



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

May 15, 2015

O. F. Patterson, III
Patterson Exploration Services
1907 Boone Trail Road
Sanford, North Carolina 27330

Dear Mr. Patterson:

Enclosed is a fully executed Contract No. 006535 between Patterson Exploration Services and the North Carolina Department of Environment and Natural Resources for Drilling Services for the Dan River Basin as described in Request For Proposals No. 16-006423.

Invoices or matters regarding work to be performed should be directed to the Contract Administrator, Dr. Kenneth B. Taylor, as indicated on Page 6 of the Request For Proposals.

Please include Contract No. 006535 on each invoice submitted for payment.

Should you have any questions regarding the contract, you may contact the Purchasing and Contracts Section at (919) 707-8525.

Sincerely,

Rex A. Whaley
Chief Financial Officer
Financial Services Division

Enclosure

cc: Dr. Kenneth B. Taylor, DENR Division of Energy, Mineral and Land Resources
Dr. Jeffrey C. Reid, Sr., DENR, Division of Energy, Mineral and Land Resources

STATE OF NORTH CAROLINA NC Department of Environment & Natural Resources Financial Services Division		REQUEST FOR PROPOSALS NO. 16-006423
Using Agency	Division of Energy, Mineral and Land Resources	TITLE: Drilling Services for the Dan River Basin
Contract Administrator:	Dr. Kenneth Taylor	

FOR NC DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, FINANCIAL SERVICES DIVISION USE ONLY:

ACCEPTANCE OF OFFER BY NC DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

The DEPARTMENT hereby agrees to pay the VENDOR (Patterson Exploration Services) at the rate specified on the Cost Proposal page per the Vendor's response dated April 8, 2015 to RFP #16-006423 titled "Drilling Services for the Dan River Basin", for a sum of money not to exceed **NINETY-ONE THOUSAND FIVE HUNDRED ONE DOLLARS AND FIFTY CENTS (\$91,501.50)**, said sum to be full and complete compensation for services to be rendered under this agreement.

This amount consists of:

Type of Funds	Source of Funds	CFDA No.
Appropriations	North Carolina General Assembly	N/A

Accounting Code Information:

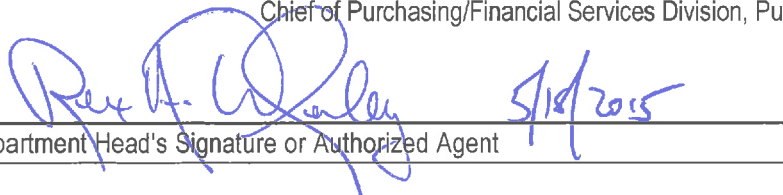
Dollars	GL Company	GL Account	GL Center
\$91,501.50	1601	532199029	17357393

The services of the Vendor are to commence on the 18th day of May, 2015 and shall be undertaken and completed in such sequence as to assure their expeditious completion in the light of the purposes of this agreement, but in any event, all of the services required hereunder shall be completed on the 30th day of June, 2015.

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Donald R. van der Vaart, Secretary

Chief of Purchasing/Financial Services Division, Purchasing and Contracts Section



Department Head's Signature or Authorized Agent

By the Department's acceptance of your response to this Request for Proposals (RFP), the provisions of the Scope of Work, the North Carolina General Terms and Conditions, any Addenda, and all other attachments noted within the RFP, shall now constitute the written contract.



**DEPARTMENT OF ENVIRONMENT AND NATURAL
RESOURCES**

FINANCIAL SERVICES DIVISION

IMPORTANT BID ADDENDUM

April 10, 2015

THIS ADDENDUM NO. 01 IS NOT REQUIRED TO BE RETURNED WITH OFFER.

RFP NO.	16-006423	RFP TITLE:	Drilling Services for the Dan River Basin
ADDENDUM NO.	01	USING AGENCY:	NC Department of Environment and Natural Resources, Division of Energy, Mineral and Land Resources
PURCHASER	Traci Rains	OPENING DATE/TIME:	April 17, 2015 – 3:00 P.M. Eastern Time

This correspondence serves as an addendum to the subject Request for Proposals (RFP). Your response to this RFP shall be governed by the content of the original RFP and the corrections/additions/clarifications provided in Addendum No. 01.

Following is a question received from a prospective vendor in reference to the Scope of Work for the above Request for Proposals along with the answer provided by the issuing agency.

Question: When is the award date for this RFP?

Answer: If awarded, the Department is anticipating an award date of approximately May 1, 2015.

**STATE OF NORTH CAROLINA
REQUEST FOR PROPOSALS**

RFP #16-006423

TITLE: DRILLING SERVICES FOR THE DAN RIVER BASIN
USING DEPARTMENT: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF ENERGY, MINERAL AND LAND RESOURCES
ISSUE DATE: APRIL 2, 2015
ISSUING AGENCY: FINANCIAL SERVICES DIVISION
PURCHASING AND CONTRACTS SECTION

OPENING DATE/TIME: **APRIL 17, 2015 - 3:00 P.M. EASTERN TIME**

Sealed Proposals subject to the conditions made a part hereof will be received until the specified opening date/time noted above for furnishing services described herein. **It is the vendor's responsibility to ensure that vendor's proposal is in the office of the Issuing Agency by the opening date/time noted above.**

SEND ALL PROPOSALS DIRECTLY TO THE ISSUING AGENCY ADDRESS AS SHOWN BELOW:

ADDRESS FOR U.S. POSTAL SERVICE* DELIVERY	ADDRESS AS BELOW IF DELIVERED BY UPS or FEDEX)
SEALED BID RFP 16-006423 NCDENR FINANCIAL SERVICES DIVISION PURCHASING AND CONTRACTS SECTION ATTN: TRACI RAINS 1605 MAIL SERVICE CENTER RALEIGH NC 27699-1605	SEALED BID RFP 16-006423 NCDENR FINANCIAL SERVICES DIVISION PURCHASING AND CONTRACTS SECTION ATTN: TRACI RAINS 217 WEST JONES STREET, 5 TH FLOOR RALEIGH NC 27603
(NOTE: 1605 Mail Service Center is not located at 217 West Jones Street. Mail at least 5 business days prior to Bid Opening Date if sent to 1605 Mail Service Center)	(*DO NOT USE U.S. Postal Service Priority or Express Mail for 217 West Jones St. Delivery) (Suggestion: Request Signature Receipt)
*NOTE: THE U.S. POSTAL SERVICE DOES NOT DELIVER MAIL TO 217 WEST JONES STREET, RALEIGH NC. USING THE U.S. POSTAL SERVICE PRIORITY MAIL OR U.S. EXPRESS MAIL DOES NOT GUARANTEE THAT YOUR RESPONSE TO THIS RFP WILL BE DELIVERED BY THE OPENING DATE/TIME SPECIFIED FOR THIS RFP.	

IMPORTANT NOTE: On the front of each sealed proposal envelope or package, list the Firm Name, the RFP Number, Opening Date/Time and, the type of document in each envelope, i.e., "Cost Proposal".

Offers submitted via telegraph, facsimile (FAX) machine, telephone, and electronic means, including but not limited to e-mail, in response to this Request for Proposals **will not be accepted.**

Direct all inquiries concerning this RFP to: Traci Rains email: traci.rains@ncdenr.gov

PROHIBITED COMMUNICATIONS: From the issuance date of this RFP through the date the contract is awarded, each vendor (including its subcontractors and/or suppliers) is prohibited from having any communications with any person inside or outside the Using Agency, Issuing Agency, other government agency office or body (including the Purchaser named above, Department Secretary, Agency Head, members of the General Assembly and/or Governor's Office), or private entity, and the communication discusses the content of vendor's proposal or qualifications, the contents of another vendor's proposal, another vendor's qualifications or ability to perform the contract, and/or the transmittal of any other communication of information that has the effect of directly or indirectly influencing the evaluation of proposals and/or the award of the contract. Vendors not in compliance with this provision shall be disqualified from contract award, unless it is determined that the best interest of the state would not be served by the disqualification. A vendor's proposal may be disqualified if its subcontractor and supplier engage in any of the foregoing communications during the time that the procurement is active (i.e., the issuance date of the procurement to the date of contract award). Only the discussions, communications or transmittals of information authorized by the Issuing Agency in this RFP or general inquiries to the Purchaser regarding the status of the contract award are exempt from this provision.

NOTE: Questions concerning the specifications in this Request for Proposals will be received until Thursday, April 9, 2015 at 4:00 PM Eastern Time. Prospective vendors are to email written questions to Traci Rains at traci.rains@ncdenr.gov. **NO QUESTIONS WILL BE ACCEPTED AFTER THIS DATE AND TIME.**

A summary of all questions and answers will be posted on the Internet as an addendum, located under the RFP # being modified.

It is the vendor's responsibility to continuously check for addenda up to the last posted Opening Date/ Time and to assure that all addenda have been reviewed and, if required, signed and returned.

<http://www.pandc.nc.gov/>

GENERAL INFORMATION

This is not a NC E-Procurement @ Your Service solicitation that contains a transaction fee. HOWEVER, vendors must register in NC E-Procurement @ Your Service in order to be awarded a contract for the services in this RFP.

<http://vendor.ncgov.com>

THE PROCUREMENT PROCESS

The following is a general description of the process by which a firm will be selected to provide services.

1. Request for Proposals (RFP) is issued to prospective vendors.
2. A preproposal conference and/or deadline for written questions is set. (See cover sheet of this RFP for details.)
3. Number of offer documents to be submitted to the issuing agency:
 - a. 2 original
 - b. 2 copies
4. Execution of Proposal By Vendor(Signature Page from Vendor)

The “Execution of Proposal by Vendor” page must be signed by an official authorized to bind the firm.

FAILURE TO SIGN THE “EXECUTION OF PROPOSAL BY VENDOR” PAGE WILL CAUSE YOUR OFFER TO BE REJECTED. NO OTHER SIGNATURE PAGES FROM THE VENDOR WILL BE CONSIDERED OR SUBSTITUTED FOR THIS REQUIRED “EXECUTION OF PROPOSAL BY VENDOR” PAGE.

5. All proposals must be received by the issuing agency not later than the date and time specified on the cover sheet of this RFP or as specified in any addenda issue for this RFP.
6. At that date and time the package containing the proposals from each responding firm will be opened publicly and the name of the vendor and cost(s) offered will be announced. Interested parties are cautioned that these costs and their components are subject to further evaluation for completeness and correctness and therefore may not be an exact indicator of a vendor's pricing position.
7. At their option, the evaluators may request oral presentations or discussion with any or all vendors for the purpose of clarification or to amplify the materials presented in any part of the proposal. However, vendors are cautioned that the evaluators are not required to request clarification; therefore, all proposals should be complete and reflect the most favorable terms available from the vendor.
8. Proposals will be evaluated according to completeness, content, experience with similar projects, ability of the vendor and its staff, and cost.

Each Vendor shall certify it is financially stable by completing the CERTIFICATION OF FINANCIAL CONDITION (see page 21). The State is requiring this certification to minimize potential issues from Contracting with a Vendor that is financially unstable. From the date of the Certification to the expiration of the Contract, the Vendor shall notify the State within thirty (30) days of any occurrence or condition that materially alters the truth of any statement made in this Certification.

The evaluators will randomly select at least three of vendor's references, but the evaluators' reserve the right to contact all the references listed, if information from the three references contacted warrant further inquiry. The failure of the vendor to list all similar contracts in the specified period may result in the rejection of the vendor's proposal. The evaluators may check all public sources to determine whether the vendor has listed all contracts for similar work within the designated period. If the evaluators determine that references for other public contracts for similar contracts were not listed, the evaluators may contact the public entities to make inquiry into vendor's performance of those contracts and the information obtained may be considered in evaluating vendor's proposal. Award of a contract to one vendor does not mean that the other proposals lacked merit, but that, all factors considered, the selected proposal was deemed most advantageous to the State.

In addition to any other evaluation criteria identified in the State agency's solicitation document, the agency shall, for purposes of evaluating proposed or actual contract performance outside of the United States, consider the following factors to ensure that any award will be in the best interest of the State:

Total cost to the State

Level of quality provided by the vendor

Process capability across multiple jurisdictions

Protection of the State's information and intellectual property

Availability of pertinent skills

Ability to understand the State's business requirements and internal operational culture

Risk factors such as the security of the State's information technology

Relations with citizens and employees

Contract enforcement jurisdictional issues

9. Vendors are cautioned that this is a request for offers, not a request to contract, and the State reserves the unqualified right to reject any and all offers when such rejection is deemed to be in the best interest of the State.
10. The State reserves the right to contract with more than one Vendor to provide the services described herein, or to award portions of the contract to one or more Vendors without awarding the full contract.
11. **ATTACHMENTS TO BE PROVIDED UPON REQUEST BY DEPARTMENT:**
 - A. (non-profit only) Conflict of Interest Statement Certified/Approved by Board
 - B. (non-profit only) IRS federal tax exempt letter or 501 (c) verification form

INTRODUCTION

The Dan River basin is a total petroleum system (TPS) located in Stokes and Rockingham counties, north central, North Carolina. The basin extends into south-central Virginia. This is a rift / lacustrine system and is a half-graben with the hanging wall on its northwest side. Two organic units are source rocks in this basin. The stratigraphically lower unit, the Walnut Cove Formation, crops out in a narrow belt on the east side of the basin and dips about 30 degrees northwestward toward the hanging wall (Figure 1).

The North Carolina Geological Survey (NCGS) invites vendor proposals to drill a vertical diamond drill hole on a parcel located in Stokes County, North Carolina to: 1) determine the down dip continuity of the Walnut Cove Formation, and 2) its thickness. The stratigraphically younger lacustrine unit, the Cow Branch Formation is not included in this RFP. This study is part of the NCGS' natural gas study of rift basins in North Carolina.

SCOPE OF WORK

The services that will be required are outlined as follows:

This RFP is to drill one vertical diamond drill core hole at least "NQ" diameter to a drilled depth of 1,750 feet below the surface. The Triassic strata strike roughly northeasterly and dip to the northwest at about 43-46 degrees.

The hole will initially encounter Triassic strata (Dry Fork Formation) above the targeted organic-rich strata (Walnut Cove Formation), and will likely terminate in the Pine Hall Formation. The drill hole will begin in the Dry Fork Formation. The primary objective to drill through the entire Walnut Cove Formation (estimated to be at least 400-feet-thick), but could be as much as 600-feet thick. A very thin coal, not more than 12-inches thick, is anticipated to be present in the core hole at a point about one-half the thickness of the Walnut Cove Formation. This may be accompanied by up to 200 feet (true thickness) of an organic rich section. Efforts shall be made to recover it intact if possible. If not, return water and core barrels shall be carefully checked for coal fragments and these should be preserved.

The drilling vendor will obtain the approval of the NCGS to move the suggested drill hole location more than 50 feet from the NCGS staked location. Because of budget constraints, the hole will be drilled with at least "NQ" tools. The vertical core hole will need to remain within the parcel boundary provided.

The vendor will supply EVCO (or equivalent) 2-foot-long plastic core boxes with labels located on one end of the core box, and a matching label on the inside of the accompanying core box cover. Row spacing shall accommodate the diameter of the proposed core to be collected (e.g., at least "NQ" size). Each core box will be labeled on the outside end. The outside of the core box lid will also be labeled. The label will contain the following: 1) drill hole number, 2) depth interval, 3) and project name. Use permanent black markers to write this information. Depth markers will be placed between core runs, and at core breaks. Depth markers (plastic or aluminum are preferred over wood) are required. Other long lasting material may be proposed for the depth markers for consideration by the North Carolina Geological Survey.

The vendor will follow the N.C. Geological Survey on-site staff geologist requirements to place core in the core boxes to ensure the core is oriented in the desired direction. The vendor shall, by spacers and other guides made of the same (or similar) materials as the core boxes, indicate where core is lost or missing, and provide drill depth marks.

This is a temporary drill hole that will be open only for the purpose of obtaining the technical project data (e.g., drill cores). Thus the hole shall be closed in accordance with all state law and regulations upon achieving drilling objectives. The drilling vendor is responsible for meeting all state laws and regulations regarding drill hole closure.

It is the driller's responsibility to clean-up the drill site and to restore it as required by all state laws and regulations at the end of drilling operations.

We do not plan to geophysically log the hole with slim hole tools.

LOCATION:

The drill hole location is planned to be at a small parcel owned by the Town of Walnut Cove, Stokes County, North Carolina (see attached figures). The Town Fork River, a major Piedmont river, is adjacent to immediately proposed drill hole location and is a reliable year around water source for drilling. An active railroad track lies between the parcel and the river so the drilling vendor will need to make arrangements to run the water hose under the rails or make other similar arrangements.

PROPERTY OWNERSHIP AND CONTINGENCY:

The NCGS, through DENR, will provide property access to the parcel for the drill hole location. It will be the responsibility of the drilling vendor to ensure there is no interference from buried utilities (see attached figures), or other buried features.

DENR NCGS is currently in the process of obtaining permission to use this parcel. Thus the contract award is contingent upon DENR NCGS securing approval for this land use. This is now scheduled for discussion at the next town council meeting to be held April 14, 2015.

SAFETY:

In advancing this vertical core hole, there is the potential of encountering small concentrations of natural gas in the shale location. From the other three short (e.g., less than 500-foot-deep) diamond drill holes in the shale section that were drilled in 1981, DENR NCGS have no record of encountering any gas. However, to be prudent, the drilling vendor shall state their plan to deal with potential small amounts of natural gas if they are encountered. For example, this might include use of a diverter or other safety device.

DELIVERABLES:

The deliverables consist of the boxed drill core. The core boxes will be accepted at the drill site by the NCGS site representative. The deliverable shall include the original driller's log that is signed and dated by a registered driller in North Carolina.

The deliverables shall also include clean-up of the drill site to restore it as required by all State laws and regulations upon completion of the drilling operation.

SUGGESTED REFERENCES FOR ADDITIONAL INFORMATION:

Carpenter, P.A., III, 1982, Geologic map of Region G, North Carolina: North Carolina Geological Survey, Regional Geology Series 2, available on-line (free) from the U.S. Geological Survey's National Geologic Map Database at URL http://ngmdb.usgs.gov/Prodesc/proddesc_55078.htm.

Reid, Jeffrey C., and Taylor, Kenneth B., 2012, North Carolina (USA) Mesozoic rift basin shale gas: A fifth year perspective," slides from an oral presentation at the 7th International Symposium on Oil & Gas Resources in Western Newfoundland, September 12-14, 2012, Corner Brook, Newfoundland-Labrador, Canada, see URL http://www.wnloilandgas.com/media/uploads/Jeff_Reid.pdf.

CONTRACT PERIOD

The contract period will be from date of award to June 30, 2015. The final invoice and all deliverables must be received by June 30, 2015.

DIVISION CONTRACT ADMINISTRATOR

Dr. Kenneth Taylor is designated as the Division Contract Administrator (project coordinator) for the Department for the purposes of this RFP.

CONTACT INFORMATION

Dr. Jeffrey C. Reid, Sr. Geologist, North Carolina Geological Survey, 1612 Mail Service Center, Raleigh, NC 27699-1612. Voice: 919.707.9205. Email – jeff.reid@ncdenr.gov.

Dr. Kenneth B. Taylor, State Geologist, North Carolina Geological Survey, 1612 Mail Service Center, Raleigh, NC 27699-1612. Voice: 919-707-9211. Email – Kenneth.b.taylor@ncdenr.gov.

PAYMENT AND INVOICING PROCEDURES

1. Payment for services will be made in accordance with the Payment Schedule per this RFP upon receipt of invoice(s) from the VENDOR documenting the costs incurred in the performance of work under the contract and approval of invoice(s) by the Contract Administrator verifying satisfactory completion of services as required.
2. Where travel, lodging and subsistence are allowable costs, reimbursement will be made in compliance with applicable budget regulations as contained in the Budget Manual for the State of North Carolina.
3. Invoices are to be submitted to the Contract Administrator **within 10 days from completion of all deliverables or by June 30, 2015, whichever comes first.**
4. Final invoice must be received by the DEPARTMENT within 45 days after the end of the contract period.
5. Amended or corrected invoices must be received by the DEPARTMENT'S Office of the Controller within six months after the end of the contract period.
6. Invoice(s) received from the VENDOR after six months of the end of the contract period will be returned without action.

EVALUATION CRITERIA

Proposals will be evaluated according to completeness, content, experience with similar projects, ability of the vendor and its staff, and cost.

GENERAL INFORMATION ON SUBMITTING PROPOSALS

1. **EXCEPTIONS:** All proposals are subject to the terms and conditions outlined herein. All responses shall be controlled by such terms and conditions and the submission of other terms and conditions, price lists, catalogs, and/or other documents as part of an vendor's response will be waived and have no effect either on this Request for Proposals or on any contract that may be awarded resulting from this solicitation.

Vendor specifically agrees to the conditions set forth in the above paragraph by signature to the proposal.

2. **ORAL EXPLANATIONS:** The State shall not be bound by oral explanations or instructions given at any time during the competitive process or after award.
3. **REFERENCE TO OTHER DATA:** Only information which is received in response to this RFP will be evaluated; reference to information previously submitted shall not be evaluated.
4. **ADDITIONAL INFORMATION:** Each vendor is cautioned that the State is not obligated to ask for or accept, after the opening date for the receipt of proposals, data which is essential for a complete and thorough evaluation of the proposals. The State of North Carolina may award a contract based on initial offers received without discussion of such offers. Accordingly, each initial offer should be submitted on the most favorable and complete price and technical terms which the vendor can submit to the State.
5. **ELABORATE PROPOSALS:** Elaborate proposals in the form of brochures or other presentations beyond that necessary to present a complete and effective proposal are not desired.

In an effort to support the sustainability efforts of the State of North Carolina we solicit your cooperation in this effort.

It is desirable that all responses meet the following requirements:

- All copies are printed **double sided**.
 - All submittals and copies are printed on **recycled paper with a minimum post-consumer content of 30%** and indicate this information accordingly on the response.
 - Unless absolutely necessary, all proposals and copies should **minimize or eliminate use of non-recyclable or non re-usable materials** such as plastic report covers, plastic dividers, vinyl sleeves, and GBC binding. Three-ringed binders, glued materials, paper clips, and staples are acceptable.
 - Materials should be submitted in a format which allows for **easy removal and recycling** of paper materials.
6. **PRICING:** If either a unit price or an extended price is obviously in error and the other is obviously correct, the incorrect price will be disregarded. The right is reserved to accept other than the lowest priced proposal as may be determined to serve the best interest of the State.
 7. **SPECIFICATIONS:** Any deviation from specifications indicated herein must be clearly pointed out; otherwise, it will be considered that the proposal offered is in strict compliance with these specifications, and the successful vendor will be held responsible therefor. Deviations must be explained in detail on an attached sheet(s).
 8. **LIABILITY:** The successful vendor shall assume liability for damage or loss resulting from the wrongful act(s) and/or negligence of its employees while engaged in the performance of the contract. The vendor or its insurer shall reimburse the Contracting Agency for any such damage or loss within 30 days after a claim is submitted.
 9. **COST FOR PROPOSAL PREPARATION:** Any costs incurred by vendors in preparing or submitting offers are the vendors' sole responsibility; the State of North Carolina will not reimburse any vendor for any costs incurred prior to award.
 10. **TIME FOR ACCEPTANCE:** Each proposal shall state that it is a firm offer which may be accepted within a period of 90 days. Although the contract is expected to be awarded prior to that time, the 90 day period is requested to allow for unforeseen delays.

11. **TITLES:** Titles and headings in this RFP and any subsequent contract are for convenience only and shall have no binding force or effect.
12. **CONFIDENTIALITY OF PROPOSALS:** In submitting its proposal the vendor agrees not to discuss or otherwise reveal the contents of the proposal to any source outside of the using or issuing agency, government or private, until after the award of the contract. Only those communications with the using agency or issuing agency authorized by this RFP are permitted. All vendors are advised that they are not to have any communications with the using or issuing agency during the evaluation of the proposals (i.e., after the public opening of the proposals and before the award of the contract), unless the State's purchaser contacts the vendor(s) for purposes of seeking clarification. A vendor shall not: transmit to the issuing and/or using agency any information commenting on the ability or qualifications of other vendors to perform the advertised contract and/or the other vendors' proposals and/or prices at any time during the procurement process; or engage in any other communication or conduct attempting to influence the evaluation and/or award of the contract that is the subject of this RFP. Vendors not in compliance with this provision may be disqualified, at the option of the State, from contract award. Only discussions authorized by the issuing agency are exempt from this provision.
13. **RIGHT TO SUBMITTED MATERIAL:** All responses, inquiries, or correspondence relating to or in reference to the RFP, and all other reports, charts, displays, schedules, exhibits, and other documentation submitted by the vendors shall become the property of the State when received.
14. **VENDOR'S REPRESENTATIVE:** Each vendor shall submit with its proposal the name, address, and telephone number of the person(s) with authority to bind the firm and answer questions or provide clarification concerning the firm's proposal.
15. **SUBCONTRACTING:** Vendors may propose to subcontract portions of the work provided that their proposals clearly indicate what work they plan to subcontract and to whom and that all information required about the prime contractor is also included for each proposed subcontractor.
16. **PROPRIETARY INFORMATION:** Trade secrets or similar proprietary data which the vendor does not wish disclosed to other than personnel involved in the evaluation or contract administration will be kept confidential to the extent permitted by NCAC T01:05B.1501 and G.S. 132-1.3 if identified as follows: Each page shall be identified in boldface at the top and bottom as "CONFIDENTIAL". Any section of the proposal which is to remain confidential shall also be so marked in boldface on the title page of that section. Cost information may not be deemed confidential. In spite of what is labeled as confidential, the determination as to whether or not it is shall be determined by North Carolina law.
17. **HISTORICALLY UNDERUTILIZED BUSINESSES:** Pursuant to General Statute 143-48 and Executive Order #150, the State invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled.
18. **PROTEST PROCEDURES:** When a vendor wants to protest a contract awarded pursuant to this solicitation, the following procedures should be followed:
 - 1) If the award is over \$25,000, they must submit a written request to: State Purchasing Officer, Division of Purchase and Contract, Department of Administration, 1305 Mail Service Center, Raleigh NC 27699-1305.
 - a) This request must be received in the Division of Purchase and Contract within thirty (30) consecutive calendar days from the date of the contract award.
 - b) Protest letters must contain specific reasons and any supporting documentation for the protest.
 - c) NOTE: Contract award notices are sent only to those actually awarded contracts and not to every person or firm responding to this solicitation. Contract status and award notices are posted on the Internet at <http://www.pandc.nc.gov/>.
 - d) All protests will be handled pursuant to the North Carolina Administrative Code, Title 1, Department of Administration, Chapter 5, Purchase and Contract, Section 5B.1519.
 - e) (See Protest Information at <http://www.pandc.nc.gov/protests.pdf> for more information.)

- 2) If the award is under \$25,000, they must submit a written request to: DENR Financial Services Division, Purchasing and Contracts Section, 1605 Mail Service Center, Raleigh NC 27699-1605. Follow instruction for Items a) through e) above, with the exception that information must be submitted to DENR Financial Services Division, Purchasing and Contracts Section.

19. **TABULATIONS:** An Interactive Purchasing System (IPS) has been implemented that allows the public to retrieve bid tabulation electronically from the Internet web site: <http://www.pandc.nc.gov/>. Click on the IPS BIDS icon, click on Search for Bid, enter the RFP number, and then search. Tabulations will normally be available at this web site not later than one working day after opening. Lengthy tabulations may not be available on the Internet and requests for these verbally or in writing cannot be honored.

20. **VENDOR REGISTRATION AND SOLICITATION NOTIFICATION SYSTEM:** Vendor Link NC allows vendors to electronically register free with the State to receive electronic notification of current procurement opportunities for goods and services available on the Interactive Purchasing System. Online registration and other purchasing information are available on our Internet web site: < <http://www.pandc.nc.gov/>>.

21. **RECIPROCAL PREFERENCE:** G.S. 143-59 establishes a reciprocal preference law to discourage other states from applying in-state preferences against North Carolina's resident vendors. The "Principal Place of Business" is defined as the principal place from which the trade or business of the vendor is directed or managed.

4/29/2010

NORTH CAROLINA GENERAL CONTRACT TERMS AND CONDITIONS
(Contractual and Consultant Services)

1. **PERFORMANCE AND DEFAULT:** If, through any cause, Vendor shall fail to fulfill in timely and proper manner the obligations under this agreement, the State shall have the right to terminate this contract by giving written notice to the Vendor and specifying the effective date thereof. In that event, all finished or unfinished deliverable items under this contract prepared by the Vendor shall, at the option of the State, become its property, and the Vendor shall be entitled to receive just and equitable compensation for any acceptable work completed on such materials. Notwithstanding, Vendor shall not be relieved of liability to the State for damages sustained by the State by virtue of any breach of this agreement, and the State may withhold any payment due the Vendor for the purpose of setoff until such time as the exact amount of damages due the State from such breach can be determined. The State reserves the right to require at any time a performance bond or other acceptable alternative guarantees from a successful Vendor without expense to the State.

In case of default by the Vendor, the State may procure the services necessary to complete performance hereunder from other sources and hold the Vendor responsible for any excess cost occasioned thereby. In addition, in the event of default by the Contractor under this contract, or upon the Contractor filing a petition for bankruptcy or the entering of a judgment of bankruptcy by or against the Contractor, the State may immediately cease doing business with the Contractor, immediately terminate for cause all existing contracts the State has with the Contractor, and may debar the Contractor from doing future business with the State

Upon the Vendor filing a petition for bankruptcy or the entering of a judgment of bankruptcy by or against the Vendor, the State may immediately terminate, for cause, this Contract and all other existing Contracts the Vendor has with the State, and debar the Vendor from doing future business with the State.

2. **GOVERNMENTAL RESTRICTIONS:** In the event any Governmental restrictions are imposed which necessitate alteration of the material, quality, workmanship or performance of the items offered prior to their delivery, it shall be the responsibility of the Vendor to notify, in writing, the issuing purchasing office at once, indicating the specific regulation which required such alterations. The State reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract.
3. **AVAILABILITY OF FUNDS:** Any and all payments to the Vendor are dependent upon and subject to the availability of funds to the agency for the purpose set forth in this agreement.
4. **TAXES:** Any applicable taxes shall be invoiced as a separate item.
- a. G.S. §143-59.1 bars the Secretary of Administration from entering into Contracts with Vendors if the Vendor or its affiliates meet one of the conditions of G. S. §105-164.8(b) and refuses to collect use tax on sales of tangible personal property to purchasers in North Carolina. Conditions under G. S. §105-164.8(b) include: (1) Maintenance of a retail establishment or office, (2) Presence of representatives in the State that solicit sales or transact business on behalf of the Vendor and (3) Systematic exploitation of the market by media-assisted, media-facilitated, or media-solicited means. By execution of the proposal document the Vendor certifies that it and all of its affiliates, (if it has affiliates), collect(s) the appropriate taxes.
 - b. All agencies participating in this Contract are exempt from Federal Taxes, such as excise and transportation. Exemption forms submitted by the Vendor will be executed and returned by the using agency.
 - c. Prices offered are not to include any personal property taxes, nor any sales or use tax (or fees) unless required by the North Carolina Department of Revenue.
5. **SITUS:** The place of this Contract, its situs and forum, shall be North Carolina, where all matters, whether sounding in Contract

or tort, relating to its validity, construction, interpretation and enforcement shall be determined.

6. **GOVERNING LAWS:** This Contract is made under and shall be governed and construed in accordance with the laws of the State of North Carolina, without regard to its conflict of laws rules.
7. **PAYMENT TERMS:** Payment terms are Net not later than 30 days after receipt of correct invoice or acceptance of goods, whichever is later. The using agency is responsible for all payments to the Vendor under the Contract. Payment by some agencies may be made by procurement card, if the Vendor accepts that card (Visa, MasterCard, etc.) from other customers, and it shall be accepted by the Vendor for payment under the same terms and conditions as any other method of payment accepted by the Vendor. If payment is made by procurement card, then payment may be processed immediately by the Vendor.
8. **AFFIRMATIVE ACTION:** The Vendor will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of people with disabilities, and concerning the treatment of all employees without regard to discrimination by reason of race, color, religion, sex, national origin or disability.
9. **INTELLECTUAL PROPERTY INDEMNITY:** Vendor shall hold and save the State, its officers, agents and employees, harmless from liability of any kind, including costs and expenses, resulting from infringement of the rights of any third party in any copyrighted material, patented or unpatented invention, articles, device or appliance delivered in connection with this contract.
10. **ADVERTISING:** Vendor agrees not to use the existence of this Contract or the name of the State of North Carolina as part of any commercial advertising or marketing of products or services. A Vendor may inquire whether the State is willing to act as a reference by providing factual information directly to other prospective customers.
11. **ACCESS TO PERSONS AND RECORDS:** During and after the term hereof, the State Auditor and any using agency's internal auditors shall have access to persons and records related to this Contract to verify accounts and data affecting fees or performance under the Contract, as provided in G.S. §143-49(9).
12. **ASSIGNMENT:** No assignment of the Vendor's obligations nor the Vendor's right to receive payment hereunder shall be permitted.

However, upon written request approved by the issuing purchasing authority and solely as a convenience to the Vendor, the State may:

- a. Forward the Vendor's payment check directly to any person or entity designated by the Vendor, and
- b. Include any person or entity designated by Vendor as a joint payee on the Vendor's payment check.

In no event shall such approval and action obligate the State to anyone other than the Vendor and the Vendor shall remain responsible for fulfillment of all Contract obligations. Upon advance written request, the State may, in its unfettered discretion, approve an assignment to the surviving entity of a merger, acquisition or corporate reorganization, if made as part of the transfer of all or substantially all of the Vendor's assets. Any purported assignment made in violation of this provision shall be void and a material breach of this Contract.

13. **INSURANCE:**

COVERAGE - During the term of the Contract, the Vendor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Vendor shall provide and maintain the following coverage and limits:

- a. **Worker's Compensation** - The Vendor shall provide and maintain Worker's Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$500,000.00, covering all of Vendor's employees who are engaged in any work under the Contract. If any work is sub-contracted, the Vendor shall require the sub-Contractor to provide the same coverage for any of his employees engaged in any work under the Contract.

b. **Commercial General Liability** - General Liability Coverage on a Comprehensive Broad Form on an occurrence basis in the minimum amount of \$1,000,000.00 Combined Single Limit. (Defense cost shall be in excess of the limit of liability.)

c. **Automobile** - Automobile Liability Insurance, to include liability coverage, covering all owned, hired and non-owned vehicles, used in connection with the Contract. The minimum combined single limit shall be \$500,000.00 bodily injury and property damage; \$500,000.00 uninsured/under insured motorist; and \$25,000.00 medical payment.

REQUIREMENTS - Providing and maintaining adequate insurance coverage is a material obligation of the Vendor and is of the essence of this Contract. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. The Vendor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or this Contract. The limits of coverage under each insurance policy maintained by the Vendor shall not be interpreted as limiting the Vendor's liability and obligations under the Contract.

14. **GENERAL INDEMNITY:** The Vendor shall hold and save the State, its officers, agents, and employees, harmless from liability of any kind, including all claims and losses accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Vendor in the performance of this Contract and that are attributable to the negligence or intentionally tortious acts of the Vendor provided that the Vendor is notified in writing within 30 days that the State has knowledge of such claims. The Vendor represents and warrants that it shall make no claim of any kind or nature against the State's agents who are involved in the delivery or processing of Vendor goods to the State. The representation and warranty in the preceding sentence shall survive the termination or expiration of this Contract.
15. **INDEPENDENT CONTRACTOR:** Vendor shall be considered to be an independent contractor and as such shall be wholly responsible for the work to be performed and for the supervision of its employees. Vendor represents that it has, or will secure at its own expense, all personnel required in performing the services under this agreement. Such employees shall not be employees of, or have any individual contractual relationship with the Agency.
16. **KEY PERSONNEL:** Vendor shall not substitute key personnel assigned to the performance of this contract without prior written approval by the State's assigned Contract Lead. The individuals designated as key personnel for purposes of this contract are those specified in the RFP or Vendor's proposal.
17. **SUBCONTRACTING:** Work proposed to be performed under this contract by the Vendor or its employees shall not be subcontracted without prior written approval of the State's assigned Contract Administrator. Acceptance of a Vendor's proposal shall include approval to use the subcontractor(s) specified therein.
18. **TERMINATION FOR CONVENIENCE:** The State may terminate this agreement at any time by 30 days' notice in writing from the State to the Vendor. In that event, all finished or unfinished deliverable items prepared by the Vendor under this contract shall, at the option of the State, become its property. If the contract is terminated by the State as provided in this section, the State shall pay for services satisfactorily completed by the Vendor, less payment or compensation previously made.
19. **CONFIDENTIALITY:** Any State information, data, instruments, documents, studies or reports given to or prepared or assembled by or provided to the Vendor under this agreement shall be kept as confidential, used only for the purpose(s) required to perform this contract and not divulged or made available to any individual or organization without the prior written approval of the State.
20. **CARE OF PROPERTY:** The Vendor agrees that it shall be responsible for the proper custody and care of any property furnished it by the State for use in connection with the performance of this contract or purchased by or for the State for this contract, and Vendor will reimburse the State for loss or damage of such property while in Vendor's custody.
21. **PROPERTY RIGHTS:** All deliverable items produced for or as a result of this contract shall be an become the property of the

State, and Vendor hereby assigns all ownership rights in such deliverables, including all intellectual property rights, to the State; provided, however, that as to any preexisting works imbedded in such deliverables, Vendor hereby grants the State a fully-paid, perpetual license to copy, distribute and adapt the preexisting works.

22. **OUTSOURCING:** Any Vendor or subcontractor providing call or contact center services to the State of North Carolina shall disclose to inbound callers the location from which the call or contact center services are being provided.

If, after award of a contract, the contractor wishes to relocate or outsource any portion of the work to a location outside the United States, or to contract with a subcontractor for the performance of any work, which subcontractor and nature of the work has not previously been disclosed to the State in writing, prior written approval must be obtained from the State agency responsible for the contract.

Vendor shall give notice to the using agency of any relocation of the Vendor, employees of the Vendor, subcontractors of the Vendor, or other persons performing services under a state contract to a location outside of the United States.

23. **COMPLIANCE WITH LAWS:** Vendor shall comply with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business, including those of federal, state, and local agencies having jurisdiction and/or authority.

24. **ENTIRE AGREEMENT:** This contract and any documents incorporated specifically by reference represent the entire agreement between the parties and supersede all prior oral or written statements or agreements. This RFP, any addenda thereto, and the Vendor's proposal are incorporated herein by reference as though set forth verbatim.

All promises, requirements, terms, conditions, provisions, representations, guarantees, and warranties contained herein shall survive the contract expiration or termination date unless specifically provided otherwise herein, or unless superseded by applicable Federal or State statutes of limitation.

25. **AMENDMENTS:** This contract may be amended only by written amendments duly executed by the State and the Vendor. The NC Division of Purchase and Contract shall give prior approval to any amendment to a contract awarded through that office.

26. **WAIVER:** The failure to enforce or the waiver by the State of any right or of breach or default on one occasion or instance shall not constitute the waiver of such right, breach or default on any subsequent occasion or instance.

27. **FORCE MAJEURE:** Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations as a result of events beyond its reasonable control, including without limitation, fire, power failures, any act of war, hostile foreign action, nuclear explosion, riot, strikes or failures or refusals to perform under subcontracts, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God.

EXECUTION OF PROPOSAL BY VENDOR

In compliance with this Request for Proposals, and subject to all the conditions herein, the undersigned Vendor offers and agrees to furnish and deliver any or all items upon which prices are bid, at the prices set opposite each item within the time specified herein. By executing this proposal, the undersigned Vendor certifies that this proposal is submitted competitively and without collusion (G.S. 143-54), that none of its officers, directors, or owners of an unincorporated business entity has been convicted of any violations of Chapter 78A of the General Statutes, the Securities Act of 1933, or the Securities Exchange Act of 1934 (G.S. 143-59.2), and that it is not an ineligible Vendor as set forth in G.S. 143-59.1. False certification is a Class I felony. Furthermore by executing this proposal, the undersigned certifies to the best of Vendor's knowledge and belief, that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal or State department or agency. As required by G.S. §143-48.5, the undersigned Vendor certifies that it, and each of its sub-Contractors for any Contract awarded as a result of this RFP, complies with the requirements of Article 2 of Chapter 64 of the NC General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system. G.S. 133-32 and Executive Order 24 (2009) prohibit the offer to, or acceptance by, any State Employee associated with the preparing plans, specifications, estimates for public Contract; or awarding or administering public Contracts; or inspecting or supervising delivery of the public Contract of any gift from anyone with a Contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Failure to execute/sign proposal prior to submittal shall render proposal invalid and it WILL BE REJECTED. Late proposals cannot be accepted.

VENDOR: PATTERSON EXPLORATION SERVICES		
STREET ADDRESS: 1907 Boone Trail Road	P.O. BOX: 3008	ZIP: 27331-3008
CITY & STATE & ZIP: SANFORD, NC 27330	TELEPHONE NUMBER: 919-774-3770	TOLL FREE TEL. NO: NA
PRINCIPAL PLACE OF BUSINESS ADDRESS IF DIFFERENT FROM ABOVE:		
PRINT NAME & TITLE OF PERSON SIGNING ON BEHALF OF VENDOR: O.F. PATTERSON, III President	FAX NUMBER: NA	
VENDOR'S AUTHORIZED SIGNATURE: O.F. Patterson, III	DATE: 4-8-2015	E-MAIL: Muss@pattersonexploration.com

Offer valid for at least 90 days from date of proposal opening, unless otherwise stated here: 60 days. After this time, any withdrawal of offer shall be made in writing, effective upon receipt by the agency issuing this RFP.

THIS PAGE MUST BE SIGNED AND INCLUDED IN YOUR PROPOSAL OFFER.

FAILURE TO SIGN AND RETURN THIS PAGE WITH YOUR OFFER WILL CAUSE YOUR OFFER TO BE REJECTED.

EXECUTION OF PROPOSAL BY VENDOR

By submitting this proposal, the potential contractor certifies the following:

- This proposal is signed by an authorized representative of the firm.
- It can obtain insurance certificates as required within 10 calendar days after notice of award.
- The cost and availability of all equipment, materials, and supplies associated with performing the services described herein have been determined and included in the proposed cost.
- All labor costs, direct and indirect, have been determined and included in the proposed cost.
- The vendor has attended the mandatory conference/site visit and is aware of prevailing conditions associated with performing these services.
- The vendor can and will provide the specified performance bond or alternate performance guarantee (if applicable).
- The vendor acknowledges that on July 1, 2004 the State of North Carolina became a "tax exempt" entity (Tax Exempt #400027).
- The potential contractor has read and understands the conditions set forth in this RFP and agrees to them with no exceptions.
- The vendor certifies the following regarding:
 - **Debarment And Suspension** - To the best of its knowledge and belief that it and its principals:
 - (a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State, or local government agency;
 - (b) have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
 - (d) have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.
 - **Lobbying** - To the best of his or her knowledge and belief, that:
 - (a) No Federal, State or local government appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal, State or local government agency; a member of Congress, North Carolina's General Assembly or local government body; an officer or employee of Congress, North Carolina's General Assembly or local government body, or an employee of a member of Congress, North Carolina's General Assembly or local government body, in connection with the awarding of any Federal, State or local government contract, the making of any Federal, State or local government grant, the making of any Federal, State or local government loan, the entering into of any Federal, State or local government cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal, State or local government contract, grant, loan, or cooperative agreement.

EXECUTION OF PROPOSAL BY VENDOR

- (b) If any funds other than Federal, State or local government appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency; a member of Congress, North Carolina's General Assembly or local government body; an officer or employee of Congress, North Carolina's General Assembly or local government body; or an employee of a member of Congress, North Carolina's General Assembly or local government body in connection with the Federal, State or local government contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.
- **Drug-Free Work Place Requirements** - It will comply by:
 - (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
 - (b) Establishing a drug-free awareness program to inform employees about -
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
 - (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a) above;
 - (d) Notifying the employee in the statement required by paragraph (a), above, that, as a condition of employment under the grant, the employee will -
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction;
 - (e) Notifying the agency within ten days after receiving notice under subparagraph (d)(2), above, from an employee or otherwise receiving actual notice of such conviction;
 - (f) Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2), above with respect to any employee who is so convicted -
 - (1) Taking appropriate personnel action against such an employee, up to and including termination; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
 - (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f), above.
 - The vendor will comply with the provisions of the Equal Employment Practices Act set out in Article 49A of Chapter 143 of the North Carolina General Statutes.
 - The vendor will comply, as applicable, with the provisions of the Wage and Hour Act, Occupational Safety and Health Act of North Carolina, Controlled Substance Examination Regulation, Retaliatory Employment Discrimination, Safety and Health Programs and Committees, Workplace Violence Prevention, and other applicable provisions of Chapter 95 of the North Carolina General Statutes regarding labor standards.
 - The vendor will comply with all applicable requirements of all other federal, state and local government laws, executive orders, regulations and policies governing this program.
 - The vendor is registered in NC E-Procurement @ Your Service or agrees to register within two days after notification of contract award. Registration web site: <http://vendor.ncgov.com>.

COST PROPOSAL

16-006423

PROJECT: DRILLING SERVICES FOR THE DAN RIVER BASIN

\$ 91,501.50
TOTAL PROJECT COST

Ninety one thousand five hundred one dollars and $\frac{50}{100}$

Patterson Exploration Services
Vendor's Company/Organization Name

WHERE SERVICE CONTRACTS WILL BE PERFORMED
 In accordance with NC General Statute 143-59.4 (Session Law 2005-169),
 this form is to be completed and submitted with the vendor's proposal / bid.

Issuing Agency: Department of Environment and Natural Resources, Financial Services Division
 Solicitation #: 16-006423
 Agency Contract Person: Traci Rains Phone Number: 919-707-8537
 Solicitation Title / Type of Service: Drilling Services for the Dan River Basin

TO BE COMPLETED BY THE VENDOR

VENDOR: PATTERSON EXPLORATION SERVICES

CITY & STATE: SANFORD, NC 27330

Location(s) from which services will be performed by the Contractor:

SERVICE	CITY / PROVIDENCE / STATE	COUNTRY
<u>Drilling, coring, support</u>	<u>SANFORD NC</u>	<u>USA</u>

Location(s) from which services are anticipated to be performed OUTSIDE THE U. S. by the Contractor:

SERVICE	CITY / PROVIDENCE / STATE	COUNTRY
<u>NA</u>		

Location(s) from which services will be performed by subcontractor(s):

SERVICE	SUBCONTRACTOR	CITY / PROVIDENCE / STATE	COUNTRY
<u>Drilling, coring, support</u>	<u>Rued Drilling Inc</u>	<u>WYTHEVILLE, VA.</u>	<u>USA</u>

Location(s) from which services are anticipated to be performed OUTSIDE THE U. S. by the subcontractor(s):

SERVICE	SUBCONTRACTOR	CITY / PROVIDENCE / STATE	COUNTRY
<u>NA</u>			

(Attach additional pages if necessary)

REFERENCES/CLIENT NAMES

THE FAILURE OF THE VENDOR TO LIST ALL SIMILAR CONTRACTS IN THE SPECIFIED PERIOD MAY RESULT IN THE REJECTION OF THE VENDOR'S PROPOSAL. THE EVALUATORS MAY CHECK ALL PUBLIC SOURCES TO DETERMINE WHETHER VENDOR HAS LISTED ALL CONTRACTS FOR SIMILAR WORK WITHIN THE DESIGNATED PERIOD. IF THE EVALUATORS DETERMINE THAT REFERENCES FOR OTHER PUBLIC CONTRACTS FOR SIMILAR CONTRACTS WERE NOT LISTED, THE EVALUATORS MAY CONTACT THE PUBLIC ENTITIES TO MAKE INQUIRY INTO VENDOR'S PERFORMANCE OF THOSE CONTRACTS AND THE INFORMATION OBTAINED MAY BE CONSIDERED IN EVALUATING VENDOR'S PROPOSAL.

Prospective Vendor shall supply references for which it has done similar or related work during the past THREE years.

1. Agency or Firm Name: Buy Sod, Inc.
Business Address: P.O. Box 4089, Pinehurst, NC 28374
Contact Person: Clark H. Wooten
Phone Number: 910-385-4675, cell
2. Agency or Firm Name: B.A. Branch Properties, LLC
Business Address: 402 Forestwood Park Road, Sanford, NC 27330
Contact Person: Bobby A. Branch, Manager
Phone Number: 919-708-8465
3. Agency or Firm Name: Natural Resource Partners L.P.
Business Address: 601 Jefferson Street, Suite 3600, Houston, TX 77002
Contact Person: Dennis Coker, Vice President - Aggregates
Phone Number: 713-751-7566, Cell 469-585-1894
4. Agency or Firm Name: Vanderbilt Minerals LLC - Standard Div.
Business Address: P.O. Box 279, Robbins, NC 27325
Contact Person: Jim Faile or Jim Harkins
Phone Number: 910-948-2266
5. Agency or Firm Name: Direct Marketing Realty
Business Address: 42 N 4th Street, Colbert, GA 30628
Contact Person: Carrol Beavers
Phone Number: Office 706-788-2408, Cell 706-540-1485

PROVIDE ADDITIONAL SHEETS AS NECESSARY

DENR CONTRACT NO. _____

STATE OF NORTH CAROLINA NC Department of Environment & Natural Resources Financial Services Division		REQUEST FOR PROPOSALS NO. 16-006423
Using Agency	Division of Energy, Mineral and Land Resources	TITLE: Drilling Services for the Dan River Basin
Contract Administrator:	Dr. Kenneth Taylor	

FOR NC DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, FINANCIAL SERVICES DIVISION USE ONLY:

ACCEPTANCE OF OFFER BY NC DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

The DEPARTMENT hereby agrees to pay the VENDOR (_____) at the rate of _____ per the Vendor's response dated _____ to RFP # _____ titled _____, for a sum of money not to exceed _ DOLLARS (\$), said sum to be full and complete compensation for services to be rendered under this agreement.

This amount consists of:

Type of Funds	Source of Funds	CFDA No.

Accounting Code Information:

Dollars	GL Company	GL Account	GL Center

The services of the Vendor are to commence on the **<begin date>** and shall be undertaken and completed in such sequence as to assure their expeditious completion in the light of the purposes of this agreement, but in any event, all of the services required hereunder shall be completed on the **<end date>**.

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Donald R. van der Vaart, Secretary

Chief of Purchasing/Financial Services Division, Purchasing and Contracts Section

Department Head's Signature or Authorized Agent

By the Department's acceptance of your response to this Request for Proposals (RFP), the provisions of the Scope of Work, the North Carolina General Terms and Conditions, any Addenda, and all other attachments noted within the RFP, shall now constitute the written contract.

Walnut Cove Formation drill hole location Dan River basin

Revised 20 November 2014

Updated 10 March 2015 and 26 March 2015

Jeffrey C. Reid, PhD, PG, CPG
Sr. Geologist, Energy and Minerals
North Carolina Geological Survey
1612 Mail Service Center
Raleigh, NC 27699-1612
919.707.9205

Email: jeff.reid@ncdenr.gov

Core hole objectives and location

- A small parcel owned by the Town of Walnut Cove was found south of the Town Fork River (see Figure 2 for parcel number and location).
- A vertical science ‘stratigraphic’ core hole (not an oil and gas well) is proposed on the parcel by the N.C. Geological Survey (NCGS), DENR.
- The NC General Assembly has directed to NCGS to undertake studies in the Dan River- and Deep River Triassic basins.
- Drill hole objectives:
 - Obtain new unbiased scientific information in this basin; the last three shallow core holes were drilled in 1981 and do not provide sufficient required technical data.
 - Planned vertical core hole depth is 1,750 ft. The hole will bottom in the Pine Hall Formation after advancing through the entire Walnut Cove Formation.
 - Drill hole cost will be borne by the NCGS; duration will be about 10 days.
 - Water is adjacent (hose under rail ties); it is the drilling contractor’s responsibility.
 - A very small footprint will be needed for the drill, two pick-up trucks and return pit.
 - The core hole will be named “Town of Walnut Cove”; the core is retained indefinitely in the NCGS’ repository.
 - This is a small diameter core hole; only cylinders of rock will be removed.
 - The hole will not be stimulated; core hole closure will be in accordance with state law.
- There is no “Plan B” fall back position because of limited drilling funds, and drilling objectives.

Dan River basin – cross section in vicinity of Madison, North Carolina

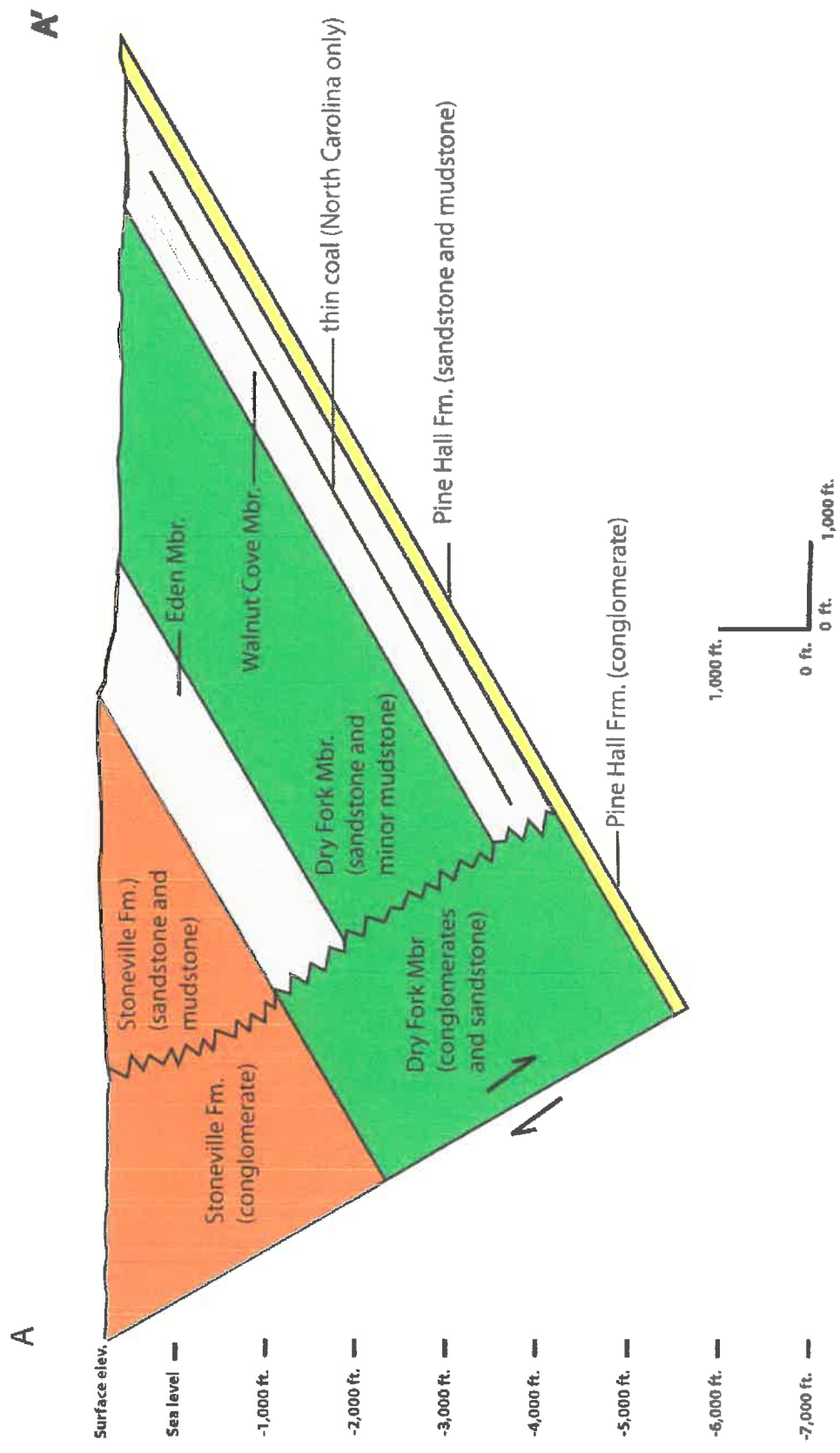


Figure 1. Generalized cross section of the Dan River basin (from Olsen and others, 2015). Note the geologic units (members) were raised to formation status by Olsen and others, 2015. See Figure 6 for cross section approximate location.



PIN 6962-12-86-0638
Map ID 288E-4-26
NC Pin 0701460
Option B

River

Railroad

Figure 2. Town of Walnut Cove parcels in area of interest. Option B (the preferred option) is a vertical hole. The river is a drilling water supply. Note railroad track location. Red boundaries are Town of Walnut Cove parcels (source Stokes Co. GIS).



Figure 3. Option B parcel (shape approximate – refer to Stokes Co. GIS for official boundary and see Figure 1). Preferred core hole location. View shows access route to parcel. Note location of railroad track relative to river (water supply for drilling).

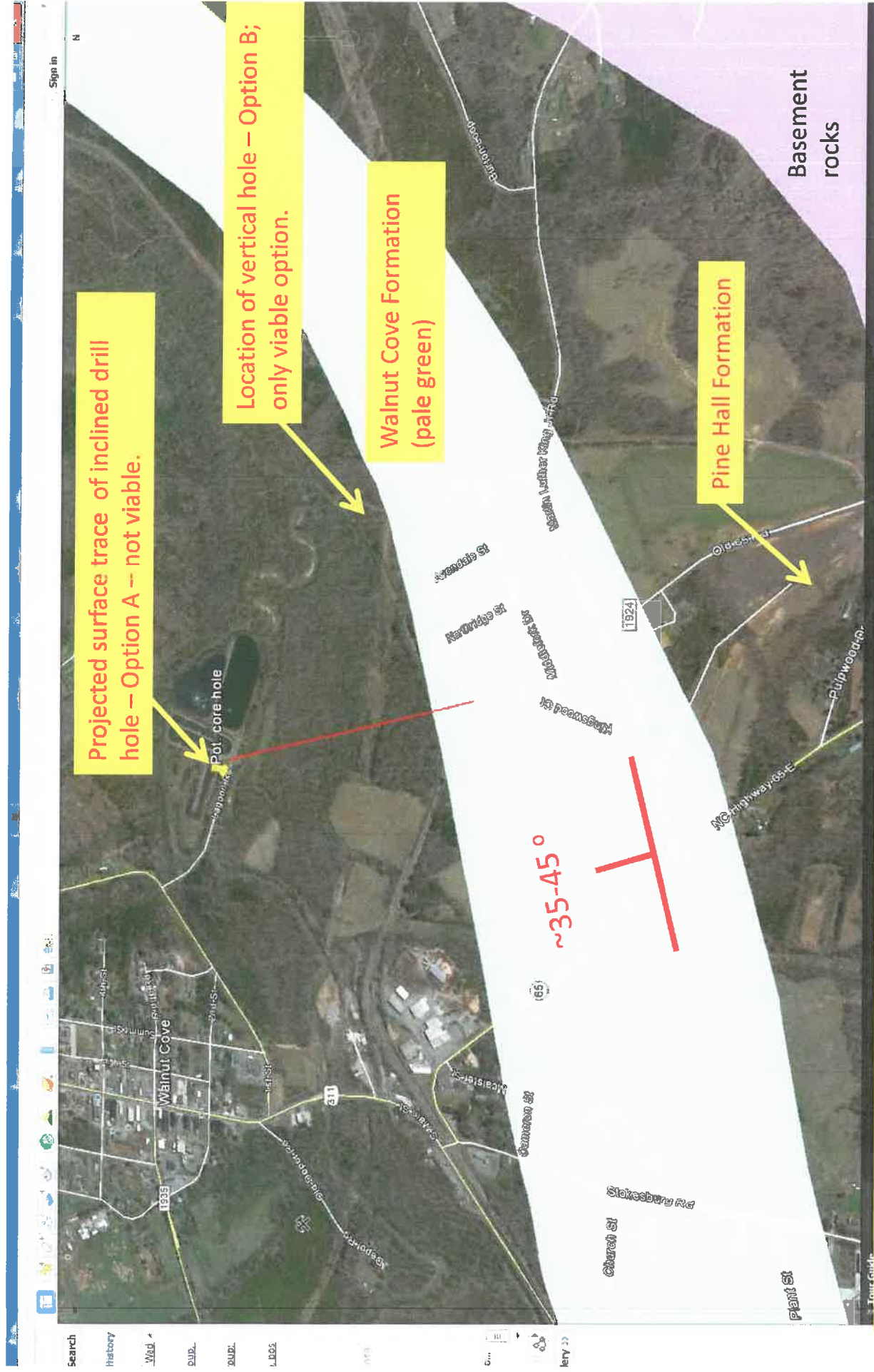


Figure 4. Option B is the preferred vertical core drill hole location. The drill hole is projected to terminate in the Pine Hall Formation. The Walnut Cove Fm. (pale green) dips about 35-45° to the northwest; its strike is shown by its outcrop pattern. Option A has been abandoned because of insufficient funds and complicated land ownership issues.



Figure 5. Option B location. Map shows map outcrop pattern of the Walnut Cove Fm. (light green). Refer to Figure 2 for parcel boundaries, and to Stokes Co. GIS for official parcel boundaries.

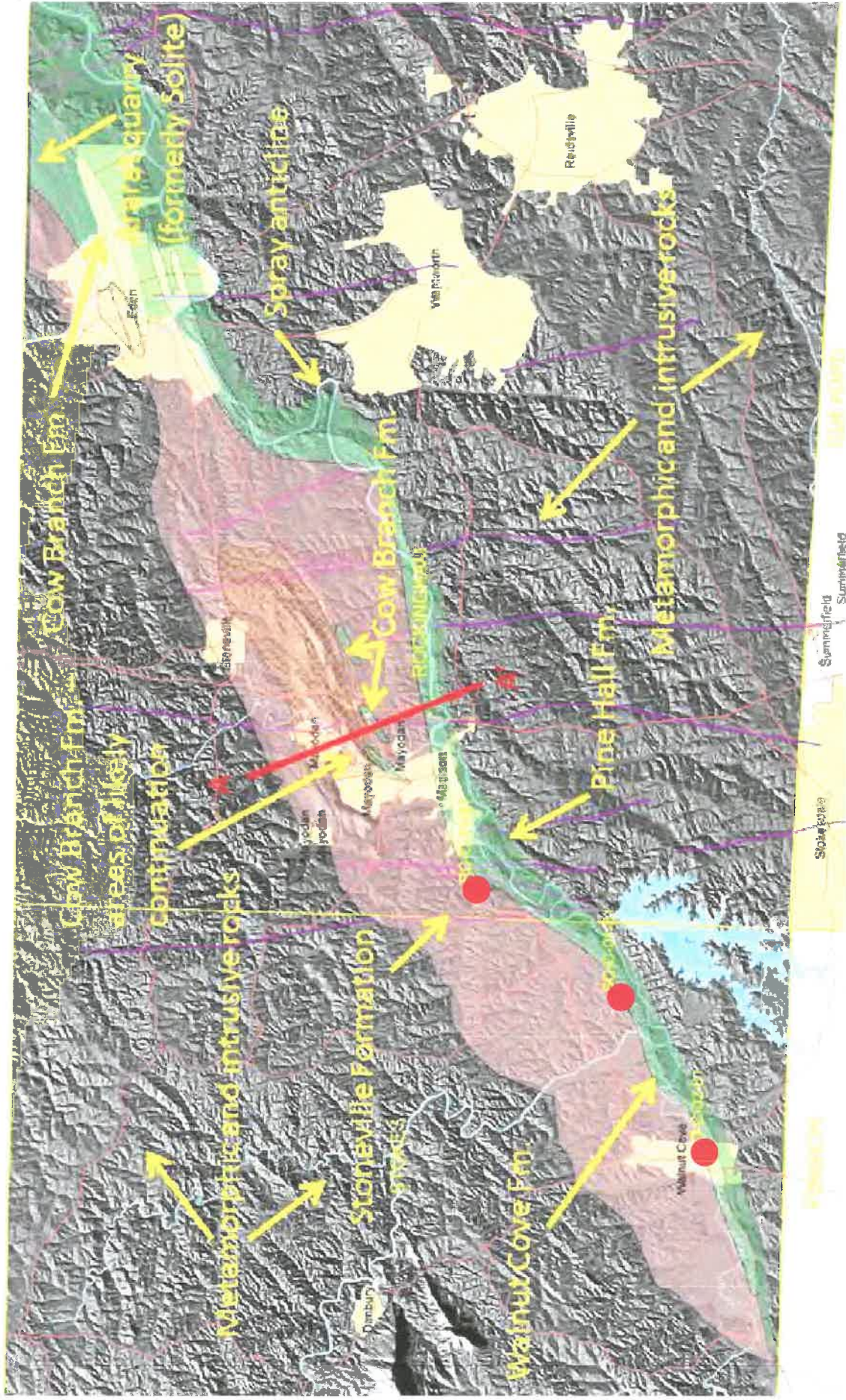


Figure 6. Map showing details of the Dan River basin in North Carolina. The three existing diamond drill core holes are denoted by red dots accompanied by drill hole number. The cross section between A and A' is shown in Figure 1.



Drill Hole : NCST-2

NCGS No.: SO-C-2-81

Box No. : 7



From : 103 feet
to 112 feet

Drill Hole : NCST-2

NCGS No.: SO-C-2-81

Box No. : 8



From : 112 feet
to 122 feet

Figure 7. Example drill core from an existing drill core hole (SO-C-2-81 – see previous figure). This shows the diameter of the hole that will be produced during coring.



Railroad

Pump Station





Old Well
Across the road from
Sewer Lift Station



Sewer Pipe



The road to the Lift Station



PATTERSON EXPLORATION SERVICES

P.O. BOX 3008 - SANFORD, N.C. 27331-3008 - (919) 774-3770
FAX: (919) 774-3510

**RFP # 16-006423
DRILLING SERVICES FOR THE DAN RIVER BASIN**

PATTERSON EXPLORATION SERVICES

PROPOSAL

Company Background and Experience

Patterson Exploration Services has provided professional geological exploration and drilling services to industry and governmental agencies for over 40 years. During this time, we have drilled or contracted over 1.5 million feet. These services have included drilling several exploration holes over 2000 feet in depth across wide-ranging geologic conditions throughout North America and the Caribbean. Our main focus and expertise is geared towards aggregates and industrial minerals although we have drilled many properties in West Virginia, Virginia, and Tennessee for coal; we have held and completed several contracts with the North Carolina Geological Survey beginning in 1979 with three stratigraphic holes to basement in the "Graingers Basin" (one of which we cored and recovered basement core, proving it was not a buried Triassic basin) along with a multitude of Coastal Plain holes to basement near the edge of the piedmont, and numerous core holes on the NC outer banks (multi-year contracts, 1995-2004). Former or current NCGS employees (James Sampair, William Hoffman, John Nickerson, and Kathleen Farrell, PhD) are familiar with the quality of our services. We have drilled many holes in the NC Triassic basins including the Dummitt-Palmer # 1 (1982) shale/coal bed methane test well. A partial list of more recent exploration projects follows:

2009 – Project "ORCA" - Sand and Gravel Exploration and Evaluation, Vancouver Island, British Columbia. Client: Natural Resource Partners L.P.

2010 – Project "Chico" – Morris Ravine Mine – Industrial Sand Exploration and Evaluation, Oroville, CA. Client: Client: Natural Resource Partners L.P.

2011 – Project "Palua" – Kaolin Clay Exploration and Evaluation, Georgia Coastal Plain. Client: Natural Resource Partners L.P.

NBR Project – "Frac Sand" Exploration and Evaluation, Tyler, TX.
Client: Natural Resource Partners L.P.

2013-2015 - Multiple Projects – Exploration and Evaluation of Crushed Stone Aggregates, Chatham County, NC. Client: B.A. Branch Properties, LLC

Company Background and Experience, continued

2012-2015 – Multiple Projects- Exploration and Evaluation of Reserves – Vanderbilt Minerals, LLC-Standard Division, Robbins, NC

2013-2015 – Multiple Projects - Exploration and Evaluation of Dimension Stone Resources. Oglethorpe County, Georgia: Carrol Beavers

Project Organization

O.F. Patterson, III, P.G., C.P.G., NCWC 2182-A – President and Chief Geologist. Driller, Project Manager and principal contact for Patterson Exploration Services. **Resume attached.**

Joshua C. Patterson, NCWC 4173-B – VP Operations. Driller, Field Manager –Site Preparation, Hole Abandonment and Site Restoration. Sampling of drill cuttings, coring and core recovery, and handling of recovered core. 12 years experience.

Ruen Drilling Inc. may provide drilling, coring, & support for the project.

Mike Neal – Eastern Operations Manager for Ruen Drilling. Will provide project management as needed for drilling activities. Over 30 years core drilling experience in varied conditions. **Resume attached.**

Ron Pearrow – Deep Hole Core Driller, 27 years experience. **Resume attached.**

Brad Kiser – Deep Hole Core Driller. 17 years experience. **Resume attached.**

Technical Approach

The work will be conducted in accordance with the SCOPE OF WORK on pages 7 and 8 of the RFP. The work will be accomplished utilizing an Atlas Copco CT-14 Core Drill utilizing “NQ” or “HQ” wireline tooling.

The following steps are expected for each hole:

- 1 – Contact 811, clear utilities
- 2 – Mobilization, setup, set pit casing
- 3 – Drill and core to T.D. as per “SCOPE OF WORK” in the attached RFP

Technical Approach, continued

- 4 – Remove all tools and casing from hole
- 5 – After completion the hole will be properly abandoned and the drill site restored
- 6 – Core and cuttings, driller's log, and a copy of GW-30 for the hole will be delivered to the NCGS.

It is anticipated to take approximately twelve days for the drilling activity. An additional day is allotted for hole abandonment and site restoration.

Outsourcing

As this project will be conducted in Walnut Cove, Stokes County, North Carolina, **no part of this project will be conducted outside this location, and therefore will not be conducted outside the United States.**

References

Dennis Coker, Vice President – Aggregates
Natural Resource Partners L.P.
601 Jefferson Street
Suite 3600
Houston, Texas 77002
Office – 713-751-7566, Cell 469-585-1894

Martin Burhans, President
Heart Land Resources
P.O. Box 190
Porter, Texas 77365
214-233-0421

Nigel Wills, Director - Mineral Resources
Lehigh Hanson
300 East John Carpenter Fwy
Suite 1645
Irving, Texas 75062
Office 972-657-4366

Jon Reedy
South Region/HBP Director
Environment, Safety & Health

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Patterson Exploration Services

References, continued

Lehigh Hanson
300 East John Carpenter Fwy
Suite 800
Irving, Texas 75062
Office 972-653-3730, Cell 214-213-9619

Bobby A. Branch, Manager
B.A. Branch Properties, LLC
402 Forestwood Park Road
Sanford, NC 27330
919-708-8465

J. Daniel Butler
Jireh Corporation
777 Fort Bragg Road
Southern Pines, NC 28387
Office 910-692-7412, Cell 910-528-6635

Jim Faile
Jim Harkins
Vanderbilt Minerals, LLC – Standard Division
P.O. Box 279
Robbins, NC 27325
910-948-2266

Carrol Beavers
42N 4th Street
Colbert, Georgia 30628
Office 706-788-2408, Cell 706-540-1485

ORUS FUQUAY PATTERSON, III
1901 Boone Trail Road
Sanford, North Carolina 27330
(919) 776-6863

EDUCATION

North Carolina State University, Raleigh, North Carolina - MS - Geology - 1969; Minor, Civil Engineering (Hydrology)

Campbell University, Buies Creek, North Carolina BS - Geology - 1968

University of North Carolina, Chapel Hill, North Carolina - June - August, 1967

Western Carolina University, Cullowhee, North Carolina - 1963 - 1965

Sanford Central High School, Sanford, North Carolina - Graduated 1963

EMPLOYMENT BACKGROUND

1974 - Present PATTERSON EXPLORATION SERVICES
Sanford, North Carolina
President, Co-Owner, Chief Geologist, and Independent Consultant

1969 - 1974 EXPLO ASSOCIATES, Geophysical Division
Sanford, North Carolina
President and Chief Geologist

1969 CAMPBELL UNIVERSITY
Buies Creek, North Carolina
Associate Professor of Geology

1968 - 1969 NORTH CAROLINA STATE UNIVERSITY
Raleigh, North Carolina
Graduate Teaching Assistant
Department of GeoSciences

1966 USGS, GROUND WATER DIVISION
Raleigh, North Carolina
Hydrologic Field Assistant

1963 - 1965 WESTERN CAROLINA UNIVERSITY
 Cullowhee, North Carolina
 Laboratory Instructor
 Department of Geology

LICENSES

Licensed or Registered Professional Geologist:
North Carolina, South Carolina, Florida

General Contractor
North Carolina - No. 35376

Certified Well Contractor
North Carolina - NCWC #2182-A

PROFESSIONAL ASSOCIATIONS

President (2003) Carolinas Section, American Institute of Professional Geologists

Executive Committee, Carolinas Section Society of Mining Engineers, AIME

Chairman (1985) Carolinas Section Society of Mining Engineers, AIME

American Institute of Professional Geologists Certified Profession Geologist #2707

Screening Board Chairman and Executive Committee, Carolinas Section, American
Institute of Professional Geologists

Society of Sigma Xi

N. C. Joint Professional Liaison Committee

Commissioner, State of West Virginia

North Carolina Ground Water Association

National Ground Water Association - Certified Well Driller

Society for Mining, Metallurgy, and Exploration (SME)

PUBLICATIONS AND PAPERS PRESENTED

- 2011 Natural Gas Potential of the Sanford Sub-basin, Deep River Basin, North Carolina, Field Trip Guide Book - 60th Annual Meeting Southeastern Section, Geological Society of America, March 2011 (Co-authored with Jeffrey C. Reid, Kenneth B. Taylor, and Paul E. Olson).
- 2011 Natural Gas Potential of the Sanford Sub-basin, Deep River Basin, North Carolina, Field Trip Guide Book, AAPG Eastern Meeting, September 2011, "Search and Discovery " article #10366 (2011). (Co-authored with Jeffrey C. Reid, Kenneth B. Taylor, and Paul E. Olson).
- 1995 Hydrocarbon Bioremediation with Compost, BioCycle, Southeast Conference, Kissimee, Florida
- 1994 Bioremediation of Petroleum Contaminated Soils, Annual Meeting, Carolina's Section, Society of Mining Engineers of AIME, Sanford, North Carolina.
- 1984 Comments on Some Recent Conventional and Unconventional Oil and Gas Tests in North Carolina. Annual Meeting, Carolinas Section, Society of Mining Engineers of AIME, Asheville, North Carolina.
- 1984 Methane Recovery from Landfills: A New Energy Source. Spring Meeting, Carolinas Section, Society of Mining Engineers of AIME, Asheboro, North Carolina.
- 1982 Methane Recovery from the Cumnock Coal Bed, Deep River Triassic Basin, North Carolina. Winter Meeting, Carolinas Section, Society of Mining Engineers of AIME, Sanford, North Carolina.
- 1971 Mineral Localities of North Carolina. North Carolina Department of Natural and Economic Resources, Information Circular No. 16. (Co-Author, G. R. Ganis).
- 1969 The Depositional Environment and Paleoecology of the Pekin Formation (Upper Triassic) of the Sanford Triassic Basin, North Carolina. North Carolina State University, Department of GeoSciences.
- 1969 Upper Triassic Flora from the Deep River Basin, North Carolina. North Carolina Department of Conservation and Development, Special Paper No. 2, (Co-Author, Robert C. Hope).
- 1967 Dicynodont-Archosaur Fauna in the Pekin Formation (*Upper Triassic*) of North Carolina. Geol. Society Am. Annual Meetings, New Orleans. (Abstract, Co-Author, Donald Baird).

WORK EXPERIENCE

- **GEOTECHNICAL**

Foundation Design: deep and shallow; slope stability and slope stabilization: existing foundation settlement remediation, quarries, mines, highways, dams, rock mechanics (*surface and underground mines, road cuts, dams*); project types: elevated water tanks, silos, bridges, dams, large fills, lagoons, canals, harbors. Domestic and overseas.

- **ENVIRONMENTAL**

Groundwater studies, well head protection, monitoring, testing, remediation design and implementation; hazardous and toxic wastes; acid mine drainage; land reclamation; asbestos and radon; U.S. EPA RCRA, CERCLA, SARA projects. Landfills and landfill gas recovery, venting, and migration control. Site audits for real estate transactions.

- **BIOREMEDIATION**

Development of biological processes for the degradation of organic contaminants through the use of naturally occurring fungi and bacteria. Successfully remediated contaminants include: gasoline, diesel fuel, kerosene, fuel oil, lubricating oils, jet fuel, mineral spirits, polynuclear aromatics, volatile organics, polychlorinated biphenyls, and volatile halocarbons. Responsible for bench scale studies and process implementation on-site. Millions of tons of contaminated soil have been remediated as a result of this innovative process.

- **GEOPHYSICAL**

Seismic surveys for oil, gas and depth to rock; magnetics and electromagnetic (EM/VLF) surveys; electric resistivity (ER), gamma, neutron, density, caliper and down hole camera. Location of ground water, oil, gas, buried structures and ore bodies, location of buried drums, lagoons, etc. Domestic and overseas.

- **MINERAL EXPLORATION**

Sand, gravel, construction aggregates, building and dimension stone, clay, industrial sand, industrial minerals, heavy minerals; precious, base, non-metallic minerals, coal, uranium, oil and gas. Exploration and evaluation of aggregate resources for acquisition due diligence. Domestic and overseas.



NORTH CAROLINA

Department of the Secretary of State

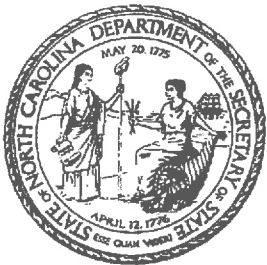
CERTIFICATE OF AUTHORIZATION

I, Elaine F. Marshall, Secretary of State of the State of North Carolina, do hereby certify that

RUEN DRILLING, INC.

a corporation organized under the laws of Idaho was authorized to transact business in the State of North Carolina by issuance of a certificate of authority on the 11th day of April, 2012.

I FURTHER certify that the said corporation's certificate of authority is not suspended for failure to comply with the Revenue Act of the State of North Carolina; that the said corporation's certificate of authority is not revoked for failure to comply with the provisions of the North Carolina Business Corporation Act; that its most recent annual report required by G.S. 55-16-22 has been delivered to the Secretary of State; and that a certificate of withdrawal has not been issued in the name of the said corporation as of the date of this certificate.



Scan to verify online.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Raleigh, this 6th day of April, 2015.

Elaine F. Marshall

Secretary of State



Mike Neal

EXPERIENCE

Eastern Operations Manager

2012 – Present

Ruen Drilling, Inc. – Clark Fork, ID

- Manage operations in the eastern part of the US
- Prepare bid documents, crew schedules and coordination between crew and clients
- Supervise operations of drilling projects and drill crews.
- Manage on-site client relations.
- Organize job set-up and operation requirements.
- Provide leadership for and coordinate efficient placement of drills into work areas with contractors and drill crews.
- Ensure drilling program requirements are met by making drill supplies available in a timely and effective manner and communicating clearly and frequently with contractors and the client.
- Troubleshoot down-hole drilling problems using experience and knowledge gained from similar situations.
- Suggest changes in working conditions and use of equipment and materials to increase efficiency of work crew or improved job safety.
- Compilation of drill reports, shift reports, drilling permits, and crew time cards.

Operations Manager

1984 – 2012

Boart Longyear – Wytheville, VA

- Prepare bid documents, crew schedules and coordination between crew and clients
- Supervise operations of drilling projects and drill crews.
- Manage on-site client relations.
- Organize job set-up and operation requirements.
- Provide leadership for and coordinate efficient placement of drills into work areas with contractors and drill crews.
- Ensure drilling program requirements are met by making drill supplies available in a timely and effective manner and communicating clearly and frequently with contractors and the client.
- Troubleshoot down-hole drilling problems using experience and knowledge gained from similar situations.
- Suggest changes in working conditions and use of equipment and materials to increase efficiency of work crew or improved job safety.
- Compilation of drill reports, shift reports, drilling permits, and crew time cards.

TRAINING / LICENSES

- Current MSHA Metal Non-Metal and Surface Mine Training
- Current CPR and First Aid Training

SKILLS AND QUALIFICATIONS

- Drills: LY-24, LY-28, LY-34, LY-38, LY-44, LY-50, LY-244, LF-70, LF-90, LM-37, LM-45, LM-55, LM-75, LM-90, Hagby 1000/3, Atlas Copco CT-14.
- Dam Projects include:
 - Middle Fork Dam, Parachute Co.
 - John Day Dam, USACE Columbia River
 - Mississinewa Dam, USACE Peru, IN
 - Wolf Creek Dam, USACE
 - Clearwater Dame, USACE
 - Dix Dam, Kentucky Utilities
- Maintenance and mechanical up-keep, including changing transmissions, radiators, engines, bearings, seals and hydraulic repairs.
- Driving and maintenance of highway and off-road trucks, water trucks, drill trucks, dump trucks, and highway support trucks of various makes and models.
- Maintenance and operation of forklifts, cranes, and boom trucks.



Ronald Pearrow

EXPERIENCE

Diller III

2013 – Present

Ruen Drilling, Inc. – Clark Fork, ID

- Operate and supervise operations of drilling projects and drill crews.
- Organize job set-up and operation requirements.
- Provide leadership for and coordinate efficient placement of drills into work areas with contractors and drill crews.
- Troubleshoot down-hole drilling problems using experience and knowledge gained from similar situations.
- Suggest changes in working conditions and use of equipment and materials to increase efficiency of work crew or improved job safety.
- Compilation of drill reports, shift reports, drilling permits, and crew time cards.

Rig Supervisor

2012 - 2013

Boart Longyear

- Operate and supervise crews, order inventory, made crew schedules, performed daily safety meetings, filled out incident reports, ensured working environment was safe
- Held daily meeting with clients, drill crew and safety personnel
- Trained drill operators

Driller

2010 - 2012

Haile Gold Mine

- Operating LF90 track drills, order inventory, made crew schedules, performed daily safety meetings, filled out incident reports, ensured working environment was safe
- Reviewed daily drill reports
- Held safety meeting and pre shift inspections
- Inspected each drill site for safety compliance
- Installed monitoring wells,

Drill Operator

1988 - 2010

Boart Longyear

- Operate truck/track diamond core drills, order inventory, made crew schedules, performed daily safety meetings, filled out incident reports, ensured working environment was safe
- Down hole survey

TRAINING / LICENSES

- Current MSHA Metal Non-Metal and Surface Mine Training
- Current CPR and First Aid Training
- Forklift operator

SKILLS AND QUALIFICATIONS

- Drills operated: LY-38, LY-44, LY-244, LF-70, LF-90, LM-75, LM-90, Hagby 1000/3, Atlas Copco CT-14, B-53,



Brad Kiser

EXPERIENCE

Diller III

2012 – Present

Ruen Drilling, Inc. – Clark Fork, ID

- Supervise operations of drilling projects and drill crews.
- Organize job set-up and operation requirements.
- Provide leadership for and coordinate efficient placement of drills into work areas with contractors and drill crews.
- Troubleshoot down-hole drilling problems using experience and knowledge gained from similar situations.
- Suggest changes in working conditions and use of equipment and materials to increase efficiency of work crew or improved job safety.
- Compilation of drill reports, shift reports, drilling permits, and crew time cards.

Project Manager

2011 - 2012

MDE Drilling – Little Falls, MN

- Supervise crews operating LF70 and LF90 track and fly drills, order inventory, made crew schedules, performed daily safety meetings, filled out incident reports, ensured working environment was safe
- Pre-check and sign off on fly drill pads and on crew pre shift inspections
- Prepare safety evacuation plan for each drill site
- Held daily meeting with clients, drill crew and safety personnel
- Trained drill operators
- Performed down hole surveys and installed monitor wells

Drill Supervisor

2005 - 2011

Boart Longyear – Wytheville, VA

- Supervise crews operating LF70 and LF90 track and fly drills, order inventory, made crew schedules, performed daily safety meetings, filled out incident reports, ensured working environment was safe
- Reviewed daily drill reports
- Held safety meeting and pre shift inspections
- Inspected each drill site for safety compliance
- Installed monitoring wells, nitrogen filled packers for water test and die test and performed down hole surveys.

Drill Operator

1998 - 2005

Layne Christensen – Grayson, KY

- Supervise crews operating LF70 and LF90 track and fly drills, order inventory, made crew schedules, performed daily safety meetings, filled out incident reports, ensured working environment was safe
- High pressure grouting for mine shafts
- Soil sampling split spoon, Shelby tube piston sample, vein shear
- Installed piezometer wells and luveal wells
- Down hole survey

TRAINING / LICENSES

- Current MSHA Metal Non-Metal and Surface Mine Training
- Current CPR and First Aid Training
- Forklift operator
- Certified propane filling (AmeriGas)
- Class B CDL

SKILLS AND QUALIFICATIONS

- Drills operated: Joy 12, Joy 22, LY-38, LY-44, LY-244, LF-70, LF-90, LM-75, LM-90, CS-1500, CS 3001, CS-4000, Hagby 1000/3, Atlas Copco U-6, Atlas Copco CT-14, B-53, B-80, CME-55, CME-75

