

CONTRACT SPECIFICATIONS

SCOPE OF WORK

The Department of Environmental Protection, Bureau of Abandoned Mine Reclamation, requires a Contractor to conduct subsurface drilling investigations, on an as-needed basis, within the Bituminous Coal Region originating from the Cambria Office, Investigation Section. The Contractor shall furnish all labor, technical assistance, equipment, tools and material necessary to perform the Contract tasks.

The work to be performed under this Contract will require carrying on a drilling program at a series of sites, each site being called a Work Site. A Work Site is defined as an area to be subjected to subsurface investigations of continuous sampling of coal refuse piles by utilizing boreholes. Work Sites may also include extremely steep and rough rural or unreclaimed mining areas and often heavily vegetated terrain. Acceptable sampling methods is limited to a Central Mine Equipment (CME) Sampler 4.25" or 3x5/4x6 Sonic Continuous Sampling. The use of an all-terrain tracked vehicle (ATV) or track mounted drilling rig is required on Work Sites.

The Contractor will receive work orders for a specific Work Site via e-mail in pdf format. These work orders will define the Work Site location, Work Site plan on which will be plotted the number and approximate borehole locations, a list of landowners, any special directives or instructions and general information related to cultural setting or public utilities. The Contractor will be required to be on the Work Site until work is completed.

The Contractor shall be required to furnish no more than one (1) drilling rig at one time unless more rigs are mutually agreed upon. When requested by the Department's Representative, the Contractor shall provide a completely mobilized drilling rig on a Work Site within fourteen (14) days of being notified to proceed.

The Contractor will have to move the drilling rig to the Work Site together with all necessary supporting equipment. The work at a site will include drilling bore holes and obtaining continuous samples of unconsolidated material above and two feet (2') into the approximate original contour (AOC) to determine subsurface conditions. A skid steer or similar equipment can be utilized to assist with moving equipment and supplies and site restoration.

The work at a site may also include advancing casing through unconsolidated materials and/or fill and/or mine spoil. The completion of the work at each Work Site will require removal of all equipment, backfilling of boreholes and the restoration of the surface to a condition equal to or better than that existing pre-drill elevations of the project work.

Due to the nature of the work, it might be necessary to slightly modify the tasks for a Work Site while the work is being conducted. Such modifications could include: 1) relocation of boreholes, 2) deletion of some boreholes, 3) addition of boreholes in the vicinity of the Work Site and/or 4) variation of the depth of the boreholes proposed for a Work Site.

The Contractor agrees to furnish all necessary labor, material and equipment and to perform all the work and labor required herein in an expeditious, substantial and skillful manner.

The Contractor shall have ninety (90) days to complete this work. The Contractor shall coordinate with the Department to begin work within thirty (30) days of Contract award.

Any questions regarding the Specifications should be directed to Scot May at 814.472.1712. Any questions concerning the contracting or bidding process should be directed to Carol Layo at 814.472.1811.

SPECIFICATION NO 1: WORK SITE MOBILIZATION AND DEMOBILIZATION

1.1 SCOPE

The work covered by this Specification consists of the delivery to the Work Site of all equipment, material and supplies, acquisition of any permits, removal from the site of all equipment after the completion of work, delivery of records, clean-up of the site and final inspection by the Department's Representative.

1.2 PROCEDURE

Mobilization shall consist of the delivery to the Work Site of all equipment, material and supplies to be furnished by the Contractor, the complete assembly in satisfactory working order of all such equipment on the job, and the satisfactory storage at the site of all such material and supplies. Moving between boreholes and set-ups at borehole locations included under the Contract shall be incidental to the other appropriate Contract Items and no separate payment will be made.

Demobilization shall consist of the removal of all equipment from the project site, the clean-up and the restoration of any damaged areas to as good or better condition than that which existed prior to the commencement of work. This work will include reseeding of areas designated by the Department's Representative.

All equipment and methods to be used by the Contractor shall be subject to approval by the Department's Representative. However, approval of the equipment shall not be construed as approval of the performance thereof. The Contractor shall furnish any additional or "special" equipment necessary for them to obtain the desired end results.

The Contractor, at their expense, shall obtain all permits, of whatever nature, necessary for the completion of this work, and the Contractor shall comply with all existing laws, ordinances, rules and regulations relating to their operations. Consent for Entry from property owners will be obtained by the Department or its designated representative.

Every effort shall be made to minimize damage incidental to site access and the drilling operations. Maximum use will be made of existing roads and lanes for access. Where it is

necessary to deviate from roads and lanes, such deviation shall be by one track at a location causing the least damage.

The Contractor shall be liable to the property owners for any damage to vegetation, crops and/or property, irrespective of whether the damage was caused by their negligence or was an unavoidable consequence of drilling operations. The Contractor shall be liable for any and all damage, including damages for necessary access. The Contractor shall be required to consult with property owners as to when they intend to move equipment to the drilling locations, unless said locations are on streets. In the event that boring locations are on the streets, traffic will be maintained at all times.

1.3 DELIVERY OF RECORDS

The Contractor shall be responsible for furnishing the following records for each Work Site within the following time constraints:

- A. One (1) pencil copy of each boring log, not later than forty-eight (48) hours after the completion of each borehole.
- B. One (1) typed copy and one (1) electronic copy (PDF or similar format) of each borehole log, not later than fourteen (14) days after completion of all of the boreholes. Each log shall provide pertinent information such as, but not limited to:
 - 1. Borehole number.
 - 2. Borehole completion date.
 - 3. Elevation of surface.
 - 4. Beginning and end of each sample run and percent recovery.
 - 5. Refuse/spoil types and conditions, reaming depth, void depths and thicknesses.
 - 6. Water elevations.
- C. Copies of any other records kept by the Contractor, which in the opinion of the Department's Representative will aid in the interpretation of the core borings, at any time requested during the Contract.

No additional payment will be made for delivery of records, since delivery is included in Contract Item, "Work Site Mobilization and Demobilization."

1.4 MEASUREMENT AND PAYMENT

Measurement for "Mobilization and Demobilization," when accepted and approved, will be made based on a complete unit, Work Site, but only to the extent directed by the Department's Representative.

Payment will be made at the Contract unit price bid per Work Site for Contract item, "Work Site Mobilization and Demobilization," which price and payment shall constitute

full compensation for furnishing all labor, material, equipment, supplies and all necessary incidentals required to satisfactorily complete this item of work.

Mobilization will be paid in the amount of forty percent (40%) of the unit price bid following complete mobilization at the Work Site.

Demobilization will be paid in the amount of sixty percent (60%) of the unit price bid following complete demobilization from the Work Site.

SPECIFICATION NO. 2: MOBILIZATION AND DEMOBILIZATION - SKID STEER

2.1 SCOPE

To assist with the movement of the drill, movement of equipment and supplies and site restoration, a skid steer or similar equipment can be utilized. The work covered by this section consists of the delivery to the Work Site of all equipment, material and supplies, removal from the site of all equipment after the completion of work, clean-up of the site and final inspection by the Department's Representative.

2.2 PROCEDURE

Mobilization shall consist of the delivery to the Work Site of all equipment, material and supplies to be furnished by the Contractor to operate the skid steer. The complete assembly should be in satisfactory working order of all such equipment on the job and the satisfactory storage at the site of all such material and supplies.

Demobilization shall consist of the removal of all equipment from the project site, the cleanup and the restoration of any damaged areas to as good or better condition than that which existed prior to the commencement of work. This work will include reseeding of areas designated by the Department's Representative.

All equipment and methods to be used by the Contractor shall be subject to approval by the Department's Representative. However, approval of the equipment shall not be construed as approval of the performance thereof. The Contractor shall furnish any additional or "special" equipment necessary for them to obtain the desired end results.

The Contractor, at their expense, shall obtain all permits, of whatever nature, necessary for the completion of this work, and the Contractor shall comply with all existing laws, ordinances, rules and regulations. Easements from property owners will be obtained by the Department or its designated representative.

Every effort shall be made to minimize damage incidental to site access and the drilling operations.

The Contractor shall be liable to the property owners for any damage to vegetation and/or property, irrespective of whether the damage was caused by their negligence or was an

unavoidable consequence of drilling operations. The Contractor shall be liable for any and all damage, including damages for necessary access.

2.3 MEASUREMENT AND PAYMENT

Measurement for “Mobilization and Demobilization – Skid Steer” when accepted and approved, will be made on the basis of a complete unit, Work Site, but only to the extent directed by the Department’s Representative.

Payment will be made at the Contract unit price bid per Work Site for Contract item, “Mobilization and Demobilization - Skid Steer,” which price and payment shall constitute full compensation for furnishing all labor, material, equipment, supplies and all necessary incidentals required to satisfactorily complete these items of work.

Mobilization will be paid in the amount of forty percent (40%) of the unit price bid following complete mobilization to the Work Site.

Demobilization will be paid in the amount of sixty percent (60%) of the unit price bid following complete demobilization from the Work Site.

SPECIFICATION NO. 3: OPERATION OF SKID STEER

3.1 SCOPE

The work covered by this section consists of the operation of the skid steer to assist in the movement of equipment, material and supplies, assist in site restoration and other necessary functions.

3.2 PROCEDURE

The operation of the skid steer shall consist of utilizing the machine for assisting in the movement of equipment, materials and supplies, assisting in site restoration and other necessary functions. Maintenance of the machine and extended idle time will not be included in the hourly rate.

3.3 MEASUREMENT AND PAYMENT

Measurement for “Operation of Skid Steer,” when accepted and approved, will be made on the basis of a complete unit but only to the extent directed by the Department’s Representative.

This item, “Operation of Skid Steer,” will be paid for at the Contract unit price bid per hour, which price and payment shall constitute full compensation for furnishing all labor, material, equipment, supplies and all necessary incidentals required to satisfactorily complete these items of work. Payment shall be made on a per hour basis for time the skid steer was in operation.

SPECIFICATION NO. 4: CONTINOUS SAMPLE DRILLING

4.1 SCOPE

The work covered by this section consists of furnishing all labor, material, equipment, supplies and all necessary incidentals required to drill continuous sampling borings through the coal refuse into AOC and backfilled restoration to pre-drilled elevations. This work shall be conducted for the evaluation of the coal refuse material borings.

4.2 TEST BORING LOCATIONS

All test boring sites will be exactly located in the field by the Department's Representative, and the Commonwealth will furnish the surface elevations of each borehole. It is the Contractor's responsibility to ascertain exact locations of utilities from the appropriate utility company and to verify all measurements in order to ensure that all borings are made at locations which will not interfere with or harm existing surface or subsurface utilities. The Contractor shall notify the Department's Representative when a conflict occurs. The Contractor shall bear sole responsibility for any damage to existing utilities resulting from their operations.

4.3 PROCEDURE

The Contractor shall make borings into coal refuse and material other than rock for the purpose of penetrating to AOC, or for ascertaining the depth and thickness of refuse material. Sampling of the refuse material shall be done continuously in five-foot (5') intervals to completion of the boring at the direction of the Department's Representative.

4.4 MEASUREMENT AND PAYMENT

The item, "Continuous Sample Drilling," when accepted and approved, will be measured based on the linear feet (L.F.) of borehole actually drilled in the refuse, but only to the extent directed by the Department's Representative.

This item, "Continuous Sample Drilling," will be paid for at the Contract unit price bid per linear foot (L.F.), which price and payment shall constitute full compensation for furnishing all labor, material, equipment, supplies and all necessary incidentals required to satisfactorily complete this item of work.

SPECIFICATION NO. 5: RESTORATION OF SITE

5.1 SCOPE

The work included in this Specification is considered discretionary and must be directed, approved and accepted by the Department's Representative. The allocation of work for restoration of boreholes should be documented during a pre-drilling conference and are

subject to inspection and approval by the Department's Representative before demobilization. The work covered under this Specification consists of providing all labor, material, equipment and other incidentals necessary to restore the area surrounding each borehole and the access route to each borehole to a condition equal to or better than that which existed prior to the start of work. Clean-up and restoration of a Work Site is considered incidental to and included in Contract Item, "Work Site Mobilization and Demobilization."

5.2 PROCEDURE

Restoration includes, but is not limited to, repairing or replacing any roads, parking areas or vegetated areas and other improvements to the property which may have been damaged or removed as a result of the work, but only to the extent directed, approved and accepted by the Department's Representative.

5.3 MEASUREMENT AND PAYMENT

Measurement, when accepted and approved for "Restoration of Site" at the specified locations, will be made on the basis of each borehole restored, but only to the extent directed, approved and accepted by the Department's Representative.

Payment will be made at the Contract unit price bid per borehole for Contract item, "Restoration of Site," which price and payment shall constitute full compensation for furnishing all labor, material, equipment, supplies and all necessary incidentals required to satisfactorily complete this item of work. No payment will be made for restoration of boreholes that have not been directed, approved and accepted by the Department's Representative since clean-up and restoration is considered incidental to and included in Contract Item, "Work Site Mobilization and Demobilization."

SPECIFICATION NO. 6: STAND-BY TIME

6.1 SCOPE

The work item covered by this Specification is intended to address any delays in drilling in which a drill rig and crew is ordered by the Department's Representative to stand idle.

6.2 PROCEDURE

When the Contractor is ordered by the Department's Representative to stand idle on the job site delaying the drilling of any borings, the Contractor will be reimbursed for any such delays providing the delays are the sole responsibility of the Department's Representative and the delays are in excess of one-half (1/2) hour in duration.

Stand-by time shall not be used for payment to the Contractor for delays caused by equipment breakdown and malfunctions or for delays caused by non-availability of necessary equipment and supplies. Such delays shall be considered the sole responsibility

of the Contractor and shall be incidental to other items of work, and no additional compensation will be allowed. No payment for stand-by time will be made for items of equipment other than a complete drill rig and crew in full operating condition.

A crew shall consist of a driller and helper, and if any delay does occur, the Department's Representative will record it daily with dates and times directed to be idle.

6.3 MEASUREMENT AND PAYMENT

Measurement for "Stand-by Time," when accepted and approved, will be made based on hours a drill rig and crew is ordered to stand idle, but only to the extent directed by the Department's Representative.

Payment for "Stand-by Time" will be made at the Contract unit price bid per hour and will be divided no finer than by one-half (1/2) hour increments, which price and payment shall constitute full compensation for the delay of a drill rig and crew.

SPECIFICATION NO. 7: INSPECTIONS

Ample opportunity shall always be furnished to the Department's Representative for inspecting the work. If any imperfect work is performed at any time, the defects therein shall be remedied by the Contractor, at their expense, to the full satisfaction of the Department's Representative. No drilling, nor set-up, nor restoration, nor field testing shall be done except in the presence of the inspector or Department's Representative, unless specific permission has been granted to the contrary. The presence of an inspector, or the keeping of separate drilling records by the Department's Representative, shall not relieve the Contractor of the responsibility for work specified in the Contract.