

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>2010 Rankin Hwy Midland, TX 79701 |  | <sup>2</sup> OGRID Number<br>147179     |
|  |  | <sup>3</sup> API Number<br>30 025-00960 |
| <sup>4</sup> Property Code<br>301432   | <sup>5</sup> Property Name<br>Little Eddy Unit | <sup>6</sup> Well No.<br>1              |
| <sup>9</sup> Proposed Pool 1<br>Salt Lake; Atoka, South (Gas)  |  | <sup>10</sup> Proposed Pool 2           |

**7 Surface Location**

|                   |               |                 |              |         |                      |                           |                      |                       |               |
|-------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|----------------------|-----------------------|---------------|
| UL or lot no<br>P | Section<br>25 | Township<br>20S | Range<br>32E | Lot Idn | Feet from the<br>660 | North/South line<br>South | Feet from the<br>660 | East/Westline<br>East | County<br>Lea |
|-------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|----------------------|-----------------------|---------------|

**8 Proposed Bottom Hole Location If Different From Surface**

|                   |               |                 |              |         |                      |                           |                      |                       |               |
|-------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|----------------------|-----------------------|---------------|
| UL or lot no<br>9 | Section<br>25 | Township<br>20S | Range<br>32E | Lot Idn | Feet from the<br>660 | North/South line<br>South | Feet from the<br>660 | East/Westline<br>East | County<br>Lea |
|-------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|----------------------|-----------------------|---------------|

**Additional Well Information**

|   |                                       |  |                                    |   |
|---|---------------------------------------|--|------------------------------------|---|
| <sup>11</sup> Work Type Code<br>Plug Back   | <sup>12</sup> Well Type Code<br>G     | <sup>13</sup> Cable/Rotary                   | <sup>14</sup> Lease Type Code<br>S | <sup>15</sup> Ground Level Elevation<br>3586 GR |
| <sup>16</sup> Multiple  | <sup>17</sup> Proposed Depth<br>13375 | <sup>18</sup> Formation<br>Atoka             | <sup>19</sup> Contractor           | <sup>20</sup> Spud Date<br>07/25/2007           |
| Depth to Groundwater<br>NA  |                                       | Distance from nearest fresh water well<br>NA |                                    | Distance from nearest surface water<br>NA       |
| Pit. Liner: Synthetic <input type="checkbox"/> milst thick Clay <input type="checkbox"/> Pit Volume: <input type="checkbox"/> bbls Drilling Method: <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> |                                       |  |                                    |   |
| Closed-Loop System <input type="checkbox"/>   |                                       |  |                                    |   |

**21 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      | 54.5 & 61          | 2753          | 3250            | 0             |
| 12 1/4    | 9 5/8       | 40 & 47            | 8130          | 2600            | 0             |
| 8 5/8     | 7           | 26, 29, 32, 35     | 14945         | 500             | 12770         |
| 7 7/8     | 6           | 18.93              | 16600         | 160             |               |

<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.  
Re-Completion per the attached.

Permit Expires 1 Year From Approval  
Date Unless Drilling Underway  
Plugback

NO Pit

<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 NMOCDD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Printed name: Shay Stricklin  
Title: Regulatory Tech.

E-mail Address: sstricklin@chkenergy.com

Date: 07/20/2007

Phone: (432)687-2992

**OIL CONSERVATION DIVISION**

Approved by:

*Chris Williams*

Title:

**OC DISTRICT SUPERVISOR/GENERAL MANAGER**

Approval Date:

**JUL 24 2007**

Expiration Date

Conditions of Approval Attached ☐

dm

**Little Eddy Unit # 1  
Workover Procedure  
Lea County, NM**

**GENERAL INFORMATION**

Location: 660' FSL & 660' FEL, S25-T20S-R32E

API No.: 30-025-00960

**WELL INFORMATION**

| <u>String</u> | <u>Weight &amp; Grade</u> | <u>Depth</u>    | <u>ID</u> | <u>Drift</u> | <u>Burst</u> | <u>TOC</u> |
|---------------|---------------------------|-----------------|-----------|--------------|--------------|------------|
| 20"           | 81 & 94# H-40             | 0'-1,229'       | 19.124    | 18.936       | 1530         | 0'         |
| 13-3/8"       | 54.5, 61, 68# J-55        | 0'-2,753'       | 12.415    | 17.254       | 2730         | 0'         |
| 9-5/8"        | 40 & 47# N-80             | 0'-8,130'       | 8.681     | 8.525        | 5750         | 0'         |
| 7"            | 26, 29, 32, 35# N-80      | 0'-14,945'      | 6.004     | 5.879        | 7240         | 7800'      |
| 5"            | 18.93# N-80               | 14,882'-16,595' | 4.276     | 4.151        | 9910         | 14882      |

**Proposed Atoka Perforations:** 12,467'-12,472', 12,480'-12,485', 12,492'-12,502'

**TD/PBTD:** 16,600'/13775'

**COMPLETION PROCEDURE:**

1. MIRU Service Rig and Equipment. ND WH, NU BOP.
2. Release Tbg from seal assembly & POOH.
3. RU wireline unit. Set CIBP @ 12,850' & dump 1 sack of cement on top. Correlate to OH Radioactivity Log dated 07/21/57.
4. Load hole w/ 7% KCl. Pressure test csg to 500 psi.
5. Run CBL/CCL from 12,800' to 11,400' & 8,100' to 5,900'. Run pass w/ 500# pressure as warranted. Run GRN/CCL from 12,600' to 11,850' and 8,100' to 5,900'. Fax/e-mail logs to OKC staff for correlation.
6. RU lubricator and RIH w/ 3-3/8" HSD casing gun. Perforate the Atoka w/ 4 SPF, 90° phasing, 23 gram charge, .37" hole from 12,492'-12,502' (41 holes), 12,480'-12,485' (21 holes), & 12,467'-12,472' (21 holes). Perf off of GRN in step 5 per OKC staff.
7. RIH w/ tbg & 7" treating plkr. Set EOT @ 12,502'. Pr test tbg in hole.
8. RU Acid Service Company. Spot 200 gal of 7-1/2% HCl Acid containing 200 gpt methanol, 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Pull plkr to 12,420'. Reverse circulate excess acid into tubing, set packer. Pressure annulus to 500#.

9. ND BOP. NU tree. Pressure annulus to 500 psi. Displace spot acid, establish rate of 3 to 4 BPM w/ 7% KCl. (Keep KCl water usage to a minimum). Acidize w/ 1,000 gal of 7-1/2% HCl. Acid to contain 200 gpt of methanol, 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Displace w/ 7% KCl. Do not over-displace. Drop 100 Ball Sealers during job. Do not over flush. Pump at 3 to 4 BPM max. Note rates and pressures. Note ISIP. Max pressure 5000#.
10. Swab/Flow test zone.
11. Kill well as required w/ 7% KCl.
12. ND tree, NU BOP. Lower Packer through perfs to clear of ball sealers. POOH with tubing and packer. Prep to frac.
13. RIH w/ 7" production packer picking up 9.3# 3-1/2" EUE P110 frac string as follows: Re-entry guide, 4' x 2-3/8" sub, 'XN' nipple, 10' x 2-3/8" sub, 'X' nipple, 4' x 2-3/8" sub, 7" packer, on/off tool w/ 'X' profile nipple, X-over, 3-1/2" P 110 frac string. Set Packer @ 12,420'. ND BOP. NU 3-1/2" rental frac tree.
14. MIRU frac crew. Pressure test lines. Pressure 7" annulus to 500#. Pump foam pad establishing rates approaching 25 BPM per frac schedule. Anticipated treating pressures ~ 10,000 psi. Frac the Atoka with 40,000 gal of foam and 40,000 pounds of 20/40 mesh Bauxite at rates approaching 25 BPM per frac schedule. Ramp sand from 1/4 to 3#/gal at tail-in per schedule. Maximum pressure 11,000#.
15. Flow back to clean up and test well.
16. MIRU Slick Line. RU lubricator. Set plug in 'XN' nipple to kill well. ND tree, NU BOP.
17. POOH laying down 3-1/2" frac string.
18. RIH w/ 2-3/8" production tubing. Tag up on the on/off tool. Circulate packer fluid. Land tubing. Pressure test annulus to 500 psi.
19. ND BOP. NU production tree.
20. MIRU Slick Line. RU lubricator. Pull plug in 'XN' profile nipple.
21. Put well on production.

# CURRENT WELLBORE SCHEMATIC

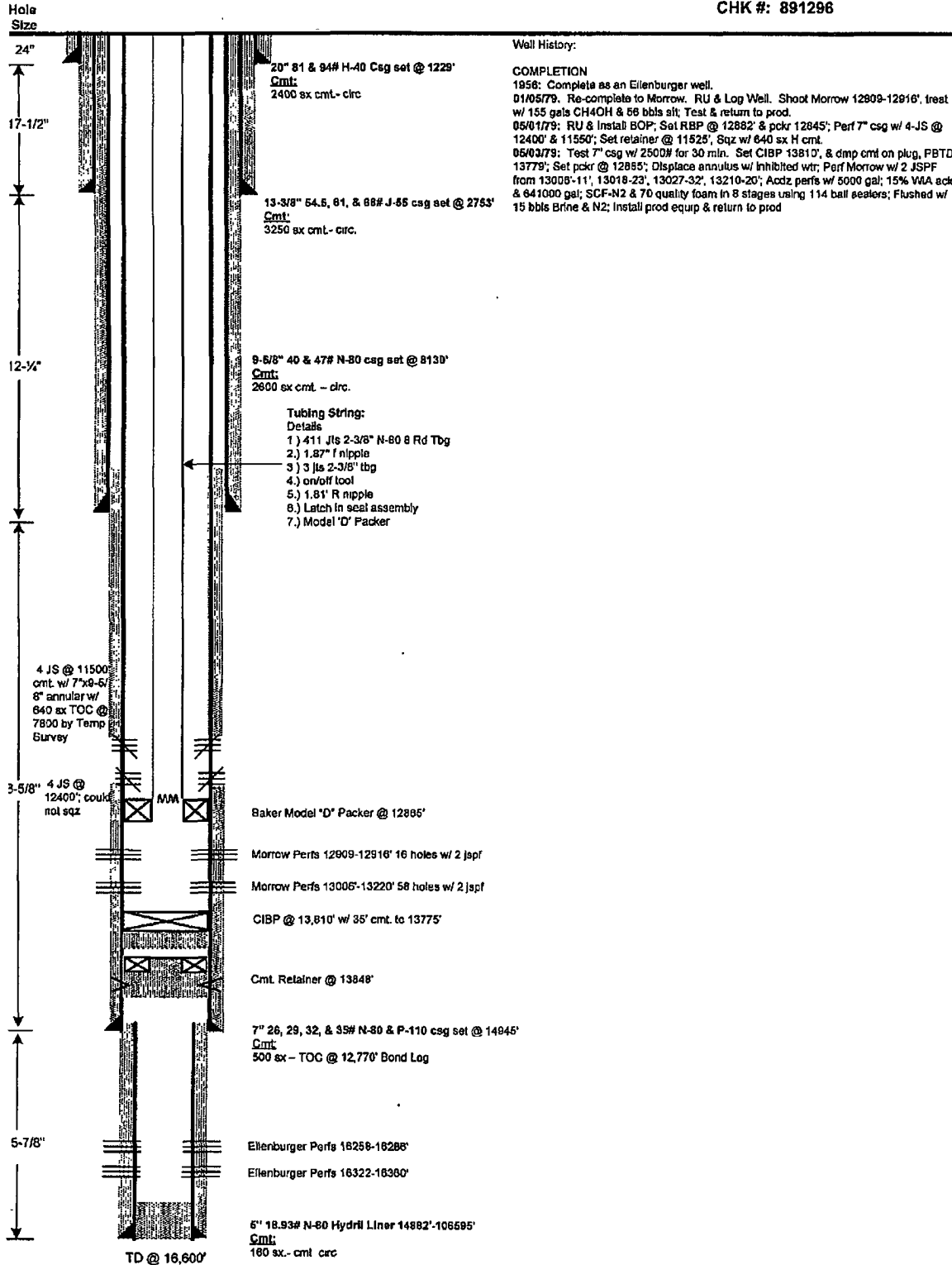
## CHESAPEAKE OPERATING, INC.



WELL : Little Eddy Unit #1  
 FIELD : Salt Lake South  
 COUNTY : LEA  
 LOCATION : 660' FSL & 660' FEL, SEC 25-20S-32E  
 ELEVATION : 3,586' GL

STATE : NM

API # 30-025-00960  
 SPUD DATE: 11/29/56  
 CHK #: 891296



PREPARED BY : Paul M. Rico  
 UPDATED BY

DATE 11/7/05  
 DATE

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State of New Mexico  
Energy, Minerals & Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☒ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                              |  |  |
|------------------------------|--|--|
| ' API Number<br>30-025-00960 | ' Pool Code<br>84440                         | ' Pool Name<br>Salt Lake; Atoka, South (Gas) |
| ' Property Code<br>301432    | ' Property Name<br>Little Eddy Unit          | ' Well Number<br>1                           |
| ' OGRID No.<br>147179        | ' Operator Name<br>Chesapeake Operating Inc. | ' Elevation<br>3586 GR                       |

<sup>10</sup> Surface Location

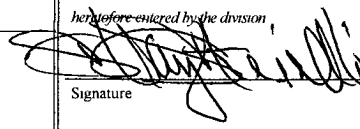
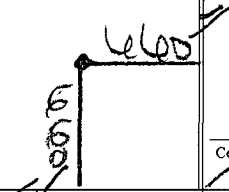
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| P             | 25      | 20S      | 32E   |         | 660           | South            | 660           | East           | Lea    |

<sup>11</sup> 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| P             | 25      | 20S      | 32E   |         | 660           | South            | 660           | East           | Lea    |

|                          |                   |                      |             |
|--------------------------|-------------------|----------------------|-------------|
| " Dedicated Acres<br>320 | " 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.

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| 16   |  |  |  |  | <sup>17</sup> <b>OPERATOR CERTIFICATION</b><br>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 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<br><br>Signature _____ Date 07/20/2007<br>Shay Stricklin<br>Printed Name |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  | <sup>18</sup> <b>SURVEYOR CERTIFICATION</b><br>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.<br><br>Date of Survey _____<br>Signature and Seal of Professional Surveyor _____<br><br>Certificate Number _____  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |