

VIRGINIA:

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT:	VIRGINIA GAS COMPANY)
RELIEF SOUGHT:	MODIFICATION OF TEMPORARY ORDER) VIRGINIA GAS
	IN VGOB DOCKET NO. 93-0721-0233) AND OIL BOARD
	FOR THE TESTING OF THE PRICE FORMATION'S) DOCKET NO.
	SUITABILITY AS A STORAGE) VGOB 93-0817-0397
	RESERVOIR WITHIN THE EARLY GROVE GAS)
	AND OIL FIELD) (MODIFICATION OF
) ORDER VGOB
) 92-0721-0233)
LEGAL	WASHINGTON AND SCOTT COUNTIES,)
DESCRIPTION:	VIRGINIA (SEE DESCRIPTIONS HEREIN)
	AND EXHIBIT "B" HERETO) (herein "Subject)
	Lands"))

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 August 17, 1993, at the Rhododendron Restaurant, Breaks Interstate Park, Breaks, Virginia.

2. Appearances: Michael L. Edwards, President, appeared for the Applicant; and Sandra B. Riggs, Assistant Attorney General, was present to advise the Board.

3. Jurisdiction and Notice: Pursuant to Va. Code Ann. § 45.1-361.1 et seq. (Michie Supp. 1993), 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 potential owners, i.e., persons of record, having or claiming the rights to the oil and gas underlying the tracts comprising the EH-88 (Baker #2), EH-89 (Duerr #1), EH-103 (G. B. Hensley #1), EH-105 (Gardner #1), and EH-96 (Miller #1) (hereafter collectively referred to as the "Subject Units"), within the Early Grove Gas and Oil Field (hereafter "Early Grove"); and (2) has given notice to all parties, having an interest in the coal, oil, gas and mineral underlying the Subject Units (hereafter sometimes "person(s)" whether referring to individuals, corporations, partnership, associations, companies, businesses, trusts, joint ventures or other legal entities), entitled by Va. Code Ann. §§ 45.1-361.19 and 45.1-361.20 (Michie Supp. 1993) to notice of this application. Further, the Board has caused notice of this hearing to be published as required by Va. Code Ann. § 45.1-361.19.B (Michie Supp. 1993).

4. Amendments: None.

5. Dismissals: None.

6. Relief Requested: Applicant requests that the Board: (1) grant a modification of the Order entered on March 20, 1989, effective as of August 10, 1988 (herein "Early Grove Order"), and a modification of the Order entered on April 16, 1993, established under Docket Number VGOB 93-0721-0233 (herein "Temporary Order") for the testing of the Price Formation underlying Subjects Lands for suitability as a storage reservoir in Early Grove; (2) in addition to the four (4) wells approved for testing by the Temporary Order, that the Board approve Well EH-96, (Miller #1) for testing pursuant to the terms of the Temporary Order; 3) redesignate Applicant, Virginia Gas Company, as the Operator;

and (4) extend the time established by the Temporary Order for the testing of the Price formation within the Subject Units underlying Subject Lands to November 1, 1993.

7. Reasons Relief Should Be Granted: The application and/or the uncontroverted testimony and evidence presented to the Board at the hearing reflects that:

a. The persons named in Exhibit C hereto may be owners of the coal, oil, gas and minerals within the Subject Units underlying Subject Lands located within the Early Grove Field.

b. Virginia Gas Company claims control of 98.3% of the oil and gas in the Subject Units underlying Subject Lands, and claims the right to explore for, develop and produce the oil and gas underlying 98.3% of Subject Lands as follows:

(1) **EH-88:** The EH-88 Unit (Baker #2) contains a total of eighty-one (81) acres. Virginia Gas Company claims control of oil and gas leases covering approximately 81 acres in the EH-88 Unit (Baker #2).

(2) **EH-89:** The EH-89 Unit (Duerr #1) contains a total of seventy-five and fifty-three hundredths (75.53) acres. Virginia Gas Company claims control of oil and gas leases covering approximately 75.53 acres in the EH-89 Unit (Duerr #1).

(3) **EH-103:** The EH-103 Unit (G. B. Hensley #1) contains a total of seventy-nine and eight-hundredths (79.08) acres. Virginia Gas Company claims control of oil and gas leases covering approximately 79.08 acres in the EH-103 Unit (G. B. Hensley #1).

(4) **EH-105:** The EH-105 Unit (Gardner #1) contains a total of eighty-one (81) acres. Virginia Gas Company claims control of oil and gas leases covering approximately 81 acres in the EH-105 Unit (Gardner #1).

(5) **EH-96:** The EH-96 (Miller #1) contains a total of eighty-two and fifty-seven hundredths (82.57) acres. Virginia Gas Company controls oil and gas leases covering approximately seventy-five and seventy-seven hundredths (75.77) acres in the EH-96 Unit (Miller #1).

c. The five (5) wells being or to be tested in the Subject Units are the EH-88, EH-89, EH-103, EH-105 and EH-96 (hereafter the "Wells"). The locations of the well bores for the Wells are as follows:

(1) The well bore location for EH-88 according to the Virginia (South Rectangular) State Plane Coordinates System is North 133,953.10 East 872,912.32.

(2) The well bore location for EH-89 according to the Virginia (South Rectangular) State Plane Coordinates System is North 135,875.41 East 876,671.76.

(3) The well bore location for EH-103 according to the Virginia (South Rectangular) State Plane Coordinates System is North 132,082.89 East 872,500.49.

(4) The well bore location for EH-105 according to the Virginia (South Rectangular) State Plane Coordinates System is North 136,357.07 East 875,634.93.

(5) The well bore location for EH-96 according to the Virginia (South Rectangular) State Plane Coordinates System is North 135,007.33 East 875,766.61.

d. The Subject Units are bounded and described according to Virginia (South Rectangular) State Plane Coordinates as follows:

(1) EH-88 (Baker #2):

Beginning at a point Virginia (South Rectangular) State Plane Coordinates N 134,965.30 873,628.74, thence S 02°46'50" E 1,620.37 feet to a point (N 133,346.84 E 873,707.35), thence N 84°54'32" W 517.74 feet to a point (N 133,392.79 E 873,191.65), thence S 71°33'57" W 247.52 feet to a point (N 133,314.52 E 872,956.83), thence S 78°19'56" W 628.45 feet to a point (N 133,187.42 E 872,341.37), thence S 78°56'07"W 150.85 feet to a point (N 133,158.47 E 872,193.32), thence N 88°20'50" W 186.88 feet to a point (N 133,163.86 E 872,006.52), thence S 78°29'29" W 125.05 feet to a point (N 133,138.91 E 871,883.98), thence S 74°58'25" W 286.19 feet to a point (N 133,064.71 E 871,607.57), thence N 04°27'45" W 1,653.77 feet to a point (N 134,713.47 E 871,472.90), thence N 87°15'31" E 207.85 feet to a point (N 134,723.41 E 871,686.51), thence N 53°46'26" E 64.25 feet to a point (N 134,761.38 E 871,738.34), thence S 88°08'40" E 203.23 feet to a point (N 134,754.80 E 871,941.46), thence S 78°28'54" E 169.32 feet to a point (N 134,720.99 E 872,107.57), thence N 48°28'09" E 140.34 feet to a point (N 134,814.04 E 872,212.34), thence N 83°54'14" E 1,424.37 feet to the point of Beginning, containing eighty-one (81) acres, more or less.

(2) EH-89 (Duerr #1):

Beginning at a point Virginia (South Rectangular) State Plane Coordinate N 136,425.96 E 876,148.36, thence N 85°24'08" E 1,320.00 feet to a point (N 136,532.77 E 877,464.12), thence S 04°36'01" E 2,411.85 feet to a point (N 134,128.69 E 877,657.46), thence S 85°24'08" W 1,320.00 feet to a point (N 134,022.88 E 876,341.70), thence N 04°36'01" W 2,411.85 feet to the point of Beginning, containing seventy-five and fifty-three hundredths (75.53) acres, more or less.

(3) EH-103 (G. B. Hensley #1):

Beginning at a point Virginia (South Rectangular) State Plane Coordinate N 138,262.73 E 876,000.73, thence S 04°35'52" E 2,640.00 feet to a point (N 135,631.22 E 876,212.36), thence S 85°24'08" W 1,327.91 feet to a point (N 135,524.78 E 874,888.72), thence N 18°03'31" W 248.99 feet to a point (N 135,761.50 E 874,811.54), thence N 32°29'52" W 121.22 feet to a point (N 135,863.74 E 874,746.41), thence N 03°11'52" W 280.06 feet to a point (N 136,143.37 E 874,730.79), thence N 54°09'08" E 141.32 feet to a point (N 136,226.13 E 874,845.34), thence N 43°17'08" E 250.94 feet to a point (N 136,408.80 E 875,017.39), thence N 16°59'52" W 650.00 feet to a point (N 137,030.40 E 874,827.37), thence N 27°04'52" W 135.01 feet to a point (N 137,150.61 E 874,765.91), thence N 04°35'52" W 1,009.55 feet to a point (N 138,156.91 E 874,684.98), thence N 85°24'08" E 1,320.00 feet to the point of Beginning, containing seventy-nine and eight-hundredths (79.08) acres, more or less.

(4) EH-105 (Gardner #1):

Beginning at a point Virginia (South Rectangular) State Plane Coordinate N 133,064.71 E 871,607.57, thence N 74°58'25" E 286.19 feet to a point (N 133,138.91 E 871,883.98), thence N 78°29'29" E 125.05 feet to a point (N 133,163.86 E 872,006.52), thence S 88°20'50" E 186.88 feet to a point (N 133,158.47 E 872,193.32), thence N 78°56'07" E 150.85 feet to a point (N 133,187.42 E 872,341.37), thence N 78°19'56" E 628.45 feet to a point (N 133,314.52 E 872,956.83), thence N 71°33'57" E 247.52 feet to a point (N 133,392.79 E 873,191.65), thence S 84°54'32" E 517.74 feet to a point (N 133,346.84 E 873,707.35), thence S 84°54'32" E 54.72 feet to a point (N 133,341.99 E 873,761.85), thence S 02°40'03" E 1,385.13 feet to a point (N 131,958.36 E 873,826.32), thence S 68°18'50" W 2,207.89 feet to a point (N 131,142.50 E 871,774.69), thence N 04°58'08" W 1,929.46 feet to the point of Beginning, containing eighty-one (81) acres, more or less.

(5) EH-96 (Miller #1):

Beginning at a point Virginia (South Rectangular) State Plane Coordinate N 135,418.26 E 873,564.15; thence N 85° 24' 08" E 2,656.71 feet to a point (N 135,631.22 E 876,212.31), thence S 04° 36 01" E 1,360.54 feet to a point (N 134,275.06 E 876,321.43), thence S 85° 24' 08" W 2,657.37 feet to a point (N 134,062.04 E 873,672.61), thence N 02° 46' 50" W 877.55 feet to a point (N 134,938.24 E 873,627.05), thence N 07° 49' 17" W 484.20 feet to the point of Beginning, containing eighty-two and fifty-seven hundredths (82.57) acres, more or less.

e. The operator and drilling information for the Wells to be tested are as follows:

(1) Well #EH-88:

A.	Name of Operator:	Virginia Gas Company
B.	Date Drilled:	March 11, 1988
C.	Total Depth:	4,113 feet
D.	Depth of Production:	3,874-3,892 feet
E.	Initial Rock Pressure:	1,000 psi
F.	Depths at Which Coal Seams Were Encountered:	N/A (no coal)
G.	Driller's Information:	See Exhibit "E" of Application
H.	Well Status at Date of Application:	Shut-in (Being Tested Pursuant to Temporary Order)

(2) Well #EH-89:

A.	Name of Operator:	Virginia Gas Company
B.	Date Drilled:	October 11, 1985
C.	Total Depth:	4,196 feet
D.	Depth of Production:	3,755-3,764 feet
E.	Initial Rock Pressure:	1,400 psi
F.	Depths at Which Coal Seams Were Encountered:	N/A (no coal)

- G. Driller's Information: See Exhibit "F" of Application
- H. Well Status at Date of Application: Shut-in (Being Tested Pursuant to Temporary Order)
- (3) Well #EH-103:
- A. Name of Operator: Virginia Gas Company
- B. Date Drilled: July, 1987
- C. Total Depth: 4,024 feet
- D. Depth of Production: 3,388-3,500 feet & 3,755-3,767 feet
- E. Initial Rock Pressure: 1,250 psi
- F. Depths at Which Coal Seams Were Encountered: N/A (no coal)
- G. Driller's Information: See Exhibit "G" of Application
- H. Well Status at Date of Application: Shut-in (Being Tested Pursuant to Temporary Order)
- (4) Well #EH-105:
- A. Name of Operator: Virginia Gas Company
- B. Date Drilled: April, 1988
- C. Total Depth: 4,248 feet
- D. Depth of Production: 3,921-3,930 feet & 3,939-3,985 feet
- E. Initial Rock Pressure: 1,125 psi
- F. Depths at Which Coal Seams Were Encountered: N/A (no coal)
- G. Driller's Information: See Exhibit "H" of Application
- H. Well Status at Date of Application: Shut-in (Being Tested Pursuant to Temporary Order)
- (5) WELL EH-96:
- A. Name of Operator: Virginia Gas Company
- B. Date Drilled: October 14, 1985
- C. Total Depth: 6,843 feet, plugged back to 3,814 feet
- D. Depth of Production: 3,760 - 3,770 feet
- E. Initial Rock Pressure: 1,450 psi (estimated)
- F. Depths at Which Coal Seams Were Encountered: N/A (no coal)
- G. Driller's Information: See Exhibit "I" of Application
- H. Well Status at Date of Application: Shut-in

8. Relief Granted: Pursuant to Va. Code. Ann. §§ 45.1-361.1, et seq. (Michie Supp. 1993), VR 480-05-22.1 (1991), Virginia Gas and Oil Board Regulations, and VR 480-05.22.2 (1991), Virginia Gas and Oil Board Regulations, the Virginia Gas and Oil Board ORDERS as follows:

The Board grants the application of Virginia Gas Company to modify the Early Grove Order and the Temporary Order in the following respects:

a. In addition to the four (4) wells approved for testing by the Temporary Order, the Board approves Well EH-96 (Miller #1) and the Drilling Unit within which it is located for testing at the coordinates and within the descriptions set forth herein in Subparagraphs 7.c and 7.d and depicted on Exhibit "B" hereto.

b. The Board redesignates Applicant, Virginia Gas Company, as the Operator for Subject Units, and grants Operator the right to continue the testing of the Price Formation underlying Subject Lands as authorized by the Temporary Order, as amended herein, through November 1, 1993, (herein the "Testing Period"), in conformance with the procedures set forth by the Applicant in its testimony before the Board, including, but not limited to: (1) conducting injectivity tests; (2) recording the pressures and volumes encountered in the Wells; (3) acquiring data; and (4) evaluating and analyzing the formation to determine whether it has adequate injectivity and deliverability to make the field suitable as a gas storage reservoir.

c. The Operator shall take precaution during the testing phase to maintain the integrity of the well bore for each Well.

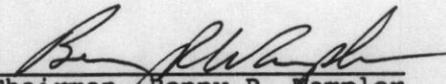
d. The Operator, having heretofore commenced testing pursuant to the authority granted by the Temporary Order, shall continue to report to the Inspector on a monthly basis through completion of the Testing Period, or at such other times as may be required, the quantities or volumes of gas stored and/or removed from the Units. The Operator shall also monitor the wellhead pressures and shall report them to the Virginia Gas and Oil Inspector on a monthly basis.

e. The Operator will continue to pay the royalty owners in the Subject Units as if testing was not being conducted. If "native gas" is removed during the Testing Period, Operator will calculate the amount of "native gas" removed based upon a production decline curve and the royalty owners will be paid royalties on such "native gas" according to the terms of the oil and gas leases covering the Subject Units. In order to separate and protect the rights of royalty owners and the Operator during Testing Periods, in relation to amounts of original gas in place and non-royalty gas, accurate records of pressure and the volume of all gas in each well shall be kept by the Operator. Upon the start of withdrawals of gas, historical pressure data, production decline data, and accurate records of stored gas volumes will be used to determine between the predicted production and the adjusted production as a result of any additional volumes of gas for testing purposes. Comparison of the predicted production and the actual production shall be used to determine a percentage of the actual production that shall be used to define the amounts of gas that will be Operator gas and the amount that is original gas, until such time as the Operator has recovered the volume of gas that was stored for testing purposes.

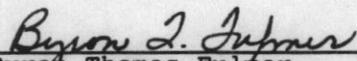
f. The Inspector may make or cause to be made any inspection or surveys deemed necessary to ensure that the provisions of this Order are met.

9. Effective Date: This Order shall be effective as of August 17, 1993, and shall expire and become null and void on a date which is the earlier of: (1) completion of the testing period or (2) a date of termination hereafter established by Order of the Inspector or the Board.

DONE AND EXECUTED this 2nd day of November, 1993, by a majority of the Virginia Gas and Oil Board.

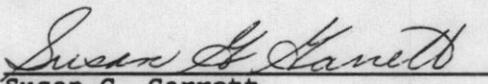

Chairman, Benny R. Wampler

DONE AND PERFORMED this 2nd day of November, 1993, by Order of this Board.


Byron Thomas Fulmer
Principal Executive to the Staff
Virginia Gas and Oil Board

STATE OF VIRGINIA)
COUNTY OF WISE)

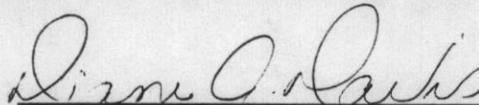
Acknowledged on this 2nd day of November, 1993, personally before a notary public in and for the Commonwealth of Virginia, appeared Benny Wampler, being duly sworn did depose and say that he is Chairman of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.


Susan G. Garrett
Notary Public

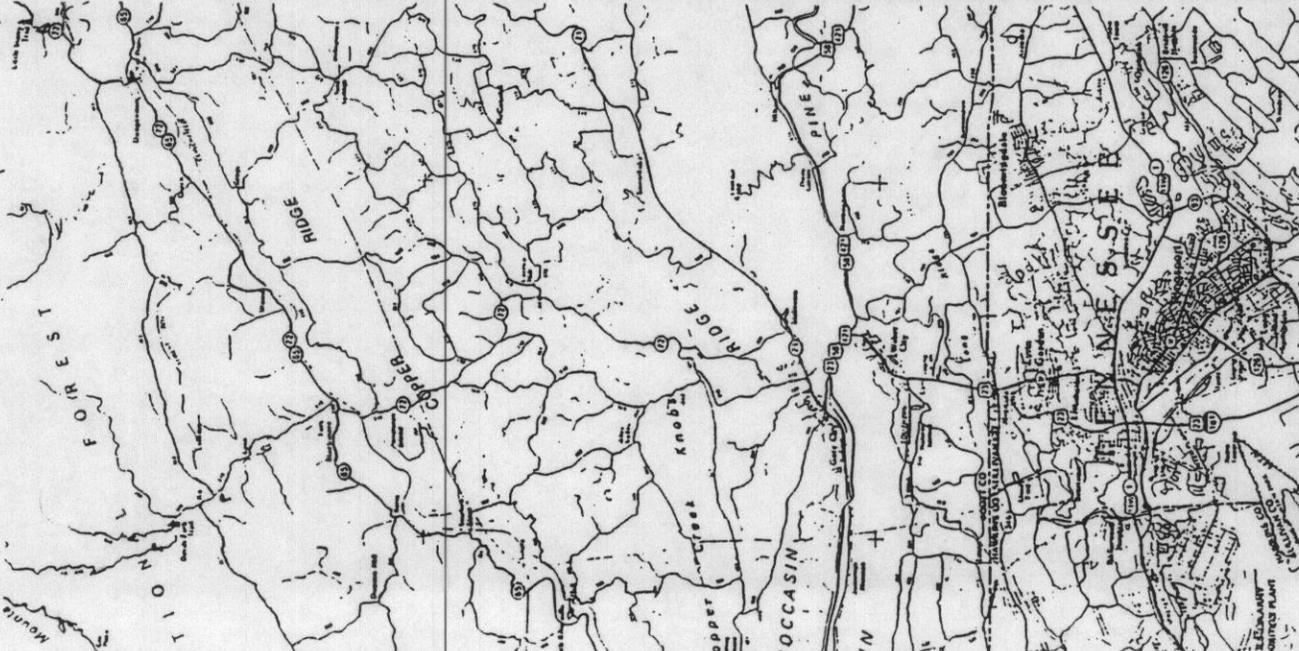
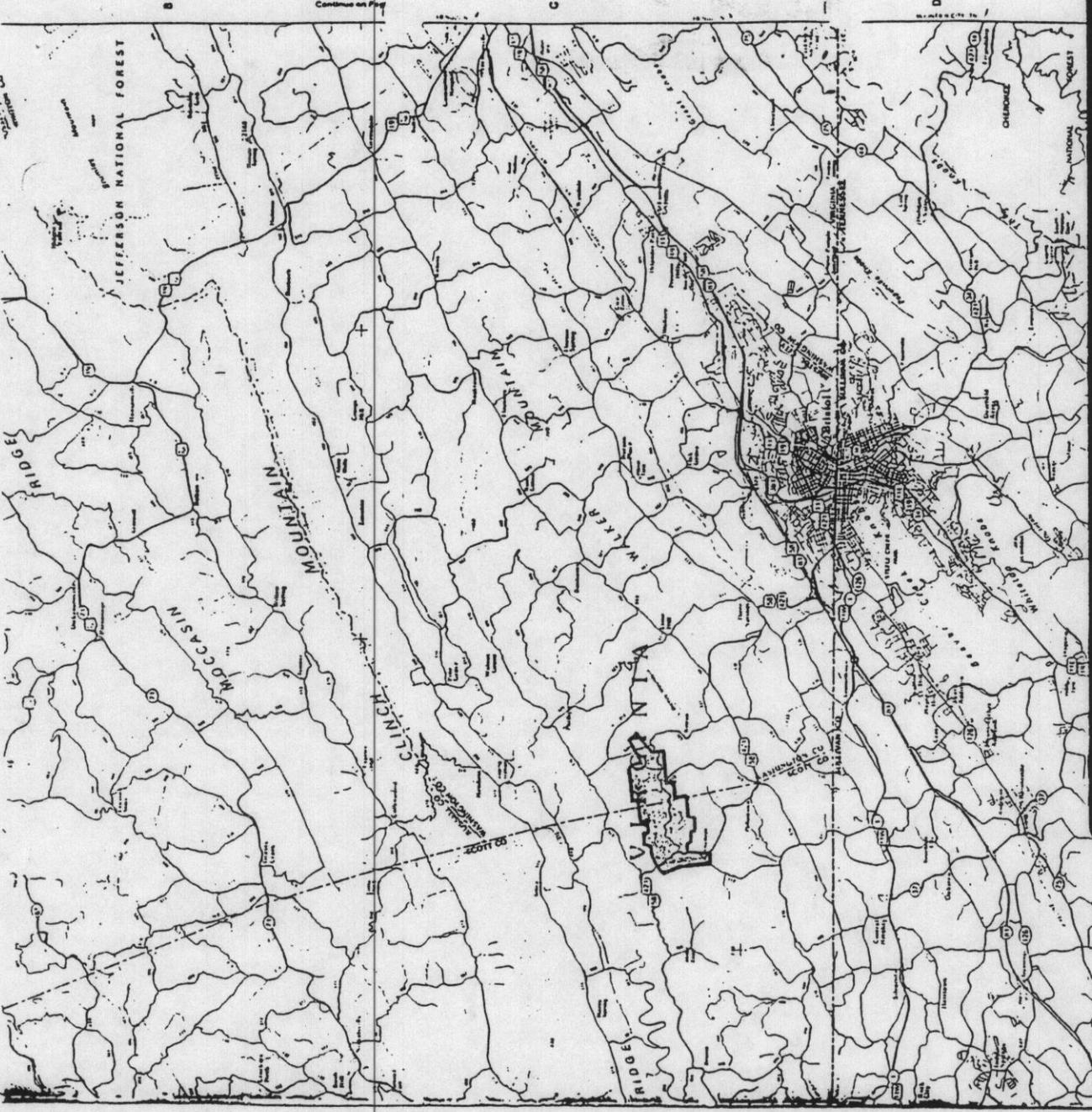
My commission expires 07/31/94

STATE OF VIRGINIA)
COUNTY OF WASHINGTON)

Acknowledged on this 2nd day of November, 1993, personally before a notary public in and for the Commonwealth of Virginia, appeared Byron Thomas Fulmer, being duly sworn did depose and say that he is Principal Executive to the Staff of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.


Diane J. Davis
Notary Public

My commission expires 09/30/97



Scale 1:150,000

VIRGINIA GAS COMPANY

Location Map
 VGOB-92/07/21-0233
 EXHIBIT A

Early Grove Gas
 and Oil Field





178

870,000 FEET

180

(Blountville)

181

182

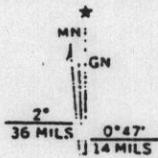
(Blountville)

by Tennessee Valley Authority
Geological Survey

Scale 1:24000

SCALE

by S.G.S. and T.V.A.
by photogrammetric methods.
July 1938



North American datum
on Virginia (South)
system
transverse Mercator

CONTOUR INTERVAL
DASHED LINES REPRESENT
DATUM IS ME

- | | |
|---|--------|
| 1 | EH-88 |
| 2 | EH-89 |
| 3 | EH-103 |
| 4 | EH-105 |
| 5 | EH-96 |

VIRGINIA GAS COMPANY
Unit Location Map
VGOB-93/08/17-0397

EXHIBIT B

Prepared by: Lemar Kendrick, L.L.S.

U.S. GEOLOGICAL SURVEY
RESTON, VIRGINIA
DIVISION OF MINERAL RESOURCES
TENNESSEE VALLEY AUTHORITY
USING TOPOGRAPHIC MAPS