**NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**DIVISION OF WASTE MANAGEMENT**

**LEAKING PETROLEUM UNDERGROUND STORAGE TANK CLEANUP FUND**

**REASONABLE & NECESSARY TASK SCOPE OF WORK DOCUMENT**

This document provides definitions and scopes-of-work of tasks that may be required to be performed in accordance with North Carolina General Statutes and Regulations at sites contaminated as a result of releases from commercial leaking petroleum underground storage tank systems under the authority granted to the Department by G.S. 143-215.94E(e5)(3) and 150B-2(8a)(g). Claims that are submitted to the Leaking Petroleum Underground Storage Tank Cleanup Fund must be prepared using the task codes listed in this document. For the most recent reasonable rates allowed for these tasks, please check the NC UST Reasonable and Necessary Maximum Rates List located on the UST Section’s web site at http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/trust-fund-branch/reasonable-rate-documents or call the UST Section at (919) 707-8171.

## The reimbursable tasks described in this document are those that have been determined by the Department to be specifically related to environmental assessment and cleanup of contamination from commercial leaking petroleum underground storage tanks and are in no way inclusive of all required tasks to be performed. Items not specifically mentioned in this document are not reimbursable. The Department will consider items not listed within this document that are required to conduct assessment or remedial activities as required by the Department, on a case-by-case basis. Some costs incurred by UST owners, operators and landowners are not reimbursable pursuant to regulation [N.C.G.S. 143-215.94B(b5) (d)] and [15A NCAC 2P .0402(b)]. Such regulated non-reimbursable costs include:

1. Costs of the removal and disposal of non-commercial underground storage tanks and contents removed on or after July 3, 1991, and of commercial underground storage tanks and contents removed on or after January 1, 1992. This includes any materials necessary to be removed to access the USTs such as asphalt, concrete, clean overburden soils, backfill of the tank void, etc.
2. Costs of the replacement of any underground storage tank, piping, fitting, or ancillary equipment such as, but not limited to, pump islands or canopies. This includes any materials necessary to be removed to access the USTs for removal or replacement such as asphalt, concrete, clean overburden soils, etc.
3. Costs incurred in preparation of any proposals or bid by a provider of service for the purpose of soliciting or bidding for the opportunity to perform an environmental investigation or cleanup, even if that provider is ultimately selected to provide the service solicited unless specifically requested by the Department as part of the Department’s responsibility to ensure cost-effective cleanups.

4. Interest on any accounts, loans, etc.

5. Expenses charged by the owner or operator or landowner in the processing and management of a reimbursement application or subsequent claims.

6. Attorney's fees.

7. Penalties, fees, and fines assessed by any court or agency.

8. Loss of profits, fees, and wages incurred by the owner or operator or landowner.

9. Costs incurred during cleanup if pre-approval of the cleanup tasks and associated costs were not obtained from the UST Section. Pre-approval is not required for activities defined by the Department as being related to an emergency response (such as the Initial Abatement Actions required per 15A NCAC 2L .0404 at sites with no prior releases) or risk assessment (such as the initial Limited Site Assessment performed onsite to define the initial risk classification for the incident). It is the responsibility of the Responsible Party (RP) or their designee to contact the Trust Fund Branch concerning any questions pertaining to the pre-approval needs of an activity prior to the work being performed.

10. Any other expenses not specifically related to environmental cleanup, or implementation of a cost-effective environmental cleanup, or third-party bodily injury or property damage.

11. Pursuant to Session Law 2015-241, costs associated with any non-commercial UST release detected on or after October 1, 2015, or claimed on or after July 1, 2016.

12. Pursuant to General Statute 143-215.94E(j) and (k), any costs not requested to be determined to be eligible or claimed within one year of completion of an eligible task.

If charges incurred by the RP exceed the listed rates within this document, then all costs above the listed rates will be the responsibility of the RP. If you have any questions regarding the appropriate task to use for an activity, whether a task requires pre-approval or if you have any questions concerning this document, please contact the UST Section, Trust Fund Branch at (919) 707-8171.

## Important Reimbursement Notes:

1. **In accordance with the General Statutes, and determined by the Environmental Management Commission** **EMC, all work is to be conducted in the most cost-effective manner possible to the Trust Fund.**

##  If an error or discrepancy within this document or the claim document is discovered, it is the responsibility of the individual preparing the claim to contact the Trust Fund Branch at (919) 707-8171 for clarification prior to claim submittal.

1. **Please note that any task, for which bidding is required as indicated in the RRD, where costs are expected to exceed $5,000 but less than $25,000 must receive three (3) competitive bids and bids greater than $25,000 must receive five (5) competitive bids prior to the initiation of the action except where otherwise noted. The bids shall include all costs necessary to do the work as outlined in the bid requests as well as all taxes, shipping, and handling charges. Bids must be itemized by costs for material components, labor types and rates, rental equipment, etc. Lump sum bids will not be accepted. Only the lowest qualified bid will be reimbursed. Invoices must be broken down in accordance with the bid. Failure to provide the required bid information will result in the claim being reimbursed for the maximum non-bid amount ($5,000). Items that fall under the $5,000 bidding requirement must still be justified as to the requested cost. The UST Section reserves the right to reject all bids or item invoices that it finds unreasonable. All bid specifications must be reviewed by the UST Section prior to being solicited. If the bid specification includes any requirements for professional engineering review and signature, then the specification must be approved by a UST Section PE prior to solicitation.**
2. **Cost is defined as the actual cost of conducting the work (not including markups) that can be supported by invoices and an itemized breakdown of the time and materials used in conducting the work. If you are an RP that conducts the work yourself, owns your own environmental service company, or environmental contractor and equipment then actual costs are limited to those direct costs to conduct the work. Responsible parties are not allowed to “profit” from the contamination. This includes the selling of any materials or equipment that has been reimbursed by the Trust Fund.**
3. **The UST Section does not reimburse for property transaction investigations conducted at the request of a purchaser. Investigations conducted as part of the 15A NCAC 2N .0601 which do not confirm a release are not eligible for reimbursement. However, it is possible in some cases to utilize a portion of the data from these ineligible events in a subsequent eligible abatement or assessment phase to avoid duplicate sampling at locations that have already been investigated. Investigations conducted as part of 15A NCAC 2N .0602 due to offsite impacts may be eligible for reimbursement.**
4. **Where some earlier soil and/or groundwater investigations were positioned and analyzed such that they may be utilized in one of these subsequent phases, the UST Section will consider those earlier costs to be applicable during that later stage as long as the previous work did not require pre-approval. For instance, if an incident manager agrees that a few recent soil samples from an Environmental Site Assessment (ESA) or ineligible Site Check can be used to create abatement over-excavation boundaries rather than recollecting confirmation samples in the same area, the analytical costs for those samples may be claimed as part of the eligible initial abatement. If a monitoring well installed during one of these ineligible investigations is acceptable as a source area well, the installation, supervision, sampling and applicable analytical samples from that well may be claimed in the Limited Site Assessment (LSA) lump sums (Task Code 2.600 or 2.610). Similarly, where some of the soil or groundwater data can be used to substitute for the new plume delineation samples during the Comprehensive Site Assessment (CSA) the boring/well installation, supervision, sampling, and analytical for those selected samples may be included in the CSA claim. Any claim for portions of the ineligible investigations must include documentation showing exactly what was reused in the eligible assessment or abatement phases included in the claim. Other data that are not considered valid substitutions for sampling during later phases would not be eligible for reimbursement.**
5. **Energy surcharges will not be reimbursed. The Department will periodically review mobilization rates due to the fluctuating fuel prices and issue a price clarification if warranted.**
6. **In accordance with the following general statute, § 143-215.94E,**

**(j)         An owner, operator, or landowner shall request that the Department determine whether any of the costs of assessment and cleanup of a discharge or release from a petroleum underground storage tank are eligible to be paid or reimbursed from the Commercial Fund within one year after completion of any task that is eligible to be paid or reimbursed under G.S. 143-215.94B(b), 143-215.94B(b1), or 143-215.94D(b1).**

**(k)        An owner, operator, or landowner shall request payment or reimbursement from the Commercial Fund for the cost of a task within one year after the completion of the task. The Department shall deny any request for payment or reimbursement of the cost of any task that would otherwise be eligible to be paid or reimbursed if the request is not received within 12 months after the later of the date on which the:**

* 1. **Department determines that the cost is eligible to be paid or reimbursed.**
	2. **Task is completed.  (1987 (Reg. Sess., 1988), c. 1035, s. 1; 1989, c. 652, ss. 7, 16; 1991, c. 538, ss. 7, 22; 1991 (Reg. Sess., 1992), c. 817, s. 2; 1993, c. 400, s. 15; c. 402, s. 3; 1995, c. 377, s. 8; 1995 (Reg. Sess., 1996), c. 648, ss. 3, 4; 1998-161, ss. 4, 5, 8(a), (b), 11(b); 1998-215, s. 68; 2000-172, s. 7.1; 2003-352, ss. 6, 7; 2004-124, s. 30.10(d); 2005-365, ss. 1, 2; 2008-195, s. 2(a); 2010-154, ss. 5, 6; 2011-398, s. 51.)**

**This statute will be strictly applied. In (k)(1) the date is the date of the eligibility determination letter and in (k)(2) it is the completion date of the task defined by the scope of work listed within this document or listed on the pre-approval with the exception of report tasks in which the date will be the regulatory date established in rule, if applicable, or the date established by the Department in any Notice of Regulatory Requirements (NORR), or the approval date by the UST Section, whichever is earlier. It is the responsibility of the RP and or their designee to update report deadlines with the UST Section.**

1. **When submitting for required pre-approval of tasks, ALL subcontractors to be utilized are to be clearly listed as well as the presentation of all site maps or diagrams showing the location of the requested work. The RP is free to contract with any individual or company that is properly licensed within the State of North Carolina to conduct the requested work but in doing so it does not bind the Department to any increased costs as a result of their or their designee’s business practices. Any costs for which an AVERAGE is requested, for example utilities, must be justified after the first six months of continued operation.**
2. **Preapprovals expire one year from the date of final approval or one year from the completion of any preapproved task, whichever is first.**
3. **Any increased difference in costs to the Trust Fund resulting from contracts with preferred vendors will not be reimbursed. Any licensed individual or company in good standing with the governing licensing board or authority, including state and local government, that is appropriately licensed to conduct UST-related assessment or cleanup, may not be denied the ability to do so because of contractual services by the RP or their designee. To minimize excess travel and hauling expenses, to the extent practicable, all work should be done by individuals, companies, and facilities located as close to the incident as possible. Contracts between responsible parties and environmental service providers are not binding to the UST Section and do not represent a reasonable or necessary justification for increased costs.**
4. **Prior to conducting ANY work at a site with a current or previous incident, the RP or their designee shall contact the Trust Fund Branch to determine if the eligibility determination will result in the work requiring pre-approval. Failure to receive this determination may result in denial of reimbursement of any completed tasks.**
5. **Equipment and materials that are rented beyond the purchase price of the equipment or materials will not be reimbursed beyond the purchase price.**

## ACRONYMS USED IN THIS DOCUMENT

|  |  |  |  |
| --- | --- | --- | --- |
| AFVR  | Aggressive Fluid-Vapor Recovery | NOV  | Notice of Violation |
| AS  | In situ Air Sparging (groundwater) | NPDES  | National Pollutant Discharge Elimination System |
| ASTM | American Society for Testing and Materials  | NRP | Notice of Residual Petroleum |
| BOD/COD | Biological / Chemical Oxygen Demand | O&M  | Operation and Maintenance |
| BTEX  | Benzene, Toluene, Ethylbenzene, & Xylene | ORP | Oxygen Reduction Potential |
| CAMA | Coastal Area Management Act | OVA  | Organic Vapor Analyzer |
| CAP  | Corrective Action Plan | PAHs | Polycyclic Aromatic Hydrocarbons |
| CFM | Cubic Feet per Minute | PCB | Polychlorinated Biphenyls |
| CSA  | Comprehensive Site Assessment | PID  | Photo ionization Detector |
| DOT  | Department of Transportation (NC) | POE | Point Of Entry  |
| DRO | Diesel Range Organics | POTW  | Publicly Owned Treatment Works |
| DWQ | Division of Water Quality | QA/QC  | Quality Assurance and Quality Control |
| EDB | Ethylene Dibromide | RCRA | Resource Conservation & Recovery Act |
| EMC | Environmental Management Commission | ROA  | Right-of-Access |
| ESP | Environmental Service Provider | ROW | Right-of-Way |
| EPA | Environmental Protection Agency | RP | Responsible Party |
| GAC | Granular Activated Carbon | SDR | Standard Dimension Ratio  |
| GC/MS | Gas Chromatography Mass Spectrometry | SOW  | Scope of Work |
| GPM  | Gallons Per Minute | STF  | State Trust Fund |
| GRO | Gasoline Range Organics | SVE  | Soil Vapor Extraction (soil) |
| IAAR | Initial Abatement Action Report | SVOC  | Semi-Volatile Organic Compounds |
| IPE | Diisopropyl ether | TCLP | Toxicity Characteristic Leaching Procedure |
| LIF | Laser Induced Fluorescence |  |  |
| LNAPL | Light Non-aqueous Phase Liquid |  |  |
| LSA | Limited Site Assessment | TDS/TSS | Total Dissolved / Suspended Solids |
| MADEP | Massachusetts Department of Environmental Protection | TOC | Total Organic Carbon |
| MIP | Membrane Interface probe | TPH  | Total Petroleum Hydrocarbons |
| MMPE | Mobile Multi-phase Extraction | ULOCO | Utility Locating Company |
| MOBILIZATION  | Mobilization to and from a site | UST  | Underground Storage Tank |
| NCAC | North Carolina Administrative Code | UVF | Ultraviolet fluorescence |
| NOI  | Notice of Intent | VOC  | Volatile Organic Compounds |
| NORR  | Notice of Regulatory Requirements | VRS  | Vapor Recovery System (vapor abatement) |

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**Section 1 - Pre-Assessment Activities**

**1.010**

**Project Review and Setup:** This SOW is only allowed when the initial environmental service provider (ESP) working on the release changes through no action or fault of the RP. This SOW includes review of existing site data, including incident information, past site history, agency requirements (NOV, NORR, etc.), previous assessments and remediation (closure reports, CSA, CAP, etc.). SOW assumes RP will provide consultant with all available information plus all reimbursement documentation. SOW will also include one visit to the appropriate Regional Office to copy and review any needed documentation, as necessary. SOW includes file-copying costs, consultant mobilization and travel time. Responsible parties who contract with ESPs and then change ESPs for whatever reason, will be responsible for this task. This task does not apply to RPs who sell/buy interest in sites and then, as a result, change ESPs. This task does not apply for changes in project managers within an ESP firm, contracts maintained by the same project manager when changing ESP firms, the reactivation of years-dormant sites by the same ESP responsible for the prior work, or for internal reorganization following a merger or takeover of one ESP by another.

**1.020**

**Site Reconnaissance and Receptor Survey:** This SOW will consist of locating and identifying all potential receptors such as supply wells, unconfined or semi-confined deeper aquifers in the Coastal Plain physiographic region which the Department has determined is being used or may be used as a source of drinking water, surface waters, wellhead protection areas, basements and public utilities within 1,000 feet of the discharge, release or known extent of contamination. Determine the geographic coordinates using either a GPS or address matching for each potential receptor which can be described by a point location. Lat/Long will be reported in decimal degrees to six decimal places. Identify all potentially affected parties and include names and property and mailing addresses in a table matching the format of Table B-5 located in the appendices of the guidelines. This SOW will also consist of gathering information about the site so that a detailed site map can be generated from field observations (i.e. location of discharge and extent, identify all receptors, monitoring wells, and other site features) as well as taking onsite and surrounding pictures. SOW will include review of city or county tax maps, local topographical maps, local or DOT aerial maps, city or county public utility maps, and site photographs. SOW includes project manager oversight and staff level persons (or equal) to perform fieldwork, telephone coordination with property owners and local city and state government agencies. SOW includes data review, evaluation, reporting (client, property owners, Regional Office), and the purchase of required maps. If not requested as part of a larger report, this is a standalone task and that includes a report of the findings. If this task has already been completed, it should only be duplicated where requested and pre-approved by the UST Section under Task 1.025 below. Consultant mobilization may be claimed under Task Code 12.050. (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties).

**1.025**

**Site Reconnaissance and Receptor Survey Update:** This task is to be conducted when specifically requested by the Regional Office and pre-approved by the UST Section. The RP is expected, by rules and guidelines, to review the status of potential receptors continuously, providing updates of the status with every report submitted. Such a review does not demand a full survey. The scope of this task is to simply update the information previously gathered in task 1.020. The RP or their designee is expected to review the current site reconnaissance/survey report on file and to update the well user information and/or waterline information. The report should consist of an updated table of the well users in the area and an updated map. SOW includes data review, evaluation, and reporting (client, property owners, Regional Office). This is not a standalone task and is to be incorporated into the report approved at the time of the request of this task. If a previous RP or their designee has already completed this task, it should not be duplicated unless requested and pre-approved by the UST Section. The level of effort for this task is mainly online searching.

**1.050**

**Right-of-Access Agreements (Area Property Owners):** This SOW consists of presenting and acquiring a right-of-access from adjacent and nearby property owners. An access agreement is required for such activities as boring and soil sampling, monitor and remedial well installation, easements, soil excavation, or other activities resulting in material or legal changes to the property. This task is not applicable for simple door-knock access to obtain information such as receptor status, surveyor measurements for mapping purposes, water supply well sampling, etc. The RP or their designee will be responsible for his or her own standard access agreement format. SOW will include three verifiable attempts to access adjacent properties for the purposes listed above. SOW will also include a meeting with the subject property owner to reconcile any problems or attempt to clarify the need to have access as well as all Responsible Parties or their designees and associated time. Restrictions to and property owner contact requirements of this agreement will be at the discretion of the RP and/or property owner and will be addressed within the maximum amount allowed per property for access. ROA’s are to be between the Property Owner and the RP & their agents (whoever their agent may be at any given time). The UST Section must be notified upon failure to obtain a signed right-of-access agreement. Unsuccessful agreements may be reimbursed as long as the RP or their designee can provide sufficient documentation (certified mail, statements from the property owner, etc.) that three attempts were made to contact the individual and all return correspondence from the property owner have been received. Price is per final agreement and is for the duration of ownership of the property. If required, consultant mobilization may be claimed under Task Code 12.050. (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties).

**1.061**

**Request for Bid of Non-Engineering Design Work *(Bid Solicitation Package Preparation and Distribution)*:** This SOW consists of preparing (1) a quotation form and (2) a copy of technical specifications of needed equipment or products and drawings (where applicable), and (3) providing a copy of the quotation form and technical specifications and drawings to the UST Section incident manager and/or engineer for review and modification prior to solicitation.

Submittal of: (1) the quotation form and (2) technical specifications and drawings (where applicable) to appropriate service providers and the receipt and processing of completed forms upon return. Bid requests must reference the applicable task codes for which the bid is being solicited and include all costs necessary to do the work as outlined in the quotation forms as well as all taxes, shipping, and handling charges. Bids must be itemized by costs for material components, labor types and rates, rental equipment, etc. Lump sum bids without a cost breakdown will not be accepted. If multiple tasks are being bid, each task must have a total amount specific for the work to be conducted within that task.

Bids are to be requested directly from a subcontractor capable of conducting the work or from general contractors or other intermediary subcontractors if it can be shown to be more cost effective due to several different professional service subcontractors being required to complete the scope of work. All bids must be solicited from providers local to the site to the maximum extent practicable. Where the RP or their designee wishes to compete for the work themselves, their finalized bid plus a list of the prospective bidders must be provided with the pre-approval request for this task (1.061). Notarization will no longer be required. Price is not to exceed $450 or $600, whichever is applicable. Please complete and attach Secondary Form Sec-J.

**Important note that any task (for which bidding is required as indicated in the RRD) where costs are expected to exceed $5,000, but less than $25,000, must receive three (3) competitive bids, and bids greater than $25,000 must receive five (5) competitive bids prior to the initiation of the action except where otherwise noted. Only the lowest qualified bid, as determined by the Section, will be reimbursed. Failure to provide the required bid information will result in the claim being reimbursed for the maximum non-bid amount ($5,000).**

**Section 2 – Release Investigation and Confirmation**

###### **2.050**

**Tank Tightness Testing:** This SOW is for the testing of an underground storage tank at the specific request of the UST Section, under 2N .0602 and General Statute 143-215.94B(b)(8), in order to determine if a release has occurred.

###### **LNAPL Recovery**

**2.071**

**Cost of LNAPL Evaluation:** This SOW includes a bail-down test to provide an estimate of the recovery rate of LNAPL, estimated transmissivity, an estimate of product thickness and an evaluation of product type using specific gravity, UVF analysis, etc. This activity is to be conducted while onsite for either well installation or sampling and is not to be conducted on wells with less than two (2) inches of LNAPL. This SOW is NOT reimbursable after any other free-product removal has been conducted (AFVR, MMPE, bailing, etc.). The bail-down test must be conducted until at least 90% recovery in the water level has occurred or the test has progressed for two hours. It also includes all personnel, miscellaneous equipment, and expendables. SOW includes initial measurement and recording of groundwater depths and product in affected well(s). **It also includes bailing or pumping LNAPL from affected well(s) ONE TIME plus proper storage of product once recovered. If MIP, LIF or other 3D representation screening is being utilized to determine product thickness, then this SOW can be used in conjunction with the necessary drilling task code.**

This SOW will be used to determine the LNAPL recovery method that is most appropriate at the site. For LNAPL evaluations performed during initial response and abatement, the reporting of results and conclusions should be incorporated into the next required report (24-hour, 20-Day, IAA, and/or LSA) following the format provided for LNAPL reporting in each such report, as described in *the UST Section Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement* and the *Guidelines for Assessment and Corrective Action.*  A separate LNAPL Recovery Report (6.022), described in the *Guidelines for Assessment and Corrective Action*, may be required in the longer intervals between CSA, CAP, and monitoring reports, but as a rule LNAPL reporting should be incorporated into the CSA, CAP, and monitoring reports, following the specific format provided for those reports in the *Guidelines for Assessment and Corrective Action.* This report shall be presented to the Regional Office in 45 days or at a time agreed to in writing by the Regional Office. All activities must be completed in this category to receive reimbursement. No additional LNAPL recovery beyond one AFVR or MMPE event will be considered or reimbursed until the UST Section receives this report or evaluation of the AFVR/MMPE. This task shall not be duplicated unless requested and pre-approved by the UST Section. Please record and submit bailing information on Primary Form P-2a. Price is per well, and only one "Free Product Recovery Report" is allowed for this task. If pre-approved, consultant mobilization may be claimed under Task Code 12.050. (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties).

**2.072**

**Cost for a Passive Skimmer:** Contractor must provide a copy of the invoice, the invitation to bid letter and the written bids as described in Task 1.061 above. This task requires pre-approval from the UST Section. Passive skimmers are considered bailers that store recovered product inside a built-in canister that is positioned inside a well, and not a typical disposable bailer. This task is not to be used for the installation or maintenance of sorbent socks. Price is cost.

**2.073**

**Cost for Installation and Service of Passive Skimmer:** SOW includes measurement and recording of groundwater depths and product thickness of each well requiring passive skimmers. This SOW includes the installation of a passive skimmer, emptying of LNAPL from skimmer, and proper storage of recovered product. SOW includes all personnel, miscellaneous equipment, and expendables. This task requires pre-approval from the UST Section. Price is per well.

**2.074**

Hand Bailing of LNAPL: Occasional hand bailing of a well MAY be reimbursed if the RP or their designee meets all the following criteria:

* No special trip is required. That is, it is combined with an assessment activity already scheduled.
* No additional personnel are assigned.
* No additional mobilization is requested.
* No additional report is generated.
* LNAPL amount must be more than just a sheen; at least 1/8 inch.
* Task includes all expendables.
* Measure and record groundwater depth and product thickness prior to bailing each well.
* A LNAPL evaluation, if applicable, has been conducted and has determined that such an activity provides acceptable recovery.

Please record and submit bailing information on Primary Form P-2a. This task requires pre-approval from the UST Section. Price is per well. If pre-approved, consultant mobilization may be claimed under Task Code 12.050. (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties).

Aggressive Fluid/Vapor Recovery (AFVR)

**Important note:** All non-emergency AFVR events must be pre-approved by the UST Section and the LNAPL Recovery Report or Initial Abatement Action Report documenting AFVR as the most effective product recovery alternative must have been received and approved by the UST Section unless there is a written documented emergency response by a local fire official. Nuisance odors, or other concerns that do not represent exceedances of explosive concentrations (LELs) or health-based exposure limits (TWA, STEL, or IDLH) do not qualify as emergency responses. (see Task 2.071).

**2.082**

**Field Supervision of AFVR Event (RP or their designee):** SOW includes the setup and allsupervision of sub-contracted employees, not self, of one complete event of AFVR. If the ESP is conducting this work, then this task code is not eligible for reimbursement. SOW will include assisting the vacuum truck contractor setup as well as tabulating results (product and groundwater measurements before and after the event plus vacuum pressure on affected wells during the event and collection of two stack emission air samples at the beginning and end of the event). SOW requires hourly monitoring of VOC vapor mass removal rates, the amount of total fluids recovered, vacuum radius of influence, etc. during the entire event to determine event efficiency. SOW includes all required labor, and equipment to perform oversight. Required equipment also includes, but is not limited to, instrumentation for measuring temperature, velocity, relative humidity, and the VOC concentration in the effluent emissions, if not provided by the subcontractor under Task 2.084. The AFVR event should be run at least eight (8) continuous hours unless data shows it to be ineffective (less than an expected 500 gallons of total fluids and/or less than an expected five (5) gallons as equivalent vapors) and then it is to be terminated immediately. Results of this event should be incorporated into the LNAPL Report or Initial Abatement Action Report (see Section 6). Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**2.084**

**Cost for Aggressive Fluid / Vapor Recovery (AFVR) Event:** As indicated above, this task requires pre-approval from the UST Section. Along with the AFVR subcontractor invoice, the RP or their designee must include the Secondary Form 2D. Please also write the corresponding task (2.084) on the AFVR subcontractor invoice. The vacuum truck must meet the minimum performance requirements of 400 cubic feet per minute at 24 inches of mercury and 100 cubic feet per minute at 27 inches of mercury to be eligible for reimbursement. **Please see Secondary Form D for maximum rates.** Please complete and attach Secondary Form Sec-D and the subcontractor invoice in any claim. Price is cost. After the first event, justification for additional events SHALL be required. Complete Secondary Form Sec-D Table C.

**2.085**

**Rental of AFVR Emission Control Equipment (Outgassing Treatment):** This SOW will only be allowed where state or local air requirements mandate emission control equipment during AFVR events. ***This does not apply for emission monitoring equipment required for proper operation and evaluation of the recovery during an AFVR event***, which is included in the hourly supervision rates under Task 2.082 or subcontractor equipment under Task 2.084. Please attach the vendor invoice. Price is per day up to the purchase price of the equipment.

**2.086**

**Regulatory Reporting Requirements for AFVR:** This SOW will only be allowed where state or local regulators require emissions control data to be reported for AFVR events (see Task 2.085 above). SOW includes any required public or governmental notification prior to and after the AFVR event.

**2.087**

**LNAPL Level Check:** This SOW includes all personnel and equipment necessary to measure the thickness and elevation of LNAPL.This task is to be conducted in conjunction with other activities at the site and is not eligible for reimbursement when conducted concurrently with Task Codes 2.074, 2.082, 2.084 or 7.420, and may not be claimed for the same wells for which Task 4.031 is claimed. Reimbursement for mobilization for this task will only be allowed with written pre-approval from the UST Section. Price is per well showing an accumulation of LNAPL greater than 1/8 of an inch. Dry wells are not eligible for this task maximum and shall claim only the allowable rate under Code #810. Consultant mobilization may be claimed under Task Code 12.050 if pre-approved. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

LNAPL/Vapor Recovery System

**Important Note:** Vapor recovery under this section shall be defined as an abatement measure to withdraw or remove vapors that pose a documented threat to human health or results in a fire hazard or an explosion hazard as determined by the local fire marshal or fire department. Some examples include vapors in confined areas such as underground utilities, foundations, basements, etc. Vapor recovery under this section does not include vapor extraction for remediation of in-situ soil (i.e., Soil Vapor Extraction (SVE)). SVE is to be performed in later sections as part of corrective action (see Section 7).

**2.090**

**Specify LNAPL/Vapor Recovery System:**  SOW includes developing specifications for a LNAPL or vapor recovery system to meet the needs of the site. If sorbent materials or passive skimmersare to be used and assuming the appropriate wells are in place, DO NOT use Task 2.130. For all passive skimmer installation and maintenance activities use Tasks 2.072 and 2.073. For all sorbent installation and maintenance activities use Tasks 2.281 and 2.290. This task requires pre-approval from the UST Section and the Division.

**2.100**

**Cost for a LNAPL/Vapor Recovery System:** Along with the invoice, the RP or their designee must provide a copy of the bid specification work plan, invitation to bid letter and the written bids as described in Task 1.061 above. (complete and submit Secondary Form Sec-J). This task requires pre-approval from the UST Section. Price is lowest qualified bid cost. Please complete and attach Secondary Form Sec-J.

**2.121**

**Field Supervision for LNAPL/Vapor Recovery System Installation:** SOW includes all required personnel to supervise installation performed by the subcontractor not to exceed 8-hours of field time per week with the exception of the initial start date of the installation and the completion date of the installation which is allowed eight total hours. This task requires pre-approval from this Section. Price is per hour. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**2.130**

**Cost to Install a LNAPL/Vapor Recovery System:** Along with the subcontractor invoice, the RP or their designee must provide a copy of the invitation to bid letter and written bids from those subcontractors as described in Task 1.061 above. Please complete and attach Secondary Form Sec-J. SOW also includes startup and troubleshooting once the system is installed. This task requires pre-approval from the Section. Price is lowest qualified bid cost.

**2.141**

**Cost for LNAPL/Vapor Recovery System Maintenance:** SOW includes all required personnel to perform system checks and maintenance. SOW shall also include checking product levels and thickness in well(s), checking holding tank or drums for adequate storage of recovered product, arranging product disposal, and tabulating all data for compiling into the LNAPL Report(see Section 6). It is the responsibility of the RP or their designee to provide detailed field notes to explain the activities being conducted along with a time breakdown for each activity. Please complete and attach Secondary Form Sec-E. Price is per hour. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**2.150**

**Maintenance and Operating Expenses for LNAPL/Vapor Recovery System:** SOW includes costs associated with maintenance supplies and overhead costs such as power bills. Please complete and attach Secondary Form 2E plus the invoice(s). Price is cost.

Typical operating and maintenance supplies include:

* Oil, belts, filters (compressor or skimmer components, etc.)
* Electrical components, drums or misc.
* Power bills, etc.
* Vapor Recovery (Emergency Response)

**2.170**

**Initial Site Evaluation to Measure and Monitor Vapors:** SOW includes office and field coordination to perform an evaluation to measure vapors plus visually locate source upon notification from the local fire officials of a documented explosive vapor situation. SOW includes notifying the local fire marshal or fire department to check the site for explosive vapors. **Documentation of a report indicating an explosive potential from the fire marshal or fire department will be required for reimbursement of this task.** SOW also includes notification of property owners and occupants of vapor hazards. Site check shall include all field personnel, and equipment to measure percent of oxygen and/or LEL. An OVA or a PID is not an acceptable instrument for measuring ambient vapors and should not be used. Instruments that measure % oxygen and/or % LEL should be used for this type of monitoring. SOW also includes notifying the Epidemiology Section for health risk evaluation **only** if best available instrumentation does not detect vapor hazards, but strong odors are persistent. This will require a site visit by the Epidemiology Section. SOW also includes reporting all information to the UST Section. This task requires pre-approval from this Section. Price is per event. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

***Important Note:*** *The RP or their designee must evaluate if vapor abatement or mitigation is necessary and make every effort to locate and remove the source prior to pursuing a VRS under Tasks 2.100 to 2.145 (where feasible). If vapor recovery is in fact needed, and the source cannot be isolated or removed, then the RP or their designee should proceed with Task 2.090.*

**2.200**

**Cost for Leasing a LNAPL / Vapor Recovery System:** Along with the invoice, the RP or their designee must provide a copy of the invitation to bid letter and the written bids from those vendors as described in Task 1.061 above (include optional purchase price of VRS for comparison; complete and submit Secondary Form Sec-J). This task requires pre-approval from the UST Section. Price is cost.

**Important Note:** The UST Section can only reimburse lease charges up to the purchase price of the equipment.

Boom Maintenance

**2.281**

**Sorbent Boom/Sock Maintenance:** SOW shall include all field personnel required to initially managenewbooms/socks and drums (if applicable) at a site as well as any required liquid level measurements for management of sorbent booms/socks within wells. This includes installation and/or removal. Removal should only be conducted at the time of replacement as indicated by the manufacturer. Sampling schedules should be altered in accordance with the manufacturers indicated length of time for sock expenditure for socks that release nutrients or chemicals into the aquifer. Socks/Booms can be removed at the time of sampling. Socks/Booms that are non-absorbent but designed to augment natural biodegradation (whether by releasing agents or fixing to the sock/boom) will require proof that contaminant levels and mass can be effectively addressed by the use of the socks/booms as this is considered to be a remedial activity. SOW will also include any additional area inspection for possible health risks or environmental impacts from the release. Please complete and attach Secondary Form Sec-E. This task is required to be completed while onsite conducting other site activities. If required by the UST Section to be done as a stand-alone activity consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**2.282**

**Boom Maintenance Surface Waters:** SOW shall include all field personnel required to mobilizebooms and drums (if applicable) to the site. SOW includes laying out or retrievingbooms or sorbents to recover free floating product from impacted surface waters. SOW also includes any additional area inspection for possible health risks or environmental impacts from the release. Please complete and attach Secondary Form Sec-E. Price is per hour. If required by the UST Section to be done as a stand-alone activity consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**2.290**

**Cost for Booms and Sorbent Materials:** SOW will include purchasing and delivery of required booms and sorbents. While bulk purchasing is encouraged, the SOW does not include coverage for inventory restocking, and any claim should be prorated for actual use only. SOW includes submittal of the vendor invoice with cumulative use (at one or multiple sites) tracked in the margin. Please complete and attach Secondary Form Sec-E. Price is per unit cost.

**2.300**

**Cost for Drums:** SOW will include purchasing and delivery of required drums to the site to store new and used booms and sorbents or LNAPL. SOW includes properly sealing and labeling drums which contain used booms and sorbents or LNAPL (cost excludes disposal, see Section 9). ***This task is not to be used for the drumming of drill cuttings without prior pre-approval.*** Drums must be full before removal unless all site activities are completed. SOW includes submittal of the invoice. Price is per drum.

UST Removal and Closure

***Important Note:*** **What is eligible for Reimbursement during Tank Closure?** Both G.S.143-215.94B (d)(2) and 15A NCAC 2P .0402 (1) & (2) explicitly prohibit reimbursing any cost for system removal or replacement. This exclusion covers the costs of emptying and preparing the system components for removal as well as the costs of disposing of the system components themselves. It also excludes any other costs incurred as part of the tank removal/replacement effort, such as the management and disposal of construction and demolition debris (concrete, asphalt, canopy components, dispenser island forms, tank void backfill, etc.,) as well as the costs to remove, stockpile, and backfill any overburden soils, that do not meet the definition of contaminated as defined by the 2T screening limits of 50 ppm TPH-GRO and 100 ppm TPH-DRO, to gain access to the tank.

The Trust Fund may only assist with assessment and cleanup costs required by 15A NCAC 2L. Tank closure sampling is required by 15A NCAC 2N .0803 to document the presence or lack of a release and is therefore not eligible for reimbursement and it to be conducted once the UST system has been removed and prior to any over-excavation. Also, whenever a release is suspected, soil sampling in locations where contamination is most likely to be present is required by 15A NCAC 2N .0603. If a new release is discovered, this sampling may represent an eligible ‘assessment’ activity, without preapproval, as it may also meet the requirements referenced in 15A NCAC 2L .0404. For sites with existing releases, samples that assess previously inaccessible areas, or act to monitor in-situ soil remediation in the tank basin, also may be eligible, but only if those samples were initially preapproved as reasonable and necessary to evaluate the condition of the existing plume.

Pursuant to Session Law 2015-241, costs associated with any non-commercial UST releases detected on or after October 1, 2015, or claimed on or after July 1, 2016, are no longer eligible to be reimbursed from the Leaking Underground Storage Tank Trust Fund.

Pre-assessment prior to removal of any tank system is highly encouraged to gain a better understanding of the expected potential impacts and better define any needed excavation. Such pre-assessment is eligible for reimbursement in accordance with all applicable statutes, rules and polices, and requires pre-approval from the UST Section.

***Important Note:***

**A.** **Pre-approval not required**. For initial abatement of a new release at a site with no prior release in which the site risk assessment has not been evaluated and the USTs are being permanently removed and are not being replaced, the over-excavation should be limited to the lesser of:

1) all soils above MSCCs as defined by the 2T screening limits of 50 ppm TPH-GRO and 100 ppm TPH-DRO, as determined by laboratory or on-site laboratory analysis, safely removed in any accessible direction.

2) the point where it is reasonably determined that residual soils cannot feasibly be removed due to obstructions, access issues, or lack of cost-effectiveness; or

3) one of the following thresholds is reached without additional authorization obtained:

a. 533 cubic yards or 800 total tons of soil has been removed for which reimbursement will be requested. (For Example, if 400 tons of soils are removed to facilitate the removal of the UST System and these soils DO NOT meet the 2T definition of contaminated, then these soils are not eligible for reimbursement and the 800-ton limit will start with the first contaminated soils. If the overburden soils are contaminated, then the 800-ton limit includes these soils);

b. up to an additional 267 cubic yards or 400 total tons of soil removed with written Incident Manager authorization based on field screening from a lab or mobile lab (UVF, MIP, Mobile GC, etc.) indicating a reasonable likelihood of clean closure (even if clean closure is ultimately not obtained within the allowed limit); or

c. a formally preapproved amount greater than 800 cubic yards / 1200 total tons is reached following Incident Manager and Trust Fund Auditor preapproval of additional soils based on field screening from a lab or mobile lab indicating a reasonable likelihood of clean closure (even if clean closure is not ultimately obtained within the preapproved limit).

**B.**  Pre-approval not required.  For initial abatement of a **new isolated release (not associated with the previous release)** at a site with a risk assessment for a prior, non-commingled release where the USTs are being permanently closed, if it is unclear if pre-approval is required, it is the RP’s responsibility to contact the Trust Fund via email correspondence to document if pre-approval is necessary. Failure to do so may result in a claim being denied. The over-excavation should be limited to the lesser of:

1) all soils above MSCCs as defined by the 2T screening limits of 50 ppm TPH-GRO and 100 ppm TPH-DRO, as determined by laboratory or on-site laboratory analysis of the tank basin and each truckload of soil removed that can be safely removed in any accessible direction; **or**

2) the point where it is reasonably determined that residual soils cannot feasibly be removed due to obstructions, access issues, or lack of cost-effectiveness; **or**

3) one of the following thresholds is reached without additional authorization obtained:

a. 533 cubic yards or 800 total tons of soil has been removed for which reimbursement will be requested. (For Example, if 400 tons of soils are removed to facilitate the removal of the UST System and these soils DO NOT meet the 2T definition of contaminated, then these soils are not eligible for reimbursement and the 800-ton limit will start with the first contaminated soils. If the overburden soils are contaminated, then the 800-ton limit includes these soils);

b. up to an additional 267 cubic yards or 400 total tons of soil removed with written Incident Manager authorization based on field screening from a lab or mobile lab (UVF, MIP, Mobile GC, etc.) indicating a reasonable likelihood of clean closure (even if clean closure is ultimately not obtained within the allowed limit); or

c. a formally preapproved amount greater than 800 cubic yards / 1200 total tons is reached following Incident Manager and Trust Fund Auditor preapproval of additional soils based on field screening from a lab or mobile lab indicating a reasonable likelihood of clean closure (even if clean closure is not ultimately obtained within the preapproved limit).

**C.**  **Pre-approval required**.  For initial abatement of a new, commingled release at a site with a risk assessment for the prior release where the USTs are being permanently closed or do not impede the excavation, the over-excavation should be limited as follows:

1)       High or Intermediate Risk –

a.       minimum of 100 tons of soil for the first 10,000 gallons of UST volume and then 10 tons per 1,000 gallons thereafter has been removed.

b.       up to an additional 50% of the total tons of soil removed in part (a) with written Incident Manager authorization based on field screening from a lab or mobile lab (UVF, Mobile GC, etc.) indicating a reasonable likelihood of clean closure (even if clean closure is ultimately not obtained within the allowed limit); or

c.        a formally preapproved amount greater than the sum of part (a) and (b) total tons is reached following Incident Manager and Trust Fund Branch staff preapproval of additional soils based on field screening from a lab or mobile lab indicating a reasonable likelihood of clean closure (even if clean closure is not ultimately obtained within the preapproved limit).

d.       *In the case where pre-assessment has been conducted*, the pre- approved amount.

For Option (b), (c) or (d), the Incident Manager (and Trust Fund Branch staff) will consider the known site risk and previous release status when evaluating a request for additional excavation.

2)       Low Risk – Unless the new release results in an increase in site risk, no initial abatement excavation is necessary under risk-based closure standards. Soils necessary to remove the USTs that are more than the UST screening limits and cannot be placed back into the excavation may only be reimbursed the cost of transport and disposal.

**D. Pre-approval required**. For any release more than 90 days from the discovery of the release: No initial abatement is eligible as the 90-day reporting window from Title 15A NCAC 2L .0404(3) has expired. Any excavation would require preapproval as a corrective action (See Task 7.361 below).

**2.330**

**Preparation of Work Plan for UST Closure:** **This task is not reimbursable.** This SOW includes scheduling of field activities and procuring a contractor to remove and dispose of the complete UST system. SOW will also include coordination and notification to all other subcontractors that will aid in the disposal and/or removal of the UST or UST system. For sites with pre-existing releases, this activity is included within a Soil Cleanup Plan or Corrective Action plan. Please complete and attach Secondary Form Sec-A.1.

**2.340**

**Prepare and Submit Local City or County Permits for UST Removal:** **This task is not reimbursable.** The SOW includes preparation and submittal of required permits to remove the complete UST or UST system. SOW includes the costs for these permits. Please complete and attach Secondary Form Sec-A.1.

**2.350**

**Prepare and Submit the Notice of Intent (NOI):** **This task is not reimbursable.** The SOW includes the preparation of a NOI (UST-3 form) to properly close the UST or UST system and submit the NOI to the appropriate regional office and in the case of a commercial, regulated UST, to the Permits and Inspections Branch of the UST Section. The NOI should be included in the closure report and/or the Initial Abatement Action Report. Please complete and attach Secondary Form Sec-A.1.

**2.360**

**Cost for the Removal of the Complete UST System and Contents:** **This task is not reimbursable.** Provide an invoice for the complete disposal of the UST system which includes the tanks, lines, dispensers, any ancillary equipment, tank contents, and fluids spilled as part of tank removal from the final disposal facility for the UST and the fluids. Please complete and attach Secondary Form Sec-A.1.

**2.370**

**Cost for Removal and Disposal of Asphalt, Concrete, and Over-Burden:** **This task is not reimbursable.** This SOW includes providing an invoice for the complete disposal of asphalt, concrete, and/or over-burden necessary to be removed in order to remove the UST(s) which includes the final disposal facility for these materials. Please complete and attach Secondary Form Sec-A.1.

**2.381**

**Supervision of Approved Soil Over-excavation:** This SOW includes all labor, mobilization, per diems, and necessary equipment to supervise and manage stated, reimbursable subcontracted approved soil over-excavation activities which include; required 2L remedial soil sampling of excavation and stockpiling of soil (as necessary), truck waste characterization samples (if on-site lab is not used), soil disposal, back-filling of the over-excavation pit, and fill compaction. The SOW will also include office support to assist with all certificates of disposal and manifests. SOW will also include required field screening equipment as well as field sampling equipment and supplies (hand auger, sample jars, cooler(s), ice, packing, etc.).

The maximum reimbursable cost for these efforts is determined in relation to a sliding scale based on the actual tonnage removed. As excavation footprints increase, the capacity of the excavation equipment should be adjusted as well, to accommodate the larger scale or work within a reasonable timeframe. Overall, excavation supervision costs (in $) may not exceed the product of the following calculation: 141 times the square root of the total tonnage documented under Task 2.400 [or, 141\*√(tonnage)].

Please complete and attach Primary Form P-2d and Secondary Form Sec-A.

**2.400**

**Cost for Excavating Soil and Stockpiling/Loading During Excavation Associated with Approved Soil Over-Excavation:** SOW will include all necessary labor, equipment, and materials to excavate and properly stockpile and/or load contaminated soil, as defined by the 2T screening limits of 50 ppm TPH-GRO and 100 ppm TPH-DRO, removed following the removal/replacement of an UST(s) in accordance with the site circumstances listed below. This includes any additional asphalt or concrete required to be removed to access the contaminated soils. SOW includes submittal of the invoice. Please complete and attach Secondary Form Sec-A.1.

Soils that do not meet the definition of contaminated, as defined by the 2T screening limits of 50 ppm TPH-GRO and 100 ppm TPH-DRO, are to be segregated and stockpiled onsite. Task 2.410 may be used to replace these soils in the completed excavation.

**Important Note:** Soil sampling is to be conducted such that a composite sample of the soils being loaded into each truck is collected and analyzed. Each truck hauling contaminated soils from the site is to have its’ own individual soil composite sample. Samples for multiple trucks are not allowed. If soil is stockpiled before being loaded into trucks, each truck stockpile shall follow the truck sampling procedure. If soil samples indicate that the soil is not contaminated above those levels allowed to remain in situ with petroleum by-products, then reimbursement for soil removal and/or purchase of new back fill will not be allowed.

**\*Important Note:** If contaminated soil cannot be weighed because it is being treated or disposed onsite, a North Carolina registered professional surveyor must be used to measure the stockpiled soil or the excavation for an exact volume and that same surveyor must perform and seal the calculations (Task 2.413). The total volume (cubic yards) should be converted to tons by multiplying by 1.5 if excavation was surveyed or 1.25 if stockpile was surveyed. This conversion to tons is required for proper bid evaluation. The total tonnage must be documented to reimburse for costs associated with excavation during UST closure activities. A surveyor’s calculations may not be used in lieu of weight tickets for soils removed from the site for disposal.

**2.410**

**Cost for Backfilling a Tank Pit following a Commercial UST Closure and Associated Initial Abatement Actions:** This task includes all necessary labor, equipment, and materials to properly backfill an excavation because of an UST Removal or Closure. Cost does not include back-filling tank volume void [total gallons/202) \*1.5] and back-fill material is to be with a like or equal material and includes the clean backfill. This SOW also includes necessary compaction where required. Fill tonnage is not to exceed the tonnage removed for reimbursement. SOW includes submittal of the invoice which lists both the volume and tonnage of fill material. Please complete and attach Secondary Form Sec-A.1.

 This cost is not considered to be site restoration and is not to be listed as such.

***Important Note:*** *The contractor must supply an invoice showing the purchase of the fill material and the contractor’s invoice must reflect the total tonnage of fill material.*

**2.413**

**Cost for NC Professional Surveyor (IAA Stockpile Survey):** This SOW covers the cost of a North Carolina registered professional surveyor used to measure all the stockpiled soil or the final excavation for sites where the soils will be treated and disposed onsite. The surveyor’s signed and sealed calculations must be included with the claim. The total volume (cubic yards) should be converted to tons by multiplying by 1.5 if excavation was surveyed or 1.25 if stockpile was surveyed. This conversion to tons is required for proper claim evaluation. A surveyor’s calculations may not be used when contaminated soils are removed from the site for disposal. Only weight tickets that meet the requirements of the weights and measures law NCGS 81A-51(5) and are in accordance with Trust Fund policy memo dated August 1, 2006, titled, “Amendment to Reasonable Rate Document Policy Concerning Requirements for Determining the Weight of Soil Excavated or Disposed” can be provided as reimbursement documentation. SOW includes submittal of the surveyor’s invoice. Price is per site.

***Important Note:*** *If all excavated soil is weighed, costs associated with Task 2.413 will not be eligible for reimbursement.*

***Important Note:*** *Where contaminated soil is loaded and hauled off-site, it must be weighed and*

*substantiated with certified weight tickets signed by a licensed weighmaster.*

**2.414**

**Cost for Transportation of Excavated Contaminated Soil:** This SOW includes all necessary labor, equipment, and materials to properly haul contaminated soil generated during initial abatement activities to the closest permitted facility. Disposal manifests must be submitted with the claim along with certified weight tickets. (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties if roundtrip distances to the closest permitted facility exceed 250 miles roundtrip).

***Please Note:*** *Only contaminated soil is to be removed! To be eligible for reimbursement, confirmation of contamination more than contaminant levels allowed to remain in situ is to be provided by the analytical results of the truck waste characterization samples.*

**2.415**

**Cost for Off-Site Disposal of Excavated Contaminated Soil:**This SOW includes all necessary labor, equipment, and materials to properly dispose of contaminated soil generated during initial abatement activities. If the materials are not treated onsite, then an invoice from the disposal facility must be submitted for reimbursement. Treatment onsite must not exceed the cost of disposal at a licensed disposal facility. Provide the soil stockpile or truck waste analytical results with the Secondary Form Sec-A.1. Reimbursement is the lesser of the actual invoiced amount or maximum rate.

***All weight tickets must be in accordance with the Weights and Measures Act of 1975 NCGS 81A-51(5) and in accordance with Trust Fund policy memo dated August 1, 2006, titled, “Amendment to Reasonable Rate Document Policy Concerning Requirements for Determining the Weight of Soil Excavated or Disposed”.***

**2.600**

**Limited Site Assessment – Sites with Groundwater contaminant concentrations less than 10 times the 2L Standards: *This task is applicable where an LSA is required in accordance with 15A NCAC 2L .0405.*** This task includes all aspects of the required Limited Site Assessment: receptor survey (if not already conducted), mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, per diems, reports, drilling, site access and restoration, analytical and any other miscellaneous costs needed to complete the requirements for a LSA as described in the *Most recent NC DEQ UST Guidance Documents*. Drilling should not exceed more than 30 feet below the bottom of the source area or area of over-excavation (whichever is deeper) without evidence of soil contamination or more than 15 feet below the water table. Analytical costs are to be based only on the soil and groundwater samples required to be taken by the guidelines. When sampling down the borehole for the monitoring well located in the source area, do not sample in the backfill material or above the tank bed. The first sample should be collected in native soils below the base of any earlier over-excavation and should be collected every five feet if the water table is less than 25 feet below ground surface and every 10 feet if the water table is encountered at a depth of 25 feet below ground surface or greater. Sample depth interval should consider any changes in soil lithology that could potentially impact the location of the contamination. Soil samples collected during well installation below the water table are limited to TPH analysis. Please complete and attach Task 2.600 on Secondary Form Sec-C.1. Where multiple separate source areas are defined on a single site, the footage for any additional wells may also be claimed on Secondary Form Sec-C.1 with attached documentation from the UST Section incident manager verifying the necessity of the additional wells. Additional soil or groundwater samples resulting from these two situations may be similarly added to Secondary Form Sec-C.1 as well. Do not itemize the LSA activities on the claim form. All LSA activities are to be included under Task Code 2.600 and clearly indicated in the Project Summary and Secondary Forms that you have done so.

**The rate for this activity is a maximum rate and reflects the completion of the full scope of work defined in the Reasonable Rate Document. Failure to complete the basic requirements of this task may result in denial of all costs for this and other subsequent tasks. Failure to complete the full scope of work for this task will result in the reimbursement of only the applicable portions of the task, as described in the attached Secondary Form Sec-C.1.**

**2.610**

**Limited/Additional Site Assessment – High Risk Sites with Groundwater contaminant concentrations more than 10 times the 2L Standard:** This task includes all aspects of the LSA described in Task 2.600 where required under 15A NCAC 2L .0405 and is to be completed immediately upon notification to the regional office incident manager of the analytical evidence indicating an exceedance more than 10 times the 2L GW standard and agreement from the regional office incident manager that the analytical information warrants the additional work or at the specific request of the incident manager for sites in which this work was not conducted previously and no CSA has been conducted (exact scope for the non LSA Phase II additional assessment is described in Task 6.032)**:** receptor survey, mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, reports, drilling, site access and restoration, analytical and any other miscellaneous costs needed to complete the LSA requirements as described in the *most recent NC DEQ UST Guidance Documents* (see also Task 2.600 above). Drilling for this task is to be based upon the installation of four wells (one source-area and three additional monitoring wells, or any combination of multiple source-area wells and monitoring wells resulting in four total wells) as described in the *most recent NC DEQ UST Guidance Documents*. Reimbursement will not be allowed for both a (Task 2.600) and (Task 2.610). Please complete and attach Secondary Form Sec-C.2 for Task 2.620. Analytical costs are to be based only upon the source area sampling described in Task 2.600 and for the non-source area wells, TPH soil samples at point of well termination will be allowed. Where the installation of additional wells (beyond four total) is required, pre-approval from the UST Section will be required and the footage for the additional wells may also be claimed on Secondary Form Sec-C.2 with attached documentation from the UST Section verifying the necessity of the additional wells. Additional soil or groundwater samples resulting from these two situations may be similarly added to Secondary Form Sec-C.2, as well. Do not itemize the activities on the claim form. All activities are to be included under Task Code 2.600 and clearly indicated in the Project Summary and Secondary Forms that you have done so.

**The rate for this activity is a maximum rate and reflects the completion of the full scope of work defined in the Reasonable Rate Document and this addendum. Failure to complete the basic requirements of this task may result in denial of all costs for this and other subsequent tasks. Failure to complete the full scope of work for this task will result in the reimbursement of only the applicable portions of the task, as described in the attached Secondary Form Sec-C.2. Failure to provide a thorough, accurate receptor survey may also result in denial of all costs for this and other subsequent tasks.**

**Task 2.620**

**Phase I Limited Site Assessment Report (utilizing previously obtained groundwater assessment data):** This task includes all aspects of the Limited Site Assessment Report: receptor survey, mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, report preparation, soil analytical, and any other miscellaneous costs needed to complete the requirements as described in the *most recent NC DEQ UST Guidance Documents*. This task does not include the costs of the monitoring well installation and groundwater sample collection and analysis performed during tank closure/over-excavation assessment due to intersecting the water table or bedrock. Soil sampling for the evaluation of the vertical extent of soil contamination may be necessary where the water table or bedrock was not intersected during the closure or subsequent over-excavation. The soil sample collection and analytical costs may be claimed on Secondary Form Sec-C.3, with documentation provided for the total boring depth. Soil boring and sample analytical costs will not be reimbursed for samples collected in excavation backfill material, or for duplicate assessment at sample depths previously evaluated during the initial abatement actions (for wells placed outside of the over excavation area). If the required analyses vary from those listed here, include documentation of the change, and claim the additional costs on Secondary Form Sec-C.3. Do not itemize the LSA activities on the claim form. All LSA activities are to be included under Task Code 2.600 and clearly indicated in the Project Summary and Secondary Forms that you have done so.

The Limited Site Assessment report should incorporate the groundwater assessment data obtained during the tank closure activities and presented in the Initial Abatement Action Report.

**Failure to complete the basic requirements of this task may result in denial of all costs for this and other subsequent tasks. The rate for this activity is a maximum rate and reflects the completion of the full scope of work defined in the Reasonable Rate Document and this addendum. Failure to complete the full scope of work for this task will result in the reimbursement of only the applicable portions of the task, as described in the attached Secondary Form Sec-C.3. Failure to provide a thorough, accurate receptor survey may also result in denial of all costs for this and other subsequent tasks.**

**Section 3 – Field Assessment Services**

###### Pre-Drilling Tasks

**3.025**

**Clearing Access:** SOW includes clearing vegetation to provide access for drill rigs (does not include lawn mowing, weed eating, or removal of any materials/debris accumulated because of onsite activities). This task requires pre-approval from the UST Section. SOW includes submittal of the third-party invoice. Although it is uncommon for costs to reach the Task 1.061 threshold, the RP or their designee must provide a copy of the invitation to bid letter and the written bids (3 bids required) from the vendors if the cost is expected to exceed $5,000 and five (5) bids are required if the costs exceed $25,000. Price is lowest qualified bid cost when applicable. Please submit Secondary Form Sec-J if applicable.

*Important Note: The recent position taken by the NC Department of Transportation is that the NC DOT takes no responsibility or liability for any assessment or remedial equipment, or wells located within the right of way, including damage to this equipment or wells by NC DOT contractors. All effort should be made not to locate such equipment or wells within the NC DOT ROW. If encroachment is necessary and is not granted, reimbursement for these tasks will not be made. Once an agreement is in place, any damage, loss, or replacement of equipment or monitoring wells as a result of DOT ROW maintenance or construction will not be eligible for reimbursement and any resulting damage shall be applied toward insurance carried by the property owner and/or RP.*

*Acquisition of ROW by the NC DOT that results in destruction of any Trust Fund reimbursed wells or equipment shall include costs of any abandonment of and required relocation/re-installation of any assessment or remedial equipment or wells required by the Department. Replacement of any destroyed wells will not be reimbursed by the Department.*

**3.060**

**Cost for Utility Clearance (Private Subcontractor):** SOW includes hiring a contractor to locate underground utilities. Reimbursement under this task is limited to the location of public service utilities such as electricity, natural gas, water, sewer, cable/internet, and telephone not located by “NC One Call” or “NC 811” services. This task may be used during the LSA phase of work only if the USTs were not removed. If new underground utilities have been recently installed (since the last underground utility inspection) then the location of such utilities will be known. If it is necessary to go off-site for assessment and/or correction action activities, then this task may be used with written pre-approval if “NC one Call” or NC 811 services are insufficient. After the first location, any subsequent location event resulting from the installation of new private utility lines by the RP or current property owner would be at the RP’s expense, and that any repairs due to hit lines using historic info would not be covered by the Fund (either the previous location was faulty, or the maintenance of the records [maps] was faulty.) Use of this task after completion of the LSA phase requires pre-approval from the UST Section. This task is not applicable for utility location through boring techniques (hand-auger, air knife, etc.) which are included in the per-foot tasks applicable for that boring type. This task is also not applicable for subsurface mapping techniques, such as ground-penetrating radar, which are tracked via Task 3.310. SOW includes submittal of invoice. Price is cost and, though it is uncommon for costs to reach the Task 1.061 threshold, this task is subject to the bidding requirement if more than $5000. Please submit Secondary form Sec-J if applicable. If justification is given as to why the RP or their designee needs to be onsite and preapproval is granted, then consultant mobilization may be claimed under Task Code 12.050. (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties).

**3.080**

**Procure Well Permits (NCDEQ Permits for Offsite Wells):**  This SOW includes all necessary personnel to acquire all well permits per 15A NCAC 2C .0105(a). Well permit fees required by individual counties are to be claimed under Task 8.105.  Price is per site for all wells installed after the LSA.  This task is reimbursable only after permits are procured.  Failure to acquire the necessary well permits prior to the installation of the wells will result in no reimbursement for this task.

**3.101**

**Supervision of Drilling:** This SOW includes all field personnel, and necessary equipment to supervise and manage drilling activities. Included in the SOW, the RP or their designee is required to ensure completion of all boring logs according to the ASTM D2487 soil classification system to the bedrock interface, well construction records, down the borehole screening and required sampling according to the guidelines and retrieve all necessary soil samples from areas of contamination. Supervisory time may not be claimed if the driller is the supervisor. This task is not applicable for supervision of soil borings installed by hand- or power-auger but may be used if wells are being installed by these methods as a N.C. Certified Well Driller is required for all well installation. This task is not to be used with screening techniques which utilize borings such as MIP/LIF/UVF/Mobile GC. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

The maximum reimbursable cost for this task is $12.50 per foot of total depth for soil boring and Type II well installations (1”-, 2”-, and 4”-diameter wells), and $18 per foot for Type III telescoping well installations. In all cases, total eligible well depth may not exceed the measured depth-to-water by more than 10 feet (unless otherwise authorized by the Division for deep and/or bedrock wells.) Please complete and attach Secondary Form Sec-F.

###### Multi-Phase Vertical Drilling

***Important Note:*** *Cost per foot includes, boring and drilling costs, complete well construction, all required labor, well development, equipment use, and well materials (i.e. well covers, above ground protectors, well I.D. plates, lockable well caps, solid casing, slotted screen casing, concrete pad, filter sand pack, Bentonite pellets, grout, etc.) and drill cuttings removal. Cost per foot also covers any repairs necessary to the wells because of onsite activities not directly authorized by the UST Section. Cost for installing wells also includes split spoon samples taken at 5-foot intervals, decontamination of all equipment, all setup charges, and permitting requirements by the NC DEQ. Counties requiring well permits should be claimed under 8.105.*

*Reimbursement is not allowed for the repair/replacement of wells that have been damaged/destroyed unless the damaged/destruction was necessary due to the excavation of soil performed under an approved soil cleanup or corrective action plan. Costs for the following tasks are not reimbursable if the wells were not installed in accordance with the N.C. well construction standards (15A NCAC 2C). Any issuance of a NOV for an installed well due to improper construction standards, location (ROW) or well maintenance that results in an order to replace the well will result in denial of reimbursement for all costs associated with the new well and any and all required sampling and reporting from the new well. For dry wells that could not have been anticipated, reimbursement of drilling is allowed at the same per foot rate as a soil boring.*

*At least two successive sampling events, minimum of 30-days apart, above the applicable regulatory standard are required before installing any subsequent wells for drilling methods which utilize any drilling fluids within the borehole during drilling (i.e. mud rotary). MWs installed using non-drilling fluid techniques that are within 10% of a regulatory decision are to be resampled with a minimum of 30-days between sampling before any additional MWs can be installed.*

*Temporary or direct push wells will be reimbursed according to the diameter of the well and in accordance with the scope of work corresponding to the diameter of the well. Any well installation method that is incapable of collecting borehole soil samples will be reimbursed as direct push except for wells requiring the use of air rigs.*

**3.111**

**Cost for Soil Boring (Code HA or SB):** Maximum rate includes all drilling costs including boring abandonment and direct-push sampling points. Field supervision costs (Task 3.101) for hand and power auger borings are not reimbursable. Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum.

**3.112**

**Cost for 1-inch Permanent Monitoring Well (Auger/Mud, Code 1A):** Maximum rate includes all drilling and development costs for non-direct push drill rigs. To qualify for reimbursement, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Forms). Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum.

**3.113**

**Cost for 2-inch Permanent Monitoring Well (Auger/Mud, Code 2A):** Maximum rate includes all drilling and development costs for non-direct push drill rigs. To qualify for reimbursement, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Forms). Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum. NOTE: If installing a permanent monitoring well, any footage greater than 10 feet below the water table will not be reimbursed for wells installed unless prior authorization is given by the Regional Office.

**3.114**

**Cost for 4-inch Permanent Monitoring Well (Auger/Mud, Code 4A):** Maximum rate includes all drilling and development costs for non-direct push drill rigs. To qualify for reimbursement, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Forms). Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum. NOTE: If installing a permanent monitoring well, any footage greater than 10 feet below the water table will not be reimbursed for wells installed unless prior authorization is given by the Regional Office.

**3.115**

**Cost for Telescoping Type III Permanent Monitoring Well (Auger/Mud, Code T3):** This well type may only be installed at the specific request of the regional office. Specific proposed well construction details, including total well depth, outer casing termination, screened interval and other construction information and justification must be provided. Installations of this type of well are no longer a requirement for conducting a Limited Site Assessment Phase II. The maximum rate includes all drilling and development. To qualify for reimbursement, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Forms). Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum.

**3.116**

**Cost for 1-inch Well via Direct Push Technology (Code 1P):** Maximum rate includes all drilling and development costs for the installation of a 1-inch well utilizing a Geoprobe or other direct push technologies. To qualify for reimbursement, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim. Where groundwater samples are collected from screened direct push segments, only the boring cost under Task 3.111 may be claimed (no well construction required). Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum. NOTE: If installing a permanent monitoring well, any footage greater than 10 feet below the water table will not be reimbursed for wells installed unless prior authorization is given by the Regional Office.

**3.117**

**Cost for 2-inch Well via Direct Push Technology (Code 2P):** Maximum rate includes all drilling and development costs. To qualify for reimbursement, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Forms). Where groundwater samples are collected from screened direct push segments, only the boring cost under Task 3.111 may be claimed (no well construction required). Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum. NOTE: If installing a permanent monitoring well, any footage greater than 10 feet below the water table will not be reimbursed for wells installed unless prior authorization is given by the Regional Office.

**3.118**

Temporary Economic Impact Increase: This increase has been made permanent within the drilling rates in this document, this task is no longer applicable.

**3.119**

**Cost for Air Knifing:** Maximum rate includes all costs including for air knifing. Field supervision costs (Task 3.101) are not reimbursable for this task.  Drill rig mobilization is not reimbursable for this task code. This task will only be allowed when bored in the vicinity of product lines and/or a UST system. Please complete and attach Secondary Form Sec-F. Price is invoiced per foot rate not to exceed the established maximum.

**3.310**

**Cost for Specialty Drilling (Code S):** Maximum rate includes all drilling and development. If installing a well, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Form Sec-F).Along with the invoice, the RP or their designee must provide a copy of the invitation to bid letter and the written bids (3 bids required) from the vendors if the cost is expected to exceed $5,000 and five (5) bids are required if the costs exceed $25,000. Price is lowest qualified bid cost (complete and attach Secondary Form Sec-J as well as the invoice). Also, the RP or their designee must provide total linear footage, boring diameter, and depths.

Specialty drilling includes, but is not limited, to:

* Drilling into competent rock
* Drilling inside buildings which require additional costs (i.e. low clearances)
* Bore and jack drilling
* Down hole geophysical logging
* Ground penetrating radar
* Packer tests (may be used in conjunction with pump test in Section 5.0)
* Remedial wells with large diameter bore holes (> 4-inchs)
* Multiple well points inside a single bore hole (e.g. vapor monitoring points)
* Horizontal drilling
* Abandonment of large diameter wells (> 4-inchs)
* Pulling of well hose and/or pumps for sampling directed by the UST Section
* Sampling of water supply wells without power
* **DOT Encroachment Agreement (Monitoring Wells):** SOW involves preparation and submittal of a standard DOT encroachment application for the installation of monitoring wells within a DOT right-of-way (ROW) for property not owned, operated, or maintained by the NC DOT. SOW includes preparing maps, Right-of-Access Agreements from property owners, tax maps and list of addresses, well construction diagrams, proposed boring and well location maps, type of materials and sizes, load ratings (if applicable), traffic control plan (if required) and a brief discussion to justify borings and wells. Price is per Site. Reimbursement will not be given for sites owned, operated, or maintained by the NC DOT or sites where no agreement is reached with the NC DOT.
* **DOT Encroachment Agreement (Remedial purposes):** This task will not be allowed unless analytical evidence shows that the plume has impacted the DOT Right-of-way and remedial action is required. This SOW will involve getting permission to install recovery wells, trenches, conduits, etc. on a DOT Right-of-way. SOW will be similar as outlined above. However, more detail of engineering design will be required (i.e. cross sections, list of material type, H-20 load ratings, equipment type, ASTM ratings, SDR ratings, etc.), detailed conduit and vault layout, calculations on design, plus a discussion of the work plan and contracted activities. It is the policy of DOT not to allow encroachments of this type. However, in some cases they may make exceptions if the plume has already contaminated their right-of-way. Therefore, the RP or their designee should also include a brief discussion of the plume in relation to the right-of-way as well as a justification of the need to install recovery wells or to place discharge lines underground in the right-of-way or under roads. Price is per Site. Reimbursement will not be given for sites owned, operated, or maintained by the NC DOT or sites where no agreement is reached with the NC DOT.

**3.351**

**Surveying Top of Well Casing Elevations:** SOW includes up to two qualified people to determine the site benchmark and measure top-of-casing elevations at each well head. SOW includes accurately measuring all casing elevations. The RP or their designee should maintain a degree of accuracy within 0.01 feet. The benchmark used to establish the elevation **MUST** be clearly indicated on all site maps and should be reasonably certain to not be disturbed by on-going site activities or site development. Mobilization will not be allowed for this task unless pre-approved by the UST Section. The RP or their designee should plan to conduct this activity either during well installation or during a sampling event. This task may not be claimed with Task 6.173. Price is per well and includes the benchmark determination.

**3.398**

**Cost for Drilling Rig/Equipment Mobilization:** SOW includes mobilization of all drilling equipment and personnel to and from the site. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*. This task is limited to drill rigs only. Drill rigs and associated equipment are defined as such equipment that are self-propelled and require a driver or permanently mounted or towed behind equipment on trucks or vans that cannot be moved by hand. Equipment capable of being moved by hand is not considered to be a drill rig. This task is not allowed for hand augers, power augers or other equipment not meeting this definition. If a well is installed with a hand auger, power auger or other non-drill rig equipment, the subcontracted Certified Well Driller installing this well may use Task 12.050 for travel to and from the site. This task is limited to once per drilling event, regardless of the number of support vehicles or drilling rig types included in the event. If it is necessary to re-mob to a site due to the inability of the initially selected drilling technology to successfully advance the boring (e.g., to get access under a canopy, hit bedrock with an auger rig, or soft ground causing a big rig to sink) this task may not be requested for reimbursement for the additional trips. If the drilling activities require more than a single day to complete, then only the lessor of the cost for a re-mobe or an overnight stay will be allowed. Please complete and attach Secondary Form Sec-F.

**3.399**

**Well Abandonment:** Maximum rate includes all personnel, equipment, and well record reporting (GW-30). To qualify for reimbursement, the driller must be licensed by the state of North Carolina and the well closed in accordance with the 15A NCAC 2C Well Certifications Rules. Well abandonment records must be included in the claim (attach to Primary Form P-3c) pre and post abandonment site photographs are to be submitted along with the abandonment records. RP or their designee supervision is not required or reimbursed for this task. If wells are abandoned without the use of a drill rig, then consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*. Proof of use of a drill rig for well abandonment is required for reimbursement of the drill rig mobilization task. The well driller shall specify within the well abandonment form comment section the make and model of the drill rig used.

**3.500**

**Drill Crew Per Diem:** See task Code 12.030. Per diems are only reimbursable for overnight stays between two working days (12 hours or more of field and travel combined with travel not to exceed 25% of the total time except for the exempted counties listed in the NOTE for Section 12 of the RRD) and are not reimbursable for staying the night before starting or night after completing the eligible activities (except where done as part of a milk-run with other eligible sites.) For milk-run events, however, the per diem and drill rig mobilization costs must be divided evenly between all sites included in the milk-run. Cost is per night not to exceed the Federal Non-Specified Rate for NC. Please attach the lodging invoices and Secondary Form 2F.

**Section 4 – Sampling & Analytical Costs**

**4.031**

**Cost for Sampling a Monitoring Well:**  SOW includes sampling monitoring wells of any depth or diameter. SOW includes all necessary expendables, equipment, personnel, and sample prep, to perform required water level measurements, well gauging, calculations, purging, and sampling conducted as part of groundwater sampling. SOW also includes performing required field measurements: dissolved oxygen, pH, specific conductivity, temperature, and ORP. Costs for sampling wells that have been below regulatory standards for four (4) consecutive sampling events will not be reimbursed without dual pre-approval from the UST Section and should be considered for abandonment. If such wells are incurring monitoring well permit fees, they are to be abandoned at the direction of the UST Section. Statistical analysis programs such as MAROS, should be used to help in determining which wells to sample and on what frequency. Please complete and attach Secondary Form Sec-G. Price is per well. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

***Important Note****: If only water level measurements and field parameters are to be collected, then use Code #810 from the Analytical Rates Table for Task 4.090.*

**4.041**

**Cost for Sampling Water Supply Wells:** SOW assumes sampling of an off-site, non-RP, supply well and/or an initial on-site, RP owned supply well (subsequent RP wells samples will not be reimbursed it is the responsibility of the RP to check their own supply wells) (i.e. indoor or outdoor spigot). Prior to sampling water supply wells not immediately adjacent to the site of the contamination or where there is no documented groundwater contamination, pre-approval must be granted by the UST Section. SOW includes all necessary equipment; personnel, and sample prep to perform well purging followed by sampling. SOW also includes performing field measurements such as: pH, dissolved oxygen and specific conductivity as required. Please complete and attach Secondary Form Sec-G. Price is per well. Water supply wells are to be sampled while onsite for other site sampling activities. Water supply sampling as a stand-alone task requires pre-approval and consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**4.045**

**Cost for Sampling Contaminated Water Supply Wells (Third-party Expenses):** SOW is identical to Task Code 4.041 with the exception that this task, the associated laboratory analysis, and all equipment, personnel, time and mobilization are for expenses that apply to the third-party deductible. Indicate the analytical methods under task code as 4.095 (not 4.090) when utilizing this task code. Point of Entry treatment system monitoring, even where no contaminates are detected in the influent sample, are considered third-party deductible costs due to loss of normal use for the third-party. RP-owned supply wells, either on site or off site, that are being sampled due to contamination or threat of contamination after a single initial sampling are considered self-inflicted “loss of normal use” and therefore are not eligible for reimbursement from the Trust Fund. Please complete and attach Secondary Form Sec-G. Price is per well. Water supply wells are to be sampled while onsite for other site sampling activities. Water supply well sampling as a standalone task requires pre-approval and consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**4.051**

**Cost for Sampling Surface Waters:** SOW assumes sampling of various types of surface water features (i.e. includes ponds, streams, creeks, etc.) to verify contamination. Prior to sampling, the RP or their designee must confirm that the water body in question has been classified by the Division of Water Resources as a surface water feature (not stormwater drainage). The determination is to be included in the request for approval. At the point of sampling, if the water body is unclassified, then the classification of the next contiguous classified water body is to be used. SOW includes all necessary equipment, sample prep, and personnel to perform sampling. Please complete and attach Secondary Form Sec-G. Pre-approval is required for this task. Price is per sample point. Surface water samples are to be sampled while on site for other site sampling activities. Surface water sampling as a stand-alone task requires pre-approval and consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**4.071**

**Cost for Sampling Soil Gas for Vapor Intrusion Monitoring:**  SOW assumes the collection of grab samples from soil gas, near-slab, sub-slab, indoor air quality stations where required by the Department. SOW will include all necessary equipment (including sample media), personnel, and sample preparation, to conduct VI sampling only. Indoor air sampling should only be performed where required by the Department and based on confirmation of a completed vapor pathway in the other soil gas samples.  Use Task 4.090 Code #880 for the analytical costs.  Please complete and attach Secondary Form Sec-G.  Price is per sample location and requires pre-approval. This activity is to be conducted while onsite conducting other sampling activities. Mobilization under Task 12.050 may be claimed if this activity is pre-approved as a stand-alone action. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**4.080**

**Cost of Ultra-Violet Fluorescence (UVF) Sampling:** SOW includes all costs for the sampling and analyzing of soil samples utilizing a multiple wavelength ultra-violet fluorescing technology. If sampling is being conducted onsite by a third-party, unaffiliated with the consultant, the lab per diem and mobilization may be claimed under Task Code 12.030 and 12.050, respectively. If the contractor owns the equipment, no mobilization is allowed. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**4.085**

**Cost for Mobile Laboratory:** SOW includes the cost of a mobile GC/MS laboratory. This activity requires pre-approval and is subject to the bidding requirements outlined in Task 1.061. If sampling is being conducted onsite by a third-party, unaffiliated with the consultant, the lab mobilization may be claimed under Task Code12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**4.090**

**Costs for Analytical:** SOW includes laboratory costs associated with all sampling of soil, water, and air along with any quality assurance / quality control. The lab must be North Carolina certified and must be certified to perform the recommended sample methods as outlined in the most recent *NC DEQ UST Guidance Documents* at the time of sampling*.* RP or their designee must attach the laboratory invoice to the completed Secondary Form Sec-H. Lab analytical rates are not to exceed the Analytical Rate Table rates listed within the Price List. Bidding is not required for this task.

**4.091**

**Costs for Sample Shipping:** The SOW is for shipping samples to an approved laboratory. A shipping invoice from a recognized shipping service or courier must be attached to the lab invoice and Secondary Form Sec-H. If the lab provides shipping service, an invoice from the lab is required. Hand delivery of samples to the lab is not reimbursable without pre-approval.

**4.095**

**Costs for Analytical and Shipping (Third-party Deductible Costs):** The SOW for this task is identical to Task 4.090 but is to be used when conducting third-party sampling under Task 4.045. RP or their designee must attach the laboratory invoice to a completed Secondary Form Sec-H (use a separate Sec-H Form from the information provided for Task 4.090 above.)

**4.096**

**Costs for Sample Shipping 3rd Party:** The SOW is for shipping of samples to an approved laboratory. A shipping invoice from a recognized shipping service or courier must be attached to the lab invoice and Secondary Form Sec-H. If the lab provides shipping service, an invoice from the lab is required. Hand delivery of samples to the lab is not reimbursable without pre-approval.

**Section 5 – Field Testing & Evaluation**

***Important Note: The tasks outlined in this section are for the purposes of determining various hydrogeological characteristics of a site in preparation of a corrective action plan (CAP). Reimbursement will not be allowed for these tasks after the submittal and approval of a CAP without a thorough explanation why such testing is necessary after a CAP is approved and requires pre-approval from the UST Section. Results of any of the tests below are to be incorporated into either the CSA or CAP report.***

**5.010**

**Slug Test:** This SOW includes all necessary field personnel, mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, and equipment to conduct one day of slug testing activities on in place wells per the *most recent NC DEQ UST Guidance Documents.* **This task requires pre-approval from the UST Section.**

**5.020**

**Step Drawdown Test:** SOW includes all necessary field personnel, mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, and equipment to conduct one day of step drawdown testing on in place wells per the pump test requirements shown in the *most recent NC DEQ UST Guidance Documents*. Price includes field supervision, project scheduling, data reduction/evaluation, oversight, and permitting requirements. Disposal of the contaminated groundwater or product resulting from the test is to be claimed under Task 9.020. **This task requires pre-approval from the UST Section.**

***Important Note:*** *This SOW is designed to assist in collecting data for performing the actual aquifer pump test. The step drawdown test is primarily used to establish well yield (gallons per minute -gpm) for establishing a constant flow rate for the aquifer test (5.030).*

**5.030**

**12-Hour Aquifer Test:** SOW includes all necessary field personnel, mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, and equipment to conduct an aquifer test for a 12-hour duration on in place wells, followed by a recovery test conducted for a duration that allows steady state conditions to be achieved or for a maximum duration of 12 hours, whichever occurs first. SOW also includes field supervision, project scheduling, data reduction/evaluation, site map production and oversight, and permitting. Disposal of the contaminated groundwater or product resulting from the test is to be claimed under Task 9.020. Aquifer tests must be performed in accordance with the *most recent NC DEQ UST Guidance Documents*. **This task requires pre-approval from the UST Section.**

**5.050**

**Soil Vapor Extraction Test:** SOW includes all necessary field personnel, mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, and equipment to conduct one Soil Vapor Extraction test or one Bio-venting test or one Dual-Phase Extraction test for one full day (up to 8 hours) on in place wells. SOW includes field supervision, project scheduling, data reduction/evaluation and oversight. SOW also includes all sampling and analytical costs (i.e. BTEX) to show vapor recovery, a site map showing all wells and reported influences and tables providing flow, pressure/vacuum, relative humidity, temperature, VOC field screening/lab results, DTW, and other operating parameters and observations, during different intervals of the test.Extended pilot tests that have been approved by the UST Section are also claimed under this task code. If this test is run in conjunction with Task 5.060, then at some point, both tasks are to be conducted simultaneously to determine the impact of air sparging on vapor recovery. **This task requires pre-approval from the UST Section. This task cannot be pre-approved until after phase I of Task 6.065 has been completed.**

**5.060**

**In Situ Air Sparge Test:** SOW includes all necessary field personnel, mobilization (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*, and equipment to conduct one air sparge test on in place wells. SOW assumes Task 5.050 has been completed. SOW includes establishing baseline measurements of water levels, hydrocarbons, dissolved oxygen (DO) and CO2 at select monitoring and/or observation wells and sparge points as well as all necessary equipment**.** SOW assumes the test will include field supervision, project scheduling, data reduction/evaluation and oversight. SOW also includes generation of a site map showing all wells and reported influences and results showing that breakthrough had been achieved**.** SOW also includes generating tables providing flow, pressure/vacuum, relative humidity, temperature, VOC field screening/lab results, DTW, and other operating parameters and observations, during different intervals of the test. Extended pilot tests that have been approved by the UST Section are also claimed under this task code. If this test is run in conjunction with Task 5.050, then at some point, both tasks are to be conducted simultaneously to determine the impact of air sparging on vapor recovery. **This task requires pre-approval from the UST Section. This task cannot be pre-approved until after phase I of Task 6.065 has been completed.**

**5.070**

**Contaminant Fate & Transport Modeling:** This SOW includes identifying and evaluating any additional physical and chemical data to support natural attenuation pursuant to 15A NCAC 2L and performing necessary calculations and/or computer modeling to allow prediction of the extent and concentration of the contaminant plume over time. This task also incorporates development of a long-range monitoring plan, if required. The SOW does not include actual sample collection and analysis (see Sections 3.0 and 4.0). Information collected in this task should be compiled in the CSA for receptor removal (see Section 6). If a CSA has been approved, this information may be submitted in a subsequent Monitoring Report or using task code 6.190 (Misc. Letter Report). **This task requires pre-approval from the UST Section.**

**Important Note:** Tasks under this SOW will be reimbursed in addition to preparing a CAP under 15A NCAC 2L.

**5.081**

**Hydrogeologic Parameter Test:** SOW includes all necessary field personnel, and equipment to conduct the parameter test. The SOW is for specific or unique hydrogeologic tests, such as dye tracing, that are recommended by either the Regional Office or by the RP or their designee but are pre-approved by the Regional Office. All tests are to be conducted in accordance with both state and federal guidelines covering the test to be run. Three (3) bids are required if cost exceeds $5,000 and five (5) bids are required if the costs exceed $25,000. Please submit Secondary Form Sec-J if applicable. **This task requires pre-approval from the UST Section. If the test is innovative, it must first be approved by the Innovative Technology Committee in the Central Office.**

**5.082**

**Cost for High Resolution Site Characterization (HRSC) including MIP/LIF for site assessment:** Maximum rate includes all drilling, development, and boring abandonment with surface materials similar to pre-existing conditions (e.g., asphalt, concrete, etc.).  If installing a well, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Form Sec-F). Along with the invoice, the RP or their designee must provide a copy of the invitation to bid letter and the written bids (3 bids required) from the vendors if the cost is expected to exceed $5,000 and five (5) bids are required if the costs exceed $25,000 Price is lowest qualified bid cost (complete and attach Secondary Form Sec-J as well as the invoice).  Bids should include an example of a typical HRSC report from the vendor, so that the deliverables can be compared to determine if the data required to characterize the site will be collected and interpreted in a useful way to make remedial decisions for the site. The RP or their designee must provide total linear footage, boring diameter, and depth.

**5.083**

**Cost for Pilot Test, Injection Event:** Maximum rate includes all drilling, injections, and subsequent boring abandonment for a pilot injection test. If installing a well, the driller must be licensed by the State of North Carolina and well construction records must be included in the claim (attach to Secondary Form Sec-F).Along with the invoice, the RP or their designee must provide a copy of the invitation to bid letter and the written bids (3 bids required) from the vendors if the cost is expected to exceed $5,000 and five (5) bids are required if the costs exceed $25,000. Price is lowest qualified bid cost (complete and attached Secondary Form Sec-J as well as the invoice). Also, the RP or their designee must provide total linear footage, boring diameter, and depth. **This task cannot be pre-approved until after phase I of Task 6.065 has been completed.**

**Section 6 - Reports**

***Important Note:******Each report must be completed, submitted, and approved by the UST Section prior to receiving reimbursement. Reports will not be reimbursed until the Regional Office has approved the submitted report. SUBMITTAL OF INTERIM OR PARTIALLY COMPLETED REPORTS are not reimbursable. Multiple reports may not be combined into a single document and claimed separately as different report tasks. Please refer to the Guidelines for Assessment and Corrective Action and the Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement for the specific requirements for the reports.***

***Unless otherwise indicated, all reports must be formatted to meet the requirements as outlined in the Guidelines for Assessment and Corrective Action and the Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement. Failure to meet these guidelines may result in partial or no reimbursement.***

**6.010**

**Cost for a 20-Day Report:** SOW shall include preparation and submittal of a 20-day report. This report is to be submitted as the only report during non-regulated commercial UST removals where the tank closure sample indicates that a release has occurred. This report is to be submitted within 20 days of confirmation of a release (submitted analytical results). Please complete and attach Secondary Form 2G.

**Important Note:** This task should only be used for NEW releases and is not repeatable (one per site). Please see the SOW for Task 2.610 for further clarification.

**6.015**

Initial Abatement Action Report: Upon completion of initial abatement actions for petroleum UST releases, the RP must submit an Initial Abatement Action Report (IAAR) which follows the 20-Day Report. The purpose is to report the initial investigation that resulted in the discovery of the release and the initial response and abatement actions. There are four parts to this report, the Initial Abatement Action Report, the Site Check Report, the UST Closure Report, and/or the LNAPL Recovery Report. ALL Four reports must be completed for full reimbursement otherwise reimbursement is limited as outlined on Primary Form 6a.

The SOW includes the preparation of a report that systematically:

1. presents site history and characterization,
2. incorporates the requirements of the previous **Site Check Report** and/or a **UST Closure Report**(these reports are no longer reimbursable),
3. incorporates the requirements of a **LNAPL Investigation and Recovery Report**, presenting the results of all LNAPL investigation and recovery actions performed to date,
4. reports any groundwater and surface water investigation performed to date,
5. summarizes all initial response and abatement actions, and
6. describes soil excavation and reports subsequent confirmation soil sample analytical data to demonstrate the extent to which the contaminated soil has been removed.

The RP must submit the Initial Abatement Action Report **within 90 days following the date of discovery of the release** to the Corrective Action Branch of the UST Section (and to the Permits and Inspections Branch, if the investigation was initiated by a UST inspector). The report format is presented in the most recent NC DEQ UST Guidance Documents.

**The application of this task will be based on the four check boxes designated in the IAAR report format under Appendix A of the March 1, 2007, *Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement*. The first included report will be applied at a base rate of $730, with each of the three accessory report subgroups adding an additional $245 (i.e., one of the four boxes checked will equate to $730, two boxes - $975, and so on).**

**6.022**

**LNAPL Recovery Report (Subsequent Reports After Initial Abatement Action Report):** This SOW includes the preparation of a report, which provides information on product recovery activities over a **maximum duration of 12 months** (i.e. four recovery events in a 12-month period). LNAPL shall be defined as a measurable level (0.01 feet or more) that has accumulated on the groundwater, detectable by an oil/water interface probe from a groundwater monitoring well. Information from this report must be included in any Monitoring or Corrective Action Performance Report (Task 6.090 to 6.106) when recovery is conducted during normal assessment or corrective action activities unless recovery is conducted by AFVR or MMPE, in which, this report may be reimbursed as a stand-alone report. Price is per report when not included in Task Codes 6.090 through 6.106. Please complete and attach Secondary Form 2G.

**6.029**

**Accelerated Site Characterization (ASC) Report:** This SOW includes preparation and submittal of a report detailing the screening of soil and/or GW utilizing MIP, LIF, UVF or other screening tool approved by the UST Section in an effort to better delineate contamination and strategically locate future monitoring well and soil sampling during a comprehensive sampling event. With the statute of limitation requirement that all work must be claimed for reimbursement within 12 months of completion of the activity, if the RP or their designee determine that a CSA will not be able to be completed within this time period due to the need for off-site access as supported by analytical information collected to date and agreed upon by the UST regional office incident manager, this report may be submitted until the formal CSA can be completed.

**6.032**

**Additional Risk Assessment Report, High and Intermediate Sites:** The SOW is for a report to describe the additional risk assessment activities conducted on-sites where a Limited Site Assessment Phase II was not conducted within the regulatory deadline nor has the site progressed to a Comprehensive Site Assessment. The assessment activities include the following:

* The installation of three horizontal extent monitoring wells and one vertical extent monitoring well. One monitoring well shall be installed upgradient of the source of contamination and two monitoring wells shall be installed downgradient of the source of contamination, as best as can be determined, and located such that groundwater flow direction and hydraulic gradient may accurately be determined. The vertical extent monitoring well shall be installed immediately downgradient (as best as can be determined) of the source area of contamination, as best as can be determined, with any drilling greater than a depth of 75 feet requiring authorization from the regional office incident manager. Note, the vertical extent monitoring well shall not connect aquifers.
* The analysis of representative soil samples collected during the construction of the monitoring wells. One soil sample must be collected in the unsaturated zone and one in the smear/saturated zone from suspected worst-case locations exhibiting visible contamination or elevated levels of volatile organic compounds based on field screening techniques. Only the suspected most contaminated soil sample in each zone from each boring should be submitted for laboratory analysis using the EPA 8015B TPH (or equivalent) appropriate for the fuel types suspected in the release.
* The collection of groundwater samples from the new on-site monitoring wells, analyzed by the appropriate methods, for the constituents relevant to the release.
* The collection of groundwater samples from any onsite water supply wells and any water supply wells located adjacent to the site less than 250 feet from the source area of the release, analyzed by the appropriate method(s) for the constituents relevant to the release. Sampling of more than five water supply wells will require approval of the regional office incident manager.
* The survey of all monitoring wells and collection of potentiometric data for the completion of a potentiometric surface/groundwater elevation and flow map.
* The completion of one aquifer slug test to provide a calculation of hydraulic conductivity, transmissivity, and linear groundwater velocity.

**6.033**

**Site Check Report:** This SOW is for the assessment of an underground storage tank system(s) at the specific request of the UST Section, under 2N .0602 and General Statute 143-215.94B(b)(8), The format for this report is the same as that of an UST Closure Report (UST-12) the report format is presented in the *most recent NC DEQ UST Guidance Documents*. Please complete and attach Secondary Form 2G. This report is not allowed if included with the Initial Abatement Action Report. This report shall be directed by the UST Section and eligible for reimbursement only if no release is detected. If a release is detected, this report is included within the Initial Abatement Action Report (IAAR) and may not be claimed under this task code.

**6.040**

**Comprehensive Site Assessment Report - Soil Only** *(No groundwater contamination encountered; for high and intermediate risk sites only)***:** This SOW includes preparation and submittal of a site assessment report where a site investigation delineating soil contamination has been performed.

**6.041**

**Soil Assessment Report** *(For low-risk sites only)***:** This SOW includes the preparation of a Site Assessment Report.

**6.050**

**Comprehensive Site Assessment Report – Soil and Groundwater** *(For high/intermediate risk sites only where groundwater contamination is encountered)***:** This SOW includes the preparation and submittal of a comprehensive site assessment report completed according to the Guidelines for Assessment and Corrective Action. This report relates to work performed in Sections 1 through 4.

**6.060**

**CSA Report Addendum:** This SOW includes preparation and submittal of an update to the current site assessment report as ***pre-approved by the UST Section***. This task can only be utilized if conditions of the site (characterization) have changed (i.e. new release, plume migration, etc.). This assumes that a CSA was submitted and approved at a previous date. This SOW does not include submittal of information which was missing from the original CSA (i.e. information requested by the Regional Office for approval of a previously submitted CSA Report).

**6.064**

**Plume Stability Analysis:** This SOW covers the cost and reporting of a plume stability analysis utilizing the Mann-Kendall analysis or other equivalent methods and results are to be included in the next requested monitoring or remedial report. ***This report requires pre-approval***.

**6.065**

**Corrective Action Feasibility Meetings and Report (phase I)**:  This SOW is a meeting between the RP, ESP, and UST Section to discuss the remedial strategy recommended in the CSA (other than monitored natural attenuation or limited soil removal not resulting in a Corrective Action Design) or other post CSA Reports. If a strategy is agreed upon, pre-approval for the pilot testing and Phase II report and meeting will be requested.

**Corrective Action Feasibility Meetings and Report (phase II)**: The results from the pilot test should be reported to the Section as a Feasibility Study Report (as outlined on page 95 of the Comprehensive Appendices for Corrective action Guidelines (appendices) and can be found in UST guidance documents on the Division of Waste Management webpage. This report is included in the SOW for this task and can be found through the link below. The second meeting, included in the SOW for this task, will be held to discuss the results of the Feasibility Study Report with the RP, ESP and UST Section. A Notice of Regulatory Requirements for the chosen Corrective Action Plan Design will follow this meeting.  Phase II cannot be approved until phase I has been completed. Notes from phase I meeting must be provided with the pre-approval for pilot testing.

<https://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/ust-guidance-documents>

NOTE: If the pilot test does not prove that the proposed remedy is viable, the consultant/RP is responsible for discussing alternatives with the regional office before preparing the Feasibility Study Report. This task should be used to report the results of the successful pilot test, mentioning unsuccessful pilot test attempts.

**6.066**

**Corrective Action Design:** This SOW consists of design, specification, and bidding of the chosen remedial action. If monitored natural attenuation or any passive augmentation to MNA are chosen, this SOW will not be utilized.SOW includes data evaluation of site parameters and information obtained from pilot tests. System building location is to have been determined and approved by the applicable local, state, or federal agencies prior to system design and specification. This SOW requires the RP or their designee to prepare design drawings and equipment specifications for a turnkey remediation system or systems and bidding the system. (An oxidizer shall not be included in the design without supporting calculations to document it is necessary to comply with NCDEQ Air Quality standards). Where costs are expected to exceed $5,000 but less than $25,000 three (3) competitive bids must be received, and bids greater than $25,000 must receive five (5) competitive bids prior to the initiation of the action except where otherwise noted. Only the lowest qualified bid will be reimbursed and must be itemized. Failure to provide the required bid information will result in the claim being reimbursed for the maximum non-bid amount ($5,000). The maximum rate for design, specification and bid preparation is $5,000. Task Code 1.061 may not be claimed in association with this task code. If it is later determined that the designed system(s) is (are) inappropriate or ineffective, then this task will not be reimbursed for the design of a replacement, upgraded or new system. The individual or company that conducts this work and signs and seals the design is the one to whom reimbursement will be granted. Any company that must sub-contract out this work or requests that the system fabricator conduct this work is not eligible for reimbursement for this task. Prior to solicitation of the bid, the bid documents are to be submitted to and reviewed by the UST Section. Bid documents that are submitted for solicitation without UST Section approval will not be reimbursed.

**6.067**

**Corrective Action Record of Decision (ROD):** This SOW consists of a final meeting of the RP, ESP, and UST Section to review the chosen remedial design, implementation, schedule for remediation, and remedial checkpoints prior to purchase and installation of the approved remediation. A formal record of the approved decision of all parties will be signed in person, after which purchase, and installation may begin. No deviations from this ROD will be allowed without an addendum to the ROD signed by all original parties.

**6.080**

**Corrective Action Plan for Natural Attenuation:** This SOW includes the preparation of a CAP that clearly and specifically outlines the total amount of time to reach cleanup and the cost to reach the established cleanup standards including all sampling and reporting costs. Information and conclusions gathered in Task 5.070 are to be incorporated in this CAP. Please refer to the Corrective Action Guidelines for Monitored Natural Attenuation for more information concerning when this task is applicable.

**6.081**

**Soil Cleanup Plan:** This report should be used for sites after the CSA.

**6.082**

**Public Notification:** This SOW includes all requirements of public notification outlined inthe most recent NC DEQ UST Guidance Documents.

**6.090**

**Monitoring Report:** This SOW includes preparation of a Monitoring Report as outlined in the Corrective Action Guidelines that provides documentation of up-to-date historical groundwater and soil monitoring and sampling data, updated figures (isocon maps of the leading five contaminants of concern (TPH or BTEX maps are not to be included)), updated cross sections, and laboratory analysis for sites undergoing monitored natural attenuation. This report is not allowed for sites in which in situ mechanical remedial systems are in operation. Historical data, current contaminant trends, and site risk should be evaluated to provide recommendations for appropriate next steps toward site closure.  **This task requires pre-approval from the UST Section.**

***Important Note:*** *This report is inclusive of the LNAPL Recovery Report. The UST Section may pre-approve separate LNAPL Recovery Reports if required. The CSA must be completed prior to initiating this task. This report should only be utilized on high or intermediate risk sites.*

**6.105**

**Historical Corrective Action Performance Report (In Situ Mechanical System):** This SOW includes preparation and submittal of a report documenting the up-to-date historical performance of the previously approved in situ mechanical corrective action including system performance, remedial performance (mass contaminant calculations), and sampling results where such a report has not been generated previously. This report is not to be used for newly installed systems. Please refer to 6.106. Report shall include tables, figures, etc., as necessary to document that the approved corrective action is proceeding as indicated in the previously approved CAP. This report is not allowed for monitored natural attenuation, remedial socks or booms, injections, AFVRs or MMPEs, or any other non-mechanical system in which groundwater or soil sampling is the only indicator of performance.

**6.106**

**Corrective Action Performance Report (In Situ Mechanical System):** This SOW includes preparation and submittal of a report documenting the performance of the approved in situ mechanical corrective action including system performance, remedial performance, and any sampling data. Report shall include updates to the initial tables, figures, etc., and include system performance and sampling data for the period covered by the report and a running historical performance as necessary to document that the approved corrective action is proceeding as indicated in the record of decision.

**6.107**

**Post-Injection Report (Initial)**:  This SOW includes preparing and submitting a report which details corrective action injection activities; provides historical, pre-injection (baseline) and post-injection sampling results; and evaluates the effectiveness of the injectate (e.g., ISCO, activated carbon particles, etc.).  The percent reduction/increase in groundwater contaminant concentrations should be calculated for each monitor well within and immediately adjacent to the injection zone.   Calculations are required for specific contaminants driving the cleanup and total VOCs.   Report shall include figures, tables, graphs, etc., to document the location of the injection points, product injected, injection intervals and loading, and if the results indicate that the injection was successful and is proceeding as indicated in the previously approved CAP to reach cleanup goals.  If soil is the media being targeted for cleanup, appropriate soil samples would be collected and analyzed in a similar manner.

**6.108**

**Post-Injection Report (Subsequent):**  This SOW includes preparation and submittal of a report documenting the overall performance of an approved remedial injection and evaluating its effectiveness. The percent reduction/increase in groundwater contaminant concentrations over time should be calculated for each monitor well within the injection zone and the monitor wells immediately adjacent to it, if affected.  These calculations should be completed for specific contaminants driving the cleanup, total VOCs, and include the total reduction in contaminant mass. Report shall include sampling data and updates to the initial tables, figures, graphs, etc., evaluating the effectiveness to date, and documenting any rebound, if evident.

**6.120**

**System Enhancement Recommendations:** This report should only be submitted when requested by the UST Section for a major enhancement or change to an existing system requiring upgrades or significant enhancements to the fabricated system equipment. This task is only reimbursable where the proposed enhancement is not the result of an improperly designed CAP or improper or negligent installation or operation of an approved CAP. Addition or removal of wells or sparge points within the existing system’s tolerances does not constitute major system enhancements and should be included in the recommendations presented in the Correction Action Performance Report. SOW includes the inspection of existing remediation equipment and a review of information gathered from task 6.105-6.106. SOW includes one site visit, with mobilization plus project time to evaluate data plus investigate alternatives and propose solutions and recommendations to ensure system compliance. The recommendations should include alternatives or modifications to obtain efficient and effective site remediation, and an estimate of any lifetime cost adjustments expected to result from the changes. This report includes written recommendations plus preliminary engineering drawings for system modifications (if required). Any requests to modify an existing monitoring program should be incorporated into this document. **This task requires pre-approval from the UST Section and, where applicable, the Innovative Technology Committee.**

**6.121**

**New Technology Cleanup Plan:** This SOW is for sites that have already completed and implemented an approved Corrective Action Plan or Corrective Action Record of Decision, in which that corrective action is no longer viable for site cleanup.

**Feasibility Meetings and Report (phase I)**:  This SOW is a meeting between the RP, ESP, and UST Section to discuss the remedial strategy recommended (other than monitored natural attenuation or limited soil removal not resulting in a Corrective Action Design). If a strategy is agreed upon, pre-approval for the pilot testing and Phase II report and meeting will be requested.

**Feasibility Meetings and Report (phase II)**: The results from the pilot test should be reported to the Section as a Feasibility Study Report (as outlined on page 95 of the Comprehensive Appendices for Corrective action Guidelines (appendices) and can be found in UST guidance documents on the Division of Waste Management webpage. This report is included in the SOW for this task and can be found through the link below. The second meeting, included in the SOW for this task, will be held to discuss the results of the Feasibility Study Report with the RP, ESP and UST Section. A Notice of Regulatory Requirements for the chosen New Technology Cleanup Plan will follow this meeting.  Phase II cannot be approved until phase I has been completed. Notes from phase I meeting must be provided with the pre-approval for pilot testing.

<https://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/ust-guidance-documents>

NOTE: If the pilot test does not prove that the proposed remedy is viable, the consultant/RP is responsible for discussing alternatives with the regional office before preparing the Feasibility Study Report. This task should be used to report the results of the successful pilot test, mentioning unsuccessful pilot test attempts.

**New Technology Cleanup Plan:** SOW includes preparation of a report providing new remediation options and recommendations. This task will be allowed only when requested and approved by the UST Section and if the existing system clearly is no longer effective, and if it is clear that the RP or their designee’s original design, installation, operation, and maintenance of the existing system was adequate and found not to have been inappropriately designed or installed, nor failure due to poor operation and maintenance. **This task requires pre-approval from the UST Section and Innovative Technology Committee where applicable.**

**6.130**

**Air Emissions Monitoring Report:** SOW includes preparation and submittal of a two-page letter report summarizing air emissions data for no more than a six-month period (semi-annually). The basic letter report shall include a description of the work performed during the reporting period, the frequency of monitoring, and the analytical results of air samples (outlined in a table). Mass balance calculations if necessary, and discharge rates. Includes system layout and site map. The SOW may vary dependent upon specific air permit requirements. This task is **only reimbursable for sites in a nonattainment area where such monitoring is required**.

**6.140**

**Non-Discharge Permit Report:** This SOW includes the preparation and submittal of the Underground Storage Tank Section's UST-59 Forms.

**6.150**

**Publicly Owned Treatment Works (POTW) Permit Report:** This SOW includes the preparation and submittal of a report (if required by the POTW) summarizing the required POTW monitoring data for no more than a three-month period (quarterly). The basic letter report will include a description of the work performed during the reporting period, the frequency of monitoring, and the analytical results of water samples. Mass balance calculations, if necessary, discharge rates and required information. This SOW may vary depending upon specific POTW permit requirements.

**6.160**

**National Pollutant Discharge Elimination System (NPDES) Permit Report:** This SOW includes the preparation of a brief report summarizing the required NPDES monitoring data. The basic report will include a description of the work performed during the reporting period, the frequency of monitoring, and the analytical results of water samples. Mass balance calculations if necessary and discharge rates. Includes figures (site map and discharge location) and compiling the required Discharges Monitoring Reports (DMR). The SOW may vary depending on specific NPDES permit requirements (General versus Individual).

**6.170**

**Site Closure Report** *(For high and intermediate sites only):* This SOW includes the preparation of a report that documents the justification for a request for site closure not requested by the Department. The report is to summarize the past and present subsurface conditions, regulatory requirements and concerns, results of corrective actions taken to date and justifications for a request for closure. This task is not repeatable and will only be reimbursed upon approval from the Regional Office to close the site.

**6.171**

**Soil Cleanup and Closure Report** *(For low-risk sites only):* This SOW includes preparation of the report.

**6.173**

**Cost for a North Carolina Professional Surveyor for Deed Recordation/Restriction:** SOW includes cost of a licensed N.C. surveyor who generates an accurate site map, including all well head elevations, above- and below-ground site features, utilities, and necessary information as required by the Department for the development of a plot survey description as part of a deed recordation/restriction. Please submit Secondary form Sec-J if applicable. Price is per site.

**6.174**

**Deed Recordation / Notice of Residual Petroleum with Land Use Restrictions:** SOW includes preparation and filing of a deed recordation with the appropriate county register-of-deeds office for the purposes of UST incident closure. The instructions for preparing and filing a “Notice of Residual Petroleum” with land use restrictions may be obtained from the Division. Attorney's fees are not reimbursable. Price is once per site. This is not the Notice of Residual Petroleum required to be filed by property owners prior to a property transaction, which is not reimbursable.

**6.180**

**Variance Request:** This SOW includes the preparation of a Variance Request for site closure for submittal to the NC Environmental Management Commission (EMC). This report must document the justification that a variance be granted for the requirement to perform remediation and/or to close a site that has contaminant concentrations that remain above the groundwater standards. Reimbursement will not be granted until the EMC and Department approve the variance.

**6.190**

**Miscellaneous Letter Report:** SOW includes the preparation of a simple letter report, without historical tables or historical figures or graphs, that outlines the activities that have been pre-approved by the incident manager. This task is to be used in lieu of other reports if the level of work being requested does not justify the preparation of one of the above reports. This task is not applicable for cover letters, email forwards, or fax covers attached to reports or documents generated by other parties (such as forwarding the driller’s abandonment certifications generated under Task 3.399), for addenda or corrections for other incomplete or erroneous reports, or for routine correspondence. Price is per report.

##### Section 7 – Remedial Services

Design and Purchase Remedial System(s)

***Important Note:*** *This section relates to all phases of remediation, from data evaluation to system startup and operation. This section assumes that the RP or their designee has met with the UST Section and an agreed upon Corrective Action Plan (CAP) in which all available remedial technologies have been reviewed and the life-time cleanup costs, including system purchase or rental, have been presented, discussed, and approved.* ***All tasks in this section require pre-approval from the UST Section.******Any technology not listed in this document must have prior approval from the Innovative Technology Committee before a CAP is initiated.***

***Reimbursement for all remedial activities will be limited to the amount approved in the CAP. For example, if the approved CAP, as presented to the UST Section, indicates that a SVE system, running for three (3) years will bring the contamination within the model projections that will allow natural attenuation to the applicable clean-up standards within 10 years, and the total cost for the system purchase, installation, O&M, sampling, permitting, reporting, etc. for three years is $350,000, then that is the maximum amount that will be reimbursed for the active corrective action phase.***

*All RP’s or their designees and contractors must always compile site-specific design information and a subsequent bid specification when purchasing or leasing a remediation system. This data should be sent out to the required number of equipment vendors, who provide turnkey systems after approval from the incident manager and UST Section PE.*

*A common problem with not being able to provide bids is that the design is left solely up to the equipment vendor. Some vendors cannot spend the extra time to do the work of the RP or their designee and therefore will decline to bid. It is very important that the RP or their designee provide an adequate design and specification to the equipment vendors. If the RP or their designee is not capable of providing the system specifications, then they may not proceed with the work. The RP or their designee should also require design performance guarantees and a standard 12-month warranty on equipment, materials, and workmanship.*

**7.020**

**Cost for a Turnkey Pump & Treat System:** SOW includes payment for the Pump & Treat system. The RP or their designee must submit the bid specification work sheet, invitation to bid letters, all written bids from a minimum of three vendors (complete and submit Secondary Form Sec-J) and the invoice. Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. The UST Section will only pre-approve and reimburse the lowest qualified bid. Payment will not be authorized without certification that the system that is approved is installed as designed. When requesting reimbursement for the approved remedial system, the completed certification form must be included with the reimbursement claim.

**7.040**

**Cost for a Turnkey Soil Vapor Extraction System:** SOW includes payment for the SVE system. The RP or their designee must submit the bid specification work sheet, invitation to bid letters, all written bids from a minimum of three vendors (complete and submit Secondary Form Sec-J) and the invoice. Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. The UST Section will only pre-approve and reimburse the lowest qualified bid. Payment will not be authorized without certification that the system that is approved is installed as designed. When requesting reimbursement for the approved remedial system, the completed certification form must be included with the reimbursement claim.

**7.060**

**Cost for a Turnkey Air Sparge System:** SOW includes payment for the AS system. Along with the invoice, the RP or their designee must provide a copy of the bid specification work plan, invitation to bid letters, all written bids from a minimum of three vendors (complete and submit Secondary Form Sec-J) and the invoice. Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. The UST Section will only pre-approve and reimburse the lowest qualified bid. Payment will not be authorized without certification that the system that is approved is installed as designed. When requesting reimbursement for the approved remedial system, the completed certification form must be included with the reimbursement claim.

**7.065**

**Cost for Multiple Technology Remediation System:** SOW includes payment for combination remedial systems (e.g., air sparge and soil vapor extraction). This task should be used if multiple systems are bid together. Along with the invoice, the RP or their designee must provide a copy of the bid specification work plan, invitation to bid letters to all vendors, the written bids from those vendors (complete and submit Secondary Form Sec-J) and the invoice. Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. The UST Section will only pre-approve and reimburse the lowest qualified bid. Payment will not be authorized without certification that the system that is approved is installed as designed. When requesting reimbursement for the approved remedial system, the completed certification form must be included with the reimbursement claim.

Installation of Remediation System(s)

**7.081**

**Remedial System Installation Inspection/Certification:** SOW includes project management and field coordination. SOW also includes one person to oversee the installation performed by a subcontractor not to exceed 8-hours of field time per week except for the initial start date of the installation and the completion date of the installation. This is a Project Manager Level or Principal/Senior Level as the person certifying the system installation must be the person who designed and sealed the system and is conducting this work activity or their responsible charge as defined by the appropriate board. Price is per hour. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**7.100**

**Cost for Installing a Remediation System:** SOW includes submitting the final invoice from the subcontractor for installing all required system conduits including any required utilities. Along with the invoice, the RP or their designee must provide a copy of the bid specification work plan, invitation to bid letters to all subcontractors and written bids from those subcontractors (complete and submit Secondary Form Sec-J). Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. The UST Section will only reimburse the lowest qualified bid. Payment will not be authorized without certification that the system that is approved is installed as designed. When requesting reimbursement for the approved remedial system, the completed certification form must be included with the reimbursement claim.

Installation of Recovery Trench(es)

**7.121**

**Recovery Trench Installation Inspection/Certification:** SOW includes project management and field coordination. SOW also includes one person to oversee the installation performed by a subcontractor not to exceed 8-hours of field time per week except for the initial start date of the installation and the completion date of the installation. Price is per hour. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**7.140**

**Cost for Installing a Recovery Trench:** SOW includes submitting the final invoice from the subcontractor for installing a recovery trench(es). Along with the invoice, the RP or their designee must provide a copy of the bid specification work plan, invitation to bid letters to all subcontractors and written bids from those subcontractors (complete and submit Secondary Form Sec-J). Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. The UST Section will only reimburse the lowest qualified bid.

Installation of Infiltration Galleries

**7.161**

**Infiltration Gallery Installation Inspection/Certification:** SOW includes project management and field coordination. SOW also includes one person to oversee the installation performed by a subcontractor not to exceed 8-hours of field time per week except for the initial start date of the installation and the completion date of the installation. Price is per hour. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

**7.180**

**Cost for Installing an Infiltration Gallery:** SOW includes submitting the final invoice from the subcontractor for installing an infiltration gallery. Along with the invoice, the RP or their designee must provide a copy of the bid specification work plan, invitation to bid letters to all subcontractors and written bids from those subcontractors (complete and submit Secondary Form Sec-J). Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. The UST Section will only pre-approve and reimburse the lowest qualified bid. Any permit application cost is to be listed under the applicable permitting task in Section 8.

Remediation System Operation & Maintenance

**7.201**

**Cost for Remedial System Maintenance:** This SOW includes site visits as indicated in the CAP as being required (e.g. monthly) to provide such maintenance necessary to ensure that the remedial system is operating effectively. Inspect and document system performance. Tabulate gauge and meter readings, inspect for leaks, excessive equipment heat and noise, equipment wear. Perform repairs or scheduled repairs during the site visit. Check recovery well pumps and components, change out filters, hoses, compressor oil, pressure steam stripper, backwash system to remove fouling and iron buildup. Price includes all necessary equipment, and personnel to operate and maintain the equipment. The labor tasks cover all onsite activities including required sampling and including those by vendors when the RP or their designee is not capable of completing the repairs (e.g., electrician, blower manufacturer repairs post-warranty, etc.) and for all personnel. Landscaping (raking, weed eating, mowing, etc.), debris removal and pest removal are not reimbursable. The price does not include major repairs or extensive troubleshooting, which may be covered by the manufacturer’s warranty. This task does not include damage due to acts of negligence, vandalism, accidents, or acts of God/nature which are to be covered by the RP’s or equipment owner’s insurance. Only repair or replacement costs due to component aging or normal wear and tear are reimbursable under this task. Office coordination, scheduling, and telemetry time is included in the hourly price rate and therefore, only the actual time spent on-site is to be reimbursed. Please complete and submit Secondary Form Sec-I. Price is per hour but limited to the system maintenance requirements as outlined in the approved CAP for the site. This task may be used for additional maintenance needs outside of that indicated within the approved CAP if approved and documentation is provided to justify the maintenance request. Consultant mobilization may be claimed under Task Code 12.050. (*Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties)*.

Typical Operation & Maintenance times per month are listed below:

Air Sparging 3

Soil Vapor Extraction 3

Air Sparging and Soil Vapor Extraction 5

Pump and Treat 6

Free Product Recovery 2

Dual-Phase Vapor Extraction 6

***Important Note:*** *If numerous site visits are expected, the RP or their designee should explore the use of remote telemetry and make every effort to minimize operation and maintenance costs. Additionally, pre-approval of this task does not guarantee payment for the total hours requested in the pre-approval without justification of the time being requested. It is the responsibility of the RP or their designee to provide the necessary documentation to support the request for maintenance hours which is to be included in the Correction Action Performance Reports.*

**7.250**

**Cost for Remediation System Maintenance Supplies and Equipment:** SOW includes costs for regularly scheduled maintenance supplies and non-scheduled supplies, components, and equipment replacement. Please complete and submit Secondary Form Sec-I. Three written bids are required if the cost for any one item exceeds $5,000 and five (5) bids if the costs exceed $25,000. (complete and submit Secondary Form Sec-J). SOW includes submittal of invoice(s).

Typical reimbursable supplies include:

* Oil, belts, filters (compressor components)
* Faulty float switches, relays, electrical components
* Leaky plumbing
* Worn out motors (blower, transfer pumps, etc.)
* Replace pressure switches and gauges
* Bag filters or cartridge filters
* Replenish green sand filters

SOW requires inclusion (at least in the TA’s) of the maintenance breakdown from the CAP where it is required to show the cost effectiveness of the system. If system maintenance costs are significantly more than what was originally proposed in the original CAP cost analysis, then some changes in the system may need to be made to bring the maintenance back in line. This could be an earlier extension of any subsequent duration accountability requirement when the system has significantly outlived its CAP-proposed operational schedule without achieving cleanup.

**7.260**

**Cost for Utility/Operating Expenses for the Remediation System:** SOW includes monthly utility bills (must be pre-approved prior to month of service), including power, water, natural gas, and/or bottled gas usage, etc. Please complete and submit Secondary Form Sec-I. If monthly utility bills fluctuate significantly (e.g., the rate doubles), an explanation for the fluctuation in the Description of Service Box on Secondary Form Sec-I is required. Price is cost. After the first six months of operation these costs should be requested during the pre-approval stage as a running average, not estimations. Large deviations of utilities costs will be considered indirect evidence of system performance issues.

**7.261**

**Cost for GAC/AG (Carbon/Gravel) Unit Replacement:** SOW is for the replacement of granular activated carbon and GAC aggregate gravel units for in situ mechanical systems as can be analytically shown as being required according to the discharge permit and upon the contaminant loading of the unit(s). Replacement based upon time is not allowed. Please provide the invoice and complete Secondary Form 2F. Price is per pound.

**Important Note:** It is very important that a Pump & Treat system maintains a certain level of efficiency to prevent excessive carbon usage. In some cases, the RP or their designee should contract with a vendor to perform on-site regeneration or carbon change out to reduce the downtime of the system, if possible. Additionally, mechanisms to handle iron-fouling and carbonate ooze problems should be addressed in the design tasks prior to system purchase (phosphates, sequestering agents, high pressure backwash systems, etc.).

Soil Excavation and Disposal

***Important Note:*** *Please refer to the Most recent NC DEQ UST Guidance Documents for information about these tasks. Please also note this section does not cover UST removals (see Section 2). The STF will only reimburse the most cost-effective technology for remediating contaminated soil,* as defined by the 2T screening limits of 50 ppm TPH-GRO and 100 ppm TPH-DRO*.*

**7.291**

**Cost for Supervision of Excavated Soil for Corrective Action:** This SOW includes all labor, mobilization/travel, and necessary equipment to supervise and manage approved, reimbursable subcontracted Corrective Action excavation activities which include required soil sampling of excavated materials and stockpiling of soil, soil disposal, back-filling of the over-excavation pit, and fill compaction. The SOW will also include office support to assist with all certificates of disposal and manifests. SOW will also include required field screening equipment as well as field sampling equipment and supplies (hand auger, sample jars, cooler(s), ice, packing, etc.).

The maximum reimbursable cost for these efforts is determined in relation to a sliding scale based on the actual tonnage removed. As excavation footprints increase, the capacity of the excavation equipment should be adjusted as well, to accommodate the larger scale or work within a reasonable timeframe. Overall, excavation supervision costs (in $) may not exceed the product of the following calculation: 141 times the square root of the total tonnage documented under Task 7.300 [or, 141\*√(tonnage)]. The actual hourly rate billed may vary (within reason), depending on the skill level of staff tasked with completing the supervision, but the total reimbursed cost may not exceed the calculated maximum based on this equation.

Please complete and attach Primary Form P-7c.

**7.300**

**Cost for Excavation and Back-filling of Contaminated Soil (Corrective Action):** SOW includes reimbursement for the excavation, stockpiling and back-filling of soils. SOW requires that compaction of backfill be performed adequately and no follow-up visits will be approved.

**7.340**

**Cost for N.C. Professional Land Surveyor for Stockpile/Excavation Measurement:** The consultant will be required to submit not only the subcontractor invoice, but also the calculations performed by that surveyor. This task may also be used with Task 8.020. Please attach an invoice. Three (3) bids are required if the cost exceeds $2,000 and five (5) bids are required if the costs exceed $25,000. Price is cost. If the contaminated soil is weighed, no costs will be reimbursed for this task. Please submit Secondary form Sec-J if applicable.

**7.360**

**Cost for Transport and Disposal of Contaminated Soil (Corrective Action):** SOW includes reimbursement for loading, transporting, and disposal of contaminated soils to the closest permitted facility. This SOW also includes all necessary labor, equipment, and materials to properly dispose or treat contaminated soil generated during remedial activities. If the materials are not treated onsite, then an invoice from the disposal facility must be submitted for reimbursement. Treatment onsite must not exceed the cost of disposal at a licensed disposal facility. The consultant must also submit disposal manifests (documenting tonnage) and weight tickets, or a professional surveyors signed and sealed volume calculations. Tonnage disposed is not to exceed tonnage removed (Task 7.300). Must include the stockpile analytical results with the disposal manifest. Price is per ton (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties if roundtrip distances to the closest permitted facility exceed 250 miles roundtrip).

**Important Note:** If the most cost-effective method of treating or disposing of contaminated soil is to treat on-site and the soil cannot be weighed, a North Carolina registered professional surveyor must be used to measure the stockpiled soil or the excavation for an exact volume and that same surveyor must perform and seal the calculations. The total volume (cubic yards) should be converted to tons by multiplying by 1.5 if excavation was surveyed or 1.25 if stockpile was surveyed.

**Important Note:** If contaminated soil is loaded and hauled off-site, it must be weighed!

Remedial Equipment Lease

**7.390**

**Lease Charges for a Thermal or Catalytic Oxidizer:** SOW includes submitting invoices from the vendor with the lowest qualified bid documented in Task 7.400. SOW shall include documenting all costs in the Secondary Form Sec-J. SOW excludes monthly power bills, propane usage, site visits and sampling. This task will only be reimbursable where necessary as a reasonably unforeseen additional requirement for effective operation of an approved CAP remediation system. Please attach an invoice. Price is cost.

***Important Note:*** *The UST Section will only reimburse lease charges up to the purchase price of the equipment. The RP or their designee must be able to reasonably predict if a lease is the most cost-effective approach. The STF will track all lease charges for the above-referenced equipment and will immediately discontinue reimbursement once the purchase price is met. If a lease is expected to come within 15% of the purchase price, it is in the best interest of the RP or their designee to purchase the system and apply for reimbursement. If the system is purchased, the equipment will become the property of the State and will remain at the site until it is no longer needed or if closure is accomplished. Once closure is met, or if carbon polishing is more economical, the RP or their designee must notify the STF for equipment relocation purposes.*

**7.400**

**Purchase of a Thermal or Catalytic Oxidizer:** SOW includes final invoice for purchase of a thermal or catalytic oxidizer. RP or their designee must include a copy of the bid specification work plan, invitation to bid letters to all vendors and written bids from those vendors (complete and submit Secondary Form Sec-J). As with Task 7.390 above, this task will only be reimbursable where necessary as a reasonably unforeseen additional requirement for effective operation of an approved CAP remediation system. Three written bids are required if the cost exceeds $5,000 and five (5) bids if the costs exceed $25,000. Price is cost.

**7.410**

**Lease Charges for Remediation System:** Use of this task requires specific pre-approval from the UST Section. SOW includes submitting invoices from the vendor. Please see the secondary form for reimbursable costs for allowable remedial technologies. SOW shall include documenting all costs in the Secondary Form Sec-J. Price is cost.

***Important Note:*** *The UST Section will only reimburse lease charges up to the purchase price of the equipment. Three bids will be required to establish the purchase price of the system. The RP or their designee must be able to reasonably predict if a lease is the most cost-effective approach. The UST Section will track all lease charges for the above-referenced equipment and will immediately discontinue reimbursement once the purchase price is met. If a lease is expected to come within 15% of the purchase price, it is in the best interest of the RP or their designee to purchase the system and apply for reimbursement.*

**7.420**

**Costs for a Mobile Multi-Phase Extraction (MMPE) Event:** The SOW includes all costs associated with leasing/operating a full MMPE system including power supply, blower and mobilization of both equipment and personnel. Allowable rates can be found on Secondary Form Sec-D. The RP or their designee must show that the use of this system is more cost efficient than a traditional fixed in place system over the projected cost of the cleanup if being used as the corrective action for the release. Use of POTW or NPDES permits is required where discharge points are available and water recovery rates are excessive, >15,000 gallons per month or limited permits are more cost effective than hauling of fluids to a disposal facility. If less than 5,000-gallons of fluids are expected, then no tanker pump out or change out is necessary. If more than 5,000-gallons of fluids are expected then either tanker change out or tanker pump out, whichever is less, may be reimbursed. Vapor, pressure, and fluid recovery readings will be recorded every hour during manned operation. One grab sample is to be collected from each monitoring well being utilized in an MMPE event during each tanker change. Report must show stabilization of the wells and a calculation of total mass removed as both liquid and vapor. (after stabilization of the wells, at least four representative readings no less than two hours apart per day are required and one air emissions sample per day will be collected). An equipment hourly rate will be paid based upon documentation of system performance not to exceed the length of the event. After the first event, technical justification for additional events SHALL be required based upon performance. The MMPE event should be run at least 96 continuous hours unless data shows it to be ineffective (less than an expected minimum 2,000 gallons of total fluids and/or less than an expected 20 gallons as equivalent vapors) and then it is to be terminated immediately. Complete Secondary Form Sec-D Table C.

Relocation of Remedial Systems

**7.500**

**Relocation of a Remediation System:** To help control costs at UST Section reimbursable sites, the UST Section encourages the reuse of remedial systems at sites where active remediation has ceased. Responsible parties are required to allow the reuse of Trust Fund reimbursed remedial systems at other UST Section eligible sites, at no cost to the UST Section. If a system is relocated, the RP will not be responsible for ineligible costs for the replacement of the system should one be needed again for the same incident. If a system is being de-activated because the site has received a Notice of No Further Action letter from the UST Section, then the RP/system owner is required to notify the Trust Fund of the availability of the system. An RP or their designee who has knowledge of such a system and wishes to look at the system may be pre-approved for up to a one-day system inspection visit. Once written approval from the system owner is obtained for the relocation of the system, the UST Section will reimburse for the transportation, installation and needed maintenance of the system at the new site. This includes costs identified during the inspection that will be needed to bring the system into operation at the new site, but it will not cover any repairs to damage caused during the removal, transportation, or installation of the system at the new site. This task is meant for complete systems and replaces the application of the other system manufacture Tasks 7.020 to 7.065 above. Based on the estimated relocation costs, bidding may be required as described in 1.061. Attach Secondary Form Sec-J to document all bid costs. Reimbursement will not be given if the costs associated with relocating a system exceed the estimated costs of purchase and delivery of a new system.

**Section 8 - Permits**

Soil Disposal/Treatment Permits

*Important Note: The following three permits are only reimbursable if it can be clearly shown that onsite disposal and the cost of these permits is a more cost-effective alternative to disposal of the soil at a permitted soil disposal facility.*

**8.010**

**Certificate of Disposal (Form UST-71):** SOW includes preparation and submittal of a Certificate of Disposal UST-71 Form. This is a field technician level activity not to exceed one hour.

**8.020**

**Permit for Land Application (UST-70):** SOW includes preparation and submittal of a Permit for Land Application (Form UST-70). This task will also include an erosion control plan (if required) and the inspection of the proposed site by an NC Certified Soil Scientist. For surveying requirements, please use task codes 7.330 and 7.340. For reimbursement of the UST Section assessed permit fee, use Task 8.100, and include a copy of the permit and cancelled check showing payment. Commercial land farms or disposal facilities are not eligible for reimbursement of this task code or permit fee.

**8.030**

**Agreement for Land Application (UST-72):** SOW includes preparation and submittal of an Agreement for Land Application (Form UST-72). This is a field technician level activity not to exceed one hour.

Remedial Permits

*Important Note: When submitting reimbursement for the following permits, you must include the fee schedule from the appropriate State agency along with the invoice to receive reimbursement. Only approved permits will be reimbursed.*

*Important Note: When maintaining a permit for an approved remedial system that has been deactivated by the UST Section, it is the responsibility of the RP or their designee to ensure that maintenance of such a permit is necessary and if so, maintained. If site conditions change such that the permit is no longer necessary, maintenance of the permit will not be reimbursed. If any State agency requires removal of UST Section authorized wells or equipment, it is the responsibility of the RP or their designee to notify the UST Section PRIOR to any removal. Wells or remedial equipment may only be removed from UST Section managed sites by approval of the UST Section or Department.*

**8.040**

**Air Quality Permit (for remediation systems; only where required):** SOW includes preparation and submittal of the required permit application for nonattainment areas (includes modeling and design where applicable).

**8.041**

**Air Quality Registration (for remediation systems):** SOW includes preparation and submittal of a letter registering the remediation system in attainment areas.

**8.050**

**Injection Well Permit:** SOW includes preparation and submittal of a complete injection well permit application. Includes all necessary figures and design calculations.

**8.055**

**Injection Well Permit by Rule, Notice of Intent:** SOW includes preparation and submittal of a shortened injection well permit by rule application. Includes all necessary figures and design calculations as well as injection frequency. Not allowed more than once per year per site.

**8.060**

**Non-Discharge Permit:** SOW includes preparation and submittal of a complete non-discharge permit. SOW will include a soil scientist performing an amoozemeter test or a double ring infiltrometer test to establish hydraulic load rating parameters. SOW includes injection design and system layout and design (includes detailed drawings and system schematic).

**8.070**

**NPDES Individual Permit:** SOW includes preparation and submittal of a complete NPDES Individual Permit Application (water quality). SOW includes modeling and design and system layout, proposed equipment types, proposed influent and effluent concentrations, etc. (sampling for design is not included in SOW).

**8.080**

**NPDES General Permit:** SOW includes preparation and submittal of a complete NPDES General Permit Application (water quality). SOW includes design and system layout, proposed equipment types, proposed influent and effluent concentrations, etc. (sampling for design is not included in SOW).

**8.090**

**POTW Discharge Permit:** SOW shall include preparation and submittal of a POTW Discharge Permit (where applicable). SOW shall also include modeling and design (sampling for design is not included in SOW). This is for the permit application only, not for renewal.

**8.091**

**CAMA Minor Development Permit:**  SOW includes preparation and submittal of a complete CAMA Permit Application (where applicable). SOW includes all necessary information to complete the application.

**8.092**

**CAMA Major Development Permit:** SOW includes preparation and submittal of a complete CAMA Permit Application (where applicable). SOW includes all necessary information to complete the application.

**8.100**

**Cost for Permit Fees (except monitoring well permits):** SOW includes payment to RP or their designee for fees associated with all required permits listed above as well as the renewals of these permits. A copy of the invoice from the agency requesting payment and any subsequent correspondence stating that the payment was received, and the permit has been approved is required for reimbursement. Price is cost.

**8.105**

**Cost for Monitoring Well Permit Fees (As Required):** SOW includes payment to RP or their designee for fees associated with all required well construction permits. A copy of the invoice from the agency requesting payment and any subsequent correspondence stating that the payment was received, and the permit has been approved is required for reimbursement. Price is cost for the initial well construction and not annual permitting fees.

**8.110**

**Cost for Performing a Variance to any Permit:** SOW includes preparation and submittal of a variance to an already existing permit. Reason for variance may include a request for alternative analytical methods or an alternative sampling frequency. Regardless of the reason, please use this task for all permits.

##### Section 9 – Disposal Services

**9.020**

**Cost for Disposal of LNAPL and Contaminated Groundwater:** SOW includes submitting the final invoice from the vendor for the disposal of LNAPL or contaminated groundwater exceeding the State 2L standards collected as a result of skimming/product recovery, aquifer testing, and well development. This task may not be used for activities conducted as part of the Site Check, Limited Site Assessment phases, or de-watering excavation pits for the installation of new UST systems. Along with the invoice, the RP or their designee must submit a copy of the analytical results showing that the groundwater is contaminated above the State’s 2L standards, three written bids if cost exceeds $5,000 and five (5) bids if the costs exceed $25,000 and disposal manifests (complete and submit Secondary Form Sec-J if bidding is necessary). The UST Section will only reimburse the lowest qualified bid. Price is at cost per gallon.

**9.040**

**Cost for Disposal** **of Sorbents (booms, well socks, etc.):** SOW includes submitting the final invoice from the disposal contractor for the disposal of sorbents as a result of recovering LNAPL from surface waters as well as disposal of LNAPL recovery well socks. Along with the invoice, the RP or their designee must submit bidding documentation as described in Task 1.061 above, where applicable (complete and submit Secondary Form Sec-J if bidding is necessary). Price is cost per drum.

**9.060**

**Cost for Disposal of Drummed Soil/Drill Cuttings (From Drilling):** SOW includes submitting the final invoice from the vendor for the disposal of drummed soil cuttings generated by drilling activities. This task may not be used for activities conducted as part of the Site Check or Limited Site Assessment phases. Along with the invoice, the consultant must submit bidding documentation as described in Task 1.061 above (complete and submit Secondary Form Sec-J if bidding is necessary). Price is at cost per drum.

***Important Note: The use of drums for soil requires pre-approval from the* Section***. Drill cuttings should be spread onsite wherever feasible. Otherwise, soils being held for transportation offsite should be stockpiled on plastic until final disposal. If a large amount of soil is expected, other disposal options such as roll-offs shall be used if more cost-effective.*

**Section 10 – Site Repair**

***Important Note:*** *Listed below are provisions for site restoration. These costs are only reimbursable for items which are planned such as an approved corrective action (excavation of soils, installation of trenches, infiltration galleries, etc.) where the costs for repair activities should be included in the activity proposals themselves. This will also not cover any accidental damage (i.e. rupturing of water lines, telephone and fiber optic lines, cable lines, power lines, on-site underground utilities, etc.). It is the responsibility of the RP or their designee to ensure proper utility clearance prior to performing field activities. This section may also not be used for repair necessitated by UST closure or Site Check activities.*

**10.010**

**Structure Repair/Stabilization:** Structures that are repaired must be of same like and kind as original. Structures do not include appliances (i.e. air conditioning units, heating units, aboveground tanks, etc.) or components of the UST system. **This task requires pre-approval from UST Section for reimbursement.** This task will only be considered if it facilitates the most cost-effective remedial action. Along with the invoice, the RP or their designee must provide bidding documentation as described in Task 1.061 above (complete and submit Secondary Form Sec-J if bidding is necessary). If the subject structure is not owned by the RP, then the cost will be applied toward the third-party deductible.

**10.030**

**Cost for Replacing/Relocating Impacted Utilities:** Utilities must be replaced in the exact way they were removed unless relocation or alternative suitable materials that results in less expense to the Trust Fund can be used. SOW includes submitting the final invoice from the subcontractor. Along with the invoice, the RP or their designee must provide bidding documentation as described in Task 1.061 above (complete and submit Secondary Form Sec-J if bidding is necessary). If the utilities are not the responsibility of the RP, then the cost will be applied to the third-party deductible unless considered to be a remedial end point resulting in risk reduction. Public utilities only.

**10.070**

**Cost for Repairing Asphalt and/or Concrete:** SOW includes submitting the final invoice from the subcontractor and it is limited to only those areas required to be impacted by the assessment and/or remedial activities approved by the UST Section. Damages to asphalt or concrete caused by the RP or their designee or their sub-contractors to areas not related to the assessment or remedial areas (even if the damage was caused while conducting the required assessment and/or remedial activities) will not be reimbursed. **Photographs of the impacted areas before and after the required assessment and/or remedial activities are required to be submitted along with the invoice.** The RP or their designee shall ensure that the asphalt work reimbursed under this task is limited to only those areas that were impacted by the remedial activities. Along with the invoice, the RP or their designee must provide bidding documentation as described in Task 1.061 above (complete and submit Secondary Form Sec-J if bidding is necessary).

##### Section 11 – Alternate Water

***Important Note:*** *Connecting a well user or users to public water systems may be considered a cleanup cost if the UST Section determines that connection of the users and abandonment of appropriate supply and/or irrigation wells is a cost-effective means to lower the risk classification of the site (Reduction of risk from High to Intermediate or Low, not reduction of the Risk, Rank and Abatement Score). If the risk cannot be lowered, connecting a well user to municipal water is considered a third-party cost and will only be reimbursed for sites where the well has been contaminated and the third-party deductible of $100,000 has been met.* ***All Section 11 costs require pre-approval from the UST Section.***

**11.020**

**Agreements to Connect Water Supply Well Users to Public Water:** This SOW consists of contacting water supply well users and providing them with an agreement to connect them to a public water system. Task 1.050 may not be used for this task. SOW includes negotiating and meeting with the water supply well user concerning the connection. Please keep in mind that once the water line connection is made, all contaminated water supply wells must be properly abandoned, and the UST Section will not reimburse monthly water bills. Unsuccessful agreements may be reimbursed as long as the RP or their designee can provide sufficient documentation (certified mail, statements from the property owner, etc.) that three attempts were made to contact the individual and all return correspondence from the property owner have been received. Price is per agreement.

**11.030**

**Prepare Work Plan and Coordination with Municipality for Connecting Well Users:** This SOW includes coordinating waterline connection with the municipality or water authority.

**11.040**

**Coordination and Verification of Water Line Connection:** This SOW includes coordinating and managing the subcontractor performing the specified connection of water supply well user(s). SOW also includes the verification of work once completed. Price is per connection. Consultant mobilization may be claimed under Task Code 12.050 (Please see the note at the beginning of Section 12 concerning additional mileage allowance for outlying counties).

**11.050**

**Cost for Water Line Connections:** This SOW includes submitting the final invoice from the subcontractor conducting the work. This work is limited to only pay for water supply replacement, and not for property upgrades or running expanded services to accommodate future development (such as large diameter lines, hydrants, sewer, etc.) that directly results in the lowering of the *Risk, Rank and Abatement Value*, not the numerical ranking within a category. If multiple houses are to be connected, the bid is to include the connection of all the houses, not one house at a time. Along with the invoice, the RP or their designee must provide bidding documentation as described in Task 1.061 above. Price is cost and is to be presented as a price per foot or price per residence.

**11.060**

**Cost for Water Line Fees Charged by Municipalities:** This SOW includes all costs charged by the water granting authority except for capacity/use and pre-pay deposits. An invoice from the water granting authority is required.

**11.080**

**Bottled, Bulk Water, or Point of Entry Treatment for Wells:** This SOW includes all costs for procuring, installing, and maintaining bottled water service, bulk water service, or point of entry carbon treatment systems installed on water supply wells. Onsite wells owned and maintained by the RP are not eligible for reimbursement. Off-site wells that are impacted for which this task is necessary, costs are applied toward the 3rd party deductible until satisfied and then reimbursed. Along with the invoice, the RP or their designee must provide bidding documentation as described in Task 1.061 above. Price is cost and is to be itemized per residence.

**Section 12 – Travel Time & Lodging**

***Important Note:*** *Travel/Mobilization costs under Task Code 12.010 will not be approved for any task code in which travel/mobilization is already included. Task 12.050 is allowed unless the exception below is met. Maximum miles roundtrip available for reimbursement is* ***250 miles****. For most areas of the state, an ESP capable of performing UST work can be obtained within a 125-mile radius. The RP may use a contractor located beyond this distance at their own expense. Exceptions to this 250-mile limit may be allowed for work performed in the following counties: Alleghany, Ashe, Camden, Cherokee, Clay, Currituck, Dare, Gates, Graham, Hyde, Macon, Pasquotank, Perquimans, Swain, Tyrrell, and Watauga due to the extremely rural nature and limited road systems within these areas as long as the 125-mile radius is not expended BEFORE arrival in the incident county. The 250-mile limit would apply to work performed in all other counties of the State. When visiting multiple sites during a trip, the RP or their designee must evenly divide lodging and per diem costs among the sites visited. Mobilization in lieu of per diem is allowed if it can be shown to be more cost effective and is limited to the lodging rate only. Out of state companies may only claim mobilization from the closest entry point to the site on the NC state line if mobilizing from an out of state location with no in state office.*

**12.010**

**Required RP or their designee Travel:** This SOW is only allowed in conjunction with Task 12.050 for the counties listed above. Mobilization is based on the distance to the site from the consultant’s nearest office. Including out-of-state offices. Complete Primary Form P-12.

**12.015**

Temporary Fuel Increase:  This is a time limited increase in the allowable mileage rate in Task 12.010 for an additional $0.25 per mile.  The Department has determined that such an adjustment is necessary to account for the impact of the changed economic conditions on workers and supply chains.  The Department will reevaluate this task and either continue it or deactivate it as needed.

**12.030**

**Overnight Lodging Per Diem:** Price includes overnight lodging and per diem for one person (any level). Per diems are only reimbursable for overnight stays (12 hours or more of field and travel not to exceed 25% of the total time except for the exempted counties listed above), and are not reimbursable for staying the night before starting or night after completing the eligible activities (except where done as part of a milk-run with other eligible sites, with the per diem and travel costs divided evenly between them and all sites listed in the milk-run on each affected claim submitted). **Attach lodging invoices to the claim**. Price is per night not to exceed the NC general federal non-specified rate plus meals and incidentals in effect at the time the task was conducted. In the case of any event in which the RP or their designee does not wish to stay overnight but utilize the lodging portion of the task code for mileage, the mileage is capped at the current lodging rate cost (per diem rates are updated October 1st of every year). To be eligible for the per diem, an overnight stay is required. For activities which meet the overnight conditions stated above, if the total overnight cost exceeds the cost of mobilization to the site, the lessor of the two will be allowed. Activities that include the cost of mobilization will be reduced by the cost of Task Code 12.050 if conducted con-currently with other tasks in which mobilization was billed or following an overnight stay.

*Important Note: Overnight lodging is only reimbursable where pre-approved by the UST Section.*

**12.050**

**Required RP or their designee Mobilization:** Price includes the use of one completely equipped vehicle and all personnel necessary to conduct the work. This task may not be stacked and may only be claimed once per incident per approved scope of work. For example, if the approved site activity is monitoring well, water supply well, and surface water sampling, only one mobilization may be claimed. If site activities include a task in which mobilization is included such as LSAs or drilling, then this task may not be claimed. Unjustified, consecutive site activities resulting in multiple mobilizations will not be allowed or approved unless it is shown to be the more cost-effective option.

**12.055**

Temporary Fuel Increase:  This is a time limited increase in the allowable mileage rate in Task 12.050 for an additional $50.00 per mobe.  The Department has determined that such an adjustment is necessary to account for the impact of the changed economic conditions on workers and supply chains.  The Department will reevaluate this task and either continue it or deactivate it as needed.