

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

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

|  |                                |                               |
|--|--------------------------------|-------------------------------|
| 1. Operator Name and Address<br>CHESAPEAKE OPERATING, INC.<br>P. O. BOX 18496<br>OKLAHOMA CITY, OK 731540496 |                                | 2. OGRID Number<br>147179     |
|  |                                | 3. API Number<br>30-025-38292 |
| 4. Property Code<br>36333  | 5. Property Name<br>DH 5 STATE | 6. Well No.<br>001            |

**7. Surface Location**

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| I        | 5       | 10S      | 34E   | I       | 2160      | S        | 660       | E        | LEA    |

**8. Pool Information**

|                                      |       |
|--------------------------------------|-------|
| X-4 RANCH, MISSISSIPPIAN, WEST (GAS) | 97437 |
|--------------------------------------|-------|

**Additional Well Information**

|  |                             |  |                         |   |
|--|-----------------------------|--|-------------------------|---|
| 9. Work Type<br>New Well   | 10. Well Type<br>GAS        | 11. Cable/Rotary                                 | 12. Lease Type<br>State | 13. Ground Level Elevation<br>4246          |
| 14. Multiple<br>N  | 15. Proposed Depth<br>12450 | 16. Formation<br>Mississippi Limestone           | 17. Contractor          | 18. Spud Date<br>2/14/2007                  |
| Depth to Ground water<br>150   |                             | Distance from nearest fresh water well<br>> 1000 |                         | Distance to nearest surface water<br>> 1000 |
| Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 _____ mils thick Clay <input type="checkbox"/> Pit Volume: 12129 bbls Drilling Method:<br>Closed Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> |                             |  |                         |   |

**19. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Type | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 17.5      | 13.375      | 48               | 420           | 400             | 0             |
| Int1 | 11        | 8.625       | 32               | 4100          | 950             | 0             |
| Prod | 7.875     | 5.5         | 17               | 12450         | 1000            | 3600          |

**Casing/Cement Program: Additional Comments**

13 3/8" csg. Lead: 200 sx Prem Plus Light + 0.25 pps Flocele + 2% CaCl2, Tail: 200 sx Prem. Plus + 2% CaCl2. 8 5/8" cmt. Lead: 750 sx Interfill C + 0.25 pps Flocele, Tail: 200 sx Prem Plus + 1% CaCl2. 5 1/2" cmt: 1st Stage Lead: 200 sx Interfill H + 0.25 pps Flocele + 0.2% HR-7 2.45 yld; Tail: 150 sx Super H + 1.0 pps salt 1.6 yld. 2nd Stage Lead 500 sx Interfill H + 0.25 pps Flocele + 0.2% H\$R-7 2.45 yield. 2nd Stage Tail: 150 sx Premium 1.18 yield. TOC 3600'.

**Proposed Blowout Prevention Program**

| Type      | Working Pressure | Test Pressure | Manufacturer |
|-----------|------------------|---------------|--------------|
| Annular   | 5000             | 5000          |              |
| DoubleRam | 10000            | 10000         |              |

|   |   |
|---|---|
| I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br><b>I further certify that the drilling pit will be constructed according to NMOCD guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OCD-approved plan <input type="checkbox"/>.</b> | <b>OIL CONSERVATION DIVISION</b>                      |
| Printed Name: Electronically filed by Brenda Coffman  | Approved By: Chris Williams                           |
| Title: Regulatory Analyst   | Title: District Supervisor                            |
| Email Address: bcoffman@chkenegy.com  | Approved Date: 2/23/2007   Expiration Date: 2/23/2008 |
| Date: 2/9/2007   Phone: 432-685-4310  |   |

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(505) 393-6161 Fax:(505) 393-0720

**District II**  
 1301 W. Grand Ave., Artesia, NM 88210  
 Phone:(505) 748-1283 Fax:(505) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-102  
 Permit 45991

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                               |  |   |
|-------------------------------|--|---|
| 1. API Number<br>30-025-38292 | 2. Pool Code<br>97437                          | 3. Pool Name<br>X-4 RANCH;MISSISSIPPIAN, WEST (GAS) |
| 4. Property Code<br>36333     | 5. Property Name<br>DH 5 STATE                 | 6. Well No.<br>001                                  |
| 7. OGRID No.<br>147179        | 8. Operator Name<br>CHESAPEAKE OPERATING, INC. | 9. Elevation<br>4246                                |

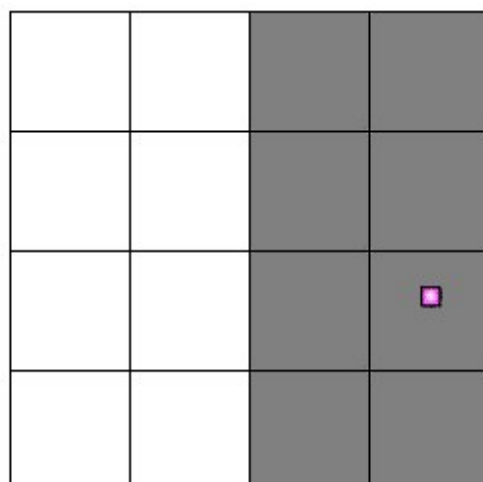
**10. Surface Location**

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| I        | 5       | 10S      | 34E   |         | 2160      | S        | 660       | E        | LEA    |

**11. Bottom Hole Location If Different From Surface**

| UL - Lot                      | Section | Township            | Range | Lot Idn                | Feet From | N/S Line      | Feet From | E/W Line | County |
|-------------------------------|---------|---------------------|-------|------------------------|-----------|---------------|-----------|----------|--------|
| 12. Dedicated Acres<br>320.28 |         | 13. Joint or Infill |       | 14. Consolidation Code |           | 15. 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**



**OPERATOR CERTIFICATION**

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

E-Signed By: Brenda Coffman  
 Title: Regulatory Analyst  
 Date: 2/9/2007

**SURVEYOR CERTIFICATION**

*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.*

Surveyed By: Bary Eidson  
 Date of Survey: 11/14/2006  
 Certificate Number: 12641

## Permit Comments

Operator: CHESAPEAKE OPERATING, INC. , 147179

Well: DH 5 STATE #001

API: 30-025-38292

| Created By | Comment   | Comment Date |
|------------|---|--------------|
| BSCOFFMAN  | Concerning the Inactive Well List: Chesapeake has complied with four of the wells on the inactive well list which brings us into compliance; however, two wells are producers which won't have a report filed until March and April. A C104 was sent to the Hobbs office to show new well test for the wells; however, was not accepted as the C115 will cause the wells to drop off of the list. Two wells were MIT'd and Sundry Notice and chart were sent to the OCD in Artesia more than a week ago. Chesapeake, respectfully, request that our APD be approved based on the above information. | 2/9/2007     |