

INSTRUMENT PREPARED BY
VIRGINIA GAS AND OIL

ORDER RECORDED UNDER CODE
OF VIRGINIA SECTION 45.1-361.26

VIRGINIA:

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: **RANGE RESOURCES - PMI**

VIRGINIA GAS AND
OIL BOARD
VGOB DOCKET NO.:
89-0126-0009-83

RELIEF SOUGHT:

MODIFICATION OF THE OGCB NORA GAS
FIELD RULES ORDER, ENTERED MARCH 26,
1989, AS AMENDED, TO ALLOW MORE THAN
ONE COALBED GAS WELL TO BE DRILLED IN
THE UNITS IDENTIFIED ON EXHIBIT "A" HERETO

LEGAL DESCRIPTION:

DRILLING UNITS: 77AV, 78AV, 77AW, 78AW, 80AW,
81AW, 77AX, 78AX, 79AX, 80AX, 81AX, 77AY, 78AY,
79AY, 80AY, & 81AY.
LOCATED IN BUCNANAN & DICKENSON
COUNTIES, VIRGINIA;
SEE ANNEXED EXHIBIT "H2"

**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 (hereinafter "Board") at 9:00 a.m. on **June 16, 2015** at the Conference Center at the Russell County Office Facility, Lebanon, Virginia.

2. Appearances: **James E. Kaiser of Wilhoit and Kaiser**, appeared for the Applicant; and Sharon B. Pigeon, Assistant Attorney General was present to advise the Board.

3. Jurisdiction and Notice: Pursuant to Va. Code §§45.1-361.1 et seq., as amended, the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by the 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, or in the case of conflicting claims to the ownership of the coalbed methane gas, each person identified by Applicant as a potential owner of the coalbed methane gas underlying the area described at paragraph 7.h below and in **Exhibit "B"** attached hereto; and (2) has given notice to all parties so identified (hereinafter sometimes "person(s)" whether referring to individuals, corporation, partnerships, associations, companies, businesses, trusts, joint ventures or other legal entities) and entitled by §§ 45.1-361.19 and 45.1-361.20, Virginia Code, as amended, to notice of the Application, and (3) that the persons listed in the Notice of Hearing are the persons so identified by the Applicant. Further, the Board has caused notice of this hearing to be published as required by § 45.1-361.19.B., Virginia Code, as amended. Whereupon, the Board hereby finds that the notices given satisfy all statutory requirements, Board rule requirements and the minimum standards of State due process.

4. Amendments and Dismissals: **None**.

5. Relief Requested: (1) Modification of the Nora Gas Field Rules to allow more than one coalbed methane gas well to be drilled within each of the Nora Field Drilling Units identified above and in **Exhibit "H2"** attached hereto; and (2) for an administrative order providing that additional well permits may be issued in the Nora Field after the Application is filed and while it is pending.

6. Relief Granted: Available data and the evidence adduced at the hearing support Applicant's position that the production from the pool underlying the Nora Coal Bed Gas Field Drilling Units in question would be enhanced and benefit from in-field drilling; accordingly,

a. With regard to the Drilling Units described above and in **Exhibit "H2"** hereto, the Nora Coal Bed Gas Field Rules Order, OCGB order entered of March 26, 1989, is hereby amended to allow the Board's Designated Unit Operator in Drilling Units pooled by Board Order and the Well Operator/Permittee in voluntary Drilling Units to drill a total of two (2) wells, said total to include any previously permitted well(s), within the units affected by the Application and this Order;

b. In the event that an additional coalbed methane gas well(s) permitted and drilled after the entry of this order is located within the drilling window(s) of a Nora Coal Bed Gas Field Drilling Unit affected by this order, the production therefrom shall be solely attributed to and allocated to the Nora Drilling Unit within which the wells are located.

c. In the event a second well is proposed that is to be located outside the drilling window of any Nora Unit affected by this order and a permit application is submitted to the Division of Gas and Oil seeking such location exception, the Inspector shall assess the permit as follows:

(i) If a 58 acre square with the proposed well at its center lies entirely within Nora Drilling Units which are voluntary in nature and are not subject to existing pooling order, the Inspector may grant or deny the location exception on a case-by-case basis according to standard procedures and provisions of the Nora Order which allow wells to be drilled outside the drilling windows; or

(ii) If a 58 acre square with the proposed well at its center lies entirely or partially within any Nora Drilling Unit(s) which is subject to existing pooling orders, the Inspector shall refer the permit application to the Board for its recommendations concerning correlative rights considerations, modification of pooling orders, and escrow provisions. Alternatively, the Unit Operator may present a pooling proposal directly to the Board prior to filing a permit application. No permit under this paragraph (ii) shall be issued until the Board has acted on the matter.

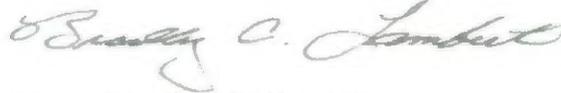
7. Special Findings:

- a. Applicant's proposed field rule modification is not an unreasonable or arbitrary exercise of the owner's right to explore for or produce gas;
- b. The Applicant's proposal would not unreasonably interfere with the present or future mining of coal or other minerals;
- c. The acreage to be embraced in the Drilling Units affected by and/or created by this Modification Order shall be as set forth above and in **Exhibit "H2"** attached hereto.
- d. The formations subject to this Modification Order are described in the OGCB Order entered March 26, 1989, as amended.
- e. The boundaries of the Drilling Units are the same as heretofore established by the OGCB Order entered March 26, 1989, as amended.
- f. Unit Operator's production simulations indicate that drilling of an additional well in each Unit could facilitate the recovery of an additional 250,000 MCF of gas per Unit within ten (10) years of drilling.
- g. The boundaries of any Drilling Units created subsequent to this Modification Order shall be according to paragraph 6.c.ii. above and as defined by Board action specific to individual units.
- h. The acreage subject to this Modification Order is depicted in **Exhibit "H2"** attached hereto:

- i. Having considered the evidence presented, the Board found no reason to establish any allowable production rates for the wells contemplated by this Modification Order;
 - j. Except as herein specifically modified, the proposed Drilling Units in **Exhibit "H2"** shall be developed and produced in compliance with the OGCB Order entered on March 26, 1989 regarding the Nora Gas Field Rules, as amended.
 - k. This Modification Order shall be effective as of the date of the hearing, to wit: **June 16, 2015.**
8. Conclusion: The relief granted hereby will assist in enhancing production from existing wells, will assist in more efficiently recovering coalbed methane gas from the area in question, prevent waste by more effectively extracting the resource, and will continue to protect the correlative rights of all owners and claimants. Therefore, the relief and all terms and provisions set forth above be and are hereby granted and IT IS SO ORDERED.
9. Effective Date: **June 16, 2015.**

150001253

DONE AND EXECUTED this 29 day of July, 2015 by a majority of the Virginia Gas and Oil Board.



Chairman, Bradley C. Lambert

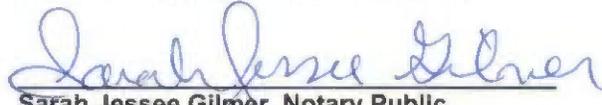
DONE AND PERFORMED this 29 day of July, 2015 by Order of the Virginia Gas and Oil Board.



Rick Cooper
Principal Executive to the
staff, Virginia Gas and Oil Board

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

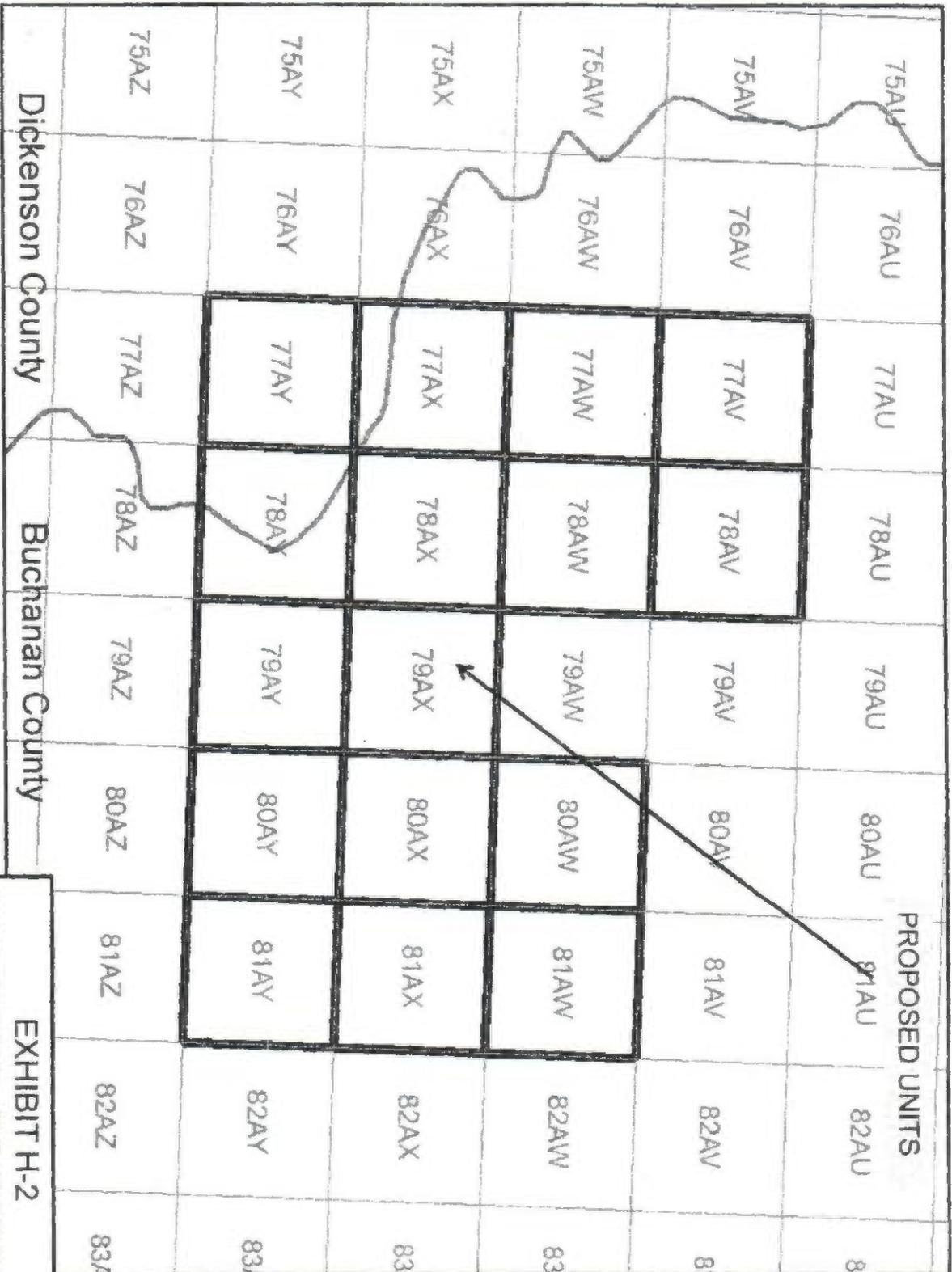
Acknowledged on this 29th day of July, 2015, personally before me a notary public in and for the Commonwealth of Virginia, appeared Bradley C. Lambert, being duly sworn did depose and say that he is the Chairman of the Virginia Gas and Oil Board and appeared Rick Cooper, being duly sworn did depose and say that he is Principal Executive to the staff of the Virginia Gas and Oil Board, that they executed the same and was authorized to do so.



Sarah Jessee Gilmer, Notary Public
262946

My Commission expires: July 31, 2017





Dickenson County

Buchanan County

PROPOSED UNITS

EXHIBIT H-2
 RANGE RESOURCES - PINE MOUNTAIN INC.
 INCREASED DENSITY DRILLING
 NORA FIELD
 5/11/2015

Exhibit "B"
89-0126-0009-83

Dickenson-Russell Coal Company
Maxxim Shared Services, LLC
Attn: Steve Smith
5703 Crutchfield Drive
Norton, VA 24273

ALPHA Land & Reserves, LLC
Attn: Steve Smith
5703 Crutchfield Drive
Norton, VA 24273

WBRD LLC
Chad Mooney
5260 Irwin Road
Huntington, WV 25705-3247

ACIN LLC
Chad Mooney
5260 Irwin Road
Huntington, WV 25705-3247

Arlene Deel
28131 Dickenson Highway
Haysi, VA 24256

Arthur F. Boyd
1523 Indian Grave Gap Road
Vansant, VA 24656

Amanda Brooke Robinette
c/o Ginger Robinette
2480 Horton Ridge Road
Swords Creek, VA 24649

Beth Eversman and
David A. Eversman
P.O. Box 8682
Columbus, GA 31908

Otis Shey Gilbert and
Edna Gilbert
1824 Hollow Poplar Road
Davenport, VA 24239

LeRoy Trivett
Unknown/Unlocatable

Exhibit "B"
89-0126-0009-83

James Trivett
Unknown/Unlocatable

MGM Methane Corp.
ATTN: James Rasnake
P.O. Box 830
Grundy, VA 24614

Albert Tivis Rasnake Jr., et al

Albert Tivis Rasnake Jr.
1561 Hollow Poplar Road
Davenport, VA 24239

Curtis S. Rasnake and
Donna Rasnake
960 Cumberland Drive
Greenville, TN 37745

Kathy R. Williams and
Joseph B. Williams
103 Lake Road
Madisonville, TN 37354

Nancy Williams
c/o Curtis Rasnake
960 Cumberland Drive
Greenville, TN 37745

Roger Von Deel
1756 Rakes Ridge Road
Birchleaf, VA 24220

James Rasnake
909 Brushy Valley Road
Heiskell, TN 37754

Garden Realty Corporation
c/o Margaret Burns and Jackie Meade
108 Bexley Road
Mooresville, NC 28117

Oliver Gibson and
Paggy L. Gibson
1082 Palm View Drive
Daytona Beach, FL 32119

Exhibit "B"
89-0126-0009-83

Glynis C. Gibson
HC 4, Box 100
Davenport, VA 24239

Jerry Yates and
Ellen Yates
HC 4, Box 98
Davenport, VA 24239

Garmon Rasnake and
Phyllistene Rasnake
HC 4, Box 98-A
Davenport, VA 24239

Carmel Rasnake and
Tonya Rasnake
860 Barren Valley Road
Greenville, TN 37641

Michael Carson Price
PO Box 27
Davenport, VA 24293

73AR	74AR	75AR	76AR	77AR	78AR	79AR	80AR	81AR	82AR	83AR	84AR
73AS	74AS	75AS	76AS	77AS	78AS	79AS	80AS	81AS	82AS	83AS	84AS
73AT	74AT	75AT	76AT	77AT	78AT	79AT	80AT	81AT	82AT	83AT	84AT
73AU	74AU	75AU	76AU	77AU	78AU	79AU	80AU	81AU	PROPOSED UNITS		
73AV	74AV	75AV	76AV	77AV	78AV	79AV	80AV	81AV	82AV	83AV	84AV
73AW	74AW	75AW	76AW	77AW	78AW	79AW	80AW	81AW	82AW	83AW	84AW
73AX	74AX	75AX	76AX	77AX	78AX	79AX	80AX	81AX	82AX	83AX	84AX
73AY	74AY	75AY	76AY	77AY	78AY	79AY	80AY	81AY	82AY	83AY	84AY
73AZ	74AZ	75AZ	76AZ	77AZ	78AZ	79AZ	80AZ				

APPROVED UNITS

Dickenson County

EXHIBIT K (page 1)
 RANGE RESOURCES – PINE MOUNTAIN INC.
 INCREASED DENSITY DRILLING
 NORA FIELD 6/5/2015

Map View of Nora CBM Field Increased Density Drilling Previously Board Approved

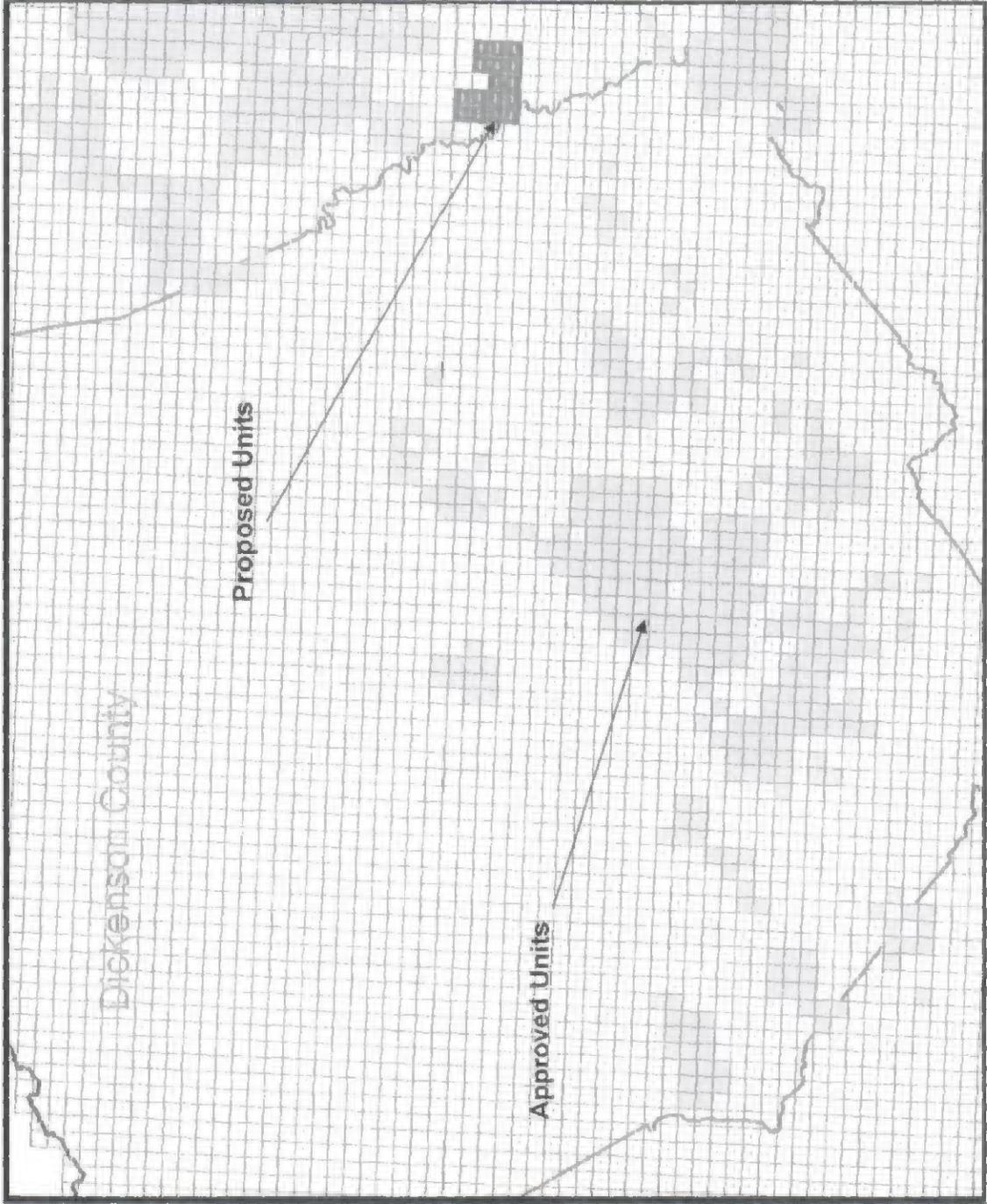


EXHIBIT K (pg 2)

Map View of Nora CBM Field Increased Density Drilling Completed to Date

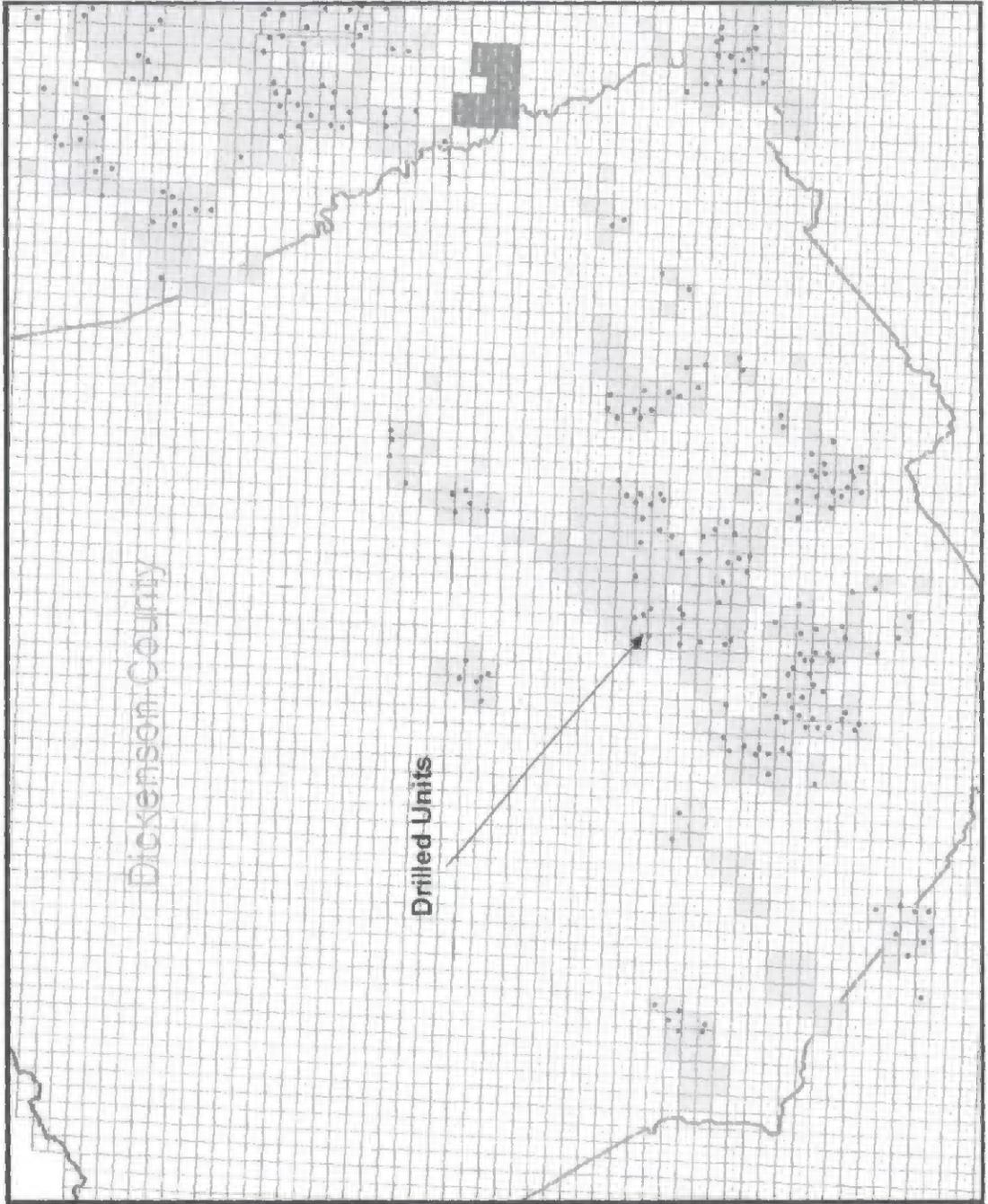
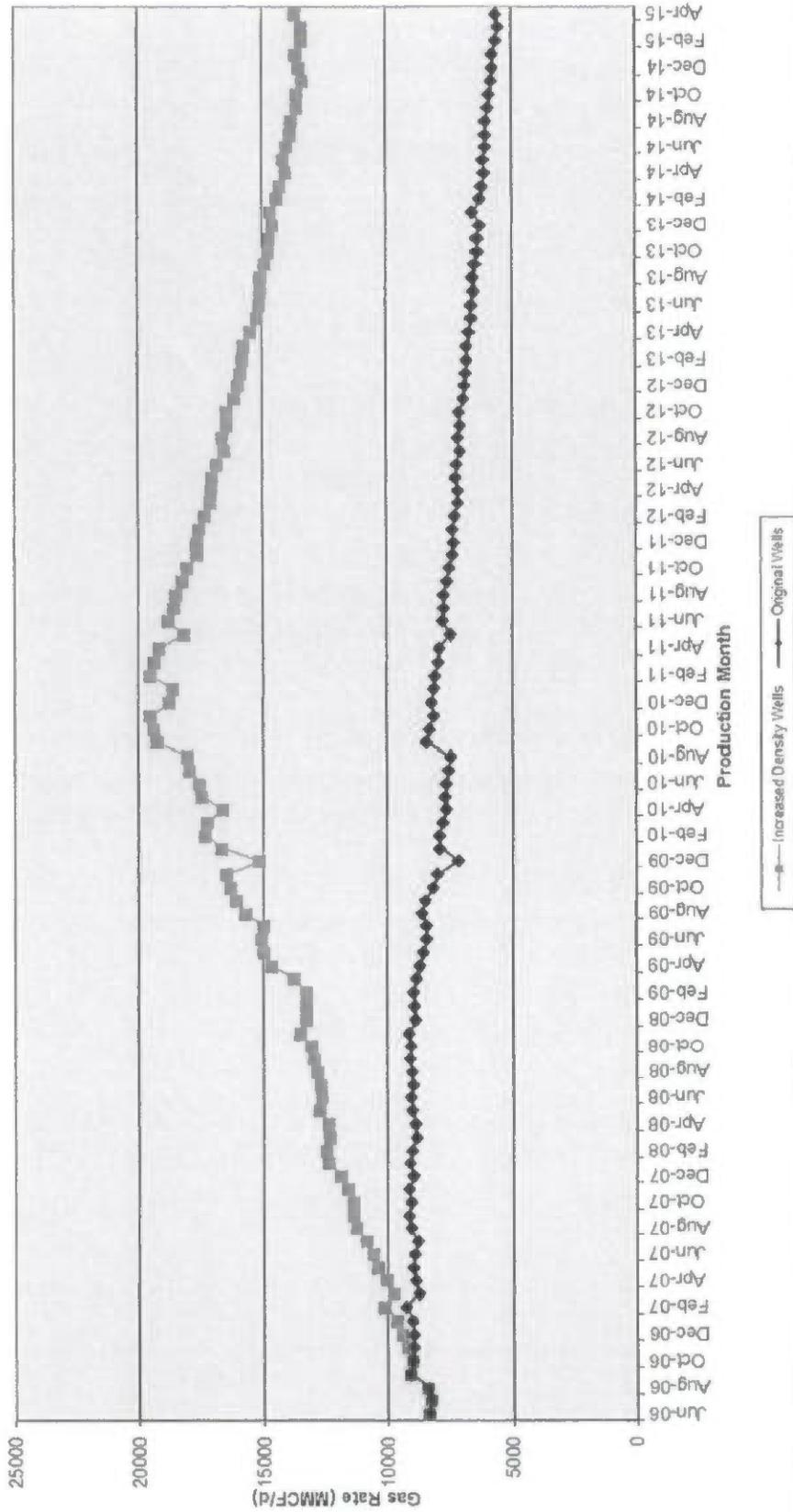


EXHIBIT K (pg 3)

Increased Density Drilling Nora Field Thru 04-2015



Benefits of Increased Density Drilling

- Increase fracturing network promoting gas flow at low pressure
- Decrease de-watering time frame
- Increase recovery factor of reservoir
- Reservoir production achieved faster and more economical
- No significant negative impact to 1st well production, generally see improvement in existing production

Infill drilling from 2006 – 2014
 Production represents 196 units

EXHIBIT K (pg5)

Summary of Infill Drilling

- Working Interest Owners, Royalty Owners, and the State will likely benefit by maximizing production**
- Promote conservation of the gas resource and prevent waste by more effectively extracting the resource**
- Allow for shared facilities such as roads, pipelines, etc. to help minimize environmental impact**
- No correlative rights issues within proposed units**

24
DB 527 PG600

INSTRUMENT #150000801
RECORDED IN THE CLERK'S OFFICE OF
DICKENSON ON
AUGUST 6, 2015 AT 10:06AM

RICHARD W. EDWARDS, CLERK
RECORDED BY: OFF

INSTRUMENT #150001253
RECORDED IN THE CLERK'S OFFICE OF
BUCHANAN COUNTY ON
AUGUST 4, 2015 AT 02:08PM

BEVERLY S. TILLER, CLERK
RECORDED BY: GGB