Request for Bid

Al Howard Service 6201 Lancaster Avenue Philadelphia, PA 19151 PAUSTIF CLAIM #98-499(M)

COMPETITIVE BID SOLICITATION FOR THE COMPLETION OF A SITE CHARACTERIZATION REPORT AND A REMEDIAL ALTERNATIVES EVALUATION

Al Howard Service 6201 Lancaster Avenue Philadelphia, PA 19151 PADEP FACILITY ID #51-00347 PAUSTIF CLAIM #98-499(M)

September 4, 2012

The Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF) on behalf of the claimant for the above referenced claim is soliciting bidders for a fixed price contract project. Specifically, this Request for Bid (RFB) is seeking qualified firms to prepare and submit a fixed price proposal to complete a Site Characterization Report (SCR) and a remedial alternatives evaluation for the Al Howard Service Station in Philadelphia, Pennsylvania (Site). A petroleum release has been confirmed at the Site and a SCR is still needed to meet the Pennsylvania Department of Environmental Protection (PADEP) characterization requirements. The Solicitor has an open claim (Claim #1998-499(M)) with the PAUSTIF and the work outlined in this RFB will be completed under this aforementioned claim. Reimbursement of Solicitor-approved reasonable, necessary and appropriate costs (within claim limits) for the work described in this RFB will be provided by PAUSTIF.

This RFB includes four (4) major components with subtasks presented in an outline format for cost analysis and implementation. The fixed costs proposed by the consultant bidder shall be based on the scope of work provided in the RFB. Expenses in excess of the quoted price for the contract shall be the consultant's responsibility. The scope and budget for any identified out of scope activities must be pre-approved to be eligible for payment. Any costs associated with deviations from the scope that did not receive prior approval from the solicitor and PAUSTIF, or its representatives, will not be reimbursed.

Specifically, this RFB seeks competitive bids from qualified consultants 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.

To be considered for selection, one hard copy of the signed bid package and one electronic copy (one PDF file on a compact disk (CD) included with the hard copy) must be provided directly to the Fund's third party administrator, ICF International (ICF), to the attention of Deb Cassel, Contracts Administrator. She 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 firms who 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: Deb Cassel. The outside of the shipping package containing the bid response must be clearly marked and labeled with "Bid – Claim #1998-499(M)". 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 below for submission. Firms mailing bid responses should allow adequate delivery time to ensure timely receipt of their bid package.

The bid response must be received by 3:00 PM, on Thursday, October 4, 2012. Bids will be opened immediately after the 3:00 PM deadline on the due date. Any bid packages 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 Fund's third party administrator, ICF's office is closed on the bid response due date, the deadline for submission will automatically be extended to the next business day on which the office is open. The Fund's third party administrator, ICF, may notify all firms who attended the mandatory site meeting of an extended due date. The hour for submission of bid responses shall remain the same. Submitted bid responses are subject to Pennsylvania Right-to-Know Law.

On behalf of ICF and PAUSTIF, the Technical Contact will assist the Solicitor in evaluating the bids but the Solicitor will ultimately choose with whom to negotiate the mutually agreeable contract. The bid evaluation will consider, among other factors, total bid cost, unit costs, schedule, qualifications, and contract terms and conditions (no priority or relative weighting is implied by the order of these factors). The Solicitor anticipates informing the selected consultant with an approval to proceed within twelve (12) weeks of the bid response deadline. Please note that when the contract is in place with the consultant selected by the Solicitor, all other firms submitting bid packages will be notified that the contract was awarded.

ICF REPRESENTATIVE AND TECHNICAL CONTACT INFORMATION

ICF Representative	Technical Contact
Ms. Jennifer Goodyear	Mr. Mark Bedle
ICF International	B&B Diversified Enterprises, Inc.
4000 Vine Street	PO Box 16
Middletown, PA 17057	Barto, PA 19504
Email: jennifer.goodyear@icfi.com	Telephone: (610) 845-0640
	Fax: (610) 845-0650
	Email: mbedle@bbde.com

NOTE: All questions regarding this RFB solicitation and the subject site conditions must be directed to the Technical Contact and submitted in writing with the understanding that all questions and answers will be provided to all bidders. If questions are to be submitted via email, please note the following in the subject line of the email: <u>Al Howard Service RFB Questions</u> <u>Claim No. 98-499(M)</u>. Bidders must neither contact nor discuss this RFB Solicitation with the Solicitor, PAUSTIF, or ICF unless approved by the Technical Contact. Bidders may discuss this

RFB solicitation with subcontractors and vendors to the extent required for preparing the bid response.

SITE LOCATION, OPERATION, AND BACKGROUND INFORMATION

The following information summarizes, and is derived from, relevant information provided in previous environmental reports, including the reports attached to this RFB. If there is any conflict between the summary provided herein and the source documents, the bidder should defer to the source documents. The information included in this section has not been independently verified by ICF or the Technical Contact.

Site Address

Al Howard Service 6201 Lancaster Avenue Philadelphia, PA 19151 City of Philadelphia, Delaware County

Site Location and Operation Information

The Site is a retail gasoline and service station located at 6201 Lancaster Avenue in Philadelphia, Pennsylvania. The Site has one (1) one-story building of slab on grade construction. The site building consists of 2 service bays and an office. The Site is primarily asphalt and concrete. The underground storage tank (UST) field is located near the southeast corner of the Site building and contains one (1) 4,000 gallon and two (2) 8,000 gallon unleaded gasoline UST's, which were installed in December 1998. The surrounding properties are a mix of residential and commercial properties. A Site Location Map and a Site Plan are provided as Figures 1 and 2, respectively.

Site Background Information

On December 4, 1998 during UST upgrades and new UST installation activities, soil contamination was discovered and a release was reported to the PADEP and the City of Philadelphia. Petroleum impacted soil was observed in the vicinity of the UST field and associated piping. During the December 1998 UST activities, approximately 600 tons of petroleum impacted soil was removed from the excavation area and disposed of at an offsite waste disposal location. A total of seventeen (17) post excavation soil samples were collected and submitted for laboratory analysis. The aforementioned soil samples were analyzed for leaded and unleaded gasoline parameters. Analytical results indicated that samples collected in the vicinity of UST 003 and the dispenser area were below current medium specific concentrations (MSC). Analytical results indicated that the sample collected in the vicinity of UST 001 and 002 exceeded current MSC's for benzene, ethylbenzene, and naphthalene. A UST Closure Report was submitted to the PADEP on January 28, 1999.

On December 11, 1998 the PADEP requested that the new UST's be installed in a different location in order to perform site characterization in the area of the former UST's. The PADEP was advised that due to the small size of the Site there was no other possible location to install the new UST's and the new UST's should be installed in the same area as the former UST's.

On December 17, 1998, a Notification of Reportable Release (NORR) was submitted to the PADEP and the City of Philadelphia on behalf of the claimant. The NORR noted that a release to soil has been confirmed at the Site and indicated the following:

"12/4/98 DeLong, Inc. began a service station upgrade. (2) 2000 gallon gasoline tanks were removed first. The tanks when removed had holes in them. DeLong utilized the over excavation method to remove the impacted soils. 12/7 work continued. A 550 heating oil tank was removed in the process of removing impacted soils. Work was stopped at a depth of 14' when it was apparent the extent was extensive. We requested a site visit by Stephan Brown who stopped by on 12/10."

On December 21, 1998 during UST removal activities additional petroleum impacted soil was observed and reported to the PADEP.

On March 21, 2001 seven (7) soil borings (SB-1 through SB-7) were advanced in order to characterize the soil in the vicinity of the UST area. No boring logs are available. A total of seven (7) soil samples were collected and submitted for laboratory analysis. The aforementioned soil samples were analyzed for unleaded gasoline and used motor oil parameters. Analytical results are not available.

On March 23, 2001 four (4) groundwater monitoring wells (MW-1 through MW-4) were installed at the Site to a depth of approximately 40 feet below grade (ftbg). Well logs are not available. A composite soil sample was collected from the drill cuttings and submitted for laboratory analysis. Analytical results indicated that all BTEX compounds were either not detected or below applicable standards.

On April 19, 2001 a groundwater monitoring and sampling event was conducted at the Site on all wells. Analytical results are not available.

On February 5, 2002 a groundwater monitoring and sampling event was conducted at the Site on all wells. Analytical results for groundwater samples collected from all locations indicated that all parameters were either below laboratory detection limits or below SHS. The results were summarized in a March 22, 2002 groundwater monitoring report.

On April 8, 2002 a groundwater monitoring and sampling event was conducted at the Site on all wells. Analytical results for groundwater samples collected from all locations indicated that all parameters were either below laboratory detection limits or below SHS.

On May 17, 2002, a discussion was had between the previous consultant and the PADEP about the Site. It was agreed that the PADEP would close the file upon submission of the second quarterly sampling report and the monitoring wells on-site can be permanently abandoned.

On February 15, 2006, a Remedial Action Completion Report (RACR) was submitted to the PADEP on behalf of the claimant. The RACR indicates that soil contamination at the Site has been remediated by the removal of 1,142.98 tons of petroleum impacted soil. The RACR indicates that groundwater at the Site does not contain concentrations of gasoline compounds above Statewide Health Standards (SHS) for a residential used aquifer.

On February 18, 2009 a NOV was issued to the claimant by the PADEP. The NOV indicated that an acceptable SCR was not submitted regarding a reported release that occurred during UST removal activities. The reports submitted failed to fully characterize both soil and groundwater at the Site and was not sealed by a Licensed Professional Geologist in the Commonwealth of Pennsylvania.

On October 18, 2011, a groundwater monitoring and sampling event was conducted at the Site on all wells. Analytical results for groundwater samples collected from all locations indicated that all parameters were below laboratory detection limits.

Bidders are directed to the pertinent available documentation (including reports, figures, correspondence and analytical data) that has been provided in Attachment 1 for additional site background details.

PROPOSED SCOPE OF WORK

The scope of work has been prepared using the guidelines of Pennsylvania Code Title 25, Chapter 245 (The Storage Tank and Spill Prevention Program) and Chapter 250 (The Land Recycling Program). There are several key elements that must be completed in order for the approach outlined in this RFB to be successful. The critical elements include the following:

- Prepare the appropriate project guidance documents;
- Complete a full Sensitive Receptor Survey (SRS);
- Complete a site survey, map the important features of the Site and evaluate groundwater flow (Please note that a digital version of the map is not available and as such will not be provided to the selected consultant);
- Conduct a soil boring investigation;
- Conduct quarterly groundwater monitoring and sampling events;
- Install replacement monitoring wells;

- Abandon current monitoring wells;
- Prepare and submit a Site Characterization Report;
- Complete a risk assessment evaluation using the applicable guidance documents in an effort to appropriately evaluate exposure pathways;
- Remedial Alternatives Analysis should be completed for the Site to compare cleanup alternatives and evaluate which remedial action is most appropriate for the Site; and
- Prepare a Risk Assessment and Feasible Remedial Alternatives Analysis Report for the Site.

In addition to the above base Scope of Work, the following *Optional Cost Adders* need to be addressed in your bid response. These costs adders will not be part of your initially approved contract. However, if it becomes necessary to complete any of these activities, they will be completed under the Remediation Agreement signed as part of this project. More details regarding the work scope for each of these *Optional Cost Adders* is provided at the end of the RFB Scope of Work.

- *Optional Cost Adder* #1 Provide a Unit Cost to complete an additional groundwater monitoring and sampling event.
 - <u>Optional Cost Adder #1a</u> The cost provided should be to complete only one (1) event with all wells (proposed) in the network being sampled.
 - <u>Optional Cost Adder #1b</u> The cost provided should be to sample one (1) additional monitoring well during a groundwater sampling event.
- *Optional Cost Adder #2* Provide a Unit Cost to Prepare a Summary Progress Report for submittal to the PADEP.
- *Optional Cost Adder #3* Provide a Unit Cost to install one (1) additional bedrock monitoring well.
 - <u>Optional Cost Adder #3a –</u> Installation of one (1) additional bedrock monitoring well during a separate event.
 - <u>Optional Cost Adder #3b</u> Installation of one (1) additional bedrock monitoring as an add-on to a drilling investigation
 - <u>Optional Cost Adder #3c</u> Per foot cost for drilling and constructing a monitoring well that extends past the 40 foot depth assumed in Optional Cost Adder #7a and #7b.

- *Optional Cost Adder #4* Provide a Unit Cost to install one (1) additional shallow water monitoring well.
 - <u>Optional Cost Adder #4a –</u> Installation of one (1) additional shallow monitoring well during a separate event.
 - <u>Optional Cost Adder #4b</u> Installation of one (1) additional shallow monitoring well as an add-on to a drilling investigation.
- *Optional Cost Adder* #5 Provide a Unit Cost to secure offsite access on one (1) adjacent residential/commercial property in an effort to install a groundwater monitoring well.
- *Optional Cost Adder #6* Provide a Unit Cost to update the Site's survey to include any additional on-site or off-site well location(s).
- *Optional Cost Adder* #7 Provide a Unit Cost to prepare a combined SCR/RAP for submittal to the PADEP instead of a SCR.
- *Optional Cost Adder #8* Provide a Unit Cost to complete a Risk Assessment and Feasible Remedial Alternatives Analysis.

The bid package should follow the task format outlined below. Proposals should also include a detailed description of the anticipated costs for each task including labor rates, time requirements, and equipment costs as broken out in the detailed cost sheet included as Attachment 2. The scope of work that we are requesting is provided below:

Task 1.0 Project Planning / Management:

Task 1.1 Preparation of Project Guidance Documents – Proposed documents to be prepared include a site specific health and safety plan, a field sampling and analysis plan, and a quality assurance/quality control plan. Where applicable, the pertinent project guidance documents should be prepared in accordance with Chapter 245.

Task 1.2 Project Management – The successful bidder shall complete necessary, reasonable, and appropriate project management activities for the duration of the contract period consistent with release investigation projects. Such activities would be expected to include client communications / updates, meetings, permitting, record keeping, subcontracting, personnel and subcontractor management, quality assurance / quality control, scheduling and other activities.

Task 1.3 Sensitive Receptor Survey – A Sensitive Receptor Survey (SRS) should be conducted for this Site. Sensitive receptors evaluated for this Site should include area water usage, surface water bodies, and subsurface underground utilities and basements. Submitted bids should specify what activities will be included in the SRS activities (i.e. review of tax maps and property assessment records; area canvass; PNDI search, etc.). A

1,000-foot radius water usage survey should be completed as part of the SRS in an effort to document the area water use. As part of the water usage survey, the selected consultant should complete the following:

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

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

Task 2.0 Additional Site Characterization and Interim Remedial Activities:

Task 2.1 Soil Boring Investigation – In an effort to fully investigate the impact to the soil media from the confirmed UST release, a series of soil borings is being proposed. Specifically, the activities include the completion of fifteen (15) soil borings (B-1 through B-15) using direct push sampling approach (e.g., Geoprobe®). Specifics on the proposed investigation are provided below:

- The locations of the 15 soil borings (B-1 through B-15) are provided on the attached figure for your review. All soil boring locations will be advanced in the locations proposed in the RFB, unless the presence of utilities, obstructions, or safety concerns requires a change in the location. Prior to the advancement of the soil borings, the selected consultant will be required to complete a private markout at the Site to identify the location of obstructions and underground utilities. If due to valid concerns prior to the advancement of borings, the general locations of the proposed borings need to be altered significantly from the approximate locations provided on the attached figure, then the selected consultant will be required to contact the PADEP, discuss the need for the changes, and provide the PADEP with a revised soil boring location map.
- The soil boring locations are near the current UST system. As such, if a consultant feels it is appropriate and necessary to complete hole-clearing activities before advancing the borings, 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.

- Soil borings will be advanced to groundwater, bedrock, or refusal, whichever is encountered first. However, in the event that there is no evidence of petroleum hydrocarbon impact (includes olfactory, visual, and field instrument detections) for more than 25 feet, then the boring maybe terminated. Soil samples will be collected and logged continuously by an on-site geologist for soil classification and structure, odor, soil moisture, soil texture, color, and screened with a photoionization detector (PID). Soils should be described using the Unified Soil Classification System.
- A total of 30 soil samples (two (2) soil samples per boring) shall be collected and submitted to an accredited laboratory for analysis. One (1) sample from each boring should be collected from the soil interval exhibiting the highest PID reading in each borehole. The second soil sample will be collected at the bedrock interface or just above groundwater (if encountered) in an effort to delineate the soil sample with the highest PID reading. If no elevated PID readings are observed, the first sample should be collected from the three (3) to ten (10) feet below grade (ftbg) interval, depending on the location of the sample at shallower depths or deeper depths near UST locations) and then again at the base or refusal.
- Soil samples shall be collected using Encore Samplers (or equivalent) and fieldpreserved in laboratory-provided glassware with the appropriate preservatives (e.g., methanol or sodium bisulfate) provided by the laboratory in general accordance with USEPA Method 5035 and the PADEP guidance.
- In addition, one (1) duplicate sample and one (1) equipment blank sample will be collected and submitted per day of sampling.
- 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.
- Soil samples shall be analyzed for benzene, toluene, ethylbenzene, total xylenes, MTBE, naphthalene, cumene, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene using laboratory EPA method 8260B in accordance with Pennsylvania's Storage Tank Regulation procedures and cleanup standard criteria as specified in Pennsylvania's Act 2.
- 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).
- Compile the field findings and laboratory data into a summary table and comprehensive soil boring logs.

Task 2.2 Installation of Temporary Well Points – A total of three (3) temporary monitoring points are proposed for installation at this Site to investigate whether a shallow water bearing zone is present. During the soil boring investigation, the selected consultant should pay attention to the moisture content observed in the overburden and convert three (3) of the soil borings into temporary well points to determine whether there is a water bearing zone present in the overburden. A total of three (3) soil borings should be converted into temporary well points during the investigation. The borings should be chosen based on observations and field data documented during the soil boring investigation as well as location of the borings related to the UST system components. Temporary well points should be appropriately constructed. If water is present in the well point following construction, then a grab water samples should be appropriately collected and the well point should be appropriately abandoned. If no water is immediately present in a well point, the well points should be left constructed and checked for the presence of water over the next week. If water is detected during the aforementioned week, a grab sample should be collected. If not, then the selected consultant should properly documented the efforts to demonstrate the lack of groundwater in the overburden. Following the week waiting period, any remaining well points should be properly abandoned. All grab water samples should be analyzed for benzene, toluene, ethylbenzene, total xylenes, MTBE, naphthalene, cumene, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene using laboratory EPA method 8260B.

Task 2.3 Proper abandonment of current monitoring wells – Available information indicates that the four (4) monitoring wells currently installed at the Site are approximately 40 feet deep; however no monitoring well construction logs or additional details are available. The information on the construction of the wells was reportedly included in a SCR previously submitted for the Site. The aforementioned SCR cannot be located by the solicitor or PADEP and as such is not available for review. Due to the concerns with the construction of bedrock monitoring wells MW-1 and MW-4, both of the aforementioned bedrock wells will be properly abandoned and replaced by a licensed driller. The selected consultant will abandon all of the monitoring wells in accordance with Pennsylvania Act 610 and the Groundwater Monitoring Guidance Manual dated February 29, 1996. Upon completion, a well abandonment report will be prepared and submitted to the DCNR on behalf of the claimant. Bidders should specify in the bid packages how the wells will be abandoned.

Task 2.4 Bedrock Monitoring Well Installation – In order to fully characterize the dissolved phase plume in the first bedrock aquifer and obtain the data necessary to evaluate exposure pathways for the risk assessment, a total of four (4) bedrock monitoring wells (MW-1R through MW-4R) are to be installed at the Site. The proposed locations of the bedrock monitoring wells are provided on the attached Figure 2. As part of the installation of the bedrock wells, the selected consultant should consider the following:

• All monitoring well locations will be advanced in the locations proposed in the RFB, unless the presence of utilities, obstructions, or safety concerns requires a

change in the location. The proposed location of the monitoring wells is provided on the Site Plan (Figure 2) included in Attachment 1.

- The four (4) bedrock wells will be advanced to a total estimated depth of 40 ftbg • with approximately 20 feet of four-inch diameter, schedule 40 PVC flush threaded casing and approximately 20 feet of four-inch diameter, schedule 40 PVC flush threaded 0.010 slot size screening. The upper 20 feet will be cased and the annular space will be sealed in an effort to prevent possible vertical movement through the borehole from the shallower intervals to deeper water bearing zones. At a minimum, the casing for each bedrock well must penetrate competent bedrock five (5) feet. 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 bedrock, actual depth to groundwater, etc.). The wells should be drilled and constructed in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, dated January 1, 1999 (Document # 383-3000-001). Based on anticipated drilling conditions, a Pennsylvania-licensed driller should install the wells using air-rotary methods. In addition, B&B will remind the selected consulting firm that careful consideration needs to be taken when installing the four (4) proposed bedrock monitoring wells. Specifically, the wells should not be over drilled, under screened, or screened across the overburden and bedrock.
- During the installation of MW-4, pea gravel fill material was reportedly encountered which became airborne striking the Site building and nearby property. There were also reports of the MW-4 borehole collapsing during drilling and construction. Consultants should take this information into consideration when selecting an appropriate drilling method that is both safe and capable of properly installing the well. Bid responses must clearly specify the drilling method, protection technique(s) and procedures to be employed to address the concerns and properly install and construct replacement monitoring well MW-4R.
- A flush-mounted manhole shall be cemented into place to complete the well at grade level. A locking, pressure fit, watertight cap will be used to prevent the infiltration of surface runoff and rainwater and to restrict access by unauthorized individuals.
- Drilling should be conducted under the supervision of a Pennsylvania-licensed Professional Geologist, although a field supervisor may be used in the field on a day-to-day basis. The field supervisor should visually inspect subsurface materials encountered during drilling, screen cuttings with a PID, and complete field well construction logs. When encountered, soils should be described using the Unified Soil Classification System. Bedrock should be described using USGS descriptive

protocol, with the identification of the depth of and size of potential fractures and/or other subsurface anomalies.

- 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. The IDW waste and purge water should be disposed of per the PADEP Southeast Regional Office (SERO) guidance; check with the SERO for current requirements. 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 tasks 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. The groundwater may be temporarily stored on site, but should be removed from the Site in a timely manner.
- Soil/rock cuttings and liquids generated during the drilling activities should be disposed of offsite in a manner consistent with the protocols set forth by the PADEP. Disposal of soil/rock cuttings should be arranged through a certified waste disposal subcontractor. 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. ICF and 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 one (1) ton of soil cuttings will require disposal after the installation of the additional monitoring wells). Bidders will be responsible for including costs in their bid response to cover the disposal of all potential waste related to the tasks 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.
- Compile the field findings into comprehensive monitoring well construction diagrams and logs.

Task 2.5 Site Survey – Following the installation of the proposed soil borings and monitoring wells, a professional survey of the Site by a Pennsylvania-licensed surveyor including all current site features (e.g., buildings, property boundaries, monitoring wells, etc.) shall be completed. All monitoring wells, borings, the Site building, property boundaries and other important Site features are to be surveyed with the purpose of placing their horizontal coordinates on a scaled site map. In addition, the vertical coordinates of the new monitoring well top of casings and surface grade are to be surveyed. The benchmark elevation shall be obtained by referencing the approximate ground surface elevation of the property or from an available benchmark from a

USGS topographic map or benchmark elevation marker located at the Site. In conjunction with collecting depth to groundwater readings during sampling events and in an effort to establish groundwater flow at the Site, tops of casing for the existing monitoring wells are to be surveyed to facilitate the construction of a Site wide groundwater flow map. In addition, the presence of SPL (if detected) needs to be taken into consideration when calculating the static water levels in the wells and constructing a Site wide groundwater flow map. Groundwater elevation data collected following the installation of the additional monitoring wells along with data from the site survey will be utilized to produce a series of summary figures which will provide additional information as to the groundwater flow direction in the monitored aquifer.

Task 2.6 Soil Gas Sampling – During the characterization of the Site, a total of three (3) soil gas samples are proposed to be collected during each of the two (2) soil gas sampling events. Please note that USTIF will only pay the selected firm for the actual number of events conducted (i.e. if a firm includes the costs to complete two (2) events, but only one (1) event is conducted; then the firm will only be paid for the one (1) event completed). The selected consultant should be prepared to conduct the first soil gas sampling event at the Site within two (2) weeks of the execution of the contract and 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:

- All soil gas points will be advanced in the locations proposed in the RFB, unless the presence of utilities, obstructions, or safety concerns requires a change in the location. The proposed locations of the soil gas points are provided on the attached Site Plan (Figure 1) in Attachment 1.
- 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.
- Samples should be collected in laboratory provided Summa canisters equipped with laboratory calibrated flow regulators and analyzed for the PADEP Constituents list for unleaded gasoline 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).

Task 3.0 Groundwater Monitoring and Sampling:

For this RFB, please assume the total number of groundwater monitoring and sampling events that will be needed is two (2) events. During each of the two (2) groundwater monitoring and sampling events, the selected consultant shall collect groundwater samples from each of the four (4) replacement monitoring wells. Please note that USTIF will only pay the selected consultant for the actual number of events conducted (i.e. if a firm includes the costs to complete two (2)

events, but only one (1) event is conducted; then the firm will only be paid for the one (1) event completed). The selected consultant should be prepared to conduct the first groundwater sampling event at the Site approximately two (2) weeks after the installation and development of the four (4) replacement monitoring wells.

Each event should include the following:

- Collect water level readings from each of the monitoring wells using an interface probe capable of distinguishing water and/or the presence or absence of product to the nearest 0.01 feet;
- Record the depth to water readings from the monitoring wells and then use the data to determine water level elevations such that groundwater flow direction can be confirmed;
- Groundwater sampling activities should be conducted in accordance with generally accepted practices as outlined in the final version of the PADEP Groundwater Monitoring Guidance Manual;
- Prior to the collection of groundwater samples, the water column in each of the monitoring wells should be purged by either the removal of approximately three (3) volumes of the water column or via low flow sampling method;
- Sampling equipment should be decontaminated prior to sample collection in accordance with generally accepted industry practices;
- Following purging activities, groundwater samples should be collected as quickly as practical from each of the wells directly from a bailer into laboratory supplied bottleware;
- The IDW waste and purge water should be disposed of per the PADEP Southeast Regional Office (SERO) guidance; check with the SERO for current requirements. 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 tasks included in the SOW;
- 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 PADEP unleaded gasoline short lists (benzene, toluene, ethylbenzene, total xylenes, MTBE, naphthalene, isopropylbenzene, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene);

- 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; and
- 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 ICF and the Technical Contact updated on the progress of the investigation.

Task 4.0 Site Characterization Report:

Following the completion of the activities proposed in Task 1.0 and Task 2.0 as well as the two (2) groundwater sampling events from Task 3.0, the selected consultant will prepare a SCR for the Site. The information gathered during the aforementioned tasks should be incorporated into a comprehensive SCR that will be submitted to the PADEP and will facilitate the objective to complete regulatory requirements governing the SCR 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.

Within 120 days of contract execution, a draft SCR 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, ICF / USTIF and the Technical Contact for review / comment prior to finalizing the SCR. 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.

Optional Cost Adders:

Task 1.0 through Task 4.0 above represents the base Scope of Work for this RFB solicitation. These tasks have been specifically developed in an effort to complete the PADEP's site characterization requirements. In addition to the base Scope of Work tasks, *Optional Cost Adders* are being requested for the following tasks:

- *Optional Cost Adder #1* Provide a Unit Cost to complete an additional groundwater monitoring and sampling event. The scope of work for this cost adder should follow Task 3.0.
 - <u>Optional Cost Adder #1a</u> The cost provided should be to complete only one (1) event with all wells (proposed) in the network being sampled.
 - <u>Optional Cost Adder #1b</u> The cost provided should be to sample one (1) additional monitoring well during a groundwater sampling event. The provided cost would be to cover all labor, equipment, laboratory, waste, etc.
- **Optional Cost Adder #2** Provide a Unit Cost to Prepare a Summary Progress Report for submittal to the PADEP. The Progress Report should detail the observations documented during the event, summarize the analytical results, map the groundwater flow direction for the Site, provide iso-concentration maps for compounds exceeding the SWHS, provide hydro-graphs, discuss the interim remediation efforts (if any), and provide additional scheduling details for upcoming events. Once the report is approved by the Solicitor, 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.
- **Optional Cost Adder #3** Provide a Unit Cost to install one (1) additional bedrock monitoring well. The scope of work for this cost adder should follow Task 2.4 construction guidelines. Please provide costs for the following:
 - <u>Optional Cost Adder #3a</u> Installation of one (1) additional bedrock monitoring well during a separate event. Assume the bedrock monitoring well will be installed to a depth of 40 feet. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.
 - <u>Optional Cost Adder #3b</u> Installation of one (1) additional bedrock monitoring as an add-on to a drilling investigation. Assume the bedrock monitoring well will be installed to a depth of 40 feet. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.
 - <u>Optional Cost Adder #3c</u> Per foot cost for drilling and constructing a monitoring well that extends past the 40 foot depth assumed in Optional Cost Adder #7a and #7b. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.

• **Optional Cost Adder #4** – Provide a Unit Cost to install one (1) additional shallow water monitoring well. A shallow monitoring well will be drilled and constructed in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, dated January 1, 1999 (Document # 383-3000-001). Drilling will 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 competent bedrock, actual depth to groundwater, etc.).

The shallow monitoring wells will be constructed using four inch diameter schedule 40 PVC flush threaded casing and schedule 40 PVC flush threaded 0.010 slot size screening in the well column. The selected consultant will install the wells to a depth above or slightly into the competent rock, but no more that five (5) feet into competent bedrock. A protective flush-mounted manhole will be cemented in place around the PVC riser and finished flush with surface grade. Each monitoring well will be completed with a watertight locking cap for security. 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. The IDW waste and purge water should be disposed of per the PADEP Southeast Regional Office (SERO) guidance; check with the SERO for current requirements.

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 tasks 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. The groundwater may be temporarily stored on site, but should be removed from the Site in a timely manner. Please provide costs for the following:

- <u>Optional Cost Adder #4a</u> Installation of one (1) additional shallow monitoring well during a separate event. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.
- <u>Optional Cost Adder #4b</u> Installation of one (1) additional shallow monitoring well as an add-on to a drilling investigation. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.
- **Optional Cost Adder #5** Provide a Unit Cost to secure offsite access on one (1) adjacent residential/commercial property in an effort to install a groundwater monitoring well. The cost should cover the necessary time and materials needed to contact the off-site property owner, draft an access agreement, and obtain approval with one (1) draft revision to the

access agreement. The cost does not include any legal fees, payments or permitting costs. Providing this Unit 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.

- *Optional Cost Adder #6* Provide a Unit Cost to update the Site's survey to include any additional on-site or off-site well location(s). The scope of work for this cost adder should follow Task 2.5.
- Optional Cost Adder #7 Provide a Unit Cost to prepare a combined SCR/RAP for submittal to the PADEP instead of a SCR. The RAP portion of the report would propose eight (8) quarters of groundwater attainment monitoring. The costs included in this optional cost adder would just be the additional costs needed to write the SCR/RAP above and beyond the costs included in the bid response to write the SCR.
- **Optional Cost Adder #8** Provide a Unit Cost to complete a Risk Assessment and Feasible Remedial Alternatives Analysis. The scope of work for this cost adder should follow the following:
 - **Risk Assessment Evaluation** A risk assessment evaluation shall be completed consistent with the guidelines provided in the Act 2 Guidance Manual (applicable portions of *Sections II.C.4 IV.G and IV.H*). These sections provide general information on risk assessment; developing site appropriate standards; discuss potential for pathway elimination; and guidance on site-specific human health assessment procedures. This guidance should be followed to conduct a risk assessment. Results of the risk assessment should be taken into consideration when developing a feasible remedial strategy and determining which standards would be appropriate for the Site. Results of the evaluation should be discussed in the Risk Assessment and Feasible Remedial Alternatives Analysis Report.
 - Remedial Alternatives Analysis 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, practical 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 Risk Assessment and Feasible Remedial Alternatives Analysis Report. Information/data generated during the interim remedial activities conducted at the Site should be taken into consideration.
 - Risk Assessment and Feasible Remedial Alternatives Analysis Report -Following the completion of the proposed Risk Assessment Evaluation and

Remedial Alternatives Analysis, a Risk Assessment and Feasible Remedial Alternatives Analysis Report should be prepared for the Site. The report should detail the procedures and findings from the completed baseline risk assessment 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 task. 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 Technical Contact 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.

SCHEDULING

As part of this RFB, the selected consultant shall be prepared to install the new monitoring wells at the Site within 30 days of the project award date and submit the draft SCR to the Solicitor, ICF / USTIF and the Technical Contact within 120 days of the project award date. In addition, a <u>detailed schedule</u> indicating when specific activities and reports (soil investigation, aquifer testing, report submittal, groundwater sampling, well installation activities, etc.) will be completed needs to be prepared and included in the bid response. All on-site work should be completed during the normal working days and hours of 8 am to 5 pm from Monday through Friday.

RESPONSIBILITY

The selected consultant will be the consultant of record for the Site. They will be required to take ownership and responsibility for the project and will be responsible for representing the interests of the Solicitor and ICF/USTIF 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.

QUALIFICATION QUESTIONS

Proposals need to provide answers to the five (5) qualifications and experience questions

provided below:

- Does your company employ the Pennsylvania licensed Professional Geologist (P.G.) that is designated as the proposed project manager? How many years of experience does this person have?
- How many Chapter 245 projects are your company currently consultant on record for in the Southeast region and all regions of Pennsylvania?
- How many Chapter 245 projects have your company and/or the proposed Pennsylvania licensed P.G. worked on in the Southeast region and all regions of Pennsylvania during the last five (5) years?
- How many Chapter 245 projects have your company and/or the Pennsylvania licensed P.G. closed (i.e., obtained relief from liability from the PADEP) using either the Statewide Health Standards or Site Specific Standards? Please list.
- Has your company ever walked away from a PAUSTIF Fixed Price Contract or Pay For Performance contract without attaining all of the Milestones? If so, please explain why the contract was not fulfilled?

CONTRACT INFORMATION AND BID INSTRUCTION

The Solicitor wishes to execute a mutually agreeable <u>fixed price contract</u> based on unit prices for labor, equipment, materials, subcontractors/vendors and other direct costs. The prices provided in the bid will remain in effect for the duration of the project (i.e. no escalation clause). The total fixed cost quoted by the selected consultant will be the maximum amount to be paid by the Solicitor unless a change of scope is authorized and determined to be reasonable, necessary, and appropriate. *Please note that the total fixed-price bid must include all costs, including those cost items that the bidder may regard as "variable". These variable cost items will not be handled outside of the total fixed-price quoted for the SOW. Any bid response 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. A copy of the proposed fixed price contract is included in Attachment 3.*

The bidding firm will need to include the following in their proposal:

- A demonstration of the bidder's understanding of the objectives of the project and the bidders approach to achieving those objectives efficiently based on the existing site information provided in this RFB;
- Provide a clear description, specifics, and original language of how the proposed work scope will be completed. The bid package should specifically discuss all tasks that will be completed under the fixed price contract and what is included (i.e. explain

your groundwater sampling method, which guidance documents will be prepared, what will be completed as part of the SRS, etc.);

- A <u>fixed price</u> cost estimate for work through the completion of the characterization activities;
- Provide a detailed schedule of activities for completing the proposed scope of work inclusive of reasonable assumptions regarding the timing and duration of Solicitor reviews (if any) needed to complete the scope of work;
- Indication of whether the bidder accepts or seeks changes to the proposed contract / terms and conditions;
- The bidder's level of insurance;
- The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs and equipment;
- The bidder's proposed markup on other direct costs and subcontractors (if any);
- Identify and describe the involvement of subcontractors;
- Identify any exceptions, assumptions, or special conditions applicable to scope;
- Cost by task and total costs must be defined within the proposal text and on the cost spreadsheet (Attachment 2);
- The bidder's total cost by task consistent with the proposed scope of work identifying all level-of-effort and costing assumptions;
- A statement of qualifications including that of any major subcontractor(s);
- Describe your approach to working with the PADEP from project inception to submittal of the SCR. 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;
- Describe how the Solicitor and ICF/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;
- Answers to the qualification questions discussed in the RFB;

- Identify the names of the proposed project team for the key project staff, including the proposed Professional Geologist of Record who will be responsible for overseeing the work and applying a professional geologist's seal to the project deliverables;
- If a firm feels it is appropriate and necessary to complete hole clearing activities, the cost should be included in their proposal and costs. More importantly, if a firm includes the cost to complete hole clearing, 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;
- Bids should provide an appropriate total cost in the detailed cost spreadsheets, a schedule, and text to cover the SOW presented in the RFB text. Specifically, if the bid proposes the completion of 2 quarterly groundwater sampling events then the costs to complete both events should be included in cost listed on the detailed cost spreadsheet for that task. The total costs provided on the detailed cost spreadsheet should not just include the completion of one (1) quarterly event; and
- Please make sure that costs provided for each task are consistent between the submitted text and submitted attachments (i.e. cost provided for the soil boring investigation is listed as \$4,000.00 in the detailed cost sheet and the text of the submitted bid). If a discrepancy in costs is noted during the review of the bids, the costs listed in the detailed cost sheet (Attachment 2) will be used as the costs during the bid evaluation.

The bidder shall provide its bid using the format identified in this RFB and will provide brief descriptions of each task in the body of the bid document. In addition, the bidder will complete the detailed cost sheet included as Attachment 2. An electronic version of the cost spreadsheets included in Attachment 2 (in Microsoft Excel Format) has been provided. Please note that bidders are responsible for confirming that the equations and totals calculated in the provided spreadsheet are correct.

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.

The scope of work, as described in this RFB, shall be conducted in accordance with industry standards / practices, and consistent with the PADEP requirements and guidelines. The selected consultant's work to complete the tasks discussed will be subject to ongoing review by the PAUSTIF or its representatives to assess whether the work actually completed and the associated incurred costs are reasonable, necessary, and appropriate.

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 tasks identified in the bid. The standard practice of tracking total cumulative costs by bid task will also be required to facilitate invoice review.

The bid responses must clearly and unambiguously accept the provided contract or must clearly cross reference any requested changes.

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. ICF and 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 500 gallons of groundwater will extracted during the aquifer testing and require disposal). Bidders will be responsible for including costs in their bid response to cover the disposal of all potential waste related to the tasks included in the SOW. All waste generated during the completion of tasks related to the SOW may be temporarily stored on site, but must be disposed of offsite in a timely manner. 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.

Each bid package received will be assumed to be good for a period of 120 days after receipt unless otherwise noted. Please note that ICF, PAUSTIF, and B&B will treat the bids as confidential, but that limited general information may be released by the solicitor and/or B&B after the bid selection process is completed.

MANDATORY SITE VISIT

On September 18, 2012, the Technical Contact (or designee) will be at the site at 11:00 am to answer questions and conduct a site tour for a limited number of participants per firm. Please inform the Technical Contact at least five (5) business days in advance of the aforementioned meeting date as to whether your firm will be in attendance. In order to accurately track meeting participants, the subject line of the email must state the following: Al Howard Service Bid Walk Claim No. 98-499(M). Any firm that does not attend the September 18, 2012 mandatory site visit will not be eligible to submit a bid response.

ATTACHMENTS

Attachment 1 – Tables, Figures, Historical Documentation and Correspondence

- Attachment 1a Figures
 - Figure 1 Site Plan
 - Figure 2 Proposed Monitoring Well and Soil Boring Map
 - Figure 3 Groundwater Elevation and Concentration Map October 18, 2011
- Attachment 1b Summary Data Tables
 - Table 1 Soil Quality
 - Table 2 Groundwater Quality
- Attachment 1c UST Closure Report dated January 28, 1999
- Attachment 1d 1st Quarter 2002 Groundwater Sampling Report
- Attachment $1e 2^{nd}$ Quarter 2002 Groundwater Sampling Report
- Attachment 1f Remedial Action Completion Report dated February 15, 2006
- Attachment 1g Laboratory Data Package October 2011 Groundwater Sampling Event

Attachment 2 – Detailed Cost Sheet

Attachment 3 – Draft Fixed Price Contract