuming that a permit will be approved is still making an assumption on waste.

- <u>Standard Operating Procedures:</u> Please include in the bid as an attachment, your firm's standard operating procedures for all major field tasks proposed in the scope of work.
- Milestones Requiring Approval Before Initiation: Following the collection of the data from Milestone A through Milestone J, the selected consultant will be required to obtain approval of funding from the PAUSTIF prior to initiating several specific milestones. The approval to proceed with the milestones in question is being done in an effort to determine whether the milestones in question will be warranted based on the data collected during the additional characterization investigation milestones proposed in the RFB. Please note that PAUSTIF will only pay the selected consultant for the milestones completed. The following milestones will require specific approval prior to initiating the milestone:
 - o Milestone K1 Step Test
 - o Milestone K2 Pump Test
 - Milestone M1 Remedial Alternatives Analysis
 - Milestone M2 Feasible Remedial Alternatives Analysis Report
- Optional Cost Adder Milestones: Milestone A through Milestone M 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 N through Milestone W) need to be addressed in your bid response. These cost adders will not be part of your initially approved base contract price. 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. For consideration of PAUSTIF reimbursement, Solicitor and PAUSTIF approval must be obtained prior to completing Optional Cost Adder Milestones.

Site – Specific Milestones

The following Milestones are to be included in bid responses:

<u>Milestone A – Sensitive Receptor Survey –</u> 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. Please note that the disapproved SCR Addendum dated January 7, 2015, stated that no response had been received to date for two of the 18 domestic well properties. Additionally, follow-up is required to determine the usage status of the four industrial wells and one domestic well owned by New Oxford Food Distributors. The updated receptor survey to be included in the SCR Addendum should address the usage status of these wells.

<u>Milestone B – Private Utility Markout - Prior</u> to any intrusive investigation work at the Site (i.e. soil borings, monitoring well drilling), a private markout is to be conducted at the Site (and/or off-site location where intrusive activities will be conducted) to confirm the location of any obstruction or underground utility present in the vicinity of the proposed intrusive activity locations. The locations of the identified features should be marked with white paint on the asphalt areas and white flags in grassy areas. A report shall be

provided with an explanation of the identified features. The identified features should be included in the site survey described in Milestone H.

Milestone C – Obtain Off-Site Access – Provide a cost to secure offsite access on six adjacent residential/commercial properties in an effort to complete intrusive work as well as access for routine sampling. The cost should cover the necessary time and materials needed to contact each of the six off-site property owners, draft an access agreement for each property, and obtain approval with one (1) draft revision to each of the access agreements. The written agreement to be used is 7-Eleven's short form access agreement and amendment form. The cost for Milestone C should not include any legal fees, payments or permitting costs. Should the short form agreement prove to be unsatisfactory to a property owner, then the selected consultant will request assistance from 7-Eleven's legal counsel. Providing this cost does not commit the consultant to obtain the access agreement. If necessary, the cost should also cover the necessary time and material needed to provide the PADEP with the information they will require to facilitate access to the property. Please note that PAUSTIF will only pay the selected firm for the actual number of access agreements drafted (i.e. if a firm only drafts four agreements, then the firm will not be paid for the entire milestone).

Milestone D – Downhole Geophysical Borehole Logging – Provide a cost to complete downhole geophysical borehole logging on three of the proposed deep-zone well locations. Specifically, the selected consultant should complete the downhole geophysical borehole logging on the suggested monitoring wells MW-11A, MW-12A, and MW-14A. The geophysical borehole logging of the three specified deep-zone monitoring wells should be conducted prior to the drilling of any shallow zone or intermediate zone monitoring wells planned as part of Milestone E. The results of the deep-zone well's geophysical logs should be used to guide well completion for the other wells planned, particularly the other wells planned for that well cluster. The suite of geophysical logs to be run on the new deep-zone boreholes should be consistent with the geophysical logging conducted in December 2013 on monitoring wells MW-3D, MW-6D and MW-9D. That previous suite of geophysical logs included:

- Color Borehole Video Survey
- Fluid Temperature & Fluid Conductivity
- 3-arm Caliper
- Natural Gamma
- Acoustic Televiewer
- Heat Pulse Flow Meter (in both ambient and pumping conditions)

Use of additional logging tools may be considered if proper justification is provided in the bid. Please note the following suggestions with regards to the logistics of conducting the borehole logging during the monitoring well installation mobilization:

- The first of these boreholes to be logged with downhole geophysical techniques should be developed immediately after drilling to the target depth.
- Geophysical logging could commence on the first borehole within one to two days of development. It will be crucial to promptly develop the boreholes intended for geophysical logging promptly upon drilling to the target depths so that the natural characteristics of the aquifer material and the groundwater can recover following the disturbance by air rotary drilling.
- The two other boreholes identified for geophysical logging would likely be completed by the time logging is finished on the first borehole.
- While waiting for the geophysical results from logging of the MW-11A, MW-12A, and MW-14A boreholes, the drill rig could install the new on-site monitoring wells that are closest to wells MW-3D, MW-6D, and MW-9D, which were logged with borehole geophysics in 2013.
- So that all monitoring wells can be installed during the same mobilization, it will be crucial for the geophysical logging contractor to have the ability to provide field copies of all logs so that decisions on well completions are not unduly delayed by waiting for formal final reports from the geophysical logging firm.

<u>Milestone E – Installation of Monitoring Wells –</u> A total of 24 monitoring wells are proposed for installation over three different water bearing zones in an effort to delineate groundwater at the Site. Some of the aforementioned monitoring wells are being installed near existing monitoring wells in an effort to complete a three water bearing zone well cluster and other wells are proposed for the purpose of installing a new cluster of monitoring wells. Specifically, the monitoring wells to be installed are categorized below:

- Additional Monitoring Wells to Complete Well Clusters
 - MW-1A
 - MW-2A and MW-2D
 - MW-4A (within former tank hold with total depth equal to bedrock interface [assumed 12 ftbg], screened 2-12 ftbg to intersect water table)
 - MW-5A and MW-5D
 - MW-9A and MW-9DD (DD to differentiate it from the existing MW-9D)
 - MW-15A

- Additional Monitoring Well Clusters
 - MW-10 cluster (MW-10A, MW-10, MW-10D)
 - MW-11 cluster (MW-11A, MW-11, MW-11D)
 - MW-12 cluster (MW-12A, MW-12, MW-12D)
 - MW-13 cluster (MW-13A, MW-13, MW-13D)
 - MW-14 cluster (MW-14A, MW-14, MW-14D)

As part of the installation of the wells, the selected consultant should consider the following:

- All proposed shallow zone monitoring wells (with the exception of MW-4A at the former tankfield which was referenced above) should be constructed as 6-inch diameter open boreholes with total depths of 25 ftbg. Shallow monitoring wells should be identified with the "A" suffix added to their well ID number (e.g. MW-12A).
- All proposed intermediate zone monitoring wells should be constructed in 6-inch diameter boreholes using 2-inch diameter, schedule 40 PVC materials and should be screened from 40 ftbg - 55 ftbg. Intermediate zone monitoring wells should have no suffix added to their well ID number (e.g. MW-12).
- All proposed deep zone monitoring wells should be constructed in 6-inch diameter boreholes using 2-inch diameter, schedule 40 PVC materials and should be screened from 60 ftbg -75 ftbg. Deep zone monitoring wells should be screened from 60-75 ftbg and should be identified with the "D" suffix added to their well ID number (e.g. MW-12D).
- The off-site locations of the new Additional Well Clusters shown on the provided figure are approximate and are pending property owner approval/access agreements. Well numbers have been assigned to facilitate reference in this RFB and subsequent communications. If due to valid concerns prior to drilling or property owner reluctance, the general locations of the proposed monitoring wells need to be altered significantly from the approximate locations provided on the attached figure, then the selected consultant will be required to contact PAUSTIF, discuss the need for the changes, and provide PAUSTIF with a revised well location map.
- All on-site monitoring well locations should be advanced in the locations proposed in the RFB, unless instructed otherwise by the Technical Contact or the presence of utilities, obstructions, or safety concerns requires a change in the location. If due to valid concerns prior to drilling, the general locations of the proposed monitoring wells need to be altered significantly from the approximate locations provided on the attached figure, then the selected consultant will be required to contact PAUSTIF, discuss the need for the changes, and provide PAUSTIF with a revised well location map.

- Prior to the advancement of the monitoring wells, the selected consultant will be required to complete a private markout at the Site to identify the location of obstructions and underground utilities as part of Milestone B. If a consultant feels it is appropriate and necessary to complete hole-clearing activities before drilling the monitoring wells, the cost should be included in their proposal and costs. If a consultant includes the cost to complete hole-clearing, they should state it in their proposal and discuss why it is appropriate and necessary. 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.
- Drilling is to be conducted under the supervision of a Pennsylvania-licensed Professional Geologist and the construction specifications will be determined by the Professional Geologist and dictated by actual site conditions (i.e. actual depth to groundwater, etc.). The total depth is approximated based on available information from previous investigations. The screening and casing intervals should be installed appropriately to intersect the appropriately identified aquifer. Bid responses should provide a clear description as to how the consultant anticipates the wells will be installed (i.e. drilling method and anticipated casing and screening lengths) using their professional opinion.
- The wells should be drilled and constructed in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, dated December 1, 2001 (Document # 383-3000-001). In addition, B&B will remind the selected consulting firm that careful consideration needs to be taken when installing the proposed monitoring wells. Specifically, the wells should not be over drilled, under screened, or screened across multiple water bearing zones. Shallow refusal due to underscoping of equipment is not acceptable and will not be reimbursed. The selected consultant is responsible for appropriately installing the well.
- A flush-mounted manhole shall be cemented into place to complete each of the wells 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 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.
- 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 an appropriate field-screening instrument, 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 IDW waste should be disposed of per the instructions included in the "General SOW Requirements" and "Site Specific Milestones" section of the RFB.
- The selected consultant will need to take into consideration the logistic suggestions regarding the completion of the downhole geophysical borehole logging and the appropriate installation order of the monitoring wells. The expectation is that all proposed monitoring wells will be installed in a single mobilization event and costs included in the bid response should reflect that expectation. Please note, that if access to an offsite property leads to a reduction in the number of wells installed during this milestone and needs to be completed in a separate mobilization, then that scenario will be handled using the costs provided in the relevant Cost Adder milestones.

<u>Milestone F – Retrofit Existing Monitoring Well -</u> Monitoring well MW-9D was drilled by the previous consultant to a total depth of 55 ftbg. Despite the D-suffix suggesting a deep-zone well, this open borehole's total depth is consistent with the existing intermediate zone wells. In a recent correspondence, the previous consultant indicated that monitoring well MW-9D was excluded from the sampling program, because the length of its open borehole, from 20 ftbg to 55 ftbg, straddles both the shallow monitoring zone (open boreholes from about 10 ftbg to about 25 ftbg) and the intermediate zone (screened intervals approximately 40 ftbg to 55 ftbg). Based on the available information and in an effort to use monitoring well MW-9D as an appropriate intermediate zone

sampling point, monitoring well MW-9D needs to be retrofitted. Based on the drilling log and geophysical log for the existing MW-9D well, this open borehole should be retrofit by first abandoning the lower 3 feet of the well (from 52 ftbg to 55 ftbg). Then an intermediate zone PVC monitoring well should be properly constructed in this borehole with a screened interval from 40 ftbg to 55 ftbg. The retrofit well should be renamed MW-9 in an effort to be consistent with the other intermediate zone wells at the Site. The retrofit MW-9 will become part of a POC well cluster, which is needed at this northern boundary of the site. The scope of work for this milestone should follow the relevant drilling specifications provided in Milestone E.

Milestone G - Soil Vapor Sampling Point Installation and Soil Gas Sampling - As discussed, the PADEP has indicated that there maybe a concern with regards to the soil vapor intrusion investigation. Specifically, the PADEP has advised that the Vapor Intrusion Guidance is currently being revised and as a result vapor assessments may change significantly. The aforementioned PADEP guidance document has not yet been finalized; however, it may be in place prior to the completion of the investigation included in this RFB. The PADEP has advised that the new draft guidance document is requiring that vapor points be constructed to near source sample depths. In an effort to cover both scenarios - completing the investigation with the revised guidance document in place as well as completing it under the current guidance document; the RFB is requesting two separate milestone costs to complete the task (Milestone G1 and Milestone G2). The scope of both Milestone G1 and Milestone G2 will be identical with the exception of the total installed depth of the proposed soil vapor points (SVPs). Just prior to the time of contract execution, PAUSTIF, the solicitor and the selected consultant will make the determination as to which milestone (Milestone G1 or Milestone G2) will be completed based on the status of the PADEP's Vapor Intrusion Guidance.

- Milestone G1 will be if the existing guidance document is still in place and the SVPs will be installed to an approximate total depth of 5.0 ftbg or to the interface with weathered bedrock if encountered at a depth shallower than 5.0 ftbg. The interface with weathered bedrock is expected to be between 4.5 ftbg and 6 ftbg based on available drilling logs.
- Milestone G2 will be utilized if the revised guidance document is in place. The SVPs should be constructed to near source sample depths. Bid responses should clearly discuss how points will be constructed.

For both Milestone G1 and Milestone G2, the costs should include the installation and sampling for a total of five new SVPs (four points at the Site and one on an off-site property). Samples are to be collected from each of the five proposed SVPs during two separate sampling events appropriately spaced. The PADEP's February 2, 2015, SCR Addendum disapproval letter stated that the results obtained from the temporary SVPs

installed and sampled by AECOM were of questionable value. Therefore, the selected consultant should install four permanent SVPs at the Site as part of the selected milestone (Milestone G1 or Milestone G2). In addition, pursuant to PADEP's February 2, 2015, disapproval letter, one off-site SVP must be installed at the MW-7 well cluster to assess the vapor risk at the residence immediately downgradient from this well cluster. Please note that PAUSTIF will only pay the selected firm for the actual number of events conducted (i.e. if a firm includes the costs to complete 1 event, but no event is conducted; then the firm will not be paid for the milestone). The selected consultant should be prepared to conduct the first soil gas/indoor air sampling event at the Site within two weeks of the installation of the five SVPs. The selected consultant should conduct the second event approximately six (6) weeks after the first event. As part of the soil gas investigation, the selected consultant should consider the following:

- Soil Vapor Points will be advanced in the location proposed in the RFB, unless the presence of utilities, obstructions, or safety concerns requires a change in the location. The proposed location of the aforementioned soil gas points are provided on the figures attached in Attachment 3.
- Sampling should be performed using a tracer gas to confirm that ambient air is not short-circuiting and mixing with the soil gas samples. Photodocumentation of the tracer gas procedure should be part of the documentation required for this milestone.
- The vapor intrusion investigation should be completed in a manner consistent with the Land Recycling Technical Guidance Manual Section IV.A.4 Vapor Intrusion Into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standards, Document 253-0330-100, dated January 24, 2004. Bid responses should specifically indicate how the consultant anticipates constructing the proposed soil gas point and completing the proposed sampling events.
- Samples should be collected in laboratory provided Summa canisters equipped with laboratory calibrated flow regulators and analyzed for benzene, toluene, ethylbenzene, MTBE, naphthalene, isopropylbenzene, 135-TMB, and 124-TMB via TO-15.
- 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).

 Results from soil gas point installation and soil gas/indoor air sampling activities should be summarized and presented in the report to be completed as part of Milestone L2.

Milestone H - Site Survey - Following the completion of Milestone A through Milestone G, a professional survey of the Site by a Pennsylvania-licensed surveyor including all current site features (i.e., buildings, property boundaries, monitoring wells, sanitary and storm sewers, etc.) shall be completed. All onsite and offsite monitoring wells, soil borings, soil gas points, stormwater inlets, subway location 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 new monitoring well top of casings and surface grades stormwater inlets. 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 each of the monitored water bearing zones.

Milestone I – Potable Well Sampling – Provide a Unit Cost to sample one potable well during two separate sampling events. Specifically, the PADEP's February 2, 2015, SCR Addendum disapproval letter stated that if Scozzaro's Old Mill Inn is located within 2,500 feet of the Site, their potable supply well must be sampled to determine if it has been impacted by the petroleum release at the Site. Scozzaro's Old Mill Inn appears to be located approximately 2,350 feet west of the Site based on Google Earth's measuring tool. Therefore, a single influent potable well sample should be collected from Scozzaro's Old Mill Inn and then at least one month later a second confirmatory potable well sample should be collected, to determine whether unleaded gasoline constituents from the Site have impacted this public supply well. These potable well samples must be analyzed for PADEP unleaded gasoline parameters by EPA method 524 for drinking water reporting limits. Upon receipt of the laboratory analytical report the bidder shall prepare and submit a letter format report to the individual property owners.

Milestone J – Groundwater Monitoring and Sampling – Following the installation and development of the additional monitoring wells, the selected consultant will gauge and sample the entire expanded monitoring well network. For this RFB, please assume the total number of groundwater monitoring and sampling events that will be needed is two events. Please note that PAUSTIF will only pay the selected firm for the actual number of events conducted (i.e. if a firm includes the costs to complete two events, but only one event is conducted; then the firm will only be paid for the one event completed). The selected consultant should be prepared to conduct the first groundwater sampling event at the Site approximately two weeks after the installation of the proposed monitoring wells and conduct the second event approximately four weeks after the first event. 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 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 benzene, toluene, ethylbenzene, MTBE,
 naphthalene, isopropylbenzene, 135-TMB, and 124-TMB.
- Samples should be collected from every monitoring well during each of the two
 groundwater sampling events. In addition to the samples collected from the
 monitoring wells, 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 characterization efforts will be needed or if the completed efforts have fully characterized and delineated the groundwater and soil at the Site. The selected consultant will keep PAUSTIF updated on the progress of the investigation.
- **All IDW waste** should be disposed of per the instructions included in the "General SOW Requirements" and "Site Specific Milestones" section of the RFB.
- In the event that the offsite access takes longer to obtain than anticipated and as such the proposed off site monitoring well installation activities are delayed, groundwater sampling event(s) completed at the Site before access is secured and the monitoring wells are installed would be done so under the costs provided in the Optional Cost Adder Milestone N1.

<u>Milestone K – Aquifer Testing –</u> The goal of the aquifer testing for this Site is to determine the degree of connection between the three vertical depth zones at a pumping

well cluster as well as to determine pumping influence at nearby well clusters. Pumping test results will also provide a range of hydraulic conductivity values for use in groundwater fate and transport modeling. The intermediate zone monitoring well with the greatest number of intersecting fractures (as noted by boring logs and geophysical borehole logs) will be used for the step test and the subsequent eight hour pump test. Transducers will be used to monitor the resultant water levels in the pumping well and both the shallow and deep zone monitoring wells in the same cluster as the selected intermediate zone pumping well during both the step test and pump test. In addition, at least two additional monitoring well clusters should be monitored as observation wells (all three depth zones) during the step and pumping test. Also, the remaining monitoring well network should be gauged periodically throughout the test to provide additional aquifer characterization data.

<u>Milestone K1 - Step Test (Milestone Requiring Approval before Initiation)</u> –The data collected during the step drawdown test will be used to determine an optimal pumping rate and yield for the constant rate pumping test. Results from the step testing activities are to be summarized and included in the SCR Addendum to be completed as part of Milestone K2.

Milestone K2 – Pump Test (Milestone Requiring Approval before Initiation) – Once the pumping rate has been determined, an eight (8) hour constant rate pumping test will be conducted by the selected consultant on the selected monitoring well at the Site. Data collected during the constant rate pumping test will be analyzed and used to calculate Site specific aquifer values including hydraulic conductivity, transmissivity, storage capacity, and groundwater seepage velocity. All of the calculated values will allow for the modeling efforts and risk assessment activities to be conducted with site specific data rather than using published values. Results from the pump testing activities are to be summarized and included in the SCR Addendum to be completed as part of Milestone K2.

All IDW waste generated during the Step Test and Pump Test should be disposed of per the instructions included in the "General SOW Requirements" and "Site Specific Milestones" section of the RFB.

Milestone L – Fate and Transport Modeling and Site Characterization Report –

<u>Milestone L1 - Fate and Transport Modeling –</u> Fate and Transport evaluations shall be completed as appropriate and consistent with Act 2 guidance documents in order to assess the potential for contaminant migration. This evaluation should take into consideration both the groundwater and soil exceedances at the Site. Each firm should evaluate the data and site specific information provided and determine the most applicable model or models needed to complete appropriate fate and transport modeling for the Site. Please specify which modeling software will be used to predict fate and transport of the COCs exceeding the PADEP SHS in groundwater at the release location and its applicability to the Site. The selected modeling software should be capable of modeling contaminants in an aguifer bedrock.

Milestone L2 - Preparation of a Site Characterization Report Addendum - Following the completion of the activities proposed in Milestone A through Milestone K as well as the Fate and Transport Modeling noted in Milestone L1, the selected consultant will prepare a SCR Addendum for the Site. The information gathered during the aforementioned milestones should be incorporated into a comprehensive SCR Addendum that will be submitted to the PADEP and will facilitate the objective to complete regulatory requirements governing the SCR Addendum and gain PADEP approval for the report. Specifically, the report should summarize the results of the recent investigations, the findings of the previous investigations, a comprehensive Site history, sensitive receptor information, risk assessment, geologic data, results and analysis of the aquifer testing, discussion on the completed remediation efforts, summary of the predictive modeling efforts completed (if applicable), and a series of summary tables, appendices, and figures illustrating the information provided in the report.

The Report will be completed following the guidelines specified in Pennsylvania Code, Title 25, Chapter 245 and the Land Recycling Program (Act 2) Technical Guidance Manual for a Site Characterization Report. The selected consultant will also present significant conclusions and make recommendations for future work at the Site in the SCR. The report will be appropriately signed and sealed by a licensed Professional Geologist.

A draft SCR Addendum and 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, waste disposal documentation, modeling results and analysis, and sensitive receptor information) shall be submitted electronically (in Adobe PDF format) and in hard copy to the Solicitor and PAUSTIF (within the timeframe established in the consultant's

schedule provided in the bid response) for review / comment prior to finalizing the SCR Addendum. Once the selected consultant has addressed comments on the draft, the selected consultant shall finalize and issue the report to the PADEP. The draft report is to be submitted no later than the date specified in the schedule presented by the selected consultant.

Milestone M - Feasible Remedial Alternatives Analysis -

Milestone M1 – Remedial Alternatives Analysis (Milestone Requiring Approval before Initiation) – A Remedial Alternatives Analysis should be completed for the Site to compare cleanup alternatives and evaluate which remedial action is most appropriate for the Site. The evaluation should specifically focus on eight (8) key considerations including cost-effectiveness, proven performance, public and environment protectiveness, regulatory compliance, reliability, implementation, health & safety and effects on public health and the environment. The findings of the Remedial Alternatives Analysis will be summarized and presented as part of the Feasible Remedial Alternatives Analysis Report. Information/data generated during the interim remedial activities conducted at the Site should be taken into consideration. The selected consultant should be prepared to request approval to complete Milestone M1 and start the analysis (if warranted) immediately following the submission of the SCR. The selected consultant should not assume that the analysis and subsequent report should not be completed until after the PADEP responds to the SCR.

<u>Milestone M2 – Feasible Remedial Alternatives Analysis Report (Milestone Requiring Approval before Initiation)</u> - Following the completion of the proposed Remedial Alternatives Analysis, a Feasible Remedial Alternatives Analysis Report should be prepared for the Site. The report should detail the procedures and findings from the activities completed in Milestone A through Milestone L1 and describe the calculations and resultant estimate of the amount of hydrocarbon mass present in the Site's subsurface. It should also take into consideration and summarize the assumption, parameters, and predictions from the predictive modeling scenarios included in the SCR. Figures and appendices supporting the findings of the report should be attached to further illustrate the current condition of the Site. The report should appropriately evaluate the Site and assess the risks as well as provide a proper closure strategy and remedial alternative for the Site. Information/data generated during the interim remedial activities conducted at the Site should be incorporated into this milestone.

All AutoCAD maps / plans included in the report (e.g., site plan / base map, proposed remediation location map, dissolved plume maps, soil contaminant distribution maps, etc.) and appendices (e.g., boring logs, tables, remediation technology information, fate and transport modeling, risk assessment and sensitive receptor information) shall also be submitted electronically on CD and in hard copy to Solicitor and PAUSTIF for review / comment prior to finalizing it. Once the selected consultant has addressed comments on the draft, the selected consultant shall finalize and issue the report to the PADEP.

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

<u>Milestone N1 -</u> The cost provided should be to complete only one (1) event with only the existing monitoring wells. In the event that the off-site access takes longer to obtain than anticipated, this cost adder would be utilized for a groundwater sampling event completed at the Site before the access is secured and the proposed monitoring wells are installed.

<u>Milestone N2 -</u> The cost provided should be to complete only one (1) event with all the existing and proposed monitoring wells.

<u>Milestone N3 -</u> The cost provided should be to sample one (1) additional shallow zone monitoring well during a groundwater sampling event. The provided cost would be to cover all labor, equipment, laboratory, waste, etc.

<u>Milestone N4 -</u> The cost provided should be to sample one (1) additional intermediate zone monitoring well during a groundwater sampling event. The provided cost would be to cover all labor, equipment, laboratory, waste, etc.

<u>Milestone N5 -</u> The cost provided should be to sample one (1) additional deep zone monitoring well during a groundwater sampling event. The provided cost would be to cover all labor, equipment, laboratory, waste, etc.

<u>Milestone O – Additional Supply Well Sampling Event (Cost Adder Milestone)</u> – Provide a Unit Cost to complete an additional supply well sampling event. The scope of work for this cost adder should follow Milestone I with one supply well to be sampled during each event.

<u>Milestone O1 -</u> The cost provided should be to complete one (1) additional supply well sampling event during a separate mobilization event (as in going to site to only complete the sampling of the supply well). The provided cost would be to cover all labor, equipment, laboratory, waste, etc.

<u>Milestone O2 -</u> The cost provided should be to complete one (1) additional supply well sampling event during another sampling event or investigation (as in collecting the supply well sample while already at the Site to conduct an event like groundwater sampling or soil gas sampling. The provided cost would be to cover all labor, equipment, laboratory, waste, etc.

Milestone P – Preparation of Progress Report (Cost Adder Milestone) – Provide a Unit Cost to Prepare a 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 isoconcentration maps for compounds exceeding the SWHS, provide hydro-graphs, discuss the interim remediation efforts (if any), and provide additional scheduling details for upcoming events. A draft of the progress report should be provided to the Solicitor for review and approval prior to submittal to the PADEP. Once the report is approved by the Solicitor, 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.

<u>Adder Milestone</u> – Provide a Unit Cost to install one (1) additional shallow zone monitoring well. The scope of work for this cost adder should follow Milestone E construction guidelines. Please provide costs for the following:

- <u>Milestone Q1</u> Installation of one (1) additional shallow zone monitoring well
 during a separate mobilization event. The provided cost would be to cover all
 labor, equipment, subcontractors, waste, etc.
- <u>Milestone Q2 -</u> Installation of one (1) additional shallow zone monitoring well as an add-on to a drilling investigation where mobilization cost has already been included. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.

<u>Adder Milestone</u> – Provide a Unit Cost to install one (1) additional intermediate zone monitoring well. The scope of work for this cost adder should follow Milestone E construction guidelines. Please provide costs for the following:

- <u>Milestone R1</u> Installation of one (1) additional intermediate zone monitoring
 well during a separate mobilization event. The provided cost would be to cover all
 labor, equipment, subcontractors, waste, etc.
- <u>Milestone R2</u> Installation of one (1) additional intermediate zone monitoring well as an add-on to a drilling investigation where mobilization cost has already been included. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.

<u>Milestone S – Installation of Additional Deep Zone Monitoring Wells (Cost Adder Milestone)</u> – Provide a Unit Cost to install one (1) additional deep zone monitoring well. The scope of work for this cost adder should follow Milestone E construction guidelines. Please provide costs for the following:

- <u>Milestone S1</u> Installation of one (1) additional deep zone monitoring well
 during a separate mobilization event. The provided cost would be to cover all
 labor, equipment, subcontractors, waste, etc.
- <u>Milestone S2 -</u> Installation of one (1) additional deep zone monitoring well as an add-on to a drilling investigation where mobilization cost has already been included. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.

<u>Milestone T – Update Survey (Cost Adder Milestone)</u> – Provide a Unit Cost to update the Site's survey to include any additional monitoring well location(s). The scope of work for this cost adder should follow Milestone H.

<u>Milestone U - Obtain Off-Site Access (Cost Adder Milestone) -</u> Provide a Unit Cost to secure off-site access to one property. The scope of work for this cost adder should

follow Milestone C.

<u>Milestone V – Two (2) Hour Step Test Extension (Cost Adder Milestone)</u> - Provide a Unit Cost to extend the step pumping tests for two (2) additional hours if necessary. The step pump test would be extended if stabilization does not occur by the end of the two (2) hour step pump test. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc. The scope of work for this cost adder should follow Milestone K1.

<u>Milestone W – Two (2)-Hour Pump Test Extension (Cost Adder Milestone)</u> - Provide a Unit Cost to extend one (1) of the constant rate pumping tests for two (2) additional hours if necessary. The constant rate pump test would be extended if stabilization does not occur by the end of the eight (8) hour pump test. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc. The scope of work for this cost adder should follow Milestone K2.

Additional Information

In order to facilitate PAUSTIF's review and reimbursement of invoices submitted under this claim, the Solicitor requires that project costs be invoiced by the milestone identified in the executed Remediation Agreement. Actual milestone payments will occur only after successful and documented completion of the work defined for each milestone. The selected consultant will perform only those tasks/milestones that are necessary to reach the Objective identified in this RFB. Selected consultant will not perform, invoice, or be reimbursed for any unnecessary work completed under a milestone.

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

List of Attachments

- 1. Remediation Agreement
- 2. Bid Cost Spreadsheet
- 3. Site Information/Historic Documents
 - a. Summary Tables
 - Table 1 Monitoring Well Construction Summary
 - Table 2 Soil Analytical Data Summary
 - Table 3 Groundwater Elevation and Analytical Data Summary (through August 2014)
 - Table 4 Soil Gas Analytical Data Summary
 - b. Figures
 - Figure 1 Site Plan Map
 - Figure 2 Proposed Monitoring Well Location Map
 - c. May 2010 UST System Closure Report
 - d. May 2010 Site Characterization Report
 - e. August 2010 PADEP Correspondence
 - f. April 2014 Site Characterization Activities Letter Report
 - g. January 2015 Site Characterization Report Addendum
 - h. February 2015 PADEP Correspondence
 - i. 4th Quarter 2015 RAPR
 - j. 1st Quarter 2016 RAPR
- 4. 7-Eleven Temporary Access Agreement