

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-104  
Revised August 1, 2011  
  
Submit one copy to appropriate District Office  
  
☒ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

|                                                                                                         |                                                               |                                                           |                                  |
|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|----------------------------------|
| <sup>1</sup> Operator name and Address<br>COG Operating LLC<br>2208 W. Main Street<br>Artesia, NM 88210 |                                                               | <sup>2</sup> OGRID Number<br>229137                       |                                  |
|                                                                                                         |                                                               | <sup>3</sup> Reason for Filing Code/ Effective Date<br>NW |                                  |
| API Number<br>30-015-46786                                                                              | <sup>5</sup> Pool Name<br>Willow Lake Bone Spring ; Southeast |                                                           | <sup>6</sup> Pool Code<br>96217  |
| <sup>7</sup> Property Code<br>313927                                                                    | <sup>8</sup> Property Name<br>Admiral Federal Com             |                                                           | <sup>9</sup> Well Number<br>503H |

II. <sup>10</sup> Surface Location

|                    |               |                 |              |         |                      |                           |                       |                        |                |
|--------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|-----------------------|------------------------|----------------|
| Ul or lot no.<br>N | Section<br>28 | Township<br>25S | Range<br>29E | Lot Idn | Feet from the<br>220 | North/South Line<br>South | Feet from the<br>2630 | East/West line<br>West | County<br>Eddy |
|--------------------|---------------|-----------------|--------------|---------|----------------------|---------------------------|-----------------------|------------------------|----------------|

<sup>11</sup> Bottom Hole Location

|                             |                                             |                 |                                                 |         |                                   |                                    |                       |                                     |                |
|-----------------------------|---------------------------------------------|-----------------|-------------------------------------------------|---------|-----------------------------------|------------------------------------|-----------------------|-------------------------------------|----------------|
| Ul or lot no.<br>C          | Section<br>21                               | Township<br>25S | Range<br>29E                                    | Lot Idn | Feet from the<br>51               | North/South Line<br>North          | Feet from the<br>2614 | East/West line<br>West              | County<br>Eddy |
| <sup>12</sup> Lse Code<br>F | <sup>13</sup> Producing Method<br>Code<br>F |                 | <sup>14</sup> Gas Connection<br>Date<br>3/18/21 |         | <sup>15</sup> C-129 Permit Number | <sup>16</sup> C-129 Effective Date |                       | <sup>17</sup> C-129 Expiration Date |                |

III. Oil and Gas Transporters

|                                    |                                                                 |                     |
|------------------------------------|-----------------------------------------------------------------|---------------------|
| <sup>18</sup> Transporter<br>OGRID | <sup>19</sup> Transporter Name<br>and Address                   | <sup>20</sup> O/G/W |
|                                    | ACC                                                             | O                   |
|                                    |                                                                 |                     |
| 298751                             | ETC                                                             | G                   |
|                                    |                                                                 |                     |
| 278421                             | Holly Refining and Marketing<br>PO Box 159<br>Artesia, NM 88210 | O                   |
|                                    |                                                                 |                     |
|                                    |                                                                 |                     |

IV. Well Completion Data

|                                   |                                     |                                    |                               |                                             |                            |
|-----------------------------------|-------------------------------------|------------------------------------|-------------------------------|---------------------------------------------|----------------------------|
| <sup>21</sup> Spud Date<br>3/2/20 | <sup>22</sup> Ready Date<br>3/15/21 | <sup>23</sup> TD<br>18,945’        | <sup>24</sup> PBTD<br>18,800’ | <sup>25</sup> Perforations<br>8,800-18,830’ | <sup>26</sup> DHC, MC      |
| <sup>27</sup> Hole Size           |                                     | <sup>28</sup> Casing & Tubing Size |                               | <sup>29</sup> Depth Set                     | <sup>30</sup> Sacks Cement |
| 17 1/2”                           |                                     | 13 3/8”                            |                               | 677’                                        | 525                        |
| 12 1/4”                           |                                     | 9 5/8”                             |                               | 3,030’                                      | 960                        |
| 8 1/2”                            |                                     | 5 1/2”                             |                               | 18,935’                                     | 3250                       |
|                                   |                                     | 2 7/8”                             |                               | 8,052’                                      |                            |

V. Well Test Data

|                                                                                                                                                                                                                                            |                                            |                                    |                                                                                                                           |                                    |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------|
| <sup>31</sup> Date New Oil<br>3/18/21                                                                                                                                                                                                      | <sup>32</sup> Gas Delivery Date<br>3/18/21 | <sup>33</sup> Test Date<br>3/18/21 | <sup>34</sup> Test Length<br>24 Hrs                                                                                       | <sup>35</sup> Tbg. Pressure<br>998 | <sup>36</sup> Csg. Pressure<br>787   |
| <sup>37</sup> Choke Size<br>20/64                                                                                                                                                                                                          | <sup>38</sup> Oil<br>405                   | <sup>39</sup> Water<br>1912        | <sup>40</sup> Gas<br>839                                                                                                  |                                    | <sup>41</sup> Test Method<br>Flowing |
| <sup>42</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.<br>Signature: <i>Amanda Avery</i> |                                            |                                    | OIL CONSERVATION DIVISION<br><br>Approved by: KURT SIMMONS<br><br>Title: NMOCD, SANTA FE<br><br>Approval Date: 07/08/2021 |                                    |                                      |
| Printed name:<br>Amanda Avery                                                                                                                                                                                                              |                                            |                                    |                                                                                                                           |                                    |                                      |
| Title:<br>Regulatory Analyst                                                                                                                                                                                                               |                                            |                                    |                                                                                                                           |                                    |                                      |
| E-mail Address:                                                                                                                                                                                                                            |                                            |                                    |                                                                                                                           |                                    |                                      |
| Date:<br>4/19/21                                                                                                                                                                                                                           |                                            | Phone:<br>575-748-6962             |                                                                                                                           |                                    |                                      |

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
511 S. FIRST ST., ARTESIA, NM 88210  
Phone: (575) 746-1283 Fax: (575) 746-9720

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) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☒ AMENDED REPORT  
As Drilled

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                            |                                      |                                                  |
|----------------------------|--------------------------------------|--------------------------------------------------|
| API Number<br>30-015-46786 | Pool Code<br>96217                   | Pool Name<br>Willow Lake; Bone Spring; Southeast |
| Property Code<br>313927    | Property Name<br>ADMIRAL FEDERAL COM | Well Number<br>503H                              |
| OGRID No.<br>229137        | Operator Name<br>COG OPERATING, LLC  | Elevation<br>2986.2'                             |

**Surface Location**

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| N             | 28      | 25-S     | 29-E  |         | 220           | SOUTH            | 2630          | WEST           | EDDY   |

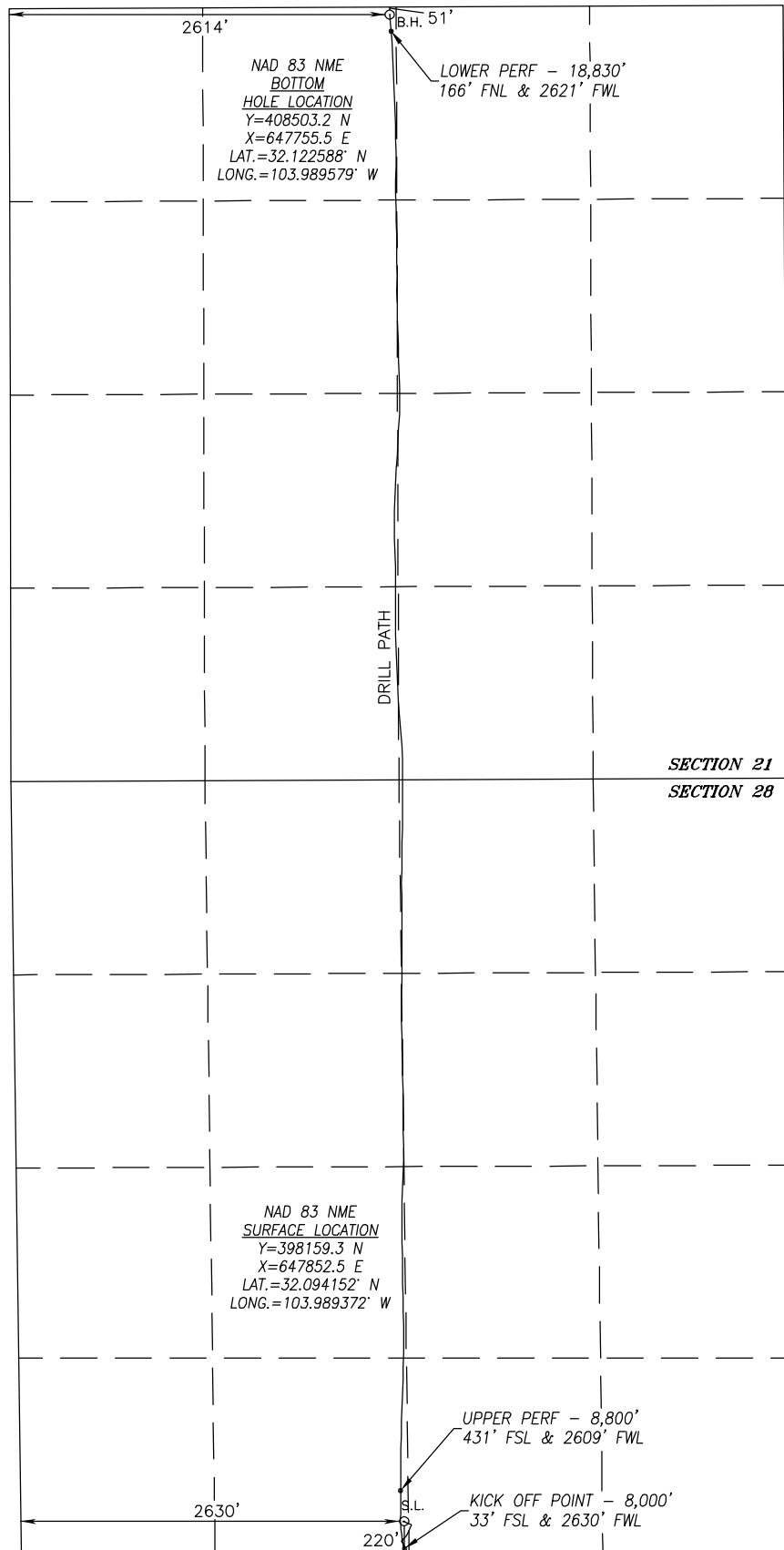
**Bottom Hole Location If Different From Surface**

| UL or lot No.           | Section         | Township           | Range     | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|-------------------------|-----------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| C                       | 21              | 25-S               | 29-E      |         | 51            | NORTH            | 2614          | WEST           | EDDY   |
| Dedicated Acres<br>1280 | Joint or Infill | Consolidation Code | Order No. |         |               |                  |               |                |        |

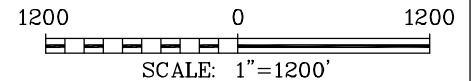
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SEE PAGE 2

|                         |                                      |                      |
|-------------------------|--------------------------------------|----------------------|
| Property Code<br>313927 | Property Name<br>ADMIRAL FEDERAL COM | Well Number<br>503H  |
| OGRID No.<br>229137     | Operator Name<br>COG OPERATING, LLC  | Elevation<br>2986.2' |



SURFACE INFO AND BOREPATH SHOWN HEREON IS BASED ON DIRECTIONAL SURVEY REPORT PROVIDED BY COG OPERATING, LLC FOR THE ADMIRAL FEDERAL COM 503H SUPPLIED TO HARCROW SURVEYING, LLC ON JANUARY 27, 2021



#### OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

3/15/21

Signature

Date

Amanda Avery

Printed Name

amanda.lavery@conocophillips.com

E-mail Address

#### 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.

AUG. 23, 2019/MAR. 26, 2020

Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



Chad Harcrow 2/1/21

Certificate No. CHAD HARCROW 17777

PAGE 2 OF 2

W.O. #21-89

DRAWN BY: WN

Intent ☐ As Drilled ☐

|                |                |             |
|----------------|----------------|-------------|
| API #          |                |             |
| Operator Name: | Property Name: | Well Number |

## Kick Off Point (KOP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      |          | NAD    |

## First Take Point (FTP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      |          | NAD    |

## Last Take Point (LTP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      |          | NAD    |

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

|                |                |             |
|----------------|----------------|-------------|
| API #          |                |             |
| Operator Name: | Property Name: | Well Number |

KZ 06/29/2018



## **COG Operating LLC**

**Eddy County, NM (NAD27 NME)**

**Admiral Fed Com**

**503H**

**OH / 66375**

**Design: Surveys (Pioneer 84)**

## **Standard Survey Report**

**26 March, 2020**





## Survey Report



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | COG Operating LLC           | <b>Local Co-ordinate Reference:</b> | Well 503H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | RKB @ 3011.20usft (Pioneer 84) |
| <b>Site:</b>     | Admiral Fed Com             | <b>MD Reference:</b>                | RKB @ 3011.20usft (Pioneer 84) |
| <b>Well:</b>     | 503H                        | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH / 66375                  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Pioneer 84)        | <b>Database:</b>                    | USA Compass                    |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, NM (NAD27 NME)          |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                              |                 |                          |                      |
|------------------------------|-----------------|--------------------------|----------------------|
| <b>Site</b>                  | Admiral Fed Com |                          |                      |
| <b>Site Position:</b>        |                 | <b>Northing:</b>         | 398,093.60 usft      |
| <b>From:</b>                 | Map             | <b>Easting:</b>          | 604,917.40 usft      |
| <b>Position Uncertainty:</b> | 0.00 usft       | <b>Slot Radius:</b>      | 13-3/16 "            |
|                              |                 | <b>Latitude:</b>         | 32° 5' 38.479918 N   |
|                              |                 | <b>Longitude:</b>        | 103° 59' 40.340397 W |
|                              |                 | <b>Grid Convergence:</b> | 0.18 °               |

|                             |              |                            |                      |
|-----------------------------|--------------|----------------------------|----------------------|
| <b>Well</b>                 | 503H         |                            |                      |
| <b>Well Position</b>        | <b>+N/-S</b> | 0.00 usft                  | <b>Northing:</b>     |
|                             | <b>+E/-W</b> | 0.00 usft                  | <b>Easting:</b>      |
| <b>Position Uncertainty</b> | 1.00 usft    | <b>Wellhead Elevation:</b> | usft                 |
|                             |              | <b>Latitude:</b>           | 32° 5' 38.501256 N   |
|                             |              | <b>Longitude:</b>          | 103° 59' 19.996798 W |
|                             |              | <b>Ground Level:</b>       | 2,986.20 usft        |

|                  |                   |                    |                            |
|------------------|-------------------|--------------------|----------------------------|
| <b>Wellbore</b>  | OH / 66375        |                    |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b>     |
|                  | User Defined      | 3/13/2020          | 6.74                       |
|                  |                   |                    | <b>Dip Angle (°)</b>       |
|                  |                   |                    | 59.72                      |
|                  |                   |                    | <b>Field Strength (nT)</b> |
|                  |                   |                    | 47,771.20000000            |

|                          |                                |                      |                      |
|--------------------------|--------------------------------|----------------------|----------------------|
| <b>Design</b>            | Surveys (Pioneer 84)           |                      |                      |
| <b>Audit Notes:</b>      |                                |                      |                      |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>        | ACTUAL               |
|                          |                                | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b>  | <b>+E/-W (usft)</b>  |
|                          | 0.00                           | 0.00                 | 0.00                 |
|                          |                                |                      | <b>Direction (°)</b> |
|                          |                                |                      | 359.55               |

|                       |                  |                                  |                  |                                   |
|-----------------------|------------------|----------------------------------|------------------|-----------------------------------|
| <b>Survey Program</b> | <b>Date</b>      | 3/26/2020                        |                  |                                   |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>         | <b>Tool Name</b> | <b>Description</b>                |
| 20.00                 | 597.00           | Surface MWD Surveys (OH / 66375) | MWD+HRGM         | OWSG MWD + HRGM                   |
| 597.00                | 18,945.00        | Phoenix MWD Surveys (OH / 66375) | MWD+IFR1+FDIR    | OWSG MWD + IFR1 + FDIR Correction |

|                              |                        |                    |                              |                     |                     |                                |                                |                               |                              |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|
| <b>Survey</b>                |                        |                    |                              |                     |                     |                                |                                |                               |                              |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Vertical Section (usft)</b> | <b>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> |
| 0.00                         | 0.00                   | 0.00               | 0.00                         | 0.00                | 0.00                | 0.00                           | 0.00                           | 0.00                          | 0.00                         |
| 20.00                        | 0.09                   | 48.41              | 20.00                        | 0.01                | 0.01                | 0.01                           | 0.45                           | 0.45                          | 0.00                         |
| 97.00                        | 0.37                   | 208.28             | 97.00                        | -0.17               | -0.06               | -0.17                          | 0.59                           | 0.36                          | 207.62                       |
| 184.00                       | 0.69                   | 258.73             | 184.00                       | -0.52               | -0.71               | -0.51                          | 0.62                           | 0.37                          | 57.99                        |
| 282.00                       | 1.26                   | 262.83             | 281.98                       | -0.77               | -2.36               | -0.75                          | 0.59                           | 0.58                          | 4.18                         |
| 373.00                       | 1.37                   | 252.21             | 372.96                       | -1.23               | -4.38               | -1.19                          | 0.29                           | 0.12                          | -11.67                       |
| 457.00                       | 0.43                   | 213.69             | 456.95                       | -1.79               | -5.51               | -1.75                          | 1.27                           | -1.12                         | -45.86                       |
| 548.00                       | 0.26                   | 216.94             | 547.95                       | -2.24               | -5.83               | -2.20                          | 0.19                           | -0.19                         | 3.57                         |
| 597.00                       | 0.56                   | 262.80             | 596.94                       | -2.36               | -6.13               | -2.31                          | 0.86                           | 0.61                          | 93.59                        |
| <b>Tie In</b>                |                        |                    |                              |                     |                     |                                |                                |                               |                              |



## Survey Report



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | COG Operating LLC           | <b>Local Co-ordinate Reference:</b> | Well 503H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | RKB @ 3011.20usft (Pioneer 84) |
| <b>Site:</b>     | Admiral Fed Com             | <b>MD Reference:</b>                | RKB @ 3011.20usft (Pioneer 84) |
| <b>Well:</b>     | 503H                        | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH / 66375                  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Pioneer 84)        | <b>Database:</b>                    | USA Compass                    |

## Survey

| Measured Depth (usft)           | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 697.00                          | 0.36            | 354.47      | 696.94                | -2.11        | -6.65        | -2.06                   | 0.67                    | -0.20                  | 91.67                 |
| <b>First Phoenix MWD Survey</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 774.00                          | 0.41            | 9.99        | 773.94                | -1.60        | -6.62        | -1.55                   | 0.15                    | 0.06                   | 20.16                 |
| 869.00                          | 0.36            | 46.64       | 868.94                | -1.06        | -6.35        | -1.01                   | 0.26                    | -0.05                  | 38.58                 |
| 963.00                          | 0.51            | 70.68       | 962.94                | -0.72        | -5.74        | -0.67                   | 0.25                    | 0.16                   | 25.57                 |
| 1,058.00                        | 0.75            | 82.68       | 1,057.93              | -0.50        | -4.72        | -0.46                   | 0.29                    | 0.25                   | 12.63                 |
| 1,153.00                        | 1.12            | 90.94       | 1,152.92              | -0.43        | -3.18        | -0.41                   | 0.41                    | 0.39                   | 8.69                  |
| 1,248.00                        | 1.53            | 113.01      | 1,247.89              | -0.95        | -1.08        | -0.94                   | 0.68                    | 0.43                   | 23.23                 |
| 1,342.00                        | 1.50            | 115.50      | 1,341.86              | -1.97        | 1.18         | -1.98                   | 0.08                    | -0.03                  | 2.65                  |
| 1,437.00                        | 1.62            | 113.45      | 1,436.82              | -3.04        | 3.54         | -3.06                   | 0.14                    | 0.13                   | -2.16                 |
| 1,532.00                        | 1.72            | 115.52      | 1,531.78              | -4.18        | 6.06         | -4.23                   | 0.12                    | 0.11                   | 2.18                  |
| 1,627.00                        | 1.91            | 118.66      | 1,626.74              | -5.56        | 8.73         | -5.63                   | 0.23                    | 0.20                   | 3.31                  |
| 1,722.00                        | 1.80            | 116.45      | 1,721.69              | -6.98        | 11.46        | -7.07                   | 0.14                    | -0.12                  | -2.33                 |
| 1,817.00                        | 1.59            | 118.62      | 1,816.64              | -8.28        | 13.95        | -8.39                   | 0.23                    | -0.22                  | 2.28                  |
| 1,912.00                        | 1.51            | 114.64      | 1,911.61              | -9.43        | 16.25        | -9.56                   | 0.14                    | -0.08                  | -4.19                 |
| 2,006.00                        | 1.12            | 116.54      | 2,005.58              | -10.36       | 18.19        | -10.50                  | 0.42                    | -0.41                  | 2.02                  |
| 2,101.00                        | 1.09            | 106.67      | 2,100.57              | -11.03       | 19.89        | -11.19                  | 0.20                    | -0.03                  | -10.39                |
| 2,196.00                        | 1.28            | 116.27      | 2,195.55              | -11.76       | 21.71        | -11.93                  | 0.29                    | 0.20                   | 10.11                 |
| 2,291.00                        | 2.13            | 113.96      | 2,290.50              | -12.95       | 24.27        | -13.14                  | 0.90                    | 0.89                   | -2.43                 |
| 2,386.00                        | 3.63            | 114.71      | 2,385.38              | -14.92       | 28.62        | -15.15                  | 1.58                    | 1.58                   | 0.79                  |
| 2,480.00                        | 3.27            | 108.09      | 2,479.21              | -17.00       | 33.87        | -17.26                  | 0.57                    | -0.38                  | -7.04                 |
| 2,575.00                        | 2.63            | 99.30       | 2,574.09              | -18.19       | 38.59        | -18.49                  | 0.82                    | -0.67                  | -9.25                 |
| 2,670.00                        | 4.49            | 113.42      | 2,668.90              | -20.02       | 44.16        | -20.37                  | 2.15                    | 1.96                   | 14.86                 |
| 2,765.00                        | 3.64            | 150.09      | 2,763.68              | -24.11       | 49.08        | -24.50                  | 2.82                    | -0.89                  | 38.60                 |
| 2,860.00                        | 4.03            | 204.50      | 2,858.49              | -29.77       | 49.19        | -30.15                  | 3.71                    | 0.41                   | 57.27                 |
| 2,955.00                        | 3.91            | 207.48      | 2,953.26              | -35.68       | 46.32        | -36.04                  | 0.25                    | -0.13                  | 3.14                  |
| 2,961.00                        | 3.89            | 208.01      | 2,959.25              | -36.04       | 46.13        | -36.40                  | 0.69                    | -0.33                  | 8.83                  |
| 3,052.00                        | 3.70            | 207.53      | 3,050.05              | -41.37       | 43.32        | -41.71                  | 0.21                    | -0.21                  | -0.53                 |
| 3,147.00                        | 3.65            | 204.95      | 3,144.86              | -46.83       | 40.63        | -47.15                  | 0.18                    | -0.05                  | -2.72                 |
| 3,242.00                        | 3.52            | 205.59      | 3,239.67              | -52.20       | 38.09        | -52.50                  | 0.14                    | -0.14                  | 0.67                  |
| 3,336.00                        | 3.34            | 204.36      | 3,333.50              | -57.30       | 35.72        | -57.58                  | 0.21                    | -0.19                  | -1.31                 |
| 3,432.00                        | 3.17            | 207.51      | 3,429.35              | -62.20       | 33.34        | -62.46                  | 0.26                    | -0.18                  | 3.28                  |
| 3,526.00                        | 2.84            | 203.64      | 3,523.22              | -66.64       | 31.20        | -66.88                  | 0.41                    | -0.35                  | -4.12                 |
| 3,621.00                        | 2.64            | 204.07      | 3,618.11              | -70.79       | 29.37        | -71.02                  | 0.21                    | -0.21                  | 0.45                  |
| 3,716.00                        | 2.59            | 201.53      | 3,713.01              | -74.79       | 27.69        | -75.00                  | 0.13                    | -0.05                  | -2.67                 |
| 3,811.00                        | 2.51            | 205.78      | 3,807.92              | -78.66       | 25.99        | -78.86                  | 0.22                    | -0.08                  | 4.47                  |
| 3,906.00                        | 2.21            | 201.97      | 3,902.83              | -82.23       | 24.40        | -82.42                  | 0.36                    | -0.32                  | -4.01                 |
| 4,001.00                        | 2.00            | 203.34      | 3,997.77              | -85.45       | 23.06        | -85.63                  | 0.23                    | -0.22                  | 1.44                  |
| 4,096.00                        | 2.13            | 208.61      | 4,092.71              | -88.52       | 21.56        | -88.69                  | 0.24                    | 0.14                   | 5.55                  |
| 4,190.00                        | 1.91            | 206.99      | 4,186.65              | -91.45       | 20.01        | -91.60                  | 0.24                    | -0.23                  | -1.72                 |
| 4,285.00                        | 1.96            | 203.99      | 4,281.60              | -94.35       | 18.63        | -94.49                  | 0.12                    | 0.05                   | -3.16                 |
| 4,380.00                        | 1.99            | 216.82      | 4,376.54              | -97.15       | 16.98        | -97.28                  | 0.47                    | 0.03                   | 13.51                 |
| 4,475.00                        | 1.79            | 212.58      | 4,471.49              | -99.72       | 15.20        | -99.84                  | 0.26                    | -0.21                  | -4.46                 |



## Survey Report



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | COG Operating LLC           | <b>Local Co-ordinate Reference:</b> | Well 503H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | RKB @ 3011.20usft (Pioneer 84) |
| <b>Site:</b>     | Admiral Fed Com             | <b>MD Reference:</b>                | RKB @ 3011.20usft (Pioneer 84) |
| <b>Well:</b>     | 503H                        | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH / 66375                  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Pioneer 84)        | <b>Database:</b>                    | USA Compass                    |

## Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 4,570.00              | 1.59            | 214.14      | 4,566.45              | -102.06      | 13.66        | -102.17                 | 0.22                    | -0.21                  | 1.64                  |
| 4,665.00              | 1.64            | 214.38      | 4,661.41              | -104.27      | 12.15        | -104.37                 | 0.05                    | 0.05                   | 0.25                  |
| 4,759.00              | 1.67            | 223.73      | 4,755.37              | -106.37      | 10.44        | -106.45                 | 0.29                    | 0.03                   | 9.95                  |
| 4,854.00              | 1.65            | 228.76      | 4,850.33              | -108.28      | 8.46         | -108.34                 | 0.15                    | -0.02                  | 5.29                  |
| 4,949.00              | 1.64            | 227.75      | 4,945.29              | -110.09      | 6.42         | -110.14                 | 0.03                    | -0.01                  | -1.06                 |
| 5,044.00              | 1.49            | 235.55      | 5,040.26              | -111.70      | 4.40         | -111.74                 | 0.27                    | -0.16                  | 8.21                  |
| 5,139.00              | 1.86            | 227.59      | 5,135.22              | -113.44      | 2.24         | -113.46                 | 0.46                    | 0.39                   | -8.38                 |
| 5,234.00              | 2.29            | 225.21      | 5,230.15              | -115.82      | -0.24        | -115.81                 | 0.46                    | 0.45                   | -2.51                 |
| 5,328.00              | 2.42            | 223.18      | 5,324.07              | -118.59      | -2.93        | -118.56                 | 0.16                    | 0.14                   | -2.16                 |
| 5,423.00              | 2.26            | 226.41      | 5,418.99              | -121.34      | -5.66        | -121.30                 | 0.22                    | -0.17                  | 3.40                  |
| 5,518.00              | 2.02            | 222.47      | 5,513.93              | -123.87      | -8.15        | -123.80                 | 0.30                    | -0.25                  | -4.15                 |
| 5,613.00              | 1.94            | 212.67      | 5,608.87              | -126.46      | -10.15       | -126.38                 | 0.37                    | -0.08                  | -10.32                |
| 5,707.00              | 1.87            | 212.75      | 5,702.82              | -129.09      | -11.84       | -128.99                 | 0.07                    | -0.07                  | 0.09                  |
| 5,802.00              | 1.81            | 214.48      | 5,797.77              | -131.63      | -13.53       | -131.52                 | 0.09                    | -0.06                  | 1.82                  |
| 5,897.00              | 1.92            | 210.61      | 5,892.72              | -134.24      | -15.19       | -134.11                 | 0.18                    | 0.12                   | -4.07                 |
| 5,992.00              | 1.62            | 204.60      | 5,987.68              | -136.83      | -16.55       | -136.69                 | 0.37                    | -0.32                  | -6.33                 |
| 6,086.00              | 3.29            | 143.47      | 6,081.60              | -140.20      | -15.50       | -140.08                 | 3.06                    | 1.78                   | -65.03                |
| 6,181.00              | 2.74            | 145.75      | 6,176.47              | -144.27      | -12.60       | -144.17                 | 0.59                    | -0.58                  | 2.40                  |
| 6,276.00              | 2.54            | 148.26      | 6,271.37              | -147.94      | -10.22       | -147.85                 | 0.24                    | -0.21                  | 2.64                  |
| 6,371.00              | 2.50            | 143.82      | 6,366.27              | -151.40      | -7.89        | -151.33                 | 0.21                    | -0.04                  | -4.67                 |
| 6,466.00              | 2.63            | 147.57      | 6,461.18              | -154.91      | -5.49        | -154.86                 | 0.22                    | 0.14                   | 3.95                  |
| 6,560.00              | 2.58            | 152.01      | 6,555.08              | -158.60      | -3.34        | -158.57                 | 0.22                    | -0.05                  | 4.72                  |
| 6,655.00              | 2.23            | 154.70      | 6,650.00              | -162.16      | -1.55        | -162.14                 | 0.39                    | -0.37                  | 2.83                  |
| 6,750.00              | 2.62            | 149.45      | 6,744.91              | -165.70      | 0.34         | -165.70                 | 0.47                    | 0.41                   | -5.53                 |
| 6,845.00              | 2.22            | 157.49      | 6,839.83              | -169.27      | 2.15         | -169.28                 | 0.55                    | -0.42                  | 8.46                  |
| 6,940.00              | 1.32            | 247.95      | 6,934.80              | -171.38      | 1.84         | -171.39                 | 2.73                    | -0.95                  | 95.22                 |
| 7,034.00              | 0.92            | 216.60      | 7,028.78              | -172.39      | 0.39         | -172.39                 | 0.76                    | -0.43                  | -33.35                |
| 7,129.00              | 0.53            | 200.34      | 7,123.77              | -173.42      | -0.22        | -173.41                 | 0.46                    | -0.41                  | -17.12                |
| 7,224.00              | 0.47            | 200.13      | 7,218.77              | -174.20      | -0.51        | -174.19                 | 0.06                    | -0.06                  | -0.22                 |
| 7,319.00              | 0.54            | 162.71      | 7,313.76              | -174.99      | -0.51        | -174.98                 | 0.35                    | 0.07                   | -39.39                |
| 7,413.00              | 0.76            | 217.08      | 7,407.76              | -175.91      | -0.75        | -175.90                 | 0.67                    | 0.23                   | 57.84                 |
| 7,508.00              | 1.63            | 141.77      | 7,502.74              | -177.47      | -0.30        | -177.47                 | 1.70                    | 0.92                   | -79.27                |
| 7,603.00              | 1.51            | 127.62      | 7,597.71              | -179.30      | 1.53         | -179.31                 | 0.43                    | -0.13                  | -14.89                |
| 7,698.00              | 0.99            | 149.53      | 7,692.68              | -180.77      | 2.94         | -180.79                 | 0.73                    | -0.55                  | 23.06                 |
| 7,793.00              | 1.36            | 176.71      | 7,787.66              | -182.60      | 3.42         | -182.62                 | 0.69                    | 0.39                   | 28.61                 |
| 7,887.00              | 1.49            | 188.60      | 7,881.64              | -184.92      | 3.30         | -184.95                 | 0.34                    | 0.14                   | 12.65                 |
| 7,937.00              | 0.88            | 189.64      | 7,931.62              | -185.95      | 3.14         | -185.97                 | 1.22                    | -1.22                  | 2.08                  |
| 7,996.00              | 0.63            | 196.92      | 7,990.62              | -186.70      | 2.97         | -186.72                 | 0.45                    | -0.42                  | 12.34                 |
| 8,044.00              | 2.00            | 311.25      | 8,038.61              | -186.40      | 2.26         | -186.42                 | 4.86                    | 2.85                   | 238.19                |
| 8,091.00              | 5.60            | 334.30      | 8,085.50              | -183.80      | 0.65         | -183.79                 | 8.17                    | 7.66                   | 49.04                 |
| 8,138.00              | 11.13           | 337.83      | 8,131.98              | -177.52      | -2.06        | -177.50                 | 11.81                   | 11.77                  | 7.51                  |
| 8,185.00              | 14.28           | 345.40      | 8,177.83              | -167.71      | -5.23        | -167.66                 | 7.57                    | 6.70                   | 16.11                 |
| 8,233.00              | 18.08           | 348.97      | 8,223.92              | -154.67      | -8.15        | -154.60                 | 8.18                    | 7.92                   | 7.44                  |
| 8,280.00              | 21.16           | 351.81      | 8,268.19              | -139.11      | -10.75       | -139.02                 | 6.86                    | 6.55                   | 6.04                  |



## Survey Report



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | COG Operating LLC           | <b>Local Co-ordinate Reference:</b> | Well 503H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | RKB @ 3011.20usft (Pioneer 84) |
| <b>Site:</b>     | Admiral Fed Com             | <b>MD Reference:</b>                | RKB @ 3011.20usft (Pioneer 84) |
| <b>Well:</b>     | 503H                        | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH / 66375                  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Pioneer 84)        | <b>Database:</b>                    | USA Compass                    |

## Survey

| Measured Depth (usft)   | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 8,328.00                | 24.12           | 352.88      | 8,312.49              | -120.80      | -13.20       | -120.69                 | 6.23                    | 6.17                   | 2.23                  |
| 8,328.63                | 24.18           | 352.89      | 8,313.06              | -120.54      | -13.24       | -120.43                 | 9.62                    | 9.62                   | 1.00                  |
| <b>FTP @ 8328.6' MD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,375.00                | 28.64           | 353.28      | 8,354.58              | -100.07      | -15.71       | -99.94                  | 9.62                    | 9.62                   | 0.85                  |
| 8,423.00                | 33.63           | 353.10      | 8,395.65              | -75.43       | -18.66       | -75.28                  | 10.40                   | 10.40                  | -0.38                 |
| 8,470.00                | 37.61           | 353.87      | 8,433.85              | -48.24       | -21.75       | -48.07                  | 8.52                    | 8.47                   | 1.64                  |
| 8,518.00                | 39.81           | 357.50      | 8,471.31              | -18.32       | -23.99       | -18.13                  | 6.58                    | 4.58                   | 7.56                  |
| 8,565.00                | 44.24           | 0.30        | 8,506.22              | 13.12        | -24.56       | 13.32                   | 10.23                   | 9.43                   | 5.96                  |
| 8,613.00                | 48.98           | 1.36        | 8,539.18              | 47.99        | -24.04       | 48.18                   | 10.00                   | 9.88                   | 2.21                  |
| 8,660.00                | 55.80           | 1.28        | 8,567.85              | 85.19        | -23.19       | 85.37                   | 14.51                   | 14.51                  | -0.17                 |
| 8,707.00                | 61.76           | 0.17        | 8,592.20              | 125.36       | -22.69       | 125.54                  | 12.84                   | 12.68                  | -2.36                 |
| 8,754.00                | 67.96           | 359.03      | 8,612.16              | 167.89       | -23.00       | 168.06                  | 13.37                   | 13.19                  | -2.43                 |
| 8,803.00                | 73.64           | 359.01      | 8,628.27              | 214.14       | -23.79       | 214.32                  | 11.59                   | 11.59                  | -0.04                 |
| 8,850.00                | 80.19           | 359.39      | 8,638.90              | 259.89       | -24.43       | 260.07                  | 13.96                   | 13.94                  | 0.81                  |
| 8,897.00                | 83.87           | 0.72        | 8,645.42              | 306.42       | -24.38       | 306.61                  | 8.32                    | 7.83                   | 2.83                  |
| 8,992.00                | 85.08           | 1.21        | 8,654.56              | 400.97       | -22.79       | 401.13                  | 1.37                    | 1.27                   | 0.52                  |
| 9,087.00                | 84.87           | 0.57        | 8,662.88              | 495.59       | -21.32       | 495.74                  | 0.71                    | -0.22                  | -0.67                 |
| 9,182.00                | 85.65           | 0.51        | 8,670.73              | 590.26       | -20.42       | 590.40                  | 0.82                    | 0.82                   | -0.06                 |
| 9,276.00                | 90.68           | 1.55        | 8,673.74              | 684.17       | -18.73       | 684.29                  | 5.46                    | 5.35                   | 1.11                  |
| 9,371.00                | 92.87           | 3.25        | 8,670.80              | 779.03       | -14.76       | 779.12                  | 2.92                    | 2.31                   | 1.79                  |
| 9,466.00                | 93.85           | 3.08        | 8,665.23              | 873.72       | -9.52        | 873.77                  | 1.05                    | 1.03                   | -0.18                 |
| 9,561.00                | 91.33           | 0.98        | 8,660.94              | 968.55       | -6.16        | 968.57                  | 3.45                    | -2.65                  | -2.21                 |
| 9,655.00                | 91.43           | 0.93        | 8,658.68              | 1,062.51     | -4.60        | 1,062.51                | 0.12                    | 0.11                   | -0.05                 |
| 9,750.00                | 89.84           | 0.05        | 8,657.62              | 1,157.50     | -3.79        | 1,157.49                | 1.91                    | -1.67                  | -0.93                 |
| 9,845.00                | 91.02           | 0.44        | 8,656.91              | 1,252.49     | -3.38        | 1,252.48                | 1.31                    | 1.24                   | 0.41                  |
| 9,939.00                | 89.36           | 359.22      | 8,656.60              | 1,346.48     | -3.66        | 1,346.47                | 2.19                    | -1.77                  | -1.30                 |
| 10,034.00               | 89.45           | 358.73      | 8,657.59              | 1,441.46     | -5.36        | 1,441.46                | 0.52                    | 0.09                   | -0.52                 |
| 10,129.00               | 89.44           | 358.76      | 8,658.51              | 1,536.44     | -7.44        | 1,536.45                | 0.03                    | -0.01                  | 0.03                  |
| 10,224.00               | 87.78           | 359.13      | 8,660.81              | 1,631.39     | -9.19        | 1,631.41                | 1.79                    | -1.75                  | 0.39                  |
| 10,318.00               | 86.88           | 359.41      | 8,665.19              | 1,725.28     | -10.38       | 1,725.31                | 1.00                    | -0.96                  | 0.30                  |
| 10,413.00               | 87.45           | 359.01      | 8,669.89              | 1,820.15     | -11.69       | 1,820.19                | 0.73                    | 0.60                   | -0.42                 |
| 10,508.00               | 87.97           | 358.70      | 8,673.68              | 1,915.06     | -13.59       | 1,915.10                | 0.64                    | 0.55                   | -0.33                 |
| 10,603.00               | 88.95           | 358.67      | 8,676.24              | 2,010.00     | -15.77       | 2,010.06                | 1.03                    | 1.03                   | -0.03                 |
| 10,697.00               | 92.09           | 1.21        | 8,675.38              | 2,103.97     | -15.87       | 2,104.03                | 4.30                    | 3.34                   | 2.70                  |
| 10,792.00               | 92.36           | 2.55        | 8,671.70              | 2,198.85     | -12.75       | 2,198.88                | 1.44                    | 0.28                   | 1.41                  |
| 10,887.00               | 90.54           | 1.62        | 8,669.29              | 2,293.75     | -9.30        | 2,293.75                | 2.15                    | -1.92                  | -0.98                 |
| 10,982.00               | 89.78           | 2.40        | 8,669.03              | 2,388.69     | -5.97        | 2,388.66                | 1.15                    | -0.80                  | 0.82                  |
| 11,077.00               | 87.39           | 0.26        | 8,671.37              | 2,483.62     | -3.76        | 2,483.58                | 3.38                    | -2.52                  | -2.25                 |
| 11,171.00               | 86.56           | 359.22      | 8,676.33              | 2,577.49     | -4.19        | 2,577.44                | 1.41                    | -0.88                  | -1.11                 |
| 11,266.00               | 87.69           | 359.09      | 8,681.10              | 2,672.36     | -5.59        | 2,672.32                | 1.20                    | 1.19                   | -0.14                 |
| 11,361.00               | 89.28           | 359.49      | 8,683.61              | 2,767.31     | -6.76        | 2,767.28                | 1.73                    | 1.67                   | 0.42                  |
| 11,456.00               | 90.36           | 359.95      | 8,683.91              | 2,862.31     | -7.23        | 2,862.28                | 1.24                    | 1.14                   | 0.48                  |
| 11,551.00               | 90.97           | 359.14      | 8,682.80              | 2,957.30     | -7.98        | 2,957.27                | 1.07                    | 0.64                   | -0.85                 |



## Survey Report



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | COG Operating LLC           | <b>Local Co-ordinate Reference:</b> | Well 503H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | RKB @ 3011.20usft (Pioneer 84) |
| <b>Site:</b>     | Admiral Fed Com             | <b>MD Reference:</b>                | RKB @ 3011.20usft (Pioneer 84) |
| <b>Well:</b>     | 503H                        | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH / 66375                  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Pioneer 84)        | <b>Database:</b>                    | USA Compass                    |

## Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 11,645.00             | 92.56           | 359.04      | 8,679.91              | 3,051.24     | -9.47        | 3,051.22                | 1.69                    | 1.69                   | -0.11                 |
| 11,740.00             | 91.03           | 358.76      | 8,676.93              | 3,146.17     | -11.30       | 3,146.16                | 1.64                    | -1.61                  | -0.29                 |
| 11,835.00             | 90.85           | 359.16      | 8,675.38              | 3,241.14     | -13.02       | 3,241.15                | 0.46                    | -0.19                  | 0.42                  |
| 11,930.00             | 91.67           | 358.41      | 8,673.29              | 3,336.10     | -15.03       | 3,336.11                | 1.17                    | 0.86                   | -0.79                 |
| 12,024.00             | 90.39           | 359.79      | 8,671.60              | 3,430.07     | -16.51       | 3,430.09                | 2.00                    | -1.36                  | 1.47                  |
| 12,120.00             | 90.05           | 0.28        | 8,671.23              | 3,526.07     | -16.45       | 3,526.09                | 0.62                    | -0.35                  | 0.51                  |
| 12,214.00             | 92.19           | 359.78      | 8,669.39              | 3,620.04     | -16.40       | 3,620.06                | 2.34                    | 2.28                   | -0.53                 |
| 12,309.00             | 89.32           | 0.95        | 8,668.14              | 3,715.02     | -15.80       | 3,715.03                | 3.26                    | -3.02                  | 1.23                  |
| 12,404.00             | 87.97           | 0.37        | 8,670.39              | 3,809.98     | -14.70       | 3,809.98                | 1.55                    | -1.42                  | -0.61                 |
| 12,499.00             | 88.37           | 359.93      | 8,673.42              | 3,904.94     | -14.45       | 3,904.93                | 0.63                    | 0.42                   | -0.46                 |
| 12,594.00             | 89.79           | 0.53        | 8,674.94              | 3,999.92     | -14.07       | 3,999.91                | 1.62                    | 1.49                   | 0.63                  |
| 12,688.00             | 89.88           | 359.05      | 8,675.22              | 4,093.92     | -14.42       | 4,093.90                | 1.58                    | 0.10                   | -1.57                 |
| 12,783.00             | 92.07           | 0.23        | 8,673.60              | 4,188.89     | -15.01       | 4,188.88                | 2.62                    | 2.31                   | 1.24                  |
| 12,878.00             | 89.81           | 358.84      | 8,672.04              | 4,283.87     | -15.79       | 4,283.86                | 2.79                    | -2.38                  | -1.46                 |
| 12,973.00             | 90.09           | 359.93      | 8,672.12              | 4,378.86     | -16.80       | 4,378.86                | 1.18                    | 0.29                   | 1.15                  |
| 13,068.00             | 92.39           | 0.77        | 8,670.07              | 4,473.83     | -16.22       | 4,473.82                | 2.58                    | 2.42                   | 0.88                  |
| 13,162.00             | 88.46           | 1.36        | 8,669.37              | 4,567.79     | -14.48       | 4,567.77                | 4.23                    | -4.18                  | 0.63                  |
| 13,257.00             | 87.06           | 0.83        | 8,673.08              | 4,662.70     | -12.66       | 4,662.66                | 1.58                    | -1.47                  | -0.56                 |
| 13,352.00             | 87.85           | 0.66        | 8,677.30              | 4,757.60     | -11.43       | 4,757.54                | 0.85                    | 0.83                   | -0.18                 |
| 13,447.00             | 88.92           | 0.47        | 8,679.98              | 4,852.55     | -10.49       | 4,852.49                | 1.14                    | 1.13                   | -0.20                 |
| 13,541.00             | 90.34           | 0.19        | 8,680.59              | 4,946.55     | -9.95        | 4,946.47                | 1.54                    | 1.51                   | -0.30                 |
| 13,636.00             | 92.22           | 0.31        | 8,678.46              | 5,041.52     | -9.54        | 5,041.44                | 1.98                    | 1.98                   | 0.13                  |
| 13,731.00             | 89.72           | 359.81      | 8,676.86              | 5,136.50     | -9.44        | 5,136.41                | 2.68                    | -2.63                  | -0.53                 |
| 13,826.00             | 89.25           | 358.09      | 8,677.71              | 5,231.47     | -11.18       | 5,231.40                | 1.88                    | -0.49                  | -1.81                 |
| 13,919.00             | 90.34           | 357.70      | 8,678.04              | 5,324.41     | -14.60       | 5,324.36                | 1.24                    | 1.17                   | -0.42                 |
| 14,014.00             | 88.52           | 353.68      | 8,678.99              | 5,419.11     | -21.73       | 5,419.12                | 4.64                    | -1.92                  | -4.23                 |
| 14,109.00             | 89.86           | 354.34      | 8,680.33              | 5,513.58     | -31.64       | 5,513.66                | 1.57                    | 1.41                   | 0.69                  |
| 14,204.00             | 91.42           | 356.11      | 8,679.27              | 5,608.24     | -39.55       | 5,608.38                | 2.48                    | 1.64                   | 1.86                  |
| 14,298.00             | 90.35           | 358.35      | 8,677.82              | 5,702.11     | -44.09       | 5,702.28                | 2.64                    | -1.14                  | 2.38                  |
| 14,393.00             | 91.30           | 357.61      | 8,676.45              | 5,797.04     | -47.44       | 5,797.23                | 1.27                    | 1.00                   | -0.78                 |
| 14,488.00             | 91.28           | 357.75      | 8,674.31              | 5,891.94     | -51.29       | 5,892.16                | 0.15                    | -0.02                  | 0.15                  |
| 14,583.00             | 90.73           | 359.10      | 8,672.65              | 5,986.89     | -53.90       | 5,987.12                | 1.53                    | -0.58                  | 1.42                  |
| 14,678.00             | 90.53           | 357.49      | 8,671.60              | 6,081.83     | -56.72       | 6,082.09                | 1.71                    | -0.21                  | -1.69                 |
| 14,773.00             | 89.71           | 359.96      | 8,671.40              | 6,176.80     | -58.84       | 6,177.07                | 2.74                    | -0.86                  | 2.60                  |
| 14,868.00             | 90.96           | 1.65        | 8,670.85              | 6,271.79     | -57.50       | 6,272.04                | 2.21                    | 1.32                   | 1.78                  |
| 14,963.00             | 89.74           | 359.75      | 8,670.27              | 6,366.77     | -56.34       | 6,367.02                | 2.38                    | -1.28                  | -2.00                 |
| 15,058.00             | 89.98           | 358.55      | 8,670.50              | 6,461.76     | -57.75       | 6,462.01                | 1.29                    | 0.25                   | -1.26                 |
| 15,152.00             | 90.72           | 358.40      | 8,669.92              | 6,555.72     | -60.25       | 6,555.99                | 0.80                    | 0.79                   | -0.16                 |
| 15,247.00             | 91.32           | 358.41      | 8,668.23              | 6,650.67     | -62.90       | 6,650.96                | 0.63                    | 0.63                   | 0.01                  |
| 15,342.00             | 92.84           | 358.42      | 8,664.78              | 6,745.57     | -65.52       | 6,745.88                | 1.60                    | 1.60                   | 0.01                  |
| 15,437.00             | 91.42           | 359.47      | 8,661.25              | 6,840.48     | -67.27       | 6,840.80                | 1.86                    | -1.49                  | 1.11                  |
| 15,532.00             | 90.10           | 1.31        | 8,659.99              | 6,935.47     | -66.62       | 6,935.78                | 2.38                    | -1.39                  | 1.94                  |
| 15,627.00             | 89.43           | 2.45        | 8,660.38              | 7,030.41     | -63.51       | 7,030.69                | 1.39                    | -0.71                  | 1.20                  |



## Survey Report



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | COG Operating LLC           | <b>Local Co-ordinate Reference:</b> | Well 503H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | RKB @ 3011.20usft (Pioneer 84) |
| <b>Site:</b>     | Admiral Fed Com             | <b>MD Reference:</b>                | RKB @ 3011.20usft (Pioneer 84) |
| <b>Well:</b>     | 503H                        | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH / 66375                  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Pioneer 84)        | <b>Database:</b>                    | USA Compass                    |

## Survey

| Measured Depth (usft)           | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 15,722.00                       | 90.59           | 2.54        | 8,660.37              | 7,125.32     | -59.37       | 7,125.57                | 1.22                    | 1.22                   | 0.09                  |
| 15,816.00                       | 88.59           | 3.42        | 8,661.04              | 7,219.19     | -54.48       | 7,219.39                | 2.32                    | -2.13                  | 0.94                  |
| 15,911.00                       | 88.49           | 4.10        | 8,663.46              | 7,313.95     | -48.26       | 7,314.10                | 0.72                    | -0.11                  | 0.72                  |
| 16,006.00                       | 86.37           | 3.49        | 8,667.72              | 7,408.64     | -41.98       | 7,408.74                | 2.32                    | -2.23                  | -0.64                 |
| 16,101.00                       | 86.27           | 2.77        | 8,673.82              | 7,503.30     | -36.80       | 7,503.36                | 0.76                    | -0.11                  | -0.76                 |
| 16,195.00                       | 85.96           | 2.84        | 8,680.19              | 7,596.97     | -32.21       | 7,596.99                | 0.34                    | -0.33                  | 0.07                  |
| 16,290.00                       | 85.81           | 359.42      | 8,687.00              | 7,691.70     | -30.34       | 7,691.70                | 3.59                    | -0.16                  | -3.60                 |
| 16,385.00                       | 86.68           | 358.66      | 8,693.23              | 7,786.48     | -31.93       | 7,786.49                | 1.21                    | 0.92                   | -0.80                 |
| 16,480.00                       | 87.82           | 358.35      | 8,697.78              | 7,881.33     | -34.40       | 7,881.36                | 1.24                    | 1.20                   | -0.33                 |
| 16,575.00                       | 90.20           | 358.99      | 8,699.43              | 7,976.29     | -36.61       | 7,976.33                | 2.59                    | 2.51                   | 0.67                  |
| 16,670.00                       | 91.47           | 358.32      | 8,698.04              | 8,071.25     | -38.84       | 8,071.30                | 1.51                    | 1.34                   | -0.71                 |
| 16,764.00                       | 92.85           | 358.01      | 8,694.50              | 8,165.13     | -41.85       | 8,165.21                | 1.50                    | 1.47                   | -0.33                 |
| 16,859.00                       | 91.77           | 358.46      | 8,690.67              | 8,260.01     | -44.77       | 8,260.10                | 1.23                    | -1.14                  | 0.47                  |
| 16,954.00                       | 91.56           | 358.61      | 8,687.91              | 8,354.94     | -47.20       | 8,355.05                | 0.27                    | -0.22                  | 0.16                  |
| 17,049.00                       | 90.66           | 359.95      | 8,686.07              | 8,449.91     | -48.39       | 8,450.03                | 1.70                    | -0.95                  | 1.41                  |
| 17,144.00                       | 90.27           | 0.45        | 8,685.30              | 8,544.90     | -48.06       | 8,545.02                | 0.67                    | -0.41                  | 0.53                  |
| 17,239.00                       | 89.02           | 359.03      | 8,685.89              | 8,639.90     | -48.49       | 8,640.01                | 1.99                    | -1.32                  | -1.49                 |
| 17,334.00                       | 90.34           | 358.94      | 8,686.42              | 8,734.88     | -50.17       | 8,735.00                | 1.39                    | 1.39                   | -0.09                 |
| 17,429.00                       | 91.40           | 358.67      | 8,684.97              | 8,829.84     | -52.15       | 8,829.98                | 1.15                    | 1.12                   | -0.28                 |
| 17,524.00                       | 92.50           | 358.41      | 8,681.74              | 8,924.76     | -54.57       | 8,924.91                | 1.19                    | 1.16                   | -0.27                 |
| 17,618.00                       | 91.76           | 359.68      | 8,678.25              | 9,018.68     | -56.14       | 9,018.84                | 1.56                    | -0.79                  | 1.35                  |
| 17,713.00                       | 89.71           | 0.10        | 8,677.03              | 9,113.66     | -56.32       | 9,113.82                | 2.20                    | -2.16                  | 0.44                  |
| 17,808.00                       | 89.63           | 359.96      | 8,677.58              | 9,208.66     | -56.27       | 9,208.82                | 0.17                    | -0.08                  | -0.15                 |
| 17,902.00                       | 86.33           | 0.09        | 8,680.89              | 9,302.59     | -56.23       | 9,302.74                | 3.51                    | -3.51                  | 0.14                  |
| 17,997.00                       | 87.21           | 0.03        | 8,686.24              | 9,397.44     | -56.13       | 9,397.59                | 0.93                    | 0.93                   | -0.06                 |
| 18,092.00                       | 88.84           | 359.62      | 8,689.52              | 9,492.38     | -56.42       | 9,492.53                | 1.77                    | 1.72                   | -0.43                 |
| 18,187.00                       | 89.34           | 358.48      | 8,691.02              | 9,587.35     | -58.00       | 9,587.51                | 1.31                    | 0.53                   | -1.20                 |
| 18,282.00                       | 90.55           | 357.84      | 8,691.12              | 9,682.30     | -61.05       | 9,682.48                | 1.44                    | 1.27                   | -0.67                 |
| 18,377.00                       | 87.93           | 356.92      | 8,692.38              | 9,777.18     | -65.39       | 9,777.39                | 2.92                    | -2.76                  | -0.97                 |
| 18,472.00                       | 88.53           | 357.79      | 8,695.31              | 9,872.03     | -69.77       | 9,872.28                | 1.11                    | 0.63                   | 0.92                  |
| 18,567.00                       | 89.97           | 357.59      | 8,696.55              | 9,966.95     | -73.60       | 9,967.22                | 1.53                    | 1.52                   | -0.21                 |
| 18,661.00                       | 90.93           | 356.68      | 8,695.82              | 10,060.82    | -78.30       | 10,061.13               | 1.41                    | 1.02                   | -0.97                 |
| 18,756.00                       | 92.70           | 356.33      | 8,692.81              | 10,155.60    | -84.08       | 10,155.94               | 1.90                    | 1.86                   | -0.37                 |
| 18,851.00                       | 94.12           | 356.18      | 8,687.16              | 10,250.22    | -90.28       | 10,250.62               | 1.50                    | 1.49                   | -0.16                 |
| 18,888.00                       | 94.63           | 356.02      | 8,684.33              | 10,287.03    | -92.79       | 10,287.44               | 1.44                    | 1.38                   | -0.43                 |
| <b>Final Phoenix MWD Survey</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 18,895.92                       | 94.63           | 356.02      | 8,683.69              | 10,294.91    | -93.34       | 10,295.32               | 0.00                    | 0.00                   | 0.00                  |
| <b>LTP @ 18896' MD</b>          |                 |             |                       |              |              |                         |                         |                        |                       |
| 18,945.00                       | 94.63           | 356.02      | 8,679.73              | 10,343.71    | -96.73       | 10,344.15               | 0.00                    | 0.00                   | 0.00                  |
| <b>Projection @ TD</b>          |                 |             |                       |              |              |                         |                         |                        |                       |



## Survey Report



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | COG Operating LLC           | <b>Local Co-ordinate Reference:</b> | Well 503H                      |
| <b>Project:</b>  | Eddy County, NM (NAD27 NME) | <b>TVD Reference:</b>               | RKB @ 3011.20usft (Pioneer 84) |
| <b>Site:</b>     | Admiral Fed Com             | <b>MD Reference:</b>                | RKB @ 3011.20usft (Pioneer 84) |
| <b>Well:</b>     | 503H                        | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH / 66375                  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Pioneer 84)        | <b>Database:</b>                    | USA Compass                    |

## Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                  |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                          |
| 597.00                      | 596.94                      | -2.36             | -6.13           | Tie In                   |
| 697.00                      | 696.94                      | -2.11             | -6.65           | First Phoenix MWD Survey |
| 8,328.63                    | 8,313.06                    | -120.54           | -13.24          | FTP @ 8328.6' MD         |
| 18,888.00                   | 8,684.33                    | 10,287.03         | -92.79          | Final Phoenix MWD Survey |
| 18,895.92                   | 8,683.69                    | 10,294.91         | -93.34          | LTP @ 18896' MD          |
| 18,945.00                   | 8,679.73                    | 10,343.71         | -96.73          | Projection @ TD          |

|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|----------|---------------|----------------|-------------------------------|---------------|---------------------------------------------------------------------|--|--|
| Submit To Appropriate District Office<br>Two Copies<br><b>District I</b><br>1625 N. French Dr., Hobbs, NM 88240<br><b>District II</b><br>811 S. First St., Artesia, NM 88210<br><b>District III</b><br>1000 Rio Brazos Rd., Aztec, NM 87410<br><b>District IV</b><br>1220 S. St. Francis Dr., Santa Fe, NM 87505                                                                          |                                                                     | <b>State of New Mexico</b><br><b>Energy, Minerals and Natural Resources</b><br><br><b>Oil Conservation Division</b><br><b>1220 South St. Francis Dr.</b><br><b>Santa Fe, NM 87505</b> |                        |                                                                                                            |                      | <b>Form C-105</b><br>Revised April 3, 2017                                                                                                                                                                                                                                                                                                                  |                 |                  |          |               |                |                               |               |                                                                     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     | 1. WELL API NO.                                                                                                                                                                       |                        | 30-025-46786                                                                                               |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     | 2. Type of Lease                                                                                                                                                                      |                        | <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> FED/INDIAN |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     | 3. State Oil & Gas Lease No.                                                                                                                                                          |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| <b>WELL COMPLETION OR RECOMPLETION REPORT AND LOG</b>                                                                                                                                                                                                                                                                                                                                     |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 4. Reason for filing:<br><br><input checked="" type="checkbox"/> <b>COMPLETION REPORT</b> (Fill in boxes #1 through #31 for State and Fee wells only)<br><br><input type="checkbox"/> <b>C-144 CLOSURE ATTACHMENT</b> (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC) |                                                                     |                                                                                                                                                                                       |                        | 5. Lease Name or Unit Agreement Name<br>Admiral Federal Com<br><br>6. Well Number:<br><br>503H             |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 7. Type of Completion:<br><input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input type="checkbox"/> OTHER _____                                                                                                                           |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 8. Name of Operator<br>COG Operating LLC                                                                                                                                                                                                                                                                                                                                                  |                                                                     |                                                                                                                                                                                       |                        | 9. OGRID<br>229137                                                                                         |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 10. Address of Operator<br>2208 W. Main Street<br>Artesia, NM 88210                                                                                                                                                                                                                                                                                                                       |                                                                     |                                                                                                                                                                                       |                        | 11. Pool name or Wildcat<br>Bone Spring                                                                    |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 12. Location                                                                                                                                                                                                                                                                                                                                                                              | Unit Ltr                                                            | Section                                                                                                                                                                               | Township               | Range                                                                                                      | Lot                  | Feet from the                                                                                                                                                                                                                                                                                                                                               | N/S Line        | Feet from the    | E/W Line | County        |                |                               |               |                                                                     |  |  |
| <b>Surface:</b>                                                                                                                                                                                                                                                                                                                                                                           | N                                                                   | 28                                                                                                                                                                                    | 25S                    | 29E                                                                                                        |                      | 220'                                                                                                                                                                                                                                                                                                                                                        | South           | 2630'            | West     | Eddy          |                |                               |               |                                                                     |  |  |
| <b>BH:</b>                                                                                                                                                                                                                                                                                                                                                                                | C                                                                   | 21                                                                                                                                                                                    | 25S                    | 29E                                                                                                        |                      | 51'                                                                                                                                                                                                                                                                                                                                                         | North           | 2614'            | West     | Eddy          |                |                               |               |                                                                     |  |  |
| 13. Date Spudded<br>3/2/20                                                                                                                                                                                                                                                                                                                                                                | 14. Date T.D. Reached<br>3/21/20                                    | 15. Date Rig Released<br>3/24/20                                                                                                                                                      |                        | 16. Date Completed (Ready to Produce)<br>3/15/21                                                           |                      | 17. Elevations (DF and RKB, RT, GR, etc.)<br>2986' GR                                                                                                                                                                                                                                                                                                       |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 18. Total Measured Depth of Well<br>18,945'                                                                                                                                                                                                                                                                                                                                               |                                                                     | 19. Plug Back Measured Depth<br>18,855'                                                                                                                                               |                        | 20. Was Directional Survey Made?<br>Yes                                                                    |                      | 21. Type Electric and Other Logs Run                                                                                                                                                                                                                                                                                                                        |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 22. Producing Interval(s), of this completion - Top, Bottom, Name<br>8,800-18,830' Bone Spring                                                                                                                                                                                                                                                                                            |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| <b>23. CASING RECORD (Report all strings set in well)</b>                                                                                                                                                                                                                                                                                                                                 |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| CASING SIZE                                                                                                                                                                                                                                                                                                                                                                               |                                                                     | WEIGHT LB./FT.                                                                                                                                                                        |                        | DEPTH SET                                                                                                  |                      | HOLE SIZE                                                                                                                                                                                                                                                                                                                                                   |                 | CEMENTING RECORD |          | AMOUNT PULLED |                |                               |               |                                                                     |  |  |
| 13 3/8"                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     | 45.5#                                                                                                                                                                                 |                        | 677'                                                                                                       |                      | 17 1/2"                                                                                                                                                                                                                                                                                                                                                     |                 | 525sx            |          |               |                |                               |               |                                                                     |  |  |
| 9 5/8"                                                                                                                                                                                                                                                                                                                                                                                    |                                                                     | 29.7#                                                                                                                                                                                 |                        | 3030'                                                                                                      |                      | 12 1/4"                                                                                                                                                                                                                                                                                                                                                     |                 | 960sx            |          |               |                |                               |               |                                                                     |  |  |
| 5 1/2"                                                                                                                                                                                                                                                                                                                                                                                    |                                                                     | 23#                                                                                                                                                                                   |                        | 18935'                                                                                                     |                      | 8 1/2"                                                                                                                                                                                                                                                                                                                                                      |                 | 3250 sx          |          |               |                |                               |               |                                                                     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| <b>24. LINER RECORD</b>                                                                                                                                                                                                                                                                                                                                                                   |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      | <b>25. TUBING RECORD</b>                                                                                                                                                                                                                                                                                                                                    |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| SIZE                                                                                                                                                                                                                                                                                                                                                                                      | TOP                                                                 | BOTTOM                                                                                                                                                                                | SACKS CEMENT           | SCREEN                                                                                                     | SIZE                 | DEPTH SET                                                                                                                                                                                                                                                                                                                                                   | PACKER SET      |                  |          |               |                |                               |               |                                                                     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            | 2 7/8"               | 8052'                                                                                                                                                                                                                                                                                                                                                       | 8042'           |                  |          |               |                |                               |               |                                                                     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 26. Perforation record (interval, size, and number)<br><br>8,800-18,830' (900)                                                                                                                                                                                                                                                                                                            |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      | 27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.<br><table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>DEPTH INTERVAL</td> <td>AMOUNT AND KIND MATERIAL USED</td> </tr> <tr> <td>8,800-18,830'</td> <td>Acidz w/ gal 7 1/2%; Frac w/21,189,600# sand &amp; 25,702,908 gal fluid</td> </tr> <tr> <td> </td> <td> </td> </tr> </table> |                 |                  |          |               | DEPTH INTERVAL | AMOUNT AND KIND MATERIAL USED | 8,800-18,830' | Acidz w/ gal 7 1/2%; Frac w/21,189,600# sand & 25,702,908 gal fluid |  |  |
| DEPTH INTERVAL                                                                                                                                                                                                                                                                                                                                                                            | AMOUNT AND KIND MATERIAL USED                                       |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 8,800-18,830'                                                                                                                                                                                                                                                                                                                                                                             | Acidz w/ gal 7 1/2%; Frac w/21,189,600# sand & 25,702,908 gal fluid |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| <b>28. PRODUCTION</b>                                                                                                                                                                                                                                                                                                                                                                     |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| Date First Production<br>3/18/21                                                                                                                                                                                                                                                                                                                                                          |                                                                     | Production Method ( <i>Flowing, gas lift, pumping - Size and type pump</i> )<br>Flowing                                                                                               |                        |                                                                                                            |                      | Well Status ( <i>Prod. or Shut-in</i> )<br>Producing                                                                                                                                                                                                                                                                                                        |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| Date of Test<br>3/18/21                                                                                                                                                                                                                                                                                                                                                                   | Hours Tested<br>24                                                  | Choke Size<br>20/64"                                                                                                                                                                  | Prod'n For Test Period | Oil - Bbl<br>405                                                                                           | Gas - MCF<br>839     | Water - Bbl.<br>1912                                                                                                                                                                                                                                                                                                                                        | Gas - Oil Ratio |                  |          |               |                |                               |               |                                                                     |  |  |
| Flow Tubing Press. 998#                                                                                                                                                                                                                                                                                                                                                                   | Casing Pressure 787#                                                | Calculated 24-Hour Rate                                                                                                                                                               | Oil - Bbl.<br>405      | Gas - MCF<br>839                                                                                           | Water - Bbl.<br>1912 | Oil Gravity - API - (Corr.)                                                                                                                                                                                                                                                                                                                                 |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 29. Disposition of Gas ( <i>Sold, used for fuel, vented, etc.</i> )<br>Sold                                                                                                                                                                                                                                                                                                               |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      | 30. Test Witnessed By<br>Jace Farmer                                                                                                                                                                                                                                                                                                                        |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 31. List Attachments<br>Surveys                                                                                                                                                                                                                                                                                                                                                           |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      | 33. Rig Release Date:<br>3/24/20                                                                                                                                                                                                                                                                                                                            |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| 34. If an on-site burial was used at the well, report the exact location of the on-site burial:<br><br>Latitude _____ Longitude _____ NAD83                                                                                                                                                                                                                                               |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |
| <i>I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief</i><br>Printed<br>Signature <i>Amanda Avery</i> Name: Amanda Avery      Title Regulatory Analyst      Date: 4/20/21<br>E-mail Address: <a href="mailto:amanda.l.avery@conocophillips.com">amanda.l.avery@conocophillips.com</a>                     |                                                                     |                                                                                                                                                                                       |                        |                                                                                                            |                      |                                                                                                                                                                                                                                                                                                                                                             |                 |                  |          |               |                |                               |               |                                                                     |  |  |

## INSTRUCTIONS

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

## OIL OR GAS SANDS OR ZONES

## IMPORTANT WATER SANDS

No. 1, from.....to.....feet.....  
 No. 2, from.....to.....feet.....  
 No. 3, from.....to.....feet.....

## LITHOLOGY RECORD (Attach additional sheet if necessary)

*Released to Imaging: 7/8/2021 8:53:16 AM*

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 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**

ACKNOWLEDGMENTS

Action 25017

**ACKNOWLEDGMENTS**

|                                                                           |                                                    |
|---------------------------------------------------------------------------|----------------------------------------------------|
| Operator:<br>COG OPERATING LLC<br>600 W Illinois Ave<br>Midland, TX 79701 | OGRID:<br>229137                                   |
|                                                                           | Action Number:<br>25017                            |
|                                                                           | Action Type:<br>[C-104] Completion Packet (C-104C) |

**ACKNOWLEDGMENTS**

|                          |                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.     |
| <input type="checkbox"/> | I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion. |

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CONDITIONS

Action 25017

CONDITIONS

|                                                                           |                                                    |
|---------------------------------------------------------------------------|----------------------------------------------------|
| Operator:<br>COG OPERATING LLC<br>600 W Illinois Ave<br>Midland, TX 79701 | OGRID:<br>229137                                   |
|                                                                           | Action Number:<br>25017                            |
|                                                                           | Action Type:<br>[C-104] Completion Packet (C-104C) |

CONDITIONS

| Created By | Condition                  | Condition Date |
|------------|----------------------------|----------------|
| ksimmons   | Provide Completion Sundry. | 7/8/2021       |