

**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**

Form C-101  
August 1, 2011

Permit 278967

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

|                                                                                                  |                                            |                               |
|--------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------|
| 1. Operator Name and Address<br>COLGATE OPERATING, LLC<br>306 W Wall Street<br>Midland, TX 79701 |                                            | 2. OGRID Number<br>371449     |
|                                                                                                  |                                            | 3. API Number<br>30-015-46806 |
| 4. Property Code<br>327171                                                                       | 5. Property Name<br>BIG BURRO 27 STATE COM | 6. Well No.<br>123H           |

**7. Surface Location**

|               |               |                 |              |         |                   |               |                  |               |                |
|---------------|---------------|-----------------|--------------|---------|-------------------|---------------|------------------|---------------|----------------|
| UL - Lot<br>I | Section<br>27 | Township<br>19S | Range<br>28E | Lot Idn | Feet From<br>1970 | N/S Line<br>S | Feet From<br>520 | E/W Line<br>E | County<br>Eddy |
|---------------|---------------|-----------------|--------------|---------|-------------------|---------------|------------------|---------------|----------------|

**8. Proposed Bottom Hole Location**

|               |               |                 |              |              |                   |               |                 |               |                |
|---------------|---------------|-----------------|--------------|--------------|-------------------|---------------|-----------------|---------------|----------------|
| UL - Lot<br>L | Section<br>28 | Township<br>19S | Range<br>28E | Lot Idn<br>L | Feet From<br>1650 | N/S Line<br>S | Feet From<br>10 | E/W Line<br>W | County<br>Eddy |
|---------------|---------------|-----------------|--------------|--------------|-------------------|---------------|-----------------|---------------|----------------|

**9. Pool Information**

|                               |       |
|-------------------------------|-------|
| WINCHESTER; BONE SPRING, WEST | 97569 |
|-------------------------------|-------|

**Additional Well Information**

|                           |                             |                                        |                         |                                    |
|---------------------------|-----------------------------|----------------------------------------|-------------------------|------------------------------------|
| 11. Work Type<br>New Well | 12. Well Type<br>OIL        | 13. Cable/Rotary                       | 14. Lease Type<br>State | 15. Ground Level Elevation<br>3335 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>17568 | 18. Formation<br>Bone Spring           | 19. Contractor          | 20. Spud Date<br>3/16/2020         |
| Depth to Ground water     |                             | Distance from nearest fresh water well |                         | Distance to nearest surface water  |

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 17.5      | 13.375      | 54.5             | 200           | 131             | 0             |
| Int1 | 12.25     | 9.625       | 36               | 3050          | 827             | 0             |
| Prod | 8.75      | 5.5         | 20               | 17568         | 3781            | 2050          |

**Casing/Cement Program: Additional Comments**

|                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------|
| Production casing grade is HCP-110; Surface fluid - Fresh water spud mud; Int 1 fluid - Brine water; Prod fluid - Cut-brine poly-oil mud |
|------------------------------------------------------------------------------------------------------------------------------------------|

**22. Proposed Blowout Prevention Program**

| Type       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Annular    | 10000            | 5000          | Shaffer      |
| Double Ram | 10000            | 5000          | Shaffer      |

|                                                                                                                                                                                                                                                                                                    |                                  |                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|
| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br>I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. | <b>OIL CONSERVATION DIVISION</b> |                                 |
| Signature:                                                                                                                                                                                                                                                                                         |                                  |                                 |
| Printed Name: Electronically filed by Mikah Thomas                                                                                                                                                                                                                                                 | Approved By: Raymond Podany      |                                 |
| Title: Operations Tech                                                                                                                                                                                                                                                                             | Title: Geologist                 |                                 |
| Email Address: mthomas@colgateenergy.com                                                                                                                                                                                                                                                           | Approved Date: 3/9/2020          | Expiration Date: 3/9/2022       |
| Date: 3/3/2020                                                                                                                                                                                                                                                                                     | Phone: 432-695-4272              | Conditions of Approval Attached |

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## State of New Mexico

## Energy, Minerals &amp; Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                             |                                                             |                                                                |
|---------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------|
| <sup>1</sup> API Number<br><b>30-015-</b>   | <sup>2</sup> Pool Code<br><b>97569</b>                      | <sup>3</sup> Pool Name<br><b>WINCHESTER; BONE SPRING, WEST</b> |
| <sup>4</sup> Property Code<br><b>327171</b> | <sup>5</sup> Property Name<br><b>BIG BURRO 27 STATE COM</b> | <sup>6</sup> Well Number<br><b>123H</b>                        |
| <sup>7</sup> OGRID No.<br><b>371449</b>     | <sup>8</sup> Operator Name<br><b>COLGATE OPERATING, LLC</b> | <sup>9</sup> Elevation<br><b>3335.8</b>                        |

<sup>10</sup> Surface Location

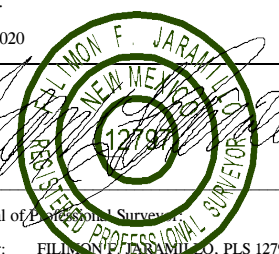
| UL or lot no. | Section   | Township    | Range       | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County      |
|---------------|-----------|-------------|-------------|---------|---------------|------------------|---------------|----------------|-------------|
| <b>I</b>      | <b>27</b> | <b>19 S</b> | <b>28 E</b> |         | <b>1970</b>   | <b>SOUTH</b>     | <b>520</b>    | <b>EAST</b>    | <b>EDDY</b> |

<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section   | Township    | Range       | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County      |
|---------------|-----------|-------------|-------------|---------|---------------|------------------|---------------|----------------|-------------|
| <b>L</b>      | <b>28</b> | <b>19 S</b> | <b>28 E</b> |         | <b>1650</b>   | <b>SOUTH</b>     | <b>10</b>     | <b>WEST</b>    | <b>EDDY</b> |

|                                                |                               |                                              |                         |
|------------------------------------------------|-------------------------------|----------------------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br><b>320.00</b> | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code<br><b>C</b> | <sup>15</sup> 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.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>NW CORNER SEC. 28<br/>LAT. = 32.6388378°N<br/>LONG. = 104.1896055°W<br/>NMSP EAST (FT)<br/>N = 596170.03<br/>E = 585579.74<br/>N89°29'19"E 2606.17 FT</p> <p>N/4 CORNER SEC. 28<br/>LAT. = 32.6388918°N<br/>LONG. = 104.1811413°W<br/>NMSP EAST (FT)<br/>N = 596193.28<br/>E = 588185.16<br/>N89°29'58"E 2605.52 FT</p> <p>NW CORNER SEC. 27<br/>LAT. = 32.6389438°N<br/>LONG. = 104.1726792°W<br/>NMSP EAST (FT)<br/>N = 596216.04<br/>E = 590789.95<br/>N89°32'27"E 2596.08 FT</p> <p>N/4 CORNER SEC. 27<br/>LAT. = 32.6389899°N<br/>LONG. = 104.1642476°W<br/>NMSP EAST (FT)<br/>N = 596236.84<br/>E = 593385.32<br/>N89°31'19"E 2599.78 FT</p> <p>NE CORNER SEC. 27<br/>LAT. = 32.6390378°N<br/>LONG. = 104.1558041°W<br/>NMSP EAST (FT)<br/>N = 596258.52<br/>E = 595984.38<br/>2599.78 FT</p>         |  | <p><b>17 OPERATOR CERTIFICATION</b><br/>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p align="right"><b>3-3-20</b></p> <p>Signature <span style="float: right;">Date</span><br/><b>BRIAN WOOD</b><br/>Printed Name<br/><b>brian@permitswest.com</b><br/>E-mail Address<br/><b>505 466-8120</b></p> |  |
| <p>W/4 CORNER SEC. 28<br/>LAT. = 32.6316038°N<br/>LONG. = 104.1896802°W<br/>NMSP EAST (FT)<br/>N = 593538.21<br/>E = 585560.31</p> <p>E/4 CORNER SEC. 28<br/>LAT. = 32.6316984°N<br/>LONG. = 104.1727371°W<br/>NMSP EAST (FT)<br/>N = 593580.11<br/>E = 590776.09</p> <p>S/4 CORNER SEC. 28<br/>LAT. = 32.6244127°N<br/>LONG. = 104.1812729°W<br/>NMSP EAST (FT)<br/>N = 590925.64<br/>E = 588152.20</p> <p>SW CORNER SEC. 28<br/>LAT. = 32.6243712°N<br/>LONG. = 104.1897528°W<br/>NMSP EAST (FT)<br/>N = 590906.93<br/>E = 585541.53</p> <p>SW CORNER SEC. 27<br/>LAT. = 32.6244550°N<br/>LONG. = 104.1727993°W<br/>NMSP EAST (FT)<br/>N = 590944.89<br/>E = 590760.93</p> <p>SE CORNER SEC. 27<br/>LAT. = 32.6245314°N<br/>LONG. = 104.1558342°W<br/>NMSP EAST (FT)<br/>N = 590980.97<br/>E = 595983.91</p> |  | <p><b>18 SURVEYOR CERTIFICATION</b><br/>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JANUARY 28, 2020<br/>Date of Survey</p> <p align="center">  </p> <p>Signature and Seal of Professional Surveyor<br/>Certificate Number: <b>FILIMON F. JARAMILA 20, PLS 12797</b><br/>SURVEY NO. 7921</p>                                                                                                                                                                                                         |  |

Intent **YES** As Drilled ☐

|                                                 |                                                 |                            |
|-------------------------------------------------|-------------------------------------------------|----------------------------|
| API #                                           |                                                 |                            |
| Operator Name:<br><b>COLGATE OPERATING, LLC</b> | Property Name:<br><b>BIG BURRO 27 STATE COM</b> | Well Number<br><b>123H</b> |

Kick Off Point (KOP)

| UL                            | Section   | Township   | Range      | Lot | Feet                            | From N/S     | Feet       | From E/W    | County           |
|-------------------------------|-----------|------------|------------|-----|---------------------------------|--------------|------------|-------------|------------------|
| <b>I</b>                      | <b>27</b> | <b>19S</b> | <b>28E</b> |     | <b>1970</b>                     | <b>SOUTH</b> | <b>520</b> | <b>EAST</b> | <b>EDDY</b>      |
| Latitude<br><b>32.6299376</b> |           |            |            |     | Longitude<br><b>104.1575118</b> |              |            |             | NAD<br><b>83</b> |

First Take Point (FTP)

| UL                            | Section   | Township   | Range      | Lot | Feet                            | From N/S     | Feet       | From E/W    | County           |
|-------------------------------|-----------|------------|------------|-----|---------------------------------|--------------|------------|-------------|------------------|
| <b>I</b>                      | <b>27</b> | <b>19S</b> | <b>28E</b> |     | <b>1650</b>                     | <b>SOUTH</b> | <b>100</b> | <b>EAST</b> | <b>EDDY</b>      |
| Latitude<br><b>32.6290643</b> |           |            |            |     | Longitude<br><b>104.1561494</b> |              |            |             | NAD<br><b>83</b> |

Last Take Point (LTP)

| UL                            | Section   | Township   | Range      | Lot | Feet                            | From N/S     | Feet       | From E/W    | County           |
|-------------------------------|-----------|------------|------------|-----|---------------------------------|--------------|------------|-------------|------------------|
| <b>L</b>                      | <b>28</b> | <b>19S</b> | <b>28E</b> |     | <b>1650</b>                     | <b>SOUTH</b> | <b>100</b> | <b>WEST</b> | <b>EDDY</b>      |
| Latitude<br><b>32.6289074</b> |           |            |            |     | Longitude<br><b>104.1893825</b> |              |            |             | NAD<br><b>83</b> |

Is this well the defining well for the Horizontal Spacing Unit?

**NO**

Is this well an infill well?

**YES**

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

|                                                 |                                                 |                            |
|-------------------------------------------------|-------------------------------------------------|----------------------------|
| API #<br><b>30-015-46766</b>                    |                                                 |                            |
| Operator Name:<br><b>COLGATE OPERATING, LLC</b> | Property Name:<br><b>BIG BURRO 27 STATE COM</b> | Well Number<br><b>133H</b> |

KZ 06/29/2018

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

## GAS CAPTURE PLAN

Date: 3/9/2020

☒ Original

Operator & OGRID No.: [371449] COLGATE OPERATING, LLC

☐ Amended - Reason for  
Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

### Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

| Well Name                    | API          | Well Location<br>(ULSTR) | Footages    | Expected<br>MCF/D | Flared or<br>Vented | Comments |
|------------------------------|--------------|--------------------------|-------------|-------------------|---------------------|----------|
| BIG BURRO 27 STATE COM #123H | 30-015-46806 | I-27-19S-28E             | 1970S 0520E | 3000              | Flared              |          |

### Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP High Pressure gathering system located in Eddy County, New Mexico. It will require 4100' of pipeline to connect the facility to High Pressure gathering system. COLGATE OPERATING, LLC provides (periodically) to DCP OPERATING COMPANY, LP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COLGATE OPERATING, LLC and DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 27, Twn. 19S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP OPERATING COMPANY, LP system at that time. Based on current information, it is COLGATE OPERATING, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

### Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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

Form APD Comments

Permit 278967

PERMIT COMMENTS

|                                                                                                         |         |                                       |
|---------------------------------------------------------------------------------------------------------|---------|---------------------------------------|
| Operator Name and Address:<br>COLGATE OPERATING, LLC [371449]<br>306 W Wall Street<br>Midland, TX 79701 |         | API Number:<br>30-015-46806           |
|                                                                                                         |         | Well:<br>BIG BURRO 27 STATE COM #123H |
| Created By                                                                                              | Comment | Comment Date                          |

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**Santa Fe, NM 87505**

Form APD Conditions  
Permit 278967

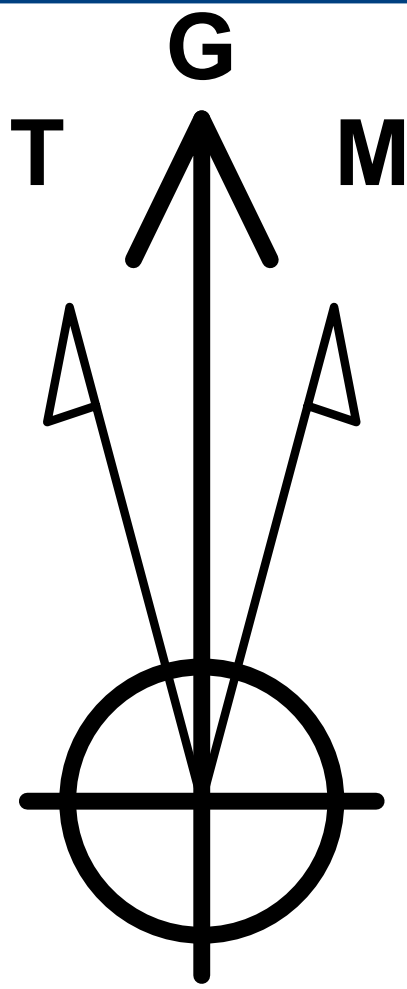
PERMIT CONDITIONS OF APPROVAL

|                                 |                                                                                                                         |                              |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Operator Name and Address:      |                                                                                                                         | API Number:                  |
| COLGATE OPERATING, LLC [371449] |                                                                                                                         | 30-015-46806                 |
| 306 W Wall Street               |                                                                                                                         | Well:                        |
| Midland, TX 79701               |                                                                                                                         | BIG BURRO 27 STATE COM #123H |
| OCD Reviewer                    | Condition                                                                                                               |                              |
| ksimmons                        | Will require a directional survey with the C-104                                                                        |                              |
| ksimmons                        | Cement is required to circulate on both surface and intermediate1 strings of casing                                     |                              |
| ksimmons                        | Operator shall notify operator(s) of other well(s) in same quarter-quarter section before both drilling and completing. |                              |



WELL DETAILS: Big Burro 27 State Com 123H

| Northing  | Easting   | Latitude    | Longitude     | Slot |
|-----------|-----------|-------------|---------------|------|
| 592946.93 | 595464.19 | 32.62993761 | -104.15751180 |      |



Azimuths to Grid North  
True North: -0.09°  
Magnetic North: 6.91°  
  
Magnetic Field  
Strength: 47812.6snT  
Dip Angle: 60.22°  
Date: 2/12/2020  
Model: IGRF2020

PROJECT DETAILS: Eddy County, NM (N83-NME)  
Well Name: Big Burro 27 State Com 123H  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level  
Local North: Grid  
KB Elevation: KB @ 3361.00usft (Permit)  
Elevation: 3336.00

Site: Big Burro 27 State Com  
Well: Big Burro 27 State Com 123H  
Wellbore: OH  
Plan: Plan #1

FORMATION TOP DETAILS

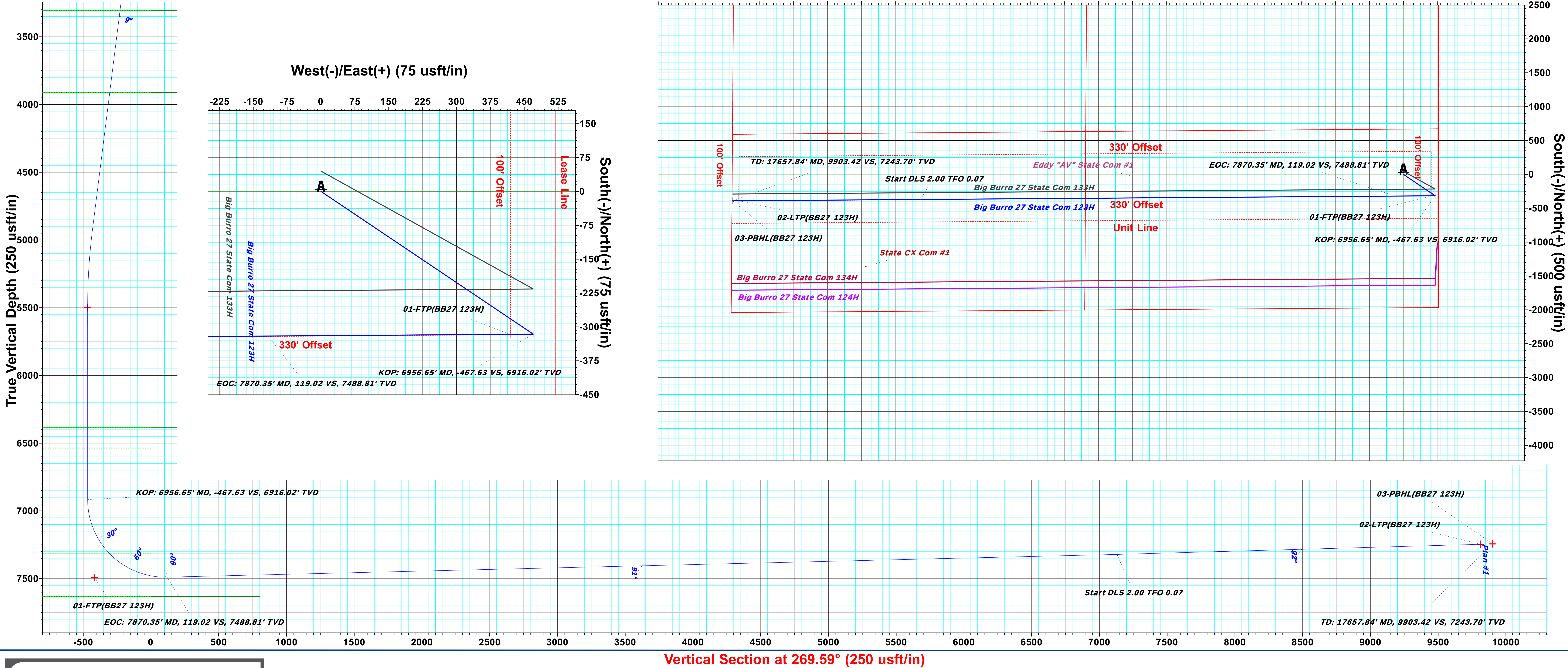
| TVDPath | MDPath  | Formation           |
|---------|---------|---------------------|
| 138.00  | 138.00  | Rustler             |
| 246.00  | 246.00  | Top of Salt         |
| 578.00  | 578.00  | Base of Salt        |
| 815.00  | 815.00  | Yates               |
| 2081.00 | 2086.71 | Capitan             |
| 2584.00 | 2595.50 | DLWR Mnt. Group     |
| 3304.00 | 3323.79 | Lower Brushy Canyon |
| 3911.00 | 3937.77 | Bone Spring Lime    |
| 6386.00 | 6426.63 | 1st Bone Spring SD  |
| 6536.00 | 6576.63 | 2nd Bone Spring LM  |
| 7311.00 | 7392.46 | 2nd Bone Spring SD  |

Section Details

| Sec | MD       | Inc   | Azi    | TVD     | +N/-S   | +E/-W    | Dleg  | TFace  | VSect   |
|-----|----------|-------|--------|---------|---------|----------|-------|--------|---------|
| 1   | 0.00     | 0.00  | 0.00   | 0.00    | 0.00    | 0.00     | 0.00  | 0.00   | 0.00    |
| 2   | 1200.00  | 0.00  | 0.00   | 1200.00 | 0.00    | 0.00     | 0.00  | 0.00   | 0.00    |
| 3   | 1776.69  | 8.65  | 123.92 | 1774.50 | -24.25  | 36.06    | 1.50  | 123.92 | -35.88  |
| 4   | 4963.94  | 8.65  | 123.92 | 4925.50 | -291.75 | 433.85   | 0.00  | 0.00   | -431.75 |
| 5   | 5540.63  | 0.00  | 0.00   | 5500.00 | -316.00 | 469.91   | 1.50  | 180.00 | -467.63 |
| 6   | 6956.65  | 0.00  | 0.00   | 6916.02 | -316.00 | 469.91   | 0.00  | 0.00   | -467.63 |
| 7   | 7870.35  | 91.37 | 269.59 | 7488.81 | -320.20 | -116.73  | 10.00 | 269.59 | 119.02  |
| 8   | 14883.34 | 91.37 | 269.59 | 7321.14 | -370.37 | -7127.53 | 0.00  | 0.00   | 7130.00 |
| 9   | 14894.83 | 91.60 | 269.59 | 7320.84 | -370.45 | -7139.02 | 2.00  | 0.07   | 7141.49 |
| 10  | 17657.84 | 91.60 | 269.59 | 7243.70 | -390.20 | -9900.88 | 0.00  | 0.00   | 9903.42 |

DESIGN TARGET DETAILS

| Name               | TVD     | +N/-S   | +E/-W    | Northing  | Easting   | Latitude    | Longitude     |
|--------------------|---------|---------|----------|-----------|-----------|-------------|---------------|
| 00-EON(BB27 123H)  | 5500.00 | -316.00 | 469.91   | 592630.93 | 595934.10 | 32.62906687 | -104.15598710 |
| 01-FTP(BB27 123H)  | 7491.00 | -317.02 | 419.93   | 592629.91 | 595884.12 | 32.62906429 | -104.15614945 |
| 02-LTP(BB27 123H)  | 7246.21 | -389.56 | -9810.90 | 592557.37 | 585653.29 | 32.62890739 | -104.18938249 |
| 03-PBHL(BB27 123H) | 7243.70 | -390.20 | -9900.88 | 592556.73 | 585563.31 | 32.62890597 | -104.18967478 |





## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Big Burro 27 State Com 123H |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, NM (N83-NME) |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone   |                      |                |

|                              |                        |                     |                 |                                 |
|------------------------------|------------------------|---------------------|-----------------|---------------------------------|
| <b>Site</b>                  | Big Burro 27 State Com |                     |                 |                                 |
| <b>Site Position:</b>        |                        | <b>Northing:</b>    | 592,946.93 usft | <b>Latitude:</b> 32.62993761    |
| <b>From:</b>                 | Map                    | <b>Easting:</b>     | 595,464.19 usft | <b>Longitude:</b> -104.15751180 |
| <b>Position Uncertainty:</b> | 0.00 usft              | <b>Slot Radius:</b> | 13-3/16 "       | <b>Grid Convergence:</b> 0.09 ° |

|                             |                             |           |                            |                                    |
|-----------------------------|-----------------------------|-----------|----------------------------|------------------------------------|
| <b>Well</b>                 | Big Burro 27 State Com 123H |           |                            |                                    |
| <b>Well Position</b>        | <b>+N/-S</b>                | 0.00 usft | <b>Northing:</b>           | 592,946.93 usft                    |
|                             | <b>+E/-W</b>                | 0.00 usft | <b>Easting:</b>            | 595,464.19 usft                    |
| <b>Position Uncertainty</b> | 0.00 usft                   |           | <b>Wellhead Elevation:</b> | <b>Ground Level:</b> 3,336.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OH                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2020          | 2/12/2020          | 7.00                   | 60.22                | 47,812.56692472            |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #1                        |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                | <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>  | <b>Direction (°)</b> |
|                          | 0.00                           | 0.00                | 0.00                 | 269.59               |

|                                 |                        |                          |                     |                |
|---------------------------------|------------------------|--------------------------|---------------------|----------------|
| <b>Plan Survey Tool Program</b> | <b>Date</b>            | 2/13/2020                |                     |                |
| <b>Depth From (usft)</b>        | <b>Depth To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>    | <b>Remarks</b> |
| 1                               | 0.00                   | 17,657.84 Plan #1 (OH)   | OWSG MWD Rev 4      |                |
|                                 |                        |                          | OWSG MWD - Standard |                |



## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Big Burro 27 State Com 123H |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

| Plan Sections         |                 |             |                       |              |              |                         |                        |                       |         |                    |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|--------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target             |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 1,200.00              | 0.00            | 0.00        | 1,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 1,776.69              | 8.65            | 123.92      | 1,774.50              | -24.25       | 36.06        | 1.50                    | 1.50                   | 0.00                  | 123.92  |                    |
| 4,963.94              | 8.65            | 123.92      | 4,925.50              | -291.75      | 433.85       | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 5,540.63              | 0.00            | 0.00        | 5,500.00              | -316.00      | 469.91       | 1.50                    | -1.50                  | 0.00                  | 180.00  | 00-EON(BB27 123H)  |
| 6,956.65              | 0.00            | 0.00        | 6,916.02              | -316.00      | 469.91       | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 7,870.35              | 91.37           | 269.59      | 7,488.81              | -320.20      | -116.73      | 10.00                   | 10.00                  | 0.00                  | 269.59  |                    |
| 14,883.34             | 91.37           | 269.59      | 7,321.14              | -370.37      | -7,127.53    | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 14,894.83             | 91.60           | 269.59      | 7,320.84              | -370.45      | -7,139.03    | 2.00                    | 2.00                   | 0.00                  | 0.07    |                    |
| 17,657.84             | 91.60           | 269.59      | 7,243.70              | -390.20      | -9,900.88    | 0.00                    | 0.00                   | 0.00                  | 0.00    | 03-PBHL(BB27 123H) |



## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Big Burro 27 State Com 123H |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

| Planned 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) |
| 0.00                       | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 100.00                     | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 138.00                     | 0.00            | 0.00        | 138.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| <b>Rustler</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 200.00                     | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 246.00                     | 0.00            | 0.00        | 246.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| <b>Top of Salt</b>         |                 |             |                       |              |              |                         |                         |                        |                       |
| 300.00                     | 0.00            | 0.00        | 300.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 400.00                     | 0.00            | 0.00        | 400.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 500.00                     | 0.00            | 0.00        | 500.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 578.00                     | 0.00            | 0.00        | 578.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| <b>Base of Salt</b>        |                 |             |                       |              |              |                         |                         |                        |                       |
| 600.00                     | 0.00            | 0.00        | 600.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 700.00                     | 0.00            | 0.00        | 700.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 800.00                     | 0.00            | 0.00        | 800.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 815.00                     | 0.00            | 0.00        | 815.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| <b>Yates</b>               |                 |             |                       |              |              |                         |                         |                        |                       |
| 900.00                     | 0.00            | 0.00        | 900.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,000.00                   | 0.00            | 0.00        | 1,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,100.00                   | 0.00            | 0.00        | 1,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,200.00                   | 0.00            | 0.00        | 1,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,300.00                   | 1.50            | 123.92      | 1,299.99              | -0.73        | 1.09         | -1.08                   | 1.50                    | 1.50                   | 0.00                  |
| 1,400.00                   | 3.00            | 123.92      | 1,399.91              | -2.92        | 4.34         | -4.32                   | 1.50                    | 1.50                   | 0.00                  |
| 1,500.00                   | 4.50            | 123.92      | 1,499.69              | -6.57        | 9.77         | -9.72                   | 1.50                    | 1.50                   | 0.00                  |
| 1,600.00                   | 6.00            | 123.92      | 1,599.27              | -11.68       | 17.36        | -17.28                  | 1.50                    | 1.50                   | 0.00                  |
| 1,700.00                   | 7.50            | 123.92      | 1,698.57              | -18.24       | 27.12        | -26.99                  | 1.50                    | 1.50                   | 0.00                  |
| 1,776.69                   | 8.65            | 123.92      | 1,774.50              | -24.25       | 36.06        | -35.88                  | 1.50                    | 1.50                   | 0.00                  |
| 1,800.00                   | 8.65            | 123.92      | 1,797.55              | -26.20       | 38.97        | -38.78                  | 0.00                    | 0.00                   | 0.00                  |
| 1,900.00                   | 8.65            | 123.92      | 1,896.41              | -34.60       | 51.45        | -51.20                  | 0.00                    | 0.00                   | 0.00                  |
| 2,000.00                   | 8.65            | 123.92      | 1,995.27              | -42.99       | 63.93        | -63.62                  | 0.00                    | 0.00                   | 0.00                  |
| 2,086.72                   | 8.65            | 123.92      | 2,081.00              | -50.27       | 74.75        | -74.39                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Capitan</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,100.00                   | 8.65            | 123.92      | 2,094.13              | -51.38       | 76.41        | -76.04                  | 0.00                    | 0.00                   | 0.00                  |
| 2,200.00                   | 8.65            | 123.92      | 2,193.00              | -59.78       | 88.89        | -88.46                  | 0.00                    | 0.00                   | 0.00                  |
| 2,300.00                   | 8.65            | 123.92      | 2,291.86              | -68.17       | 101.37       | -100.88                 | 0.00                    | 0.00                   | 0.00                  |
| 2,400.00                   | 8.65            | 123.92      | 2,390.72              | -76.56       | 113.85       | -113.30                 | 0.00                    | 0.00                   | 0.00                  |
| 2,500.00                   | 8.65            | 123.92      | 2,489.58              | -84.95       | 126.33       | -125.72                 | 0.00                    | 0.00                   | 0.00                  |
| 2,595.50                   | 8.65            | 123.92      | 2,584.00              | -92.97       | 138.25       | -137.58                 | 0.00                    | 0.00                   | 0.00                  |
| <b>DLWR Mnt. Group</b>     |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,600.00                   | 8.65            | 123.92      | 2,588.45              | -93.35       | 138.81       | -138.14                 | 0.00                    | 0.00                   | 0.00                  |
| 2,700.00                   | 8.65            | 123.92      | 2,687.31              | -101.74      | 151.29       | -150.56                 | 0.00                    | 0.00                   | 0.00                  |
| 2,800.00                   | 8.65            | 123.92      | 2,786.17              | -110.13      | 163.77       | -162.98                 | 0.00                    | 0.00                   | 0.00                  |
| 2,900.00                   | 8.65            | 123.92      | 2,885.03              | -118.53      | 176.25       | -175.40                 | 0.00                    | 0.00                   | 0.00                  |
| 3,000.00                   | 8.65            | 123.92      | 2,983.90              | -126.92      | 188.74       | -187.82                 | 0.00                    | 0.00                   | 0.00                  |
| 3,100.00                   | 8.65            | 123.92      | 3,082.76              | -135.31      | 201.22       | -200.24                 | 0.00                    | 0.00                   | 0.00                  |
| 3,200.00                   | 8.65            | 123.92      | 3,181.62              | -143.71      | 213.70       | -212.66                 | 0.00                    | 0.00                   | 0.00                  |
| 3,300.00                   | 8.65            | 123.92      | 3,280.48              | -152.10      | 226.18       | -225.08                 | 0.00                    | 0.00                   | 0.00                  |
| 3,323.79                   | 8.65            | 123.92      | 3,304.00              | -154.09      | 229.15       | -228.04                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Lower Brushy Canyon</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,400.00                   | 8.65            | 123.92      | 3,379.35              | -160.49      | 238.66       | -237.50                 | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00                   | 8.65            | 123.92      | 3,478.21              | -168.88      | 251.14       | -249.92                 | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00                   | 8.65            | 123.92      | 3,577.07              | -177.28      | 263.62       | -262.34                 | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00                   | 8.65            | 123.92      | 3,675.93              | -185.67      | 276.10       | -274.77                 | 0.00                    | 0.00                   | 0.00                  |



## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Big Burro 27 State Com 123H |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

## Planned 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) |
|---------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 3,800.00                                          | 8.65            | 123.92      | 3,774.80              | -194.06      | 288.58       | -287.19                 | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00                                          | 8.65            | 123.92      | 3,873.66              | -202.46      | 301.06       | -299.61                 | 0.00                    | 0.00                   | 0.00                  |
| 3,937.77                                          | 8.65            | 123.92      | 3,911.00              | -205.63      | 305.78       | -304.30                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Bone Spring Lime</b>                           |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,000.00                                          | 8.65            | 123.92      | 3,972.52              | -210.85      | 313.54       | -312.03                 | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00                                          | 8.65            | 123.92      | 4,071.38              | -219.24      | 326.02       | -324.45                 | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00                                          | 8.65            | 123.92      | 4,170.25              | -227.64      | 338.50       | -336.87                 | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00                                          | 8.65            | 123.92      | 4,269.11              | -236.03      | 350.99       | -349.29                 | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                                          | 8.65            | 123.92      | 4,367.97              | -244.42      | 363.47       | -361.71                 | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00                                          | 8.65            | 123.92      | 4,466.83              | -252.81      | 375.95       | -374.13                 | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                                          | 8.65            | 123.92      | 4,565.70              | -261.21      | 388.43       | -386.55                 | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                                          | 8.65            | 123.92      | 4,664.56              | -269.60      | 400.91       | -398.97                 | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                                          | 8.65            | 123.92      | 4,763.42              | -277.99      | 413.39       | -411.39                 | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00                                          | 8.65            | 123.92      | 4,862.28              | -286.39      | 425.87       | -423.81                 | 0.00                    | 0.00                   | 0.00                  |
| 4,963.94                                          | 8.65            | 123.92      | 4,925.50              | -291.75      | 433.85       | -431.75                 | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00                                          | 8.11            | 123.92      | 4,961.17              | -294.69      | 438.21       | -436.09                 | 1.50                    | -1.50                  | 0.00                  |
| 5,100.00                                          | 6.61            | 123.92      | 5,060.34              | -301.83      | 448.84       | -446.67                 | 1.50                    | -1.50                  | 0.00                  |
| 5,200.00                                          | 5.11            | 123.92      | 5,159.82              | -307.53      | 457.31       | -455.10                 | 1.50                    | -1.50                  | 0.00                  |
| 5,300.00                                          | 3.61            | 123.92      | 5,259.53              | -311.77      | 463.62       | -461.38                 | 1.50                    | -1.50                  | 0.00                  |
| 5,400.00                                          | 2.11            | 123.92      | 5,359.40              | -314.56      | 467.76       | -465.50                 | 1.50                    | -1.50                  | 0.00                  |
| 5,500.00                                          | 0.61            | 123.92      | 5,459.37              | -315.88      | 469.73       | -467.46                 | 1.50                    | -1.50                  | 0.00                  |
| 5,540.63                                          | 0.00            | 0.00        | 5,500.00              | -316.00      | 469.91       | -467.63                 | 1.50                    | -1.50                  | 0.00                  |
| <b>00-EON(BB27 123H)</b>                          |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,600.00                                          | 0.00            | 0.00        | 5,559.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00                                          | 0.00            | 0.00        | 5,659.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00                                          | 0.00            | 0.00        | 5,759.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00                                          | 0.00            | 0.00        | 5,859.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00                                          | 0.00            | 0.00        | 5,959.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00                                          | 0.00            | 0.00        | 6,059.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00                                          | 0.00            | 0.00        | 6,159.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00                                          | 0.00            | 0.00        | 6,259.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00                                          | 0.00            | 0.00        | 6,359.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,426.63                                          | 0.00            | 0.00        | 6,386.00              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| <b>1st Bone Spring SD</b>                         |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,500.00                                          | 0.00            | 0.00        | 6,459.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,576.63                                          | 0.00            | 0.00        | 6,536.00              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| <b>2nd Bone Spring LM</b>                         |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,600.00                                          | 0.00            | 0.00        | 6,559.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00                                          | 0.00            | 0.00        | 6,659.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00                                          | 0.00            | 0.00        | 6,759.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00                                          | 0.00            | 0.00        | 6,859.37              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| 6,956.65                                          | 0.00            | 0.00        | 6,916.02              | -316.00      | 469.91       | -467.63                 | 0.00                    | 0.00                   | 0.00                  |
| <b>KOP: 6956.65' MD, -467.63 VS, 6916.02' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,000.00                                          | 4.33            | 269.59      | 6,959.33              | -316.01      | 468.27       | -466.00                 | 10.00                   | 10.00                  | 0.00                  |
| 7,050.00                                          | 9.33            | 269.59      | 7,008.95              | -316.05      | 462.32       | -460.05                 | 10.00                   | 10.00                  | 0.00                  |
| 7,100.00                                          | 14.33           | 269.59      | 7,057.88              | -316.13      | 452.07       | -449.80                 | 10.00                   | 10.00                  | 0.00                  |
| 7,150.00                                          | 19.33           | 269.59      | 7,105.72              | -316.23      | 437.59       | -435.32                 | 10.00                   | 10.00                  | 0.00                  |
| 7,200.00                                          | 24.33           | 269.59      | 7,152.12              | -316.36      | 419.00       | -416.73                 | 10.00                   | 10.00                  | 0.00                  |
| 7,250.00                                          | 29.33           | 269.59      | 7,196.72              | -316.53      | 396.44       | -394.17                 | 10.00                   | 10.00                  | 0.00                  |
| 7,300.00                                          | 34.33           | 269.59      | 7,239.18              | -316.71      | 370.08       | -367.80                 | 10.00                   | 10.00                  | 0.00                  |
| 7,350.00                                          | 39.33           | 269.59      | 7,279.19              | -316.93      | 340.11       | -337.83                 | 10.00                   | 10.00                  | 0.00                  |
| 7,392.46                                          | 43.58           | 269.59      | 7,311.00              | -317.13      | 312.01       | -309.73                 | 10.00                   | 10.00                  | 0.00                  |
| <b>2nd Bone Spring SD</b>                         |                 |             |                       |              |              |                         |                         |                        |                       |



## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Big Burro 27 State Com 123H |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

| Planned 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) |
| 7,400.00                                         | 44.33           | 269.59      | 7,316.43              | -317.17      | 306.77       | -304.50                 | 10.00                   | 10.00                  | 0.00                  |
| 7,436.90                                         | 48.02           | 269.59      | 7,341.98              | -317.36      | 280.15       | -277.87                 | 10.00                   | 10.00                  | 0.00                  |
| <b>01-FTP(BB27 123H)</b>                         |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,450.00                                         | 49.33           | 269.59      | 7,350.63              | -317.43      | 270.32       | -268.04                 | 10.00                   | 10.00                  | 0.00                  |
| 7,500.00                                         | 54.33           | 269.59      | 7,381.51              | -317.71      | 231.02       | -228.74                 | 10.00                   | 10.00                  | 0.00                  |
| 7,550.00                                         | 59.33           | 269.59      | 7,408.86              | -318.01      | 189.18       | -186.90                 | 10.00                   | 10.00                  | 0.00                  |
| 7,600.00                                         | 64.33           | 269.59      | 7,432.45              | -318.32      | 145.11       | -142.83                 | 10.00                   | 10.00                  | 0.00                  |
| 7,650.00                                         | 69.33           | 269.59      | 7,452.11              | -318.65      | 99.16        | -96.88                  | 10.00                   | 10.00                  | 0.00                  |
| 7,700.00                                         | 74.33           | 269.59      | 7,467.70              | -318.99      | 51.67        | -49.38                  | 10.00                   | 10.00                  | 0.00                  |
| 7,750.00                                         | 79.33           | 269.59      | 7,479.08              | -319.34      | 3.00         | -0.71                   | 10.00                   | 10.00                  | 0.00                  |
| 7,800.00                                         | 84.33           | 269.59      | 7,486.18              | -319.70      | -46.48       | 48.76                   | 10.00                   | 10.00                  | 0.00                  |
| 7,850.00                                         | 89.33           | 269.59      | 7,488.94              | -320.05      | -96.38       | 98.67                   | 10.00                   | 10.00                  | 0.00                  |
| 7,870.35                                         | 91.37           | 269.59      | 7,488.81              | -320.20      | -116.73      | 119.02                  | 10.00                   | 10.00                  | 0.00                  |
| <b>EOC: 7870.35' MD, 119.02 VS, 7488.81' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,900.00                                         | 91.37           | 269.59      | 7,488.11              | -320.41      | -146.37      | 148.66                  | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00                                         | 91.37           | 269.59      | 7,485.71              | -321.13      | -246.34      | 248.63                  | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00                                         | 91.37           | 269.59      | 7,483.32              | -321.84      | -346.31      | 348.60                  | 0.00                    | 0.00                   | 0.00                  |
| 8,200.00                                         | 91.37           | 269.59      | 7,480.93              | -322.56      | -446.28      | 448.58                  | 0.00                    | 0.00                   | 0.00                  |
| 8,300.00                                         | 91.37           | 269.59      | 7,478.54              | -323.27      | -546.25      | 548.55                  | 0.00                    | 0.00                   | 0.00                  |
| 8,400.00                                         | 91.37           | 269.59      | 7,476.15              | -323.99      | -646.22      | 648.52                  | 0.00                    | 0.00                   | 0.00                  |
| 8,500.00                                         | 91.37           | 269.59      | 7,473.76              | -324.70      | -746.19      | 748.49                  | 0.00                    | 0.00                   | 0.00                  |
| 8,600.00                                         | 91.37           | 269.59      | 7,471.37              | -325.42      | -846.15      | 848.46                  | 0.00                    | 0.00                   | 0.00                  |
| 8,700.00                                         | 91.37           | 269.59      | 7,468.98              | -326.13      | -946.12      | 948.43                  | 0.00                    | 0.00                   | 0.00                  |
| 8,800.00                                         | 91.37           | 269.59      | 7,466.59              | -326.85      | -1,046.09    | 1,048.40                | 0.00                    | 0.00                   | 0.00                  |
| 8,900.00                                         | 91.37           | 269.59      | 7,464.20              | -327.56      | -1,146.06    | 1,148.38                | 0.00                    | 0.00                   | 0.00                  |
| 9,000.00                                         | 91.37           | 269.59      | 7,461.81              | -328.28      | -1,246.03    | 1,248.35                | 0.00                    | 0.00                   | 0.00                  |
| 9,100.00                                         | 91.37           | 269.59      | 7,459.41              | -328.99      | -1,346.00    | 1,348.32                | 0.00                    | 0.00                   | 0.00                  |
| 9,200.00                                         | 91.37           | 269.59      | 7,457.02              | -329.71      | -1,445.97    | 1,448.29                | 0.00                    | 0.00                   | 0.00                  |
| 9,300.00                                         | 91.37           | 269.59      | 7,454.63              | -330.43      | -1,545.94    | 1,548.26                | 0.00                    | 0.00                   | 0.00                  |
| 9,400.00                                         | 91.37           | 269.59      | 7,452.24              | -331.14      | -1,645.90    | 1,648.23                | 0.00                    | 0.00                   | 0.00                  |
| 9,500.00                                         | 91.37           | 269.59      | 7,449.85              | -331.86      | -1,745.87    | 1,748.20                | 0.00                    | 0.00                   | 0.00                  |
| 9,600.00                                         | 91.37           | 269.59      | 7,447.46              | -332.57      | -1,845.84    | 1,848.18                | 0.00                    | 0.00                   | 0.00                  |
| 9,700.00                                         | 91.37           | 269.59      | 7,445.07              | -333.29      | -1,945.81    | 1,948.15                | 0.00                    | 0.00                   | 0.00                  |
| 9,800.00                                         | 91.37           | 269.59      | 7,442.68              | -334.00      | -2,045.78    | 2,048.12                | 0.00                    | 0.00                   | 0.00                  |
| 9,900.00                                         | 91.37           | 269.59      | 7,440.29              | -334.72      | -2,145.75    | 2,148.09                | 0.00                    | 0.00                   | 0.00                  |
| 10,000.00                                        | 91.37           | 269.59      | 7,437.90              | -335.43      | -2,245.72    | 2,248.06                | 0.00                    | 0.00                   | 0.00                  |
| 10,100.00                                        | 91.37           | 269.59      | 7,435.51              | -336.15      | -2,345.69    | 2,348.03                | 0.00                    | 0.00                   | 0.00                  |
| 10,200.00                                        | 91.37           | 269.59      | 7,433.12              | -336.86      | -2,445.66    | 2,448.00                | 0.00                    | 0.00                   | 0.00                  |
| 10,300.00                                        | 91.37           | 269.59      | 7,430.72              | -337.58      | -2,545.62    | 2,547.97                | 0.00                    | 0.00                   | 0.00                  |
| 10,400.00                                        | 91.37           | 269.59      | 7,428.33              | -338.29      | -2,645.59    | 2,647.95                | 0.00                    | 0.00                   | 0.00                  |
| 10,500.00                                        | 91.37           | 269.59      | 7,425.94              | -339.01      | -2,745.56    | 2,747.92                | 0.00                    | 0.00                   | 0.00                  |
| 10,600.00                                        | 91.37           | 269.59      | 7,423.55              | -339.73      | -2,845.53    | 2,847.89                | 0.00                    | 0.00                   | 0.00                  |
| 10,700.00                                        | 91.37           | 269.59      | 7,421.16              | -340.44      | -2,945.50    | 2,947.86                | 0.00                    | 0.00                   | 0.00                  |
| 10,800.00                                        | 91.37           | 269.59      | 7,418.77              | -341.16      | -3,045.47    | 3,047.83                | 0.00                    | 0.00                   | 0.00                  |
| 10,900.00                                        | 91.37           | 269.59      | 7,416.38              | -341.87      | -3,145.44    | 3,147.80                | 0.00                    | 0.00                   | 0.00                  |
| 11,000.00                                        | 91.37           | 269.59      | 7,413.99              | -342.59      | -3,245.41    | 3,247.77                | 0.00                    | 0.00                   | 0.00                  |
| 11,100.00                                        | 91.37           | 269.59      | 7,411.60              | -343.30      | -3,345.38    | 3,347.75                | 0.00                    | 0.00                   | 0.00                  |
| 11,200.00                                        | 91.37           | 269.59      | 7,409.21              | -344.02      | -3,445.34    | 3,447.72                | 0.00                    | 0.00                   | 0.00                  |
| 11,300.00                                        | 91.37           | 269.59      | 7,406.82              | -344.73      | -3,545.31    | 3,547.69                | 0.00                    | 0.00                   | 0.00                  |
| 11,400.00                                        | 91.37           | 269.59      | 7,404.42              | -345.45      | -3,645.28    | 3,647.66                | 0.00                    | 0.00                   | 0.00                  |
| 11,500.00                                        | 91.37           | 269.59      | 7,402.03              | -346.16      | -3,745.25    | 3,747.63                | 0.00                    | 0.00                   | 0.00                  |
| 11,600.00                                        | 91.37           | 269.59      | 7,399.64              | -346.88      | -3,845.22    | 3,847.60                | 0.00                    | 0.00                   | 0.00                  |
| 11,700.00                                        | 91.37           | 269.59      | 7,397.25              | -347.59      | -3,945.19    | 3,947.57                | 0.00                    | 0.00                   | 0.00                  |
| 11,800.00                                        | 91.37           | 269.59      | 7,394.86              | -348.31      | -4,045.16    | 4,047.55                | 0.00                    | 0.00                   | 0.00                  |



## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Big Burro 27 State Com 123H |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

| Planned 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) |
| 11,900.00               | 91.37           | 269.59      | 7,392.47              | -349.03      | -4,145.13    | 4,147.52                | 0.00                    | 0.00                   | 0.00                  |
| 12,000.00               | 91.37           | 269.59      | 7,390.08              | -349.74      | -4,245.10    | 4,247.49                | 0.00                    | 0.00                   | 0.00                  |
| 12,100.00               | 91.37           | 269.59      | 7,387.69              | -350.46      | -4,345.06    | 4,347.46                | 0.00                    | 0.00                   | 0.00                  |
| 12,200.00               | 91.37           | 269.59      | 7,385.30              | -351.17      | -4,445.03    | 4,447.43                | 0.00                    | 0.00                   | 0.00                  |
| 12,300.00               | 91.37           | 269.59      | 7,382.91              | -351.89      | -4,545.00    | 4,547.40                | 0.00                    | 0.00                   | 0.00                  |
| 12,400.00               | 91.37           | 269.59      | 7,380.52              | -352.60      | -4,644.97    | 4,647.37                | 0.00                    | 0.00                   | 0.00                  |
| 12,500.00               | 91.37           | 269.59      | 7,378.13              | -353.32      | -4,744.94    | 4,747.35                | 0.00                    | 0.00                   | 0.00                  |
| 12,600.00               | 91.37           | 269.59      | 7,375.73              | -354.03      | -4,844.91    | 4,847.32                | 0.00                    | 0.00                   | 0.00                  |
| 12,700.00               | 91.37           | 269.59      | 7,373.34              | -354.75      | -4,944.88    | 4,947.29                | 0.00                    | 0.00                   | 0.00                  |
| 12,800.00               | 91.37           | 269.59      | 7,370.95              | -355.46      | -5,044.85    | 5,047.26                | 0.00                    | 0.00                   | 0.00                  |
| 12,900.00               | 91.37           | 269.59      | 7,368.56              | -356.18      | -5,144.81    | 5,147.23                | 0.00                    | 0.00                   | 0.00                  |
| 13,000.00               | 91.37           | 269.59      | 7,366.17              | -356.89      | -5,244.78    | 5,247.20                | 0.00                    | 0.00                   | 0.00                  |
| 13,100.00               | 91.37           | 269.59      | 7,363.78              | -357.61      | -5,344.75    | 5,347.17                | 0.00                    | 0.00                   | 0.00                  |
| 13,200.00               | 91.37           | 269.59      | 7,361.39              | -358.32      | -5,444.72    | 5,447.15                | 0.00                    | 0.00                   | 0.00                  |
| 13,300.00               | 91.37           | 269.59      | 7,359.00              | -359.04      | -5,544.69    | 5,547.12                | 0.00                    | 0.00                   | 0.00                  |
| 13,400.00               | 91.37           | 269.59      | 7,356.61              | -359.76      | -5,644.66    | 5,647.09                | 0.00                    | 0.00                   | 0.00                  |
| 13,500.00               | 91.37           | 269.59      | 7,354.22              | -360.47      | -5,744.63    | 5,747.06                | 0.00                    | 0.00                   | 0.00                  |
| 13,600.00               | 91.37           | 269.59      | 7,351.83              | -361.19      | -5,844.60    | 5,847.03                | 0.00                    | 0.00                   | 0.00                  |
| 13,700.00               | 91.37           | 269.59      | 7,349.43              | -361.90      | -5,944.57    | 5,947.00                | 0.00                    | 0.00                   | 0.00                  |
| 13,800.00               | 91.37           | 269.59      | 7,347.04              | -362.62      | -6,044.53    | 6,046.97                | 0.00                    | 0.00                   | 0.00                  |
| 13,900.00               | 91.37           | 269.59      | 7,344.65              | -363.33      | -6,144.50    | 6,146.95                | 0.00                    | 0.00                   | 0.00                  |
| 14,000.00               | 91.37           | 269.59      | 7,342.26              | -364.05      | -6,244.47    | 6,246.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,100.00               | 91.37           | 269.59      | 7,339.87              | -364.76      | -6,344.44    | 6,346.89                | 0.00                    | 0.00                   | 0.00                  |
| 14,200.00               | 91.37           | 269.59      | 7,337.48              | -365.48      | -6,444.41    | 6,446.86                | 0.00                    | 0.00                   | 0.00                  |
| 14,300.00               | 91.37           | 269.59      | 7,335.09              | -366.19      | -6,544.38    | 6,546.83                | 0.00                    | 0.00                   | 0.00                  |
| 14,400.00               | 91.37           | 269.59      | 7,332.70              | -366.91      | -6,644.35    | 6,646.80                | 0.00                    | 0.00                   | 0.00                  |
| 14,500.00               | 91.37           | 269.59      | 7,330.31              | -367.62      | -6,744.32    | 6,746.77                | 0.00                    | 0.00                   | 0.00                  |
| 14,600.00               | 91.37           | 269.59      | 7,327.92              | -368.34      | -6,844.29    | 6,846.75                | 0.00                    | 0.00                   | 0.00                  |
| 14,700.00               | 91.37           | 269.59      | 7,325.53              | -369.06      | -6,944.25    | 6,946.72                | 0.00                    | 0.00                   | 0.00                  |
| 14,800.00               | 91.37           | 269.59      | 7,323.14              | -369.77      | -7,044.22    | 7,046.69                | 0.00                    | 0.00                   | 0.00                  |
| 14,883.34               | 91.37           | 269.59      | 7,321.14              | -370.37      | -7,127.54    | 7,130.00                | 0.00                    | 0.00                   | 0.00                  |
| Start DLS 2.00 TFO 0.07 |                 |             |                       |              |              |                         |                         |                        |                       |
| 14,894.83               | 91.60           | 269.59      | 7,320.84              | -370.45      | -7,139.03    | 7,141.49                | 2.00                    | 2.00                   | 0.00                  |
| 14,900.00               | 91.60           | 269.59      | 7,320.70              | -370.49      | -7,144.19    | 7,146.66                | 0.00                    | 0.00                   | 0.00                  |
| 15,000.00               | 91.60           | 269.59      | 7,317.91              | -371.20      | -7,244.15    | 7,246.62                | 0.00                    | 0.00                   | 0.00                  |
| 15,100.00               | 91.60           | 269.59      | 7,315.12              | -371.92      | -7,344.11    | 7,346.58                | 0.00                    | 0.00                   | 0.00                  |
| 15,200.00               | 91.60           | 269.59      | 7,312.32              | -372.63      | -7,444.07    | 7,446.54                | 0.00                    | 0.00                   | 0.00                  |
| 15,300.00               | 91.60           | 269.59      | 7,309.53              | -373.35      | -7,544.02    | 7,546.50                | 0.00                    | 0.00                   | 0.00                  |
| 15,400.00               | 91.60           | 269.59      | 7,306.74              | -374.06      | -7,643.98    | 7,646.46                | 0.00                    | 0.00                   | 0.00                  |
| 15,500.00               | 91.60           | 269.59      | 7,303.95              | -374.78      | -7,743.94    | 7,746.43                | 0.00                    | 0.00                   | 0.00                  |
| 15,600.00               | 91.60           | 269.59      | 7,301.16              | -375.49      | -7,843.90    | 7,846.39                | 0.00                    | 0.00                   | 0.00                  |
| 15,700.00               | 91.60           | 269.59      | 7,298.36              | -376.20      | -7,943.86    | 7,946.35                | 0.00                    | 0.00                   | 0.00                  |
| 15,800.00               | 91.60           | 269.59      | 7,295.57              | -376.92      | -8,043.82    | 8,046.31                | 0.00                    | 0.00                   | 0.00                  |
| 15,900.00               | 91.60           | 269.59      | 7,292.78              | -377.63      | -8,143.78    | 8,146.27                | 0.00                    | 0.00                   | 0.00                  |
| 16,000.00               | 91.60           | 269.59      | 7,289.99              | -378.35      | -8,243.73    | 8,246.23                | 0.00                    | 0.00                   | 0.00                  |
| 16,100.00               | 91.60           | 269.59      | 7,287.20              | -379.06      | -8,343.69    | 8,346.19                | 0.00                    | 0.00                   | 0.00                  |
| 16,200.00               | 91.60           | 269.59      | 7,284.40              | -379.78      | -8,443.65    | 8,446.15                | 0.00                    | 0.00                   | 0.00                  |
| 16,300.00               | 91.60           | 269.59      | 7,281.61              | -380.49      | -8,543.61    | 8,546.11                | 0.00                    | 0.00                   | 0.00                  |
| 16,400.00               | 91.60           | 269.59      | 7,278.82              | -381.21      | -8,643.57    | 8,646.07                | 0.00                    | 0.00                   | 0.00                  |
| 16,500.00               | 91.60           | 269.59      | 7,276.03              | -381.92      | -8,743.53    | 8,746.04                | 0.00                    | 0.00                   | 0.00                  |
| 16,600.00               | 91.60           | 269.59      | 7,273.24              | -382.64      | -8,843.48    | 8,846.00                | 0.00                    | 0.00                   | 0.00                  |
| 16,700.00               | 91.60           | 269.59      | 7,270.44              | -383.35      | -8,943.44    | 8,945.96                | 0.00                    | 0.00                   | 0.00                  |
| 16,800.00               | 91.60           | 269.59      | 7,267.65              | -384.07      | -9,043.40    | 9,045.92                | 0.00                    | 0.00                   | 0.00                  |



## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
| <b>Database:</b> | EDM 5000.14 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well Big Burro 27 State Com 123H |
| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

| Planned 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) |
| 16,900.00                                                              | 91.60           | 269.59      | 7,264.86              | -384.78      | -9,143.36    | 9,145.88                | 0.00                    | 0.00                   | 0.00                  |
| 17,000.00                                                              | 91.60           | 269.59      | 7,262.07              | -385.50      | -9,243.32    | 9,245.84                | 0.00                    | 0.00                   | 0.00                  |
| 17,100.00                                                              | 91.60           | 269.59      | 7,259.28              | -386.21      | -9,343.28    | 9,345.80                | 0.00                    | 0.00                   | 0.00                  |
| 17,200.00                                                              | 91.60           | 269.59      | 7,256.48              | -386.93      | -9,443.24    | 9,445.76                | 0.00                    | 0.00                   | 0.00                  |
| 17,300.00                                                              | 91.60           | 269.59      | 7,253.69              | -387.64      | -9,543.19    | 9,545.72                | 0.00                    | 0.00                   | 0.00                  |
| 17,400.00                                                              | 91.60           | 269.59      | 7,250.90              | -388.36      | -9,643.15    | 9,645.68                | 0.00                    | 0.00                   | 0.00                  |
| 17,500.00                                                              | 91.60           | 269.59      | 7,248.11              | -389.07      | -9,743.11    | 9,745.65                | 0.00                    | 0.00                   | 0.00                  |
| 17,567.82                                                              | 91.60           | 269.59      | 7,246.21              | -389.56      | -9,810.90    | 9,813.44                | 0.00                    | 0.00                   | 0.00                  |
| <b>02-LTP(BB27 123H)</b>                                               |                 |             |                       |              |              |                         |                         |                        |                       |
| 17,600.00                                                              | 91.60           | 269.59      | 7,245.31              | -389.79      | -9,843.07    | 9,845.61                | 0.00                    | 0.00                   | 0.00                  |
| 17,657.84                                                              | 91.60           | 269.59      | 7,243.70              | -390.20      | -9,900.88    | 9,903.42                | 0.00                    | 0.00                   | 0.00                  |
| <b>TD: 17657.84' MD, 9903.42 VS, 7243.70' TVD - 03-PBHL(BB27 123H)</b> |                 |             |                       |              |              |                         |                         |                        |                       |

| Design Targets                                                                                                                 |               |              |            |              |              |                 |                |             |               |
|--------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------|---------------|
| Target Name<br>- hit/miss target<br>- Shape                                                                                    | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude    | Longitude     |
| 00-EON(BB27 123H)<br>- plan hits target center<br>- Point                                                                      | 0.00          | 0.00         | 5,500.00   | -316.00      | 469.91       | 592,630.93      | 595,934.10     | 32.62906687 | -104.15598711 |
| 03-PBHL(BB27 123H)<br>- plan hits target center<br>- Point                                                                     | 0.00          | 0.00         | 7,243.70   | -390.20      | -9,900.88    | 592,556.73      | 585,563.31     | 32.62890597 | -104.18967478 |
| 02-LTP(BB27 123H)<br>- plan hits target center<br>- Point                                                                      | 0.00          | 0.00         | 7,246.21   | -389.56      | -9,810.90    | 592,557.37      | 585,653.29     | 32.62890739 | -104.18938250 |
| 01-FTP(BB27 123H)<br>- plan misses target center by 204.32usft at 7436.90usft MD (7341.98 TVD, -317.36 N, 280.15 E)<br>- Point | 0.00          | 0.00         | 7,491.00   | -317.02      | 419.93       | 592,629.91      | 595,884.12     | 32.62906429 | -104.15614945 |

| Formations            |                       |                     |           |         |                   |  |
|-----------------------|-----------------------|---------------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name                | Lithology | Dip (°) | Dip Direction (°) |  |
| 138.00                | 138.00                | Rustler             |           | 0.00    |                   |  |
| 246.00                | 246.00                | Top of Salt         |           | 0.00    |                   |  |
| 578.00                | 578.00                | Base of Salt        |           | 0.00    |                   |  |
| 815.00                | 815.00                | Yates               |           | 0.00    |                   |  |
| 2,086.72              | 2,081.00              | Capitan             |           | 0.00    |                   |  |
| 2,595.50              | 2,584.00              | DLWR Mnt. Group     |           | 0.00    |                   |  |
| 3,323.79              | 3,304.00              | Lower Brushy Canyon |           | 0.00    |                   |  |
| 3,937.77              | 3,911.00              | Bone Spring Lime    |           | 0.00    |                   |  |
| 6,426.63              | 6,386.00              | 1st Bone Spring SD  |           | 0.00    |                   |  |
| 6,576.63              | 6,536.00              | 2nd Bone Spring LM  |           | 0.00    |                   |  |
| 7,392.46              | 7,311.00              | 2nd Bone Spring SD  |           | 0.00    |                   |  |



## Planning Report

|                  |                             |                                     |                                  |
|------------------|-----------------------------|-------------------------------------|----------------------------------|
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| <b>Company:</b>  | Colgate Energy              | <b>TVD Reference:</b>               | KB @ 3361.00usft (Permit)        |
| <b>Project:</b>  | Eddy County, NM (N83-NME)   | <b>MD Reference:</b>                | KB @ 3361.00usft (Permit)        |
| <b>Site:</b>     | Big Burro 27 State Com      | <b>North Reference:</b>             | Grid                             |
| <b>Well:</b>     | Big Burro 27 State Com 123H | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Wellbore:</b> | OH                          |                                     |                                  |
| <b>Design:</b>   | Plan #1                     |                                     |                                  |

| Plan Annotations            |                             |                   |                 |                                            |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                    |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                            |
| 6,956.65                    | 6,916.02                    | -316.00           | 469.91          | KOP: 6956.65' MD, -467.63 VS, 6916.02' TVD |
| 7,870.35                    | 7,488.81                    | -320.20           | -116.73         | EOC: 7870.35' MD, 119.02 VS, 7488.81' TVD  |
| 14,883.34                   | 7,321.14                    | -370.37           | -7,127.54       | Start DLS 2.00 TFO 0.07                    |
| 17,657.84                   | 7,243.70                    | -390.20           | -9,900.88       | TD: 17657.84' MD, 9903.42 VS, 7243.70' TVD |