

COMPETITIVE BID SOLICITATION FOR COMPLETION OF SITE CHARACTERIZATION ACTIVITIES

LOVEDALE SUNOCO

**2004 LINCOLN BOULEVARD, ELIZABETH, ALLEGHENY COUNTY,
PENNSYLVANIA**

PADEP FACILITY ID #20-07225 -- PAUSTIF CLAIM # 2009-0164(S)

September 3, 2010

This Request for Bid (RFB) Solicitation is to prepare and submit a **Fixed Price Competitive Bid** to complete a **Site Characterization** for the subject site.

In 1995, during the course of upgrading the underground storage tank (UST) system piping, petroleum contaminated soils were discovered at the subject property, resulting in the removal of 52 tons of impacted soil. No groundwater investigations were conducted at that time. Subsequently, during Phase II Environmental Site Assessment activities conducted at the subject site in 2009, preliminary groundwater sampling identified the presence petroleum Constituents of Concern (COCs) at concentrations above the Non-Residential Statewide Health Standard (NRSHS); however, no soil impacts above the Residential Statewide Health Standard (RSHS) were found during the Phase II investigations.

The Solicitor has an open claim (Claim # 2009-0164(S)) with the Pennsylvania Underground Storage Tank Indemnification Fund (PaUSTIF or "Fund"), and the work outlined in this RFB will be completed under this aforementioned claim. Reimbursement of Solicitor-approved reasonable, necessary and appropriate costs up to claim limits for the work described in this RFB will be provided by PaUSTIF and the Solicitor.

The work to be completed under this RFB will generally include the following components (additional details are provided later within this solicitation):

1. Component I activities including: records reviews, interviews, documentation of release and site history, site reconnaissance, etc;
2. Component II Activities including: installing, surveying, gauging and sampling wells, aquifer testing, vapor intrusion testing, etc; and,
3. Component III preparing a Site Characterization Report (SCR) and remedial alternative evaluations for Solicitor to review prior to PaDEP submittal.¹

¹ For clarity, this RFB does not include the preparation or implementation of a Remedial Action Plan (RAP).

Fixed Price costs for individual tasks proposed by the bidder shall be based on the scope of work provided in the RFB. Expenses for individual tasks in excess of the quoted price for the individual tasks shall be the bidder'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 by PaUSTIF or its representatives will not be reimbursed.

Should your company elect to respond to this RFB Solicitation, one (1) hard copy and one (1) electronic copy on a CD of the signed bid package must be provided to the identified ICFI Representative. **The outside of the envelope must be clearly labeled BID – CLAIM #2009-0164(S). The signed response (both electronic and hard copy) to this RFB must be provided to the ICFI Representative no later than close of business (5:00 PM EDST) on October 19, 2010.**

On behalf of ICFI and PaUSTIF, the Technical Contact will assist the Solicitor in evaluating the bid, but the Solicitor will ultimately choose 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 bidder with an approval to proceed within nine (9) weeks of the bid response deadline.

A. SOLICITOR AND TECHNICAL CONTACT INFORMATION

<u>Solicitor</u>	<u>ICFI Representative</u>	<u>Technical Contact</u>
Mr. William H. Jenkins, VP D. Jenkins Corporation P.O. Box 1200 Elrama, PA 15038	Ms. Bethany Smith ICF International 4000 Vine Street Middletown, PA 17057-3565	Mr. Eric J. Slavin, MS, CPGS, RPG President/Senior Consultant Earth Resource Associates, Inc. 544 Hemlock Lane Lebanon, PA 17042-6094 Email: Eric.J.Slavin@gmail.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. **Bidders must neither contact nor discuss this RFB Solicitation with the Solicitor, PaUSTIF, or ICFI unless approved by the Technical Contact.** This RFB Solicitation may be discussed with subcontractors/vendors to the extent required for preparing the bid response. **There will be no site visits allowed except as provided in Section F.**

B. SITE LOCATION / BACKGROUND

Site Name/Address

Lovedale Sunoco
2004 Lincoln Boulevard
Elizabeth, PA 15037

Municipality /County/ Latitude and Longitude

Borough of Lincoln
Allegheny County

40° 16' 44.41" north latitude
-79° 52' 29.60" west longitude

Site Use Description:

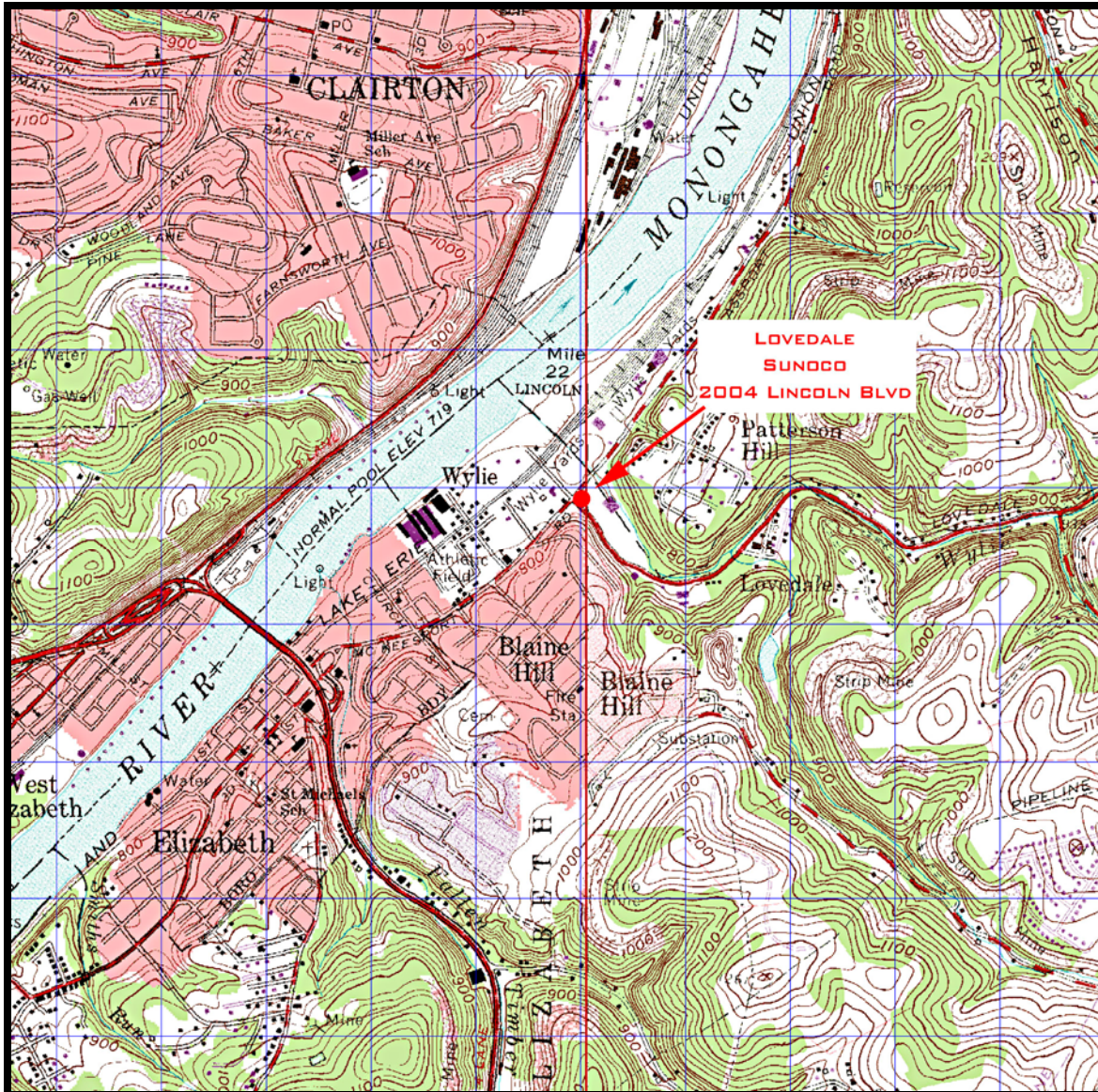
Lovedale Sunoco is an actively operating convenience store, retail gasoline station and single bay automatic carwash. There are 4 underground storage tanks located at the site. Three of those tanks are used for the storage of gasoline, and are located in a common excavation. Two of those gasoline tanks are manifolded. The remaining tank is located in a separate excavation and is used to store kerosene. There are no above ground tanks associated with the property. Excess water from the car wash is contained and drained into a 1,000 gallon concrete pit and recycled. No other tanks are known to be associated with the site, either currently or historically.

Nature of Confirmed Release:

In 1995, the facility upgraded its existing piping to meet PaDEP regulatory compliance concerns. The upgrade was completed by Petroleum Equipment Services (PES). A letter dated March 7, 1995 to the facility owner by American Geosciences, Inc. (AGI) stated that PES identified a small quantity of petroleum impacted soil during the upgrade near the tank fill pipes and product lines and 52 tons of soil were excavated and staged on-site. Guided by readings obtained from a portable Photoionization Detector (PID) 1 sample was collected from the stockpiled soil and 2 samples were collected from the piping trench. Laboratory analyses of those samples reported that xylene and total petroleum hydrocarbons were present in the soil pile sample at concentrations above the regulatory limits, but that no constituents of concern were present in the piping trench samples at concentrations above the regulatory limits. The 52 tons of excavated soil were subsequently disposed of at an off-site facility and no further actions were taken.

In December of 2009, a Phase II Environmental Site Assessment was completed at the subject site, in conjunction with the potential sale of the property. At that time, 5 soil borings were completed to depth ranging from 14 to 18 feet below grade, and reported the underlying

Figure 1
Site Location Map



Location Map Taken From USGS 7.5 Minute Topographic Series Glassport and McKeesport, PA 7.5 Minute Quadrangles

Scale 1 : 24,000

North



Figure 2
Recent Aerial Photograph of Site Area



Aerial photography taken from Google Earth

materials to consist of predominantly fill material with clays and silty clays containing sandstone and shale fragments at depth.

Soil samples were collected for laboratory analysis from each of the 5 boreholes, with the samples being collected at the soil/groundwater interface, as interpreted in the field. Results of the analyses of those soil samples reported no constituents of concern at concentrations above regulatory standards:

Summary Soil Sampling Results From Phase 2 Sampling
All Results Reported as mg/kg

	Residential Used Aquifer MSC (Saturated Soil)	Sample ID LS-1 (13 ft bgs)	Sample ID LS-2 (15 ft bgs)	Sample ID LS-3 (14 ft bgs)	Sample ID LS-4 (14 ft bgs)	Sample ID LS-5 (12 ft bgs)
Benzene	0.5	<0.030	<0.030	<0.030	0.049	<0.030
Toluene	100	<0.030	<0.030	<0.030	0.059	<0.030
Ethylbenzene	70	<0.030	<0.030	<0.030	0.174	<0.030
Total Xylene	1,000	<0.030	<0.030	<0.030	0.398	not reported
Cumene	230	<0.030	<0.030	<0.030	<0.030	<0.030
Naphthalene	10	0.049	<0.030	<0.030	0.085	0.043
MTBE	2	<0.030	<0.030	<0.030	<0.030	<0.030
1,2,4-TMB	2.5	<0.030	<0.030	<0.030	0.446	0.048
1,3,5-TMB	3.5	<0.030	<0.030	<0.030	0.087	<0.030

Groundwater was reported to be encountered during the completion of the soil boring, so groundwater samples also were collected. All groundwater samples were collected directly from the soil borings, rather than from properly constructed groundwater monitoring wells; and, as such, the results may not be representative of actual groundwater conditions.

Groundwater samples were collected from all soil borings except LS-4. While the boring logs included with the Phase II report identify that 2 feet of water was present in boring LS-4, the text of the Phase II report states that no groundwater was present in boring LS-4; and, as such, no groundwater sample was collected. Results of the groundwater analyses, which are summarized by the following table, identify that benzene and trimethylbenzenes were present in the water sample collected from boring LS-3, at concentrations that exceed the regulatory standards.

Summary Groundwater Sampling Results From Phase II Sampling
All Results Reported as mg/kg

	Residential Used Aquifer MSC	Non- Residential Used Aquifer MSC	Sample ID LS-1	Sample ID LS-2	Sample ID LS-3	Sample ID LS-5
Benzene	0.005	0.005	<0.005	<0.005	0.020	<0.005
Toluene	1.0	1.0	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.7	0.7	<0.005	<0.005	0.018	<0.005
Total Xylene	10	10	<0.005	<0.005	0.032	not reported
Cumene	1.1	2.3	<0.005	<0.005	0.041	<0.005
Naphthalene	0.1	0.1	<0.005	<0.005	0.012	<0.005
MTBE	0.02	0.02	<0.005	<0.005	<0.005	not reported
1,2,4-TMB	0.016	0.035	<0.005	<0.005	0.069	<0.005
1,3,5-TMB	0.016	0.035	<0.005	<0.005	0.092	<0.005

Constituents of Concern:

The Constituents of Concern (COC) for the subject site are PaDEP unleaded gasoline and kerosene constituents benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, and naphthalene 1,2,4-trimethylbenzene and 1,3,5- trimethylbenzene.

C. OBJECTIVES AND SCOPE OF WORK

This RFB seeks competitive bids from qualified contractors to perform the site characterization activities scoped below to investigate a confirmed petroleum release at the subject site, and to submit a Site Characterization Report (SCR) to the PaDEP. Following completion this scope of work, a revised RAP will be prepared; however, This RFB does not include the preparation or implementation of a Remedial Action Plan (RAP). The following Scope of Work has been developed by the Technical Contact based on the §245.309 Regulations.

Work Task 1.0 Project Planning/Management:

Task 1.1 Records Review/Documentation - The successful bidder shall review and document the site history and details of the release via document inspection, interviews and related activities including:

- Reviewing Federal, State and local environmental and other databases for the subject property and adjacent properties, as well as searching for any environmental liens filed against the property;

- Reviewing the prior tank closure report, preliminary Site Characterization Report and sampling reports completed for the subject property, copies of which are included in Attachment 1 of this RFB;
- Identifying potential concerns with impacts to public and private water supplies, buildings or structures, stormwater and sanitary sewers and other underground utilities;²
- Identifying potential off-site sources, if any, which may have contributed to the identified contamination.
- Identifying drinking water wells on or within a ½ mile radius of the subject site;
- Documenting of properties within a ½ mile radius of the subject site being connected to public water supplies; and,
- Reviewing the suspected location and volume of the release and affected media (soil, groundwater, surface water and/or vapor).

The successful bidder shall document the property historical records review and interviews by preparing a written detailed summary of research findings including site and vicinity general setting, current land use and planned land use on the property, descriptions of existing and proposed structures, utilities, groundwater wells, availability and connections to public water supplies, other improvements on the site and current and past uses of adjoining properties. A written summary of findings shall be prepared and submitted to the Technical Contact and the Solicitor and shall include a detailed discussion of historical underground storage tanks (USTs), any above ground storage tanks (ASTs), pump islands, canopies and underground product conveyance piping systems including diagrams and any other fuel handling, storage or distribution facilities and any potential off-site sources which may have contributed to the contamination. Documentation of this initial work phase shall include maps, sketches, photos, interview sheets, or other relevant documentation supporting the text.

Task 1.2 Preparation of Project Guidance Documents - Documents to be prepared include a Site Specific Health And Safety Plan, a Field Sampling And Analysis Plan, a Quality Assurance/Quality Control Plan, a Pennsylvania One Call Notification Plan, a PennDOT Access/Notification Plan and/or other plans that may be required by regulations or that may be necessary and appropriate.³ Where applicable, the pertinent project guidance documents should be prepared in accordance with 25 PA CODE § 245.

² Scope of work includes the notification requirements specified in 25 PA Code §245.305

³ In accordance with 25 PA Code 245.309. Successful bidder shall be responsible for contacting Pennsylvania One Call prior to any invasive field work. In addition, successful bidder shall be responsible for obtaining all necessary permits for monitoring wells drilled in PennDOT or municipal rights-of-ways or cartways.

Task 1.3 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 and meetings, permitting, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling and other activities.

Work Task 2.0 – Site Characterization Activities:

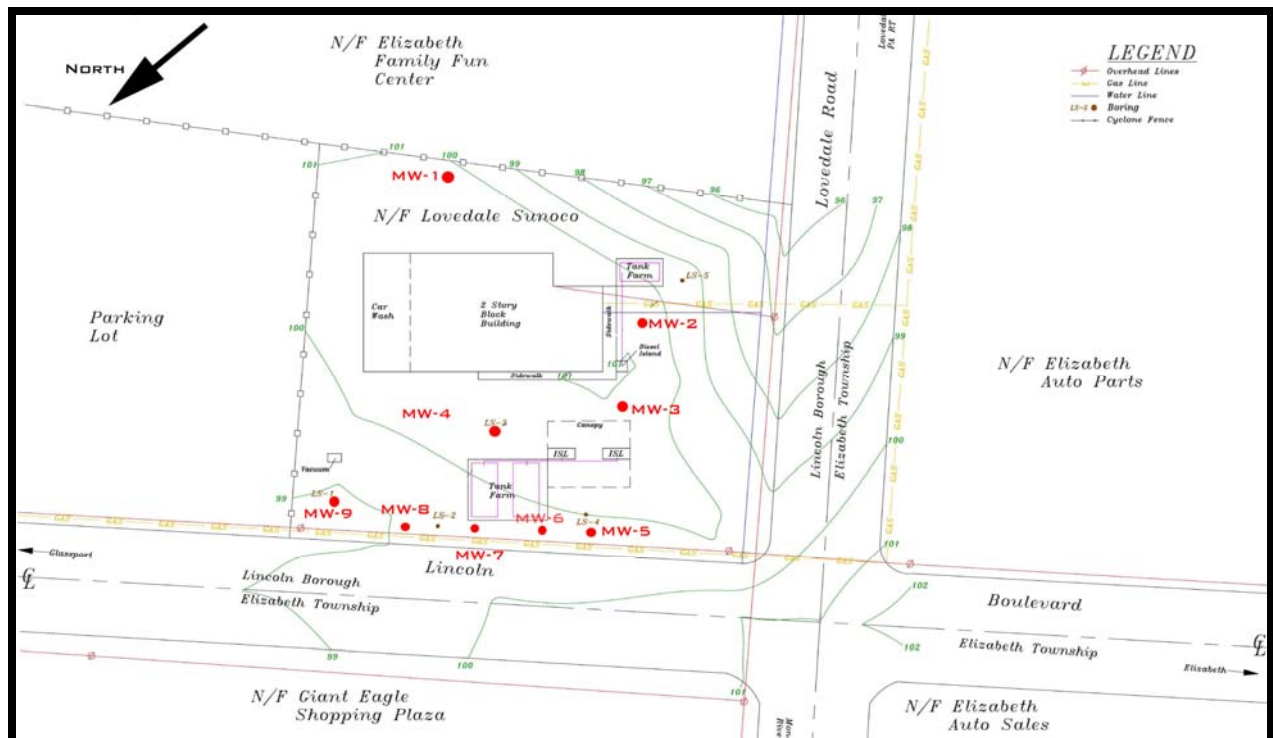
Task 2.1 Monitoring Wells - In order to fully characterize potentially impacted soil and the dissolved phase plume in the overburden aquifer and to obtain the data necessary to evaluate exposure pathways for the risk assessment, a total of nine (9) overburden monitoring wells (MW-1 through MW-9) shall be installed at the subject site.

The proposed locations of the overburden monitoring wells are provided on the attached Figure 3. As part of the installation of the overburden wells, the selected consultant shall consider the following:

- a. As a minimum, all soil boring and monitoring well installation work shall be directed and overseen by a geologist under the direct supervision of a Pennsylvania Registered Professional Geologist, in order to assure complete and accurate identification of the subsurface materials encountered and to assure proper construction of the monitoring wells;
- b. The overseeing geologist shall conduct continuous geological characterization and screening of soil (boring logs) from borings using a photoionization ionization detector (PID). Continuous geological logs shall be prepared by a Pennsylvania Registered Professional Geologist for each boring using standard and consistent classification system procedures (e.g., Modified Burmister or USCS);
- c. The overseeing geologist shall collect discrete soil samples from a depth coincident with the water table. One additional sample may also be collected at any depth interval with a PID response significantly greater than the typical reading for that boring and that is greater than 50 ppm. Historical data from existing wells and contemporaneous data from drilling and boring activities should be considered while sampling. Assume for the purpose of this RFB, that 2 soil samples will be collected in total from each well. Soil samples will be collected in laboratory-provided methanol preserved containers in accordance with EPA Method 5035, packed on ice and transported to an independent NELAC or PA Act 252 certified testing laboratory for analysis of the COCs identified by PaDEP's Revised Short List of Petroleum Products for unleaded gasoline and kerosene (i.e.– benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, and naphthalene 1,2,4-trimethylbenzene and 1,3,5- trimethylbenzene) via EPA Method 5035/8260B;

Figure 3

Site Mapping Showing Identified Utilities, Surface
Contours and Approximate Locations of Proposed
Monitoring Wells (MW-1 through MW-9)



Base mapping taken from drawing by Harris Environmental

- d. Wells shall be installed using either Direct Push techniques or by Hollow-Stem Auger techniques.
- e. Wells installed using Direct Push techniques shall be constructed of minimum 1.5-inch internal diameter prepacked well screens and riser pipe.
- f. Wells installed using Hollow-Stem Auger techniques shall be constructed of minimum 2-inch internal diameter well screens and riser pipe (pre-packed well screens and riser may also be used for Hollow-Stem Auger installations). If standard well screens are to be used for monitoring well construction, centralizers must be used to assure that the sand packs are evenly distributed around the well screens and sand packs must be placed as the augers are being withdrawn to assure that a minimum of 1-foot of sand remains within the auger and that the screen is not exposed to the overburden materials during construction.
- g. All wells shall be installed to a depth of 25-feet below grade, or the top of bedrock, whichever is less;
- h. All wells shall be completed with 20-feet of screen;
- i. If bedrock is encountered at a depth of less than 25 feet below grade, such that 20 feet of well screen cannot be installed, wells shall be constructed such that the screen extends from the bottom of the boring to a point at which the screen straddles the unsaturated/saturated zone interface.
- j. Each monitoring well riser pipe will be fitted with a pad locked compression cap, and will be completed at the surface with a water tight securable manhole, set in concrete flush with the ground surface.
- k. All padlocks are to be keyed alike, and 1 set of keys is to be provided to the Technical Contact upon completion of the well installations.

All wells shall be completed following industry standard techniques and in a manner consistent with the criteria established by the Pennsylvania Department of Environmental Protection's Groundwater Monitoring Guidance Manual dated December 1, 2001 (Document # 383-3000-001).

Bidders shall, within their bid packages, provide written detail of their proposed drilling and construction techniques for all wells and borings.

Soil cuttings and liquids generated during the drilling activities shall be containerized and disposed of offsite in a manner consistent with the protocols set forth by the PaDEP. Disposal of soil cuttings and liquids shall be arranged through a certified waste disposal subcontractor.

Soil cuttings and liquids generated during the drilling activities may be temporarily stored on-site, but shall be removed from the subject site in a timely manner. Temporary on-site storage shall not exceed 90-days from the date of initiation of well drilling.

The newly installed monitoring wells shall be properly developed to promote adequate hydraulic connection between the aquifer and the well. Well development shall be completed via a combination of mechanical surging and pumping, and shall be continued until such time as the well is reasonably free of sediment. For the purpose of this RFB it should be assumed that a minimum of 12 well volumes shall be removed in order to develop each well.

Groundwater and sediment removed from the wells during development shall be containerized and disposed of offsite in a manner consistent with the protocols set forth by the PaDEP. Disposal of extracted groundwater shall be arranged through a certified waste disposal subcontractor.

The groundwater may be temporarily stored on-site, but shall be removed from the subject site in a timely manner. Temporary on-site storage shall not exceed 90-days from the date of initiation of well development.

Subsequent to installing the groundwater monitoring wells they shall be surveyed by a Pennsylvania licensed land surveyor to identify locations on the scaled base site plan and to determine top of casing elevations (elevation above mean sea level). Survey shall also include the property line and all principal site features (e.g., buildings, dispensers, grass islands, property boundaries, paved areas, gravel areas, conveyance lines, etc). Base map shall also show uses of adjoining properties and shall include the locations and elevations of the tops of casing of the monitoring wells.

Task 2.2 Groundwater Sampling – For cost purposes, bidders shall assume the completion of 2 groundwater monitoring events. The first sampling event shall be conducted no sooner than 14 days following the completion of the well installations and development. The second sampling event shall be completed no sooner than 30 days following the first sampling event.

Prior to the collection of any groundwater samples, the successful bidder shall collect and record static water levels measurements for all wells.

Following the collection of static water levels from all wells, the successful bidder shall purge and sample the wells.

Low-flow groundwater purging/sampling techniques consistent with EPA's April 1996 Low-Flow (Minimal Drawdown) Ground -Water Sampling Procedures (EPA/540/S-95/504) shall be used to purge and collect groundwater samples from the monitoring wells unless this method is not viable for documented technical reasons. Full groundwater sampling records as identified by the low-flow guidance document shall be completed and maintained for each sampling event.

All groundwater samples shall be placed in new laboratory pre-cleaned 40 milliliter (ml) glass VOC vials, acid preserved with hydrochloric acid and packed on ice and transported to an independent NELAC or PA Act 252 certified testing laboratory for analysis of the COCs identified by PaDEP's Revised Short List of Petroleum Products for unleaded gasoline and kerosene (i.e.— benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, and naphthalene 1,2,4-trimethylbenzene and 1,3,5- trimethylbenzene) via EPA Method 5030B/8260B.

During each sampling event, 1 trip blank (provided by laboratory) and 1 blind duplicate QA/QC groundwater sample shall be collected and analyzed for the COCs.

Full chain-of-custody records shall be completed and maintained for each sampling event.

If separate-phase liquids are encountered during the groundwater sampling, a sample of the separate-phase liquid shall be collected and properly containerized / stored and the Technical Contact shall be notified. PaUSTIF may request (under a separate work scope) that the separate-phase liquid sample be analyzed for forensic properties.

Bidders shall, within their bid packages, provide written detail of their proposed purging, sample collection and sample handling techniques and methods.

Task 2.3 Summary Soil Sampling Reporting - Upon completion of monitoring well installations, well development and soil sampling, the successful bidder shall review and analyze the results of the well installations and the reports of the laboratory testings and shall compile and submit a Summary Soil Sampling Report (SSSR). **The SSSR shall include copies of the completed well logs for each monitoring well, copies of the laboratory reports of the soil sample analyses, a summary table of soil analytic results, copies of the well development records and field notes of each sampling event.** One copy of each SSSR shall be provided to PaDEP, 1 copy of each SSSR shall be provided to the Solicitor and 1 additional copy of each SSSR shall be provided to the ICFI Representative. **SSSRs are to be submitted to the parties identified above within 30-days of the successful bidder's receipt of the laboratory results of the soil samplings.**

Task 2.4 Summary Groundwater Sampling Reporting - Upon completion of each groundwater sampling event, the successful bidder shall review and analyze the results of the static water level measurements and the reports of the laboratory testings and shall compile and submit a Summary Groundwater Sampling Report (SGSR). **Each SGSR shall include copies of the static water level elevations collected from each well, a contour map of the static water levels, copies of the laboratory reports of the sample analyses, a summary table of analytic results, including all prior sampling results, isocon mapping of COCs found above the RSHS and copies of the low-flow purging records and field notes of each sampling event.** One copy of each SSR shall be provided to PaDEP, 1 copy of each SSR shall be provided to the Solicitor and 1 additional copy of each

SSR shall be provided to the ICFI Representative. **SGSRs are to be submitted to the parties identified above within 30-days of the successful bidder's receipt of the laboratory results of the sampling event.**

Task 2.5 Aquifer Testing – Slug tests shall be complete within a minimum of 5 of the monitoring wells to identify the horizontal and vertical spatial variability in the aquifer characteristics⁴.

Rising head tests shall be completed at each tested well. An instantaneous displacement of the water level in each well shall be accomplished by quickly removing a known volume of water or a pre-installed solid “slug” of known volume. Measurements shall be taken as soon as possible following the extraction of the “slug” until achievement of the initial static water level (within 10%) in the well recorded prior to its displacement. The water level response shall be measured using a pressure transducer and/or electronic data logger.

The evaluation of the rising head test data shall be performed according to the Bouwer and Rice method for completely or partially penetrating wells in unconfined or semi-confined aquifers.

Task 2.6 Fate and Transport Modeling - Fate and Transport Modeling shall be completed using the Quick Domenico two-dimensional analytical model to predict fate and transport of COCs exceeding the RSHS in groundwater beneath the subject site. Bidders may propose the use of additional fate and transport models to be used along with the Quick Domenico model, if appropriate.

Task 2.7 Vapor Intrusion Into Buildings – The successful bidder shall complete vapor screening investigations 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 Standard, Document 253-0330-100, dated January 24, 2004, to determine if complete vapor intrusion pathways exist and if so whether the potential pathways present more than negligible risks. Soil gas or indoor air quality sampling is not included as part of this RFB.

Work Task 3.0 – Waste Management and Disposal:

The successful bidder shall 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 Scope of Work in accordance with standard industry practices and applicable laws, regulations, guidance, and PaDEP directives. Waste characterization and disposal documentation (e.g.,

⁴ Slug test work shall be completed as per accepted industry standards and in accordance with the American Society for Testing and Materials (ASTM) standards as defined in ASTM D4104-96 (2004), ASTM D5785-95 (2000), ASTM D5881-95 (2000) and ASTM D5912-96 (2004).

manifests) shall be maintained and provided to the Solicitor upon request. Waste disposal costs shall be included in the fixed-price quoted for all work tasks, as appropriate.

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.

The successful bidder shall manage purge water from the on-site monitoring wells consistent with the guidelines set forth by PaDEP's Groundwater Monitoring Guidance Manual PaDEP Document # 383-3000-001. For cost estimation purposes, bidders shall assume that low-flow purge water shall be treated on-site through granular activated carbon for surface discharge, provided PaDEP approval to do so is secured by the successful bidder.

Soil/rock cuttings and liquids generated during the drilling activities shall be disposed of offsite in a manner consistent with the protocols set forth by the PaDEP. Disposal of soil/rock cuttings shall 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, all bidders shall include costs to dispose of all anticipated volumes of waste in their 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 Scope of Work. Please estimate, and clearly identify in your bid, 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 the subject site will not be paid.

Work Task 4.0 – Site Characterization Report:

Following the completion of the activities proposed in Work Tasks 1.0, 2.0 and 3.0, the successful bidder shall prepare a Site Characterization Report (SCR) for the subject site. The information gathered during the aforementioned tasks shall 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 shall summarize the results of the recent investigations, the findings of the previous investigations, a comprehensive site history, identification of source(s), 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, and a series of summary tables, appendices, and figures illustrating the information provided in the report.

The SCR shall 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 successful bidder shall also present significant conclusions and make recommendations for any necessary future work at the subject site in the SCR. The SCR shall be appropriately signed and sealed by a licensed Pennsylvania Registered 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, aquifer testing and analysis, transducer survey results and analysis, and sensitive receptor information) shall be submitted electronically (in Adobe PDF format) to the Technical Contact and to the ICFI Representative. Additionally, a hard copy of the draft shall be submitted to the Solicitor and the Technical Contact for review / comment prior to finalizing the SCR. Once the successful bidder has addressed comments on the draft, the successful bidder shall finalize the SCR, which shall then be sealed by a Pennsylvania Registered Professional Geologist and issued to PaDEP, Technical Contact, the ICFI Representative and the Solicitor. 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.) shall also be submitted electronically on CD to the Technical Contact and the ICFI Representative.⁵

Copies of the final SCR also shall be submitted electronically (in Adobe PDF format) to the Technical Contact and the ICFI Representative along with a hard copy being submitted to PaDEP and the Solicitor.

Each bidder should carefully review the existing site information provided in Attachment 1 to this RFB and seek out other appropriate sources of information to develop their fixed price cost quotation and schedule leading up to and including preparing the SCR. There is no prequalification process for bidding. Therefore, bids that demonstrate a command of existing site information and demonstrate an understanding of standard industry practices will be regarded as responsive to this solicitation.

Work Task 5.0 - Risk Assessment and Feasible Remedial Alternatives Analysis:

Task 5.1 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

⁵ Figures and AutoCAD drawings are to be prepared on no larger than Ledger Sized (11" x 17") paper.

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 shall be discussed in the Risk Assessment and Feasible Remedial Alternatives Analysis Report.

Task 5.2 – Remedial Alternatives Analysis - A Remedial Alternatives Analysis shall be completed for the subject site to compare cleanup alternatives and evaluate which remedial action is most appropriate for the subject 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 shall 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 subject site shall be taken into consideration.

Task 5.3 – 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 shall be prepared for the subject site. The report shall 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 subject site's subsurface. It shall 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 shall be attached to further illustrate the current condition of the subject site. The report shall appropriately evaluate the subject site and assess the risks as well as provide a proper closure strategy and remedial alternative for the subject site. Information/data generated during the interim remedial activities conducted at the subject site shall 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 successful bidder has addressed comments on the draft, the successful bidder shall finalize and issue the report to the PADEP.

D. QUALIFICATION QUESTIONS

In order for proposals to be considered administratively complete, bidder's proposals must provide written answers to the four (4) qualifications and experience questions provided below:

1. Does your company employ (not subcontract) a Pennsylvania Licensed Professional Geologist (P.G.) that is designated as the proposed project manager? How many years of experience does this person have?
2. How many Chapter 245 Corrective Action projects in the State has your company and/or the Pennsylvania Licensed P.G. closed after the completion and acceptance of an SCR, RAP and RACR (i.e., obtained relief from liability from the PaDEP) using the Statewide Health or Site Specific Standards? Please list up to five.
3. How many Chapter 250 Corrective Action projects in the State has your company and/or the Pennsylvania licensed P.G. closed (i.e., obtained relief from liability from the PaDEP) using the Statewide Health or Site Specific Standards? Please list up to five.
4. 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, including whether the conditions of the FP or PFP contract were met.

E. TYPE OF CONTRACT/BID INSTRUCTIONS

The Solicitor wishes to execute a mutually agreeable **FIXED PRICE CONTRACT** (Remediation Agreement). A copy of the standard Remediation Agreement is included as Attachment 3 to this RFB solicitation. This sample agreement has been previously employed by other Solicitors on other PaUSTIF-funded claims. The bidder must identify in the bid response document any modifications that they wish to propose to the Remediation Agreement language in Attachment 3 other than obvious modifications to fit this RFB (e.g., names and dates). The number and scope of any modifications to the standard agreement will be one of the criteria used to evaluate the bid. **All bid responses must clearly and unambiguously state whether the bidder accepts the Remediation Agreement included in Attachment 1 "as is," or provide a cross-referenced list of requested changes to this agreement.** Any requested changes to the agreement should be specified in the bid response, however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PaUSTIF.

The Remediation Agreement costs shall be based on unit prices for labor, equipment, materials, subcontractors/vendors and other direct costs.

The total cost quoted by the successful bidder will be the maximum amount to be paid by the Solicitor unless a change in scope is authorized and determined to be reasonable, necessary, and appropriate.

Because site characterization is an iterative process with each phase of characterization being shaped by the results of the previous phase, it is realistic to assume that reasonable, necessary and appropriate deviations from and modifications to this Scope of Work may occur during

the project. The Remediation Agreement states that any significant changes to the Scope of Work will require approval by the Solicitor, PaUSTIF, and PaDEP.

The bidder shall provide its bid using the Standardized Bidding Spreadsheet format included in Attachment 1 with brief descriptions provided for each task provided in the body of the bid document. An electronic version of the Standardized Bidding Spreadsheet (in Microsoft Excel Format) has been provided on the accompanying CD (Attachment 1). In addition, the bidder shall provide a unit rate schedule that will be used for any out-of-scope work on this project.

The bidding firm **MUST INCLUDE THE FOLLOWING** in their proposal:

- A demonstration of the bidder's understanding of the existing site information provided in this RFB, standard industry standard practices and the objectives of the project.
- The bidder's approach to achieving the project objectives (implementing the scope of work) efficiently.
- A detailed **FIXED PRICE** quotation for completion of the scope of work; using the standardized format provided within the Standardized Bidding Spreadsheet included with Attachment 1, including a rate schedule for any out-of-scope work.
The following information relating to the bid pricing must be included:
 - The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs and equipment;
 - The bidder's proposed mark-ups on other direct costs and subcontractors (if any);
 - Estimated cost by task and total costs must be defined within the proposal text **AND** on the Standardized Bidding Spreadsheet included with Attachment 1; and,
 - The bidder's estimated total cost by task consistent with the proposed scope of work identifying all level-of-effort and cost assumptions.
- A detailed schedule of activities for completing the proposed scope of work inclusive of reasonable assumptions regarding the timing and duration of client and/or regulatory agency reviews (if any) need to complete the scope of work defined by this RFB;
- Indication of whether the bidder accepts or seeks changes in the proposed contract/terms and conditions;

- A copy of the bidder's proposed contract/terms and conditions;
- The bidder's levels of insurance;⁶
- 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);
- Identification and detailed description of subcontractor use and involvement;
- Identification of any exceptions, assumptions or special conditions applicable to the scope of work;
- Costs by task must be defined within the proposal text and on the cost spreadsheet included in Attachment 1 and the bidder's 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);
- Description of the bidders approach to working with PaDEP from project inception through PaDEP approval of the SCR. Description of how PaDEP would be involved proactively in the resolution of any technical issues and how the PaDEP case team will be kept informed of activities at the subject site;
- Description of how the Solicitor and ICFI/PaUSTIF will be kept informed as to project progress and developments and how 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;
- Identification and resumes of the members of the proposed project team for key project staff, including the proposed Pennsylvania Registered Professional Geologist of Record who will be responsible for overseeing the work and applying a Pennsylvania Professional Geologist's Seal to the project deliverables.

⁶ The successful bidder agrees and shall submit evidence to Solicitor and Technical Contact before beginning work that bidder has procured and will maintain Workers Compensation: commercial general liability insurance in the amount of \$1,000,000; contractor pollution liability insurance in the amount of \$1,000,000; automobile liability insurance in the amount of \$1,000,000; and professional liability insurance in the amount of \$1,000,000 for the work to be performed.

The bidder shall provide its bid pricing using the format identified in this RFB and will provide brief descriptions of each task in the body of the bid document. Also, the bidder must complete the detailed cost sheet (in Microsoft Excel Format) included within Attachment 1 of this RFB.

The scope of work, as described within this RFB, shall be conducted in accordance with industry standards and practices, and consistent with PaDEP requirements and guidelines. The successful bidder's work to complete all work tasks associated with this RFB 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 state their acceptance of the provided contract or must clearly cross reference any requested changes.

Each bid package received will be assumed to be good for a period of up to 120 days after receipt unless otherwise noted. Please note that ICFI, PaUSTIF and Earth Resource Associates, Inc. will treat the bids as confidential, but that limited general information may be released to the Solicitor and/or Earth Resource Associates, Inc. after the bid selection process is completed. In addition, for your reference, a copy of the PaUSTIF Competitive Bidding Fact Sheet is provided within Attachment 1. The aforementioned guidance document provides you with additional information relative to the bidding process.

F. MANDATORY SITE VISIT

THERE WILL BE A MANDATORY SITE MEETING ON SEPTEMBER 21, 2010. The Technical Contact (or his designee) will be at the site between 11:00 AM and noon to answer questions and conduct a site tour for **ONE (1)** participant per firm. **This meeting is mandatory for all bidders – no exceptions. Any firm that does not attend the September 21, 2010 mandatory site visit will not be eligible to submit a bid response.** A confirmation of your intent to attend this meeting is requested to be provided to the Technical Contact via e-mail, no later than September 15, 2010 with the e-mail subject line containing "LOVEDALE SUNOCO PAUSTIF CLAIM 2009-0164(S) – SITE MEETING ATTENDANCE CONFIRMATION." The name and contact information of the prospective bidding firm should be included in the body of the e-mail.

ATTACHMENT 1

Project Documents

1. Phase II Environmental Site Assessment (2009)
2. EPA Low-Flow (Minimal Drawdown) Ground -Water Sampling Procedures (EPA/540/S-95/504) (April 1996)
3. PaDEP Groundwater Monitoring Guidance Manual, Document # 383-3000-001(December 1, 2001)
4. PaDEP Land Recycling Technical Guidance Manual – Section IV.A.4 Vapor Intrusion Into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard, Document 253-0330-100 (January 24, 2004)
5. Standardized Bidding Spreadsheet Format (Microsoft Excel)
6. PaUSTIF Competitive Bidding Fact Sheet
7. Sample Remediation Agreement (contract)