

ENTERED

V I R G I N I A:

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: COLUMBIA NATURAL RESOURCES, INC.)	VIRGINIA GAS
)	AND OIL BOARD
RELIEF SOUGHT: (1) ESTABLISHMENT OF THE DRILLING)	
UNIT DEPICTED IN EXHIBIT "A" HERETO)	DOCKET NO.
AND SERVED BY WELL NO. CNR 24902)	02-0917-1078
herein "Subject Drilling Unit"))	
PURSUANT TO VA. CODE § 45.1-361.20;)	
(2) POOLING OF INTERESTS IN)	
SUBJECT DRILLING UNIT PURSUANT TO)	
VA. CODE § 45.1-361.21, FOR THE)	
PRODUCTION OF GAS OTHER THAN)	
COALBED METHANE GAS FROM SUBJECT)	
FORMATIONS (herein referred)	
to as "Conventional Gas" or "Gas");)	
and (3) DESIGNATE THE APPLICANT)	
AS THE UNIT OPERATOR FOR THE)	
SUBJECT DRILLING UNIT)	

LEGAL DESCRIPTION:

DRILLING UNIT SERVED BY WELL NUMBERED CNR 24902)
TO BE DRILLED IN THE LOCATION DEPICTED ON)
EXHIBIT A HERETO,)
)

PRATER QUADRANGLE,)
PRATER MAGISTERIAL DISTRICT,)
BUCHANAN COUNTY, VIRGINIA)
(the "Subject Lands" are more particularly)
described on Exhibit "A" attached hereto)
and made a part hereof))

REPORT OF THE BOARD

FINDINGS AND ORDER

1. Hearing Date and Place: This matter came on for hearing before the Virginia Gas and Oil Board (hereafter "Board") at 9:00 a.m. on **October 15, 2002**, Southwest Virginia Higher Education Center on the campus of Virginia Highlands Community College, Abingdon, Virginia.

2. Appearances: James E. Kaiser, Esquire of the firm Wilhoit & Kaiser appeared for the Applicant. Sharon Pigeon, Assistant Attorney General, was present to advise the Board.

3. Jurisdiction and Notice: Pursuant to Va. Code § 45.1-361.1 et seq., the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by Applicant, the Board also finds that the Applicant has (1) exercised due diligence in conducting a meaningful search of reasonably available sources to determine the identity and whereabouts of each gas and oil owner, coal owner, or mineral owner having an interest in Subject Drilling Unit

underlying and comprised of Subject Lands; (2) has represented to the Board that it has given notice to those parties (hereafter sometimes "person(s)" whether referring to individuals, corporations, partnerships, associations, companies, businesses, trusts, joint ventures or other legal entities) entitled by Va. Code § 45.1-361.19 to notice of this application; and (3) that the persons set forth in Exhibit B hereto have been identified by Applicant as owners of Conventional Gas interests underlying Subject Drilling Unit, including those who have not heretofore leased, sold or voluntarily agreed with the Applicant to pool their Gas interests in Subject Drilling Unit. Further, the Board has caused notice of this hearing to be published as required by Va. Code § 45.1-361.19.B. Whereupon, the Board hereby finds that the notices given herein satisfy all statutory requirements, Board rule requirements and the minimum standards of state due process.

4. Amendments: **Ex. B., Ex. C**

5. Dismissals: None.

6. Relief Requested: Applicant requests (1) that pursuant to Va. Code § 45.1-361.20, the Board establish Subject Drilling Unit to be served by Well No. **CNR 24902** (PPN-29); and (2) that pursuant to Va. Code § 45.1-361.21, the Board pool the rights, interests and estates in and to the Conventional Gas of the known and unknown persons listed in Exhibit B hereof, and their known and unknown heirs, executors, administrators, devisees, trustees, assigns and successors, both immediate and remote, for the drilling and operation, including production, of Conventional Gas from the Subject Drilling Unit established for Subject Formations underlying and comprised of the Subject Lands, (hereafter sometimes collectively identified and referred to as "Well Development and/or Operation in the Subject Drilling Unit"); and, (3) that the Board designate Columbia Natural Resources, Inc. as Unit Operator.

7. Relief Granted: The requested relief in this cause be and hereby is granted.

7.1 The Board hereby: (1) establishes Subject Drilling Unit pursuant to Va. Code § 45.1-361.20; (2) pursuant to Va. Code § 45.1-361.21.C.3, Columbia Natural Resources, Inc. (hereafter "Unit Operator") is designated as the Operator authorized to drill and operate Well No. **CNR 24902** (PPN-29) in the Subject Drilling Unit to produce Conventional Gas from Subject Formations, subject to the permit provisions contained in § 45.1-361.27 et seq., Code of Virginia, 1950 as amended, to § 4 VAC 25-150 et seq., Gas and Oil Regulations and to § 4 VAC 25-160 et seq., Virginia Gas and Oil Board Regulations, all as amended from time to time; and (3) the rights, interests and estates in and to the Conventional Gas in Subject Drilling Unit including those of the known and unknown persons listed on Exhibit B, attached hereto and made a part hereof, and their known and unknown heirs, executors, administrators, devisees, trustees, assigns and successors, both immediate and remote, leased or unleased, be and hereby are pooled in the Subject Formations in the Subject Drilling Unit underlying and comprised of the Subject Lands.

<u>Subject Formations</u>	<u>Unit Size</u>	<u>Permitted Well Location</u>	<u>Field and Well Classification</u>
Surface to total depth drilled of 5,700 feet for the Devonian Shales, including, but not limited to the Ravencliff, Maxon, Big Lime, Weir, Berea & Devonian Shale formations	An approximately 112.69 acre circular drilling unit	CNR 24902 (See Exhibit A)	No applicable field rules; subject to the statewide spacing requirements of Va. Code § 45.1-361.17

For the Subject Drilling Unit
underlying and comprised of the Subject
Land Served by Well No. CNR 24902

Buchanan County, Virginia

8. Election and Election Period: In the event any Gas owner named in Exhibit B has not heretofore reached a voluntary agreement to share in the operation of the well to be located in Subject Drilling Unit at a rate of payment mutually agreed to by said Gas owner and the Operator, then, such person may elect one of the options set forth in Paragraph 9 below and must give written notice of his election of the option selected under Paragraph 9 herein to the designated Unit Operator at the address shown below within thirty (30) days from the date this Order is recorded in the county above named. A timely election shall be deemed to have been made if, on or before the last day of said 30-day period, such electing person has delivered his written election to the designated Unit Operator at the address shown below or has duly postmarked and placed his written election in first class United States mail, postage prepaid, addressed to the Unit Operator at the address shown below.

9. Election Options:

9.1 Option 1 - To Participate In The Development and Operation of the Drilling Unit: Any Gas owner named in Exhibit B who has not reached a voluntary agreement with the Operator may elect to participate in the Well Development and Operation on the Subject Drilling Unit (hereafter "Participating Operator") by agreeing to pay the estimate of such Participating Operator's proportionate part of the actual and reasonable costs, including a reasonable supervision fee, of the Well Development and Operation, as more particularly set forth in Virginia Gas and Oil Board Regulation 4 VAC 25-160-100 (herein "Completed for Production Costs"). Further, a Participating Operator agrees to pay the estimate of such Participating Operator's proportionate part of the Estimated, Completed-for-Production Costs as set forth below to the Unit Operator within forty-five (45) days from the later of the date of mailing or the date of recording of this Order. The estimated

Completion-for-Production Costs for the Subject Drilling Unit are as follows:

Estimated, Completed-for-Production Costs: **\$422,381.00**

- 9.2 Option 2 - To Receive A Cash Bonus Consideration: In lieu of participating in the Well Development and Operation of Subject Drilling Unit under Paragraph 9.1 above, any Gas owner named in Exhibit B who has not reached a voluntary agreement with the Operator may elect to accept a cash bonus consideration of \$5.00 per net mineral acre owned by such person, commencing upon entry of this Order and continuing annually until commencement of production from Subject Drilling Unit, and thereafter a royalty of 1/8th of 8/8ths [twelve and one-half percent (12.5%)] of the net proceeds received by the Unit Operator for the sale of the Gas produced from any Well Development and Operation covered by this Order multiplied by the Gas owner's percentage Interest Within Unit as set forth in Exhibit B (for purposes of this Order, net proceeds shall be actual proceeds received less post-production costs incurred downstream of the wellhead, including, but not limited to, gathering, compression, treating, transportation and marketing costs, whether performed by Unit Operator or a third person) as fair, reasonable and equitable compensation to be paid to said Gas owner. The initial cash bonus shall become due and owing when so elected and shall be tendered, paid or escrowed within one hundred twenty (120) days of recording of this Order. Thereafter, annual cash bonuses, if any, shall become due and owing on each anniversary of the date of recording of this order in the event production from Subject Drilling Unit has not theretofore commenced, and once due, shall be tendered, paid or escrowed within sixty (60) days of said anniversary date. Once the initial cash bonus and the annual cash bonuses, if any, are so paid or escrowed, said payment(s) shall be satisfaction in full for the right, interests, and claims of such electing Gas owner in and to the Gas produced from Subject Formation in the Subject Lands, except, however, for the 1/8th royalties due hereunder.

The election made under this Paragraph 9.2, when so made, shall be satisfaction in full for the right, interests, and claims of such electing person in any Well Development and Operation covered hereby and such electing person shall be deemed to and hereby does lease and assign its right, interests, and claims in and to the Gas produced from Subject Formation in the Subject Drilling Unit to the Unit Operator.

- 9.3. Option 3 - To Share In The Development And Operation As A Non-Participating Person On A Carried Basis And To Receive Consideration In Lieu Of Cash: In lieu of participating in the Well Development and Operation of Subject Drilling Unit under Paragraph 9.1 above and in lieu of receiving a cash bonus consideration under Paragraph 9.2 above, any gas owner named in Exhibit B, who has not reached a voluntary agreement with the Operator may elect to share in the Well Development and Operation of Subject Drilling Unit on a carried basis (as a "Carried Well Operator") so that the proportionate part of

the Completed-for-Production Costs hereby allocable to such Carried Well Operator's interest is charged against such Carried Well Operator's share of production from Subject Drilling Unit. Such Carried Well Operator's rights, interests, and claims in and to the Gas in Subject Drilling Unit shall be deemed and hereby are assigned to the Unit Operator until the proceeds from the sale of such Carried Well Operator's share of production from Subject Drilling Unit (exclusive of any royalty, excess or overriding royalty, or other non-operating or non cost-bearing burden reserved in any lease, assignment thereof or agreement relating thereto covering such interest) equals three hundred percent (300%) for a leased interest or two hundred percent (200%) for an unleased interest (whichever is applicable) of such Carried Well Operator's share of the Completed-for-Production Costs allocable to the interest of such Carried Well Operator. When the Unit Operator recoups and recovers from such Carried Well Operator's assigned interest the amounts provided for above, then, the assigned interest of such Carried Well Operator shall automatically revert back to such Carried Well Operator, and from and after such reversion, such Carried Well Operator shall be treated as if it had participated initially under Paragraph 9.1 above; and thereafter, such participating person shall be charged with and shall pay his proportionate part of all further costs of such well development.

The election made under this Paragraph 9.3, when so made, shall be satisfaction in full for the right, interests, and claims of such electing person in any well development and operation covered hereby and such electing person shall be deemed to have and hereby does assign his right, interests, and claims in and to the Gas produced from Subject Formation in the Subject Drilling Unit to the Unit Operator for the period of time during which his interest is carried as above provided prior to its reversion back to such electing person.

10. Failure to Properly Elect: In the event a person entitled to elect fails to do so within the time, in the manner, and in accordance with the terms of this Order one of the alternatives set forth in Paragraph 9 above for which his interest qualifies, then such person shall be deemed to have elected not to participate in the proposed Well Development and Operation in Subject Drilling Unit and shall be deemed, subject to any final legal determination of ownership, to have elected to accept as satisfaction in full for such person's right, interests, and claims in and to the Gas the consideration provided in Paragraph 9.2 above for which its interest qualifies and shall be deemed to have leased and/or assigned his right, interests, and claims in and to Gas in the Subject Drilling Unit to the Unit Operator. Persons who fail to properly elect shall be deemed to have accepted the compensation and terms set forth herein at Paragraph 9.2 in satisfaction in full for the right, interests, and claims of such person in and to the Gas produced from Subject Formation underlying Subject Lands.

11. Default By Participating Person: In the event a person so entitled elects to participate under Paragraph 9.1, but fails or refuses to pay, to secure the payment or to make an arrangement with the Unit Operator for the payment of such person's proportionate part of the Estimated Completed-for-Production costs as set forth herein, all within the time and in the manner as prescribed in this Order, then such person shall be deemed to have withdrawn his

election to participate and shall be deemed to have elected to accept as satisfaction in full for such person's right, interests, and claims in and to the Gas the consideration provided in Paragraph 9.2 above for which his interest qualifies depending on the excess burdens attached to such interest. Whereupon, any cash bonus consideration due as a result of such deemed election shall be tendered, paid or escrowed by Unit Operator within one hundred twenty (120) days after the last day on which such defaulting person under this Order should have paid his proportionate part of such cost or should have made satisfactory arrangements for the payment thereof. When such cash bonus consideration is paid or escrowed, it shall be satisfaction in full for the right, interests, and claims of such person in and to the Gas underlying Subject Drilling Unit in the Subject Lands covered hereby, except, however, for any 1/8th royalties which would become due pursuant to Paragraph 9.2 hereof.

12. Assignment of Interest: In the event a person pooled hereby is unable to reach a voluntary agreement to share in the operation of the well contemplated by this Order at a rate of payment agreed to mutually by said Gas owner and the Unit Operator, and said person elects or fails to elect to do other than participate under Paragraph 9.1 above in the Well Development and Operation in Subject Drilling Unit, then such person shall be deemed to have and shall have assigned unto Unit Operator such person's right, interests, and claims in and to said well, in Subject Formations in Subject Drilling Unit, and other share in and to Gas production to which such person may be entitled by reason of any election or deemed election hereunder in accordance with the provisions of this Order governing said elections.

13. Unit Operator (or Operator): Columbia Natural Resources, Inc. be and hereby is designated as Unit Operator authorized to drill and operate Well No. CNR 24902 in Subject Formations in Subject Drilling Unit, all subject to the permit provisions contained in Va. Code § 45.1-361.27 et seq., §§ 4 VAC 25-150 et seq., Gas and Oil Regulations and §§ 4 VAC 25-160 et seq., Virginia Gas and Oil Board Regulations, all as amended from time to time, and all elections required by this Order shall be communicated to Unit Operator in writing at the address shown below:

Columbia Natural Resources, Inc.
 900 Pennsylvania Avenue
 P.O. Box 6070
 Charleston, WV 25302
 Phone: (304) 353-5000
 Attention: Mary Sue Schulberg

14. Commencement of Operations: Unit Operator shall commence or cause to commence operations for the drilling of the well covered hereby within seven hundred and thirty (730) days from the date of this Order and shall prosecute the same with due diligence. If Unit Operator shall not have so commenced and/or prosecuted, then except for any cash sums becoming payable hereunder this order shall terminate. Otherwise, unless sooner terminated by Order of the Board, this Order shall expire at 12:00 P.M. on the date on which the well covered by this Order is permanently abandoned and plugged. However, in the event an appeal is taken from this Order, then the time between the filing of the Petition for Appeal and the final Order of the Circuit Court shall be excluded in calculating the two year period referenced herein.

15. Operator's Lien: Unit Operator, in addition to the other rights afforded hereunder, shall have a lien and a right of set off on the Gas estates, rights, and interests owned by any person subject hereto who elects to participate under Paragraph 9.1 in the Subject Drilling Unit to the extent that costs incurred in the drilling or operation on the Subject Drilling Unit are a charge against such person's interest. Such liens and right of set off shall be separable as to each separate person and shall remain liens until the Unit Operator drilling or operating the well covered hereby has been paid the full amounts due under the terms of this Order.

16. Escrow Provisions:

16.1 Escrow Account: Applicant has represented to the Board that there **are** unknown and/or unlocatable Gas owners within **Tract 3** of Subject Drilling Unit whose interests are subject to the escrow requirements of Paragraph 16.2 below. Therefore, by this Order, the Board instructs the Escrow Agent named herein or any successor named by the Board (herein "Escrow Agent") to establish an interest-bearing escrow account for **Tract 3** of Subject Drilling Unit (herein "Escrow Account") and to receive and account to the Board pursuant to its agreement for funds hereafter described in Paragraph 16.2 below.

First Union National Bank
Corporate Trust PA1328
123 South Broad Street
Philadelphia, PA 19109-1199
Telephone: (215) 985-3485 or (888) 396-0853
Attention: Don Ballinghoff

16.2 Escrow Provisions for Unknown or Unlocatable Persons: If any payment of bonus, royalty payment or other payment due and owing cannot be made because the person entitled thereto cannot be located or is unknown, then such cash bonus, royalty payment or other payment shall not be commingled with any funds of the Unit Operator and shall, pursuant to Va. Code § 45.1-361.21.D, be deposited by the Operator into the Escrow Account, commencing within one hundred twenty (120) days of recording of this Order, and continuing thereafter on a monthly basis with each deposit to be made, by use of a report format approved by the Inspector, by a date which is no later than sixty (60) days after the last day of the month being reported and/or for which funds are subject to deposit. Such funds shall be held for the exclusive use of, and sole benefit of the person entitled thereto until such funds can be paid to such person(s) or until the Escrow Agent relinquishes such funds as required by law or pursuant to order of the Board in accordance with Va. Code § 45.1-361.21.D.

17. Special Findings: The Board specifically and specially finds:

17.1 Applicant claims ownership of Gas leases on **99.93** percent of Subject Drilling Unit and the right to explore for, develop and produce Gas from same.

17.2 Applicant is an operator in the Commonwealth of Virginia and has satisfied the Board's requirements for operations in Virginia;

- 17.3 Applicant has proposed the drilling of Well No. **CNR 24902** to a depth of **5,700** feet on the Subject Drilling Unit at the location depicted in Exhibit A to develop the pool of Gas in Subject Formations.
- 17.4 Applicant proposes to complete and operate Well **CNR 24902** for the purpose of producing Conventional Gas.
- 17.5 Set forth in Exhibit B is the name and last known address of each person of record identified by the Applicant as Gas owners within Subject Drilling Unit, including those persons who have not reached a voluntary agreement to share in the operation of Well **CNR 24902** at a rate of payment agreed to mutually by said gas and oil owners and the Unit Operator. Gas interests unleased to the Unit Operator represent **0.07** percent of Subject Drilling Unit.
- 17.6 The estimated production over the life of the proposed well is **400 million cubic feet**.
- 17.7 Applicant's evidence established that the fair, reasonable and equitable compensation to be paid to any person in lieu of the right to participate in the well covered hereby are those options provided in Paragraph 9 above.
- 17.8 The Subject Drilling Unit does not constitute an unreasonable or arbitrary exercise of Applicant's right to explore for or produce Gas.
- 17.9 The relief requested and granted is just and reasonable, is supported by substantial evidence and will afford each person in the Subject Drilling Unit the opportunity to recover or receive, without unnecessary expense, each person's just and fair share of the production of the gas and/or oil from Subject Drilling Unit. The granting of the Applications and relief requested therein will ensure to the extent possible the greatest ultimate recovery of gas and oil, prevent or assist in preventing the various types of waste prohibited by statute and protect or assist in protecting the correlative rights of all persons in the subject common sources of supply in the Subject Lands. Therefore, the Board is entering an Order granting the relief herein set forth.
18. Mailing Of Order And Filing Of Affidavit: Applicant or its Attorney shall file an affidavit with the Secretary of the Board within sixty (60) days after the date of receipt of this Order stating that a true and correct copy of said Order was mailed within seven (7) days from the date of receipt of this Order to each person pooled by this Order whose address is known.
19. Availability of Unit Records: The Director shall provide all persons not subject to a lease with reasonable access to all records for Subject Drilling Unit which are submitted by the Unit Operator to said Director and/or his Inspector(s).
20. Conclusion: Therefore, the requested relief and all terms and provisions set forth above be and hereby are granted and IT IS SO ORDERED.

21. Appeals: Appeals of this Order are governed by the provisions of Va. Code Ann. § 45.1-361.9 which provides that any order or decision of the Board may be appealed to the appropriate circuit court. Such appeals must be taken in the manner prescribed in the Administrative Process Act, Va. Code Ann. § 9-6.14:1 et seq. and Rule 2A of the Rules of the Virginia Supreme Court.

22. Effective Date: This Order shall be effective on May 21, 200~~2~~³.

DONE AND EXECUTED this 8th day of January, 2002, by a majority of the Virginia Gas and Oil Board.


Chairman, Benny R. Wampler

DONE AND PERFORMED this 9th day of January, 200~~2~~³, by Order of this Board.


B. R. Wilson
Principal Executive to the Staff
Virginia Gas and Oil Board

STATE OF VIRGINIA)
COUNTY OF WISE)

Acknowledged on this 8th day of January, 200~~2~~³, personally before me a notary public in and for the Commonwealth of Virginia, appeared Benny Wampler, being duly sworn did depose and say that he is Chairman of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.


Susan G. Garrett
Notary Public

My commission expires July 31, 2006

STATE OF VIRGINIA)
COUNTY OF WASHINGTON)

Acknowledged on this 9th day of January, 200~~2~~³, personally before me a notary public in and for the Commonwealth of Virginia, appeared B. R. Wilson, being duly sworn did depose and say that he is Principal that he executed the same and was authorized to do so.


Diane J. Davys
Notary Public

My commission expires September 30, 2005

Order Recorded Under Code of
Virginia Section 45.1-361.26

docket 16

EXHIBIT B
Well No. 824902 (HY-31)

<u>LESSOR</u>	<u>LEASE STATUS</u>	<u>INTEREST WITHIN UNIT</u>	<u>GROSS ACREAGE IN UNIT</u>
TRACT 1 74.53 Acres in Unit			
Pine Mountain Oil & Gas Inc. 448 Northeast Main Street P.O. Box 5100 Lebanon, VA 24266	Leased	66.137191%	74.530000
TRACT 2 35.06 Acres in Unit			
Pine Mountain Oil & Gas Inc. 448 Northeast Main Street P.O. Box 5100 Lebanon, VA 24266	Leased	31.111900%	35.060000
TRACT 3 .98 Acre in Unit			
Deborah Hager P.O Box 574 Keen Mt., VA 24624	Leased	0.004831%	0.005444
James Gregory Boyd P.O Box 524 Keen Mt., VA 24624	Leased	0.004831%	0.005444
Ruby June Boyd McAllister 101 Independence Drive Bristol, VA 24201	Leased	0.009663%	0.010889
Ruth Owens P.O Box 417 Grundy, VA 24614	Leased	0.003221%	0.003630
Hazel Owens Ratliff P.O. Box 199 Grundy, VA 24614	Leased	0.003221%	0.003630
Hufford Stiltner Rt. 1, Box 150A Grundy, VA 24614	Leased	0.001074%	0.001210
Geneva Ward P.O Box 1836 Grundy, VA 24614	Leased	0.000268%	0.000302
Kenneth Stiltner Rt. 5 Box 150 B Grundy, VA 24614	Leased	0.000268%	0.000302
Billy Ray Stiltner Rt. 1 Box 150A Grundy, VA 24614	Leased	0.000268%	0.000302
Jerry Lee Stiltner P.O Box 2387 Grundy, VA 24614	Leased	0.000268%	0.000302
Teresa Stiltner Rt. 5 Box 150 Grundy, VA 24614	Leased	0.000268%	0.000302
Randy Stiltner P.O Box 472 Meadowview, VA 24361	Leased	0.000268%	0.000302
Judy Stiltner Rt. 5 Box 150 Grundy, VA 24614	Leased	0.000268%	0.000302

Larry Jo Stittner Rt. 1 Box 645 Pounding Mill, VA 24637	Leased	0.000268%	0.000302
Roby Owens Rt. 1 Box 190 Honaker, VA 24260	Leased	0.003221%	0.003630
Othia Owens Rife P.O Box 219 Jolo, WV 24850	Leased	0.003221%	0.003630
Leon Owens 674 Beach Rd. Whitestone, VA 22578	Leased	0.003221%	0.003630
Roy Boyd 390 Willow Run Rd. Aikin, SC 29801	Leased	0.003865%	0.004356
Alice Fay Brooks P.O Box 544 Clintwood, VA 24228	Leased	0.003865%	0.004356
Junior Lee Boyd 150 Indian Trail Sequin, TX 78155	Leased	0.003865%	0.004356
Carvel Boyd 1951 Old Coochs Bridge Rd. Newark, DE 19702	Leased	0.003865%	0.004356
Eddie K. Boyd 197 Oliver Edwards Rd. Jonesboro, TN 37659	Leased	0.000773%	0.000871
Patricia C. Birchfield 197 Oliver Edwards Rd. Jonesboro, TN 37659	Leased	0.000773%	0.000871
Terry O. Boyd 250 Catawba Ln. Blountville, TN 37617	Leased	0.000773%	0.000871
Michelle Phillips 197 Oliver Edwards Rd. Jonesboro, TN 37659	Leased	0.000773%	0.000871
Kathy D. Lutz 1927 Spring Hill Dr. Sevierville, TN 37867	Leased	0.000773%	0.000871
Edith Boyd Church P.O Box 1034 Cooleemee, NC 27014	Leased	0.019325%	0.021778
✓ Fannie Boyd Thomas Heirs (address unknown)	Unleased	0.019325%	0.021778
Marie Dotson Elswick P.O Box 2439 Abingdon, VA 24212	Leased	0.001510%	0.001701

Mildred Dotson Woods 70998 16th Ave. South Haven, MI 49090	Leased	0.001510%	0.001701
Chartene Dotson Lockhart 26454 Arena Ave. Defiance, OH 43512	Leased	0.001510%	0.001701
Buford Dotson 53 Lovers Lane Benton, KY 42025	Leased	0.001510%	0.001701
Leon Bill Dotson 7416 Manore Rd. Whitehouse, OH 43571	Leased	0.001510%	0.001701
Rita Sue Dotson Owens 1003 Chief Thomas Rd. Harmony, NC 28634	Leased	0.001510%	0.001701
Catherine Dotson Boyd P.O Box 6883 Statesville, NC 28687	Leased	0.001510%	0.001701
Wanda Lou Dotson Yates Rt. 2 Box 583 Vansant, VA 24656	Leased	0.001510%	0.001701
Martha Mary Deel Kennedy P.O Box 186 Grundy, VA 24614	Leased	0.012078%	0.013611
Ruby Kathleen Deel 3844 Havenwood Blvd. Jackson, MI 49201	Leased	0.012078%	0.013611
Margie Boyd White Box 729 Vansant, VA 24656	Leased	0.006039%	0.006806
Lona Boyd Box 729 Vansant, VA 24656	Leased	0.006039%	0.006806
Richard J. Deel 2301 Lakeside Dr. Lot 137 Westgate M.H. Park Lynchburg, VA 24502	Leased	0.002416%	0.002722
Thomas Joe Deel 3628 Campbell Ave. Lot 11 Lynchburg, VA 24501	Leased	0.002416%	0.002722
Jackie Lee Deel 2259 Earley Farms Rd. Amherst, VA 24521	Leased	0.002416%	0.002722
Kenneth Deel 535 Pendleton Dr. Amherst, VA 24521	Leased	0.002416%	0.002722
Jeffrey Deel 257 Edenburg Dr. Amherst, VA 24521	Leased	0.001208%	0.001361
Derek Deel 257 Edenburg Dr. Amherst, VA 24521	Leased	0.001208%	0.001361

Janice Faye Deel Rt. 2 Box 339 Haysi, VA 24256	Leased	0.002013%	0.002269
Pauline Deel Locklear 140 Marrowbone Circle Ridgeway, VA 24148	Leased	0.002013%	0.002269
Lonnie Ray Deel Rt. 2 Box 419 Vansant, VA 24656	Leased	0.002013%	0.002269
Maxine Deel Owens 597 Matney Flats Rd. Wytheville, VA 24382	Leased	0.002013%	0.002269
Patsy Deel Perkins P.O Box 678 Rural Retreat, VA 24368	Leased	0.002013%	0.002269
Mavis Deel Rasnake Rt. 3 Box 617 Wytheville, VA 24382	Leased	0.002013%	0.002269
Shirley Deel Jude P.O Box 994 Vansant, VA 24656	Leased	0.001510%	0.001701
✓ Dorothy Deel Wintermute 212 Emerald Ln. Largo, FL 33771	Unleased	0.001510%	0.001701
Glennis Deel P.O Box 653 Raven, VA 24639	Leased	0.001510%	0.001701
Juanita Deel Jackson P.O Box 994 Vansant, VA 24656	Leased	0.001510%	0.001701
Jerry Deel Rt. 3 Box 410 A Lebanon, VA 24266	Leased	0.001510%	0.001701
Helen Deel Ramey HCR Box 449 Big Rock, VA 24603	Leased	0.001510%	0.001701
Etta Deel Powers HCR Box 24 Bee, VA 24217	Leased	0.001510%	0.001701
Arlene Deel Stiltner 31 Epling Ave. Elkhorn City, KY 41522	Leased	0.001510%	0.001701
Stacy Belle Deel P.O Box 181 Vansant, VA 24656	Leased	0.012078%	0.013611
Stacy Belle Boyd Deel P.O Box 181 Vansant, VA 24656	Leased	0.016104%	0.018148
Ora Boyd Rt. 4 Box 374 Grundy, VA 24614	Leased	0.016104%	0.018148
Effie Viers Rt. 2 Box 249 Vansant, VA 24656	Leased	0.008052%	0.009074

James Harold Boyd P.O Box 949 Vansant, VA 24656	Leased	0.008052%	0.009074
James Boyd P.O Box 647 Haysi, VA 24256	Leased	0.005368%	0.006049
Roxie Charlene Boyd Owens Rt. 1 Box 129 B Haysi, VA 24256	Leased	0.005368%	0.006049
Acie Freeman Rt.1 Box 299 Haysi, VA 24256	Leased	0.005368%	0.006049
Lona Boyd P.O Box 729 Vansant, VA 24656	Leased	0.008052%	0.009074
Margie Boyd White P.O Box 729 Vansant, VA 24656	Leased	0.008052%	0.009074
Phelix Boyd Rt. 2 Box 178 Haysi, VA 24256	Leased	0.008052%	0.009074
Janice Boyd Blankenship Rt. 4 Box 344 Grundy, VA 24614	Leased	0.008052%	0.009074
Flora Gertrude Deel Rt. 2 Box 154 Vansant, VA 24656	Leased	0.012078%	0.013611
Orpha Deel Rt. 1 Box 495 E Vansant, VA 24656	Leased	0.012078%	0.013611
Alta Deel Bailey Rt. 1 Box 569 Vansant, VA 24656	Unleased	0.012078%	0.013611
Mazel Jean Deel Route 2, Box 216 Vansant, VA 24656	Leased	0.003020%	0.003403
Betsy Carol Crabtree P.O. Box 412 Richlands, VA 24841	Leased	0.003020%	0.003403
Iris Bishop 7807 Forrest Wood Road Austin, TX 78745	Leased	0.003020%	0.003403
Lester Deel 17355 Edwards Southfield, MI 48076	Unleased	0.003020%	0.003403
Thomas Lee Childress 229 Cornerstone Road Lexington, NC 27292	Leased	0.001725%	0.001944
Dannie Childress Rt. 2, Box 234 Vansant, VA 24656	Leased	0.001725%	0.001944
Shelby Jean Childress Rt. 2, Box 235 Vansant, VA 24656	Leased	0.001725%	0.001944

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Phyllis Porterfield Rt. 1, Box 165 Pounding Mill, VA 24637	Leased	0.001725%	0.001944
Betty Lou Fields P.O. 489 Grundy, VA 24614	Leased	0.001725%	0.001944
Thelma Gail Stiltner Rt. 2, Box 236 Vansant, VA 24656	Leased	0.001725%	0.001944
Mary Ellen Rife Rt. 4, Box 162A Grundy, VA 24614	Leased	0.001725%	0.001944
Edith Yates Deel Rt. 4, Box 403 Grundy, VA 24614	Leased	0.012078%	0.013611
Lola Yates Deel P.O. Box 48 Vansant, VA 24656	Leased	0.012078%	0.013611
Trula Deel Rt. 4, Box 302 Grundy, VA 24614	Leased	0.012078%	0.013611
Cora Boyd (life Estate) General Delivery Davenport, VA 24239	Leased	0.026841%	0.030247
Curtis Boyd (life estate) Box 381 Cora's 2/3x1/6 Grundy, VA 24614	Leased Leased	0.107363% 0.053682%	0.120988 0.060494
Phyllis Blankenship Rt. 4, Box 368 Grundy, VA 24614	Leased	0.071576%	0.080658
Gary Wayne Boyd Rt. 4, Box 381 Grundy, VA 24614	Leased	0.071576%	0.080658
Dianna Lynn Boyd Adkins Rt. 4, Box 404 Grundy, VA 24614	Leased	0.071576%	0.080658
Goldie Boyd Mitchell P. O. Box 194 Doran, VA 24612	Leased	0.026841%	0.030247
Jackie Lee Boyd 2594 St. Rt. 15 Ney, OH 43549	Leased	0.008947%	0.010082
Nancy Spengler 1302 East Wilson Street Bryan, OH 43506	Leased	0.008947%	0.010082
Ellis Jeffrey Boyd 536 Londale Dr. Bryan, OH 43506	Leased	0.008947%	0.010082
Eura Boyd Dixon 10030 County Road Bryan, Ohio 43506	Leased	0.008947%	0.010082
Milton Michael Boyd 3931 State Route 2 Farmer, Ohio 43520	Leased	0.008947%	0.010082

Lester Lee Boyd
Route 1, Box 40 C
Como, Texas 75431
Leased 0.008947% 0.010082

TRACT 4 2.12 Acres In Unit

Viller Deel
Rt. 4, Box 398
Grundy, VA 24614
Leased 0.836119% 0.942222

Eveleane A. Stacey
Rt. 4, Box 400
Grundy, VA 24614
Leased 0.418059% 0.471111

Marie Dotson Elswick
P.O Box 2439
Abingdon, VA 24212
Leased 0.003266% 0.003681

Mildred Dotson Woods
70998 16th Ave.
South Haven, MI 49090
Leased 0.003266% 0.003681

Charlene Dotson Lockhart
26454 Arena Ave.
Defiance, OH 43512
Leased 0.003266% 0.003681

Buford Dotson
53 Lovers Lane
Benton, KY 42025
Leased 0.003266% 0.003681

Leon Bill Dotson
7416 Manore Rd.
Whitehouse, OH 43571
Leased 0.003266% 0.003681

Rita Sue Dotson Owens
1003 Chief Thomas Rd.
Harmony, NC 28634
Leased 0.003266% 0.003681

Catherine Dotson Boyd
P.O Box 6883
Statesville, NC 28687
Leased 0.003266% 0.003681

Wanda Lou Dotson Yates
Rt. 2 Box 583
Vansant, VA 24656
Leased 0.003266% 0.003681

Martha Mary Deel Kennedy
P.O Box 186
Grundy, VA 24614
Leased 0.026129% 0.029444

Ruby Kathleen Deel
3844 Havenwood Blvd.
Jackson, MI 49201
Leased 0.026129% 0.029444

Margie Boyd White
Box 729
Vansant, VA 24656
Leased 0.013064% 0.014722

Lona Boyd
Box 729
Vansant, VA 24656
Leased 0.013064% 0.014722

Richard J. Deel
2301 Lakeside Dr.
Lot 137 Westgate M.H. Park
Lynchburg, VA 24502
Leased 0.005226% 0.005889

Thomas Joe Deel
3628 Campbell Ave. Lot 11
Lynchburg, VA 24501
Leased 0.005226% 0.005889

Jackie Lee Deel
2259 Earley Farms Rd.
Leased 0.005226% 0.005889

Amherst, VA 24521

Kenneth Deel 535 Pendleton Dr. Amherst, VA 24521	Leased	0.005226%	0.005889
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Jeffrey Deel 257 Edenburg Dr. Amherst, VA 24521	Leased	0.002613%	0.002944
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Derek Deel 257 Edenburg Dr. Amherst, VA 24521	Leased	0.002613%	0.002944
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Janice Faye Deel Rt. 2 Box 339 Haysi, VA 24256	Leased	0.004355%	0.004907
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Pauline Deel Locklear 140 Marrowbone Circle Ridgeway, VA 24148	Leased	0.004355%	0.004907
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Lonnie Ray Deel Rt. 2 Box 419 Vansant, VA 24656	Leased	0.004355%	0.004907
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Maxine Deel Owens 597 Matney Flats Rd. Wytheville, VA 24382	Leased	0.004355%	0.004907
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Patsy Deel Perkins P.O Box 678 Rural Retreat, VA 24368	Leased	0.004355%	0.004907
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Mavis Deel Rasnake Rt. 3 Box 617 Wytheville, VA 24382	Leased	0.004355%	0.004907
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Shirley Deel Jude P.O Box 994 Vansant, VA 24656	Leased	0.003266%	0.003681
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Dorothy Deel Wintermute 212 Emerald Ln. Largo, FL 33771	Unleased	0.003266%	0.003681
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Glennis Deel P.O Box 653 Raven, VA 24639	Leased	0.003266%	0.003681
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Juanita Deel Jackson P.O Box 994 Vansant, VA 24656	Leased	0.003266%	0.003681
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Jerry Deel Rt. 3 Box 410 A Lebanon, VA 24266	Leased	0.003266%	0.003681
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Helen Deel Ramey HCR Box 449 Big Rock, VA 24603	Leased	0.003266%	0.003681
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Etta Deel Powers HCR Box 24 Bee, VA 24217	Leased	0.003266%	0.003681
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Artene Deel Stiltner 31 Epling Ave. Elkhorn City, KY 41522	Leased	0.003266%	0.003681
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Stacy Belle Deel P.O Box 181 Vansant, VA 24656	Leased	0.026129%	0.029444
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Stacy Belle Boyd Deel P.O Box 181 Vansant, VA 24656	Leased	0.034838%	0.039259
Ora Boyd Rt. 4 Box 374 Grundy, VA 24614	Leased	0.034838%	0.039259
Effie Viers Rt. 2 Box 249 Vansant, VA 24656	Leased	0.017419%	0.019630
James Harold Boyd P.O Box 949 Vansant, VA 24656	Leased	0.017419%	0.019630
James Boyd P.O Box 647 Haysi, VA 24256	Leased	0.011613%	0.013086
Roxie Charlene Boyd Owens Rt. 1 Box 129 B Haysi, VA 24256	Leased	0.011613%	0.013086
Acie Freeman Rt.1 Box 299 Haysi, VA 24256 Page 10.	Leased	0.011613%	0.013086
Lona Boyd P.O Box 729 Vansant, VA 24656	Leased	0.017419%	0.019630
Margie Boyd White P.O Box 729 Vansant, VA 24656	Leased	0.017419%	0.019630
Phelix Boyd Rt. 2 Box 178 Haysi, VA 24256	Leased	0.017419%	0.019630
Janice Boyd Blankenship Rt. 4 Box 344 Grundy, VA 24614	Leased	0.017419%	0.019630
Flora Gertrude Deel Rt. 2 Box 154 Vansant, VA 24656	Leased	0.026129%	0.029444
Orpha Deel Rt. 1 Box 495 E Vansant, VA 24656	Leased	0.026129%	0.029444
Alta Deel Bailey Rt. 1 Box 569 Vansant, VA 24656	Unleased	0.026129%	0.029444
Mazel Jean Deel Route 2, Box 216 Vansant, VA 24656	Leased	0.006532%	0.007361
Betsy Carol Crabtree P.O. Box 412 Richlands, VA 24641	Leased	0.006532%	0.007361
Iris Bishop 7807 Forrest Wood Road Austin, TX 78745	Leased	0.006532%	0.007361
Lester Deel 17355 Edwards Southfield, MI 48076	Unleased	0.006532%	0.007361

Thomas Lee Childress 229 Cornerstone Road Lexington, NC 27292	Leased	0.003733%	0.004206
Dannie Childress Rt. 2, Box 234 Vansant, VA 24656	Leased	0.003733%	0.004206
Shelby Jean Childress Rt. 2, Box 235 Vansant, VA 24656	Leased	0.003733%	0.004206
Phyllis Porterfield Rt. 1, Box 165 Pounding Mill, VA 24637	Leased	0.003733%	0.004206
Betty Lou Fields P.O. 489 Grundy, VA 24614	Leased	0.003733%	0.004206
Thelma Gail Stiltner Rt. 2, Box 236 Vansant, VA 24656	Leased	0.003733%	0.004206
Mary Ellen Rife Rt. 4, Box 162A Grundy, VA 24614	Leased	0.003733%	0.004206
Edith Yates Deel Rt. 4, Box 403 Grundy, VA 24614	Leased	0.026129%	0.029444
Lola Yates Deel P.O. Box 48 Vansant, VA 24656	Leased	0.026129%	0.029444
Trula Deel Rt. 4, Box 302 Grundy, VA 24614	Leased	0.026129%	0.029444
TOTAL GAS ESTATE			100%
Total Percentage Leased		99.929650%	
Total Percentage Unleased		0.070350%	
Total Acreage Leased			112.609021
Total Acreage Unleased			0.080979

AUTHORIZATION FOR EXPENDITURE

Docket 16

BOOK **560** PAGE **501**

WELL NO. 824902
MISCELLANEOUS ASSIGNMENT #
TWP/Dis. PRATER
Est. Start Date 5/21/2002 0:0:0
Formation SHALE
Region Southwest
Prospect/Field HAYS1
Net Rev Interest 0%

BUDGET NO. 8227
County BUCHANAN
Est. Compl. Date 5/30/2002 0:0:0
Lease(Name-No.Co.) Pittston Co.
Operator COLUMBIA NATURAL RESOURCES, INC
Updated By CNR0156
Working Int. 100%

AFE NO. 014883
State VA
Est. T.D. 5630 5700

Update Dt 3/15/2002 9:11:32
Description & Justification Development/PUD

INTANGIBLES

Cost Category	Unit Amt	Unit	Cost	Unit	Dry Hole	Completion	Total	Net
CONTRACT DRILLING	5700		13.9	-	79230	0	79230	79230
Contract Day Work Drilling	1		5000	-	5000	0	5000	5000
Contract Day Work Log/Perf/Comp/Coring	0		0	-	0	0	0	0
Contract Day Work Other	4		250	-	500	500	1000	1000
Company Labor				-	2000	2000	4000	4000
Road and Location (Inc. Reclamation and Damage)				-	32000	0	32000	32000
Trucking and Hauling				-	4000	2500	6500	6500
Rental Of Equipment				-	500	500	1000	1000
Service Rig	10		1200	-	0	12000	12000	12000
Cementing Material and Services				-	11000	11000	22000	22000
Logging				-	9000	6000	15000	15000
Perforating				-	0	6000	6000	6000
Stimulating				-	0	75000	75000	75000
Other Contract Services				-	1500	1500	3000	3000
Personal and Travel Expenses				-	750	750	1500	1500
Company Equipment and General Tools				-	350	350	700	700
Permits and Surveys				-	4000	0	4000	4000
Drilling Bits				-	0	0	0	0
Mud and Chemicals				-	0	0	0	0
Other Expendables				-	500	500	1000	1000
Land and Lease Costs/Abstracts				-	67521	0	67521	67521
Overheads/Labor				-	825	825	1650	1650
TOTAL INTANGIBLES					218676	119425	338101	338101

TANGIBLES

Cost Category	Length	Size	Weight	Gr.	Price	Dry Hole	Completion	Total	Net
Casing 1	40	13 3/8	48		13.62	545	0	545	545
Casing 2	300	9 5/8	26		7.16	2148	0	2148	2148
Casing 3	1800	7	20		5.69	10242	0	10242	10242
Casing 4	0	0	0		0	0	0	0	0
Casing 5	0	0	0		0	0	0	0	0
Casing 6	5700	4 1/2	10.5	M	3.25	0	18525	18525	18525
Tubing	5600	2 3/8	4.7	J	2.2	0	12320	12320	12320
Wellhead Assembly						0	2000	2000	2000
Surface Equipment - gas						0	0	0	0
Surface Equipment - oil						0	0	0	0
Downhole Equipment						2500	0	2500	2500
Non-Controllable Equipment						0	0	0	0
TOTAL TANGIBLES						15435	32845	48280	48280
TOTAL WELL COST						234111	152270	386381	386381
Well Line Costs						0	32000	32000	32000
Meter Costs						0	0	0	0
Other Costs						0	4000	4000	4000
TOTAL LINE AND MEASUREMENT COST						0	36000	36000	36000
TOTAL PROJECT COST						234111	188270	422381	422381

APPROVAL [Signature] DATE 9/13/02
APPROVAL [Signature] DATE 9/13/02

JOINT INTEREST APPROVAL

COMPANY NAME _____ APPROVAL _____ DATE / / _____

Net Revenue Interest % _____ Working Interest % _____ Cost Interest % _____

Columbia Natural Resources BOOK 560 PAGE 505
Authorization for Expenditure (Cont.)
Page 2.

AFE No. 014883

Well 824902

Subject well will be charged \$350/month overhead plus direct operating costs.

VIRGINIA: In the Clerk's Office of the Circuit Court of Buchanan County. The foregoing instrument was this day presented in the office aforesaid and is, together with the certificate of acknowledgment annexed, admitted to record this 10th day of January, 2003 10:49A M.
Deed Book No. 560 and Page No. 1485 TESTE: James M. Bevens, Jr., Clerk
Returned to: JMM TESTE: Kentley S. Miller Deputy Clerk

INSTRUMENT NUMBER 19
RECORDED IN THE CLERK'S OFFICE OF
BOHANNAN COUNTY ON
JANUARY 10, 2017 AT 10:58 AM
JAMES M. BEVINS JR., CLERK

BY: *JK*

