STATEMENT OF WORK

Seismic-Reflection, Electrical-Resistivity-Imaging, and Calibration-Borehole Data-Acquisition and Analysis Services

Broad Top Coalfield, Bedford, Fulton, and Huntingdon Counties, South-Central Pennsylvania

Bureau of Geological Survey
Pennsylvania Department of Conservation and Natural Resources
2019

I. Scope of Work

The Pennsylvania Department of Conservation and Natural Resources, Bureau of Geological Survey, hereafter designated “the Department,” requires a Contractor with demonstrated knowledge and experience in surface geophysical methods to provide 2D seismic-reflection (SR) and 2D electrical-resistivity-imaging (EI) data-acquisition and analysis services along three (3) principal transects and two (2) subordinate transects within and adjacent to the Broad Top coalfield, Bedford, Fulton, and Huntingdon Counties, south-central Pennsylvania. Additionally, an air-rotary borehole is to be drilled to help calibrate the seismic-reflection survey.

II. Contract Tasks

A. General Requirements

The specific contract tasks are identified in detail in the accompanying “Attachment A, Technical Specifications.”

For the delineated transects (traverse lines) and calibration borehole, their length or depth, and associated general geologic conditions, see “Attachment B, Transect and Borehole Descriptions and Location Maps.”

The work to be performed under this contract shall consist of four (4) separate service items discussed below, not all of which may be necessary or required for any one site. A site is defined as an area enclosing a defined transect or borehole to be subject to an investigation utilizing surface geophysical and traditional field surveying techniques.

The Contractor shall receive work orders for the specific work sites, which will be delivered to his/her official address. These work orders will define, as appropriate, the work-site location(s); work-site plan(s), on which will be plotted the approximate transect(s) or borehole location; a list of landowners; any special directives or instructions; and general information related to public utilities. Although the Department may assist the Contractor in obtaining the necessary information, approvals, and permits for access to properties and rights-of-way for conducting the prescribed services of this contract, it is ultimately the Contractor’s responsibility to obtain such information, approvals, and permits. The Contractor shall be required to be on the work site(s) until the work is completed, unless prior approval is obtained from the Department Representative.
All contract tasks must be completed by September 30, 2019. However, some service items must be completed by June 30, 2019, when partial funding for this contract expires, unless the date is extended by the approval of the Department.

The Contractor shall agree to furnish all necessary labor, material, and equipment and to perform all the work and tasks required in an expeditious, substantial, professional, and workman-like manner.

Due to the nature of the work, the Department reserves the right to modify the tasks for a particular work site before work begins or during the time the work is being conducted. Such modifications may include but not be restricted to:

1. Limited relocation of the transect or borehole;
2. Partial modification of the transect or borehole (i.e., increasing or decreasing its length or depth);
3. Partial or complete termination of a transect or borehole.

B. Preexisting 2D Seismic-Reflection Data

The Department has need for previously existing, processed, commercial (“oil and gas”), “deep” 2D seismic-reflection data that are of high quality and continuous across the areas of interest for three (3) principal transects covering portions of the Broad Top coalfield and vicinity and referenced as TRANSECTS 1, 2, and 3 in Attachments A and B. The Contractor shall act as representative on behalf of the Department, using its expertise, in the search, location, evaluation, negotiation, acquisition, analysis, and interpretation of such previously existing seismic-reflection data. The Contractor shall be required to provide all necessary equipment and staff needed to undertake this work, which must be completed by June 30, 2019, unless the date is extended by the approval of the Department.

C. 2D Seismic-Reflection (SR) Survey Transect

The Department has need for a new “shallow” 2D seismic-reflection (SR) survey of high quality and continuous across the area of interest for a portion (i.e., subordinate transect) of one (1) of the three (3) principal transects previously referenced under Section B covering portions of the Broad Top coalfield and vicinity, and referenced as TRANSECT 4 in Attachments A and B. The Contractor shall be responsible for all aspects of collection, processing, analysis, and interpretation of the seismic-reflection data. The Contractor’s seismic-data-acquisition efforts shall be overseen by an in-house (subcontracting is not permitted) Pennsylvania-licensed Professional Geologist with at least 20 years of seismic data-acquisition, processing, and interpretation experience. Proof of experience (documentation) must be provided to the Department Representative for validation. Failure to supply the necessary proof will result in rejection of the bid. The Contractor shall also be required to provide all necessary equipment and staff needed to undertake this work, which must be completed by September 30, 2019.

D. 2D Electrical-Resistivity-Imaging (EI) Survey Transect

The Department has need for a 2D electrical-resistivity-imaging (EI) survey of high quality and continuous across the area of interest for a portion (i.e., subordinate transect) of one (1) of the
three (3) principal transects previously referenced under Section B. covering portions of the Broad Top coalfield and vicinity, and referenced as TRANSECT 5 in Attachments A and B. The EI survey will essentially cover the same transect as the SR survey described previously in Section C. The Contractor shall be responsible for all aspects of collection, processing, analysis, and interpretation of the EI data. The Contractor’s electrical-resistivity-imaging data-acquisition efforts shall be overseen by an in-house (subcontracting is not permitted) Pennsylvania-licensed Professional Geologist with at least 15 years of electrical-resistivity-imaging data-acquisition, processing, and interpretation experience in the Commonwealth of Pennsylvania. Proof of experience (documentation) must be provided to the Department Representative for validation. Failure to supply the necessary proof will result in rejection of the bid. The Contractor shall also be required to provide all necessary equipment and staff needed to undertake this work.

The EI survey must be completed using an in-house (subcontracting and rental equipment are not permitted) Advanced Geosciences, Inc. (AGI) SuperSting R8 earth resistivity meter. Data will be collected using the dipole-dipole or pole-dipole array configuration. Furthermore, the Contractor shall process the electrical-resistivity-imaging data using the software programs, Res2Dinv and Res3Dinv (for crooked lines) (see Loke, M.H., 2018, Tutorial : 2-D and 3-D electrical imaging surveys, https://geotomosoft.com/downloads.php, accessed 2-20-2019).

The Contractor must complete all work by September 30, 2019.

E. Calamration Borehole Drilling

The Department has need for the drilling of an exploratory air-rotary borehole to a depth of 500 feet to be used as a stratigraphic test and means for partial calibration of the SR survey described previously in Section C (i.e., a suite of geophysical logs, obtained under a separate, existing service contract, will be run in the borehole to acquire stratigraphic and structural data for such calibration), and referenced as Borehole HUN061_0661 in Attachments A and B. The borehole will be located in proximity to the transects for the SR and EI surveys. Drilling of the borehole may be subcontracted, provided that the well driller selected by the Contractor has demonstrated experience conducting exploratory test-hole drilling of coal and associated rocks in the Broad Top field over the past 10 years or more (as verified by the Contractor), and provided that the Contractor maintains complete oversight, supervision, and management of the drilling operation from start to finish (i.e., mobilization through sealing and site restoration), in consultation with the Department Representative and in compliance with the requirements of the Department. All work on the borehole must be completed by June 30, 2019, unless the date is extended by the approval of the Department.

III. SITE INSPECTION

Optional site visits are available prior to submitting bids. Any bidder wishing to visit the work site(s) should contact Clifford Dodge at 717-702-2036, or cdodge@pa.gov, to arrange the visit.

IV. CONTRACT TERM

The contract shall commence upon receipt and execution of purchase order and notice to proceed letter and shall terminate September 30, 2019.
V. INSURANCE

The Contractor shall purchase and maintain, at its expense, the following types of insurance, issued by companies acceptable to the Commonwealth.

A. Workmen’s Compensation Insurance for all of the Contractor’s employees and those of any subcontractor, engaged in work at the site of the project as required by law.

B. Public Liability and Property Damage Insurance to protect the Commonwealth, the Contractor, and any and all subcontractors from claims for damages for personal injury (including bodily injury), sickness or disease, accidental death and damage to property including the loss of use resulting from any property damage, which may arise from the activities performed under the contract, or the failure to perform under the contract, whether such performance or non-performance be by the Contractor, by any subcontractor, or by anyone directly or indirectly employed by either. The minimum amounts of coverage shall be $250,000 per person and $1,000,000 per occurrence for bodily injury, including death, and $250,000 per person and $1,000,000 per occurrence for property damage. Such policies shall be occurrence rather than claims-made policies and shall not contain any endorsements or any other form designated to limit and restrict any action by the Commonwealth, as an additional insured, against the insurance coverage in regard to work performed for the Commonwealth.

Prior to commencement of the work under the contract and at each insurance renewal date during the term of the contract, the Contractor shall provide the Commonwealth with current certificates of insurance. These certificates or policies shall name “The Commonwealth of PA–DCNR” as an additional insured and shall contain a provision that the coverage’s afforded under the policies will not be cancelled or changed until at least thirty (30) days written notice has been given to the Commonwealth. These certificates shall include the locations and a brief description of the work to be performed under the contract.

The Commonwealth shall be under no obligation to obtain such certificates from the Contractor(s). Failure by the Commonwealth to obtain the certificates shall not be deemed a waiver of the Contractor’s obligation to obtain and furnish certificates. The Commonwealth shall have the right to inspect the original insurance policies.

VI. BID AWARD

Bidder must complete and return the following:

A. The electronic Invitation for Bid to be found at www.pasupplierportal.state.pa.us.

B. A properly executed Reciprocal Limitations Act form that lists the state of manufacture for any supplies procured.

The unit price shall include all labor, materials, equipment, tools, insurance, and all items necessary for
the completion of each service item in the project.

The bid will be awarded based on the total sum of all the blocks as indicated on the IFB-Invitation for Bids.

The contract quantities herein are estimated only and may increase or decrease, depending on the needs of the Department. The Contractor shall be paid at the unit price for the actual work performed.

VII. PAYMENT TERMS

Separate payment shall be made to the Contractor for actual services performed upon satisfactory completion of each of the four (4) service items, as described in Attachment A, Technical Specifications.

VIII. INVOICES

Invoice format shall be in accordance with the IFB-Invitation for Bid.

A. All invoices for this contract MUST either be:
   Emailed to the following for a Paperless Email Invoice Option:
   Email a copy of the correctly executed invoice to: 69180@pa.gov.

   For information on the Commonwealth’s E-Invoicing Program, visit:
   http://www.budget.pa.gov/Programs/Pages/E-Invoicing.aspx.

B. Or mailed to the following address:
   Commonwealth of Pennsylvania–PO Invoice
   PO Box 69180
   Harrisburg PA 17106

   All invoices MUST have the purchase order number, as well as your SAP Vendor Number on the invoice. The name and address listed on the purchase order must also be listed on each invoice. Failure to provide this information may result in a delay of payment.

   Please Note: Vendors are reminded to NOT include employer identification numbers, Social Security Numbers, bank account information, or other personally identifiable information on their invoices. That information is uniquely tied to your SAP Vendor Number and, for security purposes, should not be explicitly stated on an invoice.

IX. CONTRACTOR REFERENCES

After the bid opening and prior to awarding the contract, the Department has the right to request references (name, address, and telephone number) of similar work performed in the previous five (5) years as proof of qualifications to perform the same work involved in this contract.

X. RECEIPT AND OPENING OF BIDS
Bids must be submitted via the PA Supplier Portal, to be found at www.pasupplierportal.state.pa.us. Faxed bids and mailed bids will not be accepted.

No responsibility will be attached to any employee of the Department for the premature opening of, or the failure to open, a Bid not properly addressed and identified, or for any reason whatsoever.

XI.  BID RESULTS

Bidder can obtain bid results by accessing http://www.emarketplace.state.pa.us/BidTabs.aspx. The bids will be posted within three (3) business days following the bid opening. The results are the apparent bidders, and all bids are under review until final award of the purchase order.

Attachments