



**TENNESSEE DEPARTMENT OF ENVIRONMENT
AND CONSERVATION**

DIVISION OF WATER RESOURCES

OIL AND GAS PROGRAM

SPECIFICATIONS

FOR

Plugging Wells in the State Of Tennessee

SPECIFICATION INDEX FOR THE WELL PLUGGING PROJECT

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SPECIFICATIONS FOR THE WELL PLUGGING PROJECT

Section 100.0 - Introduction

The following specifications are for oil and gas well plugging services in the State of Tennessee. The Supervisor of the Tennessee Oil and Gas Board is the Contracting Officer representing TDEC. The TDEC Inspector is the official providing Contractor oversight in field. The Inspector may be a TDEC employee granted authority to act as an agent of TDEC. The Inspector will also serve as the oversight site safety officer (SSO) and have the authority to stop work until noted safety deficiencies are corrected.

Section 101.0 - Delivery Time

All work specified in this contract must be completed within 365 days after your receipt of order.

Once work begins, the Contractor shall use the necessary labor, equipment and materials to actively pursue the work.

Repeatedly moving on and off the job and arriving at noon is not considered actively pursuing the work. Therefore, an unsatisfactory report will be filed with the contracting office for delaying the work.

Section 102.0 - Summary of Work

The majority of the work to be performed under this contract consists of the following:

- The mobilization of the Contractor's employees, equipment and materials.
- Site access and maintenance, including erosion and sediment control. Access roads may require maintenance.
- Plugging orphaned oil and gas wells.

Section 103.0 - Operator Qualifications

All equipment operators shall be competent and experienced with the type of equipment for which they are assigned.

Section 104.0 - Increase or Decrease in Quantities

All quantities set forth in these specifications and on the bid sheet are estimates. The State reserves the right to increase or decrease the actual quantities as site conditions warrant. The unit price bid shall remain unchanged. Any increase in contract quantities will be made in writing prior to performing any work.

Partial payments will be made based on the amount of work accomplished at the time of the payment request. Payment request shall be accompanied by supporting measurement and calculation documents. At least thirteen (13) wells will have to be addressed in accordance to the contract before any payment request can be made. Payment request shall be mutually developed by the Contractor and Supervisor of the Tennessee Oil and Gas Program. Any payment request without the concurrence of these two individuals will not be processed. Final payment shall be calculated using the total number of units utilized and measured in the project at the unit price bid for each item.

Section 105.0 - Care of Public and Private Property

The Contractor shall take all necessary precautions to prevent damage to all overhead, underground, and above ground structures and to protect and preserve property within or adjacent to the project and shall be responsible for all damage thereto. The Contractor shall exercise special care in the execution of the work to avoid interference or damage to all operating facilities or structures. The Contractor shall be responsible for any damage or injury to public or private property and shall otherwise restore or replace such damage or injury to property as may be deemed necessary by the Inspector.

The Contractor shall cooperate with utilities during any relocation work adjustment removal and reconstruction of any such utility or facility within the work areas.

Section 106.0 - Site Access

The Contractor shall be responsible for maintaining the access routes in a passable condition during the life of the contract.

Section 107.0 - Working Hours

All work on this project will be conducted on weekdays (exclusive of federal holidays) and during daylight hours unless specifically approved in writing by the Inspector. Saturday work will be permitted if inclement weather or other unforeseen hindrances compromise the project completion target date. The Contractor must notify the Inspector at least 2 days in advance of Saturday work.

Section 108.0 - Site Clean Up

All work areas and/or areas disturbed during the course of the work shall be thoroughly cleaned of all rubbish, debris, construction waste, or other unsightly materials. No waste material shall be let near or on site for any reason. Sanitary facilities shall be removed in a manner acceptable to the Inspector.

Section 109.0 - Mobilization

The work in this section consists of performing all operations in connection with mobilization of the Contractor's personnel and equipment necessary for performing the work required under this contract.

Mobilization shall include the purchase of contract bonds; transportation of personnel, equipment, and operating supplies to the site and other preparatory work at the site. The specification covers mobilization for work required by the contract at the time of award. No adjustment of the contract price shall be made for additional mobilization cost incurred by the Contractor unless they are incurred as the result of a written change order issued by the Project Officer.

Section 110.0 - Maintenance During Construction

Maintenance: The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and personnel to the end. The work area will be kept in a satisfactory condition at all times. No separate payment will be made for this item.

All cost of maintenance work during construction and before the project is accepted shall be a subsidiary to the lump sum bid price for mobilization.

Section 111.0 - Unacceptable Material and Workmanship

All material not conforming to the requirements of the specifications will be considered as unacceptable. All unacceptable materials and workmanship, whether in place or not, will be rejected and shall be removed immediately from the site of the work unless otherwise directed by the Inspector. In case of failure by the Contractor to comply promptly with any order by the Inspector to remove rejected material and workmanship, the Inspector shall have authority to have such rejected work and materials removed by other means and to deduct the expense of such removal from any monies due, or to become due, to the Contractor.

Section 112.0 - Final Inspection and Acceptance

(a) All work (which term includes but is not limited to materials, workmanship, and manufacture and fabrication of components) shall be subject to inspection and test by the State at all reasonable times and at all places prior to acceptance. Any such inspection and test is for the sole benefit of the State and shall not relieve the Contractor of the responsibility of providing quality control measures to assure that the work strictly complies with the contract requirements. No inspection or test by the State shall be construed as constituting or implying acceptance. Inspection or test shall not relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance, nor in any way affect the continuing rights of the State after acceptance of the completed work under the terms of paragraph (f) of this clause, except as hereinabove provided.

(b) The Contractor shall, without charge, replace any material or correct any workmanship found by the State not to conform to the contract requirements, unless in the public interest the State consents to accept such material or workmanship with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(c) If the Contractor does not promptly replace rejected material or correct rejected workmanship, the State (1) may, by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) may terminate the Contractor's right to proceed in accordance with the clause of this contract entitled "Cancellation."

(d) The Contractor shall furnish promptly, without additional charge, all facilities, labor, and material reasonably needed for performing such inspection and test as may be required by the Inspector. All inspection and test by the State shall be performed in such manner as not unnecessarily to delay the work. Special, full size, and performance tests shall be performed as described in this contract. The State reserves the right to charge to the Contractor any additional cost of inspection or test when material or workmanship is not ready at the time specified by the Contractor for inspection or test or when re-inspection or retest is necessitated by prior rejection.

(e) Should it be considered necessary or advisable by the State at any time before acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, an equitable adjustment shall be made in the contract price to compensate the Contractor for the additional services involved in such examination and reconstruction and, if completion of the work has been delayed thereby, he shall, in addition, be granted a suitable extension of time.

(f) Unless otherwise provided in this contract, acceptance by the State shall be made as promptly as practicable after completion and inspection of all work required by this contract, or that portion of the work that the Inspector determines can be accepted separately. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the State's rights under any warranty or guarantee.

(g) Upon due notice from the Contractor of presumptive completion of the entire project work, a final review will be performed by the Supervisor of the Tennessee Oil and Gas Program and the Inspector. If all work provided for and contemplated by the contract is found completed to satisfaction, written notice of the final inspection and acceptance will be issued to the Contractor stating final acceptance and the date of release.

If, however, the inspection discloses any work in whole or in part, as being unsatisfactory, the Project Officer will give the Contractor the necessary instructions for the correction of the deficiencies and the Contractor shall

immediately comply with and execute such instructions. Upon completion of the corrective work, another inspection shall be made which shall constitute the final inspection provided all work has been satisfactorily completed.

Section 113.0 - Accidents

The Contractor shall provide, at the site and at his own expense, such equipment and medical facilities as are necessary to supply first-aid service to anyone who may be injured in connection with the work.

The Contractor must promptly report in writing to the Supervisor of The Tennessee Oil and Gas Program and Inspector all accidents whatsoever arising out of, or in connection with, the performance of the work, whether on, or adjacent to the site which caused death, personal injury, or property damages, giving full details and statements of witnesses. In addition, if death, serious injuries, or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the Inspector and the Project Officer.

If any claim is made against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Project Officer and Inspector, providing full details of the claim.

Section 114.0 - Completion Time

The completion time is approximately 365 days which includes no days for bad weather, holidays and weekends. The Contractor shall take this time frame for completion into consideration when bidding on this project. An extension shall not be granted unless there are unusual circumstances, such as an act of God. Poor planning, inefficiency, equipment breakdown, or any other factor of which the Contractor has control over shall not be justification for time extensions.

Section 115.0 - Safety

The Contractor shall conduct his operations in such a manner that all applicable laws and regulations are adhered to during performance of this contract. Personal protective equipment (PPE), fire safety equipment, and first aid materials must be onsite and in operative conditions at all times during work. All personnel conducting work or present within the work zone shall wear Level D PPE (hard hats, steel-toed safety shoes, eye protection, full-length trousers). The work zone shall be defined as the immediate area adjacent to moving or running equipment and within 1.5 times the horizontal distance of the rig-up vertical height.

Section 116.0 - Dust Control

The Contractor shall take all available precautions to control dust. Dust shall be controlled by sprinkling, by applying water or by other methods as approved. If sprinkling is the selected method for controlling dust the Contractor shall water as often as necessary to control dust that is produced as a result of the movement of construction equipment and vehicles. Water used for dust control must be obtained from an approved (by the Inspector) source such as a city water supply. The use of any other dust control methods shall be preapproved by the Inspector. Oil will not be used.

Section 117.0 - Superintendence By Contractor

The Contractor at all times during performance and until all the work is completed and accepted, shall give his personal superintendence to the work or have on the project a competent superintendent, satisfactory to the Project Officer and with authority to act for the Contractor.

Section 118.0 - Quality Control-Well Plugging Technician

Description

The work in this section shall consist of providing a Well Plugging Technician (Technician) who is able to satisfactorily perform the duties listed below.

The Technician shall be one individual. The Technician shall be qualified in all aspects of well plugging and must be able to satisfy the duties listed below:

1. The Technician must have a minimum of five (5) years experience.

The contract shall not be awarded until the Project Officer has approved the Well Plugging Technician.

Section 119.0 – Specification for Well Plugging

Special Project Specifications

This work shall consist of plugging vertical wells in accordance with the following specifications and the rules and regulations of the Tennessee State Oil and Gas Board.

The plugging Contractor is required to submit a Plugging and Abandonment Report for each well that is to be plugged. The Report must be signed by the Plugging Technician and the Inspector.

119.01 Note: Pay items are in bold.

1. **Plugging vertical wells using three plugs shall mean placing three plugs in a well with the first plug being twenty five (25) feet in length and consisting of a mechanical plug, or brush and stone plug and a neat cement plug to be placed between each producing formation, whenever possible. Then another mechanical plug or brush and stone plug is placed fifty (50) in length at least twenty five (25) feet in length at the base of the surface casing. The plug is to be placed so that at least twenty five (25) of cement extends up into the casing. Next, a mechanical plug, or brush or stone plug is to be placed at the surface twenty five (25) in length and two (2) to three (3) below the surface.**
2. **Plugging vertical wells with fluid shall mean the same requirements as plugging a vertical well with three (3) plugs with the addition of using the necessary tubing and pumping equipment to ensure each plug is placed at the proper location in the boring.**
3. **Plugging vertical wells with four (4) plugs shall mean the same requirements as plugging a vertical well with three (3) plugs except for the addition of a mechanical plug, or brush and stone plug in wells that have an additional zone for isolation if necessary.**
4. **Mobilization is to be allowed for each well to locate the necessary equipment for plugging each well under this contract.**
5. **A plastic liner will be necessary. A liner will be needed to contain fluids near the wellhead as cement is being pumped into the well during plugging procedures. All fluids are to be contained and disposed of in accordance with TDEC requirements and regulations.**
6. **Hay bales will be necessary for reclaiming permit sites in order to address the soil runoff from the contaminated soil that will be placed on site. The contaminated soil is to be excavated and placed on plastic with hay bales surrounding the removed soil. Additional plastic sheeting will be needed to cover the excavated soil. No plugging or equipment removal will be required.**
7. **Fescue seed will be needed to reclaim certain well permit sites. These sites will need to be monitored for a year after they are reclaimed to address all erosional issues.**
8. **Tubing for all wells found with fluid in the casing will be necessary to employ the proper location of the mechanical, brush and stone plug in the boring for each well. Tubing will be reviewed on a per foot basis or on an as needed basis. A dump bailer may be used in lieu of tubing but cost of the dump bailer will not be covered in the cost of this contract.**
9. **Pumping changes can be accessed for the proper equipment for any well that will require tubing when fluid is found in the well.**
10. **Rigging changes can be accessed when equipment is found on any well or when a well contains various equipment (i.e. packers, etc.) that would impede the proper plugging of the well.**
11. **Dozier equipment will be needed from time to time to properly access the site on an as needed basis and to remove tanks and other plumbing equipment at each site. Also there a number of wells that will be required to be reclaimed because of the foreclosure of the reclamation bond.**

12. Any well found to have 4 1/2" or 2 3/8" casing cemented in the boring under open hole conditions will be removed and plugged in accordance with TDEC regulations and this plugging contact requirements. All wells will be on a case by case basis.
13. A work over rig may be needed on some wells to address any downhole conditions not previously addressed in this contract. This particular item will be reviewed by the Supervisor of the Tennessee Oil and Gas Program or his representative on a case by case basis.
14. This contract will not provide payment for any work not carried out on any well. For example, the contract will only be paid for plugs that are placed in any well and all work will be reviewed by the Supervisor of the Tennessee Oil and Gas Program or by his representative such as the inspector.
15. There will be a detailed thumb drive for the location and condition for each well. This manual will provide the well history; location of the well; letters sent to all landowners detailing the actions of the state; and a contact for the landowners per request prior to entering the property.
16. The vendor will be required to locate each well for plugging. Fourteen (14) of the twenty-six (26) wells have been located.
17. Some of the twenty-six (26) wells may require additional administrative cost for change of operators.
18. Vendor will be required to contact the landowner prior to entering the property.
19. There will be twenty-six (26) wells to be plug. All twenty-six (26) wells will require three (3) plugs for each well.

The following are the location and wells to be plugged.

Brady Energy Corporation (Brady International)

1. Permit 1785; Neal Roy
Grundy Co; Altamont Quad
Latitude; 35° 23' 20.1"; Longitude; -85° 39' 53.6"
2. Permit 1803; BOULDIN BROTHERS-FINN R S UNIT #1
Grundy Co; Tracy City, TN Quad
Latitude; 35° 21' 36.4"; Longitude; -85° 41' 12.7"
3. Permit 1858; Hill Hugh Tract 2 Well #1
Grundy Co; Altamont, TN Quad
Latitude; 35° 26' 34.8"; Longitude; -85° 39' 55.2"
4. Permit 2882; Willis Harold #1
Grundy Co; Altamont, TN Quad
Latitude; 35° 27' 06.4"; Longitude; -85° 40' 26.1"
5. Permit 3193; Finn R.S. #2
Grundy Co; Tracy City, TN Quad
Latitude; 35° 21' 10.6"; Longitude; -85° 40' 40.2"

Coffee Development

6. Permit 2805, Smith Clayton #1
Coffee Co; Morrison, TN Quad
Latitude; 35° 32' 0.5"; Longitude; -85° 56' 5.8"
7. Permit 2972, Hoover, Ruby #1
Coffee Co; Morrison, TN Quad
Latitude; 35° 31' 8.4"; Longitude; -85° 54' 19.9"
8. Permit 2994, Spears, Dick Unit #4
Coffee Co; Hillsboro, TN Quad
Latitude; 35° 29' 55.6"; Longitude; -85° 57' 42.9"
9. Permit 3112, Smartt, E.W. Jr. #1
Coffee Co; Hillsboro, TN Quad
Latitude; 35° 29' 0.5"; Longitude; -85° 57' 19.4"
10. Permit 3356, Smartt, E.W. Unit #2
Coffee Co; Hillsboro, TN Quad
Latitude; 35° 29' 11.7"; Longitude -85° 57' 1.8"
11. Permit 3357; Commers, Harmon Unit #1
Coffee Co; Hillsboro, TN Quad
Latitude; 35° 29' 33.3"; Longitude; -85° 58' 37"
12. Permit 3453; Tart, John Unit #1
Coffee Co; Morrison, TN Quad
Latitude; 35° 30' 53.1"; Longitude; -85° 59' 13.5"
13. Permit 4754; Spears, Dick #5
Coffee Co; Morrison, TN Quad
Latitude; 35° 33' 7.5"; Longitude; -85° 57' 1.8"

- 14. Permit 5684; Cook, W.H. Unit #7
Coffee Co; Fredonia, TN Quad
Latitude; 35° 30' 29.8"; Longitude; -86 1' 55.4"
- 15. Permit 5759; Crowley, W.E. Unit #1
Coffee Co; Morrison, TN Quad
Latitude; 35° 31' 41.7"; Longitude; -85° 58' 1.8"
- 16. Permit 5764; Blackburn, T.H. Unit #1
Coffee Co; Morrison, TN Quad
Latitude; 35° 30' 32.3"; Longitude; -85° 57' 23.3"

Cumberland Resources Corp

- 17. Permit 617; Sholar, J.E. #1
Grundy Co; Tracy City, TN Quad
Latitude; 35° 21' 53.6"; Longitude; -85° 39' 36.7"

Hickory Creek Energy LLC

- 18. Permit 12242; C. Steven Cunningham #5
Coffee Co; Hillsboro, TN Quad
Latitude; 35° 29' 36.2"; Longitude; -85° 55' 4.7"

Hickory Creek Development Corp.

- 19. Permit 2800; Cunningham, W.C. Unit #1
Coffee Co; Morrison, TN Quad
Latitude; 35° 30' 5.6"; Longitude; -85° 54' 45.4"

Sequatchie Power Company

- 20. Permit 1587; Scholar, Apperson Unit #1
Grundy Co; Tracy City, TN Quad
Latitude; 35° 22' 6.4"; Longitude; -85° 39' 30.2"
- 21. Permit 1877; C.H. Hoffman #1
Grundy Co; Altamont, TN Quad
Latitude; 35° 24' 42.2"; Longitude; -85° 38' 19.3"
- 22. Permit 1897; Slaton, Roy et. Al unit 1
Grundy Co; Tracy City, TN Quad
Latitude; 35° 21' 10.8"; Longitude; -85° 37' 37.5"
- 23. Permit 1909; Hoffman, C.A. #2
Grundy Co; Altamont, TN Quad
Latitude; 35° 24' 39.7"; Longitude; -85° 37' 55.2"
- 24. Permit 2005; C.A. Hoffman #4
Grundy Co; Altamont, TN Quad
Latitude; 35° 24' 4.9"; Longitude; -85° 37' 57.3"
- 25. Permit 2006; Lewis Meeks #1
Grundy Co; Palmer, TN Quad
Latitude; 35° 21' 47.6"; Longitude; -85° 37' 8.5"
- 26. Permit 2132; Northcutt et al Unit #1
Grundy Co; Altamont, TN Quad
Latitude; 35° 22' 39.4"; Longitude; -85° 42' 5.5"