

|                   |                     |                     |                     |             |                           |
|-------------------|---------------------|---------------------|---------------------|-------------|---------------------------|
| DATE IN<br>3-4-05 | SUSPENSE<br>3-24-05 | ENGINEER<br>STOENER | LOGGED IN<br>3-7-05 | TYPE<br>NSL | APP NO.<br>PSEM0506631436 |
|-------------------|---------------------|---------------------|---------------------|-------------|---------------------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Quantified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] TYPE OF APPLICATION - Check Those Which Apply for [A]  
 [A] Location - Spacing Unit - Simultaneous Dedication  
☒ NSL ☐ NSP ☐ SD  
 Check One Only for [B] or [C]  
 [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM  
 [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR  
 [D] Other: Specify \_\_\_\_\_
- [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply  
 [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
 [B] ☒ Offset Operators, Leaseholders or Surface Owner  
 [C] ☐ Application is One Which Requires Published Legal Notice  
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

KELLAHIN & KELLAHIN

Attorneys At Law

P.O. Box 2265

Santa Fe, NM 87504-2265

Date

3/4/05

2005 MAR 4 PM 2 36

**KELLAHIN & KELLAHIN**  
**Attorney at Law**

**W. Thomas Kellahin**  
Recognized Specialist in the Area of  
Natural Resources-oil and gas law-  
New Mexico Board of Legal Specialization

P.O. Box 2265  
Santa Fe, New Mexico 87504  
117 North Guadalupe  
Santa Fe, New Mexico 87501

Telephone 505-982-4285  
Facsimile 505-982-2047  
kellahin@earthlink.net

March 4, 2005

HAND DELIVERED

Mr. Mark Fesmire Director  
Oil Conservation Division  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

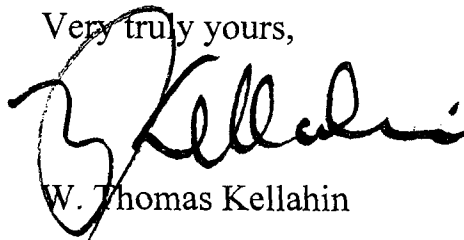
Re: Administrative Application of Chesapeake Operating, Inc.  
for approval of a unorthodox well location for its  
Burrus "23" Well No. 4, Unit E,  
SW/4NW/4 (40-acre) dedication, Section 23,  
T12S, R38E, Lea County, New Mexico  
Trinity Wolfcamp Pool

Dear Mr. Fesmire:

On behalf of Chesapeake Operating, Inc., please find enclosed our referenced application that is being filed in accordance with the Rule 104. This location crowds the southwestern corner of the boundary of this 40-acre spacing unit.

Concurrent with this application, Chesapeake has filed its APD with the OCD-Hobbs.

Very truly yours,



W. Thomas Kellahin

CC: Mr. Chris Williams-OCD-Hobbs  
Chesapeake Operating, Inc.  
Attn: Lynda Townsend

2005 MAR 4 PM 2 36

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE ADMINISTRATIVE  
APPLICATION OF CHESAPEAKE OPERATING, INC.  
FOR APPROVAL OF AN UNORTHODOX WELL LOCATION  
LEA COUNTY, NEW MEXICO**

**ADMINISTRATIVE APPLICATION**

Comes now CHESAPEAKE OPERATING, LTD. ("Chesapeake") and by and through its attorneys, Kellahin & Kellahin, and applies to the New Mexico Oil Conservation Division ("Division") for approval of an unorthodox oil well location for its proposed Burrus "23" Well No. 4 to be drilled at a unorthodox location 2431 feet from the North line and 175 feet from the West line (Unit E) of Section 23, T12S, R38E, Lea County, New Mexico to be dedicated to a standard 40-acre oil spacing unit consisting of the SW/4NE/4 of this section for production from the Trinity Wolfcamp Pool.

In support, Chesapeake states:

1. Chesapeake is the proposed operator for this well to be dedicated to a standard 40-acre oil spacing and proration unit consisting of the SW/4NE/4 of this section.
2. The well is to be located 2431 feet FNL and 175 feet FEL (Unit W) Section 23, T12S, R38E, at an unorthodox oil well location for the Wolfcamp formation (Trinity-Wolfcamp Pool). See APD and Form C-102, attached as Exhibit "A" and "B"
3. This well location is subject to Division Rule 104 for the Trinity-Wolfcamp Pool that require standard well locations to be not less than ~~660~~ feet from the outer boundaries of the 40-acre spacing unit. 330

4. This location, as illustrated on Exhibit "C" and explained in Exhibit "D" attached, is based upon geologic reasoning:
  - a. This location is based upon a 3D seismic interpretation indicating greater porosity thickness at the unorthodox well location than at any point within the standard well location window.
  - b. A commercial well in this area has not been completed in less than 10 feet of net porosity thickness.
  - c. All locations with the standard window are projected to have less than 10 feet of net porosity thickness.
  - d. The proposed unorthodox well location is projected to be more than 10 feet of net porosity thickness.

### **OFFSETTING OWNERSHIP**

5. This well encroaches towards the adjoining three spacing units: Units H and I of Section 22 and Unit F of Section 23.
6. Chesapeake is the operator of this proposed spacing unit and all three adjoining spacing units with the working interest owners all being the same but with **different** percentage interests. See Ownership list attached as Exhibit "E"

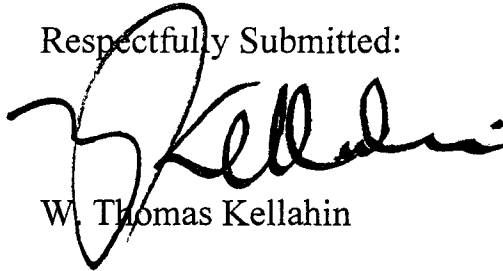
### **NOTIFICATION TO OFFSETTING OWNERS**

7. Although all working interest owners have approved and will participate in this well they are being send notice of the application because they have different percentages interests. See Rule 1207.A(2)(a)(iii). Attached as Exhibit "F"

8. Approval of this application will afford the owners and the applicant the opportunity to produce their just and equitable share of the hydrocarbons in the Ellenburger formation, will promote the orderly development in this area, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.

WHEREFORE, Applicant requests that this application be approve by the Division.

Respectfully Submitted:

A handwritten signature in black ink, appearing to read 'W. Thomas Kellahin', written over the printed name.

W. Thomas Kellahin

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
May 27, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

|   |   |                                     |
|---|---|-------------------------------------|
| <sup>1</sup> Operator Name and Address<br>Chesapeake Operating, Inc.<br>P. O. Box 18496<br>Oklahoma City, OK 73154-0496 |   | <sup>2</sup> OGRID Number<br>147179 |
| <sup>3</sup> Property Code  | <sup>4</sup> Property Name<br>Burris "23" | <sup>5</sup> API Number<br>30 -     |
| <sup>9</sup> Proposed Pool 1<br>Trinity Wolf Camp   |   | <sup>6</sup> Well No.<br>4          |
| <sup>10</sup> Proposed Pool 2   |   |                                     |

**<sup>7</sup> Surface Location**

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| E             | 23      | 12S      | 38E   |         | 2431          | N                | 175           | W              | Lea    |

**<sup>8</sup> Proposed Bottom Hole Location If Different From Surface**

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

**Additional Well Information**

|  |                                       |  |  |   |
|--|---------------------------------------|--|--|---|
| <sup>11</sup> Work Type Code<br>N  | <sup>12</sup> Well Type Code<br>O     | <sup>13</sup> Cable/Rotary<br>R        | <sup>14</sup> Lease Type Code<br>P       | <sup>15</sup> Ground Level Elevation<br>3801' |
| <sup>16</sup> Multiple<br>N  | <sup>17</sup> Proposed Depth<br>9300' | <sup>18</sup> Formation<br>Wolfcamp    | <sup>19</sup> Contractor<br>Patterson 54 | <sup>20</sup> Spud Date<br>04/01/2005         |
| Depth to Groundwater   |                                       | Distance from nearest fresh water well |  | Distance from nearest surface water           |
| Pit: Liner: Synthetic <input type="checkbox"/> _____mils thick Clay <input type="checkbox"/> Pit Volume: _____bbls Drilling Method:  |                                       |  |  |   |
| Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> |                                       |  |  |   |

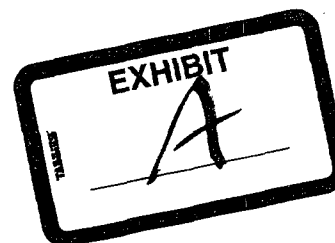
**<sup>21</sup> Proposed Casing and Cement Program**

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|-----------|-------------|--------------------|---------------|-----------------|---------------|
| 17-1/2    | 13-3/8      | 48#                | 425'          | 400             | Surf          |
| 11"       | 8-5/8       | 24#                | 4500          | 1030            | Surf          |
| 7-7/8     | 5-1/2       | 17#                | 9300          | 665             | 4000          |
|           |             |                    |               |                 |               |
|           |             |                    |               |                 |               |

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Chesapeake Operating, Inc, proposes to drill to 9300' w/TD in the Wolfcamp Lime with Patterson as the drilling contractor.

Patterson's BOP stack is per attached schematics.



|   |  |  |  |
|---|--|--|--|
| <sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> . |  | <b>OIL CONSERVATION DIVISION</b>                         |  |
| Printed name: Lynda Townsend  |  | Approved by:   |  |
| Title: Sr. Landman  |  | Title:   |  |
| E-mail Address: ltownsend@chkenegy.com  |  | Approval Date:   |  |
| Date: 04/24/05  |  | Expiration Date:   |  |
| Phone: (405) 848-8000   |  | Conditions of Approval Attached <input type="checkbox"/> |  |

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First, Artesia, NM 88210  
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                     |  |                                |
|---------------------|--|--------------------------------|
| API Number          | Pool Code<br>59890                         | Pool Name<br>Trinity Wolf Camp |
| Property Code       | Property Name<br>BURRIS "23"               | Well Number<br>4               |
| OGRID No.<br>147179 | Operator Name<br>CHESAPEAKE OPERATING INC. | Elevation<br>3801'             |

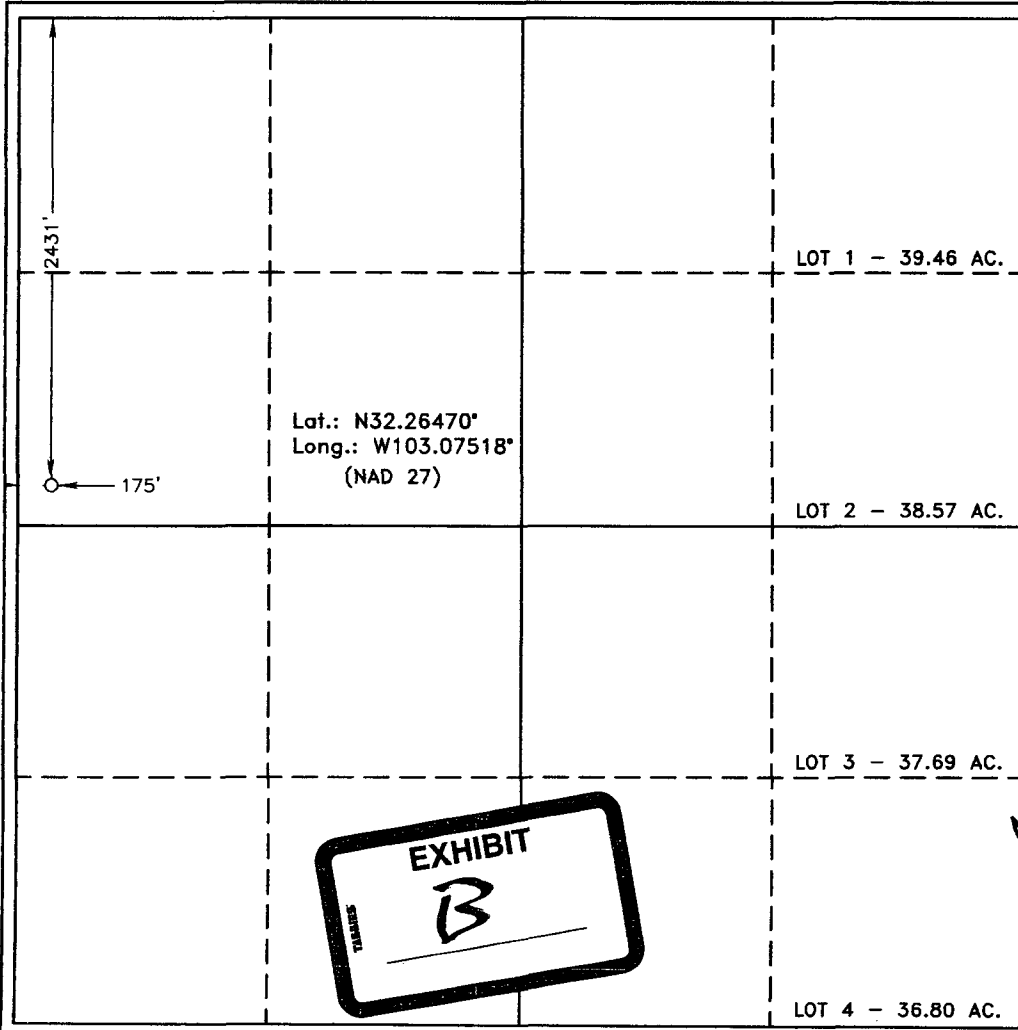
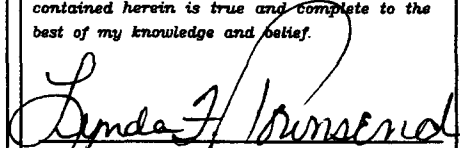
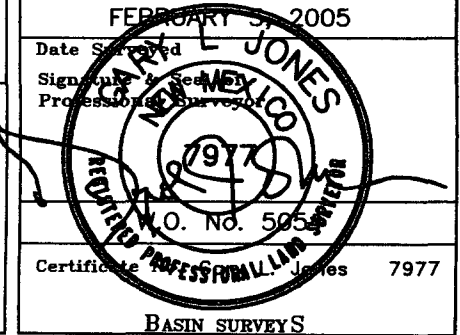
Surface Location

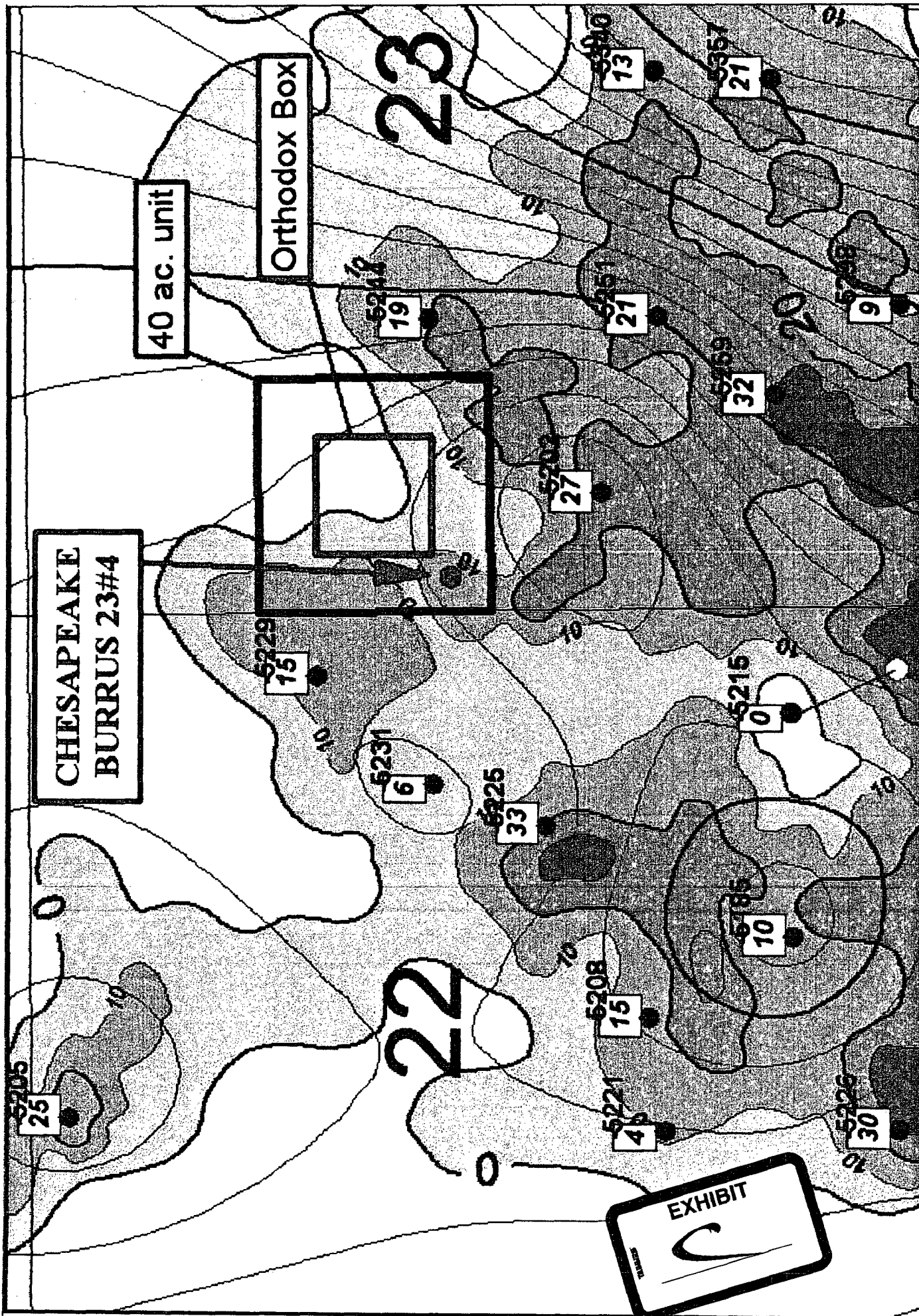
|                    |               |                  |               |         |                       |                           |                      |                        |               |
|--------------------|---------------|------------------|---------------|---------|-----------------------|---------------------------|----------------------|------------------------|---------------|
| UL or lot No.<br>E | Section<br>23 | Township<br>12 S | Range<br>38 E | Lot Idn | Feet from the<br>2431 | North/South line<br>NORTH | Feet from the<br>175 | East/West line<br>WEST | County<br>LEA |
|--------------------|---------------|------------------|---------------|---------|-----------------------|---------------------------|----------------------|------------------------|---------------|

Bottom Hole Location If Different From Surface

|                             |                 |                    |           |         |               |                  |               |                |        |
|-----------------------------|-----------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No.               | Section         | Township           | Range     | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| Dedicated Acres<br>40 SW NW | Joint or Infill | Consolidation Code | Order No. |         |               |                  |               |                |        |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

|   |   |  |
|---|---|--|
|  | <b>OPERATOR CERTIFICATION</b><br><i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i><br><br>Signature<br>Lynda Townsend<br>Printed Name<br>Senior Landman<br>Title<br>02/24/05<br>Date   |  |
|   | <b>SURVEYOR CERTIFICATION</b><br><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i><br>FEBRUARY 5, 2005<br>Date Surveyed<br><br>Signature & Seal of Professional Surveyor<br>James Jones<br>Certificate No. 505<br>7977<br>BASIN SURVEYS |  |
|   | <b>EXHIBIT B</b>  |  |
|   | LOT 1 - 39.46 AC.<br>LOT 2 - 38.57 AC.<br>LOT 3 - 37.69 AC.<br>LOT 4 - 36.80 AC.  |  |





COI  
Burrus 23 #4  
Unorthodox Location Exception  
2431' FNL & 175' FWL, SEC 23, T12S-R38E

The attached map is:

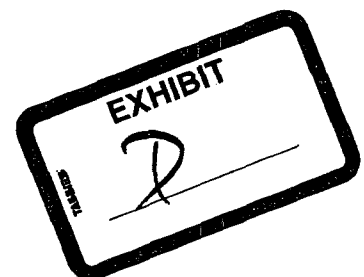
ISOPACH: Net Porosity  $\geq 10\%$  CI 10'  
STRUCTURE: T/ "Burrus" Pay CI: 10'

The map is built from subsurface borehole data and 3D seismic interpretation. Seismic Stratigraphic interpretation for the identification of  $\emptyset$  development has been integral and highly successful in the development of this field. Borehole location in the better developed  $\emptyset$  is extremely important for finding commercially productive wells. Examples are the Burrus #2 (22P) which found 0' of  $\emptyset > 10\%$  in the vertical borehole, the location is not in the seismic  $\emptyset$  anomaly. A completion attempt was unsuccessful. The well was subsequently PB, KO and drilled laterally into the seismic  $\emptyset$  anomaly for a successful completion. Another example is the State 22 #1 (22H) which is located in a very weak ie low porosity anomaly, encountered 6' of  $\emptyset$  and made a poor well. The State 22 #1 produced initially 35 BOPD (1<sup>st</sup> month daily avg.) starting in 12/2002, it has produced a cumulative 15,202 BO thru 9/2004, current daily rate is 14 BOPD. COI recently drilled the State 22 #3 (22H) as an increased density in the 40 ac. unit. The location is in a much more porous seismic anomaly, found 15' of  $\emptyset$  and completed for 200 BOPD in 11/2004.

A net  $\emptyset$  thickness of 10' or greater is necessary for commercial production.

To effectively drain this 40 ac. proration unit and to prevent waste; the requested location is needed to target the necessary porosity development.

David A Godsey  
Senior Geologist  
Chesapeake Energy



| Owner  | Burrus 23 #1<br>Well (south<br>offset; NW/4<br>SW/4 Sec 23) | State 22 #3 and<br>State 22 #1<br>Wells (west<br>offset; SE/4<br>NE/4 Sec 22) | Burrus #4 Well<br>(southwest<br>offset; NE/4 SE/4<br>Sec 22) | Address1                                     | City   |
|--|---|---|--|--|--|
| Matrix Production Company<br>and/or Matrix New Mexico<br>Holdings, LLC | 35.000%<br>30.000%  | 31.500%<br>37.000%  | 38.000%<br>34.000%   | 5725 Commonwealth Blvd.<br>P. O. Box 18496   | Sugar Land, TX 77479<br>Oklahoma City, OK 73154-0496 |
| Chesapeake Permian, LP   |   |   |  |  |  |
| Claude C. Arnold Working<br>Interest Oil & Gas Properties,<br>LLC      | 12.000%<br>8.000%   | 10.800%<br>7.200%   | 9.600%<br>6.400%   | 5600 N. May, Suite 125<br>430 NW 13th Street | Oklahoma City, OK 73112<br>Oklahoma City OK 73103    |
| H. J. Freede, Inc.   |   |   |  |  |  |
| Blake Arnold Working<br>Interest Oil & Gas Properties,<br>LLC          | 3.000%  | 2.700%  | 2.400%   | 5600 N. May, Suite 125                       | Oklahoma City, OK 73112                              |
| Rehoboth, Inc.   | 3.000%  | 2.700%  | 2.400%   | 20 N. Broadway, Ste 1800                     | Oklahoma City, OK 73102                              |
| Cardinal River Energy Co.  | 2.500%  | 2.250%  | 2.000%   | 2601 Northwest Expressway, Suite 5           | Oklahoma City OK 73112                               |
| J. Dunwood Pate Trust  | 1.000%  | 0.900%  | 0.800%   | 3625 Goodger                                 | Oklahoma City, OK 73112                              |
| James D. Pate Trust u/t/a 8-8-<br>86                                   | 1.000%  | 0.900%  | 0.800%   | 3625 Goodger                                 | Oklahoma City, OK 73112                              |
| Joe H. Pate Trust  | 1.000%  | 0.900%  | 0.800%   | 3625 Goodger                                 | Oklahoma City, OK 73112                              |
| Larry Fenty  | 1.000%  | 0.900%  | 0.800%   | 2301 Brookside Avenue                        | Edmond OK 73034                                      |
| Tropical Minerals, Inc.  | 1.000%  | 0.900%  | 0.800%   | P. O. Box 20671                              | Oklahoma City OK 73156                               |
| Monarch Resources, L.L.C.  | 1.000%  | 0.900%  | 0.800%   | P. O. Box 1197                               | Oklahoma City OK 73156                               |
| David C. Story   | 0.500%  | 0.450%  | 0.400%   | 1816 Rising Star                             | Edmond OK 73034                                      |
| <b>Totals</b>  | <b>100.000%</b>   | <b>100.000%</b>   | <b>100.000%</b>  |  |  |



**KELLAHIN & KELLAHIN**  
**Attorney at Law**

**W. Thomas Kellahin**  
Recognized Specialist in the Area of  
Natural Resources-oil and gas law-  
New Mexico Board of Legal Specialization

P.O. Box 2265  
Santa Fe, New Mexico 87504  
117 North Guadalupe  
Santa Fe, New Mexico 87501

Telephone 505-982-4285  
Facsimile 505-982-2047  
kellahin@earthlink.net

March 4, 2005

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

**NOTICE OF THE FOLLOWING NEW MEXICO OIL CONSERVATION  
DIVISION ADMINISTRATIVE CASE:**

*OFFSETTING WORKING INTEREST OWNERS:*

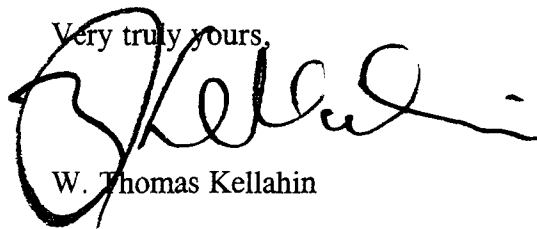
*Re: Administrative Application of Chesapeake Operating, Inc. for  
approval of unorthodox well location for its Burrus "23" Well No. 4, Unit E,  
SW/4NW/4 of Section 23, T12S, R38E, Lea County, New Mexico.*

Dear interest owner:

On behalf of Chesapeake Operating, Inc. please find enclosed a copy of its  
referenced administrative application. This notice is based upon records that  
indicate that you have a percentage interest in this well that is different from your  
percentage interest in the three adjoining 40-acre spacing units towards which this  
well encroaches.

If you have no objection, then there is nothing for you to do. If you are  
willing to waiver objection, please sign this letter as indicated and return it to me.  
However, should you have any objection to the Division approving this  
application, then it will be necessary for you to file a written objection with the  
New Mexico Oil Conservation Division, 1220 South Saint Francis Drive, Santa  
Fe, New Mexico 87505 within twenty (20) days of the date of this letter. Failure  
to file a timely objection will preclude you from objecting at a later date.

Very truly yours,

  
W. Thomas Kellahin

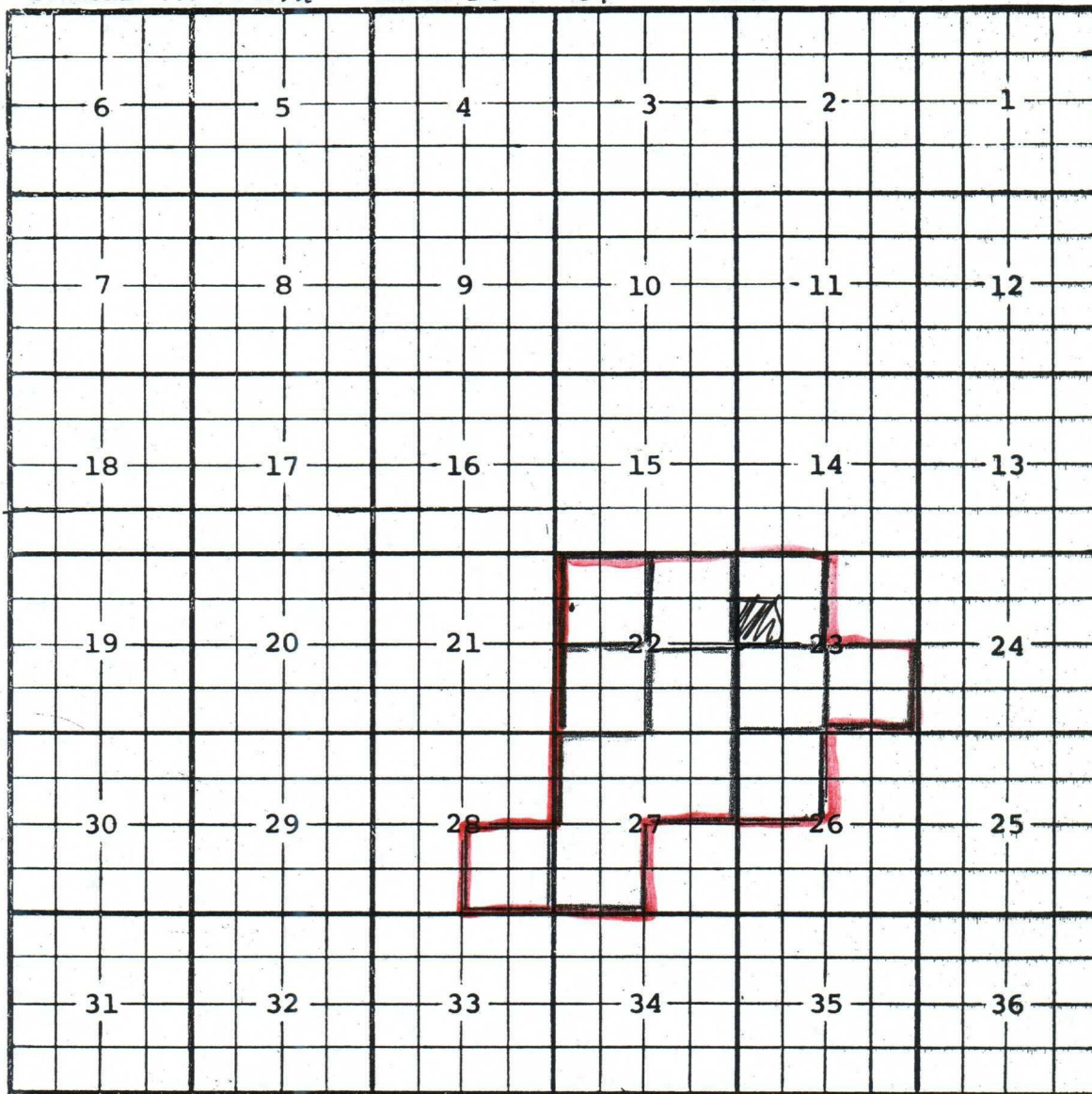
**WAIVER OF OBJECTION:**

By: \_\_\_\_\_ with authority for  
and on behalf of \_\_\_\_\_  
Date: \_\_\_\_\_



COUNTY *Lea*POOL *Trinity - Wolfcamp*TOWNSHIP *12 South*RANGE *38 East*

NMPM



Description:  $SE/4$  Sec 28 (R-5417, 4-1-77)

Ext:  $SE/4$  Sec. 22,  $N/2$  and  $SW/4$  Sec. 22 (R-11228, 2-20-02)

Ext:  $NE/4$  and  $SW/4$  Sec. 22 (A-12046, 11-3-03) Ext:  $SW/4$  Sec. 23 (R-12063, 11-25-05)

Ext:  $NW/4$  Sec. 26 (A-12141, 5-10-04) Ext:  $SE/4$  and  $NW/4$  Sec. 23 (R-12223, 10-25-04)

Ext:  $NW/4$  Sec. 22 (A-12312, 3-25-05)